

EXPERTS IN LIGHTSPORT AVIATION







# ILLUSTRATED PARTS CATALOG

**SALES** 

**TECH SUPPORT** 

**SERVICE** 

**TRAINING** 





EXPERTS IN LIGHTSPORT AVIATION











## **ROTAX 915 iS**

**ROTAX 912 iS** 

ROTAX 914 UL

## **ROTAX 912 ULS**

#### **ENGINES & ENGINE PARTS**

Airbox & Accessories

Bearings

Bushings

Clutch Assembly Crankcase

Crankshaft Assembly

Cylinder Cowls Cylinder Resleeving Service

Cylinders

Fuel Pumps

Gasket Sets

Gear Boxes

Gear Sets

Hydraulic Governors Oil Cooler Thermostat

Oil Coolers

Oil Injection Pumps Oil Injection Reservoir

Piston Parts Pistons

Radiators

Recoil Parts

Recoil Starter

Seals

Water Pump

Water Pump Parts

Exhaust System

Expansion Tanks

## **ENGINE ACCESSORIES**

External Alternators

Hydraulic Governors Starter Kits

Starter Replacement Parts

Starter Replacements

Starters

Vacuum Pumps

#### **FUEL/AIR DELIVERY**

Carb Heat Kits

Carburetor Kits Carburetor Parts

Carburetor Rebuild Kits

Carburetors

Choke & Throttle Controls

Choke Shaft Assemblies

Choke Switch

Choke Valves

Float Chamber Float Needle

Fuel Fittings
Fuel Flow Valves

Fuel Pumps

Fuel Tank Valves

Fuel Tanks

Idler Jet

Idler Jet Needles

Intake Silencers Main Jets

Needle Jets

**AIRFRAME PARTS & SUPPLIES** 

3M Tapes & Adhesives

Berry Mounts

Composite Supplies

Dacron Fabric

Dacron Repair Tape

Engine Mounts

Full Lotus Floats

Lighting Coils

Marker Lights

Mounting Kits Parachutes

Saddles

Seat Assembly Parts

Seats Belts

Sheetmetal

Shoulder & Seat

Harnesses

Snap Vents

Strobes

Strut Clevis

**Tube Connectors** 

Tubina

#### **PROPELLERS**

GSC LTD. Propellers

IVOPROP Propellers Powerfin Propellers

Prop Tape

Spinners

Ultra Prop Propellers

Warp Drive Propellers

## **WHEELS, TIRES & BRAKES**

Aluminum Wheel Joiners

Aluminum Wheels

Axle & Brake Accessories Azusa Tubes & Tires

Azusa Wheels & Brakes

Wheel Bearings Light Weight Aluminum

Wheels Wheel Hubs

# **MAINTENANCE PARTS & SUPPLIES**

Air Filters

Clamps Fuel Filters

Hoses

O-Rinas Oil Filters

Spark Plugs V-Belts

## **TOOLS**

Carburetor Balancers

Complete Line of Rotax Factory Tools

Compression Testers

Cylinder Hones

Dial Gauge Assembly Hand Tools

Precision Measuring Equiptment Pressure Testers

#### **CHEMICALS**

Aircraft Paint

Anti-Sieze

AV-2 Engine Oil (2 Stroke)

AV-9 Engine Oil (4 Stroke)

Coolant Gear Oil

Grease Loctite

Poly-Fiber Coatings

Preservation Oil

Sealants

Silicones

Thermal Compound

#### **AVIONICS**

Airspeed Indicators

Altimeters

Attitude & Directional Gyros

Aviasport Instruments

CHT

Compass

Comtronics Flight Helmets Dynon Avionics

FFIS

**EGT** 

Flightcom

Lynx Avionics

MGL Avionics

Pressure Switchs

Receivers

Softcomm Products

**Tachometers** 

Tranceivers

**UMA Instruments** VDO Gauges

Voltage Regulator

Water Temp Westach Instruments Headsets/Intercoms

# **HARDWARE**

Bolts

**Bushings** 

Camlocs Complete lineup of AN Hardware

Complete lineup of Metric

Hardware Milbar Safety Wire

Nuts

Rivets Rubber Bushings

Springs Standoffs

# **QUICK INDEX**



# Welcome!



California Power Systems was founded in 1981 by Mike Stratman and has been the western U.S. regional Rotax Service Center for many years, offering Rotax engines, parts, and other ultralight and LightSport products to aviators around the world. We acquired CPS in November 2011 and moved the company from San Leandro, CA to Corona, CA where CPS operates in a 62,000 sq. ft. facility. CPS also maintains a

maintenance shop at nearby Chino (CNO) Airport and a Rotax engine training facility Our family has been in the aircraft parts business for nearly 60 years, and we are pleased to offer this new 2020 edition of the CPS catalog. We look forward to serving you soon!

Jim & Nanci Irwin California Power Systems

# **ORDER DESK HOURS (PST)**

Mon. - Fri.: 5:00am - 6:00pm, Sat.: 7:00am-3:30pm

# TOLL-FREE ORDER LINE / CUSTOMER SERVICE 1-800-247-9653

# **SHOP ON-LINE**

# www.cps-parts.com

225 Airport Circle, Corona, CA 92880-2527 Phone: (951) 549-7786 • Fax: (951) 372-0555

## **CUSTOMER SERVICE HOURS (PACIFIC TIME)**

Mon. thru Fri.: 5:00am-4:00pm • Saturday: 7:00am-3:30pm

#### STORE HOURS

Mon. thru Fri.: 8:00am-6:00pm • Saturday: 7:00am-3:00pm

## CAN'T FIND WHAT YOU NEED? LET US HELP!

While we try to offer everything you might need for your aircraft, there are some products that you may not find listed in this catalog. Let us help! Just give our Sales Department a call on our Toll Free number and provide our Sales representative with as much information as possible on the parts you need. They will source the product for you and provide a quotation and lead time for the product as quickly as possible.

NOTICE! Many parts in this catalog are NOT FAA approved.

Unless our catalog specifically indicates a part has a PMA (Parts Manufacturers Approval), that part may not be certified or approved for aviation use. The selling of a part should not be construed as a representation that the part is certified or approved for aviation use, nor can California Power Systems. include instructions for use or warnings unless provided by the manufacturer or distributor. Any concerns the purchaser may have about the suitability of a part for aviation use, instructions for use or warnings, should be promptly directed to the manufacturer.

## WAIVER OF LIABILITY AND INDEMNIFICATION AGREEMENT

In as much as California Power Systems has no opportunity to supervise the manufacture, installation or maintenance of the parts supplied by it, nor any opportunity to participate in the design or manufacture of the various certificated and homebuilt aircraft in which its parts are utilized, the purchaser by placing this order and accepting said merchandise from California Power Systems agrees that all materials purchased will be used solely at purchaser's risk and that purchaser will indemnify and hold California Power Systems, its owners and employees, free and harmless from all loss, liability or damage resulting from claims brought by reasons of any alleged failure or defect of any part or parts supplied by California Power Systems.

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# **ENGINE PARTS (EP) - Pg. 95 - 101**

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NAME:

**CUSTOMER #:** 



EXPERTS IN LIGHTSPORT AVIATION

#### ON THE BACK COVER:

Photo Courtesy of John McBean at Kitfox Aircraft

RTX

EP

AP

LG

CS

IN

EL

ΑV

PS

BV



# RDERING INFORMATION

RTX

## THE CALIFORNIA POWER SYSTEMS CATALOG FREE ON REQUEST



We want all aviators to have access to the wide range of products and services offered by California Power Systems. Just give us a call on our toll free order line, send us a request for a catalog by fax, mail, or e-mail, and we'll have a complimentary copy of our catalog on the way to you the same day. Our catalog is also available on CD, or for download in pdf format at www.cps-parts.com. If you know of someone who needs a catalog, please let us know. Print Catalog ..



# VISIT THE CALIFORNIA **POWER SYSTEMS STORE**

Stop by our store to view and purchase the many items listed in the California Power Systems catalog. The California Power Systems West store is open Monday thru Friday 8:00am to 6:00pm, and Saturday 7:00am to 3:00pm. Call the office ahead of time to place your order and we will have it ready for pick-up upon your arrival.

# **CALIFORNIA POWER SYSTEMS** SERVICE CENTER







California Power Systems has been the exclusive West Coast Service Center (iSC) for Rotax engines since 1984. As part of the CPS commitment to servicing the ultralight and LSA community, we provide on airport Rotax maintenance at Chino (CNO) airport in Southern California. Located just a few minutes from CPS headquarters, this maintenance shop enhances our ability to service our Rotax customers. The CPS maintenance facility is located in Hangar 18 at midfield on the south side of runways 25-7. Qualified A & P mechanics and IA inspectors are available to handle any type of Rotax engine service for your LSA aircraft. Both line and heavy maintenance for Rotax 2 and 4 cycle engines are available. Complimentary shuttle service is provided between the maintenance facility and CPS headquarters Call California Power Systems at (951) 549-7786 for a Rotax service appoint-

#### CALIFORNIA POWER SYSTEMS ONLINE



California Power Systems Online provides customers with up to the minute account and order status utilizing their own personal computers. The California Power Systems Web Site provides information on many of the products contained in this catalog, real time access to account information, open order status and

filled order history available daily. Confirm order on line in real time as they are processed, and view backorder status and product availability. In addition, our partnership with UPS provides you with up to the minute shipping information including package status, scheduling, and delivery exception.

www.cps-parts.com

## **PRODUCT WARRANTY**

In cooperation with the manufacturers we represent, California Power Systems warrants for a period of one year (on most products) from the date of original purchase its products to be free from defects in material and workmanship. California Power Systems obligation under this warranty is limited to repair or replacement of the purchased product only, and under no circumstances shall California Power Systems be liable for any loss, damage, injury, cost of repair or consequential damages of any kind in connection with the sale, use or repair of any product purchased from California Power Systems Products sold are subject to manufacturer's warranty policy. Defective merchandise or out of box failure of product is repaired or replaced at manufacturer's option. Rotax Parts, avionics, electrical, instruments, or similar products that are defective are subject to manufacturer's warranty only, and will not be replaced immediately from California Power Systems inventory.

## **OUR BIODEGRADABLE PACKING PEANUTS**

The packing "peanuts" that we use to fill product boxes for protection during shipping are 100% biodegradable, clean and hygienic, non-static, odorless, recyclable and non-polluting. They are a starch mixture made from potato or wheat and are water soluble; just dispose of them in the sink with water, hose them away, put in a garbage disposal, or flushed down a drain or toilet. They do not pollute groundwater. This material is the best we have found as an economical way to insure maximum protection of the contents of our shipping boxes.

#### CLOSING THE TRANSACTION

For our customer's convenience we enclose a copy of the invoice covering the order with each order shipped except those shipped to a third party.

If the order is paid by check and the check did not cover the full amount

of the invoice, the amount of underpayment will be sent C.O.D. for the balance due plus C.O.D. fee of \$10.50 rather than delay the order.

If you have overpaid by check, the overpayment will be credited to your account or refunded. C.O.D. shipments are considered "paid" as soon as we receive payment from UPS, and credit card orders are paid automatically at time of shipment. We look forward to your next order!

WHEN YOU RECEIVE YOUR ORDER
Upon receipt, the package should be opened promptly and material checked against the packing slip enclosed. Items out-of-stock at time of shipment will be marked as "back-ordered – to follow." These items will not be charged on the invoice enclosed with the package and will be forwarded as soon as delivery is received from our suppliers. The backordered items will not be charged until shipped. About 90% of the items featured in our catalog are carried in stock. Special items of hardware, bearings, unusual fittings and slow moving items are special ordered as required. However, even with the large inventory we carry, it is not uncommon to "come up short" on some items. If an item is missing and not marked "backordered", please advise us immediately by mail or call our Customer Service Dept.

## **BACKORDERS**

Although we make every effort to ship all orders "complete," it is often necessary to backorder one or more items if we are out of stock. When the partial order is shipped and invoiced, you are not charged for the backordered item(s) until these items are shipped. You are billed only for what is shipped. A backorder is created and shipped as soon as the items arrive. The backorder is then invoiced and any overpayment from the first invoice is applied to it. If you do not wish to have any items backordered, or wish to cancel an existing backorder, just let us know. We will do so immediately if the backorder has not been shipped. We are working continuously to keep all items in stock to preclude backorders. If a backorder is necessary, we do appreciate your patience. California Power Systems pays the shipping costs within the 48 contiguous United States by surface shipping on backorders when the backordered items could have been shipped via UPS inside the first package at no additional freight cost. Except when the backordered items are oversize, hazardous, contain one gallon or larger, or COD shipments. We will continue to strive to maintain stock of all our products to keep the necessity for backordering parts to a minimum.

**DAMAGE OR SHORTAGE**Open and examine all packages promptly. Notify the California Power Systems Customer Service Department of any discrepancies in the order. If the merchandise is received in damaged condition or the carrier fails to deliver the entire shipment as shown on the Bill of Lading covering motor freight delivery make note of the damage or shortage on the Bill of Lading and ask the driver to sign it. Then call the terminal office of the carrier and institute a claim for the loss or damage. If a package delivered by UPS arrives damaged, report this to the driver immediately. UPS will issue a report on the damage to California Power Systems at which time a replacement shipment can be made

## CALIFORNIA POWER SYSTEMS WILL **NOT BE UNDER SOLD!**



California Power Systems works hard to bring you the lowest prices on every product we carry. If you have found a better price for an item at another authorized dealer, we will do everything possible to beat that price. Our Lowest Price Guaranteed is only applicable to

identical conditions of sale. The item must be in stock at the other authorized dealer (not a floor sample, "open box" item, refurbished or demo piece). This offer applies to new purchases only.

#### RETURNED MERCHANDISE

Call California Power Systems customer service for a RMA Number Before Returning any Product

## WAIVER OF LIABILITY AND INDEMNIFICATION AGREEMENT

Inasmuch as California Power Systems has no opportunity to supervise the manufacture, installation or maintenance of the parts supplied by it, nor any opportunity to participate in the design or manufacture of the various certificated and homebuilt aircraft in which its parts are utilized, the purchaser by placing an order and accepting said merchandise from California Power Systems agrees that all materials purchased will be used solely at purchaser's risk and that purchaser will indemnify and hold California Power Systems, its owners and employees, free and harmless from all loss, liability or damage resulting from claims brought by any reason of any alleged failure or defect of any part or parts supplied by California Power Systems.

# TECHNICAL CHART INFORMATION



RTX

- Generally the fasteners on a ROTAX® engine are tightened with a torque wrench. Please look up the proper torque value in the appropriate maintenance manual.
- Each screw connection which has to be secured additionally (i.e. LOCTITE) is marked with a drop and symbol that corresponds to a list on each illustration. See fig. 1



- If safety wire is required it will be listed as a part number in the illustration.
- If the quantity is in brackets it indicates that the part is not absolutely necessary but optional on the respective engine type. See fig. 2
- · A small letter added to the number refers to information at the end of the section. See fig. 2
- No number in the column parts per assembly indicates that this part is not planned for the respective engine.

Explanations of symbols and statements in part number charts:

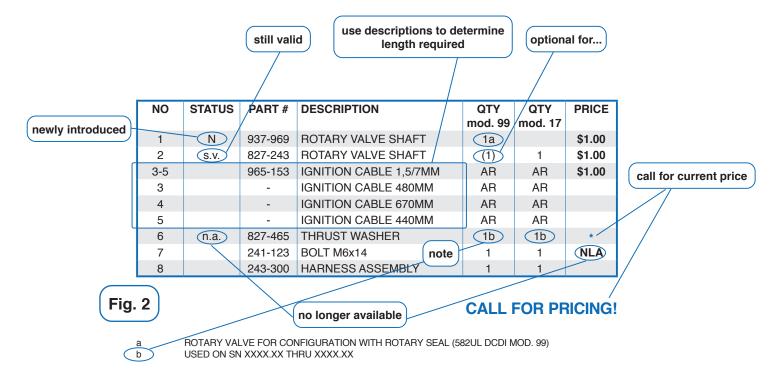
N = Newly introduced part.

s.v. = Still valid. Part was replaced by compatible component and can not be supplied any longer by the producer. Existing stock may be used.

AR = As required. This generally refers to shims, hose, wires, and cable. Measure the amount you need before ordering. Many times there will be multiple listings of different lengths with the same part number. Use the individual part descriptions to determine the proper length needed.

n.a. or NLA = No longer available, no replacement from Rotax. Part is no longer available due to incompatibility to current production or unavailability of part.

CALL = Please call for price, **800-247-9653**.

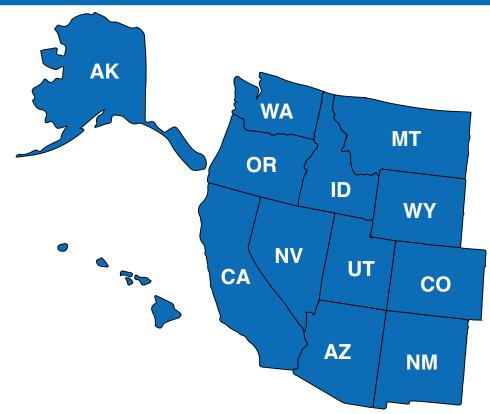


THE ILLUSTRATIONS IN THIS PARTS CATALOG ARE DUPLICATED FROM THE CURRENT ROTAX® MANUALS AT THE TIME OF PRINTING AND ARE INTENDED FOR REFERENCE ONLY. THIS CATALOG IS NOT TO BE USED AS AN INSTRUCTION GUIDE FOR MAINTENANCE, ASSEMBLY, OR REPAIR TO ANY AIRCRAFT OR AIRCRAFT COMPONENT. PLEASE ENSURE YOU ARE USING THE MOST RECENT ROTAX® MANUALS BY VISITING OUR WEBSITE AT www.cps-parts.com/catalog/rtxpages/manuals.php.



# **IRC REPAIR CENTRES & OVERHAUL SERVICES**





California Power Systems can supply all the parts you require worldwide. However, if you need service in the Western United States we manage a network of ROTAX factory trained technicians, or Independent Repair Centers (iRC). To find a local certified technician, please visit our website at www.cps-parts.com/cps/repairstations.html, or call our technical support line 951-549-7786.

## **ROTAX FACTORY APPROVED TRAINING COURSES:**

CPS holds classes throughout the year at our facility in Chino California, for more information about the classes and the current schedule visit www.cps-parts.com/menus/rtx/zclasses.html.

#### **HOW TO BECOME AN INDEPENDENT REPAIR CENTER:**

For information about becoming a certified ROTAX iRC or trained technician, contact CPS at 800-247-9653 or info@cps-parts.com.

# **OVERHAUL SERVICES**

## **582 UL ENGINES**

Engine	Part No.	Exhaust	Carburetors	B-Gearbox	Part No	E-Gearbox	Part No
582 UL WITH SIDEMOUNT EXHAUST	15-08209-1	881-636	2	1:2.00	15-04496	1:2.62	15-07815
582 UL WITH STRAIGHT EXHAUST	15-08209-2	881-631	2	1:2.24	15-07774	1:3.00	15-07816
582 UL WITH 90° (EIPPER EXHAUST)	15-08209-3	881-634	2	1:2.58	15-05342	1:3.47	15-07817
	1.4.00	15-07818					

#### 912 / 914 UL ENGINES

Engine	Part No.	Exhaust	Carburetors	Gearbox	Expansion Tank	Oil Tank	CHT Sensors	Oil Temp Sensor		Ring Mount
912 UL, 80 Horsepower	15-07717	No	Yes	Yes, 2.27:1, w/o Clutch	Yes	Yes	2	1	1	No
912 ULS, 100 Horsepower	15-07722	No	Yes	Yes, 2.43:1 with Clutch	Yes	Yes	2	1	1	No
914 UL, 115 Horsepower, Turbocharged	15-07723	Yes	Yes	Yes, 2.43:1 with Clutch	Yes	Yes	2	1	1	Yes

#### 912 / 915 ISERIES ENGINE

Engine	Part No.	Exhaust	Carburetors	Gearbox	Expansion Tank	Oil Tank	CHT Sensors	Oil Temp Sensor	Oil Press Sensor	Ring Mount
912 iS, Sport 100 Horsepower	15-08635	Yes	Fuel Injected	Yes, 2.43:1 with Clutch	Yes	Yes	4	1	1	Yes
915 IS Turbo, 140 Horsepower	15-09449	Yes	Fuel Injected	Yes	Yes	Yes	4	1	1	Yes

# **OVERHAUL PARTS**

#### 150 Hour Inspection

#### 300 Hour Overhaul

Engine	Gasket Set	Gasket Set	Gasket Assembly
503 UL	994-236	994-236	996-441
582 UL/90	886-230	886-230	887-051
582 UL/99	886-232	886-232	887-051

CALL BRYAN TOEPFER AT 1-800-247-9653 OR EMAIL: BRYANTOEPFER@CPS-PARTS.COM FOR PRICE AND AVAILABILITY.







## **DESCRIPTION**

- · 4-cylinder
- 4-stroke liquid/air-cooled engine with horizontally opposed cylinders
- Dry sump forced lubrication with separate oil tank, automatic adjustment by hydraulic valve tappet
- · Redundant electronic fuel injection and ignition
- Engine management system (EMS)
- Electric starter (12 or 24 volt)
- Propeller speed reduction gearbox
- · Air intake system with intercooler
- · Turbocharger with stainless steel exhaust
- TBO (Time between overhauls) 1,200 hours
- · Service ceiling of 23,000 feet

915 iS ..... Call for Price





EXTENSION OF 912/914 ENGINE FAMILY – PROVEN RELIABILITY! with more than 50 million flight hours

## **ENGINE DATA**

WEIGHT	kg	lb
Engine with gearbox, turbocharger, intercooler, cooling air baffle, wiring harness, sensors, flange with overboost valve, air hoses, clamps, magneto valve block with hoses, ECU, fusebox with regulators, oil tank and exhaust system. Without fuel pumps assembly, radiator and oil cooler.		186.4

VERSION 915 IS*, 915 ISC**	kW	hp	1/min
Max. take-o performance	104	141	5,800
Max. continuous performance	99	135	5,500

BORE		STR	OKE	DISPLACEMENT		FUEL	
84.0 mm	3.31 in	61.0 mm	2.4 in	1,352 cm3	82.5 cu. in.	min. MON 85 / RON 95, min. AKI 91	

<sup>\*</sup> ASTM compliant \*\* EASA CS-E certified

Engine performance may vary depending on, among other things, general conditions, ambient temperature and altitude.





# ENGINE TYPE 912 iS I 100 hp

#### **DESCRIPTION**

- · 4-cylinder
- 4-stroke liquid-/air-cooled engine with opposed cylinders
- Dry sump forced lubrication with separate oil tank, automatic adjustment by hydraulic valve tappets
- Redundant electronic fuel injection
- · Engine management system
- Electric starter
- · Propeller speed reduction gearbox
- Air intake system

912 iS ..... Call for Price

#### **FACTS**

Based on the proven concept of the Rotax 912 S/ ULS engine the new 912 iS Sport engine offers all well known advantages of the Rotax 4-stroke engine series complemented by additional features, for example, the engine management system.

The complete package presents the latest technology in the aircraft engine industry and will enhance the flying and ownership experience of pilots. The Rotax 912 iS Sport engine offers a TBO (time between overhauls) of 2.000 hrs.

VERSION	PERFORMANCE			1	MAX RPM		
	kW	ft. lb.	1/min	Nm	ft. lb.	1/min	1/min
912 iS1) / iSc2)	73.5	100	5800	121	89	5800	
Sport	72.0**	98	5500	125	92	5500	5800
	68.0	92.5	5000	132***	97	5000	

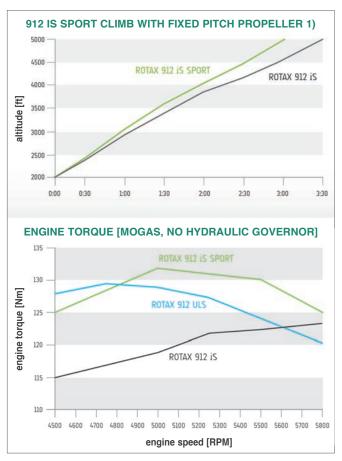
<sup>\*</sup> Limited for max. 5 min.

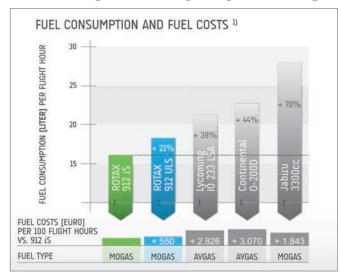
<sup>\*\*\*</sup> MOGAS, no hydraulic governor

ВС	RE	STR	STROKE DISPLACEMENT		FUEL	
84.0 mm	3.13 in	61 mm	2.4 in	1352 cm <sup>3</sup>	82.6 cu. in	min. MON 85 RON 95* min. AKI 91*

<sup>\*</sup> leaded, unleaded, AVGAS 100LL or E10

1) iS = non-certified  $\,$  I  $\,$  2) iSc = certified acc. to CS-E available after receipt of type certificate





WEIGHT	kg	lb
Engine with propeller speed reduction unit / i = 2.43 with overload clutch 63.6 140.2	63.6	140.2
Exhaust system	4.8	10.5
Air guide hood	0.4	0.8
External alternator	3.0	6.6
Fuel pumps assembly	1.6	3.5
Engine mount	2.0	4.4

<sup>\*\*</sup> Max. continuous power at 5500 1/min





# **ENGINE TYPE 914 UL I 115 hp**

#### **DESCRIPTION**

- 4-cylinder
- 4-stroke liquid/air-cooled engine with opposed cylinders
- · with turbo charger
- · with automatic waste gate control
- · dry sump forced lubrication with separate oil tank
- · automatic adjustment by hydraulic valve tappet
- 2 carburetors
- dual electronic ignition
- electric starter
- · propeller speed reduction unit
- · engine mount assembly
- air intake system
- exhaust system

914UL..... Call for Price

## **FACTS**

The turbo charged Rotax 914 series offers more performance at high altitudes while keeping weight at a low level. This series offers a time between overhauls of 2.000 hrs and is available as certified (Rotax 914 F) according to FAR 33 and JAR-E and non-certified version. (Rotax 914 UL).

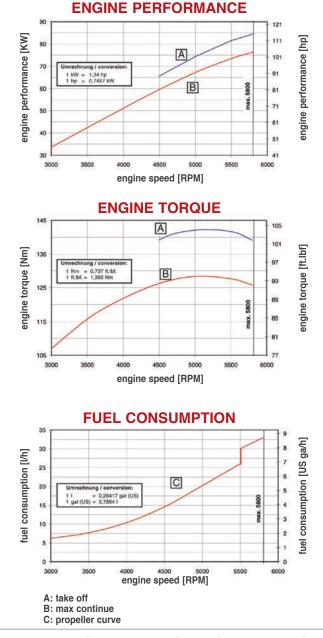
VERSION	PERFORMANCE				MAX RPM		
914 UL <sup>1)</sup> /F <sup>2)</sup>	kW 84.5	ft. lb. 115	1/min 5800	Nm 144	ft. lb. 106	1/min 4900	1/min 5800

Limited for max. 5 min.

ВС	RE			DISPLAC	EMENT	FUEL	
79.5 mm	3.13 in	61 mm	2.4 in	1211.2 cm <sup>3</sup>	73.91 cu. in	min. MON 85 RON 95* min. AKI 91*	

<sup>\*</sup> leaded or unleaded or AVGAS 100LL

1) UL = non certified 1 2) F = certified acc. to FAR 33 and JAR-E



WEIGHT	kg	lb
engine with propeller speed reduction unit i = 2,43	64.0	140.8
exhaust system	4.0	8.8
engine suspension frame	2.0	3.7
overload clutch	1.7	3.7
external alternator	3.0	6.6
air guide hood	0.8	1.8





# ENGINE TYPE 912 ULS I 100 hp

#### **DESCRIPTION**

- 4-cylinder
- 4-stroke liquid-/air-cooled engine with opposed cylinders
  Dry sump forced lubrication with separate oil tank, automatic adjustment by hydraulic valve tappet
- 2 carburetors
- Mechanical fuel pump
- Dual electronic ignition
- Electric starter
- Propeller speed reduction unit
- Air intake system

912ULS..... Call for Price

#### **FACTS**

In comparison to the 80 hp version of the Rotax 912 series the 100 hp product line offers more power while keeping the weight. This engine series offers a time between overhauls of 2.000 hrs and the best power to weight ratio in its class - no surprise that this engine is the best selling 4-stroke engine. This series is available as non-certified (Rotax 912 ULS) and certified engine (Rotax 912 S) according to FAR33.

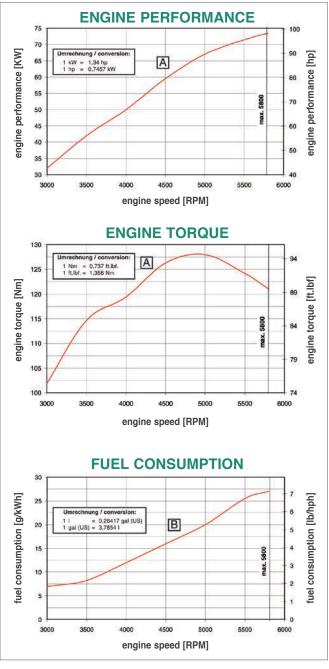
VERSION	PERFORMANCE				MAX RPM		
912 ULS <sup>1</sup> )/S <sup>2</sup> )	kW	ft. lb.	1/min	Nm	ft. lb.	1/min	1/min
	73.5	100	5800	128	94	5100	5800

Limited for max. 5 min.

ВО	BORE STROKE		DISPLAC	EMENT	FUEL	
84.0 mm	3.31 in	61 mm	2.4 in	1352 cm <sup>3</sup>	82.6 cu. in	min. MON 85 RON 95* min. AKI 91*

<sup>\*</sup> leaded, unleaded, AVGAS 100LL or Ethanol 10

1) UL = non certified 1 2) F = certified acc. to FAR 33



WEIGHT	kg	lb
engine with propeller speed reduction unit $i = 2.27$ (opt. $i = 2.43$ )	55.4	122.0
overload clutch	1.7	3.7
exhaust system	4.0	8.8
external alternator	3.0	6.6
engine suspension frame	2.0	4.4
air guide hood	0.8	1.8
airbox	1.3	2.8





# ENGINE TYPE 912 UL I 80 hp

#### **DESCRIPTION**

- 4-cylinder
- · 4-stroke liquid/air-cooled engine with opposed cylinders
- dry sump forced lubrication with separate oil tank, automatic adjustment by hydraulic valve tappet
- 2 carburetors
- mechanical fuel pump
- dual electronic ignition
- · electric starter
- · propeller speed reduction unit

912UL..... Call for Price

#### **FACTS**

This series was BRP's first Rotax engine dedicated for aircraft application only. The Rotax 912 series is well regarded for its reliability and efficiency and is primarily targeted as the entry level engine in the light aviation industry. The 80 hp version of the Rotax 912 series offers a time between overhauls of 2.000 hours and is available as non-certified (Rotax 912 UL) as well as certified version according to FAR 33 (Rotax 912 F) and JAR 22 (Rotax 912 A).

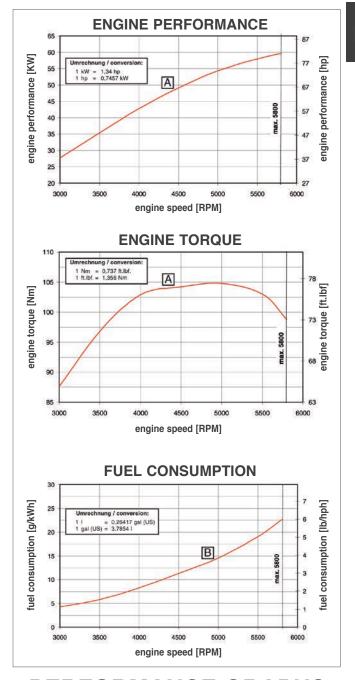
VERSION	PERFORMANCE				MAX RPM		
912 UL <sup>1</sup> )/F <sup>2</sup> )/A <sup>3</sup> )	kW	ft. lb.	1/min	Nm	ft. lb.	1/min	1/min
	59.6	80	5800	103	75.9	4800	5800

Limited for max. 5 min.

ВО	BORE STROKE		DISPLAC	EMENT	FUEL	
79.5 mm	3.13 in	61 mm	2.4 in	1211.2 cm <sup>3</sup>	73.91 cu. in	min. MON 83 RON 91* min. AKI 87*

<sup>\*</sup> leaded, unleaded, AVGAS 100LL or Ethanol 10

1) UL = non certified  $\,$  I  $\,$  2) F = certified acc. to FAR 33  $\,$  I  $\,$  3) A = certified acc. to JAR 22



WEIGHT	kg	lb
engine with propeller speed reduction unit i = 2.27 (opt. i = 2.43)	55.4	122.0
overload clutch	1.7	3.7
exhaust system	4.0	8.8
external alternator	3.0	6.6
engine suspension frame	2.0	4.4
air guide hood	0.8	1.8
airbox	1.3	2.8





# **582 UL DCDI ENGINE**

#### **DESCRIPTION**

- 2-cylinder
- · 2-stroke liquid cooled engine with rotary valve intake
- · dual electronic ignition
- integrated water pump and thermostat
- exhaust system
- carburetors

582UL w/	Sidemount Exhaust	Call	for Price
582UL w/	Straight Exhaust	.Call	for Price
582UL w/	90° (Eipper Exhaust)	.Call	for Price

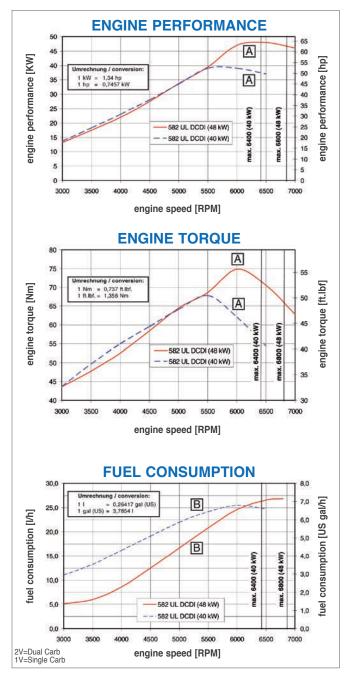
#### **FACTS**

Over 30.000 units of this popular Rotax 2-stroke engine have been sold. This engine type is well regarded for its easy maintenance and robustness.

VERSION	PERFORMANCE				MAX RPM		
kW ft. lb. 1/min	kW	ft. lb.	1/min	Nm	ft. lb.	1/min	1/min
582 Mod. 99	48	65	6500	75	55.3	6000	6800

BORE		STR	OKE	DISPLACEMENT		
	76 mm	2.99 in	64 mm	2.52 in	496.7 cm <sup>3</sup>	35.4 cu. in

FUEL	2 SUPER STROKE - MOTOROIL	MIXING RATIO
min. MON 83 RON 91* min. AKI 87*	API-TC-Classification	1:50 or optional with fresh oil pump



WEIGHT	kg	lb
engine	29.1	64.0
2 carburetors	1.8	4.0
exhaust system	5.1	11.2
electric starter	3.5	7.7
propeller speed reduction unit "B" / i = 2.58	4.5	9.9
propeller speed reduction unit "C" / i = 2.62/3.0/3.47/4.0	8.0	17.6
propeller speed reduction unit "E" / i = 2.62/3.0/3.47/4.0	11.2	24.7





# **503 UL ENGINE**

#### **DESCRIPTION**

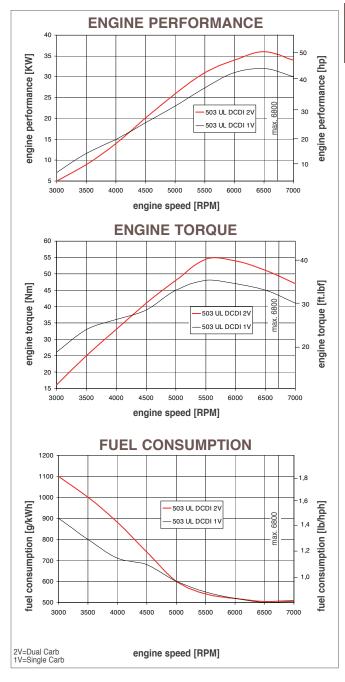
- 2-stroke engine specially developed for recreational aircraft
- 2 cylinders, cooled by fan
- Piston ported intake
- Dual capacitor discharge Ignition (DCDI)
- Dual Bing carburetors
- Mikuni pulse driven diaphragm fuel pump
- Recoil or electric starter
- Available with various exhaust system configurations
  Operates on automotive fuel with a minimum of 87 octane rating (Canadian standards) and super 2-stroke oil of API-TC classification, automatically provided by oil injection, or premixed with a 50:1 ratio
- Challenger owners, we make the installation of oil injection possible!
- Time Between Overhauls (TBO): 300 hours

THE 503 ROTAX ENGINE IS NO LONGER AVAILABLE, HOWEVER ROTAX WILL CONTINUE TO MANUFACTURE PARTS FOR THIS ENGINE.

VERSION	PER	FORMA	NCE	TORQUE			MAX RPM
	kW	ft. lb.	1/min	Nm	ft. Ib	1/min	1/min
single carb	34	45.6	6500	51	.37.6		
dual carb	37	49.6		56	41.3	6000	6800

ВО	RE	STR	OKE	DISPLA	CEMENT	
72 mm	2.84 in	61 mm	2.40 in	496.7 cm <sup>3</sup>	30.31 cu. in	

FUEL	2 SUPER STROKE - MOTOROIL	MIXING RATIO
min. MON 83 RON 91* min. AKI 87*	I-TC-Classification	1:50 or optional with fresh oil pump



WEIGHT	kg	lb
Engine with carburetors	33.2	73.2
Exhaust system	5.1	11.2
Air filter	0.5	1.1
No gearbox, no electric starter	38.8	85.5
B gearbox, no electric starter	43.3	95.4
B gearbox, electric starter	48.2	106.2
C gearbox, no electric starter	46.8	103.1
C gearbox, electric starter	51.7	113.9
E gearbox	50.0	110.2





# **REPAIR TOOLS (NON CERTIFIED)**

	7 m 1	-,		
Item No.	Application		Item No.	Appli
1-4	Roller bearing 25x25x15, oil seal 30x52x7		31	Oil filt
5	Crankshaft locking screw M8x50		32	Water
6	Gearbox		33	Rotar
7	Crankshaft (magneto side)		34	Oil se
8-11	Ball bearing 15x32x8 - oil inlet flange, oil inlet cover		35	Spring
12	Needle bearing 22x28x12 - governor drive		36	Ignitio
13	Ball bearing 15x32x8 - governor drive		37	Oil se
14	Ring wrench 10/13		38	Press
15	Fixture for governor drive		39	Temp
16	Ball bearing 15x32x8, needle sleeve - governor drive		40	Engin
17	Oil seal 22x32x7 - governor drive		41	Intake
18-20	Drive gear, gearbox, gear set		42	Nut fo
21	Fitting of piston pin circlips		43	Crank
22-23	Fitting and removal of piston pin		44-45	Dial g
24	Monohook clips puller		46	Dial g
25	Piston diameter 84 mm / 33 in.		47	Crank
26-27	Puller magneto hub		48	Engin
28	To align cylinders		49	Trestl
29-30	Installation/Removal of valve spring		50	Threa
	No. 1-4 5 6 7 8-11 12 13 14 15 16 17 18-20 21 22-23 24 25 26-27 28	Item No.   Application	Item No.   Application	No.         Application         No.           1-4         Roller bearing 25x25x15, oil seal 30x52x7         31           5         Crankshaft locking screw M8x50         32           6         Gearbox         33           7         Crankshaft (magneto side)         34           8-11         Ball bearing 15x32x8 - oil inlet flange, oil inlet cover         35           12         Needle bearing 15x32x8 - oil inlet flange, oil inlet cover         36           13         Ball bearing 15x32x8 - oil inlet flange, oil inlet cover         36           13         Ball bearing 15x32x8 - oil inlet flange, oil inlet cover         36           14         Ring wrench 10/13         38           15         Fixture for governor drive         39           16         Ball bearing 15x32x8, needle sleeve - governor drive         40           17         Oil seal 22x32x7 - governor drive         41           18-20         Drive gear, gearbox, gear set         42           21         Fitting of piston pin circlips         43           22-23         Fitting and removal of piston pin         44-45           24         Monohook clips puller         46           25         Piston diameter 84 mm / 33 in.         47           26-27

No.	Application	No.	Арр
31	Oil filter removal	51	Oil fi
32	Water pump impeller	52	Twis
33	Rotary seal ignition housing	53	ECU
34	Oil seal 12x30x7 water pump shaft	54	Nee
35	Spring type hose clip 28	55	Prop
36	Ignition housing	56	Nee
37	Oil seal 28x38x7 ignition housing	57	Hex
38	Pressure sensor Oil and Airbox	58	Dam
39	Temperature sensor Oil and Water	59	Dam
40	Engine mount	60	Dam
41	Intake manifold	61	Dam
42	Nut for sprag clutch housing	62	Prop
43	Crankcase	63	Insta
44-45	Dial gauge	64	Seal
46	Dial gauge adapter for valve seat inspect	65	Ball
47	Crankcase	66	Stan
48	Engine removal	67	Reta
49	Trestle support	68	Ball
50	Thread bent socket	69	Ove

Item No.	Application
51	Oil filter
52	Twist of crankshaft
53	ECU (Engine Control Unit)
54	Needle bearing, crankcase
55	Propeller shaft removal
56	Needle bearing removal
57	Hex. nut on propeller shaft
58	Damper clutch
59	Damper clutch
60	Damper clutch
61	Damper clutch
62	Propeller shaft bracket / mounting flange
63	Installation of overload clutch with damper clutch
64	Sealing ring, gearbox
65	Ball bearing, gearbox
66	Stamp
67	Retaining ring, propeller shaft
68	Ball bearing, propeller shaft
69	Overload clutch 2.5126 in 2.5126 in



# REPAIR TOOLS (NON CERTIFIED) CONT'D

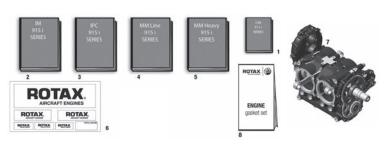
REF	PAIR	<b>FOOLS (NON CERTIFIED)</b>	CON	IT'D
Item No.	Part No	Description	Qty. Req.	Price
1-4	877-615	EXTRACTOR ASSEMBLY	1	\$787.40
2	877-580	PULL-IN SPINDLE M24x1.5	1	\$126.12
3	276-155	BOLT 12x250	1	\$23.77
4	842-585	HEX. SCREW M24x1.5 THREAD BOLT M8x50	1	\$87.23
5 6	240-880 877-660	PULLER ASSEMBLY	1	\$6.69 \$522.70
7	877-419	PROTECTION MUSHROOM	1	CALL
8-11	876-489	PULLER ASSEMBLY	1	\$126.12
9	941-730	HEX. SCREW M6x80	1	\$2.45
10	827-305	WASHER 6.2/18/2	1	\$5.61
11	242-211	HEX. NUT M6	1	\$0.41
12	877-597	PRESS-IN MUSHROOM	1	\$63.71
13	877-595	PRESS-IN MUSHROOM	1	\$63.71
14	876-470	RING SPANNER 10/13	1	\$14.77
15	242-661	DISTANCE NUT M8x33	1	\$54.77
16	276-332	INSERTION JIG ASSEMBLY	1	\$87.44
17	877-276	INSERTION JIG ASSEMBLY	1	\$94.16
18-20 19	877-445	SOCKET WRENCH ASSEMBLY 41x12.5 SOCKET WRENCH A/F 41x20	1	\$355.59
20	877-440 877-460	REDUCING SOCKET 3/4"-1/2"	1	\$23.99 \$9.50
21	877-802	CIRCLIP INSTALLATION TOOL	1	\$614.92
22-23	877-002	PISTON PIN EXTRACTOR ASSEMBLY	1	\$435.58
23	877-155	EXTRACTING NUT ASSEMBLY	1	\$76.95
24	976-380	MONOHOOK CIRCLIP REMOVER	1	\$192.52
25	876-967	PISTON RING SPANNER 84 MM (3.31 in.)	1	\$141.11
26-27	877-375	PULLER ASSEMBLY	1	CALL
27	940-755	HEX. SCREW M16x1.5x150	1	\$37.91
28	877-263	CYLINDER ALIGNING TOOL	1	\$108.12
29	877-380	VALVE SPRING MOUNTING DEVICE	1	\$146.51
30	877-387	VALVE SPRING LOADING JIG ASSEMBLY	1	\$531.62
31	877-620	OIL FILTER WRENCH	1	\$138.14
32	877-295	IMPELLER WRENCH ASSEMBLY	1	\$191.53
33	877-258	PRESS ON DEVICE ASSEMBLY	1	\$73.98
34 35	876-510 877-840	INSERTION JIG SPRING CLAMP PLIERS	1	\$53.08 \$506.11
36	876-010	PULLER ASSEMBLY	1	\$338.64
37	876-020	INSERTION JIG.	1	\$148.40
38	876-075	SOCKET WRENCH 21x12.5	1	\$221.89
39	876-130	SOCKET WRENCH 19x12.5	1	\$177.18
40	876-240	SOCKET DRIVER HEX. 8 BALL HEAD	1	\$142.75
41	876-180	SOCKET DRIVER T30 BALL HEAD	1	\$139.80
42	876-070	SOCKET WRENCH 38x20	1	\$352.19
43	877-690	CHECK LEVER	1	\$132.11
44	877-710	DIAL GAUGE ADAPTER ASSEMBLY	1	\$224.31
45		PRECISION DIAL GAUGE	1	\$262.58
46		DIAL GAUGE ADAPTER ASSEMBLY	1	\$720.67
47	876-050	TRESTLE ADAPTER ASSEMBLY ENGINE LIFT SET ASSEMBLY	1	CALL
48 49	876-040 877-930	TRESTLE SUPPORT	1	\$162.17 \$720.30
50	877-570	TAPPING DRILL M18x1	1	\$156.09
51	877-670	CUTTING TOOL	1	\$625.19
52		PROTRACTOR CRANKSHAFT DISTORTION INSP		\$217.43
53	864-280	SERVICE WIRING HARNESS ASSEMBLY	1	\$106.66
54		PRESS IN JIG	1	CALL
55	276-002	PRESS OUT MUSHROOM	1	CALL
56	276-004	PULL STUD	1	CALL
57	276-006	SOCKET WRENCH AF 46	1	CALL
58		CENTERING RING	1	CALL
59	276-952	INSERTION JIG	1	CALL
60		CENTERING PLATE	1	CALL
61	276-956		1	CALL
62	276-958		1	CALL
63 64	276-962 276-964	TWIST TOOL INSERTION JIG	1	CALL
64 65	276-964	INSERTION JIG INSERTION JIG	1	CALL
66		HANDLE FOR INSERTION JIG	1	\$132.11
67			1	CALL
68		INSERTION SLEEVE	1	CALL
69		INSERTION JIG	1	CALL



# **LUBRICANTS (NON CERTIFIED)**

Item No.	Application
В	Medium strength bond 10 cc.
С	High strength bond 5 ml.
Е	To prevent metal galling 50 cc. R For vibration damping; 310 cc.
Н	Blister 14.8 ml.
- 1	Roller bearing grease, for smooth running
Р	Regular body/high adhesion flexible flange sealant
V	For marking
AG	For better heat transfer from the spark plugs

Item No.	Part No	Description	Qty. Req.	Price
В	897-651	LOCTITE 243 BLUE, 10 CC.	1	\$18.50
С	899-788	LOCTITE 648 GREEN, 5 ML. (CC).	1	\$21.50
Ε	297-434	LOCTITE ANTI SEIZE 50 ML.	1	\$31.17
Н	897-870	K&N FILTER OIL 99-11312	1	\$25.86
-1	897-330	LITHIUM-BASED GREASE, 250 GR.	1	\$63.89
Р	899-791	LOCTITE 5910, 50 ML.	1	\$54.95
R	297-711	PU-GLUE, SIKAFLEX 255	1	\$112.25
V	898-570	LOCKING PAINT	1	\$56.18
AG	897-186	SILICONE HEAT COMPOUND WACKER P12, 150 GR.	1	\$164.50



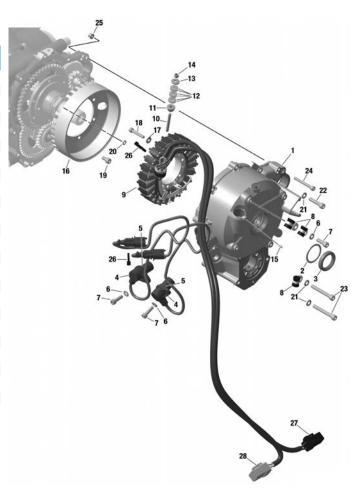
# **DOCUMENTATION, LABELS, GASKET SETS**

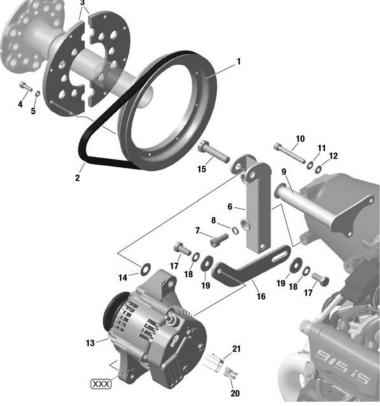
Item No.	Part No	Description	Qty. Req.	Price
1	898-851	OPERATORS MANUAL	1	CALL
2	898-871	INSTALLATION MANUAL	1	CALL
3	898-891	ILLUSTRATED PARTS CATALOG	1	CALL
4	898-863	MAINTENANCE MANUAL LINE	1	CALL
5	898-861	MAINTENANCE MANUAL HEAVY	1	CALL
6	580-683	ROTAX STICKER KIT AIRCRAFT NC - NON-CERTIFIED	1	\$9.87



# IGNITION HOUSING, STATOR, CRANKSHAFT POSITION SENSOR

Ch	HIAICS	BHAFT PUSITION SENSOR	ı	
Item No.	Part No	Description	Qty. Req.	Price
1	912-247	IGNITION HOUSING ASSEMBLY	1	CALL
2	827-220	WASHER 32/38/1.5	1	\$17.56
3	230-428	OIL SEAL GPRE 28x38x7 FKM	1	CALL
4-5	966-572	CRANKSHAFT POSITION SENSOR	2	\$182.35
5	431-580	O-RING 17.17x1.78 FPM 70	2	\$7.30
6	945-751	LOCK WASHER A6	3	\$0.21
7	241-930	ALLEN SCREW M6x20	2	\$0.57
8	853-412	CABLE CLAMP	3	\$5.69
9	685-063	STATOR ASSEMBLY	1	CALL
10	840-792	STUD M5x44	1	CALL
11	947-510	DISTANCE SLEEVE	1	\$34.01
12	938-080	DISK SPRING 15x5.2x0.7	6	\$1.78
13	827-240	WASHER 5.1/15.5/2.5	1	\$26.43
14	842-033	LOCK NUT M5	1	\$0.35
15	840-820	ADJUSTMENT SCREW M4x8	1	CALL
16	685-072	MAGNETO FLYWHEEL ASSEMBLY	1	CALL
17	827-800	WASHER A 5.5	6	\$5.99
18	940-881	ALLEN SCREW M5x30	6	\$0.57
19	840-036	ALLEN SCREW M6x12	6	\$1.78
21	827-961	WASHER 6.4	7	\$0.31
22	840-880	ALLEN SCREW M6x30	5	\$0.57
23	241-761	ALLEN SCREW M6x50	2	\$0.85
24	941-791	ALLEN SCREW M5x45	2	\$1.08
25	942-311	HEX. NUT M5	2	\$20.67
26	866-714	TIE WRAP 142x3.2 mm	2	\$0.35





# EXTERNAL GENERATOR F3A (ALL PARTS OPTIONAL) (NON CERTIFIED)

Item No.	Part No	Description	Qty. Req.	Price
1	980-590	V-BELT PULLEY	(1)	\$395.80
2	980-400	V-BELT 9.5X675	(1)	\$31.26
3	980-605	PULLEY CARRIER	(2)	\$127.31
4	840-514	ALLEN SCREW M5X16	(8)	\$0.53
5	945-830	LOCK WASHER A5	(8)	\$0.21
6	953-223	ALTERNATOR BRACKET ASSEMBLY	(1)	CALL
7	240-072	ALLEN SCREW M8X20	(2)	\$1.35
8	845-310	LOCK WASHER VHZ 8	(2)	\$0.41
9	953-235	ALTERNATOR SUPPORT ASSEMBLY	(1)	CALL
10	241-762	ALLEN SCREW M6X50	(2)	\$0.94
11	945-831	LOCK WASHER A6	(2)	\$0.23
12	827-962	WASHER 6.4	(2)	\$0.31
13	887-251	ALTERNATOR F3A	(1)	\$1,394.06
14	927-952	THRUST WASHER 10.1/20/0.5	(1)	\$4.78
15	941-636	HEX. SCREW M10X45	(1)	\$13.77
16	953-241	TENSION BAR	(1)	\$83.34
17	940-596	HEX. SCREW M8X2	(2)	\$11.47
18	945-832	LOCK WASHER A8	(2)	\$0.23
19	227-935	WASHER 8.4	(2)	\$1.76
20	864-011	FASTON CONNECTOR 6.3X0.8	(2)	\$1.23
21	265-255	CONNECTOR HOUSING 2-POLE	(1)	\$7.84



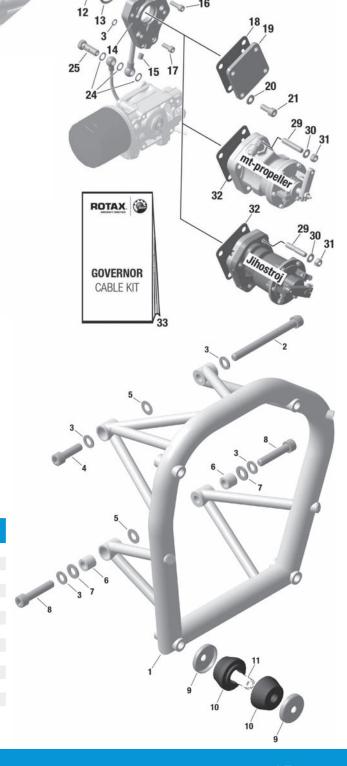


HYDRAULIC GOVERNOR FOR CONSTANT SPEED PROPELLER

SPI	EDF	NOPELLEN		
Item No.	Part No	Description	Qty. Req.	Price
1	810-310	OIL INLET FLANGE	1	CALL
2	430-175	O-RING 46x3-N, FPM 75	1	\$14.36
3	830-415	O-RING 7x2-N, FPM 75	2	\$6.69
4	832-950	NEEDLE BEARING RNA 49/32	1	CALL
5	227-280	THRUST WASHER	2	\$7.65
6	940-315	COUNTERSUNK SCREW M5x12	2	\$0.57
7	832-362	BALL BEARING 16002. 15-32-8	1	\$41.13
8	834-245	VACUUM PUMP GEAR 22 T	1	\$211.87
9	941-521	ALLEN SCREW M8x16	1	\$1.26
10	232-925	NEEDLE SLEEVE 22x28x12	1	\$36.82
11	847-773	DRIVE SLEEVE	1	\$359.30
12	847-802	SPACER 25/31.95/13	1	\$28.58
13	950-380	O-RING 32x4–N FPM 75	1	\$11.62
14	810-070	GOVERNOR FLANGE	1	CALL
15	941-611	PLUG SCREW M8x1	2	\$5.61
16	241-930	ALLEN SCREW M6x20	4	\$0.57
17	241-237	ALLEN SCREW M6x16	2	\$0.73
18	931-770	GASKET - NON-CERTIFIED	1	\$12.98
19	926-231	COVER - NON-CERTIFIED	1	\$118.28
20	250-315	WASHER 8.4 - NON-CERTIFIED	4	\$0.41
21	240-072	ALLEN SCREW M8x20 - NON-CERTIFIED	4	\$1.35
22	956-460	PRESSURE OIL LINE ASSEMBLY	1	\$262.80
23	940-874	BANJO BOLT M10x1x23	1	\$13.99
24	230-150	SEALING RING A 10x14	5	\$1.09
25	940-873	BANJO BOLT M10x1x34	1	\$16.26
26	853-418	CABLE CLAMP	1	\$23.43
27	944-131	LOCK WASHER A8	1	\$1.26
28	440-854	HEX./TORX-FLANGE SCREW M8X16	1	CALL
29	840-711	STUD M8X21/20 - NON-CERTIFIED	4	\$20.14
30	945-832	LOCK WASHER A8 - NON-CERTIFIED	4	\$0.23
31	942-671	HEX NUT M8 - NON-CERTIFIED	4	\$2.67
32	931-372	GASKET - NON-CERTIFIED	1	\$186.77

# **ENGINE SUSPENSION FRAME**

\$995.00
\$6.61
\$0.31
\$4.63
\$4.78
\$4.90
\$9.61
\$0.57
CALL
\$772.00
\$59.75
\$107.61



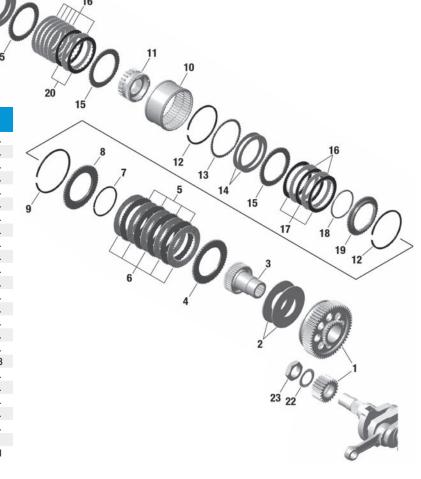


# **PROPELLER GEAR ASSEMBLY**

Item	Part No	Description	Qty.	Price
No.	044.005	OF A DROVE HOUSING A COFFADILY	Req.	0.411
1	911-985	GEARBOX HOUSING ASSEMBLY	1	CALL
2	950-091	OIL SEAL AS 48x72x8 FKM	1	CALL
3	832-060	BALL BEARING 6208 TN9 C3	1	CALL
4	845-120	RETAINING RING 80x2.85	1	CALL
5	837-221	PROPELLER SHAFT	1	CALL
6	942-320	COLLAR NUT M40x1.5 LH	1	CALL
7	245-935	RETAINING RING A 38	1	CALL
8	958-418	DAMPER CLUTCH ASSEMBLY	1	CALL
9	958-412	OVERLOAD CLUTCH ASSEMBLY 56 T	1	CALL
10	837-200	TORSION SHAFT	1	CALL
11	230-915	O-RING 33x3-N, FPM 75	1	CALL
12	827-470	SEALING WASHER 40x12.1x2.5	1	CALL
13	945-880	RETAINING RING 40x1.75	1	\$3.19
14	250-640	SEALING RING A12x18	1	\$1.92
15	841-150	HEX. SCREW M12x20 A2-70	1	CALL
16	845-431	FRICTION WASHER VS30	1	\$9.66
17	842-579	HEX. NUT M30x1.5 12 MM, LH	1	\$17.11
21	440-282	HEX. / TORX-FLANGE SCREW M6x40-SW8/T30	10	CALL
22	940-077	HEX. / TORX-FLANGE SCREW M8x45-SW10/T40	2	\$4.43



Item No.	Part No	Description	Qty. Req.	Price
1-9	958-412	OVERLOAD CLUTCH ASSEMBLY	1	CALL
1	886-544	GEAR SET	1	CALL
2	938-092	DISK SPRING 102x49x2.8	2	CALL
3	837-231	INTERMEDIATE SHAFT	1	CALL
4	958-400	STEEL FRICTION PLATE 4.0 MM	1	CALL
5	958-160	STEEL FRICTION PLATE 1.0 MM	4	CALL
6	958-174	SINTER FRICTION PLATE 1.8 MM	5	CALL
7	945-080	CIRCLIP SW 68	1	CALL
8	958-402	STEEL FRICTION PLATE 4.0 MM	1	CALL
9	945-075	CIRCLIP SB 105	1	CALL
10-21	958-418	DAMPER CLUTCH ASSEMBLY	1	CALL
10	958-042	CLUTCH DRUM ASSEMBLY	1	CALL
11	958-022	CLUTCH HUB	1	CALL
12	945-070	CIRCLIP SB 93	3	CALL
13	927-021	SUPPORT RING	2	CALL
14	938-098	DISK SPRING 91.5X71X1.5	2	CALL
15	959-420	STEEL FRICTION PLATE 3.0 MM	3	CALL
16	958-932	STEEL FRICTION PLATE 1.0 MM	8	\$35.18
17	958-991	FRICTION PLATE 1.54 MM	3	CALL
18	847-895	SPACER RING 69/64.1/3.0	1	CALL
19	958-103	DRIVING COLLAR	1	CALL
20	958-992	FRICTION PLATE 1.54 MM	2	CALL
21	938-099	DISK SPRING 91.5X60X2.1	2	CALL
22	845-431	FRICTION WASHER VS30	1	\$9.66
23	842-579	HEX. NUT M30x1.5 12 MM, LH	1	\$17.11



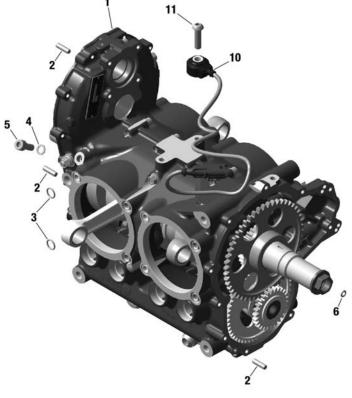


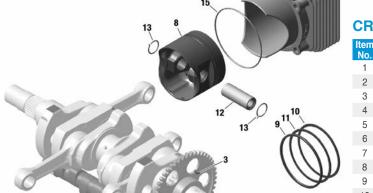
## **CRANKCASE**











# CRANKSHAFT, PISTON, CYLINDER, SPRAG CLUTCH

Item No.	Part No	Description	Qty. Req.	Price
1	430-225	O-RING 9X2,3-N, FPM 75	1	\$8.71
2	940-526	PLUG SCREW M20X1.5	1	CALL
3	246-055	WOODRUFF KEY 3x3.7	1	\$3.73
4	852-407	SPRAG CLUTCH HOUSING	1	\$130.88
5	958-856	SPRAG CLUTCH 51.710x68, 377x13	1	\$312.00
6	845-425	CIRCLIP 70	1	\$7.60
7	942-250	HEX. NUT M32x1.5 - LH	1	\$24.29
8	893-296	PISTON ASSEMBLY 84/84.01 MM	4	CALL
9	815-230	OIL SCRAPER RING 84/76.5x3	4	\$67.49
10	815-251	RECTANGULAR RING 84/77x1.5	4	\$82.75
11	815-280	TAPERED COMPRESSION RING 84	4	\$47.51
12	916-380	PISTON PIN 20x12x51.3	4	CALL
13	845-106	MONOHOOK CIRCLIP 20	8	\$2.63
14	913-228	CYLINDER	4	CALL
15	250-510	O-RING 87x2-N, FPM 75	4	\$26.49



# 

# CAMSHAFT, VALVE TRAIN, CYLINDER HEAD, VALVE COVER

/	,	EVE GOVER		
Item No.	Part No	Description	Qty. Req.	Price
1	881-832	HYDRAULIC VALVE TAPPET SET	8	\$422.10
2	850-930	O-RING 16x5	8	\$8.79
3	924-440	OIL RETURN TUBE	8	\$39.54
4	840-171	STUD M8x200	8	\$9.73
5	840-141	STUD M8x186	8	\$9.73
6	842-476	COLLAR CAP NUT M8	8	\$21.34
7	942-302	COLLAR NUT M8	8	\$3.70
8	250-311	WASHER 8.4	8	\$0.41
9	623-777	CYLINDER HEAD 2/3 ASSEMBLY	2	CALL
10	623-787	CYLINDER HEAD 1/4 ASSEMBLY	2	CALL
11	854-101	INTAKE VALVE 38 MM	4	\$187.82
12	854-113	EXHAUST VALVE 32 MM	4	CALL
13	926-210	SHIM 16/27.4/1	8	\$3.73
14	230-810	VALVE STEM SEAL	4	\$10.04
15	838-156		8	\$28.42
16	854-186		8	\$24.57
17	253-092		16	\$3.74
18	854-861	VALVE PUSH-ROD ASSEMBLY	8	\$171.80
19	854-383	ROCKER ARM LEFT	4	\$301.40
20	854-393	ROCKER ARM RIGHT	4	\$301.40
21	933-396	BUSHING	8	\$52.06
22	854-193		4	\$40.77
23	854-225	VALVE GUIDE	4	CALL
24	253-114	INLET VALVE GUIDE	4	\$27.25
25	245-440	RETAINING RING A12	8	\$0.57
26	250-015		3	\$0.35
27	841-923		3	\$7.81
28	250-285	O-RING 105x2.5	4	\$29.31
29	430-205		4	\$4.99
30	612-265		4	CALL
31	927-941	WASHER 6.0/12/1	4	\$0.69
32	840-887		4	\$0.69
33	431-570	O-RING 10.82x1.78-N, FPM 70	8	\$0.66

# INTAKE MANIFOLD, AIRBOX, THROTTLE BODY SOCKET

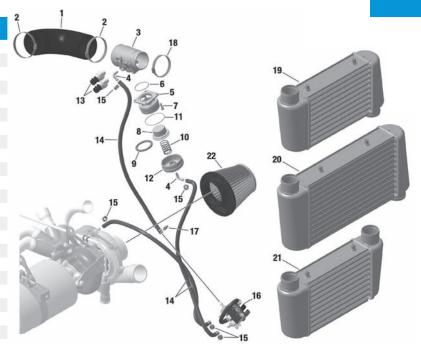
Item No.	Part No	Description	Qty. Req.	Price
1	667-401	INTAKE MANIFOLD 1/3	1	CALL
2	667-406	INTAKE MANIFOLD 2/4	1	CALL
3	850-091	ISOLATING FLANGE	2	\$6.53
4	440-207	HEX./TORX-FLANGE SCREW M6x20-SW8/T30	8	\$0.90
5	460-421	CONNECTING SOCKET	2	CALL
6	953-093	1-EAR-CLAMP 66.3-69.5 MM	4	CALL
7	667-411	AIRBOX	1	CALL
8	440-164	HEX./TORX-FLANGE SCREW M6X16-SW8/T30	5	CALL
9	840-672	HOSE NIPPLE M6	1	CALL
10	860-700	RUBBER 20x10xM6	1	\$23.11
11	827-968	WASHER 6.4	1	\$0.35
12	842-042	LOCK NUT M6	1	\$2.66
13	850-020		1	\$3.43
14	685-055	THROTTLE BODY SOCKET ASSEMBLY	1	\$399.00
15	953-020	SEPARATING PLATE	3	\$1.78
16	651-780	CONNECTOR BRACKET	1	CALL
17	250-015	SEALING RING A12x18	2	\$0.35
18	222-421	TEMPERATURE SENSOR	2	\$33.15
19	664-364	PRESSURE SENSOR 2.0	2	\$309.41
20	638-140	CLIP	2	CALL
21	951-563	CONNECTOR BRACKET	1	CALL
22	874-654	PRESSURE-/TEMP. SENSOR	2a	\$286.10
23	850-610	CONNECTOR GASKET	2	CALL
24	481-485	GOVERNOR CABLE KIT - NON-CERTIFIED		CALL

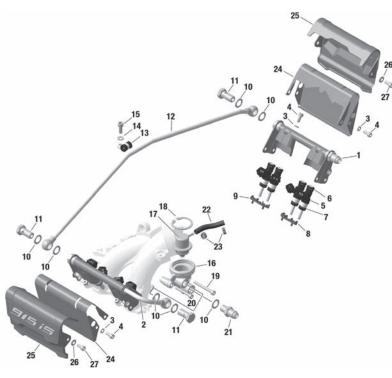
a Ambient pressure and temperature



# **INTERCOOLER, WASTEGATE**

	,				
Item No.	Part No	Description	Qty. Req.	Price	
1	201-017	AIR INTAKE HOSE	1	CALL	
2	951-791	CLAMP 50-70	2	\$9.34	
3	947-781	REDUCTION SLEEVE	1	CALL	
4	924-623	IMPULSE ELBOW	2	CALL	
5	812-382	VALVE HOUSING	1	CALL	
6	431-740	O-RING 38x2.4-N, VITON GLT 70	1	CALL	
7	840-511	ALLEN SCREW M5x16	4	\$0.48	
8	667-194	VALVE PISTON	1	CALL	
9	950-932	SEALING RING PTFE	1	CALL	
10	838-372	COMPRESSION SPRING DM22 D1.5 L65	1	CALL	
11	450-390	O-RING 54x2-N, FPM	1	CALL	
12	812-391	VALVE COVER	1	CALL	
13	664-364	PRESSURE SENSOR 2.0	2	\$309.41	
14	874-333	FUEL HOSE 6x11	3	CALL	
15	851-468	CLAMP 10.3 - 12.8	5	CALL	
16	664-638	SOLENOID VALVE	1	CALL	
17	951-898	CLAMP 8 – 11	1	\$8.64	
18	853-381	CLAMP 40-60	4	CALL	
19	888-962	INTERCOOLER	1a	\$626.40	
20	888-963	INTERCOOLER - NON-CERTIFIED	1	\$696.14	
21	888-965	INTERCOOLER - NON-CERTIFIED	1	\$580.10	
22	825-900	AIRFILTER - NON-CERTIFIED	1	CALL	





# FUEL INJECTOR, FUEL RAIL, PRESSURE REGULATOR, FUEL RAIL COVER

Item No.	Part No	Description	Qty. Req.	Price
1	874-795	FUEL RAIL 1/3 (RIGHT)	1	\$329.83
2	874-797	FUEL RAIL 2/4 (LEFT)	1	CALL
3	945-750	LOCK WASHER A5	1	\$0.14
4	640-541	ALLEN SCREW M5x12	1	\$0.35
5–7	874-780	FUEL INJECTOR	8	\$181.29
6	831-060	O-RING 7.52x3.51	8	\$11.19
7	831-050	O-RING 8.54x3.1 VITON B70	8	\$6.50
8	860-042	DAMPER LEFT	2	\$3.43
9	860-040	DAMPER RIGHT	2	\$3.43
10	250-640	SEALING RING A 12x18-CU	7	\$1.92
11	641-540	BANJO BOLT	3	\$22.05
12	874-802	FUEL LINE ASSEMBLY	1	CALL
13	853-412	CABLE CLAMP	1	\$5.69
14	945-751	LOCK WASHER A6	1	\$0.21
15	241-239	ALLEN SCREW M6x16	1	\$3.43
16	874-770	PRESSURE REGULATOR HOUSING	1	\$98.27
17	889-262	FUEL PRESSURE REGULATOR ASSEMBLY	1	\$337.45
18	845-650	RETAINING RING 36x1.5	1	\$1.78
19	941-791	ALLEN SCREW M5x45	1	\$1.08
20	841-501	ALLEN SCREW M5x35	1	\$0.81
21	840-700	ADAPTER 9/16 UNF/M12x1.5	1	\$65.99
22	960-631	TUBE 60 +/-3 MM	1	\$6.90
23	853-653	1-EAR-CLAMP	2	CALL
24	975-090	HEAT SHIELD	2	\$7.92
25	975-065	COVERING FUEL RAIL	2	CALL
26	939-445	SPRING WASHER 12x5.2x0.5	4	CALL
27	640-541	ALLEN SCREW M5x12	4	\$0.35

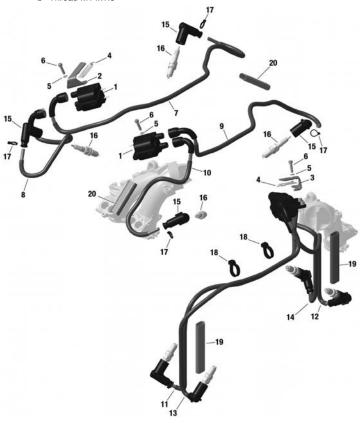
a standard, see Installation Manual

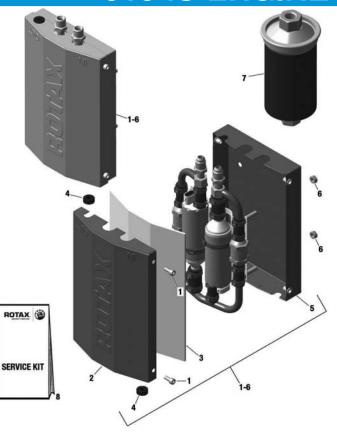


## **FUEL PUMP ASSEMBLY - NON-CERTIFIED**

Item No.	Part No	Description	Qty. Req.	Price
1–6	889-696	FUEL PUMP ASSEMBLY UNF	1a	\$1,415.66
1–6	889-698	FUEL PUMP ASSEMBLY METRIC	1b	\$1,563.00
1	640-542	ALLEN SCREW M5x12	4	\$0.35
2	911-790	COVER	1	\$65.67
3	975-055	HEAT PROTECTION MAT	1	\$13.18
4	201-160	RUBBER GROMMET	2	\$3.43
5	911-700	HOUSING	1	\$69.49
6	242-213	HEX. NUT M6	8	\$1.58
7	874-060	FUEL FILTER	1	\$53.42
8	889-537	SERVICE KIT	1	CALL

- a Thread 9/16 18 UNF b Thread M14x1.5





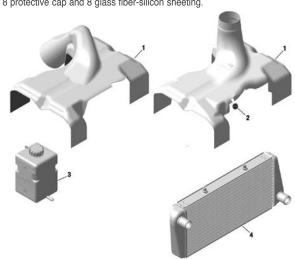
# IGNITION COILS, IGNITION CABLE, SPARK PLUG CONNECTOR, SPARK PLUG

Item No.	Part No	Description	Qty. Req.	Price
1	665-613	DOUBLE IGNITION COIL	4	\$339.00
2	951-497	CONNECTOR BRACKET	1	CALL
3	951-496	CONNECTOR BRACKET	1	CALL
4	251-685	SPRING HOOK	2	CALL
5	945-750	LOCK WASHER A5	8	\$0.14
6	441-341	ALLEN SCREW M5x20	8	\$0.48
7-14	665-558	IGNITION CABLE SET	1a	\$230.08
15	265-249	SPARK PLUG CONNECTOR	8	\$41.50
16	297-656	SPARK PLUG	8	\$21.95
17	866-718	TIE WRAP 94x2.5 MM	8	\$0.35
18	866-716	TIE WRAP 203x7.6 MM	2	\$0.66
19	860-734	GLASS FIBER-SILICON SHEATING 120	2	\$8.35
20	860-736	GLASS FIBER-SILICON SHEATING 75	2	CALL

a Set for double ignition coil with high tension connector rettich thread included: 8 ignition cable assy., 8 protective cap and 8 glass fiber-silicon sheeting.

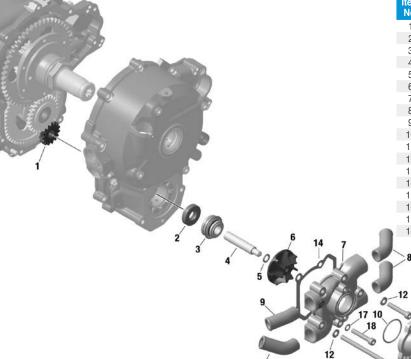
## **COOLING AIR BAFFLE**

Item No.	Part No	Description	Qty. Req.	Price
1	975-795	COOLING AIR BAFFLE, TRACTOR WHITE	(1)	\$614.86
1	975-799	COOLING AIR BAFFLE, TRACTOR BLACK	(1)	CALL
1-2	975-792	COOLING AIR BAFFLE, PUSHER WHITE - NON-CERTIFIED	(1)	CALL
1-2	975-798	COOLING AIR BAFFLE, PUSHER BLACK - NON-CERTIFIED	(1)	CALL
2	201-160	RUBBER GROMMET	(1)	\$3.43
3	922-327	OVERFLOW BOTTLE WITH CAP	1	\$53.40
4	997-086	RADIATOR - NON-CERTIFIED	1	CALL



# **WATER PUMP WITH DRIVE**

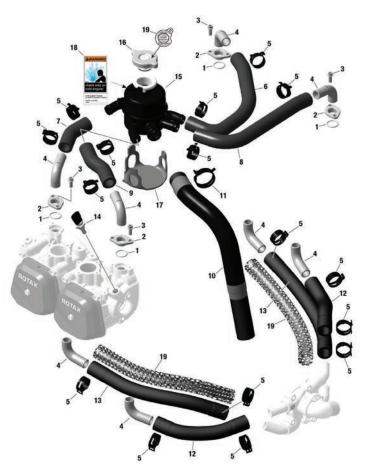




# **EXPANSION TANK WITH HOSES AND CONNECTIONS**

Item No.	Part No	Description	Qty. Req.	Price
1	950-180	O-RING 19-2	4	\$13.46
2	922-303	FLANGE	4	\$56.43
3	440-162	HEX./TORX-FLANGE SCREW M6X16-SW8/T30	8	CALL
4	922-231	BENT SOCKET 80°	8	\$17.84
5	851-645	CLAMP 25	16	\$7.14
6	822-422	FORM HOSE 1	(1a)	CALL
6	822-420	FORM HOSE 1	1b	\$23.39
7	822-432	FORM HOSE 2	(1a)	CALL
7	822-430	FORM HOSE 2	1b	\$5.23
8	822-442	FORM HOSE 3	(1a)	CALL
8	822-440	FORM HOSE 3	1b	\$22.65
9	822-447	FORM HOSE 4	(1a)	CALL
9	822-445	FORM HOSE 4	1b	\$11.19
10	822-450	FORM HOSE	(1a)	\$69.95
10	822-452	FORM HOSE	1b	CALL
11	951-350	CLAMP 35	1	\$4.83
12	922-366	WATER TUBE 180 +/-3 MM	(2a)	CALL
12	922-360	WATER TUBE 180 +/-3 MM	2b	CALL
13	922-367	WATER TUBE 280 +/-3 MM	(2a)	CALL
13	922-362	WATER TUBE 280 +/-3 MM	2b	\$61.02
14	965-537	TEMPERATURE SENSOR	1	\$182.07
15-18	922-664	EXPANSION TANK ASSEMBLY	1	CALL
16	922-072	RADIATOR CAP WITH GASKET 1.2 BAR/17.4 PSI	1	\$82.46
17	860-827	RUBBER PLATE	1	\$15.58
18	897-506	WARNING LABEL	2	\$5.69
19	860-650	PROTECTION TUBE	2	\$222.81

a Silicon



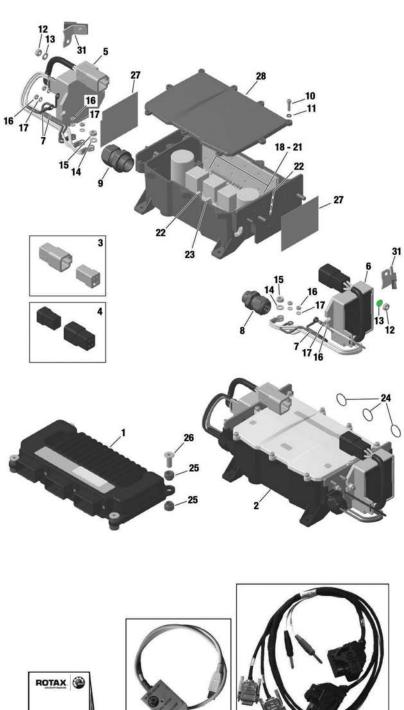
b Standard EPDM, change every 5 years



# **ENGINE CONTROL UNIT, FUSE BOX, REGULATOR**

	ENGINE CONTROL UNIT, PUSE BOX, P		Laoi	-A 1 O 1 1
Item No.	Part No	Description	Qty. Req.	Price
1	881-254	ENGINE CONTROL UNIT ASSEMBLY (864-352 + packaging)	1	CALL
2	881-321	FUSE BOX WRAPPED UP (665-646 inclusive)	1	\$2,936.13
3	866-422	CONNECTOR SET GREY	1a	\$105.26
4	866-420	CONNECTOR SET BLACK	1a	\$120.29
5	864-395	REGULATOR B-CONNECTOR GREY	1	CALL
6	864-392	REGULATOR A-CONNECTOR BLACK	1	\$353.00
7	866-440	MASS CABLE ASSEMBLY	3	\$11.64
8	201-370	SKINTOP CLICK 20	1	\$13.51
9	201-375	SKINTOP CLICK 25	1	\$13.51
10	840-763	ALLEN SCREW M4x16 ISO 4762-A2-70	9	\$44.30
11	827-230	PLASTIC WASHER M4	9	\$91.12
12	842-042	LOCK NUT M6	4	\$2.66
13	244-213	WASHER 6.4	2	\$1.00
14	927-573	WASHER 5.3	2	\$0.35
15	842-033	LOCK NUT M5	2	\$0.35
16	242-538	LOCK NUT M4-A2	7	\$0.35
17	244-078	WASHER 4.3	7	\$7.35
18	866-450	MINI-FUSE 2A	2	\$3.43
19	866-452	MINI-FUSE 5A	1	\$3.43
20	866-454	MINI-FUSE 7.5A	2	\$3.43
21	866-456	MINI-FUSE 10A	7	\$3.43
22	866-490	ATO-FUSE 20A	1	\$3.43
23	866-492	ATO-FUSE 35A	1	\$3.43
24	931-110	SEALING RING	3	\$13.44
25	201-460	RUBBER SLEEVE	8	CALL
26	947-540	SPACER	4	CALL
27	282-870	HEAT TRANSFER PAD 65x80x0.5 MM	2	\$22.84
28	201-690	COVER, FUSE BOX	1	\$150.74
31	951-983	CONNECTOR BRACKET ASSEMBLY - NON-CERTIFIED	2	CALL
32–37	881-555	NUT SET FUSE BOX	1	CALL
33	242-538	LOCK NUT M4	3	\$0.35
34	244-078	WASHER 4.3	6	\$7.35
35	842-042	LOCK NUT M6	3	\$2.66
36	244-219	WASHER 6.2/14/3	6	CALL
37	931-110	SEALING RING	3	\$13.44

a Connector set consisting of all parts for regulator and stator side.



# 915 IS ENGINE

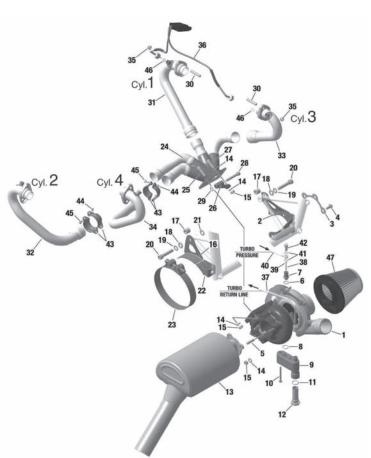
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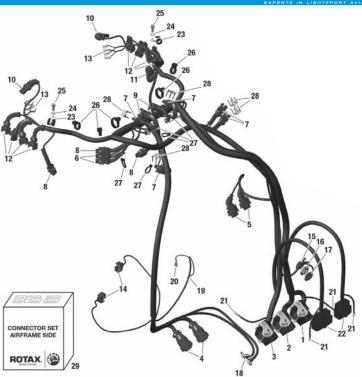
# **WIRING HARNESS**

*****		IAITINESS		
Item No.	Part No	Description	Qty. Req.	Price
1-21	665-577	WIRING HARNESS	1	CALL
4	881-312	FUSE BOX CONNECTOR	2	\$181.01
5	881-306	AAPTS CONNECTOR	2	\$49.85
6	881-298	CPS CONNECTOR	2	\$47.99
7	881-302	OPS, BPS AND MAPS CONNECTOR	3+2a	\$40.65
8	881-296	CTS A OTS A KNOCK CONNECTOR	3	\$39.84
9	881-292	MATS CONNECTOR	2	\$35.37
10	481-455	EGT CONNECTOR	2	CALL
11	881-308	TPS CONNECTOR	1	\$33.60
12	881-300	INJ CONNECTOR	8	\$35.37
13	881-310	IGNITION COIL CONNECTOR	1	\$25.34
14	881-304	FUEL PUMP CONNECTOR	2	\$135.49
15	481-452		1	CALL
16	481-453		1	CALL
17	481-454		1	CALL
19	964-059	0	1	\$1.23
20	864-011	FASTON CONNECTOR 6.3x0.8	1	\$1.23
21	966-057		4	CALL
22	881-294	CONNECTOR SET HIC A + HIC B	1	\$191.16
23	251-691	CABLE CLAMP 12/M6	2	\$3.43
24	827-961	WASHER 6.4	2	\$0.31
25	840-391	ALLEN SCREW M6x14	2	\$1.00
26	866-716	TIE WRAP 203x7.6 MM	5	\$0.66
27	866-714		5	\$0.35
28	638-140	CLAMP	5	CALL
29	881-240	CONNECTOR SET HIC - NON-CERTIFIED	1b	\$194.12



a for OPS, MAPS and BPS.b HIC A, HIC B and FUSE BOX 3-pole.





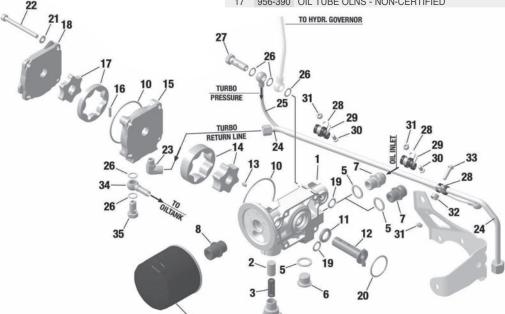
# **EXHAUST SYSTEM, EXHAUST TEMPERATURE SENSOR**

_/\	17001	OTOTEM, EXHAUST TERM ENATOR	0_	
Item No.	Part No	Description	Qty. Req.	Price
1	893-105	TURBOCHARGER ASSEMBLY	1	CALL
2		TURBOCHARGER BRACKET	1	CALL
3		REINFORCEMENT SHEET	1	CALL
4	940-583	HEX. SCREW M8x16 STAINLESS STEEL	3	\$3.19
5	940-173	STUD M8x19.5/13	5	\$7.05
6	250-640	SEALING RING A 12x18-CU	1	\$1.92
7		VALVE HOUSING	1	CALL
8		O-RING 15.9-2.3	1	\$8.71
9		OIL SUMP ASSEMBLY	1	CALL
10		ALLEN SCREW M6x50	2	\$6.92
11		O-RING 18x2.5-N, FPM 75	1	\$1.78
12		PLUG SCREW ASSEMBLY M22x1.5	1	CALL
13		MUFFLER ASSEMBLY	1	CALL
14		WASHER 8.4 STAINLESS STEEL	11	\$1.23
15		HEX. NUT M8 STAINLESS STEEL	9	\$1.69
16		EXHAUST BRACKET	1	CALL
22		EXHAUST BRACKET	1	CALL
23		CLAMP 74-79	1	CALL
24		EXHAUST MANIFOLD ASSEMBLY	1	CALL
25		ALLEN SCREW M8x30	4	CALL
26		MANIFOLD BRACKET ASSEMBLY	1	CALL
27		ALLEN SCREW M8x20	1	\$1.61
28		ALLEN SCREW M8x50	1	\$1.99
29		WASHER 8.4/15/0.5	AR	\$3.17
29		WASHER 8.4/15/1	AR	\$3.37
29		WASHER 8.4/15/1.5	AR	\$3.61
30		STUD M8x23/20	8	\$6.50
31		EXHAUST PIPE ASSEMBLY CYLINDER 1	1	CALL
32		EXHAUST PIPE ASSEMBLY CYLINDER 2	1	CALL
33		EXHAUST PIPE ASSEMBLY CYLINDER 3	1	CALL
34		EXHAUST PIPE ASSEMBLY CYLINDER 4	1	CALL
35		LOCK NUT M8-SW12	8	CALL
36		TEMPERATURE SENSOR	2	CALL
38		COMPRESSION SPRING 22.0	1	\$5.33
39		BALL 5.556 MM	1	\$0.66
41		SEALING RING A 8x13	2	\$1.30
42		BANJO BOLT M8x1x17	1	\$53.95
43		EXHAUST PIPE CLAMP (Cylinder 2 and 4)	4	CALL
44		HEX. NUT ISO 7042 - M5 - A2 (Cylinder 2 and 4)	4	CALL
45		ALLEN SCREW M5X10 ISO 4762-A2-70 (Cyl. 2 and 4)	4	CALL
46	244-213	WASHER 6.4	4	\$1.00



## OIL TANK

OIL	IAIN				
Item No.	Part No	Description	Qty. Req.	Part No	
1-12	656-854	OIL TANK ASSEMBLY UNF BIG	(1)	CALL	
1-12	656-852	OIL TANK ASSEMBLY UNF standard	(1)	CALL	
1-12	656-880	OIL TANK ASSEMBLY METRIC standard	1	CALL	
1-12	656-XXX		(1)	CALL	
1	956-426	OIL TANK standard	(1)	CALL	
1		OIL TANK BIG - NON-CERTIFIED	1	CALL	
2	250-010		1	\$1.71	
3	241-408	HEX. SCREW M12x12	1	\$43.71	
4	656-861		1	\$33.32	
5		BAFFLE INSERT standard	1	\$67.19	
5	956-205	BAFFLE INSERT BIG	1	CALL	
6	850-491		1	\$31.55	
7	656-882	OIL TANK COVER ASSEMBLY UNF standard	(1)	CALL	
7	656-887	OIL TANK COVER ASSEMBLY METRIC standard	(1)	CALL	
7	656-858		(1)	CALL	
8	951-817		1	\$72.58	
9	230-150		1	\$1.09	
10		PLUG SCREW M10x1	1	\$10.70	
11	956-154		1	CALL	
12	974-647	· · · · · · · · · · · · · · · · · · ·	(1)	\$32.15	
12	974-650	,	(1)	CALL	
13	297-555		1	CALL	
14		HOSE NIPPLE WITH UNION NUT - NON-CERTIFIED	AR	\$20.91	
15	956-580		AR	CALL	
16	853-725		AR	CALL	
17	956-390	OIL TUBE OLNS - NON-CERTIFIED	AR	\$85.86	



# OIL PUMP ASSEMBLY, OIL FILTER, OIL TEMPERATURE SENSOR, OIL PRESSURE SENSOR

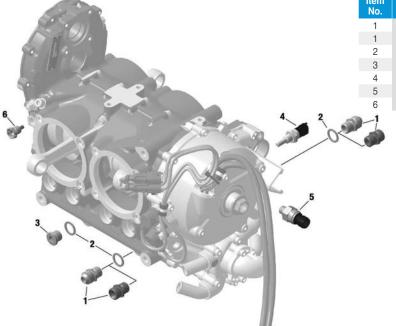
Item No.	Part No	Description	Qty. Req.	Price	Item No.	Part No	Description	Qty. Req.	Price
1	811-460	OIL PUMP HOUSING	1	\$666.60	18	911-713	OIL PUMP COVER	1	\$80.15
2	856-330	REGULATING PISTON	1	\$18.42	19	250-460	O-RING 11-2.7	2	\$5.93
3	838-125	COMPRESSION SPRING DM 8.85 D1.25 L52	1	\$3.43	20	950-410	O-RING 30x2.5	1	\$12.98
4	640-850	PLUG SCREW M22x1.5	1	\$38.22	21	827-961	WASHER 6.4	4	\$0.31
5	430-622	SEALING RING A 16x22	2	\$2.50	22	241-261	ALLEN SCREW M6x65	4	\$1.45
6	240-234	PLUG SCREW A M16x1.5	1	\$10.79	23	824-020	MALE STUD ELBOW M10x1	1	CALL
7	956-651	ADAPTER 3/4-16 UNF/ M16x1.5	(3)	\$90.35	24	656-760	TURBO OIL SUCTION LINE	1	CALL
7	956-655	ADAPTER M18x1.5 / M16x1.5	1	\$59.72	25	656-765	TURBO PRESSURE OIL LINE	1	CALL
8	924-430	OIL FILTER NIPPLE	1	CALL	26	230-150	SEALING RING A 10x14	3	\$1.09
9	825-016	OIL FILTER	1	\$19.95	27	940-873	BANJO BOLT M10x1x30	1	\$16.26
10	830-372	O-RING 63-2.5	2	\$3.50	28	851-111	CABLE CLAMP 8/M5	3	\$12.46
11	430-102	OIL SEAL A 14x22x4 FPM	1	\$10.36	29	851-116	CABLE CLAMP 5/M5	2	\$13.27
12	837-295	OIL PUMP SHAFT	1	\$239.06	30	241-841	ALLEN SCREW M5x12	2	\$0.69
13	246-580	KEY A 4x4x8	1	\$1.78	31	942-020	LOCK NUT M5	3	\$1.17
14	888-821	PRESSURE INNER AND OUTER ROTOR	1	\$78.82	32	847-664	SPACER 5.2/11/6.0	1	CALL
15	812-192	OIL PUMP HOUSING	1	CALL	33	941-540	ALLEN SCREW M5x20	1	CALL
16	232-731	NEEDLE PIN 4x15.8 G3	1	\$1.68	34	956-314	HOSE NIPPLE 4/6	1	\$23.81
17	656-850	ROTOR SET	1	\$133.64	35	940-874	BANJO BOLT M10x1x19	1	\$13.99



# OIL TEMPERATURE SENSOR, OIL PRESSURE SENSOR, OIL SPRAY NOZZLE ASSEMBLY

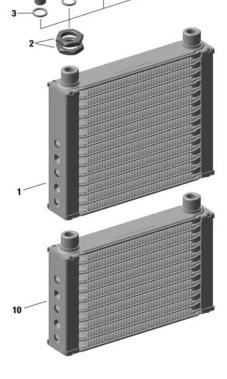
Item No.	Part No	Description	Qty. Req.	Price
1	956-651	ADAPTER 3/4-16 UNF/ M16x1.5	(2)	\$90.35
1	956-655	ADAPTER M18x1.5 / M16x1.5	2	\$59.72
2	430-622	SEALING RING A 16x22	3	\$2.50
3	240-234	PLUG SCREW A M16x1.5	2	\$10.79
4	965-537	TEMPERATURE SENSOR	1	\$182.07
5	664-365	PRESSURE SENSOR 10	1	\$301.82
6	241-785	MAGNETIC DRAIN PLUG M12x1.5	1	\$58.73

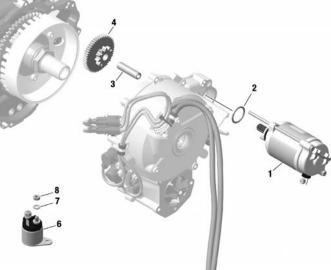






OIL HADIATOR NOR OLITHIED							
Item No.	Part No	Description	Qty. Req.	Price			
1,2,3-,9	886-036	OIL RADIATOR SET UNF	(1)	\$299.00			
1,2,3-,4	886-034	OIL RADIATOR SET METRIC	(1)	CALL			
1	886-004	OIL RADIATOR	(1)	\$328.89			
2	242-873	HEX. NUT M22x1.5	(4)	\$16.16			
2,3,9	956-645	SCREW CONNECTION SET UNF	(1)	\$115.70			
3,5,8	956-615	SCREW CONNECTION SET STRAIGHT	(1)	\$115.70			
3,5,6	956-585	SCREW CONNECTION SET BENT	(1)	\$101.43			
3	230-387	GASKET RING 14.2/18/2	(2)	\$1.51			
4	840-461	NIPPLE 13.2/9.5-M14x1.5	(2)	\$18.98			
5	956-577	ADAPTER8x1.5/M14x1.5	(2)	\$54.70			
6	956-580	BENT SOCKET ASSEMBLY	AR	CALL			
7	924-585	ANGULAR TUBE 4x1.5	AR	\$74.50			
8	956-610	HOSE NIPPLE WITH UNION NUT	AR	\$20.91			
9	956-643	ADAPTER 3/4-16 UNF/M14x1.5	(2)	\$68.93			
10	886-106	OIL RADIATOR	(1)	CALL			



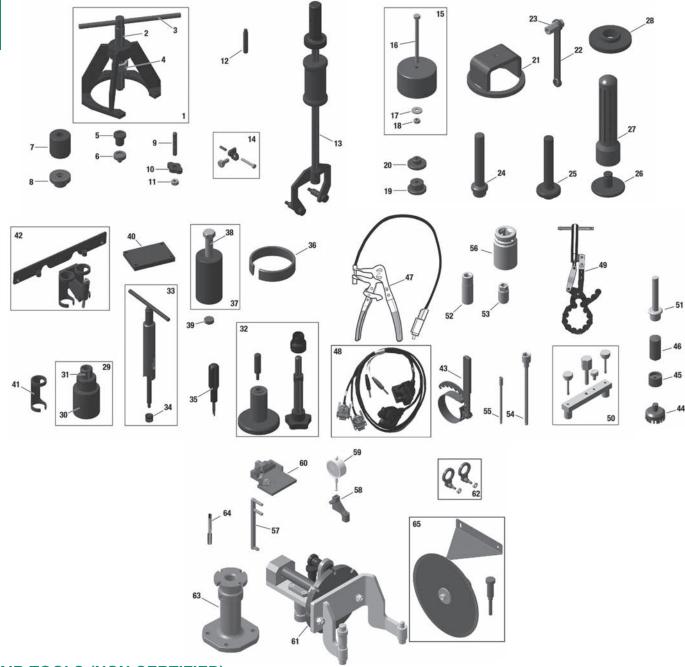


# **ELECTRIC STARTER**

	Item No.	Part No	Description	Qty. Req.	Price
	1-2	685-667	ELECTRIC STARTER ASSEMBLY 12 V	1	\$699.00
	1-2	685-671	ELECTRIC STARTER ASSEMBLY 24 V - NON-CERTIFIED	(1)	CALL
,	2	250-140	O-RING DIN 3771-24.4x3.1-N NBR70	1	\$7.14
	3	837-102	IDLE GEAR SHAFT	1	\$27.60
	4	834-156	IDLE GEAR 50/11 T	1	\$190.43
	5	942-311	HEX. NUT M5	2	\$20.67
	6-8	992-818	STARTER RELAY ASSEMBLY	1	\$199.75
	7	945-831	LOCK WASHER A6	2	\$0.23
	8	242-211	HEX. NUT M6	2	\$0.41







# **REPAIR TOOLS (NON CERTIFIED)**

Item No.	Application	Item No.	Application	Item No.	Application
1-4	Roller bearing 25x25x15, oil seal 30x52x7	26	Oil seal 40x55x7 gear box cover	48	Engine Control Unit (ECU)
5	Prop shaft version 2	27	Stamp	49	Oil filter
6	Prop shaft version 3	28	Ball bearing 35-72-17, propeller shaft	50	Ignition housing
7	Roller bearing 25x52x15, oil seal 30x52x7, version 2	29-31	Drive gear, gearbox, gear set	51	Oil Seal 28x38x7 Ignition housing
8	Roller bearing 25x52x15, oil inlet flange version 3	32	Fitting of piston pin circlips	52	Pressure sensor Oil and Airbox
9	Roller bearing 25x52x15, oil seal 30x52x7	33-34	Fitting and removal of piston pin	53	Temperature sensor Oil and Water
10-11	Roller bearing 25x52x15, oil seal 30x52x7, oil inlet cover	35	Monohook clips puller	54	Engine mount
12	Crankshaft locking screw M8x50	36	Piston diameter 84 mm/33 in.	55	Intake manifold
13-14	Gearbox	37-38	Puller Magneto hub	56	Nut for sprag clutch housing
15-18	Ball bearing 15x32x8, Oil inlet flange, oil inlet cover	39	Crankshaft magneto side	57	Crankcase
19	Needle bearing 22x28x12-vacuum pump	40	To align cylinders	58-59	Dial gauge
20	Ball bearing 15x32x8-vacuum pump	41-42	Installation/Removal of valve spring	60	Dial gauge adapter for valve seat inspect
21	Mounting yoke, gearbox components	43	Oil filter removal	61	Crankcase
22	Ring wrench 10/13	44	Waterpump impeller	62	Engine removal
23	Fixture for vacuum pump drive	45	Rotary seal ignition housing	63	Trestle support
24	Ball bearing 15x32x8, needle sleeve vacuum pump	46	Oil Seal 12x30x7 water pump shaft	64	Thread bent socket
25	Oil seal 22x32x7 vacuum pump	47	Spring type hose clip 28	65	Twist of crankshaft



REPAIR TOOLS								
Item No.	Part No	Description	Qty. Req.	Price				
1-4	877-615	EXTRACTOR ASSEMBLY	1	\$787.40				
2	877-580	PULL -IN SPINDLE M24x1.5	1	\$126.12				
3	276-155		1	\$23.77				
4		HEX. SCREW M24X1.5 - 19MM	1	\$87.23				
5		PRESS-OUT MUSHROOM	1	\$63.71				
6 7		PRESS-OUT MUSHROOM PRESS-IN MUSHROOM	1	\$66.39				
8	877-594 877-590		1	\$136.67 \$66.39				
9		STUD M10X45/20	1	\$5.69				
10	877-561		1	\$150.12				
11	242-092	HEX. NUT M10	1	\$1.38				
12	240-880	THREAD BOLT M8X50		\$6.69				
13	877-660	PULLER ASSEMBLY	1	\$522.70				
14	877-540		1	\$209.17				
15-18		PULLER ASSEMBLY	1	\$126.12				
16	941-730		1	\$2.45				
17		WASHER 6.2/18/2 HEX. NUT M6	1	\$5.61 CALL				
18 19	242-214 877-597		1	\$63.71				
20	877-595		1	\$63.71				
21	876-885		1	\$207.88				
22	876-470		1	\$14.77				
23	242-661	DISTANCE NUT M8X33	1	\$54.77				
24	276-332	INSERTION JIG ASSEMBLY	1	\$87.44				
25	877-276	INSERTION JIG ASSEMBLY	1	\$94.16				
26	876-518	INSERTION JIG	1	\$144.15				
27	877-650		1	\$132.11				
28	877-320		1	\$76.66				
29		SOCKET WRENCH ASSEMBLY 41X12.5	1	\$355.59				
30	877-440		1	\$23.99				
31 32	877-460	CIRCLIP INSTALLATION TOOL	1	\$9.50 \$614.92				
33-34		PISTON PIN EXTRACTOR ASSEMBLY	1	\$435.58				
34	877-155		1	\$76.95				
35	976-380		1	\$192.52				
36	876-967	PISTON RING SPANNER 84 MM	1	\$141.11				
37-38	877-375	PULLER ASSEMBLY	1	CALL				
38		HEX. SCREW M16X1.5X150	1	\$37.91				
39	876-557		1	\$17.68				
40		CYLINDER ALIGNING TOOL	1	\$108.12				
41		VALVE SPRING MOUNTING DEVICE	1	\$146.51				
42 43		VALVE SPRING LOADING JIG ASSEMBLY OIL FILTER WRENCH	1	\$531.62 \$138.14				
43		IMPELLER WRENCH ASSEMBLY	1	\$130.14				
45		PRESS ON DEVICE ASSEMBLY	1	\$73.98				
46		INSERTION JIG	1	\$53.08				
47		SPRING CLAMP PLIERS	1	\$506.11				
48		SERVICE WIRING HARNESS ASSEMBLY	1	\$106.66				
49		CUTTING TOOL	1	\$625.19				
50		PULLER ASSEMBLY	1	\$338.64				
51		INSERTION JIG	1	\$148.40				
52		SOCKET WRENCH 21x12.5	1	\$221.89				
53	876-130		1	\$177.18				
54		SOCKET DRIVER TOO BALL HEAD	1	\$142.75				
55 56	876-180	SOCKET DRIVER T30 BALL HEAD SOCKET WRENCH 38x20	1	\$139.80 \$352.19				
57		CHECK LEVER	1	\$352.19				
58		DIAL GAUGE ADAPTER ASSEMBLY	1	\$224.31				
59		PRECISION DIAL GAUGE	1	\$262.58				
60		DIAL GAUGE ADAPTER ASSEMBLY	1	\$720.67				
61		TRESTLE ADAPTER ASSEMBLY	1	CALL				
62	876-040	ENGINE LIFT SET ASSEMBLY	1	\$162.17				
63	877-930	TRESTLE SUPPORT	1	\$720.30				
64		TAPPING DRILL M18X1	1	\$156.09				
65	877-520	PROTRACTOR CRANKSHAFT DISTORTION INSP.	1	\$217.43				



# **LUBRICANTS (NON CERTIFIED)**

Item No.	Application
В	Medium strength bond 10 cc.
С	High strength bond 5 ml.
Ε	To prevent metal galling 50 cc.
Н	Blister 14.8 ml.
- 1	To prevent leakage current; 250 gr.
M	Solid lubricant paste for the assembly and running-in of metal components
Р	Regular body/high adhesion flexible flange sealant
R	For vibration damping; 310 cc.
V	For marking
Z	High strength bond 10 ml.
AG	For better heat transfer from the spark plugs

Item No.	Part No	Description	Qty. Req.	Price
В	897-651	LOCTITE 243 BLUE, 10 CC.	AR	\$18.50
С	899-788	LOCTITE 648 GREEN, 5 ML. (CC)	AR	\$21.50
Ε	297-434	LOCTITE ANTI SEIZE 8151 50 ML. (CC)	AR	\$31.17
Н	897-870	K&N FILTER OIL 99-11312	AR	\$25.86
- 1	897-330	LITHIUM-BASE GREASE, 250 GR.,	AR	\$63.89
M	297-433	MOLYKOTE G-N, 100 GR.	AR	\$97.56
Р	899-791	LOCTITE 5910, 50 ML	AR	\$54.95
R	297-711	PU-GLUE, SIKAFLEX 255	AR	\$112.25
V	898-570	LOCKING PAINT	AR	\$56.18
Z	899-789	LOCTITE 603 GREEN, 10 CC.	AR	\$36.67
AG	897-186	SILICONE HEAT COMPOUND WACKER P12, 150GR.	AR	\$164.50

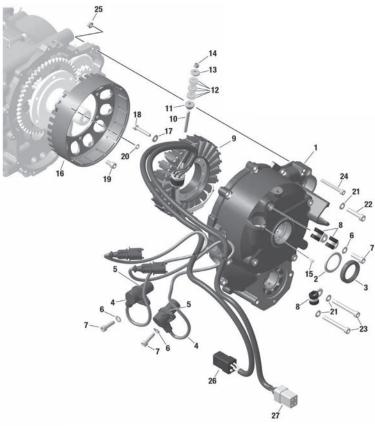
<sup>-</sup> Items not illustrated



# IGNITION HOUSING, STATOR, RECTIFIER REGULATOR, CRANKSHAFT POSITION SENSOR ASSEMBLY

			_	
Item No.	Part No	Description	Qty. Req.	Price
1	611-594	IGNITION HOUSING ASSEMBLY	1	\$1,718.44
2	827-220	WASHER 32/38/1.5	1	\$17.56
3	230-427	OIL SEAL GPRE 28x38x7 FKM	1	\$7.30
4-5	966-572	CRANKSHAFT POSITION SENSOR	2	\$182.35
5	431-580	O-RING 17.17x1.78 FPM 70	2	\$7.30
6	945-831	LOCK WASHER A6	3	\$0.23
7	241-930	ALLEN SCREW M6x20	2	\$0.57
8	853-412	CABLE CLAMP	3	\$5.69
9	685-065	STATOR ASSEMBLY	1	CALL
10	840-792	STUD M5x44	1	CALL
11	947-510	DISTANCE SLEEVE	1	\$34.01
12	938-080	DISK SPRING 15x5.2x0.7	6	\$1.78
13	827-240	WASHER 5.1/15.5/2.5	1	\$26.43
14	842-033	LOCK NUT M5	1	\$0.35
15	840-820	ADJUSTMENT SCREW M4x8	1	CALL
16	685-070	MAGNETO FLYWHEEL ASSEMBLY	1	\$645.21
17	827-800	WASHER A 5.5	6	\$5.99
18	940-881	ALLEN SCREW M5x30	6	\$0.57
19	840-036	ALLEN SCREW M6x12	6	\$1.78
20	831-929	O-RING 5x2 See chap. 72-20-00	1	\$4.54
21	827-962	WASHER 6.4	7	\$0.31
22	840-888	ALLEN SCREW M6x30	5	\$0.63
23	241-762	ALLEN SCREW M6x50	2	\$0.94
24	941-791	ALLEN SCREW M5x45	2	\$1.08
25	942-311	HEX. NUT M5	2	\$20.67

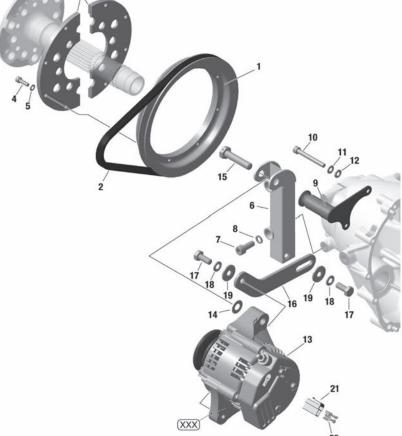
<sup>-</sup> Items not illustrated



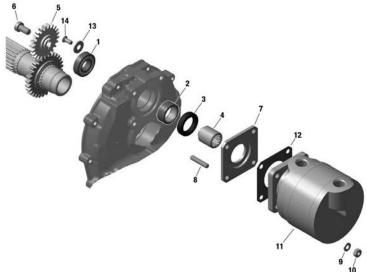
# EXTERNAL GENERATOR F3A (ALL PARTS OPTIONAL)

Item No.	Part No	Description	Qty. Req.	Price
1-21	887-254	ALTERNATOR SET	1	\$1,644.50
1	980-590	V-BELT PULLEY	1	\$395.80
2	980-400	V-BELT 9.5X675	1	\$31.26
3	980-605	PULLEY CARRIER	2	\$127.31
4	840-511	ALLEN SCREW M5X16	8	\$0.48
5	945-750	LOCK WASHER A5	8	CALL
6	953-222	ALTERNATOR BRACKET ASSEMBLY	1	\$438.86
7	240-071	ALLEN SCREW M8X20	2	\$1.23
8	845-310	LOCK WASHER 8	2	\$0.41
9	953-232	ALTERNATOR SUPPORT ASSEMBLY	1	\$243.30
10	241-761	ALLEN SCREW M6X50	2	\$0.85
11	945-751	LOCK WASHER A6	2	\$0.21
12	827-961	WASHER 6,4	2	\$0.31
13	887-251	ALTERNATOR F3A	1	\$1,394.06
14	927-952	THRUST WASHER 10,1/20/0,5	1	\$4.78
15	941-636	HEX. SCREW M10X45	1	\$13.77
16	953-241	TENSION BAR	1	\$83.34
17	940-596	HEX. SCREW M8X2	2	\$11.47
18	945-752	LOCK WASHER A8	2	\$0.21
19	227-935	WASHER 8,4	2	\$1.76
20	864-011	FASTON CONNECTOR 6,3X0,8	2	\$1.23
21	265-255	CONNECTOR HOUSING 2-POLE	1	\$7.84
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<sup>-</sup> Items not illustrated







# VACUUM PUMP WITH DRIVE (ALL PARTS OPTIONAL)

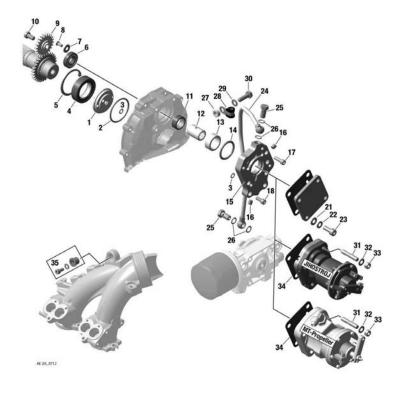
Iten No	L Part No.	Description	Qty. Req.	Price
1-10	881-690	VACUUM PUMP DRIVE RETROFIT KIT	AR	\$638.09
1	832-362	BALL BEARING 16002 15-32-8	1	\$41.13
2	232-925	NEEDLE SLEEVE 22x28x12	1	\$36.82
3	831-265	OIL SEAL AS 22x32x7	1	\$49.50
4	847-771	DRIVE SLEEVE	1	\$324.97
5	834-245	VACUUM PUMP GEAR 22T	1	\$211.87
6	941-527	ALLEN SCREW M8x14	1	\$25.86
7	810-170	ATTACHMENT FLANGE	1	\$163.29
8	941-080	STUD M6X20/10	4	\$5.61
9	945-831	LOCK WASHER A6	4	\$0.23
10	242-214	HEX.NUT M6	4	CALL

Items not illustrated / AR: as required / NLA: not available

# HYDRAULIC GOVERNOR ARRANGEMENT FOR CONSTANT SPEED PROPELLER (OPTIONAL)

Item No.	Part No	Description	Qty. Req.	Price
3	830-415	O-RING 7x2-N	2	\$6.69
6	832-362	BALL BEARING 16002. 15-32-8	1	\$41.13
9	834-245	DRIVE GEAR 22 T	1	\$211.87
10	941-522	ALLEN SCREW M8x16	1	\$1.39
11	232-925	NEEDLE SLEEVE 22x28x12	1	\$36.82
12	847-773	DRIVE SLEEVE	1	\$359.30
13	847-802	SPACER 25/31.95/13	1	\$28.58
14	950-380	O-RING 32x4-N FPM 75	1	\$11.62
15	810-294	GOVERNOR FLANGE	1	\$833.41
16	941-611	PLUG SCREW M8x1	2	\$5.61
17	241-930	ALLEN SCREW M6x20	4	\$0.57
18	241-237	ALLEN SCREW M6x16	2	\$0.73
21	250-315	WASHER 8.4	4	\$0.41
22	945-832	LOCKWASHER A8	4	\$0.23
23	240-072	ALLEN SCREW M8x20	4	\$1.35
24	956-460	PRESSURE OIL LINE ASSEMBLY	1	\$262.80
25	940-876	BANJO BOLT M10x1x19	2	CALL
26	230-150	SEALING RING A 10x14	4	\$1.09
27	847-224	DISTANCE SLEEVE 8.4/15/6	1	\$23.34
28	853-418	CABLE CLAMP	1	\$23.43
29	945-832	LOCK WASHER A8	1	\$0.23
30	240-276	HEX. SCREW M8x25	1	\$1.26
31	840-711	STUD M8x21/20	4	\$20.14
32	945-752	LOCK WASHER A8	4	\$0.21
33	942-671	HEX. NUT M8 (WS 11 MM)	4	\$2.67
34	931-372	GASKET	1	\$186.77
35	481-485	GOVERNOR CABLE KIT	1	CALL
36	881-702	PROP SHAFT RETROFIT KIT TO CONFIG. 3	1	\$1,611.49
37	881-700	GOVERNOR DRIVE RETROFIT KIT	1a	\$1,613.87

<sup>-</sup> Items not illustrated



a same as 881-702 but without propeller shaft

# **RTX**

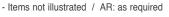
## **ENGINE SUSPENSION FRAME**

Item No.	Part No	Description	Qty. Req.	Price
1	886-563	ENGINE SUSPENSION FRAME ASSEMBLY	1	\$995.00
2	941-487	ALLEN SCREW M10X110	1	\$6.61
3	945-833	LOCK WASHER A10	4	\$0.34
4	840-948	ALLEN SCREW M10X35	3	\$4.63
5	927-952	THRUST WASHER 10.1/20/0.5	AR	\$4.78
5	927-953	THRUST WASHER 10.1/20/1.0	AR	\$4.90
6-7	860-695	SHOCK MOUNT SET	1	\$4.90
6	944-240	CUP WASHER	8	\$59.75
7	860-690	SHOCK-MOUNT	8	\$107.61

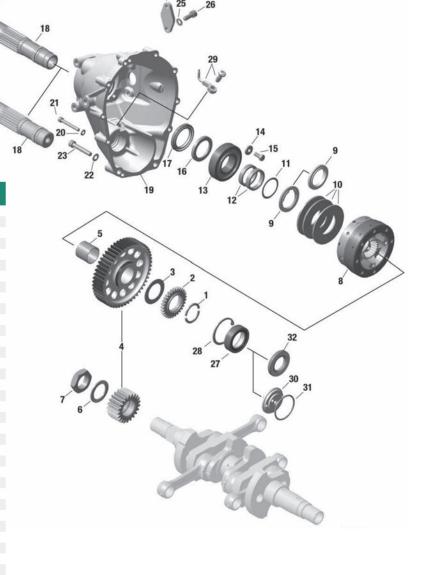
<sup>-</sup> Items not illustrated / AR: as required / NLA: not available

# PROPELLER GEAR ASSEMBLY WITH OVERLOAD CLUTCH

****		<u> </u>		
Item No.	Part No	Description	Qty. Req.	Price
1-28	893-340	GEARBOX WITH CLUTCH I 2.43-2 version 2	1b	\$3,953.90
1-28	893-345	GEARBOX WITH CLUTCH I 2.43-3 version 3	1b	\$3,751.88
1	926-035	RING HALF	2	\$43.94
2	834-232	DRIVE GEAR 29 T	1	\$207.22
3	827-992	THRUST WASHER 33.2/51/1.2	1	\$69.26
4	886-518	GEAR SET I 2.43	1	\$987.46
5	933-362	BUSHING 31x33x29.8	1	\$61.61
6	845-431	FRICTION WASHER VS30	1	\$9.66
7	842-579	HEX. NUT M30x1.5 12 MM LH	1	\$17.11
8	996-915	OVERLOAD CLUTCH ASSEMBLY	1b	CALL
9	847-787	STEP COLLAR	1	\$51.75
10	838-216	DISK SPRING B80 80x41x3	3	\$23.58
11	927-401	SHIM 35.4/43/0.2	AR	\$2.66
11	927-402	SHIM 35.4/43/0.5	AR	\$2.66
11	927-403	SHIM 35.4/43/1.0	AR	\$3.02
12	847-687		2	\$44.24
13	832-578	BALL BEARING 6207E TN9 35-72-17	1	\$127.13
14	944-320	WASHER 7.2/18.8/3	4	\$3.12
15	941-760	HEX. SCREW M7x16	4	\$1.40
16	926-022	SPACER RING 36/50/5.5	1	\$34.86
17	950-470	OIL SEAL AS 40x55x7 FPM	1	\$67.44
18	937-036	PROPELLER SHAFT	1	\$894.02
18	937-035	PROPELLER SHAFT	1	\$58.74
19,29	610-362	GEAR COVER ASSEMBLY PACKED	1c	CALL
20	827-962	WASHER 6.4	8	\$0.31
21	241-823	ALLEN SCREW M6x45	8	\$0.72
	940-077	HEX./TORX-FLANGE SCREW M8X45	2	\$4.43
22	944-131	WASHER 8 ISO 7092-300 HV	2d	\$1.26
23	841-562	ALLEN SCREW M8x45	2d	\$4.43
24	926-151	COVER	1	\$26.10
25	945-832	LOCK WASHER A8	2	\$0.23
26	940-592	ALLEN SCREW M8x20	2	CALL
27	232-241	ROLLER BEARING 205 E C3 25-52-15	1	\$102.00
28	945-820	RETAINING RING 52x2	1	\$4.54
29	950-200	OIL SEAL AS 30x52x7 FPM	1	\$100.47
30	810-301	OIL INLET FLANGE	1	\$189.14
31	430-175	O-RING 46x3	1	\$14.36
32	456-520	OIL SPRAY NOZZLE ASSEMBLY	1	CALL



a break away torque 700-900 Nm (516-663 ft lb.)



b break away torque 600-800 Nm (442-590 ft lb.) c Gearbox with oil spray nozzle, starting with gearbox S/N 74000

d replaced by 940-077 (pos. 22,23)



# CAMSHAFT, VALVE TRAIN, CYLINDERHEAD, VALVE COVER

CIL	-IIADE	HILAD, VALVE CO	'V LN	
Item No.	Part No	Description	Qty. Req.	Price
1	881-832	HYDRAULIC VALVE TAPPET	8	\$422.10
2	850-930	O-RING 16x5	8	\$8.79
3	924-440	OIL RETURN TUBE	8	\$39.54
4	840-171	STUD M8x200	8	\$9.73
5	840-141	STUD M8x186	8	\$9.73
6	842-471	COLLAR CAP NUT M8	8c	\$21.34
6	842-476	COLLAR CAP NUT M8	8a	\$21.34
7	942-302	COLLAR NUT M8	8a	\$3.70
7	842-610	HEX. NUT M8	8c	\$4.37
8	623-775	CYLINDERHEAD 2/3 ASSEMBLY	2	\$1,557.32
9	623-785	CYLINDERHEAD 1/4 ASSEMBLY	2	\$1,598.23
10	854-101	INTAKE VALVE 38 MM	4	\$187.82
11	854-111	EXHAUST VALVE 32 MM	4	\$304.00
12	926-210	SHIM 16/27.9/1	8	\$3.73
13	230-810	VALVE STEM SEAL	4	\$10.04
14	838-156	VALVE SPRING	8	\$28.42
15	854-186	VALVE SPRING RETAINER	8	\$24.57
16	253-092	VALVE COTTER	16	\$3.74
17	854-861	VALVE PUSH-ROD ASSEMBLY	8	\$171.80
18	854-383	ROCKER ARM LEFT	4	\$301.40
19	854-393	ROCKER ARM RIGHT	4	\$301.40
20	933-396	BUSHING	8	\$52.06
21	854-193	ROCKER ARM SHAFT	4	\$40.77
22	854-225	VALVE GUIDE	4	CALL
23	253-114	INLET VALVE GUIDE	4	\$27.25
24	245-440	RETAINING RING A12	8	\$0.57
25	250-015	SEALING RING A12x18	3	\$0.35
26	841-923	PLUG SCREW M12x1.5	3	\$7.81
27	250-285	O-RING 105x2.5	4	\$29.31
28	430-205	O-RING 6.4x1.8	4	\$4.99
29	612-260	VALVE COVER	4	\$196.63
30	927-941	WASHER 6.0/12/1	4	\$0.69
31	840-887	ALLEN SCREW M6x30	4	\$0.69
32	866-270	KNOCK SENSOR	1	\$259.90
33	940-481	HEX. SCREW M8x30	1	\$1.40
34	866-714	TIE WRAP 142x3.2 MM	2	\$0.35
35	431-570	O-RING 10.82x1.78	8b	\$0.66
		/ AB : .		

<sup>-</sup> Items not illustrated / AR: as required

# CRANKSHAFT, PISTON, CYLINDER, **SPRAG CLUTCH**

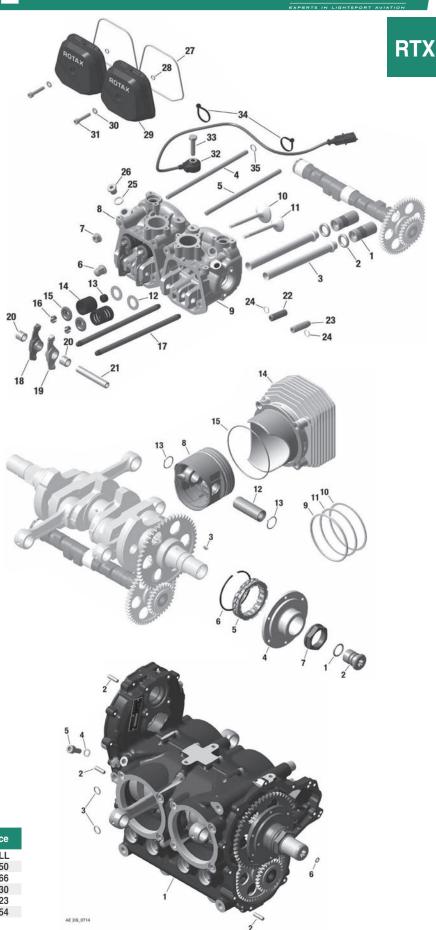
Item No.	Part No	Description	Qty. Req.	Price
1	250-055	O-RING 18x2.5-N FPM 75	1	\$1.78
2	940-520	PLUG SCREW M22x1.5	1	\$27.18
3	246-055	WOODRUFF KEY 3x3.7	1	\$3.73
4	852-407	SPRAG CLUTCH HOUSING	1	\$130.88
5	958-856	SPRAG CLUTCH 51.710x68.377x13	1	\$312.00
6	845-425	CIRCLIP 70	1	\$7.60
7	942-250	HEX. NUT M32x1.5-LH	1	\$24.29
8-10	888-382	PISTON ASSEMBLY 84/84.01 MM	4a	\$356.78
9	815-230	OIL SCRAPER RING	4	\$67.49
10	815-280	TAPERED COMPRESSION RING 84	4	\$47.51
11	815-251	RECTANGULAR RING 84/77x1.5	4	\$82.75
12	916-356	PISTON PIN 20x12x55.3	4	\$81.25
13	845-106	MONOHOOK CIRCLIP 20	8	\$2.63
14	913-226	CYLINDER	4b	\$690.11
15	250-510	O-RING 87x2	4	\$26.49

a red 84 mm, green 84.01 mm b A: 84.000 - 84.012 mm B: 84.012 - 84.024 mm

## **CRANKCASE**

Item No.	Part No	Description	Qty. Req.	Price
1	300091210	ENGINE BLOCK	1	CALL
2	429-230	DOWEL 6x20	2	\$2.50
3	431-570	O-RING DIN 3771-10,82x1,78-N, FPM 70	8	\$0.66
4	950-141	SEALING RING A 8x13	1	\$1.30
5	240-071	ALLEN SCREW M8x20	1	\$1.23
6	831-929	O-RING 5x2	1	\$4.54

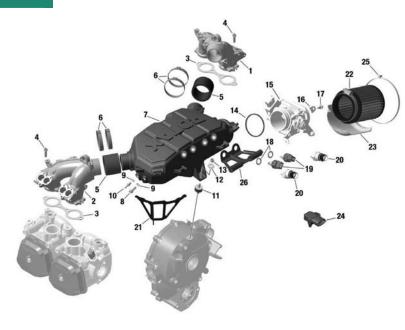
<sup>-</sup> Items not illustrated



a Width A/F 11

b From engine S/N up to engine S/N 9 12 iS: 4417001 up to 4417400 c Width A/F 13





# INTAKE MANIFOLD, AIRBOX, THROTTLE BODY SOCKET 912 IS SPORT

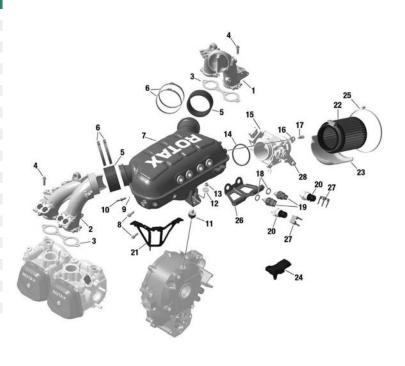
		<u> </u>		
Item No.	Part No	Description	Qty. Req.	Price
1	667-401	INTAKE MANIFOLD 2/4	1	CALL
2	667-406	INTAKE MANIFOLD 2/4	1	CALL
3	850-091	ISOLATING FLANGE	2	\$6.53
4	440-207	HEX./TORX-FLANGE SCREW M6x20-SW8/T30	8	\$0.90
5	460-421	CONNECTING SOCKET	2	CALL
6	953-093	1-EAR-CLAMP 66.3-69.5 MM	4	CALL
7	667-411	AIRBOX	1	CALL
8	440-164	HEX. TORX-FLANGE SCREW M6x16	4	CALL
9	230-415	SEALING RING A 6x10	1d	\$1.40
10	840-672	HOSE NIPPLE M6	1d	CALL
11	860-700	RUBBER 20x10xM6	1	\$23.11
12	827-968	WASHER 6.4	1	\$0.35
13	842-042	LOCK NUT M6	1	\$2.66
14	850-020	RUBBER RING	1	\$3.43
15	685-055	THROTTLE BODY SOCKET ASSEMBLY	1	\$399.00
16	953-020	SEPARATING PLATE	3	\$1.78
17	440-147	HEX./TORX-FLANGE SCREW M6x12-SW8T30	3	\$1.78
18	250-015	SEALING RING A12x18	2	\$0.35
19	222-423	TEMPERATURE SENSOR	2	\$33.15
20	664-362	PRESSURE SENSOR 2.0	2	\$309.41
21	951-562	CONNECTOR BRACKET	1	CALL
22	825-750	AIR FILTER	(1b)	\$68.88
23	975-100	HEATSHIELD	(1)	\$16.66
24	874-654	PRESSURE/TEMPERATURE SENSOR	1c	\$286.10
25	951-500	CLAMP 381x4.8 MM	(1)	\$5.27
26	651-780	CONNECTOR BRACKET	1	CALL
27	638-140	CLAMP	2	CALL
28	440-000	FIXING SCREW ASSEMBLY	1a	CALL

- Items not illustrated
- a Screw, nut and washers
- b Air filter including hose clamp
  c Ambient pressure and temperature
- d 840-671 + 230-415 is replaced by 840-672

# INTAKE MANIFOLD, AIRBOX, THROTTLE BODY SOCKET

BODT SOCKET						
Item No.	Part No	Description	Qty. Req.	Price		
1	667-400	INTAKE MANIFOLD 1/3	1	\$452.60		
2	667-405	INTAKE MANIFOLD 2/4	1	\$452.60		
3	850-091	ISOLATING FLANGE 2b	2b	\$6.53		
4	440-207	HEX./TORX-FLANGE SCREW M6x20-SW8/T30	8	\$0.90		
5	460-420	CONNECTING SOCKET	2	\$6.47		
6	853-028	1-EAR-CLAMP 48.3-51.5 MM	4	\$1.93		
7	667-410	AIRBOX	1	\$1,509.17		
8	440-164	HEX. TORX-FLANGE SCREW M6x16	1	CALL		
9	230-415	SEALING RING A 6x10	2	\$1.40		
10	840-670	HOSE NIPPLE M6	1	\$9.19		
11	860-700	RUBBER 20x10xM6	1	\$23.11		
12	827-968	WASHER 6.4	1	\$0.35		
13	842-044	LOCK NUT M6	1	\$2.66		
14	850-020	RUBBER RING	1	\$3.43		
15	685-055	THROTTLE BODY SOCKET ASSEMBLY	1	\$399.00		
16	953-020	SEPARATING PLATE	3	\$1.78		
17	440-147	HEX./TORX-FLANGE SCREW M6x12-SW8T30	3	\$1.78		
18	250-015	SEALING RING A12x18	2	\$0.35		
19	222-421	TEMPERATURE SENSOR	2	\$33.15		
20	664-364	PRESSURE SENSOR 2.0	2	\$309.41		
21	951-560	CONNECTOR BRACKET	1	\$48.10		
22	825-750	AIR FILTER	(1a)	\$68.88		
23	975-100	HEATSHIELD	(1)	\$16.66		
24	874-654	PRESSURE-/TEMP. SENSOR	1c	\$286.10		
25	951-500	CLAMP 381x4.8 MM	(1)	\$5.27		
26	651-780	CONNECTOR BRACKET	1	CALL		

- Items not illustrated
- a Air filter incl. hose clamp
- b Double flange c Ambient pressure and temperature





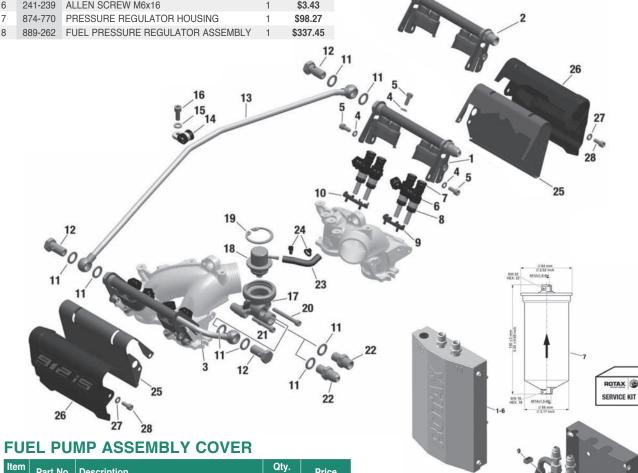
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# FUEL INJECTOR, FUEL RAIL, PRESSURE REGULATOR, FUEL RAIL COVER

		, _ ,		
Item No.	Part No	Description	Qty. Req.	Price
1	874-795	FUELRAIL RIGHT UNF	1a	\$329.83
2	874-799	FUELRAIL RIGHT METRIC	1b	CALL
3	874-797	FUELRAIL LEFT	1	CALL
4	945-830	LOCK WASHER A5	11	CALL
5	640-542	ALLEN SCREW M5x12	11	\$0.35
6-8	874-780	FUEL INJECTOR	8	\$181.29
7	831-060	O-RING 7.52x3.51	8	\$11.19
8	831-050	O-RING 8.54x3.1 VITON B70	8	\$6.50
9	860-042	DAMPER LEFT	2	\$3.43
10	860-040	DAMPER RIGHT	2	\$3.43
11	250-640	SEALING RING A12x18-CU	7	\$1.92
12	641-542	BANJO BOLT	3	CALL
13	874-802	FUEL LINE ASSEMBLY	1	CALL
14	853-412	CABLE CLAMP	1	\$5.69
15	827-962	WASHER 6.4	1	\$0.31
16	241-239	ALLEN SCREW M6x16	1	\$3.43
17	874-770	PRESSURE REGULATOR HOUSING	1	\$98.27
18	889-262	FUEL PRESSURE REGULATOR ASSEMBLY	1	\$337.45

•					
	Item No.	Part No	Description	Qty. Req.	Price
	19	845-650	RETAINING RING 36x1.5	1	\$1.78
	20	941-791	ALLENSCREW M5x45	1	\$1.08
	21	841-502	ALLEN SCREW M5x35		CALL
	22	840-700	ADAPTER 9/16 UNF/M12x1.5	1	\$65.99
	22	856-821	ADAPTER M 14x1.5/M12x1.5 METRIC	1	\$22.51
	23	960-631	TUBE 60 +/-3 MM	1	\$6.90
	24	866-718	TIE WRAP 94x2.5 MM	2	\$0.35
	25	975-090	HEAT SHIELD	2	\$7.92
	26	975-060	COVERING FUELRAIL	2	\$12.57
	27	939-445	SPRING WASHER 12x5.2x0.5	4	CALL
	28	640-542	ALLEN SCREW M5x12	4	\$0.35

- Items not illustrated
- a Thread 9/16 18 UNF b Thread M14x1.5

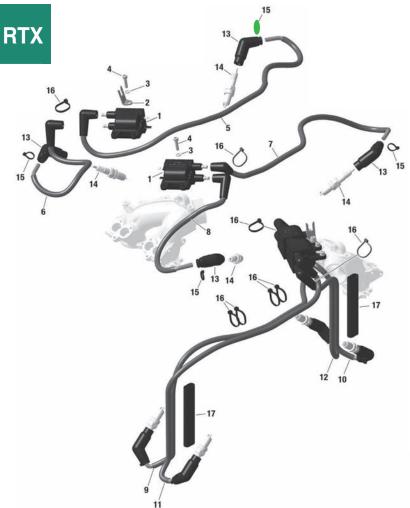


Item No.	Part No	Description	Qty. Req.	Price
1-6	889-697	FUEL PUMP ASSEMBLY UNF	1ad	\$1,316.51
1-6	889-699	FUEL PUMP ASSEMBLY METRIC	1bd	\$1,563.00
1	640-542	ALLEN SCREW M5X12	4	\$0.35
2	911-790	COVER	1	\$65.67
3	975-055	HEAT PROTECTION MAT	1	\$13.18
4	201-160	RUBBER GROMMET	2	\$3.43
5	911-700	HOUSING	1	\$69.49
6	242-213	HEX. NUT M6	8	\$1.58
7	874-060	FUEL FILTER	1c	\$53.42
8	889-537	SERVICE KIT	1	CALL
9	850-620	CONNECTOR GASKET	2	CALL

- Items not illustrated
- Thread 9/16 18 UNF
- Thread M14x1.5
- c Fine filter (see Installation M d with gaskets for connectors Fine filter (see Installation Manual)







# IGNITION COILS, IGNITION CABLE, SPARK PLUG CONNECTOR, SPARK PLUG - STANDARD

Item No.	Part No	Description	Qty. Req.	Price
2	951-490	CONNECTOR BRACKET	2	\$3.71
3	945-830	LOCK WASHER A5	8	\$0.21
4	441-341	ALLEN SCREW M5x20	8	\$0.48
13	265-249	SPARK PLUG CONNECTOR	8	\$41.50
14	297-656	SPARK PLUG 12	8	\$21.95
15	866-718	TIE WRAP 94x2.5 MM	8	\$0.35
16	866-714	TIE WRAP 142x3.2 MM	4	\$0.35
17	860-734	GLASS FIBER-SILICON SHEETING 120	2	\$8.35

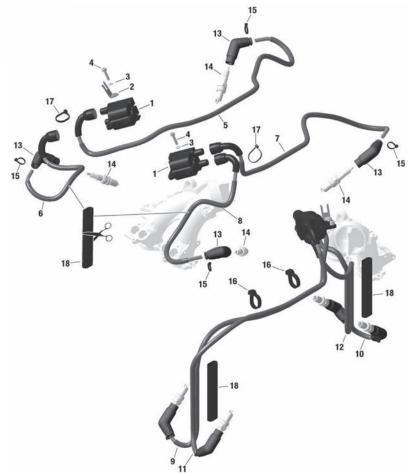
- Items not illustrated

# IGNITION COILS, IGNITION CABLE, SPARK PLUG CONNECTOR, SPARK PLUG - iS SPORT

Item No.	Part No	Description	Qty. Req.	Price
1	665-613	DOUBLE IGNITION COIL	4b	\$339.00
2	951-490	CONNECTOR BRACKET	2	\$3.71
3	945-830	LOCK WASHER A5	8	CALL
4	441-341	ALLEN SCREW M5x20	8	\$0.48
5-12	665-558	IGNITION CABLE SET	1a	\$230.08
13	265-249	SPARK PLUG CONNECTOR	8	\$41.50
14	297-656	SPARK PLUG 12 NGK DCPR8E	8	\$21.95
15	866-718	TIE WRAP 94x2.5 MM	8	\$0.35
16	866-716	TIE WRAP 203x7.6 MM	2	\$0.66
17	866-714	TIE WRAP 142x3.2 MM	4	\$0.35
18	860-734	GLASS FIBER-SILICON SHEETING 120	3	\$8.35

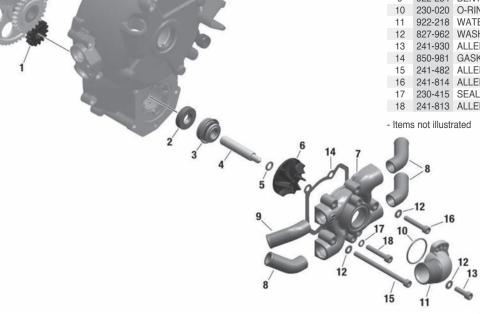
- Items not illustrated

- a Set for double ignition coil with high tension connector wood screw included:
  8 ignition cable assy., 8 protective cap and 8 glass fiber-silicon sheating.
  b Double ignition coil with high tension connector wood screw use with part no.
- c Double ignition coil and cable with plug connection



#### **FUEL PUMP ASSEMBLY COVER**

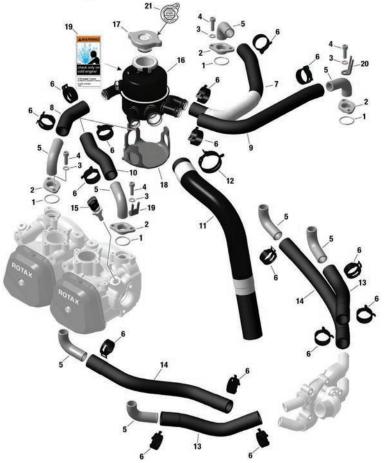
	Item No.	Part No	Description	Qty. Req.	Price
	1	834-135	WATER PUMP GEAR 15 T	1	\$96.42
	2	850-977	OIL SEAL A 12x30x7 FPM	1	\$35.71
	3	850-946	ROTARY SEAL	1	\$93.32
	4	837-111	PUMP SHAFT	1	\$86.58
	5	926-274	WASHER 8.2/12.5/1.5	1	\$12.03
	6	922-224	IMPELLER	1	\$91.45
	7	922-202	WATER PUMP HOUSING	1	\$399.90
	8	922-233	BENT SOCKET 45°	3	\$17.84
	9	922-234	BENT SOCKET 20°	1	\$11.50
	10	230-020	O-RING 32x2	1	\$9.93
	11	922-218	WATER INLET ELBOW	1	\$350.57
	12	827-962	WASHER 6.4	6	\$0.31
	13	241-930	ALLEN SCREW M6x20	2	\$0.57
	14	850-981	GASKET	1	\$12.27
	15	241-482	ALLEN SCREW M6x90	2	\$2.64
	16	241-814	ALLEN SCREW M6x35	2	\$0.63
	17	230-415	SEALING RING A 6x10	1	\$1.40
	18	241-813	ALLEN SCREW M6x35 STAINLESS	1	\$1.45



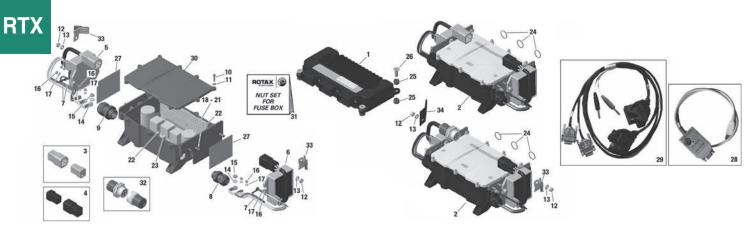
# **EXPANSION TANK WITH HOSES AND CONNECTIONS**

Item No.	Part No	Description	Qty. Req.	Price
1	950-180	O-RING 19-2	4	\$13.46
2	922-303	FLANGE	4	\$56.43
3	827-962	WASHER 6.4	8	\$0.31
4	241-231	ALLEN SCREW M6x20	8	\$1.40
5	922-230	BENT SOCKET 80°	8	\$17.84
6	851-645	SELF COMPENSATING CLAMP 25	16	\$7.14
7	822-420	FORM HOSE 1	1	\$23.39
8	822-430	FORM HOSE 2	1	\$5.23
9	822-440	FORM HOSE 3	1	\$22.65
10	822-445	FORM HOSE 4	1	\$11.19
11	822-450	FORM HOSE	1	\$69.95
12	951-350	SELF COMPENSATING CLAMP 35	1	\$4.83
13	922-360	WATER TUBE 180 +/-3 MM	2	\$41.40
14	922-362	WATER TUBE 280 +/-3 MM	2	\$61.02
15	965-537	TEMPERATURE SENSOR	1	\$182.07
16-19	922-668	EXPANSION TANK ASSEMBLY	1	CALL
17	922-072	RADIATOR CAP WITH GASKET 1.2 bar / 17.4 psi	1	\$82.46
18	860-827	RUBBER PLATE	1	\$15.58
19	897-506	WARNING LABEL	2	\$5.69
20	951-490	CONNECTOR BRACKET	2	\$3.71
21	898-490	WARNING LABEL EVENS COOLANT	1	\$0.31

<sup>-</sup> Items not illustrated







#### **ENGINE CONTROL UNIT, FUSE BOX REGULATOR**

Item No.	Part No	Description	Qty. Req.	Sport	Price
1	881-251	ENGINE CONTROL UNIT ASSEMBLY PACKAGED	1b		\$4,700.08
1	881-252	ENGINE CONTROL UNIT ASSEMBLY PACKAGED		1c	\$7,192.00
2	881-321	FUSE BOX PACKAGED	1e	1e	\$2,936.13
2	881-325	FUSE BOX PACKAGED (PAC part, available as accessory)	1i	1i	CALL
3	866-422	CONNECTOR SET GREY	1d	1d	\$105.26
4	866-420	CONNECTOR SET BLACK	1d	1d	\$120.29
5	864-395	REGULATOR B	1g	1g	CALL
6	864-392	REGULATOR A	1h	1h	\$353.00
7	866-440	MASS CABLE ASSEMBLY	3	3	\$11.64
8	201-370	SKINTOP CLICK 20	1	1	\$13.51
9	201-375	SKINTOP CLICK 25	1	1	\$13.51
10	840-763	ALLEN SCREW M4x16	9	9	\$44.30
11	827-230	PLASTIC WASHER M4	9	9	\$91.12
12	842-044	LOCK NUT M6	4	4	\$2.66
13	244-214	WASHER 6.4	4	4	\$1.00
14	927-573	WASHER 5.3	2	2	\$0.35
15	842-033	LOCK NUT M5	2	2	\$0.35
16	242-539	LOCK NUT M4	6	6	CALL
17	244-078	WASHER 4.3	6	6	\$7.35
18	866-450	MINI FUSE 2A	2	2	\$3.43
19	866-452	MINI FUSE 5A	10	10	\$3.43
20	866-454	MINI FUSE 7.5A	2	2	\$3.43
21	866-456	MINI FUSE 10A	5	5	\$3.43
22	866-490	ATO-FUSE 20A	1	1	\$3.43
23	866-492	ATO-FUSE 35A	1	1	\$3.43

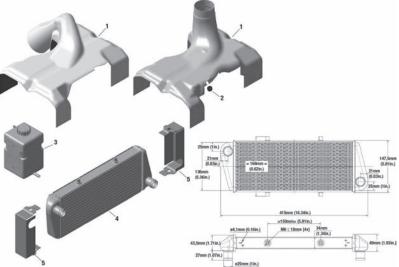
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Item No.	Part No	Description	Qty. Req.	Sport	Price			
24	931-110	SEALING RING		3	\$13.44			
25	201-460	RUBBER SLEEVE	8	8	CALL			
26	947-540	SPACER	4	4	CALL			
27	282-870	HEAT TRANSFER PAD	2	2	\$22.84			
28	864-021	B.U.D.S SET LEVEL 1 Aircraft Viewer for pilots/user	1	1	\$1,350.70			
28	864-022	B.U.D.S SET LEVEL 2 Aircraft Service for maintenance personnel	1	1	\$1,240.00			
28	864-023	B.U.D.S SET LEVEL 3 Aircraft Maintenance for distributors/OEM	1	1	\$1,350.70			
29	864-280	SERVICE WIRING HARNESS ASSEMBLY	1	1	\$106.66			
30	201-690	COVER	1	1	\$150.74			
31	881-555	NUT SET FOR FUSE BOX	1f	1f	CALL			
32	481-510	CONNECTOR SET GEN. B (PAC part, available as accessory)	1	1	CALL			
33	951-983	CONNECTOR BRACKET	1	1	CALL			
34	951-981	CONNECTOR BRACKET	1i	1i	CALL			
- Items not illustrated								

- a Engine control unit with software SW 25. See SB-912 i-002iS. Only for model 912 iS. b Engine control unit with software SW 29.
- See SB-912 i-002iS. Only for model 912 iS.
- Connector set consisting of all parts for regulator and stator side

  With M6 thread at regulator B

  Consist of \$2,24590 (see but M4) 6x 244079 (weeker 4.2) 3x

- Consists of: 6x 242539 (lock nut M4), 6x 244078 (washer 4.3), 3x 244214 (washer 6.4), 3x 842044 (lock nut M6)
- Connector gray
- h Connector black
- with Amphenol connector



# COOLING AIR BAFFLE, OVERFLOW BOTTLE WITH CAP, RADIATOR

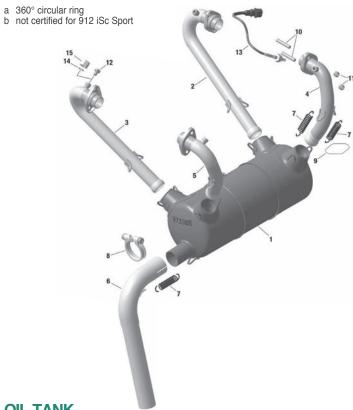
Item No.	Part No	Description	Qty. Req.	Price
1	975-793	COOLING AIR BAFFLE TRACTOR WHITE	(1a)	CALL
1	975-794	COOLING AIR BAFFLE TRACTOR BLACK	(1)	CALL
1-2	975-792	COOLING AIR BAFFLE PUSHER WHITE	(1)	CALL
1-2	975-798	COOLING AIR BAFFLE PUSHER BLACK	(1)	CALL
2	201-160	RUBBER GROMMET	(1)	\$3.43
3	922-327	OVERFLOW BOTTLE WITH CAP	1	\$53.40
4	997-084	RADIATOR	1	\$487.00
5	881-530	RADIATOR RETROFIT KIT	1	CALL

- Items not illustrated
- a not applicable with vacuum pump

# EXHAUST SYSTEM, EXHAUST TEMPERATURE SENSOR

Item No.	Part No	Description	Qty. Req.	
1-7	973-676	EXHAUST SYSTEM	(1)	\$970.31
1	973-674	MUFFLER ASSEMBLY	(1)	\$919.72
2	978-605	EXHAUST ELBOW, STAINLESS	(1)	\$86.75
3	978-521	BALL JOINT, MALE STAINLESS	(4)	\$25.82
4	978-998	EXHAUST TUBE 800 MM, STAINLESS	(4)	\$87.51
5	978-500	EXHAUST ELBOW ASSEMBLY 360° STAINLESS	(2a)	CALL
6	853-356	HOOK	(16)	\$2.13
7	938-796	SPRING 66 MM	(8)	CALL
8	951-360	SENSOR HOLDER	(4)	\$18.88
9	978-246	EXHAUST FLANGE	(4)	\$32.61
10	978-252	EXHAUST SOCKET	(4)	\$31.70





TΔNK

Item No.	Part No	Description	Qty. Req.	Price
1-12	656-860	OIL TANK ASSEMBLY UNF	1a	\$827.13
1-12	656-865	OIL TANK ASSEMBLY METRIC	1b	\$811.91
1	956-426	OIL TANK ASSEMBLY WITH BAFFLE INSERT	1	CALL
2	250-010	GASKET RING C 12x18	1	\$1.71
3	241-408	HEX. SCREW M12x12	1	\$43.71
5	956-204	BAFFLE INSERT	1	\$67.19
6	850-491	O-RING 145x6-N, HNBR 70	1	\$31.55
8	951-817	PROFILE CLAMP 163	1	\$72.58
9	230-150	SEALING RING A 10x14	1	\$1.09
10	641-733	PLUG SCREW M10x1	1	\$10.70
11	956-151	OIL DIPSTICK	1	\$18.68
12	974-647	OIL TANK COVER, WITHOUT VENTING	1	\$32.15
13	297-555	SAFETY WIRE 0.8	1	CALL
14	956-610	HOSE NIPPLE WITH UNION NUT	ARb	\$20.91
15	956-580	BENT SOCKET	ARb	CALL
16	853-725	CLAMP SP 17/9	4	CALL
17	956-394	OIL TUBE OLNS 1 12x19	AR	CALL

- Items not illustrated / AR: as required / NLA: not available
- a UNF thread size 3/4" 16 UNF
- b metric thread M18 x 1.5 mm



Item No.	Part No	Description	Qty. Req.	Price
1-8,12	973-380	EXHAUST ASSORTMENT STAINLESS	(1)	\$1,450.00
1	973-388	MUFFLER ASSEMBLY	(1)	\$1,011.00
2	973-010	EXHAUST PIPE ASSEMBLY CYLINDER 1	(1)	CALL
3	973-020	EXHAUST PIPE ASSEMBLY CYLINDER 2	(1)	\$653.98
4	973-030	EXHAUST PIPE ASSEMBLY CYLINDER 3	(1)	\$581.42
5	973-040	EXHAUST PIPE ASSEMBLY CYLINDER 4	(1)	\$653.98
6	973-390	EXHAUST BELOW, STAINLESS	(1)	\$249.95
7	938-796	SPRING 66 MM	(9)	CALL
8	951-550	EXHAUST PIPE CLAMP ASSEMBLY	(1)	\$22.30
9	297-555	SAFETY WIRE 0.8	AR	CALL
10	940-368	STUD M8x23/20	(8)	\$6.50
11	842-950	LOCK NUT M8-WS12	(8)	\$2.66
12	841-115	HEX. SCREW M8X1X10	(4)	CALL
13	866-261	TEMPERATURE SENSOR	(4)	\$193.00
14	230-150	SEALING RING A 10x14	(4)	\$1.09
15	942-273	CAP NUT M14x1.5	(4)	\$18.52





# **RTX** ROTAX.

#### **WIRING HARNESS**

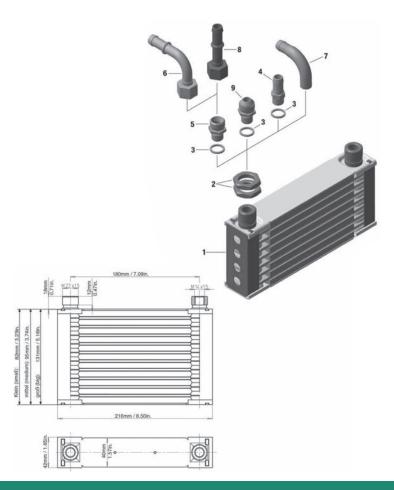
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Item No.	Part No	Description	Qty. Req.	Price
1-24	665-571	WIRING HARNESS STANDARD	1	\$1,545.55
1-24	665-580	WIRING HARNESS STANDARD	1	CALL
1-24	665-584	WIRING HARNESS SPECIAL	1	CALL
1-24	665-582	WIRING HARNESS SHORT	1	CALL
4-5	881-312	CONNECTOR SET FUSE BOX	1	\$181.01
6	881-306	CONNECTOR SET AAPTS	1	\$49.85
7	964-059	CABLE SHOE M6	1	\$1.23
8	864-011	FASTON CONNECTOR 6.3X0.8	1	\$1.23
9	881-298	CONNECTOR SET CPS	2	\$47.99
10	881-302	CONNECTOR SET OPS AND MAPS	1	\$40.65
11	881-296	CONNECTOR SET CTS A OTS A KNOCK	1	\$39.84
14	881-292	CONNECTOR SET MATS	2	\$35.37
15	881-290	CONNECTOR SET EGT	4	\$40.88
17	881-308	CONNECTOR SET TPS	1	\$33.60
18	881-300	CONNECTOR SET INJ	8	\$35.37
19	881-304	CONNECTOR SET FUEL PUMP	2	\$135.49
20-21	881-310	CONNECTOR SET IGNITION COIL	4	\$25.34
23-24	881-294	CONNECTOR SET HIC A AND HIC B	1	\$191.16
25	251-692	CABLE CLAMP 12/M6	2	\$3.43
26	827-962	WASHER 6.4 DIN 125	2	\$0.31
27	840-392	ALLEN SCREW M6X14	2	\$1.10
28	866-716	TIE WRAP 203x7.6 MM	6	\$0.66
29	866-714	TIE WRAP 142x3.2 MM	6	\$0.35
30	881-240	PARTS KIT 912 iS	1	\$194.12

<sup>-</sup> Items not illustrated

#### **OIL RADIATOR**

Item No.	Part No	Description	Qty. Req.	Price
1-4	886-032	OIL RADIATOR SET	(1a)	\$302.09
1-4	886-033	OIL RADIATOR SET	(1b)	\$264.01
1-4	886-034	OIL RADIATOR SET	(1c)	CALL
1-3,9	886-036	OIL RADIATOR SET UNF	(1cd)	\$299.00
1	886-000	OIL RADIATOR	(1a)	\$290.64
1	886-002	OIL RADIATOR	(1b)	\$309.80
1	886-004	OIL RADIATOR	(1c)	\$328.89
2	242-873	HEX NUT M22x1.5	(4)	\$16.16
2,3,9	956-645	SCREW CONNECTION SET UNF	(1)	\$115.70
3,5,8	956-615	SCREW CONNECTION SET STRAIGHT	(1)	\$115.70
3,5,6	956-585	SCREW CONNECTION SET BENT	(1)	\$101.43
3	230-387	GASKET RING 14.2/18/2	(2)	\$1.51
4	840-461	NIPPLE 13.2/9.5-M14x1.5	(2)	\$18.98
5	956-577	ADAPTER M18x1.5/M14x1.5	(2)	\$54.70
6	956-580	BENT SOCKET ASSEMBLY	(2)	\$30.80
7	924-585	ANGULAR TUBE M14x1.5	(2)	\$74.50
8	956-610	HOSE NIPPLE WITH UNION NUT	(2)	\$20.91
9	956-643	ADAPTER 3/4-16 UNF/M14x1.5	(2)	\$68.93

- Items not illustrated / AR: as required / NLA: not available
- a Small. Cooling area 125 cm2/19.38 sq inb Middle. Cooling area 142 cm2/22 sq in
- c Big. Cooling area 234 cm2/36.27 sq in d Connection UNF

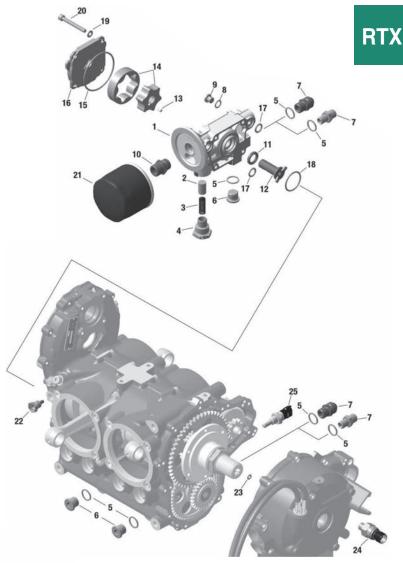




# OIL PUMP ASSEMBLY, OIL FILTER, OIL TEMPERATURE SENSOR, OIL PRESSURE SENSOR

PHESSURE SENSOR							
Item No.	Part No	Description	Qty. Req.	Price			
1	811-460	OIL PUMP HOUSING	1	\$666.60			
2	856-330	REGULATING PISTON	1	\$18.42			
3	838-125	COMPRESSION SPRING L65.6	1	\$3.43			
4	640-850	PLUG SCREW M 22x1.5	1	\$38.22			
5	430-622	SEALING RING A16x22	5	\$2.50			
6	240-234	PLUG SCREW M16x1.5	3	\$10.79			
7	956-655	ADAPTER M18x1.5 / M16x1.5	2	\$59.72			
7	956-651	ADAPTER 3/4-16 UNF / M16x1.5	2	\$90.35			
8	230-150	SEALING RING A 10x14	1	\$1.09			
9	641-733	PLUG SCREW M10x1	1	\$10.70			
10	924-424	OIL FILTER NIPPLE	1	\$51.79			
11	430-102	OIL SEAL A 14x22x4 FPM	1	\$10.36			
12	837-292	OIL PUMP SHAFT	1	\$66.11			
13	246-580	KEY A 4x4x8	1	\$1.78			
14	888-821	PRESSURE INNER AND OUTER ROTOR	1	\$78.82			
15	830-372	O-RING 63-2.5	1	\$3.50			
16	911-713	OIL PUMP COVER	1	\$80.15			
17	250-460	O-RING 11-2.7	2	\$5.93			
18	950-410	O-RING 30-2.5	1	\$12.98			
19	827-962	WASHER 6.4	4	\$0.31			
20	241-762	ALLEN SCREW M6x50	4	\$0.94			
21	825-016	OIL FILTER	1	\$19.95			
22	241-785	MAGNETIC DRAIN PLUG M12x1.5	1	\$58.73			
24	664-365	PRESSURE SENSOR 10	1	\$301.82			
25	965-537	TEMPERATURE SENSOR	1	\$182.07			

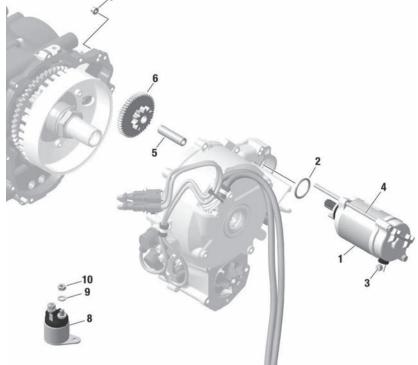
<sup>-</sup> Items not illustrated



#### **ELECTRIC STARTER, STARTER RELAY**

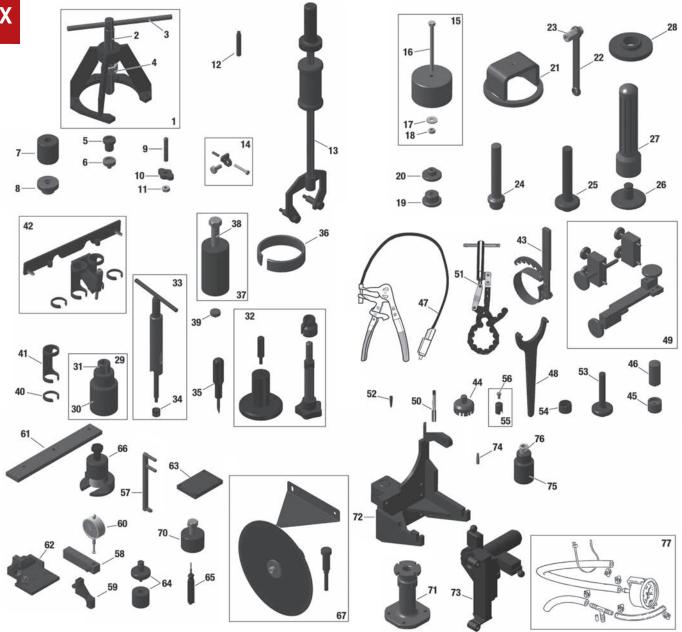
Item No.	Part No	Description	Qty. Req.	Price
1-4	685-667	ELECTRIC STARTER ASSEMBLY	1	\$699.00
2	250-140	O-RING 24.4x3.1	1	\$7.14
3	240-457	TERMINAL SCREW M5x8	1	CALL
4	241-132	SET BOLT M5x143	2	CALL
5	837-102	IDLE GEAR SHAFT	1	\$27.60
6	834-156	IDLE GEAR 50/11 T	2	\$190.43
7	942-311	HEX. NUT M5	2	\$20.67
8	992-818	STARTER RELAY ASSEMBLY	1	\$199.75
9	945-831	LOCK WASHER A6	2	\$0.23
10	242-214	HEX. NUT M6	2	CALL

- Items not illustrated









RE	PAIR TOOLS (NON CERTII	FIED	0)		
Item No.	Application	Item No.	Application	Item No.	Application
1-4	Roller bearing 25x25x15, oil seal 30x52x7	32	Fitting of piston pin circlips	55	For check of float chamber
5	Prop shaft version 2	33-34	Fitting and removal of piston pin	56	For float level gauge
6	Prop shaft version 3	35	Mono hook clips puller	57	Checking of hydraulic valve tappet and valve spring force
7	Roller bearing 25x52x15, oil seal 30x52x7, version 2	36	Piston diameter 84 mm/33 in.	58	Checking plain bearing protrusion
8	Roller bearing 25x52x15, oil inlet flange version 3	36	Piston diameter 79.5 mm/3.13 in.	59-60	
9	Roller bearing 25x52x15, oil seal 30x52x7	37-38	Puller Magneto hub	61	Checking plain bearing position
10-11	Roller bearing 25x52x15, oil seal 30x52x7, oil inlet cover	39	Crankshaft magneto side	62	Dial gauge adapter for valve seat inspect
12	Crankshaft locking screw M8x50	40	Adapter ring assy. for valve spring mounting device	63	For aligning cylinders
13-14		40-42		64	Oil seal 6x11x3/ 4.5 of rev counter housing
15-18		43	Oil filter removal	65	To release the cable on electr. connectors
19	Needle bearing 22x28x12-vacuum pump	44	Waterpump impeller	66	For press in of worm gear, mech. rev counter
20	Ball bearing 15x32x8-vacuum pump	45	Rotary seal crankcase	67	See MM Line chapt. 05-50-00
21	To compress dog gear	46	Oil Seal 12x30x7 water pump shaft	70	Slim edition for magneto hub
22	Ring wrench 10/13	47	Spring type hose clip 28	71	Engine support
23	Fixture for vacuum pump drive	48	Overload clutch	72	For engine fixation (912 with engine suspension frame on the gearbox/914)
24	Ball bearing 15x32x8, needle sleeve vacuum pump	49	Crankcase	73	For engine fixation (912/914) without engine suspension frame
25	Oil seal 22x32x7 vacuum pump	50	Thread bent socket	74	For magnetic drain plug (old version)
26	Oil seal 40x55x7 gear box cover	51	Oil filter	75	Hex. nut (WS 46), crankshaft magneto side
27	Stamp	52	For O-ring 3.2x1.8 idle mixture screw and idle jet 35	76	1" to 3/4", for socket wrench
28	Ball bearing 35-72-17, prop. shaft handle with part no. 876518	53	Oil Seal 32x52x7 crankshaft magneto side (ms)	77	Measuring fuel pressure
29-31	Hex nut A/F 41	54	Oil Seal 32x52x7 crankshaft ms		

# CALIFORNIA POWER SYSTEMS

#### REPAIR TOOLS (NON CERTIFIED) CONT'D

	7	OOLO (NON OLINII ILD) OO		
Item No.	Part No	Description	Qty. Req.	Price
1-4	877-615	EXTRACTOR ASSEMBLY	1	\$787.40
2	877-580	PULL -IN SPINDLE M24x1.5	1	\$126.12
3	276-155	BOLT 12X250	1	\$23.77
4	842-585	HEX. SCREW M24X1.5 - 19MM	1	\$87.23
5	877-605	PRESS-OUT MUSHROOM	1	\$63.71
6	877-600	PRESS-OUT MUSHROOM	1	\$66.39
7	877-594	PRESS-IN JIG	1	\$136.67
8	877-590	PRESS-IN MUSHROOM	1	\$66.39
9	941-180	STUD M10X45/20	1	\$5.69
10	877-561	PULL-OUT PLATE	1	\$150.12
11	242-092	HEX. NUT M10	1	\$1.38
12	240-880	THREAD BOLT M8X50	1	\$6.69
13	877-660	PULLER ASSEMBLY	1	\$522.70
14	877-540	PUSHING JIG ASSEMBLY	1	\$209.17
15-18	876-489	PULLER ASSEMBLY	1	\$126.12
16	941-730	HEX. SCREW M6X80	1	\$2.45
17	827-305	WASHER 6.2/18/2	1	\$5.61
18	242-211	HEX. NUT M6	1	\$0.41
19	877-597	PRESS-IN MUSHROOM	1	\$63.71
20	877-595	PRESS-IN MUSHROOM	1	\$63.71
21	876-885	MOUNTING YOKE	1	\$207.88
22	876-470	RING SPANNER 10/13	1	\$14.77
23	242-661	DISTANCE NUT M8X33	1	\$54.77
24	276-332	INSERTION JIG ASSEMBLY	1	\$87.44
25	877-276	INSERTION JIG ASSEMBLY	1	\$94.16
26	876-518	INSERTION JIG	1	\$144.15
27	877-650	HANDLE FOR INSERTION JIG	1	\$132.11
28	877-320	PRESS-IN RING	1	\$76.66
29	877-445	SOCKET WRENCH ASSEMBLY 41X12.5	1	\$355.59
30	877-440	SOCKET WRENCH A/F 41X20	1	\$23.99
31	877-460	REDUCING SOCKET 3/4"-1/2"	1	\$87.44
32	877-802	CIRCLIP INSTALLATION TOOL	1	\$614.92
33-34	877-091	PISTON PIN EXTRACTOR ASSEMBLY	1	\$435.58
34	877-155	EXTRACTING NUT ASSEMBLY	1	\$76.95
35	976-380	MONOHOOK CIRCLIP REMOVER	1	\$192.52
36	876-967	PISTON RING SPANNER 84 MM	1	\$141.11
36	876-978	PISTON RING SPANNER 79.5 MM	1	\$135.98
37-38		PULLER ASSEMBLY	1	\$144.15
38	940-755	HEX. SCREW M16X1.5X150	1	\$37.91
39	877-417	PROTECTION MUSHROOM	1	\$38.21
40	877-790	ADAPTER RING ASSEMBLY	1	\$73.98

# RTX

Item No.	Part No	Description	Qty. Req.	Price
41	877-380	VALVE SPRING MOUNTING DEVICE	1	\$146.51
42	877-387	VALVE SPRING LOADING JIG	1	\$531.62
43	877-620	OIL FILTER WRENCH 80-110	1	\$138.14
44	877-295	IMPELLER WRENCH ASSEMBLY	1	\$191.53
45	877-258	INSERTION JIG	1	\$73.98
46	876-510	INSERTION JIG	1	\$53.08
47	877-840	SPRING CLAMP PLIERS	1	\$506.11
48	877-390	NUT SPANNER A90	1	\$94.16
49	877-766	CRANKCASE SPLITTING TOOL ASSEMBLY	1a	CALL
50	877-570	TAPPING DRILL M18X1	1	\$156.09
51	877-670	CUTTING TOOL	1	\$625.19
52	877-110	GUIDE SLEEVE	1	\$79.57
53	877-270	INSERTION JIG ASSEMBLY	1	\$87.44
54	877-360	GUIDE SLEEVE	1	\$36.78
55-56	877-730	FLOAT LEVEL GAUGE ASSEMBLY	1	\$80.76
56	240-381	HEX. SCREW M6x12	1	\$0.57
57	877-690	CHECK LEVER	1	\$132.11
59	877-710	DIAL GAUGE ADAPTER ASSY	1	\$224.31
60	876-950	PRECISION DIAL GAUGE	1	\$262.58
61	877-300	ALIGNING PLATE	1	\$84.98
62	976-140	DIAL GAUGE ADAPTER ASSEMBLY	1	\$720.67
63	877-263	CYLINDER ALIGNING TOOL	1	\$108.12
64	877-680	INSERTION JIG WITH SLEEVE	1	\$108.12
65	877-500	PIN RELEASE TOOL	1	\$164.04
66	877-190	PRESS-IN TOOL	1	\$174.56
67	877-520	PROTRACTOR CRANKSHAFT DISTORTION INSP.	1	\$217.43
70	877-377	PULLER ASSEMBLY	1	\$127.25
71	877-930	TRESTLE SUPPORT	1	\$720.30
72	877-245	TRESTLE ADAPTER ASSEMBLY	1	\$3,101.05
73	877-240	TRESTLE ADAPTER ASSEMBLY	1	\$2,332.72
74	877-890	TORX-BIT T40	1	\$33.28
75	877-450	SOCKET WRENCH 46x20	1	\$339.12
76	877-465	REDUCING SOCKET 1"-3/4"	1	\$162.12
77	874-234	FUEL PRESSURE GAUGE	1	\$233.55

- Items not illustrated
- a for all 912 and 914 Series

#### **LUBRICANTS (NON CERTIFIED)**

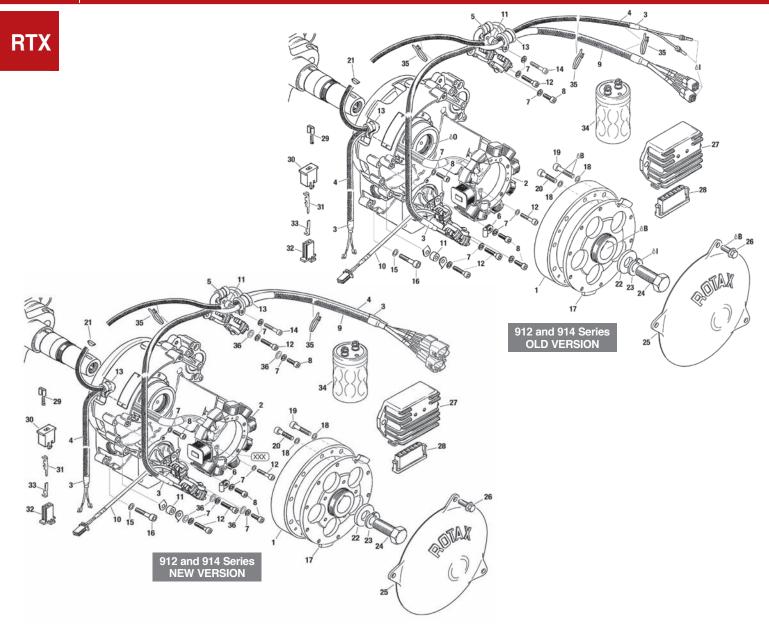
LU	BRICANTS (NON CERTIFIED)
Item No.	Application
В	Medium strength bond 10 cc.
С	High strength bond 5 cc.
Ε	To prevent metal galling 50 cc.
F	Purpose cleaner and degreaser for residue-free surface preparation prior to adhesive application.
Н	Filter oil spray can
Q	Ideal for sealing wire entries and connectors, for vibration damping of exhaust springs
	To prevent leakage current; 250 gr.
L	Synthetic long-term grease with excellent low temperature behavior
M	Solid lubricant paste for the assembly and running-in of metal components
Р	Regular body/high adhesion flexible flange sealant
V	Special lacquer which is applied to a screw to prevent an independent loosening of the screw
Z	High strength bond 10 cc.
AG	For better heat transfer from the spark plugs

Item No.	Part No	Description	Qty. Req.	Price
В	897-651	LOCTITE 243 BLUE, 10cc.	AR	\$18.50
С	899-788	LOCTITE 648 GREEN, 5 cc.	AR	\$21.50
Ε	297-434	LOCTITE ANTI SEIZE 8151 50 cc.	AR	\$31.17
Н	897-870	FILTER OIL 14.8 cc.	AR	\$25.86
	897-330	LITHIUM-BASE GREASE, 250 GR.,	AR	\$63.89
L	898-351	KLUEBER ISOFLEX TOPAS NB5051 0.5KG	AR	\$332.01
M	297-433	MOLYKOTE G-N 100GR.	AR	\$97.56
Р	899-791	LOCTITE 5910, 50 cc.	AR	\$54.95
Q	297-386	SILASTIC 732 RTV, 100GR.	AR	\$53.19
V	898-570	LOCKING PAINT RED	AR	\$56.18
Z	899-789	LOCTITE 603 GREEN, 10 cc.	AR	\$36.67
AG	897-186	SILICONE HEAT COMPOUND WACKER P12, 150GR.	AR	\$164.50









#### MAGNETO-GENERATOR, PICK UP, RECTIFIER REGULATOR

		<u> </u>				
Item	Part No	Description		Qty. Req.		Price
No.			912 UL	912 ULS	914 UL	
2-6	891-095	STATOR ASSEMBLY	1b	1b	1b	\$1,160.36
3	860-530	SHRINK HOSE	AR	AR	AR	\$52.19
5	851-111	CABLE CLAMP 8/M5	1	1	1	\$12.46
6	851-566	CABLE CLAMP 7/M5	1	1	1	\$6.26
7	945-830	LOCK WASHER A5.	12	12	12	\$0.14
8	840-514	ALLEN SCREW M5x16	4	4	4	\$0.53
9, 36	965-176	TRIGGER COIL KIT 4-POLE	1d	1d	1d	\$923.12
9, 36	965-179	TRIGGER COIL KIT 6-POLE	1c	1c	1c	\$931.97
10	264-087	TRIGGER COIL ASSEMBLY	1e	1e	1e	\$213.06
11	847-660	SPACER 5.2/12/7.	4	4	4	\$10.01
13	851-250	CABLE CLAMP 15/M5	2	2	2	\$6.80
14	940-881	ALLEN SCREW M5x30	1	1	1	\$0.57
15	827-962	WASHER 6.4	7	7	7	\$0.31
15	945-831	LOCK WASHER A6	7	7	7	\$0.23
17	966-871	FLY WHEEL HUB	1	1		\$367.76
17	966-872	FLY WHEEL HUB	1a	1a		\$367.76
17	966-877	FLY WHEEL HUB			1	\$505.00
18	845-381	LOCK WASHER A6	10	10	10	\$0.57
19	840-883	ALLEN SCREW M6x30	5	5	5	\$1.45
20	840-863	ALLEN SCREW M6x25	5	5	5	\$1.43
21	246-571	WOODRUFF KEY 4x5	1	1	1	\$2.66
22	944-073	WASHER 17/36/5	1	1	1	\$39.46
24	841-602	HEX. SCREW M16x1.5x40	1	1	1	\$13.61

Item No.	Part No	Description		Qty. Req 912 ULS		Price
25	810-980	IGNITION COVER	(1)	1	1	\$90.88
26	640-172	HEX. SCHRAUBE M6x16	(3)	3	3	\$0.72
27-28	965-349	RECTIFIER REGULATOR	1	1	1	\$147.50
28	965-335	CONNECTOR HOUSING	1	1	1	\$23.29
29	864-011	FASTON CONNECTOR 6.3x0.8	AR	AR	AR	\$1.23
30	265-252	CONNECTOR HOUSING, TWOPOLE	AR	AR	AR	\$6.51
31	265-272	FASTON CONNECTOR	AR	AR	AR	\$2.45
32	265-250	CONNECTOR HOUSING, TWOPOLE	AR	AR	AR	\$8.71
33	265-270	FASTON CONNECTOR	AR	AR	AR	\$3.85
34	966-590	CAPACITOR, 22000 MYF 25 V	1	1	1	\$145.80
35	866-710	CLAMP 142x2.5 MM	3	3	3	\$1.26
36	827-800	WASHER A 5.5	7f	7f	7f	\$5.99

- Items not illustrated

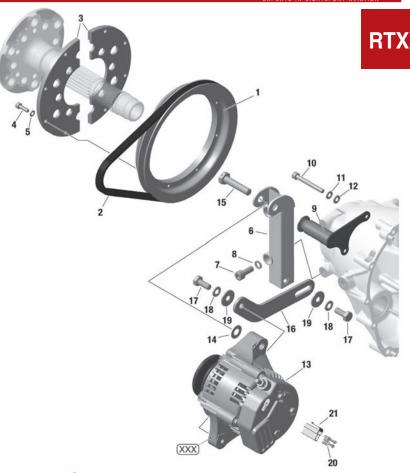
- Items not illustrated
   With modified trigger, instead of 4° before top dead center --> -3° after top dead center
   SI-912-013 / SI-914-016 standardization of the ignition unit
   Trigger coil kit with elongated hole for adjustment and 6-pole connector incl. 7 pcs. part no. 827800
   4-pole connector and trigger coil without alignment incl. 7 pcs. part no. 827800.
   Replaced trigger coil kit part no. 965177.
   See Maintenance Manual Heavy of the respective engine type, current issue.
   Trigger coil for rev. counter to part no. 965176 and part no. 965179
   At all trigger coils with longhole



**EXTERNAL GENERATOR F3A** (ALL PARTS OPTIONAL)

(ALI	- PAN	13 OF HONAL)		
Item No.	Part No	Description	Qty. Req.	Price
1-21	887-254	ALTERNATOR SET	1	\$1,644.50
1	980-590	V-BELT PULLEY	1	\$395.80
2	980-400	V-BELT 9.5X675	1	\$31.26
3	980-605	PULLEY CARRIER	2	\$127.31
4	840-514	ALLEN SCREW M5X16	8	\$0.53
5	945-750	LOCK WASHER A5	8	\$2.40
6	953-222	ALTERNATOR BRACKET ASSEMBLY	1	\$438.86
7	240-072	ALLEN SCREW M8X20	2	\$1.35
8	845-310	LOCK WASHER VHZ 8	2	\$0.41
9	953-232	ALTERNATOR SUPPORT ASSEMBLY	1	\$243.30
10	241-762	ALLEN SCREW M6X50	2	\$0.94
11	827-962	WASHER 6.4	2	\$0.31
11	945-831	LOCK WASHER A6	2	\$0.23
12	827-962	WASHER 6.4	2	\$0.31
13	887-251	ALTERNATOR F3A	1a	\$1,394.06
14	927-952	THRUST WASHER 10.1/20/0.5	1	\$4.78
15	941-636	HEX. SCREW M10X45	1	\$13.77
16	953-241	TENSION BAR	1	\$83.34
17	940-596	HEX. SCREW M8X2	2	\$11.47
18	945-832	LOCK WASHER A8	2	\$0.23
19	227-935	WASHER 8.4	2	\$1.76
20	864-011	FASTON CONNECTOR 6.3X0.8	2	\$1.23
21	265-255	CONNECTOR HOUSING 2-POLE	1	\$7.84

<sup>-</sup> Items not illustrated



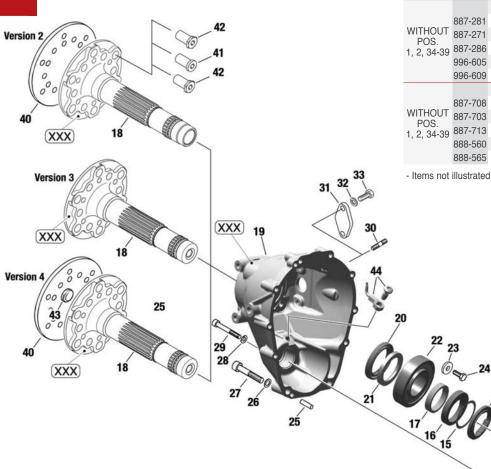


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6 5	(AL	L PA	RTS OPTIONAL)		
( A MATTER )	Item No.	Part No	Description	Qty. Req.	Price
3	1-8		VACUUM PUMP DRIVE RETROFIT KIT	AR	\$638.09
8 6 5	1		BALL BEARING 16002 15-32-8 See chapt. 61-20-00	1	\$41.13
\$ (\text{\tinx}\text{\ti}\}\text{\texi\text{\tetx{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\}\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex	2		NEEDLE SLEEVE 22x28x12 See chapt. 61-20-00	1	\$36.82
Service of the servic	3		OIL SEAL AS 22x32x7	1	\$49.50
	4		DRIVE SLEEVE, SHORT	1	\$324.97
	5		VACUUM PUMP GEAR 22T	1	\$211.87
14	6		ALLEN SCREW M8x14	1	\$25.86
	7	941-080	STUD M6X20/10	4	\$5.61
13	8	810-170	ATTACHMENT FLANGE	1	\$163.29
	11	827-962	WASHER A6.4	4	\$0.31
	11	945-831	LOCK WASHER A6	4	\$0.23
3	12	242-211	HEX.NUT M6	4	\$0.41
15	o Co	s not illustr	10 9		

a Marked with S/N

#### **RTX**



#### PROPELLER GEAR ASSEMBLY

Figure & Item No.	Part No	Description	912 UL	Qty. Req.  912 ULS 914 UL	Price
		GEARBOX I = 2,27			
	887-281	W/ CLUTCH 2.27-2	1Ap		\$4,111.05
WITHOUT POS.	887-271	W/ CLUTCH 2.27-3	1Bp		\$4,034.45
1, 2, 34-39	887-286	W/ CLUTCH 2.27-4	1Cp		\$4,111.05
., _,		W/O CLUTCH 2.27-2	1Ap		\$2,933.58
	996-609	W/O CLUTCH 2.27-4	1Cp		\$2,933.58
		GEARBOX I = 2,43			
	887-708	W/ CLUTCH 2.43-3	1p	1Ep 1Ep	\$4,111.05
WITHOUT POS.	887-703	W/ CLUTCH 2.43-2	1p	1Dp 1Dp	\$4,111.05
1, 2, 34-39	887-713	W/ CLUTCH 2.43-4	1p	1Fp 1Fp	\$4,111.05
., _,	888-560	W/O CLUTCH 2.43-2	1Dp	1Dp 1Dp	\$2,933.58
	888-565	W/O CLUTCH 2.43-4	1Fp	1Fp 1Fp	\$2,933.58

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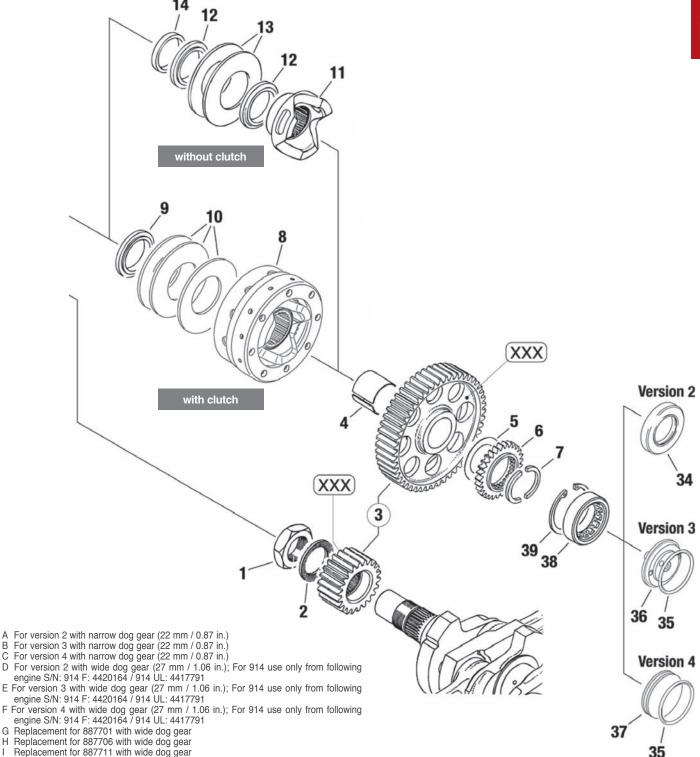
#### **PROPELLER GEAR ASSEMBLY**

Item No.	Part No	Description	912 UL	Qty. Req. 912 ULS	914 UL	Price
1		,	1	1	1	\$17.11
2		FRICTION WASHER VS30	1	1	1	\$9.66
2	845-430		1	1	1	\$9.66
3		GEAR SET I 2.43 narrow	(1)h		1h	\$987.46
3	886-518		1b	1b	1b	\$987.46
4	933-362	BUSHING 31x33x29.8	1	1	1	\$61.61
5	827-992		1	1	1	\$69.26
6		DRIVE GEAR 29 T.	1	1	1	\$207.22
7-10		CLUTCH ASSY. RETROFIT KIT narrow	1f		1fh	\$1,021.49
7-10	996-889			1g	1gb	\$1,298.71
7		RING HALF	2	2	2	\$43.94
8		OVERLOAD CLUTCH ASSY. narrow	(1)m	1fhm	1fhm	\$1,021.49
8	996-910	OVERLOAD CLUTCH ASSY. wide,7°	1gm	(1)gm	(1)gm	\$1,527.08
9	847-787		1p	1p	1p	\$51.75
10	838-216	DISK SPRING B80, 80x41x3	3	3	3	\$23.58
11	958-891		1fl		1fl	\$393.71
11	958-893		1gl	1gl	1gl	\$393.71
12		STEP COLLAR	2	2	2	\$51.75
13		DISK SPRING B80, 80x41x3	2	2	2	\$23.58
14	847-689	SPACER 35.2/42/6	1	1	1	\$45.27
15	927-401	SHIM 35.4/43/0.2	AR	AR	AR	\$2.66
15	927-402	SHIM 35.4/43/0.5	AR	AR	AR	\$2.66
15	927-403		AR	AR	AR	\$3.02
16	848-225	ECCENTER	1	1	1	\$95.88
17	847-687		1	1	1	\$44.24
18	837-037		1e	1e	1e	CALL
18		PROPELLER SHAFT	1d	1d	1d	CALL
18	937-036		1c	1c	1c	\$894.02
19	811-957	GEAR COVER ASSEMBLY	1np	1np	1np	CALL

li o mo			1	Ohy Box		
Item No.	Part No	Description	912 UL	Qty. Req. 912 ULS	914 UL	Price
20	950-470	OIL SEAL AS 40x55x7	1	1	1	\$67.44
21	926-022	SPACER RING 36/50/5.5	1	1	1	\$34.86
22	832-578	BALL BEARING 6207E TN6, 35-72-17	1	1	1	\$127.13
23	944-320	WASHER 7.2/18.8/3	4	4	4	\$3.12
24	941-760	HEX. SCREW M7x16	4	4	4	\$1.40
25	429-230	DOWEL 6x20	2	2	2	\$2.50
26	944-131	WASHER 8	2q	2q	2q	\$1.26
27	841-562	ALLEN SCREW M8x45	2q	2q	2q	\$4.43
27	841-561	ALLEN SCREW M8x45	2q	2q	2q	\$0.92
27	940-077	HEX./TORX SCREW M8x45	2	2	2	\$4.43
28	827-962	WASHER A6.4	8	8	8	\$0.31
28	945-751	LOCK WASHER A6	8	8	8	\$0.21
29	241-823	ALLEN SCREW M6x45	8	8	8	\$0.72
30	940-361	STUD M8x23/14	2	2		\$4.06
31	926-151	COVER			1	\$26.10
32	945-832	LOCK WASHER A8	2	2	2	\$0.23
33	940-592	HEX. SCREW M8x20			2k	\$1.35
34	950-200	OIL SEAL 30x52x7	1	1	1	\$100.47
35	430-175	O-RING 46x3	1	1	1	\$14.36
36	810-301	OIL INLET FLANGE	1	1	1	\$189.14
37	810-306	OIL INLET COVER	1	1	1	\$68.66
38	232-241	ROLLER BEARING NJ 205 ECP C3	1	1	1	\$102.00
39	945-820	RETAINING RING 52x2	1	1	1	\$4.54
40	827-837	COVER DISK	AR	AR	AR	\$104.11
41	842-634	ROUND-NECK NUT SET M8	1i	1i	1i	\$56.74
42	842-638	ROUND-NECK NUT SET 5/16-24 UNF	1i	1i	1i	\$196.28
42	842-639	ROUND-NECK NUT SET 5/16-20 UNF	1i	1i	1i	\$64.34
43	244-980	SEALING COVER	1	1	1	\$4.99
44	456-520	OIL SPRAY NOZZLE ASSEMBLY	1p	1p	1p	CALL







- B For version 3 with narrow dog gear (22 mm / 0.87 in.)
- C For version 4 with narrow dog gear (22 mm / 0.87 in.)
- D For version 2 with wide dog gear (27 mm / 1.06 in.); For 914 use only from following engine S/N: 914 F: 4420164 / 914 UL: 4417791

- Replacement for 887706 with wide dog gear Replacement for 887711 with wide dog gear
- Replacement for 887680 with wide dog gear
- Replacement for 888565 with wide dog gear
- Drive gear 22 T. and reduction gear 50 T. are paired and must be replaced together and marked with S/N. See SL-912-002 resp. SL-914-002. Drive gear 21 T. and reduction gear 51 T. are paired and must be replaced together and
- marked with S/N. With wide dog gear (27 mm / 1.06 in.); See SL-912-002 resp. SL-914-002; For 914 use only from following engine S/N: 912 S: starting with serial production / 912 ULS: starting with serial production / 914 F: 4420164 / 914 UL: 4417791
- For model 2 marked with S/N
- For model 3 marked with S/N
- For model 4 marked with S/N
- For gear sets part no. 886125 and 886517; (narrow versions)
- For gear set part no. 886518; (wide version)

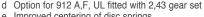
- h Drive gear 21 T. and reduction gear 51 T. are paired and must be replaced together and marked with S/N. With thin dog gear (22 mm / 0.87 in.); See SL-912-002 resp. SL-014-002; For 914 use only up to S/N: 914 F: 4420163 / 914 UI: 4417790
- Do not use at version with auxiliary alternator; only available as a set (includes 6 pieces).
- Only when a governor is used; Version without governor: 2x940.591; with governor: see chapt. 61-20-00
- Dog hub with extended hub
- With additional bores to drain lead
- Increased support bearing diameter
- See SL-912-002 current issue
- Gearbox with oil spray nozzle. Starting with Gearbox SN 74000.
- Replaced by hex. torx screw part no. 940077.

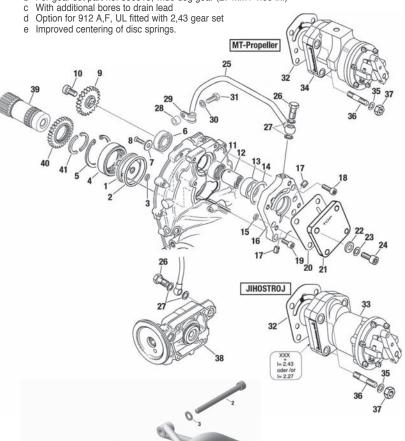


#### **OVERLOAD CLUTCH**

Item No.	Part No	Description	912 UL	Qty. Req. 912 ULS	914 UL	Price
1	958-912	CLUTCH DRUM	1c	1c	1c	\$565.77
2	958-905	CLUTCH HUB	1	1	1	\$387.14
3	944-080	THRUST WASHER 45.2/60/1	1	1	1	\$13.16
4	958-920	DOG HUB NARROW	1a		1a	\$366.79
4	958-924	DOG HUB WIDE, 7°	(1d)	1b	1b	\$366.79
5	958-932	STEEL FRICTION PLATE 1.0 MM	9	9	9	\$35.18
6	958-945	SINTER FRICTION PLATE 1.8 MM	8	8	8	\$98.32
7	958-951	SUPPORT RING	1	1	1	\$109.86
8	838-161	DISK SPRING 100X76X2.7	2	2	2	\$83.16
9	842-644	COLLAR NUT M102X1.5	1ce	1ce	1ce	\$272.24
_						

- a For gear sets part no. 886125, 886517; thin dog gear (22 mm / 0.87 in.) b For gear set part no. 886518; wide dog gear (27 mm / 1.06 in.)





**HYDRAULIC GOVERNOR** ARRANGEMENT FOR CONSTANT SPEED PROPELLER (OPTIONAL)

•	)	ו עםם	PHOPELLEN (OP 110	/INAL)	
	Item No.	Part No	Description	Qty. Req.	Price
	3	830-415	O-RING 7x2-N	2	\$6.69
	6	832-362	BALL BEARING 16002. 15-32-8	1	\$41.13
	9	834-245	VACUUM PUMP GEAR 22 T	1	\$211.87
	10	941-522	ALLEN SCREW M8x16	1	\$1.39
	11	232-925	NEEDLE SLEEVE 22x28x12	1	\$36.82
	12	847-773	DRIVE SLEEVE, LONG	1	\$359.30
	13	847-802	SPACER 25/31.95/13	1	\$28.58
	14	950-380	O-RING 32x4-N FPM 75	1	\$11.62
	15	830-415	O-RING 7x2-N FPM 75	2	\$6.69
	16	810-294	GOVERNOR FLANGE	1	\$833.41
	17		PLUG SCREW M8x1	2	\$5.61
	18	241-935	ALLEN SCREW M6x20	4	\$0.63
	19		ALLEN SCREW M6x16	2	\$0.73
	20	931-770	GASKET	1	\$12.98
	21	926-231	COVER	1	\$118.28
	22	250-311	WASHER 8.4	4	\$0.41
	22	250-315	WASHER 8.4	4	\$0.41
	23	945-832	LOCKWASHER A8	4	\$0.23
	24		ALLEN SCREW M8x20	4	\$1.35
	25	956-460	PRESSURE OIL LINE ASSEMBLY	1	\$262.80
	26		BANJO BOLT M10x1x19	2	\$13.99
	27	230-150	SEALING RING A 10x14	4	\$1.09
	28		DISTANCE SLEEVE 8.4/15/6	1	\$23.34
	29		CABLE CLAMP	1	\$23.43
	30		LOCK WASHER A8	1	\$0.23
	31	240-276	HEX. SCREW M8x25	1	\$1.26
	32		GASKET	1	\$186.77
	35		LOCK WASHER A8	4	\$0.23
	36		STUD M8x21/20	4	\$20.14
	37	942-674	HEX. NUT M8 (WS 11mm)	4	\$1.99

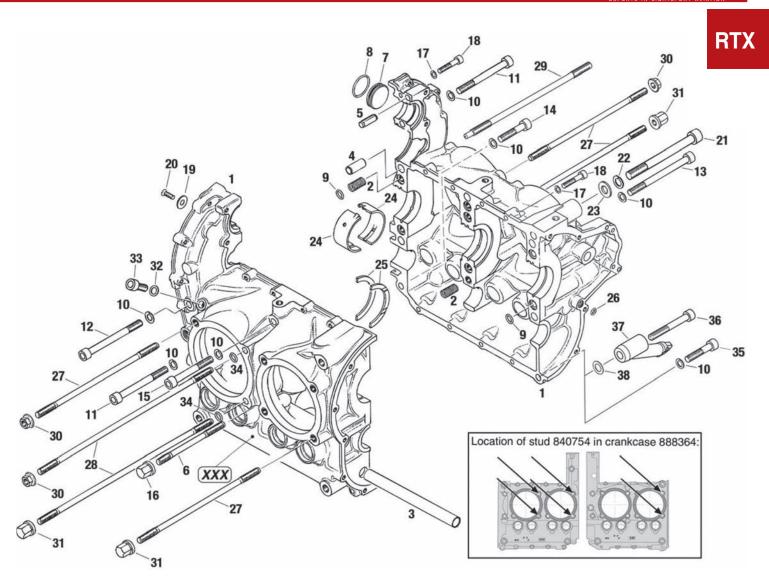
- Items not illustrated
- a For retrofitting from version 2 to version 3.
- b For retrofitting, same as 881702 but without propeller shaft.

#### **FNGINE SUSPENSION FRAME**

F14/						
Item	Dart No.	Description			Price	
No.	ait ito	Description	912 UL	912 ULS	914 UL	Tille
2	941-487	ALLEN SCREW M10X110	(1)	(1)	1	\$6.61
3	945-833	LOCK WASHER A10	(4)	(4)	4	\$0.34
4	840-948	ALLEN SCREW M10X35	(3)	(3)	1	\$4.63
5	927-952	THRUST WASHER 10.1/20/0.5	(AR)	(AR)	AR	\$4.78
5	927-953	THRUST WASHER 10.1/20/1.0	(AR)	(AR)	AR	\$4.90
6-7	860-695	SHOCK MOUNT SET	(1)	(1)	(1)	\$772.00
6	944-240	CUP WASHER	(8)	(8)	(8)	\$59.75
7	860-690	SHOCK-MOUNT	(8)	(8)	(8)	\$107.61

- Items not illustrated
- a See also Service Bulletin SB-912-028 / SB-914-016 current issue



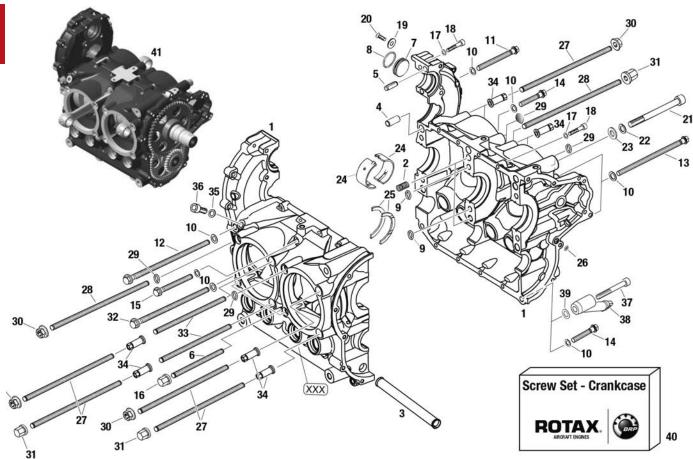


#### **CRANKCASE - UP TO S/N 27811**

Item	Dort No.	Description		Qty. Req.		Price	Item	Part No	Description		Qty. Req.		Price
No.	Part NO	Description	912 UL	912 ULS	914 UL	Price	No.	Part NO	Description	912 UL	912 ULS	914 UL	Price
3	924-451	OIL TUBE	1	1	1	\$15.28	23	927-411	WASHER 10.5	1	1	1	\$0.63
4	929-951	DOWEL 10.8x25	5	5	5	\$9.52	24	933-870	PLAIN BEARING "C"	6c	6c	6c	\$90.76
5	929-845	PIN D8x2	1	1	1	\$7.73	24	933-871	PLAIN BEARING "D"	6d	6d	6d	\$88.98
6	840-191	STUD M8x105	1f	1f	1f	\$12.83	25	933-335	RING HALF	2	2	2	\$58.75
7	944-222	BLINDING SHIM	1b	1b	1b	\$13.78	26	831-929	O-RING 5x2	1	1	1	\$4.54
8	430-061	O-RING 26.7x1.8	1b	1b	1b	\$5.57	27	840-752	STUD M8x201	14e	14e	14e	\$14.65
9	850-902	O-RING 9x2	7	7	7	\$10.00	28	840-757	STUD M8x291	2	2	2	\$17.96
10	945-832	LOCK WASHER A8	8	8	7	\$0.23	29	840-754	STUD M8x210	6e	6e	6e	\$21.78
11	440-217	ALLEN SCREW M8x80	2	2	2	\$3.81	30	842-610	HEX. NUT M8	8	8	8	\$4.37
12	640-932	ALLEN SCREW M8x90	1	1	1	\$3.07	30	942-301	COLLAR NUT M8	8j	8j	8j	\$4.37
13	440-427	ALLEN SCREW M8x100	2	2	2	\$3.30	31	842-471	COLLAR CAP NUT M8	8	8	8	\$21.34
14	640-942	ALLEN SCREW M8x45	1f	1f	1f	\$5.24	31	842-476	COLLAR CAP NUT M8	8j	8j	8j	\$21.34
16	842-471	COLLAR CAP NUT M8	1	1	1	\$21.34	32	950-141	GASKET RING A 8x13	1	1	1	\$1.30
17	827-962	WASHER A6.4	9	9	9	\$0.31	33	240-072	ALLEN SCREW M8x20	1	1	1	\$1.35
17	945-831	LOCK WASHER A6	9	9	9	\$0.23	34	830-415	O-RING 7x2	2g	2	2g	\$6.69
18	840-887	ALLEN SCREW M6x30	9	9	9	\$0.69	35	640-942	ALLEN SCREW M8x45	1	1		\$5.24
19	227-280	THRUST WASHER	1	1	1	\$7.65	36	440-107	ALLEN SCREW M8x50			1	\$1.99
20	940-315	COUNTERSUNK SCREW M5x12	1	1	1	\$0.57	38	926-400	WASHER 8.4/15/0.5			AR	\$3.17
21	941-487	ALLEN SCREW M10x110	1	1	1	\$6.61	38	926-401	WASHER 8.4/15/1			AR	\$3.37
21	941-557	ALLEN SCREW M10x150	(1)	(1)		\$10.31	38	926-402	WASHER 8.4/15/1.5			AR	\$3.61
22	945-833	LOCK WASHER A10	1	1	1	\$0.34	- Items	not illustra	ated				





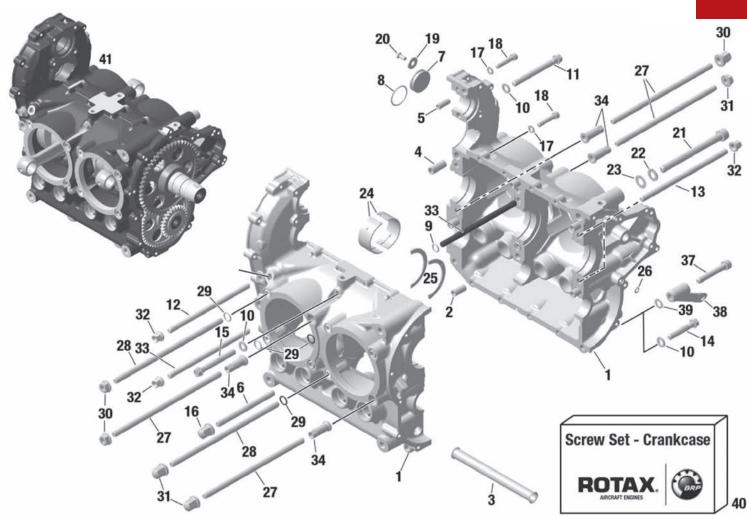


#### CRANKCASE - FROM S/N 06,0010 UP TO 14 2384

CH	ANK	CASE - FROM S/N 06	.001	U UP	101	4.238	34						
Item	Part No	Description		Qty. Req.		Price	Item	Part No	Description		y. Req.		Price
No.		·	912 UL	912 ULS			No.		·	912 UL 9			
3		OIL TUBE		- 1	1	\$15.28	32	440-686	HEX. COLLAR SCREW M8x130	1	1	1	\$12.74
4		DOWEL 10.8x25	5	5	5	\$9.52	33	840-131	STUD M8x138	2	2	2	\$6.93
5		PIN D8x20	1	1	1	\$7.73	34	929-116	THREAD SLEEVE M8	8	8	8	\$36.80
6		STUD M8x105	1	1	1	\$12.83	35	950-141	GASKET RING A 8x13	1	1	1	\$1.30
/		BLINDING SHIM	1b	1b	1b	\$13.78	36		ALLEN SCREW M8x20	1	1	1	\$1.23
8		O-RING 26.7x1.8	1b	1b	1b	\$5.57	37	440-107	ALLEN SCREW M8x50			1f	\$1.99
9		O-RING 9x2	2	2	2	\$10.00	39		WASHER 8.4/15/0.5			AR	\$3.17
10		WASHER 8	8f	8f	8f	\$1.26	39		WASHER 8.4/15/1			AR	\$3.37
11		ALLEN SCREW M8x80	1	1	1	\$10.90	39		WASHER 8.4/15/1.5	4.5	4.5	AR	\$3.61
12		HEX.COLLAR SCREW M8x140-SW10		1	1	\$13.14	40		SCREW SETCRANKCASE	1f	1f	1f	\$283.17
		HEX.COLLAR SCREW M8x150-SW10	2	2	2	\$8.37			ENGINE BLOCK	1		1	\$15,242.34
14		HEX.COLLAR SCREW M8x45-SW10	2	2	2	\$5.24	- Iten	ns not illustra	ited				
15		HEX.COLLAR SCREW M8x65-SW10	1	1	1	\$10.69	a ma	arked with S/	N				
16		COLLAR CAP NUT M8	1	1	1	\$21.34	b Or	nly for model	2 and 4				
17		WASHER 6.4	9	9	9	\$0.31							
17		LOCK WASHER A6	9	9	9	\$0.21							
18		ALLEN SCREW M6x30	9	9	9	\$0.69			configuration use 14 studs part no	. 840752 N	18x201 oı	r 8 stud	S
19		THRUST WASHER	1	1	1	\$7.65			studs part no. 840754 M8x210.				
20		COUNTERSUNK SCREW M5x12	1	1	1	\$0.57			Manual of the respective engine ty				0.4.000.5.11
21		ALLEN SCREW M10x110	1	1	1	\$6.61	g on	ily for use wit	th new cylinders 913221 with cour	ntersunk. W	lith the c	ylınder 9	313225 the
21		ALLEN SCREW M10x150	(1)	(1)		\$10.31			as already introduced starting fron	n beginning	or the p	roductio	n.
22		LOCK WASHER A10	1	1	1	\$0.34		-912-019 cur	ce Instruction has to be noticed:				
23		WASHER 10.5	1	1	1	\$0.63		-912-019 cui -914-021	Terri issue				
24		PLAIN BEARING "C"	6cf	6cf	6cf	\$90.76			ced as per engine S/N as follows:				
24		PLAIN BEARING "D"	6df	6df	6df	\$88.98		2 UL: S/N 06					
25		RING HALF	2	2	2	\$58.75		4 UL: S/N 07					
26		O-RING 5x2	1	1	1	\$4.54		2 A: S/N 04,					
27		STUD M8x186	8	8	8	\$9.73		2 S: S/N 04,					
28		STUD M8x200	8	8	8	\$9.73	91	2 F: S/N 04,4	413.018				
29		O-RING 10.82x1,78	8i	8i	8i	\$0.66	91	2 ULS: S/N (	06,781.191				
29		GASKET	ARh	ARh	ARh	\$9.52		4 F: S/N 04,4					
30		HEX. NUT M8	8	8	8	\$4.37 j Wrench size A/F 11							
30		COLLAR NUT M8	8j	8j	8j	\$4.37							
31		COLLAR CAP NUT M8	8	8	8	\$21.34							
31	842-476	COLLAR CAP NUT M8	8j	8j	8j	\$21.34							



#### **RTX**



#### CRANKCASE - FROM S/N: 14.0000

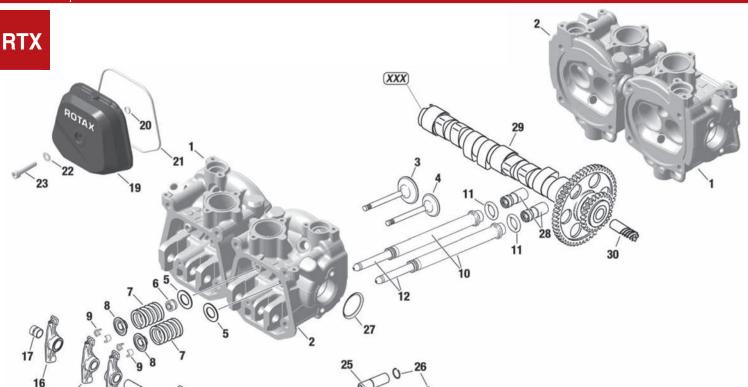
Item	Dort No.	Description		Qty. Req.		Price
No.	Part NO	Description	912 UL	912 ULS	914 UL	Price
1	893-862	CRANKCASE SET	1d	1d	1d	\$4,271.31
3	924-451	OIL TUBE	1	1	1	\$15.28
4	929-951	DOWEL 10.8X25	5	5	5	\$9.52
5	929-845	PIN D8X20	1	1	1	\$7.73
6	840-191	STUD M8X105	1	1	1	\$12.83
7	944-222	BLINDING SHIM	1a	1a	1a	\$13.78
8	430-061	O-RING 26.7X1.8	1a	1a	1a	\$5.57
9	850-902	O-RING 9X2	2	2	2	\$10.00
10	944-131	WASHER 8	4d	4d	4d	\$1.26
11	840-061	ALLEN SCREW M8X80	1	1	1	\$10.90
14	940-071	HEX.COLLAR SCREW M8X45-A/F10	2	2	2	\$5.24
15	440-406	HEX.COLLAR SCREW M8X65-A/F10	1	1	1	\$10.69
16	842-471	COLLAR CAP NUT M8	1	1	1	\$21.34
17	827-962	WASHER 6.4	9	9	9	\$0.31
17	945-751	LOCK WASHER A6	9	9	9	\$0.21
18	840-887	ALLEN SCREW M6X30	9	9	9	\$0.69
19	227-280	THRUST WASHER	1	1	1	\$7.65
20	940-315	COUNTERSUNK SCREW M5X12	1	1	1	\$0.57
21	941-487	ALLEN SCREW M10X110	1	1	1	\$6.61
21	941-557	ALLEN SCREW M10X150	(1)	(1)		\$10.31
23	927-411	WASHER 10.5	1	1	1	\$0.63

Hom				Qty. Req		
Item No.	Part No	Description		912 ULS		Price
24	933-870	PLAIN BEARING "C"	6bd	6bd	6bd	\$90.76
24	933-871	PLAIN BEARING "D"	6cd	6cd	6cd	\$88.98
25	933-335	RING HALF	2	2	2	\$58.75
26	831-929	O-RING 5X2	1	1	1	\$4.54
27	840-141	STUD M8X186	8	8	8	\$9.73
28	840-171	STUD M8X200	8	8	8	\$9.73
29	431-570	O-RING 10,82X1,78	8	8	8	\$0.66
30	842-610	HEX. NUT M8	8	8	8	\$4.37
31	842-471	COLLAR CAP NUT M8	8	8	8	\$21.34
35	950-141	GASKET RING A 8X13	1	1	1	\$1.30
36	240-072	ALLEN SCREW M8X20	1	1	1	\$1.23
37	440-107	ALLEN SCREW M8X50			1d	\$1.99
39	926-400	WASHER 8.4/15/0.5			AR	\$3.17
39	926-401	WASHER 8.4/15/1			AR	\$3.37
39	926-402	WASHER 8.4/15/1.5			AR	\$3.61
40	881-121	SCREW SET CRANKCASE	1d	1d	1d	\$415.66
41	300091401	ENGINE BLOCK	1		1	\$15,242.34
ltom	o not illustra	tod				

- Items not illustrated

- a Only for model 2 and 4 b Tolerance group "C" 1.820 -1.829 mm c Tolerance group "D" 1.830 -1.839 mm d See Overhaul Manual of the respective engine type, current issue.





#### CYLINDERHEAD, VALVE TRAIN, VALVE COVER

No.   Part No   Description   912 UL   912 ULS   914 UL   1   413-236   CYLINDER HEAD 2/3 ASSEMBLY   2a0   2a0   \$1,513.74   1   413-195   CYLINDER HEAD 1/4 ASSEMBLY   2b   \$1,549.45	Item		<u> </u>		Qty. Req.		
1         413-236         CYLINDER HEAD 2/3 ASSEMBLY         2ao         \$1,513.74           1         413-185         CYLINDER HEAD 2/3 ASSEMBLY         2ao         \$1,548.94           2         413-195         CYLINDER HEAD 1/4 ASSEMBLY         2b         \$1,549.45           2         413-246         CYLINDER HEAD 1/4 ASSEMBLY         2b         2b         \$1,513.74           3         854-101         INTAKE VALVE 38 MM         4         4         4         \$187.82           4         854-113         EXHAUST VALVE 32 MM         4         4         4         \$304.00           4         854-111         EXHAUST VALVE 32 MM         4         4         4         \$304.00           4         854-111         EXHAUST VALVE 32 MM         4         4         4         \$304.00           5         926-210         SHIM 16/27.9/1         8d         8         8d         8d<		Part No	Description				Price
2 413-195 CYLINDER HEAD 1/4 ASSEMBLY 2b 2b \$1,549.45 2 413-246 CYLINDER HEAD 1/4 ASSEMBLY 2b 2b \$1,513.74 3 854-101 INTAKE VALVE 38 MM 4 4 4 \$304.00 4 854-113 EXHAUST VALVE 32 MM 4 4 \$304.00 5 926-210 SHIM 16/27.9/1 8d 8 8d \$3.73 6 230-810 VALVE STEM SEAL 4 4 4 \$10.04 7 838-156 VALVE SPRING 8d 8 8d \$28.42 8 854-186 OIL RETURN TUBE 8 8 8 8 \$24.57 10 924-440 OIL RETURN TUBE 8 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 \$191.77 15 854-197 ROCKER ARM SHAFT 4 4 4 \$40.77 15 854-197 ROCKER ARM SHAFT 4 4 4 \$40.77 16 854-383 ROCKER ARM SHAFT 4 4 4 \$40.77 17 933-396 VESPEL BUSHING VESPEL 8g 8g 8g \$52.06 18 854-383 ROCKER ARM RIGHT ASSEMBLY 4g 4g 4g \$301.40 17 933-396 VESPEL BUSHING VESPEL 8g 8g 8g \$52.06 18 854-383 ROCKER ARM RIGHT ASSEMBLY 4g 4g 4g \$301.40 19 612-262 VALVE COVER BLUE 4 \$199.88 20-21 881-920 O-RING 165x.5 4 4 4 \$4.99 21 250-285 O-RING 105x2.5 4 4 4 \$4.99 21 250-285 O-RING 105x2.5 4 4 4 \$29.31 22 927-942 WASHER 6.0/12/1 4 4 4 4 \$0.76 23 840-887 ALLEN SCREW M6x30 4 4 4 \$0.69 24 253-114 INLET VALVE GUIDE 4h 4h 4h \$27.25 854-244 INLET VALVE GUIDE 4h 4h 4h \$89.62 26 245-440 RETAINING RING 8j 8j 8j 80.57 27 931-920 GASKET RING ARK ARK ARK \$67.32 28 881-832 HYDRAULIC VALVE TAPPET SET 1n 1n 1n \$422.10 29 837-196 CAMSHAFT 227° ASSEMBLY 1Im 11m \$1,595.81	1	413-236	CYLINDER HEAD 2/3 ASSEMBLY	2ao		2ao	\$1,513.74
2 413-246 CYLINDER HEAD 1/4 ASSEMBLY 2b 2b \$1,513.74 3 854-101 INTAKE VALVE 38 MM 4 4 4 4 \$187.82 4 854-113 EXHAUST VALVE 32 MM 4 4 4 4 \$304.00 4 854-111 EXHAUST VALVE 32 MM 4 4 4 \$304.00 5 926-210 SHIM 16/27.9/1 8d 8 8d \$3.73 6 230-810 VALVE STEM SEAL 4 4 4 4 \$10.04 7 838-156 VALVE SPRING 8d 8 8d \$28.42 8 854-186 OIL RETURN TUBE 8 8 8 8 \$24.57 9 253-092 VALVE COTTER 16 16 16 \$3.74 10 924-440 OIL RETURN TUBE 8 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 8 \$39.54 12 854-862 VALVE PUSH-ROD ASSEMBLY 8 8 8 \$8.79 12 854-862 VALVE PUSH-ROD ASSEMBLY 8 8 8 \$191.77 15 854-193 ROCKER ARM SHAFT 4 4 4 \$40.77 16 854-383 ROCKER ARM SHAFT (4)f (4)f (4)f (774.40 16 854-383 ROCKER ARM SHAFT (4)f (4)f (4)f (774.40 17 933-396 VESPEL BUSHING VESPEL 8g 8g 8g 8g \$52.06 18 854-393 ROCKER ARM RIGHT ASSEMBLY 4g 4g 4g \$301.40 19 612-263 VALVE COVER BLDE 4 \$199.88 19 612-262 VALVE COVER BLDE 4 \$199.88 19 612-262 VALVE COVER BLDE 4 \$199.88 19 612-260 VALVE COVER BLUE 4 \$199.88 20-21 881-920 O-RING 6.4x1.8 4 4 4 \$4.99 21 250-285 O-RING 105x2.5 4 4 4 4 \$2.9.31 22 927-942 WASHER 6.0/12/1 4 4 4 4 \$0.76 23 840-887 ALLEN SCREW M6x30 4 4 4 4 \$0.76 24 253-114 INLET VALVE GUIDE 4h 4h 4h \$27.25 25 854-224 INLET VALVE GUIDE 4h 4h 4h \$9.69 24 253-114 INLET VALVE GUIDE 4h 4h 4h \$9.69 24 253-114 INLET VALVE GUIDE 4h 4h 4h \$9.62 26 245-440 RETAINING RING 8j 8j 8j 80.57 27 931-920 GASKET RING ARK ARK ARK \$67.32 28 881-832 HYDRAULIC VALVE TAPPET SET 1n 1n 1n \$422.10 29 837-196 CAMSHAFT 227° ASSEMBLY 1Im 11m \$1,595.81	1	413-185	CYLINDER HEAD 2/3 ASSEMBLY		2ao		\$1,548.94
3       854-101       INTAKE VALVE 38 MM       4       4       4       \$187.82         4       854-113       EXHAUST VALVE 32 MM       4       4       4       \$304.00         4       854-111       EXHAUST VALVE 32 MM       4       4       4       4       \$304.00         5       926-210       SHIM 16/27.9/1       8d       8       8       8       \$37.30         6       230-810       VALVE STEM SEAL       4       4       4       \$10.04         7       838-156       VALVE SPRING       8d       8       8d       \$28.42         8       854-186       OIL RETURN TUBE       8       8       8       \$24.57         9       253-092       VALVE COTTER       16       16       16       \$3.74         10       924-440       OIL RETURN TUBE       8       8       8       \$39.54         11       850-930       O-RING 16x5       8       8       8       \$39.54         11       850-930       O-RING 16x5       8       8       8       \$191.77         15       854-1913       ROCKER ARM SHAFT       4       4       4       40.77         15       <		413-195	CYLINDER HEAD 1/4 ASSEMBLY		2b		\$1,549.45
4 854-113 EXHAUST VALVE 32 MM 4 4 4 4 \$304.00 5 926-210 SHIM 16/27.9/1 8d 8 8 8d \$3.73 6 230-810 VALVE STEM SEAL 4 4 4 4 \$10.04 7 838-156 VALVE SPRING 8d 8 8 8d \$28.42 8 854-186 OIL RETURN TUBE 8 8 8 8 \$24.57 9 253-092 VALVE COTTER 16 16 16 16 \$3.74 10 924-440 OIL RETURN TUBE 8 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 8 \$39.54 12 854-862 VALVE PUSH-ROD ASSEMBLY 8 8 8 \$191.77 15 854-193 ROCKER ARM SHAFT (4)f (4)f (4)f (4)f \$74.40 16 854-383 ROCKER ARM SHAFT (4)f (4)f (4)f \$74.40 17 933-396 VESPEL BUSHING VESPEL 8g 8g 8g \$52.06 18 854-393 ROCKER ARM RIGHT ASSEMBLY 4g 4g 4g \$301.40 19 612-263 VALVE COVER BLOK 4 \$199.88 19 612-262 VALVE COVER BLOK 4 \$199.88 19 612-260 VALVE COVER RED 4 \$199.88 19 612-260 VALVE COVER BLUE 4 \$181.36 20-21 881-920 O-RING 6.4x1.8 4 4 4 \$4.99 21 250-285 O-RING 105x2.5 4 4 4 \$29.31 22 927-942 WASHER 6.0/12/1 4 4 4 \$0.69 24 253-114 INLET VALVE GUIDE 4h 4h 4h 4h \$27.25 25 854-224 INLET VALVE GUIDE 4h 4h 4h 4h \$27.25 26 245-440 RETAINING RING 8j 8j 8j 8j 70.72 27 931-920 GASKET RING ARSEMBLY 1Im 1 1m \$1,595.81	2	413-246	CYLINDER HEAD 1/4 ASSEMBLY	2b		2b	\$1,513.74
4 854-111 EXHAUST VALVE 32 MM 4 4 4 4 \$304.00 5 926-210 SHIM 16/27.9/1 8d 8 8 8d \$3.73 6 230-810 VALVE STEM SEAL 4 4 4 4 \$10.04 7 838-156 VALVE SPRING 8d 8 8 8d \$28.42 8 854-186 OIL RETURN TUBE 8 8 8 8 \$24.57 9 253-092 VALVE COTTER 16 16 16 16 \$3.74 10 924-440 OIL RETURN TUBE 8 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 8 \$39.54 11 850-931 O-RING 16x5 8 8 8 8 \$39.54 12 854-862 VALVE PUSH-ROD ASSEMBLY 8 8 8 \$191.77 15 854-193 ROCKER ARM SHAFT 4 4 4 4 \$40.77 15 854-197 ROCKER ARM SHAFT (4)f (4)f (4)f (7)f (4)f (7)f (7)f (7)f (7)f (7)f (7)f (7)f (7	3	854-101	INTAKE VALVE 38 MM	4	4	4	\$187.82
5         926-210         SHIM 16/27.9/1         8d         8         8d         \$3.73           6         230-810         VALVE STEM SEAL         4         4         4         4         \$10.04           7         838-156         VALVE SPRING         8d         8         8d         \$28.42           8         854-186         OIL RETURN TUBE         8         8         8         \$24.57           9         253-092         VALVE COTTER         16         16         16         \$3.74           10         924-440         OIL RETURN TUBE         8         8         8         \$39.54           11         850-930         O-RING 16x5         8         8         8         \$39.54           12         854-862         VALVE PUSH-ROD ASSEMBLY         8         8         8         \$191.77           15         854-193         ROCKER ARM SHAFT         4         4         4         \$40.77           15         854-197         ROCKER ARM SHAFT         49         49         49         \$301.40           17         933-396         VESPEL BUSHING VESPEL         89         89         89         \$52.06           18         854-393	4		EXHAUST VALVE 32 MM			4p	\$304.00
6         230-810         VALVE STEM SEAL         4         4         4         4         4         10.04           7         838-156         VALVE SPRING         8d         8         8d         \$28.42           8         854-186         OIL RETURN TUBE         8         8         8         \$24.57           9         253-092         VALVE COTTER         16         16         16         \$3.74           10         924-440         OIL RETURN TUBE         8         8         8         \$39.54           11         850-930         O-RING 16x5         8         8         8         \$39.54           12         854-862         VALVE PUSH-ROD ASSEMBLY         8         8         8         \$371.77           15         854-193         ROCKER ARM SHAFT         4         4         4         \$40.77           15         854-197         ROCKER ARM SHAFT         49         4g         4g         \$301.40           17         933-396         VESPEL BUSHING VESPEL         8g         8g         8g         \$52.06           18         854-393         ROCKER ARM RIGHT ASSEMBLY         4g         4g         \$301.40           19				-		-	
7         838-156         VALVE SPRING         8d         8         8d         \$28.42           8         854-186         OIL RETURN TUBE         8         8         8         \$24.57           9         253-092         VALVE COTTER         16         16         16         \$3.74           10         924-440         OIL RETURN TUBE         8         8         8         \$39.54           11         850-930         O-RING 16x5         8         8         8         \$39.54           11         850-930         O-RING 16x5         8         8         8         \$8.79           12         854-862         VALVE PUSH-ROD ASSEMBLY         8         8         8         \$191.77           15         854-193         ROCKER ARM SHAFT         4         4         \$40.77         4         4         \$40.77         4         4         \$40.77         4         4         \$40.77         4         4         \$40.77         4         4         \$40.77         4         4         \$40.77         4         4         \$40.77         4         4         \$40.77         4         4         \$40.77         4         4         \$30.140         4         4		926-210					
8       854-186       OIL RETURN TUBE       8       8       8       \$24.57         9       253-092       VALVE COTTER       16       16       16       \$3.74         10       924-440       OIL RETURN TUBE       8       8       8       \$39.54         11       850-930       O-RING 16x5       8       8       8       \$39.54         11       850-930       O-RING 16x5       8       8       8       \$39.54         12       854-862       VALVE PUSH-ROD ASSEMBLY       8       8       8       \$191.77         15       854-193       ROCKER ARM SHAFT       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4       4       \$40.77       4				-		-	
9 253-092 VALVE COTTER 16 16 16 \$3.74 10 924-440 OIL RETURN TUBE 8 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 8 \$39.54 11 850-930 O-RING 16x5 8 8 8 8 8 \$39.54 12 854-862 VALVE PUSH-ROD ASSEMBLY 8 8 8 8 \$191.77 15 854-193 ROCKER ARM SHAFT 4 4 4 \$40.77 15 854-197 ROCKER ARM SHAFT (4)f (4)f (4)f \$74.40 16 854-383 ROCKER ARM LEFT ASSEMBLY 4g 4g 4g \$301.40 17 933-396 VESPEL BUSHING VESPEL 8g 8g 8g \$52.06 18 854-393 ROCKER ARM RIGHT ASSEMBLY 4g 4g 4g \$301.40 19 612-263 VALVE COVER BLACK 4 \$199.88 19 612-262 VALVE COVER RED 4 \$199.88 19 612-260 VALVE COVER RED 4 \$199.88 19 612-260 VALVE COVER BLUE 4 \$181.36 20-21 881-920 O-RING SET 1 1 1 1 \$65.71 20 430-205 O-RING 6.4x1.8 4 4 4 \$4.99 21 250-285 O-RING 105x2.5 4 4 4 4 \$29.31 22 927-942 WASHER 6.0/12/1 4 4 4 \$0.76 23 840-887 ALLEN SCREW M6x30 4 4 4 4 \$0.69 24 253-114 INLET VALVE GUIDE 4h 4h 4h 4h \$27.25 25 854-224 INLET VALVE GUIDE 4i 4i 4i \$89.62 26 245-440 RETAINING RING 8j 8j 8j \$0.57 27 931-920 GASKET RING ARK ARK ARK ARK \$67.32 28 881-832 HYDRAULIC VALVE TAPPET SET 1n 1n 1n \$422.10 29 837-196 CAMSHAFT 227° ASSEMBLY 1lm 1lm \$1,595.81	7	838-156			8	8d	\$28.42
10         924-440         OIL RETURN TUBE         8         8         8         \$39.54           11         850-930         O-RING 16x5         8         8         8         8         8.79           12         854-862         VALVE PUSH-ROD ASSEMBLY         8         8         8         \$191.77           15         854-193         ROCKER ARM SHAFT         4         4         4         \$40.77           15         854-197         ROCKER ARM SHAFT         (4)f         (4)f         (4)f         (4)f         \$74.40           16         854-383         ROCKER ARM LEFT ASSEMBLY         4g         4g         4g         \$301.40           17         933-396         VESPEL BUSHING VESPEL         8g         8g<		854-186					
11         850-930         O-RING 16x5         8         8         8         \$8.79           12         854-862         VALVE PUSH-ROD ASSEMBLY         8         8         8         \$191.77           15         854-193         ROCKER ARM SHAFT         4         4         4         \$40.77           15         854-197         ROCKER ARM SHAFT         (4)f         (4)f         (4)f         \$74.40           16         854-383         ROCKER ARM LEFT ASSEMBLY         4g         4g         4g         \$301.40           17         933-396         VESPEL BUSHING VESPEL         8g         8g         8g         \$52.06           18         854-393         ROCKER ARM RIGHT ASSEMBLY         4g	9	253-092	VALVE COTTER		16	16	\$3.74
12       854-862       VALVE PUSH-ROD ASSEMBLY       8       8       \$ 191.77         15       854-193       ROCKER ARM SHAFT       4       4       4       \$40.77         15       854-197       ROCKER ARM SHAFT       (4)f       (4)f       (4)f       \$74.40         16       854-383       ROCKER ARM LEFT ASSEMBLY       4g       4g       4g       \$301.40         17       933-396       VESPEL BUSHING VESPEL       8g       8g       8g       \$52.06         18       854-393       ROCKER ARM RIGHT ASSEMBLY       4g       4g       4g       \$301.40         19       612-263       VALVE COVER BLACK       4       \$199.88         19       612-262       VALVE COVER RED       4       \$199.88         19       612-260       VALVE COVER GREEN       4       \$199.88         19       612-180       VALVE COVER BLUE       4       \$181.36         20-21       881-920       O-RING SET       1       1       \$65.71         20       430-205       O-RING 6.4x1.8       4       4       \$4.99         21       250-285       O-RING 105x2.5       4       4       4       \$29.31         22		924-440					
15         854-193         ROCKER ARM SHAFT         4         4         4         4 \$40.77           15         854-197         ROCKER ARM SHAFT         (4)f         (4)f         (4)f         (4)f         (4)f         (4)f         (5)f         \$74.40           16         854-383         ROCKER ARM LEFT ASSEMBLY         4g         4g         4g         \$301.40           17         933-396         VESPEL BUSHING VESPEL         8g         8g         8g         \$52.06           18         854-393         ROCKER ARM RIGHT ASSEMBLY         4g         4g         4g         \$301.40           19         612-263         VALVE COVER BLACK         4         \$199.88         \$199.88           19         612-262         VALVE COVER BED         4         \$199.88           19         612-260         VALVE COVER GREEN         4         \$199.88           19         612-260         VALVE COVER BLUE         4         \$199.88           20-21         881-920         O-RING SET         1         1         1         \$65.71           20         430-205         O-RING 6.4x1.8         4         4         \$4.99           21         250-285         O-RING 105x2.5	11	850-930	O-RING 16x5	8	8	8	\$8.79
15         854-197         ROCKER ARM SHAFT         (4)f         (4)f <td>. –</td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td> <td></td>	. –			-		-	
16         854-383         ROCKER ARM LEFT ASSEMBLY         4g         4g         4g         \$301.40           17         933-396         VESPEL BUSHING VESPEL         8g         8g         8g         \$52.06           18         854-393         ROCKER ARM RIGHT ASSEMBLY         4g         4g         4g         \$301.40           19         612-263         VALVE COVER BLACK         4         \$199.88           19         612-260         VALVE COVER RED         4         \$199.88           19         612-260         VALVE COVER GREEN         4         \$196.63           19         612-180         VALVE COVER BLUE         4         \$181.36           20-21         881-920         O-RING SET         1         1         1         \$65.71           20         430-205         O-RING 6.4x1.8         4         4         \$4.99           21         250-285         O-RING 105x2.5         4         4         \$29.31           22         927-942         WASHER 6.0/12/1         4         4         \$0.69           24         253-114         INLET VALVE GUIDE         4h         4h         4         \$0.69           24         253-114         INLET VAL	15	854-193		4	4	4	\$40.77
17       933-396       VESPEL BUSHING VESPEL       8g       8g       8g       \$g       \$52.06         18       854-393       ROCKER ARM RIGHT ASSEMBLY       4g       4g       4g       \$301.40         19       612-263       VALVE COVER BLACK       4       \$199.88         19       612-260       VALVE COVER RED       4       \$199.88         19       612-260       VALVE COVER BLUE       4       \$196.63         20-21       881-920       O-RING SET       1       1       1       \$65.71         20       430-205       O-RING SET       1       1       1       \$65.71         20       430-205       O-RING 6.4x1.8       4       4       4       \$4.99         21       250-285       O-RING 105x2.5       4       4       4       \$29.31         22       927-942       WASHER 6.0/12/1       4       4       4       \$0.69         24       253-114       INLET VALVE GUIDE       4h       4h       4h       \$89.62         25       854-224       INLET VALVE GUIDE       4i       4i       4i       \$89.62         26       245-440       RETAINING RING       8j       8j				(4)f	(4)f	(4)f	
18         854-393         ROCKER ARM RIGHT ASSEMBLY         4g         4g         4g         \$301.40           19         612-263         VALVE COVER BLACK         4         \$199.88           19         612-262         VALVE COVER RED         4         \$199.88           19         612-260         VALVE COVER GREEN         4         \$196.63           19         612-180         VALVE COVER BLUE         4         \$181.36           20-21         881-920         O-RING SET         1         1         1         \$65.71           20         430-205         O-RING 6.4x1.8         4         4         4         \$4.99           21         250-285         O-RING 105x2.5         4         4         4         \$29.31           22         927-942         WASHER 6.0/12/1         4         4         4         \$0.69           24         253-114         INLET VALVE GUIDE         4h         4h         4h         \$27.25           25         854-244         INLET VALVE GUIDE         4i         4i         4i         \$89.62           26         245-440         RETAINING RING         8j         8j         8j         \$0.57           27				4g	4g	4g	
19       612-263       VALVE COVER BLACK       4       \$199.88         19       612-262       VALVE COVER RED       4       \$199.88         19       612-260       VALVE COVER GREEN       4       \$196.63         19       612-180       VALVE COVER BLUE       4       \$181.36         20-21       881-920       O-RING SET       1       1       1       \$65.71         20       430-205       O-RING 6.4x1.8       4       4       4       49.99         21       250-285       O-RING 105x2.5       4       4       4       \$29.31         22       927-942       WASHER 6.0/12/1       4       4       4       \$0.69         24       253-114       INLET VALVE GUIDE       4h       4h       4h       \$27.25         25       854-224       INLET VALVE GUIDE       4i       4i       4i       \$89.62         26       245-440       RETAINING RING       8j       8j       \$0.57         27       931-920       GASKET RING       ARk       ARk       ARk       ARk         28       881-832       HYDRAULIC VALVE TAPPET SET       1n       1n       1n       \$1m       \$1,595.81 <td></td> <td></td> <td></td> <td>8g</td> <td>8g</td> <td>8g</td> <td></td>				8g	8g	8g	
19       612-262       VALVE COVER RED       4       \$199.88         19       612-260       VALVE COVER GREEN       4       \$196.63         19       612-180       VALVE COVER BLUE       4       \$181.36         20-21       881-920       O-RING SET       1       1       1       \$65.71         20       430-205       O-RING 6.4x1.8       4       4       4       \$4.99         21       250-285       O-RING 105x2.5       4       4       4       \$29.31         22       927-942       WASHER 6.0/12/1       4       4       4       \$0.69         24       253-114       INLET VALVE GUIDE       4h       4h       4h       \$27.25         25       854-224       INLET VALVE GUIDE       4i       4i       4i       \$89.62         26       245-440       RETAINING RING       8j       8j       8j       \$0.57         27       931-920       GASKET RING       ARk       ARk       ARk       ARk       ARk         28       881-832       HYDRAULIC VALVE TAPPET SET       1n       1n       1n       \$1m       \$1,595.81		854-393		4g	4g	4g	
19         612-260         VALVE COVER GREEN         4         \$196.63           19         612-180         VALVE COVER BLUE         4         \$181.36           20-21         881-920         O-RING SET         1         1         1         \$65.71           20         430-205         O-RING 6.4x1.8         4         4         4         \$4.99           21         250-285         O-RING 105x2.5         4         4         4         \$29.31           22         927-942         WASHER 6.0/12/1         4         4         4         \$0.76           23         840-887         ALLEN SCREW M6x30         4         4         4         \$0.69           24         253-114         INLET VALVE GUIDE         4h         4h         4h         \$27.25           25         854-224         INLET VALVE GUIDE         4i         4i         4i         \$89.62           26         245-440         RETAINING RING         8j         8j         8j         8j         8j         8j         50.57           27         931-920         GASKET RING         ARk         ARk         ARk         ARk         ARk         \$67.32           28         881-83		612-263		4			
19         612-180         VALVE COVER BLUE         4         \$181.36           20-21         881-920         O-RING SET         1         1         1         \$65.71           20         430-205         O-RING 6.4x1.8         4         4         4         \$4.99           21         250-285         O-RING 105x2.5         4         4         4         \$29.31           22         927-942         WASHER 6.0/12/1         4         4         4         \$0.69           23         840-887         ALLEN SCREW M6x30         4         4         4         \$0.69           24         253-114         INLET VALVE GUIDE         4h         4h         4h         \$27.25           25         854-224         INLET VALVE GUIDE         4i         4i         4i         \$89.62           26         245-440         RETAINING RING         8j         80         867.32           28         881-832         HYDRAULIC VALVE TAPPET SET         1n         1n         1n         \$1m         \$1,595.81		612-262				4	
20-21       881-920       O-RING SET       1       1       1       \$65.71         20       430-205       O-RING 6.4x1.8       4       4       4       4.99         21       250-285       O-RING 105x2.5       4       4       4       \$29.31         22       927-942       WASHER 6.0/12/1       4       4       4       \$0.76         23       840-887       ALLEN SCREW M6x30       4       4       4       \$0.69         24       253-114       INLET VALVE GUIDE       4h       4h       4h       \$27.25         25       854-224       INLET VALVE GUIDE       4i       4i       4i       \$89.62         26       245-440       RETAINING RING       8j       8j       8j       8j       8j       8j       50.57         27       931-920       GASKET RING       ARk       ARk       ARk       ARk       \$67.32         28       881-832       HYDRAULIC VALVE TAPPET SET       1n       1n       1n       \$1m       \$1,595.81         29       837-196       CAMSHAFT 227° ASSEMBLY       1lm       1lm       \$1,595.81							
20       430-205       O-RING 6.4x1.8       4       4       4       4       99         21       250-285       O-RING 105x2.5       4       4       4       4       \$29.31         22       927-942       WASHER 6.0/12/1       4       4       4       \$0.69         23       840-887       ALLEN SCREW M6x30       4       4       4       \$0.69         24       253-114       INLET VALVE GUIDE       4h       4h       4h       \$27.25         25       854-224       INLET VALVE GUIDE       4i       4i       \$89.62         26       245-440       RETAINING RING       8j       8j       8j       8j       \$0.57         27       931-920       GASKET RING       ARk       ARk       ARk       ARk       \$67.32         28       881-832       HYDRAULIC VALVE TAPPET SET       1n       1n       1n       \$1,595.81         29       837-196       CAMSHAFT 227° ASSEMBLY       1lm       1lm       \$1,595.81					4		
21       250-285       O-RING 105x2.5       4       4       4       4       \$29.31         22       927-942       WASHER 6.0/12/1       4       4       4       4       \$0.76         23       840-887       ALLEN SCREW M6x30       4       4       4       \$0.69         24       253-114       INLET VALVE GUIDE       4h       4h       4h       \$89.62         25       854-224       INLET VALVE GUIDE       4i       4i       4i       \$89.62         26       245-440       RETAINING RING       8j       8j       80.57         27       931-920       GASKET RING       ARk       ARk       ARk       ARk       \$67.32         28       881-832       HYDRAULIC VALVE TAPPET SET       1n       1n       1n       \$1,595.81         29       837-196       CAMSHAFT 227° ASSEMBLY       1lm       1lm       \$1,595.81							*
22       927-942       WASHER 6.0/12/1       4       4       4       4       \$0.76         23       840-887       ALLEN SCREW M6x30       4       4       4       \$0.69         24       253-114       INLET VALVE GUIDE       4h       4h       4h       \$27.25         25       854-224       INLET VALVE GUIDE       4i       4i       4i       \$89.62         26       245-440       RETAINING RING       8j       8j       8j       \$0.57         27       931-920       GASKET RING       ARk       ARk       ARk       67.32         28       881-832       HYDRAULIC VALVE TAPPET SET       1n       1n       1n       \$1,595.81         29       837-196       CAMSHAFT 227° ASSEMBLY       1lm       1lm       \$1,595.81				-		-	
23       840-887       ALLEN SCREW M6x30       4       4       4       4       50.69         24       253-114       INLET VALVE GUIDE       4h       4h       4h       4h       \$89.62         25       854-224       INLET VALVE GUIDE       4i       4i       4i       \$89.62         26       245-440       RETAINING RING       8j       8j       8j       \$0.57         27       931-920       GASKET RING       ARk       ARk       ARk       ARk       \$67.32         28       881-832       HYDRAULIC VALVE TAPPET SET       1n       1n       1n       \$1,595.81         29       837-196       CAMSHAFT 227° ASSEMBLY       1lm       1lm       \$1,595.81							
24         253-114         INLET VALVE GUIDE         4h         4h         4h         4h         \$27.25           25         854-224         INLET VALVE GUIDE         4i         4i         4i         \$89.62           26         245-440         RETAINING RING         8j         8j         8j         8j         50.57           27         931-920         GASKET RING         ARk         ARk         ARk         ARk         67.32           28         881-832         HYDRAULIC VALVE TAPPET SET         1n         1n         1n         \$1,595.81           29         837-196         CAMSHAFT 227° ASSEMBLY         1lm         1lm         \$1,595.81						-	
25       854-224       INLET VALVE GUIDE       4i       4i       4i       89.62         26       245-440       RETAINING RING       8j       8j       8j       8j       50.57         27       931-920       GASKET RING       ARk       ARk       ARk       ARk       67.32         28       881-832       HYDRAULIC VALVE TAPPET SET       1n       1n       1n       \$422.10         29       837-196       CAMSHAFT 227° ASSEMBLY       1lm       1lm       \$1,595.81	23	840-887		4	4	4	
26       245-440       RETAINING RING       8j       8j       8j       80.57         27       931-920       GASKET RING       ARk       ARk       ARk       ARk       ARk       4Rk							
27       931-920       GASKET RING       ARk       ARk       ARk       ARk       \$67.32         28       881-832       HYDRAULIC VALVE TAPPET SET       1n       1n       1n       \$422.10         29       837-196       CAMSHAFT 227° ASSEMBLY       1lm       1lm       \$1,595.81							
28 881-832 HYDRAULIC VALVE TAPPET SET 1n 1n 1n \$422.10 29 837-196 CAMSHAFT 227° ASSEMBLY 1lm 1lm \$1,595.81							
29 837-196 CAMSHAFT 227° ASSEMBLY 1lm 1lm \$1,595.81							
. ,					1n		
29 837-418 CAMSHAFT 230° ASSEMBLY 1lm <b>\$1,595.81</b>				1lm		1lm	
	29	837-418	CAMSHAFT 230° ASSEMBLY		1lm		\$1,595.81

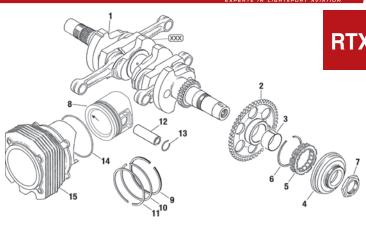
- Items not illustrated
- a for cylinder 2 and 3 b for cylinder 1 and 4
- c Up to engine S/N 912 A: 4,410.203
  - 912 F: 4,412.756 912 UL: 4,401.879
  - 914 F: 4,420.038 914 UL: 4,417.597
- Single valve springs and double valve springs if required are allowed to be mounted in one engine.
- d From engine S/N 912 A: 4,410.204 912 F: 4,412.757 912 UL: 4,401.880
  - 914 F: 4,420.039 914 UL: 4,417.598
- e With sintered bronze bushing
- Oversize +0.2 mm (0.008 in.) g Rocker arm version with vespel bushing
- From engine S/N
- 912 A: 4,410.472 912 F: 4,412.817
- 912 S: 4,922.768 912 UL: 4,404.621 912 ULS: 4,427.487
- 914 F: 4,420.314 914 UL: 4,418.104
- h for inlet valve, chafe up to new measurement i for outlet valve, chafe up to new measurement
- NOTICE: Use only once!
- for rework of exhaust port
- See Overhaul Manual of the respective engine type, current issue.
- Marked with S/N
- m Without worm gear
- n pre-filled, 8 parts per set
- o Cylinder heads where the coolant temperature is measured.
- p sée SI-914-30

#### CRANKSHAFT, PISTON, CYLINDER, SPRAG CLUTCH

Item No.         Part No.         Description         Oty. Req.         Pri           1         996-583         CRANKSHAFT SET         1g         1g         \$4,47           1         888-164         CRANKSHAFT SET         1g         1g         1g         \$4,95           2         834-122         FREE WHEEL GEAR 50 T         1         1         1         \$358           3         933-311         BEARING BUSHING         1         1         1         \$81           4         852-406         SPRAG CLUTCH HOUSING         1hj         1hj         1hj         1hj         \$298           5         958-856         SPRAG CLUTCH 51.70x68.377x13         1         1         1         \$71           6         845-425         CIRCLIP 70         1         1         1         1         \$72	9.57 6.00 .93
1       888-164       CRANKSHAFT SET       1g       1g       1g       \$4,95         2       834-122       FREE WHEEL GEAR 50 T       1       1       1       \$358         3       933-311       BEARING BUSHING       1       1       1       \$81         4       852-406       SPRAG CLUTCH HOUSING       1hj       1hj       1hj       1hj       \$298         5       958-856       SPRAG CLUTCH 51.70x68.377x13       1       1       1       \$312         6       845-425       CIRCLIP 70       1       1       1       \$7.	6.00 .93
2 834-122 FREE WHEEL GEAR 50 T 1 1 1 \$356 3 933-311 BEARING BUSHING 1 1 1 1 \$81 4 852-406 SPRAG CLUTCH HOUSING 1hj 1hj 1hj \$296 5 958-856 SPRAG CLUTCH 51.70x68.377x13 1 1 1 \$312 6 845-425 CIRCLIP 70 1 1 1 57.	.93
3 933-311 BEARING BUSHING 1 1 1 1 \$81 4 852-406 SPRAG CLUTCH HOUSING 1hj 1hj 1hj \$298 5 958-856 SPRAG CLUTCH 51.70x68.377x13 1 1 1 \$312 6 845-425 CIRCLIP 70 1 1 1 57.	
4 852-406 SPRAG CLUTCH HOUSING 1hj 1hj 1hj \$298 5 958-856 SPRAG CLUTCH 51.70x68.377x13 1 1 1 \$312 6 845-425 CIRCLIP 70 1 1 1 57.	84
5 958-856 SPRAG CLUTCH 51.70x68.377x13 1 1 1 \$312 6 845-425 CIRCLIP 70 1 1 1 \$7.	-
6 845-425 CIRCLIP 70 1 1 1 \$7.	.65
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	0
7 842-574 HEX. NUT M34x1.5 LH 1 1 1 \$68	04
8-11 996-542 PISTON ASSEMBLY 79.50/79.51 MM 4a 4a \$346	.72
8-11 888-382 PISTON ASSEMBLY 84/84.01 MM 4b \$356	.78
9 215-400 OIL SCRAPER RING 79.5 MM 4 <b>\$50</b>	39
9 815-230 OIL SCRAPER RING 84 MM 4g \$67	49
10 215-420 TAPERED COMPRESSION RING 4 \$31	17
10 815-280 TAPERED COMPRESSION RING 4e \$47	51
11 215-590 RECTANGULAR RING 79.5/ 4 \$59	44
11 815-251 RECTANGULAR RING 84/77x1.5 4e \$82	75
12 916-420 PISTON PIN 20x12x56 4g \$138	.85
12 916-356 PISTON PIN 20x12x55.3 4g 4g 4g <b>\$81</b>	25
13 845-106 MONOHOOK CIRCLIP 20 8 8 <b>\$2.</b>	3
14 250-510 O-RING 87x2 4 4 4 \$26	49
15 913-222 CYLINDER 4cf 4cf \$541	.52
15 913-226 CYLINDER 4df \$690	.11
16 881-540 PISTON SET 1i 1i \$1,45	3.48
17 881-542 PISTON SET 1i \$1,53	1 36

- Items not illustrated
- a red 79.50 mm, green 79.51 mm
- b red 84 mm, green 84.01 mm
- A 79.50 79.512, B 79.513 79.524
- d A 84.00 84.012, B 84.012 84.024
- at 912 ULS the complete piston with rings has to be exchanged up to S/N 4,425.123
- with countersunk for O-ring 830415. Introduced as per following engine S/N:

912 A: 4,410.393



912 F: 4,412.799

912 S: starting with serial production

912 UL: 4,403.679

912 ULS: starting with serial production

914 F: 4,420.207 914 UL: 4,417.868

following Service Letter has to be noticed

SL-912-002 current issue SL-914-002 current issue

h with expanded space of sprag clutch Introduced as per following engine S/N:

912 ULS/ULSFR/S

912 A: 4.410.807

912 F: 4,412.949

912 S: 4,923.671

912 UL: 4,409.089

912 ULS: 5,650.835

914 F: 4,420.805 914 UL: 6,772.727

Balanced piston set: max. difference 3 g

with drain holes

912 UL/A/F

#### **BING CONSTANT SPEED DEPRESSION CARBURETOR - SINGLE PARTS**

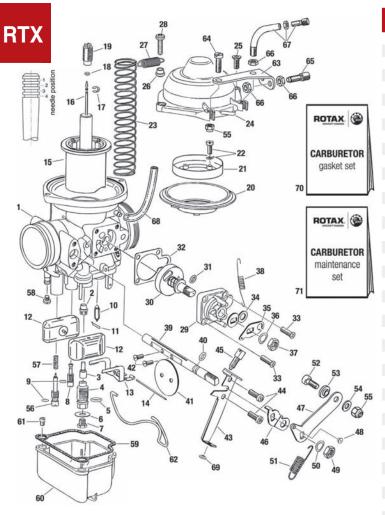
			Q	ty. Re	q.	
Item No.	Part No	Description	912 UL	912 ULS	914 UL	Price
AIRLIFTER	892-500	ASSEMBLY 1/3	1			\$1,129.23
AIKLIFIEK	892-505	ASSEMBLY 2/4	1			\$965.00
AIRBOX	892-500	ASSEMBLY 1/3	(1)a			\$1,129.23
AIRBUX	892-505	ASSEMBLY 2/4	(1)a			\$965.00
AIRLIFTER	892-530	ASSEMBLY 1/3		1		\$1,129.23
OR AIRBOX	892-535	ASSEMBLY 2/4		1		\$1,129.23
	887-093	ASSEMBLY 1/3			1b	\$1,147.39
AIRBOX	887-098	ASSEMBLY 2/4			1c	\$1,233.00
AIRBUX	892-520	ASSEMBLY 1/3			1b	\$1,133.25
	892-525	ASSEMBLY 2/4			1c	\$1,690.53

- a For airbox / See SB-912-044
- 64/32/398F/06, for cylinder 1/3; See SI-914-015 current issue
- 64/32/399F/06, for cylinder 2/4 incl. throttle potentiometer see chapter 73-00-00/Fig. 3; See SI-914-015 current issue
- See Service Instruction SI-03-1998
  Replace part no. 887-262 (64/32/394F/04) / 887-264 (64/32/394/08) / 888-802 (64/32/416/01) / 888-803 (64/32/416A/00)
- Replace part no. 887-267 (64/32/395F/04) / 887-269 (64/32/395/08) / 888-807 (64/32/417/01) / 888-808 (64/32/417A/00)
- Replace part no. 888-370 (64/32/409F/01) / 888-372 (64/32/412/00) / 888-373 (64/32/421/01) / 888374 (64/32/421A/00)
- Replace part no. 888-375 (64/32/410F701) / 888-377 (64/32/411/00) / 888-378 (64/32/422/01) / 888-379 (64/32/422A700)
- Replace part no. 887-092 (64/32/398F-06)
- Replace part no. 887-097 (64/32/399F-07)
- Replace part no. 887-094 (64/32/418A-00) 8
- Replace part no. 887-099 (64/32/419A-00)
- 10 Depends on airbox version:
- See SI-914-013 and SI-914-015 current issue 11 Depends on airbox version;
- See SB-914-044 current issue

	312 3		OIL OLO		VIT (	
Version	59,6 kW	(81 hp)	73.5 kW	(100 hp)	84.5 kW (	115 hp)
	Carbureto	or part no.	Carbureto	or part no.	Carbureto	part no.
Location	1/3	2/4	1/3	2/4	1/3	2/4
Airbox part no. 667355 BING no. Main jet Needle position	HD 158 <sup>11)</sup> NP 3	<b>892-505</b> 64/32/417A-02 HD 158 <sup>11)</sup> NP 3	<b>892-530</b> <sup>4)</sup> 64/32/421A-02 HD 155	<b>892-535</b> <sup>5)</sup> 64/32/422A-02 HD 155		
Airbox part BING no. Main jet Needle position	892-500 <sup>2)</sup> 64/32/416A-02 HD 158 NP 3	<b>892-505</b> <sup>3)</sup> 64/32/417A-02 HD 158 NP 3	NP 3	NP 3		
Airbox part no. 867-753 BING no. Main jet Needle position					887-093 <sup>6)</sup> 64/32/418/01 HD 160 <sup>10)</sup> NP 2	887-098 <sup>7)</sup> 64/32/419/01 HD 164 <sup>10)</sup> NP 2
Airbox part no. 667-162 BING no. Main jet Needle position					887-093 64/32/418/01 HD 160 <sup>10)</sup> NP 2	887-098 64/32/419/01 HD 164 <sup>10)</sup> NP 2
Airbox part no. 667-167 BING no. Main jet Needle position					892-520 <sup>8)</sup> 64/32/418A-05 HD 156 <sup>10)</sup> NP 2	<b>892-525</b> <sup>9)</sup> 64/32/419/01 HD 158 <sup>10)</sup> NP 3
Airbox part no. 667-574 BING no. Main jet Needle position					<b>892-520</b> 64/32/418A-05 HD 156 <sup>10)</sup> NP 2	<b>892-525</b> 64/32/419/01 HD 158 <sup>10)</sup> NP 3
Needle position	ND	2,72	ND 2	2,720	ND 2	,72
Diffusor	961-	-200	961-	-202	961-2	200
Jet needle			961-2	215		
Idle jet			LD 3	35		
Cold start jet			SD 85	5 1)		
Float needle / viton tipped			961-7			
Idle mixture screw			LS 1	,5		

914 UL/F





CARBURE	ΓOR - SI	NGLE P	ARTS !	912 SERIES
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Item	Part No	Description	Qty. Req.		Price	
No.	Part No	Description	912 UL	912 ULS	Price	
2	961-200	DIFFUSER	1		\$19.50	
2	961-202	DIFFUSER		1	\$24.95	
3	261-607	NEEDLE JET 2.72	1		\$22.10	
3	261-608	NEEDLE JET 2.70		1	\$22.10	
4	963-130	MIXING TUBE	1	1	\$22.60	
5	430-800	O-RING 8x2	1	1	\$3.35	
6	827-160	SHIM	1	1	\$1.75	
7	268-985	MAIN JET 160		1i	\$11.50	
7	268-984	MAIN JET 155	(1)f	1	\$11.50	
7	268-996	MAIN JET 158	1		\$11.50	
8	963-141	IDLE JET 30	1	1	\$30.70	
8	963-143	IDLE JET 35	1	1	\$44.60	
9	831-713	O-RING 3.2x1.8	2g	2g	\$3.85	
10	261-708	FLOAT NEEDLE VALVE W. VITON TIP	1g	1g	\$43.65	
11	261-710	FLOAT NEEDLE CLIP	1	1	\$1.95	
12	861-188	FLOATS PAIR	1h	1h	\$131.75	
13	861-192	FLOAT BRACKET	1	1	\$19.75	
14	929-702	PIN	1	1	\$2.55	
15	961-230	CARBURETOR PISTON	1	1	\$148.75	
16	961-215	JET NEEDLE	1	1	\$11.55	
17	945-785	CIRCLIP	1	1	\$1.85	
18	950-430	O-RING 2.5x1.5-N	1	1	\$1.85	
19	961-293	FIXATION SCREW	1e	1e	\$20.50	
20	861-116	DIAPHRAGM	1	1	\$95.19	
21	961-240	RETAINING RING	1	1	\$49.50	
22	841-210	COMBINED SCREW M4x12	4	4	\$2.95	
23	938-365	THROTTLE VALVE SPRING	1	1	\$17.60	
24	961-250	CHAMBER TOP	1	1	\$132.75	

Item			Qtv.	Req.	
No.	Part No	Description		912 ULS	Price
25	841-341	COUNTERSUNK SCREW M5x12	1	1	\$1.15
26	847-910	DISTANCE SLEEVE	1	1	\$11.95
27	838-242	SPRING	1	1	\$13.50
28	640-251	OVAL HEAD SCREW M5x20	1	1	\$1.02
29	961-280	CHOKE HOUSING CHOKE VALVE ASSEMBLY 1/3	1 1a,g	1 10 0	\$37.99
30 30	961-273 961-278	CHOKE VALVE ASSEMBLY 1/3	1b,g	1a,g	\$282.63 \$282.63
31	950-420	O-RING 5x1.5	10,9	1b,g 1	\$6.65
32	950-030	GASKET	1	1	\$4.60
33	841-360	PHILLIPS HEAD SCREW M4x14	4	4	\$1.90
34	848-241	CHOKE LEVER INSIDE	1	1	\$6.20
35	848-245	CHOKE LEVER OUTSIDE	1	1	\$7.95
36	845-035	SPRING WASHER 8.3/13.6/0.4	2	2	\$6.55
37	942-290	HEX. NUT M8x1	2	2	\$3.65
38	938-287	RETURN SPRING	1	1	\$10.50
39	963-992	THROTTLE SHAFT	1	1	\$32.80
40	950-020	O-RING 6x1.9	1	1	\$7.50
41	963-666	THROTTLE VALVE	1	1	\$15.50
42	941-200	SLOTTED HEAD SCREW M3x6	2	2	\$1.95
43	961-262	CABLE SUPPORT 1/3	1a,g	1a,g	\$22.50
43	961-267	CABLE SUPPORT 2/4	1b,g	1b,g	\$22.50
44	240-357	OVAL HEAD SCREW M4x10	2	2	\$0.62
45	963-162	THROTTLE VALVE STOP SCREW	1	1	\$10.95
46	848-232	STOP LEVER 2/4	1b	1b	\$8.99
46 47-48	848-230 963-026	STOP LEVER 1/3 THROTTLE VALVE LEVER 1/3	1a	1a	\$8.95 \$41.55
47-48	963-026	THROTTLE VALVE LEVER 1/3	1a,g	1a,g 1b,g	\$47.70
48	963-021	SLEEVE	1b,g 1	1b,g	\$4.35
49	942-290	HEX. NUT M8x1	2	2	\$3.65
50	845-035	SPRING WASHER 8.3/13.6/0.4	2	2	\$6.55
51	938-289	RETURN SPRING	1	1	\$11.60
52	241-847	ALLEN SCREW M5x12	1	1	\$14.55
53	847-740	GRADUATED SLEEVE	1	1	\$14.95
54	827-800	WASHER A5.5	1	1	\$5.99
55	842-030	LOCK NUT M5	2	2	\$2.05
56	961-222	IDLE MIXTURE SCREW	1	1	\$32.95
57	239-463	COMPRESSION SPRING	1g	1g	\$1.82
58	941-740	SLOTTED HEAD SCREW M3.5x5	1	1	\$1.53
59	830-721	GASKET (rubber)	1	1	\$21.76
60-61	963-230	FLOAT CHAMBER ASSEMBLY 1/3	1	1	\$109.90
60-61	963-232	FLOAT CHAMBER ASSEMBLY 2/4	1	1	\$109.90
61	268-758	JET 85	1	1	\$21.99
61	268-762	JET 105	(1)d	(1)d	\$24.50
61	268-857	JET 120	(1)d	(1)d	\$15.81
61	268-763	JET 130	(1)d	(1)d	\$14.37
61	268-765	JET 140	(1)d 1	(1)d 1	\$14.50
62 63	963-180	SPRING CLIP SUPPORT 1/3			\$10.50 \$68.53
63	851-071 851-073	SUPPORT 2/4	1a 1b	1a 1b	\$68.53
64	240-761	SLOTTED HEAD SCREW M5x16	1	1	\$1.75
65	241-440	ADJUSTMENT SCREW M6x0.75	1	1	\$4.95
66	942-541	HEX. NUT M6x0.75 HIGHT 3MM	3	3	\$0.99
67	861-640	BENT TUBE ASSEMBLY	1	1	\$39.95
68	256-035	AIR VENT LINE 120MM	1	1	\$12.95
69	963-010	SLEEVE	1	1	\$3.95
70	996-946	GASKET SET CARBURETOR	1jl	1jl	\$103.46
71		MAINTENANCE SET CARBURETOR	2kl	2kl	\$249.69
- Iten	ns not illus	trated			

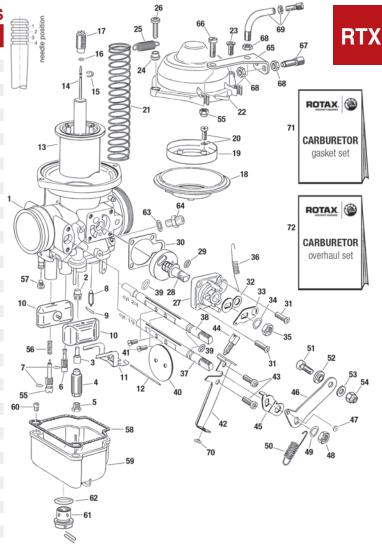
- For cylinder 1/3
- For cylinder 2/4
- Carburetor housing not available as spare part. use carburetor assy.;
- Refer to service instruction SI-03-1998 current issue
- With clearance for O-Ring (use only together with O-Ring Pos. 18 (part no. 950430)); For airbox part no. 867-758 / part no. 867-756
- See therefore SB-912-044
- See therefore SI-912-012 / SI-914-014
- Package including two floats
  Special jetting according to instructions of the manufacturer
  Contain parts requirement for 2 carburetors
- Maintenance set for 1 carburetor
- with rubber gasket

## 914 ENGINE



#### **CARBURETOR - SINGLE PARTS 914 SERIES**

CAF	BURE	TOR - SINGLE PARTS	914 S	ERIES
Item	Part No	Description	Qty.	Price
<b>No.</b> 2		DIFFUSER	Req.	
3	961-200 261-607	NEEDLE JET 2.72	1	\$19.50 \$22.10
4	963-135	MIXING TUBE	1	\$89.95
5	268-997	MAIN JET 156	1g	\$11.99
5	268-996	MAIN JET 158	1b,g	\$11.50
5	268-985	MAIN JET 160	1h	\$11.50
5	268-993	MAIN JET 164	1b,h	\$11.50
6	963-141	IDLE JET 30	1	\$30.70
6	963-143	IDLE JET 35	1	\$44.60
7	831-713	O-RING 3.2x0.8	2f	\$3.85
8	261-708 261-710	FLOAT NEEDLE VALVE W. VITON TIP FLOAT NEEDLE CLIP	1f 1	\$43.65 \$1.95
10	861-188	FLOATS PAIR	1i	\$131.75
11	861-192	FLOAT BRACKET	1	\$19.75
12	929-702	PIN	1	\$2.55
13	961-230	CARBURETOR PISTON	1	\$148.75
14	961-215	JET NEEDLE	1	\$11.55
15	945-785	CIRCLIP	1	\$1.85
16	950-430	O-RING 2.5x1.5-N	1	\$1.85
17 18	961-293 861-116	FIXATION SCREW DIAPHRAGM	1e 1	\$20.50 \$95.19
19	961-240	RETAINING RING	1	\$49.50
20	841-210	COMBINED SCREW M4x12	4	\$2.95
21	938-365	THROTTLE VALVE SPRING	1	\$17.60
22	961-250	CHAMBER TOP	1	\$132.75
23	841-341	COUNTERSUNK SCREW M5x12	1	\$1.15
24	847-910	DISTANCE SLEEVE	1	\$11.95
25	838-242	SPRING	1	\$13.50
26	640-251	OVAL HEAD SCREW M5x20	1	\$1.02
27	961-280	CHOKE HOUSING CHOKE VALVE ASSEMBLY 1/3	1	\$37.99
28 28	961-273 961-278	CHOKE VALVE ASSEMBLY 1/3	1a,f 1b,f	\$282.63 \$282.63
29	950-420	O-RING 5x1.5	1	\$6.65
30	950-030	GASKET	1	\$4.60
31	841-360	SLOTTED HEAD SCREW M4x14	4	\$1.90
32	848-241	CHOKE LEVER INSIDE	1	\$6.20
33	848-245	CHOKE LEVER OUTSIDE	1	\$7.95
34	845-035	SPRING WASHER 8.3/13.6/0.4	2	\$6.55
35	942-290	HEX. NUT M8x1 RETURN SPRING	2	\$3.65
36 37	938-287 963-992	THROTTLE SHAFT	1a	\$10.50 \$32.80
38	963-994	THROTTLE SHAFT (long)	1b	\$128.75
39	950-020	O-RING 6x1.9	2j	\$7.50
40	963-666	THROTTLE VALVE	1	\$15.50
41	941-200	SLOTTED HEAD SCREW M3x6	2	\$1.95
42	961-262	CABLE SUPPORT 1/3	1a,f	\$22.50
42	961-267	CABLE SUPPORT 2/4	1b,f	\$22.50
43	240-357	OVAL HEAD SCREW M4x10	2 1	\$0.62
44 45	963-162 848-232	THROTTLE VALVE STOP SCREW STOP LEVER 2/4	1b	\$10.95 \$8.99
45	848-230	STOP LEVER 1/3	1a	\$8.95
46-47	963-026	THROTTLE VALVE LEVER 1/3	1a,f	\$41.55
46-47	963-021	THROTTLE VALVE LEVER 2/4	1b,f	\$47.70
47	963-015	SLEEVE	1	\$4.35
48	942-290	HEX. NUT M8x1	2	\$3.65
49	845-035	SPRING WASHER 8.3/13.6/0.4	2	\$6.55
50	938-289	RETURN SPRING	1	\$11.60
51 52	241-847 847-740	ALLEN SCREW M5x12 GRADUATED SLEEVE	1	\$14.55 \$14.95
53	827-800	WASHER A5.5	1	\$5.99
54	842-030	LOCK NUT M5 2 2	,	\$2.05
55	961-222	IDLE MIXTURE SCREW	1	\$32.95
56	239-463	COMPRESSION SPRING	1f	\$1.82
57	941-740	SLOTTED HEAD SCREW M3.5x5	1	\$1.53
58	830-721	GASKET (rubber)	1 n	\$21.76
58	830-728	GASKET (paper)	1m	\$21.76
59-60	963-235	FLOAT CHAMBER ASSEMBLY 1/3	1	\$107.91
59-60 60	963-237 268-758	FLOAT CHAMBER ASSEMBLY 2/4 JET 85	1	\$105.99 \$21.99
60	268-762	JET 105	(1)d	\$24.50
50	100 101		(1)4	<b>+=</b>



Item No.	Part No	Description	Qty. Req.	Price
60	268-857	JET 120	(1)d	\$15.81
60	268-763	JET 130	(1)d	\$14.37
60	268-765	JET 140	(1)d	\$14.50
61-62	963-281	ATTACHMENT SCREW ASSEMBLY	1f	\$101.69
62	631-771	O-RING 15.6x1.78	1f	\$12.95
63	950-141	GASKET RING A 8x13	1	\$1.30
64	941-853	FUEL LINE CONNECTOR	1	\$18.24
65	851-071	SUPPORT 1/3	1a	\$68.53
65	851-073	SUPPORT 2/4	1b	\$68.53
66	240-761	SLOTTED HEAD SCREW M5x16	1	\$1.75
67	241-440	ADJUSTMENT SCREW M6x0.75	1	\$4.95
68	942-541	HEX. NUT M6x0.75 HIGHT 3 MM	3	\$0.99
69	861-640	BENT TUBE ASSEMBLY	1	\$39.95
70	963-010	SLEEVE	1	\$3.95
71	996-946	GASKET SET CARBURETOR 914	1kn	\$103.46
72	889-534	OVERHAUL-KIT CARBURETOR 914	2 ln	\$249.69
14		_ i _ i		

- Items not illustrated
- a For cylinder 1/3
- Carburetor housing not available as spare part. use carburetor ASSEMBLY;
- d Refer to service instruction SI-03-1998 current issue
- d Heter to service instruction SI-03-1998 current issue

  With clearance for O-Ring (use only together with O-Ring Pos. 18 (part no. 950-430);

  For airbox part no. 867-758 / part no. 867-756
  See therefore SB-912-044

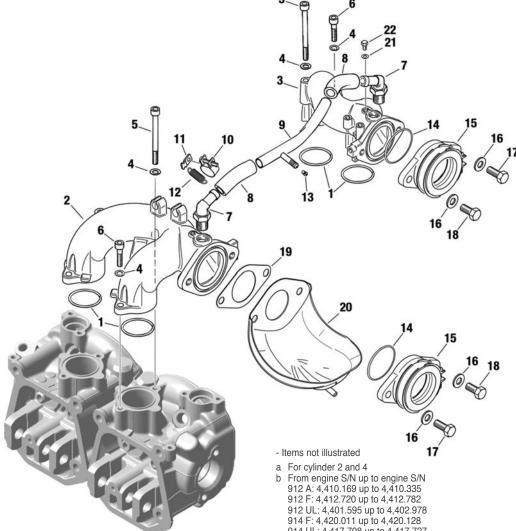
  g See therefore SI-912-012 / SI-914-014

  h Package including two floats
  i Special jetting according to instructions of the manufacturer
  j Contain parts requirement for 2 carburetors
  k Maintenance set for 1 carburetor
  l with rubber gasket

- I with rubber gasket





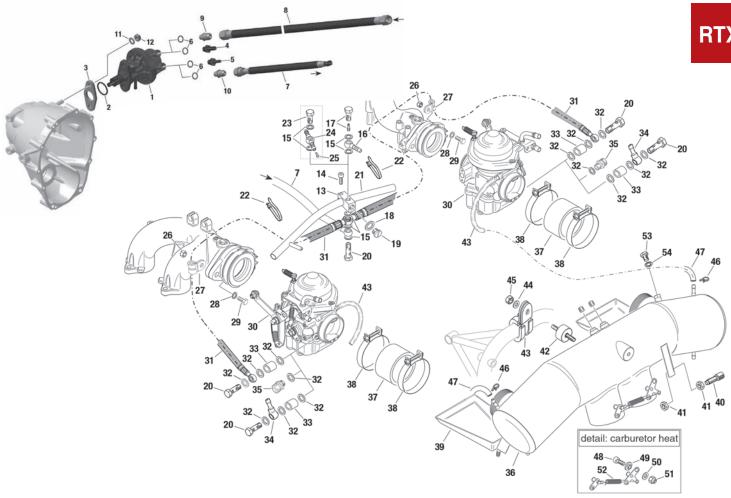


# INTAKE MANIFOLD, COMPENSATING TUBE ASSEMBLY, RUBBER FLANGE ASSEMBLY

Item	Don't No	Bassintian		Qty. Req.	.	Dates
No.	Part No	Description	912 UL	912 ULS	914 UL	Price
1	230-910	O-RING 34x2	4	4	4	\$11.91
2	867-932	INTAKE MANIFOLD	1al	1al	1al	\$443.87
4	827-962	WASHER 6.4	8	8	8	\$0.31
4	945-831	LOCK WASHER A6	8	8	8	\$0.23
5	241-871	ALLEN SCREW M6x70	4d		4d	\$1.92
5	240-531	ALLEN SCREW M6x75	4c	4	4c	\$1.92
6	840-866	ALLEN SCREW M6x25	4	4	4	\$1.14
7	922-242	ANGULAR TUBE 1/4-18NPT	2	2	2	\$18.14
8	956-143	TUBE 66 MM	2j	2j	2j	\$6.50
8	956-141	TUBE 81 MM	1j	1j	1j	\$8.25
8	956-142	TUBE	2i	2i	2i	\$69.43
9	924-541	COMPENSATING TUBE ASSEMBLY	1j	1j	1j	\$105.93
10	853-515	CLAMP 16/9	2	2	2	\$5.06
11	953-400	BRACKET	2	2	2	\$4.54
13	940-980	SCREW M3.5	1j	1j	1j	\$3.92
14	230-290	O-RING 44x2	2b		2b	\$8.25
14	230-300	O-RING 47x2	2c	2	2c	\$6.61
15	267-789	RUBBER FLANGE ASSEMBLY	2f	2f	2f	\$105.40
16	250-315	WASHER 8.4	4	4	4	\$0.41
17	940-481	HEX. SCREW M8x30	2j	2j		\$1.40
18	240-276	HEX. SCREW M8x25	2j	2j	4	\$1.26
19	931-640	GASKET	2e		2e	\$13.95
20	874-300	DRIP TRAY	(2g)	(2g)	2	\$102.21
21	230-415	GASKET A 6x10	2	2	2	\$1.40
22	641-071	HEX. SCREW M6x6	2	2	2	\$1.43

- 914 UL: 4,417.708 up to 4,417.727
- c From engine S/N 912 A: 4,410.336 912 F: 4,412.783 912 UL: 4,402.979 914 F: 4,420.129 914 UL: 4,417.728
- d up to engine S/N (only if the engine was not refitted with intake manifolds 867-683 and 867-688)
  - 912 A: 4,410.336 912 F: 4,412.783
  - 912 UL: 4,402.978 914 F: 4,420.128
  - 914 UL: 4,417.727
- e Only at intake manifold without O-ring
- Following Service Bulletin has to be noticed: SB-912-030 letztgültige Ausgabe/current issue SB-914-019
- g Intended for airboxes without drip tray.
- h For rework of exhaust port
- See Maintenance Manual Heavy of the respective engine type, current issue.
- in a roll
- Following Service Instruction has to be noticed: SI-912-020 current issue
- SI-914-022 k For cylinder 1 and 3
- Intake manifold with connection boss for pneumatic carburetor-synchronisation. From engine S/N
  - 912 A: 4,410.420 912 F: 4,412.808
  - 912 S: 4,922.624 912 UL: 4,404.045
  - 912 ULS: 4.426.475 912 ULSFR: 4,429.593 914 F: 4,420.239 914 UL: 4,417.956





#### FUEL PUMP ASSEMBLY, FUEL HOSE ASSEMBLY, AIRBOX ASSEMBLY

Item No.	Part No	Description		Req. 912 ULS	Price
1-3	893-115	FUEL PUMP ASSEMBLY	1bi	1bi	\$173.00
2	631-870	O-RING 23.47x2.62	1	1	\$8.01
3	950-227	ISOLATING FLANGE	1	1	\$40.07
4	840-745	NIPPLE 9/5.7	1i	1i	\$14.96
5	840-740	NIPPLE 7/3.8	1i	1i	\$14.96
6	250-425	GASKET RING 10.2x15x1.5	2i	2i	\$1.29
7	874-337	FUEL HOSE ASSEMBLY	1i	1i	\$184.93
8	874-347	FUEL HOSE ASSEMBLY	1i	1i	\$478.00
9	840-770	ADAPTER 9/16-18 UNF/ M10x1	1i	1i	\$69.54
10	840-775	ADAPTER 1/2-20 UNF/ M10x1	1i	1i	\$69.54
11	945-832	LOCK WASHER A8	2	2	\$0.23
12	942-674	HEX. NUT M8 SW11	2	2	\$1.99
13	851-328	FUEL DISTRIBUTION BLOCK	(1)	(1)	\$97.72
14	840-518	ALLEN SCREW M5x16	(1)	(1)	\$1.00
15	950-143	SEALING RING A 8x13	(5)	(5)	\$4.72
16	956-312	HOSE NIPPLE 3/4	(1)	(1)	\$23.81
17	840-737	BANJO BOLT ASSEMBLY	(1)d	(1)d	\$66.38
18	230-150	SEALING RING 10x14	(1)	(1)	\$1.09
19	641-733	SLOTTED HEAD SCREW M10x1x8	(1)	(1)	\$10.70
20	940-872	BANJO BOLT M8x1x27	(3)	(3)	\$19.76
22	866-716	CABLE TIE 203x7.6	(2)	(2)	\$0.66
23	941-780	BANJO BOLT M8x1x17	(1)	(1)	\$10.45
24-25	956-602	DOUBLE HOSE NIPPLE ASSEMBLY	(1)c	(1)c	\$66.74
25	963-820	PILOT JET 35	(1)	(1)	\$15.78
26	942-671	HEX. NUT M8	2	2	\$2.67
27	651-430	CABLE CLAMP 12/M8	(2)	(2)	\$22.73
31	874-911	FUEL HOSE ASSEMBLY	(1)	(1)	\$431.52
32	950-141	GASKET RING A 8x13			\$1.30
33	847-796	DISTANCE SLEEVE 8.4/12/7.5			\$10.84
34	956-312	HOSE NIPPLE 3/4	2h	2h	\$23.81
35	941-853	FUEL LINE CONNECTOR	1j	1j	\$18.24
36-52	667-355	AIRBOX ASSEMBLY	(1)b g	(1)b g	\$870.00

Item	Part No	Description	Qty.	Req.	Duine	
No.	Part No	Description	912 UL	912 ULS	Price	
37	860-985	CONNECTING HOSE 35 MM	(2)	(2)	\$11.38	
38	853-595	CLAMP 59	(4)	(4)	\$10.70	
39	874-308	DRIP TRAY SET	(1f)	(1f)	CALL	
39	874-680	DRIP TRAY SET	(1e)	(1e)	\$188.42	
40	241-440	ADJUSTMENT SCREW M6x0.75	(1)	(1)	\$4.95	
41	942-541	HEX. NUT M6x0.75 HIGHT 3 MM	(2)	(2)	\$0.99	
42	960-151	RUBBER PUFFER 20x15xM6	(1)	(1)	\$59.95	
43	853-010	CABLE CLAMP 32/M6	(1)	(1)	\$11.38	
44	927-941	WASHER 6.0/12/1	(1)	(1)	\$0.69	
45	842-041	LOCK NUT M6	(1)	(1)	\$2.43	
46	851-370	CLAMP 8	(4)	(4)	\$4.90	
47	860-660	HOSE 4x7, IN A ROLL, 200 MM	(2)	(2)	\$88.17	
48	241-847	ALLEN SCREW M5x12	(1)	(1)	\$14.55	
49	847-741	GRADUATED SLEEVE	(1)	(1)	\$28.17	
50	827-800	WASHER A 5.5	(1)	(1)	\$5.99	
51	842-030	LOCK NUT M5	(1)	(1)	\$2.05	
52	938-030	SPRING	(1)	(1)	\$38.58	
53	240-771	HEX. SCREW M6x10	(1)	(1) (1)		
54	230-415	SEALING RING A 6x10	(1)	(1)	\$1.40	

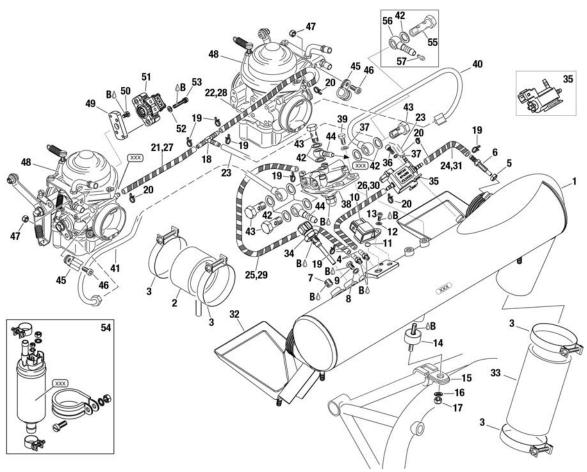
- a Marked with S/N. Inclusive suction- and pressure line; b Marked with S/N.
- b Marked with S/N.
  c With fuel pressure gauge connection; At conversion from 956-312 to 956-602 remove jet 963-820 from banjo bolt.
  d Marked with yellow dot, with orifice;
  e Drip tray for airbox part no. 867-758, 667-162 and 667-167
  f Drip tray for airbox part no. 867-758
  g For retrofitting following Service Bulletin has to be noticed SB-912-044 current issue h Optional with connection flexible fuel lines;
  i See SI 912-020 current issue
  i For steel nine

- - For steel pipe









#### AIRBOX ASSEMBLY, 3-WAY SOLENOID VALVE ASSEMBLY, FUEL PRESSURE REGULATOR ASSEMBLY

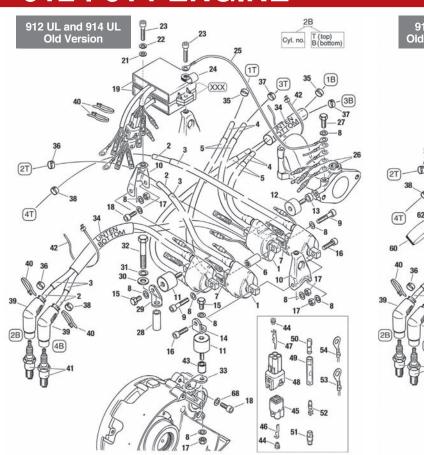
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Item No.	Part No	Description	Qty. Req. 914 UL	Price
1-33	667-574	AIRBOX ASSEMBLY	1ai	\$1,831.91
2	860-985	CONNECTING HOSE 35 MM	(2)	\$11.38
3	853-595	CLAMP 59	6	\$10.70
4	940-551	HOSE NIPPLE M6	2	\$17.20
5	242-032	HEX NUT BM6	1	\$0.93
6	940-555		1	\$65.48
7	240-481	PLUG SCREW 1/8-27NPT	1	\$5.47
8	230-415	SEALING RING A 6x10	1	\$1.40
9	641-071	HEX. SCREW M6x6-8.8	1	\$1.43
11	430-205	O-RING 6.4x1.8	1	\$4.99
12	244-216		1	\$2.38
13	840-392		1	\$1.10
13	840-391	ALLEN SCREW M6x14	1	\$1.00
14	960-151	RUBBER PUFFER 20x15xM6	1	\$59.95
15	853-010	CABLE CLAMP 32/M6	1	\$11.38
16	927-941	WASHER 6.0/12/1	3	\$0.69
17	842-041	LOCK NUT M6	1	\$2.43
18	874-270	T-PEACE 6-6-6	2	\$9.70
19	851-370	CLAMP 8	7	\$4.90
20	951-595	CLAMP 7.3	5	\$4.99
21-26	860-660	HOSE 4x7	AR	\$88.17
27-31	966-060	SPIRAL HOSE 6.5x8.5x0.6	AR	\$11.09
32	874-680	DRIP TRAY SET	(1g)	\$188.42
33	860-984		1	\$56.53
34	966-435		1n	\$266.41
34	966-430	RESISTANCE THERMOMETER	1b	\$221.57
35	874-310	3-WAY SOLENOID VALVE ASSEMBLY	11	\$422.44
35	874-313	3-WAY SOLENOID VALVE ASSEMBLY	11	\$141.90
35	881-040	3-WAY SOLENOID VALVE RETROFIT KIT	11	\$253.15
36	840-392	ALLEN SCREW M6x14	2	\$1.10
37	945-831	LOCK WASHER A6	4	\$0.23
38	887-130		1	\$166.47
39	241-187	HEX. SCREW M6x16	2	\$0.53
40	874-290		1d	\$172.84
41	874-280	FUEL HOSE ASSEMBLY 2/4	1c	\$165.39

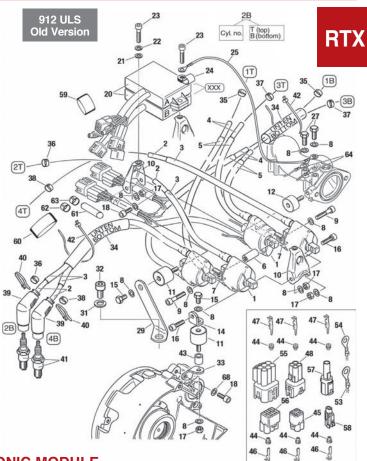
Item No.	Part No	Description	Qty. Req. 914 UL	Price
42	230-150	GASKET RING 10x14	9	\$1.09
43	940-874	BANJO BOLT M10x1x19	4	\$13.99
44	956-314	HOSE NIPPLE 4/6	2	\$23.81
45	851-115	CABLE CLAMP 5/M5	2	\$5.69
46	241-842	ALLEN SCREW M5x12	2	\$0.76
47	842-030	LOCK NUT M5	2	\$2.05
49	861-931	ADAPTOR	1k	\$207.97
50	640-181	SLOTTED HEAD SCREW M4x7	2f	\$3.03
51	966-482	THROTTLE VALVE POSITION SENSOR	1k	\$306.10
52	244-073	WASHER 4.3	2f	\$0.21
53	841-030	COMBINED SCREW M4x22	2f	\$2.07
54	996-738	FUEL PUMP	2	\$356.23
55	940-873	BANJO BOLT M10x1x30	(1m) o	\$16.26
56	956-314	HOSE NIPPLE 4/6	(1m)	\$23.81
57	963-143	IDLE JET 35	1 (mo)	\$44.60
Items	not illustra	ated	, ,	

- a Marked with S/N.
- b Only for TCU part no. 966-470;
- c For cylinder 2/4
- d For cylinder 1/3
- e Used as water trap
- e Used as water trap
  f Also included in carburetor for 914 CYLINDER 2/4.
  g Drip tray for airbox part no. 867-758, 667-162 and 667-167
  h For use of airbox part no. 667-162
  See therefore SI-914-013 current issue
  i For use of airbox part no. 667-167
  See therefore SI-914-015 current issue
  i For use of airbox part no. 967-762

- For use of airbox part no. 867-753
- New adapter flange use only together with throttle valve position sensor. See therefore SI-25-1997
- See Service Instruction SI-914-022 current issue
- m Optional for fuel pressure gauge connection
- n Not for TCU part no. 966-470
- 0 Press into part at pos. 56.



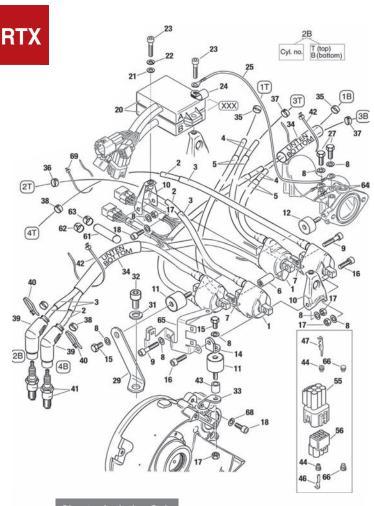




#### DOUBLE IGNITION COIL ASSEMBLY, SMD- ELECTRONIC MODULE

Itom			Qty. Req.										
Item No.	Part No	Description		912		Price	Item No.	Part No	Description		912		Price
1.5	066 210	DOUBLE IGNITION COIL	UL 4s	ULS	UL 4s	\$427.96	20	947 702	SPACER 8.4/12/30	UL 1g	ULS 1g	UL 1g	\$15.25
		DOUBLE IGNITION COIL ASSEMBLY	45 4m	4m	45 4m	\$371.39			BRACKET	1g	1g	1g	\$11.26
1-0		IGNITION CABLE 7 MM		ARa		\$45.80			BRACKET	1h	1h	1h	\$11.47
3		PROTECTION HOSE 8x1		ARb		\$17.11			WASHER 8.4	1g	1g	1g	\$0.41
4		IGNITION CABLE 7 MM		ARc		\$45.80			LOCK WASHER A8	1g	1g	1g	\$0.41
5		PROTECTION HOSE 8x1		ARd		\$17.11			HEX. SCREW M8x50	1g	1g	1g	\$1.92
6		DISTANCE NUT M6x24	1	Aitu	Allu	\$14.66			ALLEN SCREW M8x16	1h	1h	1h	\$1.32
6		DISTANCE NUT M6x22.5	(1)	1	1	\$12.12			BRACKET	1	1	1	\$11.26
7		SEPARATING PLATE	(2)	2	2	\$5.35			GLASS FIBER-SILICON SHEATING 120	2	2	2	\$8.35
8		LOCK WASHER A6	9p	10p	9p	\$0.23			MARKING SLEEVE 1	2	2	2	\$1.09
9		ALLEN SCREW M6x30	2	2	2	\$1.45			MARKING SLEEVE 2	2	2	2	\$1.09
10		IGNITION COIL BRACKET ASSEMBLY	2	2	2	\$75.27			MARKING SLEEVE 3	2	2	2	\$1.09
11		RUBBER BUFFER 25x19xM6	2	2	2	\$34.41			MARKING SLEEVE 4	2	2	2	\$1.09
12		RUBBER BUFFER 25x15xM6	1	1	1	\$28.81			SPARK PLUG SOCKET	8	8	8	\$41.50
		RUBBER BUFFER 25x19xM6	- 1i	•	- 1i	\$34.41			CLAMP 142x2.5MM	8	8	8	\$1.26
13		SPACER 6.4/10/5		ARe	ARe	\$3.32			SPARK PLUG 12 MM	8			\$3.65
14		IGNITION COIL BRACKET	1	1	1	\$11.26			SPARK PLUG 12 MM		8		\$9.42
15		HEX. SCREW M6x10	2	2	2	\$0.63			SPARK PLUG 12 MM			8	\$21.57
16	241-935	ALLEN SCREW M6x20	2	2	2	\$0.63	41	297-656	SPARK PLUG 12 MM	8	8	8	\$21.95
17		HEX. NUT M6	4	4	4	\$0.41			CLAMP 279x3.6MM	2	2	2	\$1.97
18	241-237	ALLEN SCREW M6x16	3	3	3	\$0.73	43	847-701	SPACER 6.5/10/11	(1)j	(1)j	1	\$8.92
19	965-446	SMD-ELECTRONIC MODULE (4p+single con.)	2		2	\$1.016.66	44	260-130	CABLE GROMMET	AR	AR	AR	\$2,28
20		SMD-ELECTRONIC MODULE (6p+4p+single con.)		2f		\$1,016.66	45	265-260	CONNECTOR HOUSING 4-POLE	AR	AR	AR	\$6.51
20	965-442	SMD-ELECTRONIC MODULE (6p+6p+single con.)			2m	\$1,311.40	46	265-275	FASTON CONNECTOR	AR	AR	AR	\$2.45
20	965-444	SMD-ELECTRONIC MODULE (6p+6p+single con.)	20	20		\$1,016.66	47	265-210	FLAT PIN TERMINAL	AR	AR	AR	\$1.92
21	827-800	WASHER A 5.5	1	1	1	\$5.99	48	265-262	CONNECTOR HOUSING 4-POLE	AR	AR	AR	\$14.11
22	945-830	LOCK WASHER A5	1	1	1	\$0.14	49	964-072	INSULATION SHEATH	AR		AR	\$2.28
22	945-750	LOCK WASHER A5	1	1	1	\$0.14	50	964-067	FASTON CONNECTOR 3.96	AR		AR	\$2.28
23	240-186	ALLEN SCREW M5x25	2	2	2	\$0.54	51	964-077	INSULATION SHEAT	AR		AR	\$2.50
24	851-118	CABLE CLAMP 11.3/M5	1	1	1	\$6.58	52	964-062	FASTON CONNECTOR 3.96	AR		AR	\$2.28
25	965-788	MASS CABLE ASSEMBLY	1	1	1	\$13.32	53	964-059	CABLE SHOE M6	AR	AR	AR	\$1.23
26	965-781	MASS CABLE ASSEMBLY	2		2	\$47.90	54	964-055	CABLE SHOE M5	AR	AR	AR	\$0.85
27	241-187	HEX. SCREW M6x16	1	2	1	\$0.53	55	265-269	CONNECTOR HOUSING 6-POLE	AR	AR	AR	\$17.11
27	241-186	HEX. SCREW M6x16	1	2	1	\$0.48	56	265-265	CONNECTOR HOUSING 6-POLE	AR	AR	AR	\$9.47





			0	tv. Re	<b>a</b>	
Item	Part No	Description	912	912	<u>ч.</u> 914	Price
No.	Part NO	Description		ULS	UL	File
57	265-204	CONNECTOR HOUSING 1-POLE	AR	AR	AR	\$13.27
58	265-207	CONNECTOR HOUSING 1-POLE	AR	AR	AR	\$10.04
59	960-260	SHRINK TUBE COATED		ARI		\$106.02
60	960-300	SHRINK TUBE COATED 48/16		ARk		\$108.48
62	960-010	SHRINKABLE HOSE IMPRINTED A	1	1	1	\$8.93
63	960-015	SHRINKABLE HOSE IMPRINTED B	1	1	1	\$8.93
64	965-782	MASS CABLE ASSEMBLY	2	2	2	\$71.20
64	965-784	MASS CABLE ASSEMBLY	2m	2m	2m	\$22.70
65	853-125	CONNECTOR BRACKET	1m	1m	1m	\$66.24
66	260-135	DUMMY PLUG	1m	1m	1m	\$1.84
67	881-280	SOFT START SET	1q	1q	1q	\$1,865.16
68	827-962	WASHER 6.4	1	1	1	\$0.31
68	945-831	LOCK WASHER A6	1	1	1	\$0.23
69	866-714	TIE WRAP 142x3,2MM	2r	2r	2r	\$0.35
-	964-081	EASY START UNLOCK	1	1		\$89.95

- Items not illustrated
- In a roll, Ignition cable 620 mm; In a roll, Protection hose 560 mm
- In a roll, Protection hose 500 mm
- In a roll, Protection hose 450 mm
- Not necessary at intake manifold part no. 867688;
- Marked with S/N;
- Introduced as per S/N as follows: 04.0388 with altered insulation only for spare parts
- for crankcase part no. 886354, part no. 886358 and older;
- At crankcase part no. 888364 or newer crankcase;
- Not suitable for intake manifold part no. 867688;
- Necessary at version with ring mount;
- In a roll
- Use part no. 842742 and 953390 only together; m SI-912-013 / SI-914-016 current issue

See Maintenance Manual Heavy of the respective engine type, current issue.

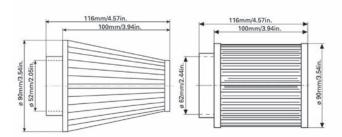
- In a roll, silicone hose 120 mm
- SI-912-020 / SI-914-022 current issue
- 1x lock washer A6 part no. 945751 is not needed after production-year 2010 on position between the bracket 2 part no. 851267 and the hex. nut M6.
- Without magneto wheel consisting of 20, 21, 22, 23, 44, 46
- Required for the following cylinders: 413235 / 413236 / 413245 / 413246 / 413185 / 413195. Danger of abrasion!
- Short lines connected with 965-359 and 965-446. Length = 85 mm (instead of 70 mm).

# Chapter Includes Only Not Certified Parts

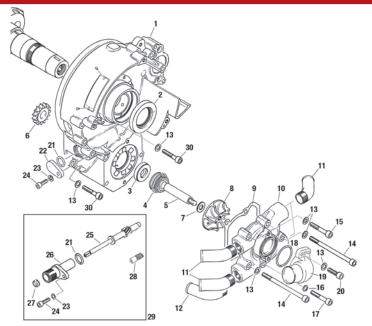
#### INSTRUMENTS, AIR FILTER

Item	Dort No.	Description		Qty. Req.		Price
No.	Part No	Description	912 UL	912 ULS	914 UL	Price
1	956-525	TEMPERATURE GAUGE 50 - 150 DEG.	(1a)	(1a)	(1a)	\$366.69
2	956-520	PRESSURE GAUGE 0-146 PSI	(1b)	(1b)	(1b)	\$366.69
3	966-408	REV COUNTER 0-7000 1/MIN	(1c)	(1c)	(1c)	\$276.57
4	825-750	AIR FILTER			(1)	\$68.88
5	825-551	AIR FILTER	(2)	(2)		\$33.96
6	825-711	AIR FILTER	(2d)	(2d)		\$45.36

- Items not illustrated
- For oil temperature and / or cylinder head temperature
- For oil pressure; for old VDO sensor, not usable with part no. 456-180
- For engine speed;
- Following Service Instruction has to be noticed SI-912-017 current issue



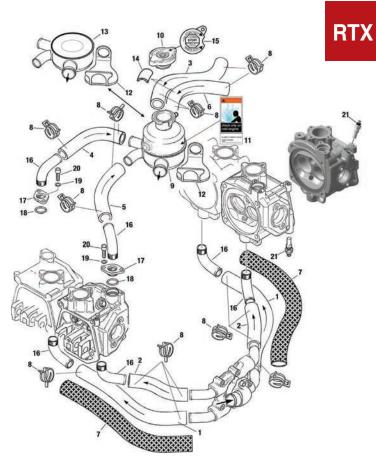




#### WATER PUMP WITH DRIVE

			Q	ty. Re	q.	
Item No.	Part No	Description	912 UL	912 ULS	914 UL	Price
1	612-047	IGNITION HOUSING ASSEMBLY	1d	1d	1d	\$1,718.44
1	612-046	IGNITION HOUSING ASSEMBLY	1g	1g	1g	\$1,717.93
2	850-965	OIL SEAL 32x52x7	1	1	1	\$108.12
3	850-977	OIL SEAL A 12x30x7 FPM	1	1	1	\$35.71
4	850-946	ROTARY SEAL	1c	1c	1c	\$93.32
5	837-111	PUMP SHAFT	1	1	1	\$86.58
6	834-135	WATER PUMP GEAR 15 T	1	1	1	\$96.42
7	926-274	WASHER 8.2/12.5/1.5	1ac	1ac	1ac	\$12.03
8	922-224	IMPELLER	1	1	1	\$91.45
9	850-981	GASKET	1	1	1	\$12.27
10	922-202	WATER PUMP HOUSING	1	1	1	\$399.90
11	922-233	BENT SOCKET 45 DEGREES	3	3	3	\$17.84
12	922-231	BENT SOCKET 80 DEGREES	1b	1b	1b	\$17.84
13	827-962	WASHER 6.4	13	13	13	\$0.31
13	945-751	LOCK WASHER A6	13	13	13	\$0.21
14	241-482	ALLEN SCREW M6x90	2	2	2	\$2.64
15	241-814	ALLEN SCREW M6x35	2	2	2	\$0.63
16	230-415	GASKET RING A6x10	1	1	1	\$1.40
17	241-813	ALLEN SCREW M6x35	1a	1a	1a	\$1.45
18	230-020	O-RING 32x2	1	1	1	\$9.93
19	922-218	WATER INLET ELBOW	1	1	1	\$350.57
20	241-935	ALLEN SCREW M6x20	2	2	2	\$0.63
21	230-880	O-RING 13.3-2.4	1	1	1	\$6.97
22	810-620	COVER PLATE	1	1	1	\$8.71
23	945-830	LOCK WASHER A5	1	1	1	CALL
24	840-514	ALLEN SCREW M5x16	1	1	1	\$0.53
25	837-150	REV COUNTER SHAFT	1	1	1	\$178.70
26	912-191	REV COUNTER HOUSING	1h	1h	1h	\$166.08
27	930-500	OIL SEAL 6x11x3/4.5	1	1	1	\$19.10
28	834-182	WORM GEAR 5 T.	1f	1f	1f	CALL
29+1-8,13,30	881-692	MECH. REV COUNTER DRIVE	(1f)	(1f)	(1f)	\$1,353.91
30	840-888	ALLEN SCREW M6x30	7	7	7	\$0.63

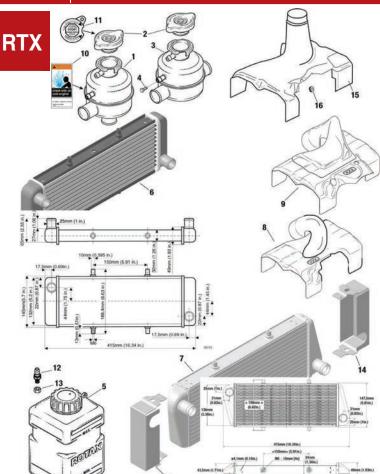
- Items not illustrated
- a Stainless
- Optional for engine suspension frame
- The rotary seal has been introduced as from following S/N. Up to this S/N the rotary seal has to be exchanged together with part no. 926-274 / 922-224:
  912 A: 4,410.366 / 912 F: 4,412.791 / 912 S: starting with serial production / 912
  - UL: 4,403.283 / 912 ULS: starting with serial production / 914 F: 4,420.157 / 914 UL: 4,417.783
- For mech. rev counter drive without centering bore for pick up.
  - For engines without mech. rev. counter drive part no. 230-880, 945-830 and part no. 840-514 has to be mounted additional.
- See therefore: SB-912-037 current issue / SB-914-023
- See Maintenance Manual Heavy of the respective engine type, current issue
- Without processing for mech. rev counter drive
- Will be delivered in circle shape



#### **EXPANSION TANK WITH HOSES & CONNECTIONS**

Itom	Item Bort No Becarintian		G	ty. Red	٦.	
No.	Part No	Description	912 UL	912 ULS	914 UL	Price
1	922-362	WATER TUBE 280 MM	2a	2a	2a	\$61.02
2	922-360	WATER TUBE 180 MM	2b	2b	2b	\$41.40
3	922-361	WATER TUBE 285 MM	1c	1c	1c	\$61.02
4	922-363	WATER TUBE 200 MM	1f	1f	1f	\$41.40
5	922-364	WATER TUBE 85 MM	1g	1g	1g	\$12.93
6	922-192	FORM HOSE 90	1e	1e	1e	\$52.93
7	860-650	PROTECTION TUBE (HEAT			AR h	\$222.81
8	851-645	SELF COMPENSATING	16j	16j	16j	\$7.14
9-12	922-666	EXPANSION TANK ASSEMBLY	1j	1j	1j	\$351.21
10	922-072	RADIATOR CAP WITH GASKET 1.2 BAR	1j	1j	1j	\$82.46
11	897-506	WARNING LABEL	1	1	1	\$5.69
12	860-826	RUBBER PLATE	1	1	1	\$11.91
13	922-263	WATER DISTRIBUTOR ASSEMBLY	(1i)	(1i)	(1i)	\$299.00
15	898-490	WARNING LABEL EVANS	AR k	AR k	AR k	\$0.31
16	922-231	BENT SOCKET 80°	8	8	8	\$17.84
16	922-233	BENT SOCKET 45°	(8)	(8)	(8)	\$17.84
17	922-303	FLANGE	4	4	4	\$56.43
18	950-180	O-RING 19x2	4	4	4	\$13.46
19	827-962	WASHER 6.4	8	8	8	\$0.31
19	945-831	LOCK WASHER A6	8	8	8	\$0.23
20	241-935	ALLEN SCREW M6x20	8	8	8	\$0.63
21	965-531	TEMPERATURE SENSOR	2j	2j	2j	\$147.75

- Items not illustrated
- a Supply to cylinder 1 and 2 b Supply to cylinder 3 and 4
- Discharge Cylinder 1
- As scrab-protector for version 3
- Discharge Cylinder 3
- Discharge Cylinder 2
- Discharge Cylinder 4
- In a roll use
- Expansion tank for radiator installation above engine;
- See SI-912-020 + SI-914-022 current issue
- See SB-914-043 current issue



#### **COOLING AIR BAFFLE, OVERFLOW BOTTLE** WITH CAP, RADIATOR

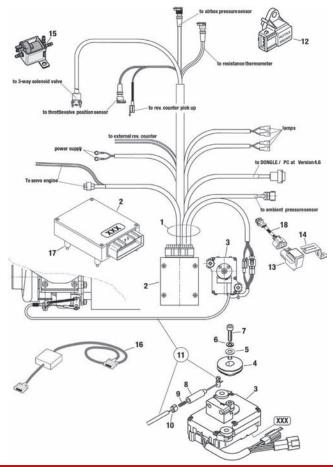
		,		
Item No.	Part No	Description	Qty. Req.	Price
1-2	922-312	EXPANSION TANK ASSEMBLY 90°	(1)	\$148.00
1-2	922-313	EXPANSION TANK ASSEMBLY 90°	(1)	\$148.00
2-3	922-317	EXPANSION TANK ASSEMBLY 180°	(1)	\$148.20
2-3	922-318	EXPANSION TANK ASSEMBLY 180°	(1)	\$148.20
2	922-072	RADIATOR CAP WITH GASKET	1c	\$82.46
4	641-071	HEX. SCREW ISO M6x6	AR	\$1.43
5	922-327	OVERFLOW BOTTLE WITH CAP	(1)d	\$53.40
6	995-698	RADIATOR - STANDARD 12 FINS	(1)	\$487.00
7	997-084	RADIATOR - ADVANCED 13 FINS	(1)f	\$487.00
8	975-795	COOLING AIR BAFFLE	(1)a	\$614.86
8	975-799	COOLING AIR BAFFLE	(1)j	CALL
10	897-506	WARNING LABEL	1	\$5.69
11	898-490	WARNING LABEL EVANS COOLANT	(NB)	\$0.31
12	940-558	HOSE NIPPLE M6	1d	\$26.39
13	242-213	HEX. NUT M6	1d	\$1.58
14	881-530	RADIATOR RETROFIT KIT	1g	CALL
15-16	975-792	COOLING AIR BAFFLE	(1)h	CALL
15-16	975-798	COOLING AIR BAFFLE	(1)i	CALL
16	975-799	RUBBER GUMMET	(1)	CALL

- Items not illustrated
- a Short version; marked with S/N; tractor, white
- Edition Diamond Marked with S/N;
- See Service Instruction SI-912-020 / SI-914-022 current issue
- See Service Bulletin SB-912-039 / SB-914-029 current issue
- See Service Bulletin SB-912-043 / SB-914-029 current issue
- Same outline dimensions and brackets as TNr. 995-698, but with improved cooling same outline dimensions and brackets as TNr. 99: performance (18 % bigger cooling surface) Use together with part no. 997-083 For retrofitting instead of radiator part no. 997-082 Cooling air baffle for pusher, color white Cooling air baffle for pusher, color black Cooling air baffle for tractor, color black

#### TURBOCHARGER CONTROL UNIT

Item No.	Part No	Description	Qty. Req. 914 UL	Price
1	966-494	WIRING HARNESS	1d	\$573.14
2	966-741	TURBOCHARGER CONTROL	1a	\$2,620.66
3	295-410	SERVO MOTOR	1b	\$477.51
4	280-088	ROPE SHEAVE	1	\$108.93
5	926-180	WASHER A 5.2x14.8x1.5	1	\$0.59
6	945-830	LOCK WASHER A5	1	\$0.21
7	441-341	ALLEN SCREW M5x20	1	\$0.48
8	847-882	CABLE RETAINER	1	\$27.65
9	239-015	COMPRESSION SPRING 16.9	1	\$4.26
10	853-845	CLAMP 5-7 MM	1	\$4.95
11	897-941	CABLE BOWDEN ASSEMBLY	1	\$79.86
12	966-502	AIRBOX PRESSURE SENSOR	1c	\$245.96
13	274-051	AMBIENT PRESSURE SENSOR	1d	\$282.07
14	924-990	HOLDING BRACKET FOR	1dh	\$7.78
17	660-771	RUBBER BUFFER 10x15xM4	4	\$29.13
18	666-012	CONNECTOR CABLE	1g	\$113.70

- Items not illustrated
- a Version 4.6; used from following engine S/N in serial production: 914 F: von / from S/N 4,420.200 914 UL: von / from S/N 4,417.849 Retrofit at older engines possible according SB/SI;
- Marked with S/N; b Marked with S/N;
- Airbox pressure sensor
- See Service Instruction SI-914-022 current issue
- Only for part no. 966741 (version 4.6)
- For authorized distributors only
- Connector cable, wiring harness part no. 966-492 with sensor part no.
  - See Service Instruction SI-914-022
- h Non certified part





**RTX** 

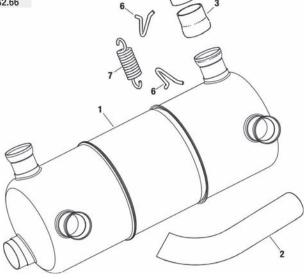
**EXHAUST SYSTEM** 

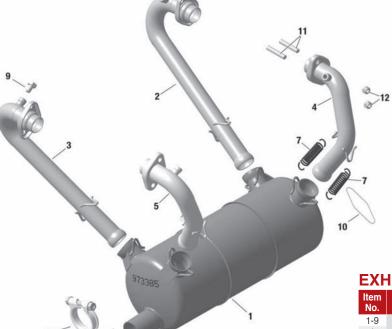
Item No.	Part No	Description		Qty. Req. 912 ULS 914 UL	Price		
1 1-7	978-489	EXHAUST ASSORTMENT STAINLESS STEEL	(1)c		\$742.40		
1-7	973-676	EXHAUST ASSORTMENT STAINLESS STEEL	(1)	(1)	\$970.31		
1	973-674	MUFFLER ASSEMBLY STAINLESS	(1)	(1)	\$919.72		
2	978-605	EXHAUST ELBOW, STAINLESS	(1)	(1)	\$86.75		
3	978-520	BALL JOINT, MALE	(4)		\$17.59		
3	978-521	BALL JOINT, MALE STAINLESS (4) (4)					
4	978-997	EXHAUST TUBE 800 MM STANDARD	(2)	(1)	\$35.23		
4	978-998	EXHAUST TUBE 800 MM STAINLESS	(2)	(2)	\$87.51		
5	978-500	EXHAUST ELBOW ASSEMBLY 1.5 MM STAINLESS	(2b)	(2b)	CALL		
6	853-355	HOOK	(16)		\$1.92		
6	853-356	HOOK STAINLESS	(16)	(16)	\$2.13		
7	938-795	SPRING 66 MM	(8)	(8)	\$3.39		
8	978-246	EXHAUST FLANGE	4	4	\$32.61		
9	978-252	EXHAUST SOCKET	4	4	\$31.70		
10	940-368	STUD M8x23/20	8	8 8	\$6.50		
11	842-950	LOCK NUT M8-WS12	8	8 8	\$2.66		

- Items not illustrated

a certified part

360° annular ring (torus-shaped)
 For 80 HP engine only! Do not use on 100 HP engine with muffler ASSEMBLY part no. 978-063.

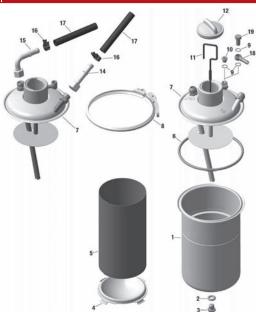




#### **EXHAUST SYSTEM 912 SERIES**

Item No.	Part No	Description	Qty. Req.	Price
1-9	973-387	EXHAUST ASSORTMENT STAINLESS STEEL	1	\$1,450.00
1	973-385	MUFFLER ASSEMBLY	1	CALL
2	973-010	EXHAUST PIPE ASSEMBLY CLY.	1	CALL
3	973-020	EXHAUST PIPE ASSEMBLY CLY.	1	CALL
4	973-030	EXHAUST PIPE ASSEMBLY CLY.	1	CALL
5	973-040	EXHAUST PIPE ASSEMBLY CLY.	1	CALL
6	973-390	EXHAUST BELOW, STAINLESS	1	\$249.95
7	938-795	SPRING 66 MM	9	\$3.39
8	951-550	EXHAUST PIPE CLAMP ASSEMBLY	1	CALL
9	841-113	HEX. SCREW M8X1X10	4	\$18.52
10	297-555	SAFETY WIRE 0.8	AR	CALL
11	940-366	STUD M8x23/20	8	\$6.50
12	842-950	LOCK NUT M8-WS12	8	\$2.66





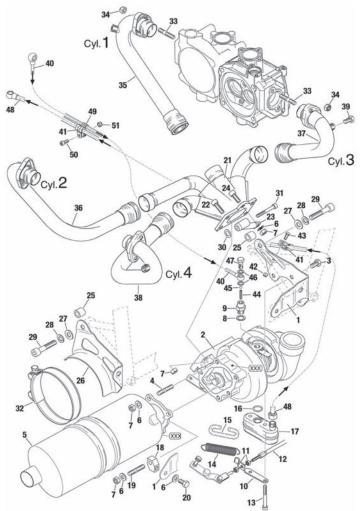
# ROTAX 914 UL - MUFFLER, TURBOCHARGER, OIL SUMP CONTAINER

Item No.	Part No	Description	Qty. Req.	Price
1	851-294	TURBO BRACKET	1	\$231.42
2-4	887-129	TURBOCHARGER ASSEMBLY	1agh	\$5,784.68
3	940-583	HEX. SCREW M8x16 STAINLESS	4	\$3.19
4	940-173	STUD M8x19.5/13	4b	\$7.05
5	979-407	MUFFLER ASSEMBLY STAINLESS	1af	\$1,726.62
6	250-313	WASHER 8.4 STAINLESS	7	\$1.23
7	242-203	HEX. NUT M8 STAINLESS	10	\$1.69
8	250-640	GASKET A 12x18-CU	1	\$1.92
9	956-486	VALVE HOUSING	1	\$77.06
10	851-392	CABLE SUPPORT	1	\$102.25
11	242-211	HEX. NUT M6	2	\$0.41
13	640-600	HEX. SCREW M6x55	2	\$8.18
14	838-232	TENSION SPRING STAINLESS	1	\$13.65
15	960-080	SILICONE TUBE 5x8	ARc	\$40.01
16	430-225	O-RING 15.9-2.3	1	\$8.71
17	956-495	OIL SUMP ASSEMBLY	1	\$207.97
18	953-280	SUPPORT PLATE	1	\$65.96
19	641-343	STUD M8x30/13	1a	\$8.71
20	940-583	HEX. SCREW M8x16 STAINLESS	1	\$3.19
21		EXHAUST MANIFOLD ASSEMBLY STAINLESS	1f	\$1,155.77
22	240-083	ALLEN SCREW M8x25 STAINLESS	4	\$3.17
23	953-303	MANIFOLD BRACKET ASSEMBLY STAINLESS	1	\$253.70
24		ALLEN SCREW M8x20 STAINLESS	1	\$1.61
25	847-841	SPACER 10.5/17/15	2	\$9.61
26		EXHAUST BRACKET	1	\$287.20
27		WASHER 10.5	2	\$0.63
28		LOCK WASHER A10	2	\$0.34
29		ALLEN SCREW M10x50	2	\$3.73
32		CLAMP 120	1	\$82.84
35		EXHAUST PIPE ASSEMBLY CYLINDER	1e	\$651.06
36		EXHAUST BEND CYLINDER 2 STAINLESS	1e	\$651.06
37		EXHAUST BEND CYLINDER 3 STAINLESS	1e	\$667.74
38		EXHAUST BEND CYLINDER 4 STAINLESS	1e	\$719.50
39		HEX. SCREW M8x1x10	4	\$18.52
40		TURBO PRESSURE OIL LINE	1	\$194.33
41		CABLE CLAMP 8/M5	2	\$12.46
42		LOCK NUT M5	1	\$1.17
43		ALLEN SCREW M5x12	1	\$0.76
44		COMPRESSION SPRING 22,0	1	\$5.33
45		BALL 5.556 MM	1	\$0.66
46		GASKET RING A 8x13	2	\$1.30
47		BANJO BOLT M8x1x17	1d	\$53.95
48		TURBO OIL SUCTION LINE	1 2	\$165.39
49 50		CABLE CLAMP 5/M5 ALLEN SCREW M5x12	2	\$13.27
51		LOCK NUT M5	2	\$0.76 \$1.17
31	342-021	LOOK NOT IVIS	2	φ1.17

#### **OIL TANK**

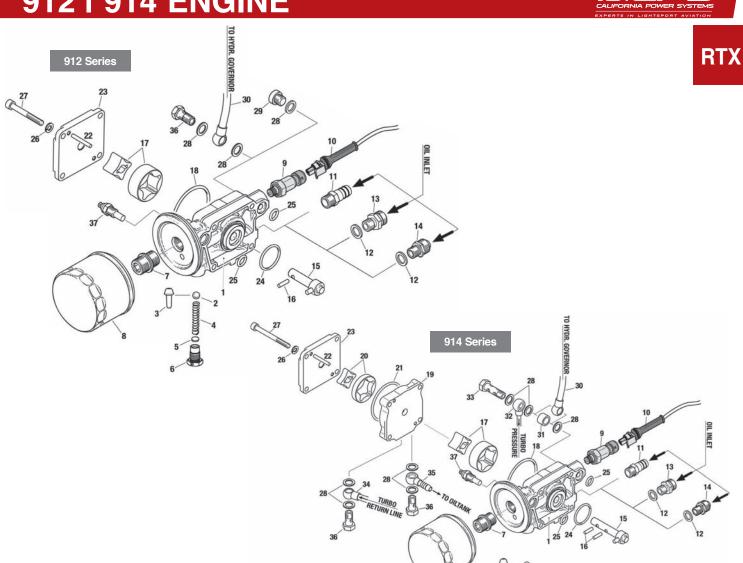
Item	Dort No	No Description		Qty. Req.			
No.	Part No	Description	912 UL	912 ULS	914 UL	Price	
1-1	956-503	OIL TANK ASSY. METRIC M18x1.5	1	1	1	\$754.50	
1-12	656-865	OIL TANK ASSY. METRIC M18x1.5	1	1	1	\$811.91	
1-12	656-860	OIL TANK ASSY. UNF 3/4-16	1	1	1	\$827.13	
2	250-010	GASKET RING C 12x18	1	1	1	\$1.71	
3	241-408	HEX. SCREW M12x12	1	1	1	\$43.71	
5	956-204	BAFFLE INSERT	1	1	1	\$67.19	
6	850-491	O-RING 145x6	1	1	1	\$31.55	
8	951-817	PROFILE CLAMP 163	1	1	1	\$72.58	
9	230-150	SEALING RING A 10x14	1	1	2	\$1.09	
10	641-733	PLUG SCREW M10x1	1	1		\$10.70	
11	956-151	OIL DIPSTICK	1a	1a	1a	\$18.68	
12	974-647	OIL TANK COVER, WITHOUT VENTING	1	1	1	\$32.15	
13	297-555	SAFETY WIRE 0.8	AR	AR	AR	CALL	
14	956-610	HOSE NIPPLE WITH UNION NUT	1c	1c	1c	\$20.91	
15	956-580	BENT SOCKET	1c	1c	1c	\$20.92	
16	853-726	CLAMP MINI 16 W1	4	4	4	\$4.95	
17	956-390	OIL TUBE OLNS 1 12x19	ARb	ARb	ARb	\$85.86	
18	956-314	HOSE NIPPLE 4/6			1	\$23.81	
19	940-874	BANJO BOLT M10x1x19			1	\$13.99	

- Items not illustrated
- a See SB-912-040, SB-914-026 current issue
- b In a ro
- c with metric connection thread M18x1.5



- Items not illustrated
- a Marked with S/N;
- b Stainless
- c In a roll, Tube 125 mm (4.92 in.)
- d With imprinting "oil";
- e See Service Instruction SI-914-022 current issue
- f With additional internal bracket from engine S/N 914 F: 4,420.437
- g With lubrication hole for waste gate shaft





#### OIL PUMP ASSEMBLY, OIL FILTER, OIL TEMPERATURE SENSOR, OIL PRESSURE SENSOR

OIL	. PUIV	IP ASSEMBLY, OIL FILT	En,	OIL I		ENA	UN		NOON, OIL PHE	33UF	JE SEI	voc	חל
Item	Dort No	Description		Qty. Req		Price	Item	Dort No	Description		Qty. Req.		Drice
No.	Part No	Description	912 UL	912 ULS	914 UL	Price	No.	Part No	Description	912 UL	912 ULS 91	14 UL	Price
1	911-815	OIL PUMP HOUSING ASSEMBLY	1	1	1	\$691.02	21	430-175	O-RING 46x3			1	\$14.36
2	432-680	BALL 8.5 MM	1	1	1	\$1.29	22	232-431	NEEDLE PIN B 4x29.8 G5			2	\$3.10
3	857-230	VALVE PISTON	(1)	(1)	(1)	\$33.10	22	232-731	NEEDLE PIN B 4x15.8 G3	2	2		\$1.68
4	838-122	PRESSURE SPRING DM 7.1 D 0.9	1	1	1	\$8.18	23	911-711	OIL PUMP COVER	1	1	1	\$100.71
5	227-055	SHIM 8.2x1.5	AR	AR	AR	\$0.66	24	950-410	O-RING 30x2.5	1	1	1	\$12.98
6	841-983	PLUG SCREW M12x1	1b	1b	1b	\$32.99	25	250-460	O-RING 11x2.7	2	2	2	\$5.93
7	924-424	OIL FILTER NIPPLE	1a	1a	1a	\$51.79	26	945-831	LOCK WASHER A6	4	4	4	\$0.23
8	825-016	OIL FILTER	1	1	1	\$19.95	26	827-962	WASHER 6.4	4	4	4	\$0.31
9	956-413	OIL PRESSURE SENSOR	1	1	1	\$330.76	27	241-263	ALLEN SCREW M6x65	4	4	4	\$1.60
9	456-180	OIL PRESSURE SENSOR ASSEMBLY	1c	1c	1c	\$249.84	27		ALLEN SCREW M6x50	4	4		\$0.85
10	864-250	OIL PRESSURE SENSOR WIRE	1c	1c	1c	\$109.92	28	230-150	GASKET RING 10x14	2	2	7	\$1.09
11	840-461	13.2/9.5-M14x1.5	1	1	1	\$18.98	29	641-733	PLUG SCREW M10x1	1	1		\$10.70
12	230-387	GASKET RING 14.2/18/2	1	1	1	\$1.51	31	847-228	SPACER 10.5/15/10			1	\$13.07
13	956-577	ADAPTOR M18x1.5/M14x1.5	(1)	(1)	(1)	\$54.70	33	940-873	BANJO BOLT M10x1x30			1	\$16.26
14	956-641	UNF/M14x1,5	1	1	1	\$68.93	35	956-314	HOSE NIPPLE 4/6			1	\$23.81
15	837-127	OIL PUMP SHAFT ASSEMBLY			1	\$141.65	36	940-874	BANJO BOLT M10x1x19	1	1		\$13.99
15	837-129	OIL PUMP SHAFT ASSEMBLY	1	1		\$114.22	37	965-531	TEMPERATURE SENSOR	1	1	1	\$147.75
16	232-730	NEEDLE PIN 4x15,8 G3	1	1	2	\$1.85	- Itomo	e not illustr	ated / AR: as required / NL	A · not av	ailahla		
17	956-278	SUCTION INNER AND OUTER ROTOR ASSY.	. 1	1	1	\$109.76			•		aliable		
18		O-RING 57x3	1	1	1	\$14.65			UNF for oil filter 3 mm extend	ea.			
19		OIL PUMP HOUSING			1	\$329.71			spring routing 0/914-022				
20	256-346	PRESSURE INNER AND OUTER ROTOR			1	\$115.90			e sensor part no. 456-180				

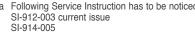


# 912 | 914 ENGINE

#### **MAGNETIC DRAIN PLUG, PLUG SCREW**

Item No.	Part No	Description	Qty. Req.	Price
2	241-785	MAGNETIC DRAIN PLUG	1	\$58.73
3	240-234	PLUG SCREW M16x1.,5x28	1	\$10.79
4	430-622	GASKET RING A 16x22	2	\$2.50
5	956-315	HOSE NIPPLE 10	1	\$37.10
6	956-050	HOSE NIPPLE 16	1a	\$101.67
7	940-879	BANJO BOLT M16x1.5x28	1	\$23.94
8	956-651	ADAPTER 3/4-16 UNF/M16x1.5	1	\$90.35

Following Service Instruction has to be noticed: SI-912-003 current issue

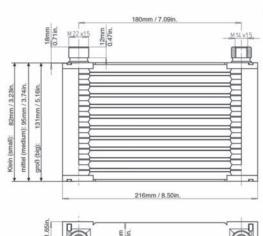




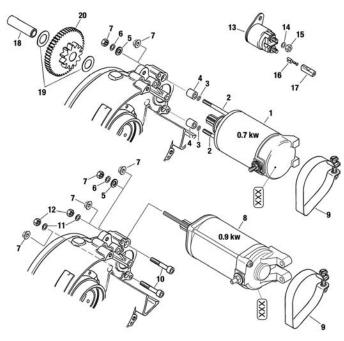
		IAIOII		
Item No.	Part No	Description	Qty. Req.	Price
1-4	886-032	OIL RADIATOR SET	(1)ad	\$302.09
1-4	886-033	OIL RADIATOR SET	(1)bd	\$264.01
1,2,3,9	886-036	OIL RADIATOR SET UNF	(1)ec	\$299.00
2	242-873	HEX NUT M22x1.5	(4)	\$14.69
3	230-387	GASKET RING 14.2/18/2	(2)	\$1.51
4	840-461	NIPPLE 13.2/9.5-M14x1.5	(2)	\$18.98
5	956-577	ADAPTER M18x1.5/M14x1.5	(2)	\$54.70
6	956-580	BENT SOCKET ASSEMBLY	AR	\$30.80
7	924-585	ANGULAR TUBE M14x1.5	AR	\$74.50
8	956-610	HOSE NIPPLE WITH UNION NUT	AR	\$20.91
9	956-643	ADAPTER 3/4-16 UNF/M14x1.5	(2)	\$68.93
3,5,8	956-615	SCREW CONNECTION SET	(1)	\$115.70
3,5,6	956-585	SCREW CONNECTION SET	(1)	\$101.43
2,3,9	956-645	SCREW CONNECTION SET	(1)	\$115.70

- Items not illustrated

- a Cooling area 125 cm² / 19.38 sq in b Cooling area 142 cm² / 22 sq in c Cooling area 234 cm² / 36.27 sq in d Metric connections
- e UNF connections







#### **ELECTRIC STARTER, STARTER RELAY**

Item No.	Part No	Description	Qty. Req.	Price
1 1-7	685-974	ELECTRIC STARTER SET	1c	\$752.30
2	840-636	STUD M5x150/16	2	\$17.42
3	950-420	O-RING 5x1.5-N	2	\$6.65
4	847-248	SPACER 5.4/10/12	2	\$5.59
5	927-571	WASHER 5.3	2d	\$0.21
6	945-830	LOCK WASHER A5	2d	\$0.21
7	242-071	HEX. NUT M5	2d	\$0.41
7	942-311	COLLAR NUT M5	2d	\$20.67
4-6,8-12	889-751	ELECTRIC STARTER SET	1a	\$675.63
9	851-020	CLAMP 76	1b	\$27.58
10	941-791	ALLEN SCREW M5x45	2	\$1.08
11	945-830	LOCK WASHER A5	2d	\$0.21
12	842-030	ROTOR SUPPORT ASSEMBLY	2d	\$2.05
13-15	992-818	STARTER RELAY ASSEMBLY	1	\$199.75
14	945-831	LOCK WASHER A6	2	\$0.21
15	242-211	HEX. NUT M6	2	\$0.41
16	960-719	CONNECTOR SHEATH	1	\$0.66
17	864-011	FASTON CONNECTOR 6.3x0.8	1	\$1.23
18	837-102	IDLE GEAR SHAFT	1	\$27.60
19	827-261	THRUST WASHER 12.5/21.5/1	2	\$3.17
20	834-156	IDLE GEAR 50/11 T	1	\$190.43

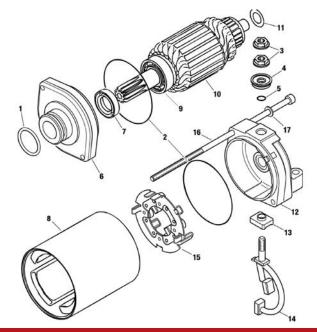
- Items not illustrated

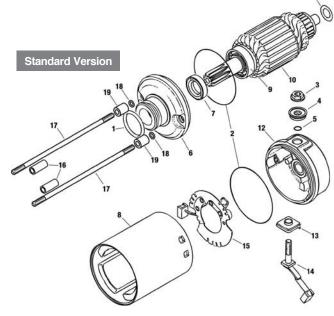
- a See therefore: SB-912-037 current issue / SB-914-023 b will be delivered in circle shape c standard starter 0.7 kW d Washer, lock washer and hex. nut replaced by hex. collar nut.

# ELECTRIC STARTER, STARTER RELAY - STANDARD VERSION

Item No.	Part No	Description	Qty. Req.	Price
1	250-140	O-RING 24.4x3.1	1	\$7.14
2	850-500	O-RING 62x1.5	2	\$11.38
3	242-780	COMBINED NUT M6	1	\$4.06
4	260-800	CONNECTOR SHEATH	1	\$8.30
5	230-530	O-RING 6x1.7	1	\$2.97
7	250-130	OIL SEAL 15x24x5	1	\$22.90
9	232-260	BALL BEARING 6002 Z / 15-32-9	1	\$28.05
11	827-600	SHIM	AR	\$4.95
13	260-810	CONNECTOR SHEATH	1	\$9.66
14	264-180	CARBON BRUSH ASSEMBLY	1	\$48.39
15	866-890	BRUSH HOLDER WITH SPRINGS	1	\$70.47
16	974-524	DISTANCE HOSE 45 MM	1a	CALL

- Items not illustrated
- a Only for transport



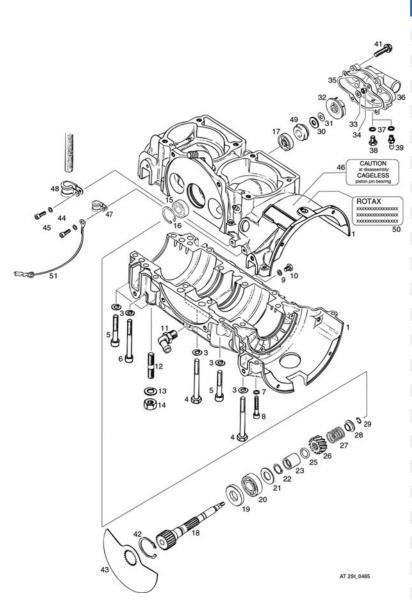


#### **E-STARTER SINGLE PARTS**

Item No.	Part No	Description	Qty. Req.	Price
1	250-140	O-RING 24.4X3.1-N NBR70	1	\$7.14
2	850-500	O-RING 62-1.5	2	\$11.38
3	242-780	COMBINED NUT M6	2	\$4.06
4	260-800	CONNECTOR SHEATH	1	\$8.30
5	230-530	O-RING 6X1.7	1	\$2.97
7	250-130	OIL SEAL 15X24X5 NBR	1	\$22.90
9	232-260	BALL BEARING 6002 Z / 15-32-9	1	\$28.05
11	827-600	SHIM	AR	\$4.95
12-15,1-5	294-354	ELECTRIC STARTER REPAIR KIT	1	\$307.91
16	440-586	ALLEN SCREW M5X180	2	\$29.37
17	927-571	WASHER 5.3	2	\$0.21

- Items not illustrated
- a Not available as single spare part. Use electric starter kit part no. 294354.





#### CRANKCASE, ROTARY VALVE **DRIVE, WATER PUMP**

וחש	VE,	WATER PUMP			
Item	Part			Req.	
No.	No	Description	mod. 99	mod. 17	Price
1-12	QQQ_//71	CRANKCASE-ASSEMBLY	1	1	\$1,435.29
		CRANKCASE-ASSY, W/ROTARY VALVE DRIVE	1c	1c	\$1,596.91
3		LOCK WASHER A8	14	14	\$0.21
3		LOCK WASHER A8	14	14	\$0.21
4		HEX. SCREW M8x65	6	6	\$1.97
5		ALLEN SCREW M8x45	6	6	\$4.43
6		ALLEN SCREW M8x75	2	2	\$3.32
7		LOCK WASHER A6	2	2	\$0.21
8		ALLEN SCREW M6x35	2	2	\$0.21
9		GASKET RING A6x10	1	1	
-			1		\$1.40
10		HEX. SCREW M6x10	•	1	\$0.63
11		ANGULAR TUBE 1/4-18NPT	1	1	\$18.14
12		STUD M10x29/20	4	4	\$4.78
13		LOCK WASHER A10	4	4	\$0.34
14		HEX. NUT M10	4	4	\$1.38
15		BALL BEARING 6201-Z, 12-32-10	1	1	\$26.49
16		RETAINING RING	1	1	\$2.07
17		OIL SEAL 10x30x8	1	1	\$23.31
18		ROTARY VALVE SHAFT	1a	1a	\$202.77
19		OIL SEAL 20x40x7	1	1	\$24.71
20		BALL BEARING 6203 TVH C3, 17-40-12	1	1	\$32.93
21		SHIM 17.2/32.5/1.5	1	1	\$4.42
22		RETAINING RING 17x1	1	1	\$1.23
23		SPACER	1	1	\$14.78
24		SHIM 15.1/22.5/0.5	Χ	Χ	\$1.92
25		O-RING 14-3	1	1	\$4.85
26		ROTARY VALVE GEAR 14 T.	1	1	\$101.54
27		COMPRESSION SPRING 25.1 MM (0.99 IN)	1	1	\$9.27
28		SPRING HOLDING CUP	1	1	\$11.91
29		CIRCLIP 12	1b	1b	\$1.71
30	227-945	THRUST WASHER 8.1/15/0.5	1	1	\$1.92
31	227-155	FRICTION WASHER	1	1	\$9.83
32	922-036	IMPELLER	1	1	\$23.29
33	244-211	WASHER 6.4	1	1	\$0.21
34	842-042	LOCK NUT M6	1	1	\$2.66
35	831-616	GASKET	1	1	\$9.13
36	922-503	WATER PUMP HOUSING	1	1	\$253.77
37	230-415	GASKET RING 6.2/8.9/1	1	1	\$1.40
38	841-580	HEX. SCREW M6x8	1	1	\$0.57
39	940-551	HOSE NIPPLE M6	1	1	\$17.20
40	244-211	WASHER 6.4	Χ	Χ	\$0.21
42	945-880	RETAINING RING 40x1.75	1		\$3.19
43	924-504	ROTARY VALVE 132 DEGR.	1	1	\$67.19
44	945-750	LOCK WASHER A5	2	2	\$0.14
45	840-514	ALLEN SCREW M5x16	2	2	\$0.53
46	897-280	CAGELESS-LABEL	1	1	\$1.76
47		CABLE CLAMP 8/M5	1	1	\$12.46
48		CLAMP 18/M5	1	1	\$11.71
49		ROTARY SEAL	1	1	\$45.42
50		RED WARNING LABEL	1	1	\$6.61
lkomo	not illust				Ţ ·

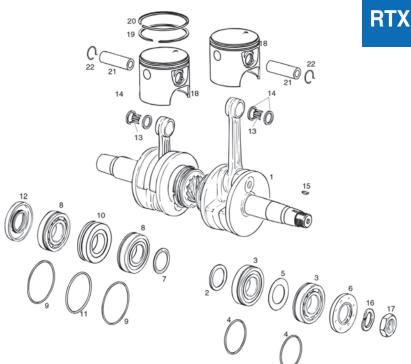
<sup>-</sup> Items not illustrated

- a Rotary valve for configuration with rotary seal
  b The circlip must be positioned at the inner groove only
  c Crankcase including rotary valve drive, configuration with rotary seal

# **ENGINE - MOD 99/17**

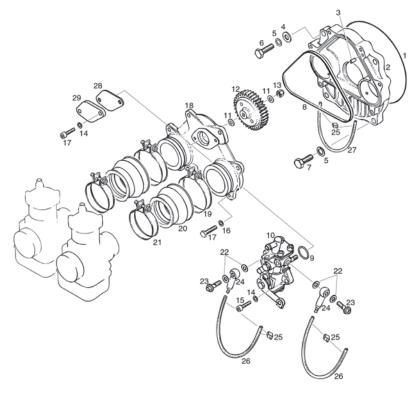
#### CRANKCASE MAIN REARINGS DISTONS

(	JHA	NKCA	SE, MAIN BEARINGS, PI	1510	NS
	Item No.	Part No	Description	Qty. Req.	Price
	1-15	887-051	CRANKSHAFT ASSEMBLY	1	\$1,519.44
	2	827-441	SPACER RING 30,5/42/2	1	\$10.67
	3	832-208	B. BEARING 6206 N TVH, 30-62-16	2	\$99.85
	4	830-355	O-RING 49,2-1,8	2	\$5.52
	5	827-715	STOP SHIM 30,4/51/1	1	\$3.32
	6	830-748	OIL SEAL 30X62X7/7,5	1	\$36.64
	7	827-760	DISTANCE RING 35,5/47/2	1	\$7.05
	8	631-741	B. BEARING 6207N TNH C3 35-72-17	2	\$83.32
	9	250-165	O-RING 64-2	2	\$5.33
	10	830-293	LABYRINTH SLEEVE	1	\$94.52
	11	830-370	O-RING 63-2.5	1	\$6.97
	12	831-950	OIL SEAL 35X72X7/8.5	1	\$39.33
	13-14	832-320	CAGEL. NEEDLE BEARING 18X22X23	2	\$56.97
	14	827-465	THRUST WASHER 18/21.7/2.5	4	\$23.17
	15	246-055	WOODRUFF KEY 3X3.7 DIN 6888	1	\$3.73
	16	945-759	LOCK WASHER 22	1	\$1.76
	17	842-239	HEX. NUT M22X1.5	1	\$12.83
	18-20	888-590	PISTON ASSEMBLY 75.94/75.95 MM	2ab	\$216.95
	18-20	888-591	PISTON ASSEMBLY 76.19/76.20 MM	2ac	\$233.95
	18-20	888-592	PISTON ASSEMBLY 76.44/76.45 MM	2ad	\$237.63
	19	215-200	RECTANGULAR RING 76.00 MM	2e	\$59.57
	19	215-201	RECTANGULAR RING 76.25 MM	2f	\$66.74
	19	215-202	RECTANGULAR RING 76.5 MM	2g	\$66.74
	20	915-820	SEMI-TRAPEZ RING 76.0 MM	2e	\$92.67
	20	915-821	SEMI-TRAPEZ RING 76.25 MM	2f	\$94.69
	20	915-822	SEMI-TRAPEZ RING 76.5 MM	2g	\$94.69
	21	916-136	PISTON PIN 18X11X53.7	2	\$47.85
	22	845-540	MONOHOOK CIRCLIP 18	4hi	\$1.97
	Itomo	not illustra	tod		



- Items not illustrated

- a Piston for monohook circlip configuration, see also SI-2ST-001.
  b With 2 rings, standard: RED 75.94 mm (2.989 in.), GREEN 75.95 mm (2.990 in.).
  c With 2 rings, 1st oversize: RED 76.19 mm (2.999 in.), GREEN 76.20 mm (3.000 in.).
  d With 2 rings, 2nd oversize: RED 76.44 mm (3.0094 in.), GREEN 76.45 mm (3.0098 in.).
- Standard size. e f
- 1st oversize.
- 2nd oversize.
- In use with piston part no. 888-590, see also SI-2ST-001.
- NOTICE Use only once.



# ROTARY VALVE COVER, OIL PUMP DRIVE, OIL PUMP

Item No.	Part No	Description	Qty. Req.	Price
1	831-360	O-RING 132-1.7	1	\$15.58
2	811-941	ROTARY VALVE COVER ASSEMBLY	1c	CALL
3	929-560	DOWEL TUBE 2x8	1	\$3.20
4	250-315	WASHER 8.4	2	\$0.45
5	945-832	LOCK WASHER A8	4	\$0.23
6	240-276	HEX. SCREW M8x25	2	\$1.26
7	940-591	HEX. SCREW M8x20	2	\$1.23
8	831-700	RUBBER RING 126x1.5x3.5	1	\$5.69
9	230-370	O-RING 18x1.3	1	\$3.19
10	995-527	OIL PUMP ASSEMBLY	1	\$277.25
11	927-945	WASHER 6.2/12/1	2	\$1.54
12	935-940	OIL PUMP GEAR 44 T.	1	\$26.58
13	842-040	LOCK NUT M6	1	CALL
14	945-750	LOCK WASHER A5	2	\$0.14
15	240-761	SLOTTED HEAD SCREW M5x16	2	\$1.75
16	945-751	LOCK WASHER A6	7	\$0.21
17	940-561	HEX. SCREW M6x20	7	\$0.66
18	910-320	PUMP MOUNTING FLANGE	1	\$201.60
19	851-065	CLAMP 62	2	\$11.26
20	867-696	CARBURETOR SOCKET	2	\$29.81
21	951-400	HOSE CLAMP 53	2	\$10.79
22	227-500	GASKET RING 6.2/12/1	4	\$1.45
23	241-830	BANJO BOLT M6x16	2	\$6.97
24	956-010	CHECK VALVE ASSEMBLY	2	\$24.36
25	853-840	CLAMP 3-5 MM (0.12-0.20 IN)	AR	\$2.28
26-27	960-040	OIL LINE 2.2+/-0.1x4.3+0.4	ARb	\$7.50
28	931-566	GASKET	1a	\$5.69
29	810-827	COVER PLATE	1a	\$18.68

- a for configuration without oil pump
- b in a roll
- from engine S/N: 5381289.

# 582 UL ENGINE - MOD 99/17

# **RTX**

#### CYLINDER, CYLINDER HEAD

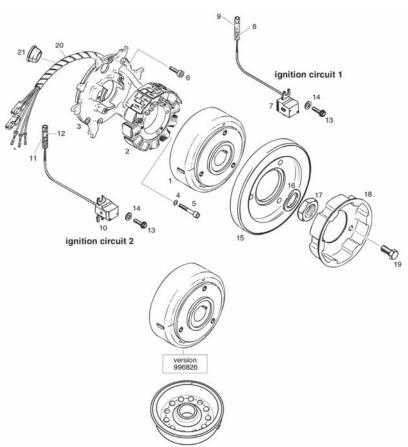
Item			Qty.	Req.	
No.	Part No	Description	mod.	mod.	Price
1	050 775	DOUBLE GASKET 0.5 MM	99	17 1	COE 14
	850-775			-	\$25.14
2	913-448	CYLINDER WITH SLEEVE	2a	2a	\$1,265.79
3	640-952	COLLAR HEX. SCREW M8x68.5 SW11	8	8	\$4.99
4	850-040	RUBBER RING 152.5/2.5/5	2	2	\$8.03
5	850-540	O-RING 83x2	2	2	\$24.59
8	841-308	COLLAR HEX. SCREW M8x65 SW11	12b	12b	\$7.19
9	913-845	CYLINDER HEAD	1c		\$901.05
9	913-848	CYLINDER HEAD		1d	\$901.05
14-15	922-511	THERMOSTAT WITH GASKET	1	1	\$100.71
16	922-025	WATER OUTLET SOCKET	1	1	\$33.93
17	922-061	BENT OUTLET SOCKET	1	1	\$54.47
19	945-751	LOCK WASHER A6	2	2	\$0.21
20	242-211	HEX. NUT M6	2	2	\$0.41
21	241-939	ALLEN SCREW M6x20	2	2	\$1.23
22	240-483	PLUG SCREW 1/8-27NPT	3	3	\$8.25
23	230-415	SEALING RING A6x10	2	2	\$1.40
24	841-580	HEX. SCREW M6x8	1	1	\$0.57
25	940-558	HOSE NIPPLE M6	1	1	CALL
26	922-063	BENT OUTLET SOCKET	1	1	CALL
27	850-338	GASKET	1	1	\$7.46
28	951-880	CLAMP 20-32	2	2	\$6.27
29	922-521	MOLDED HOSE 25/180 DEGR.	1	1	\$96.21

- Items not illustrated
- a RED 76.00 mm 76.01 mm (2.992 in) 2.993 in).
  b Usable for configuration with- and without 2-piece radiator.
  c with spark plug thread M14x1.25
  d with spark plug thread M12x1.25

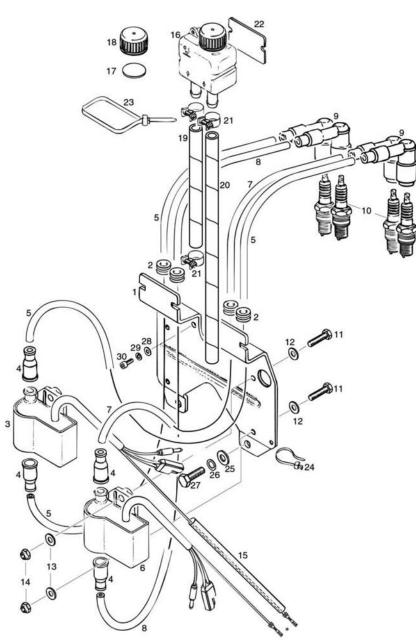
# **DUCATI MAGNETO-GENERATOR** 12V 170W, STARTING PULLEY

	121 11011, 017111111011 022221					
Item No.	Part No	Description	Qty. Req.	Price		
1	996-826	MAGNETO FLYWHEEL P12W170	1	\$642.68		
2	996-849	COIL KIT	1	\$749.00		
3	966-207	STATOR PLATE	1	\$180.91		
4	945-750	LOCK WASHER A5	2	\$0.14		
5	940-880	ALLEN SCREW M5X30	3	\$0.92		
6	641-521	TORX-ZYLINDER HEAD SCREW M5X16	2d	\$2.09		
7-9	965-761	PICKUP ASSEMBLY	1a	\$156.58		
8	964-072	INSULATION SHEATH	1	\$2.28		
9	964-067	FASTON CONNECTOR 3.96	1	\$2.28		
10-12	965-761	PICK UP	1b	\$156.58		
11	964-072	INSULATION SHEATH	1	\$2.28		
12	964-067	FASTON CONNECTOR 3.96	1	\$2.28		
13	941-925	TAPTITE SCREW M5X16	4	\$1.26		
14	827-800	WASHER A 5,5 DIN 6902	4	\$5.99		
15	965-497	HYDRO DAMPER ASSEMBLY	1	\$353.53		
16	945-759	LOCK WASHER 22	1	\$1.76		
17	842-239	HEX. NUT M22X1,5	1	\$12.83		
18	852-411	STARTING PULLEY	1	\$40.60		
20	966-060	SPIRAL HOSE 6.5x8.5x0.6	ARc	\$11.09		
21	960-288	CABLE GROMMET 20.5/11	1	\$9.47		

- Items not illustrated
- a For ignition circuit 1.
- b For ignition circuit 2. c In a roll.
- d Without rewind starter.







# OIL TANK, IGNITION COILS, SUPPORT PLATE

Item No.	Part No	Description	Qty. mod. 99	Req. mod. 17	Price
2	960-445	GROMMET	4		\$4.95
3	966-462	ELECTRONIC BOX	1a		\$355.36
4	960-550	PROTECTION CAP	4		\$3.19
5,7,8	965-153	IGNITION CABLE 360 MM	AR		\$15.58
6	966-467	ELECTRONIC BOX	1b		\$367.95
9	866-705	SUPPRESSED SPARK PLUG CONNECTOR	4e		\$26.31
9	265-249	SPARK PLUG CONNECTOR		4e	\$41.50
10	897-055	SPARK PLUG 14 MM, NGK BR 8 ES	4e		\$2.50
10	297-656	SPARK PLUG 12 MM		4e	\$21.95
-11	240-036	HEX. SCREW M6X25 DIN 933	4		\$0.85
12,13	244-211	WASHER 6,4 DIN 134	8	8	\$0.21
14	842-044	LOCK NUT M6	4	4	\$2.66
15	960-187	PROTECTION HOSE 170 MM	1	1	\$2.66
16-18	956-240	OIL TANK ASSEMBLY	1	1	\$79.20
17	850-350	RUBBER GASKET 26.5 MM	1	1	\$4.42
18	956-250	OIL TANK CAP S 103/2D	1	1	\$11.50
19-20	956-140	LOW PRESSURE HOSE OLN (E)	AR	AR	\$69.43
21	853-726	CLAMP 16W1	4		\$4.95
21	853-515	CLAMP 16/9	4	4	\$5.06
22	860-425	RUBBER SPACER	1	1	\$4.95
23	951-500	CLAMP 381X4.8 MM	1	1	\$5.27
24	866-710	CLAMP 142X2.5 MM	1c	1c	\$1.26
25	250-315	WASHER 8.4 DIN 125	2	2	\$0.41
26	945-832	LOCK WASHER A8	2	2	\$0.23
27	240-276	HEX. SCREW M8X25	2	2	\$1.26
28	244-211	WASHER 6.4 DIN 134	2	2	\$0.21
29	945-751	LOCK WASHER A6 DIN 128	2	2	\$0.21
30	241-237	ALLEN SCREW M6X16	2	2	\$0.73

- Items not illustrated

- a For ignition circuit 1
  b For ignition circuit 2
  c To fix oil tube resp. cable harness
  d In a roll
  e See Service Instruction SI-2ST-010







# **RTX** & A: LOCTITE 221 **Ø D: LOCTITE 574**

#### **CRANKCASE**

Item No.	Part No	Description	Qty. Req.	Price
1-6	887-796	CRANKCASE ASSEMBLY	1a	\$1,228.76
2	945-752	LOCK WASHER A8	14	\$0.21
3	841-201	HEX. SCREW M8X70	6	\$2.76
4	940-631	HEX. SCREW M8X45 DIN 931	4	\$1.76
5	640-611	ALLEN SCREW M8X45	2	\$1.79
6	841-841	ALLEN SCREW M8X65 DIN 912	2	\$2.40
7	940-190	STUD M10X29/20	4	\$4.78
8	945-753	LOCK WASHER A10	4	\$0.31
9	242-091	HEX.NUT M10	4	\$1.26
10	940-326	HEX. SCREW M10X30	4	\$1.97
11	840-556	STUD M8X173.5	8	\$19.29

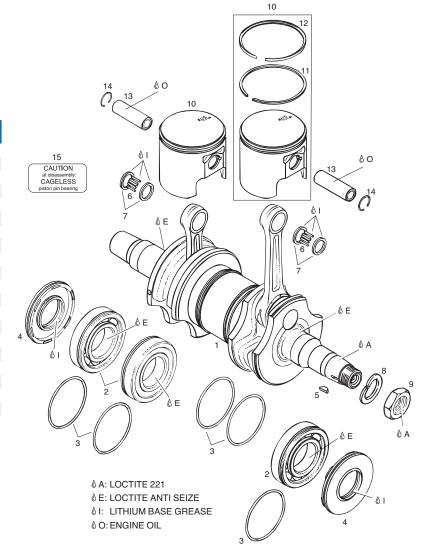
a from engine S/N: 4,795.397

#### **CRANKSHAFT, MAIN BEARINGS, PISTONS**

Item No.	Part No	Description	Qty. Req.	Price
1-7	996-441	CRANKSHAFT ASSEMBLY	1	\$1,178.85
2	832-236	B. BEARING 6207N TNH C3 35-72-17	3	\$83.32
3	250-165	O-RING 64-2	5	\$5.33
4	831-950	OIL SEAL 35X72X7/8.5	2	\$39.33
5	246-055	WOODRUFF KEY 3X3,7 DIN 6888	1	\$3.73
6-7	832-320	CAGEL. NEEDLE BEARING 18X22X23	2	\$56.97
7	827-465	THRUST WASHER 18/21, 7/2, 5	4	\$23.17
8	945-759	LOCK WASHER 22	1	\$1.76
9	842-239	HEX. NUT M22X1.5	1	\$12.83
10-12	996-246	PISTON ASSEMBLY 72,18/72,19 MM	2b	\$218.95
10-12	996-247	PISTON ASSEMBLY72,43/72,44 MM	2c	\$218.95
11	915-850	RECTANGULAR RING 72.00 MM	2d	\$55.44
11	915-851	RECTANGULAR RING 72.25 MM	2e	\$58.24
11	915-852	RECTANGULAR RING 72.50 MM	2f	\$58.24
12	215-235	SEMI-TRAPEZ RING 72.00 MM	2d	\$84.84
12	215-236	SEMI-TRAPEZ RING 72.25 MM	2e	\$90.16
12	215-237	SEMI-TRAPEZ RING 72.50 M	2f	\$90.16
13	916-186	PISTON PIN 18X11X58.7	2	\$50.69
14	945-735	CIRCLIP 18	4g	\$0.48
15	897-280	CAGELESS-LABEL	1	\$1.76

- a with 2 rings, standard b with 2 rings, 1st oversize c with 2 rings, 2nd oversize d Standard Size

- 1st oversize
- f 2nd oversize g NOTICE use only once!



### **503 UL ENGINE**

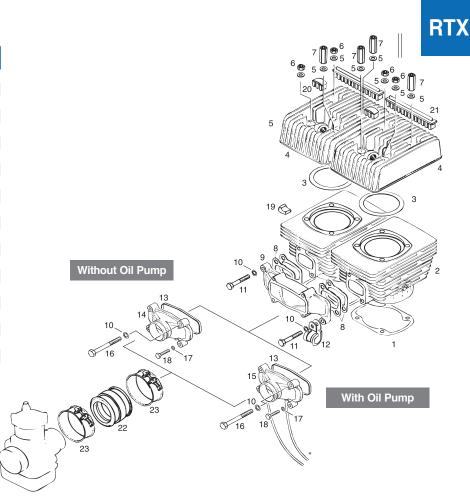


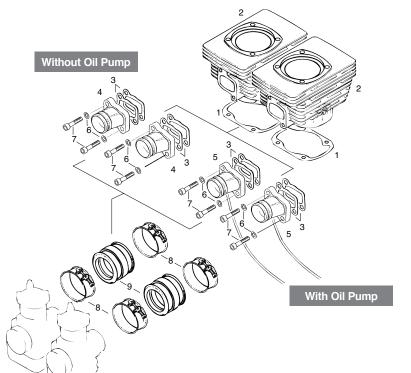
#### CYLINDER, CYLINDER HEAD AND INTAKE MANIFOLD: 1-CARB. CONFIGURATION

Item No.	Part No	Description	Qty. Req.	Price
1	831-855	GASKET 0,4 MM	2	\$4.54
2	923-010-1	CYLINDER WITH SLEEVE	2a	\$769.31
3	831-881	GASKET	2	\$11.62
4	823-668	CYLINDER HEAD	2	\$540.26
5	250-311	WASHER 8,4 DIN 125	8	\$0.41
6	242-209	HEX. NUT M8	4	\$0.56
7	842-050	DISTANCE NUT M8X37	4	\$56.75
8	831-866	INTAKE GASKET 1,0 MM	4	\$6.27
9	867-450	INTAKE MANIFOLD	1	\$115.58
10	945-752	LOCK WASHER A8	4	\$0.21
11	940-616	HEX. SCREW M8X40	2	\$1.61
12	851-100	CABLE CLAMP 18	1	\$12.95
13	850-151	RUBBER RING 83X1, 5X3, 5	1	\$5.95
14	867-465	INTAKE COVER	1b	\$91.15
15	867-462	INTAKE COVER	1c	\$98.03
16	841-301	HEX. SCREW M8X65	2	\$1.97
17	945-751	LOCK WASHER A6 DIN 128	2	\$1.97
18	941-501	HEX.SCREW M6X30	2	\$1.00
19	860-060	SUPPORT DAMPER	1	\$2.97
20	860-096	NOISE DAMPER, SHORT	8	\$11.98
21	860-091	NOISE DAMPER, LONG	2	\$20.82
22	867-484	RUBBER SOCKET	1	\$40.19
23	951-510	HOSE CLAMP 52	2	\$10.79

a RED 72,00 mm - 72.01 mm GREEN 72.01 mm - 72.02 mm b for mixture lubrication

c for oil pump version





#### CYLINDER AND INTAKE SOCKET FOR 2-CARBURETOR CONFIGURATION

Item No.	Part No	Description	Qty. Req.	Price
1	831-855	GASKET 0,4 MM	2	\$4.54
2	923-010-1	CYLINDER WITH SLEEVE	2a	\$769.31
3	831-866	INTAKE GASKET 1,0 MM	4	\$6.27
4	867-400	INTAKE SOCKET	2b	\$69.88
5	867-407	INTAKE SOCKET	2c	\$76.49
6	945-752	LOCK WASHER A8	4	\$0.21
7	840-681	ALLEN SCREW M8X40 DIN 912	4	\$1.76
8	951-510	HOSE CLAMP 52	4	\$10.79
9	867-484	RUBBER SOCKET	2	\$40.19

a RED 72,00 mm - 72.01 mm GREEN 72.01 mm - 72.02 mm

b for mixture lubrication

c for oil pump version





# 16 0 15 0 14 0 **RTX** 16 15 ROTAX 18 10 CAUTION CAGELESS 17

#### **IGNITION HOUSING, AIR GUIDES,** FOR CONFIGURATION: FREE AIR COOLED

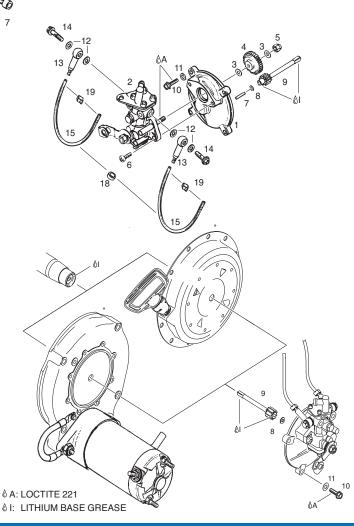
Item No.	Part No	Description	Qty. Req.	Price
1	910-418	IGNITION HOUSING E.,	1a	\$343.89
2	945-751	LOCK WASHER A6 DIN 128	4	\$0.21
3	840-880	ALLEN SCREW M6X30 DIN 912	4	\$0.57
4	827-286	PLUG WASHER 55/107	1	\$35.01
5	852-412	STARTING PULLEY	1	\$40.60
6	845-310	LOCK WASHER VHZ 8	3	\$0.41
7	841-520	ALLEN SCREW M8X12	3	\$1.35
8	823-668	CYLINDER HEAD	2	\$540.26
9	847-475	CONE SLEEVE 8,4/15/4	8	\$7.80
10	242-209	HEX. NUT M8 DIN 934	4	\$0.56
11	842-050	DISTANCE NUT M8X37	4	\$56.75
12	910-727	AIR GUIDE ASSEMBLY	1b	\$427.75
13	910-707	AIR GUIDE ASSEMBLY	1c	\$427.75
14	250-311	WASHER 8,4 DIN 125	4	\$0.41
15	945-752	LOCK WASHER A8	4	\$0.21
16	940-580	HEX. SCREW M8X16	4	\$1.09
17	897-280	CAGELESS LABEL	AR	\$1.76
18	897-501	RED WARNING LABEL	AR	\$6.61

- a for E-starter position 93 or 183 degr.
- b air guide, carburetor side c air guide, exhaust side

### OIL PUMP, OIL PUMP DRIVE

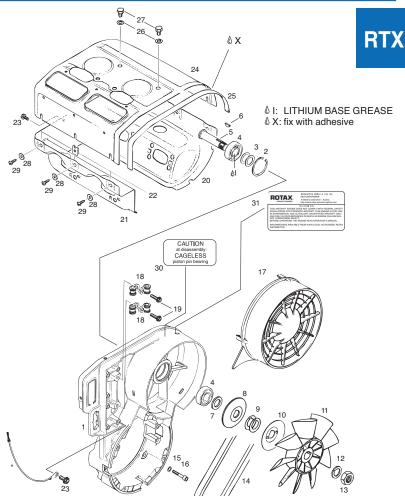
Item No.	Part No	Description	Qty. Req.	Price
2	886-096	OIL PUMP ASSEMBLY	1e	\$298.85
3	927-945	WASHER 6, 2/12/1	2	\$1.54
4	935-930	OIL PUMP GEAR 27 T.,	1	\$15.58
5	842-042	LOCK NUT M6	1	\$2.66
6	841-971	PLASTITE SCREW 5, 5X16	2	\$1.85
7	832-260	NEEDLE PIN B4X17, 8	1	\$1.57
8	244-073	WASHER 4.3	1	\$0.21
9	935-970	GEAR 9 T.	1	\$18.30
9	935-972	GEAR 9 T.	1a	\$18.30
10	941-925	TAPTITE SCREW M5X16	4	\$1.26
11	945-530	FRICTION WASHER A 5, 3	4	\$0.57
12	227-500	GASKET RING 6, 2/12/1	4	\$1.45
13	956-010	CHECK VALVE ASSEMBLY	2	\$24.36
14	241-830	BANJO BOLT M6X16	2	\$6.97
15	960-040	OIL LINE 335 MM	ARbc	\$7.50
16	960-040	OIL LINE 380 MM	ARbd	\$7.50
17	960-040	OIL LINE 300 MM	ARbd	\$7.50
18	960-700	RUBBER RING 7X1, 5X5	2	\$1.51
19	853-840	CLAMP 3-5 MM	4	\$2.28

- a For electric starter configuration magneto-side or pto side.
- b in a roll
- c for 1-carburetor version
- d for 2-carburetor version
- e retrofitable from engine S/N: 4,103.549





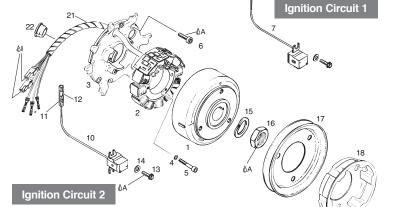
FAN	HUU	SING, CYLINDER COWLS, FA	IN, V-	DELI
Item No.	Part No	Description	Qty. Req.	Price
2	945-880	RETAINING RING 40X1, 75	1	\$3.19
3	244-585	SHIM 17, 5/24/1,0	2	\$1.61
4	832-161	BALL BEARING 6203-2RS C3, 17-40-12	2	\$37.54
5	937-940	FAN SHAFT	1	\$95.40
6	246-015	WOODRUFF KEY 3X5	1	\$3.32
7	827-650	DISTANCE SLEEVE 17, 3/28/2, 8	1	\$11.70
8	980-496	PULLEY HALF	1	\$12.83
9	827-080	SHIM 17, 5/27/0, 5	AR	\$1.61
9	827-082	SHIM 17, 5/27/0, 2	AR	\$1.76
10	980-523	PROTECTION WASHER	1	\$10.65
11	866-292	FAN	1	\$122.09
12	945-756	LOCK WASHER 16	1	\$1.26
13	942-289	HEX. NUT M16X1,5	1	\$7.14
14	980-518	V-BELT 10X6X610	1	\$37.60
15	945-751	LOCK WASHER A6 DIN 128	4	\$0.21
16	840-880	ALLEN SCREW M6X30 DIN 912	4	\$0.57
17	975-695	FAN-COVER	1	\$42.18
18	853-412	CABLE CLAMP	4	\$5.69
19	941-250	TAPTITE-SCREW M6X20	2	\$1.61
20	810-273	CYLINDER COWL, LOWER HALF LEFT	1	\$217.44
21	810-270	CYLINDER COWL, LOWER HALF RIGHT	1	\$190.44
22	842-390	SPRING NUT V 4,8	8	\$1.40
23	240-385	TAPTITE-SCREW M6X12	2	\$1.54
24	912-215	CYLINDER COWL ASSEMBLY, UPPER HALF	AR	\$347.08
25	960-961	SEALING STRIP 440 MM	1	\$8.30
26	945-752	LOCK WASHER A8	4	\$0.21
27	940-580	HEX. SCREW M8X16	4	\$1.09
28	845-330	WASHER 5, 1X16X1, 2	8	\$0.85
29	841-495	SELF-TAPPING SCREW 4.8X16	8	\$0.36
30	897-280	CAGELESS LABEL	AR	\$1.76
31	897-501	RED WARNING LABEL	AR	\$6.61





Item No.	Part No	Description	Qty. Req.	Price
1	996-826	MAGNETO FLYWHEEL ASSEMBLY	1e	\$642.68
2	996-849	COIL KIT	1	\$749.00
3	966-207	STATOR PLATE	1	\$180.91
4	945-750	LOCK WASHER A5	5	\$0.14
5	940-880	ALLEN SCREW M5X30	3	\$0.92
6	641-521	TORX-ZYLINDER HEAD SCREW M5X16	2e	\$2.09
7-9	965-769	PICK UP ASSEMBLY	1a	\$168.60
8	964-072	INSULATION SHEATH	1	\$2.28
9	964-067	FASTON CONNECTOR 3, 96	1	\$2.28
10-12	965-761	PICKUP ASSEMBLY	1b	\$156.58
11	964-072	INSULATION SHEATH	1	\$2.28
12	964-067	FASTON CONNECTOR 3, 96	1	\$2.28
13	941-925	TAPTITE SCREW M5X16	4	\$1.26
14	827-800	WASHER A 5.5 DIN 6902	4	\$5.99
15	945-759	LOCK WASHER 22	1	\$1.76
16	842-239	HEX. NUT M22X1.5	1	\$12.83
17	980-486	V-BELT PULLEY	1	\$59.42
18	852-412	STARTING PULLEY	1	\$40.60
19	845-310	LOCK WASHER VHZ 8	3	\$0.41
20	841-520	ALLEN SCREW M8X12	3	\$1.35
21	966-060	SPIRAL HOSE 70 MM	1	\$11.09
22	860-962	CABLE GROMMET 24, 5/11	1c	\$8.64

- a for ignition circuit 1 b for ignition circuit 2 c from engine S/N: 4,795.397 c from end d in a roll
- e magneto flywheel new version (with closed cage), Torx screw also valid for old version. At disassembly and reassembly of the screw the thread has to be cleaned of the remaining coating and secured with Loctite 221. As an alternative a new screw can be used



\*see chapter 9

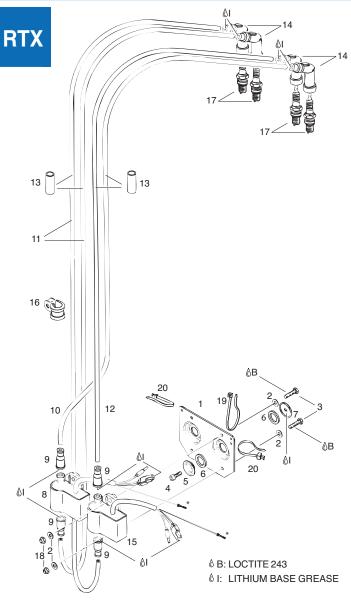
& A: LOCTITE 221 **∅** I: LITHIUM BASE GREASE



Version







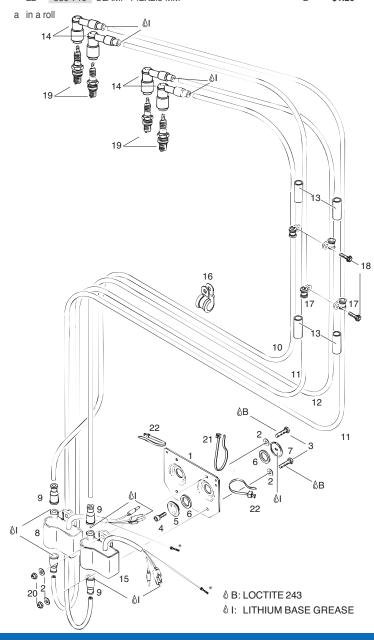
#### **ELECTRONIC BOXES AND SUPPORTING PLATE** FOR CONFIGURATION: **FREE AIR-COOLED**

Item No.	Part No	Description	Qty. Req.	Price
1	851-040	MOUNTING PLATE 1	1	\$63.89
2	244-211	WASHER 6,4 DIN 134	8	\$0.21
3	240-036	HEX. SCREW M6X25 DIN 933	4	\$0.85
4	241-236	ALLEN SCREW M6X16	2	\$0.66
5	827-815	DISTANCE CAP	2	\$9.83
6	960-865	RUBBER WASHER 18/26/3	4	\$1.92
7	944-090	SHIM 6,05	2	\$10.00
8	966-462	ELECTRONIC BOX	1	\$355.36
9	960-550	PROTECTION CAP	4	\$3.19
10-12	965-153	IGNITION CABLE 1,5/7 MM	NBa	\$15.58
13	830-962	PROTECTION HOSE 12X16X40	4	\$2.28
14	866-702	SPARK PLUG CONNECTOR	4	\$34.13
15	966-467	ELECTRONIC BOX	1	\$367.95
16	851-100	CABLE CLAMP 18	1	\$12.95
17	897-055	SPARK PLUG 14 MM, NGK BR 8 ES	4	\$2.50
18	842-044	LOCK NUT M6	4	\$2.66
19	251-920	CLAMP 279X3.6 MM	1	\$1.97
20	866-710	CLAMP 142X2.5 MM	2	\$1.26

a in a roll

#### **ELECTRONIC BOXES AND SUPPORTING PLATE** FOR CONFIGURATION: FREE AIR-COOLED

Item No.	Part No	Description	Qty. Req.	Price
2	244-211	WASHER 6,4 DIN 134	8	\$0.21
3	240-036	HEX. SCREW M6X25 DIN 933	4	\$0.85
4	241-236	ALLEN SCREW M6X16	2	\$0.66
5	827-815	DISTANCE CAP	2	\$9.83
6	960-865	RUBBER WASHER 18/26/3	4	\$1.92
7	944-090	SHIM 6,05	2	\$10.00
8	966-462	ELECTRONIC BOX	1	\$355.36
9	960-550	PROTECTION CAP	4	\$3.19
10-12	965-153	IGNITION CABLE 1.5/7 MM	NBa	\$15.58
13	830-962	PROTECTION HOSE 12X16X40	4	\$2.28
14	866-705	SUPPRESSED SPARK PLUG CONNECTOR	4	\$26.31
15	966-467	ELECTRONIC BOX	1	\$367.95
16	851-100	CABLE CLAMP 18	1	\$12.95
17	853-412	CABLE CLAMP	4	\$5.69
18	941-250	TAPTITE-SCREW M6X20	2	\$1.61
19	897-055	SPARK PLUG 14 MM, NGK BR 8 ES	4	\$1.97
20	842-040	LOCK NUT M6	4	\$1.26
21	251-920	CLAMP 279X3.6 MM	1	\$1.97
22	866-710	CLAMP 142X2.5 MM	2	\$1.26



### **2 STROKE CARBURETORS**



**RTX** 

### **ROTAX 503, 582 UL 99/17 BING DOUBLE-FLOAT CARBURETOR 36 MM, MODEL 96**

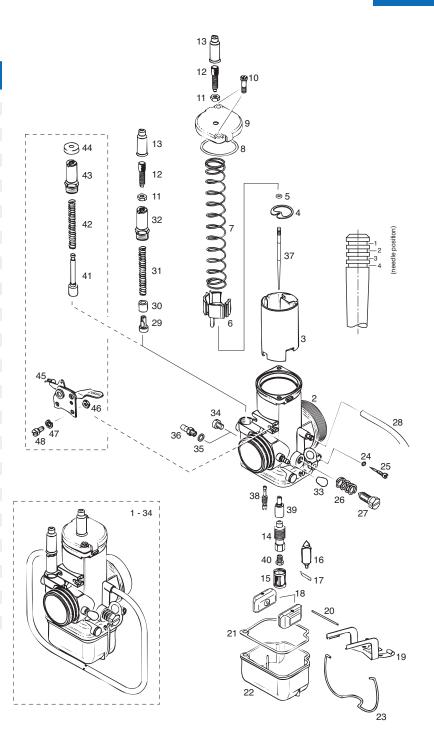
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Item No.	Part No	Description	Qty. 503	Req. 582	Price
3	963-679	CARBURETOR PISTON	1	1	\$103.80
4	963-500	NEEDLE CLIP	1	1	\$7.95
5	950-430	O-RING 2.5X1.5	1	1	\$1.85
6	827-347	SPRING CUP	1	1	\$9.50
7	938-655	CARBURETOR PISTON SPRING 1, 25/14	1	1	\$6.50
8	831-450	RUBBER RING	1	1	\$7.70
9	963-721	COVER PLATE WITH PIN	1	1	\$37.71
10	241-430	HEX. SCREW M5X12	2	2	\$1.60
11	942-541	HEX. NUT M6X0,75 HIGHT 3 MM 3	2	2	\$0.99
12	241-440	ADJUSTMENT SCREW M6X0.75	2	2	\$4.95
13	260-370	RUBBER GROMMET	2	2	\$2.80
14	963-700	MIXING TUBE	1	1	\$21.70
15	261-625	SIEVE SLEEVE	1	1	\$10.65
16	261-705	FLOAT NEEDLE VALVE W. VITON TIP	1	1	\$41.50
17	261-710	FLOAT NEEDLE CLIP	1	1	\$1.95
18	861-184	FLOAT (PAIR)	1	1	\$97.25
19	861-192	FLOAT BRACKET	1	1	\$19.75
20	929-702	PIN	1	1	\$2.55
21	830-720	GASKET	1	1	\$10.65
22	261-010	FLOAT CHAMBER ASSEMBLY	1	1	\$108.22
23	963-180	SPRING CLIP	1	1	\$10.50
24	831-713	O-RING 3.2X1.8	1	1	\$3.85
25	963-155	AIR REGULATING SCREW	1	1	\$13.50
26	938-640		1	1	\$3.35
27	963-167	ADJUSTMENT SCREW	1	1	\$19.63
28	861-940	AIR VENT LINE	1	1	\$12.95
29	963-740	CHOKE PISTON WITH GASKET	1	1	\$11.50
30	268-850	SLEEVE	1	1	\$4.60
31	661-050	COMPRESSION SPRING	1	1	\$2.12
32	963-750	CHOKE HOUSING	1	1	\$16.50
33	860-610	RUBBER CAP	1	1	\$2.28
34	640-220	SLOTTED HEAD SCREW M6X5	1	1	\$7.84
35	230-415	SEALING RING A 6X10 DIN 7603	1h	1h	\$1.40
36	940-551	HOSE NIPPLE M6	1h	1h	\$17.20
	995-667	HAND LEVER CHOKE SET	1	1	\$51.90
41	268-847	CHOKE PISTON WITH GASKET	1	1	\$27.60
42	239-730	COMPRESSION SPRING	1	1	\$4.52
43	261-770		1	1	\$13.50
44	260-490	RUBBER CAP	1	1	\$6.85
45	261-755		1	1	\$29.65
46	261-200	HEX. NUT M5	2	2	\$1.43
47	945-750		2	2	\$0.14
48	240-791	SLOTTED HEAD SCREW M5X10 84	2	2	\$0.48

a base carburetor for air cooled engines with bowden cable choke. NOTICE carburetor without calibration. from engine S/N

503 UL: 4,795.201
b NOTICE carburetor without calibration. from engine S/N

582 UL mod. 90: 4,656.088 582 UL mod. 99: starting with serial production

- c carburetor housing, not available as spare part, use carburetor assy.
- jet-needle, see carburetor calibration sheet
- idle-jet, see carburetor calibration sheet
- needle-jet, see carburetor calibration sheet
- main-jet, see carburetor calibration sheet
- g main-jet, see carburetor calibration sneet h only necessary on high altitude compensation kit (not available anymore)



# **2 STROKE CARBURETORS**



#### **CARBURETOR CALIBRATION SHEETS**

#### **503 UL DCD1**

	S	TANDARD	503 - 34KW		S	TANDARD	503 - 37KW	
Version	Part Number	Price	Part Number	Price	Part Number	Price	Part Number	Price
with intake silencer	YES		NO		YES		NO	
Carburetor	887-825	\$649.78	887-820	\$649.78	-		887-826	\$544.00
main jet	HD 165 P/N 268-986	\$11.50	HD 165 P/N 261-080	\$11.99	HD 148 P/N 268-995	\$11.99	HD 158 P/N 268-996	\$11.50
idle jet	LD 45 P/N 963-144	\$28.65	LD 45 P/N 963-144	\$28.65	LD 45 P/N 963-144	\$28.65	LD 45 P/N 963-144	\$28.65
needle jet	ND 2,70 P/N 963-698	\$22.86	ND 2,70 P/N 963-697	\$22.86	ND 2,68 P/N 963-691	\$18.50	ND 2,70 P/N 963-698	\$22.86
jet needle	DN 15K2 P/N 963-718	\$16.50	DN 15K2 P/N 963-718	\$16.50	DN 11K2 P/N 961-044	\$18.25	DN 11K2 P/N 961-044	\$18.25
needle position	NP 3		NP 3		NP 2		NP 2	
cold start jet	SD 150		SD 150		SD 150		SD 150	
idle air adjusting screw	LS 0,5		LS 0,5		LS 1		LS 0,5	

#### **582 UL DCD1**

	S	TANDARD	582 - 40KW		S	TANDARD	582 - 48KW	
Version	Part Number	Price	Part Number	Price	Part Number	Price	Part Number	Price
with intake silencer	YES		NO		YES		NO	
Carburetor	887-836	-	887-832	-	887-838	\$563.00	887-834	-
main jet	HD 145 P/N 268-982	\$11.50	HD 160 P/N 268-985	\$11.50	HD 145 P/N 268-982	\$11.50	HD 160 P/N 268-985	\$11.50
idle jet	LD 55 P/N 963-147	\$31.50	LD 55 P/N 963-147	\$31.50	LD 55 P/N 963-147	\$31.50	LD 55 P/N 963-147	\$31.50
jet needle	DN 15K2 P/N 963-718	\$16.50	DN 11G2 P/N 961-043	\$12.60	DN 15K2 P/N 963-718	\$16.50	DN 11G2 P/N 961-043	\$12.60
needle position	NP 3	-	NP 3	-	NP 2	-	NP 2	-
cold start jet	SD 150	_	SD 150	-	SD 150	_	SD 150	_
idle air adjusting screw	LS 1	-	LS 1	-	LS 1	-	LS 1	-
float needle valve	NS 1,5	_	NS 1,5	_	NS 1,5	_	NS 1,5	-

#### **MOST FREQUENT CALIBRATION JETS**

Main Jet	Part No.	Price
HD 125	268-978	\$11.50
HD 130	268-979	\$10.75
HD 135	268-980	\$11.99
HD 138	268-998	\$10.95
HD 140	268-981	\$11.50
HD 142	268-994	\$11.99
HD 145	268-982	\$11.50
HD 148	268-995	\$11.99
HD 150	268-983	\$11.50
HD 155	268-984	\$11.50
HD 158	268-996	\$11.50
HD 160	268-985	\$11.50
HD 162	268-990	\$11.50
HD 165	268-986	\$11.50
HD 170	268-987	\$11.50
HD 175	268-988	\$11.50
HD 180	268-989	\$11.50
HD 185	261-080	\$11.99
HD 190	261-084	\$11.99
HD 195	268-992	\$11.50
HD 200	261-082	\$17.50
HD 205	261-087	\$16.50
HD 210	261-083	\$16.68

Idle Jet	Part No.	Price	Needle Jet	Part No.	Price
LD 45	963-144	\$28.65	ND 2,68	963-691	\$18.50
LD 50	963-140	\$32.80	ND 2,70	963-698	\$17.80
LD 55	963-147	\$31.50	ND 2,72	963-697	\$15.85
			ND 2,74	963-699	\$18.50

Jet Needle	Part No.	Price
DN 8L2	963-714	\$15.50
DN 6G1	261-642	\$16.78
DN 9	961-047	\$22.16
DN 11G2	961-043	\$12.60
DN 11K2	961-044	\$16.50
DN 15E5U	961-046	\$22.16
DN 15K 2	963-718	\$16.50



EXPERTS IN LIGHTSPORT AVIATION

SAME DAY SHIPMENT!
GUARANTEED LOWEST PRICES!
YOUR SOURCE FOR LSA SUPPLIES!

### **STROKE STARTERS**

# ROTAX 503, 582 UL 99/17 REWIND STARTER

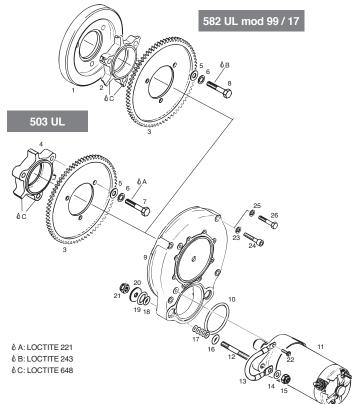
IILWIIVD	OIAII				
Item No.	Part No	Description	Qty. 503	Req. 582	Price
1-12	995-583	REWIND STARTER ASSEMBLY	1d		\$400.06
2	939-078	REWIND SPRING ASSEMBLY	1		\$49.74
3	852-283	ROPE SHEAVE	1		\$78.91
4	852-094	STARTER ROPE 5.5X30000	NBf		\$106.51
5	852-070	KEY CLAMP	1		\$4.37
6	852-290	PAWL	1		\$26.50
7	852-305	PAWL LOCK	1		\$15.54
8	845-300	RETAINING RING 15	1		\$2.28
9	938-986	LOCKING SPRING	1		\$6.46
10	945-770	SNAP RING AV 17	1		\$1.35
11	960-415	RUBBER BUFFER	1	1	\$10.45
12	852-177	STARTER GRIP	1	1	\$29.59
13	945-751	LOCK WASHER A6 DIN 128	4	4	\$0.21
14	241-236	ALLEN SCREW M6X16	4	4	\$0.66
11,12, 15-25	892-800	REWIND STARTER SET		1eg	\$317.57
11,12, 15-25	892-802	REWIND STARTER SET		1dg	\$337.17
15	910-251	STARTER HOUSING		1	\$110.17
16	939-115	REWIND SPRING		1	\$49.74
17	852-286	ROPE SHEAVE		1g	\$68.18
19	852-630	PAWL		1	CALL
20	852-304	PAWL LOCK		1	CALL
21	847-926	STEP COLLAR		1	\$13.79
22	250-400	O-RING 12X3.5		1	\$3.32
23	852-520	LOCK LEVER		1	\$4.21
24	845-560	LOCKING ELEMENT		1	\$2.40
25	852-094	STARTER ROPE 5.5X30000		NBf	\$106.51
26	810-866	CONNECTING FLANGE		1	\$106.40
27	241-231	ALLEN SCREW M6X16		4	\$1.40
28	941-256	TAPTITE SCREW M6X20 T		4	\$2.04

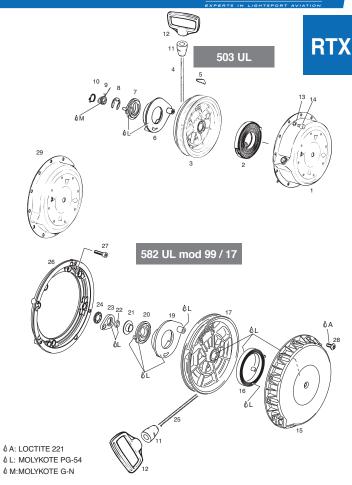
- Items not illustrated
- a starter rope 1700 mm

- b starter rope 2600 mm c starter rope 3200 mm d starter rope 3700 mm e starter rope 2200 mm f in a roll.

- modified rope fixation: knot instead of key clamp (from S/N 5.742.150)

NOTICE when using new rewind starter without knot use new rope sheave (17)





#### **ROTAX 503, 582 UL 99/17 MAGNETO END STARTER PARTS**

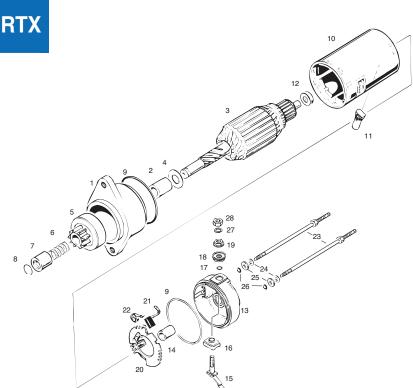
Item	Part No	Description	Qty.	Req.	Price
No.	Fait INU	Description	503	582	FIICE
2 8	852-378	STARTER GEAR ADAPTER		1b	\$135.98
3 8	834-053	STARTER GEAR 61 T.	1	1	\$299.19
5 2	250-311	WASHER 8,4 DIN 125	3	3	\$0.41
6 9	945-752	LOCK WASHER A8	3	3	\$0.21
8 9	940-616	HEX. SCREW M8X40		3	\$1.61
9 9	910-731	STARTER COVER	1	1	\$442.53
10 8	850-390	O-RING 60-4	1	1	\$9.83
11 9	995-430	ELECTRIC STARTER ASSEMBLY	1	1	\$810.84
12 8	841-950	STUD M8X43/23	2	2	\$11.26
13 9	966-031	MASS CABLE 80 MM ASSEMBLY	1	1	\$36.99
14 9	944-038	WASHER 8,4/14/1	1	1	\$1.40
15 9	942-030	LOCK NUT M8	2c	2c	\$2.40
16 8	850-585	O-RING 8X5	2	2	\$4.59
17 2	230-260	O-RING 6X3	10	10	\$4.26
18 8	850-580	O-RING 8X4	2	2	\$4.42
19 8	850-590	O-RING 16-4	2	2	\$4.99
20 8	827-910	WASHER 8,2/26,3/2	2	2	\$3.85
21 9	942-030	LOCK NUT M8	2c	2c	\$2.40
23 9	945-751	LOCK WASHER A6 DIN 128	4		\$0.21
24 2	241-816	ALLEN SCREW M6X40 DIN 912	4		\$1.40
25	445-331	LOCK WASHER VHZ 6		4	\$0.57
26 2	240-631	HEX.SCREW M6X40		4	\$1.23

Items not illustrated

- a from engine S/N 582 UL mod. 90: 4,015.239

- b from beginning of serial production
  c tighten to leave 1mm distance between starter cover and electric starter
  d at 582UL mod. 90 tunil engine S/N 4.015.238 (without hydro damper assembly)

### 2 STROKE STARTERS - MOD 503/582



#### ROTAX 503, 582 UL 99/17 ELECTRIC STARTER-SINGLE PARTS, CONFIGURATION MAGNETO-SIDE

Item No.	Part No	Description	Qty. Req.	Price
1-26	995-430	SCHRAUBTRIEB-STARTER KPL.	1	\$810.84
1-2	866-880	DRIVE HOUSING ASSEMBLY	1	\$196.95
3	866-870	ROTOR ASSEMBLY	1	\$486.61
4	927-057	THRUST WASHER 15,3/24/1	1	\$5.09
5	866-850	OVERRUNNING-CLUTCH DRIVE ASSEMBLY	1	\$337.66
6	939-030	SPRING	1	\$17.11
7	927-040	STOP COLLAR	1	\$36.78
8	845-360	CIRCLIP	1	\$4.59
9	850-500	O-RING 62-1,5	2	\$11.38
10	866-860	YOKE ASSEMBLY	1	\$312.02
11	860-600	VENTING RUBBER	1	\$10.99
12	827-600	SHIM	NB	\$4.95
15	866-892	CARBON BRUSH WITH SCREW	1	\$70.47
16	260-820	ISOLATING BUSHING	1	\$9.66
17	230-530	O-RING 6X1,7	1	\$2.97
18	260-800	CONNECTOR SHEATH	1	\$8.30
19	242-780	COMBINED NUT M6	1	\$4.06
20-22	866-890	BRUSH HOLDER WITH SPRINGS	1	\$70.47
23	841-860	SCREW M5	2	\$19.76
24	945-750	LOCK WASHER A5	2	\$0.14
25	827-800	WASHER A 5,5 DIN 6902	2	\$5.99
26	850-510	O-RING 4,7X1,4	2	\$5.95
27	945-751	LOCK WASHER A6 DIN 128	1	\$0.21
28	242-211	HEX.NUT M6	1	\$0.41

#### Items not illustrated

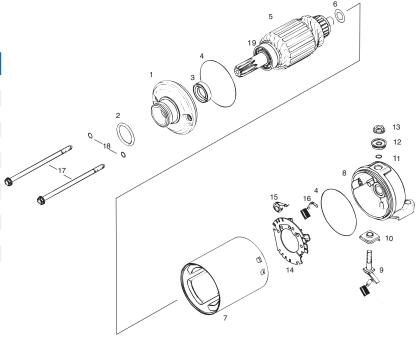
- a bushing, not available as spare part, use drive housing assy. 866-880.
- b end frame with sleeve, not available as spare part, use end frame assy. 866-900.
- c bushing, not available as spare part, use drive housing assy. 866-900. d brush, not available as spare part, use brush holder assy. 866-890.
- e spring, not available as spare part, use brush holder assy. 866-890.

### ROTAX 503, 582 UL 99/17 ELECTRIC STARTER-SINGLE PARTS, "E" GEARBOX

	GLA	IIDOX		
Item No.	Part No	Description	Qty. Req.	Price
1-18	293-153	ELECTRIC STARTER ASSEMBLY SUPPORT	1	\$853.72
2	250-140	O-RING DIN 3771-24,4X3,1-N NBR70	1	\$7.14
3	250-130	OIL SEAL 15X24X5 NBR	1	\$22.90
4	850-500	O-RING 62-1,5	2	\$11.38
6	827-600	SHIM	NB	\$4.95
9	264-184	CARBON BRUSH ASSEMBLY	1	\$110.04
10	260-810	CONNECTOR SHEATH	1	\$9.66
11	230-530	O-RING 6X1.7	1	\$2.97
12	260-800	CONNECTOR SHEATH	1	\$8.30
13	242-780	COMBINED NUT M6	1	\$4.06
14-16	866-891	BRUSH HOLDER WITH SPRING	1	\$70.47
18	850-510	O-RING 4.7X1.4	2	\$5.95
19	232-260	B. BEARING R6002 Z	1	\$28.05

Items not illustrated

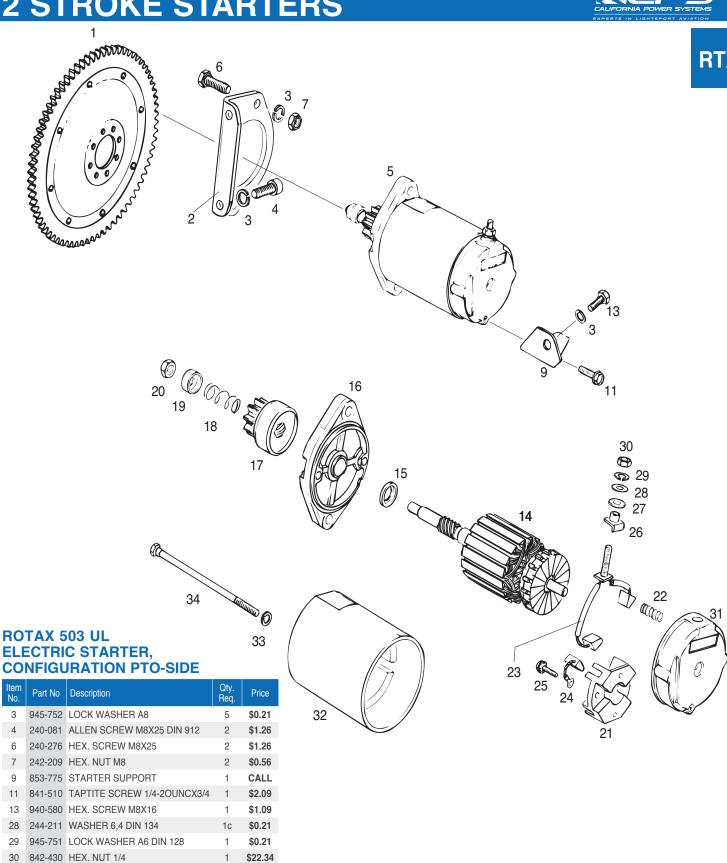
a brush, not available as spare part, use brush holder assy. 866-891



### **2 STROKE STARTERS**







34 841-395 HEX. Items not illustrated

33

2

2

\$0.21

\$9.03

945-751 LOCK WASHER A6 DIN 128

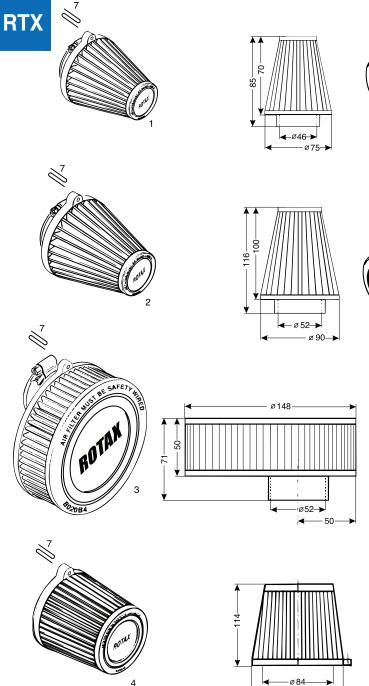
a with ring gear holder

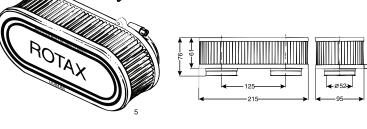
b without ring gear holder

c brush holder, not available as spare part, use end frame assembly 866-555.

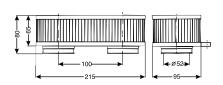
### **2 STROKE AIR FILTERS**











# ROTAX 503, 582 UL 99/17 AIR FILTER (SINGLE/DOUBLE)

Item	Dort No	Description	Qty.	Req.	Price
No. Part No	Description	503 UL	582 UL	Price	
2	825-551	AIR FILTER	1/2a	2	\$33.96
3	825-711	AIR FILTER	1/2a	2	\$45.36
4	825-511	AIR FILTER	1b	1b	\$42.48

- Items not illustrated
- a for specific use see filter installation sheet.
- b use at intake silencer version.
  c for 582 UL mod. 90 without fresh oil injection.
- d with fresh oil injection.
  e not as spare part available.

#### **FILTER INSTALLATION SHEET**

	503 UL SCDI		582 UL DCDI MOD. 99 / 71			
	503 Single Carb	503 Dual Carb	582 UL 99 / 17 with Injection Pump	582 UL 99 / 17 without Injection Pump		
Single	825-551 OR 825-711		825-551 OR 825-711			
Double	- 825-721 825-723			723		
(with intake silencer)	825-511		825-511			

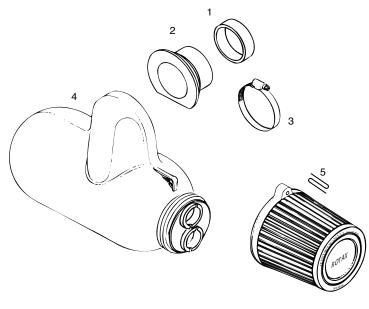
# **2 STROKE INTAKE SILENCERS**

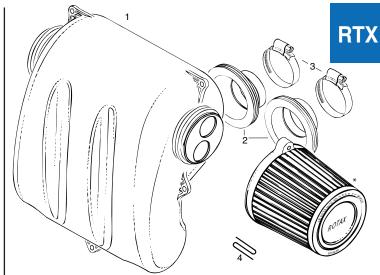


#### **ROTAX 503 UL INTAKE SILENCER**

Item No.	Part No	Description	Qty. Req.	Price
1-4	825-760	INTAKE SILENCER SET 1-V	1	\$108.46
1	860-160	ADAPTOR RING	1	\$11.16
2	825-440	ADAPTOR	1	\$51.73
3	951-791	CLAMP 50-70	1	\$9.34
4	825-337	INTAKE SILENCER ASSEMBLY	1	CALL

a not as spare part available.

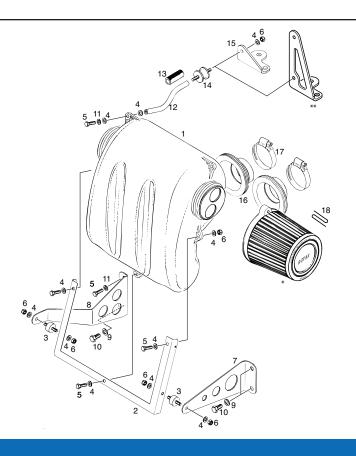




# ROTAX 503, 582 UL 99/17 INTAKE SILENCER

Item No.	Part No	Description	Qty. Req.	Price
1-3	825-762	INTAKE SILENCER SET 2-V	1a	\$172.87
1-3	825-764	INTAKE SILENCER SET 2-V	1b	\$196.14
1	825-657	INTAKE SILENCER ASSEMBLY	1a	\$228.87
1	825-659	INTAKE SILENCER ASSEMBLY	1b	\$228.87
2	825-662	SILENCER SOCKET	2	\$51.73
3	951-791	CLAMP 50-70	2	\$9.34
4	01-15725	SAFETY WIRE .032 25 FT.	NBc	\$1.25

- a if installed with filter on top.
- b if installed with filter on bottom.
  c not as spare part available.



### **ROTAX 582 UL 99/17 INTAKE SILENCER**

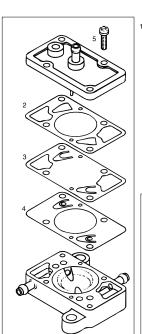
Item No.	Part No	Description	Qty. Req.	Price
1-17	825-743	INTAKE SILENCER SET 2-V	1	\$290.16
1-6	825-740	INTAKE SILENCER W/ FRAME	1	\$368.45
2	953-151	FRAME	1	\$136.76
3	860-700	RUBBER 20X10XM6	2	\$23.11
4	244-213	WASHER 6,4	13	\$1.00
5	940-563	HEX. SCREW M6X20	5	\$2.76
6	842-042	LOCK NUT M6	8	\$2.66
7	953-166	INTAKE SILENCER BRACKET MS	1	\$66.30
8	953-163	INTAKE SILENCER BRACKET AS	1	\$77.28
9	845-382	LOCK WASHER A8	3	\$1.23
10	940-583	HEX. SCREW M8X16 STAINLESS STEEL	3	\$3.19
11	845-381	LOCK WASHER A6	2	\$0.57
12	847-608	DISTANCE BAR	1	\$100.16
13	956-236	PROTECTION HOSE	1	\$6.46
14	260-657	RUBBER BUFFER 25X20XM6	1	\$26.40
15	851-129	INTAKE SILENCER BRACKET	1	\$37.45
16	825-662	SILENCER SOCKET	2	\$51.73
17	951-791	CLAMP 50-70	2	\$9.34
18	01-15725	SAFETY WIRE .032 25 FT.	NBa	\$1.25

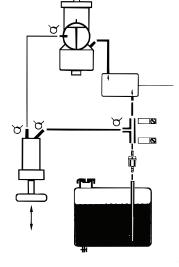
a not as spare part available.

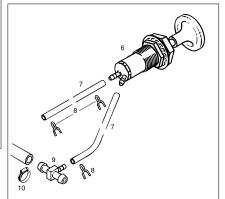
Prices Subject to Change Without Notice

### STROKE FUEL PUMPS

### **RTX**







#### **ROTAX 503 UL** SINGLE CARBURETOR FUEL PUMP & PRIMER

Item No.	Part No	Description	Qty. Req.	Price
1-5	994-483	MIKUNI-FUEL PUMP DF 44-210	1a	\$126.14
2	831-936	COVER GASKET	1	\$7.80
3	861-137	PUMP DIAPHRAGM	1	\$5.81
4	861-135	PUMP CASE GASKET	1	\$23.00
5	841-460	COMBINED SCREW M4X16	4	\$1.79
6-10	861-620	PRIMER KIT	1	\$113.47
6	861-630	PRIMER PUMP	1	\$113.73
7	874-211	FUEL LINE 3000 MM	1	\$33.93
8	938-195	CLAMP 5	8	\$4.85
9	974-832	REDUCTION T-PIECE 5-3-5	1	\$13.46
10	951-898	CLAMP 7-11	2	\$8.64

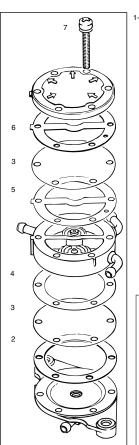
a suitable for 1- and 2 carburetor configuration.

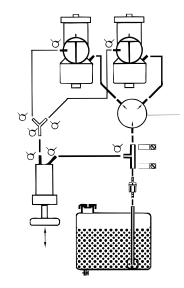


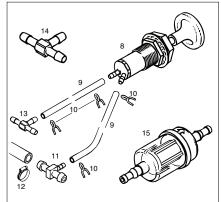
### **ROTAX 503, 582 UL 99/17 DUAL CARBURETOR FUEL PUMP AND PRIMER**

	tem No.	Part No	Description	Qty. Req.	Price
	1-7	994-486	FUEL PUMP DF 52-48	1	\$162.58
	2	850-441	GASKET	1	\$6.39
	3	861-210	DIAPHRAGM	2	\$24.80
	4	850-445	GASKET	1	\$6.39
	5	850-447	GASKET	1	\$9.27
	6	850-451	GASKET	1	\$6.49
	7	841-035	COMBINED SCREW M4X28	6	\$1.99
8	3-14	861-620	PRIMER KIT	1	\$113.47
	8	861-630	PRIMER PUMP	1	\$113.73
	9	874-211	FUEL LINE 3000 MM	1	\$33.93
	10	938-195	CLAMP 5	8	\$4.85
	11	974-832	REDUCTION T-PIECE 5-3-5	1	\$13.46
	12	951-898	CLAMP 7-11	2	\$8.64
	13	974-837	T-PIECE 3-3-3	1	\$8.25
	14	974-830	T-PIECE 5-5-5	1	\$8.25

mash size 0,15 mm (0,006 in).







8-15

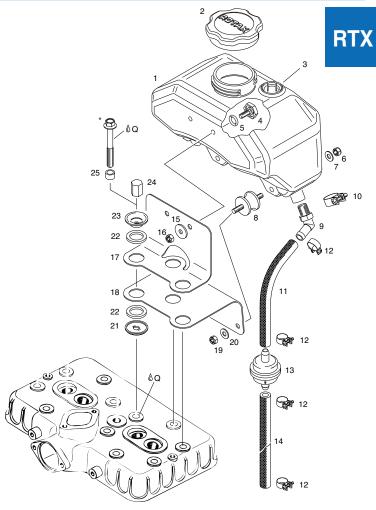
# 2 STROKE OIL TANK FOR OIL INJECTION



#### **ROTAX 582 UL 99/17 - OIL TANK ASSEMBLY**

Item No.	Part No	Description	Qty. Req.	Price
1-16	881-460	OIL TANK SET	1	\$169.73
2	874-106	TANK CAP ASSEMBLY	1	\$24.57
3	956-360	OIL LEVEL INDICATOR	1	\$67.86
4	840-160	TIGHTENING SCREW	2c	\$14.57
5	430-020	O-RING 9,3X2,4	2c	\$5.52
6	842-042	LOCK NUT M6	2	\$2.66
7	244-211	WASHER 6,4 DIN 134	2	\$0.21
8	260-657	RUBBER BUFFER 25X20XM6	2	\$26.40
9	922-242	ANGULAR TUBE 1/4-18NPT	1	\$18.14
10	853-726	CLAMP MINI 16 W1	1	\$4.95
11	956-231	OIL LINE 140 MM	1	\$10.92
12	951-260	CLAMP 14	4	\$4.95
13	956-330	OIL FILTER	1	\$29.35
14	956-233	OIL LINE 450 MM	1	\$27.14
15	227-900	WASHER 6,2/20/2	2	\$4.59
16	842-042	LOCK NUT M6	2	\$2.66
17	851-230	OIL TANK BRACKET UPPER HALF	1	\$55.44
18	851-235	OILTANK BRACKET LOWER HALF	1	\$55.44
19	842-042	LOCK NUT M6	2	\$2.66
20	244-211	WASHER 6,4 DIN 134	2	\$0.21
21	944-092	SHIM 8,2	3	\$10.00
22	960-865	RUBBER WASHER 18/26/3	6	\$1.92
23	827-817	CUP WASHER	3	\$12.95
25	847-796	SPACER 8,4/12/7,5	3b	\$10.84

a use at 582 UL mod 90 and 618 UL.



© Q: SILASTIC 732 RTV

#### **OVERVIEW OF THE EXHAUST SYSTEMS**

#### **OVERVIEW SHEET:**

	VERSION	EXHAU	EXHAUST MANIFOLD ASSEMBLY			CONNECTING ELBOW ASSEMBLY			MUFFLER ASSEMBLY			Y	
	HOOKS	YE	S	N	0	YI	ES	N	0	YI	ES	N	0
	SIDEMOUNT									973-198	\$540.98		
503 UL DCD1	1 X 90° <sup>2)</sup>	831-849 \$9	9 \$9.70 –	_	_	973-182	73-182 <b>\$179.70</b>	973-180	\$161.85	973-275	\$608.13	- 1	\$608.13
	STRAIGHT									973-191	\$497.80		
	SIDEMOUNT				\$251.07	973-182 <b>\$179.70</b>				973-197	\$540.98		
582 UL DCD1 99 / 17 DCDI 48kW	1 X 90° 2)	973-123	73-123 <b>\$255.71</b>	973-121			973-180	0 \$161.85	973-275	\$608.13	973-274	\$608.13	
	STRAIGHT									973-192	\$497.80		

<sup>1)</sup> double wall, noise reduced version)

<sup>2)</sup> with connecting elbow

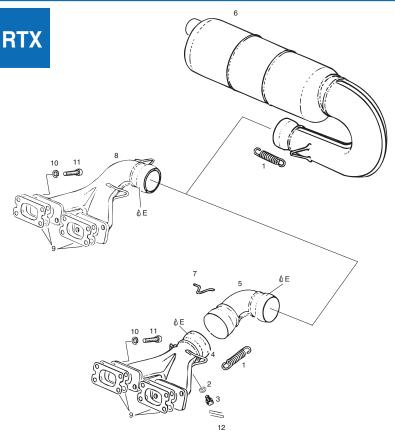
	SPF	RING	EXHAUS1	GASKET	GASKET F	RING A8x13	CAPSTAN SC	REW M8X1X10
503 UL DCD1	938-795	\$3.39	831-849	\$9.70	950-141	\$1.30	041.615	00.40
582 UL DCD1 99 / 17 DCDI 48kW	938-790	\$7.85	850-633	\$12.66	950-141	\$1.50	941-615	\$9.18

b use at 582 UL mod 99

c not available as spare part, use 881-460



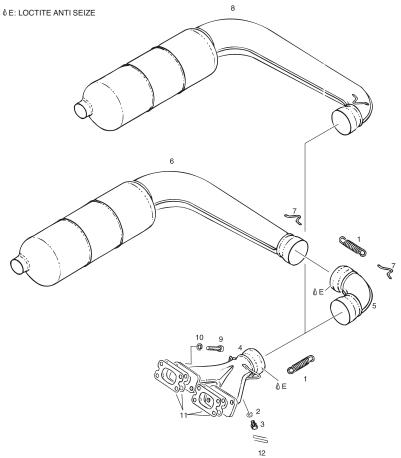
### **2 STROKE EXHAUST SYSTEMS**



#### ROTAX 503, 582 UL 99/17 EXHAUST SYSTEMS CONFIGURATION SIDEMOUNT

Item No.	Part No	Description		Req. 582 UL	Price
1-6	881-662	EXHAUST ASSORTMENT	1		\$656.57
1-7	881-635	EXHAUST ASSORTMENT		1	\$656.57
1	938-795	SPRING 66 MM	6		\$3.39
1	938-790	RETURN SPRING		6	\$7.85
2	950-141	GASKET RING A 8X13 DIN 7603	2	2	\$1.30
3	941-615	CAPSTAN SCREW M8X1X10	2	2	\$9.18
4	973-121	EXHAUST MANIFOLD ASSEMBLY		1a	\$251.07
4	973-123	EXHAUST MANIFOLD ASSEMBLY		1b	\$255.71
5	973-180	CONNECTING ELBOW ASSEMBLY	1a	1a	\$161.85
5	973-182	CONNECTING ELBOW ASSEMBLY	1b	1b	\$179.70
6	973-198	MUFFLER ASSEMBLY	1b		\$540.98
6	973-197	MUFFLER ASSEMBLY		1a	\$540.98
7	853-355	HOOK	NB	NB	\$1.92
9	831-849	GASKET 1,0 MM	4		\$9.70
9	850-633	GASKET		2c	\$12.66
10	945-752	LOCK WASHER A8	4	6	\$0.21
11	840-991	ALLEN SCREW M8X30	4	6	\$1.40
12	01-15725	SAFETY WIRE .032 25 FT.	NB	NB	\$1.25

- a without hooks
- b with hooks
- c see also SI-2ST-002
- d no longer in available



### ROTAX 503, 582 UL 99/17 EXHAUST SYSTEMS CONFIG.: 1 X 90° WITH CONNECTING ELBOW AND 2 X 90°

Item	Dovt No.	Description	Qty.	Req.	Duine
No.	Part No	Description	503 <b>UL</b>	582 <b>UL</b>	Price
1-6	881-660	EXHAUST ASSORTMENT	1a		\$656.57
1-7	881-661	EXHAUST ASSORTMENT	1b		\$656.57
1-7	881-633	EXHAUST ASSORTMENT		1a	\$656.57
1	938-795	SPRING 66 MM	6		\$3.39
1	938-790	RETURN SPRING		6	\$7.85
2	950-141	GASKET RING A 8X13 DIN 7603	2	2	\$1.30
3	941-615	CAPSTAN SCREW M8X1X10	2	2	\$9.18
4	973-121	EXHAUST MANIFOLD ASSEMBLY		1a	\$251.07
4	973-123	EXHAUST MANIFOLD ASSEMBLY		1b	\$255.71
5	973-180	CONNECTING ELBOW ASSEMBLY	1c	1c	\$161.85
5	973-182	CONNECTING ELBOW ASSEMBLY		1b	\$179.70
6	973-274	MUFFLER ASSEMBLY	1c	1c	\$608.13
6	973-275	MUFFLER ASSEMBLY	1b	1b	\$608.13
7	853-355	HOOK	NB	AR	\$1.92
9	840-991	ALLEN SCREW M8X30	4	6	\$1.40
10	945-752	LOCK WASHER A8	4	6	\$0.21
11	831-849	GASKET 1.0 MM	4		\$9.70
11	850-633	GASKET		2d	\$12.66

- a hooks (part no. 853355) attached, not welded.
- b hooks (part no. 853355) already welded.
- c without hooks
- d see also SI-2ST-002

**∅** E: LOCTITE ANTI SEIZE

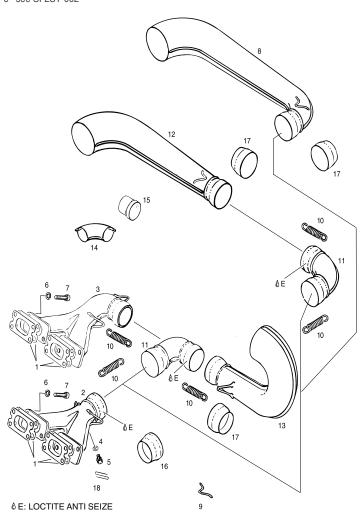
### **2 STROKE EXHAUST SYSTEMS**

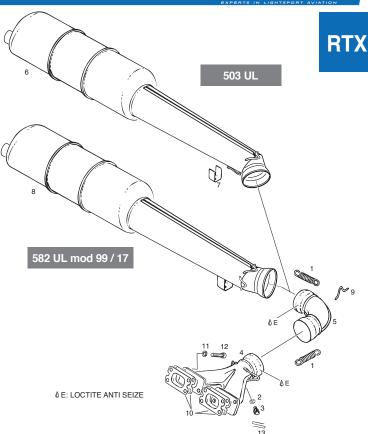


#### **ROTAX 503, 582 UL 99/17 EXHAUST SYSTEM CONFIGURATION: STRAIGHT**

Item	Part No	Description	Qty.	Req.	Price
No.	Part NO	Description	503 UL	582 UL	Price
1	938-795	SPRING 66 MM	6		\$3.39
1	938-790	RETURN SPRING		6	\$7.85
2	950-141	GASKET RING A 8X13 DIN 7603	2	2	\$1.30
3	941-615	CAPSTAN SCREW M8X1X10	2	2	\$9.18
4	973-121	EXHAUST MANIFOLD ASSEMBLY		1a	\$251.07
4	973-123	EXHAUST MANIFOLD ASSEMBLY		1b	\$255.71
5	973-180	CONNECTING ELBOW ASSEMBLY	1a	1a	\$161.85
5	973-182	CONNECTING ELBOW ASSEMBLY	1b	1b	\$179.70
6	973-191	MUFFLER ASSEMBLY	1b		\$497.80
7	951-150	BRACKET	2		\$11.84
8	973-192	MUFFLER ASSEMBLY		1a	\$497.80
9	853-355	HOOK	NB	NB	\$1.92
10	831-849	GASKET 1.0 MM	4		\$9.70
10	850-633	GASKET		2c	\$12.66
11	945-752	LOCK WASHER A8	4	6	\$0.21
12	840-991	ALLEN SCREW M8X30	4	6	\$1.40
13	01-15725	SAFETY WIRE .032 25 FT.	AR	AR	\$1.25

- a without hooks
- b with hooks c see SI-2ST-002





# ROTAX 503, 582 UL 99/17 EXHAUST SYSTEMS SINGLE PARTS

Item			Qty.	Req.	Duine
No.	Part No	Description	503 UL	582 UL	Price
1	831-849	GASKET 1,0 MM	4		\$9.70
1	850-633	GASKET		2f	\$12.66
2	973-121	EXHAUST MANIFOLD ASSEMBLY		1a	\$251.07
2	973-123	EXHAUST MANIFOLD ASSEMBLY		1b	\$255.71
4	950-141	GASKET RING A 8X13 DIN 7603	2	2	\$1.30
5	941-615	CAPSTAN SCREW M8X1X10	2	2	\$9.18
6	945-752	LOCK WASHER A8	4	6	\$0.21
7	840-991	ALLEN SCREW M8X30	4	6	\$1.40
8	973-546	INLET CONE ASSEMBLY	1b,g,h		\$228.87
8	973-546	INLET CONE ASSEMBLY	1a,g,i		\$228.87
9	853-355	HOOK	NB	NB	\$1.92
10	938-795	SPRING 66 MM	NB		\$3.39
10	938-790	RETURN SPRING		NB	\$7.85
11	973-180	CONNECTING ELBOW ASSEMBLY	1a	1a	\$161.85
11	973-182	CONNECTING ELBOW ASSEMBLY	1b	1b	\$179.70
12	973-546	INLET CONE ASSEMBLY		1b	\$228.87
13	973-544	INLET CONE ASSEMBLY		1a	\$228.87
14	879-920	OUTLET ELBOW ASSEMBLY	1	1	\$67.49
15	978-640	OUTLET TUBE	1c	1c	\$22.91
16	878-660	BALL JOINT	1d	1d	\$17.43
17	878-666	BALL JOINT	1e	1e	\$17.68
18	01-15725	SAFETY WIRE .032 25 FT.	NB	NB	\$1.25

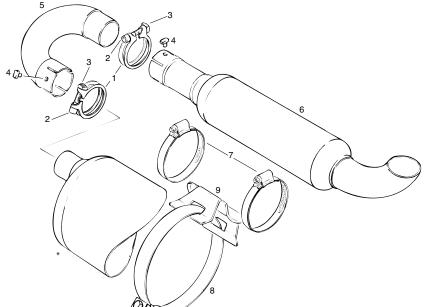
- without hooks
- with hook for configuration with clamped after muffler. for exhaust manifold

- for inlet cones see also-SI-2ST-002 no longer in production

- replaced by part no. 973-546 + 973-182 replaced by part no. 973-546 + 973-180, hooks have to be ordered separately

# **2 STROKE EXHAUST SYSTEMS**

### **RTX**



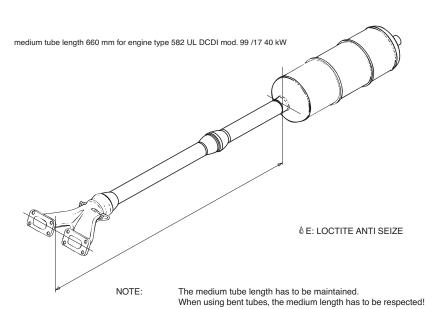
#### **ROTAX 503, 582 UL 99/17** AFTER-MUFFLER ASSEMBLY, CLAMPED **CONFIGURATION**

Item No.	Part No	Description	Qty. Req.	Price
1-9	978-650	AFTER MUFFLER KIT (NEW)	1	\$157.14
1	953-251	CLAMP 42	2	\$11.91
2	241-811	ALLEN SCREW M6X35 DIN 912	2	\$0.57
3	942-991	SQUARE NUT M6	2	\$0.57
4	929-921	SECURITY BOLT	2	\$25.70
5	878-407	ELBOW ASSEMBLY	1	\$111.84
6	878-967	AFTER-MUFFLER ASSEMBLY	1	\$238.19
7	851-130	CLAMP 60-80	2	\$11.69
8	851-140	HOSE CLAMP 140	1	\$39.33
9	851-150	MUFFLER HOLDER	1	\$77.39

#### **ROTAX 582 UL 99/17 EXHAUST SYSTEM**

Item No.	Part No	Description	Qty. Req.	Price
1	850-633	GASKET	2c	\$12.66
2	973-121	EXHAUST MANIFOLD ASSEMBLY	1a	\$251.07
2	973-123	EXHAUST MANIFOLD ASSEMBLY	1b	\$255.71
3	945-752	LOCK WASHER A8	6	\$0.21
4	840-991	ALLEN SCREW M8X30	6	\$1.40
5	938-790	RETURN SPRING	8	\$7.85
6	853-355	HOOK	16	\$1.92
7	973-180	CONNECTING ELBOW ASSEMBLY	1a	\$161.85
7	973-182	CONNECTING ELBOW ASSEMBLY	1b	\$179.70
8	878-677	BENT TUBE ASSEMBLY	2	\$55.39
9	878-666	BALL JOINT	1	\$17.68
10	973-282	INLET TUBE 500 MM	1	\$48.16

- a without hooks
- b with hook c see also-SI-2ST-002



### 2 STROKE B-GEARBOX

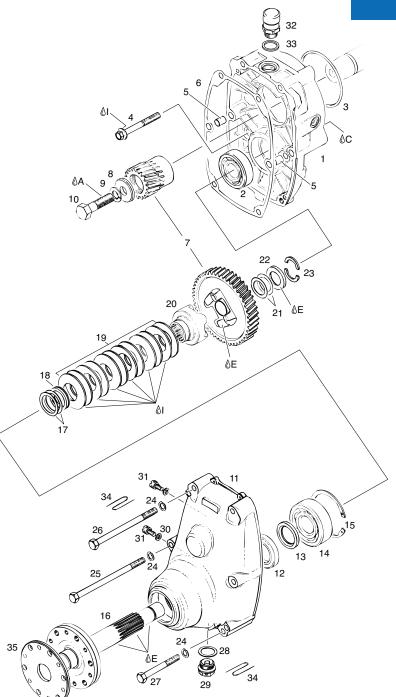


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#### **ROTAX 503, 582 UL 99 / 17 REDUCTION GEARBOX "B":** I=2,00, I=2,24 OR I=2,58

Item No.	Part No	Description	Qty. Req.	Price
1-35	15-07774	B GEARBOX ASSEMBLY 1: 2.24	1	\$1,025.00
1-35	15-05342	B GEARBOX ASSEMBLY 1: 2.53	1	\$1,003.00
1	810-109	GEAR HOUSING	1	\$394.06
2	932-091	BALL BEARING 6304 C3, 20-52-15	1	\$45.42
3	850-430	O-RING 75-2.5	1	\$15.58
4	841-306	COLLAR HEX. SCREW M8X65 SW 11	2	\$4.99
5	929-670	DOWEL 10X13	2	\$6.97
6	930-536	GASKET	1	\$10.70
7	886-200	GEAR SET 2,58	1a	\$475.15
7	886-202	GEAR SET 2,24	1b	\$581.75
7	886-204	GEAR SET 2,00	1c	\$519.79
8	827-786	WASHER 13/34/5	1	\$20.07
9	945-765	LOCK WASHER VHV 13	1	\$1.76
10	841-656	HEX. SCREW 1/2-20UNFX2	1	\$9.47
11	910-373	GEAR COVER	1	\$388.73
12	850-055	OIL SEAL 30X47X7/7,5	1	\$31.50
13	827-851	DISTANCE RING 26/36/4,5	1	\$17.64
14	932-820	BALL BEARING 6305 C3 / 25-62-17	1	\$59.70
15	445-070	RETAINING RING 62X2	1	\$4.95
16	837-024	PROPELLER SHAFT	1	\$345.16
17	944-470	SHIM 25,5/34/O,2	NB	\$2.28
17	944-471	SHIM 25,5/34/O,3	NB	\$1.92
17	944-472	SHIM 25,5/34/O,5	NB	\$1.92
17	944-473	SHIM 25,5/34/1	NB	\$1.92
17	944-474	SHIM 25,5/34/0,1	NB	\$1.92
18	847-621	DISTANCE RING 25,2/33/4,5	1	\$26.48
19	939-020	DISK SPRING B50	12	\$5.69
20	958-771	DOG HUB	1	\$136.89
21	944-469	THRUST WASHER 20,5/30/0,8	2	\$2.28
22	827-841	ANGULAR RING	1	\$20.56
23	827-862	RING HALF	2	\$30.55
24	945-752	LOCK WASHER A8	6	\$0.21
25	941-350	HEX. SCREW M8X125	2	\$6.39
26	941-171	HEX. SCREW M8X110	2	\$3.45
27	841-301	HEX. SCREW M8X65	2	\$1.97
28	552-280	GASKET RING 18, 2/24/1	1	\$2.76
29	840-270	MAGNETIC PLUG M18X1.5	1	\$29.44
30	230-415	GASKETRING A 6X10 DIN 7603	2	\$1.40
31	841-781	CAPSTAN SCREW M6X10	2	\$5.61
32	941-115	AIR VENT SCREW M18X1,5	1	\$18.11
33	931-200	GASKET RING 18, 2/22/2	1	\$3.17
34	01-15725	SAFETY WIRE .032 25 FT.	NB	\$1.25
35	827-830	COVER WASHER	1	\$49.34

- a exchange drive gear 19 T and dog gear 49 T only together.
   b exchange drive gear 21 T and dog gear 47 T only together.
   c exchange drive gear 20 T and dog gear 40 T only together.



& A: LOCTITE 221 - P/N 899-785

**© C: LOCTITE 648 - P/N 899-788** 

**∅** E: LOCTITE ANTI SIZE - P/N 297-434

&I: LITHIUM-BASE GREASE - P/N 897-330



**RTX** 

# 40 39 <sub>42</sub> **◊ A: LOCTITE 221 © C: LOCTITE 648**

#### **ROTAX 503, 582 UL 99/17 REDUCTION GEARBOX "C":** I=2,62, I=3,00, I=3,47 OR I=4,00

Item No.	Part No	Description	Qty. Req.	Price
1	958-981	FLY WHEEL	1	\$205.96
2	827-786	WASHER 13/34/5	1	\$20.07
3	841-651	HEX. SCREW 1/2-20UNFX1 3/16	1	\$7.14
4	958-971	COUPLING FLANGE	1f	\$238.85
5	842-661	NUT M8	1	\$28.01
6	958-964	RUBBER COUPLING	1	\$190.57
7	944-120	WASHER	6	\$4.54
8	841-820	ALLEN SCREW M10X45	6	\$4.37
9	810-012	GEAR BOX HOUSING	1	\$466.49
10	930-675	OIL SEAL 25X38X7	1	\$25.94
11	232-285	ROLLER BEARING 26,5-47-14	1	\$115.08
12	945-690	RETAINING RING 47X1,75	1	\$3.85
13	950-084	OIL SEAL A 32X47X7	1g	\$71.37
13	950-084	OIL SEAL 32X47X7	1f	\$71.37
14	932-820	BALL BEARING 6305 C3 / 25-62-17	1	\$59.70
15	440-366	COLLAR HEX. SCREW M8X90 A/F 11	8	\$5.47
16	427-021	SHIM 26,5/34/0,2	NB	\$1.76
17	886-280	GEAR SET I 2,62	1ah	\$649.56
17	886-282	GEAR SET I 3,0	1bh	\$701.88
17	886-284	GEAR SET I 3,47	1ch	\$701.88
18	845-310	LOCK WASHER VHZ 8	1	\$0.41
19	841-591	ALLEN SCREW M8X35	1	\$1.40
20	929-940	PIN 8X20	2	\$4.06
21	950-211	GASKET	1	\$14.45
22	810-021	GEAR COVER	1	\$657.22
23	932-420	BALL BEARING 6205 C3, 25-52-15	2	\$40.77
24	930-715	OIL SEAL 35X47X7	1	\$31.50
25	944-111	DISTANCE RING 31/44/4,5	1	\$26.28
26	932-570	BALL BEARING 6306 C3, 30-72-19	1	\$71.95
27	944-106	SHIM	1	\$27.77
28	445-330	LOCK WASHER VHZ 6	4	\$0.41
29	241-236	ALLEN SCREW M6X1	6	\$0.66
30	837-185	PROPELLER SHAFT	1	\$440.43
31	847-757	SPLITTED CONE SLEEVE 10	1h	\$182.69
32	926-200	MASSIVE WASHER 30	1	\$9.85
33	842-579	HEX. NUT M30X1.5 12MM, LH	1e	\$17.11
34	945-751	LOCK WASHER A6 DIN 128	11	\$0.21
35	840-880	ALLEN SCREW M6X30 DIN 912	11	\$0.57
36	552-280	GASKET RING 18,2/24/1	1	\$2.76
37	840-270	MAGNETIC PLUG M18X1,5	1	\$29.44
38	230-415	SEALING RING A 6X10 DIN 7603	2	\$1.40
39	841-781	CAPSTAN SCREW M6X10	2	\$5.61
40	941-115	AIR VENT SCREW M18X1,5	1	\$18.11
41	931-200	GASKET RING 18,2/22/2	1	\$3.17
42	01-15725	SAFETY WIRE .032 25 FT.	NB	\$1.25
43	944-140	COVER WASHER	1	\$70.47

- a replace layshaft gear 55 T and pinion shaft 21 T only together.
- b replace layshaft gear 57 T and pinion shaft 19 T only together.
  c replace layshaft gear 59 T and pinion shaft 17 T only together.
- replace layshaft gear 60 T and pinion shaft 15 T only together.
- e NOTICE left-hand thread.
- coupling-flange 958-971 and oil-seal 950-084 has to be used together!
- coupling-flange 958-970 and oil-seal 950-085 has to be used together! gear set and splitted cone sleeve 847-757 has to be used together!
  - see also SI-2ST-007

**© E: LOCTITE ANTI SIZE** 

**∅ I: LITHIUM-BASE GREASE** 

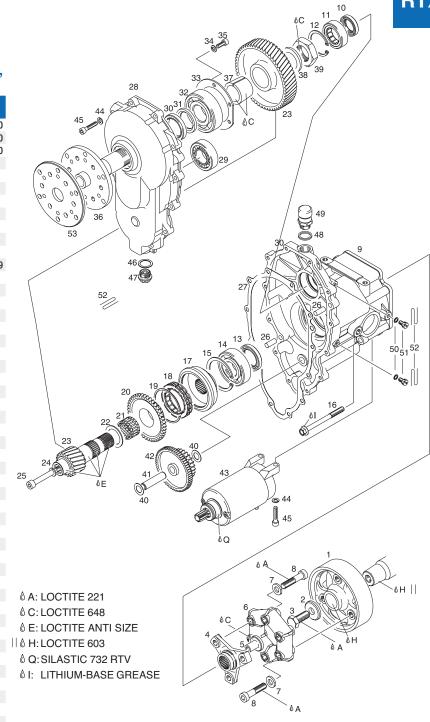
### **2 STROKE E-GEARBOX**



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#### **ROTAX 503, 582 UL 99/17** REDUCTION GEARBOX "E": I=2,62, I=3,00, I=3.47 OR I=4.00

I=3	,47 OR	1=4,00		
Item No.		Description	Qty. Req.	Price
1-53	15-07816	E GEARBOX ASSEMBLY 1: 3.00	1	\$1,995.00
1-53	15-07817	E GEARBOX ASSEMBLY 1: 3.47	1	\$2,150.20
1-53	15-07818	E GEARBOX ASSEMBLY 1: 4.00	1	\$2,248.00
1	958-981	FLY WHEEL	1	\$205.96
2	827-786	WASHER 13/34/5	1	\$20.07
3	841-651	HEX. SCREW 1/2-20UNFX1 3/16	1	\$7.14
4	958-971	COUPLING FLANGE	1f	\$238.85
5	842-661	NUT M8	1	\$28.01
6	958-964	RUBBER COUPLING	1	\$190.57
7	944-120	WASHER	6	\$4.54
8	841-820	ALLEN SCREW M10X45	6	\$4.37
9	810-351	GEARBOX HOUSING	1	\$1,380.49
10	930-675	OIL SEAL 25X38X7	1	\$25.94
11	232-285	ROLLER BEARING 26,5-47-14	1	\$115.08
12	945-690	RETAINING RING 47X1,75	1	\$3.85
13	950-084	OIL SEAL 32X47X7	1f	\$71.37
14	932-820	BALL BEARING 6305 C3 / 25-62-17	1	\$59.70
15	445-070	RETAINING RING 62X2	1	\$4.95
16	440-366	COLLAR HEX. SCREW M8X90 A/F 11 SPRAG CLUTCH HOUSING	8	\$5.47
17 18	852-430 259-077		1	\$276.19 \$286.65
19	245-620	SPRAG CLUTCH 45,665X62,332X13 SNAPRING 62	1	\$5.13
20	834-280	FREE WHEEL GEAR 42 T	1	\$266.83
21	832-410	NEEDL CAGE K 28X34X20H	1	\$60.07
22	427-236	THRUST WASHER 28,25/39,8/1,5	1	\$3.61
23	886-751	GEAR SET I 2,62	1ah	\$596.57
23	886-753	GEAR SET I 3,0	1bh	\$787.31
23	886-755	GEAR SET I 3,47	1ch	\$787.31
23	886-757	GEAR SET I 4,0	1dh	\$787.31
24	845-310	LOCK WASHER VHZ 8	1	\$0.41
25	440-217	ALLEN SCREW M8X80 DIN 912	1	\$3.81
26	929-940	PIN 8X20	2	\$4.06
27	950-215	GASKET	1	\$16.60
28	810-361	GEAR COVER	1	\$819.00
29	232-242	ZR-BEARING NJ 205 E JP1	1	\$159.89
30	930-715	OIL SEAL 35X47X7	1	\$31.50
31	944-111	DISTANCE RING 31/44/4,5	1	\$26.28
32	932-570	BALL BEARING 6306 C3, 30-72-19	1	\$71.95
33	944-106	SHIM	1	\$27.77
34	445-330	LOCK WASHER VHZ 6	6	\$0.41
35	241-236	ALLEN SCREW M6X16	6	\$0.66
36	837-185	PROPELLER SHAFT	1	\$440.43
37	847-757	SPLITTED CONE SLEEVE 10	1h	\$182.69
38	926-200 842-579	MASSIVE WASHER 30	1	\$9.85
39	227-450	HEX. NUT M30X1.5 12MM, LH THRUST WASHER 12,5/21,5/0,5	1e	\$17.11
40	837-301	IDLE GEAR SHAFT	2	\$3.17 \$25.82
42	834-290	IDLE GEAR 62/25 Z	1	\$296.46
43	293-153	ELECTRIC STARTER ASSEMBLY	1	\$853.72
44	945-751	LOCK WASHER A6 DIN 128	14	\$0.21
45	840-880	ALLEN SCREW M6X30 DIN 912	14	\$0.57
46	552-280	GASKET RING 18,2/24/1	1	\$2.76
47	840-270	MAGNETIC PLUG M18X1,5	1	\$29.44
48	931-200	GASKET RING 18,2/22/2	1	\$3.17
49	941-115	AIR VENT SCREW M18X1,5	1	\$18.11
50	230-415	SEALING RING A 6X10 DIN 7603	2	\$1.40
51	841-781	CAPSTAN SCREW M6X10	2	\$5.61
52	01-15725	SAFETY WIRE .032 25 FT.	NB	\$1.25
53	944-140	COVER WASHER	1	\$70.47



- a replace layshaft gear 55 T and pinion shaft 21 T only together. b replace layshaft gear 57 T and pinion shaft 19 T only together. c replace layshaft gear 59 T and pinion shaft 17 T only together. d replace layshaft gear 60 T and pinion shaft 15 T only together. e NOTICE left-hand thread.

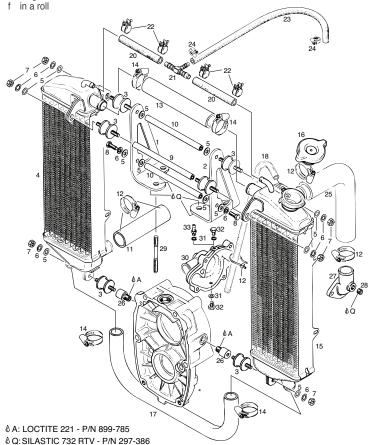
- coupling flange 958-971 and sealing ring 950-084 has to be used as a set. coupling flange 958-970 and sealing ring 950-085 has to be used as a set. gear set and splitted cone sleeve 847-757 has to be used together! NOTE: Included starter relay. see also SI-2ST-007

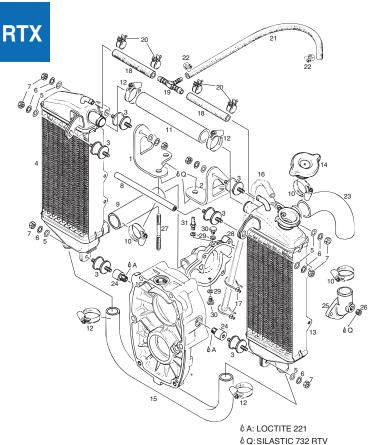
### 2 STROKE RADIATORS

#### **ROTAX 582 UL 99/17** 2-PIECE RADIATOR SET (LOW CONFIGURATION)



- a cooling surface 2,4 dm2 (37.2 in2)
- from engine S/N: 3,916.823
- up to engine S/N: 4,916.822
- for evacuation of air, at installation of engine with spark plugs down.
- longer studs for 582 UL mod. 90 and 618 UL.





### **ROTAX 582 UL 99/17** 2-PIECE RADIATOR SET (HIGH CONFIGURATION)

Item No.	Part No	Description	Qty. Req.	Price
1-25	881-433	RADIATOR SET	1	\$885.04
1	851-122	RADIATOR BRACKET RIGHT	1	\$66.30
2	851-127	RADIATOR BRACKET LEFT	1	\$66.30
3	260-657	RUBBER BUFFER 25X20XM6	6	\$26.40
4	995-914	RADIATOR WITHOUT FILLER CAP	1a	\$455.45
5	244-211	SWASHER 6,4 DIN 134	12	\$0.21
6	945-751	LOCK WASHER A6 DIN 128	8	\$0.21
7	242-211	HEX. NUT M6	6	\$0.41
8	241-186	HEX. SCREW M6X16	2	\$0.48
9	847-600	DISTANCE TUBE	1	\$45.68
10	847-605	DISTANCE BOLT	2	\$45.68
11	922-115	CONNECTING HOSE 110 MM	1	\$31.41
12	951-880	CLAMP 20-3	4	\$6.27
13	922-124	CONNECTING HOSE 150 MM	1	\$20.91
14	951-870	CLAMP 16-25	4	\$5.97
16	922-070	RADIATOR CAP WITH GASKET 1,2 BAR	1	\$82.46
17	922-193	WATER TUBE	1	\$91.15
18	974-530	FUEL HOSE A5X8	NBf	\$14.52
19	866-710	CLAMP 142X2,5 MM	1	\$1.26
20	956-260	LOW PRESSURE HOSE GC 7,5X12,5	NBf	\$48.99
21	974-839	REDUCTION T-PEACE 8-6-8	1	\$16.68
22	951-241	CLAMP 12	4	\$4.85
23	860-300	LOW PRESSURE HOSE GC 6X11	NBf	\$55.25
24	951-898	CLAMP 7-11	2	\$8.64
25	922-381	BENT HOSE 25/90 DEGR.	1	\$73.01
26	847-730	SPACER 6,5/18/9	2c	\$17.81
27	922-061	BENT OUTLET SOCKET	1	\$54.47
28	240-480	PLUG SCREW 1/8-27NPT	1	\$5.47
30	922-503	WATER PUMP HOUSING	1	\$253.77
31	230-415	SEALING RING A 6X10 DIN 7603	2	\$1.40
32	841-580	HEX. SCREW M6X8	2	\$0.57
33	940-551	HOSE NIPPLE M6	1d	\$17.20

- cooling surface 3,2 dm2 (49,6 in2) from engine S/N: 3,916.823
- up to engine S/N: 4,916.822
- for evacuation of air, at installation of engine with spark plugs down.
- longer studs for 582 UL mod. 90 and 618 UL
- e f in a roll.

### **2 STROKE RADIATORS**



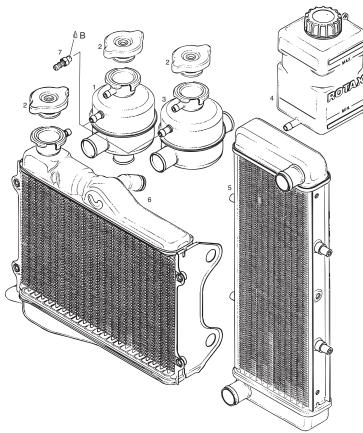
#### **ROTAX 582 UL 99/17** 2-PIECE RADIATOR SET FOR INVERTED **ENGINE INSTALLATION**

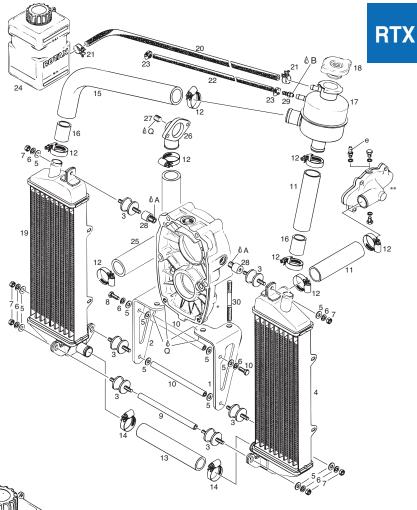
		ISTALLATION		
Item No.	Part No	Description	Qty. Req.	Price
1	851-122	RADIATOR BRACKET RIGHT	1	\$66.30
2	851-127	RADIATOR BRACKET LEFT	1	\$66.30
3	260-657	RUBBER BUFFER 25X20XM6	6	\$26.40
4	995-913	RADIATOR WITHOUT FILLER CAP	1a	\$639.14
5	244-211	WASHER 6,4 DIN 134	12	\$0.21
6	945-751	LOCK WASHER A6 DIN 128	6	\$0.21
7	242-211	HEX.NUT M6	2	\$0.41
8	241-186	HEX.SCREW M6X16	1	\$0.48
9	847-600	DISTANCE TUBE	2	\$45.68
10	847-605	DISTANCE BOLT	2	\$45.68
11	922-115	CONNECTING HOSE 110 MM	8	\$31.41
12	951-880	CLAMP 20-32	1	\$6.27
13	922-124	CONNECTING HOSE 150 MM	2	\$20.91
14	951-870	CLAMP 16-25	1	\$5.97
15	922-111	BEND HOSE	2	\$66.74
16	222-100	WATER TUBE	1f	\$10.79
17-18	922-312	EXPANSION TANK 90 DEGR.	1	\$148.00
18	922-070	RADIATOR CAP WITH GASKET 1,2 BAR	1	\$82.46
20	956-260	LOW PRESSURE HOSE GC 8X12	NBf	\$48.99
21	951-241	CLAMP 12	1	\$4.85
22	860-300	LOW PRESSURE HOSE GC 6X11	NBf	\$55.25
23	951-898	CLAMP 7-11	2	\$8.64
24	922-327	OVERFLOW BOTTLE WITH CAP	1	\$53.40
25	922-381	BENT HOSE 25/90 DEGR.	1	\$73.01
26	922-061	BENT OUTLET SOCKET	1	\$54.47
27	240-480	PLUG SCREW 1/8-27NPT	1	\$5.47
28	847-730	SPACER 6,5/18/9	2c	\$17.81
29	940-551	HOSE NIPPLE M6	1	\$17.20

- a cooling surface 3,2 dm2 (49,6 in2) b from engine S/N: 3,916.823

- υ μο υπιμπε S/N: 4,916.822 d for evacuation of air, at installation of engine with spark plugs down. e longer studs for 582 UL mod. 90 and 618 UL f in a roll.

- g no longer available



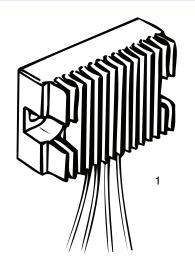


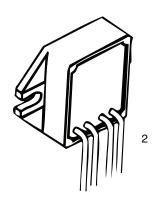
#### **ROTAX 582 UL 99/17** 1-PIECE RADIATOR, OVERFLOW BOTTLE AND EXPANSION TANK

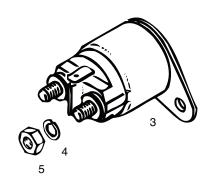
Item No.	Part No	Description	Qty. Req.	Price
1-2	922-312	EXPANSION TANK ASSEMBLY 90°	1	\$148.00
2-3	922-317	EXPANSION TANK ASSEMBLY 180°	1	\$148.20
2	922-070	RADIATOR CAP WITH GASKET 1,2 BAR	1	\$82.46
3	922-317	EXPANSION TANK 180 DEGR.,	1	\$148.20
4	922-327	OVERFLOW BOTTLE WITH CAP	1	\$53.40
5	997-083	RADIATOR	1	\$487.00
6	995-699	RADIATOR	1	\$487.00
7	940-551	HOSE NIPPLE M6	1	\$17.20

# **ELECTRICAL ACCESSORIES**



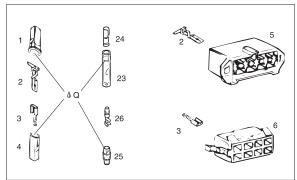






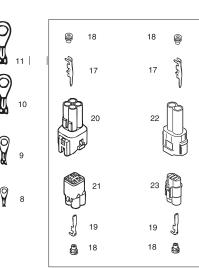
### ROTAX 503, 582 UL 99/17 RECTIFIER-REGULATOR, STARTER-RELAY

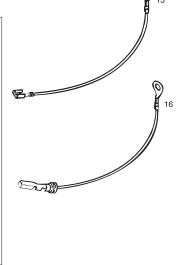
Item No.	Part No	Description	Qty. Req.	Price
1	264-870	RECTIFIER-REGULATOR	1a	\$140.17
3	992-815	STARTER RELAY ASSEMBLY	1c	\$199.75
4	945-751	LOCK WASHER A6 DIN 128	2	\$0.21
5	242-211	HEX.NUT M6	2	\$0.41











**© Q: SILASTIC 732 RTV** 

### ROTAX 503, 582 UL 99/17 RECTIFIER-REGULATOR, STARTER-RELAY WIRING ACCESSORIES

Item	Part No Description		Qty.	Req.	Price	Item	Part No	Description	Qty.	Req.	Price
No.	rail NO	Description	503	582 Price		No.	Fait NO	Description	503	582	Price
3	864-011	FASTON CONNECTOR 6,3X0,8	NB	NB	\$1.23	17	265-210	FLAT PIN TERMINAL		NB	\$1.92
4	960-719	CONNECTOR SHEATH	NB	NB	\$0.66	18	260-130	CABLE GROMMET		NB	\$2.28
6	866-010	CONNECTOR HOUSING	NB	NB	\$18.18	19	265-275	FASTON CONNECTOR		NB	\$2.45
7	866-305	FASTON CONNECTOR 6,3X0,8	NB	NB	\$4.54	20	265-262	CONNECTOR HOUSING 4-POLE		NB	\$14.11
8	965-706	CABLE SHOE M3	NB	NB	\$0.85	21	265-260	CONNECTOR HOUSING 4-POLE		NB	\$6.51
9	965-700	CABLE SHOE M4	NB	NB	No Match!	22	265-200	CONNECTOR HOUSING 2-POLE		NB	\$14.77
10	964-055	CABLE TERMINAL M5	NB	NB	\$0.85	23	265-205	CONNECTOR HOUSING 2-POLE		NB	\$10.04
11	964-052	CABLE TERMINAL M6	NB	NB	\$0.85	24	964-072	INSULATION SHEATH	NB	NB	\$2.28
12	860-621	SHRINK HOSE 40 MM	NB	NB	\$5.47	25	964-067	FASTON CONNECTOR 3,96	NB	NB	\$2.28
13	966-060	SPIRAL HOSE 6,5X8,5X0,6		NB	\$11.09	26	964-077	INSULATION SHEATH	NB	NB	\$2.50
14	866-710	CLAMP 142X2,5 MM	NB	NB	\$1.26	27	964-062	FASTON CONNECTOR 3,96	NB	NB	\$2.28

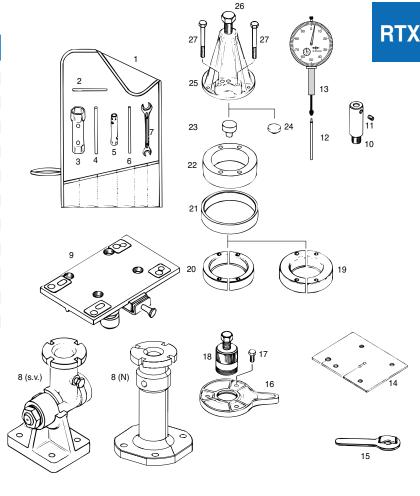
### 2 STROKE-REPAIR TOOLS & GASKET



#### ROTAX 503, 582 UL 99/17 **GENERAL REPAIR-TOOLS**

<u> </u>	ILIIAL	TILI AITI-100L0			
Item No.	Part No	Description	Qty. 503	Req. 582	Price
2	876-640	CRANKSHAFT FIXATION BOLT	1	1	\$2.40
3	876-210	SOCKET WRENCH 21X26 MM	1	1	\$11.11
5	876-227	SOCKET WRENCH 10X13 MM	1	1	\$7.39
6	977-425	HAND LEVER 6X130	1	1	\$3.02
7	276-065	FORK WRENCH 10X13 MM	1	1	\$7.51
8	877-930	TRESTLE SUPPORT ASSEMBLY	1a	1a	\$720.30
9	876-746	MOUNTING PLATE WITH DETENT	1a	1a	\$543.14
10	876-940	GAUGE ADAPTER	1b	1b	\$77.26
11	841-771	SET SCREW M6X8	1b	1b	\$1.76
12	876-945	GAUGE PIN	1b	1b	\$28.37
13	876-950	PRECISION DIAL GAUGE	1b	1b	\$262.58
15	277-905	WRENCH	1d	1d	\$31.87
16	876-081	PULLER PLATE	1e	1e	\$89.05
17	940-591	HEX.SCREW M8X20	3	3	\$1.23
18	876-065	PULLER M42X1,5 ASSEMBLY	1f	1f	\$80.76
19	276-025	RING HALF		1g	\$157.54
20	977-475	RING HALF	1h	1h	\$100.63
21	977-490	RING	1i	1i	\$67.98
22	876-569	DISTANCE RING 72/105/28	1j	1j	\$141.75
24	876-557	PROTECTION MUSHROOM	11	11	\$17.68
25-27	877-636	PULLER ASSEMBLY	1m	1m	\$227.43
26	940-755	HEX. SCREW M16X1,5X150	1	1	\$37.91
27	841-201	HEX. SCREW M8X70	4	4	\$2.76

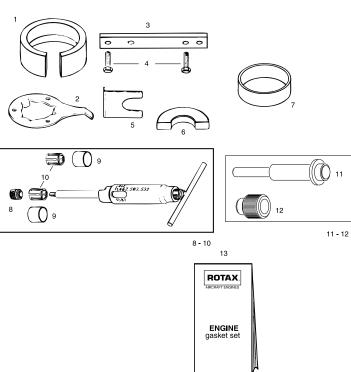
- a useable for engine type 447 UL, 503 UL, 582 UL 90/99 and 618 UL
- for adjustment and control of the ignition timing.
- to cover the crankcase. С
- d to hold the oilpump gear.
- е to hold the magneto flywheel.
- for magneto flywheel.
- for ball bearing 6206, crankshaft magneto side.
- for ball bearing 6207, crankshaft.
- for ring halves.
- for puller
- for crankshaft P.T.O. side.
- for crankshaft magneto side.
- m for ball bearing



#### **ROTAX 503 UL REPAIR TOOLS AND GASKET SET**

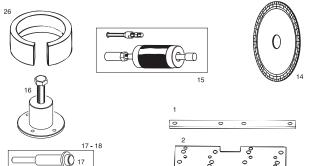
Item No.	Part No	Description	Qty. Req.	Price
1	876-970	PISTON RING SPANNER 72 MM	1b	\$94.16
2	876-357	FAN HOLDER	1c	\$21.45
3	876-171	CYLINDER ALIGNING TOOL	1d	\$79.99
4	240-275	HEX. SCREW M8X25 DIN 933	2	\$1.26
6	876-824	DISTANCE GAUGE P.T.O. SIDE	1f	\$99.21
8-10	877-091	PISTON PIN EXTRACTOR ASSEMBLY	1h	\$435.58
9	877-180	LOCATING SLEEVE	2	\$6.27
10	877-040	EXPANSION SLEEVE	2	\$132.11
11-12	877-015	CIRCLIP INSTALLATION TOOL ASSEMBLY	1i	\$175.07
11	877-020	CIRCLIP INSTALLATION SLEEVE	1	\$91.45
12	877-010	CIRCLIP INSTALLATION PUSHER	1	\$92.15
13	994-236	GASKET SET ENGINE	1j	\$186.27

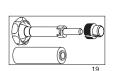
- a for installation of cylinder on the piston 67,5 mm.
- for installation of cylinder on the piston 72 mm.
- to hold the fan.
- d for aligning of cylinders at the intake flange.
- e for crankshaft bearing P.T.O. side.
  f for positioning of crankshaft bearing P.T.O. side.
- for centering of the stator plate.
- g h for piston pin 18 mm.
- for installation of piston pin circlip 18 mm.
- for the engine.
- without ignition and externals.



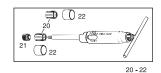


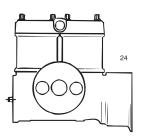
### **TOOLS AND GASKET SETS**

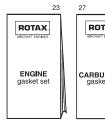




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ROTAX.

repair set

#### **ROTAX 582 UL 99/17 REPAIR TOOLS AND GASKET SET:**

Item No.         Part No         Description         Qty. Req.         Price           1         876-572         ALIGNING TOOL         1a         \$51.66           2         876-904         ALIGNING TOOL         1b         \$107.54           3         876-612         EXTRUSION JIG         1c         \$42.44           4         876-980         GUIDE SLEEVE         1c         \$23.63           5         876-500         INSERTION JIG         1d         \$67.29           6         876-602         INSERTION JIG         1e         \$67.35           7         876-607         INSERTION JIG         1f         \$67.35           8         876-512         INSERTION JIG         1g         \$59.40           14         277-150         DEGREE DISK         1j         \$100.93           15         877-860         PULLER ASSEMBLY         1k         \$573.97           16         877-825         INSERTION JIG         1i         \$355.59           19         877-805         CIRCLIP INSTALLATION TOOL         1m         \$614.92           20-22         877-091         PISTON PIN EXTRACTOR ASSEMBLY         1         \$435.58           20         877-180					
2       876-904       ALIGNING TOOL       1b       \$107.54         3       876-612       EXTRUSION JIG       1c       \$42.44         4       876-980       GUIDE SLEEVE       1c       \$23.63         5       876-500       INSERTION JIG       1d       \$67.29         6       876-602       INSERTION JIG       1e       \$67.35         7       876-607       INSERTION JIG       1f       \$67.35         8       876-512       INSERTION JIG       1g       \$59.40         14       277-150       DEGREE DISK       1j       \$100.93         15       877-860       PULLER ASSEMBLY       1k       \$573.97         16       877-825       INSERTION JIG       1i       \$355.59         19       877-805       CIRCLIP INSTALLATION TOOL       1m       \$614.92         20-222       877-091       PISTON PIN EXTRACTOR ASSEMBLY       1       \$435.58         20       877-040       EXPANSION SLEEVE       1       \$132.11         22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET		Part No	Description		Price
3       876-612       EXTRUSION JIG       1c       \$42.44         4       876-980       GUIDE SLEEVE       1c       \$23.63         5       876-500       INSERTION JIG       1d       \$67.29         6       876-602       INSERTION JIG       1e       \$67.35         7       876-607       INSERTION JIG       1f       \$67.35         8       876-512       INSERTION JIG       1g       \$59.40         14       277-150       DEGREE DISK       1j       \$100.93         15       877-860       PULLER ASSEMBLY       1k       \$573.97         16       877-825       INSERTION JIG       1i       \$355.59         19       877-805       CIRCLIP INSTALLATION TOOL       1m       \$614.92         20-222       877-091       PISTON PIN EXTRACTOR ASSEMBLY       1       \$435.58         20       877-040       EXPANSION SLEEVE       1       \$132.11         22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET CARBURETOR 2 STROKE       1st       \$183.45	1	876-572	ALIGNING TOOL	1a	\$51.66
4       876-980       GUIDE SLEEVE       1c       \$23.63         5       876-500       INSERTION JIG       1d       \$67.29         6       876-602       INSERTION JIG       1e       \$67.35         7       876-607       INSERTION JIG       1f       \$67.35         8       876-512       INSERTION JIG       1g       \$59.40         14       277-150       DEGREE DISK       1j       \$100.93         15       877-860       PULLER ASSEMBLY       1k       \$573.97         16       877-825       INSERTION JIG       1i       \$355.59         19       877-805       CIRCLIP INSTALLATION TOOL       1m       \$614.92         20-222       877-091       PISTON PIN EXTRACTOR ASSEMBLY       1       \$435.58         20       877-040       EXPANSION SLEEVE       1       \$132.11         22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET CARBURETOR 2 STROKE       1st       \$183.45	2	876-904	ALIGNING TOOL	1b	\$107.54
5       876-500       INSERTION JIG       1d       \$67.29         6       876-602       INSERTION JIG       1e       \$67.35         7       876-607       INSERTION JIG       1f       \$67.35         8       876-512       INSERTION JIG       1g       \$59.40         14       277-150       DEGREE DISK       1j       \$100.93         15       877-860       PULLER ASSEMBLY       1k       \$573.97         16       877-825       INSERTION JIG       1i       \$355.59         19       877-805       CIRCLIP INSTALLATION TOOL       1m       \$614.92         20-222       877-091       PISTON PIN EXTRACTOR ASSEMBLY       1       \$435.58         20       877-040       EXPANSION SLEEVE       1       \$132.11         22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET CARBURETOR 2 STROKE       1st       \$183.45	3	876-612	EXTRUSION JIG	1c	\$42.44
6       876-602       INSERTION JIG       1e       \$67.35         7       876-607       INSERTION JIG       1f       \$67.35         8       876-512       INSERTION JIG       1g       \$59.40         14       277-150       DEGREE DISK       1j       \$100.93         15       877-860       PULLER ASSEMBLY       1k       \$573.97         16       877-825       INSERTION JIG       1i       \$355.59         19       877-805       CIRCLIP INSTALLATION TOOL       1m       \$614.92         20-222       877-091       PISTON PIN EXTRACTOR ASSEMBLY       1       \$435.58         20       877-040       EXPANSION SLEEVE       1       \$132.11         22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET CARBURETOR 2 STROKE       1st       \$183.45	4	876-980	GUIDE SLEEVE	1c	\$23.63
7       876-607       INSERTION JIG       1f       \$67.35         8       876-512       INSERTION JIG       1g       \$59.40         14       277-150       DEGREE DISK       1j       \$100.93         15       877-860       PULLER ASSEMBLY       1k       \$573.97         16       877-825       INSERTION JIG       1i       \$355.59         19       877-805       CIRCLIP INSTALLATION TOOL       1m       \$614.92         20-22       877-091       PISTON PIN EXTRACTOR ASSEMBLY       1       \$435.58         20       877-040       EXPANSION SLEEVE       1       \$132.11         22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET CARBURETOR 2 STROKE       1st       \$183.45	5	876-500	INSERTION JIG	1d	\$67.29
8       876-512       INSERTION JIG       1g       \$59.40         14       277-150       DEGREE DISK       1j       \$100.93         15       877-860       PULLER ASSEMBLY       1k       \$573.97         16       877-825       INSERTION JIG       1i       \$355.59         19       877-805       CIRCLIP INSTALLATION TOOL       1m       \$614.92         20-22       877-091       PISTON PIN EXTRACTOR ASSEMBLY       1       \$435.58         20       877-040       EXPANSION SLEEVE       1       \$132.11         22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET CARBURETOR 2 STROKE       1st       \$183.45	6	876-602	INSERTION JIG	1e	\$67.35
14       277-150       DEGREE DISK       1j       \$100.93         15       877-860       PULLER ASSEMBLY       1k       \$573.97         16       877-825       INSERTION JIG       1i       \$355.59         19       877-805       CIRCLIP INSTALLATION TOOL       1m       \$614.92         20-22       877-091       PISTON PIN EXTRACTOR ASSEMBLY       1       \$435.58         20       877-040       EXPANSION SLEEVE       1       \$132.11         22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET CARBURETOR 2 STROKE       1st       \$183.45	7	876-607	INSERTION JIG	1f	\$67.35
15         877-860         PULLER ASSEMBLY         1k         \$573.97           16         877-825         INSERTION JIG         1i         \$355.59           19         877-805         CIRCLIP INSTALLATION TOOL         1m         \$614.92           20-22         877-091         PISTON PIN EXTRACTOR ASSEMBLY         1         \$435.58           20         877-040         EXPANSION SLEEVE         1         \$132.11           22         877-180         LOCATING SLEEVE         1         \$6.27           23         886-232         GASKET SET         1         \$234.50           27         996-949         GASKET SET CARBURETOR 2 STROKE         1st         \$183.45	8	876-512	INSERTION JIG	1g	\$59.40
16     877-825     INSERTION JIG     1i     \$355.59       19     877-805     CIRCLIP INSTALLATION TOOL     1m     \$614.92       20-22     877-091     PISTON PIN EXTRACTOR ASSEMBLY     1     \$435.58       20     877-040     EXPANSION SLEEVE     1     \$132.11       22     877-180     LOCATING SLEEVE     1     \$6.27       23     886-232     GASKET SET     1     \$234.50       27     996-949     GASKET SET CARBURETOR 2 STROKE     1st     \$183.45	14	277-150	DEGREE DISK	1j	\$100.93
19     877-805     CIRCLIP INSTALLATION TOOL     1m     \$614.92       20-22     877-091     PISTON PIN EXTRACTOR ASSEMBLY     1     \$435.58       20     877-040     EXPANSION SLEEVE     1     \$132.11       22     877-180     LOCATING SLEEVE     1     \$6.27       23     886-232     GASKET SET     1     \$234.50       27     996-949     GASKET SET CARBURETOR 2 STROKE     1st     \$183.45	15	877-860	PULLER ASSEMBLY	1k	\$573.97
20-22       877-091       PISTON PIN EXTRACTOR ASSEMBLY       1       \$435.58         20       877-040       EXPANSION SLEEVE       1       \$132.11         22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET CARBURETOR 2 STROKE       1st       \$183.45	16	877-825	INSERTION JIG	1i	\$355.59
20       877-040       EXPANSION SLEEVE       1       \$132.11         22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET CARBURETOR 2 STROKE       1st       \$183.45	19	877-805	CIRCLIP INSTALLATION TOOL	1m	\$614.92
22       877-180       LOCATING SLEEVE       1       \$6.27         23       886-232       GASKET SET       1       \$234.50         27       996-949       GASKET SET CARBURETOR 2 STROKE       1st       \$183.45	20-22	877-091	PISTON PIN EXTRACTOR ASSEMBLY	1	\$435.58
23 886-232 GASKET SET 1 \$234.50 27 996-949 GASKET SET CARBURETOR 2 STROKE 1st \$183.45	20	877-040	EXPANSION SLEEVE	1	\$132.11
27 996-949 GASKET SET CARBURETOR 2 STROKE 1st \$183.45	22	877-180	LOCATING SLEEVE	1	\$6.27
	23	886-232	GASKET SET	1	\$234.50
28 881-030 BEPAIR SET 1u \$1,865.00	27	996-949	GASKET SET CARBURETOR 2 STROKE	1st	\$183.45
20 00 12 12 12 12 12 12 12 12 12 12 12 12 12	28	881-030	REPAIR SET	1u	\$1,865.00

- a for cylinder
- for cylinder exhaust-flange.
- for rotary valve shaft.
- for ball bearing, rotary valve shaft.
- for oil seal rotary valve shaft (without oil pump), intake-side.
- for oil seal rotary valve shaft (with oil pump), intake-side.
- for inner oil seal rotary valve shaft, waterpump side.
- for outer oil seal rotary valve shaft, waterpump side.
- to press in the rotary seal.
- for rotary valve timing.
- to pull out the rotary seal- the inner steel bushing of the rotary seal has to be removed before demounting!
- for fitting of piston pin circlip.
- m for fitting of piston pin circlip. (monohook-circlip).
- n for engine 582 UL DCDI mod.90.
- for engine and rave.
- from engine S/N 5.305.901
- to press in the rotary seal 850942 (page 8.2-4) with the insertion jig (16) only for rotary seal (618 UL)
- for included parts see 9.3.1
- for carburetor 36 mm
- 23 (gasket set) + spark plug caps, carburetor sockets, clamp 62, clamp 53, crankshaft, pistons, spark plugs

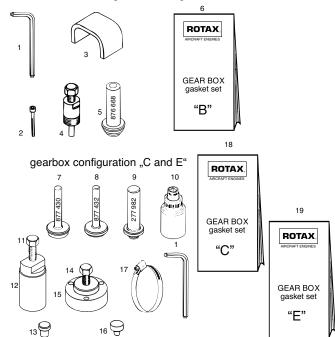
### **ROTAX 503, 582 UL 99/17 REPAIR TOOLS AND GASKET SET: B, C & E GEARBOXES**

Item No.	Part No	Description	Qty. Req.	Price
1	277-817	ALLEN KEY WITH PILOT, 8 MM	1a	\$14.11
2	241-875	ALLEN SCREW M6X70/45	1b	\$13.46
3	876-880	MOUNTING YOKE	1c	\$42.44
4	276-808	PULLER ASSEMBLY M 28X1	1d	\$197.82
5	876-668	INSERTION JIG ASSEMBLY	1e	\$168.09
6	995-781	GASKET SET	1f	\$64.08
7	877-430	INSERTION JIG ASSEMBLY	1g	\$94.16
8	877-432	INSERTION JIG ASSEMBLY	1h	\$94.16
9	277-982	INSERTION JIG ASSEMBLY	1i	\$99.21
10	877-445	SOCKET WRENCH ASSEMBLY 41X12,5	1	\$355.59
11-12	877-379	PULLER ASSEMBLY	1i	\$144.15
11	940-755	HEX. SCREW M16X1,5X150	1j	\$37.91
13	877-415	PROTECTION MUSHROOM	1	\$34.72
14-15	877-425	FLYWHEEL PULLER ASSEMBLY	1k	\$180.53
14	941-680	HEX.SCREW M16X1,5X56	1	\$25.64
16	876-552	PROTECTION MUSHROOM	1	\$25.47
18	995-775	GASKET SET	1m	\$106.40
19	995-776	GASKET SET	1n	\$108.60

- for internal hex. screw
- b to remove the gear cover.
- to compress the dog gear.
- for drive gear, I=2,00; I=2,24; I=2,58
- for oil seal 850-055
- for gearbox configuration "B"
- for oil seal 930-715

- for oil seal 950-085 and 950-084
- for oil seal 933-675
- to remove the layshaft-gear.
- to remove the flywheel.
- for mounting the hardy disk. for gearbox configuration "C"
- n for gearbox configuration "E"

### gearbox configuration "B"



### TAX PAR





#### **PISTON WITH RING**

(Green Dot - 75.95mm) .... P/N 888-590 ...... \$216.95 (Red Dot - 75.94mm) ....... P/N 888-590 ...... \$217.95 Includes both top semi-trapezoid and rectangular bottom ring. Standard piston dome is stamped with 75.95mm (Green Dot) or 75.94mm (Red dot)



#### **TOP PISTON RING - STANDARD**

Composite molybdenum semi-trapezoid ring located at the very top of the piston. Use only on standard 75.94 or 75.95 piston. ..... P/N 915-820 ..... \$92.67



#### **BOTTOM PISTON** RING - STANDARD

Rectangular ring located below top ring. Use only on standard 75.94 or 75.95 piston.. P/N 215-200 ......\$59.57



#### **582 COMPLETE GASKET SET**

Includes all gaskets, seals, rubber and metal rings in the engine. Includes all the following items.

P/N 886-230 ..... **\$259.83** 

Part No.	Description	Qty. Req.	Price
850-540	0-Ring	2	\$24.59
850-040	0-Ring	2	\$8.03
850-775	Gasket	1	\$25.14
850-633	Gasket	2	\$12.66
930-580	Oil Seal	1	\$24.71
850-711	Oil Seal	2	\$23.31
850-890	Rubber Seal	1	\$3.19
831-615	Gasket	1	\$9.13
250-165	0-Ring	2	\$5.33
830-370	0-Ring	2	\$6.97
830-355	0-Ring	2	\$5.52
230-980	Gasket Ring	1	\$5.81
827-180	Washer	2	\$1.76
850-565	Gasket	1	\$58.75
831-360	0-Ring	1	\$15.58
831-700	Ring	1	\$5.69



#### **OIL INJECTION TUBING**

5/32" od Polyurethane Tubing for all oil injection lines. Natural clear tubing allows you to see flow of oil. 



#### **CIRCLE CLAMP**

Designed especially for use with oil injection tubing. Just crimp with side cutters or dykes pliers to secure tubing to barbs. Not reuseable ....... P/N 853-840 ..... \$2.28



#### #956-230 KEVLAR

Fire Resistant Hose.

Factory replacement for RV fluid lines. Excellent fire resistant qualities when exposed to open flame. Sold in one 



#### CARB SOCKET

Vibration and sunlight deteriorates these flanges. Inspect for wear and/or cracks on a daily basis. Replace immediately if cracking can be found. Recommended annual replacement. 2 per engine. P/N 867-696 ......\$29.81



#### **ROTAX FACTORY SERVICE MANUAL**

Contains complete details on maintenance and repair of Rotax liquid cooled motors. Hundreds of illustrations take you step by step through a complete rebuild. Includes full specifications on all critical measurements, adjustments, troubleshooting, Torquing specs, RV shaft service, schematics, specialty tools, and much more. Never before available procedures for measuring crankshafts, pistons, and cylinders for determining wear limits. A must for any serious

mechanic. Full 170 pages. Spiral bond for easy shop use.

P/N 1247......**\$14.95** 



#### **EXHAUST GASKETS**

Checking rings for proper operation can be easily done through the exhaust ports. Replacing gaskets avoids messy exhaust leaks. 2 per engine.

P/N 850-633 ......**\$12.66** 





This is the easiest way to convert vour Rotax 503UL from 46 horsepower to 52 horsepower. We give you all the parts needed to complete the job, all you supply is the tools and time!

For engines without oil injection, select one of the following:

#### Complete Kit Includes the following Items:

- 1 ea. 887-826 36mm Bing Carb
- 1 ea. 867-484 Carb Socket
- · 2 ea. 951-510 Clamp
- · 2 ea. 831-865 Intake Gasket
- · 1 ea. #7738B 15" Cable
- 1 ea. #7739 18.5" Cable
- 1 ea. #7741 12" Oil injection Cable (oil injection kits only)
- 1 ea. #7704 Junction Block
- 1 ea. #7657 Mounting Bracket
- · 4 ea. 840-681 Screw 8x40
- 4 ea. 945-752 Lockwasher 10mm
- · 2 ea. 867-400 Manifold (no oil injection) or 2ea. 867-407 Manifold (oil injection)
- 1 ea. #7007 Nylon Fuel Tee
- 5 ft. #7011 Blue Fuel Line
- · 6 ea. #7311 Circle Clamps
- 1 ea. #7415 1/16" Stop Swage
- 1 ea. #2.70 Needle Jet
- 1 ea. #158 Main Jet
- · 1 ea. #11K2 Jet Needle
- 2 ea. 825-551 Single Carb Cone Air Filter, or 1ea. 825-721 Oval Dual Carb Air Filter

#### For engines without oil injection, select one of the following:

Lever choke carburetor and ova	I air filter P/N	l 1224OL	\$936.00
Cable choke carburetor and ova	l air filter P/N	I 1224OC	\$926.00
Lever choke carburetor and 2 co	one air filters P/N	l 1224NL	\$952.00
Cable choke carburetor and 2 co	one air filters P/N	I 1224NC	\$942.00

#### For engines with oil injection, select one of the following:

Lever choke	carburetor	and ova	ıl air	filter	P/N	1223OL	\$938.00
Cable choke	carburetor	and ova	al air	filter	P/N	1223OC	\$928.00
Lever choke	carburetor	and 2 c	one a	air filters	P/N	1223NL	\$954.00
Cable choke	carburetor	and 2 c	one	air filters	P/N	1223NC	\$944.00

**EP** 

2. 3.

### COMPLETE CARBURETORS - TYPE 54

To Order, Specify:

1. Model indicated by engine number 277, 377, 447, 503, or 532.

- 2. With intake silencer or without intake silencer.
- 3. Single Carb or Dual Carb.

4. Hand Choke or Remote Choke.

Model # 54/36/2040

P/N 07-00303.....\$436.00

#### **TYPE 54 REBUILD KIT**

#17 Top O Ring	#7 Air Screw O Ring	
#29 Bowl Gasket	#26 Float Needle	
#25 Hinge Pin	#10 Sieve Sleeve (Screen)	
#21 Cable Grommet	P/N 07-00304	\$48.9

#### **TYPE 54 FIX-IT KIT**

#12	New Spring Cup		
#56	Jet Needle O Ring		
#11	Clip	P/N 07-00305	\$17.50



### TYPE 84 COMPLETE CARBURETORS

To Order, Specify:

Model indicated by engine number 277, 377, 447, 503, or 532.

With intake silencer or without intake silencer. Single Carb or Dual Carb.

Hand Choke or Remote Choke.

Model # 84/32/3437

P/N 07-00306.....\$473.00

#### **TYPE 84 REBUILD KIT**

#17 Top O Ring	#7 Air Screw O Ring
#29 Bowl Gasket	#26 Float Needle
#25 Hinge Pin	#10 Sieve Sleeve (Screen)
#21 Cable Grommet	P/N 07-00307\$ <b>48.80</b>



#### **ROTAX FLOAT & BOWL KIT**

This float and bowl kit replaces a single float system. Includes clip float needle, float pin, float bracket, float chamber, and the float.

P/N 261-010.....\$142.75

#### **BING CARBURETOR ACCESSORIES**

Bing Remote Choke Kit (w/8' cable).	P/N 07-00308	\$57.00
Bing Remote Choke Kit (w/o cable)	P/N 07-00309	\$34.85
Bing Aircraft Parts manual	P/N 07-00310	\$16.60



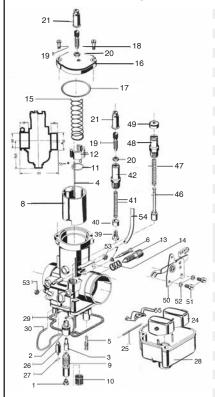
#### CARBURETOR SYNCHRONIZATION 4-CHANNEL ADAPTER KIT

Converts the SynchroMate or CarbMate into a 4 carb/throttle valve synchroniser. This easy-to-mount & easy-to-use kit allows connection of SynchroMate's or CarbMate's 2 channels (tubes) to 4 carbs / throttle valves at once.

P/N 07-01267.....\$56.75

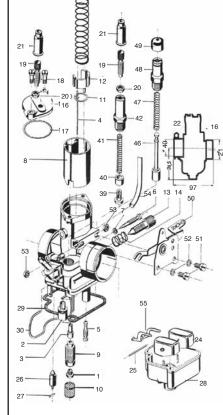
Accessories	Part No.	Price
4-Channel adapter kit TS-220	07-01267	\$56.75
Rotax adapter w/ 2X6 ft hose TS-400	07-01889	\$61.80
Rotax accessory kit TS-400 KIT	07-01890	\$96.75
Rotax black nylon storage case TS-222	07-01893	\$32.90
Rotax rubber black holster TS-223	07-01894	\$8.90
Rotax replacement 6 ft rubber hose	07-01895	\$17.50

### REPLACEMENT PARTS DE TYPE 54



NI.	Don't Ma	Describetten	Dellar
No.		Description	Price
1	268-978-998	Main Jet	\$11.50
2	251-554	Atomizer	\$30.65
3	963-691-699	Needle Jet	\$18.50
4	963-711-719	Jet Needle	\$17.50
5	963-140-147	Idler Jet	\$32.80
6	963-155	Air Screw	\$13.50
7	831-713	O Ring	\$3.85
8	963-679	Piston	\$103.80
9	963-700	Mixing Tube	\$21.70
10	261-625	Sieve Sleeve	\$10.65
11	963-500	Clip	\$7.95
12	827-347	New Style Spring Cup	
13	963-160	Mix Screw	\$9.50
14	938-640	Spring	\$3.35
15	938-655	Slide Spring	\$6.50
16	963-720	Cover Plate	\$32.50
17	831-450	O Ring	\$7.70
18	241-430	Screw	\$1.60
19	241-440	Adjuster	\$4.95
20	942-541	Nut	\$0.99
21	260-370	Grommet	\$2.80
24	861-181	Indep. Float	\$41.50
25	929-702	Pivot Pin	\$2.55
26	261-705	Float Needle	\$41.50
27	261-710	Clip	\$1.95
28	261-010	Bowl Kit (bowl,24-27,55) *Float Needle Valve not included	\$142.75
29	830-720	Gasket	\$10.65
30	963-180	Bowl Clip	\$10.50
39	963-740	Piston	\$11.50
40	268-850	Sleeve	\$4.60
41	661-050	Spring	\$2.12
42	963-750	Housing	\$16.50
46	268-847	Piston	\$27.60
48	261-770	Housing	\$13.50
49	260-490	Rubber Cap	\$6.85
50	261-755	Choke Lever	\$29.65
51	240-791	Screw(51) &	\$2.40
52	945-750	Washer(52)	
53	261-200	Nut	\$1.43
54	256-035	Vent Tube	\$12.95
56	831-715	Jet Needle O Ring	\$1.85

#### REPLACEMENT PARTS – TYPE 84



No.	Part No.	Description	Price
1	268-980	Main Jet 135	
2	261-692	Atomizer	\$24.50
3	261-606	Needle Jet 262	\$16.50
4	261-643	Jet Needle 8H1	\$21.80
5	963-140	Idler Jet 50	\$32.80
6	963-155	Air Screw	\$13.50
7	831-713	O Ring	\$3.85
8	261-635	Piston	\$67.75
9	963-130	Jet Stock	\$22.60
10	261-625	Screen	\$10.65
11	261-650	Holding Plate	\$9.50
13	963-160	Mix Screw	\$9.50
14	938-640	Spring	\$3.35
16	261-660	Cover	\$25.65
17	261-670	O Ring	\$9.50
18	241-430	Screw	\$1.60
19	241-440	Adjust. Screw	\$4.95
20	942-541	Nut	\$0.99
21	260-370	Grommet	\$2.80
25	929-702	Pin	\$2.55
26	261-705	Float Needle	\$41.50
27	261-710	Clip	\$1.95
28	963-170	Bowl	\$45.75
29	830-720	Gasket	\$10.65
30	963-180	Bowl Clip	\$10.50
39	963-740	Piston	\$11.50
40	268-850	Sleeve	\$4.60
41	661-050	Spring	\$2.12
42	963-750	Housing	\$16.50
46	268-847	Piston	\$27.60
48	261-770	Housing	\$13.50
49	260-490	Rubber Cap	\$6.85
50	261-750	Lever	\$22.50
51	240-791	Screw(51) &	\$2.40
52	945-750	Washer(52)	φ <b>∠.4</b> 0
53	261-200	Nut	\$1.43
54	256-033	Vent Tube	\$12.95

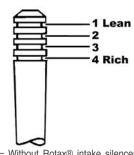
### **CARBURETOR PARTS - FUEL PUMPS**



### CARBURETOR JETTING CHART FOR ROTAX® UL ENGINES

Use this chart to identify part number you need, then use bottom chart to select correct part number to order.

ROTAX® ENGINE	MAIN JET	IDLER JET	NEEDLE JET	JET NEEDLE	CLIP POSITION	AIR SCREW
PRICES	\$11.99	\$30.70	\$16.50	\$17.50		
2771	148	45	2.72	8L2	2	1
2772	140	45	2.72	8L2	2	1
3771	165	45	2.70	802	2	.5
3772	155	45	2.70	802	2	.5
4471	165	45	2.70	15K2	2	.5
4472	155	45	2.70	15K2	2	.5
447DC1	135	50	2.70	6G1	3	1
447DC3	128	50	2.68	15K2	2	1
503SC1 Up to #3785371	180	45	2.74	8G2	3	.5
503SC2 Up to #3785371	158	45	2.74	6H2	3	.5
503SC1 From #3785372 Up	185	45	2.72	15K2	3	.5
503SC2 From #3785372 Up	165	45	2.70	15K2	3	.5
503DC1	158	45	2.74	8L2	1	.5
503DC3	148	45	2.68	11K2	2	1
532SC1	195	55	2.74	15K2	3	1
532SC3	170	55	2.74	15K2	3	1
532DC1	165	55	2.72	11G2	3	1
532DC3	145	55	2.68	15K2	3	1
5821	165	55	2.72	11G2	3	1
5823	145	55	2.68	15K2	3	1



1 = Without Rotax® intake silencer kit, with K&N RC1200 air filter, with or without Rotax® after muffler kit.

2 = With Rotax® intake silencer kit, with K&N CM0300 air filter, with or without Rotax® after muffler kit.

3 = With Rotax® dual intake silencer kit, with K&N RC1200 air filters, with or without Rotax® after muffler kit.



#### **MAIN JET**

125F	P/N	R268-	978	 \$11	.50
128F	P/N	R261-	085	 \$17	7.50
130F	P/N	R268-	979	 \$10	).75
135F	P/N	R268-	980	 \$11	.99
138F	P/N	R268-	998	 \$10	).95
140F	P/N	R268-	981	 \$11	.50
145F	P/N	R268-	982	 \$11	.50
148F	P/N	R268-	995	 \$11	.99
150F	P/N	R268-	983	 \$11	.50
155F	P/N	R268-	984	 \$11	.50
158F	P/N	R268-	996	 \$11	.50
160F	P/N	R268-	985	 \$11	.50
162F	P/N	R268-	990	 \$11	.50
165F	P/N	R268-	986	 \$11	.50
170F	P/N	R268-	987	 \$11	.50
175F	P/N	R268-	988	 \$11	.50
180F	P/N	R268-	989	 \$11	.50
185F	P/N	R261-	080	 \$11	.99
190F	P/N	R261-	084	 \$11	.99
195F	P/N	R268-	992	 \$11	.50
200F	P/N	R261-	082	 \$17	7.50
205F	P/N	R261-	087	 \$16	3.50
220F	P/N	R261-	081	 \$17	7.50



#### **IDLER JET**

30P/N R963-141	\$30.70
35P/N R963-143	\$32.80
40P/N R963-142	\$32.80
45P/N R963-144	\$28.65
50P/N R963-140	\$32.80
55P/N R963-147	\$31.50
60P/N R963-145	\$30.70
65P/N R963-146	\$40.50



#### **NEEDLE JET**

	2.62 P/N	R261-606	5 <b>\$16.50</b>
į	2.68 P/N	I R963-69	1\$18.50
ŧ	2.70 P/N	I R963-698	3 <b>\$17.80</b>
ĺ	2.72 P/N	I R963-697	7 <b>\$15.85</b>
7	2.74 P/N	I R963-699	9 <b>\$18.50</b>
	2.76 P/N	I R963-693	3 <b>\$17.85</b>
	2.78 P/N	I R963-696	5 <b>\$18.75</b>
	2.80 P/N	I R963-698	5 <b>\$17.60</b>
	2.82 P/N	I R963-694	4\$16.50
	2.94 P/N	I R961-022	2 <b>\$18.50</b>

#### **NEEDLE CLIP**



P/N 07-00693		\$7	.95
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Lower numbers indicate smaller jet size or opening. Low numbers lean.

High numbers rich.

First needle number denotes mixture above half-throttle.

Needle letter denotes mixture below half-throttle.

#### JET NEEDLE



2H2P/N R963-717	\$17.50
4E2P/N R963-716	\$17.50
6H2P/N R963-719	\$17.50
8G2P/N R963-712	\$16.50
8H1P/N R261-643	\$21.80
8L2P/N R963-714	\$15.50
8O2P/N R963-711	\$17.50
10P/N R961-045	\$18.60
11G2P/N R961-043	\$12.60
11K2P/N R961-044	\$16.50
15K2P/N R963-718	\$16.50

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### KWIK TUNE FOR ROTAX ENGINES



#### **MIKUNI FUEL PUMP**



**Fuel Pump** 

MIKUNI	<b>REBUILT</b>	KIT FOR	SINGLE/DUAL	<b>FUEL PL</b>	<b>JMPS</b>
			D (1) O = 0 ( 0 )		

 Single Pump
 P/N 07-01011
 \$13.75

 Dual Pump
 P/N 07-01010
 \$16.75



#### **FACET ELECTRIC FUEL PUMPS**

**SOLID-STATE TYPE PUMPS -** Measure less than 3" in any direction and weigh only 18 oz. Fuel is supplied as soon as the ignition is turned on so the engine will start faster at colder temperatures. Built-in pressure relief prevents flooding and assures fast re-starts on hottest days. The all-steel plated case

is water tight. Mounts with two bolts. For best results, mount the pump close to the fuel tank and below the liquid level. The tank is self-priming to 18" fuel lift. Standard 12 V models require only 1 amp at max. delivery. All of the pumps shown feature a all nylon valve and plunger.

FACET NO. 40104 - 12V Neg. Ground, 4 1.5 PSI Max., 25GPH. 1/8 x 27 inter-
nal pipe ports
FACET NO. 40105 - 12V Negative Ground, 3.0 - 4.5 PSI Max.,
<b>FACET NO. 40105</b> - 12V Negative Ground, 3.0 - 4.5 PSI Max., 30 GPH. 1/8 x 27 internal pipe ports
FACET NO. 40106 - 12V Negative Ground, 4.5 - 6 PSI Max., 30 GPH.
1/8 x 27 internal pipe ports
FACET NO. 40163 - 12V Neg. Ground, 2.5-1.5 PSI Max, 17 GPH, 1/8 x 27
internal pipe ports
FACET NO. 40164 - 24V Negative Ground, 4-C PSI Max, 30 GPH, 1/8 x 27
internal pipe ports
FACET NO. 40171 - 12V Neg. Ground, 3.5 - 2 PSI Max, 15 GPH, 1/8 x 27
internal pipe ports
FACET NO. 40288 - 12V Neg. Ground, 4.5 - 3.0 PSI Max, 30 GPH, 1/8 x 27
internal pipe ports
FACET NO. 40289 - 12V Neg. Ground, 0 GPH, 1/8 x 27 internal pipe ports
P/N 05-06861 <b>\$43.80</b>
FACET NO. 40108/40154 - 12V and 24V electric fuel pumps which have

through them in event of pump failure.

EP

### - SKY-TEC - K&N - AIR

#### **NGK SPARK PLUGS**

Note: The spark plugs listed are not for aircraft application



DCPR/E	Size	Description	Part No.	Price
Ca.	10mm	CR5HSB	08-06263	\$2.25
	12 mm	DCPR7E	08-00504	\$3.65
	12 mm	DCPR8E (Removable Terminal Nut)	08-01228	\$3.65
	12 mm	DCPR8E (Solid Terminal Nut)	08-07044	\$3.65
	12 mm	DR8EA	08-00693	\$2.55
	14 mm	BR8EIX	08-00650	\$9.50
	14 mm	B8ES (Solid Terminal Nut)	08-00730	\$2.65
BR8EIX	14 mm	BR8ES	08-00736	\$2.50
F	14 mm	B7ES	08-07039	\$2.35
	14 mm	B9ES	08-07040	\$2.35
	14 mm	BR7ES	08-07041	\$2.50
	14 mm	BR9ES	08-07042	\$2.65
	14 mm	BR7EIX	08-07045	\$9.50
	14 mm	BR9EIX	08-07046	\$8.75
	12mm	DP9EA-9	15-05219	\$2.55



14mm IK24

#### **SKY-TEC SOLENOIDS**

15-05204 \$11.75

Silver contacts provide 300A in-rush capability. Much higher than the original units. Strong spring and high-current coil for quick contact opening - minimizing arcing. Single coil terminal (other end connected to case).

Model No.	Volts	Description	Part No.	Price
STS-12S	12	Starter Solenoid	07-03562	\$74.75
STS-12M	12	Battery/Master Solenoid	07-03564	\$74.75
STS-12A	12	Continuous Duty (Aux) Solenoid	07-03566	\$74.75
STS-24A	24	Continuous Duty (Aux) Solenoid	07-03567	\$92.85

#### **SKY-TEC STARTER FOR ROTAX**

Sky Tec Manufactured by Sky-Tec, these are direct replacements for electric starters on all Rotax 912 and 914 engines. High torque and lightweight, Sky-Tec Rotax starters crank 10% faster and draw less current than stock Rotax starters. Certified for use in many S-LSA certified aircraft and all experimental aircraft. 4.1 lbs. Not FAA PMA Approved.

P/N 07-01263 ..... \$399.00



#### **K&N AIR FILTERS**

Rubber end cap instead of chrome makes this filter less likely to create damage in the event of a prop strike. Also includes rubber boss for safety wire attachment.

K&N Air Filter # SP2704	P/N 08-06098 <b>\$33.96</b>
K&N Air Filter # SP2706	P/N 08-06099 <b>\$45.36</b>
K&N Air Filter # RC-2314	P/N 08-07291 <b>\$142.95</b>

See website for engine applications.



#### **K&N OIL FILTERS**

K&N powersports oil filters are 'TUV' product endorsed and 'TUV' factory production monitored. This means every K&N oil filter is equal to or will exceed all OEM specifications. Our filters contain a modern synthetic filter media, designed for ultimate flow with less pressure drop, yet engineered for outstanding filtration to meet or exceed all OEM specifications. All K&N powersports 'spin-on' oil filters feature a heavy-duty metal can with a 17mm nut affixed onto the end that allows for easy installation and removal. The 17mm nut is crossed-drilled so racers can safety wire the filter to their bike.

K&N OIL FILTER KN-141		08-06231	\$9.75
K&N OIL FILTER KN-142	P/N	08-00691	\$9.75



#### **K&N AIR FILTERS**

Our K&N Filters are the industry standard in excellence. All filters are constructed with ultra-strong molded pliable rubber flanges which absorb vibration and provide secure attachment. These flanges can be stretched up to 1/8" (3mm) to fit inbetween sizes. K&N Universal air filters are available in round, tapered, and oval designs, to fit just about any application. Use the dimensioned sketch and the selection chart to find the filter best suited to your application.

Part No.	K&N Part No.	Application	Throat	Length	Dia.	Style	Price
08-01053	FRV2440	Rotax®/Bing 36mm	2"	2"	5-3/8"	Round Straight	\$69.75
08-01273	RU0600	Mikuni 32mm	2-1/4"	4"	3-1/2"	Round Straight	\$40.75
08-04977	RU0800	Mikuni 34mm	2-1/2"	4"	3-1/2"	Round Straight	\$43.75
08-04980	FRC0930	Kawasaki/Mikuni 32mm	2-3/4"	3"	5"	Round Straight	\$35.95
08-04981	FRC1250	Mikuni 36mm	2-1/4"	4"	2"	Cone	\$49.85
08-04978	RU2690	Rotax®/Bing 32mm	1-3/4"	2-1/2"	2"	Cone	\$38.50
08-01274	RC1350	Rotax®/Bing 36mm	2-1/16"	4"	3"	Round Straight	\$51.99
08-01275	RC1200	Rotax®/Bing 36mm	2-1/16"	4"	2"	Tapered	\$48.50
08-04979	RC2820	Rotax® 532/582 Dual Carbs	2-1/16"	3"	8-1/2"	Dual Oval	\$64.75
08-04976	RC2720	Rotax® 503 Dual Carbs	2-1/16"	3"	8-1/2"	Dual Oval	\$64.75
08-04977	RU0800	Mikuni 34mm	2-7/16"	4"	3-1/2"	Straight	\$43.75
08-01278	RU2790	Rotax® 503/532 Aerobatic carb.	3-1/2"	4-1/2"	3-1/2"	Cone	\$44.50
08-01279	RA045V	Rotax® 912 Offset	2"	2"	5-7/8"	Round offset	\$66.75
08-01280	RU0810	Rotax® 814 Rd. Center	2-7/16"	5"	3-1/2"	Round Centered	\$47.50
08-04983	FRC1890	Rotax®/Bing 36mm	2-1/16"	3"	3"	Round Straight	\$53.75
08-04984	FRC1150	Rotax®/Bing 36mm	2-1/16"	3"	3-1/2"	Round Straight	\$56.75

### **ENGINE PREHEATERS - CABIN HEATERS - FILTER**



#### **K&N FILTER CHARGER OIL**

K&N Air Filter Oil is the only oil specially formulated to work in combination with the cotton fabric in K&N Filtercharger elements, providing a superior air filtration system. When used as directed, it quickly penetrates the filter pleats, where it remains suspended in the cotton fabric. Saturation is maintained until the element is cleaned with K&N Air Filter Cleaner.

6.5 oz. aerosol can - red	P/N	F99-0504	\$12.90
8 oz. squeeze bottle - red	P/N	F99-0533	\$10.95



#### **K&N POWER KLEEN**

K&N Air Filter Cleaner is the only cleaner recommended to clean K&N Air Filter elements. K&N Air Filter Cleaner works to dissolve dirt build up and old filter oil and can be washed away with water. It is environmentally friendly and safe on paint, chrome, cast aluminum, plastic, rubber and vinyl when used as directed (do not use on polished or anodized aluminum). Complete instructions on bottle.

12 oz. Spray P/I	N 05-01944 <b>\$13.50</b>
32 oz. Trigger Spray P/I	N 15-06511 <b>\$20.50</b>
1 Gallon Refill P/I	N 15-05451 <b>\$29.95</b>
5 Gallon Pail P/I	N 08-07461 <b>\$86.95</b>



#### K&N RECHARGER KIT

K&N Recharger® kits contain K&N air filter cleaner and air filter oil for recharging any K&N Filtercharger® Air Filter. Restores air flow efficiency so your K&N air filter performs like new! ..... P/N 08-00722 ..... \$18.50

#### **E-Z HEAT 912 ENGINE PREHEATER**



The E-Z Heat Engine Preheater system fits the Rotax motors and many other light sport aircraft on the market today. The system consists of two heater pads connected with a common "Light Bright" power cord. Installation is easy by peeling and sticking a pad on both the sump and on the oil tank to assure the engine gets the proper amount of heat.

P/N 07-01860 ..... \$163.75

### **REIFF PREHEATER FOR ROTAX 912/914**



The Reiff preheat system for Rotax 912 and Rotax 914 aircraft engines is an engine-mounted electric preheat system designed for easier cold-weather starts. The preheat system consists of a 100-watt metal "hot strip" element, which is epoxied to the bottom of the crankcase, and a 50-watt band heater that is clamped to the oil tank. The Reiff is FAA-approved, and includes a

thermostat to keep the oil from exceeding 150° F. ......P/N 08-06219.....\$**266.95** 



#### TANIS PREHEAT SYSTEM FOR **ROTAX 912/914 SERIES ENGINES**

Preheat system for Rotax 912/914 series engines. Kit contains heating elements for each cylinder, crankcase, and oil sump..... P/N 08-07395..... \$720.00



#### TANIS PREHEAT SYSTEM FOR **JABIRU 3300 ENGINES**

Preheat system for Jabiru 3300 engine. Includes heating elements for each cylinder and oil sump, complete wiring harness and installation hardware.

P/N 08-07088......\$499.00



#### TEMPEST ROTAX OIL FILTERS

The filter has all the features which have made the Tempest oil filter so popular, including the magnetic secondary filtration system, and higher burst pressure. Full Can Thickness:.019". Base Plate Thickness:.100". Burst Pressure:275-325. Media Size:118 sq. in.

P/N 08-07226.....\$22.50



#### **ROTAX OIL FILTER 825-012**

825-012 Oil Filter - Rotax 912-914 New Style with 14 flute head. Original factory replacement filter. Order #9601 Oil Filter Wrench instead of #9599 8 flute. Changed by Rotax 5/24/11. Genuine factory Rotax 912-914 oil filter. Not a foreign substitute. Measures 3 1/8 diameter x 2 5/8 high. P/N 08-06100......\$19.95

#### CHALLENGER STAINLESS STEEL MICRONIC **OIL FILTER FOR ROTAX 912/914 ENGINES**



The filter element is made from medical grade, type 304 stainless steel micronic filter cloth providing unmatched protection against oil contamination and resultant engine damage.

A rare earth magnet is installed in the top of the element for magnetic pre-filtering of the oil. The unique twist lock design allows for easy disassembly, inspection and cleaning. The quad-ring gasket doubles the seal between the filter and the 

#### LIGHTWEIGHTOILCOOLERFORHOMEBUILTS



Lightweight, compact oil cooler improves cooling in closely cowled homebuilts. Mounts in any position. Furnished with 4 ft. of 5/16" I.D. hose and 4 clamps. Size 7-1/2H x 12-3/4L x 

#### **ROTAX 912 13MM OIL COOLER HOSE**





#### **AEROSHELL OIL SPORT PLUS 4**



AeroShell Oil Sport Plus 4 is ideal; as it is extremely resistant to the immense sheer forces that occur in areas of high-pressure contact such as high-speed gearboxes, valve trains, bearings, pistons and liners. This is where the blend of base oil and additives is most crucial.DO NOT use AeroShell Oil Sport Plus 4 in engines that are designed to use Ashless Dispersant aviation piston engine oils such as AeroShell W Oils. This includes air cooled Teledyne Continental Motors, Textron Lycoming and Jabiru engines.

Cycle Sport Plus 4 Oil (Liter)	P/N 08-07048 <b>\$11.50</b>
Cycle Sport Plus 4 Oil (Case	of 12) P/N 08-07047 \$134.00



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#### **QUAKER STATE 2 CYCLE AIR COOLED OIL**

Two-cycle oil for air-cooled engines. Recommended by engine manufacturers for air- and water-cooled engines. 



#### MOBIL 1 RACING 4T FULL SYNTHETIC MOTOR OIL

Mobil 1 Racing 4T oil meets all the requirements for Rotax 4 stroke aircraft engines. This is a full synthetic oil designed for motorcycles, however is an excellent choice for Rotax 4 stroke aircraft engines because of the gearbox and close internal tolerances

P/N 08-13892 ..... \$16.95

#### SAF-AIR OIL DRAIN SUMP VALVES

Changing engine oil has never been easier. With the Saf-Air oil Drain Valve. no wrench is needed to remove the drain plug. A simple push and turn of the Saf-Air valve locks it in the open position. The valves are made completely from aluminum & stainless steel parts. FAA & PMA APPROVED

Part No. Engine Application		Thread	Price	
M12175	ROTAX 912, 914	12mm x 1.75	\$43.95	
S5020J	Jabiru 2200 / 3300	1/2"-20	\$45.60	
M20150	Subaru 2 2L / 2 5L	20-1 50mm	\$54.75	

#### **LORD ENGINE MOUNTS** FOR ULTRALIGHTS



S6250

All altitude mounts for vibration isolation and shock prevention in all directions. Available in soft, medium, or hard rubber. 

Snubbing Washer ...... P/N 9810145-01804 ...... \$1.42

#### **ROTAX EXHAUST SPRING 938-795**

Genuine Rotax replacement spring for use with Rotax exhaust systems 277/377/447/503,618,912 UL,912 ULS. 66mm (2.60") hook distance. Part #938-795 Spring 2-1/4" with a 5/8" diameter.

P/N 08-06101 ..... \$3.39

### **LUBRICANTS**



### LOCTITE® 243 THREADLOCKER BLUE MED STRENGTH

Loctite® Blue Threadlocker 243™ (Aftermarket Only) is designed for the locking and sealing of threaded fasteners between 1/4" and 3/4" (6 to 20 mm), which require normal dis-assembly with standard hand tools. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. The thixotropic nature of Loctite 243 reduces the migration of liquid product after application to the substrate. Loctite 243 provides robust curing performance. It not only works on active metals (e.g. brass, copper) but also on passive substrates such as stainless steel and plated surfaces. The product offers high temperature performance and oil tolerance. It tolerates minor surface contaminations from various oils, such as cutting, lubrication, anti-corrosion and protection fluids.



#### **LOCTITE® 648 GREEN**

LOCTITE® 648 Retaining Compound:

Press Fit / High Strength / Rapid Cure. A retaining compound recommended for continuous working temperatures up to 356°F (180°C). Fills gaps up to 0.006 in. diametral clearance. Fixtures in 10 minutes.

Technical Data:

Strength Required - High

Shear Strength (N / mm2) - 4,480 psi (31) Temperature Resistance - 356°F (180°C)



#### LOCTITE 480 INSTANT ADHESIVE TOUGHENED

Henkel Loctite 480 Prism is a low viscosity, rubber toughened instant adhesive with increased flexibility and peel strength along with enhanced resistance to shock. It is designed for bonding OEM assembly metal, rubber and select plastics.



#### **LOCTITE 574 FLANGE SEALANT**



#### **LOCTITE 603 RETAINING COMPOUND**

LOCTITE ® 603 is for the bonding of cylindrical fitting parts, particularly where consistently clean surfaces cannot be assured. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration. Typical applications include retaining roller bearings or oil impregnated bushings into housings.



#### **LOCTITE 8151 ANTI SEIZE**

LOCTITE LB 8151 is a heavy-duty anti-seize spray designed to prevent joints from seizing and corroding when exposed to high temperatures such as encountered in the exhaust from combustion engines and in fittings for oil and gas burners. The product is typically used in applications with an operating temperature range of -30 °C to +900 °C.

50 mL Bottle ...... P/N 15-00479 ..... \$31.17



#### SOFLEX TOPAS NB 5051 GREASE 400 GRAM CARTRIDGE

ISOFLEX TOPAS NB 5051 is a beige-colored, homogeneous, short-fibred long-term grease for a wide service temperature range. It is a dynamically light grease consisting of synthetic hydrocarbon oil and barium complex soap. The barium complex soap used is not classified as harmful under the EU Directives on dangerous substances.



#### ROTAX 297-433 MOLYKOTE G-N, SLIDE PASTE



#### **HENKEL LOCTITE 5910**

Henkel Loctite 5910 is a one component RTV silicone designed for applications where good oil resistance and ability to withstand high joint-movement is required.

300 mL Cartridge ...... P/N 15-0726 ..... \$54.95



### WACKER® SILICON-HEAT COMPOUND P 12

Pure white, soft consistency, heat sink paste with marked thermal conductivity. Electrically insulating tolerance.

P/N 15-02540 ..... **\$164.50** 



#### **ROTAX 297-386 SILASTIC 732 RTV**



#### CRC MULTI-PURPOSE SUPER WHITE GREASE

A high purity, NLGI Grade 2 multi-purpose white lithium grease. Provides superior lubrication & durability in any weather and most temperatures. Bright white in color. Ideal for when appearance is important.

**SEE WWW.CPS-PARTS.COM FOR ADDITIONAL LUBRICANTS** 

### GPL STARTER KITS - FUEL CONTAINERS

#### **GPL ELECTRIC STARTERS**

GPL Electric offers an electric starter kit for several rotax engines. This unique system not only allows you to retain pull start, but also allows you to keep oil injection (if present) otherwise, a cover plate can be used (if space constrained). This system safely engages the ring gear at a 90 degree angle, then fully disengages from the crankshaft. The gpl electric starter kit will not disable the engine due to malfunction, so it is the safest designed after market starter kit available for rotax engines and is made in the U.S.. GPL Electric also provides excellent warranty, comprehensive technical support and maintains a full replacement of parts inventory.



#### **GPL STARTER KITS FOR ROTAX ENGINES**

#### GPL Electric Starter Kit Includes:

(M8) Hi Collar Split Washer, (M6 X 90) Socket Head Cap Screw, (M6) Hi Collar Split Lock Washer, (M6 X 18) Socket Head Cap Screw, (M6) Split Lock Washer, (M8 X 25) Socket Head Cap Screw, (M8 X 22) Low Profile Socket Head Cap Screw, Main Casting (D3) Sits In The 10:00 Pos or Main Casting (D4) Sits In The 11:00 Pos, Ring Gear, Inner Spacer, Starter Motor (Heavy Duty), Loctite 242 Thread-locker, Installations Instructions, and Coverplate (If Not Retaining Pull Start)

If Retaining Pull Start The Following Is Also Required

Outer Spacer (1), (M8 X 12) Hex Head Cap Screw (3), (M8) Split Lock Washer (3), and (M6 X 22) Socket Head Cap Screw (4)

Application	Model No.	Part No	Price
Rotax Engines (377,447,503)	03-001	15-06473	\$635.17
Rotax Engines (462,582,618,670)	03-004	15-06472	\$635.17
Rotax Engines (532 CDI)	03-005	15-08364	\$635.17
Rotax Engines (532 POINT)	03-006	15-08365	\$635.17



#### **GPL RETAIN PULL START KITS**

Retain Pull Start Kit: Engine Specific Outer Spacer And Required Hardware (nuts/bolts).

Application	Model No.	Part No	Price
Rotax Engines (462,582,618,670)	02-29 RO	15-05373	\$135.00
Rotax Engines (377,447,503,532)	02-29 SO	15-05374	\$135.00



#### **GPL DELUXE STARTER KITS**

The Deluxe Starter Kit Includes: Rubber Insulating Boots, Push Button Switch, Solenoid, Regulator/rectifier, 20 Amps Fuse / Fuse Holder, Cables & Wiring (aircraft Specific), Hardware (nuts/bolts). Deluxe Add On Kits Weighs 3 Lb

Application	Model No.	Part No	Price
Challenger Air Crafts (11 ft Cable)	03-009-11	15-08341	\$173.50
Other Air Crafts (5 ft Cable)	03-009-05	15-08340	\$173.50



### GPL ELECTRIC REPLACEMENT STARTER MOTORS

This motor fits all GPL Starter Kits and the Hirth F23 Engine as well. Heavy Duty Starter Motor Model 02-70HD

P/N 15-05371 .....



### REPLACEMENT STARTER MOTOR FOR ROTAX

(Replaces Rotax P/N 995-430) Voltage: 12 kW: 0.6 Condition: New Rotation: CW Starter Type: PMDD Number of Teeth: 9 Gear OD: 1.154" / 29.3mm Mtg Ear 1 Hole: M8-1.25 Threaded Mtg Ear 2 Hole: M8-1.25 Threaded Weight: 5.2 lbs / 2.36 kg.

Model No. 02-80 ...... P/N 07-02388..... \$199.00

**GPL PULL START** 

RETENTION KIT
GPL pull start retention kit for Rotax 337, 447, 503,

P/N 15-05374......**\$135.00** 

532 - points and 532 - CDI.



### GPL CLOCKWISE STARTER F33 AND CUYUNA

GPL clockwise starter f33 and cuyuna.
P/N 15-08398.....\$262.64



### GPL OIL INJECTION DRIVE KIT

GPL oil injection drive kit long nut pull start.
P/N 15-08397......\$52.53



### GPL PULL START RETENTION KIT



#### **GPL PUSH BUTTON SWITCH**

GPL push button switch - 02-22

P/N 15-08396..... \$25.50

SEE WWW.CPS-PARTS.COM FOR A COMPLETE LIST OF REPLACEMENT PARTS.

\$262.64

### **DS - OIL INJECTION PARTS**



#### **ROTAX GEARBOX** & ACCESSORY DVD VIDEO

This DVD is designed to illustrate how many of the systems on your powerplant are installed, maintained, and serviced. For individuals new to Rotax aircraft engines this DVD will offer a unique look into what goes into setting up and maintaining a trouble free powerplant. This video, the third in our series of instructional DVD's,

takes you through the service, inspection, and installation of all popular Rotax Gearboxes, electric starters, carburetors, cabling, and fuel pumps.

We show you how to completely disassemble and service every part on all four Rotax gearboxes in a clear and concise presentation that only a video can provide. This includes a detailed illustration of what tools are needed to perform the work as well as ways to accomplish certain tasks with a minimum of first time frustration. Just the kind of inside knowledge you can't find in printed literature. If you are building a new aircraft or want to upgrade to another gearbox, we show you exactly how to install any drive using all proper torque valves, Loctites, and

The on-screen copy even gives you the wrench size you need for every step. After illustrating all popular gearboxes we show you how to install a Rotax electric starter.



#### **DVD WITH NEW 2 STROKE ENGINES**

A CPS exclusive - Installation DVD. Expert advice and details on how to set-up new 2 stroke engines.

75 minutes

#### **CPS REBUILD VIDEOS**

Our series of Rebuild DVD's detail every step in rebuilding Rotax 447-503 or 582 engines. A third video shows how to service, inspect, and install all Rotax gearboxes, Carburetors, Starters, Fuel pumps.



DVD503 - 447-503(109 min.)	P/N 15-05883 <b>\$19.95</b>
DVD582 - 582 (113 min)	P/N 15-05904 <b>\$39.95</b>
DVDGB - All Gearbox (116 min)	P/N 15-05934 <b>\$18.95</b>
DVDInstall (94 min)	P/N 15-05940 <b>\$29.00</b>

#### Features:

Easy Access: Navigating your DVD is easy with our handy chapter and scene index booklet showing every screen title in chronological order. On-screen menus quide you quickly to any subject matter with a push of your remote control. Our DVD's play on most any DVD player in any part of the world and are CSS Encrypted for piracy protection.

What's Included in the package:

 All our DVD's include a chapter and scene index booklet showing every screen title in chronological order making navigation to a particular screen quick and easy. A Tool List gives you a detailed checklist of the items you need to do the

2. A 12" x 15" Heavy-duty plastic laminated checklist gives you all inspection tasks (Rotax Recommended Scheduled Maintenance and time intervals plus a handy pre-flight checklist.

3. An 8-1/2" x 11" Heavy-duty plastic laminated chart gives you every torque value in inch pounds, foot pounds, and Newton-Meters for any Rotax two-stroke. Wrench size, bolt size, Loctite, and sealant for every fastener is clearly listed. Both our durable plastic laminated checklists are ideal for shop or cockpit use.

#### **ROTAX OIL INJECTION RESERVOIR** WITH LOW LEVEL SENSOR



This all new Rotax factory designed part is ideal for mounting on firewall or with special brackets provided attached right to the cylinder head. Translucent white color easily shows fluid level. The 2.5 liter tank holds enough oil to mix with over 35 gallons of main tank supply. Fly for nearly 10 hours without refilling. When the level does get low a built-in sensor signals a dash

light (not included) warning you it's time for regulity food. Evill kit included specific Administrations and the located above the pump for gravity food. Evill kit includes received Administrations. be located above the pump for gravity feed. Full kit includes reservoir, 24" of line, mounting hardware, in line filter, low-level sensor, and vented cap. Rootav. Reservoir System P/N 881-465 Peservoir With Sensor, Tubing, Filter, Cap, And Mounting Studs Only \$226.30

\$169.73 P/N 881-460 .....

#### 2 QUART RESERVOIR



This high density polyethylene tank is ideal for Oil Injection Reservoir or Coolant Overflow. Translucent white color easily shows fluid level. Tank is blown molded with a  $\frac{1}{4}$ " thick seamless construction and includes rugged mounting tabs that mount to any flat surface. Includes a threaded 2-1/4" vented cap with tether to prevent loss. Sealed tank without drain. Bottom access is easy for either push in fittings or

threaded bulkheads with plenty of access thru large cap opening. Order separately. Tank measures approx. 5" high x 6' wide x 4" thick. Requires 8-1/2" wide flat surface for mounting.

Weight 8 oz.		P/N	13581	\$24.00
0	Cap			

#### 4 QUART OIL OR WATER RESERVOIR



This high density polyethylene tank is ideal for Oil Injection Reservoir or Coolant Overflow. Translucent white color easily shows fluid level. Tank is blown molded with a ¼" thick seamless construction and includes rugged mounting tabs that mount to any flat surface. Includes a threaded 2-1/4" vented cap with tether to prevent loss. Sealed tank without drain. Bottom access is easy for either push in fittings or threaded bulkheads with plenty of access thru large cap opening. Order separately. Tank measures approx. 8-1/2" high x 6' wide x 4" thick. Requires 8-1/2" wide flat surface for mounting.

Neight 20 oz		P/N	13583	\$21.50	
Replacement	Cap	P/N	30260	. \$4.35	



#### **GENUINE ROTAX OIL INJECTION FILTER**

Genuine Rotax factory replacement filter for Rotax injection system #881-465. Fits 956-230 Injection hose 

#### **COOLANT RECOVERY -**OIL INJECTION RESERVOIR

This white plastic tank and steel rack holder is ideal for coolant recovery. Translucent white color easily shows fluid level. Wire mounting cage cradles tank securely, while offering a wide range of mounting options. See through feature allows fluid level to be seen easily. Can also be used as an oil injection reservoir. Side port accepts 3.8" i.d. tubing.

.....\$16.65 P/N 1609.....



#### **KEVLAR COVERED** FIRE-RESISTANT HOSE

Genuine Rotax factory replacement for oil injection supply line. Also used on Rotary Valve supply lines. Completely fire-resistant. Sold in one meter lengths only. Beware of cheap imitations

P/N 15-03510 ...... \$53.79/m.



#### 2-1/2 GALLON FUEL TANK

This high density polyethylene tank is ideal for Fuel Tank in tight places. Tank is blown molded with a 1/4" thick seamless construction. Translucent white color easily shows fluid level. Includes a threaded 2-1/4" vented cap with tether to prevent loss. Sealed tank without drain. Bottom access is easy for either push

in fittings or threaded bulkheads with plenty of access thru large cap opening. Order separately. Tank measures approx. 8" high x 13 " long x 6" thick. Weight: 30 oz. .... P/N 13585..

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#### 10' THROTTLE OR CHOKE **INNER WIRE**

Measures .064" (1.5mm) diameter 1 x 19 construction. #7417 solder swage factory installed on one end only. Includes 1 @extra #7417 and #7415 swages loose in package. Ideal for Bing or Mikuni Carbs. #7417 swage fits Carb slide or choke plunger perfectly. Length 120".



#### **ROTAX 912-914 10' CHOKE WIRE**

Measures .064" (1.5mm) diameter 1 x 19 construction. #7416 solder swage factory installed on one end only. Includes 1 @extra #7416 and #7415 swages loose in package. Ideal for Bing Carbs on 912 (order 2). #7416 swage fits 912-914 Carb choke arm perfectly.

P/N 7408......\$6.50



#### THROTTLE AND **CHOKE WIRE**

Measures .064" (1.5mm) diameter 1 x 19 construction. Same as #7407. Ready to accept solder swage #7417. Fits inside either #7403 or #7405 housing. Sold by the foot or in 50' rolls. P/N 7409......**\$0.45 ft.** 



#### THROTTLE HOUSING

For #7407 or #7411 inner wire. Rectangular chrome steel wire core with abrasion resistant black cover. Measures .190" (5mm) od. by .090" i.d. Our most popular housing for throttle and chokes. Sold by the foot.

P/N 7403......**\$0.85 ft.** 



#### **HEAVY-DUTY** THROTTLE HOUSING

For #7407 or #7409 inner wire. Rectangular chrome steel core with nylon inner liner. Abrasion resistant black cover. Measures .215" (5.5mm) od. by .086" i.d.

Sold by the foot. P/N 7405......\$1.65 ft.



#### STEEL FERRULE

Slips over #7403 throttle housing. Can be crimped or rolled for a permanent installation. .220" od. by .445" long. Drilled for .064' wire.



#### STEP-DOWN STEEL END FERRULE

For use with #7405 heavy-duty housing. Small end fits all other fittings. Can be crimped or rolled for a permanent installation. Measures .787" long. Drilled for .064" wire.

P/N 7414.....\$0.99



#### 1/16" STOP SWAGE

For use with #7407 or #7411 Control wire. Can be installed with standard swaging tools. Made of a compressible copper alloy. Will not fit Card slide or choke plunger when swaged. See part #7417.

P/N 7415......\$0.38



#### **SOLDER POT**

used for installing #7417 solder swages or any connector that needs to be dipped soldered. Just flux line with swage installed and dip for 10 seconds. Includes 48" 110 volt power cord. Draws under 250 watts. A must for the serious homebuilder

P/N 7425......\$249.95



#### 1/16" SOLDER STOP SWAGE

For use with #7407 or #7411 inner control wire. Must be properly peened and dip soldered to create a secure bond. Requires solder pot, etc. for installation. See P/N 7425 above. Fits Mikuni and Bing Carb slides and choke plungers perfectly.

P/N 7417....



#### 582-618 OILER SWAGE

Fits the oil injection pump arm precisely. .250° od. x .360° length. Drilled for #7411 inner wire.



#### **503 OILER SWAGE**

Fits the oil injection pump arm precisely. 5/16" od. x 3/8" length. Drilled for #7411 inner wire. P/N 7418.....**\$1.39** 



#### **WIRE STOP**

Is ideal for securing cable ends. Removable and completely reusable. For use on any size cable up to 3/32". Measures 1/4"OD x 6x32 threads x 3/8" long.

P/N A2360 ......\$0.85



#### **WIRE SWIVEL**

The same as above with end collar. Ideal swiveling anchor for brake or throttle cables up to 3/32" Measures 1/4" OD x 6x32 threads

P/N A2361 ......\$0.75



#### **MIDWAY CABLE ADJUSTER**

For use the #7403 cable housing. Measures 2.75" but extends to 3.375" to remove slack from cable housing. Positive locking nut maintains adjustment.

P/N 7421 ...... \$5.75



### **CABLE ADJUSTER BULKHEAD**

Adjuster accepts either #7403 or #7405 housing wiht ferrule installed. Used where cable meets oil injection pump or where an adjustable end is needed. Includes extra locking nut. Measures 1.675" long.

P/N 8121.....\$3.85



#### **BAR SOLDER**

1 1/2 lbs. of the finest solder available to secure end fittings. Enough to last for years.

P/N 7427



#### **CABLE FLUX**

For soldering cables. 3 oz. bottle enough for up to several hundred cables.

P/N 7429.....\$16.50

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### ABLE COMPONENTS - CHOKES - HOOKS



#### **CPS THROTTLE LEVER**

The perfect answer to any throttle and choke operation. The compact cast aluminum control allows easy access for standard casing and 1/16" control wire. Eliminates the need for expensive and bulky quadrants that require

special mounting and end fittings. Block is countersunk to accept throttle casing as shown. Inner wire wraps smoothly around wheel providing a full 2" travel (Bing Carbs need 1 1/2" travel) in less than 1/2 revolution of the handle. Set screw shown firmly anchors wire. Back up swage makes for a fail-safe and completely variable length and design. Precision tension adjusting makes for a throttle that positively stays where you set it. Mounts to any 3/16" or 6mm fasteners. Bolt centers are 1 7/8" Handle measures 3" long. A precision made control 



#### **CABLE LUBER SYSTEM**

Don't take chances with sticking throttle, brake, and choke cables. Prevent cable freezing and extend cable life by lubricating cable with the "Cable Luber" system. Special precision machined lube block allows ease of lubrication between cable and housing without removing the cable. Just attach the Cable Luber to either end of the cable and insert nozzle from aerosol can. Specially designed seals in block force lube down inside cable housing. A must for the serious mechanic. Cable Life Aerosol lubricates and rustproofs moving parts even at temperatures far below -50 degrees.

Luber Block	P/N 7431	. \$8.95
Complete Kit Part	P/N 7435	\$22.75



#### **COMPACT THROTTLE LEVER**

This compact aluminum control allows easy access for standard casing and 1/16" control wire. Eliminates the need for expensive and bulky quadrants that require special mounting and end fittings. Block is countersunk

to accept throttle casing as shown. Inner wire wraps smoothly around wheel providing a full 2" travel (Bing Carbs need 1 1/2" travel) in less than 1/2 revolution of the handle. Set screw shown firmly anchors wire. Back up swage makes for a fail-safe and completely variable length and design. Short handle controls precision tension adjuster that makes for a throttle that positively stays where you set it. Mounts to any 3/16" or 6mm fasteners. Bolt centers are 1 7/8" Handle measures 2" long. A precision made control manufactured in Germany.

P/N 7111......\$14.95



#### **BING LEVER CHOKE KIT**

Includes all parts to convert cable choke Carbs to manual lever actuation. Includes all parts shown. Carb must have choke provision...... P/N 7658...... \$51.90



#### **BING CARB CABLE CHOKE KIT W/8' CABLE**

Includes all parts shown above plus 8' Cable Housing and inner wire with #7417 solder swage installed on one end. Ideal for single Carb applications. Does not include actuator handle. Order separately.

P/N 995-660 ..... **\$85.44** 



#### **DUAL HANDLE DUAL CHOKE CONTROL**

This lightweight aluminum control allows for precise control over both Carb chokes in a single compact unit. Uses precision gear driven movement that accepts #7403 or #7405 casing and 1/16" control wire. Uses #7417 solder swage to mate with internal gear slug. Center screw allows for precise tension control of levers. Ideal for an operators that knows how to diagnose an

engine problem with choke controls. Provides 34" travel range. Not designed for throttles. Mounts with any 3/16" or 6mm fasteners. Mounts to any flat vertical surface. Bolt centers are 1 7/8". Handle measures 2-1/2" long. A precision made 



#### LONG JUNCTION BLOCK MOUNTING BRACKET

Lightweight Steel Bracket is ideal for mounting a single #7704 Long Junction Block to any flat surface. Firmly mounting junction block stabilizes linkage for more precise operation. Cables slip through the specially cut slots for easy access. End caps pass through bracket holes and thread into center barrel. An inexpensive and clean answer to throttle line tangle. Stamped from chromoly steel and burnished for a bright finish. Measures 3 3/4" between ears.

P/N 7657.....\$8.50



#### SHORT JUNCTION BLOCK

for dual carb linkage on any Rotax engine. Three gang outlet can be used dual carbs or with three way oil injection and dual carbs. Converts a single throttle line into as many as three lines. Measures 5/8" x 3 1/2" long. Provides 2" of slide 



### **HOOKS & CARABINERS**

Plated Formed Steel Spring Loaded Hooks SS Rigid Eye Snaps

- Part #: B249S-1
- Size Eye: 5/8"
- Length Overall: 2 3/4"

Snap Opening: 3/8" ...... P/N 15-06048 ...... \$4.05



#### Formed Stainless Steel Spring Hooks

Part #	B2450-5	B2450-6	B2450-7
Size Eye	5/16"	3/8"	7/16"
Length Overall	3 1/8"	4"	4 3/4"
Snap Opening	3/8"	1/2"	5/8"
Tensile Strength lbs.	1200	1700	2125
Price	\$3.75	\$6.50	\$9.75



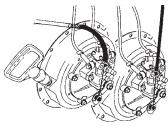
#### LONG JUNCTION BLOCK

Same as above with new long reach. Same three gang design with a full 2 3/4" slide travel. Assures full throttle opening is not limited to slide travel. Custom mounting bracket is available for mounting to any flat surface.

Measures 5/8" x 4 1/4" long. P/N 7704......\$14.85

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#### **CPS THROTTLE & OIL INJECTION CABLES**

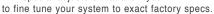


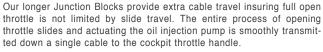
Nearly all new Rotax engines will be equipped with oil injection pumps. These pumps require a dedicated cable actuator to move the regulator arm. Our cable sets are a finished product which means you have no lengths to estimate or ends to install. Rotax 503 oil injection pumps are mounted on the recoil or mag end electric starter cover as shown

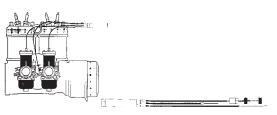
in the top illustrations. Rotax 582-618 engines have the pump located directly between both carbs as shown in the second illustration. These

finished assemblies install in minutes and offer years of trouble free service. With our large selection of configurations, most any application can be accommodated with a minimum of cabling and tangle. Cables marks must a can be ordered as a matched set or any single cable separately.

The picture at the left shows the alignment marks which must be aligned at 3000 rpm. The Oil injection cables listed here are equipped with special adjusters that allow you







#### **ROTAX 582-618 SHORT REACH** SYSTEM ENGINES W/ PLUGS UP

Short heach System - Locates Sheer Near Cylinder head	
#7705 Mag Carb Cable - 10.5" Housing	\$6.95
#7709 PTO Carb Cable - 12" Housing	\$9.95
#7761 Oil Injection Cable - 10.5" Housing	\$7.50
#7704 Long Junction Block - 4 1/4"	\$14.85
Complete System Part #7706	\$34.25



#### **ROTAX 582-618 LONG REACH** SYSTEM ENGINES W/ PLUGS UP

Long Reach System - Locates Slider Away From Engine Block	
#7721 Mag Carb Cable - 18" Housing	\$6.85
#7723 PTO Carb Cable - 22" Housing	\$7.85
#7725 Oil Injection Cable - 19" Housing	\$8.75
#7704 Long Junction Block - 4 1/4"	\$14.85

#### **ROTAX 582-618 ENGINES W/ PLUGS DOWN**

Short Reach System - Locates Slider Near Cylinder Head #7705 Mag Carb Cable - 10.5" Housing ...... \$6.95 #7709 PTO Carb Cable - 12" Housing....... \$9.95 #7712 Oil Injection Cable - 25" Housing ....... \$9.65 #7704 Long Junction Block - 4 1/4" ..... \$14.85 Complete System Part #7713 ..... \$72.75 

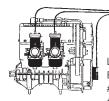
#### **ROTAX 582-618 ENGINES W/ PLUGS DOWN**

Long Reach System - Locates Slider Away From Engine Block #7721 Mag Carb Cable - 18" Housing ....... \$6.85 #7723 PTO Carb Cable - 22" Housing...... \$7.85 #7714 Oil Injection Cable - 38" Housing ...... \$11.70 Complete System Part #7715 ..... \$45.00

#### **ROTAX 503 ENGINES W/ PLUGS UP**

Long Reach System - Locates Slider Away From Engine Block

EB	I H ( N
#7738B MAG Carb Cable - 15" Housing \$8.79	
#7739 PTO Carb Cable - 18.5" Housing \$8.9	
#7741 Oil Injection Cable - 12" Housing \$15.5	
#7704 Long Junction Block \$14.8	5
Complete System Part #7742 \$78.0	
f	H-1



#### **ROTAX 503 ENGINES** WITH PLUGS UP

Long Reach System - Locates Slider Away From **Engine Block** 

#7738B MAG Carb Cable - 15" Housing \$8	3.75
#7739 PTO Carb Cable - 18.5" Housing\$	3.95
#7741 Oil Injection Cable - 12" Housing \$15	5.50
#7704 Long Junction Block\$14	1.85
Complete System Part #7742\$78	3.00



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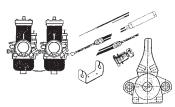
### **CHOKES - QUADRANTS - SEATS**

#### **CHOKE CABLE SYSTEMS**



Being able to apply choke from the cockpit is an important tool used to diagnose engine problems. (See Part #10 "Tuning the Bing Carburetor" located in the rear of this Catalog.) In an effort to accommodate most any application our choke kits can

extend to a full 10' and can be shortened to any length quickly and easily. Our dual direction control lever #7111 provides plenty of travel and makes for easy installation because it mounts to any flat surface and accepts a housing coming from either direction. Just trim outer housing to desired length, thread inner wire through handle, tighten locking screw and cut off excess wire. Available for single or dual Carbs to fit most any application. You can run both chokes from a single handle or activate both chokes separately for diagnostic purposes. Dual Carb systems use the standard junction block that can be mounted to any flat surface with the #7657 mounting brackets.



#### SINGLE CARB CHOKE W/ #7111 CONTROL

Order #995-665 separately for Carburetor internal parts. Ideal for single choke actuation for diagnostic purposes. Order two for dual Carb dual switch applications.

Kit includes the following:			
Model #	Description	Part Number	
7407	10' Inner wire w/#7417 swage on one end	15-05162	
7403	Cable Throttle housing	15-05164	
7413	Steel Ferrule End Cap	15-05301	
7111	Dual Direction Control	15-08194	
A2361	Wire Stop Swivel	06-01282	
7415	1/16" Stop Swage	04-00899	

#### **DUAL CARB CHOKE**

w/ Junction Block & #7111 Control

Runs both chokes from a single switch. Order #995-665 separately for Carburetor internal parts.

#7758 Kit includes the following:

7758.....10' Cable Housing w/ Switch & Slider ............P/N 15-04644...... \$58.50

Kit includes the following:			
Model #	Description	Part Number	
7407	10' Inner wire w/#7417 swage on one end	15-05162	
7403	Cable Throttle housing	15-05164	
7413	Steel Ferrule End Cap	15-05301	
7111	Dual Direction Control	15-08194	
A2361	Wire Stop Swivel	06-01282	
7415	1/16" Stop Swage	04-00899	
7704	Junction Block	15-05450	
7657	Mounting Bracket	15-05496	
8000	12" Choke Cable with swage on both ends	15-06008	
6000	8" Choke Cable with swage on both ends	15-06009	

#### HIGH BACK MOLDED PLASTIC SEAT



These CPS seats are lightweight yet incredible strong. Contoured high back design gives excellent lower back support and rear head protection. The seats are made from double-walled, impact-absorbing plastic, so they can't rust. The seat color is molded in so it will not fade, peel, or scratch off. Internal molded openings on sides, top and bottom allow access for belt and

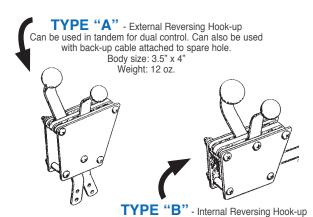
shoulder beats making for an added degree of safety. Molded flat 10" x 13" bottom has six metal treaded bosses for easy mounting to any flat surface or cross tube. Matching thick padded seat cover has reinforced openings for lap, shoulder, and crotch belts. Measures 32" High, 20" wide, 22" deep. Weight is 11 lbs. Order seat cover separately. Available in black only.

High back Molded Plastic Seat P/N 13603 \$83.75
Padded Seat Cover Only P/N 13605 \$50.50

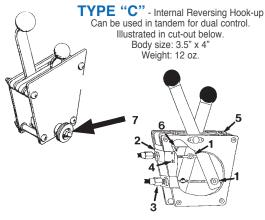
#### **CPS THROTTLE QUADRANTS**

CPS offers a wide selection of throttle and choke quadrants to give you maximum flexibility to custom design your particular system. All plates and arms are constructed of light weight 0.125" 2024T-3 aluminum. Phonemic spacers provide for smooth operation and positive friction settings. Stop screws can easily be installed as shown for positive control of both forward and back stop positions. An optional Friction Control Knob (part #8129) can also be installed for easy in flight control of handles. Also available with optional U-shaped adapters that support cable end adjusters to support our standard cable and housing. Available in single handle or two handle units. Three handle units available on special request

Contact CPS Customer Service at 1-800-247-9653.



Compact unit for restrictive placements Body size: 3.5" x 4" Weight: 10 oz.



Single Handle Type "A" Single Handle Type "B"		
Single Handle Type "C		
Two Handle Type "A	P/N 8109	\$66.80
Two Handle Type "B	P/N 8111	\$64.75
Two Handle Type "C	P/N 8113	\$78.80
Throttle Quadrant Accessories:		
(2) Adapter U-Bracket - two handle two requ	ired P/N 8119	\$14.65
(2) Adapter U-Bracket - two handle two requipments (3) Cable Adjuster bulkhead		
( )	P/N 8121	\$3.85
(3) Cable Adjuster bulkhead	P/N 8121 P/N 8123	\$3.85 \$0.08
(3) Cable Adjuster bulkhead(4) Pop-rivet (four required)	P/N 8121 P/N 8123 P/N 4707	\$3.85 \$0.08 \$0.10
(3) Cable Adjuster bulkhead(4) Pop-rivet (four required)(5) screw 6-32 x 1 (four required)	P/N 8121 P/N 8123 P/N 4707 P/N 4709	\$3.85 \$0.08 \$0.10 \$0.03
(3) Cable Adjuster bulkhead	P/N 8121 P/N 8123 P/N 4707 P/N 4709 P/N 8129	\$3.85 \$0.08 \$0.10 \$0.03 \$7.65





#### MS21919 DG & WDG CLAMPS

Loop-type cushioned aluminum alloy clamp. Cushion (non-fuel resistant) is bonded to inner surface and edges of clamp. WDG clamps are cushion wedge type. Cushion assures tight fit and eliminates vibration, thus preventing line abrasion.

Tube Dia.	Dash No.	Price Each	Dash No.	Price Each	Tube Dia.	Dash No.	Price Each	Dash No.	Price Each
1/8	DG2	\$0.53	WDG2	\$0.47	1-5/16	DG21	\$1.65	WDG21	\$1.71
3/16	DG3	\$0.41	WDG3	\$0.47	1-3/8	DG22	\$1.58	WDG22	\$1.28
1/4	DG4	\$0.25	WDG4	\$0.52	1-7/16	DG23	\$2.73	WDG23	\$1.63
5/16	DG5	\$0.26	WDG5	\$0.52	1-1/2	DG24	\$1.33	WDG24	\$1.23
3/8	DG6	\$0.26	WDG6	\$0.56	1-9/16	DG25	\$2.60	WDG25	\$2.27
7/16	DG7	\$0.52	WDG7	\$0.59	1-5/8	DG26	\$1.99	WDG26	\$1.91
1/2	DG8	\$0.30	WDG8	\$0.56	1-3/4	DG28	\$1.45	WDG28	\$1.89
9/16	DG9	\$0.59	WDG9	\$0.64	1-7/8	DG30	\$1.86		
5/8	DG10	\$0.37	WDG10	\$0.58	1-15/16	DG31	\$2.78		
11/16	DG11	\$0.75	WDG11	\$0.87	2	DG32	\$1.31		
3/4	DG12	\$0.40	WDG12	\$0.80	2-1/16	DG33	\$1.98		
13/16	DG13	\$0.76	WDG13	\$0.90	2-1/8	DG34	\$1.67		
7/8	DG14	\$0.67	WDG14	\$0.89	2-1/4	DG36	\$2.06		
15/16	DG15	\$1.03	WDG15	\$0.94	2-3/8	DG38	\$2.36		
1	DG16	\$0.54	WDG16	\$0.88	2-1/2	DG40	\$1.92		
1-1/16	DG17	\$1.15	WDG17	\$1.29	2-5/8	DG42	\$4.80		
1-1/8	DG18	\$1.12	WDG18	\$1.18	2-3/4	DG44	\$5.35		
1-3/16	DG19	\$1.59	WDG19	\$1.44	2-7/8	DG46	\$5.45		
1-1/4	DG20	\$1.29	WDG20	\$1.11	3	DG48	\$2.53		
-	-	-	-	-	3-1/8	DG50	\$4.75		

Less 15% in lots of 50. May be assorted.



#### **QS 200 HOSE CLAMPS**

Aero-Seal stainless steel clamps are for industrial & aircraft applications. This tangential worm-screw type clamp is for use on fuel, oil, air & coolant lines. The worm drive provides uniform clamping pressure without distorting hose. Attach by pushing housing snugly around the hose to desired position on the band—the threads of the worm screw will drop into slots. Tighten slotted head with screwdriver.

QS200 Dash	Dia. Range (In.)		Price QS200 Dash		Dia. F (I		Price Each
No.	Min.	Max.	Eacii	No.	Min.	Max.	Eacii
-06H	7/16	25/32	\$1.49	-44H	2-5/16	3-1/4	\$2.15
-08H	1/2	29/32	\$1.54	-48H	2-9/16	3-1/2	\$2.15
-10H	9/16	1-1/16	\$1.55	-52H	2-13/16	3-3/4	\$2.29
-12H	11/16	1-1/4	\$1.54	-56H	3-1/16	4	\$2.25
-16H	13/16	1-1/2	\$1.55	-60H	3-5/16	4-1/4	\$2.37
-20H	13/16	1-3/4	\$1.53	-64H	3-9/16	4-1/2	\$2.34
-24H	1-1/16	2	\$1.60	-72H	4-1/8	5	\$2.55
-28H	1-5/16	2-1/4	\$1.60	-80H	4-5/8	5-1/2	\$2.91
-32H	1-9/16	2-1/2	\$1.60	-88H	5-1/8	6	\$2.96
-36H	1-13/16	2-3/4	\$1.68	-96H	5-5/8	6-1/2	\$2.96
-40H	2-1/16	3	\$2.05	_	_	-	_

Less 15% in lots of 50. May be assorted.



#### **SNAPPER CLAMPS**

A quick ratchet closure provides specific take-up, eliminating excessive tightening which may mutilate the hose.

3/8" for 1/4" fuel line	P/N 05-00940	\$0.29
1", for radiator hose	P/N 05-00941	\$0.39

#### BING ALCOHOL RESISTANT FUEL LINE



This fuel line is blue in color and does not rot or deteriorate from the inside, clogging the carburetor or fuel system. It withstands 50 PSI and tensile strength is 8000 PSI. It is resistant to temperatures of -65° to 220°F without deterioration, features exceptional resistance to gasoline, oil,

oxygen, and ozone, and has high elastic memory allowing use of Delrin or nylon barbed fittings in low pressure applications without the need for external clamps.

Description	ID	OD	Part No.	Price Per Ft.
Bing Alcohol Resistant Fuel Line	1/4	3/8	05-00500	\$2.65
Bing Alcohol Resistant Fuel Line	1/8	1/4	05-00560	\$1.98

#### SUPER HEAVY PULSE LINE



Super heavy wall clear polyurethane pulse line has an extra thick 3/32" wall that will not dampen crankcase pulse even on longer runs. Clear one piece urethane con-

struction is not affected by fuel. Will not harden, crack, or become brittle with age. Can also be used as clear fuel line. Sold by the foot. Outside Diameter: 7/16". Inside Diameter: 1/4". Wall Thickness: 3/32".

P/N 15-06094.....\$4.60/ft.

#### **CLEAR BLUE FUEL LINE**



Polyether-based Polyurethane Tubing offers excellent resistance to chemicals, kinking, abrasion, hydrolysis, oxidation, and ozone exposure. Our Polyether-based Polyurethane tubing excels in maintaining exceptional flexibility, high-impact strength, and above average performance in cold temperature.

O.D.	I.D.	Description	Part Number	Price Per Ft.
1/4"	1/8"	Clear Blue Polyurethane Fuel Line	15-04632	\$0.83
5/16"	3/16"	Clear Blue Polyurethane Fuel Line	15-04874	\$0.62
3/8"	1/4"	Clear Blue Polyurethane Fuel Line	15-04818	\$0.85

#### PARKER SUPER-FLEX FL FUEL LINE HOSE



Parker's fuel line hose includes a new thermoplastic barrier that helps protect our atmosphere from harmful hydrocarbons that escape through the carcass of ordinary fuel hose. This new hose surpasses all of CARB's stringent permeation requirements and is similar to SAE30R7 specifications. The Super-Flex FL hose also features an abrasion and weather resistant cover to help protect from external application abuse. Approved for biodiesel fuels that meet ASTM D 6751 requirements per UL guidelines for Biodiesel compatibility. 4:1 Design factor

Tube: NBR with a thermoplastic barrier

Cover: Black Hypalon

Reinforcement: Braided Polyester

Temperature Range: -30°F to +257°F (-34°C to +125°C)

Part No.	ID (in.)	Reinf. Braids	OD (in.)	OD (mm)	Approx. wt. per 100 ft.	Min. Bend Rad.	Max Rec. WP	
05-03597	1/4	1	0.500	12.7	9.7	-	100	\$2.90
05-03598	3/8	1	0.625	15.9	1.30	-	100	\$4.70
05-07223	5/16	1	0.0562	14.3	11.3	-	100	\$3.50

#### MIL-DTL 6000D OIL AND COOLANT HOSE



Inside and out, aircraft hose MIL-DTL 6000D is designed to handle the effects of oil, alcohol, coolant, and water. The tube is oil resistant with a black cover reinforced with high strength mildew resistant yarns. It withstands extreme temperature conditions from -40F to +250F. Meets or exceeds U.S. military specs. Lightweight, flexible and easy-to-handle, making it the perfect hose for hard-to-get-to spots in tight engine compartments. Sold in one foot increments.

Max Length:10FT

MIL-DTL-6000C was superceded by this MIL-DTL-6000D Note: This hose is not recommended for use as fuel lines.

	Hose Dimensions		Burst	NA/A-/	Deles
Part No.	I.D. (In.)	O.D. (ln.)	Pressure (PSI)	Wt./ Ft. (Lb.)	Price Per Ft.
6000-4	1/4	5/8	1,000	.14	\$6.75
6000-5	5/16	11/16	1,000	.16	\$6.90
6000-6	3/8	3/4	1,000	.18	\$7.50
6000-8	1/2	7/8	1,000	.22	\$7.85
6000-10	5/8	1	1,000	.26	\$8.50
6000-12	3/4	1-1/8	1,000	.27	\$9.95
6000-14	7/8	1-1/4	1,000	.32	\$11.50
6000-16	1	1-3/8	1,000	.38	\$10.95

MIL-DTL 6000D HOSE AVAILABLE IN 10 FT MAXIMUM LENGTHS
MIL-H-6000 IS SUPERCEDED BY MIL-DTL-6000C
\*\*NOT RECOMMENDED FOR FUEL LINES\*\*

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## ES - GASCOLATORS - Fl

#### **CURTIS DRAIN VALVES**

Curtis Superior Valve Co., Inc. Fuel and Oil Drain Valves have been the standard in the industry for over 60 years. Curtis valves are used in OEM applications and in the military aircraft. Most valves are made of high quality brass for resistance to corrosion and rusting ,giving them long service life and extended seal life. Most Curtis Valves have a spiral to open and twist to lock for easy fuel sampling and oil draining.

#### PIPE THREAD VALVES

Model Number	Thread Size	Installed Length	Material	Part No.	Price
CCA-1250*	1/8" NPT	.790"	В	05-04045	\$14.50
CCA-1300*	1/4" NPT	.965"	В	05-04046	\$15.50
CCA-1350*	38" NPT	1.08"	В	05-04047	\$19.85
CCA-1400*	1/2" NPT	1.125"	В	05-03060	\$31.50
CCA-1550*	1/8" NPT	.790"	В	05-01869	\$14.50
CCA-1600*	1/4" NPT	.945"	В	05-01870	\$14.95
CCA-1650*	3/8" NPT	1.08"	В	05-01871	\$19.50
CCA-1700*	1/2" NPT	1.125"	В	05-01872	\$31.50
CCA-3600*	1/4" NPT	.965"	BC	05-04048	\$19.50
CCA-36150*	1/8" NPT	.790"	BC	05-03654	\$20.50
CCA-39000*	1/4" NPT	.925"	SS	05-03655	\$39.65
CCA-4800*	1/4" NPT	.945"	BC	05-04049	\$23.50
CCA-4850*	1/8" NPT	.790"	BC	05-00686	\$19.95
CCA-4900*	1/4" NPT	.945"	BC	05-11718	\$22.65
CCA-4950*	3/8" NPT	1.08"	BC	05-04050	\$23.50
CCA-7000	3/8" NPT	1.08"	AA	05-15401	\$24.65
CCA-7450*	1/8" NPT	.790"	BC	05-03652	\$16.50
CCA-36150*	1/8" NPT	.75"	BC	05-03654	\$20.50
CCB-36700*	1/8" NPT	.790"	BC	05-03659	\$14.95
CCB-36750*	1/8" NPT	.725"	SS	05-03660	\$32.70
CCA-1100	1/8" NPT	.790"	Α	05-12914	\$22.50
CCA-1500	1/8" NPT	.790"	Α	05-12915	\$21.50



05-03660





#### STRAIGHT THREAD VALVES

_						
	Price	Part No.	Material	Installed Length	Thread Size	Model Number
(B) (B)	\$24.50	05-03651	BC	.620"	7/16" 20 NF3	CCA-5800-1*1
-	\$22.50	05-03694	BC	1.205"	7/16" 20 NF3	CCA-5800-3*1
	\$26.85	05-03648	BC	.635"	9/16" 18 UNF3	CCA-4350*
-	\$29.50	05-04053	BC	1.234"	9/16" 18 NF3	CCA-31300*1
05-03651	\$38.70	05-01873	В	1.054"	5/8" 18 NF3	CCA-39550*
	\$27.55	05-04051	BC	.640"	9/16" 18 UNF	CCA-6000*
116	\$27.55	05-04055	BC	.635"	9/16" 18 UNF	CCA-36400*1
	\$90.90	05-04059	AA	0.125	3/4" 16 UNF	CCB-36350-1
-	\$22.50	05-03647	BC	.625"	7/16" 20NF3	CCA-4300*
	\$20.50	05-03657	BC	.835"	7/16" 20 NF3	CCB-4320*1
	\$24.50	05-03651	BC	.620"	7/16" 20 NF3	CCA-5800-1*1
05.00057	\$22.50	05-03694	BC	1.205"	1/8" NPT	CCA-5800-3*1
05-03657	\$26.85	05-03648	BC	.635"	9/16" 18 UNF3	CCA-4350*
	\$29.50	05-04053	BC	1.234"	9/16" 18 NF3	CCA-31300*1
	\$38.70	05-01873	В	1.054"	5/8" 18 NF3	CCA-39550*
	\$27.55	05-04051	BC	.640"	9/16" 18 UNF	CCA-6000*
	\$27.55	05-04055	BC	.635"	9/16" 18 UNF	CCA-36400*1
05-04059	\$90.90	05-04059	AA	0.125	3/4" 16 UNF	CCB-36350-11
03-04033	\$119.54	05-22224	Α	.600"	5/8" 18 NF3	CCB-32000



\*=TSO-C76, 1=Non-Locking, B= Brass, AA= Aluminum Alodine, A= Aluminum, BC= Brass/Cadmium Plated, SS= Stainless Steel

#### SAF-AIR DRAIN VALVES

SAF-AIR push type fuel drain valves are close tolerance valves of simple design. These valves provide the most trouble free operation of any other line of valves in the industry. SAF-AIR valves are manufactured with an o-ring placed on the stem to seal against a flat seat on the body. This design eliminates an area where dirt can gather, thus putting an end to the main cause of fuel drain valve drip. FAA & PMA APPROVED



CAV-110H-4 CAV-160H-4 CAV-170H-4 CAV-180H-4 **CAV-110 CAV-160** CAV-170 **CAV-180** 

Part No.	Thread	Price	Part No.	Thread	Price
CAV-110	1/8" NPT	\$15.95	CAV-170	7/16-20 NF	\$17.85
CAV-110H4	1/8" NPT	\$21.75	CAV-170H-4	7/16-20 NF	\$22.85
CAV-160	1/4" NPT	\$15.95	CAV-180	3/8-24 NF	\$17.85
CAV-160H-4	1/4" NPT	\$21.60	CAV-180H-4	3/8-24 NF	\$22.50

Replacement Seals	
MS29513-006 Tip (all models)	. \$0.37/ea.
MS29513-011 Seat (CAV-180)	. \$0.79/ea.
MS29513-012 Seat (CAV-170)	. \$0.44/ea.

#### **ACS GASCOLATOR**



All-metal gascolator with S.S. screen, 1-7/8" dia. cadmium plated steel bowl w/quick drain. Top is CNC machined from 6061-T6 aluminum. Top casting has 1/4" pipe ports for 3/8" fuel line and one 1/8" pipe port for primer fitting. Wt: 8 oz. May be used with aviation and/ 

Replacement Ga	askets - For	auto fuel	3/32" thick x	2-1/8" O.D.	10536-1
•			P/N 06-0	0441	\$5.85
Replacement Sc	reens -				
120 Microns Stair	nless Steel		P/N 1054	3-1	\$2.45
74 Microns Stainle	ess Steel		P/N 05-0	3436	\$3.85

#### ACS GASCOLATOR INSTALLATION BRACKET



Versatile bracket of .016 stainless steel accommodates gascolators with either metal or glass bowl. When mounted as illustrated, inlet and outlet connections are on sides. When bracket is inverted, one port of gascolator faces firewall for direct routing of fuel line through firewall. Fits gascolators sold after May 1, 1989. Made in the U.S.A. P/N 10371......**\$24.50** 

#### **CURTIS FUEL SAMPLER CUP**

This fuel sampler cup is designed for use with many popular fuel drain valves including the F391 drain valves used on many of today's productions aircraft. Wide bowl allows fuel sampling without fuel dripping onto the hands... P/N 05-17300 ......\$5.35



In-line, high-capacity, translucent filter with screen. Has standard 1/4" barb inlet and outlet tubes.

P/N 05-14958 ..... \$3.85



## **FUEL FILTER**

In-tank type. Brass construction with fine-mesh screen. Has standard 1/4" barb inlet and outlet tubes.

P/N 05-01031 ..... \$6.50



#### 3/8 INCH PLASTIC FILTER

Plastic in-line fuel with 3/8" inlet & outlet - metal version is 33033 with hoses and camps. Style: Fuel Filter. Height: 3.543. Outer Diameter: 1.826. Nominal Micron Rating: 30

P/N 05-04701 ..... **\$10.95** 



## SCREEN DISC FUEL FILTER

Compact 1" heavy duty disc filter uses fine mesh stainless steel screen. Excellent filtering qualities with an absolute minimum of flow restriction. Clear see-thru plastic body for easy inspection. Includes double barb ends for positive sealing to 

#### **HOMEBUILDERS SHUT-OFF VALVES**



A full-flow plug valve with solid bottom and integral mounting bracket. Brass body and plug. Floating stem with O-ring prevents leakage. Packed with synthetic grease which resists gasoline and solvents. Indicating click on 3-port and 4-port valve (CN models) tells when handle is in full open or closed position. Tested to 30 PSI. Not FAA approved.

Part No.	Model No.	Imperial Equiv.	Valve Type	Pipe Thread	Price
6749	210-CL	108HD-04	3-Port*	1/4" Female x 1/4" Female	\$29.95
05-01032	210-CN	108HD-06	3-Port*	3/8" Female x 3/8" Female	\$30.65
05-01033	200-CL	114-HD-04	4-Port**	1/4" Female x 1/4" Female	\$29.95
05-01034	200-CN	114HD-06	4-Port**	3/8" Female x 3/8" Female	\$32.75

\*For 2 tanks. Flow is from either side to branch.

\*\*For 3 tanks. Flow is from any side to bottom outlet.

Note: Order valve with 1/4" pipe threads for 3/8" dia. fuel line. Order valve with 3/8" pipe threads for 1/2" dia. fuel line. These pipe thread sizes are the ones normally associated with the indicated tube sizes.

## MINIATURE FUEL VALVES

The lightest (4 oz.) smallest (1.5" long), easiest to operate ball type (not plug) on-off fuel valve available. Light operating force makes it ideal for remote operation. Not FAA approved. Forged brass with 1/4", 3/8", or 1/2" female pipe ends. 

## TTINGS - FUNNELS - PRO



#### **HEAD FUEL** SHUT-OFF VALVE

These 3-way Weatherhead valves, with 1/4' female pipe ports feature a Delrin-spool design for smooth operation. Handle mounted on 1-1/4" long shaft. Not FAA approved. Model No. 6749 3-Port Valve - Flow is from either side to 



#### **FUEL FLOW VALVE**

Designed for tank installation. Similar to above but without built-in filter. 90° rotation for ON-OFF. Has standard 1/4" barb outlet tube. ......P/N 05-01041 ..... \$6.50



FUEL FLOW VALVE
Twin-tank fuel selector valve. 3 positions: LEFT-OFF-RIGHT. LEFT and RIGHT positions are 90° either side of OFF. Panel mount......P/N 05-01042 ......\$7.50



## **FUEL FLOW VALVE**

Panel mounted fuel on-off. ..P/N 05-01043 ..... \$9.65



#### **BANJO FITTING**

This can be rotated through 360° then tightened and safety 



#### **FUEL FLOW ELBOW**

Bushed 90° tank fitting with standard 1/4" barb outlet. Requires Rubber Bushing P/N 05-01039. P/N 05-01045 ..... \$1.75



#### **FUEL LINE**

Polyurethane tubing, translucent blue in color. 1/4" ID. A superior, premium grade of urethane, the optimum material for ultralight fuel line. (Min. order, 4 ft.)

P/N 05-01049 ......**\$1.25/ft.** 



#### **PRIMER BULB**

Install between fuel tank and engine. A few squeezes prime your engine for easy starting.

P/N 05-01037

P/N 05-01038....



#### QUICK-DISCONNECT FUEL **LINE FITTINGS**

Complete sets are furnished with both male and female units. Available in both panel mount (left) and in-line (center) styles, with or without internal automatic fuel shut-off. (1/4" tubing). The O-rings may not be compatible with some alcohol based auto fuels.



In-line with shut-off P/N 05-01035......\$15.95



In-line without shut-off P/N 05-01036...... Panel mount with shut-off \$22.75



Panel mount without shut-off



## **PRIMER KIT**

Everything you need to add a plunger-type primer system to your aircraft. The kit includes the plunger, a reducer "T" fitting, 1/8" barb "T" fitting, and 10 feet of 1/8" urethane fuel line.

P/N 05-01047 ..... \$24.25

.....\$19.00



#### **PRIMER LINE**

Polyurethane tubing, translucent pink in color. 1/8" ID. 

### **PULSE LINE**

Connects engine pulse outlet to fuel pump pulse inlet. Outside Diameter: 3/8". Inside Diameter: 1/4". Thickness of the Wall: 

## **FUEL LINE**

SPLITTERS/JOINERS

Perfect for feeding from 2 tanks, or for feeding two carburetors from 1 tank. All have standard barbed ends. Made of Delrin. "T" type, 1/8" ...... P/N 05-01053 ..... \$1.95



#### **RUBBER BUSHING**

Required for installation of Fuel Flow Elbow described above. P/N 05-01039 ......\$0.32

#### **FUEL FILTER FUNNELS**



P/N 05-00026

Mr. Funnel® Fuel Filters are simply amazing. Dirty fuel in.... pure fuel out. It's that easy. The specially designed filter removes water and dirt from gas, even 2-stroke mixtures. Ethanol attracts water more than regular gasoline. Never before has a fuel filter been more important

Dirt and water are practically unavoidable in stored fuel, causing microbial growth, corrosive acids, electrolysis and rust. These contaminants can plug filters, corrode components, decrease efficient combustion and cause engine shutdown or system failure. When fuel is poured through the Fuel Filter Funnel, water and debris will not pass through the filter's fluoropolymer-coated stainless steel filter. Only filtered fuel flows through to your engine, improving its efficiency, durability, and proper operation. The sump area collects the deflected water and debris for proper disposal. The Fuel Filter Funnel will filter gasoline, diesel, heating oil, kerosene and 2-cycle mixed gas.

	g g g						
Part No.	Height	Diameter	Flow Rate	Price			
05-00026	6.00"	3.5"	2.5 gpm	\$17.95			
05-01054	8.75"	5.5"	3.5 gpm	\$23.95			
05-01055	10.00"	8.5"	5.0 gpm	\$34.95			
05-01371	10.00"	8.5"	12-15 gpm	\$52.95			



### WHIRLWIND ROTAX 912/914 **PROPELLERS**

The WhirlWind GA propeller series are ground pitch adjustable aircraft propellers featuring advanced aerodynamic and composite design. The high gloss urethane surface shows off the quality craftsmanship and attention to detail. The blade design is optimized for maximum efficiency and minimum noise. The blade structure is manufactured from thermoset epoxy/graphite composite matrix. This advanced composite structure ensures high strength and blade accuracy in all flight environments. Only WhirlWind

propellers come standard with electroformed Nickel leading edge shields for superior fit and abrasion protection. The hub is CNC machined from aerospace aluminum and is dimensionally certified; all hubs are surface treated with shot peen for increased strength and cycle life and then Anodized for corrosion protection. Specifications: Engines: Rotax 912/914, Diameter: 2 blade - 68-70 in. 3 blade 64-70 in., Weight: 2 blade - 8 lbs.3 blade - 11 lbs., HP/RPM: 115@5800

04-70 III., Weight. 2 blade - 6 ibs.3 blade - 11 ibs., HF/hFivi. 113@3600					
Description	Part No.	Price			
Whirlwind Rotax 912/914 3bld Prop 68" LSA	05-11166	\$1,528.00			
Whirlwind Rotax 912/914 3bld Prop 70" LSA	05-06850	\$1,528.00			
Whirlwind Rotax 912/914 3bld Prop 75" STOL	05-12339	\$1,825.00			
Whirlwind Rotax 3 Blade Prop 68" STOL	05-12340	\$1,665.00			
Whirlwind Rotax 3 Blade Prop 70" STOL	05-11897	\$1,665.00			
Accessories					
9" Spinner for prop	05-06852	\$325.00			
9.75" Spinner for prop	05-06853	\$330.00			
11.3" Spinner for prop	05-06854	\$335.00			



AP

## FILTERS - VALVES - PUMPS



#### **FEED-THRU** ANTENNA INSULATOR

Feed-Thru Insulator for lead-in wire from fixed antenna. 



#### **PUSH-IN FUEL TANK VALVE**

Standard replacement valve and grommet for plastic or Quicksilver type fuel tanks. Replaces Quicksilver #30280. Right angle valve shut-off with a 1/4 turn of the handle. Requires 33/64" hole in tank. Barb end accepts any 1/4" i.d. fuel line. Supplied with #7030 Grommet. 



#### **PUSH-IN FUEL TANK VALVE**

Same as #7027 valve above in a straight through 



#### **TANK VALVE THREADED** 1/8 MPT 90 ELBOW

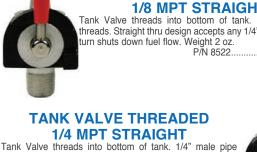
Tank Valve threads into bottom of tank. 1/8" male pipe threads. 90 degree elbow design accepts any 1/4" id fuel line. 1/4 turn shuts down fuel flow. Weight 2 oz.





## **TANK VALVE THREADED** 1/8 MPT STRAIGHT

Tank Valve threads into bottom of tank. 1/8" male pipe threads. Straight thru design accepts any 1/4" id fuel line. 1/4 turn shuts down fuel flow. Weight 2 oz.



threads. Straight through design accepts any 1/4" fuel line. 1/4 turn shuts down fuel flow. Weight 2 oz.

P/N 8523.....



#### **COMPACT IN-LINE** SHUT OFF VALVE

Ideal for in-line fuel shut off. Handle indicates valve position. Hose barbs accept any 1/4" id fuel line. Must be used with clamps. Brass Construction. Weight 2 oz.

P/N 7215......**\$7.50** 



#### **FUEL SHUT OFF VALVE**

In Line Fuel Valve for fuel shut off. Ideal for use on panel to cut off fuel flow in a single line. All barbs accept any 1/4" i.d. fuel line. Requires only 1/4 turn to off. Installs in panel thru 1/2" hole.

P/N 7031......**\$11.65** 



Lightweight polymer treated paper filter element the filters out the smallest particles. Clear see-thru plastic body for easy inspection. Includes double barb ends for positive sealing to an 1/4" ID fuel line. Measures only 2" long x 1 1/2" diameter. Weight: 1 



## COMPACT HI-FLOW FUEL FILTER

High flow heavy duty nylon fuel filter with fine mesh screen. Hose barb fits 1/4" ID fuel line. See thru design allows for easy inspection of non-replaceable filter element.. P/N 7125......\$9.95



## UNIVERSAL IN-LINE FUEL FILTER

In-line style universal fuel filter replaces any 1/4", 5/16" or 3/8" filter. Protects all carbureted engines. Clear body permits visual inspection. NOTE: For use in carbureted gasoline engines only. DO NOT use in fuel injected engines.

P/N 15-05826 ..... \$17.50



#### **IN-TANK FUEL FILTER**

Fine mesh metal screen fuel pick up. Will not seal on side of tank. Fits any 1/4" ID fuel line. Ideal for main or reserve fuel line pick up.

P/N 7129......**\$5.65** 



#### **FUEL-CHECK TESTER**

Check for the alcohol in fuel in seconds with this handy fuel tester. Alcohol hardens and cracks seals, o rings, and other fuel system parts as well as readily attracts water into

the fuel. Fuel-Check detects the presence of alcohol and the percentage in fuel. P/N 8815......**\$5.95** 

Notice: All filters must be inspected on a regular basis as part of a preventative maintenance plan. Gasoline additives and contaminants may cause corrosion or blockage. Inspect all filters and fuel pick ups on a regular basis.



#### THE ORIGINAL FUEL STOP

The Fuel Stop is a simple tool that snaps onto a standard straw fuel gauge and prevents the gauge from ever slipping into the tank. Works with FuelHawk, or any other 1/2" diameter fuel gauge tube.

It also becomes extremely handy when it's necessary to set the gauge on the wing, as it will stay put and not roll off to disappear into the grass or onto the pavement. The Fuel Stop can be kept separately in your pilot bag to quickly snap onto a gauge that comes with a rental aircraft, or kept permanently installed in your own aircraft for regular use. The Fuel Stop is also shaped like a set of red pilot wings which makes finding the gauge in your pilot bag or aircraft seat pocket a snap.

Have you ever lost a plastic fuel gauge when checking the available fuel in your aircraft? Has it slipped into the tank? Rolled off the wing and then disappeared onto the ground? These are very common occurrences that most pilots don't brag about, but it happens all the time. The Fuel Stop has talked to mechanics that routinely pull them out of aircraft gas tanks. So why take a chance? The Fuel Stop is the cheapest insurance you will ever buy.

Just snap it on and relax. The Fuel Stop also acts as a grip to make handling and checking fuel easier. It's also shaped like a set of pilot's wings that, when installed, makes finding the gauge in the aircraft seat back pocket or your flight bag easy. Add one to your pilot bag of tricks today!

P/N 13-17631 ..... \$7.95

## SPARK PLUGS - VOLTAGE REGULATORS





#### SPARK PLUG CADDY

Handy case holds (2) 14mm spark plugs. Small enough to fit into your pocket ...... P/N 13-03869 ..... \$3.95



#### SPARK PLUG WRENCH

Loosen or tighten your spark plugs with this handy 



#### PLASTIC STARTER HANDLE

Black flexible plastic heavy duty handle. Tested to -40°F P/N 13-03865 ......**\$6.50** 



#### **SPARK PLUG JACK**

Rivets or screws to any flat surface and holds two spare 14mm plugs. Tough polycarbonate plastic with spring-loaded plug 



#### **NYLON STARTER ROPE**

The perfect replacement rope for worn-out manual starters... P/N 13-03922 ..... \$0.45 per ft.



#### **SPARK PLUG CAPS**

Original NGK. Black. 5000 ohm resistance. P/N 08-00737 is used on threaded type plugs. P/N 08-04960 is used on solid top plugs.

P/N 08-00737 ..... \$2.75 P/N 08-04960 ..... \$2.60



#### SPARK PLUG WIRE

High-quality multi-strand copper core unshielded wire. 7mm diameter. For all Rotax® and most other engines. Replaces Rotax® Part No. 965-158.

P/N 11-04105 ......\$1.10 per ft.



#### **FLEXDRIVE**

PosiFlex coupler for Quicksilver® For 377/477 w/o high-thrust mod .......P/N 05-01985 ......\$269.95 



#### **RATIO-RITE CUP**

Getting the right oil-to-gas ratio is no problem with this tough polypropylene cup. Just fill the cup with oil to the ratio level desired, and mix with gasoline. Ratios from 16:1 to 50:1. Graduated in ounces and CCs for filling chain cases, etc. 18 oz. capacity.

......P/N 08-01091 ...... \$4.35 Cun P/N 08-03677 ..... \$1.80



## **SAFE-T SYPHON**

The Safe-T Syphon works with a 1/2 inch hose and the "pump" is made from copper tubing with a glass marble. This makes it ideal for high capacity siphoning of almost any liquid, including fresh and salt water, gasoline, diesel fuel, oil, etc.

P/N 05-22001 ..... **\$8.50** 



#### AIR-TECH ROTAX

#### **GEAR BOX CLUTCH RK400**

The primary purpose of the clutch is to disengage the prop from the engine allowing it to start and operate at idle without vibration. When the engine is idling (below 2350 RPM) the prop is not turning. Installation of the clutch replaces the gear box flywheel and the hardy disk. Added weight is approx. 3 Lbs.



P/N 10-04811 ..

**CLUTCH DRUM RK33 FOR GEAR BOX CLUTCH** 





#### **KEY WEST REGULATOR**

Advanced regulator/rectifier circuit provides steady 13.8 volt output regardless of load. Maximum output 220 watts, 16 amps. Accepts AC input from 15 to 100 volts. Can be used with AC strobe.

Features: • Extremely clean filtered DC output

• Electronics designed to deliv-er 16 amps producing 220 watts • Efficiency: No "consumer" or "dummy" load required for proper operation • A beautiful and rugged lightweight package weighs just 16 ounces and is 3.5 x 2.5 x 1 inch • Protection from the environment: complete epoxy encapsulation to insure all-season operation · Ease of installation: crimp type ring terminals and wiring schematics provided with 



#### **COOLANOL - READY TO USE COOLANT**

Mineral deposits from regular tap water can collect on the Rotary Valve Shaft causing the seals to leak. Avoid this costly repair with this ready to use coolant specially designed to meet factory specifications for Rotax liquid cooled engines. "Coolanol" is a preblended formulation of 50% premium antifreeze and 50% demineralized water. No need for mixing or diluting. Designed for use with aluminum block engines, Coolanol has a freezing point of -34F to a boiling point of +265F when used with a 15 psi radiator cap. Coolanol contains proven anti-foaming agents and anti-corrosion additives. Coolanol meets the tough

new ASTM D-4340 aluminum engine hot surface test specifications which means reduced possibilities for water pump cavitation and overheating.



#### **CRAZEDPILOT ROTAX 582 GEARBOX BADGE PLATE**

Fits E-Drive aka E-Box gearbox AND the C-Box gearbox. Package comes complete with 2 plates, and includes properly threaded bolts with aluminum standoffs to provide original air ventilation from gearbox. Powder coated for maximum lifespan.

P/N 11-13317 ..... \$38.99



#### **CRAZEDPILOT ROTAX 503 BADGE PLATE**

These Rotax 503 Badge Plates covers that ugly hole in the side of your Rotax gearbox on the side of your Rotax 503 engine. Comes complete with 2 plates, and includes properly threaded bolts with aluminum standoffs to provide original air ventilation. Powder coated for maximum lifespan. ..... P/N 11-14864 ..... \$33.50



A common complaint about the Rotax 912/914 engines is that the throttle return springs are too strong. McFarlane stocks a variety of springs so you can choose the one that best fits your application. All McFarlane throttle controls for Rotax

engines include P/N 6822 spring. Less than half the strength of the original stock Rotax springs. Prevents throttle "creep" due to excessive return spring force. Requires 1 per carburetor (2 per engine) Note: Installer is responsible for determining whether this spring is an appropriate substitution for their application. For use on non-certified aircraft. Comes in a pack of two.

P/N 05-12477 ..... \$16.99



EXPERTS IN LIGHTSPORT AVIATION

SAME DAY SHIPMENT! **GUARANTEED LOWEST PRICES!** YOUR SOURCE FOR LSA SUPPLIES! AP

## PROPELLERS - SPINNERS

#### **BUZZ MASTER PROP BALANCER**



This extremely simple and sensitive tool uses the plum-bob and bevel principle to balance props both vertically and horizontally. It can be carried in a small tool box for easy use in the field and balances props accurately for smooth operation. The precision machined hub works with any prop designed with standard 1" center 

#### WARP DRIVE ADVANCED **COMPOSITE PROPELLERS**



Warp Drive's Advanced Composite Carbon Fiber propeller has a structural strength near that of metal propellers. Because of the stiffness achieved by using carbon fibers, the prop will do very little coning (bending forward) under power. Proper fiber placement allows the prop to flex torsionally for maximum cruise efficiency. The strongly fixed position of the blades along with optimum torsional performance translates into more thrust than conventional propellers.

The interior structure of this new propeller is all carbon fiber - no fiberglass, no foam, no filler - an all carbon fiber matrix combined with top quality hybrid epoxies. Carbon fiber is one of the strongest building materials available. When properly engineered, carbon fiber can achieve the strength and stiffness of a metal part, as demonstrated by its wide range of industrial and aerospace uses.

#### WARP DRIVE PROPELLER BLADE TYPES

All propellers and blade types are available with Stainless Steel Leading Edge protection as an option at additional cost.

- 1. STANDARD ADVANCED COMPOSITE CARBON FIBER BLADES The Standard Carbon Fiber Blades can be used on Rotax, Arrow, VW and similar engines
- HIGH HORSE POWER ADVANCED COMPOSITE CARBON FIBER BLADES

The Carbon Fiber HP Blades will be required for use on Lycoming, Continental and some auto conversion engines.

WARP DRIVE HUBS
Warp Drive offers two types of hubs of our propellers. First is our Standard
Hub. This is an assembly of anodized aluminum plates and composite clamping blocks. It accommodates standard and custom hub bolt patterns of up to 3 1/8" The second type of hub is the HP Hub. This hub consists of two halves machined from solid aluminum. It is the same weight as the standard hub assembly and can accommodate Rotax, Arrow, VW, SAE I Continental, SAE II Lycoming and custom bolt patterns.

#### STANDARD CARBON FIBER PROPELLER

2-Blade Std Carbon Fiber Propeller	P/N 05-31920 <b>\$509.00</b>
3-Blade Std Carbon Fiber Propeller	P/N 05-31925 <b>\$760.00</b>
4-Blade Std Carbon Fiber Propeller	P/N 05-31930 <b>\$1,062.00</b>
Replacement Std Carbon Fiber Blade	P/N 05-31935 \$ <b>228.95</b>
WITH	HP HUB
P/N 05-31940 <b>\$795.00</b>	<b>P/N</b> 05-31945 <b>\$924.00</b>

### HIGH HORSE POWER CARBON FIBER PROP WITH HP HUB

2-Blade Carbon Fiber H/P w/HP Hub	
3-Blade Carbon Fiber HP w/HP Hub .	
Replacement Carbon Fiber HP	
Mounting Hardware (Rotax)	
	P/N 05-31970 <b>\$45.50</b>
Non-Standard Hub Pattern	P/N 05-31975 <b>\$47.50</b>
"HP" Hub (purchased separately)	

#### **ORDERING A PROPELLER**

We request all applicable information below when you are ordering:

- 1. Name, Address, Phone Number(s)
- 2. Vehicle type, make, model, cruise speed, tractor/pusher,
- 3. Engine make, horse power,
- Reduction Drive type, ratio. If there is no reduction drive, (State Prop RPM)
   Hub Requirements A) Bolt circle dia, B) Number of bolts, C) Bolt dims, D)
  Center hole dims, E) Drive lug dimensions (if applicable),
- Propeller Description-rotation, diameter, structural limitation of diameter manufacturer's suggested prop description, no. of blades, tractor or pusher.

#### QUICK ADJUST SYSTEM IVOPROPS



The Quick Adjust System Ivoprops allow you to adjust the pitch on the ground in a matter of seconds by turning the screw adjustor in the center of the prop. The supercams are welded on the end of the torsional rods. Each supercam fits into the groove in the screw adjustor. Turning the screw adjustor causes each cam to rotate and turn the torsional rod and thereby twist the blade therefore changing the pitch. Specify aircraft and

engine make and model, and propeller diameter.

- Ultralight Ivoprop (3.5" cord, 48" to 72" diameter) is for engines up to 100 hp.
- Medium Ivoprop (4.5" cord, 52" to 74" diameter) is for engines around 100HP.
- Magnum Ivoprop (5.5" cord, 58" to 76" diameter) is a high-horsepower version for engines up to 700 HP.
- Magnum Paddle Ivoprop (5.5" constant cord, 58" to 84" diameter" is for highhorsepower air boats and bush planes.

Magnum 2-Blade Ivoprop	P/N	05-33240	\$2,588.00
Magnum 3-Blade Ivoprop	P/N	05-33250	\$1,450.00
Magnum 6-Blade Ivoprop	P/N	05-33260	\$2.545.00

#### IN-FLIGHT ADJUSTABLE PITCH IVOPROPS



The In-Flight Adjustable Pitch Ivoprop allows the pilot to change the propeller pitch in flight through a toggle switch mounted in the cockpit. Pressing the toggle switch one way sends an electric current through the graphite brushes to the slip rings and finally to an electric motor. Torque from the electric motor is channeled to a planetary gear drive which turns the lead screw. Torsional rods transmit movement from the center of the prop to the

outside section of the blades, causing the blade to twist therefore changing pitch. Total time for the full range of adjustment is about 5 seconds. Mounts directly to any Rotax gear box (B or C0 and can be adapted to VW, Subaru, Hirth, Arrow and smaller Lycoming and Continental engines. Older model lyoprop ground adjustable props can be converted to the In Flight System with the Retrofit Kit. In Flight adjustable hub comes assembled with complete instructions. Weight of 3 blade 72" In Flight Adjustable Prop including all required parts (furnished) is 9 lbs. Specify aircraft and engine make and model, and propeller diameter (48" to 76"). Standard Ivoprop is for engines up to 100 hp. Medium Ivoprop is for engines around 100HP (52"-74" prop dia.). Magnum Ivoprops are a high-horsepower version with wider blades and a bigger hub for engines up to 700 HP (56"-76" prop. dia. ).

Magnum 2-Blade Ivoprop Kit		P/N	05-	33270	 \$2,590.00
Magnum 3-Blade Ivoprop Kit		P/N	05-	33280	 \$2,927.00
Magnum 6-Blade Ivoprop Kit		P/N	05-	33290	 \$4,088.00
Magnum Retrofit Kit for Ground	Adjustable Ivoprops	P/N	05-	33295	 \$1,688.00



#### **ROTAX PROPELLER SPINNERS**

For all props with standard Rotax® 75mm bolt pattern. Spinner bulk head is predrilled and installs between prop and gearbox flange. Spinner installs with sinale bolt.

4" Diameter ...... P/N 05-01129.. \$129.90 6-3/4" Diameter.. P/N 05-01132.. \$228.95 7" Diameter ...... P/N 05-04447.. **\$171.75** 



#### **UHS FIBERGLASS SPINNERS**

UHS spinners are practical, attractive, and flight proven having enhanced the appearance of many different aircraft. The spinners are available in various diameters for different engine and propeller combinations. For GSC, Ivoprop, Warp Drive, and Power Fin propellers using Rotax, Lycoming, Cont. & Mosler engines, spinners are sent cut out and assembled.

\*\*Note: kits include hardware and bulkhead.\*\* For pre-drilled cut-outs we require the following information:

1. Make and size of engine, 2. Make of Propeller, 3. Number of Blades.

4. Size required.

Given adequate information, we can also fabricate spinners for many other propeller-engine combinations. Call with your requirements and we will assess your particular application.

Size	Description	Part No.	Price	Size	Description	Part No.	Price
8"	UHS Spinner	05-09000	\$175.00	11.5"	Spinner Kit	05-09700	\$239.00
9"	UHS Spinner	05-09100	\$195.00	12"	UHS Spinner	05-09400	\$235.00
9"	9P Elongated Spinner	05-08377	\$195.00	13"	Spinner Kit	05-09800	\$255.00
10"	UHS Spinner	05-09200	\$206.00	13.5"	UHS Spinner	05-11995	\$255.00
11"	UHS Spinner	05-09300	\$235.00	14"	<b>UHS Spinner</b>	05-09500	\$280.00

## PROPELLERS - SPINNERS - HARNESSES

# CALIFORNIA POWER SYSTEMS EXPERTS IN LIGHTSPORT AVIATION

#### **ULTRA-PROP**



Select 2, 3, or 4 blade props. Each blade is moulded from a high strength glass-reinforced composite. High efficiency airfoil design means high thrust from a 59" diameter prop. One set of pitch blocks included, additional blocks available in 1° increments. Universal hubs made from high strength composite. Accommodates most popular bolt-mounting patterns. Each prop comes complete with all assembly and mounting hardware, and complete instructions. Black blades and hub are beautifully complemented by high impact polyester spinner. Blades can be trimmed to length, allowing custom prop diameters as small as 48".

Description	Part No.	Price	Description	Part No.	Price
Kit 2 Blade LH	UP102L	\$293.95	Kit 2 Blade RH	UP102R	\$293.95
Kit 3 Blade LH	UP103L	\$293.95	Kit 3 Blade RH	UP103R	\$337.00
Kit 4 Blade LH	UP104L	\$293.95	Kit 4 Blade RH	UP104R	\$340.00
Kit 5 Blade LH	05-06455	\$293.95	Kit 5 Blade RH	05-06456	\$567.00
Kit 6 Blade LH	05-06457	\$293.95	Kit 6 Blade RH	05-06458	\$619.00

#### **ACCESSORIES**

Description	Part No.	Price
Pitch Block Set 9 DG	UP9	\$11.95
Pitch Block Set 10 DG	UP10	\$11.95
Pitch Block Set 11 DG	UP11	\$11.95
Pitch Block Set 12 DG	UP12	\$8.50
Pitch Block Set 13 DG	UP13	\$9.50
Pitch Block Set 14 DG	UP14	\$11.95
Pitch Block Set 15 DG	UP15	\$11.95
Pitch Block Set 16 DG	UP16	\$11.95
Pitch Block Set 17 DG	UP17	\$11.95
Pitch Block Set18 DG	UP18	\$8.50
Bolt Sleeve Set	UPSLEEVE	\$3.85
Hardware Pack	UPHDW	\$7.50
Replace LH Blade	UP105P	\$86.90
Replace Blade RH	UP105T	\$86.75
Hub half 2 Blade	UP1072	\$42.50
Hub Half 3 Blade	UP1073	\$42.50
Hub Half 4 Blade	UP1074	\$42.50

#### **ULTRA-PROP SPINNER**



Kit includes white polyester spinner, mounting bracket, and all extra hardware for installation. Specify Quicksilver MX belt drive type with 1/4 inch mounting hardware or Rotax gear drive with 5/16 or 8 mm mounting hardware.

#### SIMPSON AVIATION RESTRAINTS



Complete harness systems from Simpson Performance features 5-point aviation harnesses for a wide variety of experimental aircraft, aerobatic planes and historical/military restoration planes. Simpson aviation harnesses are a premier line made in the USA and backed by Simpson's 60 years of experience and research in motorsports safety.

#### SIMPSON CAMLOCK HARNESS SYSTEM

Description	Part No.	Price
5-Point - Individual Shoulder Pull Down	13-21670	\$320.00
5-Point - Individual Shoulder Pull Up	13-21671	\$320.00
5-Point - Y Shoulder Pull Down	13-21672	\$320.00
5-Point - Y Shoulder Pull Up	13-21673	\$320.00
6-Point - Individual Shoulder Pull Down	13-21674	\$337.00
6-Point - Individual Shoulder Pull Up	13-21675	\$337.00
6-Point - Y Shoulder Pull Down	13-21676	\$337.00
6-Point - Y Shoulder Pull Up	13-21677	\$337.00
7-Point - Individual Shoulder Pull Down	13-21678	\$354.00
7-Point - Individual Shoulder Pull Up	13-21679	\$354.00
7-Point - Y Shoulder Pull Down	13-21680	\$354.00
7-Point - Y Shoulder Pull Up	13-21681	\$354.00

#### SIMPSON LATCH AND LINK SYSTEM

Description	Part No.	Price
5-Point - Individual Shoulder Pull Down	13-21658	\$235.95
5-Point - Individual Shoulder Pull Up	13-21659	\$235.95
5-Point - Y Shoulder Pull Down	13-21660	\$235.95
5-Point - Y Shoulder Pull Up	13-21661	\$235.95
6-Point - Individual Shoulder Pull Down	13-21662	\$269.95
6-Point - Individual Shoulder Pull Up	13-21663	\$252.95
6-Point - Y Shoulder Pull Down	13-21664	\$252.95
6-Point - Y Shoulder Pull Up	13-21665	\$252.95
7-Point - Individual Shoulder Pull Down	13-21666	\$269.95
7-Point - Individual Shoulder Pull Up	13-21667	\$269.95
7-Point - Y Shoulder Pull Down	13-21668	\$269.95
7-Point - Y Shoulder Pull Up	13-21669	\$269.95

VISIT US AT WWW.CPS-PARTS.COM FOR ADDITIONAL COLORS AND YOUR AIRCRAFT APPLICATION.



#### SEAT BELT/HARNESS SET FOR HOMEBUILTS



# ENGINE OR PROPELLER BALANCE MASTER

Balance Masters® are Patented, Designed, Manufactured and Distributed in the U.S.A. and are easy-to-install devices for propellers and Rotax engines. These devices cut the vibration factor on ultralight aircrafts by as much as 50 percent when both balancers are installed.

Balance Masters® are weighted with a high density liquid mass (Quick Silver). The physical principles of centrifugal and gyroscopic forces explain the action of the Balance Masters®. With the Balance Masters installed, the weighted liquid mass (Quick Silver) in the apparatus shifts during spinning, and adjusts to compensate for imbalances due to such factors as changes in flying conditions or warpage in the propeller, from nicks and rocks during takeoffs and landings. The Propeller Balance Masters® mounts on the propeller shaft or gear box in conjunction with the propeller. It is less than 7 inches in diameter.

Off-Set Prop Balancer	P/N	15-05828	\$138.50
Balancer for engine Rotax 912, 914	P/N	15-09450	\$168.00
Balancer for engine Rotax 377, 447, 503			
Balancer for engine Rotax 582, 618			

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## **RAKES - TIRES - MASTER CY**



# AZUSA BRAKES FOR AZUSA 5" & 6" WHEELS

These 4.5" brakes have a long actuating arm, 5/8" mounting hole, and bonded lining. Available in anchor style w/ built-in anchor & 2 cable mounting ears, or round style which features a round aluminum backing plate. Platform required w/ 5" Azusalite.

Part No.	Description	Price
06-03415	Anchor Style Brake #2208	\$39.90
06-03420	Round Style Brake #2270A	\$41.95
01-00169	Brake Assy. 2272A (Right)	\$38.75
01-00306	Brake Assy. 2272A (Left)	\$40.50
06-03425	Brake Arm #2263	\$1.54
06-03430	Spring #2264	\$0.74
06-03435	Cam #8235	\$4.65
06-03440	Platform #2259A	\$8.50
06-03445	Lined Shoes (1/side) #2260	\$19.50

### AZUSA BRAKES FOR AZUSA 8" WHEELS

These 5" brakes are used on Azusa #1175 wheels only. Features a round aluminum backing plate and actuating arm which allows for 8 positions.

Part No.	Description	Price
06-03450	Round Style Brake #2530	\$37.80
06-03455	Brake Arm #2537	\$4.75
06-03460	Spring #2539	\$0.75
06-03465	Cam #2533	\$7.95
06-03470	Lined Shoes (1/side) #2538	\$18.65



#### **HOMEBUILT TIRES & TUBES**

These industrial tires & tube assemblies from Goodyear are used on a unique variety of homebuilt & ultralight aircraft airplanes. Sold as set of tire & tube only.

Dimensions	Ply	Part No.	Price
4.10 x 3.50 x 4	4 PLY	06-10830	\$35.50
3.40 x 3.00 x 5	4 PLY	06-10840	\$21.90
11 x 4.00 x 5	2 PLY	06-10860	\$38.25
13.5 x 6.00 x 6	2 PLY	06-10870	\$35.50
4.80 x 4.00 x 8	4 PLY	06-10880	\$28.00
4.10 x 3.50 x 5		06-00714	\$12.50
11 x 4.50 x 6		06-00716	\$15.85
4.80 x 4.00 x 8		06-00720	\$12.90
20 x 7.00 x 8	2 PLY	06-01596	\$146.75

\*2008 tire superceded by Carlisle.

#### **TIRES & TUBES FOR ULTRALIGHTS**



#### **TIRES**

Part No.	Nom. Size	W	Dia.	Price
06-00361	300 x 4	3.2"	10.0"	\$39.80
06-00362	400 x 5	3.9"	10.5"	\$21.60
06-00366	800 x 6	6.0"	16.3	\$98.75

#### **TUBES**

Part No.	Size	Price	Part No.	Size	Price
06-00761	300x4	\$21.85	06-00356	600x6	\$27.95
06-00355	3.50x5	\$13.90	06-00358	800x6	\$38.75



## AZUSA RIBBED / FLAT PROFILE TIRES

Azusa Ribbed/Flat Profile Tires. Price per tire. Note: These are not automotive tires, extra inflation precautions are required.

Size / Tire	Ply / Width	OD* / Innertube	Part No.	Price
11-400 X 5 / 7164	2 / 3.2"	10.5" / 7131	06-01571	\$22.85
11-400 X 5 / 7046	4 / 3.9"	10.5" / 7131	06-00362	\$21.60
11-400 X 5 / 7046-8	8 / 4"	10.8" / 7131	06-01573	\$31.50
13-500 X 6 / 7168	2 / 4.8"	12.6" / 7133	06-01568	\$27.85
410/350 x 6	4 / 4.0"	12.5 / 7039	06-00074	\$18.50
13-500 X 6 / 7018	4 / 4.8"	12.6" / 7133	06-01572	\$24.95
13-650 X 6 / 7031	4 / 6.0"	12.5" / 7141	06-01575	\$38.80
15-600 X 6 / 7169	2 / 5.9"	14.8" / 7125	06-01576	\$35.85
16-650 x 8 /7024-2	2 / 6.4"	16.4" / 7118	06-01609	\$43.75
16-650 X 8 / 7024-2	2 / 6.4"	16.4" / 7118	06-01579	\$43.75
18-850 X 8 / 7002	4 / 8.0"	16.5" / 7120	06-01580	\$58.50
18-950 X 8 / 7027	4 / 8.0"	17.4" / 7120	06-01581	\$65.50

Tubes	Part No.	Price
Azusa Tube #7133 410/350X6	06-00075	\$7.95
Azusa Tube #7131 340/300 X 5	06-00822	\$7.95
Azusa Tube #7120 18-950 X 8	15-04731	\$24.50
Azusa Tube #7116 11-600 X 5	15-06300	\$12.90
Azusa Tube #7141 410/350X6	06-01590	\$11.50
Azusa Tube #7125 15-600 X 6	15-04869	\$11.55
Azusa Tube #7138 800 X 6	06-01592	\$21.65
Azusa Tube #7118 16-650/750 X8	06-01593	\$15.90

#### **HEGAR NOSE WHEELS**



**6" SPUN ALUMINUM NOSE WHEEL -** The 6" Spun Aluminum nose wheel with 5/8 bearings. Comes centered when using the MX o-ring standard wheel hub but can also

be purchased with the MX offset hub (no o-ring with offset hub. Requires the use of a tube. Comes complete with nuts, bolts, washers, valve stem, o-rings if required and the MX hub. May also be used as main wheels.

P/N 06-01274.....\$89.80



#### **HEGAR MASTER CYLINDERS**

5" DUAL LEVER MASTER CYLINDER - 5" dual lever, foot operated. Designed for differential braking. Comes in your choice of 1/2",

 5/8" and 3/4" bore sizes.

 1/2"
 P/N 06-01278
 \$177.75

 5/8"
 P/N 06-01611
 \$176.75

7" SINGLE LEVER MASTER CYLINDER - 7" single lever, hand operated. Designed for single braking. Comes in your choice of 1/2", and 5/8" bore sizes. P/N 06-01279....... \$89.75

**7" DUAL LEVER MASTER CYLINDER -** 7" dual lever, hand operated. Designed for differential braking. Comes in your choice of 1/2", 5/8" and 3/4" bore sizes. P/N 06-01280. \$177.75

LG

## OLY-FIBER AIRCRAFT COAT



#### AIRCRAFT SPRUCE - WORLD'S LARGEST DISTRIBUTOR OF POLY-FIBER PRODUCTS



This FAA approved process utilizing Poly-Fiber Dacron polyester and the unique "Poly" line of finishes assures a beautiful, durable, weatherresistant cover job every time. Documented time tested results by the professionals. The Poly-Fiber Covering Process was issued Supplemental Type Certificate No. SA-1008-WE in 1965 and this number will apply to all aircraft.

Note: Formerly known as Stits covering process. Only Poly-Fiber materials may be used through the topcoat paint to comply with STC requirements. Poly-Fiber finishes are required for approval. Poly-Fiber is approved for use on most certified aircraft. To be sure, check the Master Eligibility List in the latest revision of Poly-Fiber Procedure Manual No. 1.

#### **POLY-FIBER FABRIC UNCERTIFIED LIGHT**



1.87 oz/sq. yard. Lightweight fabric recommended for covering ultralight aircraft. This fabric will be unstamped. It is not approved for certified aircraft except on plywood surface. 72" Width ...... P/N 09-02001..... .\$9.65 /Lineal Yd.

## **MEDIUM WEIGHT**



2.79 oz/sq. yard. Standard fabric recommended for normal service on all types of aircraft regardless of speed, wing loading or horsepower.

P/N 09-01600.. .....\$13.50 /Lineal Yd.

#### **HEAVY DUTY**



3.40 oz/sq. yard. Recommended for severe operating conditions and very high wing loading aircraft where a very tough, durable, low elongation, high tension fabric is required and weight is not critical. Great for agricultural, aerobatic and bush planes. 72" .....P/N 09-01700......\$14.70 /Lineal Yd.

#### **POLYESTER PADDING**

Non -woven, 45" wide, 3 oz. per yard. Used under fabric on wing leading edge and turtle deck to smooth rough surfaces....... P/N 09-01750 ........... \$11.60

#### **POLY-FIBER POLYESTER** PINKED EDGE TAPES

Part No.	Style #	Roll Width	Roll Length	Price.
09-02200	Med.	1"	25 yds.	\$18.50
09-02400	Med.	1-1/2"	25 yds.	\$20.50
09-02450	Med.	2"	25 yds.	\$25.50
09-02500	Med.	2"	50 yds.	\$33.20
09-02900	Med.	3"	25 yds.	\$32.00
09-03300	Med.	4"	25 yds.	\$37.50
09-03350	Med.	6"	25 yds.	\$49.50
09-02300	Light	1"	25 yds.	\$18.55
09-02350	Light	1-1/2"	25 yds.	\$20.50
09-02705	Light	2"	25 yds.	\$25.50
09-02700	Light	2"	50 yds.	\$33.20
09-03100	Light	3"	25 yds.	\$32.00
09-03400	Light	4"	25 yds.	\$37.50
09-03545	Light	6"	25 yds.	\$49.50
09-03565	Bias	2"	25 yds.	\$35.80
09-03570	Bias	3"	25 yds.	\$50.90
09-03580	Bias	4"	25 yds.	\$63.75

#### **POLY-FIBER TAPES, CORD & THREAD**

		Item	P/N	Yds. Spool	Price
		1/4" Wide	09-03500	60	\$67.10
OS,	Reinforcing Tape	3/8" Wide	09-03600	60	\$69.75
_mml.		1/2" Wide	09-03700	60	\$74.75
	Dib Looing Cord	(Std. Round)	09-03800	296	\$49.85
	Rib Lacing Cord	Rib Cord, Flat	09-03810	500	\$49.80
	Sewing Thread	Machine	09-03900	500	\$17.50
	Sewing Thread	Hand	09-04000	250	\$15.50
	Anti-Chafe	1" Wide	09-02110	30	\$20.50

#### **HEAVY INTER-RIB BRACING TAPE**

Non-adhesive polyester twill tape for inter-rib bracing. Twice as strong as cot-



AIRCRAFT FABRIC COVERING

Aircraft Fabric Covering is a must for anyone who wants to cover their own airplane. This 2-hour comprehensive DVD presents every aspect of the Poly-Fiber™ fabric covering process in detail, and in easy-to-understand language. From preparing

the airplane for covering to spraying on the colors, you are guided step by step through the entire process by a professional EAA SportAir fabric instructor. When used in conjunction with the Poly-Fiber manual, Aircraft Fabric Covering removes the mystery surrounding this important process in the construction or restoration of your airplane.

Information covered includes: • Preparing surfaces • Attaching the fabric •Tightening the fabric • Applying the first coat of Poly-Brush •Tying rib-lacing knots • Applying finishing tapes • Spraying UV-blocking chemical • Poly-Spray •Applying the color coats. DVD...... .....P/N 13-40428 .....

#### THE POLY-FIBER PRACTICE KIT

If you're thinking of building a fabriccovered airplane but are wondering what the covering process is like, this is the perfect answer. You get a practice frame, fabric, tapes, needles, rib lacing cord, thermometer, instructions, and all the coatings you need to work through the Poly-Spray stage. There's enough of everything to do the entire process twice. You'll see how easy and enjoyable fabric covering really is. P/N 09-06220 ..... \$59.95

#### **POLY-FIBER SOLVENTS & CLEANERS**



#### **METL-SOL C-2200 METAL SURFACE CLEANER**

A strong solvent blend formulated to remove oil, silicone, wax and other contaminants from all metal surfaces before priming. Not for painted surfaces. This FAA approved process utilizing Poly-Fiber Dacron fabrics and the unique "Poly" line of finishes assures a beautiful, durable, weather-resistant cover job every time. Documented time tested results by the professionals. The Poly-Fiber Covering Process was issued Supplemental Type Certificate No. SA-1008-WE in 1965 and

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Quart	P/N 09-40710	\$22.70
Gallon	P/N 09-40720	\$66.75



#### **C-2210 PAINT SURFACE CLEANER**

A mild solvent blend formulated to remove oil, silicone, wax and other contaminants from all painted or primed surfaces. Also removes tape gum from painted surfaces and acrylic windshield materials.

Quart	P/N 09-40810	\$17.95
Gallon	P/N 09-40820	\$49.50



#### **310 ALKALINE DETERGENT CLEANER**

Highly recommended as an alkaline metal cleaner for removing greases and oils. Also a very good cleaner for interior cabins and vinyl upholstery, as well as a wide variety of household applications to remove waxes, dirt, and stains. Furnished as a concentrate for 32:1 dilution with water. Lemon scented and not harmful to your hands.

Quart	P/N 310-QT	\$13.50
Gallon	P/N 310-1G	\$36.50



#### **POLY-FIBER MEK**

Solvent used to remove coatings for repairs, for clean up, and to release cemented seams. NOT used to thin or reduce

Quart	P/N	09-40835	\$18.90
Gallon	P/N	09-40845	\$45.70

## -FIBER AIRCRAFT COATINGS



cation time.

**POLY-BRUSH** A pink translucent, 1 part air drying resin used for the first 2 or 3 coats to penetrate and seal the fabric weave and assure good adhesion. Also used to attach the finishing tapes and reinforcing patches. Brush on initial coat thinned 3:1 with reducer. Subsequent coats are thinned 3:1 with reducer and applied with a spray gun to avoid brush marks & cut appli-

Tinted	Untinted
Quart P/N 09-04100\$28.50	Quart P/N 09-04110\$28.50
Gallon P/N 09-04200	Gallon P/N 09-04210 \$93.75
5 Gal P/N 09-04300\$533.00	5 Gal P/N 09-04350 \$467.00



#### **POLY-SPRAY**

A high-solids aluminum-pigmented, 1 part, air drying resin used after the Poly-Brush preliminary coating to protect fabric from UV and prepare for a smooth finish.

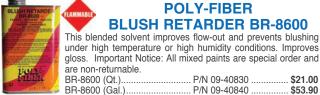
Thin 4:1.		
Poly Spray (Qt.)	P/N 09-04400	. \$28.10
Poly Spray (Gal.)	P/N 09-04500	. \$91.95
Poly Spray (5 Gal.)	P/N 09-04600	\$456.00



#### **POLY-FIBER REDUCERS**

A blend of solvents used for viscosity and drying control of Poly-Brush, Poly-Spray and Poly-Tone. Blend #R-65-75 is recommended as the standard reducer in normal weather, 65°-75°F. #RR-8500 is a retarder-reducer with slower drying time. Recommended for temp above 85° & warm humid weather.

#65-75	#RR-8500
QtP/N 09-04700 \$22.50	QtP/N 09-04750\$21.55
Gal	GalP/N 09-04850\$53.75
5 Gal P/N 09-04900 <b>\$253.75</b>	5 GalP/N 09-04950 <b>\$252.95</b>



#### **POLY-FIBER BLUSH RETARDER BR-8600**

This blended solvent improves flow-out and prevents blushing under high temperature or high humidity conditions. Improves gloss. Important Notice: All mixed paints are special order and are non-returnable. 

POLY-TAK	
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#### POLY-TAK CEMENT

Excellent cement for all types of fabrics. Shelf life

unopened is 2 years.		
Pint	P/N 09-05110	\$18.70
Quart	P/N 09-05000	\$30.50
Gallon	P/N 09-05100	\$109.80



#### **POLY-TONE® FINISH**

A durable semi-gloss, 1-part, air drying flexible paint available in over 50 popular aircraft colors. Recommended as the standard finish for the Poly-Fiber cover process. Also may be used over suitably primed metal components of fabric covered aircraft. Fabric damage is more easily repaired when Poly-Tone finish is used. All pigments are non-bleeding or fading. Will not oxidize with age. Poly-Tone is always thinned to 4 to 1with Poly Fiber Reducer (65-75 or 8500).

#### **POLY-TONE FINISHES**

FLAMMABLE	4 Whites: Insignia White (#105)		GALLON \$97.79
	Juneau White (#110)	\$29.50	\$95.25
	Glacier White (#117) Daytona White (#120)		
	All other colors (Color Card #50)		No Charge

#### **TO ORDER POLYTONE:**

Create the part number for the Polytone you require: Color-PQ (for Quart) or Color-PG (for Gallon)

Example: 100-PQ is 1 Quart of Color #100



#### POLY-TONE U.V. BLOCKING

Used for additional UV Protection in ultralight airplanes. 1 fl.oz. blocks 1Quart Polytone 

POLY-TONE REJUVENATOR .\$29.50



#### Quart ...... P/N 09-05200 ..... RJ-1200

**IMPORTANT NOTICE:** ALL mixed paints are special order and are non-returnable.





#### STITS EPOXY PRIMER (GREEN) EP-420/EP-430

This green primer is fast drying, corrosion inhibiting, and has application and curing quali-

ties down to 35°F. It is a heavy duty chemical and solvent resistant amine cured primer. Mixing ratio is 2 parts base, 1 part catalyst. Order in kits.

Quart Kit (Yields2 1/2 quarts) Incl. catalyst and reducer	P/N	09-00352	\$97.75
Gallon Kit (Yields 2 1/2 Gallons)			
Incl. catalyst and reducer	P/N	09-00353	\$328.95
Base:	Quart P/N	09-05605	\$53.75
	Gallon P/N	09-05610	\$183.75
Catalyst:	Pint P/N	09-05615	\$23.95
•	QuartP/N	09-05620	\$40.50
Reducer E-500 (Reduce 50%)	QuartP/N	09-01163	\$20.50
,	Gallon P/N	09-01108	\$64.75



#### STITS EPOXY PRIMER (WHITE) EP-420/EP-430

This white heavy duty chemical and solvent resistant amine cured primer, the excellent

primer from Stits is fast drying and corrosion inhibiting. It can be applied and cured to temperatures down to 35°F. Mixing ratio is 2 parts base, 1 part catalyst. Quart Kit (Yields 2 1/2 quarts)

Incl. catalyst and reducer	P/N 09-00285 <b>\$97.75</b>	
Gallon Kit (Yields 2 1/2 Gallons)	D/N 00 00429 \$236.05	
inci. catalyst and reducer	P/N 09-00438 \$326.95	
Base:	Quart P/N 09-05625 \$53.75	
	Gallon P/N 09-05630 \$181.95	
Catalyst:	Pint P/N 09-05615 \$23.95	
•	Quart P/N 09-05620 \$40.50	
Reducer E-500 (Reduce 50%)	Quart P/N 09-01163 \$20.50	
·	Gallon P/N 09-01108 \$64.75	



#### STITS EPOXY VARNISH EV-400/EV-410

An excellent clear gloss epoxy varnish for interior and exterior use. It provides superior weather durability and excellent chemical and

solvent resistance. Can be used over a one component varnish primer if desired. Mixing ratio is 2 parts base, 1 part catalyst. Can be ordered as a kit which includes base, catalyst and reducer, or each component separately.

Quart Kit (Yields 2-1/2 quarts) Incl. catalyst and reducer Gallon Kit (Yields 2-1/2 Gallons)	P/N 09-00349 <b>\$89.50</b>
Incl. catalyst and reducer	P/N 09-00350 <b>\$304.95</b>
Base:	Quart P/N 09-05645\$48.50
	Gallon P/N 09-05650 \$171.75
Catalyst:	Pint P/N 09-05655\$20.50
	Quart P/N 09-05660\$34.65
Reducer E-500 (Reduce 50%)	Quart P/N 09-01163\$20.50
	Gallon P/N 09-01108\$64.75



#### **UV-550 URETHANE VARNISH KIT**

Important Notice: All mixed paints are special order and are nonreturnable. Kit Includes: • 09-05665 - UV-550 poly-fiber varnish quart • 09-05400 - U-865 Stits catalyst 1/2 pint • 09-05800 -UR-826 urethane retarder quart.

.. P/N 09-05665 ..... **\$56.65** Varnish Only (Quart)...... Varnish & Catalyst Kit (Gallon) . P/N 09-05272-K............ \$317.00



## **EPOXY ACCELERATOR EX-501**

A chemical curing accelerator for use in EP-420 Epoxy Primer 



#### **POLY-FIBER ESO ENGINE** STORAGE OIL

......P/N 09-42455 ......\$89.00

A fine lubrication and preservative oil used to prevent corrosion in internal combustion engines during extended storage.

#### **POLY-FIBER 60"X 48" FINE MESH** PAINT STRAINER CONES



## POLY-FIBER AIRCRAFT COATINGS





#### **POLY FIBER AEROTHANE**

A tough, flexible, high-gloss two part polyurethane especially formulated for fabric covered aircraft and marine surfaces subject to flexing loads. Recommended as a premium quality fabric finish over Stits Poly-Fiber covered aircraft. Wet look, high gloss. Aerothane requires catalyst, which is sold separately, and will be offered to you at the time of purchase. If you currently have

an adequate supply please notify a sales rep or note it on your online order. Aerothane additives are also sold separately, but must be requested as needed.

AERO-THANE (All Paint 3/4 filled cans)			
Size	Color	Part No.	Price
Quart	105-AQ	\$43.80	
Gallon	Insignia White	105-AG	\$143.10
Quart	Juneau White	110-AQ	\$43.50
Gallon	Juneau White	110-AG	\$142.95
Quart Glacier White		117-AQ	\$41.50
Gallon Glacier White		117-AG	\$141.95
Quart	Daytona White	120-AQ	\$44.25
Gallon	Daytona White	120-AG	\$143.95
CLEAR AERO THANE AO 100 (All points 2/4 filled cons)			

CLEAR AERO-THANE AO-100 (All paints 3/4 filled cans)				
Size	Color	Part No.	Price	
3/4 Quart Paint	Clear	AO-100-QT	\$48.95	
3/4 Gallon Paint	Clear	AO-100-1G	\$166.10	

AERO-THANE ADDITIVES					
Description	Size	Part No.	Price		
Urethane Catalyst U-865	1/2 Pint	09-05400	\$33.50		
Urethane Catalyst U-865	Quart	09-05500	\$104.85		
Urethane Reducer UE-820	Quart	09-05600	\$23.95		
Urethane Reducer UE-820	Gallon	09-05700	\$73.75		
Urethane Retarder UR-826	Quart	09-05800	\$38.65		
Urethane Retarder UR-826	Gallon	09-05900	\$104.75		

#### **TO ORDER AEROTHANE:**

**Create the part number for the Aerothane you require:** Color-A-Q(quart) or G (gallon). Add -K (kit) if catalyst is required. Example: 100-A-Q-K is 1 quart of color #100 with catalyst included.



# POLY-TONE/AEROTHANE ENAMEL FLATTENER

Used to make Aerothane and Enamel match the semi gloss finish of Polytone, or to make either Aerothane, Polytone and Enamel Full Military Flat. Use 1 Pint, to flatten 1 Quart

				P/IN 09	-02052	\$29.00
Use 1	Qt.	& 1	Pint, to	o flatten 1	Gallor	1
				P/N 09	-02051	\$52.75



#### **CALIBRATION THERMOMETER**

Thermometer is accurate from 100°F to 400°F / 50°C to 200°C. Easy-to-read dial. Adjustable pan clip. Durable stainless steel.

P/N 09-37475 ..... **\$14.50** 



# COVERITE 21ST CENTURY SEALING IRON

This is the Coverite 21st Century Iron used to apply fabric or film onto model airplane kits.

#### Specifications:

- Input Voltage: 110V AC US Standard
- Minimum Wattage: 4.8 W rms
- Maximum Wattage: 174 W rms

P/N 09-05640 ..... **\$52.75** 

## **AIRCRAFT FABRIC SEALING IRON 110V**





#### **VISCOSITY CUP**

The Ford #4 viscosity cup is used for measuring the viscosity of paints and finishes to ensure a flawless finish.

P/N 09-04776 ..... \$11.75

#### POLY-FIBER COLORS AVAILABLE

Each color group in chart below is listed from light to darker shades. Free Poly-Fiber color chart available on request. Color Card #50.

Fiber color cha	ari avallable on request. C	Joior Card #5
CLEAR		<b>PURPLE</b>
100	. (Aerothane Only)	361
WHITE		BROWN
105	. Insignia White	205
	(Eagle White)	203
110	. Juneau White	BLUE
117	. Glacier White	
117	(Fodoral 17029)	165
100	(Federal 17038) . Daytona White	170
120	. Daytona white	173
CREAM		
132	. Sun Valley Ivory	318M
125	. Tucson Cream	177
131	. Diana Cream	176
YELLOW		
242	. Ag Cat Yellow	<b>GREY/SILV</b>
	. Lemon Yellow	210
139	. Federal Yellow	220M
145	. Lockhaven Yellow	213A
	. Champion Yellow	213
2-10	Titanine Yellow	219
140	. Orange Yellow	222M
140	(Schweizer Yellow)	BLACK
	(Thrush Vallow)	
	(Thrush Yellow) (Orange Yellow)	215
4.40		
143		<b>MILITARY</b>
	.J3 OEM Yellow	212
ORANGE		208
142A	. Eagle Yellow	
	(Orange) . Pumpkin Orange	208A
182	. Pumpkin Orange	
183	International Orange	GREEN
	. Cruiser Orange	157
RED	· ·	107
189	Madrid Red	151
187		156
191		160
100	(Toreador Red) .Tennessee Red	208
100	(Federal 11136)	GOLD
	(Federal 11130)	301M
105	(Insignia Red)	
193	Santa Fe Red	1
100	(Maroon) . Boston Maroon	POL
196	. Boston Maroon	Simply s
1u/	Stinson Maroon	

PURPLE 361	
170 173	. AN Blue (True Blue)
177 176	
<b>GREY/SILVE</b>	
210 220M 213A 213 219	. Polar Grey . Nevada Silver . Federal 36321 Grey . Ag Cat Grey
215	Dakota Black
	(Eagle Black)
<b>MILITARY C</b>	AMOUFLAGÉ
212 208	
	Green
<b>GREEN</b> 157	. Cuby Sport Trainer (Green)
151 156 160 208 <b>GOLD</b>	Everglades Green Portland Green Forest Green Federal Green
301M	. Reno Gold

## TO ORDER POLY-FIBER COLORS:

Simply specify Poly-Fiber color number from chart above, either PolyTone or AeroThane, and quart or gallon.

#### **IMPORTANT NOTICE:**

197..... Stinson Maroon

Poly-Fiber and Randolph Coatings are now manufactured by Consolidated Coatings Co. and current colors do NOT all match original Randolph colors. If matching an old color is required, please match it to a current color card or send in a sample of old color for custom matching.

ALL mixed paints are special order and are non-returnable.

## BLACK & DECKER THE CLASSIC IRON

With a classic design and a wide range of convenient features, The Classic™ iron brings simplicity and style back to ironing. A SmarTemp™ indicator light ensures you're ironing at the right temperature, while the 3-way auto shutoff provides added security and peace of mind. Heats up to 180°

Features: • Wrinkle-Fighting Power • Aluminum Soleplate • Steam On/Off Button • Ironing Made Easy • 3-Way Auto Shutoff •



#### **IRON KIT**

Includes: • 09-37400: Hobbico Fabric Iron 110V • 09-03785: 360 degree Fabric Iron • 09-37450: Silicone Heat Sink Compound 1oz syringe • 09-37475: PolyFiber Calibration Thermometer.

P/N 09-37420 ..... \$166.95

## SILICONE HEAT SINK COMPOUND



For more accurate thermal transfer during iron calibration. 1 oz. Syringe.

P/N 09-37450 ......\$16.00

## ENAMELS – REPAIR KITS



Color



#### POLY-FIBER MARK II FOR METAL

Quart Price Gallon Price

(NOT FOR USE ON FABRIC) - Use Mark II for Metal is available in the same 50 colors as Poly-Fiber Poly-Tone and Randolph Colored Butyrate Dope. Mark II is used over primed metal or composite parts and is too brittle to be used over

fabric. Mark II is a tough, long-lasting topcoat paint. Although Mark II is a two-part catalyzed paint, it is not catalyzed with an isocyanate, thus normal safety equipment (a charcoal filtered spray mask) is sufficient. You do not have to use a supplied air respirator when spraying Mark II. Packaging: Mark II comes in three-part kits: part one is a can of the colored paint; part two is a separate can with an equal volume of Mixing Liquid, and part three is a thinner to be used to prevent orange peel.

Clear Base for Tinting	09-03869	\$58.75	09-03871	\$165.05
Metallic Base for Tinting	09-03872	\$59.75	09-03873	\$165.05
105 Insignia White	09-03876	\$148.95	09-03877	\$473.95
110 Juneau White	09-03878	\$148.95	09-03879	\$442.95
117 Glacier White	09-03880	\$149.95	09-03881	\$474.95
120 Daytona White	09-03882	\$149.95	09-03883	\$444.95
125 Tucson Cream	09-03884	\$148.95	09-03885	\$440.95
131 Diana Cream	09-03886	\$148.95	09-03887	\$442.95
132 Sun Valley Ivory	09-03888	\$148.95	09-03889	\$442.95
136 Lemon Yellow	09-03890	\$160.95	09-03891	\$491.95
139 Federal Yellow	09-03892	\$152.95	09-03893	\$458.95
140 Orange Yellow	09-03894	\$157.95	09-03895	\$479.95
142A C. Eagle Yellow/Orange	09-03896	\$153.95	09-03897	\$463.95
143 Club Yellow	09-03898	\$153.95	09-03899	\$463.95
145 Lockhaven Yellow	09-03901	\$151.95	09-03902	\$454.95
146 J3 OEM Yellow	09-03903	\$153.95	09-03904	\$463.95
151 Everglades Green	09-03905	\$158.95	09-03906	\$480.95
156 Portland Green	09-03907	\$154.95	09-03908	\$466.95
157 Cuby Sport Trainer Green	09-03909	\$159.95	09-03910	\$487.95
160 Forest Green	09-03911	\$151.95	09-03912	\$455.95
165 Lakeland Blue	09-03913	\$149.95	09-03914	\$444.95
170 Bahama Blue	09-03915	\$151.95	09-03916	\$454.95
173 AN (True) Blue	09-03917	\$151.95	09-03918	\$455.95
176 Insignia Blue	09-03919	\$155.95	09-03920	\$468.95
177 Christen Eagle Blue	09-03921	\$154.95	09-03922	\$466.95
180 Cruiser Orange	09-03923	\$155.95	09-03924	\$470.95
182 Pumpkin Orange	09-03925	\$154.95	09-03926	\$467.95
183 International Orange	09-03927	\$155.95	09-03928	\$469.95
187 Christen Eagle Red	09-03929	\$159.95	09-03930	\$486.95
189 Madrid Red	09-03931	\$156.95	09-03932	\$475.95
190 Tennessee Red	09-03933	\$158.95	09-03934	\$481.95
191 Pontiac Red	09-03935	\$158.95	09-03936	\$480.95
195 Santa Fe Red	09-03937	\$155.95	09-03938	\$471.95
196 Boston Maroon	09-03939	\$157.95	09-03940	\$478.95
197 Stinson Maroon	09-03941	\$158.95	09-03942	\$483.95
203 Elsinore Brown	09-03943	\$148.95	09-03944	\$440.95
205 Bermuda Tan	09-03945	\$148.95	09-03946	\$442.95
208 Olive Drab	09-03947	\$148.95	09-03948	\$441.95
208A Federal Green	09-03949	\$149.95	09-03950	\$445.95
210 Polar Grey	09-03951	\$148.95	09-03952	\$442.95
212 Oak Green	09-03953	\$149.95	09-03954	\$447.95
213 AG Cat Grey	09-03955	\$148.95	09-03956	\$440.95
213A Federal Grey	09-03957	\$148.95	09-03958	\$443.95
215 Dakota Black	09-03959	\$146.95	09-03960	\$433.95
219 Jasper Grey	09-03961	\$148.95	09-03962	\$443.95
220M Nevada Silver	09-03963	\$141.95	09-03964	\$409.95
222M Rancho Silver	09-03965	\$141.95	09-03966	\$410.95
240 Champion Yellow	09-03967	\$148.95	09-03968	\$443.95
242 AG Cat Yellow	09-03969	\$153.95	09-03970	\$460.95
301M Reno Gold	09-03971	\$154.95	09-03972	\$572.00
318M Piper Trainer Blue	09-03973	\$147.95	09-03974	\$435.95
361 Christen Eagle Purple	09-03975	\$158.95	09-03976	\$482.95

## POLY-FIBER REPAIR KIT

7	Includes:1	1" Dope Brush
	1 Pint	Poly-Tak
	1 Quart	Polv-Śprav
	1 Quart	Poly-Brush
	1 Quart	.Reducer (Specify 65-75 or 8500)
	1 Yard	
	4 Sheets	#400 Sandpaper
	1	3" Curved Needle
	10 Feet	2" Surface Tape
	1	Thread
	With #65-75 Reducer	P/N 09-06210 \$110.95
	With #8500 Reducer	P/N 09-06215 \$110.95

#### CECONITE FABRIC REPAIR KIT

	Cecomi	E 101	-00299	
	Kit Inclu	udes:		
	1	1" Brush	1 quart	286 Nitrate Thinner
	1	3"Curved Needle	1 quart	Super Seam Fabric Cement
	1	3M Wetordry Sandpaper 413	2 quarts	286 Butyrate Thinner
	1 quart	G-6302 Rand Nitrate Dope Grain	1 quart	W-8350 Non-Taut Butyrate
	1 yard	Ceconite 101 (3.4) 70"		Stits Hand Sewing Thread
	1 quart	Rand O- Fill G6303	5 Yards	2" C102 Straight Tape 2"

D/NI na\_nnaga

Ceconite 102P/		<b>102</b> P/N 0	9-06225	\$176.95	
	Kit Includes:				
	1	1" Brush	1 quart	Nitrate Thinner	
	1	3" Curved Needle	1 quart	W-8350 Non-Taut Butyrate	
	1 yard	Ceconite 102 (2.6oz)	2 quarts	Butyrate Thinner 970	
	1 sheet	3M Wetordry Sandpaper 413	1 quart	Rand-O-Fill G-6303 QT	
	1 quart	Super Seam Fabric Cement	6 Yard	C102 Straight Tape 2"	
	1 quart	G-6302 N/T Nitrate Dope Grain	1	Ceconite Hand Thread 250	

## FABRIC COVERING TOOL KIT This kit includes the items most commonly needed to



complete your Poly-Fiber covering project. **Kit Includes:** 4 - 1" Disposable Brushes, 3 - 2" Disposable Brushes, 4 - 2" opening 6" long Spring Clamps, 1 - CB-9 Pinking Shears, 10 - 1/2" Glue/Acid Brushes, 1 - Black & Decker Classic Iron, 1 Hobbico



#### POLY FIBER COVERING KIT

The Poly Fiber Covering Kit includes all of the materials generally required to recover a wide variety of small aircraft (see list below) except the fabric and topcoat. Poly-Fiber offers both Polytone and Aerothane topcoats in many colors. When you order this Covering Kit, you can also order the presewn fabric envelope or fabric yardage you will need to cover the aircraft. We are the best choice for your covering materials requirements. Count on Poly Fiber's largest distributor Aircraft Spruce!



## POLY-FIBER MARK II MIXING LIQUID



#### POLY-FIBER MARK II THINNER

Used to thin Mark II for Metal paint after it has been combined with Mark II Mixing liquid. Included in Mark II kits above, but also available separately. thinning is generally unnecessary when Mark II is sprayed. However, if orange peel results, you may use Mark II Thinner with 5 parts mixed Mark II paint. Shelf life is four years in unopened storage.

Pint	P/N 09-03697 <b>\$18.0</b> 0	)
Quart	P/N 09-03698 \$23.10	0
Gallon	P/N 09-03699 \$58.79	5

# TURN COORDINATORS - TURN & BANKS - ASI





# FALCON TURN COORDINATOR (ELECTRIC)



#### **WINTER SLIP INDICATORS**

The basic flight instrument for co-ordinated turns. Available in two styles: Rectangular model fits easily in cramped panel space. Square model matches a 2-1/4" instrument hole, fits on either side of the panel. Both feature finely crafted metal cases and precision ball and tube assemblies.

Square		\$89.95
Rectangle		



### BANK INDICATORS (BALL TYPE)

In turning, instantly register slightest departure from the correct banking angle. Bank scale has white markings on black background. New manufacture. Available in 2 models:

10°-10° Scale, 2.25" between mounting holes	P/N 10-00600 \$114.85
20° - 20° Scale, 5" between mounting holes	P/N 10-00700 \$59.80



# UMA AIRSPEED INDICATORS (NON-TSO'D)

These quality UMA, non-TSO'd airspeed indicators are available in MPH.

Note: An inverter is required for the Internal Lighting Option (P/N 10-02083 UMA 14V LIGHT INVERTER)

Description	Dial	Part No.	Price
3-1/8"	20-80 mph	10-04905	\$216.95
3-1/8"	20-100 mph	10-04910	\$216.95
3-1/8"	20-120 mph	10-04915	\$216.95
3-1/8"	20-140 mph	10-04920	\$216.95
3-1/8"	20-160 mph	10-04925	\$216.95

#### **FALCON 3-1/8" SINGLE RANGE AIRSPEEDS**



Falcon Gauge Airspeed Indicators have been one of the most chose flight instruments by kit plane builders and pilots. There are many great advantages to using these gauges: excellent slow speed characteristics; very progressive increments; a variety of ranges, light weight; short length, and affordable price. All Falcon Gauge Airspeed Indicators are housed in an aluminum case and consist of all metal parts. Available ranges: mph, knots, km/hr; single range reading or dual range readings. Non-TSO'd.

Model No.	Length	Range	Part No.	Price
ASI080M-3	2.2"/56.5mm	0-80 MPH	10-02905	\$229.95
ASI100M-3	2.2"/56.5mm	0-100 MPH	10-02910	\$299.95
ASI120M-3	2.2"/56.5mm	0-120 MPH	10-02915	\$229.95
ASI140M-3	3.5"/97.3mm	0-140 MPH	10-02916	\$227.85
ASI150M-3	2.2"/56.5mm	0-150 MPH	10-02225	\$229.95
ASI160M-3	3.5"/97.3mm	0-160 MPH	10-02917	\$243.95
ASI080N-3	3.5"/97.3mm	0-80 Knots	10-02896	\$229.95
ASI100N-3	2.2"/56.5mm	0-100 Knots	10-02897	\$229.95
ASI120N-3	2.2"/56.5mm	0-120 Knots	10-02898	\$224.95
ASI140N-3	3.5"/97.3mm	0-140 Knots	10-02899	\$239.95
ASI160N-3	3.5"/97.3mm	0-160 Knots	10-02900	\$244.95

#### **FALCON 2-1/4" MINIATURE AIRSPEEDS**



Falcon Gauge Miniature Airspeed Indicators are designed for ultralights. They offer ultralight pilots an affordable alternative to other higher priced indicators found in the market today without compromising the pilot's needs for a quality gauge that provides accuracy, light weight, compactness and safety. Their excellent slow speed performance provides an extra measure of safety by assuring accurate speed readings when flying low or critical stall speeds. Weight: approx. 2.8 oz. or 80g Length: 2-9/16" or 41mm

Model No.	Range	Part No.	Price
ASI050M-2	0-80 MPH	10-02605	\$179.95
ASI100M-2	0-100 MPH	10-02610	\$179.95
ASI120K-2	0-120 KPH	10-04198	\$179.95
ASI140K-2	0-140 KPH	10-02226	\$179.95
ASI120N-2	0-120 KNOTS	10-04069	\$179.95



# SKYSPORTS 3 1/8" SINGLE RANGE AIRSPEEDS

Skysports airspeed indicators are lightweight, reliable, and are housed in short length aluminum cases. They give accurate indications at slow speeds and are available in a variety of ranges. These airspeed indicators are excellent for a wide range of experimental and ultralight aircraft. Non-TSO'd. Size: 3 1/8" Length: 3.5in/97.3mm Weight: 10.2oz/290g

IV	lodel No.	Length	Range	Part No.	Price
	BK-33	97.3mm	20-180 MPH	10-05394	\$278.95
	BK-9C	58mm	20-180 MPH	10-05409	\$274.95
	BK-7B	58mm	20-120 MPH	10-05406	\$274.95
	BK-31	97.3mm	20-140 MPH	10-05392	\$321.00
	BK-6C	58mm	20-150 MPH	10-05405	\$310.00
	BK-12	58mm	20-80 KNT	10-05381	\$310.00
	BK-13A	58mm	20-100 KNT	10-05384	\$310.00
	BK-14A	58mm	0-120 KNT	10-05386	\$278.95
	BK-3A	97.3mm	20-140 KNT	10-05399	\$312.00
	BK-15	97.3mm	0-160 KNY	10-05387	\$280.95
	BK-34	97.3mm	30-180 KNT	10-05395	\$324.00
	BK-5A	97.3mm	30-220 KNT	10-05404	\$322.00
Е	3K120-1B	58mm	30-150 KPH	10-05383	\$327.00
Е	3K150-1A	58mm	30-150 KPH	10-05388	\$278.95
Е	3K200-1A	58mm	0-200 KPH	10-05389	\$278.95
	BK300	58mm	40-300 KPH	10-05391	\$322.00



#### HALL WINDMETER

Designed for hang gliders but can be mounted on low speed aircraft as an airspeed indicator. Easy to read. Mounting bracket clamps to 7/8 or 1 1/8" dia. tube. Short bracket is 3' long, Long bracket 15" long.

Wind Meter (0-55 mph) P	/N 10-04100 <b>\$18.85</b>
Wind Meter (0-80 mph) P	/N 10-04105 <b>\$18.85</b>
Short BracketP	/N 10-04200 <b>\$5.95</b>
Long Bracket P	/N 10-04300 <b>\$6.75</b>

#### WINTER MINIATURE ALTIMETERS



The mini altimeter is a remarkable instrument. Through the use of an accurate single pointer design, the 0-5,000 and 0-10,000 altimeters are able to squeeze precision and reliability into a 2-1/4" instrument which is less than 2" deep. All altimeters are designed with Kollsman windows, glass faces, precision jewelled movements and a rugged combination metal and plastic case. Static porting is standard. 0-5000 ft. Altimeter, Millibar

P/N 10-24105 ..... \$587.00



## **COMPASSES - EGT GAUGES**

#### **FALCON VERTICAL SPEED INDICATORS**



Falcon Gauge Vertical Speed Indicators (Rate of Climb), have been installed in thousands of planes. Available in climb ranges from 2,000 feet per minute to 3,000 feet per minute, and 10 meters per second. This precision aircraft instrument provides immediate climb and descent information with an easy to read dial and is extremely reliable and durable. Over several decades, they have been servicing and satisfying pilots

and kit plane builders worldwide.

The 2-1/4" altimeter is perfect for the ultra-light models and where space and weight are a factor of consideration.

Part No.	Size	Range	Length	Weight	Price
10-05352	3 1/8"	2,000 ft/min	4.25"/105mm	12.7 oz	\$259.95
10-02246	3 1/8"	10 meter/second	4.25"/105mm	12.7 oz	\$259.95

#### **UNHEATED PITOT TUBES**



**STRAIGHT TYPE** — Flange-mounted through leading edge of spar. Aluminum tube 24" long, 1/4" dia. May be cut to shorten.

P/N 15133.....\$22.50

L-SHAPED TYPE – Flange mounted L-shaped model for underthe-wing mounting. 1/4" dia. aluminum tube.

STRAIGHT TYPE PITOT-STATIC TUBE Clamp-mounted for leading edge of wing. 14-1/2" long. May be shortened,

formed or shaped to best angle of attack. 1/4' dia. aluminum tubes. All installation hardware furnished.

P/N 10-01800 ..... **\$29.70** 



**STRUT TYPE PITOT-STATIC TUBE** — Simple L-shaped design for clamping to strut. 1/4" dia. aluminum tubes.

P/N 10-01900 ..... \$35.50

#### RITE ANGLE BASIC SYSTEM AOA



The RiteAngle Basic, is a high quality AOA system for aircraft without flaps. This is the most accurate low cost AOA system available to customers today. Note: The Basic system is for aircraft without flaps only. The RiteAngle™ Basic uses electronics not available during earlier designs of RiteAngle™ systems. Although operationally similar to prior RiteAngle products, the RiteAngle Basic is a totally new, more efficient, economical design. It is a modern up to date system, that accurately determines your aircraft's angle of attack. This series uses our proven, easy-to-



#### **UMA 2-1/4" SINGLE EGT GAUGES**

These highly reliable and lightweight gauges are self-contained, requiring no external power source. Specify probe size and type. Standard markings are black and white.

#### 2-1/4" EGT Gauge

700-1700°F- 90° Sweep	P/N 10-22275 \$1	69.75
700-1700°F- 270° Sweep	P/N 10-02427 \$1	70.75
Type K EGT Probes		
1-5/8" - 2-1/2" Clamp	P/N 10-04791	93.75
1-2" Clamp	P/N 10-00966	93.75
8mm, Bayonet-Rotax	P/N 10-00967	93.75
Optional internal lighting for all UMA 2-	-1/4", 3-1/8" instruments (except all	im-
eter)	P/N 11-07239	556.75

#### **AIRPATH COMPASSES**



Factory-new Airpath compasses as used in almost all production aircraft. 2.25" size.

Model	Mounting	Lighting	Part No.	Price
C2300	Panel	None	10-01340	\$166.80
C2300-L4	Panel	12V Red	10-01341	\$194.85

#### **FALCON AIRCRAFT COMPASSES**

These compasses are very similar to the Airpath C2300 & C2400 style compasses above but are priced more economically. New manufacture. Not certified. Northern Hemisphere

Size	Model	Description	Part No.	Price
2-1/4"	MCPN-2	Panel Mount	10-02067	\$108.95
2-1/4"	MCPN-2L	Panel Mount, Lighted	10-02069	\$117.95



## FALCON NON-TSO'D VERTICAL CARD COMPASSES

It is easy to read presentation and see the complete 360 degree dial in proper relation to your aircraft heading. 14V, lighting. 2-1/4"

Model	Description	Part No.	Price
MCVC-2L-A	Improved for install on metal aircraft, 12-14V light	10-04173	\$329.00
MCVC-2L-A-M	Improved for install on metal aircraft, 12-14V light with bracket		\$294.95
30-V-0001	Vertical Card Compass Universal Mounting Bracket	10-04175	\$31.50

#### PRECISION VERTICAL CARD COMPASS



The Precision Vertical Card Compass is a totally new concept for today's aircraft. It is a dry compass, designed to replace the float/liquid type compass; no more leaking fluid or backward azimuth readings. It uses eddy current damping and as such has no overshoot. It consists of a 2"vertical rotating dial which is compared with a fixed miniature airplane (lubber line) to present the magnetic heading of the aircraft at

all times. Heading information is more natural because the heading is read at the 12 o'clock position and off the nose of the miniature aircraft. The compass card rotates and presents all quadrants in their true relation to line of flight. Requires no power (except for lighting) to operate. Fully TSO'd. Installed in many current production aircraft and helicopters. Size: 2-7/8"H x 2-3/8"W x 2-1/8"D. Wt. 0.6 lb. After installation, compass must be compensated using standard compensation procedures. Also used in sailplanes. Bracket / mount is required for installation and is not included with unit.

14V	P/N 10-00421 <b>\$345.00</b>	
28V	P/N 10-00423	
Precision Aviation Gauge Mount	P/N 10-07500	
Universal Overhead Bracket Kit	P/N 10-07600	

#### **ROCHESTER OIL TEMPERATURE GAUGES**



Rochester oil temperature gauges have matte-white dial with black bezel. Mount in 2-1/16" dia. hole. New manufacture. Furnished with one 5/8-18UNF X 5/8-18UNF adapter nut. Available in the following temperature ranges and capillary lengths.

P/N 10-11600	100-250°F	60" Cap	\$89.99
	100-250°F		
P/N 10-11800	00-250°F	144" Cap	\$116.75
	100-250°F		
	Only:44-0024 5/8-18		



#### 2" VDO WATER TEMP GAUGE

# **MICROFLIGHT & VDO GAUGES**





**CHT** Scaled 0-600°F 2-1/4" CH131 ...... P/N 10-01426 ..... \$95.75 



**DUAL CHT** Scaled 0-600°F 2-1/4" CH141 ...... P/N 10-01429 ..... \$121.95 



**EGT** Scaled 800-1700° F

2-1/4" EG131 ...... P/N 10-01464 ..... \$92.75 



**DUAL EGT** 

2-1/4" EG141 ...... P/N 10-01467 ..... \$117.95 



**DUAL CHT/EGT** 

2-1/4" CE141......P/N 10-01409 ...... \$121.95 

#### **VDO GAUGES & PROBES**



**EXHAUST GAS TEMP.** 

2-1/4" .......P/N 10-01462 .... **\$179.95** 2" ......P/N 10-01461 .... **\$167.85** 250 -1650°F With weld-on Boss type probe



**OIL PRESSURE** 

2-1/4"......P/N 10-01570......**\$123.95** .....P/N 10-01567......**\$109.95** Includes 1/8NPT sender



**AMMETER - 12 VDC** 

2-1/4" ..... P/N 10-02335 ...... **\$72.75** P/N 10-02334......**\$59.95** No shunt required



**OIL TEMP.** 

2-1/4" .....P/N 10-01583 ..........\$83.95 2".....P/N 10-01579 ......**\$73.50** Includes 1/8NPT probe



**VOLTMETER-12 VDC** 

2-1/4" ..... P/N 10-01638..........\$66.50 With color arc

#### **VDO GAUGES & PROBES**



**FUEL LEVEL-10-180 OHM** 

2-1/4"......P/N 10-01485......\$51.75 2" ......P/N 10-00825 ..... \$38.50 Order only P/N 10-04788 probes for this instrument.



WATER TEMP.

2-1/4" .......P/N 10-01646 ..... \$49.95 2"......P/N 15-07657..... \$62.50



**HOUR METER-12VDC** 

2-1/4" .......P/N 10-01505 ..... \$66.50 .P/N 10-01504 ..... **\$53.80** With minute hand



#### **FLUID TEMPERATURE GAUGE**

2" ....... P/N VDO180902D .... \$72.85 Includes 96" capillary tubing and adapter kit.



## **VDO PROBES**

VDO Float Probes - 240 ohms P/I	N 10-00826	. \$67.75
Fuel Probe Mounting Ring P/I	N 10-01502	. \$39.50
VDO Temperature Probes - 1/8NP	Τ	
Water Probe 1/8" NPTP/I	N 10-01648	. \$14.70
Oil Probe 1/8" NPT P/I	N 10-01580	. \$21.50
VDO CHT Probe - Type "J"		
14mm ring typeP/I	N 10-01439	. \$38.50
VDO EGT Probe - Type "K"		
Weld-on Boss P/I	N 10-01461	\$167.85
Oil Pressure Sender 1/8" NPT P/I	N 10-01568	. \$55.75

#### STANDARD MICROFLIGHT ENGINE GAUGES

Standard gauges are a low cost solution for monitoring engine performance. The gauges on this and part of the next page are light-weight, inexpensive alternatives. These gauges are not temperature compensated; changes in ambient temperature will affect their readings. Unlike our MICRO-1000 gauges, they do require shock mounting. All gauges come with a 1-year warranty which covers any malfunction. Prices include probes with 4-ft. leads. Gauges leads may be extended with 18-gauge wire. "C" at end of P/N indicates temperature scale in degrees celsius.



**CYLINDER HEAD TEMP.** 

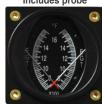
2-1/4", 0-700°F...P/N CH004......\$59.95 2-1/4", 0-350°C...P/N CH004C...\$96.75 Includes probe



**EXHAUST GAS TEMP.** 

2-1/4", 600-1700°F P/N EG004 ..... \$77.75 2-1/4", 400-900°C P/N EG004C ...... \$85.00

Includes probe



**DUAL CHT** 

2-1/4" ..... .P/N CH005 ..... \$85.00 2-1/4"..... ..P/N CH005C ..... \$113.95

Includes probe



# MICROFLIGHT GAUGES

#### STANDARD MICROFLIGHT ENGINE GAUGES

Standard gauges are a low cost solution for monitoring engine performance. The gauges on this and part of the next page are light-weight, inexpensive alternatives. These gauges are not temperature compensated; changes in ambient temperature will affect their readings. Unlike our MICRO-1000 gauges, they do require shock mounting. All gauges come with a 1-year warranty which covers any malfunction. Prices include probes with 4-ft. leads. Gauges leads may be extended with 18-gauge wire. "C" at end of P/N indicates temperature scale in degrees celsius.



#### **0-8000 RPM TACHOMETER**

3-1/8" for 2-cycle engines for single Ignition Ducatti Ignition. P/N TA023.. ...... \$98.75

For lighting coil operation No power required.



#### 0-8000 RPM TACHOMETER

2-1/4" for 2-Stroke Engines Single Ignition (all) ..P/N TA006 ..\$80.75 Ducati Ignition .......P/N TA021 ..\$77.75 For lighting coil operation No power required.



## **CHT/EGT COMBINATION**

2-1/4"......P/N CE003......\$147.95 2-1/4"......P/N CE003C....... \$129.95 Includes probe



#### **CHT PROBE**

"J" type sending unit with 4-ft. lead. 14 mm ......P/N CP001 ..... \$28.50 10 mm ......P/N CP002 ..... \$17.50





2", 0-350°C .....P/N CH001C .......\$56.85 2", 400-900°C ... P/N EG001C . \$108.95 Includes probe



**CYLINDER HEAD TEMP. EXHAUST GAS TEMP.** 2", 0-700°F .....P/N CH001 ........\$56.85 2", 600-1700°F. P/N EG001...... \$68.75 700-1700°F Includes probe



#### **CHT/EGT COMBINATION**

2" ......P/N CE001 ......\$119.95 2" ......P/N CE001C .....\$119.95 Includes probes



#### **EGT PROBE**

"K" type sending unit with 4-ft. lead. P/N EP001.... \$33.50 8 mm threaded EGT Probe (for new 2-stroke Rotax)... P/N EP002.... \$36.65



#### **DUAL CHT**

..P/N CH002 ...... \$105.95 2" ..... ......P/N CH002C ...... \$105.95 2" ......P/N EG002C ...... \$137.95 Includes probes



#### **DUAL EGT**

.P/N EG002 .... \$137.95 Includes probes



#### **DUAL TACH/EGT**

2" round gauge Tachometer - Universal for single or dual ignition. EGT range: 700-1700°F EGT probe (clamp type). P/N ET002R ...... \$122.75



#### 0-8000 RPM TACHOMETER

2" for 2-Stroke Engines Single Ignition Ducati Ignition

P/N TA020..... \$71.75 For lighting coil operation

## **AVIASPORT ROTAX INSTRUMENTS**





#### **ROTAX 912 2-1/4" CHT GAUGE FARENHEIT**

Rotax 912 CHT Temp - F. For use with VDO sensor only Red: 270-300. Yellow: 100-150, 220-270. Green: 130-220 Diameter: 57mm (2.25 in.). Motor: 912S.

P/N 15-06646......**\$116.85** 



#### **ROTAX 912UL 2-1/4" CHT GAUGE** IM-549 - Water Temperature Indicator (CHT) Rotax 912 engine (80HP) and 914.57 mm - Scale in °F. Designed

specifically for Rotax 912 (80HP) and 914 with silkscreen red areas green and yellow. Diameter 57mm, 100-300° F range, distance between 2° F indications in central area. Supply voltage 8-35V DC. It works with sensors that come from the factory with Rotax engines.

P/N 15-08392..... **\$120.75** 



#### **ROTAX 912 2-1/4" EGT GAUGE FARENHEIT**

A540 Rotax 912 EGT Temp - F. For use with Aviasport Sender only. Red: 1500-2000. Yellow: 600-1100. Green: 1100-1450. Diameter: 57mm(2.25 in) 

OTHER ROTAX EGT GAUGES	
IM-774 2" EGT 300-1000 C Rotax 914 P/N 15-08550	\$109.99
IM-775 2-1/4 EGT 300-1000 C Rotax 914 P/N 15-08551	\$119.75
IM-776 2 Dual EGT 300-1000 C Rotax 912 P/N 15-08552	\$118.75
IM-777 2-1/4 Dual EGT 300-1000 C Rotax 912 P/N 15-08553	\$121.75
IM-778 2 Dual EGT 300-1000 C Rotax 914 P/N 15-08554	\$118.75
IM-779 2-1/4 Dual EGT 300-1000 C Rotax 914 P/N 15-08555	\$121.75
IM-780 2 EGT 600-1800 F Rotax 912 P/N 15-08556	\$112.95
IM-781 2-1/4 EGT 600-1800 F Rotax 912 P/N 15-08557	\$123.80
IM-782 2 1/4 Dual EGT 500-1300 F Rotax 503 P/N 15-08558	\$129.99
IM-783 2.25 Dual EGT 500-1300 F Rotax 582 P/N 15-08559	\$129.95



#### **ROTAX 912 2-1/4" OIL** PRESSURE GAUGE PSI

A572 Rotax 912 Oil Pressure - PSI. For VDO Sender only. Red: 0-12, 90-150 psi. Yellow: 75-90 psi. Green: 30-75 psi. Diameter: 57mm(2.25 in)

P/N 15-05924.....**\$116.85** 



### **ROTAX 912/914 OIL PRESSURE GAUGE**

· 2 Oil Pressure · Ideal for use on Rotax 912/914 · Ranges from O-8Opsi • Includes 1/8 male NPT sender • Fits 2 1/16 cutout · Completely electrical · Requires 12 volts D/C P/N 15-06319......**\$122.75** 



## **ROTAX 912 2-1/4" OIL TEMPER-ATURE GAUGE FARENHEIT**

A558 Rotax 912 Oil Temp. For use with VDO Sender only. Red: 90-120, 280-320. Yellow: 120-190, 230-270. Green: 190-230. Note: Not for 912iS and 914 engines. See "Alternate Items" part number 15-08399. Diameter: 57mm (2.25 in.) Motor: 912S/914...... P/N 15-05926...... \$116.85



#### **ROTAX 912 2-1/4" TACHOMETER**

A105 Rotax 912 Tachometer. 0-7000 rpm. Electronic Connection only. Red: 0-1200, 5800-7000. Yellow: 1200-1800, 5500-5800. Green: 1800-5500.

P/N 15-05932 \$145.85



#### **ROTAX 912 3-1/8" TACHOMETER**

A149 Rotax 912 Tachometer - 3-1/8". 0-7000 range. Electronic connection only. Red: 0-1200, 5800-7000. Yellow: 1200-1800, 5500-5800. Green: 1800-5500.

P/N 15-05930.....



#### **ROTAX 912 2-1/4" VOLTMETER**

A562 Rotax 912 Voltmeter. Red: 8-10, 14-16 volts. Yellow: 10-11, 13-14 volts. Green: 11-13 volts. P/N 15-06650......**\$115.75** 



#### **ROTAX 912 2-1/4" FUEL** PRESSURE GAUGE BAR

A564 ROTAX 912 Fuel Pressure Bar. Requires Sender below. Red: 0-1.5, 4-6 bar. Green: 1.5 - 4.0 bar. Diameter: 57mm (2.25 in.). Sensor: 7 PSI.

P/N 15-06647.....\$127.75



#### **FUEL PRESSURE** SENDER - 1/8 NPT

A603 Aviasport Fuel Pressure Sender. 1/8" NPT threads. P/N 15-06648......\$185.95



#### **ROTAX 912 EGT 4 READING KIT**

The IM-553 instruments have been designed especially to measure the EGT in Rotax® engines 912. Includes the IM-580 EGT Connection Box. 300-1000°C

P/N 15-08617 \$184.99



#### **ROTAX 912UL 912 ULS** 2-1/4" EGT KIT

The IM-540 instruments have been designed especially to measure the EGT in Rotax® engines 912. Includes the IM-580 EGT Connection Box. 800-1800°F

P/N 15-08620.....



#### **ROTAX 912 2" INCH FUEL** PRESSURE KIT

The IM-584 have been designed especially to measure the FUEL Pressure in Rotax® engines 912 (Series). Includes the IM-604 Sensor. The display areas are divided into red, green and yellow zones in line with Rotax limits. 0-6 Bar. P/N 15-08624.... \$298.95



#### **ROTAX 912 2-1/4" INCH FUEL PRESSURE KIT**

Unlike mechanical instruments fuel pressure, electronic instruments use a high precision sensor to be installed close to the engine, avoiding cabin carry fuel lines. Includes the IM-604 Sensor 0-8 PSI ...... P/N 15-08629...... \$423.00



#### **ROTAX 914 3 EGT 4 READING KIT**

The IM-576 instruments have been designed especially to measure the EGT in Rotax® engines 914. Includes the IM-580 EGT Connection Box. The instruments use a pointer thats turns 240°, witch gives them great resolution. Their display areas are divided into red, green and yellow zones in line with the ROTAX limits. 600-1800 °F.

P/N 15-08623..... \$184.95



## **AVIASPORT ROTAX EGT TYPE K SENSORS**

Probe for the measurement of the temperature of exhaust (EGT) for all ROTAX engines. It has a thread metric 8 and it can be installed directly on the M8 nuts that come from manufactures some 912 and 914 engines. On the outlets that do not have these nuts, it is necessary to weld a nut M8. Stainless steel jacket.



#### **AVIASPORT ROTAX EGT TYPE** K SENSOR WITH CLAMP

Probe type clamp "K". Designed for engines ROTAX 447/503/582, you don't need welding. Simply drill the holes and tighten the clamp. Protected with stainless steel mesh. 2 meters cable length.

P/N 15-09440......\$**55.65** 

## **ENGINE MONITORS – SKYSPORTS - FUEL SYST**

# 15.3

#### **AVMAP ENGIBOX FOR ROTAX**

The EMS for ROTAX engines

With an update rate of five times per second, Engibox measures and displays the engine parameters to warn you instantly if any measurement exceeds the engine limits.

Data are recorded and stored in the internal memory (up to 160 hours). Download the free Engibox mobile App to get Instant Support

EngiBOX is a light and compact engine monitor displaying

• Exhaust Gas Temperature (EGT) • Revolutions per Minute (RPM) • Manifold Pressure (MAP) • Oil Pressure • Oil Temperature / Air Temperature • Cylinder Head Temperature (CHT) / Coolant Temperature (CT)

Without Probe	P/N 11-13657	\$749.00
With Probe	P/N 11-16537	\$1.100.00
Accessories:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
EGT Probe (1)	P/N 11-16544	\$68.75
Set of 4 Probes	P/N 11-16545	\$231.95
EGT Ext. Cable (6.5)	P/N 11-16546	¢22.75



**SKYSPORTS CAPACITIVE FUEL SYSTEMS**The Skysports fuel monitoring system is a capacitance system which has no float and no moving parts except the needle on the gauge. Used in hundreds of various ultralight, homebuilt, and military aircraft, these fuel systems have been very popular due to their accuracy and durability. The Skysports fuel probe electronically measures the level of fuel in the tank, and sends the signal through the wire harness to the gauge. Available for single or dual tank use and for 12 or 24 volt operation. The system includes the gauge, probe, 8 ft. wire harness, mounting hardware, & instructions. The SkySports 240-33ohm fuel systems are no longer available. They have been replaced with a new 0-5V system. These new systems, (listed below) can be used on both 12 or 24 volt aircraft. The older 240-33ohm gauge and probes are not interchangeable with the new 0-5V gauge or probes. However the installation of the systems are the same.

Note: The Skysports 240-330hm older style probes are only available as special order upon request.

## IN

#### **ROUND GAUGE SYSTEMS**



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Description	Part No	Price
2" Round 6" Straight Probe	10-04509	\$270.66
2" Round 12" Straight Probe	10-04495	\$256.56
2" Round 24" Straight Probe	10-04496	\$196.46
2" Round 12" with 3" Bendable Probe	10-04497	\$279.46
2" Round 24" with 3" Bendable Probe	10-04498	\$280.46
2" Round 12" with 5" Bendable Probe	10-04499	\$185.46
2" Round 24" with 5"	10-04501	\$255.46

#### **SQUARE GAUGE SYSTEMS**



Description	Part No	Price
2-1/4" Square 6" Straight Probe	10-04511	\$283.66
2-1/4" Square 12" Straight Probe	10-04502	\$269.56
2-1/4" Square 24" Straight Probe	10-04503	\$209.46
2-1/4" Square 12" with 3" Bendable Probe	10-04504	\$292.46
2-1/4" Square 24" with 3" Bendable Probe	10-04505	\$293.46
2-1/4" Square 12" with 5" Bendable Probe	10-04506	\$198.46
2-1/4" Square 24" with 5" Bendable Probe	10-04507	\$268.46

#### **INDIVIDUAL COMPONENTS**



Description	Part No	Price
2" Gauge Only	10-04119	\$76.95
2-1/4" Gauge Only	10-01246	\$89.95
12" Straight Probe	10-03758	\$149.85
6" Straight Probe	10-03753	\$163.95
24" Straight Probe	10-03773	\$89.75
12" with 3" bend probe	10-03746	\$172.75
24" with 3" bend probe	10-03774	\$173.75
12" with 5" bend probe	10-03761	\$78.75
24" with 5" bend probe	10-03776	\$148.75
Installation Kit	10-03731	\$29.75



Bendable Probe

#### MGL CAPACITANCE FUEL LEVEL SENDERS

MGL Avionics Capacitance Probe is available in 12" or 24" long. The senders can be bent above the black mark on the probe (first several inches only), and they can be cut to length.

P/N 11-14307 \$65.00



## **FUEL LEVEL SYSTEM BY DATCON**

This Datcon fuel gauge and senders are designed for use with 12 volt electrical systems in automotive, marine and homebuilt aircraft applications. The gauges have a round 2" diameter case with chrome bezel. Mounting brackets and instructions are furnished, 240-33 Ohms, Gauge No. 100177 with steel case ..... P/N 100177 ..... \$58.75 



#### UNIVERSAL SENDER FOR DATCON GAUGES

This Fuel Level Sender has removable mounting plate which can rotate 180° to mount on either right hand or left hand position. For 

## TERIES - CHARGERS





#### **POWERSONIC BATTERIES**

Power Sonic sealed maintenance-free batteries allow safe, trouble-free operation in any position. You never need to add electrolyte; gases generated during over charge are recombined in a unique "oxygen cycle". Under normal operating conditions, 4 or 5 years of dependable service can be expected in standby applications, or between 200 and 1000 charge/discharge

cycles, depending on depth of discharge. Temp. range: -76° to +140°F. 3-AMP BATTERY - Model: Powersonic PS-1230, PPS SKU: 35L116S1 Shipping Weight: 3 lbs, Dimensions: 5.23"L x 2.64"W x 2.36"H, Voltage: 12 Volts, Capacity: 3 Amp Hour(s), Chemistry: Lead.

P/N 11-03153 ...... 18-AMP BATTERY - Model: Powersonic PS-12180NB, PPS SKU: 35L105S3, Shipping Weight: 14 lbs, Dimensions: 7.13"L x 2.99"W x 6.57"H, Voltage: 12 Volts, Capacity: 18 Amp Hour(s), Chemistry: Lead.

P/N 11-03154 26-AMP BATTERY - Model: Powersonic PS-12260NB, PPS SKU: 35L107S1, Shipping Weight: 18 lbs, Dimensions: 6.56"L x 6.97"W x 4.92"H, Voltage: 12 Volts, Capacity: 26 Amp Hour(s), Chemistry: Lead

P/N 11-03155 ..... \$102.75

### **AEROVOLTZ AI SERIES EXPERIMENTAL** INTELLIGENT LITHIUM BATTERY



The Artificial Intelligence (AI) Series from Aerovoltz. The next-generation Al series of Intelligent Lithium batteries provide extended service life, less resistance, which means faster starts and quicker recharging if the battery is drawn down for any reason. The new case design has more robust DUAL terminals and is all-welded connections internally. Battery Management System (BMS)

All NEW Aerovoltz Intelligent Lithium Batteries contain a BMS system.

A battery management system is an electronic management system inside the battery that manages the charging of the Battery by protecting it from overcharging, balancing the cells during the charging process and make sure the battery operates in a safe environment

for some of your smaller four strokes like the Rotax 912-914 and Jabiru series 4 cylinder engines. ..... . P/N 11-17466..... **\$229.99** 

The AVAI-480 is designed to be strong enough for all two-cycle applications and for some of your smaller four strokes like the Rotax 912-914 and Jabiru series 4 cylinder and 6 cylinder engines, and 4 cylinder Lycoming and 4 cylinder Conti-.... P/N 11-17467...... **\$299.99** 

### **AEROVOLTZ BALANCE CHARGER KIT**



The only charger on the market designed specifically to work with the Aerovoltz battery. The primary advantage is the balance charging function. The Balance mode balances the voltage of each cell or cell pack while charging. By balance charging your you insure that the battery is operating at its maximum power. Periodic balance charging can also double the expected life of your battery. This charger is not required to operate your Battery, but it is highly recommended.

120V.......P/N 11-13081......\$114.85 



#### **ANTIGRAVITY 16 CELL** SMALL CASE BATTERY

480 Cranking Amps. It is the smallest 16-Cell lithium battery made at only 4.5" Length x 3.25" Depth and 5.25" height (to the top of the termi-



#### **ANTIGRAVITY 20 CELL OEM YTX12-20 BATTERY**

600 Cranking Amp and extremely compact size 5.8" Length x 3.4" Depth and 5.12" height (to the top of battery).... P/N 11-12105 ..... \$422.99

#### **ODYSSEY DRYCELL BATTERIES**





11-01651

11-02233



Odyssey batteries, with an eight year design life saves you time and money because you do not have to replace your battery as often. It is also the ONLY battery that is capable of delivering a large number of deep cycles up to 400 when fully discharged or up to 500 when discharged to 80%. Odyssey battery will maintain up to 50% state of charge after 2 years if stored at room temperature (77°F). At temperatures lower than 77°F, storage times will be even longer. The cranking power of Odyssey batteries is double to triple that of equally sized conventional batteries,

even when the temperature is as low as -40°F. 2 Year Warranty. Note: MJ=Metal Jacket. See website for additional Specs.

Part No.	Model	Dimensions	Weight	Price
11-08080	PC-625	6.7" x, 3.90" x 6.89".	13.2	\$140.99
11-08081	PC-545	7/8" x 3-3/16" x 5-1/8"	11.7	\$112.99
11-08082	PC-545MJ	7.0" x 3-3/8" x 5-1/8"	12.6	\$127.99
11-02233	PC-680	7.15" x 3.00" x 6.65"	15.4 lbs	\$128.99
11-05173	PC-925	6-15/32" X 6-7/8" X 4-7/8"	24 lbs	\$187.99
11-17113	PC-925L	6.64" x 7.05" x 5.04"	28 lbs	\$179.95
11-01651	PC-925MJ	6-9/16"x 6-7/8"x 5-11/16"	24 lbs	\$200.99



#### **METAL JACKET (TRAY)**

For Odyssey 680Amp battery... P/N 11-02234 ...... \$22.50



#### HOLD DOWN BRACKET FOR **ODYSSEY 680AMP BATTERY**

This hold down bracket for the Odyssey PC 680 battery can be easily mounted in any orientation. Color: Black P/N 11-01853



#### YUASA BATTERY Y50-N18L-A-CX

The Yumicron CX generates more power, requires less maintenance, and lasts longer than any other conventional battery. Specifications: Battery Family: Yumicron CX, Battery Type: Y50-N18L-A-CX, Voltage: 12 Capacity: 20 Dimensions: 8.125" x 3.5625" x 6.4375" Weight: 11.2 lbs. Metric Dimensions:

205mm x 90mm x 162mm Metric Weight: 5.1 kg, Acid Volume: 47.3 oz., Amps: 2 



#### YUASA BATTERY YB12C-A

YB12C-A YUASA Battery ships dry acid required. 12V, 5"d x 18"w x 14"h. Weight is 5.0 lbs.

P/N 11-07542 ......**\$59.95** 



#### **BATTERY TERMINAL TOOL**

This unique tool is designed to provide positive tightening of battery terminals on all popular brands of lead/acid aircraft batteries without over-torquing and without the danger of an electrical short. The tool is made from steel for rugged service and is fully insulated with a rubber hand grip 



#### **BATTERY CORROSION GUARD**

Battery Corrosion Guard forms a thin protective coating that will neutralize battery acid on all treated areas. It is an excellent way to clean the battery, hold down straps, and all metal parts you want to protect including cables, clamps, box, and posts. Excellent for aluminum battery boxes. Widely used in the aircraft, truck, and boat industries.

3 oz. can	. P/N 11-00310	\$16.65
8 oz can	. P/N 11-00320	\$24.75
11 oz. can	. P/N 11-09615	\$31.50



#### **PULSETECH POWERPULSE**

PowerPulse is not a charger. It's a performance device designed to help batteries charge faster and provide maximum performance and power. Used extensively by the consumers and the U.S. Military worldwide for almost ten years. The PowerPulse system can also be used together with an existing charging sys-

tem. In fact, it will work even faster and stronger. This means batteries can be both charged and desulfated at the same time. ......P/N 11-07464..... ......P/N 11-10461.....\$49.95

# **IGNITION SWITCHES - LIGHTS**

#### **MICROBURST SERIES** LIGHTING FROM WHELEN

LED Wingtip and Tail Lighting for Experimental and Light Sport Aircraft. MB3(Red or Green) .21 lbs., .45 amp (avg). Forward facing Wingtip Nav, with CometFlash 180° LED-Strobe and rear facing white Nav.

MB2 (Red or Green) .20 lbs., .40 amp (avg). Forward facing Wingtip Nav with MB2G Green CometFlash 180° LED-Strobe.

MB1WT White, .15 lbs, .35 amp (avg). Nav taillight with CometFlash 180° LED-Strobe. Utilizes same mounting as all (A500/A555 Style).



#### **MICROBURST I TAIL LIGHT ASSEMBLY**

LEDs are lightweight, low current and incredibly bright, vibration and moisture resistant... the ideal lighting technology for experience and LSA aircraft. MB1WT Single Taillight

P/N 11-08472.....**\$249.95** 



#### MICROBURST III KITMB3R & MB3G LIGHTING

LEDs are lightweight, low current and incredibly bright, vibration and moisture resistant... the ideal lighting technology for experimental and LSA aircraft. MicroBurst III Kit MB3K 1 MB3R (R) and 1 MB3G (G)

P/N 11-08473.....**\$449.00** 



EL

#### MICROBURST II KIT MB2R & MB2G LIGHTING

LEDs are lightweight, low current and incredibly bright, vibration and moisture resistant, the ideal lighting technology for experimental and LSA aircraft. MicroBurst II Kit MB2K 1 MB2R (R) and 1 MB2G (G) P/N 11-08474.....**\$359.00** 



## MICROBURST II WITH TAIL LIGHT KIT (MB2G & MB1WT)

LEDs are lightweight, low current and incredibly bright, vibration and moisture resistant... the ideal lighting technology for experimental and LSA aircraft. MicroBurst II with Taillight Kit MB2KWT 1 MB2R (R) 

## **UAVIONIX SKYSENSOR INTEGRATED** WINGTIP ADS-B IN SYSTEM



The skySensor EXP is the ADS-B in companion to the skyBeacon ADS-B out solution. This experimental-only wingtip ADS-B in receiver provides an easy to install path for dual band ADS-B in. The skySensor replaces your existing aircraft position light and uses the existing mounting location, breaker, and wiring while integrating an LED Navigation and Anti-Collision strobe light. The Wi Fi signal generated allows you to view 978 MHz and 1090 MHz traffic within your existing mobile flight software. Experimental Aircraft Only.

P/N 11-16576.....**\$750.00** 

### **UAVIONIX TAILBEACON NAV LIGHT ADS-B OUT**



uAvionix tailBeacon is the latest all-in-one ADS-B solution from uAvionix. Remove your standard rear position light and replace with the tailBeacon for ADS-B compliance. It is a 2020 compliant, near zero-install. Class B1S ADS-B UAT transmitter and WAAS GPS integrated into a rear position light. The power transcoder decodes replies from legacy Mode C and Mode S transponders. Experimental Aircraft Only

P/N 11-16575...... \$1,649.00

#### **AVEO POWERBURST DAYLIGHT SET**

At only 26 millimeters in height (1.024 inch) the PowerBurst™ DayLite is a value wingtip 3-in-1 LED light - Navigation / Position / Strobe that does not sacrifice anything in performance or standards as other economy-priced lights. The exclusive and highly advanced optics and chrome reflector system, unmatched power and LED management circuitry, and Aveo's famous lowest-drag profile in the

industry are all combined into a product that gives you unmatched POWER and FEATURES. Lower, narrower and shorter PLUS much lighter than industry lights in this category! For Experimental Use Only. Not approved for installation on certified aircraft. This is not a TSO certified light.

Features: • 3-in-1 Nav/Position/Strobe • Extremely lightweight • Unmatched circuit technology • Waterproof • Vibration-proof • Shock-proof • Dust-proof • Limited

3yr Warranty - Product must be registered within 30 days of purchase.

P/N 05-04877.....



#### **AVEO RED BARON** MINI LED LIGHT

The RedBaron Mini  $^{\text{TM}}$  is a cousin to the RedBaronXP $^{\text{TM}}$ , the world's smallest and brightest total coverage LED anticollision light. The new RedBaron Mini™ resulted from requests by high-performance resulted in offir requests by night-performance racing aircraft, super lightweight UAVs in the defense industry, and aircraft/helicopter manufacturers who wanted an upper and lower anti-collision light due to mounting area constraints. The answer came in this incredible new light, and only 110 groups is weight.

only 27 mm high and only 110 grams in weight. Exceeding all TSO intensity requirements and all DO-160F environmental requirements, the RedBaron Mini™ is now the world's smallest anti-collision light.

Red P/N 11-15481 \$489.00



## **AVEO POSISTROBE XP™**

TAIL / RUDDER LED LIGHT
• 2-in-1 Position & Strobe light ideal for tail, rudder or rear facing mounts • Optics designed for FAA/ICAO/EASA requirements • 9-32 volt input range · No external power supply or strobe unit, an Aveo world first • Light synchronization feature • Minimum drag profile • Unbreakable Diamidium™

encapsulation • Exclusive limited aircraft Lifetime Warranty • Unmatched circuit technology · Advanced computer and goniophotometer engineered optics.

White P/N 11-08134..........\$467.00



## AIRCRAFT SEXTANT NAV SYSTEM WITH CONSTANT

+ FAST STROBE 40W
These bulbs are standard parts and have been designed to meet the requirements of TSO-C30c. Complete combination navigation and strobe lights for your aircraft. Emitter Types: Cree LED's. Turn on first: Constant lighting / Turn on second time <3s: Fast Strobe. Switch between modes 



#### **NAVSTROBE AIRCRAFT NAVIGATION SYSTEM**

2 Modes: Constant & Fast Strobe.

Kit Includes: • 2ea. Wingtip combination navigation and strobe light (BAY15scs-10w-A-1512) • 1ea. White tail-fin combination navigation and strobe light (BA15sWcs-10w-1156) • 2ea. Lens cover gaskets (Sextant A450) • 1ea. Dielectric grease pouch (Sextant 31880)
P/N 11-16470.......\$166.80



#### **NAVSTROBE PAR 36 LED LANDING LIGHT**

Aircraft PAR36 Landing Light, 220w, 109, 400 LM LEDs. These are non-TSO'd...... P/N 11-14745......\$209.95



#### **NAVSTROBE PAR 36 LED TAXI LIGHT**

Aircraft PAR36 Taxi Light, 220w, 109, 400 LM LEDs. These are non-TSO'd..... P/N 11-14744..... \$221.95

## PERIMENTAL AEROLEDS LIGHTING



#### **AEROLEDS AEROSUN LANDING LIGHT NON-TSO**



The AeroSun™ is a wing-mounted LED (Light Emitting Diode) landing light with a built-in wig wag mode in addition to its standard operation as a landing/taxi light. The AeroSun™, constructed of extruded aluminum, is a very intense light source that uses 12 high power LEDs to produce up to 3960 lumens of light using just 36 Watts of power. The product is ideal for installations in aluminum aircraft or com-

posite aircraft where some airflow within the wing cutout exists. Typical installations include aircraft such as RV8,9,10; Zenith, Kitfox and Sonex. NON-TSO.

#### AEROLEDS MICROSUN LANDING LIGHT



The Microsun is a very intense light source that uses three high powered LED's to produce 1800+ lumens of light using 30 Watts of power. It is a small compact light that projects a lot of light and was designed for landing, taxi and recognition. The MicroSun can be

installed in the leading edge, wingtip cutout, landing gear or in the cowl on an aircraft and has a built in "wig-wag" or "pulse" feature. Each MicroSun light uses less than half the power of an equivalent 55W halogen light while producing more usable light. The LED light sources last up to 50,000 hours of constant operation, so you will never have to replace this light once it has been installed. It will outlast both Halogen and HID lamps.

.... P/N 11-07779.....

#### AEROLEDS SUNRAY PLUS LANDING LIGHT



The SunRay Plus is a wing-mounted LED (Light Emitting Diode) landing light with a built-in wig wag feature in addition to its standard operation as a landing/taxi light. The SunRay Plus is a very intense light source that uses 4 high power LED's to produce up to 1,000+ lumens of light and 30,000 candela using 10 watts of power. Each SunRay Plus light uses less than half the power of an equivalent 55 watt halogen light while producing more us-

able light in a more narrow beam. The LED light source last up to 50,000 hours of constant operation, so you will never have to replace this light once it has been installed. It will outlast both Halogen and HID lamps. The SunRay Plus is protected against overheating with a built in protection circuit, is protected from lightning transients and ESD, voltage spikes, reverse voltage, and undervoltage conditions. NON-TSO.

Landing Light	P/N	11-09348	\$295.00
Mount Kit	P/N	11-12037	\$35.00



#### **AEROLEDS AEROSUN VX** LANDING LIGHT FOR RV

The Aerosun Vx is a high intensity wingtip landing/taxi/recognition light designed specifically for the Van's RV

family of airplanes. Each unit draws 60 Watts of power and generates over 5000 lumens of light per wingtip. The lights include a built-in wig wag controller for a supply and possible lights. in wig-wag controller for a synchronized recognition light mode. The Vx can be installed in any RV-6, RV-7, or RV-8 that has a set of W-715-1 fiberglass wingtip fairings with the 6" wide light cove. The Aerosun Vx can also be installed in the RV-9, RV-10, and RV-14 models but require using a conversion kit which is sold separately that enlarges the size of the light cove to accept the Vx. See Options. P/N 11-12921.....\$895.00



## **AEROLEDS POLARIS LED NAV BULB FMA-PMA**

AeroLEDs is proud to introduce Polaris, an FAA-PMA approved all-LED replacement for the legacy incandescent navigational lamps.

Mote: 12v replaces the A7512-12, W1290-14, T7512-12, CMA7512-12, ML7512-12, UA-7512-12, M25309-7512. 24v replaces the W1290-28, T7512-24, CMA7512-24, A7512-24, ML7512-24, 972.72.54.508, MIL-L-6363/2, 6240-01-390-1001-001 4921, 6240-01-143-8650, MS25309-7512, AN3122-1524, 1524, 040-0046, 753-478.

Specifications: • Voltage: 9-18VDC / 18-32VDC • Current: 0.46A @ 14VDC / 0.37A @ 28VDC · Power: 7 Watts / 10 Watts · Pulse/WigWag: N/A · Synchronization: N/A · Lumens: 500 lm · Nav Light: Exceeds TSO C-30C Type I & II · MTBF: >30,000 Hours • Length: 2.0" • Width: 1.3" • Depth: 1.1" • Weight: 1.1 oz · Heat Sink Material: Aluminum/Black Powder Coat · Lens Material: Clear LSR Mounting BAY15S Socket • Temperature Range: -55C to +70C

Description	Part No.	Price
12V - LED Nav Bulb FMA-PMA	11-17571	\$119.00
24V - LED Nav Bulb FMA-PMA	11-17572	\$119.00

## **AEROLEDS PULSAR NS STROBES**



The Pulsar NS (Navigation and Anti-collision Strobe) lights are designed to be installed on the wingtip or in the wingtip cut outs of an aircraft. The SunTail (Anti-collision Strobe and Position) light for the tail of the aircraft is recommended with the Pulsar NS lights. The strobes

on the SunTail and Pulsar NS lights will sync to strobe together. Non-TSO. Experimental Versions:

Description	Part No.	Price
12V Pair	11-15278	\$895.00
12V (Left Only)	11-15859	\$447.50
12V (Right Only)	11-15860	\$447.50
24V Pair	11-15279	\$929.00
24V (Left Only)	11-15862	\$447.50
24V (Right Only)	11-15863	\$447.50

#### **AEROLEDS PULSAR NSP STROBES**



The experimental Pulsar NSP (Navigation/Anti-collision Strobe/Position) wingtip lights are designed to be installed on the wingtips of an aircraft where the navigation (red and green) and position (white) lights can be seen to determine the direction of the aircraft.

#### **EXPERIMENTAL VERSIONS:**

Description	Part No.	Price
12V (Left) Unit Only	11-15864	\$464.50
12V (Right) Unit Only	11-15865	\$464.50
12V Pair Unit Only	11-15280	\$929.00
24V (Left) Unit Only	11-15866	\$464.50
24V (Right) Unit Only	11-15867	\$464.50
24V Pair Unit Only	11-15281	\$929.00



#### **AEROLEDS PULSAR STROBES**

The Pulsar LED navigation and anticollision light assembly is designed with 4 forward navigation LEDs, 2 rear position LEDs, and 18 LEDs mounted beneath the anticollision lens

Description	Part No.	Price
12V	P/N 11-17138	\$996.00
24V	P/N 11-17139	\$1,422.00



## **AEROLEDS SUNTAIL WHITE POSITION STROBES**

The experimental SunTail (Anti-collision Strobe and white Position) light has been designed for the tail of the aircraft. The SunTail is recommended with the Pulsar NS 180 (Navigation/ Anti-collision Strobe) lights. Available for 14V and 28V electrical systems. Non-TSO.

Description	Part No.	Price
12V - White Experimental	11-15268	\$395.00
24V - White Experimental	11-15269	\$395.00



#### **AEROLEDS RV KITS**

Four different kits from which to choose. All kits do not require power supply.

Description	Part No.	Price		
Included in RV Kit Option 1: Pulsar NS90 Pair (Nav/Strobe) for wingtip cut out SunTail (Position/Strobe) for the rudder	11-09921	\$1,245.00		
Included in RV Kit Option 2: Pulsar NS90 pair (Nav/Strobe) for wingtip cut out SunTail (Position/Strobe) for the rudder Two Aerosun (landing/taxi/recognition lights)	11-09922	\$1,895.00		
Included in RV Kit Option 3: Pulsar NS90 pair (Nav/Strobe) for wingtip cut out SunTail (Position/Strobe) for the rudder Two Sunray Plus (landing/recognition lights) for wingtips	11-09923	\$1,835.00		
Included in RV Kit Option 4: Pulsar ExP pair (Nav/Position/Strobe) for external wing-tips Two Aerosun (landing/taxi/recognition lights)	11-09924	\$1,400.00		

## ROTAX.

## RANSCEIVERS - INTERCOMS



#### **ICOM A16 VHF COM AIR BAND TRANSCEIVER**

The A16 is built tough and rugged like all lcom radios. It is the smallest radio with the loudest audio on the market, featuring 1500 mW of powerful clear audio. Packed with 6 watts of power for longer range, the A16 is also waterproof to IP67 standards. The A16 is the ideal flight companion for the student pilot, for ground crew with one hand operation on the flight line, or as a 



#### **ICOM A25C VHF** AIR BAND COM RADIO

The A25C is a powerful air band handheld with 6 watts of power and an IP57 waterproof rating; weather cannot stop these radios. The handheld includes a large 2350mAh Li-ion battery, providing a long operating time. The easy-to-use interface and large 2.3-inch LCD display combine to provide stress-free programming and in-flight operation. Frequencies: TX (COM); 118.00-136.975MHz. RX (COM); 108.00-136.975MHz. RX (Weather); 161.650-163.275MHz Channel spacing: 8.33/25KhZ. Channels: 200 (20CH x 10 banks). Battery life: 2350mAh Li-ion battery, up to 10.5 hours. Typical operation with Tx:Rx:Stand-by duty ratio = 5:5:90, Power save ON. Version: Communications only.

110V (Rechargeable Battery) ... P/N 11-15459......\$449.99 220V (Rechargeable Battery) ... P/N 11-15460. \$449.99 A25C Sport (AA Battery Pack) ... P/N 11-16533. \$299.99



## **ICOM A25N VHF AIR BAND NAV /** COM / GPS RADIO WITH BLUETOOTH

The A25N is a powerful air band handheld with 6 watts of power and an IP57 waterproof rating; weather cannot stop these radios. The handheld includes a large 2350mAh Li-ion battery, providing a long operating time. The easy-to-use interface and large 2.3-inch LCD display combine to provide stress-free programming and in-flight operation. This handheld features built-in Bluetooth®, GPS and VOR navigation. Output power: 6W typ. (PEP), 1.8W (CW). Frequencies: TX (COM); 118.00-136.975MHz. RX (COM/NAV); 108.00-136.975MHz. RX (Weather); 161.650-163.275MHz. Channel spacing: 8.33/25KhZ. Channels: 200 (20CH x 10 banks). Battery life: 2350mAh Li-ion battery, up to 10.5 hours. Typical operation with Tx:Rx:Stand-by duty ratio = 5:5:90, (Bluetooth OFF, GPS ON). Version: Communications plus navigation. Large easy to use LCD. The A25's large 2.3-inch LCD provides

user-friendly, graphic screens. The day mode allows pilots to view the screen in direct sunlight and the night mode makes it easy to read in the dark.

110V	. P/N	11-15461\$	3499.00
220V	. P/N	11-15462\$	3499.99
BP289 AA Battery Case	. P/N	11-16396	\$45.50
OPC2144 Right Angle Adapter	. P/N	11-16395	\$27.65
OPC2379 Headset Adapter for A25			



#### SKYCOM 200E - 2 PLACE PORTABLE INTERCOM

Portable & Compact • Pilot/Co-Pilot Volume Controls · Adjustable Squelch Circuit · Fail Safe Mode · Easy Battery Access · Powered by 9V Battery • 25-30 Hours Battery Life SkyCom 200 2-Place Intercom

P/N 11-11860 ..... \$89.95 SkyCom 200 4-Place Intercom P/N 11-11865 ..... \$118.95



#### SOFTCOMM PORTABLE **INTERCOMS**

These top quality, economical intercom systems are perfect for any type aircraft and are compatible with any standard headset. Features include automatic on/off power, panel controls for volume and gain and a pilot isolate switch

or panel mountable with pilot and copilot transmit as a standard feature. These intercoms can be used with other equipment to record instructions or play cassette music. The new model of the ATC-2 has reduced size and weight, and a front-panel mounted PTT switch. The improved ATC-4 and ATC-6 also have a new dual transmit design. All units have also power and and a pilot isolate switch. a new dual transmit design. All units have aux power cord and stereo cable. With pilot isolate and push-to-talk switch. Model ATC-2T is a 2-place portable intercom designed for the student pilot. It has a recording feature that allows all CFI and ATC instruction to be recorded on a standard cassette player for future study. It is 9V battery powered and is compatible with all general aviation

2-Place Portable (mono) ATC-2Y	. P/N 11-05818 <b>\$199.95</b>	
4-Place Portable (stereo)ATC-4S	. P/N 11-05905 <b>\$292.95</b>	



#### YAESU FTA 250L VHF **HANDHELD RADIO**

The Yaesu FTA-250L is an affordable, compact (COMM ONLY) Airband transceiver. Featuring an extremely rugged Polycarbonate housing with an IPX5 Waterproof rating for use in harsh environments with rain, splash and spray. Loud 700mW audio output guarantees that radio calls will not be missed even in noisy environments. 8.33kHz Narrow Band capable, with a huge programmable 250 channel capacity memory bank. The FTA-250L comes programmed with Yaesu's exclusive E2O Easy to Operate menu system making the radio a pleasure to operate without the use of a manual.

The intuitive operating system is further complimented by the high resolution Dot Matrix display and the bright, fully Lit, sunlight viewable backlight. Value packaged with a High Capacity (1950mAh) Li-ion battery, Headset adapter, belt clip, 100-240VAC charger, 12VDC charger / power cable, with drop in charging cradle. The Yaesu FTA-250L is backed by a capacity control of the control of the charge of the control of the co industry leading 3 year waterproof warranty. ... P/N 11-15413 ......\$199.95 



## YAESU FTA 450L VHF

HANDHELD RADIO
5W TX output. Large 1.7" x 1.7" Dot matrix Display. Back-lit
Keypad and Display. 800 mW Audio Output. 200 Memory Channels. 8.33kHz Narrow Band compatible. IPX5 Waterproof rating. Includes High-Capacity 1800mAh Li-ion battery. Includes Alkaline battery tray (6 x AA). NOAA Weather Channels with WX 



#### **YAESU VERTEX** FTA 550 VHF HANDHELD

The YAESU FTA-550 is packed with features, yet very affordable. Boasting an oversize full dot matrix LCD display, the FTA-550 Airband Transceiver provides full communication on the Aircraft communications Band and additionally provides VOR and ILS navigation features on the "NAV" band. The FTA-550 includes NOAA weather band monitoring and the capability of programming up to 200 memory channels with a quick and easy channel recall feature. The brand new easy to operate menu system is icon driven making it simple to navigate through all of the powerful features this transceiver has to offer. Additionally the FTA-550 can easily be reprogrammed in minutes using the

optional PC Programming software and the supplied USB programming cable.

Features: • Easy to Operate Menu system • Huge Dot Matrix Display (160 x 160 dots) • VOR Navigation Display • 200 Memory channels with up to 15 Alphanumeric characters.

Aphandment characters.

Specifications: • 25kHz & 8.33kHz spacing • 5 Watts TX Output Power (Airband: AM 5W P.E.P. type, 1.5W carrier) • Huge 1.7" x 1.7" Full Dot Matrix display (160 x 160 Dots) • ILS Navigation Display • NOAA Weather Channel receive\* • NOAA Weather Alert\* • 200 Memory Channels with 15 alphanumeric characters • Back-lit Keypad and display with dimmer • Water Protection -IPX5 Rating • Loud Audio (800 mW).

AA Battery Version		11-12461	\$198.95
Li Ion Battery Version 110V			
Li Ion Battery Version 220V	P/N	11-12530	\$294.95



#### **FLIGHTCOM IISX** PORTABLE INTERCOM

The IIsx is the world's most popular 2-place, portable intercom. The modular design offers expansion capability to the backseat if needed. • Expandable to 4-place portable with optional SR-4 expansion module · Auxiliary inputs and outputs for music or recording flight information · Low-battery

indicator and pilot isolate • Uses aircraft power or 9-volt battery Flightcom IISX 2 place includes: • IISX Intercom • Cigarette lighter adapter • Co-pilot transmit cable Flightcom IISX 4 place includes: • All parts in the 2 place • SR-4 expansion module 

#### FLIGHTCOM 403LSA INTERCOM



2-place stereo activated intercom enhances the fun of flying, as well as safety, by optimizing communication clarity. Features include 2-place capability, instant music muting,

and pilot isolate so you can focus on your flight. Easy to use and designed to fit almost anywhere in the panel. Switches provided in installation kit allow individual headphone positions to select either stereo or mono mode. Weight: 5.0 oz. Size: 5 in. L X 2.4 in. W X 1.2 in. H Power Requirements: 0.16 amp, 12-28 VDC 

## **NTERCOMS - HEADSETS**

#### **SKYCOM & SKYPRO HEADSETS**



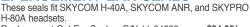
#### **SKYCOM I SERIES**

Was first offered over 10 years ago and is designed around the traditional, oval-shaped headset design used for over 40 vears in aviation. It features a steel headband, large headpad, and metal voke/pivot system. Earseals mount around a protruded flange and are easily replaceable. The reversible boom mounts on the side of the cup and offers two styles on the models offered

All models offer electrets N/C mics and and a one year war-ranty. The ANR model offers over 15dB of additional cancellation using a detachable 9 volt battery module

Skycom 40-A: 18 oz, 24 dB	P/N 11-09099	\$89.95
Skycom 80-A: 18 oz, 23 dB	P/N 11-09098	\$239.00
Skycom ANR: >15 dB ANR.	P/N 11-02214	\$129.95

#### REPLACEMENT EAR SEALS



ľ	Replacement Gel Ear Seals P/N	11-04680	\$24.95/pr.
	Replacement Foam Ear Seals P/N	11-04681	\$11.95/pr.

#### **HEADSET/INTERCOM PACKAGES**

#### **SKYCOM PACKAGE #1**

<ul> <li>2 Skycom H-40A Headsets</li> <li>1 Skycom 400</li> </ul>	) Intercom (portable) • Headset Bag
Push-To-Talk Switch	P/N 11-11885 <b>\$533.00</b>

#### **SKYPRO PACKAGE #2**

<ul> <li>2 Sky Pro Headsets</li> <li>1 Skycom 400 Intercom</li> </ul>	i (portable) • Headset Bag • Push-
To-Talk Switch	P/N 11-11890 <b>\$524.00</b>

#### **DAVID CLARK H10-13.4 HEADSET**

Provides David Clark quality without the hot spots, clamping, or weight discomfort. Features a certified noise reduction rating of 23 dB and weighs only 13.4 oz. Drastically reduced headband force, new soft air-flow pillow headpad, flo-fit gel ear seals, M-7A noise cancelling electret mic, and low profile volume controls with detect settings. 5 yr warranty.

P/N H10-13.4		\$336.42
P/N H10-13.4S (stereo)		\$342.47
	5ft. coiled cord)	

#### **FLIGHTCOM DENALI D50ANR HEADSET**



At less than 14oz, this headset is the lightest ANR model available. Denali's ComLeather™ ear seals help abate noise and offer a comfortable fit. The sleek ear domes stay securely in place, reducing side force. This ANR model also has SPS - a digital power management circuit. The SPS conserves battery life by shutting off the ANR circuit when not in use. Full passive performance is maintained when the ANR circuit is off. ANR model achieves additional 18-20dB at certain key low frequencies. ...... P/N 11-10818 ...... \$359.00

#### FLIGHTCOM DENALI D90ANR HEADSET



At less than 14oz, this headset is the lightest ANR model available. Denali's ComLeather™ ear seals help abate noise and offer a comfortable fit. Includes dual inputs that support cell phone and Aux connections for communication and entertainment. Automatic muting ensures that all incoming transmissions are instantly heard. Uses two always available AA-size batteries for up to 50 hours of continuous ANR use.

Also has SPS - a digital power management circuit. The SPS conserves battery life by shutting off the ANR circuit when not in use. Full passive performance is maintained when the ANR circuit is off. ANR model achieves additional 18-20dB 



#### **FLIGHTCOM 4DX CLASSIC**

The 4DX Classic is an entry-level headset with classic Flightcom ruggedness. With an easy-to-position wire articulated boom and a ventilated foam rubber headpad and combined liquid and foam ear seals, the 4DX Classic is comfortable and affordable. Noise canceling electret microphone • Single-volume control • Stereo/mono switchable • NRR 24dB · Weighs 16.9 ounces · Mic muff and cloth ear seal covers

included • Three-year warranty ...... P/N 11-17110 ...... \$109.00

#### COMTRONICS HEADSETS



MODEL-3100 HEADSET - Comtronics Model-3100 Headset has a 34 dB noise attenuation rating making it one of the quietest passive headsets on the market today. The electret noise-canceling Microphone has state-of-the-art voice quality and is compatible with all current Comtronics intercoms and radio interface cables. Headset cables can be terminated with a single plug or configured with two plugs for general aviation use. Earmuffs can be adjusted up or down. All Comtronics hel-

mets and headsets are designed for high noise environments and open cockpit flying including ultralights, powered parachutes, auto-gyros and all sport planes. ......P/N 11-07425.....**\$239.95** 



MODEL-3000 HEADSET - The Model-3000 Headset offers 30 dB noise attenuation • They are light-weight and have dark green muffs • Ear seals are fluid foam-filled cushions and very comfortable · Can be fitted with our PRO-COM Helmet. · Gel/ Foam Ear Seals are optionally available • This headset can also be used for high noise environments • Weight: 1 lb.(Dark .....P/N 11-09942....



PRO-LITE SUPERIOR STEREO HEADSET - This headset uses either ultralight or general aviation audio and has a second pair of speakers for High Fidelity Stereo Music. Outstanding audio! • Music Speakers Frequency Response: 15 - 25000 Hz • 3.5 mm Stereo Music Jack on Ear Cup • Comes with Music Cord • Comfortable • Gel/Foam Ear Seals can be added for extra comfort and noise attenuation • NRR 33 - 45 dB • Can also be used with our PRO-COM Helmet • Weight: 1 lb.

\$289.95 w/ Electret Mic (Blue)...... P/N 11-09943..... 



#### **COM-AIR MODEL-5000 GENERAL AVIATION HEADSET**

· Similar to Model-3100 Headset · General Aviation Plugs and Audio · Can also be fitted with our PRO-COM Helmet · Also available is a General Aviation - to - Ultralight Adapter • Gel/ Foam Ear Seals can be added • Weight: 1 lb. (Black)
P/N 11-09944.....



#### **BOSE A20® ANR HEADSETS -**WITH BLUETOOTH

The A20 Aviation Headset is engineered to be more comfortable and provide more noise reduction than any headset we've ever made, while still delivering the clear audio you expect from Bose. And now there are more features than ever, including: a Bluetooth audio and communications interface; customizable audio prioritization control; intuitive "plug-andplay" operation; a high-performance microphone and an optional coil cord.

Dual GA Plugs	P/N	11-0	18/24	 \$1,095.95
Lemo 6-Pin Plug	P/N	11-0	8725	 \$1,095.95
Helicopter Plug	P/N	11-0	8726	 \$1,095.95



#### **ZULU 3**

The most comfortable, most durable headset Lightspeed has ever made. Performance ear seals are tapered to provide a more natural fit, for greater comfort and stability. Plush ear seals provide 20% more surface area than competitors, for a better seal around glasses frames and a more comfortable distribution of side pressure. Larger cup cavity provides 50%

more space for your ears, allowing the entire ear to fit comfortably inside

Bluetooth Dual GA Plugs	P/N 11-14868 <b>\$850.00</b>	
Bluetooth Lemo Plugs	P/N 11-14870 <b>\$850.00</b>	
Bluetooth U-174 Heli Plugs	P/N 11-14871 <b>\$850.00</b>	



DAVID CLARK DC ONE-X HEADSET
The DC ONE-X headset features the perfect combination of
comfort, technology and durability. From the moment you put
it on, you'll notice the difference. The feel of plush, leatherette ear seals that enclose your ears in comfort. The soft, Outlast® fabric, vented head pad that actually absorbs heat buildup to keep you cool during long flights. The advanced, Hybrid Electronic Noise Cancellation technology that delivers extraordinary ANR performance. The rugged, yet lightweight alloy suspension system with adjustable headband and swivel hinge stirrups to ensure

OneX Dual Plug Battery Powered	P/N	11-14296	\$895.00
OneX 6 Pin Plug Aircraft Powered	P/N	11-14297	\$895.00
OneXH for Helicopters	P/N	11-14901	\$875.00
Leatherette Ear Seals	P/N	11-15265	\$37.90

## HEADSETS & HELMETS

#### **COMTRONICS HELMETS**



COMTRONICS ULTRA-PRO HF HELMET - The ULTRA-PRO HF Helmet is superb for open cockpit flying. This helmet is completely enclosed and comes standard with a clear full face shield. It offers super coverage and also protects the microphone from wind noise. It has a quick release button for the face shield, rear exhaust diffuser, adjustable top

vent, ultra-plush interior, padded D-Ring straps, UV protective clear coated paint and is DOT approved. The helmet interior has a comfortable liner, built-in ear cups with a pair of 2-inch speakers to enhance

TO DETERMINE HAT SIZE, measure around your head just above the ears and eyebrows.

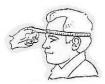
Take this dimesion in inches and divide by 3.14. This will give your hat size. **EXAMPLE:** 

For a head measuring 23.5 inches - dividing 23.5 by 3.14 yields 7.48 -

7.48 equates to a 7-1/2 hat size.

See chart below to convert from hat size to helmet size.

NOMINAL SIZE	HAT SIZE
SMALL	6-5/8" to 6-7/8"
MEDIUM	6-7/8" to 7-1/8"
LARGE	7-1/8" to 7-3/8"
X-LARGE	7-3/8" to 7-5/8"
XX-LARGE	7-5/8" & UP





#### **COMTRONICS ULTRA-PRO FULL FACE - Com-**

tronics Full Face fiberglass helmets are complimented by an Air Channel technology vent system, quick release shield system, padded chin bar, adjustable chin and top vents, rear exhaust vents, breath spoiler, padded D-ring retention system, UV clear protects paint and graphics, and DOT approved. The

#### **COMTRONICS ACCESSORIES**

Description	Part No.	Price
Coiled Cord - Helmet/Headset Option	11-07438	\$57.95
Gel/Foam Ear Seal Cushions	11-07439	\$47.95
Face Shield - Clear	11-07440	\$49.75
Face Shield - Smoke	11-07441	\$49.75
Ulta Paq II - Heavy duty pack for the Ultra-Com II intercom	11-07442	\$44.95
Dual Paq II - Heavy duty pack for the Dual-Com II intercom	11-07443	\$58.95
Peak Visor	11-07444	\$8.60
Windscreen - Foam / Dynamic	11-07445	\$11.95
Windscreen - Foam / Electret	11-07447	\$12.75
Windscreen - Leather / Electret	11-07448	\$11.95
Dynamic adapter - Ultralight To Dual GA	11-09433	\$94.75
Electret adapter - Ultralight To Dual GA	11-08645	\$92.50



EXPERTS IN LIGHTSPORT AVIATION

SAME DAY SHIPMENT!
GUARANTEED LOWEST PRICES!
YOUR SOURCE FOR LSA SUPPLIES!

#### **COMTRONICS INTERFACE CABLE**

Interface cables are designed to connect our helmets or intercoms to your transceiver. Different interface and custom cables available.

Cable For:	Part No.	Price
Icom A6/A24/A14	11-07450	\$137.75
Vertex VXA 220/ 300/ 710	11-02562	\$17.75

## COMTRONICS HELMETS COMTRONICS ULTRA-PRO STANDARD -

The ULTRA-PRO Standard Helmet also has a plush fully upholstered liner and beaded foam inner shell with the new ultra-soft chin pad design. A feature unique to the Comtronics ULTRA-PRO Standard Helmet, the flipout ear muffs allow easy entry and ability to converse with a student or passenger while making pre-flight inspections. Muffs have an elastic band over the ear cup enabling the wearer to pull muffs more tightly against the ear. Helmet chin straps are available with "D" rings

#### **MARK 4 SILVER CROSS GOGGLES**



All leather face mask, colour matched head bands, Split lenses, bright polished and chrome plated frames, Sliding Nose Bridge Adjustment.

P/N 13-06000.....\$99.85

Replacement Lenses for Silver Cross Goggles

Clear, set of 2	P/N	13-06100 <b>\$34.80</b>
Smoke, Set of 2	P/N	13-06200 <b>\$39.75</b>

#### **WORLD WAR II RAF FLYING GOGGLES**



A faithful Replica incorporating dark brown soft leather face mask stitched to the RAF blue painted solid brass frames. The traditional Split Lenses

P/N 13-05860.....**\$89.95** 

#### VINTAGE AVIATOR GOGGLES



Soft Brown or Black Leather face Mask, Hand Stitched to silver or black painted solid brass frames. Screw adjustment on nose bridge

P/N 13-06310.....**\$89.95** 

#### LEATHER FLYING HELMETS



#### **GOATSKIN HELMET FOR DAVID CLARK HEADSETS**

Note: Specify size by completing part no. with -S, -M, -L Small (19"-20") Med (21"-22") Large(23"-24")

Official (10 20 ) Mod.(21 22 ) Edigo(20 24 )		
Black (Small) P/N 11-10505-S	\$89.95	
Black (Medium) P/N 11-10505-M	\$89.95	
Black (Large) P/N 11-10505-L	\$89.95	
Black (X-Large) P/N 11-10505-1	\$89.95	
Brown (Small) P/N 11-10510-S	\$89.95	
Brown (Medium) P/N 11-10510-M	\$89.98	
Brown (Large) P/N 11-10510-L	\$89.95	
Brown (X-Large) P/N 11-10510-1	\$97.75	



# LYNX PILOT SYSTEM LEATHER HELMET

A soft leather helmet with padded chamois lining for use with a Pilot System headset. The helmet is fitted over the headset and combines with it to form an integrated assembly. Hand made to resemble a second world war fighter helmet. and weighing only 270 grams, this helmet is ideal for use in classic open-cockpit aircraft.

Standard (55-59cm)	P/N	11-11196\$383.00
Large (5-63cm)	P/N	11-05364 <b>\$469.00</b>

AV





#### LYNX MICRO SYSTEM

The Micro System is a unique self contained intercom system which is plug and play compatible with any radio. This equipment is extremely popular for use is open cockpit aircraft and is the market leader for use in ultralight, powered parachutes, etc.

#### **MICROSYSTEM COMPONENTS**

Part No.	System Equipment	Description	Price	Part No.	System Equipment	Description	Price
11-05346	Micro System Headset	Self contained intercom headset.white*	\$683.00	11-05359	Headset Exten. Lead	Used to extend the headset leads.	\$112.75
11-05350	Micro System Helmet	EU certified protective helmet. S	\$299.95	11-05360	Panel Exten. Lead	Extension lead with panel socket.	\$145.75
11-05351	Micro System Helmet	EU certified protective helmet. M	\$299.00	11-05361	Headset Panel Adap.	Converts lead socket into panel.	\$104.75
11-05352	Micro System Helmet	EU certified protective helmet. L	\$298.95	11-05362	Headset Lead Splitter	Used to connect several headsets together.	\$195.75
11-05353	Micro System Helmet	EU certified protective helmet. XL	\$299.95	11-05363	Headset Lead Comb.	Connects several interface units together.	\$195.00
11-05354	Helmet Visor Standard	Attaches to the helmet with screw fixings.	\$109.75	11-05365	Helmet Goggles	For use with either type of helmet.	\$136.75
11-09310	High Visibility Visor	For use with Lynx helmets large	\$89.95	11-05366	Double Helmet Bag	Large bag for complete systems.	\$175.00
11-11196	High Visibility Visor	For use with Lynx helmets standard	\$469.00	11-07092	Radio Splitter + Coiled	Connects in-line with a headset and provides connections for an additional device.	\$519.00
11-05364	Leather Helmet	Soft leather helmet for headset large	\$469.00		Radio Lead	Connections for an additional device.  Connecting different radios to portable	
11-05347	Headset Coup. Adap.	Connects two headsets together.	\$58.75	11-07093	Coiled Radio Leads	interface equipment.	\$44.50
11-05348	Headset Switch Adap.	Switch-on a single headset.	\$26.50	11-07094	Straight Radio Leads	Connecting different radios to portable	\$42.00
11-05349	Dual Charger	Wall charger headsets.	\$128.75		Car Charger	interface equipment. Charges two headsets at the same time.	\$119.75
11-05356	Visor Extension	Wind deflector chin guard for visor.	\$52.75		•	Connecting professional recording	
11-05357	Helmet Bag	Cloth bag for a helmet and visor.	\$15.75	11-07096	Audio Output Lead	equipment to the Micro System	\$36.50
11-05358	Headset Bag	Cloth bag to protect a headset.	\$15.65	*See Web	site for other colors		

#### MICROSYSTEM ACCESSORIES

MIONOTOTEM AODESSONIES							
Part No.	Radio Equipment	Description	Price				
11-05368	Twin Jack Adapter	Converts the headset to twin jack plugs.	\$229.95				
11-05369	Audio Adapter	Connects a Walkman or mobile telephone.	\$415.00				
11-05370	Radio Adapter *	Connects one headset to a radio.	\$493.00				
11-05371	Radio Interface unit *	Connects one or two headsets to a radio.	\$518.00				
11-05378	Radio/Power Interface unit *	Powers two headsets and a radio. For Type B connections only and these radios: ICOM A3, A22, A6, A24 and ICA5, A23 with the CT-44 adapter. Vertex Standard VXA-100, 120, 150, 200, 210 with the CT-44 adapter. All other radios will require special order.	\$478.00				
11-05372	Velcro Mount PTT Switch	Velcro fixing PTT Switch.	\$99.85				
11-05373	Screw Mount PTT Switch	Screw fixing PTT Switch.	\$59.95				
11-05374	PTT Extension Lead	Two Metre extension lead for PTT Switch.	\$73.75				
11-05375	PTT Connector and Lead	Special PTT connector with two metre lead.	\$33.00				
11-05376	Audio Input/Output Lead	Connects a Walkman to an Audio Adapter or Power Interface.	\$46.50				
11-05377	Mobile Telephone Lead *	Connects a mobile telephone to an Audio Adapter.	\$54.50				
11-05379	Power Supply Lead	Connects aircraft battery to Power Interface.	\$54.50				
11-05380	Power Supply Filter	Used to filter aircraft power supply.	\$135.75				
11-05381	Large Power Filter	Used with very noisy power supply.	\$65.75				
11-05382	Radio Power Filter	Used to prevent feed-back with Icom A2/A20 Radios.	\$105.00				
11-05383	Radio Power Adapter 11V13	Used to connect Icom A6/A24 radios to a Power Interface.	\$133.75				
11-05384	VHF Antenna -Short Flexible	Antenna for use with airband radios.	\$128.95				
11-05385	VHF Antenna -1/4 Wave Whip	Antenna for use with airband radios.	\$119.85				
11-05386	Antenna Extension Lead	Five metre extension for antenna.	\$63.75				
11-05387	Adapter LA-25	Used to connect Cobra FRS and GMRS radios.	\$86.00				
11-05388	Adapter LA-30	Used to connect Yaesu VXA 100 radios.	\$86.00				
11-05389	Adapter LA-44	Used to connect Yaesu VXA 100/120/150/200/210/220 radios.	\$86.00				
11-05390	Adapter CT-44	Used to connect Icom A5/A6/A23/A24 radios.	\$46.50				
11-05391	Adapter CT-91	Used to connect Vertex Stadard radios.	\$46.50				
11-05392	Adapter CT-96	Used to connect Yaesu VXA 300/700 radios.	\$46.50				
11-05393	Power Lead Adapters	Used to connect various radios to a Power Interface.	\$51.00				

<sup>\*</sup>Please specify the make and model that will be used with this product.

#### **HELMET SIZES:**

To obtain the correct size of helmet, use a tape measure to measure the circumference of your head just above the ears.

Medium: 57-59cm / 23 Inches **Large**: 59-61cm / 23.5 Inches Small: 55-57cm / 22 Inches Extra Large: 61-63cm / 24.5 Inches





The relai System is a range of headsets and helmets for direct connection to hand-portable radios. This equipment also provides the facility to use a helmet with the headset and is used mainly by pilots of single seat aircraft, Paramotor pilots and airport ground crew. Headset Colors: Black, White, Grey, Red, Pink, Blue, Yellow or Green \*Please specify the make and model of radio that will be used with the Relai System Headset.

Ш	Part No.	Description	Price
	11-05398	Relai System Headset + Radio Module.	\$491.00
	11-05400	Lynx Avionics Relai System headsets to be used with the following radios: Alinco, Cobra, Delcom, Icom A2/A20/A21, JRC, Maxon, Motorola, Radio Shack, Yaesu FT-23R, YAESU 2000	\$17.00
	11-05401	Lynx Avionics Relai System headsets to be used with the following radios: ICOM A3/A4/A6/A22/A24 ICOM A5/A23	\$46.00
	11-05402	Allows Lynx Avionics Relai System headsets to be used with the following radios: ICOM A3/A4/A6/A22/A24/ ICOM A5/A23	\$17.00

**NOTE:** Relai System uses the same helmet, helmet visor, visor extension, leather helmet, helmet goggles, helmet bag, headset bag, and double helmet bag as the Micro System. Order part numbers as shown for Micro System Components. For additional information on these accessories, please go to our website.

#### LYNX ACCESSORIES

Part No.	Spare Parts	Description	Price
11-05403	Ear Seals Type 1 Foam (Two)	For use with all Lynx headsets	\$24.75
11-05404	Ear Seals Type 2 Gel (Two)	For use with all Lynx headsets	\$44.65
11-05405	Microphone Wind Shield Large (37mm Ø)	Used in an open cockpit. For use with all Lynx headsets.	\$13.50
11-05406	Microphone Wind Shield – Small (25mm Ø)	Used in an enclosed cockpit. For use with all Lynx headsets.	\$10.50

ROTAX

# **E-DOWNS - CHOCKS - WINDSOCKS**



#### **FLY TIES TIE DOWNS**

FlyTies Tie Downs Rated "Top Choice" by Aviation Consumer

FlyTies® unique design allows quick insertion and quick removal using the easy-out extraction tool provided. Rugged, die-cast steel rods are 3/8" x 14" for deeper penetration into harder ground. Cumulative load capacity is 3,600 lbs. Kit includes 3 eas. Delrin hubs, 9 eas. steel rods, 3

ea. 3/8" x 12 'ropes, easy-out extraction tool, and rugged compact canvas tote bag. Complete kit weighs only 6 lbs. (less than 1 gal of Avgas) and has a lifetime .....P/N 13-22751 ......



#### "THE CLAW" TIE-DOWN SYSTEM

Advanced Aircraft Anchoring System - The Claw® Aircraft Tiedown kit comes complete with three earth anchors, rope, spikes, hammer and canvas carry bag. The Harder You Pull, The More It Grips The Earth. Features: Easy installation...Easy removal. No more

struggling with screw-in anchors The "Claw®" is designed exclusively for aircraft. The "Claw®" system has a 3600 lb. combined capacity. The last tie down you will ever have to buy - Lifetime Warranty, Tremendous holding strength. The harder you pull, the more The "Claw®" grips. Ideal for all aircraft, Works in hard clay, sandy soil or anything in between Large foot print spreads the load over a larger area for maximum holding power, Low profile will not puncture tires, Complete System weighs only 8 lbs (Including Hammer), Light-weight aircraft aluminum with hardened corrosion resistant die cast zinc plated steel spikes 25 ft 3/8" dia. solid braid polyester rope, Anchoring System hammer doubles as removal tool The "Claw®" includes: Bag that is easy to carry and store that contains: 3 Anchors; 9 spikes; 1 hammer; 25-ft rope Wt: 8 lbs.

P/N 13-02448 ..... \$89.95



#### 16" CORKSCREW TIEDOWN KIT

A versatile, general-purpose spiral anchor made from cold, rolled steel. Design for lightweight applications. Folding ring reduces profile to minimize obstruction in high traffic areas. Bright orange color powder coating resists corrosion and helps provide added visibility. Use

to secure small tents, trees, recreational use and patio furniture. Features: · High pull force performance; 500 pounds per anchor (results may vary dependent on soil types) · Installs in most soils in minutes · Lightweight, individual weight of 1 lb 13 oz. or 5 lbs. 7 oz. per kit • This kit includes: three 16' corkscrew tiedown anchor, one 3/8" nylon tiedown rope, and one tiedown bag all complete with a manual including installation instructions!

P/N 13-09652.



#### **NELSON AIRCRAFT TIE-DOWNS**

• Three 15" welded (not bent) steel anchors with sharp tips for easy installation . Three 15' nylon ropes. 



## **DOWN ANCHORS**

The Storm Force Aircraft Tie Down System is the STRONGEST, LIGHTEST, and BEST aircraft tie down available, and is compatible with all types of small aircraft. The Storm Force Tie Down Kit is perfect for aircraft under 3500lbs gross weight; for twin engine aircraft and aircraft above 3500lbs gross weight checkout our Storm Force XL.

Storm Force Aircraft Tie Downs are manufactured using lightweight yet extremely durable materials in order to provide pilots with exactly what they need to secure their aircraft with confidence. Capable of supporting 4200 lbs or more of force per 



#### AIRCRAFT TIE DOWNS

Three 17" x 3/8" plated steel cork screw stakes. Three 10' x 3/8" polypropylene ropes. Cloth draw string bag. P/N 13-06634 ..... \$31.50



#### AIRCRAFT TIE-DOWN - RED

These Aircraft Tie-Downs offer strong, durable, and easy to use tie downs for any weather condition. These tie downs are rated up to 3,000lbs. and tighten up with

one guick pull. A sliding cap protects the buckle from freezing during cold weather and keeps grit out during windy field conditions. Each kit comes with: \* Three 9 foot long tie down straps \* Choice of tie down strap colors: black, red, or royal blue \* A Dupont Cordura carrying bag with choice of colors; black, forest green, red, royal blue or navy. Embroidery is available for an additional \$5. Color is ......P/N 13-06328......**\$74.75** 



#### **27" VINYL WINDSOCK**

Features 27" long x 6-1/2" diameter fluorescent orange vinyl sock. Aluminum mast adjusts from 33" to 54" and up to 12 ft. with extension kit. Perfect for private strip. helicopters, or runway threshold.

Complete Windsock w/frame.P/N 13-20015 ......... \$59.95 Replacement Sock......P/N 13-20025......\$22.85

#### **ASA AIRCRAFT LOG BOOKS - HUNTER GREEN**



Designed to keep records of the entire aircraft in order: inspections, tests, repairs, alterations, ADs, service bulletins, and equipment additions, removals or exchanges.

SA-1 Soft Cover; 7.25"x 4"; 64 pgs	P/N 13-32375	\$4.75
SA-2 Hard Cover; 7.75"x 5-5/8"; 96 pgs	P/N 13-32384	\$9.95

#### STANDARD PILOT LOG BOOK - BLACK



The finest and most verstile logbooks for aviators. ASA's logbooks have been "The Standard" of the industry for over 30 years and comply with the FAA's recordkeeping requirements. With so many options, there is a logbook that's right for you. Versatile, easy-to-

use and flexible enough to fit any pilot's needs, student or ATP. Includes all instructor endorsements. Hard cover, black, 8" x 4 1/2", 100 pages.

P/N 13-32365 .....**\$7.95** 

#### ASA STANDARD PILOT LOG - BURGUNDY



The finest and most verstile logbooks for aviators. ASA's logbooks have been "The Standard" of the industry for over 30 years and comply with the FAA's recordkeeping requirements. With so many options, there is a logbook that's right for you. Versatile, easy-

to-use and flexible enough to fit any pilot's needs, student or ATP. Includes all instructor endorsements. Hard cover, burgundy, 7-1/2" x 4", 100 pages.

P/N 13-32360 .....**\$9.75** 

#### WIND WIZARD WIND SPEED INDICATOR **ECONOMY MODEL - ACCURATE & COMPACT**



A single scale eliminates the need to shift back and forth between two scales when wind conditions are variable or gusty. Conveniently calibrated in miles/ hour, meters/ second and Beaufort. Expanded in the lower wind speed range of 0-20 MPH (0-8.9 meters/ sec). Slips easily into a shirt or coat pocket. Safety wrist strap gives added security in stronger winds, and stores out of the way in the folding handle.

Constructed of high impact plastic and corrosion resistant metals. It comes with leather-like carrying case. No Batteries needed.

P/N 13-18520 ..... \$49.99



#### **WEATHER FLOW** WIND METER

The WeatherFlow Wind Meter is an anemometer that fits in your pocket. It's the first hardware product we have created for the general wind- & weatheraddicted community.

It's compatible with iPhone, iPad, iPod, and all major Android (coming soon) devices. And you are going to love it. It's operating range extends from the smallest puff (2 mph) to well over hurricane force winds (125 mph). ...... P/N 13-14788 ..... \$34.95

## SPORT PILOT TRAINING





#### **ASA SPORT PILOT DVD**

Learn proper preflight procedures and how to perform a routine preflight inspection of a light-sport aircraft (LSA) airplane to ensure a safe and enjoyable flight. Follow a routine preflight inspection to learn the proper way to ensure a safe, enjoyable flight. Sport Pilot expert Paul Hamilton role-plays as the student embarking on his first flight in a fixed wing LSA. Instructor Jeff Reynolds takes Paul through an easy-to-follow and comprehensive

preflight inspection. This straightforward presentation is truly informative and educational for the beginner pilot, as well as the experienced aviator wanting a refresher or transitioning aircraft. Preflight Fixed Wing DVD.

P/N 13-04192 ..... \$34.50



## ASA ROTAX 912 ENGINE INTRODUCTION

This DVD by Paul Hamilton introduces the use and maintenance on Light-Sport Aircraft (LSA) of the ROTAX 912 engine. Many engine problems seen in the field are preventable with proper operation and maintenance and the 912 is no exception. This DVD is particularly useful to maintenance professionals, pilots and flight instructors operating ROTAX-powered Light Sport Aircraft.



#### SPORT PILOT: CHOOSING THE LIGHT-SPORT AIRCRAFT THAT'S RIGHT FOR YOU

This DVD production and booklet compare the LSA types as well as their ultralight cousins to help pilots make a truly informed decision on which light-sport aircraft is right for them. It explains what ultralights and LSA are, provides

parameters to evaluate the viewer's situation and factors to consider (including cost, athletic ability, previous aviation experience, time to learn, transportation, storage, and airfield options), and provides an overview and introduction to each of the light-sport aircraft types. Includes beautiful full-color booklet with aircraft photo and comparison tables. Total running time 00:41:00

P/N 13-03467 ..... \$5.75

# DEEP INSIDE YOUR ROTAX INSTRUCTIONAL DVD



You can now see and understand what procedures are involved with the 150 and 300 hour inspection/rebuild services. Alan points out the places carbon accumulates, where the common areas of wear occur, and other signs indicating the possibility of potential failures. The spe-



## ROTAX 912 INSTALLATION TIPS & TECHNIQUES

This presentation explains the most important details of preparing and installing th epopular Rotax 912 family of four stroke engines in your experimental homebuilt air-



#### SPORT PILOT ENCYCLOPEDIA

Can be used three ways: 1) SP Prep = full immersion rapid prep for the written, 2) SP Encyclopedia = thorough review of relevant FAA publications essential to both the written and the oral exams, and/or 3) both as entertaining and informative leisure reading. The narrative is laced with humor, personal anecdotes, and

frank sometimes blunt language that keeps the reader alert and involved while feeling secure and comfortable as if in the company of an experienced friend and mentor. Actual NTSB accident reports are woven into the discussion.

P/N 13-03706 ...... \$9.95



# WEATHER TO FLY FOR SPORT PILOTS WITH PAUL HAMILTON

Sport pilots fly lower and slower than General Aviation pilots. As a result, weather plays a critical factor in flying. The straightforward and beautiful presentation features time-lapsed cinematography of cloud formations, in-air footage, and animations. This DVD simplifies complex

weather concepts as well as illustrates consequences of pilot judgment, in a 5-step system specific to Sport Pilots and light-sport aircraft operations. Pilots will learn to forecast local conditions, interpret weather information accurately, make better dec sions about "whether to fly", and learn to recognize trends. Includes booklet with worksheets for an interactive learning experience. Companion product to ASA's Sport Pilot Logbook. Total running time 01:20:12

P/N 13-03468 ......**\$42.95** 



#### PRACTICAL TEST STANDARDS: SPORT PILOT



## **SPORT PILOT KIT**

Gleim's Sport Pilot Kit is designed to help expedite training for the sport pilot certificate. Contains everything you need (except airplane and instructor) Offers an all-in-one package at an affordable price. Save money by purchasing all required materials together.

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