

MAP

TIM JOYCE

1973 MAP Triumph 750cc
WERA Champion and
5 time AHRMA Champion
relies on M.A.P. Cycle
high-performance parts to win!



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ABBREVIATIONS USED:

2-1=2 INTO 1 EXHAUST
1-2= 1 INTO 2 CABLE
#=NUMBER
A-A=AUTO ADVANCE
AC=ALTERNATING CURRENT
ADJR=ADJUSTER
AVAIL=AVAILABILITY
BLK=BLACK
BOTT=BOTTOM
BD=BLACK DIAMOND VALVES
BDS=OVERSIZE BLACK DIAMOND VALVES
BRITISH MADE=MADE IN UNITED KINGDOM
BRN=BROWN
C/S=COUNTERSHAFT
CC=CUBIC CENTIMETER
CEI=CYCLE THREAD (26 THREADS PER INCH)
CHKRD=CHECKERED
CHR=CHROME
CMPLT=COMPLETE
CTR=CENTER
CYL=CYLINDER
DBL=DOUBLE
DC=DIRECT CURRENT
DISC=DISCONTINUED
DS=DRIVE SIDE
FT=FRONT
EA, or ea =EACH
EURO=EUROPEAN STYLE
EX= EXHAUST
HC=HARDCHROME
HD=HEAVY DUTY
ID=INSIDE DIAMETER
I's=SINGLES
I's=TWINS
Ii's=TRIPLES
IiI's=ILLUSTRATIONS
IN=INTAKE
L.C.=LOBE CENTER
L.L.=LOBE LIFT
LH=LEFT HAND
LNG=LONG
M.A.P.=COMPANY/BRAND NAME
M-SHAFT=MAIN SHAFT
MISC=MISCELLANEOUS
MM=MILIMETER
MS=MAINSHAFT
MT=MOUNT
NLA=NO LONGER AVAILABLE
NOS=NEW BUT OLD STOCK (MAYBE SOILED)
OA=OVERALL
OD=OUTSIDE DIAMETER
OE=ORIGINAL EQUIPMENT
OIF=OIL-IN-FRAME
OS=OVERSIZE
P-CLAMP=PINCH CLAMP
PGS=PAGES
PK=PACKAGE
PR=PAIR
PRI=PRIMARY
PU=PRE-UNIT (SEPARATE ENGINE/GEARBOX)
QC=QUICK CHANGE (REAR HUBS)
RH=RIGHT HAND
RND=ROUND
SET=ENGINE SET
SPD=SPEED
STD=STANDARD
TAI=TAIWAN
TIPI=THREADS PER INCH
TRI=TRIUMPH
TS=TIMING SIDE
UK=UNITED KINGDOM (BRITISH)
UNC=COARSE THREAD (USA)
UNF=FINE THREAD (USA)
w/XX-XXXX=With (INCLUDES) #XX-XXXX
WH=WHITE
XX-XXXX/A=ALLEN HEAD OR ALPHA VALVE
XX-XXXX/E=ECONOMY PART
XX-XXXX/C=CHROMED PART
XX-XXXX/P=PATTERN (as Stock-Not OE) PART
XX-XXXX/R=Hi-PERFORMANCE RACE QUALITY
XX-XXXX/E=ECONOMY PART Less \$\$'s than OE
XX-XXXX/S=STAINLESS or SPECIAL QUALITY
XX-XXXX/T=TAIWANESE MADE COPY
'XX-ZZ=19XX THRU 19ZZ (YEARS)
*N=See FOOTNOTE "N" for DETAILS

STOP!!! IMPORTANT!!! PLEASE READ.....

You have in your hands the latest **M.A.P. Cycle Enterprises, Inc.** Parts and Accessories Catalog into which have gone untold amounts of time to put together a list of over 22,000 part numbers, that will allow you easier access to our now over 12,000 sq. ft. warehouse of British Motorcycle Parts. By using the information supplied in this catalog and an original parts book, available at **M.A.P. Cycle**, you can order from the most frequently needed, to one of the most obscure of stock parts or specialty custom and performance items to get you back "in the wind". Each listings in this catalog was selected as an item most in demand, but others, especially the "M.A.P." items, because of their high quality and proven high performance. When you buy from **M.A.P. Cycle Enterprises, Inc.** you can be assured you are buying the very best for your Triumph motorcycle. We make every effort to maintain a large inventory, however with the vast amounts of different items and worldwide demand from our distributors, we have little way to judge at any particular moment the demand that will be place on any particular item. This may result in our being out of stock on certain items from time to time. Please be patient. Feel free to phone with your requests. Many times parts are on the shelf for an assembly just not listed as complete for various reasons. Phone. fax or email for availability.

All of the parts in this catalog have been given either O.E.M. Part Numbers, Manufacturers Part Numbers (aftermarket parts) or **M.A.P.** Part Numbers (parts made by or those produced for us). Please use these numbers whenever you place an order. All orders placed either by fax, post or telephone using these part numbers receive our immediate attention and will be processed usually within 24 hours. This *fast* service puts you back "on the road again" just as fast as possible.

Orders received without part numbers can delay processing by as much as a week to ten days. **WE WILL NO LONGER GUARANTEE CORRECT PARTS WITHOUT PROPER/CORRECT PART NUMBERS. INCORRECT PARTS ORDERED BY DESCRIPTION ONLY WILL BE SUBJECT TO A 20% RESTOCKING CHARGE.** To solve this possible problem and avoid unnecessary additional expense and time, we have reprinted the most of the original parts books in handy 5 x 8 hard copy (MAP8500 thru MAP8899). By using these parts catalogs, (the one for the *exact* year of Your bike) or for those who do not want a paper booklet, you may check our website for an "on-line" check you can now find the original part number (and location) for any part from the smallest washer to a complete frame. Most importantly, the Original part numbers avoid costly "wrong part" errors and their restocking charges. After locating a part number, phone, fax or check www.mapcycle.com to find out whether we carry the item and/or the **M.A.P.** Price. Remember, due to variations East, West, European, and U.S. Special Models, only original parts books, whether on microfiche or hard copy, are your only True source for exact/correct replacement part numbers. Therefore, **WE CANNOT BE RESPONSIBLE FOR ANY INCORRECT PART NUMBERS AS LISTED IN THIS CATALOG or PARTS BOOKS.**

For Prices or to Order "On-Line" visit www.mapcycle.com

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HAPPY RIDING,
The Staff,
M.A.P. Cycle Enterprises, Inc.
(Since 1972)

M.A.P. Cycle Enterprises, Inc.

The

« Premier »

Billet 6061-T651

CYLINDER KIT

for

Triumph

T120 - T140



Why are M.A.P. Cycle Triumph Big-Bore Cylinder Kits the very best? Read for Yourself!

1. **M.A.P. Billet Cylinder Kits** are 100% CNC machined from billet 6061-T6 alloy making them stronger than any type of casting, especially 356! M.A.P. billet cylinder kits are virtually indestructible! Race proven! Ask the 2008, 2009 & 2010, 2011, 2012 AHRMA Formula 750 road racing national championship rider - Tim Joyce!
2. **M.A.P. Billet Cylinder Kits** now feature a Nikasil plated bore. This virtually indestructible long lived plated surface, similar to that used by Ducati, Moto Guzzi, BMW etc. nearly all of the modern hot-dog bikes, assures the maximum amount of heat transfer to allow the fitment with our exclusive M.A.P. Billet pistons of only .001-.002" clearance creating not only longer piston, ring and cylinder life but also a quieter cooler running engine. Damage it - Simply replate it. Another, not so apparent benefit for our British enthusiast, is that the plating resists rusting. Engines not run over the winter or for even longer periods will fair much better as their rings will not mare or attach to the plated surface. No more lost compression or worse yet, a stuck rings.
3. **M.A.P. Billet Cylinder Kits** feature an "O-ring" groove allowing for a insertable wire that firmly pinches the headgasket against the head to help prevent headgasket blowout. Standard on all Billet cylinders and most useful for those with ultra high compression sealing requirements.
4. **M.A.P. Billet Cylinder Kits** have an engineered structural central core. Our use of this over engineered core offers the most even cooling while maximizing cylinder base strength.
5. **M.A.P. Billet Cylinder Kits** include our new Billet Pistons as designed by and exclusively manufactured for M.A.P. Cycle. These Prefit M.A.P. Ultra-high quality, Hi-silicone, Low expanding 4032 billet pistons have included features not normally seen in vintage bike replacement pistons. Available in a moderate 7.5:1 along with 9.5:1 & a race only 10.5:1 compression ("825" in 12:1 for use with alcohol type fuels). See page "EE" for more piston information.
6. **M.A.P. Billet Cylinder 750 Kits** are "Drop-On". No machining required for 9-bolt T120 nor the increased 774cc AHRMA Legal T140 "Big-Bore" upgrade. Larger "825" kits require case mouth boring and cylinder head stud relocation.
7. **M.A.P. Billet Cylinder Kits** incorporate "formed" head bolt threads. Along with using the best of materials, the deeply drilled holes are then "formed" to strengthen the thread thus helping prevent bolt/stud pull-out common with aluminum castings and even some older cast-iron cylinders!
8. **M.A.P. Billet Cylinder Kits** are light weight. Less top heavy for better handling. T120 is 10 lbs lighter than a cast-iron cylinder. Lighter with best cooling along with increased "bolt-on" 774cc displacement for stock or racing T140's.
9. **M.A.P. Billet Cylinder Kits** have increased fin area. The fin design follows closely the cylinder head shape for vastly improved cooling (4-times the heat transfer of cast-iron)!
10. **M.A.P. Billet Cylinder Kits** have a "Brute" look. The entire engine now looks much larger, Beefier you might say! Want your bike to "stand-out" in a crowd? Shine the outer fins and base surface for an uncanny "show stopping" appearance.



M.A.P. Cycle Enterprises, Inc.

11. **M.A.P. Billet Cylinder Kits** are easily repaired. Bend a fin! Simply heat and bend it back - no welding! Major damage? Weld it up and it's as good as new! Try that with an iron casting!
12. **M.A.P. Billet Cylinder Kits** include Pre-installed Tappet Guide Blocks (the latest now fitted with KPMP custom Manganese Bronze tappet blocks) eliminating the installation hassle along with the cost of removing, aligning then re-installing them in the block, all while making sure not to break them (an easy \$100 mistake!). We use the late style blocks as upgraded by Triumph Corp. in 1969 to help prevent oil leaks. Pre '68-1/2 heads require MAP7163 billet conversion pushrod tubes. Advise the year of your actual cylinder head when ordering.



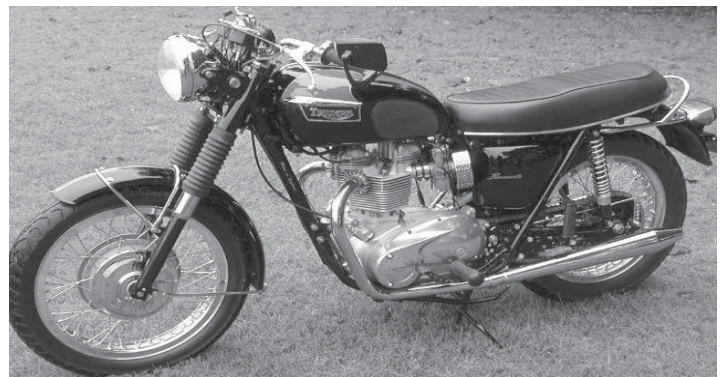
13. **M.A.P. Billet Cylinder Kits** are the most comprehensive kit available. Includes all Stainless Steel hardware such as ARP 12-point Head-Bolts and/or Studs, (Special "wasted" studs are used in all positions possible to assure predictable torqueing). SS ARP 12-point 1/4" SS RockerBox Bolts & Nuts*, ARP 12-point SS Base Nuts, SS Studs and SS Washers, **M.A.P. Billet Alloy Pushrod Tubes** with Stainless Steel Wedding Bands, a complete **M.A.P. Top-end Gasket kit** along with start to finish instruction pamphlet finishes off this Very Complete **M.A.P. Cycle Cylinder Kit**. The stainless steel combination of parts, with a Value of Over \$450, if purchased separately, is included at No Extra Charge! Now That's VALUE!! Where Else but **M.A.P. Cycle** ?

*Inc. ARP SS 1/4-24 tpi, 6-nuts (pre '68 use 6 of 14-1401) & 4-bolts (pre-'68 heads retap to 1/4-20)

14. **M.A.P. Billet Cylinder Kits** are available in configurations to best suit one's particular application: a "Big-Bore" conversion for Triumph Pre-Unit (must use with a 9-bolt head) and all Unit 650's, an AHRMA legal 774cc "Long-Rod" T120/T140 conversion using a 10-bolt head, up to the BRUTE "825cc" (884cc with stoker crank). Heat dispersant black hardcoat is available on Special Order at additional cost.
15. **Conclusion: M.A.P. Billet Cylinder Kit** is the *Ultimate* replacement cylinder for your Triumph Big Twin. Why consider a lesser alternative of heavy cast-iron or porous cast aluminum, when, as you see, we've thought about it all! Then, we back it all up with a 46 old year business! From Orange County Choppers to AHRMA's National Formula 750 Champion, we Make and Offer, Simply the BEST Big-Bore Cylinder kits possible! Period!

NEW: Stock Shape Kalgard Coated Black "Sleeper" kits may be available soon - Inquire if there is any interest!

- MAP7100A 7.5:1 9-bolt "750" kit (pre '71 w-7" Rocker Box thru-bolts)
- MAP7100C 9.5:1 9-bolt "750" kit (pre '71 w-7" Rocker Box thru-bolts)
- MAP7100F 10.5:1 9-bolt "750" kit (pre '71 w-7" Rocker Box thru-bolts)
- MAP7100B 7.5:1 9-bolt "750" kit ('71-72 w-4" studs*)
- MAP7100D 9.5:1 9-bolt "750" kit ('71-72 w-4" studs*)
- MAP7100G 10.5:1 9-bolt "750" kit ('71-72 w-4" studs*)
- MAP7102A 7.5:1 10-bolt 774cc "Long-Rod" kit
- MAP7102C 9.5:1 10-bolt 774cc "Long-Rod" kit
- MAP7102F 10.5:1 10-bolt 774cc "Long-Rod" kit
- MAP7104A 7.5:1 "825" "Long-Rod" kit
- MAP7104C 9.5:1 "825" "Long-Rod" kit
- MAP7104F 10.5:1 "825" "Long-Rod" kit
- MAP7104G 12.0:1 "825" "Long-Rod" kit (Methanol Only)
- MAP7110A 7.5:1 T140/TR7 774cc kit
- MAP7110C 9.5:1 T140/TR7 774cc kit
- MAP7110F 10.5:1 T140/TR7 774cc kit



*4" studs allow external re-torqueing, '71-72 w-4" studs req. T140 Coupling nut (21-2204), Bolt (21-2206) - ordered separately!

Stock Type T120 "Drop-On" "750" Kit (not shown): English made Cast-Iron cylinder, straightened and squared, fitted with MAP Pistons. Inc. Cylinder, Rings, Pins & Clips & Copper Headd Gasket. Use OE (cei) Hardware. Buyer should be aware. Imported cylinder kits are not created equal. Exercise caution when purchasing elsewhere as there have been cases of glaring defects with these kits!

Note: Tappet blocks NOT included - re-install existing blocks or purchase new.

MAP7150 Cast Iron "Big-Bore" cylinder kit with 7.5-1 M.A.P. Pistons (Call for availability)

MAP7151 Cast Iron "Big-Bore" cylinder kit with 9.5-1 M.A.P. Pistons (Call for availability)

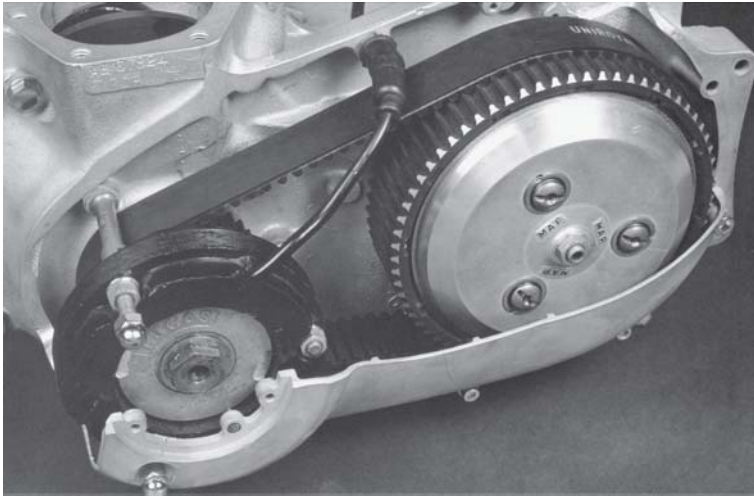
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M.A.P. Cycle Enterprises, Inc.



Deluxe Premier

TRIUMPH BELT DRIVE CONVERSION

**WHY is the M.A.P. Cycle Belt Drive
CONVERSION "THE BEST!"???**

**COMPARE Our Exclusive STANDARD
FEATURES then SEE for YOURSELF:**

1. **FRONT PULLEY** is lightened STEEL BILLET, Gold Zinc PLATED for Great Looks & Maximum Durability (Lasts longer than aluminum PLUS no worries about stripped splines). Double lipped "No Leak" Seal
2. **CLUTCH BASKET** is made from a HARDENED ALUMINUM for Longest Life & Lightest Weight. (SAVES up to 5 LBS. of Primary Weight for Much Improved Throttle RESPONSE, MORE HP & TORQUE)
3. **CLUTCH BASKET** utilizes an Exclusive SEALED DOUBLE BALL BEARING, Engineered and Designed by M.A.P. to STABILIZE the Clutch BASKET (NO Loose Rollers). Allows the Belt to be OUTBOUND beyond the bearing to evenly Load the surface of the belt (not just the inside edge common to most other systems) to resist ripping While Reducing MainShaft "Loading" for a Maintenance and Long Trouble-Free Life!
4. **CLUTCH PLATES** feature 12 Tang Friction Plates with 8 TIMES MORE SURFACE AREA over the stock 10-tang factory plates for the BEST Clutch Action and Longest Basket & Plate Life without "Grooving". No studs to loosen or cause damage. Moreover, the DRY CLUTCH Pack Design ELIMINATES Missed Shifts & Gear Change GRINDING caused by sticking wet clutch plates. SHIFT with a CLICK! NO GRINDING! NO CREEPING!! 14-plate clutch packs now available. Inquire!!
5. **RETAINS SHOCK ABSORBER** the designers incorporated the Stock Shock HUB to ABSORB Drive Line TORQUE & SHOCK LOADS dramatically adding tranny life that can sideline both racer and rider.
6. **DECREASED VIBRATIONS** for a LONGER LASTING Engine & Transmission with SMOOTH POWER Delivery without the constant snatch as is so common with a chain.
7. **PROPRIETARY UNIROYAL HTD BELT** is Unique & Exclusive to only M.A.P Cycle's drive systems can be expected to Last 3-4 TIMES LONGER than the stock chain. None other like it as it was SPECIFICALLY DESIGNED with Custom Pitch of 101 Teeth to allow for the all important "Hot" clearance! A seemingly loose belt when cold will tighten when hot. A Tight Belt gets even tighter as everthing heat up eventually Breaking the crank and/or transmission? Never use a tight belt - Ever - PERIOD!!
8. **ENTIRE belt drive SYSTEM FITS in STOCK PRIMARY COVER** (Unit Construction* "Street" Kits Only).
9. **NO OIL LEAKS** from the Primary Cover. It Runs DRY!

We're confident that you will realize that with its Superior Engineering, Design Features and Proprietary Parts, M.A.P. Cycle's Deluxe Belt Drive should be your ONLY Choice. Over 600 Sold WORLDWIDE. Best of all, it's Made in the U.S.A. since 1979! Backed by a solid reputation that spans 45 years. Who else can say that? **Check out all we include on the right!**

KIT INCLUDES: M.A.P. Cycle Front Pulley & Belt Retainer Disk; Double Bearing Clutch Basket; HTD Belt; 12-piece Clutch Plate Kit (optional 14-plate kit available soon); MAP Ball Bearing Billet Pressure Plate, Special Clutch Hub; Shock Housing Backplate, Backplate Spring Studs, Shock Absorber Rubbers; New Sprocket Dust Cover; Stator Relocating Studs (as needed) and Instructions. Now includes Billet pressure plate not shown!



Proudly MADE in the U.S.A. by M.A.P. Cycle

Continued on the next page

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St. Petersburg, Florida 33710

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CC

W.A.P. Cycle Enterprises, Inc.

- MAP2000** TRIUMPH 650 II's 1963 thru 1968 (CEI thread) (inc. 3 spring shock back plate - 4-spring is optional)
MAP2001 TRIUMPH 650 II's 1969
MAP2002³ TRIUMPH 650 II's 1970-1972
MAP2004³ TRIUMPH TR7/T140 ALL KICKSTART (Note: E-Start & "Harris" models require breather mods.)
MAP2010¹ TRIUMPH 500/650 PRE-UNIT (SwingArm Models Only: 30mm belt)
MAP2012¹ TRIUMPH 500/650 PRE-UNIT (OE Rigid Frame Only: 30mm belt - Inquire!) Pre '58 req mods for seal
MAP2015² TRIUMPH 650/750II's 1-3/4" Belt 4-Spring RACE KIT (Not for Alternator Use) (Will **Not** fit LH Shift Linkage)
MAP2018² TRIUMPH 650/750II's 1-3/4" Belt 3-Spring RACE KIT (Not for Alternator Use) (Will **Not** fit LH Shift Linkage)

¹NOTE: Pre-Unit Kits require outer primary cover spacers - Not Included.

²NOTE: Race Only engines should use a 4-spring shock hub & pressure plate to prevent heat buildup from even the slightest clutch slippage.

³NOTE: Includes Deluxe Breather Kit Also available separately - Order MAP2088/A (Std - Diaphragm Valve) or MAP2088/B (DLX - Reed Valve)

Important Notice: Correct installation is a must. TIGHT BELTS WILL DESTROY DRIVE & TRANSMISSION. Under **NO** Circumstances Use ANY Belt Drive System with Less than about 3/4" or More than 1-1/8" of FREE Total Belt Play Cold.



TRIUMPH "ECONO" Belt Drive Kit

A reintroduction of the Belt Drive originally sold and designed by **W.A.P. Cycle** back in 1979, has the cost conscious consumer in mind. Utilizing a Stock Style Clutch Basket, allows us to pass on the cost savings from our "Double Bearing" Deluxe Premier Drive System by not needing many of its special parts. While open bearings may introduce some bearing lubrication maintenance, the benefits of adding a Belt Drive are still unquestionable. Easy Shifting, Best Clutch Action and NO OIL Leaks instantly come to mind. One can choose from a kit with the durability of our "Lightened" Iron (4 lb saving over a stock T140 primary), or our Ultra Lightweight Hard Anodized Alloy Clutch Basket (a whopping 5.5 lb saving). Don't be fooled by the word "Econo". **NOW** includes more standard parts than many more expensive British kits (and they don't have our Exclusive and Proprietary **W.A.P. Cycle** HTD Belt the only way for correct tensioning (non like it Anywhere)). **LOOK** what you get:

Proprietary **W.A.P. Cycle** Heavy Duty Race 12-piece Clutch Plate Kit - same as the Deluxe Kit

Proprietary **W.A.P. Cycle** Clutch Basket (Steel or Hard Anodized Alloy)

Proprietary **W.A.P. Cycle** HTD Belt (non like it Anywhere) - same as the Deluxe Kit

Proprietary **W.A.P. Cycle** Belt Retainer Disc - same as the Deluxe Kit

Special Alternator Relocating Studs '63-68 with 26tpi threads (cei) or '69-72 with 24tpi threads (unf)

Special "Dry" ThrustWasher 1.890" ID ('63-69) or ThrustWasher 2.020" ID ('70-on)

Breather Kit ('70-on) Also available separately - Order MAP2088/A (STD) or MAP2088/B (DLX)

Double Lipped Crank Sprocket Seal (all)

Note: Requires MAP Alloy Pressure Plate that some may already have, is Not Included. See page NN.

MAP1981/A "Lightened" Iron TR6/T120 Econo Kit (1963 thru 1968 CEI Threads (26tpi))

MAP1981/B "Lightened" Iron TR6/T120 Econo Kit (1969 UNF Threads (24tpi))

MAP1981/C "Lightened" Iron TR6/T120 Econo Kit (1970 thru 1972)

MAP1981/D "Lightened" Iron TR7/T140 Econo Kit (1973-on (Not E-start))

MAP1985/A "Alloy" TR6/T120 Econo Belt Drive Kit (1963 thru 1968 CEI Threads (26tpi))

MAP1985/B "Alloy" TR6/T120 Econo Belt Drive Kit (1969 UNF Threads (24tpi))

MAP1985/C "Alloy" TR6/T120 Econo Belt Drive Kit (1970 thru 1972)

MAP1985/D "Alloy" TR7/T140 Econo Belt Drive Kit (1973-on (Not E-start))

Note: Though not required, we highly recommended for a successful installation: 3) 57-1722 & 3) 57-1723 Shock Housing Rubbers. Check for any "notching" or internal Shock Housing wear. Replace parts as needed. Correct installation is a must. TIGHT BELTS WILL DESTROY DRIVE & TRANSMISSION. Under **NO** Circumstances Use ANY Belt Drive System with Less than 3/4" or More than 1-1/8" of FREE Total Belt Play Cold.

M.A.P. Cycle Enterprises, Inc.

New! Exclusive "A" Series 4032 Piston Kits

All
NEW
Design

Compare these **STANDARD FEATURES** to those of our Competitors:

- 4032 Alloy Hi-Silicone (strong), Lo-Expansion (fitted tighter for longer life with less noise)
- 100% CNC Machined creates Even Heat Dissipation while very Light Weight
- *Lo-Dome "Tight Quench"* design for BEST Combustion with Lower Octane Requirements (9:1 & up).
- Large Valve Reliefs for oversize valves with up to .460" lift (Note: always check your specific application)
- Zero Deck Design for Maximum Power (9:1 & up) with 9:1 on Pump Gas!
- "Micro Groove" Piston SKIRT for the Longest Life - Highest Resistance to Scuffing.
- 2nd Ring-Land "Accumulator" groove Helps prevent the unloading of the top ring from trapped blowby.
- 4 WristPin OILING Holes for LESS Heat Buildup in the Small End of the Rod and Wrist Pin.
- Cad Designed for Consistent Cross-Section and Lightest Weight - Re-balancing not Required
- Best Quality Metric size Rings for Less Friction, Maximum Heat Transfer and Quick Seating
- Tapered WristPin (I.D.) for a Most Rigid Pin while Light Weight.
- Race Type "SpiroLoc" Clips ADD to RELIABILITY - Won't Come OUT - just like Nascar!
- Latest Piston Cam Design allows as little as .003" clearance for Less Noise than Other Forged Pistons.
- Piston kits are compatible with Nikasil plated bores.
- Sold in Complete Engine kits with rings, pins, clips & instructions
- Designed by and Made Exclusively for **M.A.P. Cycle**.

T120 "BigBore" & T140

ADDED FEATURES:

Lighter than Stock 650 pistons - NO Need to Re-Balance!
Perfect replacements for MORGO, AERCO, Routt 750-850, Chatland, etc. Sold in Complete Engine Sets

COMPRESSION RATIOS (approximate):

10.5:1 "Tight Quench"² (Zero-Deck) allows for Hi-Compression with a Lo-Dome for BEST Flame-Travel & Combustion to deliver MAXIMUM Horsepower. Adds Power with Lower octane requirements. Light weight (318 grams (std)) vs 331 for a 10.5:1 **T120-650** PowerMax pistons for less vibrabration thus more power!

(not recommended for use in street driven bikes nor with "pump" gas)

9.5:1 "Tight Quench"² (Zero-Deck) Lo-Dome design for Better Combustion Properties than Originals. "Zero Deck" adds POWER!! OK with most "Hi-Test" fuel, Perfect with Street Type Performance Cams. GREAT for Street Enthusiasts. MAP9010A at a mere 313 grams complete (std) vs 334 grams for stock 650!! Ultra Light weight for less vibration making Re-balancing NOT Mandatory.

7.5:1 Highest Quality OEM Replacement for standard style pistons. Same high quality rings. No special Fitting, Headgasket or Mods required (not a quench design)! Only 305 grams complete (std) vs 334 gram for Stock 650 let alone the larger bore of the 750 "Big-Bore"!

Rings: Superior Quality, Modern design, Japanese Rings: 1.0mm Barrel Face Nitrided Steel Top, 1.2mm Napier Iron 2nd, & 2.8mm 3-piece Nitrided Steel Rails Oil-Control offer RAPID Seating, BEST Sealing with the most Heat Transfer compared to poor quality stock OEM cast-iron rings.

- MAP9009A^{1,3} M.A.P. PISTON SET (pr) T120 "Big-Bore" 7.5:1 (305 grams complete - STD) Drop-in O.E. Stype
- MAP9010A^{1,2,4} M.A.P. PISTON SET (pr) T120 "Big-Bore" 9.5:1 (313 grams complete - STD)
- MAP9011A^{1,2,5} M.A.P. PISTON SET (pr) T120 "Big-Bore" 10.5:1 (318 grams complete - STD)
- MAP9015A^{1,2,6} M.A.P. PISTON SET (pr) T120 "Big-Bore" for use with a T140 10-bolt head 10.5:1 (335 grams complete - STD)
- MAP9016A^{1,2,6} M.A.P. PISTON SET (pr) T120 "Big-Bore" for use with a T140 10-bolt head 9.5:1 (328 grams complete - STD)
- MAP9017A/N7950 M.A.P. PISTON SET (pr) T120 "Big-Bore-825" for use with a T140 10-bolt head 7.5:1
- MAP9012A^{1,2,7} M.A.P. PISTON SET (pr) T140 9.5:1 (336 grams complete - STD)
- MAP9013A^{1,2,7} M.A.P. PISTON SET (pr) T140 10.5:1 (348 grams complete - STD)
- MAP9014A^{1,3} M.A.P. PISTON SET (pr) T140 7.5:1 Drop-in O.E. Stype - Not Quench Dome - Not "Zero Deck"

¹ Note: Add "/XXXX" to part number where "XX.XX" is the required bore size in millimeters see footnotes below for availability

"N" denotes .0015" clearance as used in Alloy Cylinders with Nikasil plated bores only

² Note: IMPORTANT!! "Zero Deck" pistons require checking of Dome to Head clearance along with headgasket bore diameter. Either Bore an OE headgasket to correct size or order the appropriate MAP9070-MAP9099 gasket to avoid contact with Head and/or Headgasket!

^{3,5} Bore Sizes: 76.00mm (STD) & N76.00, 76.25, 76.50, 76.75, 77.00, 77.25, 77.50 & 77.75mm oversizes

⁴ Bore Sizes: 76.00mm (STD) & N76.00, 76.25, 76.50, 76.75, 77.00, 77.25, 77.50, 77.75, 78.00, 78.25, 78.50 & 78.75mm oversizes

⁶ Bore Sizes: "/N7750" (77.50mm), "/N7950" (79.50mm) & "/N8000" (80.00mm) Oversizes for Nikasil plated aluminum cylinders.

⁷ Bore Sizes: 76.00mm (STD) & 76.25, 76.50, 76.75, 77.00, 77.25, 77.50, N77.50 (fits Nikasil plated aluminum cylinders only) & 77.75mm Oversizes



NEW!

NEW!

M.A.P. Cycle Enterprises, Inc.

Triumph T120/TR6 (650cc) Piston Kits*

FEATURES: Same features as with all M.A.P. Cycle 4032 "A series" Piston Kits (see page EE for details)

COMPRESSION RATIOS :

10.5-1 "Tight Quench"¹ Lo-Dome design for BEST Combustion with MAXIMUM Horsepower. Large Valve Reliefs for oversize valves with up to .460" lift. "Zero Deck" Design Adds Power.

(Note: PowerMax (10.5:1) std = 331 grams)

9.5-1 "Tight Quench"¹ Lo-Dome design for Better Combustion Properties than Original Equipment. "Zero Deck" adds POWER!! OK with most "Hi-Test" Gas, Perfect with Street Type Performance Cams. GREAT for Street Enthusiasts. Check Head Gasket bore clearance.

7.5-1 Low Compression Replacements for easier starting. Same Hi-Quality features. No Special Fitting or Modifications required! Not Zero Deck - Not Quench Dome - a Direct Drop-in!

Rings (all): Superior Quality, Modern Japanese design: 1.0mm Barrel Face Nitrided Steel Top, 1.2mm Napier Iron 2nd, & 2.8mm 3-piece Nitrided Steel Rails Oil-Control offer RAPID Seating, BEST Sealing with the most Heat Transfer compared to poor quality stock cast-iron rings. Sold in pairs

MAP9006A M.A.P. PISTON SET 7.5:1

MAP9007A¹ M.A.P. PISTON SET 9.5:1

MAP9008A¹ M.A.P. PISTON SET 10.5:1

NEW

* Note: Add "/XXXX" to part number where "XX.XX" is the required bore size in millimeters - available in 71.00, 71.50, 72.00, 72.50 & 73.00mm

¹ Note: IMPORTANT!! "Zero Deck" pistons require checking of Dome to Head clearance along with headgasket bore diameter (Bore OE gasket to correct clearance or order 70-4547/A (2.795-2.830" bore) or 70-4547/B (2.835-2.860" bore) to avoid contact with Head and/or Headgasket!

Race Proven

2008 AHRMA Formula 750

NATIONAL CHAMPION

2009 Daytona Formula 750

WINNER - Tim Joyce Exclusively uses

**M.A.P. Cylinders, Crank, Rods, Pistons,
Belt Drive. . . .**

In fact, All Power Train Components for this engine are directly from this catalog!



Norton 750/850 Piston Kits

All the features of M.A.P. Cycle 4032 "A" series Piston Kits (see page "EE" for full details) except Norton pistons are flat-tops with eyebrows! Use with stock headgaskets. Compression ratios are approximate due to head variations and based on .120" counterbore and .040" Head Gasket. Sold in Pairs

MAP9030A^{*} M.A.P. PISTON SET - 750 w/Stock Rod 8.5:1 (9:1 Combat head) 228 grams complete

MAP9031A^{*} M.A.P. PISTON SET - 750 w/Stock Rod 10:1 (Combat head req. mods.)

MAP9032A^{*} M.A.P. PISTON SET - 750 w/MAP 6.362" Long Rods 8.5:1 (9:1 Combat) 185 grams bare

MAP9033A^{*} M.A.P. PISTON SET - 750 w/MAP 6.362" Long Rods 9.75:1 (Combat head req. mods.)

MAP9035A^{*} M.A.P. PISTON SET - 850 w/Stock Rod 8.5:1 (9:1 w/.040" decked head)

MAP9036A^{*} M.A.P. PISTON SET - 850 w/Stock Rod 9.5:1 (check clearances for decked heads)

MAP9037A^{*} M.A.P. PISTON SET - 850 w/MAP 6.362" Long Rods 8.5:1 (9:1 w/.040" decked head)

MAP9038A^{*} M.A.P. PISTON SET - 850 w/MAP 6.362" Long Rods 10.5:1 (check clearances for decked heads)

* Note: Add "/XXXX" to part number where "XX.XX" is the required BORE SIZE in millimeters. See available sizes below.

750: 73.00, 73.50, 74.00, 74.50mm

850: 77.00, 77.25*, 77.50, 77.75*, 78.00, 78.50mm (* Inquire)

NEW

M.A.P. Brand Piston Kit Rings- Wrist Pins - Clips

MAP9019/RXXXX RING SET - Latest M.A.P. "A" Series Billet 4032 Piston sets Only. All models (per engine set)

MAP9019/XXX¹ RING SET - Old Series M.A.P. Pistons Triumph 650, "BigBore", T140/TR7 (per engine set) 1.5x1.5x2.8mm

MAP9019/XXXX² RING SET - Old Series M.A.P. Pistons Triumph 650, "BigBore", T140/TR7 (per engine set)

MAP7084A/R³ RING SET - M.A.P. Triumph T150/T160 & Rocket III "867cc" Big Bore 4032 Series Piston Kit (per engine set)

MAP9039/XXXX⁴ RING SET - M.A.P. Norton 750/850 Pistons (per engine set) (NOT Billet 4032 Series) - See footnote^{2&4}

¹ where "XXX" is the last 3 digit of your piston part number (the OverBore Size (3.000" as "STD")) using 1.5 x 1.5 x 2.8mm ring pack .

² where "XXXX" is the last 4 digit of your pistons part number (the Bore Size in millimeters (XX.XXmm)) Note: ring pack size varies

³ for Early 2816 versions (prior to 4/30/2017) w-1.5 x 1.5 x 2.5mm - order MAP7084/R "Std" (2.855" bore) or MAP9085/R for +.010" (2.864" bore).

for all "A" (4032) series (from 05/01/2017) w-1.0 x 1.2 x 2.8mm - order MAP7084A/R "Std" (2.855" bore) or MAP9085A/R for +.010 (2.864" bore).

⁴ for all "A" (4032) series (from 07/01/2017) order MAP9019/RXXXX where "XXXX" is the last 4 digit of your pistons part number (bore size).

FF

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M.A.P. Cycle Enterprises, Inc.

Continued from page FF

MAP9040	WRIST PIN - Triumph T100 & T120 OEM (.6886 x 2.155") Sold each
MAP9041	WRIST PIN - Triumph M.A.P. Brand Piston Kits & Norton "Long-Rod" Kits Only (.6886 x 2.25") Sold each
MAP9042	WRIST PIN - Triumph T120/TR6 OEM Late (.6886 x 2.39") Sold each
MAP9045	WRIST PIN - Triumph M.A.P. T140/TR7 Piston Kits Only (.750 x 2.25") Sold each
MAP9046	WRIST PIN - Triumph T140/TR7/BSA OEM Replacement (.750 x 2.37") Sold each
MAP9047	WRIST PIN - BSA B44 (.6886 x 2.62") Sold each
MAP9048	WRIST PIN - Aerco (.6886 x 2.635") & Morgo (must be trimmed to 2.621") Only 68 grams Sold each
MAP9049	WRIST PIN - Norton M.A.P. Piston Kits Only (.686" x 2.25") Sold each
MAP9060A	PinCLIP - All M.A.P. "A" Series 4032 Piston sKit w/.685-.689" Pin & any with original clip OD of .748" (each)
MAP9060	PinCLIP - Any M.A.P. Piston Kit w/.685-.689" Pin Size originally supplied with clip OD of .807" (each)
MAP9065	PinCLIP - Any M.A.P. Piston Kit w/.750" Pin Size (Sold each)

You can be a winner too!! These Championship Winning Machines are both fitted Exclusively with Every Power Train Engine Component Directly from this catalog!

2008-2009-2010-2011-2012

AHRMA Formula 750

'09 Formula 750 & Formula 3

NATIONAL CHAMPION

Tim Joyce on his

Race Prepared M.A.P. Triumph 750

See Tim in ACTION at most AHRMA

Road Race Events



M.A.P. Billet Crankshaft¹

"EN40B" Billet Crankshaft(s): Designed by and made exclusively for M.A.P. Cycle! Features: out-bounded flywheels to Minimized Flexing (freeing a bit of horsepower while reducing potential fracture risk); maximized radii (for added strength); "Tear-Drop" oiling holes (increases and evens out oil flow); Triple heat-treat, Shot Peened and Ion-Nitriding makes for one of the strongest, highest revving, longest lasting crank available. Latest T140 design (30mm timing side journal¹ and long alternator snout for additional rotor support. Dynamically Balanced (see bob-weight per part number)!

Available in the standard 360° oem version along with the Phil Irving inspired 76° offset where for an 82mm crank using a 6.5" long rod, had the ingenious concept that as one piston is stopped the other being at its maximum velocity offsets the stopped piston that creates a unique new sound, dramatically decreases vibration all while increasing revability. A great enhancement for racer and street rider alike. Note: While a 90° offset may have slightly improved harmonics, the actual felt vibration (the rocking couple) is reduced by using Irvings concept, having been documented by back to back comparisons by several Australian and New Zealand racers verifying 76° as the better option.

M.A.P. Cycle stocks the required cams and ignition to allow the builder one stop shopping!

MAP9215/EN	Triumph T120/T140 ¹ (360°) Balanced with 713 grams bobweight (per journal)
MAP9215/EN-76	Triumph T120/T140 ¹ (76°) Balanced with 585 grams bobweight (per journal)
MAP9217/EN-76²	Triumph T120/T140 ¹ 89mm "Stroker" (76°) Balanced with 604 grams bobweight (per journal)
MAP9200	Triumph T100 (unit) (Inquire!)
MAP9220	Norton Commando (Inquire!)
MAP9230	BSA Unit Twins (Inquire!)

WOW !!

Check-it-Out!
76° Offset



¹Note: To fit a T120 (prior to GE27209), replace Timing-side Bearing with either 70-3835/MI (ball bearing) or 60-7362/MI (located roller) to allow the RH 30mm Metric journal crank to fit earlier inch dimension crankcases. FYI: to use with a Duplex Type chain or where an alternator is not required, a spacer may be required (or the rotor snout shortened) due to the long snout of the T140..

²Note: 1-3/4" Big-end Journals use with Norton style shells (B2101LC). We recommend MAP7063 ConRods (6.362" c-c) so as to use M.A.P. Cycle stroker crank with T120 style Pistons/Barrel. Check for clearance at the stud bosses (about 4:30 & 7:30 o'clock) and around both cam bush bosses.

M.A.P. Cycle Enterprises, Inc.

New Product Release

4340 Steel "H" Beam Connecting Rods for Triumph, BSA & Norton Engines

M.A.P. Cycle Enterprises, Inc. of St. Petersburg, Florida U.S.A. has been making performance Aluminum connecting rods for over 15 years with great success have now decided to add a new series to our Hi-Performance line up. These new connecting rods have been specifically designed, thru the use of new design software and modern machining techniques, a combination of lightweight with a "lifetime" of reliability. Made from an ANSI 4340 forged steel. A reasonably priced replacement rod in a wide range of models for popular British Motorcycles (others depending on demand). Compare the features to ANY currently produced rod to find that once again M.A.P. Cycle has the best parts for the best British motorcycles. Sold in Engine Sets only.



Features:

- Performance Preferred "H" Beam Design
- Exotic AISI 4340 "Lifetime" Forged Steel
- Hollow Dowels align Big-end Cap for repeat concentricity, rugged reliability, ease of assembly & eliminates cap-walk
- ARP2000 Rod Bolts (220,000 lb. tensile strength)
- Finite Element Analyses Design by High Cotton MotoWorks allows for:
 - a) Re-shaped pin boss for added strength (helps prevent "pin flex"& small-end failure)
 - b) Double "Forced" pin oilers to reduce friction and piston pin heat
 - c) Bushed Small End (replaceable) eliminating the need for fragile and expensive DLC pins
 - d) Optimized Big-End and Pin Boss for strength with the ALL important reduced weight compared to other steel rods
- "Ultra-Light" weight:
 - T100 (T25/B25)- 98 gram Small End - 281 gram Big End (5.312" Center to Center)
 - T120 - 115 gram Small End - 314.5 gram Big End (6.5" C-C)
 - Small End is Only 15grams heavier than OEM but with a true piece of mind of owning a part that will last a life-time
 - T120 "Stroker"/Norton "LongRod" conversion rod - 116 gram Small End - 326 gram Big End (6.362" Center to Center)
 - Adapts 1.750"x 1.09" journal 89mm stroke Norton or custom crank to use all standard T120 top-end parts.
 - T140 - 114 gram Small End - 311 gram Big End (6.0" Center to Center)
 - T150/Rocket III - 105 gram Small End - 292 gram Big End (5.75" Center to Center)
 - Norton Commando/Atlas - 105 gram Small End - 292 gram Big End (no big end oiling holes) (5.875" Center to Center)
 - A50/ A65 - 113 gram Small End - 314 gram Big End (no Big end oiling holes) (6.0" Center to Center)
 - A10 (w/1.687" journals) - 120 gram Small End - 320 gram Big End (no Big end oiling holes) (6.5" Center to Center)
- Latest CNC Manufacturing Techniques
- Uses OEM Big-End Rod Shells
- Track Tested Design
- Best of All - Reasonably priced!

(dealer and distributor pricing available - inquire)

ONLY!
\$450.00 Pair
(\$650 for triples)

ORDER:

- MAP7060 - T100 "Unit" 500cc Engines
- MAP7061 - T120/TR6 650cc & "Big Bore" Engines
- MAP7062 - T25/B25 "Unit" 250 cc Single cylinder Engines (\$225)
- MAP7063 - T120 "Stroker" (89mm) or Norton "Long Rod" Conversions (6.362" c-c)
- MAP7065 - T140/ TR7 Engines
- MAP7067 - Norton Commando/ Atlas Engines
- MAP7066 - T150/ BSA Rocket III/ Hurricane Engines
- MAP7068 - BSA A50/ A65 Engines
- MAP7068A - BSA A10 late model with 1.687" big-end journals



7165 30th Avenue North

St. Petersburg, Florida 33710

Website: www.mapcycle.com Email: sales@mapcycle.com Phone (727) 381-1151

M.A.P. Cycle Enterprises, Inc.



III's

T120/T140

BSA A65

M.A.P. "Black Diamond" VALVES

STANDARD FEATURES:

EV-8 One-Piece Forged Stainless (The best in the business)

Superior Coating:

A Black Oxide Nitriding (a Salt Bath Solution Surface Hardening Treatment) *Penetrates* .002" (prox.) into the Stainless (EV8) Core Material forming a .0002" *Outer Layer* of nearly **60 Rockwell**. This "Black Diamond" coating adds a surface hardness and smoother finish greatly reducing friction (less heat allows for a tighter fit) while providing for the most Durability (longest life), thus making these **M.A.P. Cycle** valves **Superior** to not only to any stock styles but especially so to *Hard Chrome* and other type of Finishes in *ALL* Instances.

Stem TIP: Induction Welded Heat-Treated HNV3 (50+ Rockwell) reduces *Mushrooming* & guide wear.

Available in Oversizes (OS):

M.A.P. OS Valves are **Flow Tested** for **Optimum Performance** (Triumph T120/T140 Only).

OS Valves Can also be used to *Rejuvenate* Sunken Valve Seats, Correcting Geometry.

Note: **M.A.P. Cycle Exclusive:** MAP9163 & MAP9167 OS Valves feature Relocated (higher) Keeper Location to Accommodate Hi-Lift Racing Cams & Springs (saves additional expensive machine work or lost time).

Always check valve to piston clearance on oversize valves.

TRIUMPH

		Intake	Exhaust
1959-On	T100 (Unit) '67-on (1.57" In 1.32" Ex.) (Reduce Head OD for pre '67)	MAP9156	MAP9158
	NOTE: 1.6" (OS IN) 1.37" (OS EX) HEAD DIAMETERS "Black Diamond" OS	MAP9157	MAP9159
1949-62	6T, Thunderbird	MAP9166*	MAP9166
1954-57	T110, TR6	MAP9167*	MAP9166
1958-63	T110, TR6, (6T 1963 only)	MAP9167*	70-3927
1959-63	T120 Bonneville	MAP9167*	70-3927
1963-66	6T, Thunderbird, TR6 (from engine #DU5825)	MAP9167*	70-3927
1963-on	T120 (All '66-on 650/750 II's from eng. #DU44394) ... "Black Diamond"	MAP9162	MAP9166
	NOTE: 1.66" (OS IN) 1.50" (OS EX) HEAD DIAMETERS "Black Diamond" OS	MAP9163	MAP9167
	..... 6mm "Black Diamond" CONVERSION (STD)	PM40550	PM40553
	..... 6mm "Black Diamond" CONVERSION (OS)	PM40551	PM40554
	..... 6mm "TITANIUM" CONVERSION (OS) (Race Only)	PM40551/TI	PM40554/TI

New

1968-73	Trident/Rocket (Long Stem)	MAP9170	MAP9172
	NOTE: 1.59" (OS IN) 1.40" (OS EX) HEAD DIAMETERS "Black Diamond" OS	MAP9171	MAP9173
1974-76	Trident/ T150/T160 (Short Stem)	MAP9174	MAP9178
	..... "Black Diamond" OS	MAP9175	MAP9179

*Note: These "Flowed"ex valves are very close to the same profile of the std OE intake valve but require a .060" spring cup shim (VS060).

BSA

all	B25	68-0661/BD	68-0662/BD
	NOTE: 1.493" (OS IN) 1.354" (OS EX) HEAD DIAMETERS "Black Diamond" OS	68-0661/BDOS	68-0662/BDOS
1971-73	B50 Goldstar (1.750" in. - 1.530" Ex.)	71-1735/BD	71-1736/BD
	NOTE: 1.810" (OS IN) 1.590" (OS EX) HEAD DIAMETERS "Black Diamond" OS	71-1735/BDOS	71-1736/BDOS
1966-72	A65 & A70 (also '62-65 Exhaust only)	MAP9186	MAP9188
	NOTE: 1.659" (OS IN) 1.459" (OS EX) HEAD DIAMETERS "Black Diamond" OS	MAP9187	MAP9189
1968-73	BSA Rocket III (See Triumph Trident/ BSA Rocket (Long Stem))		

NORTON

Norton COMMANDO (1969-on)	"Black Diamond"	MAP9194	MAP9198
	NOTE: 1.56" (OS IN) 1.36" (OS EX) HEAD DIAMETERS "Black Diamond" OS	MAP9195	MAP9199

7165 30th Avenue North

St. Petersburg, Florida 33710

Website: www.mapcycle.com

Email: sales@mapcycle.com

Phone (727) 381-1151

M.A.P. Cycle Enterprises, Inc.



M.A.P. "NASCAR '45'"™ VALVE GUIDES

STANDARD FEATURES:

Exclusive "NASCAR '45'"™ Material;

A Proprietary Alloy as Designed for and Used Exclusively in NASCAR *Until NOW*. "NASCAR '45'"™ is 674 Manganese Bronze Alloyed with added Nickel and Aluminum to Give the Highest amount of Heat *DISSIPATION* (Ever Notice Pitting on your seats and/or valve faces? Partially Seized Valve Stems?) along with Longest Life (Racing Requires Durability!) then Machined on Modern CNC Equipment for Exacting Size & Concentricity. Don't be Fooled. "Nascar '45'"™ is similar to Amco 45 as sold by others but with a Molecular Structure, 2nd to None, designed to *Dissipate* (Not Absorb!!) Much MORE Heat (30-35% MORE!!) than standard Ampco 45. Proven in Racing and on the Street by enthusiasts across the globe!

Exclusive "Ringed" Margins:

No Longer Require Different Guides for Sealed/Unsealed Applications, Remove a Small Bit of Material and Add Our MAP9140¹ High Temp Viton "Oil Metering" Seals made from Hi-Temp Viton, Remain Pliable under Hi-Heat Race Conditions. Minimizes Drying Common to O.E. Single Lipped Seals.

Constant research and development:

M.A.P. "Nascar '45'"™ Valve Guides are the Absolute Best Guides Available for Street or Track. Etched with "Type and Size" for Ease of Identification. Insist Your Dealer Carry the Very Best British Valve Guide M.A.P.'s "Nascar '45'"™. Ask for it by name! (Sold each)

OverSIZES: Add "/XXX" for OD oversizes (+.001,002,003,004,005,006,008,015,050")

TRIUMPH

- MAP9115 TRIUMPH I's thru '70 - IN/EX (those with .560" spring seat dia.) (.311" I.D.)
- MAP9116 TRIUMPH I's '71-on - IN/EX (those with .680" dia. flange type) (.311" I.D.)
- MAP9100 T100 (unit) '59-on - IN/EX (No circlip required) (.311" I.D.)
- MAP9102 T120/T140 thru '78 & T140E '79 - IN/EX (.311" I.D.)
- MAP9103 T120/T140 thru '78 & T140E '79 IN/EX (.309" I.D. for "HONE to FIT" Applications)
- MAP9104/STD T120/T140 7mm Kits thru '78 - IN/EX ("std" OD for PM kits only) Close out till gone \$10.00ea

MAP9140



- PM40590 T120/T140 6mm Conversion (for seal - use # PM40598) available in STD, +.002" & +015") only
- MAP9105 T140D & T140 - IN/EX '80-on (those with .560" spring seat dia.) (.311" I.D.)
- MAP9108 TSS 750 II's - IN/EX (Not "NASCAR '45'"™) Use with O.E. Seal #06-2726 only
- MAP9109 T150/T160/ROCKET III - Intake² and/or Exhaust² (.311" I.D.)

BSA

- MAP9115 BSA I's thru '70 & B50 (All) (.560" spring seat dia.) - IN/EX (.311" I.D.)
- MAP9116 BSA I's '71-on (.680" dia. flange type) - IN/EX (.311" I.D.) (Note: for B50 use MAP9115)
- MAP9110 A10 - 1949-1962 - IN/EX (.311" I.D.)
- MAP9112 A50/A65 - thru '70 - IN/EX (those with .560" spring seat dia.) (.311" I.D.)
- MAP9114 A65/A70 - '71-on - IN/EX (those with .680" dia. flange type) (.311" I.D.)

NORTON

- MAP9120² NORTON 650-750 (IN)² (.312" I.D.)
- MAP9102 NORTON 650-750 (EX) (.313" I.D.)
- MAP9126² NORTON 850 (IN)² (.312" I.D.)
- MAP9128 NORTON 850 (EX) (.313" I.D.)

Recommended Valve to Guide Clearance using MAPXXXX Series Valves along with MAP XXXX Series Valve Guides ONLY:
Intake .0015"
Exhaust .002"

¹NOTE: Seal use is at the discretion of the purchaser if not installed as original equipment. Sporadic top end oiling (those not pressure feed) when used extensively for slow speed riding, may experience seizure.

²NOTE: Order MAP9140 - Valve Stem oil "Metering" seal (Sold each). For Rocket III & T160 it is recommended to be used on both intake and exhaust

M.A.P. Cycle Enterprises, Inc.

Hi-PERFORMANCE VALVE SPRING KITS



PM Hi-Performance Valve Springs Reduce Damaging Harmonics and Help Prevent Float Without Undo Pressure. Springs are Fully Shot Peened and Magnafluxed to Eliminate Metal Stress and Hidden Cracks Assuring Lasting Reliability. These Hi-Performance Engine Kits Include: Titanium or Lightened Steel Top Collars, Chrome Silicone (CrSi) Dual Springs, Steel Base Cups & Fitting Instructions. See descriptions below.

- | | | | |
|------------------|----------------------|------------|---|
| PM1030/TI | BSA B25 | <i>New</i> | - 80lbs. seat @ 1.390" (200 @ .345" (OK to .500" Lift)) Inc. Titanium Top Collars, Steel Bottom Cups. Use with your Stock Keepers. |
| PM1005/TI | BSA B50 '71-on | | - as above for 500 singles |
| PM0330/TI | TRIUMPH 500 II's | | - 74lbs. seat @ 1.205" (206lbs. @ .455")
Inc. Titanium Top Collars & Steel Base Cups (Use with your Stock Keepers) |
| PM0290 | TRIUMPH 650 II's | <i>New</i> | - Hi-quality Stock 650 Replacement Kit '63-72 (not T120RV) Inc. Steel Collars, CrSi Springs & Base Cups. Use with your stock Keepers. |
| PM0295 | TRIUMPH 750 II's | | - As Above for T120RV/T140/TR7 |
| PM0292 | TRIUMPH 650 II's | <i>New</i> | - 90lbs. seat & 1.310" (220lbs. @ .460" Max) Inc. Lightened Steel Top Collars, CrSi Springs & Base Cups. Use your stock Keepers. (not for T120RV) |
| PM0296 | TRIUMPH 750 II's | | - As Above for T120RV/T140/TR7 |
| PM0500 | TRIUMPH 650 II's | | - BeeHive Version of PM0292 (90lbs. seat & 1.375" (220 @ .460" Max.)) |
| PM0550 | TRIUMPH 750 II's | | - BeeHive Version of PM0296 (90lbs. seat & 1.375" (220 @ .460" Max.)) |
| PM0510 | TRIUMPH 650 II's | | - BeeHive 6mm Version of PM0500 (inc. Ti Retainers & Steel Keepers) |
| PM0560 | TRIUMPH 750 II's | | - BeeHive 6mm Version of PM0550 (inc. Ti Retainers & Steel Keepers) |
| PM0300 | TRIUMPH 650/750 II's | | - 104lbs. seat @ 1.420" (Inc. Hard Anodized Alloy Retainers & Steel Keepers) |
| PM0300/TI | TRIUMPH 650/750 II's | | - as above with Titanium Top Collars (Inc. Steel Keepers) |
| PM0350/TI | TRIUMPH/BSA III's | | - Inc. Titanium Top Collars OK to .400" valve lift! Use with your Stock Keepers |
| PM4060 | NORTON 750/850 | | - 105lbs. seat @ 1.420" (rec. 95lbs. for street) 185lbs. @ .320" (.500" Max.)
Inc. Hard Anodized Alloy Retainers & Steel Keepers |
| PM4070 | NORTON 750/850 | | - 750/850 Commando Replacement Spring Kit 93lbs. seat @ 1.410" 170 @ .320" (.410" Max.) Inc. Steel Collars, CrSi Springs & Base Cups. Uses stock Keepers. |



Hi-PERFORMANCE PUSHRODS

M.A.P.'s Light Weight, Thin Wall Aircraft Tubular Chrome Moly Pushrods with Hardened Steel Tips Eliminate Harmonic Variations Caused by Weak Flexing Stock Pushrods to Hold Spot-on Timing Even at High RPM. These Quality Pushrods can be Used with Stock or Performance Springs at Usually LESS than Stock Prices!!!! Limited Quantity of Steel-Tip Aluminum Tube Pushrods (only while supply last)

Note: Remove any portion of rocker box gasket that may wear on pushrods especially with Hi-Lift Cams!

- | | | | |
|----------------|---|----------------|-------------------------------|
| PM10410 | BSA/TRI 250 '68-71 ChroMoly (Set 2) | MAP | TRI 500 UNIT (Set 4) |
| PM10415 | BSA 441 to '68 Round Barrel ChroMoly (2) | MAP1722 | TRI 650 ALL Alloy (Set 4) |
| PM10420 | BSA 441 '68-on Square Barrel ChroMoly (2) | PM0301 | TRI 650 ALL ChroMoly (Set 4) |
| PM10425 | BSA/TRI 500 (B50) I's ChroMoly (Set 2) | MAP1724 | TRI 750 II's Alloy (Set 4) |
| PM10400 | BSA A50 ChroMoly (Set 4) | PM0447 | TRI 750 II's ChroMoly (Set 4) |
| PM10405 | BSA A65 ChroMoly (Set 4) | MAP | TRI 750 III's '68-69 (Set 6) |
| MAP1730 | NLA See PM50010 | MAP | TRI 750 III's '70-74 (Set 6) |
| PM50010 | NORTON COMMANDO ChroMoly (Set 4) | MAP | TRI T160 (Set 6) |

M.A.P. Cycle Enterprises, Inc.

Billet Performance Camshafts

Triumph 650/750 Twins



Brand NEW EN40B Cores, Heavily Nitrited for longest life (60 hour bath) with no worry of bad, damaged threads or worn bearing surfaces of reground cams.
* **Note:** for Pre-Unit engines add: "/PU" to part number

Stock 650 - 272 degree duration .314" Cam lift:

Stock 750 - 293in/258ex degree duration @ .020" .342" in/.302"ex Cam lift

MAP1000N* Great low-end street power with some added midrange - good for scrambles style riding - effective power 2500-7000 rpm. Check Clearances. OK with stock valve springs (use with "R" tappets)
Duration 282 degrees (approx.) @ .020" - valve lift .390" - L.L. .348 - L.C. 100in 102ex
Timing 41btc/61abc (in); 63bbc/39atc (ex) - .010" lash

MAP1065N* BEST overall cam for Triumph 650/750II's (per Motorcyclist Magazine) featuring redesigned ramps for less lifter noise. Broad power band ideal for hot street. Must use performance springs & pushrods. Check Clearances. Note: If using "STD" Tappets for more low & mid-range power time at the same L.C.
Duration 292(in) 295(ex) degrees (approx.) @ .020" - valve lift .400" - L.L. .355" - L.C. 101in 104.5ex
Timing 45btc/67abc (in); 72bbc/43atc (ex) - .010" lash (use with "R" tappets)

MAP1052N* NEW Race profile for Triumph 650/750II's. Modern Computer designed ramps for best peak power with long durability. Great roadrace. Broad power band ideal for TT & Speedway racing. Must use performance springs & pushrods. Clearances especially camlobe to flywheel & tappets to tappet block at max. lift.
Duration 296.5 degrees (approx.) @ .020" - valve lift .422" - L.L. .375" - L.C. 103in 105ex
Timing 45.5btc/71abc (in); 73.5bbc/43atc (ex) - Lash .008in .010"ex (use with "R" tappets)

MAP1046N* Reproduction of Sifton 460. Popular as a sport cam. Must trim tappet block tangs. Check Clearances.
Duration 308 degrees (approx.) @ .020" - valve lift .460" - L.L. .401" - L.C. 102in 106ex
Timing 52btc/76abc (in); 80bbc/48atc (ex) - Lash .008" in .010"ex (use with "STD" tappets)

MAP1047N* MAP1046N (460) intake with MAP1052N exhaust Combo set. Excellant Mid-Range AND Top-End

MAP1075N* Racing profile - Perfect for the performance enthusiast Good Bottom, Fantastic TOP. Must be used with hi-comp pistons, racing pushrods, spring kit, at least 750cc and super port. May need crank or case grinding. Must trim tappet block tangs. Check Clearances.
Duration 326 degrees (approx.) @ .020" - valve lift .450" - L.L. .400" - L.C. 102in 105ex
Timing 61btc/85abc (in); 88bbc/58atc (ex) - Lash .008" in .008"ex (use with "STD" tappets only)

MAP1085N Norris designed "480" intake only. Requires ALL Racing Components. Must trim tappet block tangs.
Duration 316 degrees (approx) @ .020" - valve lift .480 - L.L. .425" - L.C. 100in
Timing 58btc/78abc (in); Lash .008" in . (use with "STD" tappets only)

MAP1090N* Designed for big inch motors greater than 800cc. Full Race. Great for High R.P.M. drag race, grass track & competition. Requires ALL Racing Components. .812" Base Circle. Must trim tappet block tangs.
Duration 340 degrees (approx) @ .020" - valve lift .450 - L.L. .400" - L.C. 108in 108ex
Timing 62btc/98abc (in); 98bbc/62atc (ex) - Lash .008-.014" in .008-.014"ex (use with "STD" tappets only)

** 76 Degree Offset Profiles for Triumph 650/750 Twins with MAP 76 degree Offset Cranks **

NEW!!

MAP1006N Same Profile as MAP1000N Cams

MAP1048N Same Profile as MAP1047N Cams

MAP1056N Same Profile as MAP1052N Cams

MAP1066N Same Profile as MAP1065N Cams

MAP1076N Same Profile as MAP1075N Cams

MAP1086N Same Profile as MAP1085N Cams

MAP1096N Same Profile as MAP1095N Cams

Triumph 500 Twins



Hardfaced Lobes on "BILLET" (**Brand NEW**) Cams, for longest life without worry of bad or damaged threads or worn bearing surfaces of reground cams.
(Stock 500 - 237 degree .314" in/.293"ex cam lift (prox.))

MAP1202 Stock type for use with Stock Pistons and Stock Valve Springs with much longer life. Good mid-range and Throttle Response. (use with "R" tappets)
Duration 282 degrees @ .020" - L.L. .348" - L.C. 100in 102ex
Timing 41btc/61abc (in); 63bbc/39atc (ex) - Lash .010" in .010"ex

MAP1265 Best all around for street/track use. Better mid-range & top-end power. Best with Hi-Performance pistons & springs. (use with "R" tappets)
Duration 292 (in) 295 (ex) degrees (approx) @ .020" - L.L. .355" - L.C. 101in 104.5ex
Timing 42btc/67abc (in); 72bbc/43atc (ex) - Lash .010" in .010"ex

LL

7165 30th Avenue North

St. Petersburg, Florida 33710

Website: www.mapcycle.com Email: sales@mapcycle.com Phone (727) 381-1151

M.A.P. Cycle Enterprises, Inc.

Hardfaced "Billet" (Brand NEW Hardfaced Cam)
(Stock T150 - 237 degree .314in .293ex cam lift (prox)
(Stock T160 - 264 degree @ .040" .320in .322ex cam lift (prox)

Triumph/BSA Triples



- MAP1100N** Best all-around for street/touring use. Factory road race grind. Smooth Power. Good low-end throttle response with increased top-end. (use with 3/4" radius tappets only)
Duration 282 degrees (approx.) @ .040" - valve lift .388" - L.L. .345" - L.C. 98in 102ex
Timing 43btc/59abc (in); 63bbc/39atc (ex) - Lash .005" in .007" ex
- MAP1160N** More top and less bottom than map1100. Best with big bores. (use with 3/4" radius tappets only)
Duration 287 degrees (approx.) @ .040" - L.L. .375" - L.C. 104.5in 107.5ex
Timing 39btc/68abc (in); 71bbc/36atc (ex) - Lash .008" in .010" ex
- MAP1170** Full race-for "860cc" or larger. Excellent for high rpm/high speed use. Must use with performance pistons & springs. Must trim tappet guide blocks. (use with 3/4" radius tappets only)
Duration 274 degrees (approx.) @ .040" - valve lift .450" - L.L. .400" - L.C. 108in 108ex
Timing 29btc/65abc (in); 65bbc/29atc (ex) - Lash .008" in .010" ex

Hardfaced "BILLET" (Brand NEW Hardfaced Cam)
(Other grinds are available on Special Order - Inquire!)

Camshaft - BSA B25/B44/B50 (Triumph T100/TR-5 MX)

- MAP1410** Wide Power Band. TT Performance. Offers a Real Gain in Topend Performance Without Sacrificing Bottom End Pull. Must use Radius Tappets & Performance Valve Springs. (.156" Keyway - .747" Journals)
Duration 268 degrees (approx.) @ .040" - L.L. .400" in .400" ex - L.C. 103in 103ex
Timing 31btc/57abc (in); 57bbc/31atc (ex) - Lash .008" in .008" ex

Camshaft - BSA A50/A65/A70

Hardfaced "BILLET" (Brand NEW Hardfaced Billet)



- MAP1542** Very close to stock (retarded 3 degrees for more top-end)
Duration 262 degrees (approx.) @ .040" - L.L. .347" in .341" ex - L.C. 107in 100ex
Timing 24btc/58abc (in); 51bbc/31atc (ex) - Lash .006" in .007" ex
- MAP1542x2** Improved mid-range and top-end pull. OK with stock pistons, valve springs and tappets
Duration 276 degrees (approx.) @ .040" - L.L. .356" - L.C. 106in 106ex
Timing 32btc/64abc (in); 64bbc/32 atc (ex) - Lash .005" in .007" ex
- MAP1542x12** Best all-around roadrace cam. Strong Mid & Hi-end power. Req's hi-comp pistons & race springs
Duration 274 degrees (approx.) @ .040" - L.L. .375" - L.C. 102in 103ex
Timing 35btc/59abc (in); 60bbc/34 atc (ex) - Lash .010" in .012" ex
- MAP1542x1** Full Road Racing profile excellent for 1/2 mile with wide smooth power for all racing applications
Duration 280 degrees (approx.) @ .040" - L.L. .400" - L.C. 103in 103ex
Timing 37btc/63abc (in); 63bbc/37atc (ex) - Lash .008" in .008" ex

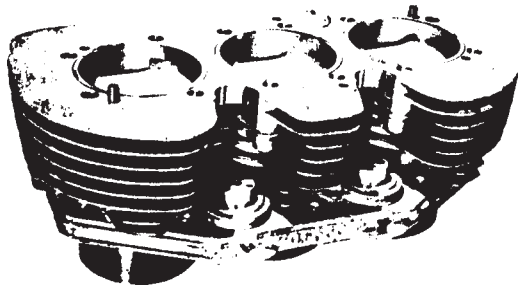
Brand NEW: EN40B Cores, Heavily Nitrited for longest life without worry of bad or damaged threads or worn bearing surfaces of reground cams.
(Stock 850 - 268 degree @ .040 .330" lift)

Camshaft - Norton 750/850



- MAP1600-2S** 750cc Combat engine. This cam had more lift and duration and virtually equal overlap, i.e. no lead. The result was more power at the top end at the expense of bottom end torque. Recommended for 850cc Stage 1 tuning, i.e. fast road work. May be advanced up to 3 degrees to restore some lead (less peaky power curve) (uses "STD" flat tappet.)
Duration 272 degrees @ .040" - L.L. .388" in .350" ex - L.C. 103in 104ex
Timing 33btc/60abc (in); 59bbc/32atc (ex) - Lash .016" in .016" ex Cam Lift @ TDC .168" (in) .145" (ex)
- MAP1600-4S** Advanced inlet timing over 2S (exhaust is the same). Yields more midrange over 2S. Recommended for 850cc Stage 2 tuning, i.e. road racing. Stock Springs OK. (use with "STD" flat tappet.)
Duration 276 (in) 280 (ex) degrees (approx) @ .040" - L.L. .388" in .350 ex - L.C. 104in 106ex
Timing 36btc/64abc (in); 64bbc/32atc (ex) - Lash .016" in .016" ex Cam Lift @ TDC .168" (in) .145" (ex)
- MAP1600-PW3** The PW3 was Peter Williams design developed from the works John Player of '73/74. Mick Hemmings says he won the race on his first outing with this cam. It is the best he has used. Stock Springs OK. (uses "STD" flat tappet.)
Duration 270 degrees (approx) @ .040" - L.L. .380" - L.C. 107in 107ex
Timing 28btc/62abc (in); 62bbc/28atc (ex) - Lash .010" in .010" ex Cam Lift @ TDC .137" (in) .137" (ex)

M.A.P. Cycle Enterprises, Inc.



BIG BORE KIT

Trident-Rocket III BIG-BORE Kit. Increases torque and hp. Extend Engine Life, Reduce Fatigue, Vastly Improves horsepower to weight ratio. A real kick in the grass! A complete kit "867" including pistons, rings, wrist pins, circlips and a new LA Sleeve spun cast iron liners. Machine work to your good core & installation is required but not included. All Made in U.S.A.

MAP7081A TRIDENT/ROCKET 867cc Street/Race Kit (Parts Only)

Includes:

- American Made Spun Cast-Iron LA SLEEVES (3),
- M.A.P. Cycle Light-weight 9.5-1 4032 Hi-Silicone, Low Expansion PISTONS (3)
- Superior Quality Japanese RINGS for Rapid Seating, Best Sealing & Longest Life
 - Barrel Faced 1.0mm Nitrited SteelTop ring
 - Napier (stepped) 1.2mm iron 2nd ring
 - 3pc Nitrited Rail 2.8mm Oil-Control rings
- Light Taperd ID WristPINS (3)
- SpiroLoc CLIPS (7)
- Dead-Soft Copper HeadGASKET (1)
- Instructions

MAP7084A "867" Piston Set (3) - 9.5-1 Pistons w/Rings, Pins & Clips 2.854" Bore

MAP7085A "867" Piston Set (3) - 9.5-1 Pistons w/Rings, Pins & Clips 2.864" Bore

M.A.P. Cycle Billet Pressure Plate

NOW - Billet!



An ingenious concept introduced over 30 years ago to improve the clutch action on Triumph and BSA twins. Like nothing else on the market then or now. Features:

- Oversize diameter to Outbound Pressure for LESS Spring Tension thus Easier Clutch PULL
- Precision Manufactured from billet 6061 material
- "INTERNAL" Single Point" Ball Bearing "Contact Reduces Friction & Wear for more Durability. Easiest to keep "True"!!
- Lighter than stock - Decreases Clutch Assembly Weight!

- An absolute Must for "Dry" Clutches to Prevent Pushrod Seizure. Works great wet too!!
- An M.A.P. Cycle Original Exclusive - Made entirely in the U.S.A.

MAP2100 TRI/BSA 650/750 II's PRESSURE PLATE - 3 SPRING

MAP2102 PRESSURE PLATE ONLY 3-spring Tri T100, T120, T140 & BSA A50/A65 (must use stock "66-on adjust ((57-2159) & nut (14-0403) not supplied. For wet applications only!

MAP2105 TRI/BSA 650/750 II's PRESSURE PLATE - 4 SPRING

TRI 500 II's 3-Spring (not ball bearing type - wet only)

MAP2108 "DRY Only adjuster kit 3/8-24 (unf) current type

MAP2109 "DRY Only adjuster kit 3/8-18 (unc)

LASH CAPS



Lash Caps. Light While TOUGH. Helps Prevent Mushrooming. Salvage Damaged Stem Tips. A Must for Hi-Lift Cams with Hi-Tension Springs or Poor Quality, Non-Hardened, Valve Stem Tips.

PM0816 5/16" Stem (.070" Thick .310-.312" Dia.) Sold Each

PM0816/4 5/16" Stem (.070" Thick .310-.312" Dia.) Sold per 4-Pack

PM0817/4 7mm Stem (.275-.258" as Required for most Titanium Valves) Sold per 4-Pack

PM0817/4E 7mm Stem (for PM Titanium Valves with .260 reduced diameter tips) Sold per 4-Pack

PM0818/4 6mm Stem (.276" ID x .08" Deep x .350" OD) Required for 6mm Titanium valves. Sold per 4-Pack

NN

7165 30th Avenue North

St. Petersburg, Florida 33710

Website: www.mapcycle.com Email: sales@mapcycle.com Phone (727) 381-1151

M.A.P. Cycle Enterprises, Inc.

Properly stack valve springs with our specially designed under the collar Shims. Use as necessary to return new or old springs to proper specification.

1.00" (OD) x .688" (ID) "most Tri 650/750II's" Sold Each		
VS015 (.015" Thick)	VS030 (.030" Thick)	VS060 (.060" Thick)
.915" (OD) x .640" (ID) "Universal" Sold Each		
VS016 (.015" Thick)	VS031 (.030" Thick)	VS061 (.060" Thick)
.760" (OD) x .578" (ID) "Universal" Sold Each		
VS017 (.015" Thick)	VS032 (.030" Thick)	VS062 (.060" Thick)
1.25" (OD) x .680" (ID) "Universal" Sold Each		
VS018 (.015" Thick)	VS035 (.030" Thick)	VS065 (.060" Thick)

M.A.P.'s Offset rocker Buttons increase lift .028" (" /R060") for more air flow & power without expensive cam changes. Always Check for Coil bind & Piston to Valve Clearance. Sold by engine set. Not recommended for use with Racing Springs) (Note: "/020" = +.015" or "/060" = +.028" lift)

71-0070/R020	Tri 650/750 II's
71-0070/R060	Tri 650/750 II's
71-0070/R3	Tri-BSA III's '70-on
	Pre '70 III's require '70-on pushrods

NOTE:
FOR STOCK ROCKER BUTONS
ORDER XX-XXXX (ie DELETE "/R")

M.A.P.'s Performance collar/keeper sets are machined from light aircraft alloy w/large keeper angles to prevent pull through. Easy way to build faster, higher revving engines without additional stress. Order PM0450 for stock dimension springs. Also available for PM0300 replacements.

PM0450	COLLARS & KEEPERS for StockTriumph 650/750 II's
PM0300C	COLLARS ONLY for PM0300 SPRINGS 4-pk
PM0300K	KEEPERS ONLY for PM0300 SPRINGS 8-pk

Eliminate friction due to rocker arm spring tension. Good for some extra "FREE" RPM

70-1574/R	Tri 650/750 II's (4)
70-3224/R	Tri 500 II's (4)
70-1574/R3	Tri-BSA III's (6)

NOTE:
FOR STOCK SPRING SPACERS
ORDER XX-XXXX (ie DELETE "/R")

M.A.P.'s Allen Key Lightened Tappet Adjusters greatly simplify valve adjustment and reduce "rocking" weight to aid in building a faster, freer revving engine without stressing any engine components. Can be used with alloy tappet nuts/rocker spacers for further reducing rocker arm weight/friction. Now with highly polished tips

70-3223/A	Tri 500 II's All (4)
70-1513/A	Tri-BSA 650-750 II's thru '77 (CEI Thread) (4)
71-7045/A	Tri T140/TR7 '78-on (UNF Thread) (4)
70-8783/A	Tri T150-BSA ROCKET III's thru '73 (6)
71-3358*	Tri T150/T160 '74-on (Pivot Ball) Not Allen (ea.)
06-7546/A	NORTON COMMANDO 750/850 (4)

*Note: These adjusters are NLA. Recommend the retrofit of choice of earlier MAP9174 thru MAP9179 "Black Diamond" valves along with 70-8783/A adjusters

M.A.P.'s Alloy Tappet Nuts lighten rocker arm weight for additional "FREE" RPM. Do not overtighten.

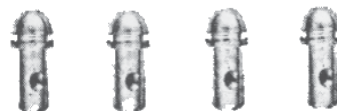
60-4264/A	Tri 500II (Set of 4)
70-0470/A	Tri/BSA 650-750 II's thru '77 (CEI) (Set of 4)
14-0402/A	Tri T140/TR7 '78-on (UNF) ea.
14-0402/A	Tri-BSA III's (UNF) (ea.)
06-7508/A	COMMANDO (4)

NOTE: FOR STOCK ADJUSTER NUTS
ORDER XX-XXXX (ie DELETE "/A")

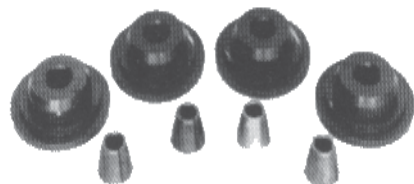
VALVE SPRING SHIMS



OFFSET ROCKER BUTTONS



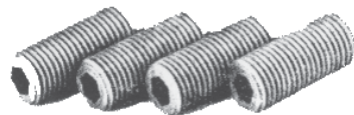
PERFORMANCE VALVE COLLAR & KEEPER Kit



ROCKER SPACERS



LIGHTENED HEX HEAD TAPPETS ADJUSTER

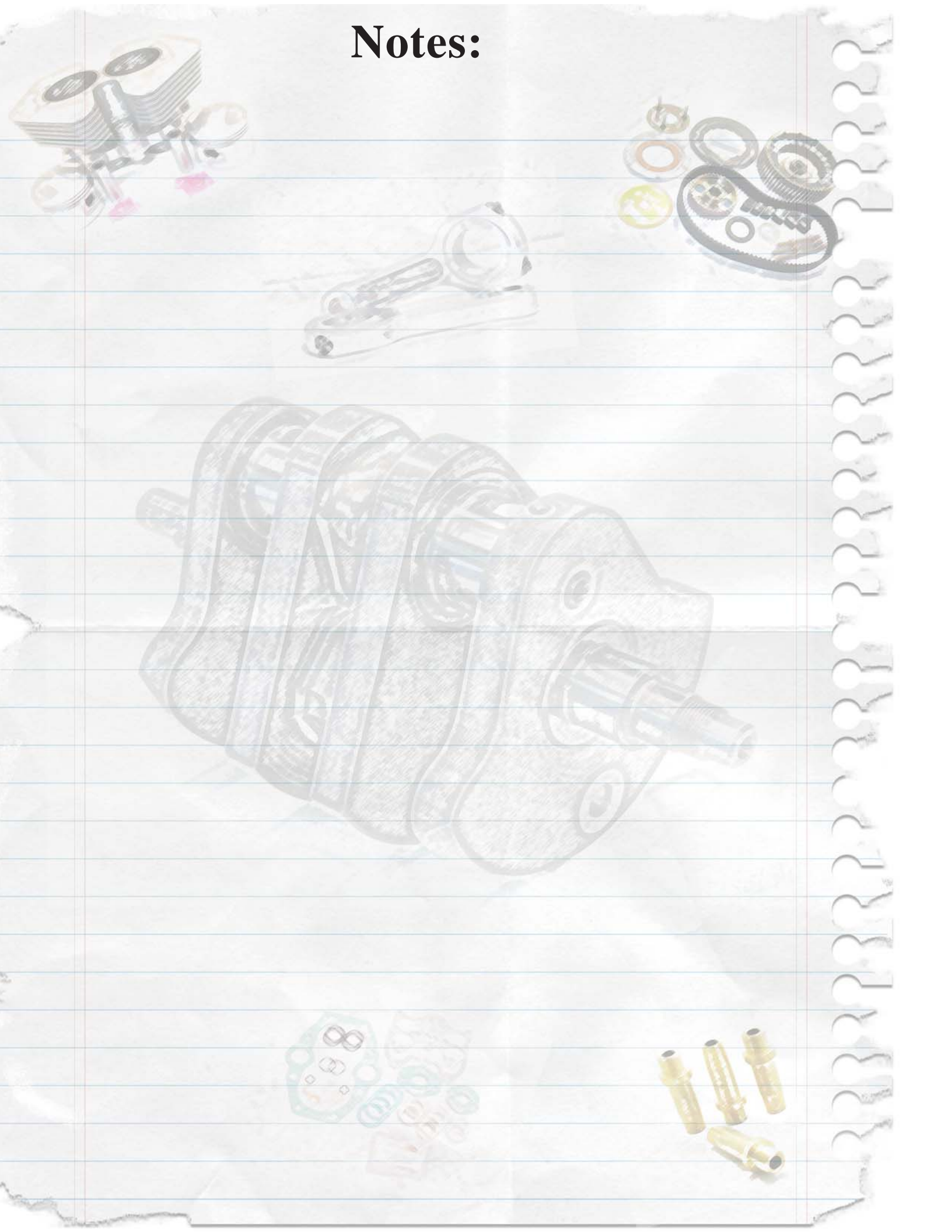


NOTE:
FOR STOCK ADJUSTERS. ORDER
XX-XXXX (ie DELETE "/A")

ALLOY TAPPET NUTS



Notes:



M.A.P. Cycle Enterprises, Inc.

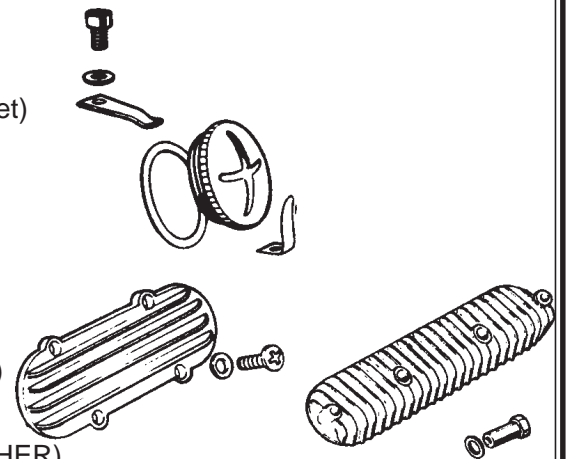
MISCELLANEOUS COMPONENTS

ROCKER BOX - CAPS, COVERS & PARTS (Triumph II's & III's)

- 70-1564¹ CAP - 500/650 Pre-Unit
- 70-4610¹ CAP - 650 '63-72½ (4-Speed) & 500 II's '59-on
- 70-1577 GASKET, Cap - 500/650 (Pre-Unit)
- 70-3751 GASKET, Cap - 500/650 (All Unit)
- 70-7310 O-RING, Cap - 500/650 (OPTIONAL - use Instead of Gasket)
- 70-4671 RETAINING SPRING, Cap - 500 II's (All Unit)
- 70-4609 RETAINING SPRING, Cap - 650 (All Unit)
- 57-1553 SCREW, Retaining Spring to '71
- 14-2203 SCREW, Retaining Spring '71-on
- 60-4263 WASHER, Retaining Spring Screw
- 71-2572² COVER (Oval 4-Bolt) - 650 '71½-72
- 71-3671² COVER (Oval 6-Bolt) - 750 II's
- 14-6103 SCREW - Tri 650/750 II's (Use with 60-2329 Washer)
(See MAP3038 for Allen Type Rocker COVER Screw Set)
- 70-6563 COVER - Tri-BSA III's (in)
- 70-6564 COVER - Tri-BSA III's (ex)
- 70-9237 DOME-NUT Rocker Cover III's ALL (USE w/70-9239 WASHER)

¹NOTE: For Custom Valve Caps - See MAP6070-MAP6079 - Page 69

²NOTE: 71-3671 is Used on 4-BOLT by Grinding Off Outer Bolt Boss (71-2572 is now NLA)



ROCKER BOX PARTS (OUTSIDE) (Triumph)

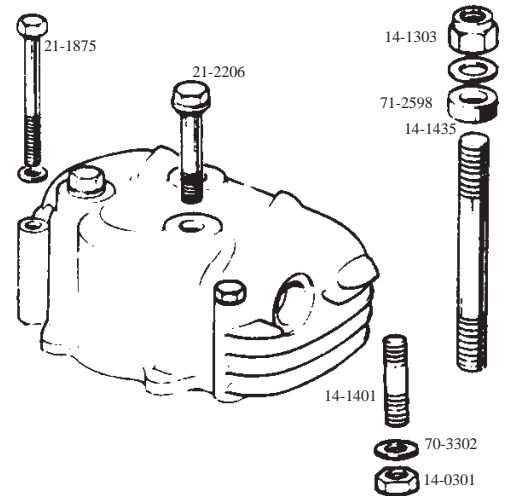
- 71-2079 PLUG, Access - 500/650 '71-72
- 71-2079/B PLUG SET (Polished BILLET Alloy w/Internal O'ring)
- 71-2079/S PLUG SET (Polished Stainless Steel w/Internal O'ring)
- 71-2080 WASHER, Access Plug - 500/650 '71-72
- 70-3809 5/16" BOLT, R-Box Retaining/Oil Feed - 500 II's ONLY
(Use w/97-0400 DOME-NUT & 82-1880 COPPER WASHER)
- 14-6609 ¼" BOLT, Outer R-Box - 500 II's '69-on)
- 70-2982 ¼" BOLT, Outer R-Box - 650 to '68½ (26 CEI)
- 21-1875 ¼" BOLT, Outer R-Box - 650/750 II's '68½-on (20 tpi)
- 70-3857 WASHER, ¼" Bolt - 500 II's UNIT
- 60-4248 WASHER, ¼" Bolt - 650/750 II's
- 70-2980 ¼" STUD, R-Box to Head - 500/650 II's '59-70
- 14-1401 ¼" STUD, R-Box to Head - 500/650/750 II's '71-on
- 70-3302 WASHER, ¼" STUD (All)
- 82-0879 NUT, ¼" STUD - 500/650 II's '59-70
- 14-0301 NUT, ¼" STUD - 500/650/750 II's '71-on
- 21-0588 BOLT, R-Box Mtg. (to under R-Box Headbolt) - 650 '71
- 71-2889 BOLT, R-Box Mtg. (to under R-Box Headbolt) - 650 '72
- 21-2206 BOLT, R-Box Mtg. (to under R-Box Headbolt) - T140
- 60-2332 WASHER, R-Box Mtg. Bolt (outer) - 650 '71-72
- 14-1435 3/8" STUD, Torque Stay - 650/750 II's '71-on
- 71-2598 SPACER, Torque Stay Stud - 650/750 II's '71-on
- 60-2331 WASHER, Torque Stay Stud - 650/750 II's '71-on
- 14-1303 NUT, Torque Stay Stud - 650/750 II's '71-on



NEW:

M.A.P.'s Access PLUG:

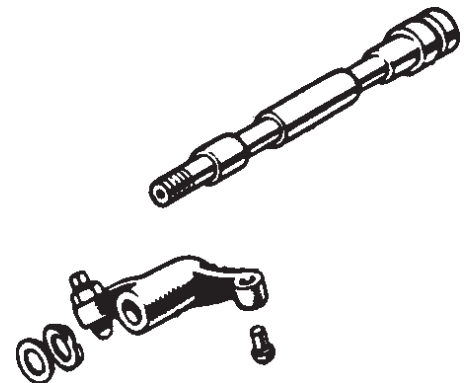
Features "Captured" O'ring for Best Seal Without "Leaky" Hard-to-Find Copper Washer. Nicely Polished. Replaces 71-2079 & 71-2080 Billet Alloy (Add "/B") Stainless Steel (Add "/S")



STOCK ROCKER BOX PARTS (INNER) (Triumph)

- 71-3549 SPINDLE, RockerArm - T140's (use w/21-0550 Nut on 650)
- 70-7651 BUTTON, RockerArm - 500 II's '59-on & III's '68-70
- 70-1483 BUTTON, RockerArm - 650/500 II's (with Oil Hole)
- 71-0070 BUTTON, RockerArm - 650/750 II's '69-on & III's '71-on
- 70-2534 WASHER, RockerArm - 500 II's '59-on
- 70-1575 WASHER, RockerArm - 650/750 II's & III's (Large I.D.)
- 70-1330 WASHER, RockerArm - 650/750 II's (Small ID-Closest to nut)
- 70-3224 SPRING, RockerArm - 500 II's '59-on
- 70-1574 SPRING, RockerArm - 650/750 II's & III's
- 71-2361 SPLITPIN, R-Box Locating (in head) 650/750 II's '71-on

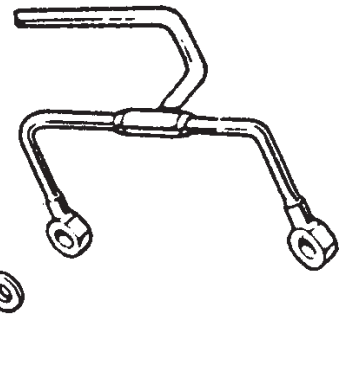
NOTE: For valve adjusters/nuts see page 6



M.A.P. Cycle Enterprises, Inc.

ROCKER OIL LINES/PARTS

- 70-7576 OIL-LINE - Tri 500 '59-74
- 70-4159 OIL-LINE - Tri 650 '60-66 (28" LONG)
- 70-6349 OIL-LINE - Tri 650 '67-70 (11" LONG)
- 71-2428 OIL-LINE - Tri 650 '71-72 (26" LONG HOSE)
- 71-3550 OIL-LINE - Tri 750 II's
- 71-1168 OIL-LINE - Tri-BSA III's (71-4185 for T160)
- 06-5052 OIL-LINE - COMMANDO (All)
- 70-1335 WASHER, Copper Sealing (3/8") (ie. T120/T140 Rocker Spindles)
- 82-1880 WASHER, Copper Sealing (5/16") (Norton OE Aluminum washer 06-7522)
(ie. Tri 500 II's Top Oil Line Bolt(s), All Primary Cover Stud(s) & Norton Top Oil Line Banjo Bolt(s) ref.06-7696)
- 97-1531 DOME-NUT - Tri 500 Rocker Spindle (5/16") Chrome
(for Cad Plated (Not Chrome Plated) order 97-0400)
- 70-1435 DOME-NUT - Tri 650 Rocker Spindle (3/8") Chrome
- 21-0550 DOME-NUT - Tri 750 II's & Tri-BSA III's Rocker Spindle (3/8") Chrome
- 06-7696 Banjo Bolt - Norton



HEAD BOLTS PARTS

MAKE/MODEL:	OUTER BOLT	OUTER WASH	INNER BOLT ¹	INNER BOLT ²	INNER WASH	CENTER BOLT	CENTER WASH	
TRI 500 '59-68	70-3793 ⁶	82-2184 ⁶	70-3795 ⁶	70-3794 ⁶	82-2184	—	—	
TRI 500 '69-74	70-4456 ⁶	82-2184 ⁶	70-3795 ⁶	70-3794 ⁶	82-2184	—	—	
TRI 650 to '66	70-0327 ⁶	82-2184 ⁶	70-1596A ^{6,7}	70-1484 ^{6,7}	82-2184	—	—	
TRI 650 '66-70	70-0327 ⁶	82-2184 ⁶	70-1596A ^{6,7}	70-2874 ^{6,7}	82-2184	70-4771 ⁶	60-4247 ⁶	
TRI 650 '71-72 (4-Speed)	70-0327 ⁶	82-2184 ⁶	—	71-2362 ³	71-2598 ⁹	70-4771 ⁶	60-4247 ⁶	
TRI 650 '72 (5-Speed)	14-0241 ⁶	82-2184 ⁶	—	71-2888 ⁴	71-2598 ⁹	14-0225 ⁶	60-4247 ⁶	
			INNER STUD	STUD WASH	STUD NUT	CENTER STUD	PLATE WASH	CENTER NUT
TRI 750 II's	14-0241 ^{6,8}	82-2184 ⁶	21-2201	71-2598 ⁹	21-2204 ⁵	21-2200	71-3553	21-2205

¹Note: Threaded Top (Torque Type) Use with 60-4259 (Washer) & 00-0003 (CEI Nut)

²Note: Plain Type (Non Torque Type)

³Note: Use with 21-0588 Rocker Box Bolt & 60-2332 Washer

⁴Note: Use with 71-2889 Rocker Box Bolt & 60-2332 Washer

⁵Note: Use with 21-2206 Rocker Box Bolt

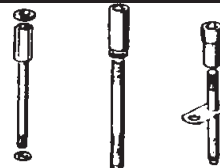
⁶Note: Add "/C" for Chrome Steel, "/HD" for Heavy Stainless or "/HDP" Polished SS)

⁷Note: Various Lengths: 70-1596 at 5-11/16"; 70-1596A at 5-7/8"; 71-1484 at 5-11/16"; 70-2874 at 5-7/8" UH

⁸Note: Also Available: 12-point Chrome (CB372437-12) or ARP Stainless (SB372435-12) & CW3780H (Hard-Chrome) or SW3775H (APR-SS) Washer

⁹Note: Heavy-Duty Large OD Washer SW3775H (.75"OD x.4"ID x.115") helps prevent OE washer crush (must trim gasket). Sold ea.

Recommend using with viton o-ring #BCSOR (designed to fit under SW3775H) to seal studs from oil seepage. Sold ea.



Convert '71-72 Inner head-bolts to T140 stud/coupler for easy re-torque
Order: 4) 21-2201/26 Stud
4) 21-2204 Coupling Nut
4) 21-2206 RockerBox Bolt

VALVE PARTS

MAKE/MODEL	KEEPER	COLLAR	SPRING SET ⁷	BOTTOM CUP
BSA/Tri 250	71-1166 ⁸	71-2366	70-8114/8115	68-0931 ⁵
BSA B44/B50	71-3748 ⁹	70-1543	65-2494/2495	68-0931
BSA B50/A50/A65/A70	71-1166 ⁸	71-1165	71-1177/2222 ¹	68-0931 ⁵
Tri 500 II's '59-74	71-3748 ⁹	70-3742	70-4011/5946	70-6855
Tri 650 to '66	71-3748 ⁹	70-1543	70-1487/1488 ²	70-1544 ⁶
Tri 650/750 '66-on	71-3748 ⁹	70-1543	99-7037 ²	70-6439 ³
Tri/BSA III's	71-3748 ⁹	70-8720	99-9954	70-8789
NORTON COMMANDO	06-7507	06-7506	06-7822/7823	06-1399 ⁴

¹Note: Use 40-0169 for A50/A65 '60-66; Use 68-0805/0930 for A50/A65 '67-70; Use 71-1177/2222 for A50/A65/A70 '71-on

²Note: 99-7037 Springs may be Used on Pre '66 650 Triumph Motors if Used with 70-6439 Bottom Cup.

³Note: T120RV & T140 '73-79 Use 71-3296: T140D & '80-on (All) Use 71-7203 Bottom Collar

⁴Note: 06-7845 Insulator, Valve Spring Cup

⁵Note: Use 71-2366 for '71-on (.561" ID) Except B50

⁶Note: Not for 6T: for 6T use 70-5008

⁷Note: For Custom Racing Springs - see page "KK"

⁸Note: for "Heavy Duty" use 71-1166/KPMI (8pk)

⁹Note: for "Heavy Duty" use 71-3748/KPMI (8pk)



Note:
For Hi-Performance Spring Kits
See Page "KK"

M.A.P. Cycle Enterprises, Inc.

VALVES

TRIUMPH

1953-59 T15,T20,T20C
 1959-68 T20,T20T,T20S,T20SL,T20S/S,T20SH,BANTAM,SUPERCUB
 1968-71 TR25W, ALL 250
 1946-59 5T
 1946-50 T100
 1951-59 T100, TR5
 1959-66 T100,T100A,T100C,T100S,T100S/S,5TA
 1967-on T100C,T100R,T100S,T100T, (T100R,T100T66-on)

1949-62 6T (THUNDERBIRD)
 1954-57 T110,TR6
 1958-63 T110,TR6, (6T 1963 only)
 1959-63 T120 BONNEVILLE
 1963-66 6T (THUNDERBIRD), TR6 (TROPHY) (from engine #DU5825)
 1963-on T120, '66-on All 650/750 II's from engine #DU5825)

Note:
 MAP9166 will sub for 70-2903 also 70-2904 but with somewhat different profile (ex)
 MAP9167 will sub for 70-3310 (req.VS060 shim)

1968-73 TRIDENT/ROCKET (Long Stem)

1974-76 TRIDENT/ T150/T160 (Short Stem)

BSA

1959-66 C15,TRIALS
 1959-66 SCRAMBLER
 1967 B25
 1968-72 B25 STARFIRE
 1960-63 B40,350 STAR
 1962-65 B40SS90 & 1965-66 VICTOR (Round Barrel)
 1967-70 VICTOR (SQUARE BARREL)
 1970-74 B50
 1947-50 A7
 1947-50 STAR TWIN A7
 1951-62 A7
 1949-62 A10
 1956-57 ROAD ROCKET
 1958-59 A10S/R SUPER ROCKET
 1960-on A10S/R SUPER ROCKET (From #DA10R-101)
 1962-65 A50
 1966-70 A50
 1962-65 A65
 1966-72 A65 & A70

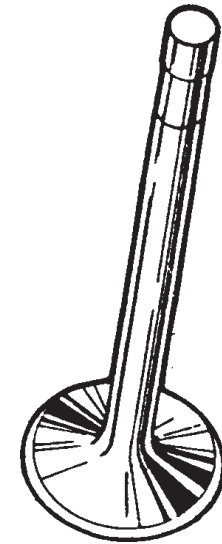
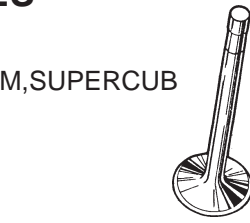
1968-73 ROCKET III 's (See Triumph "TRIDENT/ROCKET (Long Stem)")

'Note: Uses Triumph Style Keepers

NORTON

1960-67 NORTON 650 (88, 99, 650SS)
 1964-67 NORTON 750 ATLAS
 1968-on NORTON COMMANDO (all)

VALVE STEM SEAL (Stock)
 Order 06-2726



INTAKE

70-3146
 70-3963
 70-8112
 70-1955
 70-1955
 70-2969
 70-4012
 70-6853
 MAP9156
 MAP9157
 70-2903 (1.44")
 70-3310 (1.50")
 70-3310
 70-3310
 70-3310
 70-4603 (1.60")
 MAP9162
 MAP9163 (1.66)
 MAP9164
 70-6422
 MAP9170
 MAP9171
 71-3361
 MAP9174
 MAP9175
 40-0165
 40-0337
 68-0661
 68-0661
 41-0022¹
 41-0024¹
 41-0788¹
 71-1735
 67-0029
 67-0189
 67-0740
 67-0742¹
 67-0968
 67-0968
 67-1551
 68-0168
 68-0661
 68-0156
 68-0665
 MAP9186
 MAP9187

EXHAUST

70-3147
 70-3147
 70-7777
 70-1956
 70-1956
 70-1956
 70-4013
 70-6854
 MAP9158
 MAP9159
 70-2904 (1.44")
 70-2904
 70-3927 (1.345")
 70-3927
 70-3927
 70-2904
 MAP9166
 MAP9167
 MAP9168
 70-6423
 MAP9172
 MAP9173
 71-3362
 MAP9178
 MAP9179
 40-0166
 40-0166
 68-0662
 68-0662
 41-0023¹
 41-0023¹
 41-0789¹
 71-1736
 67-0030
 67-0190
 67-0741
 67-0743¹
 67-0967
 67-0967
 67-0967
 68-0169
 68-0662
 68-0157
 68-0663
 MAP9188
 MAP9189

"Black Diamond"
 "Black Diamond" OS

"Black Diamond"
 "Black Diamond" OS

M.A.P. Cycle Enterprises, Inc.

CYLINDERS & BASE HARDWARE

MAKE/MODEL:	CYL-INDER	OUTER STUD	INNER STUD	DOWEL STUD	DOWEL	OUTER NUT	INNER NUT	WASH
Tri 500 II's '59-68	70-9719	70-3820	70-3820	70-3819	70-8751	37-0076	37-0076	GS308
Tri 500 II's '69-74	70-9719	21-1921	21-1921	21-1922	70-8751	21-0692 ³	21-0692 ³	_____
Tri 650 Pre-Unit	70-3332	70-0672	70-0672	70-3523	70-8751	PO172A	37-0076	_____
Tri 650 '63-68½ ¹	70-6304	70-0672	70-0672	70-3523	70-8751	PO172A	37-0076	_____
Tri 650 '68½-72 ½ (4-spd)	70-6304	21-1865	21-1865	21-1865	70-8751	21-0692 ³	21-0692 ³	_____
Tri 650 '71½-72 (5-spd)	_____	21-1865	21-1865	21-1865	70-8751	21-0692 ³	21-0692 ³	_____
Tri 750 II's '73-on	71-4005 ²	71-3013	21-1865	21-1865	70-8751	21-2177 ³	21-0692 ³	70-3446 ⁵
		STEPPED	STD					
Tri/BSA 750 III's (All)	71-3935	21-1912	21-1931	70-8738	70-8751	21-0692 ³	21-0692 ³	70-8770
COMMANDO 750	06-1705	06-2640	06-2639	_____	_____	06-2650	06-2651	NOTE ⁴
COMMANDO 850	06-5074	06-3824	06-2639	_____	_____	06-3825	06-2651	NOTE ⁴

¹NOTE: Use 70-4546 for cylinder without tappet oil feed (Note: 70-6304 cylinder will interchange)
²NOTE: Early 75mm (720cc) cylinder NLA - Use current cylinder #71-4005 (750cc) with new pistons.
³NOTE: Chrome small head 12-point nuts add a nice touch - Order Part #CN12375 (replaces 21-0692) or #CN12312 (replaces 21-2177) sold ea.
⁴NOTE: Use washer 01-6213 for 06-2640 stud - Use washer 60-2330 for 06-2639 stud.
⁵NOTE: Use washer on outer 4 studs only



PISTONS ¹ (HEPOLITE w/Rings, Pins, Clips)	RINGS* (HEPOLITE)
11412 BSA A10	R3650 BSA A10
19233 ² /KR BSA A65 (ALL)	R17350 ^{3,4,5} BSA A65 (All)
15123 Tri 500 II's thru '67	R13570 ^{3,4,5} Tri 500 II's (All)
18786 ² Tri 500 II's '67-on	R13570 ^{3,4,5} Tri 500 II's (All)
17844 ² Tri 650 '58-on	R11050 ^{4,5} Tri 650 (All)
19255 ² Tri 750 II's (All)	R26490 ^{3,4,5} Tri 750 II's (All)
19916 ² Tri/BSA III's (All)	R23020 ^{4,5} Tri/BSA III's (All)
19145 ² NORTON 750 COMMANDO	R26260 ^{4,5} COMMANDO 750
19342 ² NORTON 850 COMMANDO	R26730 ^{4,5} COMMANDO 850

¹NOTE: All pistons/rings listed are Hropolite and sold in engine sets. For oversize Bores add "/XXX" (ie .020,.030,.040,.060,.080) to part #)
 For M.A.P. Forged pistons - see pages EE Thru GG
²NOTE: For Hi-Quality Economy add "/E" to part # ("/E" piston sets do NOT include Rings - Rings Must be Ordered Separately)
³NOTE: Available in Ultra Hi-Quality Japanese Riken Rings (Recommended) - add "/E" to part #
⁴NOTE: Available in Hastings - add "/H" to part #; in Taiwan Quality - add "/T" to part #; in USA made Quality Rings - add "/G" to part #

PISTON CIRCLIPS

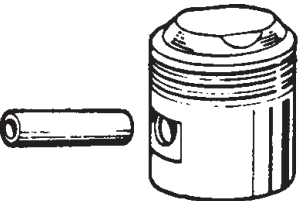
70-6869	BSA B25
71-3700	BSA B33/B34/B40/B44/B50/A10/A50/A65/A70
70-6840	BSA ROCKET III's
70-6869	Tri 250 & Tri 500/650 II's
71-3700	Tri 750 II's
70-6840	Tri 750 III's & NORTON ATLAS/COMMANDO

PISTON PINS (Wristpins)

70-6861	Tri 500 II's & Early 650's (2.155" Long)
70-6863	Tri 650 Late (2.40" Long)
71-3354	Tri 750 II's & BSA A50/A65/A70
70-6836	Tri & BSA III's

SMALL END BUSHINGS (I.D. NOT Pre-Finished unless indicated)

40-0916	BSA 250 '67-71
66-0492	BSA B40/B44/B50
67-0393	BSA A7
67-0298	BSA A10/A50/A65
67-0298/KPMI	BSA A10/A50/A65 - HvyDty KPMI Brand
67-0298/002/KPM	BSA A10/A50/A65 - +.002" OD - HvyDty KPMI Brand
70-1762	Tri T15/T20
70-4003	Tri 250 & Tri 500 II's
70-1511	Tri 650
70-1511/MAP	Tri 650 Carefully "Pre-Reamed" for EASIEST Installation Remove old then install New Bush - Great for in-engine installations!



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CONNECTING RODS* (sold each)

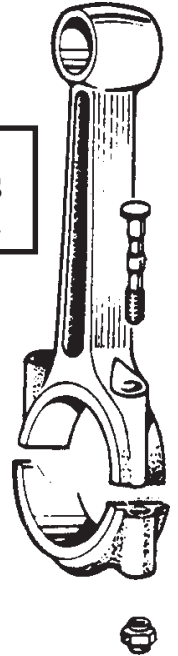
- 71-1106 BSA A65 (LH) (Note: Must Be Used in Pairs thru '69)
- 71-1105 BSA A65 (RH) (Note: Must Be Used in Pairs thru '69)
- 70-9915 Tri 500 II's (Unit) (Note: Must Be Used in Pairs thru '70)
- 70-9525 Tri 650 II's (Note: Must Be Used in Pairs thru '68)
- 71-3006 Tri 750 II's
- 70-9740 Tri 750 III's (Also BSA Rocket III's)
- 06-4896 NORTON ATLAS or COMMANDO

*NOTE: For Replacement Race & Hi-Performance CON-RODS - See Page "HH"

Inquire:

New Dedicated Con-Rod FORGINGS

Coming Soon! Who Else but M.A.P.



ROD BOLTS (& NUTS) (sold each)

- 70-3705 BSA/Tri 250 '67-70 (Use w/70-2922 Nut)
- 70-9914 BSA/Tri 250 '71 (Use w/21-2016 Nut)
- 67-1536 BSA A50/A65 (Use w/67-1537 Nut)
- 70-3705 Tri 500 II's '59-70 (Use w/70-2922 Nut)
- 70-9914 Tri 500 II's '71-74 (Use w/21-2016 Nut)
- 70-2490* Tri 650 '63-68 (Use w/70-2922 Nut)
- 70-6576* Tri 650 '69-on (Use w/21-2016 Nut)
- 70-9914 Tri 750 II's (All) (Use w/60-3761 Nut)
- 70-9727 Tri/BSA III's (All) (Use w/21-2016 Nut)
- NM23254 NORTON 750/850 thru '74 (Use w/NM23253 Nut)
- 06-6486 NORTON MKIII (Use w/06-7827 Nut)

*Note: These rod bolts are available as ARP Ultra Heavy Duty (190,000 lbs) Set of 4: order 70-6576/ARP (includes ARP Nuts)

PUSHRODS*

- 70-8053/70-8055 BSA-Tri I's EX/IN (ea)
- 41-0790 BSA 441 (ea)
- 71-1620 BSA 500 I's (ea)
- 68-0365/68-0367 BSA A50 IN/EX (ea)
- 68-0370/68-0372 BSA A65 IN/EX (ea)
- 70-4008 Tri 500 '59-on (ea)
- 70-2620 Tri 650 (ea)
- 71-3330 Tri 750 II's (ea)
- 70-6506 Tri T150-BSA III's '68-69 (ea)
- 71-1238 Tri T150-BSA III's '70-75 (ea)
- 71-3974 Tri T160 (ea)
- 06-7940/06-7941 COMMANDO IN/EX (ea)

*NOTE: For Replacement Race & Hi-Performance PUSH-RODS - See Page "KK"



70-4008
70-6506
71-1238

*NOTE: For Performance/Replacement Pushrods - See Page "KK"



70-2620
71-3330
71-3974



06-7940/7941

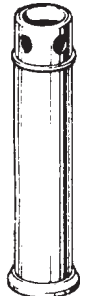
PUSHROD TUBES (ea.)

- 70-3755 Tri 500 '59-64
- 70-4751 Tri 500 '65-68
- 70-9512 Tri 500 '69-70
- 71-2576 Tri 500 '71-74
- 70-3646 Tri 650 '60-65
- 70-6000 Tri 650 '66-68½ (No "INTERNAL" Bottom O'Ring is Used)
- MAP7162* same as 70-6000 but Nicely Polished Billet Aluminum
- 70-9349 Tri 650 '68½-72 (Uses "INTERNAL" Bottom O'Ring)
- MAP7163* same as 70-9349 but Nicely Polished Billet Aluminum
- MAP7164* Convert '69-on Tappet Block for use with '63-68½ Head (Nicely Polished Billet)
- 71-3329 Tri 750 II's 1973-79
- MAP7165* same as 71-3329 but Nicely Polished Billet Aluminum
- 71-7191 Tri 750 II's 1980-on
- MAP7166* same as 71-7191 but Nicely Polished Billet Aluminum
- 70-6955 Tri/BSA III's '68-74½
- 71-4000 Tri/BSA III's '74½-75 (Not T160)
- 71-4378 Tri T160 (all)

*New M.A.P. Designed Billet Alloy Pushrod Tubes have Extra Material for adjusting excessive "leak causing" seal crush (rec. .020-.050" crush). Perfect for Alloy Cylinders to equalize expansion rate to help reduce leaks or a less expensive alternative to stock! Nicely Polished. Made in USA



70-3755
70-4751
70-3646
71-7191
70-6000



70-9512
71-2576
70-9349
71-3329

PUSHROD TUBE BOTTOM CUP/WEDDING BAND (sold each)

- 70-4746 Tri 500/650 thru '68½ (CUP)
- 71-1707 Tri 500/650/750 II's '68½-80 (OE Band)
- 71-1707/S Tri 500/650/750 II's '68½-80 (Stainless Steel Band)
- 71-7196 Tri T140 ELECTRIC START (OE Band)
- 70-4746 Tri/BSA III's (Cup) (Use with 71-1190 Shim Gasket as req'd)



70-4746



71-1707
71-1707/C

PUSHROD TUBE HARDWARE (sold each)

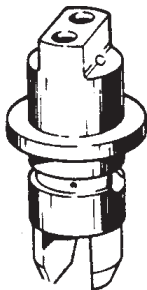
- 70-0984 BOLT 5/16 (Tri Iron Head)
- 70-1601 BOLT 3/8 (Tri Iron Head)
- 82-1880 COPPER WASHER for 5/16 Bolt (as req'd)
- 70-1335 COPPER WASHER for 3/8 Bolt (as req'd)

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St. Petersburg, Florida 33710

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TAPPET BLOCKS

70-3736	Tri 500 '59-63
70-4676	Tri 500 '64-69
70-9352	Tri 500 '70-74
70-1477	Tri 650 thru '65
70-4676	Tri 650 '66-68½ (Intake) .925" at Sealing Ring
70-5861	Tri 650 '66-68½ (Exhaust) .925" at Sealing Ring
70-9352	Tri 650/750 II's '68½-79 (Intake) .990" at Sealing O'Ring Inside Pushrod Tube
70-9353	Tri 650/750 II's '68½-79 (Exhaust) .990" at Sealing O'Ring Inside Pushrod Tube
71-7195	Tri T140 '80-on (Intake & Exhaust)
71-3211	Tri/BSA III's Timing Side
71-3212	Tri/BSA III's Drive Side



MISC TAPPET BLOCK PARTS

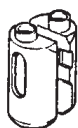
97-0200	BOLT, Tappet Block Locking - Tri 500/650/750 II's
70-1612	WASHER, Tappet Block Locking - Tri thru '69 (STAR)
70-2441	WASHER, Tappet Block Locking - Tri '70-on (Copper)
70-9465	PIN, Tappet Block Locking (Alloy Dowel) - Tri/BSA III's
70-7563	O'RING - Tri II's (Viton Hi-Temp)(as Required)
70-6560	O'RING - Tri/BSA III's



TAPPETS*

70-7739	Tri/BSA 250/441/500 '68-70
71-2513	Tri/BSA 250/441/500 '71-on
70-3753	Tri 500 '59-66 (non "R")
70-4040	Tri 500 '67-'74 (not TR5T '73-74)("R")
70-3753	Tri 500 TR5T '73-74 (non "R")
70-3059	Tri 650 to '65 (Intake & Exhaust) (non "R")
70-3059	Tri 650 6T/TR6 '66 (Intake only) (non "R")
70-8895	Tri 650 '66 (Exhaust only) (non "R")
70-8801	Tri 650 T120 '66 (Exhaust only) ("R")
70-3059/R	Tri 650 '67-72 (Intake) ("R") '66 T120 Only Intake
70-3059	Tri 750II's '73-79 (Intake) (non "R")
70-8801	Tri 650/750 II's '67-79 (Exhaust) ("R")
71-7008	Tri T140 Electric Start (Intake & Exhaust) (non "R")
71-3213	Tri/BSA III's '68-74 (Intake & Exhaust) ("R")
71-3976	Tri T160 (Intake & Exhaust) ("R")
06-7820	Norton Commando (pairs only)

Note: TAPPETS
"R" = 1-1/8" Radius
Non "R" = 3/4" Radius
BSA A50/A65 = 1-1/4" Radius



*Note: Reground Tappets Available (inquire)

CRANKSHAFT FLYWHEEL BOLTS

68-0580	BSA A50/A65 (2)
68-0581	BSA A50/A65 Sludge Tube Locator (1)
70-3907	Tri 650 '63-65
70-6328	Tri 650 '66-68
70-3907	Tri 650 '69-70 (For Early '69 Light Flywheel Use 70-6328)
71-2601*	Tri 650 '71-72 (Non Metric)
71-2799*	Tri 650 '72 (Metric)
71-3552*	Tri 750 II's '73-on

*NOTE: Uses 71-1003 Base Washer

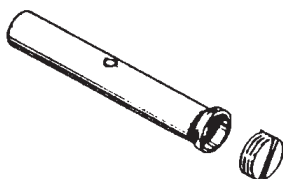


CRANKSHAFT SLUDGE TUBES

70-3903	BSA A50/A65
70-3999	Tri 500 II's '59-on
70-3903	Tri 650/750 II's (All Except TSS")





CRANKSHAFT SLUDGE TUBE PLUGS

67-1211	BSA A50/65 '63-65
MAP3260	BSA A50/65 '66-on - Allen (HEX) Type
MAP3265	Tri 500 II's '59-74 - Allen (HEX) Type
MAP3260	Tri 650 thru '71 - Allen (HEX) Type
MAP3261	Tri 650 '72 (only) & 750 II's (ALL - Not TSS) - Allen (HEX) Type



M.A.P. Cycle Enterprises, Inc.

MAIN BEARINGS

MAKE/MODEL:	LH MAIN 	ROD BEARING 	RH MAIN 	RH BUSH 
BSA 250 '68-69	70-8003	B1071M	70-8003	_____
BSA 250 '70-on	70-9974	B1071M	70-8003	_____
BSA 441/500 ¹	24-0724	_____	24-0732	_____
BSA A7/A10	67-0670	B2046M ²	_____	67-0790 ³
BSA A50/A65 '62-66	68-0625	B2046M	_____	68-0336 ^{3,5,6}
BSA A50/A65/A70 '67-on	68-0625	B2046M	_____	68-0657 ^{3,5,6,7}
Tri 250 '68-69	70-8003	B1071M	70-8003	_____
Tri 250 '70-on	70-9974	B1071M	70-8003	_____
Tri 500 Pre-Unit '54-58	70-1591	B2026M	70-1591	_____
Tri 500 '59-68	70-3835	B2047M	_____	70-4322 ³
Tri 500 '69-74	70-9493	B2047M	70-9494	_____
Tri 650 Pre-Unit '49-53	70-1591	B2026M	70-2877	_____
Tri 650 Pre-Unit '54-65	70-1591	B2026M	70-1591	_____
Tri 650 '66-72 (4-Speed)	70-2879	B2026M	70-1591	_____
Tri 650/750II '72-79 (5 Speed)	70-2879	B2026M	70-3835	_____
Tri 750 II's '80-on	70-2879	B2026M	60-7362	_____
Tri-BSA III's ⁴	70-1591	B3053LC	70-8780	_____
NORTON thru '71	70-3835	B2101LC	06-4118	_____
NORTON '72-on	06-4118	B2101LC	06-4118	_____

¹NOTE: BSA/Tri 500 Singles ALSO Use 65-5883 as an Outer Drive Side Ball Bearing

²NOTE: Pre '56 BSA A7/A10 Use B2024LC (1.46" Pin Diameter) or B2046M (1.687" Pin Diameter.) Rod Bearings

³NOTE: Specify Bush Size IF Not STD (Available in "/010", "/020", "/030" - see side bar for A65 part numbers)

⁴NOTE: Tri/BSA III's Use M2098LC Center Plain Main Bearings (Available in "/010", "/020", "/030", "/040")

⁵NOTE: Use SHIM SET #68-0635/SET for BSA A65 crank to main bush shimming (Inc. .010,.020 &.030" shims)

⁶Note (cont.):

A50/65 Oversizes to '66

68-0334 +.010

68-0332 +.020

68-0335 +.030

68-0335/040 +.040

A50/A65 Oversizes '66-on

68-0647 +.010

68-0648 +.020

68-0648/030 +.030

68-0648/040 +.040

⁷Note (cont.):

68-0685 Crank Thrust Washer

68-0685/KPMI HvyDty KPMI

MISC CRANKCASE ITEMS

68-0022 CAM BUSH - BSA A50/A65 DS (Drive Side)

68-0025 CAM BUSH - BSA A50/A65 TS (Timing Side)

70-3824 CAM BUSH - Tri 500 Intake ('59-69)

70-3823 CAM BUSH - Tri 500 Exhaust

70-3823 CAM BUSH - Tri 500 Intake '70-on

71-0288 * CAM BUSH - Tri 650 Intake (Drive Side) thru '69

71-0287 * CAM BUSH - Tri 650/750 II's Intake DS (Drive Side) '70-on

71-0287 * CAM BUSH - Tri 650/750 II's Exhaust (DS) Drive Side (all)

71-0286 * CAM BUSH - Tri 650/750 II's TS (Timing Side) Flanged (All)

06-3020 CAM BUSH - NORTON COMMANDO TS Timing Side)

06-3021 CAM BUSH - NORTON COMMANDO DS (Drive Side)

*Note: Add "/S" for special Ampco-45 type Heavy Duty Material (less \$\$\$'s?)

70-5316 ROTARY BREATHER - Tri 500/650 II's thru '69

70-2256 SPRING, Rotary Breather - Tri 500/650 II's thru '69

70-4700 THIMBLE, Tach Drive - Tri 500/650 II's thru '69

70-9988 ADAPTER, Tach Drive - Tri 650/750 II's ('71-on)

70-5232 SCREW, Case Mouth - Tri 650 '63-68 (Note: '69-on Use 21-1873)

71-3447 PRESSURE RELEASE VALVE Complete (All)

70-8754 GASKET, Cap to Body

70-1670 GASKET, Body to Case

60-3355 O'RING, Body to Case (T140 '77-on)

70-9979 SUMP SCREEN - BSA/Tri 250/441

71-2933 SUMP SCREEN & PLATE - BSA/Tri 500 I's

71-1126 SUMP SCREEN - BSA A50/A65 (All Unit)

70-3722 SUMP SCREEN - Tri 500 '59-on

70-0529 SUMP SCREEN - Tri 500/650 Pre-Unit (All)

83-4783 SUMP SCREEN - Tri 650/750 II's (Oil-in-Frame)

84-0027 SUMP SCREEN - Tri 650/750 II's has Sludge Trap Built-in (Oil-in-Frame)

MAP6040 SUMP PLATE ALLOY (with MAGNET) - Tri Pre-Unit

70-5312 SUMP PLUG with Screen - Tri 650/750 II's '63-68½

70-9336 SUMP PLUG with Screen - Tri 650/750 II's '68½-on

06-7676 SUMP PLUG - COMMANDO

06-4188 SUMP PLUG (MAGNETIC) - COMMANDO

70-1577 WASHER, Sump Plug (Fiber)- Tri 500 II's

70-5315 WASHER, Sump Plug - Tri 650/750 II's thru '73 (Copper)

70-8782 WASHER, Sump Plug - Tri 650/750 II's '74-on (Rubber O'Ring)

06-7680 WASHER, Sump Plug (Copper)- COMMANDO

06-2624 WASHER, Sump Plug (Fiber)- COMMANDO

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St. Petersburg, Florida 33710

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Phone (727) 381-1151

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MAGNETO/CAM/GENERATOR CHAIN

- 67-0296 CAM/GENERATOR CHAIN, BSA A7/A10 (52-Link)
- 06-7705 MAGNETO CHAIN, NORTON 750 ATLAS, G15, P11 (42-Link)
- 06-7689 CAM CHAIN, NORTON (38 Link) All
- 06-4647 ADJUSTER, Cam Chain - COMMANDO (All) (was 06-1064)

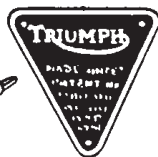
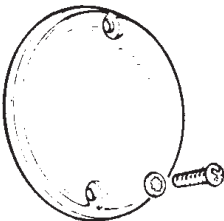
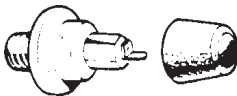
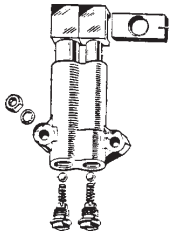
TIMING COVER

- 70-3072 OIL PUMP - Tri Pre-UnitT (All)
- 70-9421 OIL PUMP - Tri 500/650/750 (Unit Construction thru '79)
- 71-7317 OIL PUMP - Tri 750 '80-on (Will Fit Earlier w/Slight Cover Grinding*)
- 70-0495 BLOCK, Oil Pump - Tri (All)
- 00-0005 NUT, Oil Pump - Tri Pre-Unit *Req's:
- 70-3732 NUT, Oil Pump - Tri 500/650 thru '68 (Unit) 1) 14-7007 - screw
- 21-1906 NUT, Oil Pump - Tri 500/650/750 II's '69-79 1) 14-7008 - screw
- 70-1612 WASHER, Oil Pump Nut - Tri Pre-Unit 2) 60-2417 - washer
- 70-3887 WASHER, Oil Pump Nut - Tri thru '79 (All Unit)
- 60-2133 SWITCH, Oil Pressure - Tri thru '72 (Tapered Thread) (70-9526 Blanking Plug)
- 60-3719 SWITCH, Oil Pressure - Tri '73-on (Straight Thread - use w/70-1335)
- 71-2930 COVER Oil Pressure Switch (All)
- 70-5451 A-A BOLT - Tri 500/650 thru '67
- 70-8828 A-A BOLT - Tri 500/650/750 II's '68 thru 70
- 14-0208 A-A BOLT - Tri 500/650/750 II's '71-on
- 14-0208 A-A BOLT - Tri/BSA III's
- 06-0720 A-A BOLT - NORTON COMMANDO
- 70-8163 WASHER, A-A Bolt (All)
- 97-3894 SCREW, Point Plate Hold Down - BSA A50/A60/A70
- 70-4747 PILLAR BOLT - Tri 500/650 thru '67
- 70-7680 PILLAR BOLT - Tri 500/650/750 II's '68-on
- 70-6521 PILLAR BOLT - Tri/BSA III's
- 06-1281 PILLAR BOLT - NORTON COMMANDO
- 70-6559 WASHER, Pillar Bolt (All)
- 70-4571 POINT COVER - Tri 500/650 thru '67
- 70-8737 POINT COVER - Tri 250/500/650/750 '68-on
- 70-6519 POINT COVER - Tri/BSA III's
- 06-1087 POINT COVER - NORTON COMMANDO
- 82-4715 SCREW, Point Cover - Tri 250/500/650 thru '67
- 70-7354 SCREW, Point Cover - Tri 250/500/650/750 II's '68-on
- 21-5375 SCREW, Point Cover - BSA A50/A65/A70
- 82-4715 SCREW, Point Cover - Tri/BSA III's
- 06-1105 SCREW, Point Cover - NORTON COMMANDO
- 60-4256 WASHER, Point Cover Screw (All)
- 70-2910 PATENT PLATE Tri "TIGER T110"
- 70-2876 PATENT PLATE Tri "TROPHY"
- 70-1595 PATENT PLATE Tri "SPEED TWIN"
- 70-1678 PATENT PLATE Tri "TIGER 100"
- 70-2909 PATENT PLATE Tri "650 Pre-Unit Twin"
- 70-4016 PATENT PLATE Tri 650/750 II's Unit
- 70-4016/B PATENT PLATE Tri 650 Pre-Unit (Brass)
- 70-8762 PATENT PLATE Tri T150/T160
- MAP2087 RIVETS, Patent Plate (Zinc)
- 60-0208-5 RIVET, Patent Plate (Brass)
- 70-1558 KEY, Camgear - Triumph (all)
- 70-1580 KEY, Crankshaft Pinion - Triumph (all)
- 70-2451 GEAR, Generator - Tri Pre-Unit
- 70-2226 WASHER (Cork), Generator to Crankcase - Tri Pre-Unit
- 188375 LOCKTAB, Generator Gear (LUCAS)
- 111704 BOLT, Generator Gear (LUCAS)
- 70-4707 GROMMET, Point Lead (All)

ENGINE SPROCKETS

- 68-0205* BSA A50/A65
- 70-4141 Tri 500 '59-on
- 70-5450* Tri 650 '63-70 (Note: '71-72 Use 71-2662 w/71-2663 Spacer)
- 71-3542* Tri 750 II's '73-on (29 Tooth Triplex)
- 70-6890* Tri -BSA III's '68-74 (28 Tooth)
- 71-3541* Tri T160 (23 Tooth)
- 06-0383 NORTON COMMANDO

*NOTE: CRANK SHIMS 70-8038 (.010): 70-8039 (.015): 71-2660 (.030)



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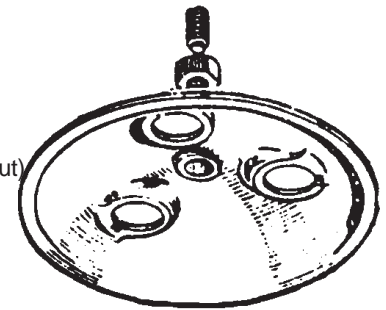
CLUTCH PRESSURE PLATE & MISC. PARTS

- 06-0751 CIRCLIP, Diaphragm - NORTON COMMANDO
57-2748 NUT, Spring - Tri/BSA I's
57-2526 NUT, Spring - Tri/BSA II's (3-4 Spring Pressure Plates)
57-2727 SPRING, Clutch - Tri/BSA I's
57-1560 SPRING, Clutch - Tri/BSA II's (4-SPRING)
57-1830 SPRING, Clutch - Tri/BSA 500/650/750 II's (3-Spring)
57-1830/R SPRING, Clutch - Tri/BSA II's HD/RACE (Stiffer than 57-4644)
57-4644 SPRING, Clutch - Tri 750 II's (Slightly Stiffer than 57-1830)
57-3718 SPRING, Clutch - Tri/BSA III's
06-0770 DIAPHRAM, Clutch - NORTON COMMANDO
57-1927 CUP, Spring - Tri/BSA I's
57-1931 CUP, Spring - Tri/BSA II's (ALL 3-4 SPRING PRESSURE PLATES)
42-3189 PIN, Spring Retaining - BSA A7/A10 (4-Spring Type)
68-3217 PIN, Spring Retaining - BSA II's '62 thru 65
57-4754 PIN, Spring Retaining - BSA II's '66-on
57-4754 PIN, Spring Retaining - Tri 500/650/750 II's '47-on
65-3403 ADJUSTER, Pressure Plate - BSA A7/A10/B31/B34/M20/M21
57-2729 ADJUSTER, Pressure Plate - Tri I's (5/8" Long) & BSA I's & II's thru '66 (Unit)
57-0413 ADJUSTER, Clutch Arm - Tri 500/650 Pre-Unit
57-2729 ADJUSTER, Pressure Plate - Tri II's to '65 (Unit) (5/8" LONG)
57-2159 ADJUSTER, Pressure Plate - Tri 500/650/750 II's '66-on & BSA A50/A65 '67-on
60-4264 NUT, Clutch Adjuster Locking - BSA I's & II's thru '66
14-0403 NUT, Clutch Adjuster Locking - BSA II's '67-on
60-4264 NUT, Clutch Adjuster Locking - Tri 500 II's '59 thru '65
60-4264 NUT, Clutch Adjuster Locking - Tri 650 '63-65
14-0403 NUT, Clutch Adjuster Locking - Tri 500/650/750 II's '66-on
68-3226 PRESSURE PLATE - BSA A50/A65 4-Spring '62 thru 65
57-0986 PRESSURE PLATE - Tri 4-Spring
57-4590 PRESSURE PLATE - 3-Spring Twins '68-on (Latest Version) 63-on w/latest adj& nut
57-3715 PRESSURE PLATE - Tri/BSA III's
06-0745 PRESSURE PLATE - NORTON (750 to #212278)
06-3768 PRESSURE PLATE - NORTON (850 from #212278)
06-0751 CIRCLIP, Diaphragm Retaining (NORTON)
57-3705 END COVER, Clutch Pack - Tri/BSA III's
57-3720 TAB WASHER, End Cover - Tri/BSA III's
57-3719 SCREW, End Cover - Tri/BSA III's
57-2733 PUSHROD - Tri/BSA I's '65-on
68-3229 PUSHROD - BSA A50/A65 (11.125")
57-1551 PUSHROD - Tri Pre-Unit (13-3/16" Long)
57-1552 PUSHROD - Tri 500/650 '47-62 (12-1/4" Long)
57-1970 PUSHROD - Tri 500 II's '59-74 (11-5/8" Long)
57-1736 PUSHROD - Tri 650/750 II's '63-on (for Heavy Duty ADD "/S")
04-0607 PUSHROD - NORTON ATLAS '63 thru 68
04-0084 PUSHROD - NORTON COMMANDO '69-on (1/4 x 9-11/16)
57-1391 PUSHROD BUSH - Tri 500 '59-on & Tri/BSA I's (For those with OE Bush)
57-3988 PUSHROD BUSH - Tri 500/650/750 II's '47-on & BSA A50/A65 '62-on
57-2552 PULLROD - Tri/BSA III's
57-3717 BEARING, Pullrod - Tri/BSA III's
57-3647 BEARING, Pullrod Ramp - Tri/BSA III's

MAINSHAFT HARDWARE (CLUTCH SIDE)

- 68-3300 NUT, Mainshaft - BSA A50/A65/A70 '66-on (68-3030 - '62 thru 65)
57-1047* NUT, Mainshaft - Tri 650 thru '67 (Tri 500 II's thru '66 (Unit))
21-0586* NUT, Mainshaft - Tri 650/750 II's '68-79 (Tri 500 II's '67-on)
14-1307 NUT, Mainshaft - Tri TSS & '80-on
68-3025 WASHER, Mainshaft Nut - BSA A50/A65 '62 thru 65
68-3169 WASHER, Mainshaft Nut - BSA A50/A65 '66-on
57-1045* WASHER, Mainshaft Nut - Tri 650 to '68 (Tri 500 II's thru '66 (Unit))
57-4794* WASHER, Mainshaft Nut - Tri 650/750 II's '68 thru 79 (Tri 500 II's '67-on)
21-7073 WASHER, Mainshaft Nut - Tri TSS & '80-on
06-3459 LOCKTAB, Mainshaft Nut - Commando
57-1046* LOCKTAB, Mainshaft Nut - Tri 650 thru '67 & 500 II's thru '66 (A50/A65 '62 thru 65)
06-0752 C-clip, Mainshaft - Clutch hub stop - Commando
06-0894 SHIM, C-clip (.032") - Commando
06-0895 SHIM, C-clip (.048") - Commando
06-0747 CUP, Shim Retaining - Commando

*NOTE: TRI 500 & 650 CHANGE in DIFFERENT Years (Note: TSS & '80-on See Footnote # 3 (top) Page 15)



M.A.P. Cycle Enterprises, Inc.

The **M.A.P. Cycle** Exclusive "NO Slip - NO Drag"TM Clutch Pack*

After years of research **M.A.P. CYCLE** has created the PERFECT Clutch Pack to help Eliminate Creep, Missed Shifts, and Harsh Grinding while shifting that will eventually damage your transmission. The cause is simply a clutch that does not completely disengage. Thick oil, especially in '70-on models that use engine oil in the primary, cause the plates to stick together that never completely release (try pulling an oily plate from a piece of glass!). Never to be as good as the "DRY" clutch of the **M.A.P. CYCLE** array of Belt drives, but a Great Clutch kit for all "wet" Clutch BSA/TRIUMPH Twins. Made even better as a result of **M.A.P.**'s newly acquired plain plate tooling. A unique 6" OD, Tight Tangs and Most importantly Perfectly Flat stamping makes for the best Clutch pack. DON'T be fooled by immitators. We warranty this kit to be exactly as described, as such, it is sold Only in Complete Sets of 12 or 14 plates to assure your complete satisfaction.

Enjoy Riding Again! Be sure to **Order MAP2150** where available (see below)

Please Note: For any Clutch Disc to Work Properly the Chainwheel Keyways must NOT be Notched!

CLUTCH PLATES (BONDED) ea.

67-3242*	BSA A7/A10 '49-53* (.58" Tang)	
65-3857*	BSA A7/A10 '54-62* (6-Spring .375" Tang) Uses 5	
57-1362	BSA A50/A65 '62-on	Suggest* MAP2150 - "NO Slip - NO Drag" TM (12 piece Set)
57-1503	Tri TIGER CUB '58 thru '67	
57-2726	Tri 250 & BSA I's	
57-1362	Tri 500/650 II's '47 - '72 (3 or 4-Spring)	Suggest* MAP2150 - "NO Slip - NO Drag" TM (12 piece Set)
57-4763	Tri 750 II's '73-on	Suggest* MAP2150 - "NO Slip - NO Drag" TM (12 piece Set)
57-3709	Tri/BSA III's	
04-3192/3/B	NORTON Atlas (inc. 5 Full & 1 Half Bonded Barnett Plates)	
06-1339	NORTON COMMANDO 750 ea. - Uses 4	
06-3741	NORTON COMMANDO 850 ea. - Uses 5	

NEW DESIGN + NEW MATERIAL = "THE BEST"

***NOTE:** BSA A7/A10 Uses:

57-1362 Bonded(5)&57-1363 Plain (6)Plates
After #'s: CA7 8623 DA10 13298
CA7SS 122 DA10R 2443

CLUTCH PLATES (PLAIN) ea.

65-3824*	BSA A7/A10 6-Spring Clutch Uses 5*
57-1315	Tri TIGER CUB '58-62
57-2725	Tri 250 & BSA I's (Steel)
57-1363	Tri 500/650/750 II's '47-on & BSA A50/A65 '66-on
06-0746	NORTON COMMANDO

CLUTCH SHOCK FRONT PLATE/SCREWS (ea.)

57-1724	FRONTPLATE - BSA A50/A65 3-Spring
57-1044	FRONTPLATE - Tri 4-Spring & BSA A50/A65 '62-65 (4-Spring)
57-1724	FRONTPLATE - Tri & BSA A50/A65 3-Spring (for Countersunk Screws)
57-4437	FRONTPLATE - Tri/BSA A50/A65 3-Spring (for thru Bolts)
68-3215	SCREW, FrontPlate - BSA A50/A65 '62-65 (Unit)
57-1040	SCREW, FrontPlate - Tri 500/650 '59-'69 & BSA A50/A65 '66-69
21-2157	BOLT, BackPlate (Thru-Bolt Type) - Tri/BSA '70-on
57-1150	SCREW, FrontPlate - Tri/BSA III's '68-69
57-3940	SCREW, FrontPlate - Tri/BSA III's '70-76
57-3941	TAB WASHER, Plate - Tri/BSA III's

CUSH RUBBERS (SHOCK HOUSING/REAR WHEEL) ea.

68-3238	BSA A50/A65 '62-65 Large (req's 4)
68-3239	BSA A50/A65 '62-65 Small (req's 4)
57-2723	Tri/BSA I's (req's 8)
57-1472	Tri 500/650 II's '53-63 4-Spring Type Large (req's 4)
57-1473	Tri 500/650 II's '53-63 4-Spring Type Small (req's 4)
57-1722	Tri II's '64-on & BSA A50/A65/A70 '66-on 3-Spring Large (req's 3)
57-1723	Tri II's '64-on & BSA A50/A65/A70 '66-on 3-Spring Small (req's 3)
57-1723	Tri T150 '69-70 (req's 12) (Converts '69 to '70 Style)
57-4324	Tri T150 '71-74 (req's 12)
57-5001	Tri T160 (req's 12)
06-2074	COMMANDO 750 REAR WHEEL THICK RUBBER (req's 3)
06-2075	COMMANDO 750 REAR WHEEL THIN RUBBER (req's 3)
06-4811	COMMANDO 850 MKIII REAR WHEEL THICK RUBBER (req's 5)
06-4812	COMMANDO 850 MKIII REAR WHEEL THIN RUBBER (req's 5)

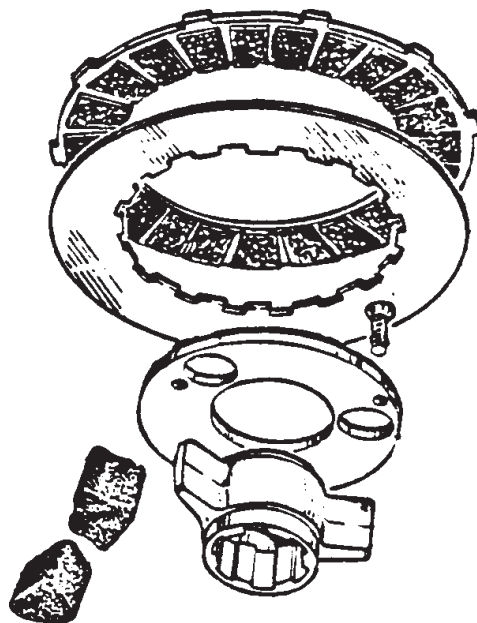
CLUTCH SHOCK SPIDER

57-2715	Tri/BSA I's
68-3219	BSA II's 4-Spring '62-65
57-2538	BSA II's 3-Spring (All)
57-1740	Tri 500/650 II's 4-Spring (Also Race Applications)
57-1721	Tri 500/650 II's 3-Spring (for those with a Lock Tab)
57-2538	Tri 500/650 II's 3-Spring (for those using a Lock Nut)
57-4636	Tri T140
57-2471*	Tri/BSA III's '68-70
57-4323*	Tri/BSA III's '71-72
57-4621	Tri/BSA III's '73-75
57-4917	Tri T160 '75-76

For SPROCKETS

See Page 14, 16 & 64

* Requires Spacer 57-2479. If Using 57-4621 Spider Discard OE Spacer



***New for 2018 !!**

"Never Slip - Never Drag"TM

14-plate Clutch Pack for Triumph/BSA
(fits all "unit construction" big twins)

MAP2152 14-Plate conversion kit

MAP2151 13-Plate conv. kit "E" model

Call or See Website for current information

M.A.P. Cycle Enterprises, Inc.

SHOCK HOUSING OUTER RING (BODY)

- 57-2724 Tri/BSA I's '67-70
- 57-4186 Tri/BSA I's '71-on
- 68-3220 BSA 4-Spring (Unit)
- 68-3275 BSA 3-Spring '66-69
- 57-1719 BSA 3-Spring '70-on
- 57-1038 Tri 4-Spring
- 57-1719 Tri 3-Spring thru '70 (for Countersunk Screws)
- 57-4438 Tri 3-Spring '71-on (for Thru-Bolts)
- 57-2245 Tri/BSA III's '68-70 (Shock Housing Sprocket)
- 57-4225 Tri/BSA III's '71-73 50T (Shock Housing Sprocket)
- 57-4920 Tri T160 (Shock Housing Sprocket)
- 06-3979 NORTON COMMANDO (1-Piece Center)

CLUTCH SHOCK BACKPLATE/SCREWS

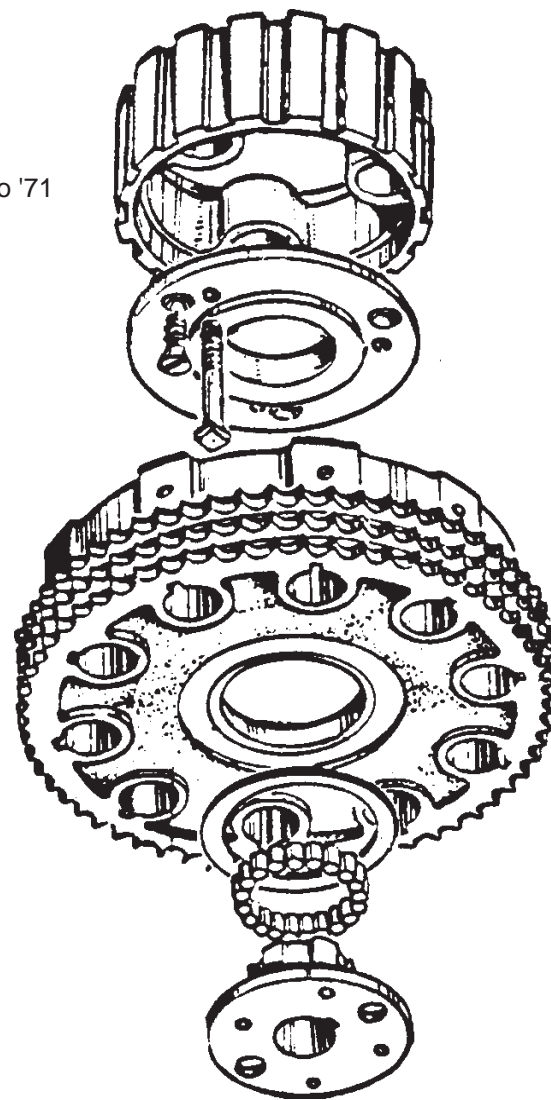
- 57-2720 BACKPLATE - BSA 250/441/500 I's (with Studs)
- 68-3214 BACKPLATE - BSA A50/A65 '62-65 4-Spring
- 57-1720 BACKPLATE - BSA A50/A65 3-Spring
- 57-1039 BACKPLATE - Tri 500/650 4-Spring
- 57-1720 BACKPLATE - Tri 500/650 3-Spring (for Countersunk Screws) to '71
- 57-4436 BACKPLATE - Tri 500/650/750 3-Spring (for Thru-Bolts) '71-on
- 68-3215 SCREW, BackPlate - BSA A50/A65 '62-65 (Unit)
- 57-1040 SCREW, BackPlate - Tri 500/650 '59-on & BSA A50/A65 '66-on
- 21-2157 BOLT, BackPlate Thru-Bolt - Tri/BSA '71-on
- 57-1150 SCREW, BackPlate - Tri/BSA III's '68-69
- 57-3940 SCREW, BackPlate - Tri/BSA III's '70-76
- 57-3941 TAB WASHER, Plate - Tri/BSA III's
- 42-3189 PIN, 0Retaining - BSA A7/A10 (4-Spring Clutch)
- 68-3217 PIN, Spring Retaining - BSA II's '62-65
- 57-4754 PIN, Spring Retaining - BSA II's '66-on
- 57-4754 PIN, Spring Retaining - Tri 500/650/750 II's '47-on

CHAINWHEEL/CLUTCH (PRIMARY DRIVE) BASKET

- 42-3223 BSA B31 /B34 '47-62
- 57-2716 BSA B25/B40/B44 to '70
- 57-4198 BSA B25 '71-72
- 57-4303 BSA B50 '71-73
- 42-3223 BSA A7/A10 6-Spring '54-62 (Also B31/B34 '47-62)
- 57-1549 BSA A7/A10 4-Spring '62-63
- 68-3230 BSA A50/A65 '62-65
- 57-2773 BSA A50/A65/A70 '66-on
- 57-3708 BSA III's
- 57-2716 Tri 250 '68-70
- 57-4198 Tri 250 '71
- 57-1549 Tri 500/650 (Pre-Unit) (Single Row)
- 57-1570 Tri 500/650 '63-72 Duplex
- 57-4640 Tri 750 II's '73-81 Triplex
- 57-7065 Tri 750 II's '82
- 57-3708 Tri III's (Not T160) (Clutch Housing - Drive Ring)
- 57-4677 Tri T160 (Clutch Housing - Drive Ring)
- 57-4678 Tri T160 Starter Ring Gear (for Clutch Housing)
- 06-2482 NORTON COMMANDO (All)

CLUTCH HUB

- 57-2713 Tri/BSA I's '68-70
- 57-4200 Tri/BSA I's '71-on
- 57-1386 Tri T90, T100, 3TA, 5TA
- 57-1751 Tri 500 II's '64-69
- 57-3930 Tri 500 '70-74
- 57-0418 Tri 650 '59-62
- 57-1734 Tri 650 '63-69 (ALSO BSA II's)
- 57-3929 Tri 650/750 II's '70-ON (ALSO BSA II's)
- 57-2580 Tri/BSA III's (CLUTCH DRIVE GEAR)
- 60-4253 WOODRUF KEY - TRI/BSA II's (All)
- 06-0752 C-clip, cup retaining (Norton)
- 06-0894 .032" Shim (Norton)
- 06-0895 .048" Shim (Norton)
- 06-0747 Cup, shim holder (Norton)



60-4253
MainShaft KEY
(not shown)

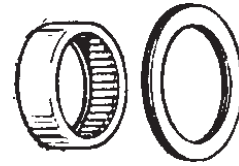
SCREW, Clutch Door Plate
order 70-3821 (Req's 6)

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CHAINWHEEL SUNDRY ITEMS

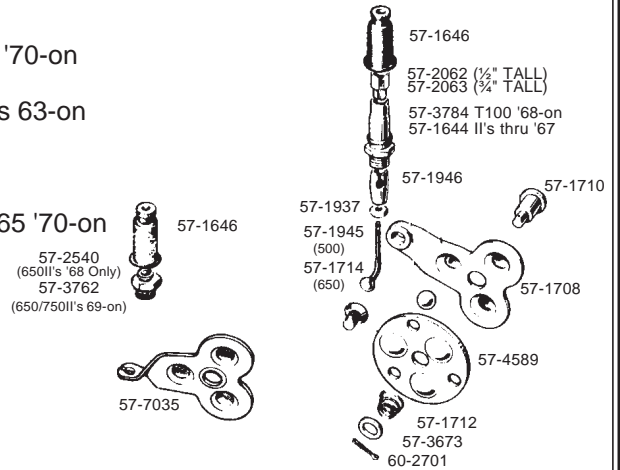
- 57-2719 CLUTCH ROLLER - Tri/BSA I's '62-on (req's 25)
- 68-3245 CLUTCH ROLLER - BSA II's '62-65
- 57-0394 CLUTCH ROLLER - Tri/BSA II's with 3 or 4 Spring Clutches (order "/20" for 20 pack - Save \$\$\$'s)
- 06-0750 BEARING, Chainwheel - NORTON
- 06-0751 CIRCLIP, Bearing Retaining - NORTON
- 57-3931 THRUST WASHER - BSA B25/B50 '71-on
- 68-3245 THRUST WASHER - BSA II's '62-65
- 57-1735 THRUST WASHER - Tri/BSA II's '63-69 (Also 57-1735/S - Special Alloy)
- 57-3931 THRUST WASHER - Tri/BSA II's '70-on (Also 57-3931/S - Special Alloy)
- 57-2214 THRUST WASHER, Inner (Bronze) - Tri/BSA III's '68-75 (Not T160)
- 57-3643 NEEDLE ROLLER, Clutch & Shock - Tri/BSA III's (Req's 2)
- 57-3646 NEEDLE THRUST (RADIAL) ROLLER - Tri/BSA III's
- 57-2215 RACE, Needle Roller - Tri/BSA III's (Inside of Primary Cover)

SCREW, Clutch Door Plate
order 70-3821 (Req's 6)



CLUTCH RELEASE MECHANISM

- 57-1646 BOOT - All Clutch Cables
- 57-1946 SPOKE END (Connects Spoke to Cable) - Tri 500/650 (All Spoke Types)
- 57-1937 NUT, Spoke Locking
- 57-1945 SPOKE - Tri 500 II's '59-on
- 57-1714 SPOKE - Tri 650 UNIT thru '67
- 57-1707 Clutch ACTUATOR COMPLETE (for Spoke Type) - Tri 650 Unit thru '67
- 57-4587 Clutch ACTUATOR COMPLETE - Tri 650/750 '68-on
- 57-1710 BUTTON (Clutch Rod PUSHES) - Tri II's (All)
- 57-1712 SPRING, Clutch Rod Pusher - Tri II's (All)
- 57-4037 THRUST PLATE ONLY (Screws to Cover) - BSA A50/A65 '70-on
- 57-1871 THRUST PLATE ONLY (Screws to Cover) - Tri 500 II's
- 57-4589 THRUST PLATE ONLY (Screws to Cover) - Tri 650/750 II's 63-on
- 57-1875 SCREW, Thrust Plate - Tri 500 II's '59 thru '67
- 14-6505 SCREW, Thrust Plate - Tri 500 II's '69-on
- 57-1713 SCREW, Thrust Plate - Tri 650 thru '67
- 21-1879 SCREW, Thrust Plate - Tri 650/750 II's '69-on: BSA A50/A65 '70-on
- 57-4036 RAMP LEVER ONLY - BSA A50/A65 '70-on
- 57-1880 RAMP LEVER ONLY - Tri 500 II's '59-on
- 57-4439 RAMP LEVER ONLY - Tri 500 II's '69-on
- 57-1708 RAMP LEVER ONLY (for Spoke) - Tri 650 '62-68
- 57-7035 RAMP LEVER ONLY (for Cable) - Tri 650/750 II's '68-on
- 57-4439 RAMP LEVER ONLY (for Spoke) - Tri 500 II's
- 60-2368 BALL, Ramp Assembly - Tri-BSA II's (All)



PRIMARY CHAIN

- 60-2523/E BSA B44/B50 (Tri 500 I)(72 Link Duplex) KCM
- 19-8639/E BSA A50/A65 (80 Link Triplex (KCM))
- 19-8639/G BSA A50/A65 (80 Link Triplex (German))
- 60-0382 Tri TIGER CUB (62 Link Duplex)
- 60-0951 Tri-BSA 250 '68-71 (70 Link Duplex)
- 60-0951/E Tri-BSA 250 '68-71 (70 Link Duplex) KCM
- 57-0376 Tri 500 II Pre-Unit (74 Link Single)
- 60-0358/E Tri 500 II's (78 Link Duplex) KCM
- 60-0301 Tri 650 Pre-UNIT (Swing-Arm)(70 Link Single Row)
- 60-0477 Tri 650 II's (84 Link Duplex)
- 60-0477/E Tri 650 II's (84 Link Duplex (KCM))
- 60-4125/E Tri 750 II's (84 Link Triplex (KCM))
- 60-0699/E Tri-BSA III's (82 Link Triplex (Not T160) (KCM))
- 60-4307 Tri T160 (70 Link Special Duplex)
- NM17835 NORTON ATLAS (76 Link Single Row)
- 06-0366/E NORTON COMMANDO (All) (92 Link Triplex (KCM))



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PRIMARY CHAIN TENSIONER PADS

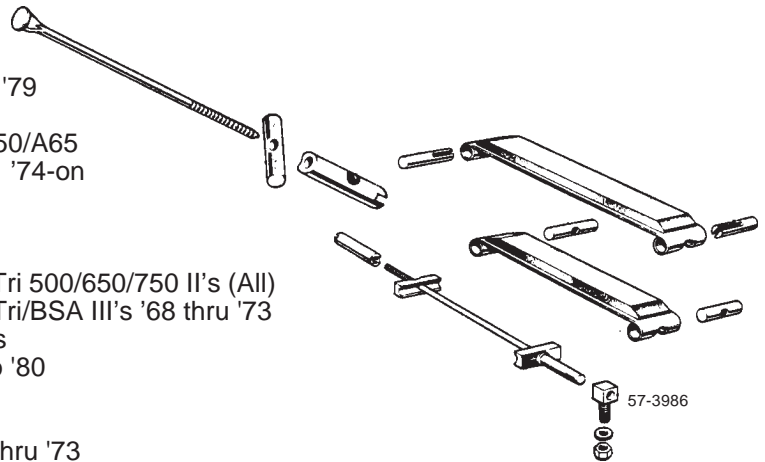
- 70-8184 BSA B25/B44/B50
- 70-8310 BSA A50/A65/A70
- 57-3610 BSA III's thru '73 (Wide Top Blade)
- 70-6061 BSA III's thru '73 (Narrow Bottom Blade)
- 70-8184 Tri 250 '67-on
- 70-4149 Tri 500 II's '59 thru '65
- 70-6283 Tri 500 II's '66-on
- 70-6061 Tri 650 '63-on
- 70-5085 Tri 750 II's '73-on
- 57-3610* Tri III's thru '73 (Wide Top Blade)
- 70-6061* Tri III's thru '73 (Narrow Bottom Blade)
- 57-4597 Tri III's '74-on
- 57-4937 Tri T160



*PARTS BOOKS INCORRECT - USE THESE PART #'s & DESCRIPTIONS

PRIMARY TENSIONER PAD TIE RODS & PARTS

- 68-0249 BUTTON, Adjusting - BSA A50/A65
- 71-3221 BUTTON, Adjusting - T150/T160 '74-on
- 70-4152 TIE ROD - Tri 500/650/750 II's '63 thru '79
- 71-7255 TIE ROD - Tri 750 II's 1980-on
- 57-3983 TIE ROD - Tri III's '68 thru '73
- 70-9703* NUT, Adjuster - Tri 500/650/750 II's '63 thru '79
- 57-3617 NUT, Adjuster - Tri 750 III's '69 thru '73
- 70-7793 SCREW, Adjuster (Houses Button) - BSA A50/A65
- 71-4251 SCREW, Adjuster (Houses Button) - Tri III's '74-on
- 14-1904 LOCK NUT, Adjuster Screw - Tri III's '74-on
- 70-3221 WASHER, Adjuster Cover - Tri-BSA
- 71-4252 COVER, Adjuster Screw - Tri III's '74-on
- 70-5976 ABUTMENT (Forked) Presses into Case) - Tri 500/650/750 II's (All)
- 70-9256 ABUTMENT (Forked) Presses into Case) - Tri/BSA III's '68 thru '73
- 70-5977 TRUNNION (Fits into Blade) - Tri 500/650II's
- 70-5087 TRUNNION (Fits into Blade) - Tri 140/TR7 to '80
- 57-3986 EYEBOLT - Tri/BSA III's '68 thru '73
- 14-1901 NUT, Eyebolt - Tri/BSA III's
- 70-9257 WASHER, Saddle (Rear) - Tri/BSA III's '68 thru '73
- 70-9258 WASHER, Saddle (Front) - Tri/BSA III's '68 thru '73
- 70-5977 TRUNNION (Fits into Blade) Tri/BSA III's '68 thru '73



*NOTE: 1980-on T140's Use 21-7064 Adj BOLT: 14-0401 Adj NUT: 60-7268 Adj WASHER: 71-7259 Inspec. PLUG: 70-6299 Plug O'RING

- 70-4154 DRAIN PLUG - Tri 500 II's '59 thru '68
- 57-2259 DRAIN PLUG - Tri 500 II's '69 thru '74
- 70-6347 DRAIN PLUG - Tri 650 '63 thru '68
- 57-2259 DRAIN PLUG - Tri 650/750 II's '69 thru 78
- 57-1738 WASHER (FIBER), Drain Plug
- 70-6299 WASHER (O-RING), Drain Plug
- 82-9019 LEVEL PLUG - Tri '63 thru '68 (CEI)
- 14-6101 LEVEL PLUG - Tri '69 thru '76 (UNF)
- 14-7017 LEVEL PLUG - Tri 750 II's '76-on
- 70-2441 WASHER, Level Plug - TRI thru '75
- 70-6299 O-RING, Level Plug - TRI 750 II's '76-on

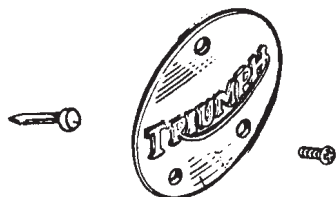


PRIMARY MISC.

- 21-2014 NUT, Engine Sprocket - Tri/BSA III's
- 70-8785 LOCK TAB, Engine Sprocket - Tri/BSA III's
- 29-2023 NUT, Rotor - BSA A50/A65
- 70-3977 NUT, Rotor - Tri 500/650 '58 thru '72 (.480" snout x .765" OAL)
- 21-2182 NUT, Rotor - Tri 650/750 II's '73-on (.300" snout x .570" OAL)
- 06-0387 NUT, Rotor - NORTON
- 68-0324 WASHER, Lock Tab (Between Lock-Tab & Nut) - BSA A50/A65
- 70-8043 LOCK TAB, Rotor Nut - BSA A50/A65
- 70-3975 LOCK TAB, Rotor Nut - Tri 500/650/750 II's & III's '58 thru '77
- 21-7024 LOCK WASHER, Rotor Nut - Tri 750 II's '78-on
- 06-7894 LOCK WASHER, Rotor Nut - Norton Commando
- 70-3114 STUD, Rotor - Tri 500/650 '58 thru '72 (1.4" OAL .60/.50" thread CEI (26tpi))
- 21-2183 STUD, Rotor - Tri 750 II's '73-on (1.5" OAL .73/.45" thread 7/16-20)
- 54202299 ROTOR, Alternator (Internally Welded for Strength) - All Tri/BSA/Norton (Excellent Aftermarket - ADD "P")



M.A.P. Cycle Enterprises, Inc.



- 60-4253 WOODRUF KEY, Alternator Rotor - BSA A50/A65
- 06-5718 WOODRUF KEY, Alternator Rotor - NORTON
- 70-3851 WOODRUF KEY, Alternator Rotor - Tri 500 II's '59-on
- 70-3974 WOODRUF KEY, Alternator Rotor - Tri 650 thru '68
- 71-0082 WOODRUF KEY, Alternator Rotor - Tri 650/750 II's '70-on
- 60-4253 WOODRUF KEY, Alternator Rotor - Tri/BSA III's
- 71-2663 SPACER, Alternator/Engine Sprocket - Tri 500/650
- 70-4573 SPACER, Alternator/Engine Sprocket - Tri 650 63-72
- 70-4912 SPACER, Alternator/Engine Sprocket - Tri/BSA (All E.T)
- 71-3544 SPACER, Alternator/Engine Sprocket - Tri T140
- 06-0402 SPACER, Alternator/Engine Sprocket - NORTON
- 68-0205 SPROCKET, Engine BSA A50/A65
- 70-4141 SPROCKET, Engine Tri 500 '59-on
- 70-5450 SPROCKET, Engine Tri 650 '63-70
- 71-2662 SPROCKET, Engine Tri 650 '71-72 (req's 71-2663 SPACER)
- 71-3542 SPROCKET, Engine Tri 750 II's '73-on (29T TRIPLEX)
- 70-6890 SPROCKET, Engine Tri/BSA III's '68-74 (28T)
- 71-3541 SPROCKET, Engine Tri T160 (23T)
- 06-0383 SPROCKET, Engine NORTON COMMANDO
- 06-7595 WOODRUF KEY, Engine Sprocket - NORTON
- 68-0688 SPACER, Engine Sprocket to Crank - BSA 500/650
- 71-2664 SPACER, Engine Sprocket to Crank - Tri 500/650
- 70-8038 SHIM, Engine Sprocket (.010") Tri/BSA II's & III's (As Req'd)
- 70-8039 SHIM, Engine Sprocket (.015") Tri/BSA II's & III's (As Req'd)
- 71-2660 SHIM, Engine Sprocket (.030") Tri/BSA II's & III's (As Req'd)
- 06-0665 SHIM, Engine Sprocket (.036) NORTON (As Req'd)
- 06-0664 SHIM, Engine Sprocket (.010) NORTON (As Req'd)
- 06-0386 STUD, Stator - NORTON COMMANDO
- 68-0800 STUD, Stator - BSA A50/A65 thru '68
- 14-1621 STUD, Stator - BSA A50/A65 '69-on
- 70-6611 STUD, Stator - TRI 500 II's '59-68 (CEI)
- 70-9495 STUD, Stator - TRI 500 II's '69-on (UNF) (use w/70-5324 nut)
- 70-4537 STUD, Stator (Short) - Tri 650 '63-68½ (CEI)
- 70-4536 STUD, Stator (Long thru Cover) - Tri 650 '63-68½ (CEI)
- 21-1867 STUD, Stator (Short) - Tri 650 '68½-72 (UNF)
- 21-1866 STUD, Stator (Long thru Cover) - Tri 650 '68½-72 (UNF)
- 21-2198 STUD, Stator (Short) - Tri T140 '73-on (UNF)
- 21-2199 STUD, Stator (Long thru Cover) - Tri T140 '73-on (UNF)
- 70-5324 NUT, Stator Stud - Tri-BSA II's thru '68½ (CEI)
- 14-0702 NUT, Stator Stud - Tri-BSA II's '68½-on (UNF)
- 60-4247 WASHER, Stator Stud Nut (All as req'd)
- 97-1531 DOME NUT, Primary Cover - Tri thru '68½ (CEI)
- 21-0544 DOME NUT, Primary Cover - Tri '68½-on (UNF)
- 82-1880 WASHER (5/16" COPPER), Dome Nut (All as req'd)
- 70-5872 GUIDE (Threaded), Stator Leads - TRI 500/650 '63-68
- 70-8992 GUIDE (Threaded), Stator Leads - TRI 500/650 '69-70
- 70-9360 GUIDE (Threaded), Stator Leads - TRI 500/650/750 II's
- 70-4144 BOOT, Stator Leads - Tri/BSA (Also 57-1646 Less \$\$'s)
- 71-1345 GROMMET (External), Stator Leads '69-on
- 57-1727 PRIMARY COVER - Tri 650 '63-67
- 70-9245 PRIMARY COVER (RH Shift) - Tri 650 '68-73
- 71-4072 PRIMARY COVER (RH Shift) - Tri 750 II's '73-74
- 71-7465 PRIMARY COVER (LH Shift) - Tri 750 II's '76-on
- 57-2443 POINTER, Timing - Tri/BSA '68-on
- 57-2440 INSPECTION COVER - Tri 500/650 '68-73 (Use with 70-9245)
- 82-4129 SCREW, Inspection Cover - Tri 500/650 '68-74
- 70-8177 SCREW, Inspection Cove - BSA A50/A65/A70 '67-on
- 57-2166 CAP, Primary Inspection/Trans Fill - Tri/BSA thru '75 (I,II & III's)
- 70-8782 O-RING, Primary Inspection Cap - Tri/BSA thru '75 (I,II & III's)
- 71-3895 CAP, Primary Cover Inspection - Tri 750 II's '76-on
- 70-6560 O-RING, Primary Inspection Cap - Tri T140 '76-on
- 70-3821 SCREW, Countershaft Sprocket Inspection Cover (All)

M.A.P. Cycle Enterprises, Inc.



TRANSMISSION GEARS/PARTS



MAKE/TYPE MODEL:	SHAFT	HI-GEAR BUSH	5th GEAR	4th GEAR	3rd GEAR	2nd GEAR	1st GEAR	SHIFT FORK	CAM PLATE	
BSA- A50/A65	MAIN LAY	68-3100 68-3303	68-3178 _____	_____	68-3115 68-3299	68-3015 68-3120	68-3120 68-3015	68-3150 68-3151	68-3158 68-3160	SEE Note 1
Tri 500	SEE CHART THIS PAGE									
Tri 650	SEE CHART NEXT PAGE									
Tri 5-Speed 73-on ⁹	MAIN LAY	57-4432 ^{2,3} 57-4900 ⁶	60-3511 _____	57-4779 57-4791 ⁷	57-4376 57-4787	57-4377 57-4647	57-4653 57-4657	57-4653 57-4654 ⁸	57-4364 57-4660 ⁴	57-4889 ⁵ 57-4889 ⁵
NORTON ¹⁰ MKI/II	MAIN LAY	06-0384 04-0025	06-6203 _____	_____	06-5954 06-1058	04-0635 04-0634	04-0418 04-0019	04-0026 04-0115	04-0022 04-0022	04-0108 04-0108
NORTON ¹⁰ MKIII	MAIN LAY	06-0384 04-0025	06-6203 _____	_____	06-5954 06-1058	04-0635 04-0634	06-4640 06-4639	04-0026 04-0115	04-0022 04-0022	04-0108 04-0108

¹NOTE: Use 57-2767 thru '69: 57-4026 for 1970-on.

²NOTE: Use 57-4370 MAINSHAFT for TRI/BSA III's (All Other Gears are the Same as Listed for 5-SPD)

³NOTE: 57-7077 HD MAINSHAFT uses 21-7072 NUT & 57-7076 TAB WASHER on Kicker Side & 14-1307 NUT & 21-7073 Washer on Clutch Side

⁴NOTE: Use 57-4366 SHIFT FORK for Layshaft 3rd Gear

⁵NOTE: 57-4624 Early CAMPLATE Must Remove Hi-Gear to Replace - #57-4889 CAMPLATE Hi-Gear Removal NOT Required (Can retro to Early)

⁶NOTE: 57-4900 Latest LAYSHAFT Heavy Duty ASSEMBLY (Includes 4th & 5th Gears)

⁷NOTE: 57-4550 EARLY (to '77) 5th GEAR and 57-4384 EARLY (to '77) 4th GEAR LAYSHAFT Will Interchange with 57-4791 LATEST ('77-on) 5th (Outer Side Has Tapered Teeth) GEAR & 57-4787 LATEST 4th GEAR (Latest Gears MUST be Used as a Set) & 57-4790 CIRCLIP.




⁸NOTE: Uses 57-4661 DRIVING DOG

⁹NOTE: '73 Leaf Spring Model Uses 57-4288 (LEAF Spring), 57-4289 (Leaf Spring SUPPORT), 57-4291 (LOCKTAB), 82-4771 (SCREWS)

¹⁰NOTE: UNDER NO CIRCUMSTANCES MIX NORTON MKI/II & MKIII 2nd & 3rd GEARS. Use as SETS ONLY (ie. LAYSHAFT & MAINSHAFT PAIRED)

¹¹NOTE: 60-3511 is a Needle Bearing and NOT a Bushing

MISCELLANEOUS GEARBOX PARTS (5-SPD)

57-3989	SPINDLE, Shifting Fork		57-4363	QUADRANT, Gearchange (Vertical) '72-77
57-7020	PLUNGER, Camplate ('74-on)		57-7052	QUADRANT, Gearchange (Vertical) '78-on
57-4459	SPRING, Plunger ('74-on)		57-1606	NEEDLE BEARING, layshaft (Closed)
57-3978	WASHER, Plunger Housing ('74-on)		57-1614	NEEDLE BEARING, Layshaft (Open)
57-4400	HOUSING, Camplate Plunger ('74-on)		57-1607/S	THRUST WASHER (Heavy Duty (Req's. 2)
57-1896	SPINDLE, Gearchange Quadrant (thru '75)		60-3494	CIRCLIP Layshaft 1st & dog
57-7011	SPINDLE, gearchange Quadrant ('76-on)			



TRANSMISSION GEARS/PARTS (TRI 500 59-ON - STD RATIO) *



PART/YEAR:	'59-60	'61-63	'64-66	'67	'68-69	'70-74	TR5T
HI-GEAR (MS)	57-1403 (26)	57-1403 (26)	57-1947 (22)	57-1947 (22)	57-2318 (22)	57-3991 (22)	57-3991 (22)
BUSH	57-1405	57-1405	57-1405	57-1405	57-1405	57-1405	57-1405
3rd ¹	57-1406 (19)	57-1406 (19)	57-1948 (16)	57-2275 (16)	57-2275 (16)	57-4039 (16)	57-4040 (15)
2nd	57-1410 (23)	57-1410 (23)	57-1922 (21)	57-1922 (21)	57-1922 (21)	57-3994 (21)	57-4031 (20)
1st ¹	57-1406 (28)	57-1406 (28)	57-1948 (24)	57-2275 (24)	57-2275 (24)	57-4039 (24)	57-4040 (24)
SHIFT FORK	57-1480	57-1480	57-1480	57-1480	57-1480	57-1480	57-1480
4th ¹ (LS)	57-1479 (28)	57-1615 ² (28)	57-1949 ³ (23)	57-1949 (23)	57-1949 (23)	57-4041 (23)	57-4608 (24)
3rd	57-1413 (23)	57-1413 (23)	57-1839 (20)	57-1839 (20)	57-1839 (20)	57-3997 (20)	57-3997 (20)
2nd ¹	57-1479 (18)	57-1479 (18)	57-1949 ³ (15)	57-1949 (15)	57-1949 (15)	57-4041 (15)	57-4608 (15)
1st ⁵	57-1414 (32)	57-1414 (32)	57-1950 (27)	57-1950 (27)	57-1950 (27)	57-3999 (27)	57-4033 (29)
SHIFT FORK	57-1481	57-1481	57-1481	57-1481	57-1481	57-1481	57-1481
CAMPLATE	57-1458	57-1458	57-1768	57-1768	57-1768	57-1768	57-1768
L-SHAFT BEARING ⁶	57-1367	57-1606 ⁴	57-1606 ⁴	57-1606	57-1606	57-1606	57-1606

*NOTE: Number in Brackets "(XX)" Denotes # of Teeth

¹NOTE: Gear and Shaft Sold as an Assembly

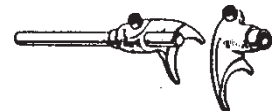
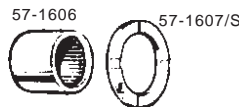
²NOTE: 5TA Uses 57-1479 LAYSHAFT

³NOTE: 5TA Uses 57-1965 GEAR

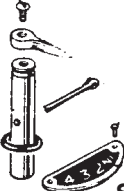
⁴NOTE: 5TA Uses 57-1367 BUSH (Thrust Washer NOT Used)

⁵NOTE: 1st Gear Uses 57-1393 BUSH

⁶NOTE: 57-1606 NEEDLE BEARING Drive Side (Closed) Requires 57-1607/S (Heavy Duty) THRUST WASHER



MISCELLANEOUS TRI 500 TRANS PARTS

57-1416	POINTER, Gear Indicating		60-0208	RIVET, Indicator Plate Mounting
97-0688	SCREW, Pointer Mounting		57-1457	SPINDLE, Shift Fork
57-1418	SPINDLE, Pointer		57-1471	PLUNGER, Camplate
70-4803	O'RING, Pointer Spindle ('68-on)		57-0373	SPRING, Camplate Plunger
57-1417	PLATE, Gear # Indicating			

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M.A.P. Cycle Enterprises, Inc.

TRANSMISSION GEARS/PARTS (4-Speed - Standard Ratio)

PART/YEAR:	Thru '64	'65	'66	'67	'68	'69	'70	'71-72
HI-GEAR (MS)	57-1382	57-1914	57-1914	57-1914	57-2316 ²	57-2316 ²	57-3891 ²	57-4332 ²
BUSH ⁷	57-1370	57-1370	57-1370	57-1370	57-1370	57-1370	57-1370	57-1370
3rd	57-0917	57-0917	57-0917	57-0917	57-0917	57-2378	57-3889	57-3889
2nd	57-0916	57-0916	57-0916	57-0916	57-0916	57-0916	57-3857	57-4335
1st	57-0914	57-0914	57-0914	57-0914	57-2436 ²	57-2436 ²	57-3893 ²	57-4158 ²
SHIFT FORK	57-2608 ¹	57-2608 ¹	57-2608 ¹	57-2608 ¹	57-2608 ¹	57-2608 ¹	57-2596 ¹	57-4308
4th (LS)	57-1843	57-1843	57-1843	57-1843	57-2093	57-2093	57-3864	57-4345
3rd	57-0930	57-0930	57-0930	57-0930	57-0930	57-2379	57-3890	57-3890
2nd	57-1065	57-1065	57-1065	57-1065	57-1065	57-1065	57-3861	57-3861
1st	57-0926	57-0926	57-0926	57-0926	57-0926	57-0926	57-3862	57-3862
SHIFT FORK	57-0913 ¹	57-0913 ¹	57-0913 ¹	57-0913 ¹	57-0913 ¹	57-0913 ¹	57-0913 ¹	57-4307
SHIFT FORK SPINDLE	57-0291	57-0291	57-0291	57-0291	57-0291	57-0291	57-3989	57-3989
CAMPLATE	57-0500	57-0500	57-0500	57-0500	57-3650	57-3650	57-4055	57-4055
CAMPLATE PLUNGER	57-0044	57-0044	57-0044	57-0044	57-0044	57-3660	57-3660	57-4288 ³
PLUNGER SPRING ⁵	57-0373	57-0373	57-0373	57-0373	57-0373	57-3661	57-4059	57-4289 ⁴
PLUNGER HOUSING ⁶	57-0372	57-0372	57-0372	57-0372	57-0372	57-2172	57-2172	—

¹NOTE: Requires 57-2595 Shift Fork ROLLER: "71-72 Shift Forks Include Non-Removable Roller

²NOTE: All Triples Use 57-4175 Mainshaft 1st (16T) GEAR &/or 57-4346 Mainshaft 4th (26T) GEAR)

³NOTE: LEAF SPRING (Pre-Modified as per Triumph Bulletin 6/15/72) - Use with 57-4291 (LOCKTAB) & 82-4771 (SCREWS)

⁴NOTE: Leaf Spring SUPPORT - Use with 57-4291 (LOCKTAB) & 82-4771 (SCREWS)

⁵NOTE: Order 57-1604 for Heavy Duty Plunger SPRING

⁶NOTE: Use with 57-3978 WASHER

⁷NOTE: 57-1370/KPMI - C630 Bronze (2-piece) KPMI brand

Triumph 650 4-Speed TRANSMISSION PARTS (MISC)

57-1606 NEEDLE BEARING, Layshaft (Closed)

57-1614 NEEDLE BEARING, Layshaft (Open)

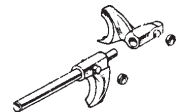
57-1607 THRUST WASHER, Layshaft (Req's. 2)

57-0397 QUADRANT, Gearchange (Vertical)

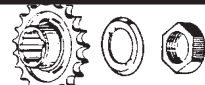
57-1896 SPINDLE, Gearchange (Vertical Quadrant)



57-0916



COUNTERSHAFT SPROCKETS/PARTS



MAKE/MODEL:	HI-GEAR BEARING	BEARING CIRCLIP	18 TOOTH	19 TOOTH	20 TOOTH	21 TOOTH	22 TOOTH	LOCK TAB	NUT
BSA A50/A65	57-0448	68-0024	68-3093	68-3078	68-3073	68-3089 ⁵	68-3089/22	40-3121	40-3051
Tri 500II's '59-on	57-0665	37-0680	57-1476/18	57-1476/19	57-1476/20	57-1476/21	57-1476/22	57-2056	57-2536
Tri 650 to '64	57-0448	70-0489	57-1815	57-1715	57-1749	57-1749/21	57-1749/22	—	57-0440
Tri 650 '64-on ⁴	57-0448	70-0489	57-1917	57-1918	57-1919 ⁵	57-1919/21	57-1919/22	57-2116	57-0440
Tri 5-Speed (All)	60-4100 ¹	70-0489	57-4784	57-4783 ⁵	57-4782 ⁵	57-7067 ⁵	57-7067/22	57-4909	57-4396
NORTON ²	04-0098	—	—	04-0480	06-0931	06-0721 ⁵	06-0759 ⁵	04-0076 ³	04-0070

¹NOTE: Due to variations in 5-spd hi-gears make sure countershaft sprocket does not bind rollers when properly torqued (i.e. Length of roller must be shorter than the race on hi-gear on which it rides)

²NOTE: Also Available in 23 Tooth (06-3420), 24 Tooth (06-3421) & 25 Tooth (06-3963) Countershaft SPROCKET

³NOTE: LockTab Requires 00-0450 SCREW.

⁴NOTE: 4spd ONLY

⁵NOTE: Add "/520" to sprocket number for 520 type sprocket. Same strength as 530 but allows more clearance or "X" ring sealed chain (see page 69)



MAINSHAFT KICKER SIDE



MAKE/MODEL:	M-SHAFT BEARING	BEARING CIRCLIP	THRUST WASHER	SPACER SLEEVE	SLEEVE SPRING	RATCHET GEAR	M-SHAFT GEAR	LOCK TAB	NUT
BSA A50/A65	57-3621	67-3028	57-1962	67-3169	67-3162	68-3095	68-3056	68-3301	67-3163
Tri 500 '59-66	57-1469	57-0280	—	—	—	—	—	57-2240	57-2009
Tri 500 '67-74	57-1469	57-0280	—	—	—	—	—	57-2240	21-0594
Tri 650 to '68	60-3552	57-0280	57-1962	57-1963	57-1250	57-0730	57-0731	57-2240	99-3542
Tri 650 '68-on	60-3552	57-0280*	57-1962	57-1963	57-1250	57-0730	57-0731	57-2240	21-0594
Tri 750 II's	60-3552	57-4113	57-1962	57-1963	57-1250	57-0730	57-0731	57-2240	21-0594
Tri-BSA III's	60-3552	57-4113	57-1962	57-1963	57-1250	—	—	57-2240	21-0594
COMMANDO	04-0099	—	—	—	—	—	—	—	04-0023

* Use 57-4113 for late '70 on

M.A.P. Cycle Enterprises, Inc.

KICKSTART QUADRANT/PARTS



MAKE/MODEL:	KICKER GEAR	GEAR SPINDLE	PAWL WASHER ¹	QUAD BEARING	KICKER QUAD	KICKER PAWL	PAWL PLUNGER	PAWL SPRING
BSA A50/A65	57-4312	—	—	—	—	—	—	—
Tri 500 '59-63	—	—	57-1426	57-1446	57-1445	57-1431	57-1282	57-1161
Tri 500 '64-74	—	—	57-1426	57-1897 ²	57-1981 ²	57-1431	57-1282	57-1161
Tri 650/750 (to '77)	57-4117	57-0024 ⁴	—	—	—	—	—	—
NORTON	—	—	—	04-0146	04-0477	06-2015 ³	04-0069	04-0044

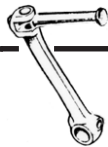
¹NOTE: Required to Prevent Pawl & Gear from Jamming

²NOTE: 5TA Uses 57-1445 QUADRANT with 57-1446 BUSH

³NOTE: Use with 04-0033 PAWL PIN

⁴NOTE: For 1976-on Order 57-4756

KICKSTARTER LEVERS & PARTS



MAKE/MODEL:	KICKER ASSEMB	KICK ARM	BOLT/COTTER	KICK PEDAL	PIVOT BOLT	PIVOT SPRING	PIVOT BALL	KICK SPRING	SPRING PLATE	OUTER BUSH
Tri-BSA I's	57-2763	57-2173	57-4356 ⁶	57-7017	57-1169	57-1167	60-2364	40-3275	—	57-2642
BSA A50/A65	57-2764	57-2173	57-4356 ⁶	57-7017	57-1169	57-1167	60-2364	68-3053	68-3054	68-0213 ⁵
Tri 500 (NOT TR5T) ¹	57-3797	57-3742	21-0644 ⁷	57-7017	57-1273	57-1167	60-2364	57-1441 ⁴	57-1422	—
Tri 500 TR5T ¹	57-4503	57-4498	21-0644 ⁷	57-1272	21-0541	57-1167	60-2364	57-1441 ⁴	57-1422	—
Tri 650/750II & III ²	57-7018	57-2173	57-4356 ⁶	57-7017	21-0541	57-1167	60-2364	57-0031	—	57-0023
Tri T150 '74-on ³	57-4941	57-4904	57-4356 ⁶	57-4904	21-2318	57-4861	—	57-0031	—	57-0023
COMMANDO	06-1464	—	06-0599	04-2934	06-0550 ⁸	04-0433 ⁹	—	04-0475	—	04-0472
COMMANDO MKIII	12-1018	06-6397	06-0599	06-6398	06-0550 ⁸	06-6399	06-6400	04-0475	—	04-0472

¹NOTE: Use 57-1157 Kickstart Stop PLATE & 57-1390 Kickstart Spring RETAINER/Stop Anchor SCREW

²NOTE: Use 57-0045 Kickstart STOP Tri 650/750 II's & III's

³NOTE: 1-Piece Kickstart ARM/PEDAL Uses 57-4906 Kickstart Arm CARRIER

⁴NOTE: Use 57-1464 Kickstarter Assembly DISTANCE PIECE

⁵NOTE: A Uses 68-3005 Inner Kickstart BUSH

⁶NOTE: Use 57-4357A for Oversize Kickstart COTTER

⁷NOTE: '69-on ONLY (Use 57-1439 for '59-68)

⁸NOTE: Domed NUT

⁹NOTE: THRUST WASHER

SHIFT QUADRANTS/PARTS



MAKE/MODEL:	SHIFT LEVER	LEVER BOLT	G/C QUAD	RETURN SPRING	PLUNGER SPRING	QUAD PLUNGER	INNER BUSH	OUTER BUSH
SINGLES (Tri-BSA)	57-1164	57-2703	57-2692	57-1109	57-2106	57-2105	—	—
BSA A50/A65 '62-65	57-1164	57-2703	68-3098	68-3084	57-1436	68-3096	—	—
BSA A50/A65 '66-70	57-1164	57-2703	68-3294	57-4027	57-1436	68-3096	—	—
BSA A50/A65 '71-on	57-1164	57-2703	57-4116	57-4009 ¹	57-1436	68-3096	—	—
Tri 500 '59-74 ²	57-1435	14-0201	57-4888	57-1877	57-1436	57-1396	—	57-1395
Tri 650/750 4-Speed ³	57-3757	14-0105	57-0408/9 ⁴	57-0404	57-0405	57-0406	57-0412	57-0057
Tri 650/750 5-Speed ⁵	57-3757	14-0105	57-4374/408 ⁴	57-0404	57-0405	57-4403	57-0412	57-0057
Tri 5-SPD '76-on ⁶ (All)	57-7010	14-0105	57-7021 ⁴	57-7051	57-0405	57-4403	57-7009	57-7008
COMMANDO ⁷	06-1499	14-0105	—	04-0479	—	—	—	06-5184
COMMANDO MKIII ⁷	06-6188	14-0105	—	04-0479	—	—	—	06-5184

¹NOTE: Uses 57-4008 Spring CUP

²NOTE: Tri TR5T Uses 57-4561 SHIFT LEVER & 37-0932 BOLT

³NOTE: Also Tri-BSA III's (4spd ONLY)

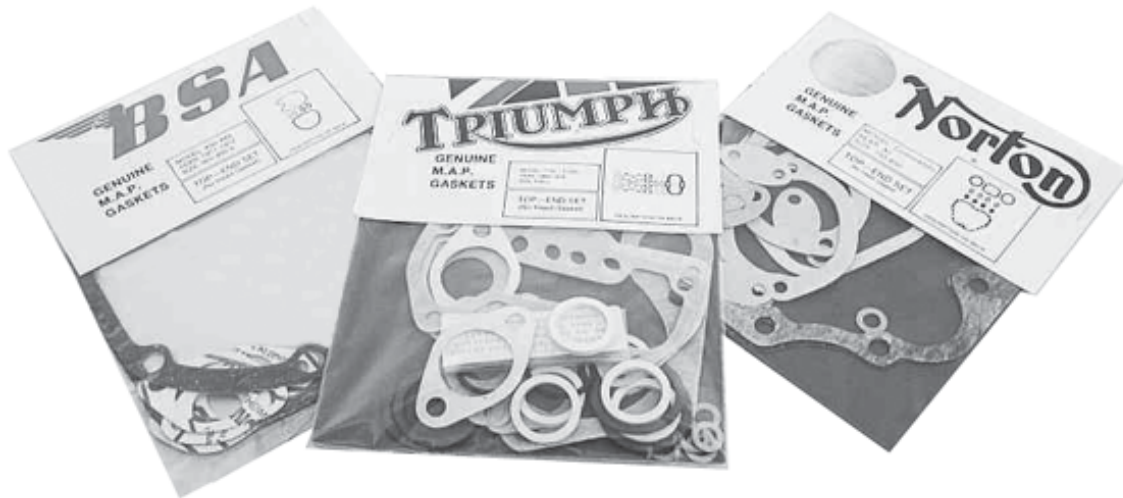
⁴NOTE: Uses 57-0407 GUIDEPLATE ("U"-Shape)

⁵NOTE: Also Tri-BSA III's 5spd (R-Hand Shift ONLY)

⁶NOTE: Uses 57-7003 Crossover SHAFT

⁷NOTE: Uses 04-0038 Shift Ratchet Hair SPRING

M.A.P. Cycle Enterprises, Inc.



M.A.P. Gaskets and Gasket Sets are made exclusively for M.A.P. using the finest imported Swedish "Klinger" or American made non-asbestos material. The customer should note that M.A.P. Gaskets fit correctly, due partly to our staff's time, effort and with the removal of the Lawyer provoking asbestos, many gasket are now inferior to their old counterparts, M.A.P. constantly searches for the best material to use in their kits. Quality control procedures, Best Materials along with new dies assure M.A.P. Gaskets have an unusually good leak proof fit.

M.A.P. Gasket Sets include all gaskets for a complete job. M.A.P. gasket sets are carefully thought out from the "all inclusive" sets for those "mixed bag" situations, where one is unsure of what is needed to complete the job, to those with only the "specific" gaskets required when knowing the exact year and model thus saving money by avoiding "costly" unnecessary items that get thrown away. To further Save you Money, a Headgasket is NOT included as most can be reused by annealing).

NEW !! Triumph kits now include an Exclusive M.A.P. Black Hi-Temp Viton pushrod tube washers and/or o-rings. By including our special low durometer Viton material (450+ degree) distinguishable by its unique 3-gray dots assures it is an authentic M.A.P. material, a flexible and uncompromising seal can be created in this problematic area. Also, because of its flexibility, there is less chance of distorting ones cylinder head often caused by the use of more rigid types of sealing washer offered elsewhere. Assembly is best set with "crush" of between .020-.040" (max. .060"). Smooth any sharp edges that could start a tear. NEVER mix pushrod tube washer Brands as excessive crush of one seal will lead to failure. Look for the "3-gray dots". We care about our customers! Be sure to Always use M.A.P. Viton pushrod seals as sets.

Ask your dealer for genuine M.A.P. Gaskets and M.A.P. Seal kits.

M.A.P. GASKET SETS

(Order HeadGaskets Separately - See Page 25)

- MAP0102* Tri 500 II's - Top-End Only '63-74
- MAP0103* Tri 500 II's - Complete Engine Set '63-74
- *NOTE: 1959-1963 Tri 500 II's require 2 of 70-3758 Special Pushrod Tube Gaskets.
- MAP0104 Tri 650 II's - Top-End Only '63-72 (All)
- MAP0104/A Tri 650 II's - Top-End Only '63-70 (All)
- MAP0104/B Tri 650 II's - Top-End Only '71-72 (All)
- MAP0105/A Tri 750 II's - Top-End Only '73-79 (All)
- MAP0105/B Tri 750 II's - Top-End Only '80-83 (T140 (Only))
- MAP0106 Tri 650-750 II's - Bottom-End Only '63-83 (non electric start only)
- NOTE: For Complete Engine Set - Order the Correct Top-End Gasket Set, an MAP0106 & Headgasket (as required)
- MAP0110 Tri T150 - T160 & ROCKET III - Top-End Only (All)
- MAP0111 Tri T150 - Complete Engine Set
- MAP0112 Tri T160 - Complete Engine Set
- MAP0120 NORTON 750-850 Commando - Top-End Only (All)
- MAP0130 BSA A50-A65 - Top-End Only '63-70
- MAP0131 BSA A50-A65 - Top-End Only '71-72
- MAP0132 BSA A50-A65 - Bottom-End Only '63-70
- NOTE: For Complete Engine Set - Order the Correct Top-End Gasket Set, an MAP0132 & a Headgasket (as required).

New & Exclusive
M.A.P. "3-dot" Lo-Durometer
Pushrod Tube Washers

M.A.P. Cycle Enterprises, Inc.

Imported ENGLISH GASKET SETS

MODEL	YEAR	DECOKE SET #	ENGINE SET #
TRIUMPH			
TIGER CUB	1954-1959	MAP0150	MAP0151
TIGER CUB	1960-1968	MAP0152	MAP0153
TR25W,B25	1967-1970	MAP0157	MAP0158
TR25W,B25	1971-on	MAP0154	MAP0159
3TA, TWIN T21	1957-1966	-----	MAP0170
3TA, TWIN T21, TIGER 90 (T90)	1965-1968	-----	MAP0171
5T SPEED TWIN (T100A, T100SS '60-66)	1939-1957	MAP0160*	MAP0161
5TA, SPEED TWIN	1958-1966	-----	MAP0172
T100 (CAST IRON HEAD)	1946-1950	MAP0173*	MAP0174
TIGER 100, T100 (ALLOY)	1951-1953	MAP0162*	MAP0163
T100, TR5	1951-1958	MAP0169*	MAP0164*
TIGER 100	1956-1959	-----	MAP0165*
TRW	1952-on	-----	MAP0176
6T (IRON HEAD), TR6, TR110	1949-1955	-----	MAP0166
THUNDERBIRD	1956-1962	MAP0177*	MAP0167
T110, TR6 S/S	1956-1963	-----	MAP0178
T120 BONNEVILLE	1959-1962	MAP0179*	MAP0168
NORTON			
MANXMAN, DOMINATOR	1961-1970	MAP0180	MAP0185
ATLAS, MANXMAN	1962-1966	MAP0181	MAP0186
ATLAS, P11A	1967-1968	MAP0182	MAP0187
BSA			
C15, C15 SPORTS STAR SS80	1959-1967	-----	MAP0141
B25 STARFIRE, C25	1966-1970	MAP0157	MAP0158
B25SS, B25T	1971-1972	MAP0154	MAP0159
B40 STAR, SS90	1960-1965	MAP0146	MAP0147
B44, B40G, VICTOR	1964-1970	MAP0190	MAP0191
B33, B34, M33	1948-1960	-----	MAP0192*
B33, B34 (ALLOY HEAD)	1950-1963	-----	MAP0193
B50SS GOLD STAR, B50T VICTOR TRAIL	1971-1973	-----	MAP0148
M20, M21	1950-1963	-----	MAP0149
A7	1947-1950	-----	MAP0199
A7 STAR TWIN, A7 SHOOTING STAR	1951-1962	-----	MAP0198
A10 GOLDEN FLASH	1950-1963	MAP0194	MAP0195
ROAD ROCKET, SUPER ROCKET	1956-1963	MAP0196	MAP0197

*Headgasket NOT included - Order Below

HEAD GASKETS

English Made "Dead-Soft" Copper

Note: most Oriental Copper Headgaskets are hard & Not Seal Properly!

BSA

40-0140 C15
70-8081 B25
41-0638 B40-B44
71-1625 B50
68-0828 A50
68-0781 A50 (Copper/Fiber)
67-0255 A10
68-0827 A65/A70
71-4250 ROCKET III



NORTON

NM24255 Atlas '62-66
06-7919 ATLAS '67-on
06-4071 750 COMMANDO
06-3811 850 COMMANDO



TRIUMPH

70-3217 200 Tiger Cub
70-8081 250 I's
71-1625 500 I's
70-4674 350 II's
70-4015 500 5TA ('59-64) T100A ('59) .048"
70-4675 500 5TA ('65-on) T100 ('60-on)
70-3614 650 8-BOLT (Pre-Unit)
70-4547 650 9-BOLT (Unit)
71-3681 750II's 10-BOLT

TRIUMPH (cont.)

71-4619 750II's 10-BOLT (Fiber with Ring)
71-4250 750 Trident T150/T160 (71-1733 Fiber w/Ring)

TRIUMPH "Special" Gaskets (check footnotes)

MAP9071 Routt "750"/Chatland "750" ¹
MAP9072 Routt "750"/Chatland "750" ²
MAP9073 Routt "825" (3.120" STD Bore)
MAP9074 Routt "850" (3.187" STD Bore)
MAP9076 Morgo/Aerco Big-Bore Kit³
MAP9077 T140 w/M.A.P. ZeroDeck Forged Pistons¹
MAP9079 T140 w/M.A.P. ZeroDeck Forged Pistons²
MAP9080 M.A.P. T120 Alloy 750 Kits¹ (Nikasil Kits)
MAP9082 M.A.P. T120 Alloy 750 Kits²
MAP9091 M.A.P. T140 Alloy 750 Kits¹
MAP9092 M.A.P. T140 Alloy 750 Kits^{3,2} (Nikasil Kits)
MAP9095 M.A.P. T140/T120 Alloy "800" Kits (Sleeved)
MAP9096 M.A.P. T140/T120 Alloy "825" Kits (Nikasil Kits)



70-4547/B T120 w/M.A.P. ZeroDeck Pistons 9.5/10.5⁵

¹for Any Stock Piston & M.A.P. ZeroDeck Pistons up to 3.012" bore
²Required for M.A.P. ZeroDeck Pistons up to 3.052" bore
³Required for M.A.P. ZeroDeck Pistons up to 3.032" bore (rec. max bore)
⁴Required for M.A.P. ZeroDeck Pistons up to 2.830" bore
⁵Required for M.A.P. ZeroDeck Pistons up to 2.860" bore

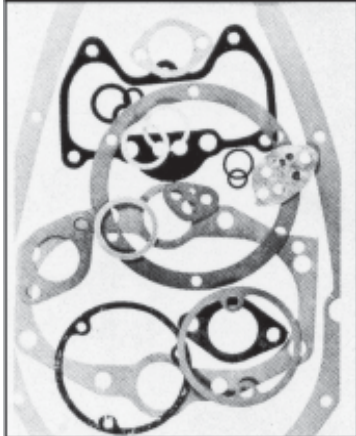
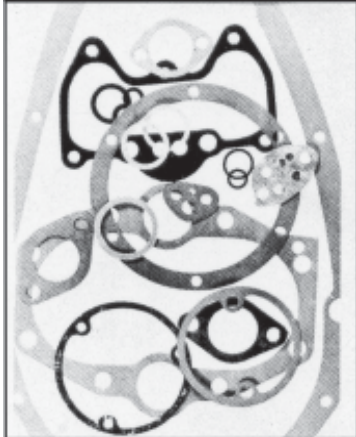
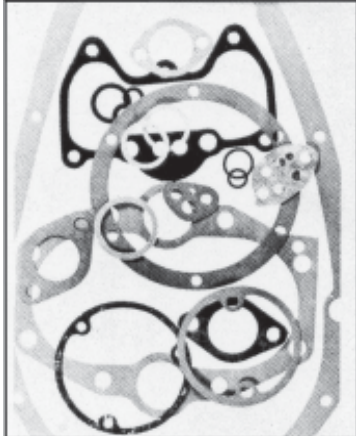
7165 30th Avenue North

St. Petersburg, Florida 33710

Website: www.mapcycle.com Email: sales@mapcycle.com Phone (727) 381-1151

W.A.P. Cycle Enterprises, Inc.

INDIVIDUAL GASKETS



BSA/TRIUMPH (UNIT SINGLES)

- 70-1577 Valve Inspection (Round) Cover (All) (req's 2)
- 71-1425 Rocker Inspection "Oval" Cover (250)
- 71-1429 Rocker Inspection "Oval" Cover (B44/B50)
- 71-2198 Rocker Box - "250" (All)
- 71-1427 Rocker Box - "441" (All)
- 71-1623 Rocker Box - "500" (All)
- 71-3573 Carb To Manifold (All)
- 70-4918 Carb Insulator Block ("Gsk" For 1/8" Gasket Material)
- 71-2233 Cylinder Base - "250" (All)
- 70-7727 Cylinder Base - "441" (All)
- 71-1624 Cylinder Base - "500" (All)
- 70-7856 Primary Cover (Not Tiger Cub)
- 71-1462 Point Cover (All)
- 71-1420 Timing Aperture '68-on (All)
- 71-1428 Oil Pump (All)
- 71-1419 Clutch Door (All)
- 71-1424 Sump Plate (All)
- 70-8259 Oil Manifold O'ring (All)

NOTICE:

Never mix **MAP** low durometer "Viton" (soft/pliable) with any other brand ring as the harder material will crush the softer material and thus leak!

TRIUMPH 350-500 II's (unit)

- 70-3751² Rocker Inspection Cover
- 70-9511¹ Rocker Box (Heavy Duty (H.D.) .032" material)
- 70-3253 Rocker Box Spindle O'ring
- 82-1880 Copper Washer (Rocker Line) req's 6
- 70-3798 Cylinder Base
- 71-3910 Oil Pump
- 71-3754 Oil Line
- 70-2967 Manifold to Head (thru '67)
- 70-6772 Manifold to Head '68-on
- 71-3573 Carb to Manifold (All)
- 70-4918 Carb Insulator (Phenolic) (or /GSK" Gasket Material 1/8")
- 71-1283/Viton³ Pushrod Tube O'ring Top (Hi-temp Viton) .090-.100" wall
- 70-7310 Pushrod Tube O'ring Bottom
- 70-3547/Viton^{2,3} Pushrod Tube Washer 2.5mm Hi-Temp Low Durometer Viton
- 70-4752/Viton^{2,3} Pushrod Tube Washer 3.5mm Hi-Temp Low Durometer Viton
- 70-1496³ Pushrod Tube Washer 4.5mm
- 70-7563 O'ring Tappet Block (inner)
- 71-1456 Primary Cover
- 71-1457 Rotor Cover (Primary Inspection) '68-on
- 71-1419 Clutch Door
- 71-1462 Points Cover
- 71-7263/500 Timing Cover
- 71-1448/500 Kicker Outer Cover (Outer Trans Cover)
- 71-3096/500 Trans Inner Cover (Inner to Crankcase)

70-7563 - O'ring (butyl)
Tappet Block (Tri II's & III's)

TRIUMPH 650-750 II's

- 70-1577 Rocker Box Inspection, Pre-unit (P-U)
- 70-3751 Rocker Box Inspection - '63-72 (Round Screw-in)
- 71-2574 Rocker Box Inspection - '71-72 (4-bolt Oval)
- 71-3673 Rocker Box Inspection - '72-on (6-bolt Oval)
- 70-1650 Rocker Box - 650cc P-U (4 Per Iron Head 5T-6T-T100 Engine)
- 70-3552 Rocker Box - 650cc P-U (2 Per Alloy Head '56-62 TR6-T120 Engine)
- 70-9348¹ Rocker Box - '63 thru 70 (Heavy Duty (H.D.) .032" material)
- 71-2599¹ Rocker Box - '71-on (w/Locating Pins) (H.D. .032" material)
- 70-1335 Rocker Oil Feed Copper Washer
- 60-3548 Rocker Box Spindle O'ring New better fit)
- 71-1283/Viton³ Pushrod Tube O'ring Top (MAP Viton) '68½-on: Bottom '68½-on
- 70-7310 Pushrod Tube O'ring Bottom '68½-on Inside Push-Rod Tube
- 70-1496³ Pushrod Tube Washer 4.5mm (Bottom thru '65)
- 70-4752/Viton^{2,3} Pushrod Tube Washer 3.5mm MAP Viton (Bottom '67-72)
- 70-3547/Viton^{2,3} Pushrod Tube Washer 2.5mm MAP Viton (Top to '68½: Bot '66)
- 70-7563³ O'ring Tappet Block - Inner Pushrod Tube '69-on
- 70-5660 Manifold To Head (Single Carb Only)
- 71-3573 Manifold to Head (T120) & Carb To Manifold (All)
- 70-9711 Carb Flange O'ring '68-on (w/o Insulator Block)
- 70-4918 Carb Insulator (Phenolic) (or "GSK" 1/8" Gasket Material)
- 70-6309 Cylinder Base (All) .020" for HeavyDuty or Reducing Compression
Add "HD030" (.032" Thick) or "/HD060" (.062" Thick)
- 57-1189 Primary Cover P-U (Swing-arm w/Generator '54-59 T110)
- 57-1226 Primary Cover P-U (Swing-arm w/Alternator '60-62)
- 71-7009 Primary Cover (All Unit)

¹Note: Add "/VR" for .030 Steel Reinforced German material: Add "/OE" for Std Duty .020" Gasket

²Note: Mix MAP Low Durometer Hi-Temp Silicone Washers to achieve a .020-.040" with .060" Max. Head to Barrel Crush (ideal is .030")

³Note: Never mix MAP Low Durometer WASHERS ("Viton") with other brands on the same tube as the soft material will crush thus leak!

M.A.P. Cycle Enterprises, Inc.

- 71-1457 Rotor Cover (Primary Inspection) '68-74
- 71-1419 Clutch Door (All)
- 71-1460 Breather Joint
- 71-1421 Point Cover (All - Early (with Condensers) or Late (No Condensers))
- 71-7263 Timing Cover (All Unit except electric start order 71-7328)
- 71-1448 Kicker Cover (Outer Trans Cover)
- 57-7012 Trans Inner Cover (Inner to Crankcase) (All Unit)
- 71-1460 Breather Joint ('70-on)
- 70-1537 Oil Pump (Pre-Unit)
- 71-3910 Oil Pump (Unit)
- 70-1529 Oil Line (Pre-Unit)
- 71-3754 Oil Line (Unit)
- 70-0487 Sump Screen (Pre-Unit)
- 83-2829 Sump Screen Frame (OIF) req's 2

Pressure Release Valve (Tri/BSA/Norton):
 70-1670 Body to Case (Gasket Type)
 60-3355 Body to Case (O'ring Type)
 70-8754 Cap to Body (Gasket)

TRIUMPH/BSA III's

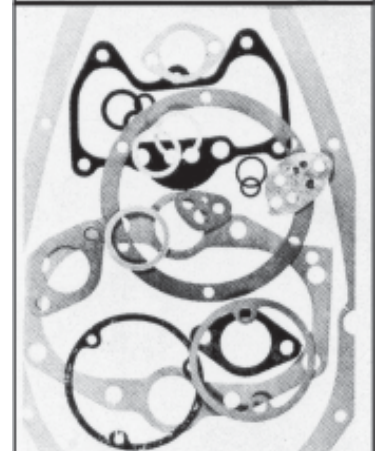
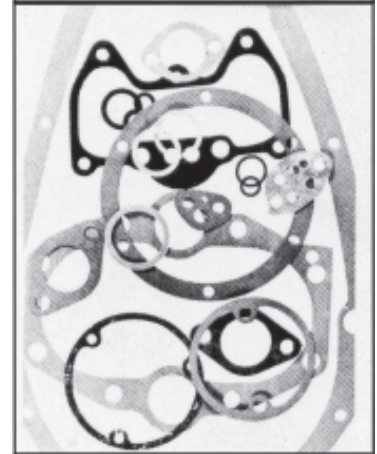
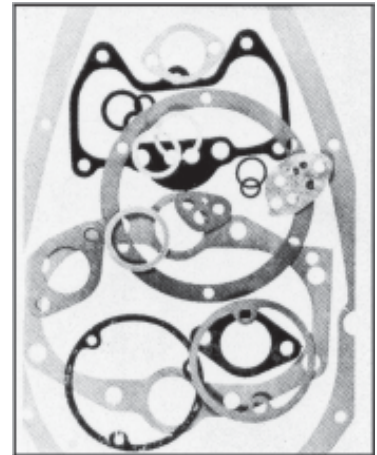
- 71-1445 Rocker Box Inspection Cover (Large Oval Cover)
- 70-8782 Rocker Box Pushrod Inspection Cover (O'ring)
- 70-8773¹ Rocker Box (Box to Head) (Heavy Duty (H.D.) .032" material)
- 60-3548 Rocker Box Spindle O'ring
- 70-1335 Rocker Oil Feed Copper Washer
- 70-4752/VITON^{2,3} Pushrod Tube Washer 2.5mm Hi-Temp Low Durometer Silicone
- 70-3547/VITON^{2,3} Pushrod Tube Washer 3.5mm Hi-Temp Low Durometer Silicone
- 71-1190 Pushrod Tube Cup Gasket (T160) (req's 4)
- 71-1446 Manifold to Head Gasket (T150) (req's 6)
- 71-3947 Manifold to Head Gasket (T160) (req's 6)
- 70-8981 Insulator, Manifold to Head T150 (req's 3)
- 70-3948 Insulator, Manifold to Head T160 (req's 3)
- 70-6496 Cylinder Base
- 71-1440 Rotor Aperture (Triangular)
- 71-1443 Rotor Aperture (Round - A75)
- 71-1441 Point Cover
- 71-1350 Timing Cover (T150-T160)
- 71-1348 Timing Cover (A75)
- 71-1454 Primary Cover, Outer (All)
- 71-3987 Primary Cover, Inner (All)
- 71-1449 Clutch Adjustment Cover (4 Hole - T150)
- 57-4913 Clutch Adjustment Cover (5 Hole - T160)
- 57-4753 Crossover Linkage Cover (T160)
- 71-1448 Kicker Cover (Outer Trans Cover) (T150)
- 57-4878 Kicker Cover (Outer Trans Cover) (T160)
- 71-1450 Kicker Cover (Outer Trans Cover) (A75)
- 71-1447 Trans Inner Cover (Inner to Crankcase)
- 71-1070 High Gear O'ring
- 71-1451 High Gear Oil Seal Holder
- 71-1442 Oil Pump
- 70-6570 Oil Pump O'ring
- 71-1452 Breather Duct (T150)
- 57-4875 Breather Duct (T160)
- 71-1455 Primary Cover, Middle (Primary Chain Oiler)
- 71-1444 Sump Screen
- 71-1439 Tach Drive

NOTICE:
 Never mix ~~MAP~~ low durometer "Viton"
 (soft/pliable) with any other brand ring
 as the harder material will crush the
 softer material and thus leak!

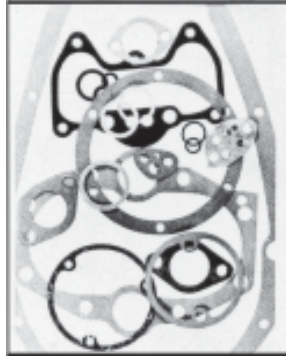
¹Note: Add "/VR" (.030" Steel Reinforced German material) or "/OE" (Standard Duty OEM .020 Material)

Norton Commando (All)

- 06-7551² Intake Rocker Cover (req's 1)
- 06-7549 Intake Rocker Cover Center Bolt Washer
- 06-7554² Exhaust Rocker Cover (req's 2)
- 06-7580 Rocker Spindle (Closed) (req's 4)
- 06-7550 Rocker Spindle (Open) (req's 4)
- 06-3129 Rocker Spindle Plate Copper Washer (req's 8)
- 06-7522 Banjo Bolt Washer (req's 6)
- 06-3458 Manifold/Head Insulator 32mm (Bakelite)
- 06-7842 Manifold/Head Insulator 30mm (Bakelite)
- 71-3573 Carb to Manifold and/or Manifold to Head
- 06-7869 Cylinder Base (750)
- 06-3812 Cylinder Base (850)
- 06-2580 Timing Adjust Cover O'ring
- 06-2581 Clutch Adjust Cover O'ring (Primary)
- 06-7627 Primary Chaincase - ATLAS
- 06-0398 Primary Chaincase Band O'ring (Non Mk III)
- 06-5534 Primary Chaincase (Mk III)
- 01-2443 Chaincase Felt Seal
- 06-0711 Chaincase to Crankcase (Non Mk III)
- 06-4689 Chaincase to Crankcase (Mk III)



M.A.P. Cycle Enterprises, Inc.



- 06-7510 Oil Pump Feed Sealing Washer (Non Mk III)
- 06-6190 Oil Pump Feed Sealing Washer (Mk III)
- 06-2447 Oil Pump
- 06-1092 Timing Cover
- 04-0057 Gearbox Inspect Cover
- 04-0055 Kicker Cover (Outer Trans Cover)
- 04-0030 Inner Trans Cover (Inner to Main Housing)
- 06-3056 Tach Housing
- 06-2580 Timing Chain Inspection Cover O'ring
- 06-2583 Oil Level Plug O'ring
- 03-2044 Oil Junction
- 06-2618 Breather Body

BSA A50-A65

- 71-1431² Rocker Cover (Early '62-70)
- 71-2207² Rocker Cover (Late '71-on)
- 71-3573 Carb To Manifold (Same as Tri) All
- 70-5660 Manifold to Head (Same as Tri) All Single Carb
- 70-4918 Carb Insulator (Phenolic) (or "/GSK" Gasket Material 1/8")
- 71-1433 Cylinder Base
- 70-8782 Inspection Cover O'ring
- 71-1420 Rotor Inspection Cover (Primary Cover)
- 71-1432 Primary Cover (A50/A65)
- 71-1419 Clutch Door
- 71-1437 Inner Timing Cover
- 71-2296 Oil Pump
- 71-4443 Oil Line Junction to Case
- 71-1436 Tach Adapter
- 71-1424 Sump Gasket (Engine)
- 83-2829 Frame Sump Gasket (OIF)

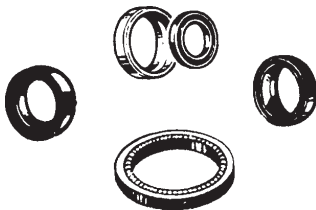
²Note: Re-Usable Fiberglass Reinforced Silicone Add "/S" Sold Each

BRAKE REBUILD KITS



- 99-7006 Triumph - Caliper
- 19-6901 Square O-ring Caliper Halves (Triumph)
- 99-7022 Triumph - Front Master Cylinder
- 99-7022/R Triumph - Rear Master Cylinder
- 06-4243 Norton - Caliper
- 06-4244 Norton - Front Master Cylinder
- 19-1400 Norton - Rear Master Cylinder

ENGINE SEAL KITS



M.A.P. Cycle has designed seal kits for popular motorcycle engines that contain all of the necessary bottom end seals and o-rings for the particular engine specified. By combining an M.A.P. Gasket set(s) with one corresponding seal kit the customer is assured all the necessary seals & gaskets for his engine. No hassles!!! Always ask your dealer for **Genuine M.A.P. Cycle** Gasket & Seal kits.

TRIUMPH

- MAP0201 500 II's (1959-67)
- MAP0202 500 II's (1968-74)
- MAP0204 650 II's - 4-spd (1963-on)
- MAP0204/A 650 II's - 4-spd (1963-68½)
(Clutch Door Seal w/.8" I.D. 1.38" O.D. onto .9" Hi-Gear Bush O.D.)
- MAP0204/B 650 II's - 4-spd (1968½-69)
(Clutch Door Seal w/.955" I.D. 1.55" O.D. onto 1.065" Hi-Gear O.D.)
- MAP0204/C 650 II's - 4-spd (1970-on)
- MAP0205 650/750 II's - 5-spd
- MAP0210 T150 & Rocket III - 4-spd (All)
- MAP0211 T150 - 5-spd (All)
- MAP0212 T160 - 5-spd (All)

NOTE: Above Trident kits do NOT include tach drive "O" rings

NORTON

- MAP0220 COMMANDO 750/850 - Engine Only (NO Oil Line Washers Included)
- MAP0222 GEARBOX & PRIMARY - (Pre MK III) (Order 06-0398 Primary Band as required)
- MAP0223 GEARBOX & PRIMARY - (MK III ONLY)

BSA

- MAP0231 A50/A65 ('62-72) (NO Tach/Speedo O'ring Included)

M.A.P. Cycle Enterprises, Inc.

BSA/TRIUMPH (UNIT SINGLES)

- 70-8153 Point (All)
- 70-8025 Crank (Drive Side)
- 70-8154 Crank (Timing Side)
- 70-8158 Oil Feed O'ring '68-on
- 70-3833 Clutch Door (All)
- 70-8015 Countershaft Sprocket Seal (All)
- 57-2641 Kickstart Spindle
- 97-2641 Fork Seal - Steel Leg '67-69
- 97-1500 Fork Seal - Steel Leg '69-71 (Or 97-1500/LP Leakproof)
- 97-4001 Fork Seal - Alloy Leg '71-on (Or 97-4001/LP Leakproof)
- 83-2244 Swingarm Pivot '71-74

TRIUMPH 350-500 II's (UNIT CONSTRUCTION)

- 60-3548 Rocker Box Spindle O'ring
- 70-8782 Tappet Block O'ring (Use 70-7563 for Hi-temp as Req'd)
- 70-4568 Point
- 70-4568 Crank Seal (Timing Side)
- 70-3876 Crank Seal (Drive Side)
- 70-3833 Clutch Door Seal '59-68½
- 70-7565 Clutch Door Seal '68½-on
(w/.955" I.d. & 1.55" O.D. onto 1.065" Hi-gear O.D.)
- 70-8782 Primary Fill Cap O'ring
- 57-1478 Countershaft Sprocket Seal
- 57-2697 Shift Lever Spindle O'ring
- 70-3309 Shift Shaft O'ring
- 70-4803 Gear Indicator O'ring
- 57-2239 Kicker Spindle Seal
- 97-1500 Fork Seal - Steel Leg '59-on (Or 97-1500/LP Leakproof)
- 97-4001 Fork Seal - Alloy Leg '71-on (Or 97-4001/LP Leakproof)

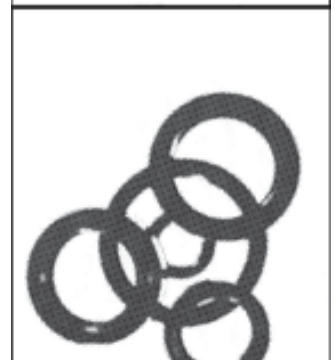
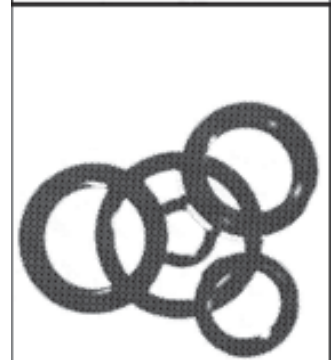
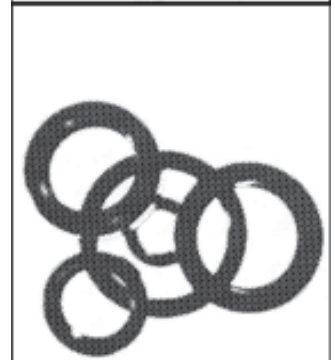
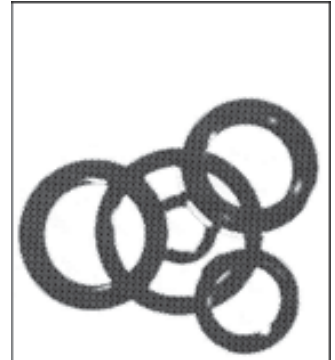
TRIUMPH 650-750 II's (UNIT CONSTRUCTION)

- 60-3548 Rocker Box Spindle O'ring
- 70-8782 Tappet Block O'ring (Use 70-7563 if Hi-temp Required)
- 70-4568 Point & Crank Seal Standard (Timing Side)
- 70-6387 Point & Crank Seal +.020" OS (Timing Side)
- 70-3876 Crank Seal (Unit Drive Side)
- 97-1168 Crank Seal (Pre-unit Drive Side)
- 70-4578 Clutch Door Seal (to '68½ (4-speed))
(w/.8" I.D. & 1.38" O.D. on .9" Hi-gear Bush O.D.)
- 70-7565 Clutch Door Seal ('68½-on (4-speed))
(w/.955" I.D. & 1.55" O.D. onto 1.065" Hi-gear O.D.)
- 60-3500 Clutch Door Seal (5-spd)
- 70-8782 Primary Fill Cap O'ring
- 60-3500 High Gear (Inside) Seal (5-spd)
- 57-0946 Countershaft Sprocket Seal (4-spd)
- 60-3512 Countershaft Sprocket Seal (5-spd)
- 71-1070 Countershaft Sprocket O'ring (5-spd)
- 60-3530 Shifter Spindle O'ring
- 60-2640 Shifter Spindle O'ring ('76-on)
- 57-1956 Kick Shaft Seal
- 60-3355 Pressure Release Valve O'ring
- 97-1168 Fork Seal - Steel Leg thru '63
- 97-1500 Fork Seal - Steel Leg 64-on (or 97-1500/LP Leakproof)
- 97-4001 Fork Seal - Alloy Leg '71-78 (or 97-4001/LP Leakproof)
- 97-7079 Fork Seal - Alloy Leg '78-on (Floating)

TRIUMPH 750 III's

- 60-3548 Rocker Box Spindle O'ring
- 70-4568 Point Seal
- 57-3642 Clutch Spacer/Clutch Driving Hub (Clutch Shaft)
- 57-3642 Shock Housing (Clutch Cover)
- 70-8782 Primary Fill Cap O'ring
- 70-6570 Oil Pump To Chaincase O'ring
- 57-3644 Pullrod
- 60-3500 High Gear Seal Inside (5-spd)
- 57-3634 Countershaft Sprocket Seal (4-spd)
- 60-3510 Countershaft Sprocket Seal (5-spd)
- 71-1070 Countershaft Sprocket o-ring(5-spd)
- 70-3309 Shifter Spindle O'ring
- 60-3530 Gear Shifter O'ring
- 37-3761 Gear Shifter Quadrant Spindle O'ring
- 60-4442 Gear Shifter Spindle Seal (T160)
- 60-4504 Cross Shaft Seal (T160)
- 60-4419 Cross Shaft O'ring (T160)
- 57-1956 Kick Shaft Seal

INDIVIDUAL SEALS

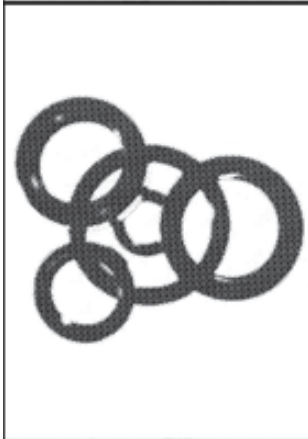
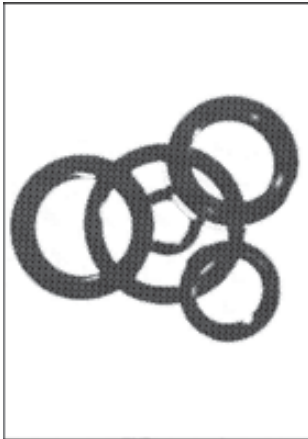


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M.A.P. Cycle Enterprises, Inc.

71-1070
97-1500
97-4001

Oil Filter O'ring
Fork Seal Steel Leg (All) (Or 97-1500/Lp Leakproof)
Fork Seal Alloy Leg (All) (Or 97-4001/Lp Leakproof)



NORTON 750-850 COMMANDO

06-2726 Valve Stem Seal (All)
06-3609 Point Seal (All)
06-7510 Oil Pump Seal (Pre Mk III)
06-6190 Oil Pump Seal (Mk III)
04-8023 Crank Seal (Timing Side) (All)
06-7567 Crank Seal (Drive Side) (All)
67-0674 Countershaft Sprocket Seal (All)
04-0006 Shifter (Pawl Carrier) O'ring (Pre MkIII)
04-0129 Outer Gearcase Quadrant/Shifter O'ring (All)
04-0079 Ratchet Spindle O'ring (All)
06-5183 Cross Shaft Inner Primary (Mk III)
01-2443 Hi-gear Felt Seal Inner Primary (Non Mk III)
06-5956 Hi-gear Seal - Inner Primary Cover (Mk III)
06-5181 Shifter Cross Shaft Seal (Outer Primary Cover)(Mk III)
04-0005 Kicker O'ring (Pre Mk III)
06-6145 Kicker Seal (Mk III)
06-4704 Starter To Case O'ring (Mk III)
06-1282 Tach Drive O'ring (Pre Mk III)
06-5203 Tach Drive O'ring (Mk III)
06-5483 Fork Seal - Alloy Leg (All) (or 06-5483/LP Leakproof Brand)

BSA A50-A65

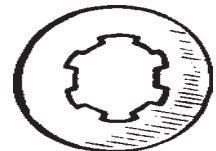
68-0026 Point Seal '62-69
70-4568 Point Seal '69-on
67-0674 Crank Seal (Drive Side)
57-0946 Countershaft Sprocket Seal
70-4578 Clutch Door Seal
70-8782 Primary Fill Cap O'ring
97-2641 Fork Seal '59-69
97-1500 Fork Seal - Steel Leg '69-on (or 97-1500/LP Leakproof Brand)
97-4001 Fork Seal - Alloy Leg (All) (or 97-4001/LP Leakproof Brand)

LOCK TAB KITS



99-9944
99-9945
99-9946

Tri 500 II's Complete Engine '59-on
Tri 650 II's Complete Engine '63-73
Tri 750 II's Complete Engine '73-79



INDIVIDUAL LOCK TABS

MAKE/ MODEL:	CRANK LH/ ROTOR	MS LH/ CL HUB	COUNTER SPROCKET	MS RH/ KICK PIN	OIL PUMP PINION	SWING ARM	SIDE STAND	CENTER STAND
BSA-TRI 250 I's	68-0325	40-3221	40-3121	40-3257	40-0455	-----	-----	-----
BSA A50/A65 ¹	68-0325	42-3191	40-3121	68-3301	67-0644	----- ⁷	-----	-----
TRI 500 to '67	70-3975	57-1046	57-2056	57-2240	-----	-----	82-3096	82-4484
TRI 500 '67-on	70-3975	-----	57-2056	57-2240	-----	82-7343	-----	82-4484
TRI 500 TR5T (Only)	70-3975	-----	57-2056	57-2240	-----	-----	-----	-----
TRI 650 thru '67	70-3975	57-1046	57-2116 ⁶	57-2240	-----	82-5944	82-3096 ²	82-4484
TRI 650 '68-70	70-3975	-----	57-2116	57-2240	-----	82-5944	-----	-----
TRI 650 '71-72 (4-spd)	70-3975	-----	57-2116	57-2240	-----	83-2266	-----	-----
TRI 650/750 II's thru '78 ⁵	70-3975	-----	57-4909	57-2240	-----	82-2266	-----	-----
TRI 750 II's '79-on ³	21-7024	-----	57-4909	57-2240	-----	-----	-----	-----
TRI-BSA III's ⁴	70-8785	-----	57-4909	57-2240	-----	82-5944	-----	-----
COMMANDO	06-7894	-----	04-0076	-----	-----	-----	-----	-----

¹NOTE: 67-0685 CAM GEAR (All)

²NOTE: to '67 ONLY

³NOTE: 57-7076 TSS MAINSHAFT RH (Also ALL 57-7077 (Heavy Duty) MAINSHAFT - RH Side)

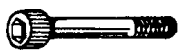
⁴NOTE: 57-3941 SHOCK TAB; 57-3720 CLUTCH DRIVE PLATE; 71-1129 CENTER MAIN BOLTS

⁵NOTE: 5-spd MODELS ONLY

⁶NOTE: 1963 DOES NOT use CounterShaft LOCKTAB - RECOMMEND USING LOCKTITE or a Light PEEN

⁷NOTE: BSA A65/A50 '68-70 Order 42-4364; '71-on Order 83-2266

M.A.P. Cycle Enterprises, Inc.



ALLEN SCREW KITS



MAKE/MODEL:	PRIMARY	TIMING	INNER TIMING	TRANS	PRI & TIMING & TRANS	ROCKER COVER
BSA C15,B40,C25,B44 ('64-68)	MAP3014	MAP3013	MAP3013/I	-----	MAP3130 ^{4,6}	-----
BSA C25,B44 (69-on)	MAP3016	MAP3015	MAP3015/I	-----	MAP3131 ⁶	-----
BSA B50SS,B50T ('71-on)	MAP3071	MAP3070	MAP3015/I	-----	MAP3132 ⁵	-----
BSA A7/A10 ('53-63)	MAP3081	MAP3080	-----	-----	MAP3133 ⁴	-----
BSA A50/A65 ('64-68)	MAP3083	MAP3082	MAP3082/I	-----	MAP3134 ⁴	-----
BSA A50/A65 ('69)	MAP3085	MAP3084	MAP3084/I	-----	MAP3135 ⁴	-----
BSA A50/A65/A70 ('70-73)	MAP3087	MAP3086	MAP3084/I	-----	MAP3136 ⁴	-----
BSA ROCKET III (All)	MAP3092	MAP3090	-----	MAP3091	-----	-----
TRI TIGER CUB ('60-63)	MAP3012	MAP3010	-----	-----	-----	-----
TRI TIGER CUB ('64-69)	MAP3012	MAP3011	-----	-----	-----	-----
TRI TR25W (thru '67)	MAP3014	MAP3013	MAP3013/I	-----	MAP3130 ^{4,6}	-----
TRI TR25W ('69-on)	MAP3016	MAP3015	MAP3015/I	-----	MAP3131 ⁶	-----
TRI 500 P-U	see note ¹	see note ¹	-----	see note ¹	see note ²	-----
TRI 350/500 II's ('59-68)	MAP3022	MAP3020	-----	MAP3021	MAP3110 ⁴	-----
TRI 500 II's ('69-74)	MAP3025	MAP3023	-----	MAP3024	MAP3111 ⁵	-----
TRI 650 P-U T110/T120	see note ¹	see note ¹	-----	see note ¹	see note ²	-----
TRI 650 ('63-68)	MAP3032	MAP3030	-----	MAP3031	MAP3114 ⁵	-----
TRI 650/750 II's ('69-80)	MAP3035	MAP3033	-----	MAP3034	MAP3115 ⁵	MAP3038 ^{3,5}
TRI 750 II's ('81-on)	-----	-----	-----	-----	MAP3116 ^{5,7}	MAP3038 ^{3,5}
TRI T150 TRIDENT	MAP3042	MAP3040	-----	MAP3041	MAP3117 ^{5,8}	-----
TRI T160 TRIDENT	MAP3045	MAP3043	-----	MAP3044	MAP3118 ^{5,8}	-----
NORTON 500,600,650 & ATLAS	-----	MAP3060 ⁵	-----	MAP3062 ⁴	-----	MAP3068 ⁵
COMMANDO (NOT MKIII)	-----	MAP3061 ⁵	-----	MAP3062 ⁴	-----	MAP3068 ⁵
COMMANDO MKIII	MAP3065 ^{5,10}	MAP3063 ⁵	-----	MAP3064	MAP3125 ^{4,9}	MAP3068 ⁵

¹NOTE: For PRE-UNIT (P-U) Triumph Individual KITS - See BELOW:
 500 II ('46-59) 650 II ('51-62) TIMING COVER - Order MAP3001
 5T, 6T, T100, T110, T120 TR5, TR6 TRANS COVER - Order MAP3002
 5T, 6T, ('48-51) T100 ('48-59) T110 ('54-59) TR6 ('55-59) PRIMARY COVER - Order MAP3003
 5T, 6T ('51-54) PRIMARY COVER - Order MAP3004
 5T ('55-58) 6T ('55-62) PRIMARY COVER - Order MAP3005
 T110, T120 ('60-62) PRIMARY COVER - Order MAP3006

²NOTE: For PRE-UNIT (P-U) TRIUMPH COMPLETE ENGINE SETS - See BELOW:
 500 II's '54-58 - ORDER MAP3102 - ADD "/C" for CHROME
 650 II's 6T '54-62 - ORDER MAP3103 - ADD "/C" for CHROME
 650 II's T110 & T120 '54-62 - ORDER MAP3104 - ADD "/C" for CHROME

³NOTE: USED ONLY ON TRI 650/750 II's '71½-on with OVAL ROCKER COVERS (4 or 6 SCREW TYPE - MOST 5-spd)

⁴NOTE: KITS AVAILABLE IN CHROME - ADD "/C" for CHROME to PART NUMBER.

⁵NOTE: KITS AVAILABLE IN CHROME & STAINLESS - ADD "/C" for CHROME or "/S" for STAINLESS to PART NUMBER

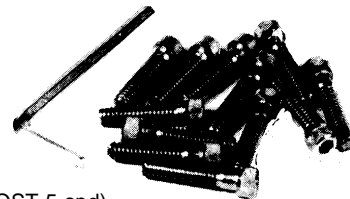
⁶NOTE: KIT ALSO INCLUDES INNER TIMING COVER SCREWS

⁷NOTE: KIT ALSO INCLUDES OIL CHECK & ELECTRIC START SCREWS

⁸NOTE: KIT ALSO INCLUDES CLUTCH ADJUSTING COVER SCREWS

⁹NOTE: KIT ALSO INCLUDES POINT & OIL FILL COVERS & ELECTRIC START SCREWS

¹⁰NOTE: REQUIRES ELECTRIC START KIT - ORDER MAP3129 - ADD "/C" for CHROME or "/S" for STAINLESS to PART NUMBER



POINT PLATE/COVER ALLEN SCREWS

MAP3069 POINT COVER & TRANSMISSION FILL COMMANDO (Also Available in CHROME "/C" & STAINLESS "/S")

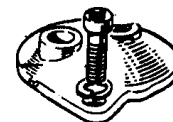
MAP3150 POINT COVER ALLENS - TRIUMPH I's & II's (Also Available in CHROME "/C" & STAINLESS "/S")

MAP3160 POINT COVER ALLENS - BSA/Tri III's (Also Available in CHROME "/C" & STAINLESS "/S")

MAP3200 POINT PLATE ALLENS - PLATE Using 54419827 POINTS (6)

MAP3210 POINT PLATE ALLENS - PLATE Using 60600271 POINTS (8)

MAP3220 POINT PLATE ALLENS - 4BA THREAD (ea.)



AMAL CARB ALLEN SCREWS

MAP3095 AMAL CONCENTRIC CARB/ TOP & FLOAT BOWL



ACORN NUTS¹



FINE THREAD SAE	COARSE THREAD SAE	BRITISH CEI
CA1032 10 X 32	CA1024 10 X 24	
CA2528 1/4 X 28	CA2520 1/4 X 20	CA2526 1/4 X 26
CA3124 5/16 X 24*	CA3118 5/16 X 18	CA3126 5/16 X 26
CA3724 3/8 X 24*	CA3716 3/8 X 16	CA3726 3/8 X 26
CA4320 7/16 X 20	CA4314 7/16 X 14	CA4326 7/16 X 26
CA5020 1/2 X 20	CA5013 1/2 X 13	CA5026 1/2 X 26
CA5618 9/16 X 18		
CA6218 5/8 X 18		
		CA7520 3/4 X 20 BSF (AXLE)

¹NOTE: Order SA3124 for 5/16 x24 Stainless and/or SA3724 for 3/8 x 24 Stainless ADD "/P" for Polished

M.A.P. Cycle Enterprises, Inc.

CLARKS/OTHER CABLES*

MAKE/ MODEL:	CHOKE (TOP)	CHOKE BOTTOM	THROTTLE (TOP)	THROTTLE BOTTOM	CLUTCH	FRONT BRAKE
BSA						
B25 ⁶						
A50/A65/A70						
w/Monobloc Carb	68-8514 (33")	----	68-8678 (41")	----		
w/Single Concentric	60-0815 (37")	----	60-0804 (38")	----		
w/Dual Concentric	60-0823 (23")	60-0826 (11")	60-0813 (38")	----		
to 1968 with						
Steel Levers					60-2081 (53")	68-8600 (SLS)
Alloy Levers					60-2080 (54")	68-8770 (Star Adjuster)
1968 with						
Steel Levers					60-2081 (53")	60-0858(L)/68-8600(T)
Alloy Levers					60-2080 (54")	60-0861(S,F)
1970-on					60-3077 (48")	60-2076(70)/60-3557(71-on)
A75R						
1969-1970	60-1968 (60")	----- ¹	60-0890 (39")	----	60-2445 (53")	----
1971-1972	60-3566 (12")	60-2061 (10")	60-0890 (39")	-----	60-2445 (53")	60-2076 (36")
						60-3557 (41")
TRIUMPH						
250 '68-on	-----	-----	60-0962 (34")	----	60-2083	----- ⁵
T100SS '59-62	-----	-----	60-0410 (38")	----	60-0408 (51")	60-0419 (37")
T100 '63	-----	-----	60-0410 (38")	----	60-0466 (47")	60-0419 (37")
3TA:5TA '64	-----	-----	60-0532 (42")	----	60-0466 (47")	60-0419 (37")
T90:T100 '64	-----	-----	60-0495 (40")	----	60-0466 (47")	60-0419 (37")
T100R '65-66	-----	-----	60-0495 (40")	----	60-1994 (47")	60-0560 (36")
T100R '67	-----	-----	60-0495 (40")	----	60-1994 (47")	60-0560 (36")
T100C '67	-----	-----	60-0495 ² (40")	----	60-1994 (47")	60-0560 (36")
T100R '68	60-0744 (29")	60-0745 (08")	60-0740 (41")	----	60-1994 (47")	60-0560 (36")
T100C '68	60-0742 (36")	-----	60-0735 (41")	----	60-1994 (47")	60-0560 (36")
T100R '69-70	60-1821 (34")	60-0745 (08")	60-1822 (43")	----	60-1994 (47")	60-2076 (36")
T100C '69-70	60-1824 (40")	-----	60-1823 (43")	----	60-1994 (47")	60-2076 (36")
T100R '71-72	60-3272 (34")	60-0745 (08")	60-1822 (43")	----	60-1994 (47")	60-2076 (36")
T100C '71-72	60-3270 (40")	-----	60-1823 (43")	----	60-1994 (47")	60-2076 (36")
T100R '73-74	60-3272 (34")	60-0745 (08")	60-1822 (43")	----	60-1994 (47")	60-2076 (36")
TR5T '73-74	60-3270 (40")	-----	60-1823 (43")	----	60-1994 (47")	60-4088 (40")
T120: TT '63-67	-----	-----	60-0528 ² (41")	----	60-0565 (47") ⁹	60-0559 (39")
TR6 '63-67	60-0507 (39")	-----	60-0519 ² (39")	----	60-0565 (47") ⁹	60-0559 (39")
6T '63-67	60-0435 (35")	-----	60-0495 (40")	----	60-0565 (47") ⁹	60-0559 (39")
T120 '68	60-0683 (23")	60-0684 (11")	60-0660 (40")	----	60-3079 (47") ¹⁰	60-0665 (36")
TR6 '68	60-0747 (39")	-----	60-0746 (40")	----	60-3079 (47") ¹⁰	60-0665 (36")
T120 '69-70	60-1818 (23")	60-0684 (11")	60-1819 (43")	----	60-3079 (47") ¹⁰	60-2076 (36")
TR6 '69-70	60-0747 (39")	-----	60-0746 (40")	----	60-3079 (47") ¹⁰	60-2076 (36")
T120 '71-72	60-1818 (23")	60-3486 (18")	60-1819 (43")	----	60-3079 (47") ¹⁰	60-3557 (36")
TR6 '71-72	60-1807 (42")	-----	60-1806 (45")	----	60-3079 (47") ¹⁰	60-3557 (36")
T140 '73-74	60-4127 (10")	60-4128 (06")	60-1819 (43")	----	60-3925 (50") ¹⁰	-----
T140 '76-78 ^{1/2}	60-4127 (10")	60-4128 (06")	60-7001 (25")	60-0733 (18")	60-3925 (50") ¹⁰	-----
TR7 '73-78 ^{1/2}	60-4194 (11")	-----	60-1806 (45")	----	60-3925 (50") ¹⁰	-----
T140 '78 ^{1/2} -on (MKII)	60-7388 (10")	60-7084 (15")	60-7149 (26")	60-7084 (15")	60-3925 (50") ¹⁰	-----
T140 '81-on (BING)	60-7430 (26")	60-7505 (13")	60-7427 (23")	60-7505 (13")	60-3925 (50") ¹⁰	-----
T150 '69-70	60-1968 (60")	----- ¹	60-0890 (43")	----	60-2445 (53")	60-2076 (36")
T150 '71-72	60-3566 (12")	60-2061 (10")	60-0890 (43")	----	60-2445 (53")	60-3557 (41")
T150 '73-74	60-3566 (12")	60-2061 (10")	60-0890 (43")	----	60-2445 (53")	-----
T160 '75-76	60-3566 (12")	60-2061 (10")	60-4458 (42")	----	60-4454 (57")	-----
NORTON⁴						
COMMANDO '68-70	03-0908 (23")	03-3144 (11")	03-1612 (23")	03-3145 (11")	06-6477 (51") ¹¹	06-0918 ¹² (37")
COMMANDO ³ '71-72	03-0908 (23")	03-3144 (11")	06-1451 (26")	03-3145 (11")	06-6477 (51") ¹¹	06-2491 ¹² (37")
COMMANDO ³ '73-74	03-0908 (23")	03-3144 (11")	06-1451 (26")	03-3145 (11")	06-6477 (51") ¹¹	-----
COMMANDO MKIII	06-1451 (26")	06-8105 (11")	06-6341 (26")	06-8106 (11")	06-6477 (51") ¹¹	-----

Footnotes:

¹NOTE: 60-2060 (12"-RH); 60-2061 (10"-CENTER); 60-2062 (9"-LH) or Use 3 of 60-2061

²NOTE: Use 60-0746 (TR6) or 60-0660 (T120) for 1967^{1/2} When Used w/ CONCENTRIC CARBS (Except 1 into 2 Types)

³NOTE: HI-RIDER Uses 06-2406 TOP THROTTLE CABLE; 06-2814 CLUTCH CABLE; 06-2503 DRUM BRAKE CABLE)

⁴NOTE: 06-0482 COMMANDO REAR BRAKE (ALL - NOT MKIII)

⁵NOTE: 250 BRAKE CABLES: 60-3390, '71: 60-2034, '69^{1/2}-70: 60-2076, EARLY '69: 60-0962, '68

⁶NOTE: See Below for Miscellaneous Cables for BSA's:

- 40-8516 B40/B44 MONOBLOC CARB
- 60-2083 B25/B40/B44 CLUTCH (ALL)
- 40-8590 B25/B40/B44 Front BRAKE '64-67 (NOT '64-65 "SS")
- 60-3750 B44/B50 EXHAUST LIFTER '66-on

⁸NOTE: 1967 T100R Uses 60-0528

⁹NOTE: See MAP0001S for Short "EURO" Bars: See MAP0001L for High Bars

¹⁰NOTE: See 60-4168 (Heavy Case), 60-4168/E or MAP0002S for Short "EURO" Bars: See MAP0002L for High Bars

¹¹NOTE: See 06-1076 (32") or MAP0009S for Short "EURO" Bars: See MAP0009L for High Bars

¹²NOTE: Use 06-0924 Euro Bar (32") w/switch or 06-1076 Euro Bar (32") w/switch

¹³NOTE: '69 A50/65 Clutch Cable use 60-3077

JUNCTION BLOCKS (Throttle Cables)

- 1-2 244/104
- 1-3 244/2080
- 1-2 MAP0060 (Alloy "Long-Throw")

*IMPORTANT NOTICE:

Due to EAST/WEST/Special Export Differences, This Chart is for Reference Only. Use Correct O.E. Parts Books for Exact Model & Part #'s. All Measurements are for Outer Case Lengths
See Page 27 for Heavy Duty Teflon/Stainless M.A.P. Cables.

M.A.P. Cycle Enterprises, Inc.

100% Guaranteed to be the **Best Cable** available **Anywhere !! Braided Stainless Steel** Inner Cable runs inside a **Teflon** Lined Outer Case with **Brass** ends, to make these cables the Absolute Finest and Easiest to Pull. Totally Unbeatable, they can Actually be Tied into Three Knots and Still Easily Pushed or Pulled.

Proudly Made in the U.S.A. Especially for **M.A.P. Cycle**.

Note: Barrel End MUST be Lubricated with Water Insoluble Grease & Ride in a "Gall Free" Lever else Cable WILL Fray & Break!

Note: All cables are measured by outer housing (case) length

BRAIDED STAINLESS CABLES¹

CLUTCH

Triumph 500 ('59-on): 650 ('63 thru '67)

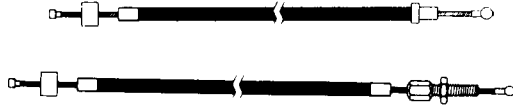
MAP0003S 40" Case (most 500's)
 MAP0003 45" Case (most 500's)
 MAP0001S 46" Case (most 650's)
 MAP0001 51" Case (most 650's)
 MAP0001L 56" Case (most 650's)

Triumph 650/750 II's ('68-on)

MAP0002S² 46" Case
 MAP0002² 51" Case
 MAP0002L² 56" Case

BSA A50/A65 (thru '69)

MAP0007 55" Case
 MAP0007L 60" Case



BSA A50/A65/A70 ('70-on)

MAP0008² 48" Case
 MAP0008L² 53" Case

NORTON COMMANDO (all)

MAP0009² 53" Case
 MAP0009L² 58" Case
 MAP0009S² 49" Case

¹**NOTE:** For CLARKS & OTHER Cables - See Page 26 or O.E. Numbers on website

²**NOTE:** Includes 57-1646 Cable Boot

Triumph/BSA III's (all)

MAP0010 51" Case
 MAP0010L 56" Case

THROTTLE

MAP0004S³ Fits MOST AMAL/Mikuni Models (35" Case)
 MAP0004³ Fits MOST AMAL/Mikuni Models (40" Case)
 MAP0004L³ Fits MOST AMAL/Mikuni Models (45" Case) for "XXL" see MAP0005L 50" OA (Case + included Junction)

MAP0551 Mikuni VM30-36mm - 40" Teflon Lined **with Chrome Screw-in Elbow** (Replaces OE Mikuni Adjuster)
 MAP0552 Mikuni VM30-36mm - 45" Teflon Lined **with Chrome Screw-in Elbow** (Replaces OE Mikuni Adjuster)
 MAP0553 Mikuni VM30-36mm - 35" Teflon Lined **with Chrome Screw-in Elbow** (Replaces OE Mikuni Adjuster)

MAP0005S 1 into 2 (AMAL MKII/Mikuni 30-34mm) 40" OA (Case + included Metal Junction)

MAP0005 1 into 2 (AMAL MKII/Mikuni 30-34mm) 45" OA (Case + included Metal Junction)

MAP0005L 1 into 2 (AMAL MKII/Mikuni 30-34mm) 50" OA (Case + included Metal Junction)

MAP0006 1 into 2 (AMAL Concentric) 44" OA (Case + included Stock Junction)

MAP0558S 1 into 3 (Mikuni 26-28mm) inq.

MAP0558 1 into 3 (Mikuni 26-28mm) 43" OA (Case + included Stock Junction)

MAP0558L 1 into 3 (Mikuni 26-28mm) inq.

REAR BRAKE

06-0482³ NORTON COMMANDO

42-7042³ A10 BSA

UNIVERSAL (Clutch/Brake)

MAP0044 60" (Use with MAP0050 Adapter (shown below))

³**NOTE:** If using EM771 Single Throttle must use with 99-0241 Stock Type Split Ferrule (Not included)

99-0241 FERRULE, Split Throttle 5/16 X 5/8" Long



B1016 SLIDING ADJUSTER & NUT (BARNETT/DOHERTY/STOCK)
 Smaller Thumb-nut for a Much Nicer, More CUSTOM Look!!



60-3585/6 SLIDING ADJUSTER & NUT (Stock Type)

MAP0050 ADAPTER Kit, Front Brake Cable (Universal)



57-1646 BOOT - Cable to Trans (MOST Triumph/Norton/BSA)

57-2062 SPACER, Abutment 1/2" TALL - Triumph/BSA 500/650 thru '67

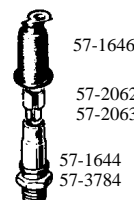
57-2063 SPACER, Abutment 3/4" TALL - Triumph/BSA 500/650 thru '67

57-1644 ABUTMENT - Triumph UNIT II's thru 1967

57-3784 ABUTMENT - Triumph 500 1968-on

57-2540 ABUTMENT - Triumph 650 II's 1968 (CEI Cable Adjuster Thread)

57-3762 ABUTMENT - Triumph 650/750 II's 1969-on (UNF Cable Adjuster)



57-1646

57-2062

57-2063

57-1644

57-3784

CABLE/LEVER HARDWARE

Triumph Unit II's & III's

- GasTank Mounting Rubbers
- 2) 82-5228 Front Upper
- 2) 82-5229 Front Lower
- 1) 82-0967 Rear Upper
- 1) 82-5336 Rear Lower

- GasTank Mounting Hardware:
- 82-1808 Front BOLT (Early)
- 21-1883 Front STUD(Late)
- 14-1302 Stud NUT (Late)
- 82-7388 Rear BOLT (all)
- 82-3814Stud/Bolt CUP (all)

NOTICE: For **LEVER ASSEMBLIES & TWIST GRIPS** - See Page 29 & 79

7165 30th Avenue North

St. Petersburg, Florida 33710

Phone (727) 381-1151 FAX (727) 347-9469

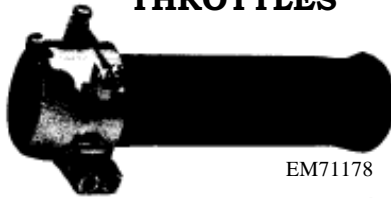
W.A.P. Cycle Enterprises, Inc.

LEVERS



- B2071L CLUTCH LEVER 1" w/Adjuster (BARNETT)
- B2071R BRAKE LEVER 1" w/Adjuster (BARNETT)
- B2077L CLUTCH LEVER 7/8" w/Adjuster (BARNETT)
- B2077R BRAKE LEVER 7/8" w/Adjuster (BARNETT)
- 60-2241/2242 LEVER SET (Brk & Clt) w/Mirror Holes (UK)
- 60-2241/P BRAKE LEVER w/CHOKE ASSEMBY (Pattern)
- B8165L CLUTCH LEVER 1" HARLEY STYLE (BARNETT)
- B8165R BRAKE LEVER 1" HARLEY STYLE (BARNETT)

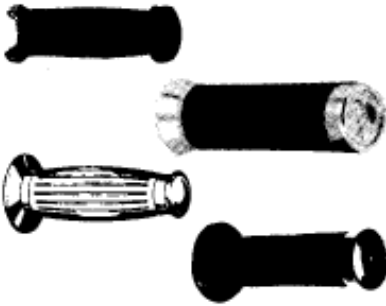
THROTTLES



EM71178

- B1016 ADJUSTER & THUMBSCREW (Slide-In TYPE) BARNETT
- 60-3585/3586 ADJUSTER & THUMBSCREW OE (MADE in UK)
- 60-7014/P SINGLE THROTTLE (Very Nice Copy of 364 Amal)
- EM771¹ SINGLE THROTTLE 7/8" NICELY CHROMED
- EM761¹ SINGLE THROTTLE 1" NICELY CHROMED

GRIPS



- J0101 GRIPS, "STREET" BLACK 7/8" BARS (Hand Contour) pr.
- J0102 GRIPS, "SUPERBIKE" BLACK 7/8" BARS (Straight w-light Ribbing)
- J0105 GRIPS, SMOOTH DENSE BLACK FOAM w/Chrome Ends 7/8" Bars
- J0106 GRIPS, SMOOTH DENSE BLACK FOAM w/Chrome Ends 1" Bars pr.
- J0107 "GRANTURISMO" (GT) BLACK 4½" LONG (Fits OE Bars & Throttle)pr.
- J0108 "BESTON" 5.2" Long pr.
- 06-7093 "Grand Touring" Italy pr
- PVC78 GRIP, BLACK PVC 7/8" ea. (Will NOT Blacken Hands)
- PVC1 GRIP, BLACK PVC 1" ea. (Will NOT Blacken Hands)
- PVC118 GRIP, BLACK PVC 1-1/8" ea. (Will NOT Blacken Hands)

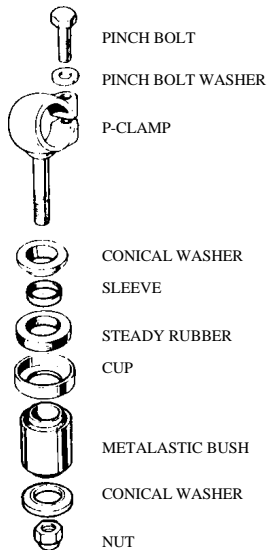
STOCK HANDLEBARS

(MADE IN UK)



- 42-4980 BSA II's '71-on (Oil-in-Frame)
- 42-4968 BSA II's thru '70 (All USA)
- 97-1484 TRIUMPH T120 (Low "Euro") '63-on
- 97-1870 TRIUMPH T100/T120/T150 Western '66-70 (Drilled for Wiring)
- 97-1871 TRIUMPH T120 '65-70 Low (Drilled)
- 97-4252 TRIUMPH T120 '66-72 (USA Western '71-72), T150 '69-72
- 97-7205 TRIUMPH T140 '73 to 79/T150 '73-74 USA '80-on
- 97-7040 TRIUMPH T140E, T140D '79-on
- 97-7041 TRIUMPH/BSA T140/T160/A65 (Low "Euro")
- 97-4651 TRIUMPH T160 USA
- 06-1046 NORTON COMMANDO (USA)
- 06-5748 NORTON COMMANDO (Low "Euro")

HANDLEBAR PARTS



- 97-1340 PINCH BOLT (P-CLAMP thru '69)
- 21-0589 PINCH BOLT (P-CLAMP '70-on)
- 82-1335 WASHER, Pinch Bolt (P-CLAMP)
- 97-2291¹ P-CLAMP (Handlebar Eyebolt) All
- 97-1425 REDUCER, Handlebar to P-Clamp - (Sold Each ½'s)
- 97-1708² WASHER, Flat (Top (Early)
- 97-1529³ WASHER, Conical (Top & Bottom (Latest)
- 97-1581⁴ SLEEVE (Fits in Steady Rubber)
- 97-1580⁴ STEADY RUBBER
- 82-3814 CUP (Holds Study Rubber) - Tri 650 '67-68
- 97-2221⁵ CUP (Holds Study Rubber)
- 97-1527 BUSH, Metalastic (Fits in Top Tree - All Using P-Clamp)
- 97-1616 SOLID SPACER (Replaces Metalastic Bush) ea. (Reqs 4)
- 97-1529³ WASHER, Conical (Top & Bottom (Latest)
- 82-3955 NUT (P-Clamp thru '68)
- 14-1903 NUT (P-Clamp '69-on)

New: 7/8" Clip-Ons
33 - 34 - 35 mm
chrome or black
Inquire



Shown for Most:
BSA A50/A65
Tri 500 II's
Tri 650/750 II's
Tri/BSA III's

¹NOTE: Use with 21-0589 BOLT & 14-1903 NUT as #97-1523 EARLY P-CLAMP is NLA
²NOTE: Use in Tri 650 thru '66: TRI 500 thru '69
³NOTE: All Bottom: Top Tri 650 '67-on, Tri 500 '70-on, BSA A50/A65 '71-on
⁴NOTE: Use in Tri 650 '67-on: Tri 500 '70-on: BSA A50/A65 '71-on
⁵NOTE: Use in Tri 650 '69-on: Tri 500 '70-on: BSA A50/A65 '71-on

M.A.P. Cycle Enterprises, Inc.

M.A.P. 100% STAINLESS BARREL. Front mastercylinder leaking? Rear wheel "locking up" due to Rust Seizing the stock piston? Why take the time to try to rebuild that ugly old stock cylinder that may still leak due to all of the deep pitting that cannot be removed? Simply replace the entire cylinder with our preassembled completely new "Life-Long" Nicely Polished Stainless Steel MasterCylinder. Less Expensive, Safer than a rebuild kit and pretested to make it the only the way to go. Stays new looking and lasts longer as it is Stainless. Closely resembles the factory Mastercylinder for originality. Made in U.S.A. by **M.A.P. Cycle.**

STAINLESS STEEL MASTERCYLINDER CYLINDER

NICE!!

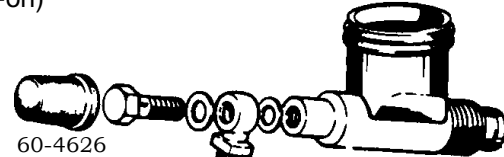
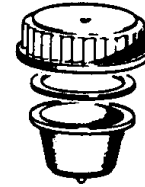


100% Stainless Steel Barrel - Entirely Made in U.S.A.

- MAP6900 **CYLINDER COMPLETE - FRONT or REAR Triumph & REAR MKIII NORTON with NEW INTERNALS**
 MAP6920 PUSH-ROD Stainless (Triumph Rear Master)
 99-9926 PUSH-ROD STOCK (Triumph Rear Master)
 MAP6925 PUSH-ROD Stainless (Norton Rear Master)

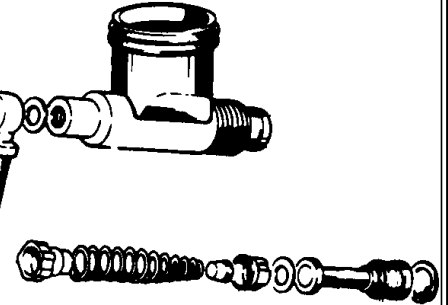
HYDRAULIC CYLINDERS & PARTS

- 60-4102 MASTERCYLINDER COMPLETE w/Housing (Triumph Front) '73-79
 60-7163 MASTERCYLINDER COMPLETE w/Housing (Triumph Front) '79-on
 60-4401 MASTERCYLINDER COMPLETE w/Housing (Triumph Rear (not TSX)) All
 99-2759 PISTON (Mastercylinder)
 99-2755 SPRING, Piston
 99-2756 BUTTON, Piston Spring (Protects Seal)
 99-2761 CIRCLIP, Piston Retaining
 99-2762 BOOT, Front Cylinder (On Cylinder) Triumph
 06-1941 BOOT, Front Housing (In Housing) Norton
 99-9923 BOOT, Rear Housing (On Housing) Triumph/Norton
 99-2753 HOUSING, Front Triumph (thru '78)(or 60-7164 for '79-on)
 99-9929 HOUSING, Rear Triumph (Not TSX)
 99-2763 GRUB SCREW (Housing)
 60-4206 LEVER (Front Tri Master '73 thru '79)
 97-5074 LEVER (Front Tri Master '79-on)
 06-3241 LEVER (Front Norton Master)
 60-4365 CAP, Reservoir (Tri)
 60-4328 GASKET, Reservoir Cap (All)
 60-4366 DIAPHRAM, Reservoir (All)
 14-1901 NUT, Reservoir Mounting to Front MasterCylinder
 14-0102 BOLT, Reservoir Mounting to Rear Remote Block
 60-4399 WASHER, Reservoir (Front Inside/Rear Remote Block) (Tri)
 60-4398 SPACER, Reservoir (Front Inside/Rear Remote Block) (Tri)
 60-4397 RESERVOIR, Front/Rear (Tri)
 60-4374 O'RING, Reservoir Mounting (Tri)
 99-7019 NUT, Saddle Mounting (Rear Tri Master Only)
 99-7019/LT LOCKTAB, Saddle Nut (Rear Tri Master Only)
 99-7020 O'RING, Saddle Nut (Rear Tri on Saddle)
 99-7021 SADDLE (Rear Tri Master Only)
 60-4374 O'RING, Saddle to Master Seal (Rear Tri Master Only)
 60-4183 BANJO BOLT (Tri Front Master)
 60-4182 WASHER, Copper (Bolt to Banjo Fitting Front Tri MasterCylinder & Rear Hose to MasterCylinder)
 60-4184 WASHER, Copper (Banjo to Front Tri MasterCylinder)
 60-4626 COVER (Tri Banjo Bolt)
 06-2524 COVER (Norton Brake Switch)



60-4626
Triumph

06-2524
Norton



NOTE:
for D.O.T. English Made Hose
See Below

NEW!!

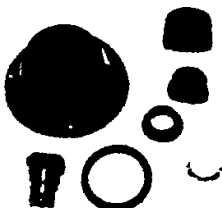
Stainless Steel Caliper PISTON

- 06-1896 Norton (All)
 99-2765 Triumph (All Iron Calipers)

- | | | | |
|----------------------|---|---------|--|
| 60-4177 ¹ | HOSE, 7" OA Tri & Norton Top Front (Low "Euro" Bar) | 06-6237 | HOSE, 12" OA Norton Top Front |
| 60-7028 ¹ | HOSE, 8" OA Triumph Rear Master to Caliper (MALE) | 06-6236 | HOSE, 18" OA Norton Hi-Rider TOP |
| 60-4176 | HOSE, 13" OA Triumph Top Front | 06-2707 | HOSE, 26" OA Norton Top Front |
| 60-4176/L | HOSE, 21" OA Triumph Top Front | 06-3507 | HOSE, 29" OA Norton Top Front |
| 60-4175 | HOSE, 14" OA Triumph Bottom Front & Norton | 06-3541 | HOSE, 31" OA Norton Top Front |
| 60-4175/L | HOSE, 22" OA Triumph Bottom Front & Norton | 06-3540 | HOSE, 35" OA Norton Top Front |
| 60-7233 | HOSE, 22" OA Tri Rear '79 T140D & '80-on (BANJO) | 06-6243 | HOSE, 12" OA Norton Lower Front |
| 60-4409 | HOSE, 23" OA Tri Rear Saddle to Reservoir (No Fittings) | 06-6218 | HOSE, 11" OA Norton Rear (wire coiled) |

¹These are essentially the same except for length

BRAKE REBUILD KITS



- 99-7006 CALIPER KIT - Triumph (All Cast-Iron)
 06-4243 CALIPER KIT - Norton (All Cast-Iron)
 19-6901 Square O'Ring (Triumph Caliper Halves) ea. **New!**
 99-7022 MASTERCYLINDER KIT - Front Triumph
 99-7022/R MASTERCYLINDER KIT - Rear Triumph (Not TSX)
 06-4244 MASTERCYLINDER KIT - Front Norton (All)
 19-4700 MASTERCYLINDER KIT - Rear Norton (All)

M.A.P. Cycle Enterprises, Inc.

EXHAUST PIPES (Excellent USA Chrome - No Crossover)

• • • Triumph 650 Pipes will fit T140's & BSA A65 with *M.A.P. In-Head Adapters* on Page 43 • • •

STOCK ("ST") STYLE HEAD PIPES

PS130 Shown



181339 TRI 650 1½" Pipe (Tabbed) (Not for old ARD) M.A.C.

70-5957/8/P

TRI 650 1½" Pipe (Tabbed - Over Spigot - No X-Over)

181024 COMMANDO 750/850* 1½" (Kick-up) Pipe M.A.C.
(*MKIII Req's 4 #06-3990 Collet & 2 #06-3995 Gasket)

180133 BSA A50/A65/A75 1½" Pipe (Tabbed) M.A.C.

Original Style Exhaust with CROSS-OVER (Made in USA)

181355 TRI 500 Twin - '59-on Over Spigot Type 1.5" (M.A.C.)

181125 TRI 500 Twin - '71-on In-Head Type (M.A.C.)

181345 TRI T120/TR6 650 - '63-on Over Spigot (M.A.C.)



181362 Shown

NEW!

2 INTO 2 PIPE & MUFFLER SET (M.A.C.)

008-0133

TRI 650 1¾" Pipe

008-0233

TRI 750 II's 1½" Pipe (In-Head Type)

007-0133

COMMANDO 750 1½" Pipe

(Pre MKIII Requires 2 MKIII Collets & Washers)



008-0233 Shown



008-0420 Shown

"TT Special" Style with Megaphone MUFFLERS (M.A.C.)

NEW!

008-0320

TRI 500 1½" "In Head" Pipe

008-0620

TRI 650 1¾" "Over Spigot" Pipe

008-0420

TRI 750 1¾" "In Head" Pipe

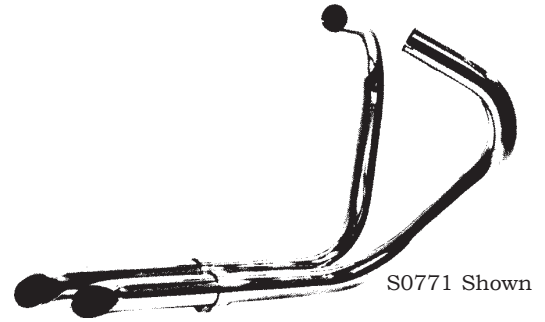


"TT Special" Style with CUSTOM MUFFLERS (M.A.C.)

W.A.P. Cycle Enterprises, Inc.

2-BEND "TURN-OUT" DRAG PIPES

- S0771 TRI 650 1 1/4" Pipe 2-BEND Drag Pipes**
Turn-Out "Slash-Cut" Tips
1-Piece Construction (Each Pipe)
Large Internal Baffle for a Great Sound
"Tucked-in" Right Hand Exit
Excellent Quality Chrome
(Designed to fit all Over-Spigot Tri 650/750 Twins)
An W.A.P. Cycle EXCLUSIVE Proudly MADE in U.S.A.
(order mounting clamps separately per application)



"TT" STYLE HEAD PIPES

(Req's 2 "P" Style Mounting Clamps)

- 181351 TRI 500 II's 1 1/2" Pipe (Straight-cut End) M.A.C**
181214¹ TRI 650 1 1/4" Pipe (Straight-cut End) M.A.C.
181420² TRI 650/750 II's 1 1/4" Pipe (Straight-cut End)
(In Head Type) M.A.C.

¹Fits 750II's when converted to "over the spigot" style.
Note: Once mounted, pipes will hang about 3/8" lower than stock
²Not "T140D"

181214 Shown

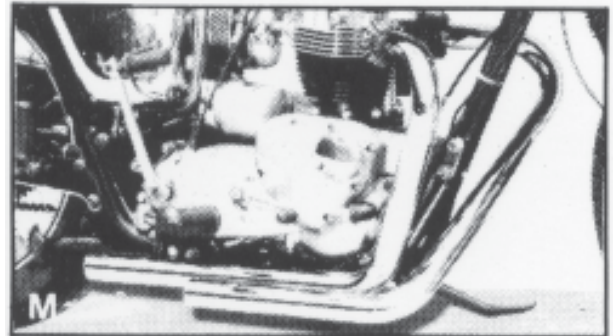


2-BEND "DRAG STYLE" PIPES

(Over-Spigot Type - Straight-Cut ends)

- PT107 TRI 500 II's 1 1/2" 2-BEND - Chrome**
An W.A.P. Cycle EXCLUSIVE
(Recommend Mounting Clamp (S0032) & Strap (S0204))
- PB120 BSA A65-A50-A70 1 1/2" 2-BEND - Chrome**
An W.A.P. Cycle EXCLUSIVE
(Recommend Mounting Clamp (S0032) & Strap (S0204))

PT108 Shown



3-BEND "SLASH-CUT" DRAG PIPES

- 008-0106* TRI 650 II's 1 1/4" Pipe 3-Bend (M.A.C.)**
008-0207* TRI 750 II's 1 1/4" Pipe 3-Bend (M.A.C.)

*(NO Bottom Mounting Clamp(s) Required)

008-0207 Shown



2 into 1 SYSTEMS

M.A.C. Bolt-on Exhaust System Designed For Improved Low and Mid Range. Retains Center Stand. Good Looking. Upswept Contour. Great Sound. Made in USA

TRIUMPH 650/750

NORTON COMMANDO

- 007-0103 750/850⁴ - Chrome**

⁴For MKIII Use with NORTON Pre-MK III Collet #06-06-3990 (4ea) & Gasket #06-3995 (2ea)

008-0203 Shown



M.A.P. Cycle Enterprises, Inc.

BSA

40-2845	C25, B25	1967-69
71-2176	B25	1971-72
70-9677	B44 VICTOR SPECIAL	1969-70
71-2177	B50	1971-73
68-2706/2712	A50, A65	1963-65
68-2789/2791	A50, A65	1966-68
70-9127/9130	A50, A65	1969-70
71-2043/2045	A65	1971-72
70-9460/9461	A75 (For "Flash Gordon" Type Mufflers)	1968-70
71-2455/2457	A75 (For Cone Type Mufflers)	1971-73

NORTON

06-7850/7851	ATLAS '63-68: 650SS '62-66 (Large Bore)	
06-7863/7864	ATLAS (Small Bore)	1963-68
06-0620/0621	COMMANDO ALL (Note: Avail. in "/P" Pattern)	1968-70
06-1320/1323	COMMANDO SCRAMBLER "S"	
06-1606/1607	COMMANDO 750 FASTBACK, ROADSTER, HI-RIDER	1971-74
	INTERPOL	1971-72
06-3299/3240	COMMANDO 750 INTERSTATE, INTERPOL	1972-74
06-3997/3998	COMMANDO 850 ROADSTER, HI-RIDER (Not MKIII)	1972-74
06-3999/4000	COMMANDO 850 INTERSTATE, INTERPOL (Not MKIII)	1972-74
06-5256/5257	COMMANDO 850 MKIII (Electric Start)	1975-76

TRIUMPH

71-2176	T25SS, T25T	1971-72
70-3992/3994	T1005TA, T100SS	1959-67
70-5325/5327	T90('64-67), T100R, T100T (Low Bracket)	1967
70-7637/7638	T90, T100R, T100T (Low Bracket)	1967-68
70-7020/7022	T100C	1967-68
71-0017/0019	T100C	1969-72
70-9662/9663	T100R, T100S, T100T	1969-71
71-2622/2623	T100R (Over Spigot Style)	1971-72½
71-2628/2629	T100R (In-head Style Only - w/1½" Outlet)	1972½-74
71-3803/3807	T100 (w/1-3/8" Outlet)	1974
71-3764/3765	TR5T	1973-74
70-3350/3426	5T, 6T	1955-59
70-3347/3350	T110	1954-57
70-3628/3632	T110, T120	1958-59
70-3632/4133	T110, T120	1960-62
70-4716/4718	6T, T120 ('64 TR6)	1963-64
70-5957/5958	T120, T120R, TR6, TR6R	1965-68
70-5957/8/P	as above - less expensive non British replacement	1965-68
70-7024/7026	TR6C	1967-68
71-0022/0024	TR6C (Over Spigot Style)	1969-72½
71-2334/2632	TR6C (In-head Style)	1972½-on
70-9363/9364	T120, T120R, TR6, TR6R (Over Spigot Style)	1968-72½
71-2636/2637	T120RV, TR6RV (In-head Style)	1972½-on
71-3506/3509	T140V, TR7RV (In-head Style w/1½" Outlet)	1973
71-3755/3758	T140V,E TR7RV (In-head Style w/1-3/8" Outlet)	1974-80
71-7224/7225	T140D "SPECIAL" 2 PIPES ONLY (NO COLLECTOR)	1979
70-7206	T140D COLLECTOR ONLY (NO PIPES)	1979
71-7507/7508	T140V OVER SPIGOT (Fits '73-80 w/MAP6310 Adapters)	1981-83
70-9463/SET	T150 (For "Flash Gordon" Type Mufflers)	1968-70
71-2451/SET	T150 (w/1½" OUTLET for SHORT CONE MUFFLER)	1971-72
71-3812/SET	T150 (w/1-3/8" OUTLET for LONG CONE MUFFLERS)	1973-74
70-7597	T150 MANIFOLD ONLY	1968-75
71-2907/SET	X75 "HURRICANE"	1973
71-4424/SET	T160	ALL
71-4407	T160 COLLECTOR ONLY	ALL

MAP7800*

MAP7805*

*Requires MAP7820 Special Conversion Mufflers

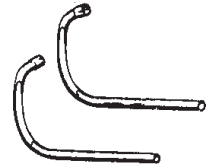
**Crossover is sold separately as well as any mounting Clamps - Please order separately

68-2734	BSA A50/A65/A70 (1½" Outlet)
68-2734/T6	TRIUMPH 650 (1½" Outlet)
68-2734/T5	TRIUMPH 500 II's (1½" Outlet)

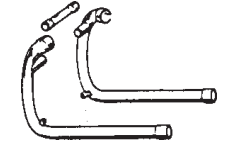
STOCK REPLACEMENT EXHAUST

Hi Level (Black)

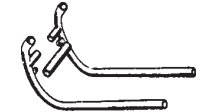
SET	Fits thru '70
SET	for Balance Tube**
SET	for Balance Tube**
SET	w/Manifold
SET	w/Manifold



for Balance Tube**
for Balance Tube**
for Balance Tube**



RH & LH "UP" Type
LH Exit for Balance Tube
for Balance Tube**
for Balance Tube**
for Balance Tube**
for Balance Tube**
3-Pieces



Bottom Mtg Tabs
Front Mtg Tabs
Front Mtg Tabs
RH & LH "UP" Type
LH Exit for Balance Tube
LH Exit for Balance Tube
for Balance Tube**
for Balance Tube**
for Balance Tube**
for Balance Tube**

for Balance Tube**
w/Manifold
w/Manifold
w/Manifold

SET 3 Pipes
SET w/Collector

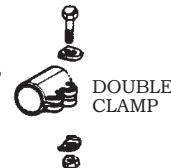
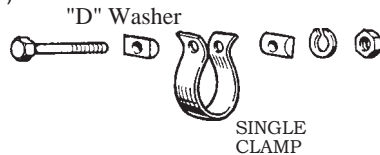
SIAMESE EXHAUST



W.A.P. Cycle Enterprises, Inc.

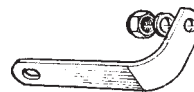
STOCK EXHAUST X-OVER PARTS

- 06-3991 CLAMP - X-OVER NORTON
- 70-9627 CLAMP - X-OVER DOUBLE TYPE TRI-BSA
- 70-7512 CLAMP - X-OVER/EXHAUST/MUFFLER (1-3/8" SINGLE TYPE)
- 70-7512/A CLAMP - X-OVER/EXHAUST/MUFFLER (1-3/8" SINGLE TYPE Complete)
- 70-5874 CLAMP - EXHAUST/MUFFLER (1-1/2" SINGLE TYPE for 1-3/8" muffler)
- 70-5874/A CLAMP - EXHAUST/MUFFLER (1-1/2" COMPLETE)
- 70-2271 CLAMP - EXHAUST/MUFFLER (1-5/8" SINGLE TYPE for 1 1/2" muffler)
- 70-2271/A CLAMP - EXHAUST/MUFFLER (1-5/8" COMPLETE)
- 70-3767 CLAMP - EXHAUST/MUFFLER (1-7/8" SINGLE TYPE for 1 3/4" muffler)
- 70-3767/A CLAMP - EXHAUST/MUFFLER (1-7/8" COMPLETE)
- 70-9368 X-OVER PIPE - TRI DOUBLE CLAMP TYPE
- 70-9888 X-OVER PIPE - TRI SINGLE CLAMP TYPE
- 70-9888/SP X-OVER PIPE - TRI NEW "PINCH DESIGN" NO CLAMPS NEEDED
- 06-3994 X-OVER PIPE - NORTON COMMANDO
- 70-3768 D-WASHER for SINGLE CLAMP (ALL SINGLE CLAMPS) (Req's. 2)
- 70-9626 BOLT HOLE CAP for DOUBLE CLAMP
- 14-0204 BOLT for DOUBLE CLAMP
- 14-0901 NUT for DOUBLE CLAMP
- 14-0219 BOLT for SINGLE CLAMP (All Single Clamps) (Req's 1)
- 14-1302 NUT for SINGLE CLAMP (All Single Clamps) (Req's 1)



STOCK EX-PIPE MOUNTING BRACKETS

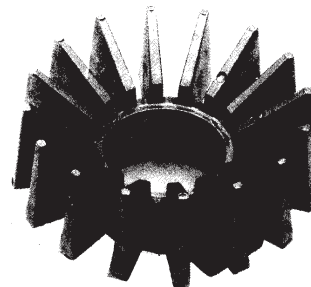
- 70-7641 LH "L" MOUNTING BRACKET TRI 500 II's '68-on
- 70-7642 RH "L" MOUNTING BRACKET TRI 500 II's '68-on
- 70-6857 LH/RH "L" MOUNTING BRACKET TRI 650/750 II's (Unit)



CUSTOM HEADER CLAMPS

FINNED ALLOY





MAP6089 Norton Large Fin custom Conversion (fits over stock)



"NESS" STYLE CHROMED STEEL



S0407 Finless "NESS STYLE" SHOW CHROME (1 3/4" ID) pr. These "Super Clamps" are Designed to Replace Stock Triumph Export Clamps for that Custom Look. Can Be Used With Any 1 3/4" O.D. Pipe. Made From Heavy 1/8" Wall Cold Rolled Steel. Beautifully Chrome plated includes a Stainless Steel Allen Screw.

STOCK EXHAUST HEADER CLAMPS/PARTS				
MAKE/MODEL:				
	FINNED CLAMP	CLAMP BOLT	CLAMP WASHER	CLAMP NUT
A50/A65 ALL	42-2848	14-0609	29-0541	14-1301
T100 Chrome STEEL (CEI)	-----	70-0409	70-8860	-----
T100 Chrome STEEL (UNF)	70-4947	70-6744	70-8860	-----
T100 Push-In TYPE	71-2466	21-0778	-----	21-2186
T120 Chrome STEEL thru '68	70-4501 ¹	70-0409	70-8860	-----
T120 Chrome STEEL '69-on	71-0216 (/A ³)	70-6744	70-8860	-----
T120/T140 Push-In TYPE	71-2465*	21-2230	60-2416	21-0778
T150 Chrome STEEL	70-6743	70-6744	70-8860	-----
T160 Chrome STEEL	71-4459	70-6744	-----	-----
	FINNED COLLAR	RETAINING COLLET	CRUSH GASKET	LOCK TAB
750 COMMANDO	06-2464	-----	06-3995	06-2412
850 COMMANDO	06-2464	06-3990	06-3995	06-2412
850 COMMANDO MKIII	06-3988	06-5260	06-3995 ²	-----

¹Note: Use 70-4501/P (tai) or English #71-0216 (unf) Late Type Clamp, #14-0219 (unf) Bolt & #70-8860 Washer or #71-0216/A for a Complete Assembly

²Note: Also Requires CONICAL Hard WASHER #06-5259

³Note: English Made Complete Assembly Inc. Bolt, Nuts, & "D" Washers

M.A.P. Cycle Enterprises, Inc.

CUSTOM MUFFLERS

MEGAPHONE MUFFLERS - M.A.C.

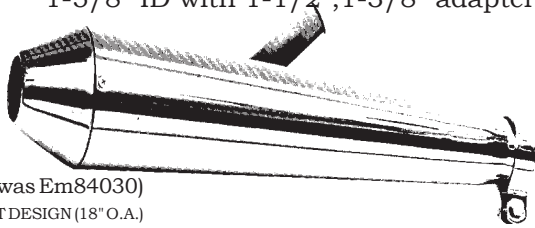
- 009-0413 MUFFLERS** - 1-3/8" Bolt-On Kick-Up Style. Perfect for "Short Rod" T140/TR7 Triumph Twins 1973-on, inc. Brackets. (pr)
- 001-0113 MUFFLERS** - 1-1/2" Bolt-On Kick-Up Style. Perfect for Older Triumphs, inc Brackets (pr)
- 009-0513K MUFFLERS** - 1 3/4" Bolt-On Kick-Up (pr)
- 009-0312 MUFFLERS** - 1 1/2" Bolt-On Straight (pr)
- 009-0512 MUFFLERS** - 1 3/4" Bolt-On Straight (pr)



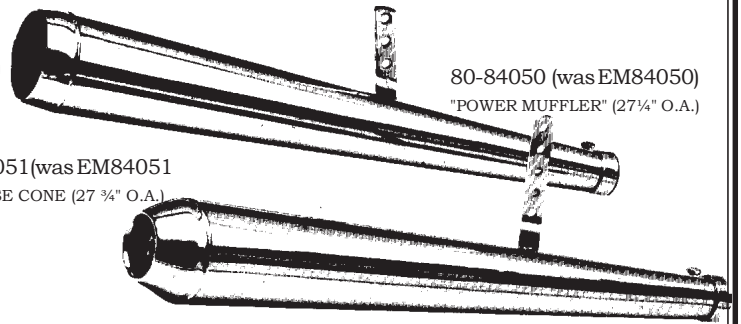
DUNSTALL REPLICAS

Universal "Dunstall" Style Muffler Replica. Includes Clamps and Sliding Bracket. Nice Chrome. Sold Each.

- 80-84030 MUFFLER** - Reverse Cone 18" OA (ea)
1-3/4" ID with 1-5/8", 1-1/2", 1-3/8" adapters
- 80-84051 MUFFLER** - Reverse Cone 27 3/4" OA (ea)
1-5/8" ID with 1-1/2", 1-3/8" adapters
- 80-84050 MUFFLER** - Classic "DUNSTALL" 27" OA (ea)
1-5/8" ID with 1-1/2", 1-3/8" adapters



80-84030 (was Em84030)
SLEEK-SHORT DESIGN (18" O.A.)

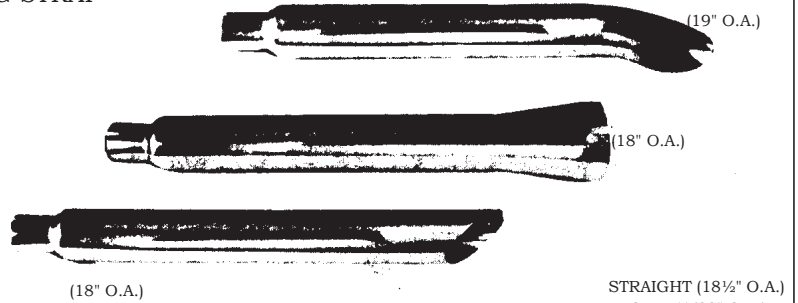


80-84051 (was EM84051)
REVERSE CONE (27 3/4" O.A.)

80-84050 (was EM84050)
"POWER MUFFLER" (27 3/4" O.A.)

U.S.A. MADE M.A.C. MUFFLERS w/SLIDING STRAP

- 009-0310 MUFFLER** - Turnout - 1 1/2" (ea.)
- 009-0510 MUFFLER** - Turnout - 1 3/4" (ea.)
- 009-0311 MUFFLER** - Flare Tip - 1 1/2" (ea.)
- 009-0511 MUFFLER** - Flare Tip - 1 3/4" (ea.)
- 009-0314 MUFFLER** - Slash Cut - 1 1/2" (ea.)
- 009-0514 MUFFLER** - Slash Cut - 1 3/4" (ea.)



(19" O.A.)

(18" O.A.)

(18" O.A.)

STRAIGHT (18 1/2" O.A.)
UPSWEPT (22" O.A.)

- 903-1321 MUFFLER** - Taper Tip - 1 1/2" KICK-UP (pr)
- 905-1321 MUFFLER** - Taper Tip - 1 3/4" KICK-UP (pr)



TAPER TIP (Universal) MUFFLER

- 80-25300 MUFFLER** - Taper Tip 1 1/2" & 1 3/4" Chrome (Inc. Adapter, Sliding Strap & Clamp) Sold ea. (Emgo)



Sliding Bracket

(16" O.A.)

Inc. Clamp

SLASH-CUT (Universal) MUFFLER

- 80-45700 MUFFLER** - Slash Cut 1 1/2" & 1 3/4" Chrome (Inc. Reducer & Mtg. Strap) Sold ea. (Emgo)



(16" O.A.)

SHORTY (Universal) MUFFLER

- 80-03310 MUFFLER** - Reversible to fit both 1 1/2" & 1 3/4" CHROME Repackable Glass-Pack Inc. Mtg. STRAP (Must Order Appropriate Pipe Clamp Separately) Sold ea. (Emgo)



EM033
(12" O.A.)

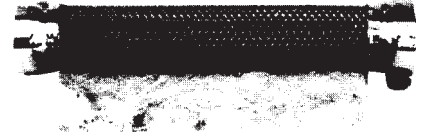
CHROME EXTENSION

- S0627 TURN OUT** 1-3/8" BAFFLED (MCM) CHROME Sold ea.
- 80-75130P FISHTAIL** 1-7/8" (1-13/16" ID) x 29" CHROME (Emgo) Sold ea.

W.A.P. Cycle Enterprises, Inc.

GLASS PACK INSERTS

- 009-0217 INSERT - Glass Pack for 1-3/8" Pipes** (M.A.C.) ea.
009-0317 INSERT - Glass Pack for 1-1/2" Pipes (M.A.C.) ea.
009-0417 INSERT - Glass Pack for 1-5/8" Pipes (M.A.C.) ea.
009-0517 INSERT - Glass Pack for 1-3/4" Pipes (M.A.C.) ea.



GLASS PACKS (REPACKABLE)

"CYCLE SHACK" Glass Pack, Slip-In Style. Features Easy to Replace Glass Packing. Straight-Through for a Good Non Restrictive Throaty Sound. Made in the U.S.A.

BAFFLES

- 80-78934 1-5/8" BAFFLE - Fits 1-3/4 x 4" OD PIPE** (ea.)
80-78943 1-5/8" BAFFLE - Fits 1-3/4 x 8" OD PIPE (ea.)
80-78912 1-3/8" BAFFLE - Fits 1-1/2 x 4" OD PIPE (ea.)
80-78921 1-3/8" BAFFLE - Fits 1-1/2 x 8" OD PIPE (ea.)



PIPE/MUFFLER REDUCERS

- 80-47310 REDUCER INSERT - Fits 1-3/4", 1-5/8", 1-1/2"**
 Convert "From/To" Any Size Listed. 3-Piece (size) Set

CHROME EX-PIPE CLAMPS

*Note: Denotes Heavy Duty

BODY CLAMP (5" STRAP)

- S0021 1-3/8"
 80-62320 1-1/2"
 S0023 1-5/8"
 80-62322 1-3/4"
 S0024 1-3/4"
 80-62323 1-7/8"
 S0025 1-7/8"



CENTER CLAMPS

- 80-62340 1-1/2"
 80-62341 1-5/8"
 80-62342 1-3/4"



END (P) CLAMPS

- S0012H* 1-1/2"
 S0013H* 1-5/8"



DOUBLE CLAMP

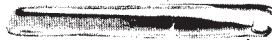
- S0032 1-1/2"
 S0034 1-3/4"



CHROME STRAPS

Hi-Quality Chrome Clamps. Great For Mounting Drag/TT/ST Exhaust Pipes. Sold Ea.

- S0200 6" LONG 1-HOLE FLAT STRAP w/BOLT
 S0204 3" LONG 1-HOLE FLAT STRAP w/BOLT
 S0209 Offsert (Chrome) Great for mounting side pipes



STOCK MUFFLERS*

(MADE IN U.K.)

BSA

- 68-2732* A50/A65 '63-70 (uk)
 71-2382 A65/A70 '71-73 CONE STYLE (uk)



TRIUMPH

- 71-2017 T100 (LH) '59-74 1 1/2" INLET (uk)
 71-2018 T100 (RH) '59-74 1 1/2" INLET (uk)
 70-4949 TR6, T120 '63-66 1 1/2" INLET (uk) Long Body
 70-5866* TR6R-T120R '66-70 USA) 1 1/2" INLET (uk) Short Body
 70-5866/A SAME AS 70-5866 EXCEPT HAS 1 3/4" INLET (uk)
 MAP7820 T120 MUFFLER to Fit T140
 (Reqs. MAP7800 or MAP7805 Pipe Set)



70-5866

- 06-1978/T* "ROADSTER" STYLE 1 1/2" INLET (Nice for Triumph) (uk)
 71-2382 T120/TR6/T140/TR7/T150 '71-73 Short Cone Style (uk)



71-2382

- 71-4159* T140/TR7 1-3/8" INLET '74-on Long Reverse Cone (uk)

- 70-9036 T150/BSA III's '69-70 "ROCKET" Style (LH) (uk)
 70-9037 T150/BSA III's '69-70 "ROCKET" Style (RH) (uk)
 71-2382 T150/BSA III's '71-73 Short cone Style (uk)
 71-2858/7/6 HURRICANE Set of 3 (uk)
 71-3723 T150 1-3/8" Inlet ('74 Only)
 71-4402/LH T160 (LH) (uk)
 71-4402/RH T160 (RH) (uk)



71-4159



70-9036/7

NORTON

- 06-1978 * COMMANDO 1-3/8" INLET (uk)
 06-1978/S COMMANDO 1-3/8" INLET (SMOOTH POLISHED WELDS) (uk)
 06-1978/T COMMANDO STYLE 1 1/2" INLET (CAN ADAPT to TRI) (uk)
 06-4170 MKIII COMMANDO (O.E.) (NOT SHOWN) (uk)



71-4402



06-1978

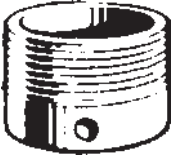
7165 30th Avenue North

St. Petersburg, Florida 33710

Website: www.mapcycle.com Email: sales@mapcycle.com Phone (727) 381-1151

M.A.P. Cycle Enterprises, Inc.

EXHAUST CONVERSION & REPAIR SPIGOTS



Thread-In Conversion (We do it)

Convert In-Head Style Pipes to Over-the-Spigot Style. **M.A.P. Cycle** Threads the Port Down to Existing Step to Help Prevent Stripped Threads then Install our Custom Ex-Long Steel Insert 70-9516/C. Allows Use of Early Over-the-Spigot Type Pipes for a Greater Ex-Pipe Selection.

Note: 500 Conversion uses stock steel spigots

MAP6400 Triumph 650/750II's - Convert In-head Pipes to 1-3/4" spigot
MAP6401 Triumph 500II's - Convert In-head Pipes to 1-3/4" spigot
70-9516/C SPIGOT ONLY for TR6./T120/TR7/T140 In-Head Conversion (ea.)

Weld-In Conversion (You do it)

Convert In-head Style Pipes To Over-the-Spigot Type. Allows Use Of Early Over Spigot Type Pipes For Greater Selection And No Exhaust Leaks. Weld-in Only. Aluminum. Sold Ea.



MAP6310 Triumph 650/750II's 1-3/8" In-Head to 1-5/8" Spigot Type.
MAP6340 Triumph 500II's Convert 1 1/4" In-head Pipes to 1 1/2" Spigot Type.
MAP6320 BSA A50/A65/A7 1 1/2" Exhaust to 1-5/8" (1 3/4" Od Pipe).

Weld-In Repair (You do it)

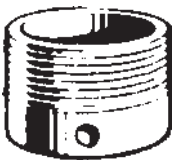
MAP6330 REPAIR SPIGOT (Aluminum) - Tri 500 II's ea.
MAP6300 REPAIR SPIGOT (Aluminum) - Tri 650 II's ea.

Helicoil Repair (We do it)

Utilizes A Special Stainless Steel Helicoil insert to Renew Damaged Exhasut Threads. Price Includes Machine Work. Customer Must Send Clean Head to **M.A.P. Cycle** for this work.

MAP6450 TRIUMPH 650 thru '71 ALL ALLOY HEADS
(Requires NEW SPIGOT #70-9516) (Ea. Port)
MAP6459 HELICOIL INSERT ONLY Sold Ea. (Note: Used Only as a Repair for a damaged MAP6450)

TRIUMPH O.E SPIGOTS



O.E. Thread-In Spigots

70-9510 SPIGOT ONLY - TRI 500 ea
70-9516 SPIGOT ONLY - TRI 650 (1-3/4" Long) ea.
70-9516/C SPIGOT ONLY - TRI 650/750 II's (1-3/4" Long for in-head conversion or locking nut) ea.
70-9516/LK LOCK RING ONLY (ea.) Use with 70-9516/C to help prevent "Loose" exhaust spigots common to any T120/T140. Retains screw-in spigots from the added stresses of Racing.

NORTON EXHAUST THREAD REPAIR

M.A.P. Cycle bores out the original stripped threads, re-threads the port and installs their custom insert. This special 7075 Externally and Internally threaded alloy insert allows the use of the O.E. Exhaust clamp (Purchase New O.E. clamp to validate warranty). Should your new insert ever strip, simply unthread the old insert and screw-in a new one. Head threads will not ever strip, thus assuring a life long repair. Other than the first time, head removal or any other machine work should Not again be required.

Note: Heads with previously Welded-in Inserts Will Be Charged Extra if even repairable at all. Extra Charges Depend On Work Required To Correctly Repair Port - Inquire!

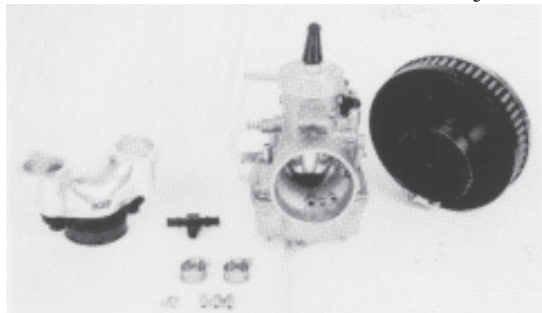
MAP6402 NORTON ATLAS/COMMANDO Exhasut Repair (Both Exhasut Port - *Best Value!*)
MAP6410 NORTON 750-850 Special Insert Only (Note: Used Only as a Repair for a damaged MAP6402)

M.A.P. Cycle Enterprises, Inc.

MIKUNI CARB/CONVERSION KITS

COMPARE: Then DEMAND M.A.P. - The MOST COMPLETE Carb Kits Available

Please Note: our Kits are Constantly being REJETTED to Meet with Ever Changing Fuel Characteristics!



MAP0320

TRIUMPH "TR6"- "TR7" SINGLE CARB KITS*
TR6-TR7 Kits Feature: Flow Bench Derived Polished MAP Intake Manifold, Manifold Adapter, Prejetted Carb, Chrome Backed Air Filter, Gas Lines, Fittings/Clamps, Special MAP 90° Throttle Cable, Extra Tuning Jets and Instructions.

MAP0318 Single 30mm Carb

MAP0319 Single 32mm Carb

MAP0320 Single 34mm Carb

*NOTE: Must Remove or Modify Air Box on TRI/BSA '71-on O.I.F. Models



MAP0340

TRIUMPH "BONNEVILLE" TWIN CARB KITS*
Bonneville Kits Feature: MAP Intake Manifolds, Manifold Adapters, Prejetted Carb, Chrome Backed Air Filters, Gas Lines, Fittings/Clamps, Complete Special MAP Throttle Cable(s), Extra Tuning Jets and Instructions.

MAP0334¹ to '64 26mm Carbs w/1-1/4 x 20 TPI Manifolds

MAP0335¹ to '64 30mm Carbs w/1-1/4 x 20 TPI Manifolds

MAP0339¹ '64-'68 1/2 30mm Carbs w/1-3/8x20 TPI Manifolds

MAP0340¹ '64-'68 1/2 32mm Carbs w/1-3/8x20 TPI Manifolds

MAP0345¹ '64-'68 1/2 34mm Carbs w/1-3/8x20 TPI Manifolds

MAP0359¹ '68 1/2-'72 1/2 30mm Carbs w/Coarse 1-3/8 x 16 TPI Manifolds (2 Cables)

MAP0350¹ '68 1/2-'72 1/2 32mm Carbs w/Coarse 1-3/8 x 16 TPI Manifolds (2 Cables)

MAP0355¹ '68 1/2-'72 1/2 34mm Carbs w/Coarse 1-3/8 x 16 TPI Manifolds (2 Cables)

MAP0369¹ '72 1/2-'75 30mm w/Bolt-On Manifolds. (2 Cables)

MAP0360¹ '72 1/2-'75 32mm w/Bolt-On Manifolds. (2 Cables)

MAP0364¹ '72 1/2-'75 34mm w/Bolt-On Manifolds. (2 Cables)

¹NOTE: Add "/1" to the part numbers above if you require a 1 to 2 cable assembly rather than 2 individual cables

MAP0369/1 '76-78 (Splayed Head only) 30mm w/Bolt-On Manifolds. (1 to 2 Cable)

MAP0360/1 '76-78 (Splayed Head only) 32mm w/Bolt-On Manifolds. (1 to 2 Cable)

MAP0364/1 '76-78 (Splayed Head only) 34mm w/Bolt-On Manifolds. (1 to 2 Cable)

*NOTE: Must Remove or Modify Air Box on TRI/BSA '71-on O.I.F. Models

MAP0301 TRIUMPH TR5 500cc II's (Single 26mm Carb bolts to OE single carb manifold) 6-1/2" OA Complete Kit!

MAP0405 BSA A50/65 Single 30mm Carb. (Use with stock BSA single carb manifold or many single's) 6 1/2" OA

MAP0408 BSA A50/65 Twin 30mm Carb. Complete Kit including 1 to 2 Cable!

MAP0410 BSA A50/65 Twin 32mm Carb. Complete Kit including 1 to 2 Cable!

Interested? Let us know! (currently not in production)

Troubled with costly MKII Twin "Parallel Port" Twin Carb T140 repairs and inconsistent operation? Convert to a Trouble-Free Single Mikuni Carb for Greater Throttle Response, Longevity and Overall Simplicity. MAP0325 Includes air filter. May be attached to stock box (DIY). Must drill & tap 4 holes. Installation Tools not included

MAP0325 T140E/T140 '79-on Parallel Port to Single 30mm Mikuni Conversion (Stk throttle req's MAP0554 cable)

TRIDENT/ROCKET III KIT

Sorry
Photo Not Available

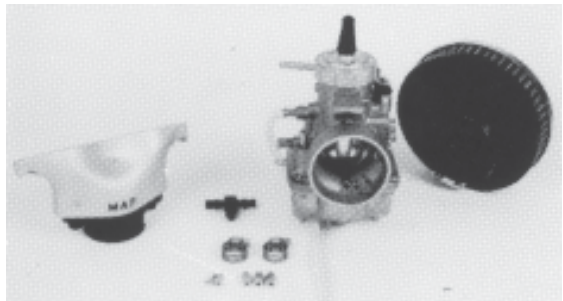
TRI-BSA III's 26mm Prejetted Carbs, Chrome Backed Air Filters, Gas Lines, Fittings/Clamps, 1 to 3 Throttle Cable, Extra Tuning Jets and Instructions.

Note: Kits Do NOT use OE Linkage

MAP0370 DISCONTINUED - Please See MAP0372

MAP0372 T150/T160/Rocket III (inc. MAP0596 Air Filters)

NORTON 750-850 COMMANDO KIT



MAP0380

COMMANDO SINGLE MIKUNI CONVERSION KIT
Feature: Flow Bench Derived Special MAP Intake Manifold, Manifold Adapter, Prejetted Carb, Special Air Filter (36 & 38 mm kits require some mods), Special Throttle Cable, Extra Tuning Jets, Gas Lines, Fittings/Clamps, & Instructions.

Note: MKIII w/stock throttle - Order MAP0554 special cable

MAP0380 Single 34mm Carb Conversion Kit (Pre MKIII)

MAP0381 Single 34mm Carb Conversion Kit (MKIII Throttle)

MAP0382 Single 36mm Carb Conversion Kit (Pre MKIII)

MAP0383 Single 36mm Carb Conversion Kit (MKIII Throttle)

MAP0384 Single 38mm Carb Conversion Kit (Pre MKIII)

MAP0390 TWIN CARB COMMANDO w/32mm Carbs, Special Manifolds, Adapters, 1 to 2 Cable & Extra Jets

MAP0395 TWIN CARB COMMANDO w/34mm Carbs, Special Manifolds, Adapters, 1 to 2 Cable & Extra Jets

7165 30th Avenue North

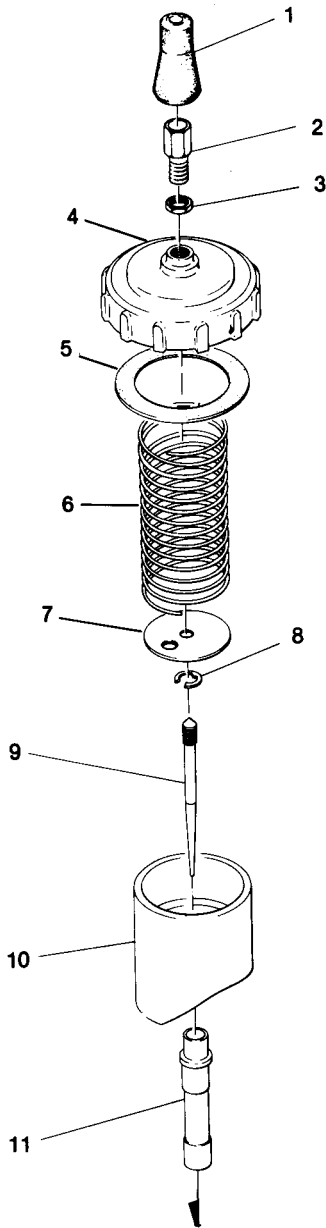
St. Petersburg, Florida 33710

Website: www.mapcycle.com

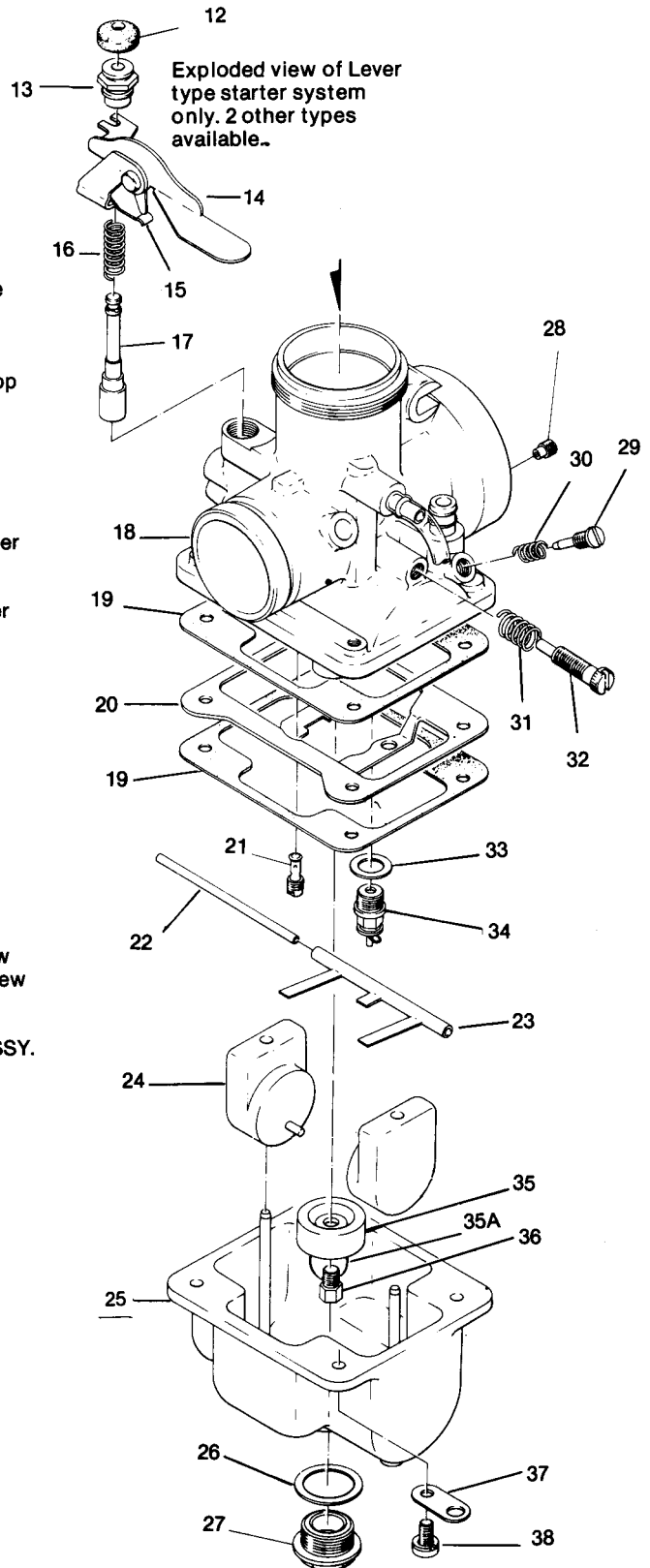
Email: sales@mapcycle.com

Phone (727) 381-1151

EXPLODED VIEW SPIGOT TYPE CARBURETOR



- ITEM NUMBER and DESCRIPTION**
1. RUBBER CAP, throttle cable
 2. CABLE ADJUSTER
 3. LOCKNUT, cable adjuster
 4. TOP, mixing chamber
 5. GASKET, mixing chamber top
 6. SPRING, throttle valve
 7. PLATE, spring seat
 8. CLIP, needle positioning
 9. NEEDLE
 10. THROTTLE VALVE (SLIDE)
 11. NEEDLE JET
 12. RUBBER CAP, starter plunger
 13. FITTING, starter plunger
 14. LEVER, starter
 15. SPRING PLATE, starter lever
 16. SPRING, starter plunger
 17. PLUNGER; starter
 18. BODY, mixing chamber
 19. GASKET, float bowl
 20. BAFFLE PLATE, float bowl
 21. PILOT JET
 22. PIN, float arm hinge
 23. ARM, float
 24. FLOAT
 25. BOWL, float
 26. WASHER, main jet plug
 27. PLUG, main jet
 28. AIR JET
 29. AIR ADJUSTING SCREW
 30. SPRING, air adjusting screw
 31. SPRING, idle adjusting screw
 32. IDLE ADJUSTING SCREW
 33. WASHER, needle valve
 34. NEEDLE VALVE & SEAT ASSY.
 35. RING, main jet
 - 35A. WASHER
 36. MAIN JET
 37. PLATE, vent tube anchor
 38. SCREW, float bowl



MIKUNI CARBURETOR

(For Part Numbers - See Page 39)

QUICK CROSS REFERENCE & APPLICATION CHART

ITEM NUMBER and DESCRIPTION	VM26	VM28	VM30	VM32	VM34	VM36	VM38	VM40	VM44
1. RUBBER CAP, throttle cable				↔	↔	↔	↔		
2. CABLE ADJUSTER				↔	↔	↔	↔		
3. LOCKNUT, cable adjuster				↔	↔	↔	↔		
4. TOP, mixing chamber	VM26/56				↔	↔	↔		
5. GASKET, mixing chamber top						↔	↔		
6. SPRING, throttle valve	VM28/257		VM34/50		↔	↔	↔	↔	
7. PLATE, spring seat	VM28/132			↔	↔	↔	↔		
8. CLIP, needle positioning				↔	↔	↔	↔		
9. NEEDLE	#5 Series								
10. THROTTLE VALVE (SLIDE)	VM28/156		VM34/110 Left		VM32/65 -Right	VM36/36	VM38/24	VM44/2	#7 Series
11. NEEDLE JET	VM28/86(182) | VM30/38(169)				VM34/159 - (Size)		VM34/17(166)		VM44/10(224)
12. RUBBER CAP, starter plunger				↔	↔	↔	↔		
13. FITTING, starter plunger	VM26/116					VM20/456			
14. LEVER, starter	VM28/135 | VM28/497				VM28/124		VM32/53		VM36/58
15. SPRING PLATE, starter level	VM26/09						VM32/17		
16. SPRING, starter plunger				↔	↔	↔	↔		
17. PLUNGER, starter					VM16/42				VM18/144
18. BODY, mixing chamber									
19. GASKET, float bowl		VM28/129			VM34/86		VM36/20		VM36/20
20. BAFFLE PLATE, float bowl					VM34/72		VM36/40		VM44/12
21. PLOT JET				↔	↔	↔	↔		
22. PIN, float arm hinge				↔	↔	↔	↔		
23. ARM, float	VM28/166				VM34/73				VM36/15
24. FLOAT	VM28/164				VM34/61				VM24/236
25. BOWL, float					VM34/68		VM36/07		VM44/04
26. WASHER, main jet plug	VM28/134				4/053 (Paper)	VM28/253 (O'Ring)			B34/52
27. PLUG, main jet	VM28/133		VM28/053 (O'Ring) or VM34/042 (Washer Type)			VM36/14	VM38/08		VM28/133
28. AIR JET				↔	↔	↔	↔		
29. AIR ADJUSTING SCREW				↔	↔	↔	↔		
30. SPRING, air adjusting screw				↔	↔	↔	↔		
31. SPRING, idle adjusting screw				↔	↔	↔	↔		
32. IDLE ADJUSTING SCREW	VM24/224		VM28/142		VM24/224		VM22/171		VM24/224
33. WASHER, needle valve	VM26/25				B34/52				
34. NEEDLE VALVE & SEAT ASSY.	VM26/26				VM34/39				
35. RING, main jet	VM28/228		VM36/17						VM28/228
36. MAIN JET				↔	↔	↔	↔		
37. PLATE, vent tube anchor	VM15/164			↔	↔	↔	↔		
38. SCREW, float bowl	CW2=0416			↔	↔	↔	↔		
NS. Vent Line				↔	↔	↔	↔		

TUNING MIKUNI CARBURETORS

This section is a guide for users of Mikuni carbs to learn the basic methods of tuning and adjusting to obtain top performance and fuel economy. The arrows in the drawings in this section show the direction in which air, fuel, and air-fuel mixture flows.

Information herewith obtained from Mikuni engineering data and manuals.

1. CARBURETOR FUNCTION

The function of a carburetor is to deliver a combustible air-fuel mixture to the engine. In order to do this, it must first break the fuel into tiny particles (in the form of vapor) and then mix the fuel with the proper ratio of air so it can burn without leaving excess fuel or air in the combustion chamber.

2. AIR-FUEL MIXTURE (Fig. 1)

The air-fuel ratio is generally expressed by its relative weight proportion. For example, the amount of air required for complete combustion of 1 gram of fuel under normal conditions is:

$$\text{Mixture ratio} = \frac{15 \text{ grams of air}}{1 \text{ gram of fuel}} \dots \text{theoretical mixture ratio}$$

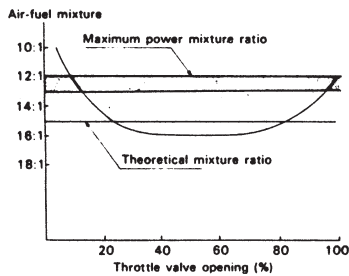


Fig. 1

Varying mixture ratios are required for the engine depending on operating conditions. Although the required mixture ratio varies more or less with the type of engine, its cooling efficiency, etc., the mixture ratio shown in Fig. 1 is required for ordinary engines. In the high speed range the ratio of about 12 to 13 grams of air for 1 gram of fuel produces the maximum output. However, in the case of an engine with low cooling efficiency, a somewhat richer mixture (10 to 12 grams of air against 1 gram of fuel) may be required to prevent seizure of the engine.

3. FUNCTION AND CONSTRUCTION

MIKUNI VM-TYPE CARBURETORS

Motorcycle and snowmobile engines are operated under a wide range of conditions, from idling with the throttle valve (Fig. 2 (1)) remaining almost closed, to the full load (the maximum output) with the throttle valve fully opened. To meet the requirements for proper mixture ratio under these varying conditions, a - low-speed fuel system (the pilot system) and a main fuel system (the main system) are provided in Mikuni VM-type carburetors.

A - The Pilot System

Low-Speed Fuel System (Fig. 2 and Fig. 3)

Since the engine is operated with the throttle valve almost closed at idling or in the low speed range, the velocity of air flowing through the needle jet (2) is slow. Consequently, a vacuum strong enough to draw fuel from the needle jet in the main fuel system is not created. The fuel supply during this low speed operation is controlled by means of the pilot outlet (3) and the bypass (4) that are situated near the intake port. At idle, when the throttle valve is slightly opened, fuel metered by the pilot jet (5) is mixed with air adjusted in a proper amount by the air screw (6) and is broken into fine particles (vapor)

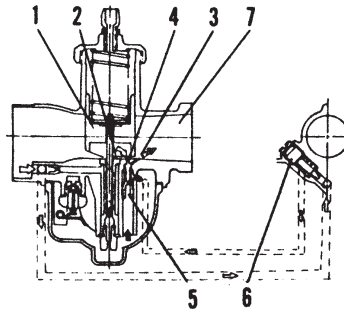


Fig. 2

The mixture is again mixed with air coming from the bypass and is drawn into the pilot outlet to mix with air flowing through the main bore (7). The fuel mixed with air at this stage then goes into the engine. When the throttle valve is opened slightly during low speed operation, the pilot outlet alone cannot supply the required fuel and the shortage has to be made up with fuel injected from the bypass. The adjustment of the mixture ratio during this stage is made by the pilot jet and the air screw. In the case of a two-hole type fuel system (Fig. 3). While at low speed operation if full throttle is initiated a similar shortage of fuel exists and during this transition from low to medium or low to high the fuel again has to be injected from the bypass until enough vacuum can be created to draw fuel from the main fuel system.

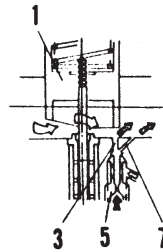


Fig. 3

B - Main Fuel System

On Mikuni VM-type carburetors, the pilot system and the main system are of independent construction.

The fuel flow in these two systems is shown in Fig. 4. Although there are two types of main systems, the *primary type* is the most widely used on 2-cycle engines, and on many 4-cycle engines. The *bleed type* system is normally used for rotary valve 2-cycle engines, and on some 4-cycle applications.

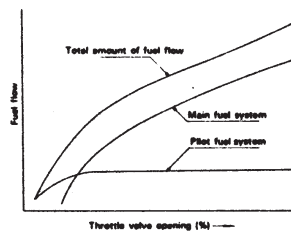


Fig. 4

Primary Type (Fig. 5)

When the throttle valve is opened about 1/4 or more, the velocity of air flowing through the needle jet (10), and the vacuum, increases to the point where fuel can be sucked in. When the opening of throttle valve (1) is between a quarter and three quarters, fuel passes through the main jet (9) and, after being metered in the clearance between the needle jet and the needle (11), it is mixed with air that is metered by the air jet (12) and atomization of the fuel is accelerated.

The mixture is then injected, after mixing with air flowing through the main bore (7), to the engine in the optimum air-fuel ratio. During this process of operation, the cutaway of the throttle valve serves to control the vacuum on the needle jet, thereby regulating the amount of fuel that is injected to the engine. When the throttle valve is opened more than three quarters for high speed operation, fuel is metered chiefly by the main jet (9).

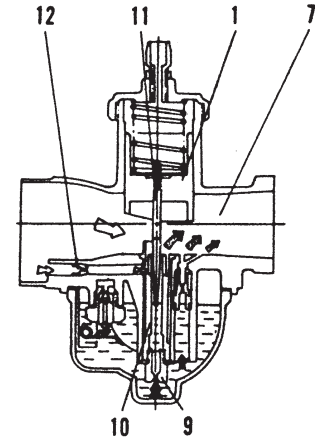


Fig. 5

C - Float System (Fig. 6)

The float system maintains a constant level of fuel in the bowl. Fuel flows through the needle valve (14) and enters the float chamber (15). As the fuel enters the float chamber, the float (16) moves upward to its pre-determined level because of buoyancy. When the fuel reaches the pre-determined level, the needle valve begins to close due to the lever action of the float arm rising, thus shutting off the supply of fuel.

The fuel level in the bowl controls the amount of fuel which is metered to create the optimum fuel mixture. For example, too high a level allows more fuel than necessary to leave the needle jet enriching the mixture. Too low a level results in a leaner mixture, as not enough fuel leaves the needle jet. Therefore, the pre-determined fuel level should not be changed.

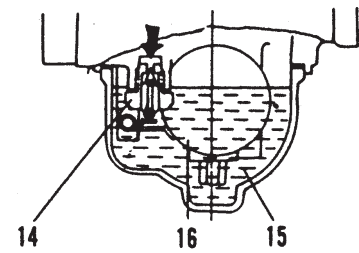


Fig. 6

D - Starter System (Fig. 7)

In place of a choke a starter system is employed for Mikuni carburetors. In a starter system, fuel and air for starting the engine are metered by entirely independent jets. The fuel metered by the starter jet (17) is mixed with air and is broken into tiny particles in the emulsion tube (18). The mixture then flows into the plunger area (19), mixes again with air coming from the air intake port and is delivered to the engine in the optimum air-fuel ratio through the fuel discharge passage (21). The starter is opened and closed by means of the starter plunger (22). Since the starter system is constructed to utilize the vacuum of the inlet passage (20), it is important that the throttle valve is closed, when starting the engine.

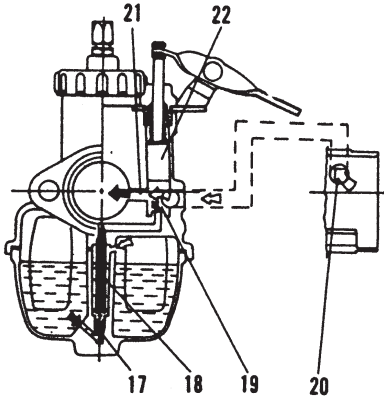


Fig. 7

4. TUNING & CARBURETOR SELECTION

Tuning normally means a process of accurate and careful calibration to obtain maximum engine performance, and an economical improvement in fuel consumption. Improvement of power output of the engine depends on the amount of air drawn into the cylinder per unit time. A practice generally followed for engine tuning includes:

- (1) To improve suction efficiency and exhaust efficiency by remodeling the intake and exhaust system
- (2) To improve combustion efficiency by raising the compression ratio
- (3) To increase the number of revolutions by adjusting the ignition timing

Generally speaking carburetor tuning is done in four stages: idle, low speed, mid-range, and high speed. On the Mikuni each stage is controlled by a separate component simplifying the tuning process.

The function of the carburetor is to prepare and supply a mixture of fuel vapor and air to the engine cylinders in the proper ratio for efficient combustion.

A — Carburetor Main Bore Size SELECTION

One of the prerequisites for improving the output is to use a carburetor with as large a main bore as possible. However, a large main bore alone does not necessarily improve the output. (Bigger is not always better.) As shown in Fig. 8, it is true that a large main bore improves the power output in the high speed range. However in the slow speed range, the output rather drops. The main bore size selection should be determined by various factors such as: (1) whether the vehicle is intended for racing, (2) the design of the engine, (3) driving technique of the driver, (4) the driver's preference, etc. In addition, the maximum output, the maximum torque and the minimum number of revolutions for stable engine operation must also be taken into account. Fig. 9 shows the values which have been obtained through our experience over the years.

Since the engine comes in a wide variety of types, the values given in Fig. 9 should be taken only as reference values.

5. CARBURETOR CALIBRATION

Once the main bore size of the carburetor is determined, a test (normally referred to as setting or matching) to select the proper jet or setting part should be made. The size of the jet is determined by measuring the output in a bench or in a chassis dyno test. For racing, it is best to determine the proper size of the jet on the racing course, because the following points must be taken into account.

- a. The altitude (atmospheric pressure), temperature and humidity of the racing course
- b. The operation of the engine based on the topography of the racing course

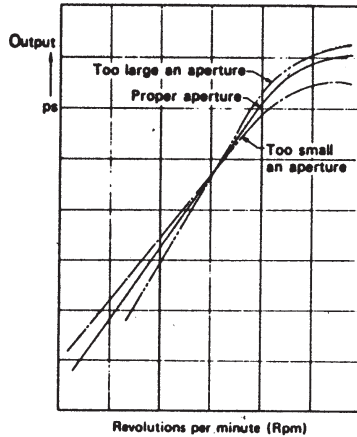


Fig. 8

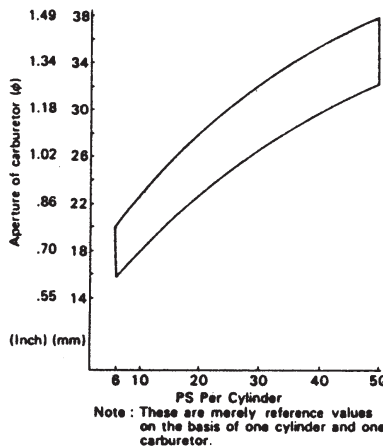


Fig. 9

A — PILOT JET and the Low Speed Fuel System (Fig. 10 and Fig. 11)

In the low speed fuel system of the carburetor, the pilot outlet and the bypass have holes whose size is in relation to the main bore of the carburetor. Therefore, the adjustment and selection of the pilot jet and the air screw is important. Open the throttle a little at no-load operation and see if the engine revolutions increase smoothly. If the pilot jet is too small, increase in the engine speed will be slow and irregular. Too large a pilot jet, on the other hand, would create too heavy exhaust smoke as well as a dull exhaust noise. If you cannot maintain the speed in the range of 12-25 MPH with the throttle held constant, the pilot jet is too small.

Selection and setting of the air screw should be made in the following manner. First, warm up the engine adequately and set the idle screw so that the engine revolution at idling will be about 10-20% higher than the number of revolutions you are aiming at. Then, turn the air screw left and right (between 1/4 and 1/2 turn) and select the position where the engine revolution reaches the maximum. Adjust the idle screw to bring down the engine revolution to your desired speed for idling. After this adjustment of the idle screw is made, select once more the position where the engine revolution reaches the maximum, by turning the air screw left and right (between 1/4 and 1/2 alternately). At this point, attention should be paid to the following points.

- (1) If there is a certain range in the opening of the air screw where fast engine revolution can be obtained, (for instance, the number of revolutions does not change in the range of 1-1/2 to 2.0 turn), for better performance you should select approximately 1-1/2 turns.
- (2) To determine the "fully dosed" position of the air screw, turn the air screw slightly. Excessive tightening of the air screw would damage the seat. The position where the air screw comes to a stop should be considered the "fully closed" position. The maximum number of turns in the opening of the air screw must be limited to 3.0. If the air screw is opened over 3.0 turns, the spring will not work and the air screw can come off during operation of the vehicle. Fig. 11 shows the fuel flow curve in relation to the opening of the air screw.

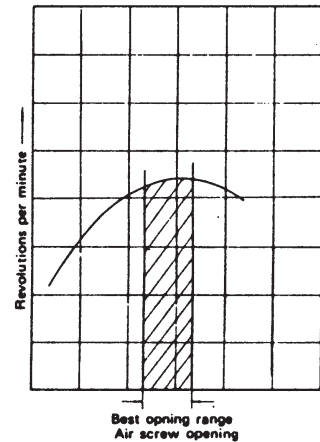


Fig. 10

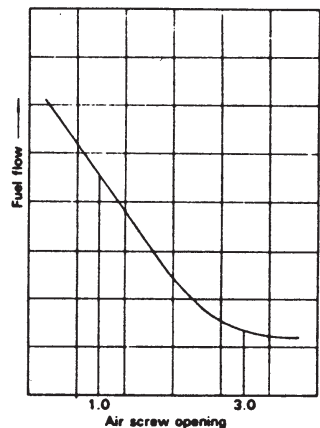


Fig. 11

B — The CUTAWAY Size of the THROTTLE VALVE (Fig. 12)

The size of the cutaway of the throttle valve affects the air-fuel mixture ratio when the degree of the throttle valve opening is between 1/8 and 1/2, especially in the range of 1/8 and 1/4 opening. As the cutaway increases in size, with the throttle valve opening kept unchanged, air inflow resistance is reduced and causes the amount of air intake to increase, resulting in a lean mixture. On the other hand, the smaller the size of the cutaway, the richer the air-fuel mixture will become. Change of the cutaway is made, when the low speed fuel system is out of balance with the main fuel system.

Fig. 12 shows the fuel flow curve in relation to the size of the cutaway.

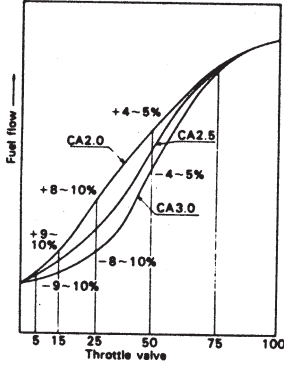


Fig. 12

C — Selection of NEEDLE JET and NEEDLE (Fig. 13 and Fig. 14)

A carburetor with a piston-type throttle valve is also called a variable venturi-type carburetor. In this type of carburetor, the needle jet and the needle serve to control a proper air-fuel mixture ratio during the so-called medium throttle valve opening (between 1/4 and 3/4 opening). The right combination of needle jet and needle will have a large bearing on the engine performance at partial load. The jet needle tapers off at one end and the clearance between the needle and the needle jet increases as the throttle valve opening gets wider. The air-fuel mixture ratio is controlled by the height of needle positioning clip that is inserted into one of the five slots provided in the head of the needle. The variation of fuel flow based on the height of the clip is shown in Fig. 13.

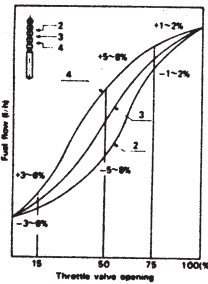


Fig. 13

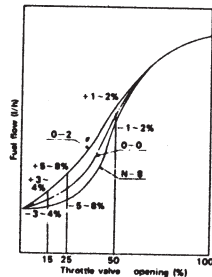


Fig. 14

D — Selection of the Main Jet

First, do the following on a flat road.

- (1) Select the largest main jet (the limit of a rich mixture) which can give you the maximum revolutions per minute (the maximum speed). In this case, select the engine speed according to the dimensions of the test course.
- (2) Compare the gain in speed that you can obtain by quick acceleration from a constant speed of 25-30 MPH to maximum desired speed, by using different sizes of main jets.
- (3) Check the exhaust fumes and read the spark plug (selection of the spark plug should be made based on the thermal value that would best suit power output of the engine).

Next, compare, on the racing course, the test results you obtained from the above. The points to be checked, among others, are:

- (1) Smooth and steady operation of the engine at as high a speed as possible under varying operating conditions such as shifting of the gears, changes in road conditions, ascending and descending slopes, etc.

- (2) Sustained operation at low speeds and at heavy engine load.
- (3) Sustained operation at high speeds (without knocking or seizure).

CAUTION

Selection of too lean a main jet may cause severe engine overheating, and subsequent piston seizure.

6. MAINTENANCE

A carburetor consists of various precision-machined Parts such as jets, needles, valves, etc. Therefore, care should be exercised, when removing jets or disassembling the carburetor for cleaning.

- (1) Proper tools should be used for disassembling and reassembling of jets. Handle each part carefully to avoid scratches, bending, etc.
- (2) Wash the jets and the carburetor properly in solvent and blow them out with compressed air.
- (3) For carburetors whose main jet can be replaced from the outside, an "O" ring is used to prevent leakage of fuel. When you fit the "O" ring, apply a little lubricant or fuel to the "O" ring.
- (4) It is important to maintain the fuel level in the carburetor. Do not touch the float arm, when disassembling the carburetor. If the float arm is bent accidentally, adjust the straight portion of the float arm, so it is parallel with the chamber gasket surface.

7. TUNING THE CARBURETOR FOR RACING

The maximum output of the engine depends on:

- (1) The amount of air drawn into the cylinders
- (2) Whether an air-fuel mixture is delivered to the cylinders in a proper ratio

Since the amount of air that is drawn into the carburetor varies with the temperature, the atmospheric pressure, humidity, etc., the mixture ratio is also changed. It is important, therefore, that the fuel flow be adjusted in accordance with the altitude of the racing course and meteorological conditions prevailing at a given time.

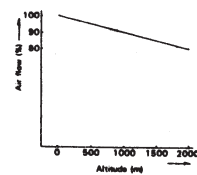


Fig. 15

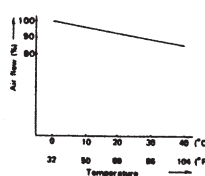


Fig. 16

A — INCOMING AIR in Relation to Meteorological Conditions

The amount of air drawn into the cylinders is influenced by such factors as the altitude, the temperature, the humidity, etc. Suppose that the amount of air sucked into the cylinders at an elevation of zero is 100 (the temperature and humidity in this case are considered constant). The amount of air in question decreases in proportion to a rise in elevation as shown in Fig. 15. Reduction in the amount of air drawn into the cylinders changes the air-fuel mixture ratio, with the result that the power output drops markedly. Fig. 16 shows the relations between a rise in temperature and the amount of air drawn into the cylinders (in this case, the atmospheric pressure (elevation) and the humidity are considered unchanged and the amount of air going into the cylinders at 32°F (0°C) is taken as 100). In the case of the engine for racing where the maximum output is constantly called for, it is best to tune the engine by making a matching test of the carburetor in accordance with the temperature and other conditions on the racing course.

8. ENGINE TROUBLE SHOOTING

When the carburetor calibration is not correct or out of tune various irregularities in engine performance are noticeable. These irregularities can be traced to two basic causes:

- (1) When air-fuel mixture is too rich:

- a) The engine noise is dull and intermittent.
- b) Engine performance grows worse when the starter is opened.
- c) Engine performance grows worse when it gets hot.
- d) If removal of the air cleaner improves engine performance somewhat.
- e) The exhaust gases are heavy.
- f) The spark plug is fouled (black wet deposit around electrode).

- (2) When air-fuel mixture is too lean:

- a) The engine overheats.
- b) The performance improves when the starter (choke) is opened.
- c) Acceleration is poor.
- d) Spark plug burns (blistered white insulator).
- e) The revolutions of the engine fluctuates and a noticeable lack of power.

M.A.P. Cycle Enterprises, Inc.

PROBLEM	POSSIBLE CAUSE	CORRECTION
HARD STARTING	Incorrect use of choke.	Correct use of choke.
	Incorrect air-fuel mixture adjustment.	Set mixture adjustment screw in accordance with owner's manual or shop manual instructions.
	Clogged fuel filter.	Clean filter.
	Clogged low speed fuel jets.	Disassemble carburetor and chemically clean.
	Clogged vent in fuel tank cap.	Unclog vent or replace cap.
	Float stuck.	Remove float bowl, check float operation, and correct or replace.
	Float damaged or leaking.	Replace float.
	Incorrect float level.	Set float height in accordance with shop manual specifications.
	Intake air leak.	Check carburetor mounting flanges for air leaks.
	Ignition problem.	Repair, replace, or adjust as necessary.
	Low cylinder compression.	Repair, replace, or adjust as necessary.
POOR IDLE OR STALLING.	Idle speed adjustment(s) set too low.	Adjust idle rpm in accordance with specifications in owner's manual or shop manual.
	Idle speed adjustments are unequal (twin carburetor models and multi-carburetor models using individual throttle stop adjustments).	Equalize throttle stop settings.
	Clogged idle & low speed air bleed.	Disassemble carburetor and chemically clean.
	All causes listed under "HARD STARTING."	
IDLE MIXTURE ADJUSTMENT IS INEFFECTIVE. CARBURETOR DOES NOT RESPOND TO MOVEMENT OF THE IDLE MIXTURE SCREW.	Idle speed set too high.	Adjust idle speed in accordance with specifications in owner's manual or shop manual.
	Clogged low speed air-bleeds.	Disassemble carburetor and chemically clean.
	Damaged mixture adjustment needle.	Replace mixture adjustment needle.
	Mixture adjustment needle "O" ring is not sealing (models using "O" ring).	Replace "O" ring.
	Damaged mixture adjustment needle seat.	Replace carburetor.
	All carburetor problems listed under "HARD STARTING."	

M.A.P. Cycle Enterprises, Inc.

PROBLEM	POSSIBLE CAUSE	CORRECTION
SLOW RETURN TO IDLE.	Idle speed set too high.	Adjust idle speed in accordance with Specifications in owner's manual or shop manual.
	Idle speed adjustments are unequal (twin carburetor models and multi-carburetor models using individual throttle stop adjustments).	Equalize throttle stop settings.
	Throttle valve sticking.	Clean and inspect throttle valve and return spring. Replace if necessary.
	Throttle linkage sticking.	Clean and inspect throttle linkage and return spring. Lubricate, repair, or replace as necessary.
	Throttle cable binding.	Correct routing or replace cable as necessary.
ENGINE SURGES WHEN CRUISING AT A CONSTANT SPEED.	Incorrect air-fuel mixture adjustment.	Low Speed - Low speed jet size change. Intermediate - Jet needle height adjustment or primary main jet size change.
	Vacuum piston sticking.	Clean and inspect vacuum piston and return spring. Replace if necessary.
ENGINE DOES NOT DEVELOP FULL POWER, OR MISSES ON ACCELERATION.	Incorrect use of choke.	Correct use of choke.
	Clogged air cleaner.	Clean or replace.
	Incorrect air-fuel mixture adjustment.	Low Speed - Low speed jet size change. Intermediate - Jet needle height adjustment. High Speed - Main jet size change.
	Throttle valves not synchronized (models with two or more carburetors).	Adjust throttle valve synchronization.
	Clogged fuel filter.	Clean filter.
	Clogged fuel jets.	Disassemble carburetor and chemically clean.
	Clogged air bleeds.	Disassemble carburetor and chemically clean.
	Fuel jets loose.	Tighten fuel jets.
	Fuel jet "O" rings leaking (models using "O" rings).	Replace "O" rings.
	Float stuck.	Remove float bowl, check float operation, and correct or replace.
	Float damaged or <i>leaking</i> .	Replace float.
	Incorrect float level.	Set float height in accordance with shop manual specifications.
	Vacuum piston sticking.	Clean and inspect vacuum piston and return spring. Replace if necessary.
	Vacuum piston diaphragm ruptured.	Replace vacuum piston assembly.
Ignition problem.	Repair, replace, or adjust as necessary.	
Low cylinder compression.	Repair, replace, or adjust as necessary.	

NOTE: It may be necessary to change carburetor Jet to correct the air-fuel mixture ratios under the following circumstances

- Exhaust system modifications
- Air cleaner alteration or removal
- Altitude changes
- Temperature and humidity Changes

MIKUNI

FLAT VALVE

SMOOTH-BORE CARBURETORS

NEW

28MM ORDER VM28-418

32MM ORDER TM32-1

34MM ORDER TM34-2

36MM ORDER TM36-2

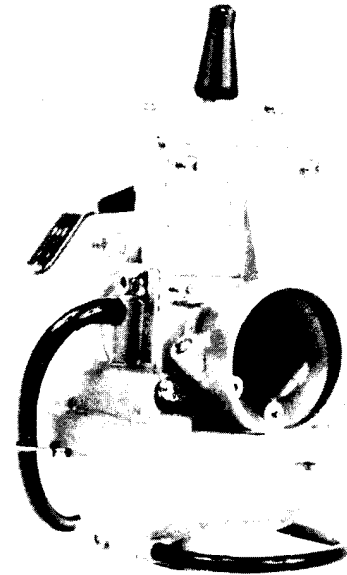
ADVANCED DESIGN...

Air flows faster and smoother through the venturi area due to the flat slide configuration and the jet blocks that create a smooth-bore effect.

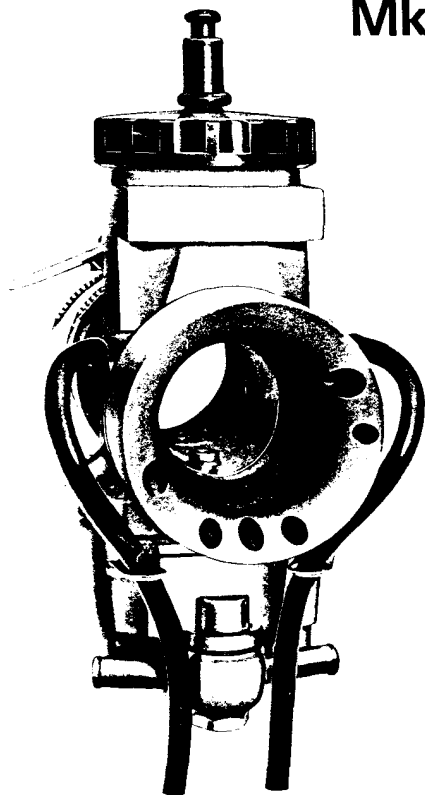
The high velocity of the air flow means a stronger vacuum at the needle jet nozzle. The carb body is also designed to accept the Power Jet and Accelerator Pump Kits.

FOR QUICKER RESPONSE...

The stronger vacuum at the needle jet nozzle means a more efficient, quicker fuel draw resulting in better atomization of fuel and instant throttle response. Whether you're cornering, at half throttle, or WOT, the VM38 Flat Valve responds to let you grab the dirt and grab the lead. Applications include motocross, desert, race track and ATV's.



Amal Track racing smoothbore Mk 2 Concentric carburetter



The Amal Track racing smoothbore Mk 2 Concentric carburetter has been purpose designed for the competition rider.

It incorporates jet block and throttle valve refinements, which combine to produce peak engine performance in respect of torque and brake horse power, with significant improvements in engine response. Precision manufactured in brass, the throttle valve has a polished hard chrome surface for smoother operation and greater wear resistance for harsh environments such as speedway, motocross and other competition applications.

This development is an extension of techniques pioneered by Amal on its range of title winning GP and TT carburetters.

The smoothness of the carburetter bore ensures an efficient supply of air as the pressure waves remain undisturbed. Achievement of the "ram" effect is also greatly enhanced.

Produced in 34 mm, 36 mm and 38 mm bore sizes, the carburetters are available for two-stroke and four-stroke engines and for use with alcohol versions, which comply with current speedway and grasstrack competition regulations.

- ★ Improves engine response
- ★ Increases brake horse power
- ★ More efficient "ram" effect
- ★ Alcohol version meets international regulations
- ★ Flexible mounting gives excellent insulation from vibration on modern high-speed high-performance engines
- ★ Easy access to mixing chamber for quick tuning and servicing
- ★ Cold-start mixture-enrichment lever mounted directly on carburetter body

NEW

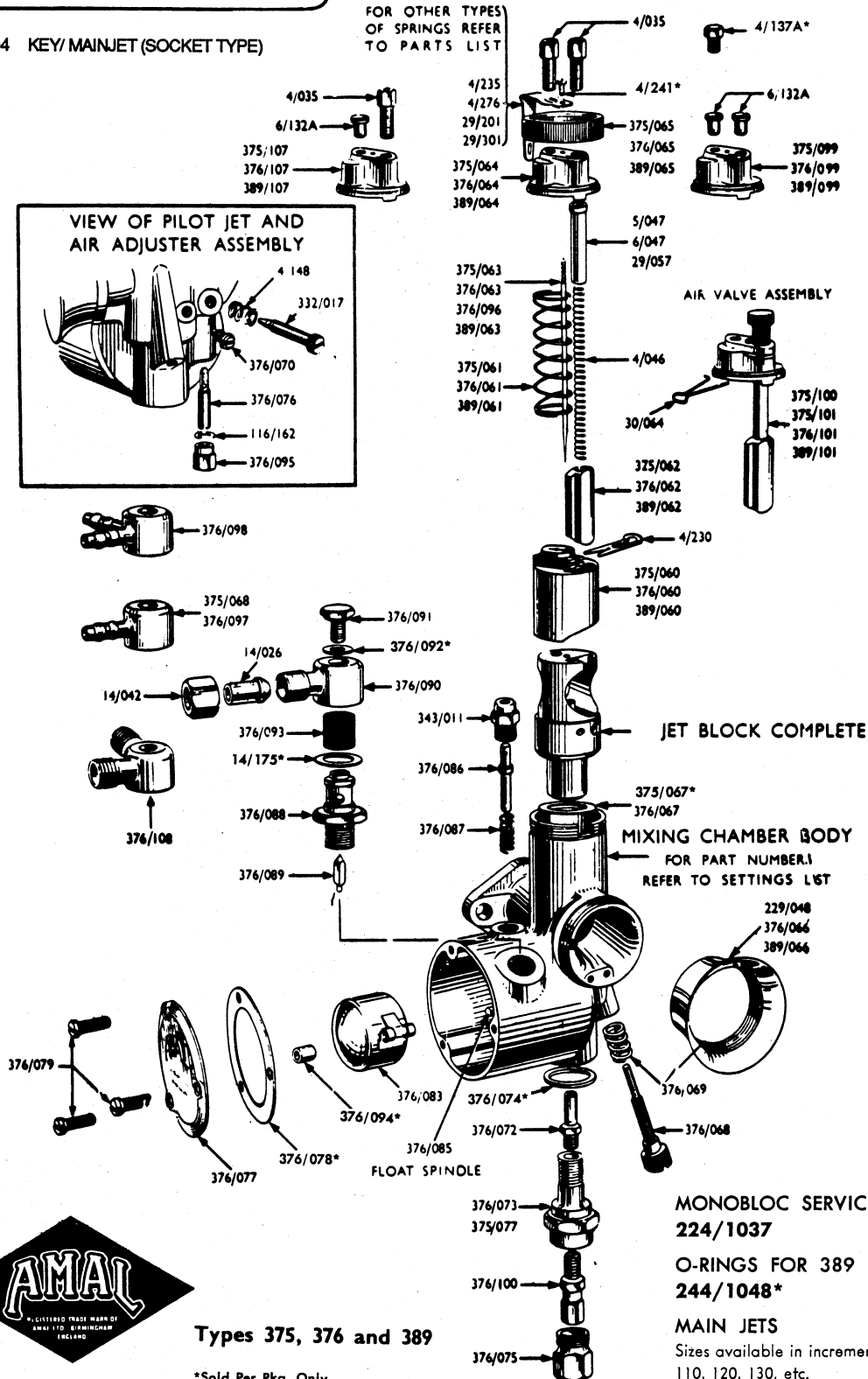
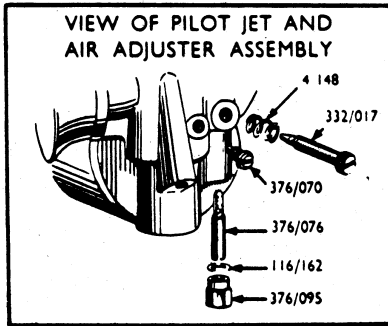
Carburetter size mm	Alcohol	two-stroke	four-stroke
34	2034/308T 2034/309T	2034/310T 2034/311T	2034/312T 2034/313T
36	2036/308T 2036/309T	2036/310T 2036/311T	2036/312T 2036/313T
38	2038/308T 2038/309T	2038/310T 2038/311T	2038/312T 2038/313T

The carburetters are available with right (R) or left (L) hand pilot adjustment.

Amal

622/104 KEY/MAINJET (SOCKET TYPE)

FOR OTHER TYPES OF SPRINGS REFER TO PARTS LIST



AIR VALVE ASSEMBLY

JET BLOCK COMPLETE

MIXING CHAMBER BODY
FOR PART NUMBER, REFER TO SETTINGS LIST

FLOAT SPINDLE

MONOBLOC SERVICE SPANNER
224/1037

O-RINGS FOR 389
244/1048*

MAIN JETS
Sizes available in increments of 10 —
110, 120, 130, etc.



Types 375, 376 and 389

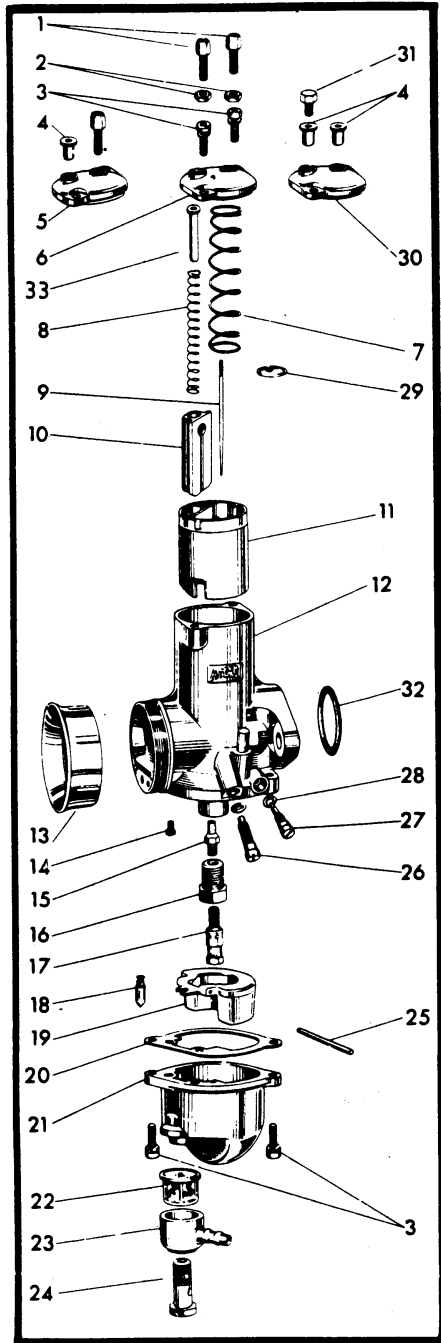
*Sold Per Pkg. Only

NOTE: For righthand 389 slide, body and jet block use 689/part # ie.. 389/060 becomes 689/060.

MK I.5 Parts (Others as per 900)
 622/170 Cap/Bowl SCREW
 622/061 Throttle SPRING
 622/291 Bowl GASKET
 622/215 SLIDE ("Size")
 622/294 FLOAT BOWL
 622/200 Drain Plug WASHER
 622/201 Drain PLUG
 622/161 Needle Retaining DISC
 for Cold Start Parts - See MKII

Amal

AMAL SPARE PARTS LIST FOR SERIES 600 AND 900 CONCENTRIC CARBURETORS.



KEY TO		SERIES	SERIES
Illustration	COMPONENT	600	900
1	Cable Adjuster	4/035	4/035
2	Cable Adjuster Locknut	5/077	5/077
3	Float and slide chamber screws BLADE (4 ea)		622/086
4	Cable Ferrules (Top Hat)	6/132A	6/132A
5	Mixing Chamber Top for Adjuster & Ferrule	622/097	928/097
6	Mixing Chamber Top (Std)	622/064	928/064
7	Throttle Valve Spring	622/131	622/131
8	Air Valve Spring	622/129	622/129
9+	Throttle Needle (paired with Needle Jet 622/079)	622/063	928/063
	Throttle Needle (paired with Needle Jet 622/122)	622/124	622/124
	Throttle Needle (for Alcohol only)	622/099	928/099
10	Air Valve	622/062	928/062
11	Throttle Valve (Specify Cutaway)	622/060	928/060
12	Carburetor Body & Tickler Assembly	* *	* *
	Air Intake Tube (Std)	376/066	928/066
13	Air Intake Tube (2 3/4 Long)	376/143	928/069
	Air Intake Tube (2 5/16" Long)		928/070
14	Pilot Jet... # 15, # 20, # 25, # 35	124/026	124/026
	Needle Jet } # 105, # 106, # 107, # 109	622/079	622/079
15+	Needle Jet } # 106, # 107	622/122	622/122
	Needle Jet (for Alcohol only)	622/100	622/100
16	Jet Holder	622/128	622/128
17	Main Jet (Specify Size)... # 100, to # 500	376/100	376/100
18	Float Needle	622/068	622/068
19	Float	622/069	622/069
20	Float Chamber Washer	622/073	622/073
	Float Chamber Body	622/050	622/050
21	Float Chamber Body (for Alcohol only)	622/051	622/051
	Float Chamber Body (Pressure Feed)	622/052	622/052
22	Filter	376/093	376/093
	Filter (for Alcohol only)	376/093-2	376/093-2
	Banjo Single Push On	375/068	375/068
	Banjo Single Push On (Nylon or Diecast)	376/097	376/097
	Banjo Single Screwed 1/4" BSP	376/090	376/090
23	Banjo Single Push On	376/130	376/130
	Banjo Double 60° (Nylon or Diecast) Use 376/410	376/098	376/098
	Banjo Double 90° Push On	376/135	376/135
	Banjo Double 150° Push On	376/139	376/139
	Banjo Double 55° Push On	376/410	376/410
	Banjo Double Screwed 1/4" BSP	376/108	376/108
Not Ill.	Banjo Washer (for Diecast Banjo (Top)	14/175	
24	Banjo Bolt	622/078	622/078
Not Ill.	Banjo Bolt Washer (for Diecast Banjo (Bottom)	13/163	
25	Float Spindle	622/071	622/071
26	Throttle Stop Adjusting Screw	622/077	
27	Pilot Air Adjusting Screw	622/076	
28	'O' Rings	622/082	622/082
29	Needle Clip	622/067	622/067
30	Mixing Chamber Top for Two Ferrules	622/098	928/098
31	Plug for Mixing Chamber Top	4/137	4/137
32	O Ring for Flange Sealing	622/101	622/101
33	Air Valve Guide	622/134	928/103
Not Ill.	Jet Key & Pozidriv Screwdriver	622/104	622/104

* * SEE PRICE LIST FOR BODIES ONLY

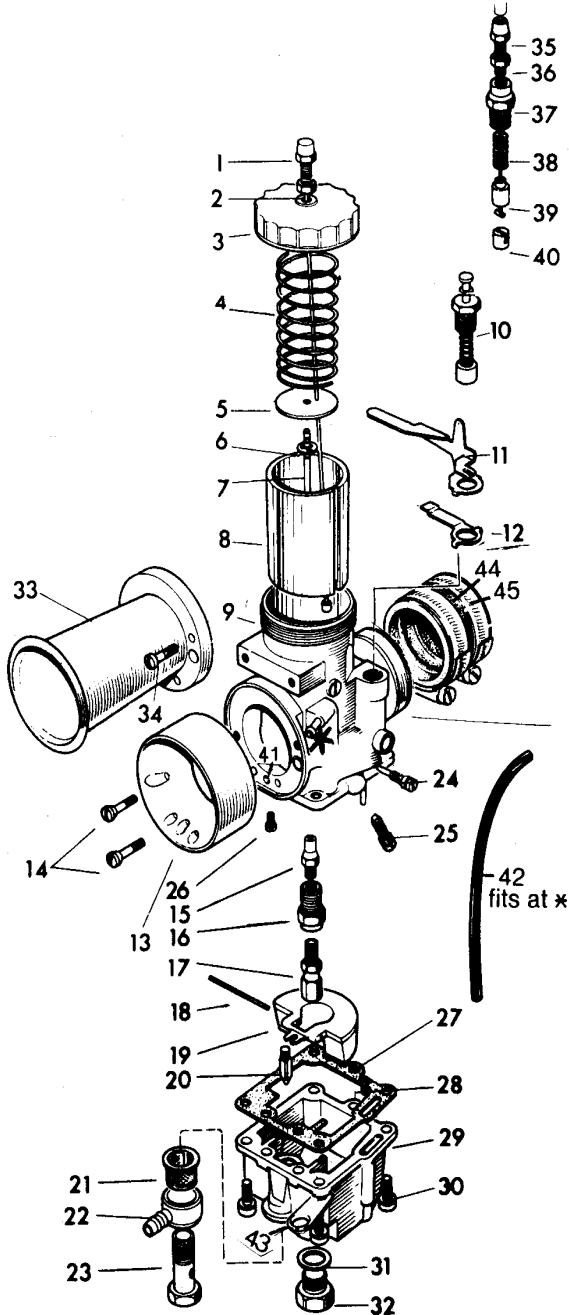
Always Check Price List for Availability

+ When incorporating the latest metering system the following three items must be fitted as a set: Throttle Needle 622/124, Needle Jet 622/122 and Jet Holder 622/128. USE UPDATE KIT 622/235 (Inc. NEEDLE, NEEDLE JET, & JET HOLDER). It is permissible to fit the latest Jet Holder 622/128 with the original Throttle Needle and Needle Jet, but not possible to fit the New Needle and Needle Jet with the original Jet Holder, obviously the Needle and Needle Jet must be paired. When in doubt please state carb model monobloc or concentric and bore size at mounting flange.

New: 622/060/C & 928/060/C Now CHROME Plated for Longest Durability
 376/419 180 Degree Banjo for "Norton"
 928/076 "Tuned" Velocity Stack for 900 series carb (AMAL Brand)
 7165 30th Avenue North St. Petersburg, Florida 33710
 Website: www.mapcycle.com Email: sales@mapcycle.com Phone (727) 381-1151

AmaI

Mark II Carburetors

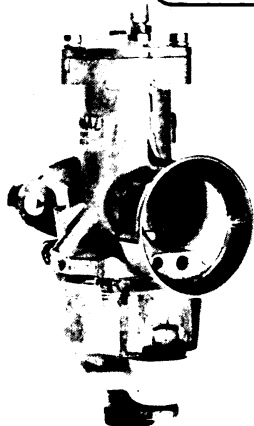


NOT ILLUSTRATED:

- 316/083 BOOT Cable (fits over #1)
- 622/082 O-RING Idle Screw (fits on #25)
- 2622/149 KIT Cold Start Conversion (Inc. #'s 35-40)
- 2622/142 BLANKING PLUG Pilot Jet
- 928/071 SCREEN Main Jet Filter
- 622/104 TOOL Main Jet Removing w/Screwdriver

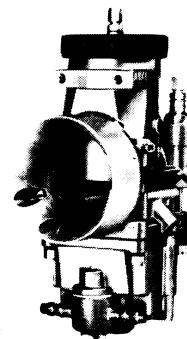
Key	COMPONENT	2900 SERIES	2000 SERIES
1	Adjuster	4/035	4/035
2	Locknut	5/077	5/077
3	Chamber top (standard)	2036/064	2036/064
N/S	Chamber top (ferrule)	2928/120	2036/120
4	Throttle spring	2928/061	2036/061
5	Needle disc	2928/071	2036/071
6	Needle clip	2622/067	2622/067
7	Throttle needle, 2 stroke	2928/063	2036/063
7	Throttle needle, 4 stroke 2A1	2622/124	2622/124
7	Throttle needle (alcohol)	2928/125	2036/077
8	Throttle slide	2928/060/2	2036/060/2
8	Throttle slide	2928/060/2.5	2036/060/2.5
8	Throttle slide	2928/060/3	2036/060/3
8	Throttle slide	2928/060/3.5	2036/060/3.5
8	Throttle slide	2928/060/4	2036/060/4
9	Body assembly		
10	Plunger assembly (lever operated)	2622/079	2622/079
11	Lever and bracket assembly	2622/075	2622/075
12	Click spring	2622/087	2622/087
13	Intake adaptor	2928/062	2036/062
14	Screws	2622/073	2622/073
15	Needle jet, 4 stroke 105	2928/122/105	622/122/105
15	Needle jet, 4 stroke 106	2928/122/106	622/122/106
15	Needle jet, 4 stroke 107	2928/122/107	622/122/107
15	Needle jet, 4 stroke 108	2928/122/108	622/122/108
15	Needle jet 2 stroke 105	2928/079/105	2928/079/105
15	Needle jet 2 stroke 106	2928/079/106	2928/079/106
15	Needle jet 2 stroke 107	2928/079/107	2928/079/107
15	Needle jet 2 stroke 108	2928/079/108	2928/079/108
16	Jet holder	622/128	622/128
17	Main jet	USE CONCENTRIC REFERENCE	
18	Float spindle	2622/069	2622/069
19	Float	622/069	622/069
20	Float needle	622/149	622/149
21	Filter	376/093	376/093
21	Filter (alcohol)	376/093B	376/093B
22	Banjo, single, push-on (1/4")	376/097	376/097
22	Banjo, single, threaded (1/4" BSP)	376/090	376/090
22	Banjo, single, push-on (5/16")	376/130	376/130
22	Banjo, double 90 push-on (5/16")	376/130	376/139
22	Banjo, double, 55 push-on (5/16")	376/410	376/410
22	Banjo, double, 180 push-on (1/4")	376/419	376/419
N/S	Banjo washer (alcohol)	14/175	14/175
23	Banjo bolt	622/078	622/078
24	Air adjusting screw	2622/128	2622/128
25	Throttle adjusting screw	2622/129	2622/129
26	Pilot jet 15	124/026/15	124/026/15
26	Pilot jet 20	124/026/20	124/026/20
26	Pilot jet 25	124/026/25	124/026/25
26	Pilot jet 30	124/026/30	124/026/30
26	Pilot jet 35	124/026/35	124/026/35
27	Float bowl washer	2622/070	2622/070
28	Cold jet start	Use Pilot Jet References	Use Pilot Jet References
29	Float bowl - 0.10in.	2622/055	2622/055
29	Float bowl - 0.062in.	2622/056	2622/056
29	Float bowl - 0.125in.	2622/057	2622/057
29	Float bowl - 0.156in.	2622/058	2622/058
30	Screw	622/086	622/086
31	Drain plug washer	2622/066	2622/066
32	Drain plug	2622/065	2622/065
33	Velocity stack	2928/126	2036/126
34	Screws	2036/073	2036/073
35	Adjuster	4/035	4/035
36	Locknut	Alternative	5/077
37	Screw cable operated	2622/091	2622/091
38	Spring cold start	2622/084	2622/084
39	Plunger cap	2622/092	2622/092
40	Plunger assembly	2622/094	2622/094
41	Air Jet/ MKII (all)	2622/235	2622/235
42	Vent Tube/ MKII(all)	2622/145	2622/145
43	Clip/ Vent Tube/ MKII (all)	2622/134	2622/134
44	Clamp/ Intake Rubber/ MKII (all)	2928/146	2928/146
45	Sleeve/ Mounting/ MKII (30-34mm)	2928/123	2036/123

Carbs & Parts

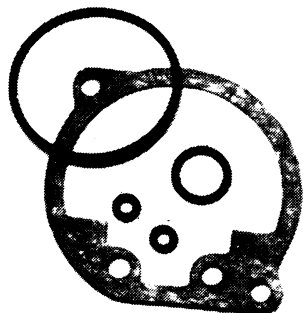


AMAL CARBURETORS

CONCENTRIC 600, 900 SERIES		MARK II 2000, 2900 SERIES	
TYPE	BORE	TYPE	BORE
622L, 622R	22mm	2928L, 2928R	28mm
624L, 624R	24mm	2930L, 2930R	30mm
626L, 626R	26mm	2932L, 2932R	32mm
928L, 928R	28mm	2934L, 2934R	34mm
930L, 930R	30mm	2036L, 2036R	36mm
932L, 932R	32mm	2038L, 2038R	38mm

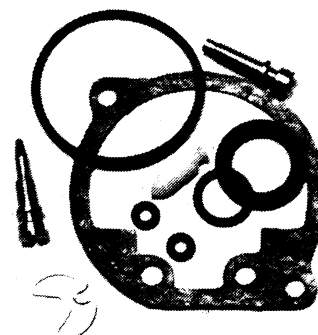


CONCENTRIC REPAIR KIT
622/238 or 622/238/E (ECONO)



AMAL GASKET SETS

389/121 MONOBLOCK
622/208 CONCENTRIC
622/208/E ECONO (US)
2622/144 MKII's (ALL)
(not shown)



622/208 or 622/208/E (Made in U.S.A.)

622/238 Inc. 622/197 Needle
622/238/E Inc. 622/197 Needle
(No Needle Clip)

The new float needle fits all Amal Concentric and Monobloc carburetors. It has been specifically designed to help in overcoming carburetor flooding problems of all kinds – notable those caused by dirt, or by wear after prolonged usage. The rubber tip of every float needle is precision-ground to provide a truly conical surface for perfect sealing. The tip material possesses excellent corrosion resistance and is unaffected by all normal gasoline-type fuels.



622/197

622-197 Sold each

CONCENTRIC FLOAT BOWL

Amal float bowl to suit 600 and 900 series concentric carburetors. Incorporates removable plug at the base for draining off sediment or water. Also facilitates easy removal of the main jet.

622/147 Plastic Bowl Plug
622/155 Metal Bowl Plug
622/151 Plug Washer
622/153 Plug/Washer Set
(inc 622/147 plug)



622/055 Float Bowl
(See Price List for Others)

EXTENDED SCREWS

Special extended pilot air and throttle stop screws with hex heads for easier tuning of all Amal concentric carburetors. Set of two supplied complete with neoprene "O" rings.

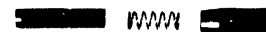
622/168/169 (set)



REPLACEMENT TICKLER

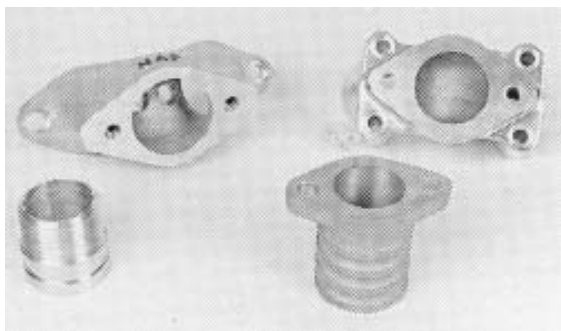
Replacement tickler assembly for all 600/900 Concentric carburetors. Shrouded to protect from water and dirt

Order 622/172



M.A.P. Cycle Enterprises, Inc.

M.A.P. CARB MANIFOLDS



EXCLUSIVE M.A.P. CONVERSION CARB MANIFOLDS:

All M.A.P. Manifolds were Designed & Tested on a Superflow Test Bench for Best Flow Possible. Their Perfect Fit and Ease of Installation Make these M.A.P. Designed and Manufactured MANIFOLDS Simply the "BEST". Use with Adapters Below to mount most Spigot Carbs.
Proudly MADE IN THE U.S.A. Since 1973

Note: Threaded spigots are measured on thread OD for ID purposes only - Manifolds are NOT Individually Ported.



TRIUMPH

- MAP0500 TR6/TR7 MANIFOLD - Nicely Polished, Similar to Stock Looks, Used with 30-34mm Amal MK1.5, MKII or Mikuni Spigot Type Carbs. (Inc. Gaskets & 5/16 Stainless Mounting Screws (reqs. MAP0560 Adapter)
- MAP0505 T120 Screw-In MANIFOLD - to '64 Fine (1.245" OD x 20 TPI) (reqs. MAP0570 Hose Kit)
- MAP0510 T120 Screw-In MANIFOLD - '64 -'68½ Fine (1.36" OD x 20 TPI) (reqs. MAP0570 Hose Kit)
- MAP0515 T120 Screw-In MANIFOLD - '68½-'71½ Coarse (1.36" OD x 16 TPI) (reqs. MAP0570 Hose Kit)
- MAP0520 Bolt-On Cast 2-1/8" OA Aluminum MANIFOLD ('71½-on) (reqs. MAP0570 Hose Kit)
- MAP0521 Bolt-On **BILLET** 3/4" OA MANIFOLD ('71½-on) Inc SS Button Allens (reqs. MAP0570 Hose Kit)
- MAP0522 Bolt-On **BILLET** 1" OA MANIFOLD ('71½-on) Inc SS Button Allens (reqs. MAP0570 Hose Kit)
- MAP0524 **NEW** Bolt-On **BILLET** "Cross-Over" Billet MANIFOLD. Features a Built-in Stainless X-over Pipe to combine low speed pulses for a smoother idle and allows attaching a vacuum guage for perfect carb synchronazation. Includes SS Button Allens, Gaskets & X-over hose ('71½-on)(reqs. MAP0570 Hose Kit)

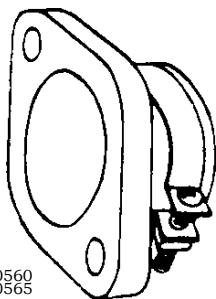
NORTON

- MAP0530 Commando Single Carb Conversion MANIFOLD for 30-34mm CARB (req. MAP0560 Adapter.)
- MAP0535 Commando Single Carb Conversion MANIFOLD for 36-38mm CARB (req. MAP0560 Adapter)
- MAP0539 Commando Single Carb Conversion MANIFOLD (2" Centers) to Mount an AMAL MKI Concentric Carb
- MAP0540 Commando Twin Carb Conversion MANIFOLD for 30-34mm CARB (reqs. 2 MAP0560 Adapters)
- MAP0545 Commando Twin Carb Conversion MANIFOLD for 36-38mm CARB (reqs. 2 MAP0560 Adapters)
- MAP0537 **ATLAS** Single Carb Conversion MANIFOLD for 30-34mm CARB (reqs. MAP0560 Adapter.)

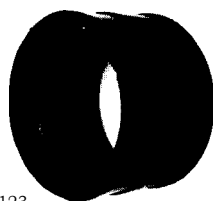
BSA

- MAP0522 A50/A65 - 30-34mm Spigot Carbs 1" Tall Billet (Allows for use with Allen mtg screws) (reqs. Hose MAP0573, Clamp MAP0578 & MAP0580 Screws)

ADAPTERS AND ACCESSORIES



MAP0560
MAP0565



2928/123

Flange to Spigot Adapters Made by Mikuni for Mounting Spigot Carbs to Flange Type Manifolds. A Must for Spigot Carbs Using M.A.P. Flange Manifolds. These Adapters Will **NOT** Fit Stock Manifolds.

- MAP0560 for 30-34mm Carb (Hole Spacing 2.36" (60mm) C.C.)
- MAP0565 for 36-38mm Carb (Hole Spacing 2.76" (70mm) C.C.)

Ultra HiQuality GATES Nylon Reinforced Intake Hose

- MAP0570 Intake HOSE Kit, 30-34mm (Inc. 2 Hoses & 4 Clamps)
- MAP0572 Intake HOSE, 30-34mm - Spigot to Spigot (ea.)
- MAP0573 Intake HOSE, 30-34mm Short for BSA or Tight Area (ea)
- MAP0574 Intake HOSE, 26-28mm - Spigot to Spigot (ea.)

- 2928/123 Intake RUBBER, Moulded Original AMAL Brand 30-34mm (ea.)



- MAP0580 Allen SCREW KIT (4) Special 5/16 x 22tpi BSA Threads (set)
- MAP0582 Allen SCREW (Stainless) for Mounting Rubber Adapter MAP0560 or MAP0565 to M.A.P. Manifolds (ea)
- MAP0584 Allen SCREW (Stainless) for Mounting Manifolds MAP0520, MAP0530 or MAP0539 to Head (ea)

- MAP6576 FUEL LINE - 5/16" Nylon Braided Clear Hose (sold per foot)
- MAP6576/25 FUEL LINE - 5/16" Nylon Braided 25' roll (BEST Price)
- MAP6586 FUEL LINE - 5/16" Clear Hose (sold per foot)
- MAP6586/25 FUEL LINE - 5/16" Clear Hose 25' roll (BEST Price)

NOTE: for Additional FUEL/OIL LINE - See Page 68

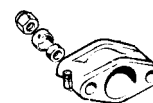
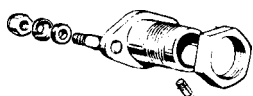
- MAP0668 FERRULE, for 5/16" Fuel Line (OE Type - reqs. Crimp Tool)
- MAP0587 Hose CLAMP, Fuel Line - 5/16" (ea)
- MAP0577 Hose CLAMP, Std Width Intake Hose - 2" (ea.)
- MAP0578 Hose CLAMP, Narrow Width Intake Hose - 2" (ea.)
- 2928/146 Hose CLAMP, Original Amal - OE Amal 2" (ea.)



- MAP0588/B "T" FITTING for 5/16" Fuel Line (for Carb Kit) - Brass (ea.)

NOTE: for Petcocks and Petcock Parts, Washers Etc. - See Page 88

M.A.P. Cycle Enterprises, Inc.



TRIUMPH MANIFOLDS/PARTS

MODEL:	MANIFOLD	HeadStud Short	HeadStud Long	HeadStud WASHER	HeadStud NUT	X-Over STUB	Carb STUD	CarbStud WASHER	CarbStud NUT
'59-67 (T100C) '68-69 (T100C) '70-74 (T100C) *Note: TR5/TR5T use 71-3530 (28mm)	70-4689 70-7578* 70-7578*	70-3796 14-7019 ¹ 14-6115 ⁴	70-3797 14-7024 ¹ 14-7024 ¹	60-4248 21-0648 60-4247 ⁵	37-0103 ----- -----	----- ----- -----	70-3880 21-0582 21-0582	60-4247 70-2287 ² 60-4247	21-0001/51 14-0702 ³ 14-1302
T100 '67-69 (2-Carb) T100 '69-on (2-Carb)	70-7136 70-7136	70-7137 70-7137	21-0582 14-7019	70-2287 -----	14-0702 -----	70-6916 70-6916	21-0582 21-0587	60-4248 60-4248	14-0702 14-0702
	MANIFOLD LH	MANIFOLD RH	Manifold STUD						
TRI TR6 thru '68½ TRI TR6 '68½ thru '69 TRI TR6/7 '70-on	70-5512 70-5512 70-9973	70-2973 21-1876 21-1876	37-0103 21-1877 21-1877	60-4248 60-4248 60-4248	----- ----- -----	70-2962 70-2962 21-1996	----- ----- 70-9554	60-4247 60-4247 70-9555 ⁷	21-0001/51 ⁶ 70-1310 14-0301
	LH MANIFOLD	RH MANIFOLD	Manifold NUT						
TRI T120 '64-68½ TRI T120 '69-72 (4-spd) ⁷ TRI T140 '73-78½	----- 70-9550 71-3339	----- 70-9551 71-3338	70-4608 21-1932 -----	----- ----- -----	70-4791 70-6916 71-7103	82-2603 ----- 71-2813	----- 70-9554 70-9554	60-4247 70-9555 ⁸ 70-9555 ⁸	57-0224 14-1301 14-1301

¹NOTE: These are ALLEN Screws - NOT Studs

²NOTE: '68 Used 60-4247 WASHER

³NOTE: Recommend 14-1302 Nyloc NUT

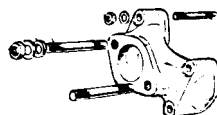
⁴NOTE: BOLT - NOT stud

⁵NOTE: Also Uses 21-0648 WASHER

⁶NOTE: '68 Used 70-1310 (Recommended for ALL)

⁷NOTE: NOT for LATE LoBoy ('72½) T120 FRAMES w/ Angled Bolt-on Manifolds
(for LoBoy see 71-2811 (LH), 71-2812 (RH) MANIFOLDS & 71-2813 Carb Mtg. STUD)

⁸NOTE: Not a washer, but the Cup that holds 71-9554 o-ring in place



SCREENED VELOCITY STACKS

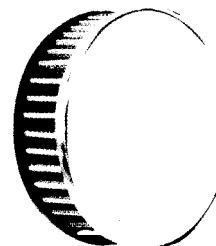
These AMAL Velocity Stacks Feature a Tightly Meshed Screen to Prevent Large Debris from Entering Your Engine While Still Providing the Tuning Aspects of a Velocity Stack for Added Performance. Fully Polished Aluminum Finish See "Amal" Section for Tuned Racing Stacks.

MAP9997 389/689 SERIES (POLISHED)
MAP9998 600 SERIES (POLISHED)
MAP9999 900 SERIES (POLISHED)



SPECIAL M.A.P. AIR FILTERS

M.A.P. Air Filters are Made from the FINEST "Dupont" Air-Filter Material. NO Foam or Cheap Surgical Gauze is ever Used. These Air Filters do NOT Require Air Filter Oil to Function Properly. Oiling Eases Cleaning While Increasing Life Span. CHROME Backed for Custom Appeal except as Noted.



MAP0590 2-1/4" Inlet Especially Designed for Tight Clearance Only 1" Thick with Offset Mount to Avoid Most Clearance Problems. (Mikuni or MK II Carbs)
MAP0591 2-1/4" Inlet x 2.35 x 4" Long (Tapered). Use on All Bonnie Engines. Especially Designed For Oil-in-Frame (without air box). (Mikuni or MK II Carbs)
MAP0592A 2-1/4" Inlet x 4.5 x 2" Thick has Central Mount, Perfect for most Mikuni or MK II. (Used in MAP0380 Carb Kits) Not Chrome Backed.
MAP0592C 2-1/4" Inlet x 3.25 x 4" Long. Not Chrome Backed.
MAP0592D 2-1/4" Inlet x 4.5 x 5" Long. Flattrack or Road Racer, etc Not Chrome Backed.
MAP0593A 2-7/16" Inlet x 5 x 3" Thick. Offset Mount
MAP0593B 2-7/16" Inlet x 3.5 x 4" Long. Good for Twin Large Mikuni or MK II's.
MAP0593C 2-7/16" Inlet x 4.5 x 2" Thick. Finally a filter to Fit Norton 36-38mm Single Carb Kits. Not Chrome
MAP0593D 2-1/2" Inlet x 4.5 x 5" Long. Great for flattracker or Road Racer, etc. Not Chrome

NEW!

NEW!

7165 30th Avenue North

St. Petersburg, Florida 33710

Website: www.mapcycle.com Email: sales@mapcycle.com Phone (727) 381-1151

M.A.P. Cycle Enterprises, Inc.

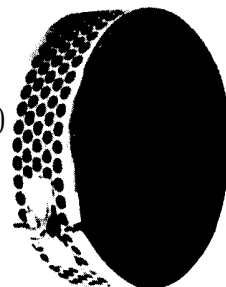
- MAP0594 NORTON *COMMANDO* Use with Amal 930/932 Concentrics. One Piece Air Box Filters Both Carbs. Clamps to Carb Mouth. Fits ALL Models Including Atlas. *VERY NICE - GREAT PRICE*
- RC-306 1-13/16" Inlet Especially Designed for Tight Clearance Only 1" Thick with Offset Mount to Avoid Most Clearance Problems. (Designed for Amal 900/932 Carbs)
- (was MAP0595)
- MAP0595A 1-3/4" Inlet x 4.5 x 1-1/2" Thick. Center Mount. (IDEAL for 928/930/932 AMALS) **NEW!**
- MAP0595B 1-5/8" Inlet x 4.5 1-1/2" Thick. Center Mount. (Ideal for 626 AMALS)
- MAP0595C 1-3/4" Inlet x 2,3.5 x 4" Long. Tapered (Chrome Back)
- MAP0596 1-5/8" Inlet x 3.5 x 1.5" Thick. T150 (Amal 626 Carbs). Chrome Back (ea.)
- MAP0599 1-5/8" Inlet x 3 x 2.5" Thick. T160/T100/ROCKET III's Chrome Back (ea.)
- MAP0599 T160 Breather Filter w/Chrome Back - Adaptable to T150 (ea.)



MAP0594

STOCK AIR FILTERS/ELEMENTS

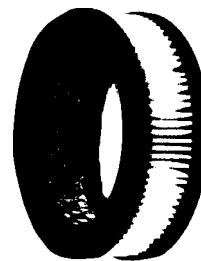
- CAW230 CENTRAL FILTER ASSY 376,620,622,624 & 626 uk
- CAW230/P CENTRAL FILTER ASSY (Taiwan PATTERN - Nice Quality)
- CAW231 CENTRAL FILTER ASSY 389,689 uk
- CAW237 CENTRAL FILTER ASSY 928,930 & 932 uk
- CAW237/P CENTRAL FILTER ASSY (Taiwan PATTERN - Nice Quality)
- CAW240¹ OFFSET FILTER 389,689 uk (for 900 series - order 70-7632³ adapter separately)
- CAW240/P OFFSET FILTER 389,689/900 (Taiwan PATTERN- Nice Quality)(inc. 900 adapter)
- CAW241² OFFSET FILTER 376,620,622,624 & 626 uk



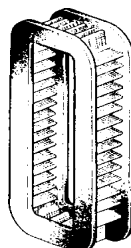
^{1,2,3}**NOTE:** Requires stock adapter rings 82-5958¹; 70-4576²; 70-7632³ or Use Your old STOCK Ones

- 60-2567 OVAL FILTER TRI-BSA ONLY) uk
- 70-9074 OVAL FILTER TRI-BSA III's (CHROME FULLY PERFORATED BAND) uk
- 60-4292 OVAL FILTER TRI-BSA III's (GRAY - NO PERFORATIONS '74) uk
- 60-0706 CLAMP (Mounts Offset Filter Assembly to Adapter)
- 82-4810 CLIP Chrome Band Retaing - ALL II's (COMPLETE) uk
- 70-9074/A CLIP Chrome Band Retaing -ALL III's (COMPLETE) uk

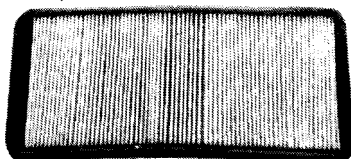
- 82-5694 ELEMENT ROUND (PAPER) ALL uk
- 82-5694/E ELEMENT ROUND (PAPER) ALL Taiwanese Economy Version
- 82-6866 ELEMENT ROUND (GAUZE) ALL uk
- 60-4274 ELEMENT TRI TR5T '74 uk



- 60-3618 ELEMENT Tri/BSA II's '71-'75 (RECTANGULAR) OPEN for LEAST AIR RESTRICTION uk
- 60-3072 ELEMENT Tri/BSA II's '71-on (RECTANGULAR) BAFFLED with LARGE ROUND HOLE uk
- 60-4265 ELEMENT Tri 750 II's '76-on (RECTANGULAR) uk BAFFLED with RECTANGULAR HOLE for AIR TUBE



- 70-9138 ELEMENT Tri/BSA III's (NOT T160) uk
- 83-5092 ELEMENT Triumph T160 uk



83-5092



70-9138

- 06-0673* ELEMENT COMMANDO 750/850 Pre MK III
- 06-4536* ELEMENT COMMANDO MK III ONLY

*NOT SHOWN

- 83-2625 Triumph TR6 '71-72 4-spd
- 83-5161 Triumph TR6/TR7 '72-on 5-spd

- 83-2626 Triumph T120/140 '71-76
- 71-7019 Triumph T140 '77-79 (MK I AMAL CONCENTRICS)
- 71-7166 Triumph T140 FOAM CONNECTOR/GASKET '78-on



83-2625



83-2626



06-2537

- 06-2537 NORTON COMMANDO (Pre MK III)
- 06-4180 COMMANDO MKIII

CARB TO FILTER BOOTS

- 2928/123 Triumph T140 w/Amal MKII's & All Spigot Mount Mikuni's/MK1.5's STOCK (Uses 2928/146 Clamp)

- 70-9060 Tri/BSA III's (600 Amal & 28 Mikuni) - 1-1/8" I.D. Special Heavy Duty (Uses OE 60-0707 Clamp)

- MAP0572 Mikuni & MKII's 30-34mm 1-1/2" Heavy Duty
- MAP0573 BSA with Mikuni Carb Kit (Shorter than MAP0572)
- MAP0574 UNIVERSAL 1-1/4" ID for 26-28mm Carbs. Heavy Duty



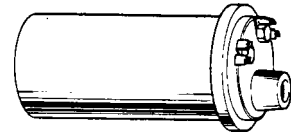
2928/1213

CARB MOUNTING HOSE

W.A.P. Cycle Enterprises, Inc.

D.C. IGNITION COILS

Single Lead Coil Features Special Low Secondary Resistance to Help Prolong Point Life. Short tower. Similar to the original small body Lucas coils. Excellent for All O.I.F. Good Quality Tai Brand.



- MAP4120** COIL - 12 Volt (5.5 Ohms)
- MAP4121** COIL - 6 Volt (1.9 Ohms)
- MAP4125** COIL - 4 Volt (Ideal for all 3-Cylinder Electronic Ignition Kits)

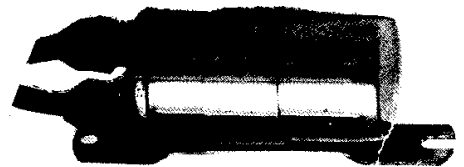
Energy Transfer (E.T.) Coil. It's a Nice Small Fully Encapsulated coil that works great and doesn't break the bank, but not a direct bolt in. Two 3/16" (5mm) mounting holes spaced 1-1/4" apart. 2.2 tall x 1.8 wide x 2.2" long

- MAP4160** ET Replacement coil (not shown)

Hi-Output Chrome Dual Lead Coil. Provides 10% MORE Output Than Stock Coil. Comes with Chrome Mounting Bracket. Ideal for Brit-Bike Electronic Ignitions.

- MAP4130** CHROME 12-Volt Dual Lead COIL (4.5 Ohms)
- MAP4131** CHROME 6-Volt Dual Lead COIL (2.2 Ohms)
- MAP4140** HARLEY Type Dual Lead COIL (+20% Output) Made in U.S.A. (Not Shown)

DUAL LEAD HI-OUTPUT COIL



Black Silicone Wrapped Solid Core Wire with Assembled Plug and Coil Ends. Designed to fit Stock British Bikes as described. Made in U.S.A. Sold in Engine Sets.

Note: Straight & 90 Degree Coil & Plug Ends are Available - See MAP4186 thru MAP4188/P

- MAP4180** TRIUMPH-NORTON II's 12" (*Most NON OIF Models*)
- MAP4183** TRIUMPH-BSA III's 24"
- MAP4185** TRIUMPH-BSA II's 24" (OIF Models)
(order 60-3923 for 24" lead with "Champion" plug cover. Sold each)
- MAP4189** UNIVERSAL 48" OA 7mm Copper Core Orange Silicone Cover
(Preinstalled Plug Ends & Cut-to-Length then Self Assemble Included Coil Ends)

HI-TENSION IGNITION LEADS

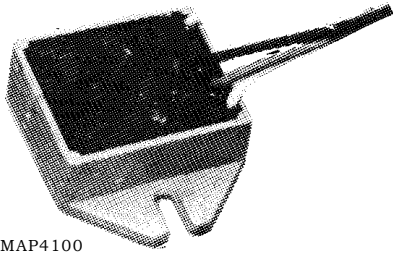


Jason Lee's Bullet Falcon
Features: W.A.P. Billet Cylinder Kit
1st Place
International Half Moon Bay
Concours



W.A.P. Cycle Enterprises, Inc.

RECTIFIER/REGULATOR



MAP4100

DI-RECT I ("Diode-Rectifier" Replacement) - Regulates and Rectifies A.C. Current to Maintain Battery/Capacitor Voltage. Perfect Replacement for the Expensive Stock Rectifier & Zener at Nearly HALF the Cost. Only 2 X 2 X 1/2". Complete with a simple Wiring Diagram. (2 YEAR MFG. WARRANTY) Made in U.S.A.

NOTICE: MAP4100, Direct I, When Combined With MAP4109, Capacitor, Is The Absolute Best Combination for Batteryless Operation. As a 2-piece Unit, a Blown (Exploded) Capacitor May Be Changed WITHOUT Affecting the Rest of the Circuit. This is Not Only Less Expensive than

Replacing the Entire 1-Piece Unit but When the Overloaded Internal Capacitor BLOWS it Will Usually Blow the Circuit Board, Leaving the Rider Without Electrics (Stranded). A Direct I With its Replaceable Capacitor is thus Much Preferred. Note: For Safty It is Best to Use a Battery for Brightest Lights Especially at Idle so as to be SEEN!

REGULATES & RECTIFIES CURRENT ON ANY 1-PHASE PERMANENT MAGNET ALTERNATOR UP TO 215 WATTS

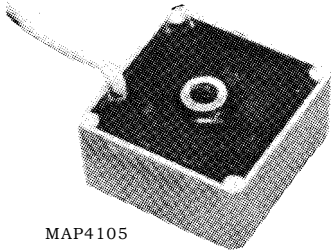
MAP4100 DI-RECT I (12 Volt) MADE in U.S.A.

MAP4102 DI-RECT III - A One Piece Finned Unit Designed to Rectify & Regulate 3-Phase 12 Volt Power. Replaces Lucas #83539 Rectifier and #49589 Diode. Dependable, Comes with a 2-year Warranty at Less Than One-Half Cost of Original Lucas. 3" X 4" X 1" with Instructions. Neg. Ground Only. Finned!

MAP4103 Regulator/Rectifier in OE Style Zener Finned Pod - 12v - "Sparks" Brand

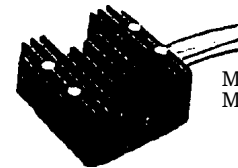
MAP4104 Rectifier Only (1x1x1/2") Solid State

A.C. REGULATOR



MAP4105

MAP4105 Regulates A.C. Current To 12 Volts. Ultra Small Only 1 X 1 X 1/2", Very Inconspicuous. Makes Wiring a Snap. Includes Diagram. 2 year warranty Note: Ac regulator is made as a magneto ignition. Will not charge a battery



MAP4100/P
MAP4102/P

GENERATOR REGULATOR



MAP4108
MAP4108/A
MAP4108/B

37mm X 57mm X 23mm
Small Enough to fit in OE
Regulator box

Solid State "Power Box" For E3 2-Brush Lucas Generator. Internal Electronics Switch at 500times/Sec for No Battery "Flickerless" (Half Bright at Idle, Charges at 1200rpm (6v) or 1600-1800rpm (12v) with Full Power (12v at 120watts) at 2500rpm) Operation. Can be Fit Inside O.E. Regulator Cover for an Original Look.

MAP4108 6-Volt REGULATOR (+ Ground) Podtronics (Tai)
MAP4108/A 12-Volt REGULATOR (+ Ground) Podtronics (Tai)
MAP4108/B 6v to 12v CONVERSION/REGULATOR (+ Gr.) (Tai)
See "Lucas" in Price List for Armatures & Fields for 12V conversions

MAP4117 6-Volt REGULATOR (Negative Ground) UK
MAP4118 12-Volt REGULATOR/CONVERSION + Ground UK
MAP4119 12-Volt REGULATOR/CONVERSION - Ground UK

BATTERY ELIMINATOR



54483156

MAP4109 Allows Engine Operation Without Battery or as a Safety Measure Against Battery Failure. Lights Will Dim at Idle Without Battery. Best When Used With MAP4100 Above. Replaces Lucas #54170009 Supplied w/54483156 Mounting Spring.

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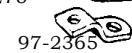
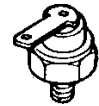
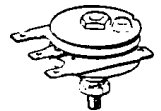
STATORS/ROTORS

- RM25/HOC** ALTERNATOR KIT - **220 Watt** Hi-Output Rotor, Stator & 3-Phase Regulator*
 *All Require a Battery: Electronic Ignitions need 5K ohm plug caps (not included)
- RM25/P ALTERNATOR (Rotor/Stator)
- 47204 STATOR - 120W - 3 Wire Single Phase
 47205/P STATOR - 120W - 2 Wire Single Phase (Excellent Quality/Price-Tai)
 47194 STATOR - 180W - 3 Wire Single Phase Hi-Output
 47239/P STATOR - 180W - 2 Wire Single Phase Hi-Output (Excellent Quality/Price-Tai)
 47252 STATOR - 130W - 3 Wire 3 Phase
 47244 STATOR - 180W - 3 Wire 3 Phase
 54202299/P ROTOR - Rare Earth Magnet Adds Output (for Most "RM" Alternators) "SPARKS" Brand



RECTIFIERS/ZENER DIODES/SOLID STATE

- 49072 RECTIFIER - SINGLE PHASE (+) GROUND (Rec. MAP4100)
 83539 RECTIFIER - 3-PHASE WITH NEGATIVE (-) GROUND (Rec. MAP4102 on Page 60)
 83536 RECTIFIER - 3-PHASE WITH POSITIVE (+) GROUND
- 49345 ZENER DIODE SINGLE PHASE (+) GROUND (LUCAS) (Rec. MAP4100 on Page 60)
 47266 ZENER DIODE THREE PHASE (+) GROUND (LUCAS)
- MAP4100 REGULATOR/RECTIFIER (Replaces Rectifier & Zener (2 YR WARR) See Page 60
 MAP4103 REGULATOR/RECTIFIER Inside Stock Type Heat Sink 1-Phase "SPARKS"
 MAP4109 BATTERY ELIMINATOR (Eliminates Battery) See Page 60
- 68-9428 HEAT SINK - BSA Thru '70
 97-2237 HEAT SINK (Finned) TRIUMPH '68-on (Pre OIF)
 MAP4103 HEAT SINK w/Built-In 1-Phase Regulator/Rectifier "SPARKS"
 97-2365 HEAT SINK BRACKET TRIUMPH '68-on
 97-2275 HEAT SINK PLASTIC PLUG TRIUMPH '68-on



SWITCHES

- BRAKE**
- 34815/E TRI-BSA OIL-in-FRAME (OIF) & C (Perfect Replacement)
 54033234 EARLY TRIUMPH (Pre OIF)
 34448 EARLY BSA (NOT OIF)
 34619 HYDRAULIC
 MAP4200 UNIVERSAL BRAKE SWITCH w/SPRING



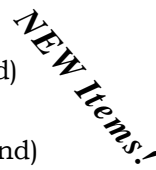
HANDLEBAR

- MAP4220 HI-OFF-LO & HORN/KILL (3-WAY DIMMER)
 MAP4222 HI-OFF-LO & HORN/KILL ("Miller" Type) - NICE
 MAP4225 HI-OFF-LO & HORN/KILL with LEADS 7/8"
 31563/NW HI-LO & HORN SCREW-ON as ORIGINAL (NO LEADS)
 31563/P HI-LO & HORN SCREW-ON (ECONO) with LEADS
 MAP4205 HORN OR KILL BUTTON



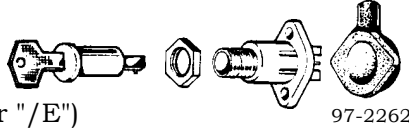
- 54033667 RH BSA-TRI '71-72
 54033751 RH BSA-TRI '73-76 II's
 54033666 LH BSA-TRI '71-75 II's
 54340882 BASE (Lever Half) '71-76 RH/LH

- 30723/P** RH T160(All)-T140V '76-78 "Sparks"
35318/P RH T140E (As OE "Sparks" Brand)
35317/P RH T140ES & Norton MKIII (As OE "Sparks" Brand)
30707/P LH T140V & T160 (As OE "Sparks" Brand)
33708/P LH T140E & Norton MKIII (As OE "Sparks" Brand)
33709/P LH Horn. Turn/ Hi-Lo '79 Tri (As OE "Sparks" Brand)



IGNITION

- 30608¹ ON-OFF (2-Position - 2, 3 or 4 Terminals)
 35351¹ ON-OFF-LIGHTS-PARK (4-Position - 7 Terminals)
 54130041 NUT (for "LUCAS" Type Ignition Switches)
 54315070 TUMBLER & KEYS for 30608/35351 (Also "/P" or "/E")
 97-2262 BOOT Ignition Switch Back
 60-4335 BOOT Ignition Key slot '79-on
 MAP4210 Universal 3-WAY Ignition SWITCH "ON-OFF-LIGHTS" (with 2-Keys)
 MAP4215 Custom Universal Switch PLATE. Tear Drop. Nicely Chrome Plated



HEADLAMPS/PARTS (CUSTOM)

- S1504 BOTTOM MOUNT "Bates" HEADLIGHT w/HI-BEAM INDICATOR (12V)
 S1503 BOTTOM MOUNT "Bates" HEADLIGHT w/HI-BEAM INDICATOR (6V)
 S1506 SIDE MOUNT "Bates" HEADLIGHT w/HI-BEAM INDICATOR (12V)
 S1505 SIDE MOUNT "Bates" HEADLIGHT w/HI-BEAM INDICATOR (6V)
 S1507 5 3/4" 6 VOLT SEALED BEAM
 S1511 5 3/4" 12 VOLT SEALED HALOGEN (QUARTZ) 50-35W BEAM
 H402212 5 3/4" LENSE/REFLECTOR w/QUARTZ REPLACEABLE BULB (No Pilot)



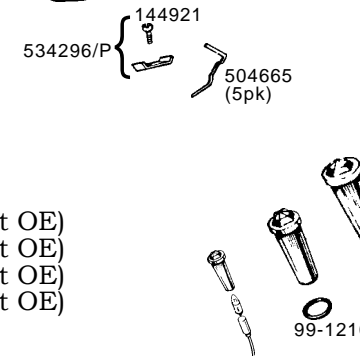
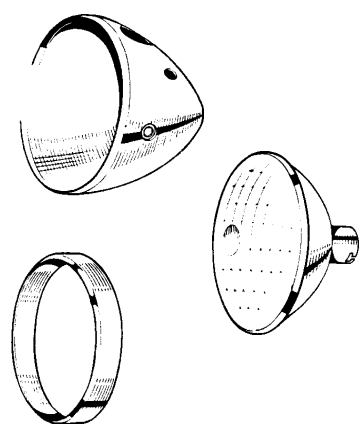
S1503-S1506 (Chrome)

W.A.P. Cycle Enterprises, Inc.

LIGHTS/PARTS (Stock)

HEADLAMPS/PARTS (O.E.)

- 99-7098 7" SHELL ONLY - Plain Top No Holes (Lucas)
 99-7039 7" SHELL ONLY - 3 Warning & Switch Hole (Lucas)
 99-9969 7" SHELL ONLY - 2 Warning, Switch & Ammeter Hole (Lucas)
 99-9968 7" SHELL ONLY - Ammeter Hole Only (Lucas)
 99-1009 7" SHELL ONLY "Flat Back" Type (TRI-BSA '71-72)
 54525272 5" REFLECTOR & LENSE w/Pilot (Lucas)
 516798 7" REFLECTOR & LENSE w/Pilot to '78 (for #446 Bulb) Lucas
 54522680 7" REFLECTOR & LENSE w/Pilot '78-on (for #410 Bulb) Lucas
 MAP9240 7" REFLECTOR KIT (Inc. #410 45/40 Bulb & Adapter) Lucas
 H702212 7" REFLECTOR w/H4 Quartz Bulb (No Pilot) Lucas
 534343 5" RIM (Lucas)
 553248 7" RIM Excellant Chrome (Lucas) Add "/E" for Econo
 54520540/P BULB RETAINER (Twist on bulbs) w/Wires
 504665 RETAINING CLIPS (Reflector to Rim) 5-pk
 144921 SCREW (RIM SECURING CLIP - Lucas Heavy Chrome) ea.
 534296 CLIP RIM SECURING (Use with 144921 Screw (OE lucas))
 31788 TOGGLE SWITCH (Most Early TRI-BSA 3-Position) Lucas
 34660 TOGGLE SWITCH (COMMANDO) Lucas
 34419 TOGGLE SWITCH (TRI 750 II's) Lucas
 31356/P ROTARY SWITCH w/Arrow (99-1211/31276/31350)
 54363453 AMBER LIGHT (Also: 99-1207 w/Blade Connections - Lense Not OE)
 54363454 RED LIGHT (Also: 99-1208 w/Blade Connections - Lense Not OE)
 54363455 GREEN LIGHT (Also: 99-1209 w/Blade Connections - Lense Not OE)
 54361250 BLUE LIGHT (Also: 99-7054 w/Blade Connections - Lense Not OE)



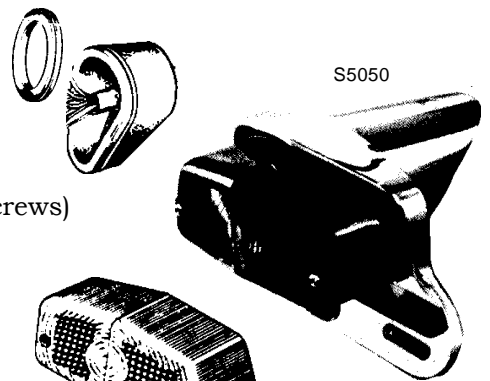
- 36047 AMMETER, 30-0-30 Black Face (Lucas)
 99-0567 AMMETER, 12-0-12 (Lucas)
 99-0566 AMMETER, 8-0-8 (Lucas)
 99-9959 SEAL, Ammeter to Shell



- 862217 GROMMET, (Headlamp Shell/Oil Frame Harness) uk
 83-4931 RUBBER, Anti Roll Gas Tank, Oil-in Frame (OIF) uk
 54524048 BOOT, Flat-Back Headlight Shell (uk)

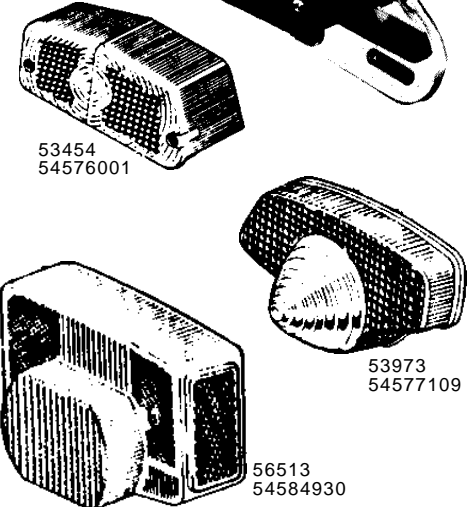
TAILLIGHTS (CUSTOM)

- S5050 CLASSIC TAILLIGHT ASSEMBLY Chrome (Inc Mtg Pad & Screws)
 S5050/H BRACKET ONLY
 S5032 CATSEYE TAILLIGHT, Extra Bright - Oval Shape (Chrome)



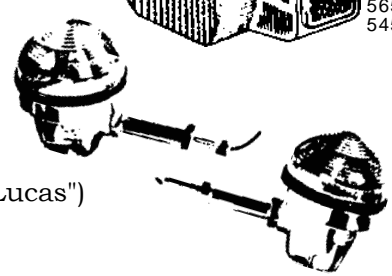
TAILLIGHTS (STOCK)

- 53454/E COMPLETE '49-66 (Exact duplicate but no word "Lucas")
 54576001 LENSE ONLY '49-66 (Lucas)
 54576001/E LENSE ONLY '49-66 (Exact duplicate but no word "Lucas")
 575219 NUT, Lense Mounting (Stock Lucas Backplate Only)
 53973 COMPLETE '67-72 (Lucas) Also '66 TR6R/T120R/T100R
 53973/E COMPLETE '67-72 (Exact duplicate but no word "Lucas")
 54577109 LENSE ONLY '67-72 (Lucas)
 54577109/E LENSE ONLY '67-72 (Exact duplicate but no word "Lucas")
 144921 SCREW, Lense Mounting(Stock Lucas Backplate Only)
 56513 COMPLETE '73-on (Lucas)
 56513/E COMPLETE '73-on (Exact duplicate but no word "Lucas")
 54584930 LENSE ONLY '73-on (Lucas)
 54584930/E LENSE ONLY '73-on (Exact duplicate but no word "Lucas")
 99-9947 SCREW, Lense Mounting ('73-on)



TURN SIGNALS/PARTS

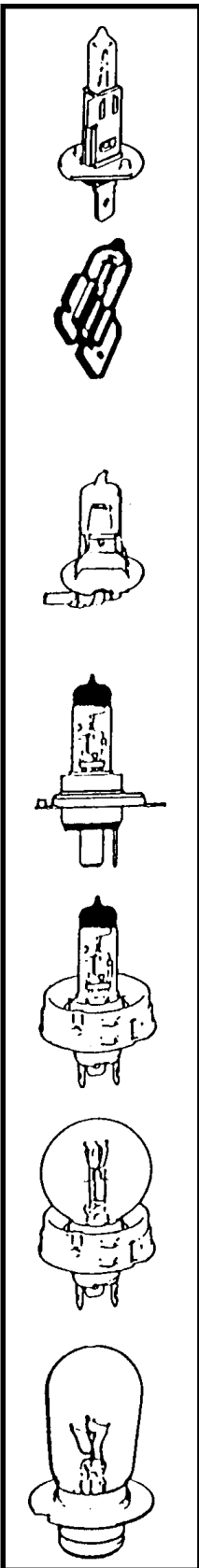
- 54057567 3½" STEM (Lucas)
 54057567/E 3½" STEM (Exact duplicate but no word "Lucas")
 54057553 5" STEM (Lucas)
 54057553/E 5" STEM (Exact duplicate but no word "Lucas")
 60600621 LENSE w/GASKETS (Lucas)
 60600621/E LENSE w/GASKETS (Exact duplicate but no word "Lucas")
 60600621/EL LENSE ONLY (Exact duplicate but no word "Lucas")
 60600621/G GASKET ONLY, Lense
 60600621/S SCREW ONLY, Lense
 35048 FLASHER



W.A.P. Cycle Enterprises, Inc.

-- BULBS --

HEADLIGHT - TAILLAMP - TURN SIGNAL



H1 QUARTZ
 12 VOLT 55 WATT R448
 12 VOLT 100 WATT R481

H2 QUARTZ
 12 VOLT 55 WATT R479
 12 VOLT 100 WATT R480

H3 QUARTZ
 6 VOLT 55 WATT R455
 12 VOLT 55 WATT R453
 12 VOLT 100WATT R483
 12 VOLT 130 WATT R492

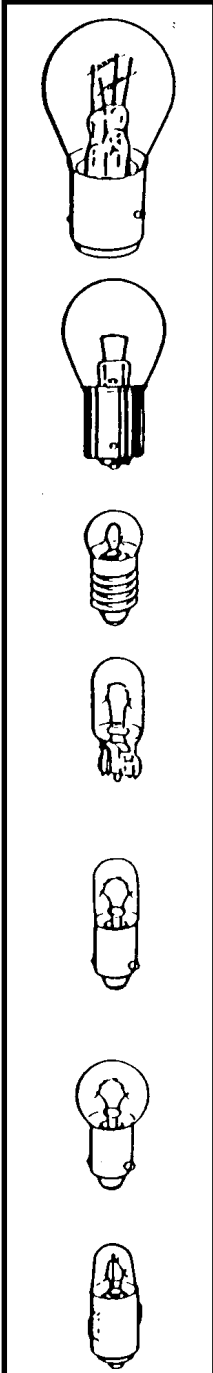
H4 - P43t BASE (QUARTZ)
 6 VOLT 60/55 WATT R473
 12 VOLT 60/55 WATT R472
 12 VOLT 100/55 WATT R477
 (Heavy Duty Motorcycle)
 12 VOLT 100/80 WATT R484
 12 VOLT 60/55WATT R472/Hd

H4 - P45t BASE(QUARTZ)
 12 VOLT 60/55 WATT R12

TYPE P45t BASE
 (BRITISH 1978-on STOCK)
 12 VOLT 45/40 WATT R410
 12 VOLT 45/40 WATT R411
 (Amber)
 12 VOLT 60/60 R416

TYPE P36t BASE
 (BRITISH PRE 1978 STOCK)
 6 VOLT 30/24W R312
 12 VOLT 50/40 WATT R414
 12 VOLT 48/48 WATT R414/J
 12 VOLT 50/40 W. (Tai) R414/CP

QUARTZ (DIRECT REPLACEMENT)*
 12 VOLT 60/55 WATT R414/Q
 *(Uses STOCK Bulb Holder - GREAT Price!!)



TAILLAMP BULB
 6 VOLT 21/5 WATT R384
 12 VOLT 21/5 WATT R380
 12 VOLT 40/3 WATT R1157/HO
 12 VOLT 50/15 WATT R1157/Q
 (2 Times Brighter than R1157)

TURN SIGNAL
 12 VOLT 21 WATT R382
 12 VOLT 50 WATT R382/Q

SCREW BASE
 6 VOLT 3 WATT R990
 12 VOLT 2.2 WATT R987

CAPLESS BASE
 12 VOLT 2.2-3 WATT R504
 12 VOLT 5 WATT R501
 12 VOLT 6 W. (Krypton) R501/SP
 (2 Times Brighter than R501)

PIN BASE
 12 VOLT 4 WATT R233

PIN BASE
 6 VOLT 6 WATT R951
 12 VOLT 2.2 WATT R643
 12 VOLT 5 WATT R989
 12 VOLT 10W. (Quartz) R989/Q10
 12 VOLT 20W. (Quartz) R989/Q20
 (20 Times Brighter than Std R989)

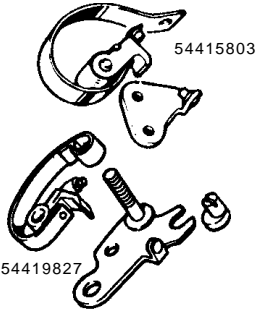
SLOTTED BASE
 6 VOLT R282
 12 VOLT 2 WATT R281

NOTE:
 Numbers listed are Mostly "Narva" Brand
 Mfgd. by Phillips Germany NOT Lucas

M.A.P. Cycle Enterprises, Inc.

POINTS

470608 MAG (Brass Backing Plate - Clockwise Rotation)
 470609 MAG (Brass Backing Plate - Anti-Clockwise Rotation) Most TRIUMPH
 54440888 MAG (Steel Back Plate) TRIUMPH '60-62 & Most BSA



54415803 TRI-BSA-NOR '62-67 (LUCAS)
 54415803/E TRI-BSA-NOR '62-67 (JAP)

NOTE: Condensers are on the points plate.

54419827 TRI-BSA-NOR '68-72 (LUCAS)
 54419827/E TRI-BSA-NOR '68-72 (JAP)

NOTE: Eccentric type point and timing adjustment



60600271 TRI-NOR '73-on (LUCAS)
 60600271/E TRI-NOR '73-on (JAP)

NOTE: Automotive "V" slot point adjuster

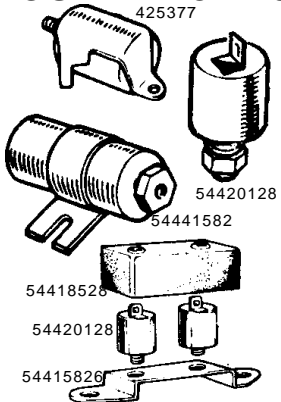
54419828 TRI-BSA III's (LUCAS) (not shown)
 54419828/E TRI-BSA III's (JAP) (not shown)

54419220
 169194
 82-1915

ECCENTRIC (for Timing) TRI-BSA-NOR '68-'72 (w/54419827 Points)
 NUT - Point Adjusting/Hold-Down (for point plate that holds condenser only)
 SCREW - Point Adjusting/Hold-Down



CONDENSERS



425377 TRI-BSA MOST '62-67 (LUCAS BRAND)
 425377/E TRI-BSA MOST '62-67 (DIACHI JAPAN)

NOTE: 425377 Series Condensers fit onto Point Plate.

54420128 TRI-BSA-NOR MOST '68-on (LUCAS BRAND)
 54420128/E TRI-BSA-NOR MOST '68-on (DIACHI JAPAN)

NOTE: 54420128 Series Condenser have Screw Peg Mount

54441582 TRI-BSA E.T. MODELS (LUCAS BRAND)
 54441582/E TRI-BSA E.T. MODELS (DIACHI JAPAN)

NOTE: 54441582 Condensers are Long with Side Mounting Tab (Replaces 54441581)

54418528 CONDENSER PACK RUBBER COVER (II's-III's)
 54418526 CONDENSER PACK METAL BASE (II's-III's)

NOTE: 54418528 Cover & 54418526 Base are used with All 54420128 Series Condensers.



54412229 AUTO ADVANCE SPRING SET (2) - TRIUMPH/BSA/NORTON
 5441229/H AUTO ADVANCE SPRING SET (2) HEAVY DUTY (For Slower Advance)

MISCELLANEOUS ELECTRICS

HC951 HARNESS Coil to Point (I's)
 HC952 HARNESS Coils to Points (II's)
 HC953 HARNESS Coils to Points (III's)

421863 COIL CLIP
 54949011 COIL BOOT (STRAIGHT)
 MAP4187 COIL BOOT (ANGLED)

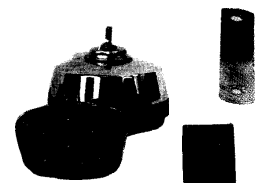
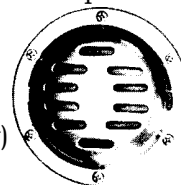
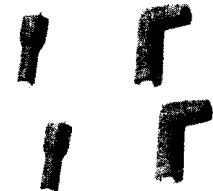
60-0262/TRI SPARK PLUG BOOT "CHAMPION" Triumph Type
 60-0262/BSA SPARK PLUG BOOT "CHAMPION" BSA Type
 MAP4188/P SPARK PLUG CLIP (90 Degree H.D.)
 MAP4186 SPARK PLUG BOOT (ANGLED PLAIN UNIVERSAL)

MAP4180 SPARK PLUG LEADS ASSEMBLED PAIR (NON OIL-in-FRAME 12")
 MAP4183 SPARK PLUG LEADS ASSEMBLED TRI-BSA III's SET-3
 MAP4185 SPARK PLUG LEADS ASSEMBLED PAIR (OIL-in-FRAME 24")
 MAP4189 SPARK PLUG LEADS Universal 48" Black 7mm copper core wire
 Has fixed 90degree plug ends with 2 each 90 & 180 coil clips and boots

MAP2345 ELECTRIC HORN 12V (DC)
 MAP2346 ELECTRIC HORN 6V (DC)
 MAP2348 ELECTRIC HORN (AC)

MAP2340 FIAMM DUAL ELECTRIC HORNS 12V (Made in Italy)

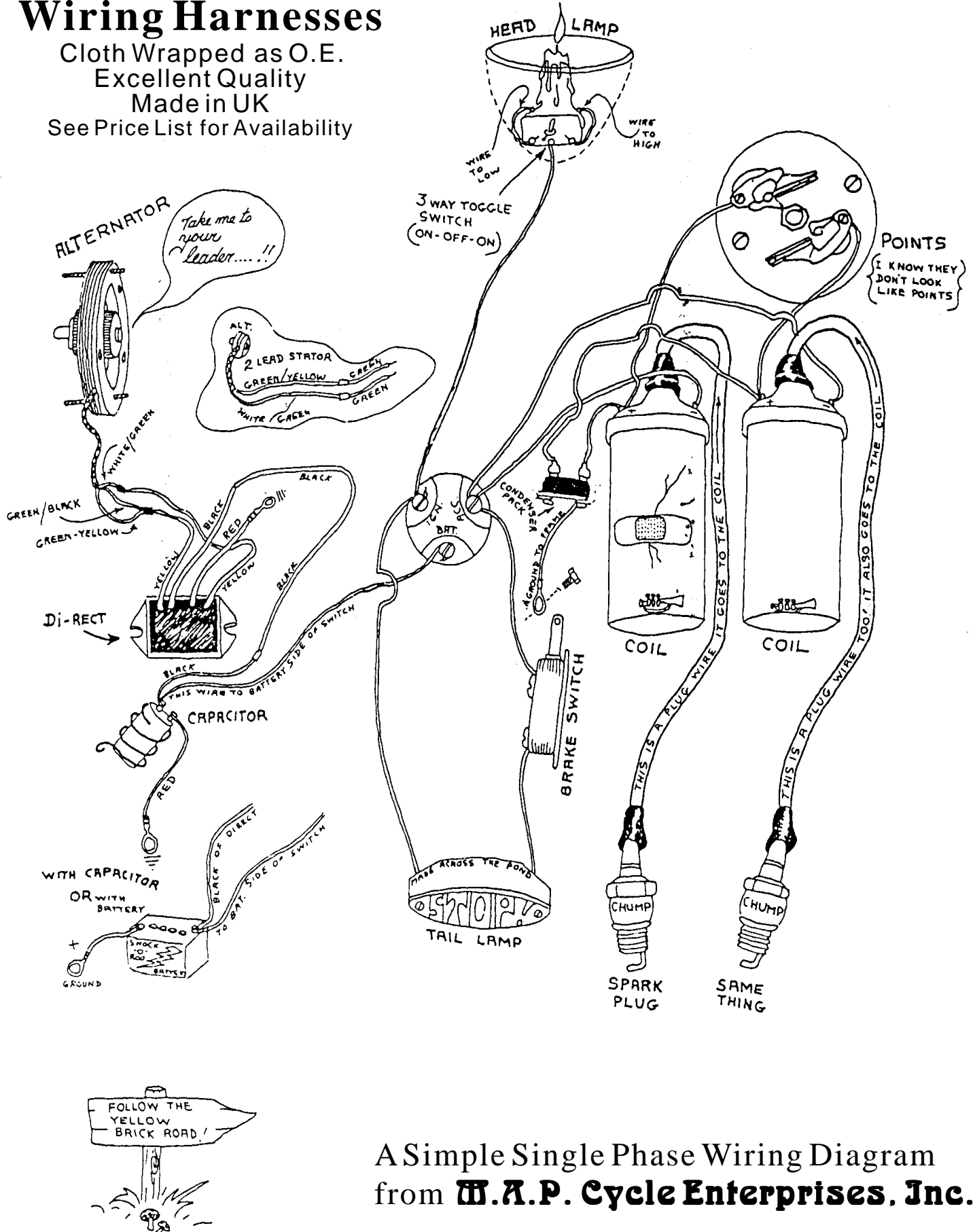
MAP2349 BUGLE HORN



W.A.P. Cycle Enterprises, Inc.

New! - New! - New! - New!
Wiring Harnesses








Cloth Wrapped as O.E.
 Excellent Quality
 Made in UK
 See Price List for Availability






A Simple Single Phase Wiring Diagram
 from **W.A.P. Cycle Enterprises, Inc.**

M.A.P. Cycle Enterprises, Inc.

CONNECTOR






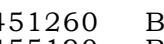
-  **HP221 Terminal**
(54960661) Standard 1/4" Spade
-  **HP241 Terminal**
(54942079) 3/16" Zener Spade
-  **HP311 2-Way Connector**
(900288) Connects 2 Bullets
-  **HP312 4-Way Connector**
(850641) Connects 4 Bullets (common)
-  **HP323 6-Way Connector**
Connects 6 bullets (common)
-  **HP335 10-Way Connector**
(850832) Connects 5 Isolated Bullet Pairs
-  **188639 O'Ring**
Distributor Drive Shaft

SLEEVE

-  **HP222**
(54190042)
-  **HP225**
(54190119) (double wire)
-  **HP242**
(54190043)
-  **188818 Sleeve Terminal**
Generators Connections
-  **HP251 Eyelet**
(187700) 1/8" Bolt Hole
-  **HP253 Eyelet**
(900450) 1/4" Bolt Hole (Battery)
-  **HP254 Eyelet**
(900450) 5/16" Bolt Hole
-  **187704 Eyelet** (3/16" Side Eyelet)
-  **187709 Eyelet** (1/8" Side Eyelet)

-  **199002 Grommet**
5/16" Bore
-  **54190000 Terminal**
Male Blade
-  **HP252 Terminal**
(54190038) 3/16" Male Blade
-  **HP252 Terminal**
(54190096) 3/16" Male Blade
-  **HP994 Terminal**
(54191562) Double Male Blade
- MAG SHIMS** (Lucas K1FC, NC1, K2FC & KNC1)
Required to adjust for proper bearing clearance
Order 458355 (3-Hole)
Order 452906 (4-Hole)

-  Pickup
K1F & K2F (Clip Type)
(Universal RH/LH)
Order 459190/P
-  Pickup
K1F & K2F (Clip Fixed)
Order LH 458866
Order RH 458865
-  Pickup
K1F & K2F (Screw on)
Order 458876/P

-  **459269 Mag Cover Complete**
-  **187704 Terminal Kit**
-  **421106 15D1 Dist Points**
-  **42519 18D2 Dist Points**
-  **408120 3/4" Long Coil Nut**
-  **410600 3/8" Short Coil Nut**

- 47502/A GEAR (Fiber), Triumph Mag Auto Advance
- 70-2226 GASKET, Generator to Case
- 188614 SEAL, Generator
- 459002 SEAL, Magneto

- 451260 BUSH & SPRING, Mag Pickup
- 455190 BUSH & SPRING, Mag Ground
- 455190 BUSH & SPRING, Mag End Cap
- 200737 BRUSHES, Generator

FUSE/HOLDER

- 54190387
- 54938986
- MAP4230
- 188218

FUSE HOLDER PARTS ONLY - LUCAS (Order 188218 Fuse)
FUSE HOLDER with LEADS - LUCAS (Order 188218 Fuse)
FUSE HOLDER BLACK (inc. Fuse & Leads) Tai
FUSE - 20 AMP (LUCAS)

WIRE TIES

- MAP4250
- MAP4252
- MAP4255
- MAP4257

5 1/2" BLACK NYLON WIRE TIES (10pk)
5 1/2" BLACK NYLON WIRE TIES (100pk)
8" BLACK NYLON WIRE TIES (10pk)
8" BLACK NYLON WIRE TIES (100pk)

SPARK PLUGS¹

MAKE/MODEL	ND (DENSO) ²	NGK	CHAMPION
TRI 750 II's '81-on	W20ESU (W20ESGU)	B6ES	N5C
TRI 500 II's (ALL) BSA 441/500 I's NORTON 750/850 (ALL)	W22ESU W22ESGU W22EPU	B7ES BP7ES	N4C N7YC (projected nose)
TRI/BSA (all not listed above)	W24ESU (W24EPU)	B8ES (BP8ES)	N3
			N2C

¹NOTE: Plugs are Listed Hottest First in Descending Heat Range
²NOTE: ND "PU" Plugs are Projected Nose "U-GAP" for Broader Heat Range (stays cleaner longer), We Highly Recommended these Plugs for Longest Lifewith the Best Throttle Response & Most Mileage. For fans of NGK use the "BP" prefix.

BATTERIES

MAKE /MODEL	YUASA (USA)	ACID
TRI/BSA (6V) TRI/BSA/NOR (12V NOT MKIII) TRIUMPH T160 NORTON MKIII	* Y12N94B1 YB16LB YB14L	*VERIFY CORRECT # BY SIZE (LxWxH): Y6N11A1B (4-3/4 x 2-1/2 x 5-1/4") YB386A (4-5/8 x 3-1/4 x 6-3/8") YB396 (5 x 1-7/8 x 5")

M.A.P. Cycle Enterprises, Inc.

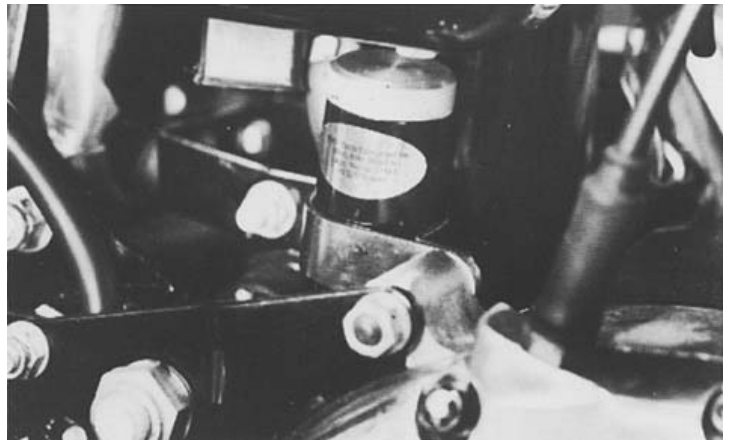
Wiring Harness

These wiring harnesses are O.E. Stock Type Cloth Wrapped (unless noted as PVC below) including Original Type Wires with English color coding. Though not Genuine Lucas, these are the best available currently.

Make	Model	Year	Main	Headlight	Comments/Notes
BSA:					
	B25,B44	'68-71	H154		
	B25SS, B50	71-72	H046	H046H	
	B40	'64-66	H152		Points are in Case
	B33,B34,Gold STAR	All	H001		All Swing Arm Frames
	A7,A10	'54-62	H002		All Swing Arm Frames
	A65	thru '65	H014		6V Models
	A65	'66-67	H040		Early 12V w/2 Switches in headlamp
	A65	'67	H130		12V w/lgn on Frame, Zener under Seat
	A65	'67	H129		12V w/lgn on Frame, Zener under Forks
	A50,A65	'68-'69	H013		12V
	A50,A65	'69-70	H015		w/Indicators & Oil Light Switch
	A65	'71-73	H028	H028H	Oil in Frame Models
	A75	thru '70	H145		
	A75	'71-73	H062	H062H	
Norton:					
	650SS,750 Atlas	'64-67	H039		12V w/Magneto & Alternator,Featherbed
	P11 (650 Mercury)	'68-on	H030		Late Models w/2-Coils & Alternator
	Commando	'67-68	H311		Early Modelss w/Points in Magneto Position
	Commando	'68-71	H312		Points in Timing Cover
	Commando	'72-75	H032	H032H	MKII & MKIIA with 6V Coils
	Commando	'75-on	H115	H116H	MKIII (PVC)
(H117 is the Console Harness (PVC)) (H118 is the Front Brake Harness (PVC)) (H119 is the Ignition Harness (PVC))					
Triumph:					
	Singles	'46-49	H051S		Instrument Panel in Tank
	T15,T20 Terrier,Tiger Cub	'56-63	H201		Distributor & 1 Headlamp Switch (839101)
	T20S,M,SM,SS,T	'62-65	H204		E.T. Ignition 99-0732 / 54932326E & 54094433
	Tiger Cub	'64	H202		EngineCasePoints & 2 HeadLight Switches (54094418)
	Tiger Cub		H203		EngineCasePoints & 2 Switches under Seat
	TR25W	'68-70	H019		
	TR25SS, B25SS	'71-72	H046	H046H*	Main Harness 54959480 (*HdLight harness w/plug 54959532)
	TRW		H123		Twin Coil, Alternator Models w-2x88SA Switch
	5T (PU)	'46-49	H051		Instrument Panel in Tank
	TR5,TR6 (PU)	thru '58	H007		Separate Headlamp (no plug) Mag & Dyno
	5T,6T,T100 (PU)	'49-51	H256		Nacelle, Neg Earth, Mag & Dyno
	T100,T110,5T,6T (PU)	'52-55	H052		Nacelle, Pos Earth, Mag & Dyno
	T100,110,T120 (PU)	'55-59	H008		Nacelle, Mag & Dyno
	5T,6T (PU)	'54-'59	H016		6V, Light/Ign Switch in Nacelle, Coil on top of Distributor
	T110 (PU)	'60-62	H017		Light Switch in Nacelle, Mag & Alternator
	T120,TR6 (PU)	'60-62	H018		Light Switch Under Seat, Mag & Alternator
	3TA,5TA & 6T ('60-62)	'57-62	H021		6V, Dist., Light/Ign Switch in Nacelle, & 6T w/coil under seat)
	T100SS	'63-64	H102		6V, Light/Ign Switch (PRS8) in SidePanel 99-0729 / 54094363
	T90,T100,T120,TR6	'63-64	H221		6V, 2 Switches (88SA) in LH Side Panel, 2 Coils
	3TA,5TA,6T	'63-65	H222		6V, 2 Switches in Nacelle, 2 Coils
	T90,T100,T120,TR6	'65	H126		6V, 2 Lt.Switch in SidePanel, Horn under Gas Tank
	T90,T100,T120,TR6	'65	H128		12V, 2 Light.Switch (88SA) in SidePanel, Zener under Tank
	T90,T100,T120,TR6	'66	H023 (54938941)		12V, 1 Light Sw (88SA) & Spade Ign.Switch in Side Panel
	T100C,TR6C,T120TT	'66-67	H131		AC Magneto (Energy Transfer System) 99-0794 / 54937097
	3TA,5TA,6T	'66	H024		12V, 2 Switches in Nacelle, Zener Under Seat
	T90,T100T120,TR6	'67	H025		12V, 1 Switch in H/lamp,Ign.Sw in SidePanel 54950449
	T100C,TR6C	'68	H132 (54953440)		Comp.Model,5¾" H/lamp,Capacitor,No Ammeter
	T100C,TR6C	'69	H133 (54955719)		Comp.Model,5¾" H/lamp,Cap.&O-Light,No Ammeter
	T100C,TR6C	'69-70	H134 (54957096)		Comp.Model,5¾" H/lamp, Ft Brk Switch, Kill But.,No Ammeter
	T90,T100,T120,TR6	'68	H026		Ign. Switch on Forks, Zener under Bot.Fork, Ign Warnig Lt
	T90,T100,T120,TR6	'69-70	H027 (54955257)		Ign. Switch on Forks, Zener under Bot.Fork, Oil Light
	T100R	'71-72	H038		2-piece Harness, Brake Light Switch on Cable
	T100,T120,TR6	'69-70	H127		as H027 w/Turn signals, oil switch, USA Specs.
	Adventurer (TR5T)	'72-74	H033		99-1258 / 54961591
	T100R	'73-74	H034		3 Warning Lights in H/lamp Shell, Ft Brk Switch in RH Cluster
	T120,TR6	'71-73	H028	H028H	Oil in Frame Models
	T140V&TR7RV	'73-75	H071		Ft Disc Brake & Rear Conical Drum Brake, RH Shift 54961593
	T140RV & TR7RV	'76-78	H073		Front & Rear Disc Brake, LH Shift (19-1962)
	T140E	'79-80	H074		3-Phase Alt., Neg.Ground, one Zener (99-7056)
	T140E, ES	'81-83	H075		3-Phase Alt., Triple ZenerPack (PVC) (60-7465)
	T150	'68-70	H047		60-2124 / 54955732
	T150	'71-72	H048	H048H	Main Harness w/Ign & Lt Switch in Side Panel
	Hurricane	'73	H078	H078H	
	T150V	'73-74	H049		Ft Disc Brake Models (54961595)
	T160 (all)	'75-76	H050	H501	(order H501 for Starter Solenoid SubHarness (PVC)) 60-4347

M.A.P. Cycle Enterprises, Inc.

The Ultimate Oil Filter!



Designed and Manufactured by **M.A.P. Cycle** way back in 1979. Copied by many but after all of these years the original is still the best with its Simple Yet Functional Design Coupled with Sturdy Steel Construction. Our Filter Will Never Be Obsolete as witnessed by the recent "Copy Cats". A good idea will always be a good idea! Very reasonable price, too. This Filter is a MUST for All Bike Owners Interested in Longest Engine Life. Not Only British But HD's and even Japanese Bikes Without a Factory Oil Filter can benefit from our **M.A.P. Cycle** oil filter. Features include an Internal By-Pass preventing possible engine damage should the element ever get clogged for whatever reason (It is imperative that the return line is connected to the spigot opposite of the cap). A Knurled Aluminum cap for easy removal. Design allows for adaption to pressure feed for the race buffs (after the pump, of course). Replacement Parts are available. Uses an inexpensive Trident Oil Filter Element. Over 3000 Sold. Can be used in conjunction with any oil cooler. Only 1-3/8" x 7-1/2" long (OA).

Kit includes: Oil Filter Body, Alloy Cap with O'ring, Pressure Relief Spring along with Element, Oil Line, Chrome Mounting Clamp, Hose Clamps & Instructions.

MAP6500 Specifically Designed for all Oil-in-Frame BSA/Triumph up to 1979. Mounts Vertically Neatly Behind Tranny, Parallel with Oil Tube (see photo above right) Barely Visible Yet Totally Accessible For Filter Changes. Black Powder Coat Body



MAP6500

MAP6510 Pre Oil-in-frame Models Can Use This Specially Designed Filter. Mounts Behind Rear Passenger Peg or Virtually Anywhere. Both Spigots Point away From Cap. Black Powder Coat Body.
(photo on right)



MAP6510

70-6571/E Filter Element (Also T150/T160/Rocket III) 70-6571/E
MAP6552 Cap Sealing O'RING (not shown)



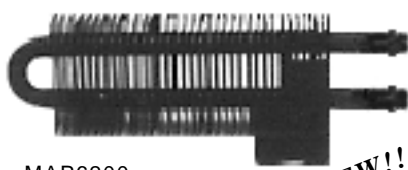
For Oil Line
See Page 76

NORTON OIL FILTER CARTRIDGE

06-3371 Filter CARTRIDGE NORTON English (All)
06-3371/E Filter CARTRIDGE NORTON GOOD Value "EMGO" Brand



OIL COOLERS



MAP6200

NEW!!

Simple, Inexpensive & Easy to Mount Universal OIL COOLERS. Extend Engine Life by Preventing Excessive Oil Temperatures that Greatly Reduces Oil's Lubricating Properties & Engine Life. Straight 5/16" Barb Fittings. .390" Mounting Tab Hole. Available with RH or LH Mounting Tab. Black Finish. Only 1" deep x 2" wide x 7" tall (OA)

MAP6200 OIL COOLER - LH MOUNTING TAB
MAP6205 OIL COOLER - RH MOUNTING TAB

W.A.P. Cycle Enterprises, Inc.

AGAIN AVAILABLE:

FINNED CUSTOM TOP OIL LINE

Finned Top Oil Line Kit - Redesigned With Special Sealing Washers For Positive Oil Control Beautifully Polished, Looks GREAT Plus It Works, Actually Lowers TopEnd Oil Temperature *Made In U.S.A., Exclusively by W.A.P. Cycle*
Includes: Oil Manifold, Sealing Washers, Oil Line and Clamps
(*73-on May Need Slight Rockerbox Fin Edge Filing)

MAP6000 Fits Triumph 650-750 II's (UNIT CONSTRUCTION)

MAP6010 Special CRUSH WASHERS for FINNED TOP OIL LINE (ea.) Uses 2 When REPLACING Line



MAP6020 Finned ALLOY Points COVER - Fits All TRIUMPH II'S Beautifully POLISHED. Includes Gasket. Made in USA *EXCLUSIVELY by W.A.P. Cycle.* (Shown at right)

MAP6025 Finned POINTS COVER - TRIDENT

MAP6035 Finned POINTS COVER - NORTON

MAP6040 Finned ALLOY TRI PRE-UNIT SUMP PLATE

FINNED COVERS



TRIUMPH 500/650II

MAP6070 Finned METAL ROCKER COVERS Beautifully Chromed (SET of 4) (Shown at right)

MAP6072 Finned ALLOY ROCKER COVERS (BARNETT) 4 Rings, Hex TOP, Polished (SET of 4)

MAP6075 Finned METAL ROCKER COVERS TRIUMPH PRE-UNIT (SET of 4) (Similar to photo at right)



FINNED ROCKER BOX COVERS

MAP6050* Finned MOTOR MOUNTS and PASSENGER PEGS for TRI 650 '63 thru '70 (Also T140 in Custom Frames) *MADE in U.S.A. EXCLUSIVELY for W.A.P. Cycle.* (Cast) (shown at right)

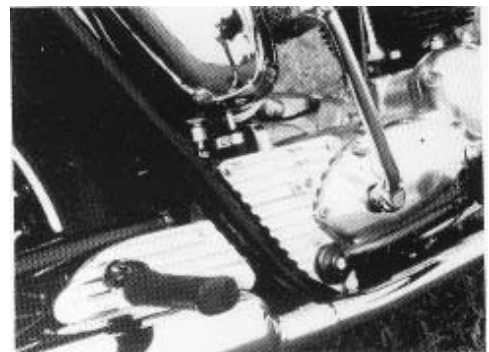
MAP6050/B* Billet 6061-T6 Finned MOTOR MOUNTS and PASSENGER PEGS - Ultra Strong, Fully Machined - Simply Beautiful!!

MAP6052* Billet 6061-T6 Finned MOTOR MOUNTS ONLY (CAST) Fits TRI 650 '63thru '70 & MOST CUSTOM FRAMES (SET)

MAP6052/B* Billet 6061-T6 Finned MOTOR MOUNTS ONLY -Ultra Strong, Fully Machined - Simply Beautiful!!

Note: for stock style T120/TR6 (pre OIF) Motor Mounts use as stock replacements or custom applications - Order 82-6066 LH &/or 82-5908 RH (Black)

CUSTOM MOTOR MOUNTS



MAP6058 AIR FILTER PANELS Replace OUTER COVER on ALL 650/750 OIF TRI/BSA Designed for Velocity Sacks. POLISHED FINNS (pr) *MADE in USA. EXCLUSIVELY FOR W.A.P. Cycle.*

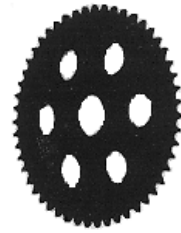
CUSTOM AIR FILTER PANELS



M.A.P. Cycle Enterprises, Inc.

REAR SPROCKETS

- 37-3741 TRIUMPH/BSA 250 5-Bolt CONICAL
- 68-6088 BSA A50/A65 10-Bolt - 47T Steel (Quick Change)
- RAS53005² TRIUMPH 8-Bolt - 46T 7075 "HardCoat" Aluminum (Also BSA III's)
- 37-1499 TRIUMPH 8-Bolt - 46T STEEL (Also BSA III's)
- 37-1499/49 TRIUMPH 8-Bolt - 49T STEEL (Also BSA III's)
- 37-3411 TRIUMPH 8-Bolt - 52T STEEL (Also BSA III's)
- RAS53003² TRIUMPH 8-Bolt 7075 "HardCoat" Aluminum (Also BSA III's)
- RAS52003² 520 Conversion Sprocket for 8-Bolt Drum - 7075 "HardCoat" Aluminum
- 37-3747 TRIUMPH/BSA CONICAL 5-Bolt - 47T STEEL
- 37-3747/49 TRIUMPH/BSA CONICAL 5-Bolt - 49T STEEL
- 37-4046 TRIUMPH/BSA CONICAL 5-Bolt - 50T STEEL (OE ON TRI-BSA III's)
- 37-3903 TRIUMPH/BSA CONICAL 5-Bolt - 53T STEEL (OE ON TRI-BSA III's)
- RAS53004² TRIUMPH/BSA CONICAL 5-Bolt 7075 "HardCoat" Aluminum
- RAS52004² 520 Conversion Sprocket for Conical 5-Bolt - 7075 "HardCoat" Aluminum
- 37-7072 TRIUMPH Disc 4-Bolt - 45T Steel (Smith Speedo Drive Only)
- 37-7064/V¹ TRIUMPH Disc 4-Bolt - 47T Steel (VEGLIA DRIVE on SPROCKET SIDE)
- 37-7064/V43¹ TRIUMPH Disc 4 Bolt - 43T Steel (VEGLIA DRIVE on SPROCKET SIDE)
- 37-7064/V46¹ TRIUMPH Disc 4 Bolt - 46T Steel (VEGLIA DRIVE on SPROCKET SIDE)
- RAS53001² TRIUMPH Disc 4 Bolt - 7075 "HardCoat" Aluminum
- RAS52001² 520 Conversion Sprocket for Disc Brake 4-Bolt - 7075 "HardCoat" Aluminum
- 37-7089 TRIUMPH T140D SPECIAL (w/Lester Mag) - 47T Steel
- 37-7089/43 TRIUMPH T140D SPECIAL (w/Lester Mag) - 43T Steel
- 37-4209/50 TRIUMPH T160 TRIUMPH - 50T Dished Steel
- 37-4209/45 TRIUMPH T160 TRIUMPH - 45T Dished Steel
- ????? Barnes Type 520 Conversion Sprocket - 7075 "HardCoat" Aluminum (Inquire)



New!

New!

¹NOTE: ALL "37-7064V" Have Thinner Center Section for VEGLIA DRIVE, can be used w/SMITH DRIVES.

²NOTE: Add "/tooth count" to part number. Range is from 40 thru 53 teeth for most sprockets - Inquire

DRUM & SPROCKET

- 37-1276 DRUM SPROCKET - TRIUMPH - 43 Tooth (8-Bolt Type)
- 37-0951 DRUM SPROCKET - TRIUMPH - 46 Tooth (8-Bolt Type)
- 37-1040 DRUM SPROCKET - TRIUMPH - 46 Tooth "Quick Change" (Splined Center)
- 06-0319 DRUM SPROCKET - NORTON Atlas Style Bolt-On
- 06-2764 DRUM SPROCKET - NORTON COMMANDO (Pre MKIII Drum & Sprocket)
- 06-6011 DRUM SPROCKET - NORTON COMMANDO MKIII ONLY Sprocket



REAR DRIVE CHAIN*

100 Link	102 Link	104 Link	106 Link	107 Link	108 Link	110 Link	120 Link	Master
RK520100	RK520102	RK520104	RK520106	----	RK520108	RK520110	----	RK520ML
RK521100	RK521102	RK521104	RK521106	----	RK521108	RK521110	----	RK521ML
M530100	M530102	M530104	M530106	M530107	M530108	M530110	M530120	M530ML
----	REN535102	----	----	----	----	----	REN535120	REN535ML
----	REN539102	REN539104	REN539106	----	----	----	----	REN539ML

*NOTE: "M" Series is warranted for 1 year or 20K miles (with M.A.P. Original receipt) for a FREE Replacement for any reason (exc. shipping) an excellent replacement for narrow Renold "Classic" as required by many British Motorcycles for chaincase clearance.

RK520 Series is RK standard duty 520 series chain 6800 lb tensile)

RK521 Series is "Ultra durable" 520 "X" ring RK chain with 20K mile warranty

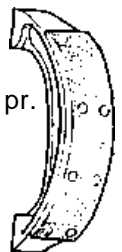
REN535=RENOLD 530 "TOURING" (187386) 21.1mm PIN WIDTH with 6159lb. TENSILE

REN539=RENOLD 530 "GP" (119059) 21.1mm PIN WIDTH with 6800lb. TENSILE

FRONT

- 37-1406/7³ Triumph 5TA, T100, TR5 ('61-68): T250 ('68) pr.
- 37-3446 Triumph T100C ('69-72): T250 ('69-70) ea.
- 37-3804 Triumph TR5T ('73-74): T250 ('71) 6" ea.
- 37-2327³ BSA B44 & B25 ('67-70) pr.
- 68-5541/5543³ BSA A65 pr.
- 37-1410/1411³ Triumph 650 7" Single Leading Shoe (SLS) Hub ('60-65)(not '60-62 6T) pr.
- 37-1732/1733³ Triumph 500/650 8" Single Leading Shoe (SLS) Hub (T100R '68) pr.
- 37-1996³ Tri/BSA T120/T150/A65/A75 8" Double Leading Shoe Hub (most '68-70) T100R ('69-74) pr.
- 37-3713³ Tri/BSA T120/T150/A65/A75 8" Conical HUB (ie. '71-72) ea.
- 06-7715 NORTON ATLAS (SLS) ('63-68) pr.
- 06-0006/PR³ NORTON COMMANDO (DLS) pr.

BRAKE SHOES



REAR

- 37-2327³ BSA A50/A65 '65-70 (Single Sided Hubs), B44/B25 ('67-70), T250 ('68-70) pr.
- 37-1406/7³ Triumph 500/650 II's & 750 III's - All Single Sided Non Conical Hubs pr.
- 37-3925/3926³ Triumph 500/650/750 II's & III's & B50 - All Conical Hubs pr.
- 06-0828/PR³ NORTON COMMANDO pr.

³NOTE: Add "/E" for Excellent Quality "Economy"

M.A.P. Cycle Enterprises, Inc.

99-2769 **PADS** - Triumph "OE" Lockheed (Front/Rear) uk pr.
 99-2769/E **PADS** - Triumph (Front/Rear) Tai pr.
 99-2769/PIN **PIN** - Triumph Brake Pad Retaining ea.

06-6186 **PADS** - Norton "OE" Lockheed (Front/Rear) uk pr.
 06-6186/E **PADS** - Norton (Front/Rear) Tai pr.

DISK BRAKE PADS



BRAKE SHOE SPRINGS

A65/B25/B44/T250 (All)	Various	37-2328 Rear
T100/T120 '59-on (Except Conical Hubs)	37-0135 Front	37-0135 Rear
T120/T140/A65 '71-72 Conical Hubs	37-3714 Front	37-2328 Rear
COMMANDO (All)	06-0014 Front	06-7607 Rear

BRAKE SHOE PARTS



37-1415 **THRUST PAD** -Triumph Brake Shoe (Fits 37-1406/7 Shoes)

BRAKE ROTORS

37-4275 **BRAKE ROTOR** TRIUMPH Front/Rear (All Spoked Wheels) Chromed
 37-7079 **BRAKE ROTOR** TRIUMPH Front/Rear T140D "Special" (Lester Mag) Cast-Iron
 37-7175 **BRAKE ROTOR** TRIUMPH Front/Rear '80-on (Cast-Iron)
 06-6595 **BRAKE ROTOR** NORTON COMMANDO Front/Rear (All)

SPEEDO/TACH CABLES*



MAKE/MODEL	YEAR	SPEEDO CABLE	TACH CABLE	SPEEDO GEARBOX
BSA				
B40, SS80, SS90, C15, D7	1964-65	DF9110/0059	-----	BG5330/247
B40ES, B40S, B44E, B40 Enduro	1964-66	DF9110/0061	DF9110/0031	BG5330/247
B44SS, B44VS, C15, B25	1967	DF9110/0061	DF9110/0033	BG5330/247
B25, B44S, B44GP	1968	DF9110/0063	-----	BG5330/247
B44VS, A50, A65	1968	DF9110/0066	DF9110/0033	BG5330/247
B25,SS,TT; B44SS, VS; B50SS,T	1969-72	DF9110/0063	DF9110/0031	BG5330/247
A50RS,S,C;A65SH,S,RS	1964-65	DF9110/0040	-----	BG5330/31
A65T, A65L	1964-65	DF9110/0044	DF9110/0033	BG5330/31
A50W,RS, A65L,T,H,S,F,FS	1966-66	DF9110/0066	DF9110/0033	BG5330/111
A50, A65L,T,S	1967-70	DF9110/0066	DF9110/0033	BG5330/171
A50, A65	1971-72	DF9110/0066	DF9110/0033	BG5330/164
A75R	1969-70	DF9110/0068	DF9111/0025	BG5330/168
A75R	1971-72	DF9110/0065	DF9111/0028	BG5330/164
NORTON/MATCHLESS				
G80, G12		DF9110/0068	DF9111/0032	BG5330/287
G12CSR, G15, ES2		DF9110/0066	DF9110/0032	BG5330/287
JUBILEE	1964-68	DF9110/0063	-----	BG5330/857
NAVIGATOR, ELECTRA	1964-68	DF9110/0063	-----	BG5330/257
ATLAS	1964-69	DF9110/0069	DF9111/0032	BG5330/257
P11	1969-70	DF9110/0066	DF9111/0029	BG5330/171
COMMANDO (NOT MKIII)	1969-75	DF9110/0069	DF9111/0029	BG5330/171
COMMANDO MKIII ONLY	1975-76	DF9110/0069	DF9111/0029	BG5333/170
JOHN PLAYER REPLICA		DF9110/0072	DF9111/0033	BG5330/171
TRIUMPH				
T25	1967-72	DF9110/0063	DF9111/0025	BG5330/31
T100,3TA,5TA	1959-67	DF9110/0058	DF9111/0028	BG5330/287
T100R,C	1968-74	DF9110/0063	DF9111/0027	BG5330/287
TR5T	1973-74	60-3997	60-3998	BG5331/104
TR6,T120	1963-65	DF9110/0041	DF9158/0035	-----
T120 '66	1967-70	DF9110/0065	DF9111/0028	BG5330/287
TR6C,R,T120	1967-70	DF9110/0065	DF9111/0028	BG5330/168
TR6,T120	1971-72	DF9110/0066	DF9111/0030	BG5330/164
TR7,T140 (Not T140D)	1973-79½	DF9110/0069	DF9111/0028	BG5330/164 (RH Mtg.)
T140,T140D (all w/Instrument Panel)	1979½-on	DF9110/0069	DF9111/0032	60-7091 (LH Mtg.)
T150	1968-70	DF9110/0069	DF9111/0025	BG5330/168
T150	1971-74	DF9110/0069	DF9111/0030	BG5330/164
HURRICANE	1973	DF9110/0072	DF9111/0031	BG5330/164
T160	1975-76	DF9110/0072	DF9111/0030	BG5333/164

*NOTE: Last 2 Digits of the Part Number Indicate the Length in Inches. When Original Cables are Available Measure Outer Lenth to Verify Correct Length. Ordered Cables will be shipped in next longer length when exact length is not available.

M.A.P. Cycle Enterprises, Inc.



SWING ARM PARTS



MAKE/ MODEL:	NUT	LOCK TAB	CAP	O-RING/ BOOT	SPACING WASHER	BOBBIN	BUSH	SPACER/ SPINDLE	BOLT
BSA A50/A65 '68-70	82-8995	42-4364	-----	-----	-----	82-8993	82-8993	42-4340	42-4340
BSA A50/A65 '71-on	14-1307	83-2266	-----	83-2692	-----	-----	83-2521	83-2691	21-2087
TRI 500 II '59-66*	-----	-----	-----	-----	82-4078 ¹	-----	82-4076	82-4195	-----
TRI 500 II '67-on	-----	82-7343	-----	82-7270	----- ¹	-----	82-4076	82-7342	----- ²
TRI 650 '63-67	99-3542	82-5944	-----	-----	82-6730	82-6821	82-6042	82-5313	82-6150
TRI 650 '68-70	21-0545	82-5944	82-7848	82-8090	-----	82-6821	82-6042	82-5313	21-0620
TRI 650/750 II's '71-on	14-1307	83-2266	-----	83-2692	-----	-----	83-2521	83-2691	21-2087
TRI T150/T160	21-0545	82-5944	82-7848	82-8090	-----	82-6821	82-6042	82-5313	21-0620
COMMANDO	-----	-----	-----	06-0449	-----	-----	06-0447	06-0453 ³	-----
COMMANDO MKIII	-----	-----	-----	06-5227	-----	-----	06-5320	06-4699	-----

*NOTE: Also Uses 82-4196 - Cap (2); 82-3797 - ROD (1); 82-3799 - Nut (2)

¹NOTE: Use as Needed 82-4385 .003" Shim 82-4386 .005" Shim

²NOTE: 21-0579 LH; 21-0580 RH

³NOTE: Available are: 06-0453/LNG 7"; 06-0453/SRT 6½"; 06-0453/005 +.005" OverSize OD



AXLE ADJUSTERS



MAKE/ MODEL:	ADJUSTER	END CAP	NUT	BOLT
BSA I's '67-70	60-6033	37-1015	42-4476	-----
BSA I's '71-on	83-3556	-----	-----	-----
BSA II's '62-65	68-6032	-----	24-0563	-----
BSA II's '66-70	68-4150	-----	24-0563	-----
BSA II's '71-on	37-3742	83-3082	14-0301	14-0107
BSA III's '68-70	37-2089 ³	37-1015	14-1902	-----
BSA III's '71-on	37-3919	37-1015	14-1902	-----
TRI I's '68-70	37-2339	37-1015	70-8137	-----
TRI I's '71-on	83-3556	-----	-----	-----
TRI II's TO '68	37-1134	37-1015	37-1058	-----
TRI II's '68-70 ²	37-2089 ³	37-1015	14-1902	-----
TRI II's '71-79 ¹	37-3742	83-3082	14-0301	14-0107
TRI II's '82-on	37-7127	-----	14-0302	14-0118
TRI III's '68-70	37-2089 ³	37-1015	14-1902	-----
TRI III's '71-74	37-3919	37-1015	14-1902	-----
TRI III's '75-76 (RH)	37-4259	-----	14-0301	-----
TRI III's '75-76 (LH)	37-4362	83-5870	14-0301	-----
COMMANDO '68-74	06-0650	-----	06-0651	-----
COMMANDO '75-76	06-6109	-----	14-0301	06-6405

¹NOTE: TR5T USES 83-3556 ADJUSTER PLATE & 83-1969 ADJUSTER PLATE WITH AXLE

²NOTE: ALSO ALL TRI 500II's NON OIL-IN-FRAME

³NOTE: ONE MAY SUBSTITUTE 37-2339 WITH 37-1058 NUT (SLIGHTLY THINNER)

WHEEL BEARINGS*

37-1041	BSA I's thru '70	RH & LH Front: RH & LH Rear Wheel
37-7042	BSA I's '71-on	RH & LH Front: RH & LH Rear Wheel
37-1041	BSA A50/A65 to '69	RH & LH Front Single Leading Shoe Wheel: RH & LH Rear Wheel
37-7042	BSA A50/A65 '69-70	RH & LH Front Double Leading Shoe Wheel
37-1041	BSA A50/A65 thru '70	RH & LH QuickChange Rear Hub
37-7042	BSA A50/A65 '71-72	RH & LH Front & Rear Conical Hub (to '71 Brake Drum: 37-7041)
37-7042	TRI II's & III's	RH & LH Front Single & Double Leading Shoe Hub: RH & LH Front & Rear Conical Hub
37-7042	TRI II's & III's	RH & LH Rear Spool "Drum" Hub (Except QuickChange)
37-7042	TRI II's & III's	RH Front Disc Hub (RH T160 Rear Disc)
37-7042	TRI II's	RH & LH Front T140D ("LESTER"): RH Rear T140D ("LESTER") Wheel
37-7041	TRI II's & III's	LH Front Disc Hub (Except T140D ("LESTER"))
37-7041	TRI II's & III's	RH & LH Rear Disc Hub (Except RH Rear T140D & T160): QuickChange Sprocket Brake Drum
37-1034	TRI II's & III's	RH & LH QuickChange Hub
06-7688	NORTON (750-850)	Front Disc-Side Hub (All): Front Drum-Side Hub: Dual Row Bearing (Sprocket) All
06-7710	NORTON (750-850)	Front Hub Opposite Disc: RH & LH Rear Drum Brake Hub: LH Front Drum
57-3717	NORTON MKIII	RH Front MKIII Disc Hub: RH Rear MKIII Disc Hub
37-7042	NORTON MKIII	LH Rear MKIII Hub

*NOTE: MAP0966 Bearing Lock Ring SPANNER (Removes and Re-installs Screw-on Wheel Bearing Retainers)



M.A.P. Cycle Enterprises, Inc.



O.E. MAGNUM
(ORIGINAL EQUIPMENT TYPE)

PROGRESSIVE SUSPENSION

- FEATURES:**
 DOUBLE WALL MAGNUM CONSTRUCTION
 PRECISION, AUTOMATIC CONTROLLED 6-STAGE DAMPING
 HEAT TREATED HARD CHROME ROD
 LONG LIFE SEAL
 HEAT RESISTANT OIL
 REASONABLE PRICE
 SHOCKS ONLY - NO SPRINGS



P.S. MAGNUM
(HEAVY DUTY - FREON CELL)



Shrouded
(Covered) Springs



Exposed
Chrome Springs

EMGO BRAND
(ORIGINAL EQUIPMENT TYPE)

MAKE/ MODEL:	PROGRESSIVE SUSPENSION					EMGO	
	PS MAG ¹ SHOCK	PS STD ² SPRING	PS H.D. ² SPRING	OE MAG ¹ SHOCK	OE MAG CHR SPRING ⁴	SHROUDED SPRINGS	EXPOSED SPRINGS
BSA							
B25:B44:B50 '65-on	PS20	TF75-130	TF95-140	OE30	OE80-120C	17-05591	17-05590
A50:A65 '62-70	PS30	TF75-130	TF95-140	OE40	OE80-120C	17-05593	17-05597
A50:A65:A70 '71-on	PS10	TF75-130	TF95-140	OE20	OE80-120C	17-05591	17-05590
A75 '69-on						17-05593	17-05597
TRIUMPH							
T25 '63-72	PS20	TF75-130	TF95-140	OE30	OE80-120C	17-05591	17-05590
3/5TA:T90:T100SS						17-05683	17-05582
T100T,S '62-on	PS10	TF75-130	TF95-140	OE20	OE80-120C	17-05687	17-05686
TR5T:T100C,R '63-74	PS20	TF75-130	TF95-140	OE30	OE80-120C	17-05591	17-05590
6T:T110:T120 '58-61	PS20	TF75-130	TF95-140	OE30	OE80-120C	17-05591	17-05590
6T:TR6:T120 '62-on	PS10	TF75-130	TF95-140	OE20	OE80-120C	17-05585	17-05684
T110:TR6C,R,T '63-72	PS20	TF75-130	TF95-140	OE30	OE80-120C	17-05591	17-05590
T120R,C,TT '63-72	PS20	TF75-130	TF95-140	OE30	OE80-120C	17-05591	17-05590
TR6RV:T120RV '72-on	PS10	TF75-130	TF95-140	OE20	OE80-120C	17-05687	17-05686
TR7RV '72-on	PS10	TF75-130	TF95-140	OE20	OE80-120C	17-05687	17-05686
T140V:T140D,E '72-on	PS10	TF75-130	TF95-140	OE20	OE80-120C	17-05687	17-05686
TSX	-----	-----	-----	-----	-----		
T150:T160 '68-76	PS20	TF75-130	TF95-140	OE30	OE80-120C	17-05591	17-05590
NORTON							
FEATHERBED '61-on						17-05861	17-05680
COMMANDO '68-on	PS20	TF75-130	TF95-140	OE30	OE80-120C	-----	17-05592

¹Requires PS5015 Travel Limiter (3/4"). P.S. MAGNUM may Not Clear Stock Chainguard.

²BLACK/COMPETITION RED 2-Piece Spring. for Softer Chrome 1-Piece Spring ORDER #TF70-120 (70-120lbs).

⁴Can be used as Stock Replacements - for Black Springs, Replace "C" Suffix with "B".

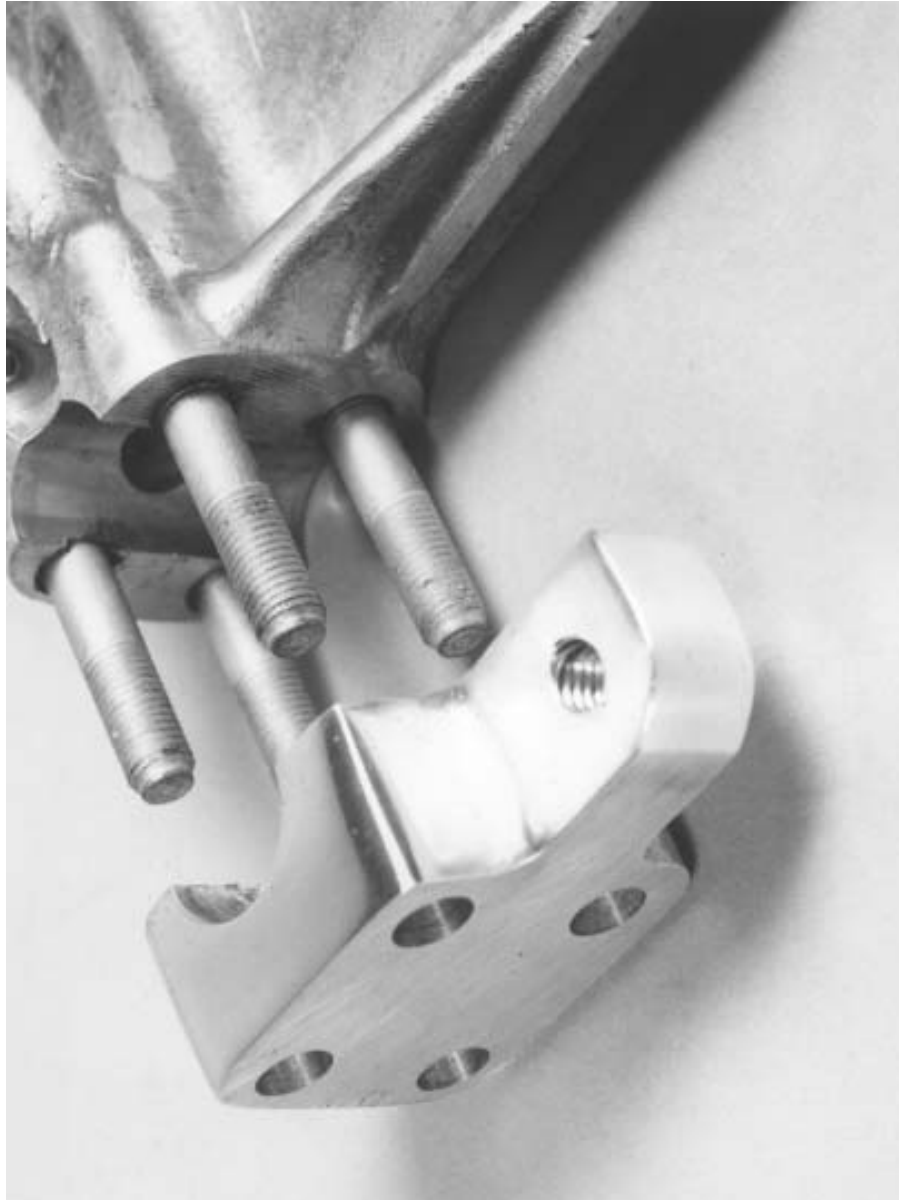
ORDER 62-0059 Shock Spring Tension Adjusting Tool as Required.

SHOCK/SPRING SPECIFICATIONS

PS10	12.5"	TF75-130	75-130#	OE20	12.5"	OE85-120C	85-120# CHR	17-05680/1	11.9"	110lb	17-05590/1	12.9"	110lb
PS20	13.0"	TF95-140	95-140#	OE30	13.0"	OE85-120B	85-120# BLK	17-05682/3	11.9"	132lb	17-05592	12.9"	126lb
PS30	13.5"	TF105-150	105-150#			OE100-140C	100-140# CHR	17-05684/5	12.4"	145lb	17-05593/7	13.4"	100lb
								17-05686/7	12.4"	100lb			

W.A.P. Cycle Enterprises, Inc.

**W.A.P. Cycle
6061 BILLET Fork Caps**



BEST QUALITY - BEST PRICE

WARRANTEED

MANUFACTURED in the U.S.A. BY **W.A.P. CYCLE** to PRECISE SPECIFICATIONS. CNC MADE from SPECIAL HEAT TREATED ALLOY for RESISTANCE to CRACKING or BREAKING. NICELY POLISHED for a GREAT LOOK (BETTER THAN STOCK). AVAILABLE for ALL TRIUMPH/BSA ALLOY LOWER FORK LEGS.

97-4456/MAP LH LOWER "DISC BRAKE" FORK CAP
97-4457/MAP RH LOWER "DISC BRAKE" FORK CAP
97-3947/MAP RH & LH "CONICAL" LOWER FORK CAP

M.A.P. Cycle Enterprises, Inc.

FRONT FORK PARTS

MAKE/ MODEL:	FORK TUBES	FORK GAITORS (BOOTS)	FORK SEAL	SEAL HOLDER	TOP BUSH	SPACER	BOTTOM BUSH
BSA B44 '67	41-5116	-----	65-5451	41-5157	65-5424	-----	41-5137
BSA B44 '68-69	68-5144	97-2513/PR	65-5451	97-2514	65-5424	-----	29-5347
BSA B44 '70	97-3905	97-2513/PR	65-5451	97-2514	65-5424	-----	29-5347
BSA A50/A65 '62-65	68-5030	42-5320/PR	97-2641	29-5310/003	97-2637 ¹	-----	97-2638 ¹
BSA A50/A65 '66-67	97-2636	42-5320/PR	97-2641	68-5132	97-2637 ¹	-----	97-2638 ¹
BSA A50/A65 '68	97-2636	97-2513/PR	97-2641	97-2514	97-2637 ¹	-----	97-2638 ¹
BSAA50/A65 '69-70 ³	97-3906	97-3635/PR	97-1500	97-3633	97-0441	97-3672	97-0443
BSA A50/65/B50 '71-on ²	97-4007	97-4002*	97-4001	-----	-----	-----	-----
TRI I's '68	97-2636	97-2513/PR	97-2641	97-2514	97-2637	-----	97-2638
TRI/BSA I's '69-70 ³	97-3906	97-2513/PR	97-1500	97-3633	97-0441	97-1896	97-0443
TRI II's to '64 (UNIT)	97-1299	97-0962/PR	97-1168	97-1474	97-0441	97-1896	97-0443
TRI II's '64-68 ^{3,5}	97-1889	97-1645/PR	97-1500	97-1654	97-0441	97-1896	97-0443
TRI II & III's '69-70 ³	97-3904	97-3635/PR	97-1500	97-3633	97-0441	97-1896	97-0443
TRI I, II & III's '71-72 ²	97-4007	97-4002*	97-4001	-----	-----	-----	-----
TRI II & III's '73-77 ²	97-4380	97-4002*	97-4001	-----	-----	-----	-----
TRI II's '78-on ²	97-4380	97-4002*	97-7079	-----	-----	-----	-----
NORTON '63-70	06-7714	02-0463/PR	NM17713	-----	06-7521	-----	06-7519
NORTON '71-on	06-3423	06-1115 ⁴	06-5483	-----	06-7521	-----	06-7519

¹NOTE: SOLD as SETS of 1 Each TOP & BOTTOM (97-2637/2638)

²NOTE: ALLOY LOWER LEGS ONLY (else Footnote #3)

97-4003 O'RING Internal - *97-1510/PR European Accordion GAITORS Also Help)

Use 97-4004 WASHER/O'RING, Bottom Bolt Sealing

Use PS1114 Progressive Wound Inner SPRINGS for Best Control.

³NOTE: STEEL LOWER LEGS ONLY (else Footnote #2)

82-4047 CORK (Above Top Spring Abutment)

97-2119 O'RING (Inside of Sealholder at Threads)

97-2154 SHUTTLE '68-on ONLY

97-1762 Top NUT thru '67

60-0340 BAND Gaiter Retaining thru '66

97-1657 Top Spring ABUTMENT

97-0431 WASHER (on Top of Top BUSH)

97-1058 Bottom Forktube NUT thru '67

97-2245 Top NUT 68-70

97-2083 CLIP Gaiter Retaining '67-on

97-1656 Steel WASHER (Inside Holder)

60-3273 Special Fork WIPER (Inside Holder)

97-2091 Bottom Forktube NUT '68-70

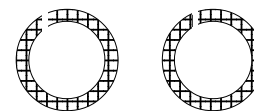
97-4258 Top NUT '71-72

⁴NOTE: ORDER 02-0463/PR (Pre '71) or 06-5743/PR ('71-on) European Accordion GAITORS

⁵NOTE: '68 Uses 97-2092 FORKTUBE (Can use 97-3904 w/97-2245 Top NUT & 97-2091 Bottom NUT)

PS5050 TRI-BSA '71-on. Replaces Stinction (Sticking) Causing Sticky, Hard Sliding O'ring With Specially Designed "Fiber" Ring. Make Your Front End Really Work!! (Set)

FORK DAMPNER RING KIT



PROGRESSIVE RATE FRONT FORK SPRINGS



Replace Your Old Wobble Causing Collapsed Fork Springs To *Progressive Rate*.

PS1200 TRI-BSA '68-on (ADAPTS to All with EXPOSED SPRINGS)

PS1114 TRI-BSA 71-on (All Alloy Lower Leg Models)

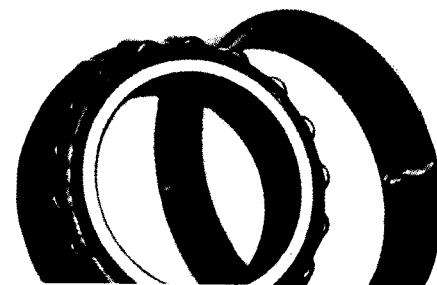
PS1116 TRIUMPH T160

PS1119 NORTON COMMANDO (ALL)

MAP3600 TRI 500 II's ('67-on) 650 II's ('55-on) & 750 III's. NOT for O.I.F. Converts Those 40 Loose Hard to Work With Balls to Tapered Caged Roller Bearings Complete with Cad Plated Dust Shield. Direct Replacement. Excellent!

MAP3601 As Above with a CHROME Dust SHIELD.

TAPERED STEERING BEARINGS CONVERSION KIT



STOCK NECK BEARINGS/RACES

65-5126/5127 BSA A50/A65 NECK RACES ONLY SET (Inc 66-4149)
 97-1110/SET TRI T100 thru '66 NECK RACES ONLY SET (Inc. 97-1140/1130)
 97-0111/SET TRI T100 '67-74 NECK RACES ONLY SET (Inc. 97-0439/1018)
 97-0111/SET TRI T120 thru '70 NECK RACES ONLY (All using 1/4" Balls) SET 4 Pieces
 97-4031 TRI-BSA OIL-in-FRAME (OIF) TAPERED ROLLER '71-on each
 37-7041 COMMANDO BALL BEARINGS SEALED each

60-2368 3/8" BALL BEARINGS (ea.)

60-2364 1/4" BALL BEARINGS (ea.)

60-2362 3/16" BALL BEARINGS (ea.)

60-2363 7/32" BALL BEARINGS (ea.)

7165 30th Avenue North

St. Petersburg, Florida 33710

Website: www.mapcycle.com Email: sales@mapcycle.com Phone (727) 381-1151

M.A.P. Cycle Enterprises, Inc.

SEATS



BSA

82-9732 B44 (VICTOR)	'67-70
83-2621 B25/B50	'71-72
68-9024 A50/65	'62-65 (PEAR EMBLEM TANK)
68-9047 A50/65	'62-65 (ROUND EMBLEM TANK)
68-9331 A50/65	'66 (FLAT SEAT)
68-9330 A50/65	'67-70 (HUMP SEAT)
83-3633 A50/A65/A70	'71-73 (OIL-in-FRAME)
82-8942 A75	'68-70 (LARGE EARLY TANK)
83-3853 A75	'71-72 (TEARDROP TANK)

NORTON

06-1766	ROADSTER (RIBBED TOP, NO BEAD, SMOOTH SIDES, BLK&CHR TRIM, W-STRAP, RND NOSE, BLK)	'71-72
06-5234	ROADSTER 750 MKII (PLAIN HOLY TOP, BLK BEAD, SMOOTH SIDES, W-STRAP, ROUNDED NOSE, 26" OA, BLK)	'71-73
06-3676	ROADSTER 850 MKIIA (CHKRD TOP, NO BEAD, SMOOTH SIDES, BLK&CHR TRIM, NO STRAP, RND FT, 26" OA, BLK)	'73-74
06-5612	ROADSTER MKIII (CHKRD TOP, NO BEAD, SMOOTH SIDES, BLK&CHR TRIM, NO STRAP, LH HINGD, RND NOSE, 26" OA, BLK)	'75-76
06-0501	FASTBACK (SMOOTH TOP & SIDES, NO BEAD, NO MOULDING, W-STRAP, SEAT EXTENDS OVER SIDES OF TANK, BLK)	'69-72
06-1770	INTERPOL	'72-74
06-6211	INTERPOL MKIII	'75-76
06-3677	INTERSTATE (CHKRD TOP, NO BEAD, SMOOTH SIDES, BLK&CHR TRIM, NO STRAP, FLAT 10" WIDE FT, 26" OA, BLK)	'73-74
06-5613	INTERSTATE MKIII (CHKRD TOP, NO BEAD, SMOOTH SIDES, BLK&CHR TRIM, NO STRAP, LH HINGD, FLAT 10" FT, 26" OA, BLK)	'75-76

TRIUMPH

82-4516	T20 (GREY TOP)	'63-67
82-9472	TR25W (STITCHED RIBBED BLK TOP, BLK BEAD, SMOOTH BLK SIDES, BLK& CHR TRIM, 25" OA, NO FLIP, GOLD LOGO)	'68-70
83-3418	TR25SS/T25T	'71
82-4239	3TA-5TA-T100A-T100SS (SEE 82-4239 IN TRIUMPH 650 SECTION FOR DETAILS)	'59-66
82-4360	T100C (EAST COAST BLK TOP)	'66
82-7776	T100 (SEE 82-7776 IN TRIUMPH 650 SECTION FOR DETAILS - ALSO 82-7776A & 82-7482 EAST/WEST VARIATIONS)	'67-68
82-7482	T100 (SEE 82-7482 IN TRIUMPH 650 SECTION FOR DETAILS)	'67-68
83-1573	T100 (SEE 83-1573 IN TRIUMPH 650 SECTION FOR DETAILS)	'70-74
83-4732	TR5T	'73-74
82-3153	5T-6T-T100 (RIGID TWINSEAT BLK) (ALSO T100 '50-53; 5T/6T '50-55)	'50-54
82-3647	T100/T110/6T '56-59; 5T '56 (SMOOTH NOT FLAT(ALMOST STEPPED) BLK TOP, WH ALMOST STRAIGHT BEAD, BLK SIDES, PORPUS NOSE, NO BOTT TRIM, BLK, FOR 4 GALLON GAS TANK)	'54-59
82-3785	TR6/T120 '59; TR5/TR6 '56-58 (SMOOTH NEARLY FLAT TOP, NOT STEPPED WH BEAD, BLK SIDES, RD NOSE, BLK, FOR 3 GAL. TANK)	'55-59
82-4239	6T-T110 (SMOOTH BLK TOP, WH BEAD, BLK SIDES, BLK BOTT TRIM COVERS CLIPS, 27" OA, HINGED)	'60-62
82-4691	TR6-T120 (SMOOTH STEPPED BLK TOP, STEPPED WH BEAD, BLK SIDES, BLK BOTT TRIM, NO FLIP)	'60-62
82-4691A	TR6-T120 (SMOOTH STEPPED GREY TOP, STEPPED WH BEAD, BLK SIDES, GREY BOTT TRIM, NO FLIP)	'60-62
82-5366A	6T-TR6-T120 (BLACK SMOOTH (PLAIN) STEPPED TOP, WH BEAD, BLK SIDES, GREY BOTT TRIM)	'63-66
82-5366	650-T120R-T120C (GREY SMOOTH (PLAIN) STEPPED TOP, WH "STEPPED" BEAD, BLK SIDES, GREY BOTT TRIM COVERS CLIPS, 27" OA, 9" FT TO HINGE, 10" HINGE TO HINGE, 13" TO CATCH, GLD LOGO)	'63-66
82-7482	650 TR6C-T120TT (BLK PLAIN TOP, BLK BEAD, BLK SIDES, BLK TRIM COVERS CLIPS, RAISED TAIL)	'67
82-7776	650 (GREY PLAIN LINED TOP, WH BEAD, BLK SIDES, CHR TRIM, 29" OA, 9" FT TO HINGE, 10" HINGE TO HINGE, 12" FT TO LATCH, GOLD LOGO, RAISED TAIL)	'67-68
82-7776A	650 (BLK PLAIN LINED TOP, WH BEAD, BLK SIDES, GREY TRIM COVERS CLIPS, THICK, RAISED TAIL, 29" OA, 9" FT TO HINGE, 10" HINGE TO HINGE, 12" FT TO LATCH, GOLD LOGO)	'67-68
83-1573	650 (WOVEN LINED TOP, BLK BEAD, SMOOTH SIDES, CHR TRIM, RAISED TAIL BLK, 29" OA, 8" FT TO HINGE, 10" HINGE TO HINGE, 12" FT TO LATCH, GOLD LOGO)	'68-70
83-3634	TR6R/T120R (RIBBED SNAKE SKIN TOP, BLK BEAD, SMOOTH SIDES, BLK&CHR TRIM, 5 1/2" NOSE, 26" OA, 6 & 9" TO HINGE, 8 & 11" HINGE TO HINGE, SUITCASE TYPE CATCH, BLK, GOLD LOGO)	'71-72
83-3634A	TR6R/T120R (SAME AS 83-3634 BUT WITH 8" NOSE)	'71-72
83-4599	TR6RV/T120RV (WOVEN RIBBED TOP, BLK&CHR TRIM, PLUNGER TYPE LATCH, RH HINGE, BLK) #CG50414-ON	'72
83-7065	T140 (RIBBED SNAKE SKIN TOP, BLK BEAD, SMOOTH SIDES, BLK&CHR TRIM, 26" OA, LH HINGE, 9 1/2" FT TO HINGE, 8" HINGE TO HINGE, GOLD LOGO, BLK)	'73-78
83-7065S	T140 (EURO (LARGE) TANK (1" SHORTER THAN 83-7065))	'73-77
83-7087	T140 ("SILVERJUBILE" (BLUE TOP & SIDES, RED TRIM))	'76
83-7127	T140 (BLACK-DROP SIDE - ie. BEAD DROPS ALMOST TO BOTT TRIM AT DRIVER)	'78
83-7129	T140 (BROWN-DROP SIDE - ie. BEAD DROPS ALMOST TO BOTT TRIM AT DRIVER)	'78
83-7129L	T140 (BLACK DROP SIDE LOCKING TYPE - ie. BEAD DROPS ALMOST TO BOTT TRIM AT DRIVER)	'79
83-7271	T140E	'79
83-7391	T140D	'79
83-7893	T140 (ELECTRIC START - BLACK)	'80-ON
83-8377	TSX (WILL ALSO FIT ALL OIL IN FRAMES - MAKES NICE CUSTOM SMALL STEPPED SEAT)	'82
82-9996	T150 (EARLY SQUARE (LARGE) TANK ONLY)	'68-70
83-2039	T150 (RIBBED SNAKE SKINTOP, BLK BEAD, SMOOTH SIDES, CHR TRIM, 30" OA, 9" FT TO HINGE, 10" HINGE TO HINGE, 12" FT TO CATCH, BLK, GOLD LOGO, LATE (TEAR DROP TANK) 2" LONGER THAN 83-1573)	'70-74
83-5309	T160 (ALL)	'75-76
83-3482	X75 (HURRICANE)	'73
82-7553	TRIUMPH SEAT STRAP (UNIVERSAL- MOST WEST COAST US MODELS '63-ON)	

IMPORTANT NOTICE:

With Inconsistancies in the Original Seat Part Numbers Compare the Descriptions Above with Your Seat and Order by Our Corresponding Part Number. All The Seats/Seat Covers Sold by M.A.P. are Made in England and are as Original as Possible. 83-1573 Will Actually Fit All Unit Construction Non O.I.F. Triumph 500/650 II's '63-70. The Above Triumph Seats Do NOT Have Seat Straps Unless Specified. Backs Have Mfg Logo Where Original.

M.A.P. Cycle Enterprises, Inc.

SEAT COVER KITS

BSA

MAP5004 B25-441 '67-70 (VICTOR)
 MAP5006 B25-B50 OIL-IN-FRAME '71-72
 MAP5000 A65 HUMP '67-70
 MAP5001 A65 FLAT '66
 MAP5002 A65 OIL-IN-FRAME '71-73
 MAP5003 A65 SQUARE BACK '62-65
 MAP5005 ROCKET III (W-WHITE PIPE)
 MAP5005/B ROCKET III (W-BLACK PIPE)

NORTON

MAP5020 ATLAS
 MAP5021 FASTBACK '69-72
 MAP5022 ROADSTER '71-72
 MAP5022A ROADSTER '73-74
 MAP5022B ROADSTER '75-76
 MAP5023/73 INTERSTATE '73 (BASKET WEAVE TOP)
 MAP5023 INTERSTATE '74 (CHECKERED TOP)
 MAP5023A INTERSTATE MKIII
 MAP5024 HI-RIDER

TRIUMPH

MAP5065 TIGER CUB GREY TOP BLK SIDE
 MAP5063 T25 OIL-IN-FRAME
 MAP5064 TR25W TROPHY
 MAP5026 "SPEED TWIN" SMOOTH TOP, WH BEAD, NO BOTT TRIM, BLK '50-54
 MAP5030 T110 SMOOTH TOP, WH BEAD, NO BOTT TRIM, BLK, '54-59
 MAP5031 T100 ('59-66) T120 ('60-62) SMOOTH TOP, WH BEAD, BLK BOTT TRIM
 MAP5032 T100 SMOOTH RIBBED GREY TOP, WH BEAD, BLK SIDES
 MAP5033 T120 BLK PLAIN FLAT TOP '63-66
 MAP5034 T120 GREY PLAIN TOP, WH TOP BEAD, GREY BOTT TRIM, '63-66
 MAP5036 T120 BLK PLAIN RIB TOP, BLK TOP BEAD '67-68
 MAP5039 T100/T120 GREY PLAIN RIB TOP, WH BEAD, BLK SIDE
 MAP5040 T100 ('69-74) T120 ('69-70)(SAME DESIGN as 83-1573 SEAT)
 MAP5044 T120 FLAT 8" NOSE '71-72 (23" LONG)
 MAP5045 T120 FLAT 5½" NOSE '71-72 (23" LONG)
 MAP5046 T120 FLAT 3" NOSE '71-72 (23" LONG)
 MAP5047 T120RV/TR6RV '71½-72 (25" LONG)
 MAP5052 T140 '73-77
 MAP5053 T140 "JUBILEE"
 MAP5054 T140 '78 BLACK DROPSIDE
 MAP5055 T140 '78 BROWN DROPSIDE
 MAP5056 T140 '78-79
 MAP5057 T140D "SPECIAL" '79
 MAP5058 T140 '81-83
 MAP5060 T150 '71-74
 MAP5061 T160
 MAP5062 X75 HURRICANE
 MAP5068 CLIPS/SEAT MOULDING (PER SEAT)
 MAP5069 CHROME MOULDING ORIGINAL TYPE '67-74
 MAP5069/L CHROME MOULDING WITH BLACK CENTER '76-on
 MAP5070 SEAT COVER KIT TRI 500 '59-on TRI 650 '63-70 "TRI" W-FOAM (WILL ALSO FIT T150 PAN)
 MAP5075 SEAT COVER KIT TRI T140 "TRI" W-FOAM
 MAP5076 SEAT COVER KIT TRI T140 CUSTOM W-FOAM

SEAT PANS

68-9330/P A50/A65 '63-70
 83-3634/P A50/A65 '71-73
 82-5366/P T120/TR6 '63-66
 83-1573/P T100 '67-74
 T120/TR6 '67-70
 T150 '68-74
 83-3634/P T120/TR6 '71-72
 (RH HINGE SUITCASE CATCH)
 83-4599/P T120RV '71-72
 (RH HINGE PLUNGER LATCH TYPE)
 83-7065/P T140/TR7 '73-ON
 06-1766/P COMMANDO (PRE MKIII)

"NEW"

SEAT FOAM

68-9330/F A50/A65 '66-70 (HUMP BACK)
 83-1573/F T100 '67-74 (DUAL SEAT)
 T120/TR6 '67-70
 83-7065/F T140 '73-on (EXCEPT TSS,TSX,T140D)
 83-2039/F T150 '70-74
 06-1766/F COMMANDO ROADSTER (NOT MKIII)

NOTE: PLEASE BE AWARE THAT T120 ALSO INFERS TR6 (SINGLE CARB) UNLESS SPECIFIED. ALL COVERS COME WITH TRIM & RETAINING CLIPS.

MAKE/ MODEL:	SEAT PARTS ¹							
	FRONT HINGE	REAR HINGE	HINGE BOLT	FRONT BUNG	REAR BUNG	KNOB	PLUNGER	PLUNGER SPRING
BSA A65 '71½-on ²	83-4802	83-4782	14-0101	82-9093	82-9093	82-7560 ³	82-7562	82-4228
TRI 500 II '59-66	82-4222	82-4222	82-9019	82-4898	82-4898	82-4227	82-4226	82-4228
TRI 500 II '67-on	82-8026	82-7862	14-0101	82-4898	82-7835	82-7560 ³	82-7562	82-4228
TRI 650 '63-67	82-4222	82-4222	82-9019	82-4898	82-4898	82-4227	82-4226	82-4228
TRI 650 '68-70	82-8026	82-7862	14-0101	82-4898	82-7835	82-7560 ³	82-7562	82-4228
TRI 650/750 '71½-on ²	83-4802	83-4782	14-0101	82-9093	82-9093	82-7560 ³	82-7562	82-4228
TRI 750 III's	82-8026	82-7862	14-0101	82-4898	82-7835	82-7560 ³	82-7562	82-4228

¹NOTE: COMMANDO (PRE MKIII) 06-4009 Seat KNOB; 06-7612 Seat WASHER; 06-0345 NUT; 06-0465 STUD

²NOTE: EARLY TRI '71 (OIF) USE: 83-3061 Seat LATCH; 83-2597 Latch SPRING; 83-2867 Seat HINGE;
 14-0101 Hinge BOLT; 82-9093 Seat BUNG

³NOTE: 82-7560 is a Complete Knob & Plunger Assembly



M.A.P. Cycle Enterprises, Inc.

PEG RUBBERS

TRIUMPH

- NF704 FOOTREST "TRIUMPH" Inscript (Script Letters) thru '70
82-9279* FOOTREST "TRIUMPH" Inscript (Block Letters) '71 thru '78 (uk)
*NOTE: 82-9279 Will Fit A 650/750 II & III's (a BETTER VALUE to BOOT!!)



- 83-7256 FOOTREST (LH) - 1979-on (ea)
83-7259 FOOTREST (RH) - 1979-on (ea)
NOTE: 83-7256/9/E - Oriental - Excellent Quality pr.



- 82-1814 KICKSTARTER "TRIUMPH" Inscript Closed End (uk)



- 57-2330 KICKSTARTER Plain Open End (TRI-BSA) (MADE in U.K.)
57-2330/E KICKSTARTER "TRIUMPH" Inscript (Block Letters) Open End (MADE in U.K.)

82-1814
82-1814/E

- 57-0449* CENTERSTAND "TRIUMPH" Inscript thru '68 (uk)
57-2331 CENTERSTAND Plain '69-on (uk)



57-0449
57-2331

- 57-0449* SHIFTER "TRIUMPH" Inscript thru '67 (uk)
57-2450 SHIFTER TRI '68-on (uk)
*NOTE: 57-0449/E - Oriental - Excellent Quality ea.



57-2450

- 82-1695 PASSENGER PEG thru '70 "TRIUMPH" (U.K.)
NOTE: 82-1695/E - Oriental - Excellent Quality ea.

- 82-9051 PASSENGER PEG Plain (Large Square Hole 3 1/4") (uk)
82-9054 PASSENGER PEG Plain '71-on (Large Square Hole 4" Long) (uk)
Also Used on "Flip-UP" Type '71-on



82-1695

BSA

- 29-7551 FOOTREST BSA thru '67 NO LOGO (uk)
82-9602 FOOTREST "BSA" Inscript '68-70 (uk) (Will fit Pre-'68)
83-2651* FOOTREST "BSA" Inscript '71-72 OIF (uk)
*NOTE: 83-2651/E - Oriental - Excellent Quality ea.



82-9602
83-2651

- 42-3159 KICKSTARTER BSA A65 TO '66 Closed End (uk)
57-2759 KICKSTARTER BSA Open End (uk)
57-2330* KICKSTARTER BSA Plain '71-72 Open End (uk)
NOTE: 57-2330/E - Oriental - Excellent Quality ea.



57-2759

- 29-3250 SHIFTER BSA A10 (uk)
89-3208 SHIFTER BSA A50/A65/A70/A75 (uk)
57-2450 SHIFTER (Will also fit BSA smaller/cleaner than OE) (uk)

- 89-3208 CENTERSTAND BSA A65 thru '70 (uk)
57-2331 CENTERSTAND BSA A65 '71-on (uk)

- 82-9603 PASSENGER PEG BSA A65 thru '70 (uk)
82-9051 PASSENGER PEG PLAIN (Large Square hole 3 1/4" Long) (uk)
82-9608 PASSENGER PEG "BSA" INSCRIPT (Large Square hole 3 1/4" Long) (uk)
82-9054 PASSENGER PEG PLAIN '71-on (Large Square hole 4" Long) (uk)
29-7583 PASSENGER PEG "BSA" INSCRIPT (Large Square hole 4" Long) (uk)

NORTON

- 06-7760 FOOTREST COMMANDO (uk)



- 03-3218 KICKSTARTER (uk)



- 04-0086 SHIFTER (uk)
NOTE: 04-0086/E - Oriental - Excellent Quality ea.



- 04-2569 PASSENGER PEG (uk)

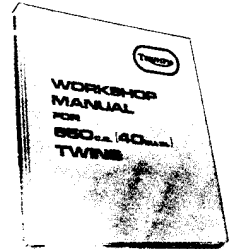
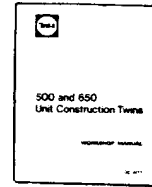


NOTE: We Reserve the Right to Substitute Oriental/UK when out of stock unless notified otherwise Beforehand.

W.A.P. Cycle Enterprises, Inc.

FACTORY WORKSHOP MANUALS*

00-4177	BSA 650 TWINS	HARD COVER	('69-70)
00-4189	BSA 650 TWINS	HARD COVER	('71-ON)
00-4191	BSA TRIPLES	HARD COVER	('69-72)
99-0921	TRIUMPH TR25W		
99-0843/0948	TRIUMPH 350/500 TWINS	HARD COVER	('63-74)
99-0836	TRIUMPH 500/650		('45-55)
99-0837	TRIUMPH 500/650		('55-62)
99-0883/0889	TRIUMPH 650 TWINS	HARD COVER	('63-70)
99-0947	TRIUMPH 650 TWINS	HARD COVER	('71-74)
99-0983	TRIUMPH 750 TWINS	HARD COVER	('73-79)
99-7059	TRIUMPH 750 TWIN ELECTRIC	HARD COVER	('80-ON)
99-0887/0963	TRIUMPH 750 (T150)	HARD COVER	('69-74)
00-4225/T160	TRIUMPH 750 (T160)	HARD COVER	('75-76)
06-5146	NORTON 750/850	HARD COVER	('70-73)
00-4224	NORTON 850 MKIII	HARDCOVER	('75-76)

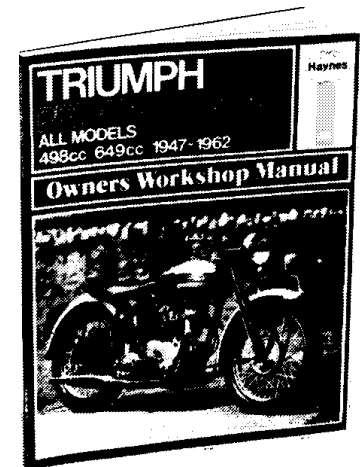


*NOTE: CHECK CURRENT PRICE LIST/INQUIRE FOR ADDITIONS/DELETIONS.

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M326	BSA SINGLES (NON-UNIT CONSTRUCTION)
M127	BSA SINGLES (UNIT CONSTRUCTION)
M121	BSA A-7 & A10
M155	BSA A50-A65 (ALL)
M136	BSA 750 III's (ALL)
M187	NORTON (ALL PRE-COMMANDO II's)
M125	NORTON (COMMANDO)
M414	TRIUMPH TIGER CUB
M137	TRIUMPH 500 II's (UNIT CONSTRUCTION)
M251	TRIUMPH 500/650 II's (NON-UNIT CONSTRUCTION)
M122	TRIUMPH 650/750 II's (UNIT CONSTRUCTION)
M136	TRIUMPH 750 III's

HAYNES WORKSHOP MANUALS*



PARTS CATALOGS

(HARDCOPY & MICROFICHE)

W.A.P. Cycle understands how hard it is to always receive the correct parts when ordering by description only. We have, therefore, reproduced most parts catalogs in microfilm & many in a handy hard bound 5" x 7" copy.



M.A.P. Cycle Enterprises, Inc.

BOOKS

An excellent year - year development history of famous and little known british bikes, covering every detail - from engine valve size changes to new frames and tanks. Exhaustive research has uncovered many previously unknown facts. Written with humor as well as authority. Indispensable to anyone interested in classic British motorcycles.

MB501 BRITISH MOTORCYCLES SINCE 1950, VOL 1. 224 Pgs. 240 Ills.

MB507 BRITISH MOTORCYCLES SINCE 1950, VOL 6. 288 Pgs. 235 Ills.

Fascinating histories of Britain's greatest era in motorcycling, over 40 different makes are profiled in detail with historic & recent photos, production figures, specs, and more the ultimate reference source to British bikes from the famous to the little known. They're all here. Roy Bacon 240 Pages. 250 Ills.

MB550 BRITISH MOTORCYCLES OF THE 1930's.

Complete history of BSA post war A7 of Sept. '46 through the stillborn fury of '71. Some competition efforts, the double & triple engine combinations, the bike from James Bond "Thunderball", Kawasaki copies, and BSA based ariels. Colors, specifications, and a model/serial number chart from '46-on is here for the reader to enjoy. Roy Bacon. 191 Pages. 165 Ills.

MB110 BSA TWINS AND TRIPLES

Machines from every branch motorcycling from "copperknob" and "slippery sam" and standard works team or production models to examples of beautiful originals are from the birmingham national motorcycle museum. Includes Norton, Triumph, Ariel, Matchless, BSA, AJS, Hesketh, and others. Each bike is covered with a brief history, full technical specs, and four-color photos.

MB400 CLASSIC COMPETITION MOTORCYCLES. Currie. 96 Pgs. 96 Ills

MB405 CLASSIC BRITISH RACING MOTORCYCLES. Walker

A thoroughly illustrated study of the Gold Star and other post war BSA singles including B31, M20, C11, Bantam, and Victor. A must reading for bsa singles '37-on. Roy Bacon. 192 Pgs. 164 Ills

MB105 BSA GOLD STAR AND OTHER SINGLES

Company, machine and personal history which has been written by harry sucher, the foremost indian 'buff' ever to swing his leg across the leather saddle. Profusely illustrated and excitingly written. Sucher 335 Pgs 220 Ill

F181 THE IRON REDSKIN - HISTORY OF THE INDIAN MOTORCYCLE

The development history of the pre-unit & unit construction 500cc twins. An outstanding book that provides detailed information on these sport bikes. Year by year specs including U.S. models, plus changes in color schemes. Highly recommended for the Tiger 100 & Daytona owner. J.R. Nelson. 168 Pgs. 232 Ills.

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From the first one in '33 thru the last one in '80 every twin and triple is illustrated and described in detail. The author tells all on military bikes, pre-units, the grand prix, unit construction models, the meriden strike, the trident, the bandit, racing, and specials. The appendix features specs, colors, serial numbers, model i.d., and production flow.

Wow!! If you're an owner, admirer, or restorer of Triumph twins and triples, you'll want to read this full featured book. Roy Bacon. 192 Pages. 165 Ills.

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MB125 CYCLE WORLD ON BSA '62-71.

MB225 CYCLE WORLD ON NORTON '62-71.

MB326 CYCLE WORLD ON TRIUMPH '67-72

The most in-depth historical record available of the oldest surviving motorcycle marque in the world. Everything from the first clip-on engines to today's F1 superbike including Geoff Dukes explanation of his decision to leave the team in 1952 Woolett. 320 pgs. 250 ill.

MB265 NORTON A HISTORY

Is the story of the man, his factory and his machines - their successes and failures, the racing results, the scott trial and the efforts of dedicated men to keep the scott alive.

F164 THE SCOTT MOTORCYCLE - THE YOWLING TWO-STROKE

Follows the career of john marston and his

success, taking the story from the early formative years of the company through to the advent of the post-world war ii twins that created such a sensation when they appeared on the market. Soon after the manufacture of motorcycles for the civilian market was resumed. The story of the sunbeam bicycle is included too, because it was closely interwound with that of the motorcycle of the early days.

F258 THE SUNBEAM MOTORCYCLE

A companion volume to the earlier reference work 'british racing motorcycles', covers every make that has been associated with any of the 'classic' events of international status since motorcycle racing first began.

F244 FOREIGN RACING MOTORCYCLES

Brings alive the former glory of the old rudge motorcycle and tells an important part of motorcycling history starting close to the beginning of this century. Brian reynolds. 174 Pages. 134 Ills.

F188 DON'T TRUDGE IT, RUDGE IT

An enlarged and revised edition of the original definitive velocette marquee history. Contains over 50 new photographs, many of them portraying scenes inside the hall green works during 1928, some not having previously appeared in print. R. W. Burgess. 285 Pages. 189 Ills.

F266 ALWAYS IN THE PICTURE - HISTORY OF THE VELOCETTE

The 6th Edition of the legendary work on performance tuning for motorcycles. Updated where necessary, it continues to be one of the best books on improving engines. Complete information on pistons, cams, cranks, carbs, heads, valves, and more for touring, racing and all-out competition.

Phil irving.

MB335 TUNING FOR SPEED

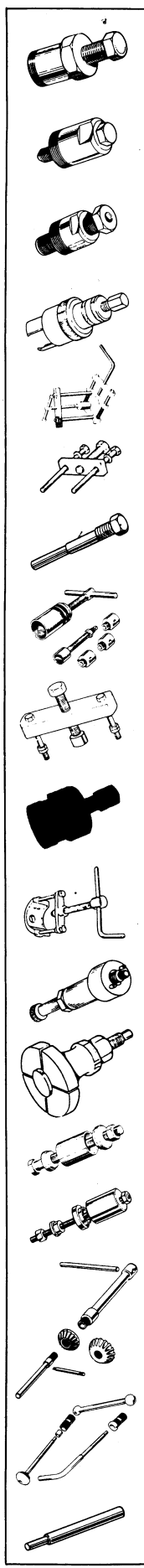
First-hand experience is coupled with current theory in the areas of cylinder head, carburetion, exhaust system, camshaft and valve train, bottom end, ignition, lubrication and cooling, power measurement and tuning. A great book for getting max engine performance. Bell. 252 Pages. 66 Ills.

F275 PERFORMANCE TUNING IN THEORY & PRACTICE (4 Strokes)

Gives an insight into the design and function of each major motorcycle component. The information is presented in a very clear and readable manner, with many accompanying illustrations; represents a considerable step forward

F288 BACK TO BASICS

BRITISH TOOLS



TRIUMPH CLUTCH PULLER
Removes clutch hub from all twin cylinder mainshafts (Also: Manual Magnet Gear (Tri))
Order MAPO800 - British Shop Quality
Order MAPO800/HT - Shop Quality

TRI/BSA III HUB PULLER
Removes clutch hub from mainshaft on all Tri/BSA triples
Order MAPO801

TRI/BSA III SHOCK PULLER
Removes shock housing from clutch splines - necessary for most triple primary work
Order MAPO802

CRANKSHAFT PINION PULLER
Half-time crank gear extractor for all Norton/Triumph twins
Order MAPO803
MAPO803/JAW Jaw Only ea

CRANKSHAFT BEARING PULLER
Removes crankshaft ball bearing on most British motorcycles
Order MAPO804

SPROCKET PULLER
Removes both engine sprocket & clutch center of Commandos.
Order MAPO807

AUTO-ADVANCE EXTRACTOR
Extracts hard to remove auto-advance units from most British motorcycles
Order MAPO806

CAMSHAFT GEAR TOOL
Kit inc. adapters to remove & replace cam gears on all tri. models with central external threads (most pre '75)
Order MAPO810
MAPO810/A MAP Brand

CAMSHAFT GEAR PULLER
Removes cam gears on all late Triumph twins & triples with two tapped 4" holes (twin eng # GG 50464 & up)
Order MAPO811

CLUTCH HUB EXTRACTOR
Removes clutch from mainshaft
Order MAPO812 - Singles
MAPO813 - Pre Commando
MAPO814 - BSA ext thread

PISTON PIN TOOL
Removes those stubborn wrist pins on most large pin 67-76mm bore pistons
Order MAPO815

ROCKER SPINDLE PULLER
Removes rocker spindles on all Norton Atlas/Commando
Order MAPO816

EXTRACTOR BEARING-RACE
Easily remove those impossible roller bearing races (MRJA 1-1/8 type)
Order MAPO817 650/750 Twins
MAPO817/A 500 Twins

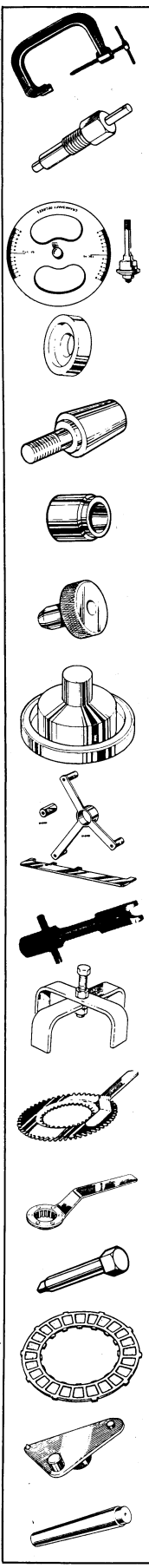
SWINGARM TOOL
Removes and replaces oil-in-the-frame swingarm bushes
Order MAPO818

WRIST PIN BUSH TOOL
Removes and installs piston pin bush - a must for all non disassembled motor bush work
Order MAPO819 - 650 Tri/BSA
MAPO820 - 500 E. TRI

VALVE SEAT CUTTER KIT
Hand operated valve seat cutter consists of two 45 deg. cutters 1-1/4" & 1-3/4" & 5/16" pilot (for intake blender Order MAPO834)
Order MAPO830

VALVE GUIDE TOOL KIT
Complete valve guide removal & installation kit. Assures concentric installation of valve guide in head. For 5/16" & 8mm valve guide I.D.
Order MAPO837
MAPO837/HD Heavy Duty Version- Great Value!

GUIDE DRIFT
Removes 5/16" & 8mm valve guides. Has knurled handle for positive control.
Order MAPO836



VALVE SPRING COMPRESSOR
Suitable for most motorcycle makes. Easy access to keepers.
Order MAPO838

PISTON POSITION LOCATOR TOOL (TDC)
Engages fly wheel notch to accurately locate TDC.
Order MAPO840 - TriII's to '69
MAPO841 - TriIII's '69-on
MAPO843 - BSA to '69
MAPO844 - BSA '69-on

DEGREE WHEEL TIMING KIT
Half-time deg. wheel comes with adapter. Mounts in place of A-A bolt to accurately strobe time most British bikes. Use with TDC plunger order separate.
Order MAPO850

A-A UNIT LOCKING WASHER
Locks auto-advance unit.
Order MAPO855

OIL SEAL PROTECTOR
Protects point seal from damage when installing timing cover.
Order MAPO860 - All to '69
MAPO861 - All '69 on
MAPO862 - Both early & late

"O" RING COMPRESSOR
Install rocker shaft "O" rings without damage. For all Triumph Twins and Triples.
Order MAPO864
MAPO865-Tri 500 Twins only

PULLROD SEAL SAVER
Protects pulldrod oil seal. Eliminates a problem leak when installing triple shock housing
Order MAPO866

CLUTCH ALIGNMENT TOOL
Recenters clutch plate after disassembly for easy re-installation. For A75-T150&T160's
Order MAPO870

PRIMARY ALIGNMENT TOOL
Factory tool to re-align primary chain after any chain/gasket removal. Prevents destroyed engines from chain breakage.
Order MAPO869

CLUTCH NUT DRIVER
Accurately & quickly adjust clutch spring nuts on all Tri/BSA/Early Nortons.
Order MAPO871

CLUTCH DIAPHRAM TOOL
Compress that dangerous diaphragm clutch spring. To remove or replace Commando clutch circlip.
Order MAPO872

CLUTCH LOCKING TOOL
Secures Commando clutch centers- allows easy loosening/tightening of alternator clutch & mainshaft nuts.
Order MAPO873

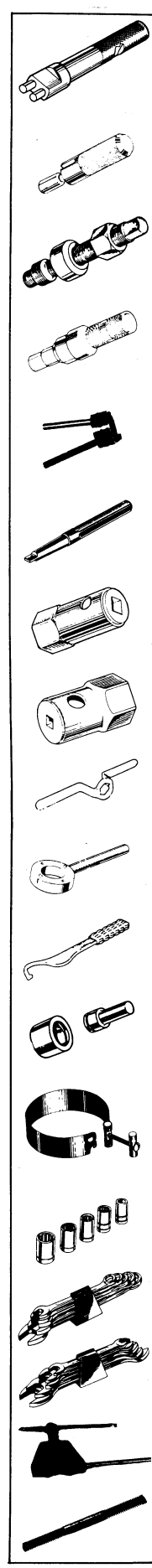
HUB HOLDING TOOL
Secures clutch hub for removing locking nut on all British 'IIIs
Order MAPO874

ADJUSTING TOOL
Used to adjust primary chain tension on all Triumph twins.
Order MAPO875

CLUTCH LOCKING TOOL
Secures clutch center on all Triumph twins for easy nut removal.
Order MAPO876

TIMING FIXTURE
Aids in timing all 5spd tranny's
Order MAPO880
Order MAPO881 - T160

LAYSHAFT NEEDLE BEARING DRIFT
A must for replacing and properly locating gearbox layshaft needle bearings. (except 500 unit twin)
Order MAPO890



GUIDE BLOCK DRIFT
Removes and installs tappet guide blocks for all Triumph twins & triples. Stops costly misalignment and tab breakage.
Order MAPO891

PINION REPLACER
Install crank pinion on all Tri/BSA triples-prevents crankshaft damage.
Order MAPO889

FORK LEG REPLACER
Replaces the stanchions in top fork crowns on all Tri twins & triples up to '70
Order MAPO978
MAPO978A Universal for 99% of all Brit Bikes

SWINGARM ALIGNMENT TOOL
For alignment of BSA swinging arms on A50, A65, A75, C15, & B40
Order MAPO979

PEG SPANNER
Removes clutch mech. threaded ring from gearbox inner cover. Eliminates unnecessary & costly damage from hammer & punch
Order MAPO910

HI-GEAR BUSH REAMER
Accurately reams high gear bush on tri big twins & triples (4-sp)
Order MAPO917

BRAKE PLATE SOCKET
Removes & replaces twin leading shoebrake backing plate nut on all Tri/BSA
Order MAPO963

SPROCKET NUT SOCKET
Removes & replaces countershaft sprocket nut on all Tri/BSA III
Order MAPO964

GEARBOX NUT SPANNER
Removes countershaft sprocket nut on all 4-speed Tri 650 II's.
Order MAPO965

RING SPANNER
Remove & replace wheel bearing locking ring on most Brit bikes
Order MAPO966

EXHAUST NUT WRENCH
Secures Norton exhaust ring with out damage to nut.
Order MAPO967

OIL SEAL INSTALLER
Installs pre '71 Tri/BSA fork seals.
Order MAPO977

PISTON RING CLAMPS
Prevent expensive broken rings
Order MAPO901 - 65-70mm
MAPO902 - 70-75mm
MAPO903 - 75-80mm
MAPO905 - Triples-special

WHITWORTH SOCKET SET
5 piece 3/8" drive hardened, chromed, thin walled sockets A must for all pre '69 bikes.
Order MAPO971

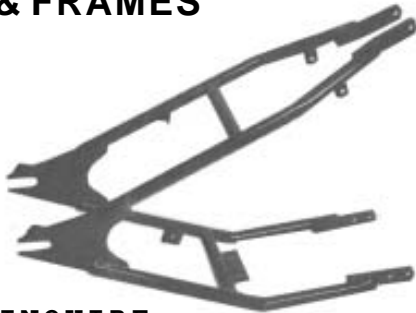
WHITWORTH WRENCH SETS
These whitworth wrenches feature chrome plated hardened steel thin construction for easier repairs to pre '69 british bikes
Order MAPO975 - combinations
MAPO972 - 6-piece open
MAPO973 - 5-piece open

CHAIN BREAKER
Renold type - works on all 428 thru 630 chains
Order MAPO980

THREAD FILE
Repair damaged whitworth 11, 12, 13, 14, 16, 18, 20, 22, & 26 tpi bolts & studs
Order MAPO915B

M.A.P. Cycle Enterprises, Inc.

CUSTOM HARDTAILS & FRAMES



INQUIRE:
SOFT-TAIL FRAMES

- S5509 Tri 500 1959-on BOLT-ON 4" LONGER, 3" LOWER.
(Top Mounting. Bolt to Axle is 26.5") Not TR5T
- S5506 Tri 650 1963-70 BOLT-ON 2" LONGER, 2.5" LOWER
(Top Mounting. Bolt to Axle is 24")
- S5508 Tri 650 1963-70 BOLT-ON 4" LONGER, 3" LOWER
(Top Mounting. Bolt to Axle is 26.5")
- S5507 Tri 650 1963-70 BOLT-ON 6" LONGER, 3" LOWER
(Top Mounting. Bolt to Axle is 28")
- S5505 Triumph Pre-Unit BOLT-ON Hardtail Section ('54-62)
- S5504 BSA/Triumph 650/750 II's WELD-ON (Oil-in-Frame)
- S5501 BSA A50/A65 '62-70 WELD-ON (Not Oil-in-Frame)
- S5810 Triumph Pre-Unit Front Frame Section ('54-62)
- S5512 Triumph 650 Front Frame Section ('63-70)
- S5515 Triumph 650/750 Complete Frame 4" Longer
- S5516 Triumph 650/750 Complete Frame 6" Longer

NOTE: Use 37-3901 Spacer & Axle Reducer to use Conical Wheels. (Sold each)

CUSTOM OIL TANKS



S8028/S

WRAP-A-ROUND OIL TANK

S8028/S Polished *Stainless Steel* Horseshoe Tank Mounts Directly To Down Tube *No More Broken Tabs*. Also Mounts Higher For Best Looks While Altered To Give Needed Extra Chain Clearance. Integral Battery/Coil Box. Internally baffled return oil line for correct top oil feed for Triumph/BSA engines. Fits All Triumph Pre '71 & Custom Single Down-tube Frames. Includes. S9706 Cap. Uses Stock Pre '71 Oil Tank Filter/Feed Line* or 82-9430/C below for that Custom LOOK!. Designed By **M.A.P. Cycle**. Made In U.S.A.



S8029/S

HEXAGON OIL TANK

S8029/S Polished Stainless Hexagon Tankd Mounts Directly To Down Tube *No More Broken Tabs*. Designed to Mount Higher for Good Looks and Altered To Give Needed Extra Chain Clearance. Internally baffled return oil line for Triumph/BSA custom frames. Fits All Triumph Pre '71 & Custom Single Down-tube Frames. Includes: S9706 Cap. Uses Stock Pre '71 Oil Tank Filter/Feed Line* or 82-9430/C below for that Custom LOOK!. Designed By **M.A.P. Cycle**. Made In U.S.A.

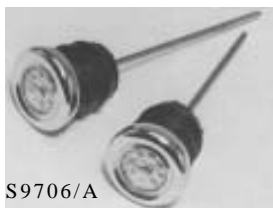
OIL TANK CAP



S9706

S9706 OIL CAP. Sturdy Push-In Replacement Cap has Quality Rubber Base Construction, Capped with a Chrome Steel Top. Fits Most Plug-in Type Oil Tanks.

S9706/A Oil "Temp" Cap. Directly Replaces S9706 with a Built-In Temperature Gauge. Great Idea for Keeping an Eye on Oil Temperature.



S9706/A

***Note:** Custom Oil Tanks Requires Pre '71 Triumph Original Oil Tank Filter Assembly

- 82-9430 Oil Filter/Feed Line
- 82-1713 Filter Washer (Gasket)
- 82-3655 Oil Line (Feed Pipe)

NEW! 82-3182 Ferrule (Oil Line Adapting Nut)

- 82-9430/C** Custom "Screened" Filter Assembly w/Integral 5/16 Hose Barb (Chrome)
- 82-9430/Z** Custom "Screened" Filter Assembly w/Integral 5/16 Hose Barb (Zinc)

GAS/OIL LINE

HERRINGBONE (6 foot lengths only)	NYLON BRAIDED*	CLEAR VINYL *
3/16" MAP6590	1/8" MAP6570	1/4" MAP6582
1/4" MAP6591	3/16" MAP6572	5/16" MAP6586
5/16" MAP6592	1/4" MAP6574	
3/8" MAP6593	5/16" MAP6576	

NOTE: Herringbone is O.E. on Most Brit Bikes
(Made in U.K.)

*NOTE: Sold per each foot

*NOTE: Sold per each foot

M.A.P. Cycle Enterprises, Inc.

CUSTOM BATTERY/ELECTRICS BOX

Our 6" High X 7" Wide X 3½" Deep Unit Holds Unsightly Coils, Condensers, Battery And/Or Other Electric Items. Sloped Top and Vented Sides Offer Not Only That Custom Look But Also Good Ventilation to Keep Your Electrics Working.

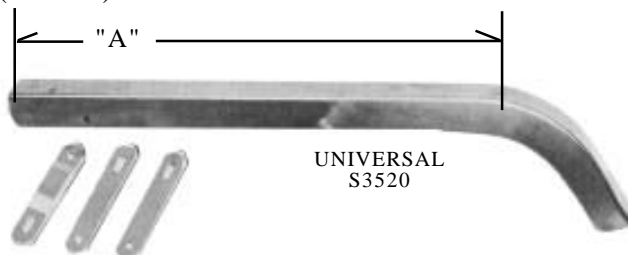
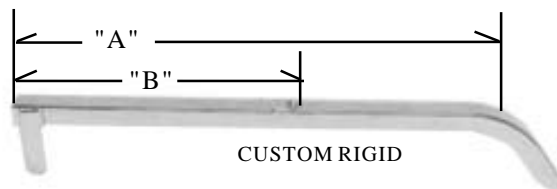
100% Polished Stainless Steel. Designed & Manufactured in the USA. by **M.A.P. Cycle.**

- S4503** BATTERY/ELECTRICS BOX. (Louvered)
- S4503NL** BATTERY/ELECTRICS BOX. (Not Louvered)



CUSTOM CHAINGUARDS

- S3501** BSA CHROME for HARDTAIL (Can be used as an INEXPENSIVE Universal.)
- S3504** Tri 650 6" EXTENDED HARDTAIL. (Chrome) "A" = 25"; "B" = 14"
- S3506** Tri 500/650 4" EXTENDED HARDTAIL. (Chrome) "A" = 23"; "B" = 12.5"
- S3520** UNIVERSAL LH (Includes 3 STRAPS) "A" = 24.5" (Chrome)
- S3530** Tri 650 '63-70 Custom Replacement Inq
- S3531** Tri 650 '63-70 Custom Replacement (Chrome) Inq

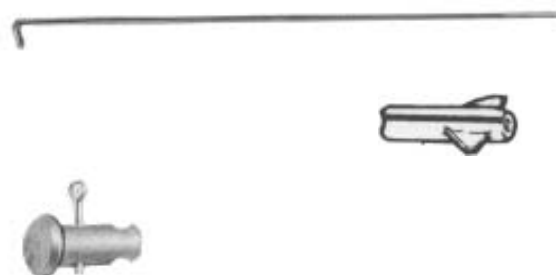


STOCK CHAINGUARDS (not shown)

- 82-7707** Tri 500 59-on (NOT TR5T) OE Stock (BLACK)
- 82-7067** Tri 650 '63-70 OE Stock (BLACK)
- 83-2641** Tri/BSA '71-on OE Stock (BLACK)
- 83-9000** Tri 650/750 II's '71-on OE Stock (Chrome)
- 83-3231** Tri T150 All OE Stock (BLACK)

CUSTOM BRAKE RODS & PARTS

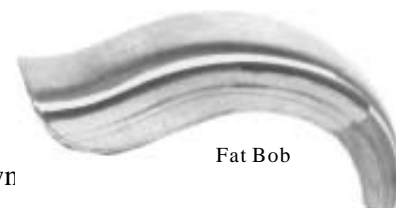
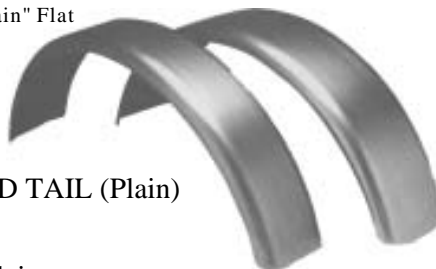
- S3005** Tri 500/650 with 4" HARDTAIL (26") NLA Ref Only
- S3001** Tri 650 with 6" HARDTAIL (28") NLA Ref Only
- 82-3597** Tri 500/650 to '67 (Stock)
- 82-7386** Tri 650 '67-70: Tri 500 '67-74 21.5" (Stock)
- 83-2860** Tri 650 '71-74 19½" (Stock)
- 82-4585** ADJUSTER Tri 500 '59-66: 650 to '64 (Stock)
- 82-6070** ADJUSTER Tri 650 '65-66 (Stock)
- 82-7387** ADJUSTER Tri '67-74 (Fits Most Custom Brake Rods)
- 37-1467** PIVOT PIN for Brake Rod '63-74 (Stock)
- S3020** EXTENDED PIVOT PIN to By-Pass Most Sissy Bars



CUSTOM FENDERS

- S5002** 6" FLAT FENDER (Plain)
- S5002/F** 6" FLAT FENDER w/BOBBED TAIL (Plain)
- S5004** FATBOB (LH Chain Cutout) Plain
- S5004/A** FATBOB with Integral Taillight Mount (LH Chain Cutout) Plain (not shown)

"Plain" Flat



- S5007** Bracket, Chrome Fender Mounting Each



M.A.P. Cycle Enterprises, Inc.

FENDER SUPPORT



S5202

S5202 FENDER BRACE
Designed for 6" Flat Fenders. Beautifully CHROME
Made in USA

CUSTOM HANDLEBARS

S6511 DRAG BAR. 1"
S6512 DRAG BAR. 7/8"



S6527 NARROW PULLBACK 22" WIDE; 8" HIGH; 9" WIDE at BOTTOM. 7/8"

S6541 WIDE PULLBACK 24½" WIDE; 6" HIGH; 7" WIDE at BOTTOM. 1"
S6547 WIDE PULLBACK 23½" WIDE; 10" HIGH; 9" WIDE at BOTTOM. 7/8"



S6515 DRAG-RISER. 24½" DRAG BAR with BUILT-IN 7" "Pull-Back" RISER.
Use with STOCK P-CLAMP. 7/8"



S6550 APE-HANGER 12" Rise, 32" wide OA (17" at bend), 7/8" (T140 bends)
S6551 APE-HANGER 14" Rise, 32" wide OA (17" at bend), 7/8" (T140 bends)
S6552 APE-HANGER 16" Rise, 32" wide OA (17" at bend), 7/8" (T140 bends)



DOMED HEAD RISERS
S6601 1½" RISE (Head Only)
S6603 4" RISE
S6604 6" RISE



PULL-BACK RISERS
S6613 5" RISERS



FANCY RISERS
S6615 3" RISERS
S6616 5" RISERS

CUSTOM HANDLEBAR RISERS

Note: Risers Are Designed for Use With 1in. Handlebars (7/8" Bars Require "Reducer" Set Below). Beautifully Made, Heavy Chrome Plated. Pre-threaded for 1/2 x 20tpi Bolts. **SOLD IN PAIRS ONLY.**

REDUCER SLEEVES

97-1425 REDUCER SLEEVE. REDUCE O.E. HANDLEBAR P-CLAMP and/or ALL 1" Custom Risers to Fit 7/8" Handlebars.. (Sold Each ie. Full Set=4)
S6600 REDUCER SLEEVES NOT O.E. - Nice (set of 4 Halves)



M.A.P. Cycle Enterprises, Inc.

HANDLEBAR GRIPS

- J0101 SOFT FOAM, HAND CONTOUR, BLACK 7/8"(Set)
- J0102 SOFT FOAM, FLAT CONTOUR, BLACK 7/8" (Set)
- J0105 FOAM WITH CHROME ENDS, BLACK 7/8" (Set)
- J0106 FOAM WITH CHROME ENDS, BLACK 1" (Set)
- J0107 "GRANTOURISMO" STYLE 7/8-1 X 4½" (Set)
- PVC1 SOFT NON-BLACKENING PVC 1 X 4¾" (ea)
- PVC78 SOFT NON-BLACKENING PVC 7/8 X 4¾" (ea)
- PVC118 SOFT NON-BLACKENING PVC 1-1/8 X 4¾" (ea.)



UNIVERSAL THROTTLES

(EXCELLANT CHROME PLATING - BEST PRICE)

- EM71178 DUAL CABLE 7/8" (Emgo)
- 60-7014/P SINGLE CABLE 7/8" A very nice AMAL (364) Copy (pattern)
- EM771 SINGLE CABLE 7/8" (Emgo)
- EM761 SINGLE CABLE 1" (Emgo)
- 99-0241 SPLIT FERRULECABLE SPACER (STOCK/CUSTOM)



HANDLEBAR LEVERS

- EM2077L 7/8" LEFT-HAND CHROME
- EM2077R 7/8" RIGHT-HAND CHROME
- B2071L 1" LEFT-HAND CHROME (Barnett)
- B2071R 1" RIGHT-HAND CHROME (Barnett)
- B1016 ADJUSTER (Thumb-Screw Type w/Nut) Barnett
(Note: for O.E. Style use 60-3585/3586)



AIR (CHOKE)/MAGNETO CONTROL ASSY's (OE Style): (Not Shown)

- | | | |
|-------------------------------|---------------|---------------|
| Round-End Lever Style (7/8"): | 12/608/E (RH) | 12/609/E (LH) |
| Flat-End Lever Style (7/8"): | 12/601/E (RH) | 12/602/E (LH) |
| Flat-End Lever Style (1"): | 12/603/E (RH) | 12/604/E (LH) |

UNIVERSAL MIRRORS

- S2901 RECTANGULAR Bolt-In - Mounts thru HOLE in LEVER. RH/LH
- S2901/C RECTANGULAR Clamp-On Type (fits RH/LH & 7/8" or 1" Bars)
- S2902/4 4" ROUND Tinted Glass with 4" Stem & Clamps (7/8 & 1" Bar)
- S2902/8 4" ROUND Tinted Glass with 8" Stem & Clamps (7/8 & 1" Bar)
- S2902/10 4" ROUND Tinted Glass with 10" Stem & Clamps (7/8 & 1"Bar)
- S2906/4 3" ROUND Tinted Glass with 4" Stem & Clamps (7/8 & 1" Bar)



SOLO SEATS & PARTS

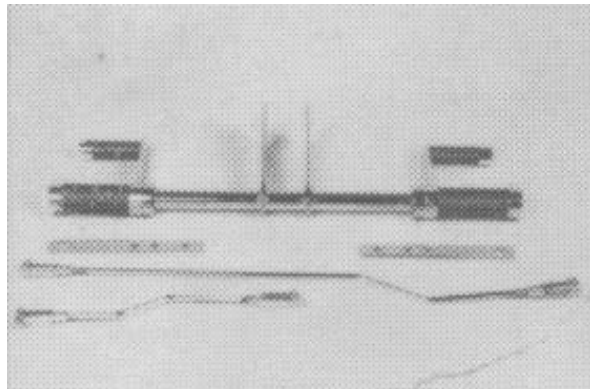
Sleek Solo Seat & Pillion Pad are Covered in Rich Top Grain Leather. Plain (No Stitch) Top or with Stitch Pattern. Black. Seat is 1" Thick x 9" Wide. Pad is 2" Thick x 4½" Wide x 7" Long.

- SOLO BLACK "PLAIN" NO STITCH LEATHER COVER
- SOLO2 BLACK "STITCHED" LEATHER COVER
- PPAD BLACK "PLAIN" NO STITCH LEATHER COVER
- PPAD2 BLACK "STICHD" LEATHER COVER
- S2308/3 SEAT SPRINGS CHROME 3" Long (Pair)
- S2308/5 SEAT SPRINGS CHROME 5" Long (Pair)
- S2306 TILT SEAT BRACKET. Slotted for Universal Seat Mounts. Squared "U" Fits to 1½" Wide Weld-on Tube (not supplied) Nice Chrome. 4¾" OA
- S2307 TILT SEAT BRACKET. Slotted for Universal Seat Mounts. Rounded "U" Perfect for 1-1/2" round backbone frames. Show Chrome Quality. 4½"OA



M.A.P. Cycle Enterprises, Inc.

FORWARD CONTROLS



S2708/S

Perfect Fit For 1970 Triumph "650" Frame (Replaces Triangular Front Motor Mount). Kit Includes: Polished Stainless Steel Bar with Greaseable (Zerk Fitted) Brake & Shift Arms Along with Stainless Steel Round "Square O'Ringed" Pegs and Brake Linkage (Uses Your "Modified" Stock Shift Lever. Easily Adapts To Most Bikes Including Other Triumph 500, 650 & 750's, BSA, Norton & More.

- S2721 FOOTPEGS "TRI" INSCRIPT (CHROME) W-BRACKETS
- S2722 FOOTPEGS "HOLLY" INSCRIPT (CHROME) W-BRACKETS
- S2723 FOOTPEGS "RIBBED" (CHROME) W-BRACKETS
- S2724 FOOTPEGS "1" INSCRIPT (CHROME) W-BRACKETS
- S2725 FOOTPEGS "750" INSCRIPT (CHROME) W-BRACKETS
- S2726 FOOTPEGS "BSA" INSCRIPT (CHROME) W-BRACKETS
- S2727 FOOTPEGS "NORTON" INSCRIPT (CHROME) W-BRACKETS

CHROME FOOTPEGS



- S2174 TRI to '68 BSA to '71 STOCK CHROME
- S2155 TRI to '68 BSA to '71 13 1/2" CHROME
- S2156 TRI to '68 BSA to '71 15" CHROME

- S2175 TRI '68-on BSA '71-on STOCK CHROME
- S2157 TRI '68-on BSA '71-on 2" CHROME
- S2158 TRI '68-on BSA '71-on 13 1/2" CHROME
- S2159 TRI '68-on BSA '71-on 15" CHROME

- S2197 BOLT-ON Universal for 7/8" Frame Tube 9 1/2" LONG (BLACK)
- S2199 BOLT-ON Universal for 1-1/8" Frame Tube 9 1/2" LONG (BLACK)
- S2199 BOLT-ON Universal for 1-1/4" Frame Tube 9 1/2" LONG (BLACK)

CUSTOM KICKSTANDS



- 53454/E TAILLIGHT Complete - O.E. Style. Good Universal Light
- S5050 TAILLIGHT Assy - Includes Nicely Chromed Alloy HOUSING & MOUNTING PAD
- S5050/S TAILLIGHT Assy - Includes Nicely Chromed Alloy HOUSING "NOTCHED" for REAR FENDER RAIL & MOUNTING PAD.
- 54576001/E LENSE Only for S5050 & other CUSTOM TAILLIGHT
- S5054 PAD Only. Protects Paint & Eliminates Damaging Vibrations (Not Shown)
- S4201 TAILLITE & TAG MOUNT. Universal Flat Polished Stainless Steel Mounting Plate. (Barnett)
- S4202 TAILLITE & TAG MOUNT. Universal Polished Stainless Steel Mounting Plate with slight Angle at Taillight. (Barnett)

CUSTOM TAILLIGHTS



53454/E



S5050

- S1503 6 VOLT CHROME BOTTOM MOUNT with HI-BEAM INDICATOR
- S1504 12 VOLT CHROME BOTTOM MOUNT with HI-BEAM INDICATOR
- S1505 6 VOLT CHROME SIDE MOUNT with HI-BEAM INDICATOR
- S1506 12 VOLT CHROME SIDE MOUNT with HI-BEAM INDICATOR

- S1507 6 VOLT 30-30 WATT MOTORCYCLE SEALED BEAM
- S1508 12 VOLT 30-30 WATT MOTORCYCLE SEALED BEAM
- S1511 12 VOLT 50-30W "Halogen" MOTORCYCLE SEALED BEAM

Halogen is Your BEST Choice for the BRIGHTEST Lights while Saving Battery Current!

CUSTOM HEADLIGHTS



M.A.P. Cycle Enterprises, Inc.

CUSTOM HEADLIGHT BRACKETS

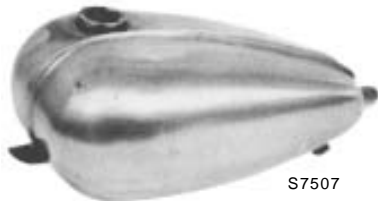
- EM358 UNIVERSAL CUSTOM "HOLY" FORK MOUNT HEADLIGHT BRACKETS (Chrome) pr
 EM358/B UNIVERSAL CUSTOM "HOLY" FORK MOUNT HEADLIGHT BRACKETS (Black) pr



- S2311 DUAL BOTTOM MOUNT. CHROME (Closeout)
 (CAN BE CUT & SHOW RECHROMED FOR COST OF OTHERS)
 S2312 SINGLE BOTTOM MOUNT. CHROME
 S2314 TRADITIONAL SINGLE BOTTOM MOUNT. CHROME
 (ANGLED TRIANGULAR CHROME STEEL) Not Shown



CUSTOM GAS TANKS



"Sporty" Gas Tank
 Not Shown

- S7505 "Mustang" - 16Lx9.25Wx7"H - 2.5Wx2.75 Deep" Tunnel, Std Style Front & Back Tabs (18-3/8" OA), Uses 2 Brit Petcocks. 1 Cap Type, Bare Metal (2.2 Gal)
 S7506 "Mustang" - 16.5Lx12Wx7"H - 3.5Wx2 Deep" Tunnel, 2 Brit 1/4" Petcocks, 1 Cap Type, Bare Metal, 3 Gallon (Good for O.I.F. Replacement)
 S7507 "Mustang" - 16.5.Lx12Wx7"H - 2.5Wx3.5" Deep Tunnel Has Horseshoe Style Front Tab, Uses 1/4" Brit Petcocks. 1 CapType , Bare Metal (2.8 Gal)
 S7508 "Mustang" - 16Lx10" Wx7"H - 2.5Wx2.75" Deep Tunnel, Std Style Front & Back Tabs (19-7/8" OA), Uses 2 Brit Petcocks &/or HD Male Petcock. 1 Cap Type, Bare Metal, 2.8 Gallon
 S7509 "Mustang" - 16Lx11W - 2.5Wx2.75" Deep Tunnel, Front & Back Tabs (19-7/8" OA), Uses 2 Brit Petcocks &/or HD Male Petcock. 1 Cap Type, Bare Metal, 3.3 Gallon
 S7525 "Sporty" - 17Lx9.5W 3Wx3.5" Deep Tunnel Uses HD Male Petcock
 S7501 "Sporty" - 15Lx9W - 2.5Wx1.25" Deep Tunnel, Uses 2 Brit Petcocks & HD Male Petcock. 1 Cap type, Bare Metal,

CUSTOM/STOCK GAS/OIL TANK CAPS



S9702

- S9703 Custom Tank Deluxe CAP, Spring Loaded Seal. Chrome
 S9702 Custom Tank Economy CAP. Spring Loaded Seal.
 83-3875 Triumph Stock Tank OE Gas CAP (Domed Top Type)
 83-3875/E Triumph Stock Tank OE Gas CAP. (Flat Top Type)
 83-3875/L Triumph Stock Tank Locking CAP w/2 Keys
 82-4048 Cork GASKET - OE Gas CAP
 82-3217/21 Triumph Gas Cap CHAIN. (OE. Prevent Lost Cap)
 82-9659 Triumph Oil Tank OE CAP w/Dip Stick
 82-3216 Triumph Oil Tank OE CAP. No Dip Stick.
 82-4047 Cork GASKET - OE Oil Tank Cap
 82-3217/18 Oil Tank Cap Retaning CHAIN (Oe. Prevent Lost Cap)
 71-2744 Oil Tank CAP Oil-in-Frame (No Dip Stick Type)
 71-3463 Oil Tank CAP Oil-in-frame (With Dip-stick)

M.A.P. Cycle Enterprises, Inc.

PETCOCKS



MAP0654

MAP0650

MAP0645
MAP0646



70-7351

Petcocks Featured Below are Heavy Duty Marine Rated, Reasonably Priced, with a Compact Leakproof Design. 1/4" Pipe Thread at Tank End. 5/16" Barb at Hose End. (Stock Tanks Require Pipe Tape)

- MAP0650 90° Petcock with Barb End
- MAP0652 180° Petcock with Barb End (Not Shown)
- MAP0654 180° Petcock 2 Position (std & Res) with Barb End

Nice Reproduction of Stock looking "No Leak" Metal Replacement MAP Petcocks. (no plastic handles on these!). Fits Most Triumph and Norton along with a few BSA Models that have 1/4" BSP threads (both ends). Compatible with most ethanol fuels. Includes lock nut.

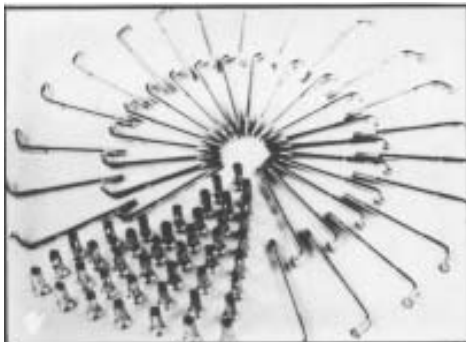
- MAP0646 PETCOCK Stock Looking, All Metal Won't Leak (Reserve)
- MAP0645 PETCOCK Stock Looking, All Metal Won't Leak (Std)

- 68-8024 Horizontal Push-Pull PETCOCK for A65 (3/8" BSP Thread)
- S7550 HD Style PETCOCK, Male Threads (Not Shown)
- S7550/F HD Style PETCOCK, Female Threads (Not Shown)

- 82-3337 Nut (1/4" BSP) Most Triumph, BSA, Norton For 5/16" Line
- MAP0667/A Nut (3/16" BSP) Some Early BSA for 1/4" Line
- 82-3334 180 Degree SPIGOT Stock Type for 5/16" Line
- 82-3335 90 Degree SPIGOT Stock Type for 5/16" Line
- 82-3353 120 Degree SPIGOT Stock Type for 5/16" Line
- MAP0669/A SPIGOT (3/16" BSP) for MAP0667/.A Nut (for 1/4" line)
- MAP0668 FERRULE Crimp Type (As Oe) For 5/16" Line
- MAP0670 REDUCER adapt 1/4" BSP Triumph Petcock to 3/8" BSP BSA Tank

70-7351 Petcock/Tach Housing Washer (Bonded O'Ring Inside Steel). ea.

CUSTOM 16" RIM and SPOKE KITS



MAP7200 TRIUMPH 16" CONVERSION Kit. Easily Convert ANY Triumph "Stepped Spool" Rear Hub (Including Trident/Rocket III) to the Popular Massive 3½" Wide 16" Harley Dropped Center Rim. 40 Beautifully Chromed Spokes and Nipples with the Exclusive **M.A.P. Cycle** design that Incorporates the BEST Possible Spoke Angle for Minimal Exposure to Spoke Flex and Breakage while **ELIMINATING** "Nipple Threading" common to other brands of Conversion Spokes.



MAP7210 TRI-BSA 16" CONVERSION Kit. Easily Converts Triumph/BSA CONICAL Rear Hub Models (Including Trident/Rocket III) to the GREAT Custom LOOKS of the Popular Massive 3½" Wide 16" Harley Dropped Center Rim. 40 Beautifully Chromed Spokes and Nipples with a Great Design by **M.A.P. Cycle** for EASY Installation. with No Nipple "Threading"! Requires Slight Spoke Hole Enlargement for our Stronger Larger Diameter Spoke. Prevents Common Spoke Brakeage.

MAP7500
16" DROP-CENTER Harley Davidson Style 40-Hole 3½" Wide.
(Note: Use with metal side stem tube)

M.A.P. Cycle Enterprises, Inc.

AVON
A300X21 Roadrunner 300x21
A325X19 Roadrunner 325x19
A350X19 Roadrunner 350x19
A410X19 Roadrunner 410x19
A425X19 Roadrunner 425x19
A500SMX16 Safety Mileage 510x16

DUNLOP
K8194100 K81 410 X 19
K8184250 K81 425 X 18
K709325 K70 325 X 19
K709350 K70 350 X 19
K708400 K70 400 X 18

CHENG SHIN
C200510X16 510x16 Goodyear
 "SpeedGrip" Copy
 Low Profile

HDS
E240 MT90x16
 Classic Black
E270 MT90x16
 Super Classic White

O.E. TIRES



AVON AM9 UNIVERSAL DUNLOP K70 DUNLOP K81

TUBES
T1651CS 500/510x16
 Center Steel Stem
T1651RS 500/510x16
 Side Rubber Stem
T1651SS 500/510x16
 Side Steel Stem
T1830 275/300x18
T1835 325/350x18
T1840 350/400x18
T1842 375-425x18
T1851 425-510x18
T1930 275/300x19
T1935 325/350x19
T1941 360/410x19
T2130 275/300x21
T2135 325/350x21

RIM STRAPS
RS18 18" Rim
RS19 19" Rim
RS21 21" Rim

T-SHIRTS



TRIUMPH - WEATHERED UNION JACK
 FRONT

THE MAP SHIRTS ARE BACK!
 Each shirt was custom designed
 in-house to be just as unique as
 the bikes you know and love. You
 definitely won't find these anywhere
 else! Sizes M-XL, available in
 black only.



MAP OLDSCHOOL BLEACH PRINT



NORTON - WEATHERED UNION JACK
 FRONT



ALL - WEATHERED UNION JACK
 BACK



BSA - WEATHERED UNION JACK
 FRONT



BLEACH PRINT PATENT PLATE
 FRONT



BLEACH PRINT PATENT PLATE
 BACK

INTRODUCTION

This technical paper is presented to give interested riders, mechanics and tuners some insight into the theory and practice of cylinder head flow-testing and the design of intake/exhaust systems for maximum performance. The author, Jess O'Brien of O'Brien Design Engineering (formerly O'Brien Flowmetrics) has been involved in the motorcycle performance field for most of his working life. Jess, one of the founders of the Battle of the Twins road racing series, which since its inception has caused the popularity of the various vintage and classic events being held around the country, has teamed up with M.A.P. Cycle Enterprises, Inc. to provide valuable information for increasing your engine performance.

In the late seventies Jess formed O'Brien Flowmetrics specializing in cylinder head development for "BIG TWIN" motorcycles. Much successful work was done with the popular Triumph, Norton, Ducati, Harley XR 1000 and others. Jess was also involved with head development work on the Harley XR 750 dirt track engine.

Since most of the classic twins and singles were designed long before the science of precision flow testing was developed, they almost universally suffer from less than optimum port and combustion chamber design. Large horsepower gains are often possible through careful head modifications on these engines. O'Brien Design Engineering offers complete cylinder head services for twins and singles, whether they be vintage, classic or modern. Work ranging from simple valve jobs to complete porting is available. This work is custom engineered for the mild street to "all out" race engines.

THEORY & PRACTICE OF IMPROVING AIR FLOW THROUGH CYLINDER HEAD MODIFICATIONS

by Jess O'Brien

The high power output of the most modern 4-stroke engines is principally due to their ability to flow huge quantities of air-fuel mix into their combustion chambers and burn that mixture very quickly and efficiently. Few, if any, older engines have near this capability. However, thru the use of modern flow technology older engines can be modified for significantly increased air flow. This can increase the potential horsepower output substantially. Potential is the key word here. The original designer provided compression ratios, cams, carburetors, port and valve sizes suited for the engine's intended use, from mild transportation to sporting use, even full race in some cases. If the designer was somehow able to match the cylinder head's intake system to the demands of the engine configuration maximum power would have been developed. This was almost never the case because the flow technology did not exist at the time.

In almost all cases where engines are modified for increased power, increased air flow must be provided or the desired horsepower increases will not be obtained. Although it is possible to make some port modifications without the use of flow testing equipment, success is unlikely or simply a matter of luck. Often more harm than good is done.

The mechanical limitations of pistons, rods, crankshafts and crankcases must be up to the job of handling the increased power. Power gained through modifications such as the installation of appropriate camshafts, increased compression pistons, and free flow exhaust can make your motorcycle the optimum performance machine. All these things need to be carefully considered before undertaking extensive engine modifications.

VOLUMETRIC EFFICIENCY

Volumetric efficiency (VE) is the measure of an engine's ability to intake fuel/air mix. The more charge that can be packed into the combustion chamber during the intake stroke the more horsepower (HP) the engine will put out, assuming that other factors are not limiting HP. VE is stated as a percentage. If an engine was able to completely fill its cylinders during every intake cycle it would be operating at 100% volumetric efficiency. By utilizing the ram effect of the moving column of air VE of over 100% is common. It is considered that the potential maximum VE of a 4-stroke, unsupercharged engine is 130%.

VE is estimated using a simple formula:

$$5600 \times \frac{\text{HP}}{\text{RPM} \times \text{CID}} \times 100 \text{ (max. is 130\%)}$$

To use this formula we must know several things:

Horsepower - in most cases you will have to use the mfg.'s rating. RPM - use the RPM at which the stated HP is developed.

CID - since most motorcycle engines are measured in cc's (cubic centimeters) we will have to convert. Multiply the cc's by .061. VE calculations can demonstrate the need for increased air flow. To illustrate let's compare VE of two popular classic twins, the 650 Bonneville and the later 750 model. Triumph rated the 650 at 50 HP @ 6500 RPM. The CID is 39.6 (649 x .061 = 39.6). Let's plug these figures into the formula:

$$5600 \times [50 \text{ divided by } (6500 \times 39.6)] \times 100 = 108.8\% \text{ VE.}$$

Now let's see how VE was affected when the displacement was increased. Triumph enlarged the engine without making any real changes to the cylinder head's flow capability. The result was about 52 HP @ 7000 RPM. The almost 100cc increase in displacement resulted in a relatively small increase in peak power. Our VE formula can illustrate the probable cause. The CID is 45.57 (747 x .061 = 45.57). Let's plug these figures into the formula:

$$5600 \times [52 \text{ divided by } (7000 \times 45.57)] \times 100 = 91.29\% \text{ VE.}$$

The reduction in VE in this case would seem to indicate that the additional displacement required more air flow. This would usually be the case. The displacement increase did improve mid-range torque without a large HP increase. Probably, this was Triumph's intent.

ENGINE MODIFICATIONS FOR INCREASED POWER

From the previous discussion it appears that improving volumetric efficiency is the name of the game for increasing performance. True, but not the whole ballgame by a long shot. Again, let's use the Triumph Bonneville as an example. Suppose we have a stock 650 and want more power. First, some decisions. Do we want the bike to be streetable? If so, it should start easily, idle fairly well, be manageable in traffic, accelerate well and have a better top end performance in the bargain. Or is the machine to be used exclusively for racing where we can sacrifice some of these things for maximum speed. It's not surprising that many riders choose maximum performance figuring that they can live with some poor low speed performance. They usually change their minds quickly, often finding that the motorcycle actually feels slower because of poor low and mid range power. Suppose we make the right decision and decide to retain streetability. The first thing to consider would be making the engine larger. A good move

because it will improve mid range torque. Bolt-on kits are available to convert the 650 to a 750 or even larger. Now the machine will feel more powerful and pull better but we have probably not gained much top end. What's next? Higher compression ratios will make more power but there's a problem. Pump fuel available now will not allow extremely high ratios in older engines. Detonation and destructive overheating will result. The big bore kit provides the highest ratio that the manufacturer felt could be run on unleaded high test. Fuel additives such as M.A.P. Cycles "BIG-BOOST" are available and extremely efficient but are sometimes inconvenient, especially when one runs out. So let's leave this option for now. Cams - A good street grind will help. It will keep the valves open longer and may provide more lift allowing a longer period for fuel/air mix to enter the engine. Intake tract modifications - This will provide our largest increase in peak power. Let's examine this modification in detail.

CYLINDER HEAD MODIFICATIONS

Looking back again to our previous discussion on volumetric efficiency, we found that the stock Triumph cylinder head was unable to supply enough air to obtain maximum performance from the 750 engine. It would be nice to come up with a formula that would predict exactly how much horsepower increase we could expect from each modification. This is not possible because there are so many variables involved. We can, however, pretty closely calculate the potential horsepower that can be obtained with a given amount of air flow. By test, a stock Triumph Bonneville head will flow about 61 CFM (cubic feet per minute) of air thru each of its intake ports. These tests were conducted at 10-inches of water (a term that relates to the test instrument on the flow bench). How much flow do we need in order for our modified 750 to reach its maximum potential HP? Thru long experience, several formulas have been developed to predict not only the amount of air flow needed, but also what the actual HP potential will be and at what RPM it will be developed.

Air flow necessary for a given CID = Displacement of 1 cyl. x 2.15 x 1/2 max. safe RPM divided by 1728.

Now let's plug in the figures from our 750 (45 CID) Bonneville. For RPM we'll use the factory rating of 7000. Thus 22.5 x 2.15 x 3500 divided by 1728 = 98 CFM. Note: this formula is based on 12" of water which converts to 89.9 CFM at 10" (see formula page-Appendix A).

Now that we've calculated that we need 89.9 CFM for maximum potential HP we can use another formula to calculate what the HP might be:

For a fully modified street motorcycle.
Potential HP per cylinder = CFM x .35. Thus 89.9 x .35 = 31.4 x 2 cyl. = 62.8 potential HP.

For full race engine the factor is changed from .35 to .4 thus with the same air flow we have 89.9 x .4 = 35.96 HP per cyl. x 2 = 71.92 potential HP. These formulas have proven to be remarkably accurate over time.

The illustration in Figure #1 (Appendix A) represents a typical intake tract. This consists of the carburetor, carburetor adapter, intake port, valve and seat. Extensive flow research has established certain guidelines for efficient intake tract design:

1. Carburetor size should be 86% of intake valve diameter.
2. Flow losses arise from changes in direction and decreases in velocity (port bends and expansions).

3. Material should be removed primarily from the outside of port bends, not the inside. Flow will increase due to the increase in the radius of the bend.
4. Port length and surface finish are not important to flow.
5. The greatest flow loss results from poor design of the port floor (the area opposite the valve guide). This controls air flow from about .250" to maximum lift. Very small changes in the angle or location of the port floor can result in flow losses or gains of as much as 10%. It is obvious that without a flow bench such small deviations are virtually impossible to detect.
6. The second greatest flow loss in the intake port is due to the expansion of the air out from around the valve. This makes the area from 1/2" below the valve to 1/2" above the valve the most critical part of the port. Just below the valve seat the port diameter should decrease to about .85 of the valve diameter.
7. The valve seat shape has a substantial effect on flow from .050 to .250" lift.

Let's expand on these points:

VALVE SIZES - Intake valve sizes in hemi or semi-hemi 2-valve combustion chambers are limited by the bore size or the largest diameter of the chamber itself. As a rule the larger the valve the greater the flow. This does not prove true, however, if the valve is so large that it is masked by the cylinder wall or the edge of the chamber. In addition, the largest valves may not flow more because of port restrictions that cannot be corrected without extensive port redesign involving welding and remachining.

Before going on let's talk a bit about RPM. Note that in previous calculations we used the factory's figure. This is the RPM at which the stock peak HP was developed. Shouldn't our modified engine be able to develop its peak HP at a higher RPM? Certainly, modifications like racing cams and improved air flow will usually raise the power peak. Again we have a time-tested formula that can predict the RPM at which peak power will be developed.

$$RPM = \frac{2000}{(CID \text{ per Cyl.} \times CFM)} \quad (\text{at } 10" \text{ of water})$$

Let's apply this using our previously calculated Triumph flow figures.

$$(2000 \text{ divided by } 22.5 \text{ CID}) \times 89.9 \text{ CFM} = 7991 \text{ RPM.}$$

In other words the HP of a fully modified street Triumph would be about 62-63 HP at nearly 8000 RPM. The question is can we safely run this engine 8000 RPM? Maximum safe RPM is determined by mechanical considerations, namely the valve gear, the piston speed (determined by the stroke) and the strength of the bottom end components like the rods, crankshaft and crankcases. Obviously no mathematical formula could take all these things into account. It's been proven down thru the years that for reliability engines should not be operated for any length of time at piston speeds exceeding 3700 ft. per min. To calculate safe RPM use this formula:

$$SAFE \text{ RPM} = 22,200 \text{ divided by stroke in inches.}$$

As with most older designs our Triumph has a longish stroke of 82 mm. Converting this to inches, .03937 x 82 = 3.228 in.

$$\text{Thus SAFE RPM would be } 22,200 \text{ divided by } 3.228 = 6877 \text{ RPM.}$$

Note that this is over 1000 rpm less than our predicted peak HP RPM. Does this defeat us? No, it only means that we should not operate this engine for long periods at over 7000 RPM without expecting reliability problems. If we can get the engine to rev that high 7500 to 8000 RPM shift points during competition events would be reasonable. Just remember, constantly exceeding safe RPM limits without necessary modifications will almost guarantee a blowup!

TUNED INTAKE LENGTH - It is possible to improve volumetric efficiency by harnessing the natural kinetic energy and the resonant pulses that occur during the intake cycle. When the intake valve closes, a pressure pulse bounces back out the intake tract, and then in again toward the valve. By making the intake tract the proper length, the returning pulse can be timed to arrive at top dead center of the next intake cycle, forcing extra air in and keeping exhaust gases out of the intake port. In order to utilize this pulse, the intake tract, from the carburetor bell mouth to the inlet valve, must be the correct length. See fig.#2 (Appendix A). There are actually several pulses that can be used corresponding to the 2nd, 3rd and 4th time the pulse is reflected. These pulses are called harmonics. The 2nd harmonic being the strongest. There is a simple formula for calculating the length using the second harmonic.

Tuned Length (in inches) is 132,000 divided by RPM

For instance, if our usable peak RPM was 7000: 132,000 divided by 7000 - 18.8 inches. This is a very long tract and difficult to accommodate on a motorcycle. The use of the 3rd harmonic will result in a slightly shorter tract:

97,000 divided by 7000 = 13.8 inches.

Still a rather long distance. What real benefits can we derive from intake tuning? The real joker in this whole thing is that although we may derive some peak power from increasing the ram effect, it will only work during a relatively narrow RPM band (a little over 1000 RPM usually). It also has the effect of reducing engine power outside of the narrow RPM band. Is it worth it? For an all-out road racer it may be. For a modified street bike we will probably lose more than we gain. A close look at the latest factory road racers would indicate that this theory has been all but abandoned and carburetors are now being placed as close to the head as possible with relatively short inlet bells. Perhaps the mid range losses were found to be greater than the top end gain.

VALVE LIFT - Air flow thru the engine is controlled by valve lift. The further the valve lifts the greater the flow, up to a point. Some racing cams open valves as high as .30 x valve diameter (dia). In actual practice flow seldom increases much at over .25 valve dia. lift. Cam designers realize this, but lift is often "overshot" in order to provide faster lifts at low valve openings. Remember, we need the highest possible flow over the entire range of lift. On the flow bench flow is measured at .050 increments over the full range of lift. Efforts are always made to maximize flow at low lifts as well as high.

POTENTIAL PROBLEMS WITH VERY LARGE VALVES AND HIGH LIFTS - During the overlap period when both the intake and exhaust valves are open large valves with high lifts may tangle (touch together). If this is the case the only cure is to either reduce valve size and/or lift or to sink the valves deeper into the head by grinding the seats lower. Sinking the intake valve will have a negative effect on flow, sometimes very much so, and should be avoided. The exhaust valve can be sunk somewhat without ill effect. Another problem that rears its ugly head is piston-valve interference. It is advisable to maintain at least .060" between the valves and the piston at overlap top dead center. In order to do this the valve cutaways in the piston may have to be cut

deeper. These deep cutaways reduce the compression ratio and may have a masking effect on the intake valves. Taking all this into account you should keep valve sizes and cam lifts within reasonable limits.

IDEAL PORT SHAPES - For maximum flow the ideal port would be as straight as possible, tapering down from carburetor diameter to .85 of the carburetor bore just below the valve seat. There would be no sudden change of diameter and the radius of all curves should be perfectly blended and as large as possible. In real life this ideal is seldom attainable.

MODIFYING PORT SHAPES - Fig. #3 (Appendix A) represents a typical full hemi combustion chamber design. Valves are inclined at a 90 degree included angle. This port looks good at first glance. There are serious problems, however. One is the angle at which the air flow approaches the valve. Air flow does not hit the valve seat at a right angle. The port is too low causing turbulence around the valve seat that reduces flow. The low port also creates another problem - excessive charge loss. Charge loss occurs during the overlap periods when both the intake and exhaust valves are open. Part of the fresh charge coming in tends to be lost right out the exhaust port particularly at lower engine speeds. This situation is aggravated by a racing cam that opens the intake earlier and closes the exhaust later. Some charge loss is unavoidable, but can be minimized by careful port modification. Fig. #4 (Appendix A) shows a hemi port modified to improve both the flow around the valve and to redirect the charge downward away from the exhaust port to minimize charge loss. Fig. #5 (Appendix A) indicates a more extensive modification for full race applications where the whole port is raised by adding metal to the floor and remachining the roof of the port to provide even better flow and less charge loss. Fig. #6 (Appendix A) illustrates the semi-hemi combustion chamber. This design is a result of the manufacturer's efforts to improve flow, reduce charge loss, and provide a more compact combustion chamber that improves flame travel and shortens the time required to burn the fuel/air mix during the power stroke. The valve angle is narrowed from 90 degrees to 60 degrees. The valves are more upright. This nicely curved port shape above the valve allows the air flow to approach the valve at right angles all the way around. The semi-hemi usually requires less modification for maximum flow and is probably the best 2-valve combustion chamber design. It allows maximum valve sizes with good flow as well as higher compression ratios due to more efficient combustion.

VALVE GUIDES - The practice of cutting valve guides off flush with the port is a bad one. The valve depends on the guide to return it to the seat in perfect alignment. Many guides are too short to begin with. Cutting them off can allow the valve to wander on the seat and not seal well, as well as causing rapid wear to the guide bore. Even valve guide bosses should not be completely ground away. This practice reduces the length of the guide's bearing surface in the head and can cause the guide to eventually become loose. A well-designed or modified port opens up slightly in the guide area to prevent reduction of flow. There is no harm in streamlining the valve guide boss slightly but this usually shows little improvement on the flow bench.

VALVE SHAPES - The contour of the top of either valve has little effect on flow. The shape of the back side can have an effect. Most modern valves incorporate the rounded, convex shape that seems to work best on both the intake and exhaust. The older tulip and flat back shapes should be avoided. Some flow testers have experimented extensively with shapes at the back of intake valves. Various angles have been tried with some success on certain port configurations however, and without a flow bench it is futile.

VALVE SEATS - The intake port area just beneath the valve seat and the seat angles are critical. Also that the port narrows just behind the seat to 85% of the valve diameter. This is important to

good flow around the valve. We find that many heads that have been ported are opened up to the full valve diameter at this point. If this has been done it must be repaired before maximum flow can be achieved. Repair involves either installing a larger valve or, if this is not possible, the seat must be removed, the area welded up, remachined, and a new seat installed. Note the valve seat angles on Fig. #7(Appendix A). These include a 30-degree top cut, a 45-degree seat and a 60-degree bottom cut. Note that a further cut of 70 degrees is also indicated. This was done in this case to better blend the seat into the port. This extra cut is not always necessary or even desirable. It's one of those small things that may or may not show improvement and only the flow bench can decide. Sometimes the 30 and 60 degree angles can be slightly altered to improve flow. Again, this is one of the things that must be determined thru experiments on the flow bench. It will vary according to combustion chamber shape.

VALVE SEAT WIDTHS - For maximum flow a good 3-angle valve job is required with the 45-degree intake seat around .040" wide. With the seat located at the valve's outside diameter. The 45-degree exhaust valve seat should be wider than the intake in order to promote good heat transfer, about .080" and can be moved in slightly from the edge of the valve for longer life.

EXHAUST PORTS - The exhaust port operates under different circumstances than the intake. There is some controversy over what percentage of intake flow the exhaust port should attain. We find that around 90% works well on most motorcycle engines. Some ports will flow 90% with little or no modification. Others may require some work. Modifications usually involve some opening up of the port from just in front of the guide out to the exhaust port. The general smoothing of the surfaces is beneficial. There is also some merit to a high polish on exhaust ports to inhibit the formation of carbon. Do not attempt to blend the exhaust stub into the pipe diameter. As a matter of fact, a decided step at this point is often desirable. This step helps to prevent a reflected exhaust wave from refilling the cylinder with spent gases before the exhaust valve closes (referred to as anti-reversion).

POLISHING PORTS - A high polish on intake ports is not desirable. This fact is almost universally accepted by experienced head designers. The exhaust port may be polished to reduce carbon build-up. What we are after on the intake port is a smooth finish without hills and valleys and with well-blended transitions between diameter changes. This is not easy without considerable experience. When grinding ports with rotary files a wavy finish is easily produced. If the port is then highly polished these waves often remain. But now they are not as easily seen because of the shine. This can ruin flow!

FOUR VALVE HEADS - The four-valve head is now the most popular system in use on high performance overhead cam motorcycle engines. There are good reasons for this. Although two large valves can be made to flow as much air as four smaller valves there are other factors that make this design superior. One, of course, is lighter valves that allow higher RPM without float, along with lighter valve springs. Probably the most important advantage is the combustion chamber shape. Called the pent-roof design this chamber is very compact. Most often the spark plug is located in the center. This provides for extremely short flame travel. The smaller chamber allows high compression ratios with flat top pistons. This eliminates the high-domed piston that can mask valves during overlap and slow the burning of the charge creating detonation. These features combined create the most significant advantage of all: extremely short burn time. The faster and more completely the charge is burned, the more horsepower is produced. Since most 4-valve heads were designed using ultramodern flow equipment and with maximum performance in mind there is less potential for improved air flow thru modifications.

Any port work must be done very skillfully lest flow be reduced. Work on 4-valve ports is usually limited to matching the carb adapters and the port, and performing accurate 3-angle valve jobs. A flow bench is usually a must if any attempt is to be made to further improve flow.

CHOOSING CARBURETOR SIZES - Extensive testing has proven that a carburetor with a bore size that is 86% of the intake valve size will produce the maximum flow necessary. For instance, an engine with 1 1/2" (38mm) inlet valves will require a carburetor with a bore of 1.29" (32mm). Increasing the carburetor size without increasing the valve size will result in little, if any, increased flow. In spite of this, we often find much larger than necessary carburetors even on factory prepared race bikes. Over-carbureting an engine often causes tuning problems that are difficult to cure. Low and/or mid range throttle response may be poor, with hesitations and flat spots. An experienced tuner with access to lots of jets and needles can often cure these problems, but why bother for little potential gain, particularly on a modified street bike where rideability is a prime consideration.

CARBURETOR TYPES - Currently there are quite a variety of carburetors available. Aftermarket distributors offer bolt-on kits with jetting already installed for a particular application. Our experience with these kits has been generally good. Most are jetted very close and require only small changes, if any. Of the brands available the Japanese Mikuni is probably the most popular. These carburetors are fairly easy to tune, can be had in a variety of sizes, and a wide range of tuning parts are available. Modern carburetors can greatly improve the rideability of older bikes and are a good investment, especially when other modifications are being considered.

AIR FILTERS - For all but pure road racing air filters should always be used. Fig. #8 (Appendix A) shows the popular "K&N" type installed on the carburetor. As a rule an air filter will not restrict flow if it is large enough. There is one important point to remember, however. The distance between the back of the air filter and the carburetor mouth should be at least 2 inches. Any less can restrict flow.

GEARING

From the beginning, we have stressed R.P.M. If you don't know range of R.P.M. when your engine develops its maximum efficiency, you're lost. This information will enable you to stay ahead of the majority of riders who over "rev" and under gear or over gear their bikes. In every race I've been to, someone comes up and asks, "What gearing should I run?" If you know and they don't, it's called "I gotcha."

- MPH = Miles Per Hour
- GR = Gear Ratio
- RPM = Engine Speed
- Mile = 5,280 ft.
- K = 60 divided by Revolutions of tire per mile

- To find: MPH = (RPM X K) divided by GR
- To find: GR = (K X RPM) divided by MPH
- To find: RPM = (MPH X GR) divided by K

Example:
For a 4.00 X 18" tire, the average revolutions/mile is 766.
To check, put a chalk mark on the tire and then roll it along the ground for one exact revolution.
If it does come out to be 6' 57/64", convert to 6.89' divide it into 5,280. [5,280 divided by 6.89 = 766]

Therefore:

$$K = .078 \text{ [i.e. } 60 \text{ divided by } 766]$$

Next, find GR at trans sprocket. Triumph has 2.0. (ie. 58 T chainwheel divided by 29 T eng sprocket)

Then, GR at the rear wheel. For instance, a rear sprocket of 47 T with a trans sprocket of 20 T.

Therefore:

$$\text{Your stock overall gear ratio is } 4.70 \text{ [ie. } ((47 \text{ divided by } 20) \times 2.0)]$$

Now, on your first test, you turn 8,000 RPM. Then MPH = 132.8 [ie. ((8,000 X .078) divided by 4.70)]

You like 132.8 MPH, but you're over the 7,000 rpm limit. Plugging in the RPM and MPH you want.

$$\text{You Find GR must now equal } 4.11 \text{ [ie. } ((.078 \times 7000) \text{ divided by } 132.8)]$$

$$(41 \text{ rear } \times 2.0) \text{ divided by } 20 \text{ transmission} = 4.10$$

If you're locked in on not being able to change rear wheel sprocket, you could change transmission sprocket. Ratio averages about 2 to 1 (1 on front averages 2 on rear). (47 rear X 2.0) divided by 23 transmission = 4.09 is as close as you can come.

Please phone or write for more information and/or prices regarding our new services: Pro-Port, Super-Port, and Econo-Port; hardened valve seat replacement; and 3-angle/blend valve jobs.

FORMULAS:

$$100\% \text{ CFM at } 12" = \text{CID} \times 2.15 \times \text{RPM} \text{ divided by } 1728$$

$$100\% \text{ CFM at } 10" = 100\% \text{ CFM at } 12" \text{ divided by } 1.09$$

$$\text{Potential H.P. Semi-Race} = .35 \times \text{CFM (at } 10")$$

$$\text{Potential H.P. Full-Race} = .40 \times \text{CFM (at } 10")$$

$$\text{Pulse 2nd Harmonic} = 132,000 \text{ divided by RPM}$$

$$\text{Pulse 3rd Harmonic} = 97,000 \text{ divided by RPM}$$

$$\text{Pulse 4th Harmonic} = 74,000 \text{ divided by RPM}$$

$$\text{Safe Peak Power RPM} = 22,200 \text{ divided by stroke (in inches)}$$

$$\text{Maximum Peak Power RPM} = 27,600 \text{ divided by stroke (in inches)}$$

$$\text{CC to CID multiply CC's by } .061$$

$$\text{MM to INCHES multiply MM's by } .03937$$

$$\text{Cubic Centimeters per/cylinder} = .7854 \times \text{Bore}^2 \times \text{Stroke (measured in Cubic Centimeters)}$$

$$\text{Cubic Inch per/cylinder} = .7854 \times \text{Bore}^2 \times \text{Stroke (measured in Cubic Inches)}$$

$$\text{Compression Ratio} = (V1 + V2) \text{ divided by } V1$$

Where:

$$V1 = \text{Combustion Chamber Volume*}$$

$$V2 = \text{Swept Volume (BORE} \times \text{BORE) } \times \text{STROKE} \times .7854$$

*Find V1 either by calculation or the Burette method

By Calculation:

$$V1 = \text{volume of combustion chamber (by Burette) + volume of head gasket (by formula) - volume of piston dome (by burette)}$$

Note: if your piston is dished them *add* volume of dish (by burette).

By Burette: See Fig. #10 (Appendix A)

Turn engine over until piston is at top dead center. Place a small amount of grease between piston and cylinder wall to use as a seal. Install assembled head and head gasket onto cylinder. Torque head to specis. (installation of rocker boxes not required). Tilt engine so that the spark plug hole is exactly vertical. Using mineral spirits in your burette (make note of amount), fill combustion chamber until liquid comes up to the second thread from the bottom of the spark plug hole. If you have used 40cc's then V1 = 40.

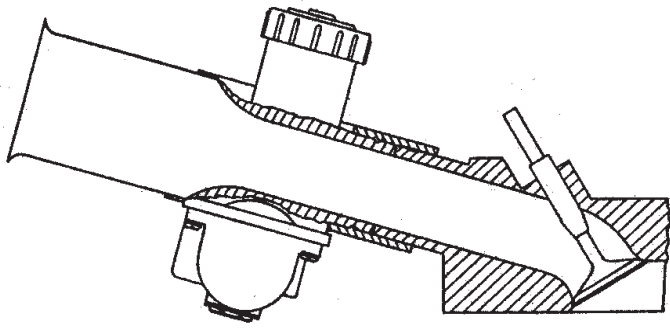


FIG # 1

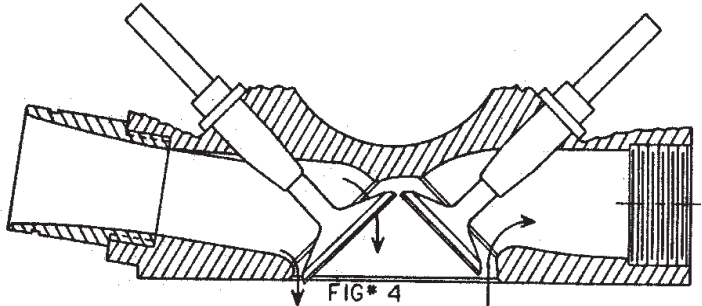


FIG # 4

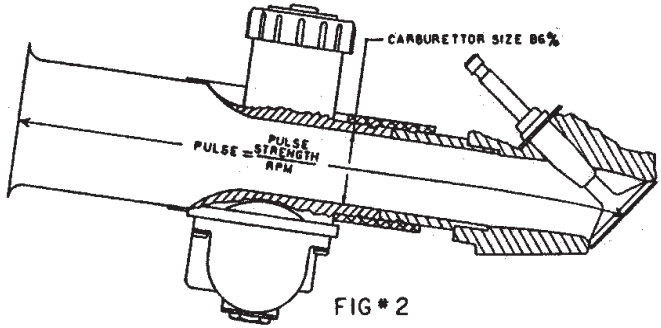


FIG # 2

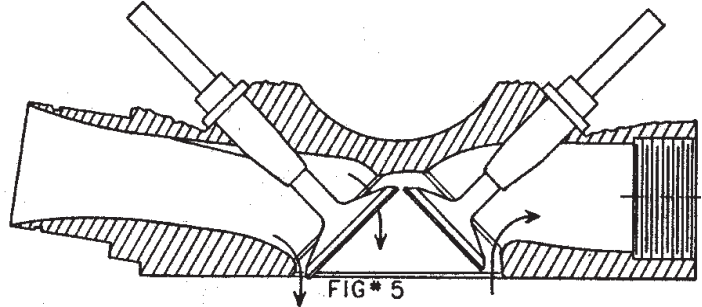


FIG # 5

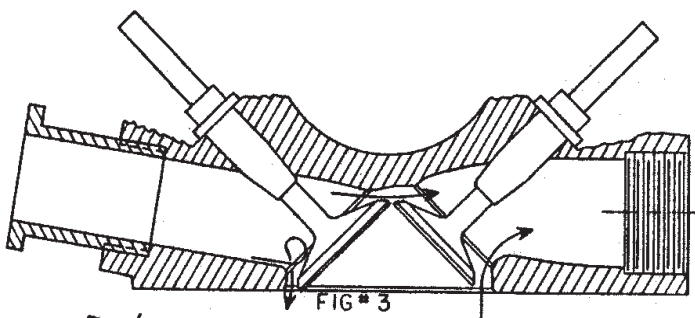


FIG # 3

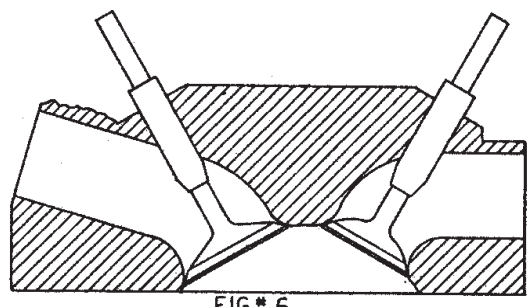


FIG # 6

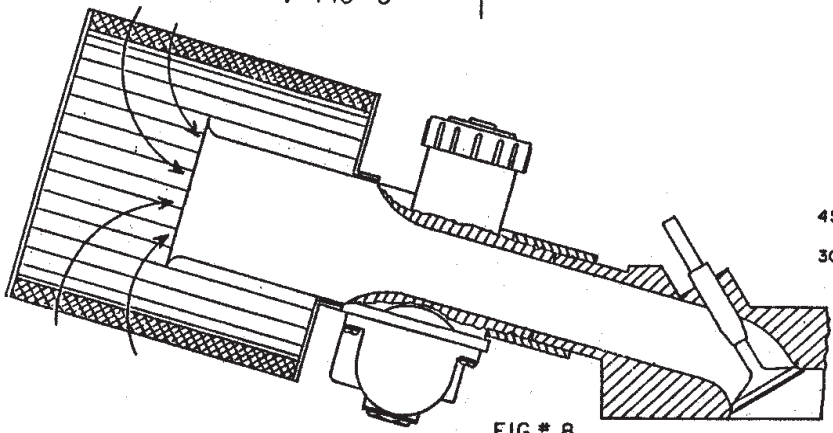


FIG # 8

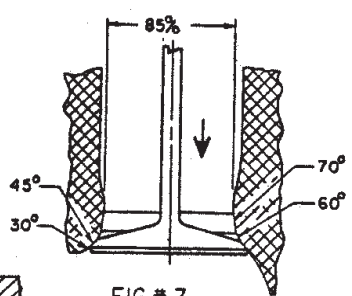


FIG # 7

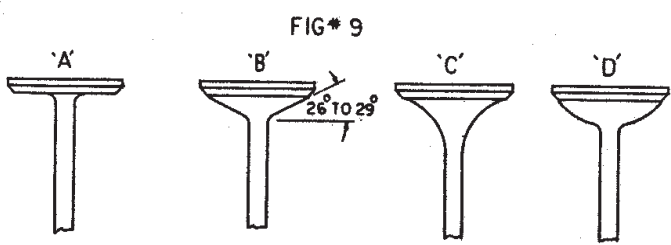


FIG # 9

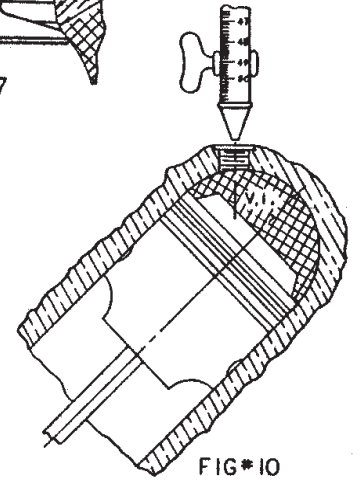
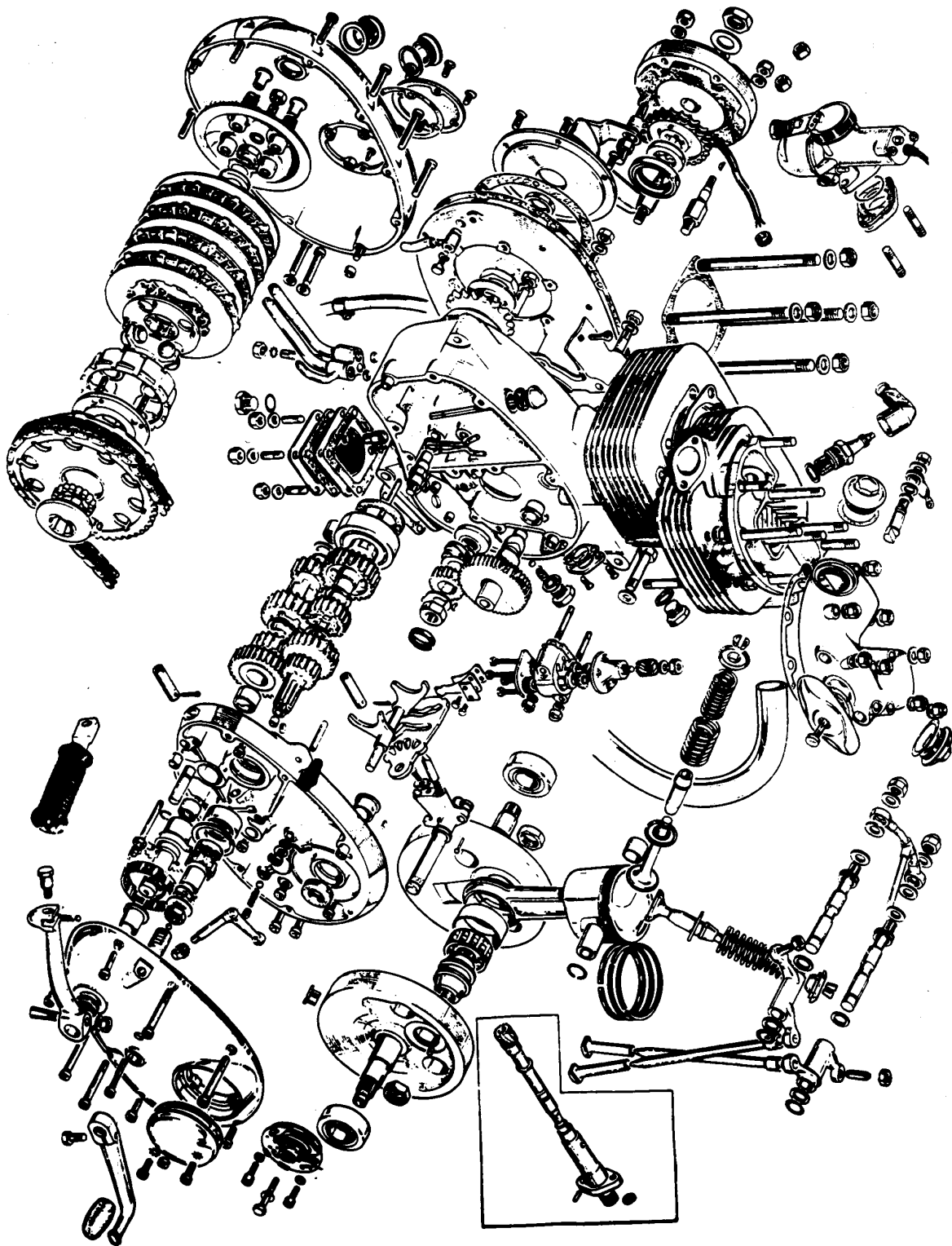
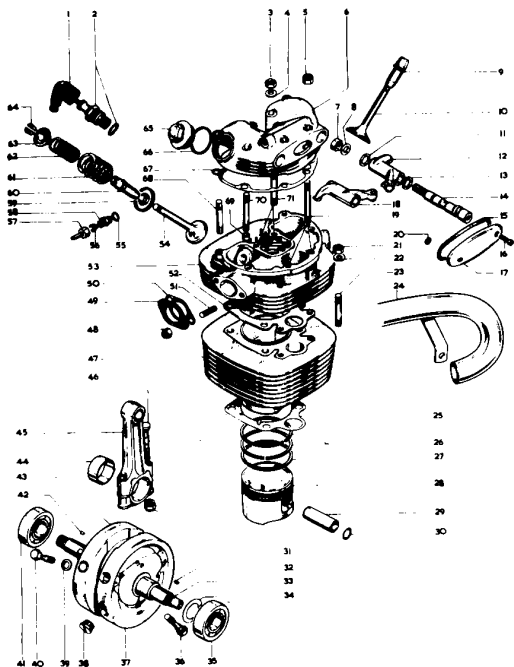


FIG # 10

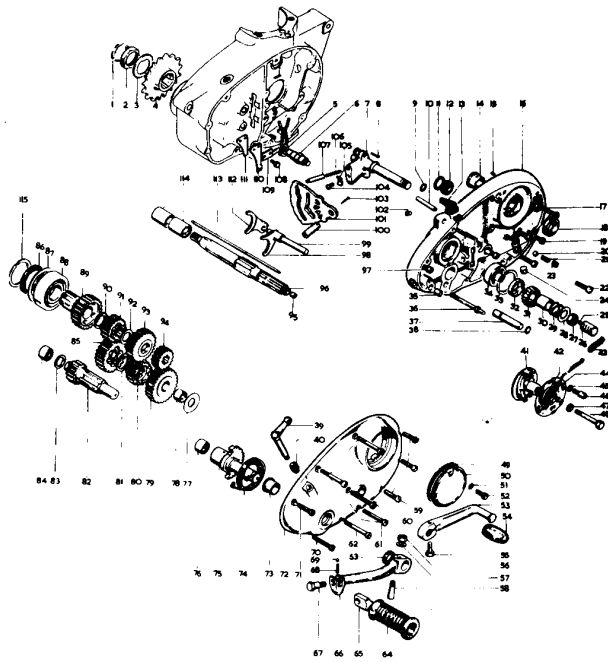
TRSA TRUMPER - Singles





CYLINDER AND CRANKSHAFT

Plate Ref	Description
1.	Spark plug cover
2.	Spark plug (Champion N3)
3.	Nut—rocker box to head ($\frac{1}{4}$ " UNF)
4.	Washer—rocker box to head ($\frac{1}{4}$ " x $\frac{1}{2}$ " x $\frac{1}{4}$ ")
5.	Nut—rocker box to head ($\frac{1}{4}$ " UNF)
6.	Rocker box
7.	Nut—rocker spindle ($\frac{1}{4}$ " UNF)
8.	Washer—rocker spindle nut ($\frac{1}{4}$ " x $\frac{1}{2}$ " x $\frac{1}{4}$ ")
9.	Exhaust valve guide
10.	Exhaust valve
11.	Thrust washer—rocker spindle ($\frac{1}{4}$ " I/D)
12.	Exhaust rocker
13.	Thrust washer—rocker spindle ($\frac{1}{4}$ " I/D)
14.	Rocker spindle
15.	Gasket—inspection cover
16.	Screw—inspection cover ($\frac{1}{4}$ " B.S.C. x 1 1/16")
17.	Inspection cover—rocker box
18.	Inlet rocker
19.	Stud—cylinder head ($\frac{1}{4}$ " UNC/UNF x 3 1/2")
20.	Sealing washer—rocker box
21.	Nut—cylinder head ($\frac{1}{4}$ " B.S.C.)
22.	Washer—cylinder head nut (2 1/16" x $\frac{1}{4}$ " x $\frac{1}{4}$ ")
23.	Stud—cylinder head ($\frac{1}{4}$ " B.S.C./B.S.F.)
24.	Exhaust pipe
25.	Cylinder base gasket
26.	Piston ring (taper)
27.	Piston complete
28.	Gudgeon pin
30.	Circlet—gudgeon pin
31.	Nut—connecting rod bolt ($\frac{1}{4}$ " UNF)
32.	Key—crankshaft pinion
33.	Crankshaft and flywheel assembly
34.	Shim—crankshaft (.003") .0762 mm
34.	Shim—crankshaft (.005") .127 mm
34.	Shim—crankshaft (.010") .254 mm
34.	Shim—crankshaft (.015") .381 mm
35.	Bearing—crankshaft right side (Hoffmann 325)
36.	Bolt—flywheel ($\frac{1}{4}$ " UNF x 2")



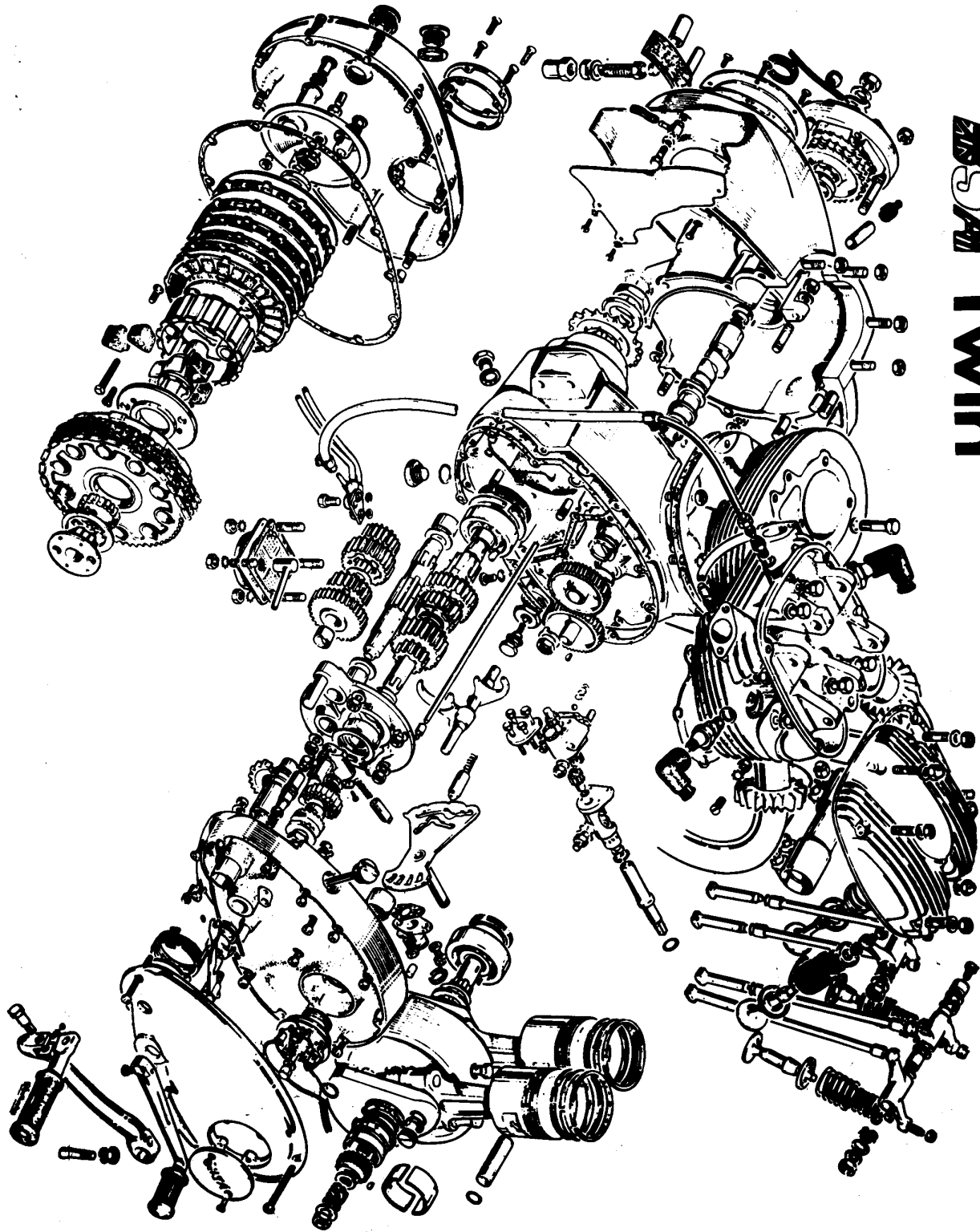
GEAR CLUSTER AND TIMING COVERS

Plate Ref	Description
1.	Felt washer—final drive sprocket
2.	Nut—final drive sprocket ($\frac{1}{4}$ " x 1)
3.	Lockwasher—final drive sprocket
4.	Final drive sprocket (16 teeth)
5.	Gearchange return spring
6.	Anchor bolt—gearchange return spring
7.	Gearchange quadrant
8.	Rivet—quadrant plunger
9.	"O"-ring—oil feed
10.	Breather pipe—inner timing cover
11.	Circlet—crankshaft oil seal
12.	Oil seal—crankshaft
13.	Grommet—contact breaker leads
14.	Camshaft bush
15.	Peg—camshaft bush
16.	Inner timing cover
17.	Screw—inner cover to crankcase ($\frac{1}{4}$ " UNC x 1 1/2")
18.	Camshaft oil seal
19.	Screw—front—inner cover to crankcase ($\frac{1}{4}$ " UNC x 1")
20.	Ball—non-return valve ($\frac{1}{2}$ " diameter)
21.	Spring—non-return valve
22.	Screw—inner cover to crankcase ($\frac{1}{4}$ " UNC x 1 1/2")
23.	Screwed plug—non-return valve ($\frac{1}{4}$ " UNC)
24.	Sealing plug (when oil wash is not fitted)
25.	Ball—clutch thrust ($\frac{1}{2}$ " diameter)
26.	Rack—clutch operating
27.	Mainshaft nut ($\frac{1}{2}$ " B.S.C.)
28.	Lockwasher—mainshaft
29.	Spring—kickstart ratchet
30.	Bush—kickstart ratchet pinion
31.	Pinion—kickstart ratchet
32.	Ratchet—kickstart
33.	Circlet—mainshaft bearing
34.	Mainshaft bearing (Hoffmann LS 7)
35.	Dowel—outer timing cover
36.	Anchor bolt—kickstart return spring
37.	Stop—kickstart quadrant
38.	Circlet—kickstart stop
39.	Clutch operating lever
40.	Clutch operating pinion
41.	Auto-advance unit (Lucas 54419653)
42.	Contact set (Lucas 54419827)
43.	Sleeve—contact breaker leads
44.	Contact breaker plate (Lucas 54419645)
45.	Washer—contact breaker pillar bolt

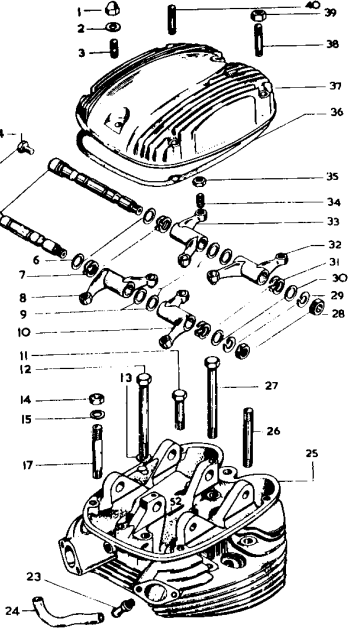
GEAR CLUSTER AND TIMING COVERS

Plate Ref	Description
46.	Pillar Bolt—contact breaker
47.	Washer—auto-advance unit
48.	Bolt—auto-advance unit ($\frac{1}{4}$ " x 1 x 2 1/2)
49.	Gasket—contact breaker cover
50.	Contact breaker cover
51.	Lock washer cover screw line 54
52.	Screw—contact breaker cover (2 B.S.C. x 1 1/2)
53.	Gearchange lever
54.	Rubber—gearchange lever
55.	Bolt—gearchange lever ($\frac{1}{4}$ " B.S.C. x 1 1/2)
56.	Nut—kickstart crank cover ($\frac{1}{4}$ " B.S.C.)
57.	Washer—kickstart crank cover
58.	Cutter—kickstart crank ($\frac{1}{2}$ " B.S.C.)
59.	Screw—outer timing cover (2 B.S.C. x 2 1/2)
60.	Screw—outer timing cover ($\frac{1}{4}$ " x 1 x 1 1/2)
61.	Screw—outer timing cover ($\frac{1}{4}$ " x 1 x 2 1/2)
62.	Screw—outer timing cover ($\frac{1}{4}$ " x 1 x 2 1/2)
63.	Oil seal—kickstart spindle
64.	Pedal rubber—kickstart crank
65.	Folding pedal—kickstart crank
66.	Kickstart crank complete
67.	Ball—kickstart pedal
68.	Spring—kickstart pedal
69.	Ball—kickstart pedal ($\frac{1}{2}$ " diameter)
70.	Screw—outer timing cover ($\frac{1}{4}$ " x 1 x 1 1/2)
71.	Screw—outer timing cover ($\frac{1}{4}$ " x 1 x 2 1/2)
72.	Outer timing cover
73.	Bush—kickstart spindle
74.	Spring—kickstart return
75.	Kickstart spindle complete
76.	Bearing—layshaft (Hoffmann B 108)
77.	Shim—layshaft
78.	Bush—layshaft first gear
79.	Pinion—layshaft first gear (27 teeth)
80.	Pinion—layshaft third gear (19 teeth)
81.	Circlet—layshaft
82.	Layshaft with top gear pinion (14 teeth)
83.	Thrust washer (083—085)
83.	Thrust washer (078—080)
84.	Bearing—layshaft (Hoffmann B 108)
85.	Pinion—layshaft second gear (22 teeth)
86.	Oil seal—mainshaft (Pioneer 20615618)
87.	Shield—gear box main bearing
88.	Bearing—mainshaft (Hoffmann B 10)
89.	Pinion—mainshaft top gear (22 teeth)
90.	Spacer (093—094)

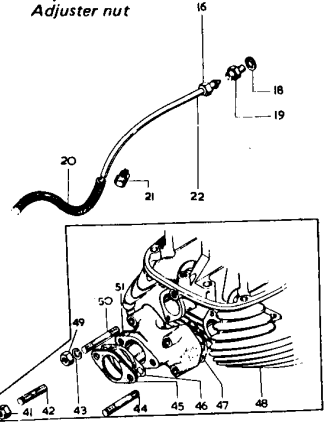
MSA Twin



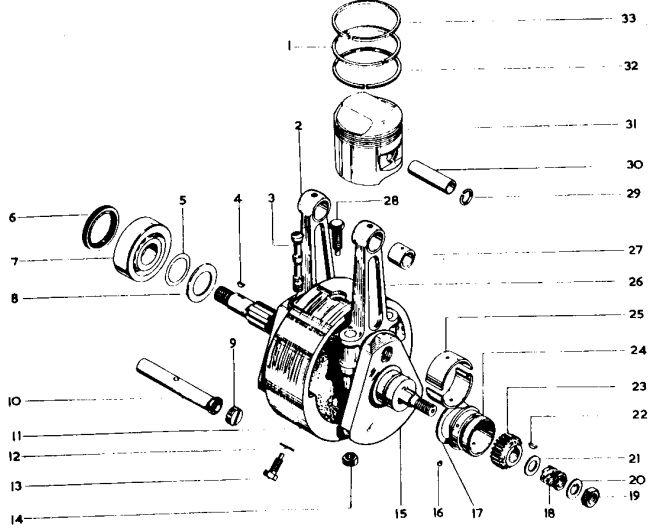
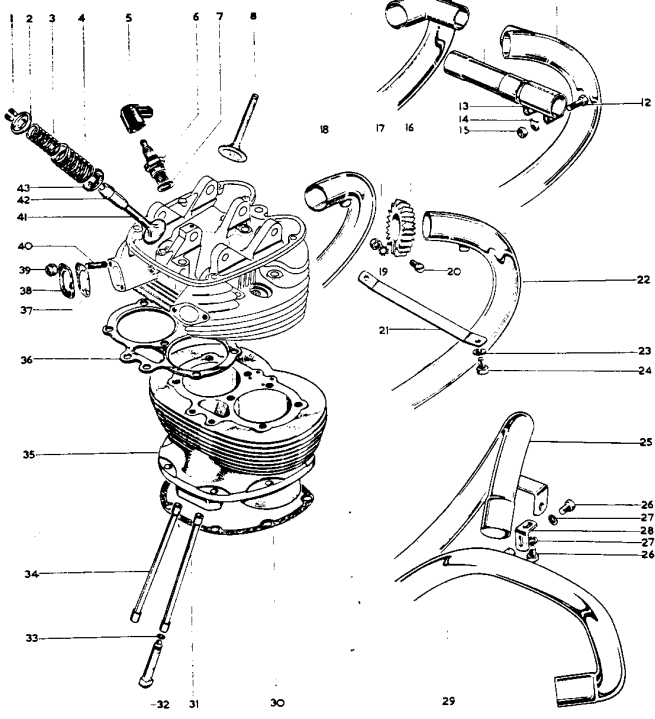
- 1 Nut
- 2 Washer
- 3 Stud (rear)
- 3 Stud (vorder)
- 4 Nut
- 5 Spindle
- 6 Washer
- 7 Spring
- 8 Inlet rocker (left-hand)
- 9 Washer
- 10 Inlet rocker (right-hand)
- 11 Bolt (short)
- 12 Bolt (long)
- 13 Washer
- 14 Stud nut
- 15 Washer
- 16 Oil pipe nut
- 17 Stud
- 18 Washer
- 19 Adaptor
- 20 Oil pipe connection
- 20 Oil pipe connection
- 21 Clip (oil pipe)
- 22 Oil feed pipe
- 22 Oil feed pipe
- 23 Connector
- 24 Balance pipe
- 25 Cylinder head
- 26 Stud
- 27 Bolt (long)
- 28 Rocker spindle nut
- 29 Rocker spindle washer
- 30 Washer
- 31 Spring
- 32 Exhaust rocker (right-hand)
- 33 Exhaust rocker (left-hand)
- 34 Adjuster screw
- 35 Adjuster nut



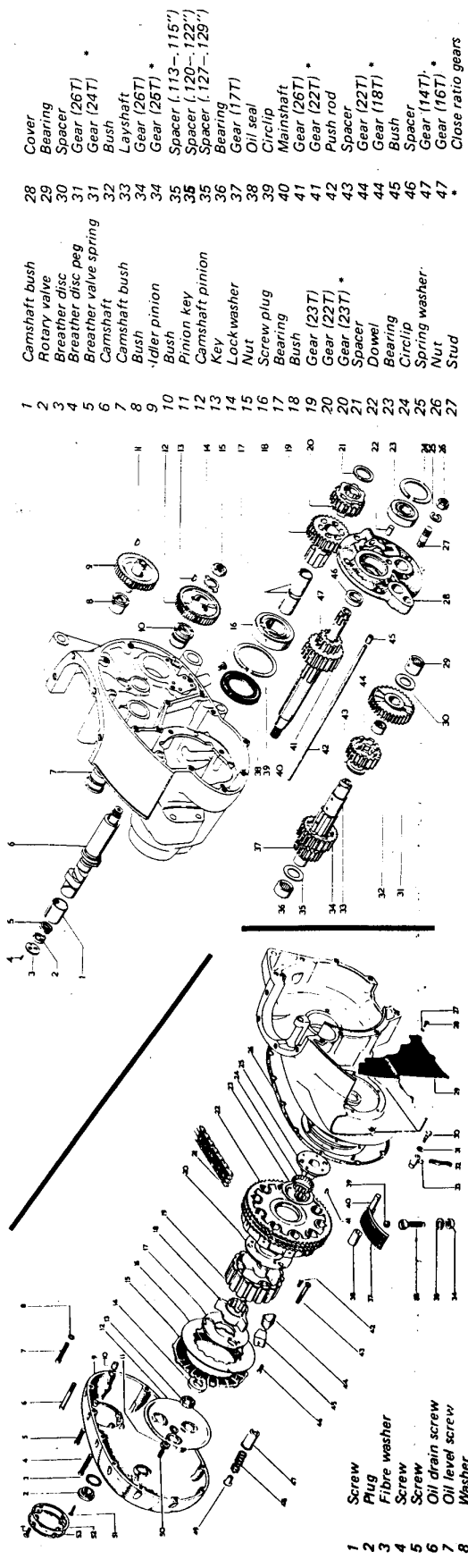
- 36 Gasket
- 37 Rocker cover
- 38 Stud
- 39 Stud nut
- 40 Stud
- 41 Carburettor stud nut
- 42 Carburettor stud
- 43 Washer
- 44 Stud (lower)
- 45 Joint washer
- 46 Gasket
- 47 Gasket
- 48 Cylinder head
- 48 Cylinder head
- 49 Nut
- 50 Stud (upper)
- 51 Inlet manifold
- 51 Inlet manifold
- 52 Split pin



1. Collet, valve springs
2. Top collar, valve springs
3. Inner valve spring
4. Outer valve spring
5. Spark plug cover (Champion WC548)
6. Spark plug (Champion N3)
6. Spark plug (Champion N4)
7. Spark plug washer
8. Exhaust valve
9. Exhaust pipe (left-hand)
10. Cross tube, exhaust pipe
11. Exhaust pipe (right-hand)
12. Bolt, cross tube clip (1/2" Unified Fine x 1 1/4")
13. Cross tube clip
14. Cap, cross tube clip
15. Nut for bolt, line 12 (1/4" Unified Fine)
16. Finned collar, exhaust pipes
17. Nut for screw, line 20 (1/4" Unified Fine)
18. Exhaust pipe (left-hand)
19. Lockwasher for nut, line 17
20. Screw, finned collar (1/4" Unified Fine x 1 1/4")
21. Tie bracket, exhaust pipes
22. Exhaust pipe (right-hand)
23. Spring washer for bolt, line 24 (1/4")
24. Bolt, tie bracket to exhaust pipe (1/4" British Standard Cycle x 1 1/4")
25. Exhaust pipe (lh)
26. Bolt, tie bracket to exhaust pipe (1 1/4" Unified Fine X W")
27. Spring washer for bolt, line 26 (1 1/4")
28. Bracket
29. Exhaust pipe (rh)
30. Cylinder base gasket
31. Inlet pushrod
32. Inlet and exhaust tappet
33. Tappet circlip
34. Exhaust pushrod
35. Cylinder
36. Headgasket
37. Carburetor gasket
38. Carburetor insulating washer
39. Nut, carb stud (5/16" British Std Cycle)
40. Stud, carb (5/16" British Std Cycle / British Std Fine X 1-3/8")
41. Inlet valve
42. Valve guide, inlet and exhaust
42. Bottom cup, valve springs

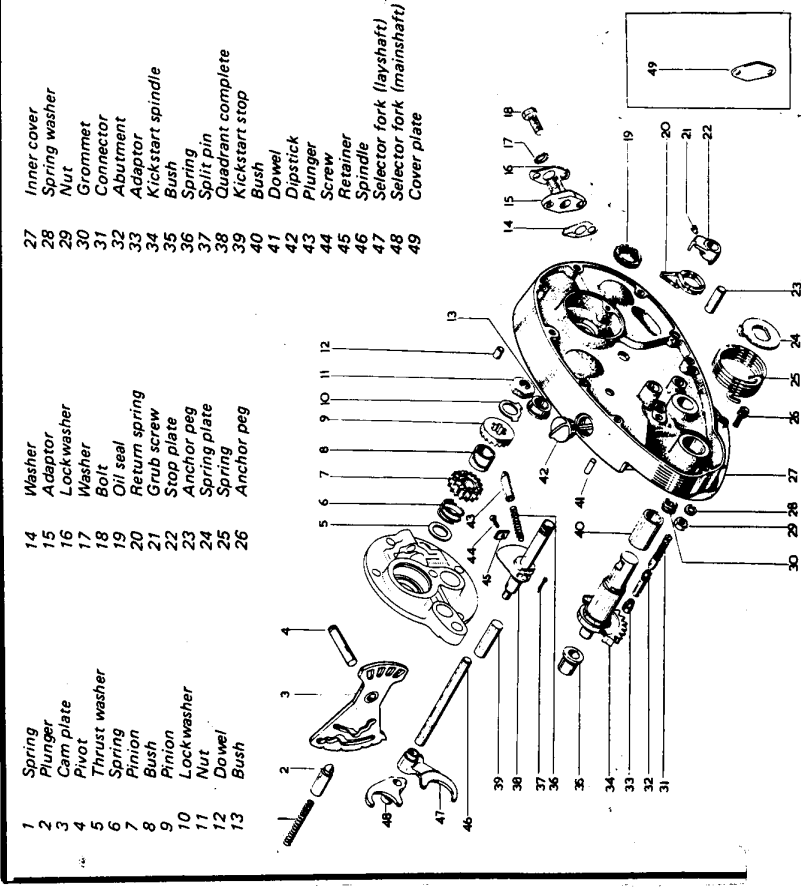


- 1 Piston ring (taper) *
- 2 Connecting rod (left-hand)
- 3 Connecting rod bolt
- 4 Crankshaft key
- 5 Shim (.003")
- 5 Shim (.005")
- 5 Shim (.010")
- 6 Oil seal
- 7 Bearing
- 8 Retaining cup
- 9 Oil tube plug
- 10 Oil tube
- 11 Flywheel
- 12 Washer
- 13 Bolt
- 14 Nut
- 15 Crankshaft
- 16 Dowel
- 17 Thrust washer
- 18 Pinion
- 19 Crankshaft nut
- 20 Lockwasher
- 21 Washer
- 22 Pinion key
- 23 Pinion
- 24 Bush (standard)
- 24 Bush (-.010")
- 24 Bush (-.020")
- 25 Bearing shell (standard)
- 25 Bearing shell (-.010")
- 25 Bearing shell (-.020")
- 25 Bearing shell (-.030")
- 26 Connecting rod (right-hand)
- 27 Small-end bush
- 28 Flywheel bolt
- 29 Circlip
- 30 Gudgeon pin
- 31 Piston complete (9 : 1) *
- 31 Piston complete (10.5 : 1) *
- 31 Piston complete (9 : 1) *
- 32 Piston ring (scraper)
- 33 Piston ring (top)

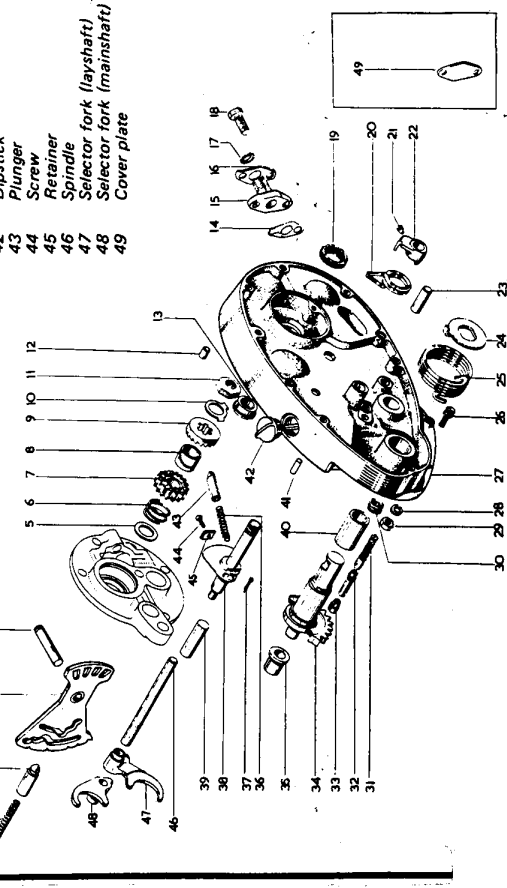


- 1 Screw
- 2 Plug
- 3 Fibre washer
- 4 Screw
- 5 Screw
- 6 Oil drain screw
- 7 Oil level screw
- 8 Washer
- 9 Primary cover complete
- 10 Hollow dowel
- 11 Nut
- 12 Pressure plate
- 13 Nut
- 14 Spacer
- 15 Driving plate
- 16 Driver plate
- 17 Outer plate
- 18 Spider
- 19 Clutch centre
- 20 Inner plate
- 21 Primary chain
- 22 Chainwheel
- 23 Thrust washer
- 24 Roller
- 25 Clutch sleeve
- 26 Gasket
- 27 Lockwasher
- 28 Screw
- 29 Cover plate
- 30 Bolt
- 31 Fibre washer
- 32 Oil pipe
- 33 Chain oiler
- 34 Adjuster nut
- 35 Oil seal washer
- 36 Adjuster screw
- 37 Tensioner
- 38 Spacer
- 39 Insert
- 40 Pivot pin
- 41 Sleeve key
- 42 Screw
- 43 Centre pin
- 44 Clutch rubber (rebound)
- 45 Clutch rubber (drive)
- 46 Screw
- 47 Spring cup
- 48 Spring
- 49 Nut
- 50 Adjuster screw
- 51 Ignition timing pointer
- 52 Gasket
- 53 Timing inspection cover

- 27 Inner cover
- 28 Spring washer
- 29 Nut
- 30 Grommet
- 31 Connector
- 32 Abutment
- 33 Adaptor
- 34 Kickstart spindle
- 35 Bush
- 36 Spring
- 37 Split pin
- 38 Quadrant complete
- 39 Kickstart stop
- 40 Bush
- 41 Dowel
- 42 Dipstick
- 43 Plunger
- 44 Screw
- 45 Retainer
- 46 Spindle
- 47 Selector fork (layshaft)
- 48 Selector fork (mainshaft)
- 49 Cover plate

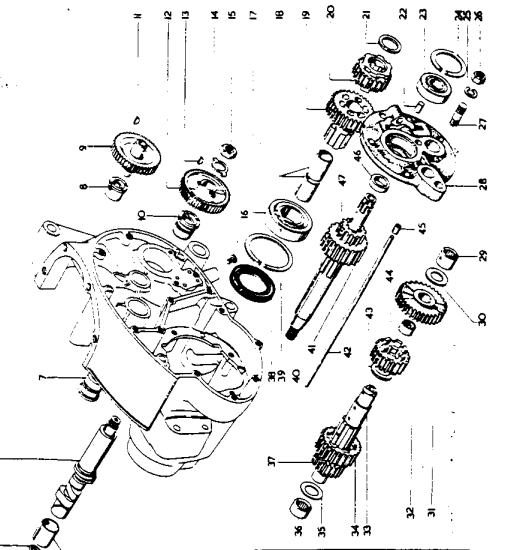


- 14 Washer
- 15 Adaptor
- 16 Lockwasher
- 17 Washer
- 18 Bolt
- 19 Oil seal
- 20 Return spring
- 21 Grub screw
- 22 Stop plate
- 23 Anchor peg
- 24 Spring plate
- 25 Spring
- 26 Anchor peg

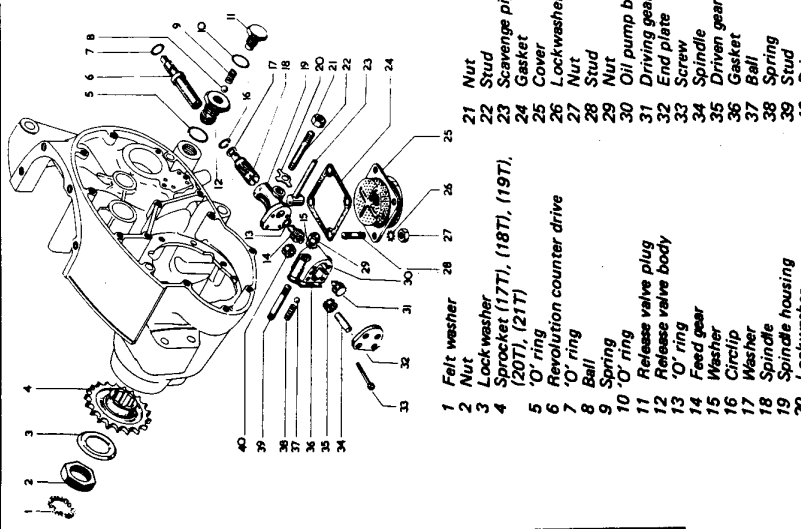


- 14 Washer
- 15 Adaptor
- 16 Lockwasher
- 17 Washer
- 18 Bolt
- 19 Oil seal
- 20 Return spring
- 21 Grub screw
- 22 Stop plate
- 23 Anchor peg
- 24 Spring plate
- 25 Spring
- 26 Anchor peg

- 28 Cover
- 29 Bearing
- 30 Spacer
- 31 Gear (26T)
- 32 Gear (24T)
- 33 Bush
- 34 Layshaft
- 35 Gear (26T)
- 36 Gear (26T) *
- 37 Spacer (113-115")
- 38 Spacer (120-122")
- 39 Spacer (127-129")
- 40 Bearing
- 41 Gear (17T)
- 42 Oil seal
- 43 Circlip
- 44 Mainshaft
- 45 Gear (26T)
- 46 Gear (22T) *
- 47 Push rod
- 48 Spacer
- 49 Gear (23T) *
- 50 Gear (18T)
- 51 Bush
- 52 Spacer
- 53 Gear (14T) *
- 54 Gear (16T) *
- 55 Close ratio gears

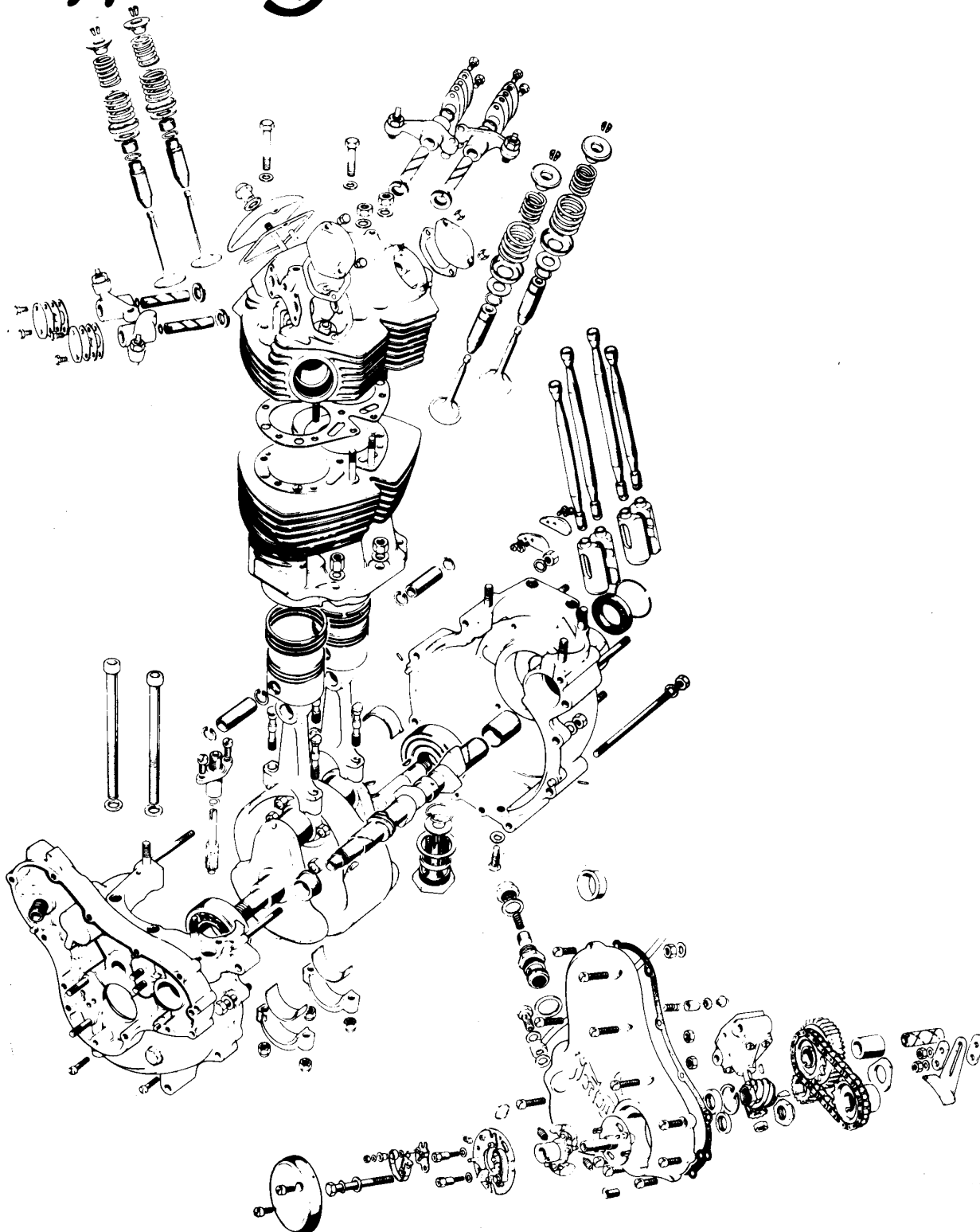


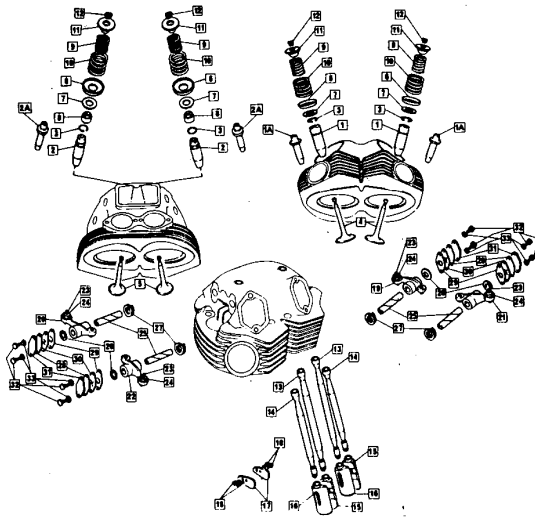
- 1 Camshaft bush
- 2 Rotary valve
- 3 Breather disc
- 4 Breather disc peg
- 5 Breather valve spring
- 6 Camshaft
- 7 Camshaft bush
- 8 Bush
- 9 Idler pinion
- 10 Pinion key
- 11 Camshaft pinion
- 12 Key
- 13 Lockwasher
- 14 Nut
- 15 Screw plug
- 16 Bearing
- 17 Bush
- 18 Gear (23T)
- 19 Gear (22T)
- 20 Gear (23T) *
- 21 Dowel
- 22 Bearing
- 23 Circlip
- 24 Spring washer
- 25 Nut
- 26 Stud



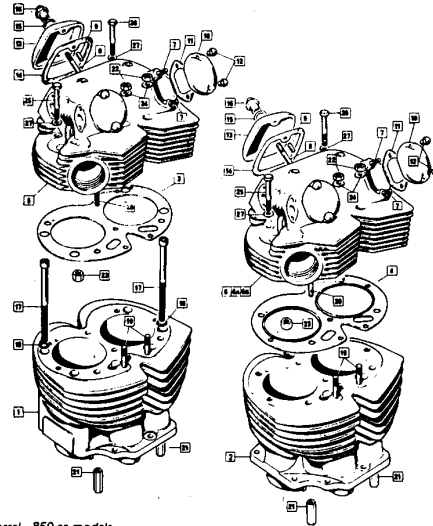
- 1 Felt washer
- 2 Nut
- 3 Lock washer
- 4 Sprocket (17T), (18T), (19T), (20T), (21T)
- 5 'O' ring
- 6 Revolution counter drive
- 7 'O' ring
- 8 Ball
- 9 Spring
- 10 'O' ring
- 11 Release valve plug
- 12 Release valve body
- 13 'O' ring
- 14 Feed gear
- 15 Washer
- 16 Circlip
- 17 Washer
- 18 Spindle
- 19 Spindle housing
- 20 Lock washer
- 21 Nut
- 22 Stud
- 23 Scavenge pipe
- 24 Gasket
- 25 Cover
- 26 Lockwasher
- 27 Nut
- 28 Stud
- 29 Nut
- 30 Oil pump body
- 31 Driving gear
- 32 End plate
- 33 Screw
- 34 Spindle
- 35 Driven gear
- 36 Gasket
- 37 Ball
- 38 Spring
- 39 Stud
- 40 Driven gear

Norton Commando

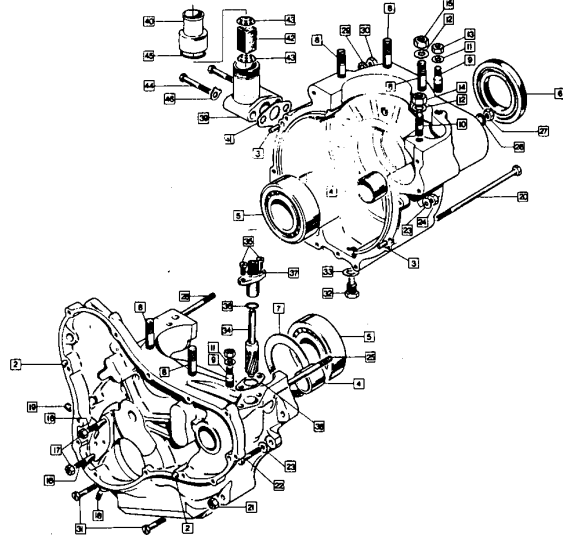




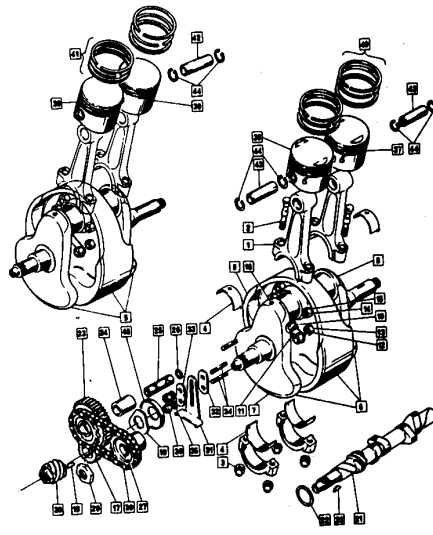
- | | |
|--|---|
| 1 Valve guide, exhaust - 850 cc models 2 off | 17 Tappet locking plate 2 off |
| 1a Valve guide, exhaust - 750 cc models 2 off | 18 Tappet locking plate screw 4 off |
| 2 Valve guide, inlet - 850 cc models 2 off | 19 Inlet rocker arm (left hand) |
| 2a Valve guide, inlet - 750 cc models 2 off | 20 Inlet rocker arm (right hand) |
| 3 Circlip for valve guide (850 cc models only) 4 off | 21 Exhaust rocker arm (left hand) |
| 4 Exhaust valve 2 off | 22 Exhaust rocker arm (right hand) |
| 5 Inlet valve 2 off | 23 Rocker adjuster 4 off |
| 6 Valve spring seat 4 off | 24 Rocker adjuster locknut 4 off |
| 7 Valve spring heat insulator* 4 off | 25 Rocker spindle 4 off |
| 8 Valve stem seal, inlet valves only 2 off | 26 Rocker thrust washer 4 off |
| 9 Valve spring, inner 4 off | 27 Rocker spring washer 4 off |
| 10 Valve spring, outer 4 off | 28 Rocker plate gasket 4 off |
| 11 Valve collar 4 off | 29 Rocker spindle joint gasket 4 off |
| 12 Split collet (pair) 4 off | 30 Rocker spindle lock plate 4 off |
| 13 Inlet pushrod 2 off | 31 Rocker spindle retaining plate 4 off |
| 14 Exhaust pushrod 2 off | 32 Rocker retaining bolt 8 off |
| 15 Tappet - left hand () supplied in pairs only | 33 Copper washer 8 off |
| 16 Tappet - right hand () | *Not fitted to inlet valves |



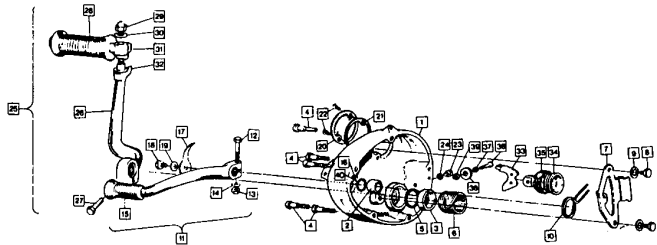
- | | |
|--|---|
| 1 Cylinder barrel - 850 cc models | 15 Rocker cover stud washer |
| 2 Cylinder barrel - 750 cc models | 16 Rocker cover stud nut - rear |
| 3 Cylinder head gasket (eyeletted) - 850 cc models | 17 Rocker cover through bolt (850 cc models only) 4 |
| 4 Cylinder head gasket (eyeletted) - 750 cc models | 18 Washer for through bolt (850 cc models only) 4 |
| 5 Cylinder head - 850 cc models | 20 Cylinder head stud 3 off |
| 6 Cylinder head - 750 cc models (30 mm, low comp marked RH1) | 21 Cylinder head sleeve nut 2 off |
| 6a Cylinder head - 750 cc models (32 mm, high comp marked RH6) | 22 Cylinder head nut 2 off |
| 6b Cylinder head - 750 cc models (32 mm, low comp marked RH5) | 23 Cylinder head washer 2 off |
| 7 Rocker cover stud - front | 24 Rocker cover stud - rear |
| 8 Rocker cover stud - rear | 25 Rocker cover stud - front 2 off |
| 9 Rocker cover dowel | 26 Rocker cover stud - rear 4 off |
| 10 Rocker cover gasket - front 2 off | 27 Rocker cover stud - front 4 off |
| 11 Rocker cover gasket - rear 2 off | |
| 12 Rocker cover nut - front 4 off | |
| 13 Rocker cover - rear | |
| 14 Rocker cover gasket - rear | |



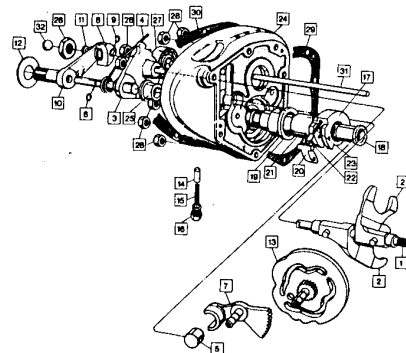
- | | |
|---|--|
| 1 Crankcase assembled (not supplied separately) | 24 Crankcase bolt nut |
| 2 Crankcase dowel 2 off | 25 Crankcase stud, top front |
| 3 Crankcase dowel 2 off | 26 Crankcase stud washer |
| 4 Camshaft bush 2 off | 27 Crankcase stud nut |
| 5 Main bearing 2 off | 28 Crankcase stud top, rear |
| 6 Main bearing oil seal | 29 Crankcase stud washer |
| 7 Main bearing shim | 30 Crankcase stud nut |
| 8 Cylinder stud 6 off | 31 Crankcase screw 2 off |
| 9 Cylinder stud stepped | 32 Magnetic sump plug |
| 10 Cylinder stud front | 33 Sump plug washer |
| 11 Cylinder stud washer 2 off | 34 Tachometer drive gear |
| 12 Cylinder stud washer 6 off | 35 Screw 2 off |
| 13 Cylinder stud nut 2 off | 36 'O' ring seal |
| 14 Cylinder stud nut | 37 Tachometer drive housing |
| 15 Cylinder stud nut 6 off | 38 Gasket for tachometer drive housing |
| 16 Oil pump stud 2 off | 39 Breather body |
| 17 Oil pump stud nut 2 off | 40 Breather cap |
| 18 Oil stop grub screw | 41 Breather joint gasket |
| 19 Dowel for junction block | 42 Separator block |
| 20 Crankcase bolt, long | 43 Retainer disc 2 off |
| 21 Crankcase bolt nut | 44 Bolt 2 off |
| 22 Crankcase bolt short | 45 'O' ring seal |
| 23 Crankcase bolt washer 2 off | 46 Tab washer 2 off |



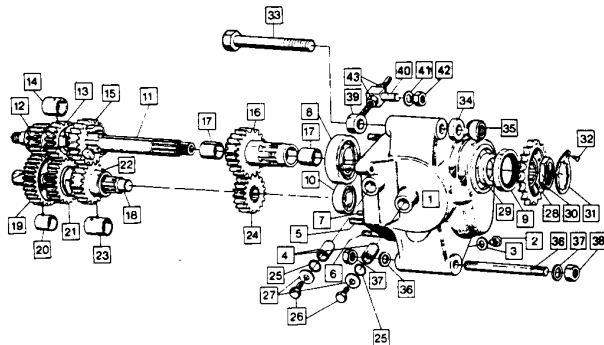
- | |
|--|
| 1 Connecting rod with cap 2 off |
| 2 Connecting rod bolt 4 off |
| 3 Connecting rod self-locking nut 4 off |
| 4 Big-end shell set 2 off |
| 5 Crankshaft complete - 850 cc models |
| 6 Crankshaft complete - 750 cc models |
| 7 Crank cheek, timing side - 750 cc models only |
| 8 Crank cheek, drive side - 750 cc models only |
| 9 Flywheel - 750 cc models only |
| 10 Dowel |
| 11 Nut retaining plate 2 off |
| 12 Crankshaft stud 4 off |
| 13 Crankshaft stud nut 8 off |
| 14 Crankshaft stud 2 off |
| 15 Crankshaft stud nut 4 off |
| 16 Crankshaft oilway screw |
| 17 Crankshaft pinion |
| 18 Crankshaft pinion key |
| 19 Crankshaft pinion backplate |
| 20 Oil pump worm |
| 21 Camshaft |
| 22 Camshaft thrust washers 2 off |
| 23 Intermediate gear complete with bush and sprocket |



- | | |
|--------------------------------------|---|
| 1 Gearbox outer cover | 21 Inspection cover gasket |
| 2 Gearchange lever bush | 22 Inspection cover screw 2 off |
| 3 Kickstarter lever bush | 23 Oil level bolt |
| 4 Outer cover screw 5 off | 24 Oil level washer |
| 5 Kickstarter shaft 'O' ring | 25 Kickstarter lever |
| 6 Kickstarter return spring | 26 Kickstarter crank only |
| 7 Gearchange stop plate | 27 Kickstarter pinch bolt |
| 8 Gearchange stop plate bolt 2 off | 28 Kickstarter rubber |
| 9 Gearchange stop plate washer 2 off | 29 Domed nut |
| 10 Gearchange return spring | 30 Plain washer |
| 11 Gearchange lever | 31 Pin |
| 12 Gearchange lever bolt | 32 Spring washer |
| 13 Gearchange lever nut | 33 Clutch operating lever |
| 14 Gearchange lever washer | 34 Clutch operating lever body |
| 15 Gearchange lever rubber | 35 Clutch operating lever body locking ring |
| 16 Dowel 2 off | 36 Clutch operating roller |
| 17 Gearchange indicator | 37 Clutch operating roller sleeve |
| 18 Gearchange indicator bolt | 38 Clutch operating roller screw |
| 19 Gearchange indicator bolt washer | 39 Clutch operating roller screw nut |
| 20 Inspection cover | 40 'O' ring for pawl carrier |

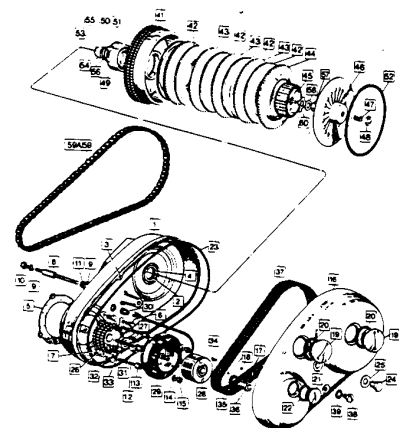


- | | |
|----------------------------|---|
| 1 Selector fork spindle | 17 Kickstarter shaft with bush |
| 2 Selector fork 2 off | 18 Kickstarter shaft bush |
| 3 Ratchet plate assembly | 19 Inner cover bush for kickstarter |
| 4 Ratchet spring | 20 Kickstarter pawl |
| 5 Knuckle pin roller | 21 Kickstarter pawl pin |
| 6 Ratchet spindle 'O' ring | 22 Kickstarter pawl plunger |
| 7 Quadrant | 23 Kickstarter pawl spring |
| 8 Gearchange pawl | 24 Gearbox inner cover |
| 9 Gearchange pawl circlip | 25 Gearchange inner bush |
| 10 Pawl carrier assembly | 26 Mainshaft nut |
| 11 Pawl pivot pin | 27 Mainshaft bearing |
| 12 Spring washer | 28 Gearbox inner cover stud nut |
| 13 Camplate | 29 Gasket, inner cover to gearbox shell |
| 14 Cam plunger | 30 Gasket, inner cover to outer cover |
| 15 Plunger spring | 31 Clutch pushrod |
| 16 Plunger spring bolt | 32 Clutch operating ball |



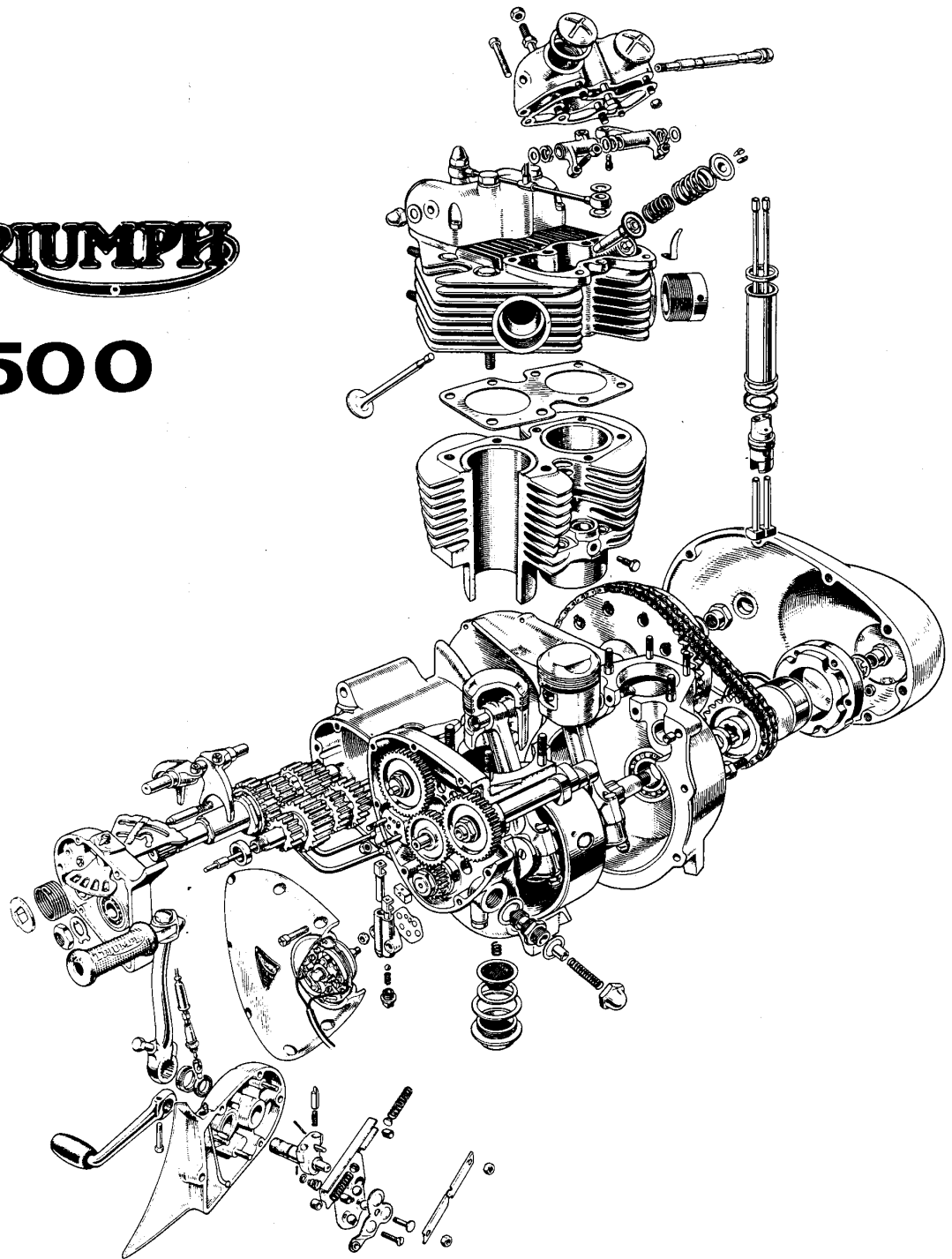
- | | |
|--|---|
| 1 Gearbox shell with bushes and studs | 23 Layshaft 3rd gear bush |
| 2 Drain plug | 24 Layshaft 4th gear |
| 3 Drain plug washer | 25 'O' ring 2 off |
| 4 Bush, quadrant and cam spindle 2 off | 26 Spindle bolt 2 off |
| 5 Stud for inner case 2 off | 27 Spindle bolt washer 2 off |
| 6 Stud for inner case 5 off | 28 Gearbox sprocket (19 - 24 teeth sizes) |
| 7 Dowel 2 off | 29 Gearbox sprocket spacer |
| 8 Sleeve gear bearing | 30 Gearbox sprocket nut |
| 9 Sleeve gear bearing oil seal | 31 Sprocket nut lockwasher |
| 10 Layshaft bearing | 32 Gearbox sprocket nut lockscrew |
| 11 Mainshaft | 33 Gearbox top bolt |
| 12 Mainshaft 1st gear | 34 Gearbox top bolt spacer |
| 13 Mainshaft 2nd gear | 35 Gear top bolt nut |
| 14 Mainshaft 2nd gear bush | 36 Gearbox pivot stud |
| 15 Mainshaft 3rd gear | 37 Gearbox pivot stud washer 2 off |
| 16 Sleeve gear complete with bushes | 38 Gearbox pivot stud nut 2 off |
| 17 Sleeve gear bush 2 off | 39 Gearbox adjuster |
| 18 Layshaft | 40 Gearbox adjuster crosshead |
| 19 Layshaft 1st gear with bush | 41 Gearbox adjuster crosshead washer |
| 20 Layshaft 1st gear bush | 42 Gearbox adjuster crosshead nut |
| 21 Layshaft 2nd gear | 43 Gearbox adjuster nut |
| 22 Layshaft 3rd gear | |

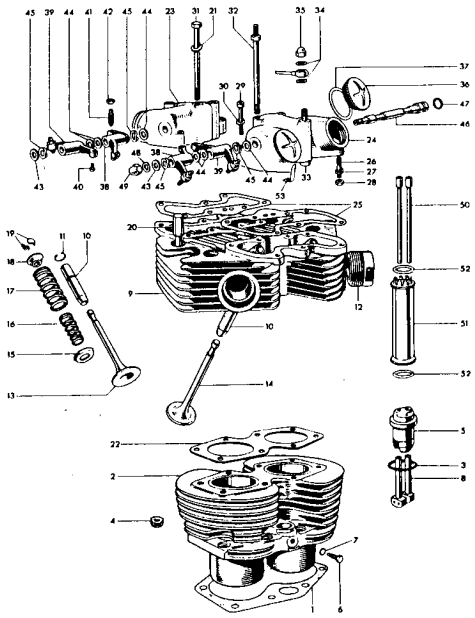
- | | |
|--|---|
| 1 Inner chaincase complete with dowels | 32 Rotor shim 0.010 in. number as required |
| 2 Chaincase oil seal disc 2 off | 33 Rotor shim 0.036 in. number as required |
| 3 Chaincase dowel 2 off | 34 Rotor key |
| 4 Chaincase felt seal | 35 Rotor washer |
| 5 Chaincase gasket | 36 Rotor nut |
| 6 Chaincase bolt 3 off | 37 Primary drive chain |
| 7 Tab washer 3 off | 38 Chaincase oil level plug |
| 8 Chaincase centre stud | 39 Oil level plug 'O' ring |
| 9 Chaincase centre stud washer 2 off | 40 Clutch assembly complete |
| 10 Chaincase centre stud nut | 41 Clutch sprocket complete with backplate |
| 11 Chaincase centre stud shim - number as required | 42 Clutch friction plate 4 or 5 off, depending on type |
| 12 Stator stud 3 off | 43 Clutch plain plate 3 or 4 off, depending on type of friction plate |
| 13 Stator stud spacer 3 off | 44 Clutch pressure plate |
| 14 Stator stud washer 3 off | 45 Clutch centre |
| 15 Stator stud nut 3 off | 46 Clutch diaphragm with centre |
| 16 Outer chaincase | 47 Clutch adjuster |
| 17 Ignition indicator plate | 48 Clutch adjuster locknut |
| 18 Hammer drive screw 2 off | 49 Clutch centre bearing |
| 19 Chain inspection cap | 50 Clutch bearing inner circlip |
| 20 'O' ring for chain inspection cap | 51 Clutch bearing outer circlip |
| 21 Timing inspection cap | 52 Clutch diaphragm circlip |
| 22 'O' ring for timing inspection cap | 53 Clutch location circlip |
| 23 Chaincase sealing rubber | 54 Clutch location spacer |
| 24 Chaincase attachment nut | 55 Clutch location shim 0.036 in. number as required |
| 25 Chaincase attachment nut washer | 56 Clutch location shim 0.048 in. number as required |
| 26 Engine sprocket | 57 Clutch retaining nut |
| 27 Engine sprocket key | 58 Clutch retaining nut washer |
| 28 Alternator rotor | 59 Final drive chain - 98 links, 19 tooth sprocket or 99 links, 21 tooth sprocket |
| 29 Alternator stator | 60 Clutch retaining nut tab washer |
| 30 Alternator leadwire grommet | |
| 31 Rotor spacer | |



TRIUMPH

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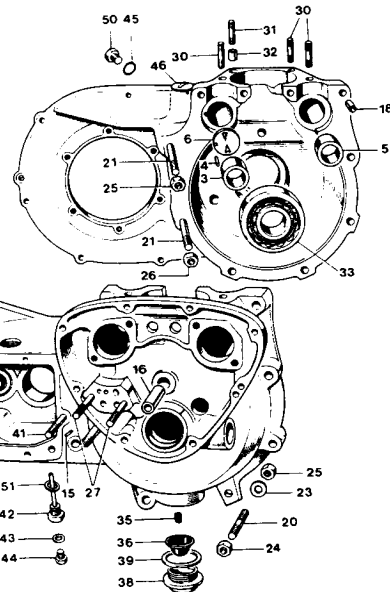
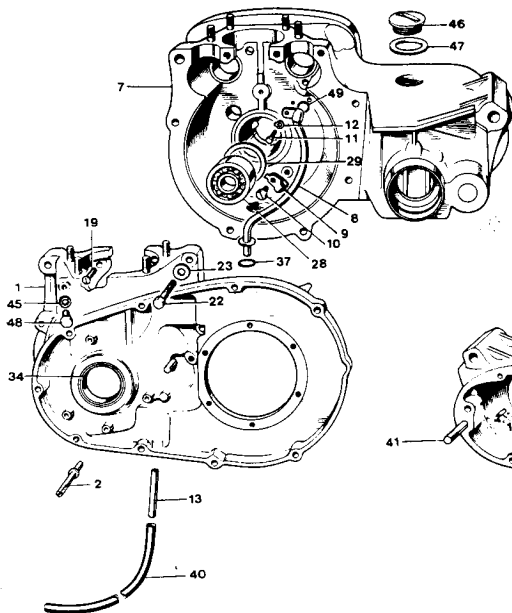
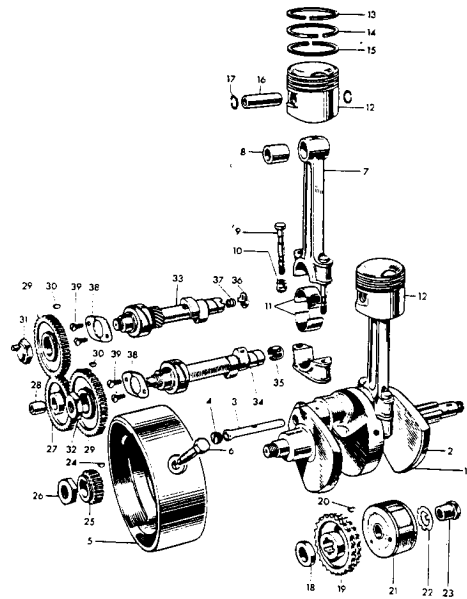


- 1 Cylinder base washer 1 off
- 2 Cylinder block 1 off
- 3 "O" ring 2 off
- 4 Nut (12 point) 8 off
- 5 Tappet guide block 2 off
- 6 Tappet block screw (7/16 in. UH) 2 off
- 7 Serrated washer 2 off
- 8 Tappet, racing type 4 off
- 9 Cylinder head c/w guides 1 off
- 10 Valve guide 4 off
- 11 Valve guide circlip 4 off
- 12 Exhaust pipe adaptor 2 off
- 13 Inlet valve 2 off
- 14 Exhaust valve 2 off
- 15 Bottom cup 4 off
- 16 Inner valve spring 4 off
- 17 Outer valve spring 4 off
- 18 Top collar 4 off
- 19 Split cotter 8 off
- 20 Cylinder head bolt (2 25/32 in. UH) 4 off
- 21 Plain washer 8 off
- 22 Cylinder head gasket 1 off
- 23 Inlet rocker box 1 off
- 24 Exhaust rocker box 1 off
- 25 Joint washer 2 off
- 26 Rocker box stud (15/16 in. OA) 4 off
- 27 Plain washer 4 off

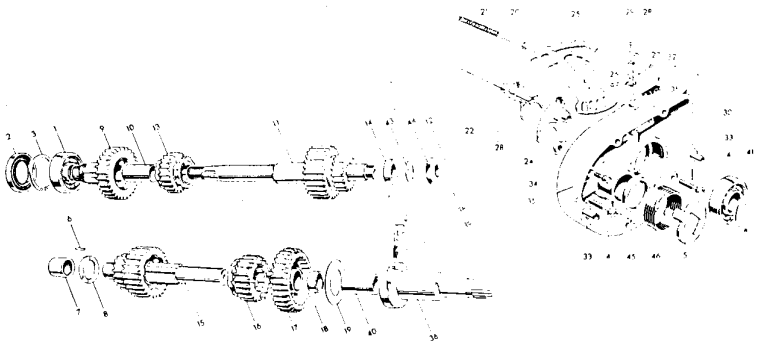
- 28 Nut 4 off
- 29 Screw (15/16 in. UH) 4 off
- 30 Plain washer 4 off
- 31 Cylinder head bolt (5 7/16 in. UH) 2 off
- 32 Cylinder head torque stay bolt 2 off
- 33 Oil feed bolt 2 off
- 34 Copper washer 6 off
- 35 Domed nut 2 off
- 36 Inspection cap 4 off
- 37 Fibre washer 4 off
- 38 Rocker (right exhaust, left inlet) 2 off
- 39 Rocker (left exhaust, right inlet) 2 off
- 40 Rocker ball pin 4 off
- 41 Rocker adjusting pin 4 off
- 42 Adjuster locknut 4 off
- 43 Thrust washer, 3/8 in. 4 off
- 44 Thrust washer, 7/16 in. 6 off
- 45 Spring washer 2 off
- 46 Rocker spindle 2 off
- 47 Sealing rubber 2 off
- 48 Copper washer 2 off
- 49 Domed nut 2 off
- 50 Pushrod 4 off
- 51 Cover tube 2 off
- 52 Rubber washer 4 off
- 53 Locking spring 4 off

- 1 Crankshaft and flywheel assembly 1 off
- 2 Crankshaft 1 off
- 3 Oil tube 1 off
- 4 Screwed plug 1 off
- 5 Flywheel 1 off
- 6 Flywheel bolt (1 15/32 in. UH) 3 off
- 7 Connecting rod 2 off
- 8 Connecting rod 2 off
- 9 Connecting rod 2 off
- 10 Small end bush 2 off
- 11 Small end bush 2 off
- 12 Connecting rod bolt 2 off
- 13 Self locking nut 2 off
- 14 Big end bearing (available in -.010 & -.020 undersizes) 4 off
- 15 Piston complete CR 9.5 : 1 2 off
- 16 Piston complete CR 9.1 2 off
- 17 Plain compression ring 2 off
- 18 Taper compression ring 4 off
- 19 Taper compression ring 2 off
- 20 Oil control ring 2 off
- 21 Oil control ring 2 off
- 22 Gudgeon pin 2 off

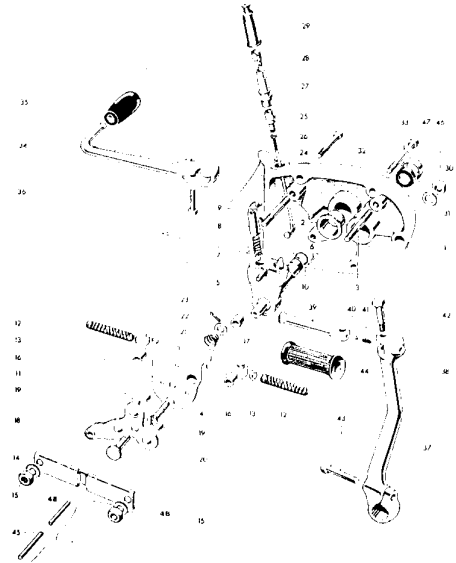
- 17 Circlip 4 off
- 18 Distance collar 1 off
- 19 Engine sprocket, 26T Duplex 1 off
- 20 Rotor key 1 off
- 21 Rotor, type RM21 (542139011) 1 off
- 22 Tab washer 1 off
- 23 Nut 1 off
- 24 Key 1 off
- 25 Timing pinion 1 off
- 26 Nut 1 off
- 27 Intermediate wheel 1 off
- 28 Bush 1 off
- 29 Camshaft wheel 2 off
- 30 Camshaft key 2 off
- 31 Inlet camshaft nut 1 off
- 32 Exhaust camshaft nut 1 off
- 33 Inlet camshaft 1 off
- 34 Exhaust camshaft 1 off
- 35 Tachometer drive thimble 1 off
- 36 Rotary breather valve 1 off
- 37 Breather valve spring 1 off
- 38 Retaining plate 2 off
- 39 Screw (15/32 in. UH) 4 off



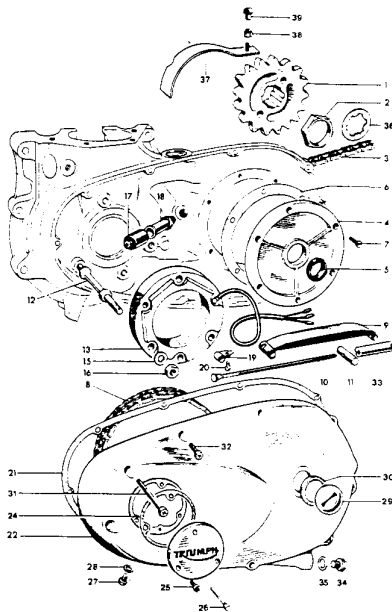
- 1 Crankcase drive side, 1 off
- 2 Pivot pin 1 off
- 3 Inlet camshaft bush 1 off
- 4 Locking pin 1 off
- 5 Bush exhaust camshaft 2 off
- 6 Rotary valve 1 off
- 7 Crankcase timing side 1 off
- 8 Oil scavenge pipe 1 off
- 9 Clip 1 off
- 10 Screw 1 off
- 11 Bolt 1 off
- 12 Tab washer 1 off
- 13 Breather pipe 1 off
- 14 Needle roller bearing 1 off
- 15 Dowel at junction block
- 16 Idler gear spindle 1 off
- 17 Peg (at thrust washer) 1 off
- 18 Hollow dowel 2 off
- 19 Screw 21/32 in. UH 2 off
- 20 Stud (3 in. OA) 1 off
- 21 Stud (3 in. UH) 2 off
- 22 Bolt 1 5/8 in. UH 1 off
- 23 Plain washer 3 off
- 24 Nut 3 off
- 25 Nut 1 off
- 26 Nut 1 off
- 27 Oil pump stud (1 5/16 in. OA) 2 off
- 28 Right main bearing (ball journal) 1 off
- 29 Abutment ring 1 off
- 30 Cylinder base stud (1 1/16 in. OA) 2 off
- 31 Cylinder base stud (1 11/16 in. OA) 2 off
- 32 Dowel 2 off
- 33 Left main bearing (roller journal) 1 off
- 34 Oil seal 1 off
- 35 Filter spring 1 off
- 36 Filter 1 off
- 37 Sealing washer 1 off
- 38 Filter cap 1 off
- 39 Joint washer 1 off
- 40 Breather extension pipe 1 off
- 41 Stud (3 1/16 in. OA) 2 off
- 42 Drain plug (with level tube) 1 off
- 43 Fibre washer 1 off
- 44 Level plug 1 off
- 45 Fibre washer 1 off
- 46 Filter plug 2 off
- 47 Fibre washer 1 off
- 48 Blanking plug (LH thread) 1 off
- 49 "O" ring 1 off
- 50 Plug 1 off
- 51 Washer 1 off



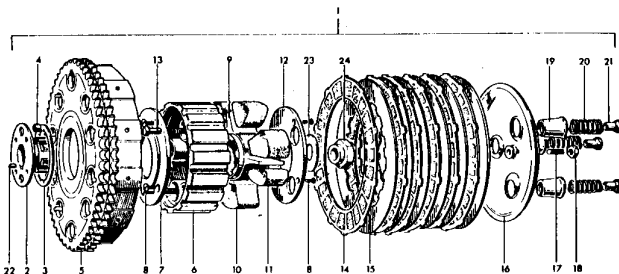
- | | | | |
|----|---|----|--|
| 1 | High gear bearing (ball journal) 1 off | 25 | Gear selector camplate 1 off |
| 2 | Oil seal 1 off | 26 | Camplate spindle 1 off |
| 3 | Circlip 1 off | 27 | Split pin 1 off |
| 4 | Screw (1 in. UH) 2 off | 28 | Gear indicator pointer 1 off |
| 5 | Return spring plate 1 off | 29 | Screw (5/16 in. UH) 1 off |
| 6 | Pag 1 off | 30 | Inner cover 1 off |
| 7 | Layshaft bearing 1 off | 31 | Gear indicator plate 1 off |
| 8 | Thrust washer 1 off | 32 | Indicator plate rivet 2 off |
| 9 | Mainshaft high gear (22T) 1 off | 33 | Hollow dowel 2 off |
| 10 | High gear bush 1 off | 34 | Kickstarter stop plate 1 off |
| 11 | Mainshaft c/w third and low gears (16/24T) | 35 | Stop plate and anchor screw 1 off |
| 12 | Clutch rod bush 1 off | 36 | Kickstarter spindle 1 off |
| 13 | Mainshaft second gear (21T) 1 off | 37 | Kickstarter pawl 1 off |
| 14 | Mainshaft distance piece 1 off | 38 | Plunger 1 off |
| 15 | Layshaft c/w second and high gears (15/23T) 1 off | 39 | Plunger spring 1 off |
| 16 | Layshaft third gear (20T) 1 off | 40 | Bearing 1 off |
| 17 | Low gear bush 1 off | 41 | Mainshaft bearing (ball journal) 1 off |
| 18 | Pawl retaining disc 1 off | 42 | Circlip 1 off |
| 19 | Complete index plunger 1 off | 43 | Tab washer 1 off |
| 20 | Index plunger spring 1 off | 44 | Mainshaft nut 1 off |
| 21 | Selector fork spindle 1 off | 45 | Distance piece 1 off |
| 22 | Mainshaft selector fork 1 off | 46 | Kickstarter return spring 1 off |
| 24 | Layshaft selector fork 1 off | 47 | "O" ring |



- | | | | |
|----|--------------------------------|----|----------------------------------|
| 1 | Gearbox outer cover 1 off | 25 | Connector 1 off |
| 2 | Gear change spindle bush 1 off | 26 | Nut 1 off |
| 3 | Stud (1 5/16 in. OA) 2 off | 27 | Abutment 1 off |
| 4 | Screw (7/8 in. OA) 1 off | 28 | Adaptor, short |
| 5 | Gear change quadrant 1 off | 28 | Adaptor, long |
| 6 | Spring retaining pin 2 off | 29 | Rubber cover 1 off |
| 7 | Plunger spring 2 off | 30 | Nut 2 off |
| 8 | Selector plunger 2 off | 31 | Plain washer 2 off |
| 9 | Split pin 2 off | 32 | Screw (2 3/8 in. UH) 2 off |
| 10 | Sealing ring 1 off | 33 | Screw (2 5/8 in. UH) 2 off |
| 11 | Return spring housing 1 off | 34 | Gear change lever 1 off |
| 12 | Return spring 2 off | 35 | Pedal rubber 1 off |
| 13 | Thrust button 2 off | 36 | Bolt (1 in. UH) 1 off |
| 14 | Cover 1 off | 37 | Kickstarter lever complete 1 off |
| 15 | Nut 3 off | 38 | Kickstarter crank 1 off |
| 16 | Distance piece 2 off | 39 | Kickstarter pedal 1 off |
| 17 | Distance piece 1 off | 40 | Steel ball (1/2 in. diam.) 1 off |
| 18 | Clutch lever 1 off | 41 | Index spring 1 off |
| 19 | Ball, 3/8 in. diam. 3 off | 42 | Pivot bolt 1 off |
| 20 | Shaft 1 off | 43 | Clamp bolt (1 5/16 in. UH) 1 off |
| 21 | Spring 1 off | 44 | Pedal rubber 1 off |
| 22 | Plain washer 1 off | 45 | Clutch operating rod 1 off |
| 23 | Split pin 1 off | 46 | Oil seal 1 off |
| 24 | Spoke 1 off | 47 | Oil seal cover |
| | | 48 | Serrated washer 2 off |



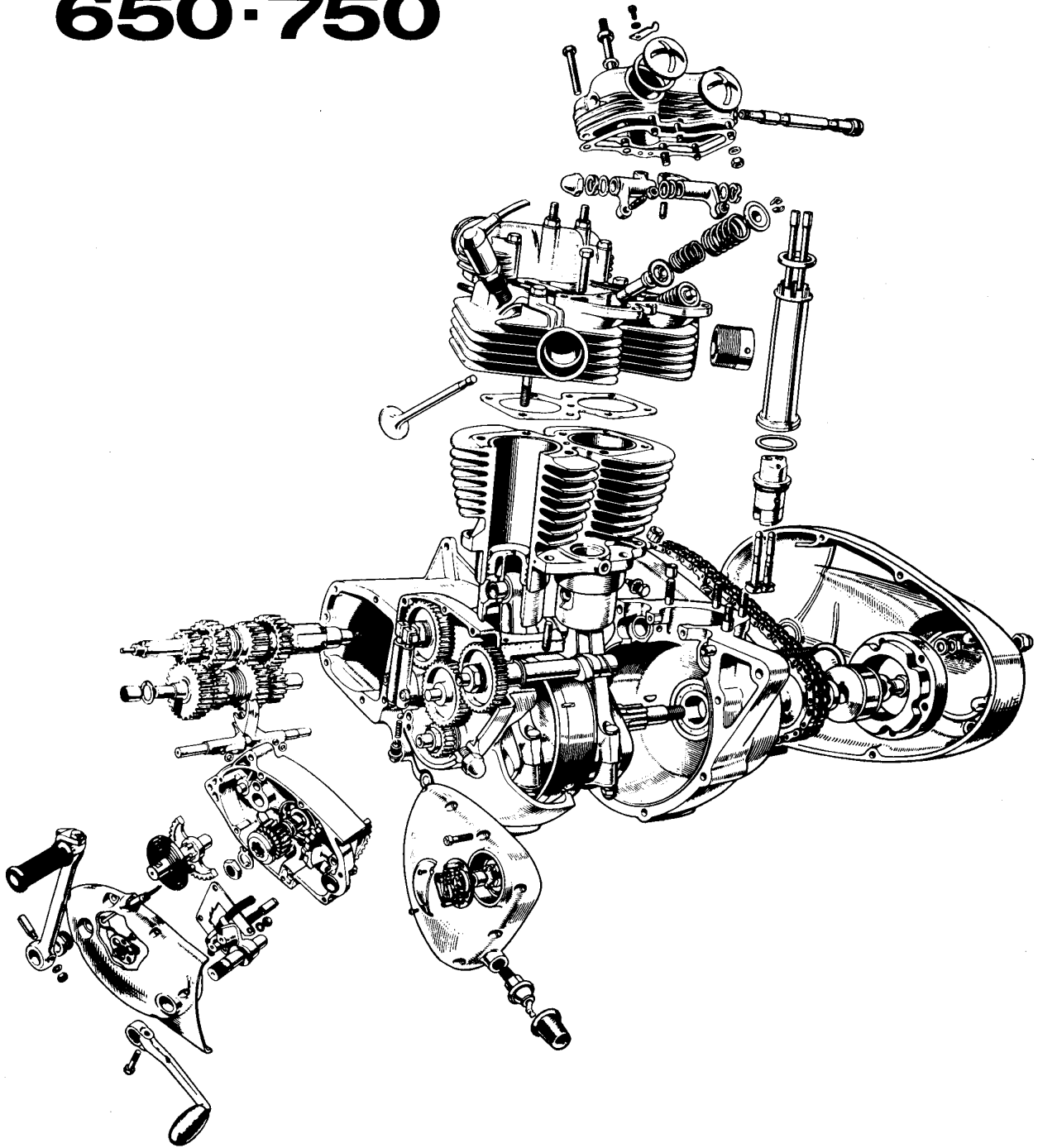
- | | | | |
|----|--|----|------------------------------|
| 1 | Gearbox sprocket (17 teeth) 1 off | 19 | Clip 1 off |
| 1 | Gearbox sprocket (18 teeth) available | 20 | Set screw (1/4 in. UH) 1 off |
| 1 | Gearbox sprocket (19 teeth) available | 21 | Joint washer 1 off |
| 2 | Gearbox sprocket nut 1 off | 22 | Chaincase 1 off |
| 3 | Rear chain, 5/8 in. x 3/8 in. x 103L 1 off | 23 | Rotor cover 1 off |
| 3 | Rear chain, 5/8 in. x 3/8 in. x 103L 1 off | 24 | Joint washer 1 off |
| 4 | Cover plate 1 off | 25 | Screw 3 off |
| 5 | Oil seal 1 off | 26 | Ignition pointer 1 off |
| 6 | Joint washer 1 off | 27 | Level plug 1 off |
| 7 | Countersunk screw (5/16 in. UH) 6 off | 28 | Copper washer 2 off |
| 8 | Primary chain, 3/8 in. Duplex 78L 1 off | 29 | Filler plug 1 off |
| 9 | Chain tensioner blade 1 off | 30 | Fibre washer 1 off |
| 10 | Tie rod 1 off | 31 | Screw (2 1/2 in. UH) 3 off |
| 11 | Trunnion 1 off | 32 | Screw (1 5/16 in. UH) 1 off |
| 12 | Stud (3 5/16 in. OA) 3 off | 33 | Adjuster sleeve nut 1 off |
| 13 | Stator, RM21 (47205) 1 off | 34 | Drain plug 1 off |
| 14 | Serrated washer 1 off | 35 | Fibre washer 1 off |
| 15 | Plain washer 3 off | 36 | Tab washer 1 off |
| 16 | Nut | 37 | Crankcase protector 1 off |
| 17 | Rubber grommet 2 off | 38 | Self-locking nut 1 off |
| 18 | Sleeve nut 1 off | 39 | Grommet 1 off |



- | | | | |
|----|--|----|------------------------------------|
| 1 | Clutch assembly complete | 13 | Screwed pin - 3 off |
| 2 | Clutch centre | 14 | Inserted plate - 6 off |
| 3 | Thrust washer | 15 | Plain plate - 6 off |
| 4 | Roller - 20 off | 16 | Pressure plate |
| 5 | Chainwheel and clutch outer drum (58 teeth duplex) | 17 | Adjuster pin |
| 6 | Clutch inner drum | 18 | Locknut |
| 7 | Inner plate | 19 | Clutch spring thimble - 3 off |
| 8 | Countersunk screws - 6 off | 20 | Clutch spring - 3 off |
| 9 | Shock absorber spider | 21 | Clutch spring nuts (brass) - 3 off |
| 10 | Drive rubber (large) 3 off | 22 | Key |
| 11 | Rebound rubber (small) - 3 off | 23 | Cupped washer |
| 12 | Outer cover | 24 | Clutch nut |

TRIUMPH

650-750



GEARBOX SHAFTS AND GEARS

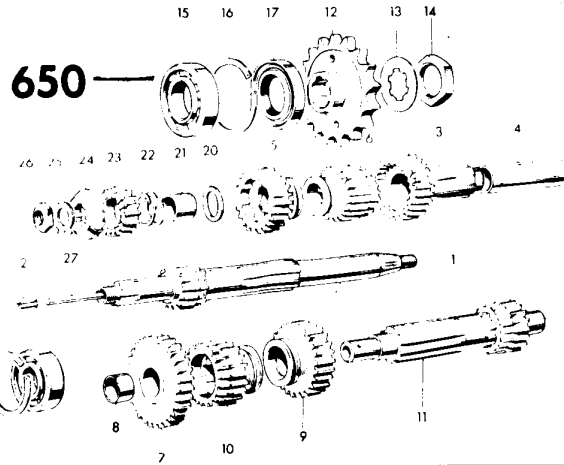
- 1 MAINSHAFT c/w LOW GEAR (26T)
- 2 Clutch rod bush
- 3 MAINSHAFT HIGH GEAR (26T)
- 4 High gear bush
- 5 Mainshaft third gear (23T)
- 6 Mainshaft second gear (20T)
- 7 LAYSHAFT LOW GEAR (30T)
- 8 Low gear bush
- 9 Layshaft second gear (26T)
- 10 Layshaft third gear (22T)
- 11 Layshaft c/w high gear (20T)
- 12 Gearbox sprocket (15 teeth)
- 12 Gearbox sprocket (18 teeth)
- 12 Gearbox sprocket (19 teeth)
- 12 Gearbox sprocket (20 teeth)
- 13 Tab washer
- 14 Gearbox sprocket nut
- 15 Mini gear bearing
- 16 Circlip
- 17 Oil seal
- 18 Mainshaft bearing
- 19 Circlip
- 20 Plain washer
- 21 Pinion sleeve
- 22 Pinion spring
- 23 Kickstarter pinion
- 24 Kickstarter ratchet
- 25 Tab washer
- 26 Nut
- 27 Clutch operating rod

WIDE RATIO GEARS

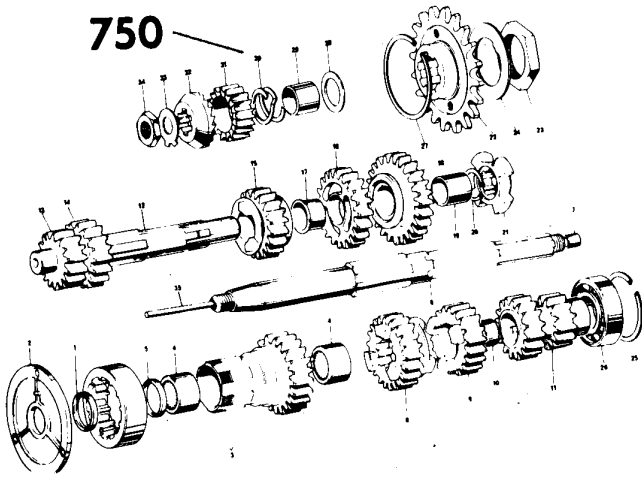
- 3 MAINSHAFT c/w HIGH GEAR (26T)
- 6 Mainshaft second gear (19T)
- 9 Layshaft second gear (27T)
- 11 Layshaft c/w high gear (18T)

CLOSE RATIO GEARS

- 1 MAINSHAFT c/w LOW GEAR (18T)
- 3 MAINSHAFT HIGH GEAR (24T)
- 5 Mainshaft third gear (23T)
- 6 Mainshaft second gear (21T)
- 7 LAYSHAFT LOW GEAR (28T)
- 9 Layshaft second gear (25T)
- 10 Layshaft third gear (23T)
- 11 Layshaft c/w high gear (22T)



750



GEARBOX SHAFTS AND GEARS

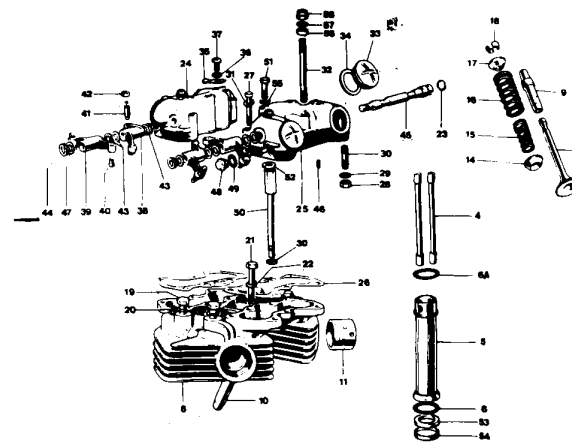
- 1 Oil seal cover plate
- 2 Cover plate
- 3 MAINSHAFT HIGH GEAR ASSEMBLY (C/W HIGH GEAR BEARING)
- 4 Needle roller bearing
- 5 Oil seal high gear
- 6 MAINSHAFT
- 7 Bush
- 8 Mainshaft 4th gear
- 9 MAINSHAFT 3rd GEAR
- 10 Bush
- 11 Mainshaft 1st and 2nd gear
- 12 LAYSHAFT
- 13 Layshaft high gear
- 14 Layshaft 4th gear
- 15 Layshaft 3rd gear
- 16 LAYSHAFT 2nd GEAR
- 17 Bush
- 18 LAYSHAFT 1st GEAR
- 19 Bush
- 20 Circlip
- 21 Driving dog
- 22 Gearbox sprocket 20T
- 23 Locknut
- 24 Lock washer
- 25 Not illus Oil seal gear box
- 26 Circlip
- 27 Mainshaft bearing
- 28 Circlip
- 29 Washer
- 30 Pinion sleeve
- 31 Pinion spring
- 32 Kickstarter pinion
- 33 Kickstarter ratchet
- 34 Tab washer
- 35 Nut
- 36 Clutch operating rod

CRANKSHAFT AND CONNECTING RODS

- 1 CRANKSHAFT AND FLYWHEEL ASSEMBLY
- 2 CRANKSHAFT C/W OIL TUBE
- 3 Oil tube
- 4 Screwed plug
- 5 Flywheel
- 6 Flywheel bolt
- 7 Washer
- 8 Crankshaft stud (1 1/8 in. O.A.)
- 9 CONNECTING ROD
- 10 Small end bush
- 11 Connecting rod bolts
- 12 Self locking nut
- 13 Big end bearing (Available in .010 in and .020 in. undersizes)
- 14 PISTON COMPLETE 9.1 C.R.
- 15 Taper compression ring
- 16 Oil control ring
- 17 Gudgeon pin (short)
- 18 Circlip
- 19 Main bearing, right
- 20 Motor sprocket 29 teeth Duplex
- 21 Distance piece
- 22 Rotor key
- 23 Rotor (99 0739)
- 24 Tab washer
- 25 Nut
- 26 Key
- 27 Timing pinion
- 28 Nut
- 29 Spacer
- 30 INTERMEDIATE WHEEL
- 31 Intermediate wheel bush
- 32 Camshaft wheel
- 33 Camshaft key
- 34 Inlet camshaft nut
- 35 Exhaust camshaft nut
- 36 Inlet camshaft
- 37 EXHAUST CAMSHAFT
- 38 Tachometer drive plug
- 39 Clamping washer
- 40 Plain bearing, left
- 41 Not illus Shim (0.010 in.)
- 42 Not illus Shim (0.030 in.)
- 43 Engine sprocket
- 44 15
- 45 16
- 46 17
- 47 18
- 48 19
- 49 20
- 50 21
- 51 22
- 52 23
- 53 24
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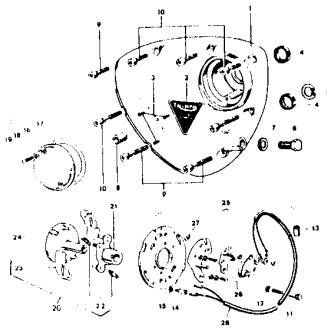
650-750

CYLINDER BLOCK AND HEAD

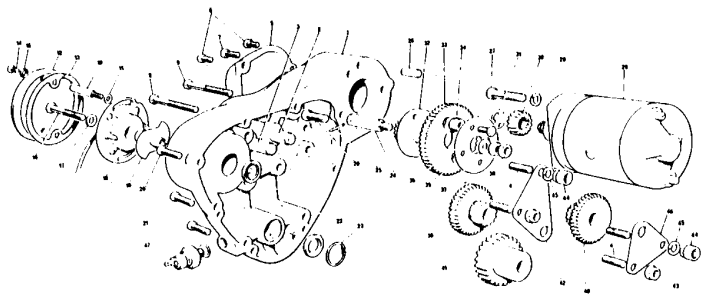


650-750

- 1 Cylinder base washer
- 2 Cylinder block
- 3 Cylinder base nut
- 4 Push rod
- 5 Cover tube
- 6 O-ring, push rod cover tube (bottom)
- 6a O-ring, push rod cover tube (top)
- 7 Cylinder head gasket
- 8 CYLINDER HEAD c/w GUIDES
- 9 Inlet valve guide
- 10 Exhaust valve guide
- 11 Exhaust pipe adaptor
- 12 Inlet valve
- 13 Exhaust valve
- 14 Bottom cup
- 15 Inlet valve spring (red spot)...
- 16 Outlet valve spring (green spot)
- 17 Top collar
- 18 Split cotter
- 19 Cylinder head bolt
- 20 Plain washer
- 21 Bolt
- 22 Plain washer
- 23 Sealing ring
- 24 Inlet rocker box
- 25 Exhaust rocker box
- 26 Joint washer
- 27 Rocker box bolt
- 28 Rocker box nut
- 29 Plain washer
- 30 Rocker box stud
- 31 Plain washer
- 32 Cylinder head stud (for torque stay)
- 33 Inspection cap
- 34 Joint washer
- 35 Locking spring
- 36 Fibre washer
- 37 Screw
- 38 ROCKER (right exhaust, left inlet)
- 39 ROCKER (left exhaust, right inlet)
- 40 Rocker ball pin
- 41 Rocker adjusting pin
- 42 Adjuster lock nut
- 43 Thrust washer, 1/2 in.
- 44 Spring washer
- 45 Rocker spindle
- 46 Dowel, rocker box
- 47 Thrust washer, 1/2 in.
- 48 Access plug
- 49 Washer
- 50 Bolt, cylinder head
- 51 Bolt, rocker box
- 52 Spacer
- 53 Sealing ring
- 54 Sleeve
- 55 Washer
- 56 Distance piece
- 57 Washer
- 58 Nut



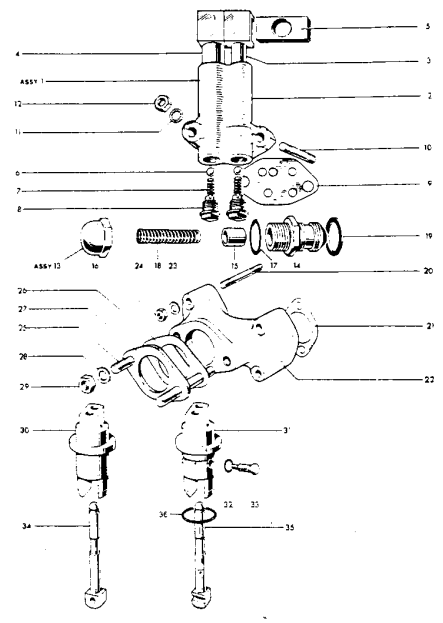
- 1 Timing cover
- 2 Patent plate
- 3 Hammer drive screw - 3 off
- 4 Oil seal*
- 5 Circlip
- 6 Timing cover plug
- 7 Copper washer
- 8 Hollow dowel
- 9 Screw - 3 off
- 10 Screw - 5 off
- 11 Bolt
- 12 Plain washer
- 13 Rubber grommet
- 14 Pillar bolt - 2 off
- 15 Plain washer - 2 off
- 16 Cover
- 17 Cover gasket
- 18 Serrated washer - 2 off
- 19 Screw - 2 off
- 20 Auto-advance unit
- 21 Cam
- 22 Spring set
- 23 Spring set
- 24 Shaft and action plate
- 25 Contact breaker plate assembly
- 26 Contact set - 2 off
- 27 Eccentric adjustment pin - 2 off
- 28 Lead from contacts to ignition coils



Timing cover assembly - electric start models

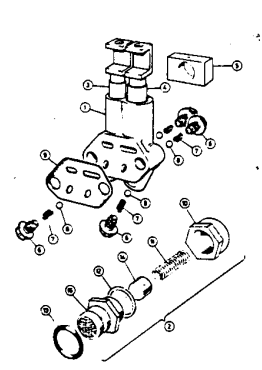
- 1 Timing cover
- 2 Second stage spindle
- 3 Third stage spindle
- 4 Outrigger plate securing stud
- 5 Cover
- 6 Screw
- 7 Screw
- 8 Screw
- 9 Screw
- 10 Pillar bolt
- 11 Washer
- 12 Cover
- 13 Gasket
- 14 Screw
- 15 Fibre washer
- 16 Bolt
- 17 Washer
- 18 Pulse sensor
- 19 Reluctor
- 20 Screw
- 21 Screw
- 22 Oil seal
- 23 Circlip
- 24 spindle
- 25 Roll pin
- 26 Dowel pin
- 27 Screw
- 28 Spring washer
- 29 Starter motor
- 30 Pinion
- 31 E-clip
- 32 Pinion (16T)
- 33 Pinion (54T)
- 34 Shock absorber bush
- 35 Face washer
- 36 Screw
- 37 Thrust washer
- 38 Nut
- 39 Pinion (36T/16T)
- 40 Pinion (36T/11T)
- 41 Pinion Pinion (24T)
- 42 Upper outrigger plate
- 43 Nut
- 44 Socket headed nut
- 45 Spring washer
- 46 Lower outrigger plate
- 47 Oil pressure switch

OIL PUMP, RELEASE VALVE, MANIFOLD (TR6) AND TAPPETS

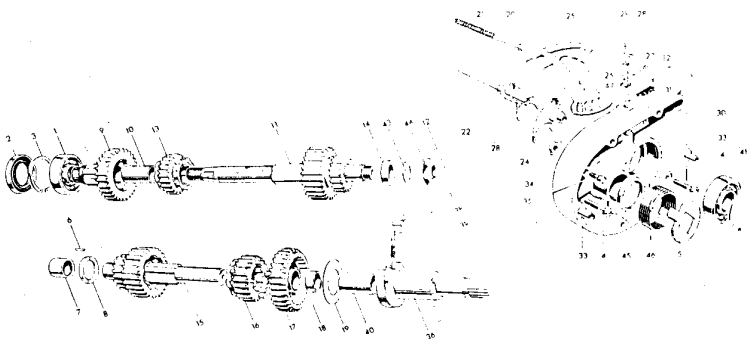


- 1 Oil pump complete
- 2 Pump body
- 3 Feed plunger
- 4 Scavenge plunger
- 5 Drive block
- 6 Valve ball (7/16 in) - 2 off
- 7 Valve spring - 2 off
- 8 Screwed plug - 2 off
- 9 Oil pump gasket
- 10 Oil pump stud - 2 off
- 11 Serrated washer - 2 off
- 12 Nut - 2 off
- 13 Pressure release valve complete
- 14 Valve body
- 15 Plunger
- 16 Cap
- 17 Fibre washer
- 18 Plunger spring
- 19 Fibre washer
- 20 Stud - 4 off
- 21 Joint washer - 2 off
- 22 Inlet manifold for TR6 model
- 23 Plain washer - 4 off
- 24 Nut - 4 off
- 25 Stud - 2 off
- 26 Joint gasket
- 27 Heat insulator
- 28 Plain washer - 2 off
- 29 Nut - 2 off
- 30 Inlet tappet guide block
- 31 Exhaust tappet guide block
- 32 Serrated washer - 2 off
- 33 Set bolt - 2 off
- 34 Inlet tappet follower
- 35 Exhaust tappet follower
- 36 'O' ring seal

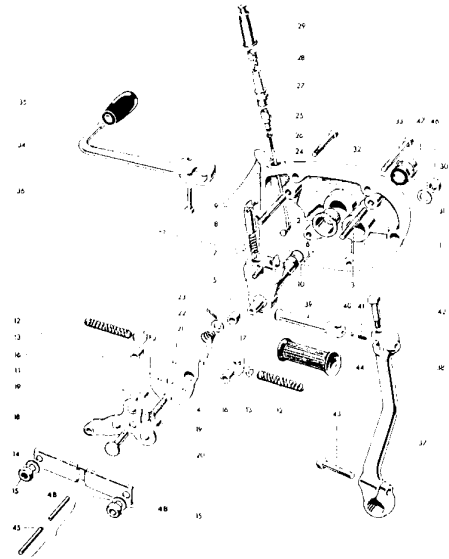
Oil pump - 4 valve type



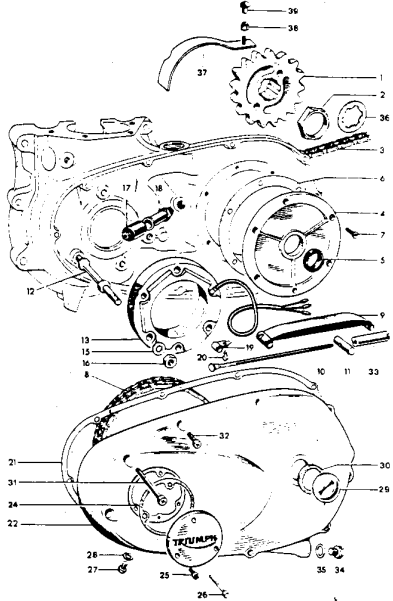
- 1 Oil pump
- 2 Pressure relief valve
- 3 Feed plunger
- 4 Return plunger
- 5 Drive block slider
- 6 Plug - 4 off
- 7 Spring 4 off
- 8 Ball valve - 4 off
- 9 Gasket
- 10 Domed cap
- 11 Spring
- 12 Washer
- 13 O-ring
- 14 Plunger
- 15 Filter



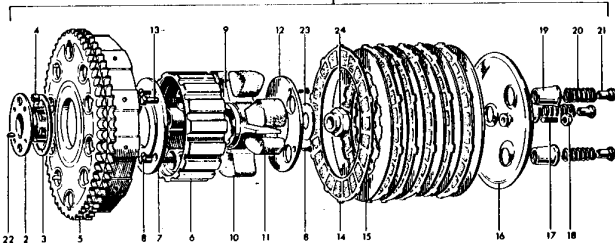
- | | |
|--|---|
| 1 High gear bearing (ball journal) 1 off | 25 Gear selector camplate 1 off |
| 2 Oil seal 1 off | 26 Camplate spindle 1 off |
| 3 Circlip 1 off | 27 Split pin 1 off |
| 4 Screw (1 in. UH) 2 off | 28 Gear indicator pointer 1 off |
| 5 Return spring plate 1 off | 29 Screw (5/16 in. UH) 1 off |
| 6 Peg 1 off | 30 Inner cover 1 off |
| 7 Layshaft bearing 1 off | 31 Gear indicator plate 1 off |
| 8 Thrust washer 1 off | 32 Indicator plate rivet 2 off |
| 9 Mainshaft high gear (22T) 1 off | 33 Hollow dowel 2 off |
| 10 High gear bush 1 off | 34 Kickstarter stop plate 1 off |
| 11 Mainshaft c/w third and low gears (16/24T) | 35 Stop plate and anchor screw 1 off |
| 12 Clutch rod bush 1 off | 36 Kickstarter spindle 1 off |
| 13 Mainshaft second gear (21T) 1 off | 37 Kickstarter pawl 1 off |
| 14 Mainshaft distance piece 1 off | 38 Plunger 1 off |
| 15 Layshaft c/w second and high gears (15/23T) 1 off | 39 Plunger spring 1 off |
| 16 Layshaft third gear (20T) 1 off | 40 Bearing 1 off |
| 17 Layshaft low gear (27T) 1 off | 41 Mainshaft bearing (ball journal) 1 off |
| 18 Low gear bush 1 off | 42 Circlip 1 off |
| 19 Pawl retaining disc 1 off | 43 Tab washer 1 off |
| 20 Camplate index plunger 1 off | 44 Mainshaft nut 1 off |
| 21 Index plunger spring 1 off | 45 Distance piece 1 off |
| 22 Selector fork spindle 1 off | 46 Kickstarter return spring 1 off |
| 23 Mainshaft selector fork 1 off | 47 "O" ring |
| 24 Layshaft selector fork 1 off | |



- | | |
|---------------------------------|-------------------------------------|
| 1 Gearbox outer cover 1 off | 25 Connector 1 off |
| 2 Gearchange spindle bush 1 off | 26 Nut 1 off |
| 3 Stud (1 5/16 in. OA) 2 off | 27 Abutment 1 off |
| 4 Screw (17/8 in. OA) 1 off | 28 Adaptor, short |
| 5 Gearchange quadrant 1 off | 28 Adaptor, long |
| 6 Spring retaining pin 2 off | 29 Rubber cover 1 off |
| 7 Plunger spring 2 off | 30 Nut 2 off |
| 8 Selector plunger 2 off | 31 Plain washer 2 off |
| 9 Split pin 2 off | 32 Screw (2 3/8 in. UH) 2 off |
| 10 Sealing ring 1 off | 33 Screw (2 5/8 in. UH) 2 off |
| 11 Return spring housing 1 off | 34 Gearchange lever 1 off |
| 12 Return spring 2 off | 35 Pedal rubber 1 off |
| 13 Thrust button 2 off | 36 Bolt (1 in. UH) 1 off |
| 14 Cover 1 off | 37 Kickstarter lever complete 1 off |
| 15 Nut 3 off | 38 Kickstarter crank 1 off |
| 16 Distance piece 2 off | 39 Kickstarter pedal 1 off |
| 17 Distance piece 1 off | 40 Steel ball (1/4 in. diam.) 1 off |
| 18 Clutch lever 1 off | 41 Index spring 1 off |
| 19 Ball, 3/8 in. diam. 3 off | 42 Pivot bolt 1 off |
| 20 Shaft 1 off | 43 Clamp bolt (1 5/16 in. UH) 1 off |
| 21 Spring 1 off | 44 Pedal rubber 1 off |
| 22 Plain washer 1 off | 45 Clutch operating rod 1 off |
| 23 Split pin 1 off | 46 Oil seal 1 off |
| 24 Spoke 1 off | 47 Oil seal cover |
| | 48 Serrated washer 2 off |

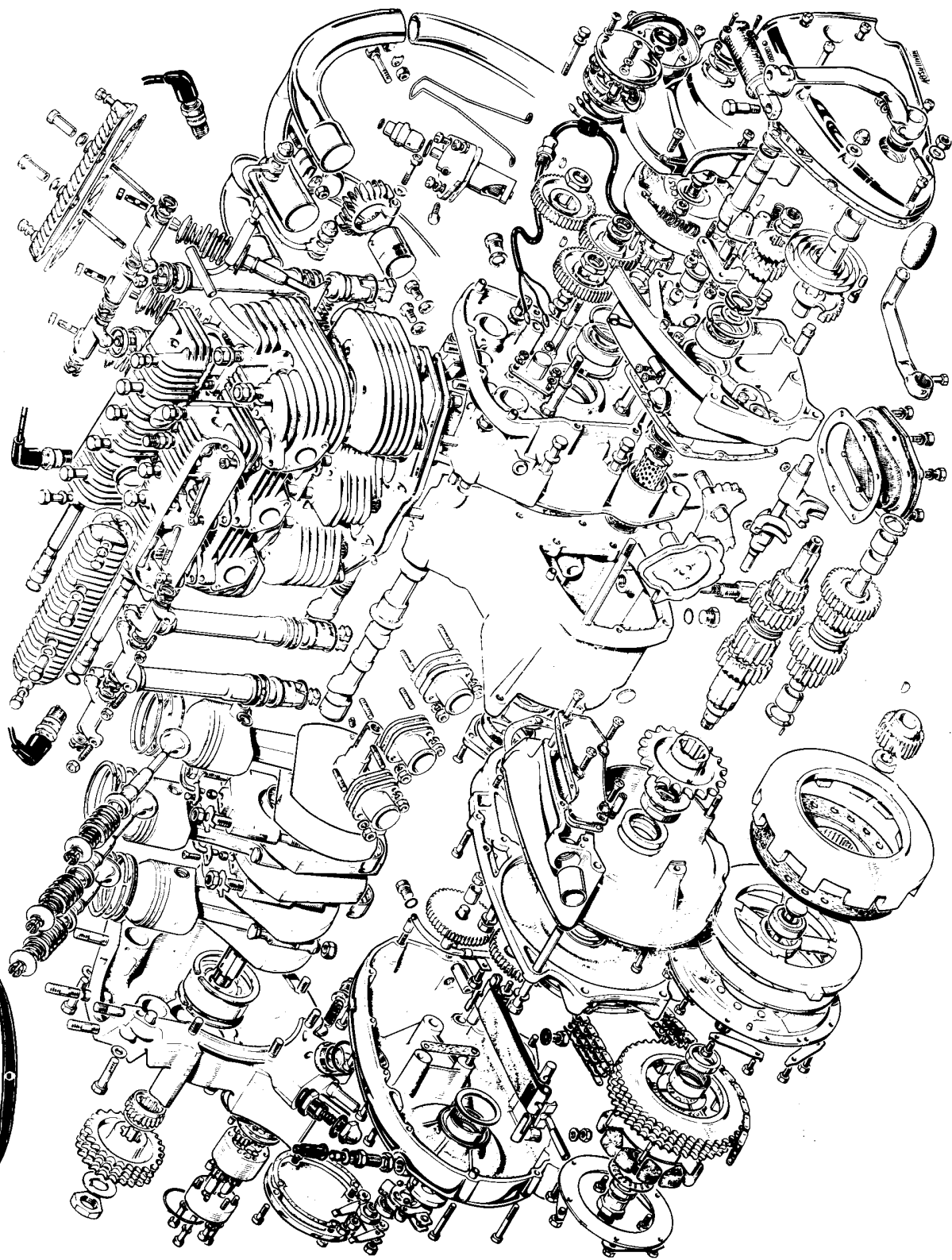


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|--|--------------------------------|
| 1 Gearbox sprocket (17 teeth) 1 off | 19 Clip 1 off |
| 1 Gearbox sprocket (18 teeth) available | 20 Setcrew (1/4 in. UH) 1 off |
| 1 Gearbox sprocket (19 teeth) available | 21 Joint washer 1 off |
| 1 Gearbox sprocket (20 teeth) available | 22 Chaincase 1 off |
| 2 Gearbox sprocket nut 1 off | 23 Rotor cover 1 off |
| 3 Rear chain, 5/8 in. x 3/8 in. x 102L 1 off | 24 Joint washer 1 off |
| 3 Rear chain, 5/8 in. x 3/8 in. x 103L 1 off | 25 Screw 3 off |
| 4 Cover plate 1 off | 26 Ignition pointer 1 off |
| 5 Oil seal 1 off | 27 Level plug 1 off |
| 6 Joint washer 1 off | 28 Copper washer 2 off |
| 7 Countersunk screw (5/16 in. UH) 6 off | 29 Filter plug 1 off |
| 8 Primary chain, 3/8 in. Duplex 78L 1 off | 30 Fibre washer 1 off |
| 9 Chain tensioner blade 1 off | 31 Screw (2 1/2 in. UH) 3 off |
| 10 Tie rod 1 off | 32 Screw (1 5/16 in. UH) 7 off |
| 11 Trunnion 1 off | 33 Adjuster sleeve nut 1 off |
| 12 Stud (3 5/16 in. OA) 3 off | 34 Drain plug 1 off |
| 13 Stator, RM21 (4720S) 1 off | 35 Fibre washer 1 off |
| 14 Serrated washer 1 off | 36 Tab washer 1 off |
| 15 Plain washer 3 off | 37 Crankcase protector 1 off |
| 16 Nut | 38 Self-locking nut 1 off |
| 17 Rubber grommet 2 off | 39 Grommet 1 off |
| 18 Sieve nut 1 off | |

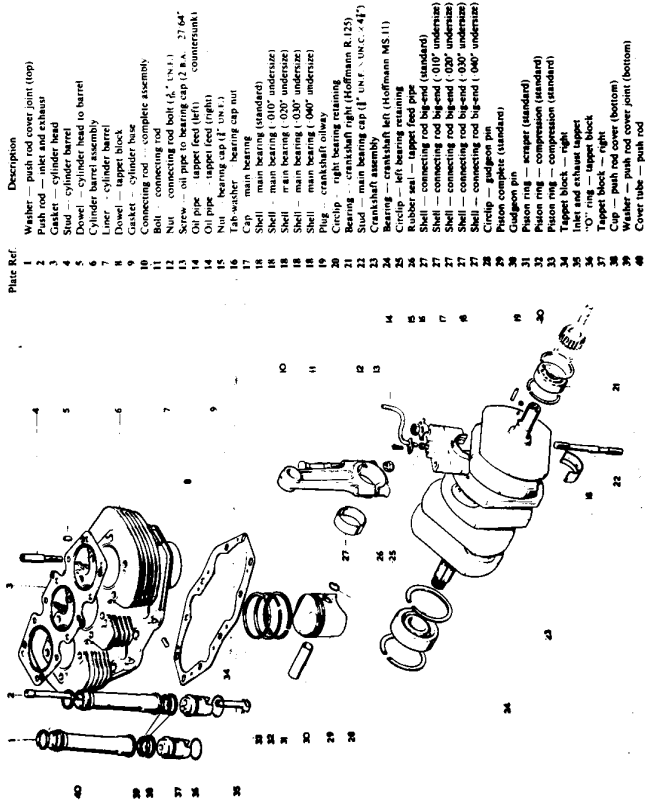


- | | |
|--|---------------------------------------|
| 1 Clutch assembly complete | 13 Screwed pin - 3 off |
| 2 Clutch centre | 14 Inserted plate - 6 off |
| 3 Thrust washer | 15 Plain plate - 6 off |
| 4 Roller - 20 off | 16 Pressure plate |
| 5 Chainwheel and clutch outer drum (58 teeth duplex) | 17 Adjuster pin |
| 6 Clutch inner drum | 18 Locknut |
| 7 Inner plate | 19 Clutch spring thimble - 3 off |
| 8 Countersunk screws - 6 off | 20 Clutch spring - 3 off |
| 9 Shock absorber spider | 21 Clutch spring nuts (brass) - 3 off |
| 10 Drive rubber (large) 3 off | 22 Key |
| 11 Rebound rubber (small) - 3 off | 23 Cupped washer |
| 12 Outer cover | 24 Clutch nut |

TRUMPSA - Trident SA - Rocket

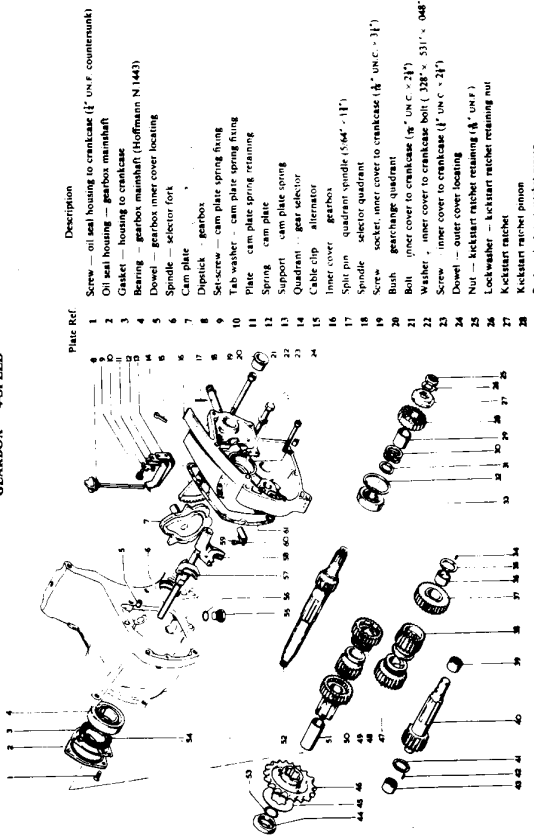


CYLINDER — PISTONS — CRANKSHAFT



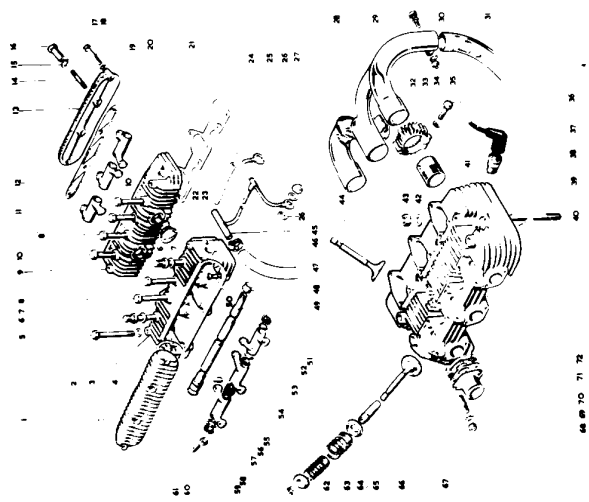
Place Ref.	Description
1	Washer — push rod cover joint (top)
2	Push rod — inlet and exhaust
3	Gasket — cylinder head
4	Stud — cylinder barrel
5	Cylinder barrel assembly
6	Pin — connecting rod to barrel
7	Liner — cylinder barrel
8	Dowel — tappet block
9	Gasket — cylinder base
10	Cap — main bearing complete assembly
11	Bolt — connecting rod
12	Nut — connecting rod bolt (1/2" UNF x 1.5)
13	Screw — oil pipe to bearing cap (2 BA, 3/64" countersunk)
14	Oil pipe — tappet feed (left)
15	Nut — bearing cap (1/2" UNF)
16	Cap — main bearing
17	Shell — main bearing (left)
18	Shell — main bearing (right)
19	Shell — main bearing (0.030 undersize)
20	Shell — main bearing (0.030 undersize)
21	Shell — main bearing (0.040 undersize)
22	Cap — crankshaft oilway
23	Bearing — crankshaft right (Hoffmann R. 125)
24	Crankshaft assembly
25	Stud — main bearing cap (1/2" UNF x 1.5)
26	Washer — left main bearing (Hoffmann MS 11)
27	Rubber seal — tappet feed pipe
28	Shell — connecting rod big-end (standard)
29	Shell — connecting rod big-end (0.010 undersize)
30	Shell — connecting rod big-end (0.020 undersize)
31	Shell — connecting rod big-end (0.030 undersize)
32	Shell — connecting rod big-end (0.040 undersize)
33	Pin — connecting rod big-end (0.040 undersize)
34	Pin — connecting rod big-end (0.040 undersize)
35	Pin — connecting rod big-end (0.040 undersize)
36	Pin — connecting rod big-end (0.040 undersize)
37	Pin — connecting rod big-end (0.040 undersize)
38	Pin — connecting rod big-end (0.040 undersize)
39	Pin — connecting rod big-end (0.040 undersize)
40	Pin — connecting rod big-end (0.040 undersize)
41	Pin — connecting rod big-end (0.040 undersize)
42	Pin — connecting rod big-end (0.040 undersize)
43	Pin — connecting rod big-end (0.040 undersize)
44	Pin — connecting rod big-end (0.040 undersize)
45	Pin — connecting rod big-end (0.040 undersize)
46	Pin — connecting rod big-end (0.040 undersize)
47	Pin — connecting rod big-end (0.040 undersize)
48	Pin — connecting rod big-end (0.040 undersize)

GEARBOX — 4-SPEED



Place Ref.	Description
1	Screw — oil seal housing to crankcase (1/2" UNF, countersunk)
2	Oil seal housing — gearbox mainshaft
3	Gasket — housing to crankcase
4	Bearing — gearbox mainshaft (Hoffmann N 143)
5	Dowel — gearbox inner cover housing
6	Spindle — selector fork
7	Cam plate
8	Depstick — gearbox
9	Seal — cam plate spring fling
10	Tab washer — cam plate spring fling
11	Plate — cam plate spring retaining
12	Spring — cam plate
13	Support — cam plate spring
14	Quadrant — gear selector
15	Cable clip — alternator
16	Inner cover — gearbox
17	Split pin — quadrant spindle (5/64" - 11')
18	Sector — selector quadrant
19	Screw — socket, inner cover to crankcase (1/2" UNF x 1 1/2')
20	Bush — gearchange quadrant
21	Bolt — inner cover to crankcase (1/2" UNF x 3/4')
22	Washer — inner cover to crankcase bolt (238 x 53) - 048'
23	Screw — inner cover to crankcase (1/2" UNF x 3/4')
24	Dowel — outer cover housing
25	Nut — locktite rubber retaining (1/2" UNF)
26	Lockwasher — locktite rubber retaining nut
27	Locktite rubber pinion
28	Bush — locktite rubber pinion
29	Spring — locktite rubber
30	Washer — locktite rubber liners
31	Circclip — mainshaft, inner cover bearing
32	Bearing — mainshaft, inner cover (Hoffmann LS 3)
33	Fig. — thrust washer, 1/4" x 1/4" x 1/4"
34	Thrust washer — 1/4" x 1/4" x 1/4"
35	Bush — 1/4" x 1/4" x 1/4"
36	Layshaft first gear complete
37	Layshaft third gear
38	Layshaft third gear complete
39	Needle bearing — layshaft, inner cover (Hoffmann B 112)
40	Layshaft with top gear
41	Pin — oil connecting tube
42	Pin — oil connecting tube
43	Pin — oil connecting tube
44	Pin — oil connecting tube
45	Pin — oil connecting tube
46	Pin — oil connecting tube
47	Pin — oil connecting tube
48	Pin — oil connecting tube
49	Pin — oil connecting tube
50	Pin — oil connecting tube
51	Pin — oil connecting tube
52	Pin — oil connecting tube
53	Pin — oil connecting tube
54	Pin — oil connecting tube
55	Pin — oil connecting tube
56	Pin — oil connecting tube
57	Pin — oil connecting tube
58	Pin — oil connecting tube
59	Pin — oil connecting tube
60	Pin — oil connecting tube
61	Pin — oil connecting tube

CYLINDER HEAD — ROCKER BOXES — EXHAUST PIPES



Place Ref.	Description
1	Cover — inlet rocker box
2	Stud — inlet rocker box to cylinder head (3/16" x .865 x .078')
3	Rocker box — inlet
4	Gasket — rocker box cover
5	Bolt — rocker box to cylinder head (1/2" UNF x 3/4')
6	Bolt — rocker box to cylinder head (1/2" UNF x 3/4')
7	Washer — rocker box bolt (238 x 62.5 x .094')
8	Washer — rocker box to barrel (short)
9	Rocker box — exhaust
10	Rocker box — exhaust
11	Rocker box — exhaust
12	Gasket — rocker box cover
13	Stud — exhaust rocker box
14	Stud — rocker box cover (1/2" UNF x 1 1/2')
15	Washer — rocker box cover (1/2" UNF x 1 1/2')
16	Bolt — rocker box cover (1/2" UNF x 1 1/2')
17	Washer — rocker box cover (1/2" UNF x 1 1/2')
18	Washer — rocker box cover (1/2" UNF x 1 1/2')
19	Rocker — exhaust (right)
20	Rocker — exhaust (left)
21	Gasket — rocker box cover
22	Inspection Cap — rocker box
23	Connecting tube — oil feed pipes
24	Oil pipe — rocker spindle
25	Oil pipe — rocker spindle
26	Dowel nut — oil pipe to rocker spindles (1/2" UNF)
27	Exhaust manifold
28	Washer — exhaust pipe to manifold (1/2" UNF x 1 1/2')
29	Washer — exhaust pipe to manifold bolt
30	Exhaust pipe — right
31	Exhaust pipe — right
32	Finned collar — exhaust pipe
33	Spherical washer — finned collar
34	Conical washer — finned collar
35	Cover — spark plug (Champion WC 200)
36	Bolt — finned collar (1/2" UNF x 1 1/2')
37	Stud — spark plug (Champion N3)
38	Stud — spark plug (Champion N3)

Place Ref.	Description
39	Cylinder head with feed fittings
40	Stud — head to barrel (1/2" UNF x 1 1/2')
41	Adaptor — exhaust pipe
42	Washer — head to barrel stud (3/16" x 750' - 092')
43	Nut — head to barrel stud (1/2" UNF)
44	Oil connecting pipe — engine to cover and rocker feed
45	Clip — oil connecting tube
46	Oil connecting tube
47	Bush — rocker spindles
48	Rocker — inlet (left)
49	Rocker — inlet (right)
50	Screw — rocker box to cylinder head (1/2" UNF x 1 1/2')
51	Washer — spring rocker spindle (1/2" UNF x 750' - 031' double)
52	Pin — oil connecting tube
53	Rocker — inlet (center)
54	Pin — oil connecting tube
55	Pin — oil connecting tube
56	Pin — oil connecting tube
57	Pin — oil connecting tube
58	Pin — oil connecting tube
59	Pin — oil connecting tube
60	Pin — oil connecting tube
61	Pin — oil connecting tube
62	Pin — oil connecting tube
63	Pin — oil connecting tube
64	Pin — oil connecting tube
65	Pin — oil connecting tube
66	Pin — oil connecting tube
67	Pin — oil connecting tube
68	Pin — oil connecting tube
69	Pin — oil connecting tube
70	Pin — oil connecting tube
71	Pin — oil connecting tube
72	Pin — oil connecting tube