

MOTREC



G-500



OPERATOR AND MAINTENANCE MANUAL WITH SPARE PARTS LISTS INCLUDED

SERIAL NUMBER : 1028117 & UP

Printed in Canada

2004-07-19

MOTREC, Inc. Electric & Gas Vehicle One Year Limited Warranty

Effective Jan 1, 2005, MOTREC, Inc. (MOTREC) hereby warrants to the Original Retail Purchaser (Owner) that any of its vehicles shall be free from any defect in materials for a period of 90 DAYS while in the possession of such Original Retail Purchaser. This warranty IS NOT TRANSFERABLE to any subsequent Buyer.

The warranty period is extended to one year or one thousand (1,000) hours, which ever first occurs, on the electric motor, differential, steering gear and the electronic speed controller.

For battery chargers, MOTREC initial 90 days warranty coverage applies. Charger fuses and diodes are not included in this warranty.

MOTREC makes no warranty or representation with respect to the internal combustion engine, tires and batteries, since their respective manufacturers cover such parts. Accessories (light, horn, etc), electrical contacts (switch, solenoid, contactor, relay), diodes & fuses, belts & pulleys, filters & spark plugs, lubricants, brake linings & shoes, brake drums & discs, seals, seats, trim and other items subject to wear are not included in this warranty; nor is any item that in MOTREC sole opinion, shows evidence of neglect, misuse, abuse, collision or alteration.

This warranty shall not apply to normal maintenance requirements as described in the User Manual, and to damages during shipment. The latter is the carrier's responsibility. No compensation will be allowed for delays

To initiate warranty coverage on any MOTREC vehicle, the Dealer must complete and return the "Sales/Installation Report" to MOTREC within 30 days after delivery to the Original Retail Purchaser; or within 90 days after the delivery date to the Dealer, which ever occurs first. Failure to follow these procedures will result in considering the warranty coverage effective as of the shipment date from the factory.

The defective vehicle must be returned, at the Owner's expense, to an authorised MOTREC Dealer within 30 days after failure. The Owner will not be charged for parts and labour required for warranty repairs, which must be performed by an authorised MOTREC Dealer only. The vehicle will be returned at the owner's expense. The Warranty Claim Forms must be completed and returned with the defective part(s) to MOTREC within 30 days after repair was done. No compensation will be allowed for damages caused by vehicle downtime.

Operators and service technicians shall read, understand and follow the safety, operating and maintenance instructions in Motrec Manual. Owner is responsible for the training of operators and service technicians. Owner shall comply with OSHA and ASME/ANSI B56 regulations. MOTREC vehicles are designed for off-road use only. MOTREC disclaims any liability for incidental or consequential damages, to include, but not be limited to, personal injury or property damage arising from vehicle misuse, lack of maintenance or any defect in the vehicle.

MOTREC prohibits, and disclaims responsibility for, any vehicle modification altering the weight distribution and stability, increasing the speed or affecting the safety of the vehicle. Such modifications can cause serious personal injury or property damage for which MOTREC disclaims any responsibility.

The following additional conditions apply to Owners that are located outside North America:

- The warranty period starts the date of shipment from the factory.
- The defective parts must be returned at the Owner's expense to MOTREC prior to warranty repair.
- Battery chargers are covered by their respective manufacturers.

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INSTRUCTIONS

SAFETY WARNINGS FOR OPERATORS

- It is the responsibility of the owner of this vehicle to ensure that the operator understands the operating characteristics of this vehicle, and obeys the following safety rules and guidelines (ANSI B56). Do not drive this vehicle unless you are a qualified operator.
- Do not drive this vehicle on public roads and highways. This vehicle is designed to be driven in and around buildings, warehouses, factories, nurseries and resorts.
- The electrical system of this vehicle will make sparks which can ignite inflammable materials. Never use the vehicle in hazardous areas where there are inflammable materials, explosive dust or fumes in the air.
- Never run the engine in a closed building or confined area and avoid inhaling engine fumes. The exhaust gases contain poisonous carbon monoxide.
- Do not open the battery compartment unless you have received battery maintenance training.
- Keep clear from moving parts such as tires, sheaves and motor.
- Never carry more passengers than the number allowed for this vehicle. Wait until all occupants are seated to start. Always keep all body parts inside the vehicle. Keep both hands on the steering wheel.
- Do not exceed the vehicle cargo load capacity and gross trailing weight capacity, rated for flat hard even surface. Different operating conditions such as ramps reduce vehicle capacities.
- Avoid unbalanced or top-heavy loads to keep a good stability. Do not load cargo that can easily fall off the vehicle. Do not carry cargo that is longer, wider or higher than this vehicle.
- Always slow down before turning. Avoid sharp turns. The vehicle may overturn easily if turned sharply when driving, especially when on an incline or when carrying a heavy load.
- Always drive straight up and down the face of an incline, never across the face.
- Always reduces speed to half the level ground maximum speed while driving down an incline. Keep the vehicle under control at all times. Be aware that the stopping distance greatly increases going down an incline.
- Drive slowly if the ground is wet or slippery.
- Keep to the right under normal conditions. Maintain a safe distance from all objects.
- Slow down and sound the horn when approaching a corner or other blind intersections.
- Before leaving the vehicle, turn off all switches, remove the key, set the shift lever to park.. Do not park the vehicle on an incline.
- Use another driver to steer this vehicle while it is towed. Be sure the driver uses brakes when you slow or stop the towing vehicle. Do not exceed 5 MPH or carry any passengers while towing this vehicle.

VEHICLE CONTROLS (HYDRAUSTATIC – KUBOTA)

Fuel Tank

The fuel tank is located on the right (G500) or rear (G660). Do not remove the fuel cap while the engine is running. Do not fill the fuel tank to point of overflowing. Use clean, fresh, lead-free gasoline intended for automotive use. A minimum of 85 octane is recommended. Do not mix oil with gasoline.

Engine Oil

Check the oil level when the engine is not running. Kept clear from moving parts, pulley, belt.

Hydraulic oil tank

The hydraulic oil tank is located on the left side. Do not remove the oil cap while the engine is running. Do not fill the oil tank to point of overflowing. Use hydraulic oil meeting ISO VG-46

Oil sentry

When the red light on the instrument panel turns on, the engine oil pressure is too low, or engine temperature is to high. Therefore, the engine must be serviced to avoid serious damage.

Horn button

The horn button is located on the steering column.

Park brake lever

To actuate the parking brake, depress the brake pedal and pull up the hand lever located between the front seats. Never park on an incline. Always set the parking brake before leaving the vehicle.

Accelerator and brake pedals

The accelerator and brake pedals operate the same way as the pedals of an automobile. Depress the accelerator pedal with the right foot to speed the vehicle up and release it to slow down. Depress the brake pedal with the right foot to reduce the vehicle speed.

Forward/Reverse Selector

Shift only when the vehicle is not moving and engine is at idle speed. Before leaving the vehicle, set the FWD/REV selector to NEUTRAL and set the parking brake.

Manual Choke

GAS ENGINE: before starting a cold engine, pull out the choke knob and depress the accelerator pedal halfway to the floor; as the engine warms up, push the knob in until the engine responds properly.

LPG ENGINE: before starting the engine, pull out the choke and depress the accelerator pedal halfway to the floor; while starting, after two seconds, push the knob halfway; as the engine warms up, push the knob in until the engine responds properly.

Key switch / starter

Before starting, set the F/R selector in NEUTRAL. To avoid starter damage do not crank the engine continuously for more than 10 seconds at a time; wait 60 seconds before attempting to start again. Remove key from key switch before leaving the vehicle.

MAINTENANCE

SAFETY WARNINGS FOR SERVICE TECHNICIANS

It is the responsibility of the owner of this vehicle to ensure that the service technicians are properly trained and obey the following safety rules and guidelines (ANSI B56).

Maintenance operations must be made by properly trained service technicians.

Before any maintenance work, park the vehicle on a flat level surface, set the shift lever to park, turn off all the switches, remove the key, lift the wheels off the ground and secure with jack stands of adequate capacity.

Keep clear from moving parts such as tires, sheaves, drive shaft and motor.

Follow the maintenance instructions applicable to the type of repair, maintenance, or service.

Always wear a face shield and gloves when working around batteries.

Before opening the battery compartment, turn off all switches and remove the key. Batteries emit highly explosive gases which greatly increase when charging; do not disturb connections or produce sparks around batteries to avoid a battery explosion and acid splashing. Battery acid causes severe damage to eyes or skin. Flush contaminated area immediately with water.

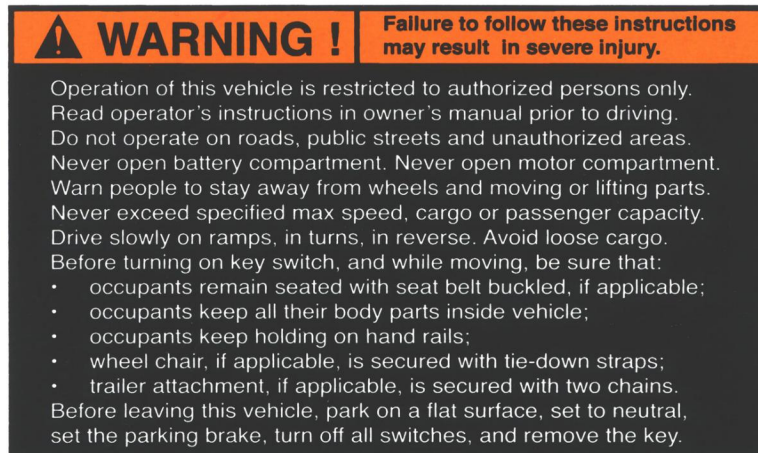
Use insulated tools to avoid sparks that can cause battery explosion and acid splashing.

Use two counteracting tools, double-wrench technique, when disconnecting or tightening terminals on the battery and the speed controller to avoid cracking the terminal or battery post welds.

Keep cables and wires clear from mechanical and rubbing action. Make sure cable covering is free from cutting or visible damage.

Before replacing a fuse or circuit breaker, identify the cause of failure and repair.

Always ensure the integrity of the warning labels. If they suffered damage and are not readable, replace them promptly. The following images depict the dashboard and general security warning labels:



PERIODIC MAINTENANCE CHECKLIST - HYDRAUSTATIC (KUBOTA)

! WARNING !

- Maintenance operations must be made by properly trained service technicians.
- Keep clear from moving parts such as tires, sheaves and motor.
- Keep cables and wires clear from mechanical and rubbing action
- Batteries contain sulphur acid that can cause severe burns on skin or eyes.
- When working around batteries, wear acid proof protective equipment: face shield and gloves.
- Use electrically insulated tools to avoid sparks that can cause battery explosion.
- Before any maintenance work, park the vehicle on a flat level surface, turn key switch to OFF, lift the wheels off the ground and secure with jack stands of adequate capacity.

CHECK/PERFORM	PERIOD HOURS	DAY	50	QUART. 200	YEAR 1000	2-YEAR 2000
MECHANICAL DAMAGE		X				
ALL ACCESSORIES		X				
ENGINE OIL LEVEL		X				
HYDRAULIC OIL LEVEL use clean oil ISO VG46		X				
ENGINE COOLANT LEVEL		X				
THROTTLE CONTROLS		X				
TIRE PRESSURE, pressure rating on tire		X				
MASTER CYLINDER FLUID LEVEL (DOT 3)		X				
BRAKE PEDAL TRAVEL 2 inches (5 cm) maximum travel		X				
STEERING FOR PLAY		X				
PARKING BRAKE LEVER normally requires 20 lbs.(10 kg) force to apply		X				
CHANGE OIL IN A NEW ENGINE			X			
AIR FILTER ELEMENTS				X		
SPARK PLUGS, clean/adjust or replace, if applicable				X		
ENGINE OIL CHANGE				X		
ENGINE OIL FILTER CHANGE				X		
CLEAN RADIATOR, remove cooling shrouds and clean cooling areas, clean oil cooler fins if applicable.				X		
EXHAUST SYSTEM for leak				X		
HYDR. BRAKE LINES FOR LEAK				X		
BRAKE MECHANICAL LINKAGES for wear & play				X		
BRAKE LININGS FOR WEAR 0.05 in.(1 mm) minimum lining thickness.				X		
GREASE brake pedal pivots, steering column, ball joints and kingpins.				X		
FRONT WHEEL BEARINGS PLAY				X		
TIGHTEN NUTS/BOLTS electric term.; drive; steering; brakes; suspension; body.				X		
IGNITION TIMING, check and adjust, if applicable					X	
CLEAN AND RE-PACK FRONT HUBS					X	
CHANGE TRANSMISSION OIL FILTER					X	
CHANGE TRANSMISSION OIL, (ISO VG46)					X	

OIL GRADE CHART

Vehicle system	Oil grade	Note
FORD engine		
<i>Single Viscosity</i>		
-10°F to + 60°F	*10W	
+10°F to + 90°F	20W / 20	
Above +32°F	30	
Above +50°F	40	
<i>Multi-Viscosity</i>		
Below +10°F	*5W-20	
Below +60°F	5W-30	
+10°F to 90°F	10W-30	
Above -10°F	10W-40 or 10W-50	
Above +20°F	20W-40 or 20W-50	
Automatic transmission	DEXTRON 3	
Differential	80W90	
KUBOTA engine		
Above 77°F	30 or 10W-30 or 10W-40	
+32°F to 77°F	20 or 10W-30 or 10W-40	
Above +32°F	10W or 10W-30 or 10W-40	
Hydraustatic transmission	ISO VG46	
Common		
Brakes	DOT 3	DMVSS116 standard

HYDRAULIC BRAKES

DRUM BRAKES

Remove brake drums and check linings wear; the linings should have a thickness exceeding 1/16" (1.5 mm). Turn the brake adjustment to reduce the clearance between lining and drum but avoid contact or drag when the wheels are turned and the pedal is released.

DISC BRAKES

Check pad linings for excessive wear; the linings should have a thickness exceeding 1/16" (1.5 mm). Disc brakes are self-adjusting.

BRAKE PEDAL

If the brake pedal becomes soft or spongy, air may have entered the hydraulic system and the brake system has to be bled:

1. fill the master cylinder with brake fluid (DOT-3);
2. bleed front callipers one at a time by having someone applying a steady pressure on the brake pedal, and close the bleeder before allowing the brake pedal to return to up position;
3. fill the master cylinder with brake fluid (DOT-3);
4. bleed rear wheel brakes one at a time, following the same procedure;
5. fill the master cylinder with brake fluid (DOT-3);
6. clean every fitting and line, remove traces of oil;
7. apply a continuous pressure on the brake pedal for about five minutes ;
8. Finally, inspect brake lines and fittings for leaks ;

FRONT AXLE AND STEERING

! CAUTION !

Before maintenance, turn off all switches, set to neutral, set parking brake, remove the key, and raise the front end of the vehicle supporting it with two jack stands of adequate capacity

STEERING INSPECTION

- Check tire inflation pressure, suspension components, tie rods straightness, tie rod ends play (wear), play (wear) in wheel bearings, kingpins and bushings.

REPLACING & ADJUSTING THE STEERING GEAR

- Remove the pitman arm;
- The steering box makes 6.5 turns, center the steering gear (3.25 turns from either side);
- Align the front wheel straight. Install the pitman arm.

BACKLASH ADJUSTMENT OF THE STEERING GEAR

- Center the steering gear (3.25 turns from either side);
- Adjust backlash of the steering gear using the screw on its side until a slight resistance is felt in the steering wheel when turning near its central position, turn CW to remove all lash;
- Tighten the lock nut on the screw to 25 lbft.

TOE-IN ADJUSTEMENT

- With the wheels in straight forward direction, measure the inside (left to right) distance between the front tires, at the front and rear of the tires;
- Turn the rear tie rod until the distances are equal and tighten the two lock nuts on the tie rod.

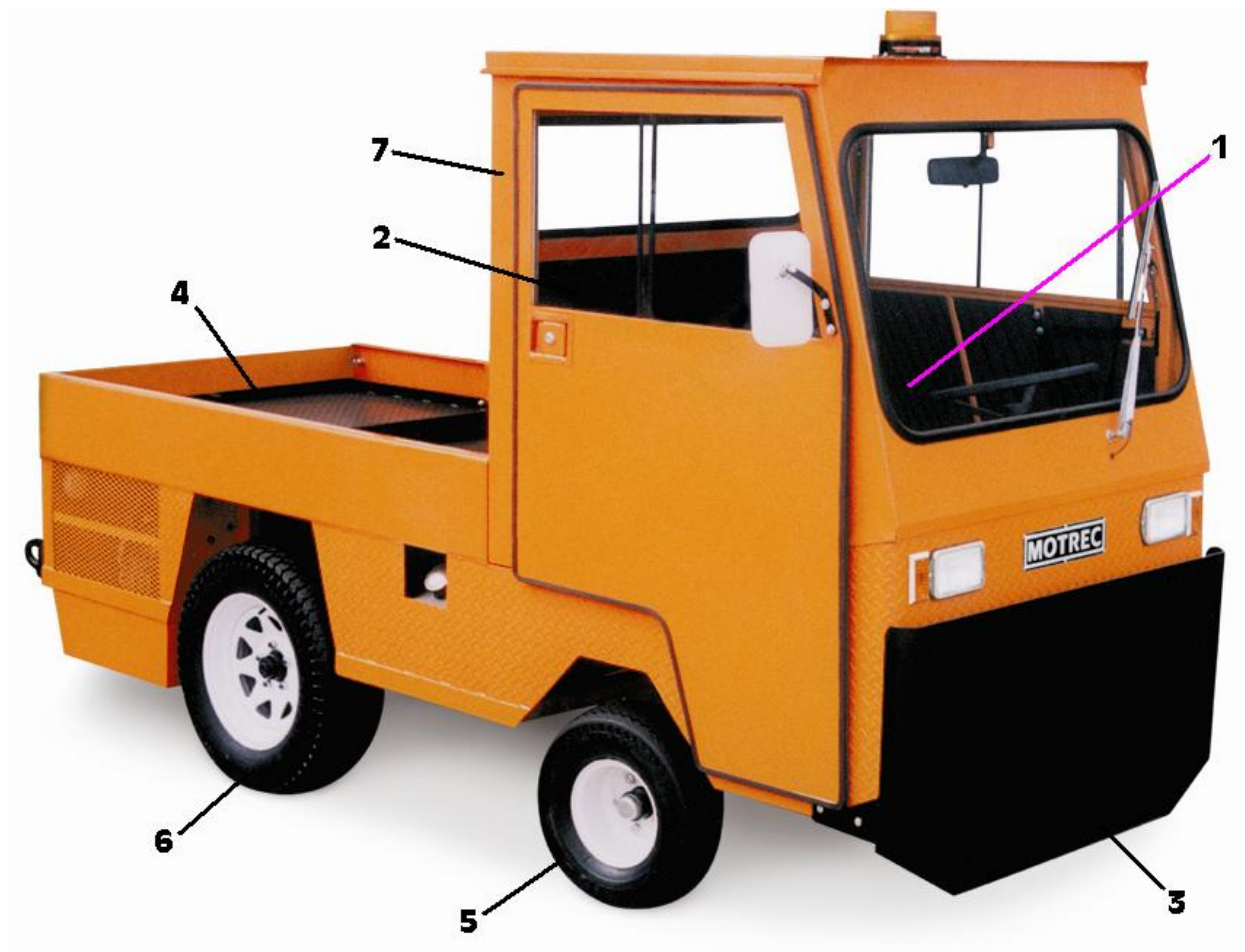
REMOVING & GREASING OF FRONT HUBS, required once-a-year

- Remove dust cap and cutter pin, unscrew nut, remove hub;
- Inspect bearings and races for wear and replace worn bearings;
- Replace the seal;
- Pack the hub with wheel bearing grease and re-assemble.

ADJUSTING FRONT HUBS

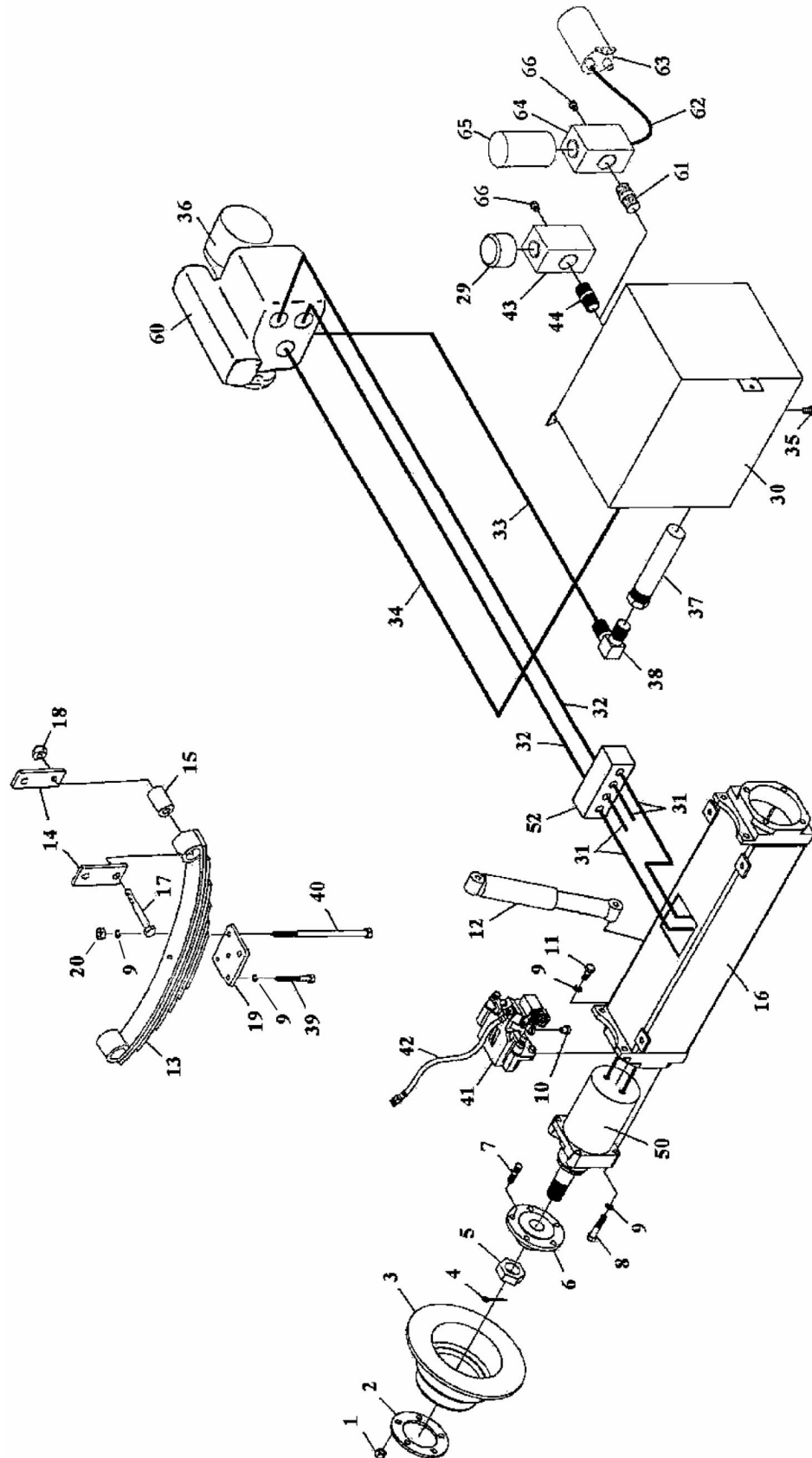
- Tighten spindle nut to 30 ft-lb to seat the bearing and back off the nut to the next slot;
- Install a new cutter pin and the dust cap.

SPARE PARTS

BODY, CAB, SEATS, TIRE

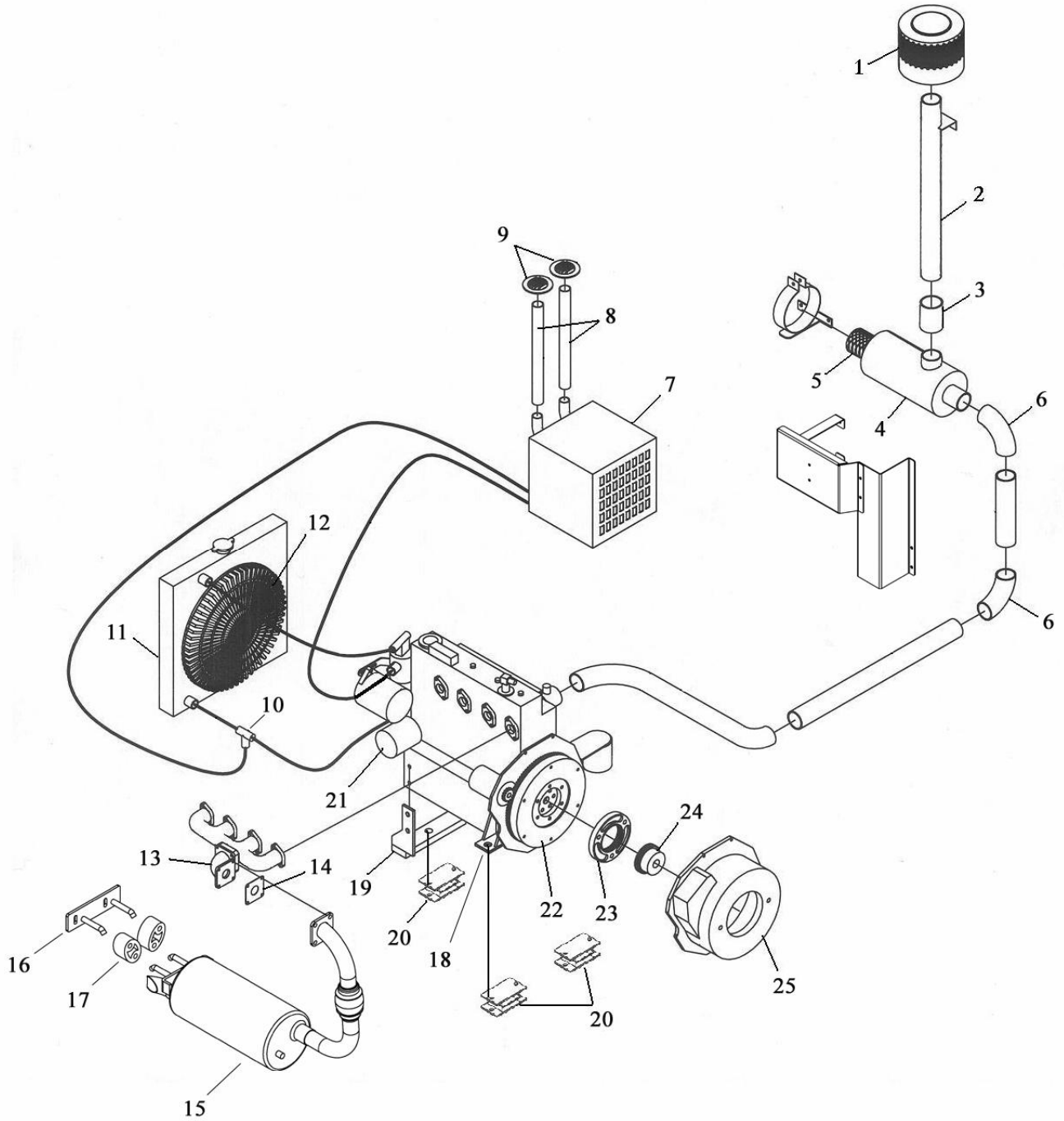
REF	DESCRIPTION	PART #	REF	DESCRIPTION	PART #
1	SEAT	480001		PADDLE LATCH	2803000003
	BUCKET SEAT ON	1005003		CATCH	3602024
	SLIDE ADJUSTERS			HANDLE	2366320001
	GAMMER SEAT	2205001		OPENING HANDLE	2366320003
	GARMMER SEAT WITH SWITCH	2205002		OPENING BAR	2366320004
2	BACKREST	3605008		RIGHT HINGES	2365000001
3	FRONT COWL BUMPER	2315320001		LEFT HINGES	2365000002
4	MOTOR COVERT	2330501001		REAR VIEW MIRROR	480039
	MOTOR COVERT WITN REAR	2330501007		SIDE MIRROR	480040
	PANEL BOX			MIRROR BRACKET FIXE	2399300014
5	5.7 x 8 L.R.B. WHEEL ASS	300022		MIRROR BRACKET FOLDING	2399300009
6	25 x 8.5x 14 L.R.D. WHEEL ASS	5007002		WIPER KIT	366211K
7	STEEL CAB AND DOORS	2360320005		WIPER MOTOR 12V	3113000001
	STEEL CAB	2360320006		ARM	2800000001
	RIGHT DOOR	2360320007		WIPER	2800000002
	LEFT DOOR	2360320008			
	DOOR GLASS LEFT	2367320003			
	DOOR GLASS RIGHT	2367320004			

HYDROSTATIC DRIVE, REAR AXLE AND SUSPENSION

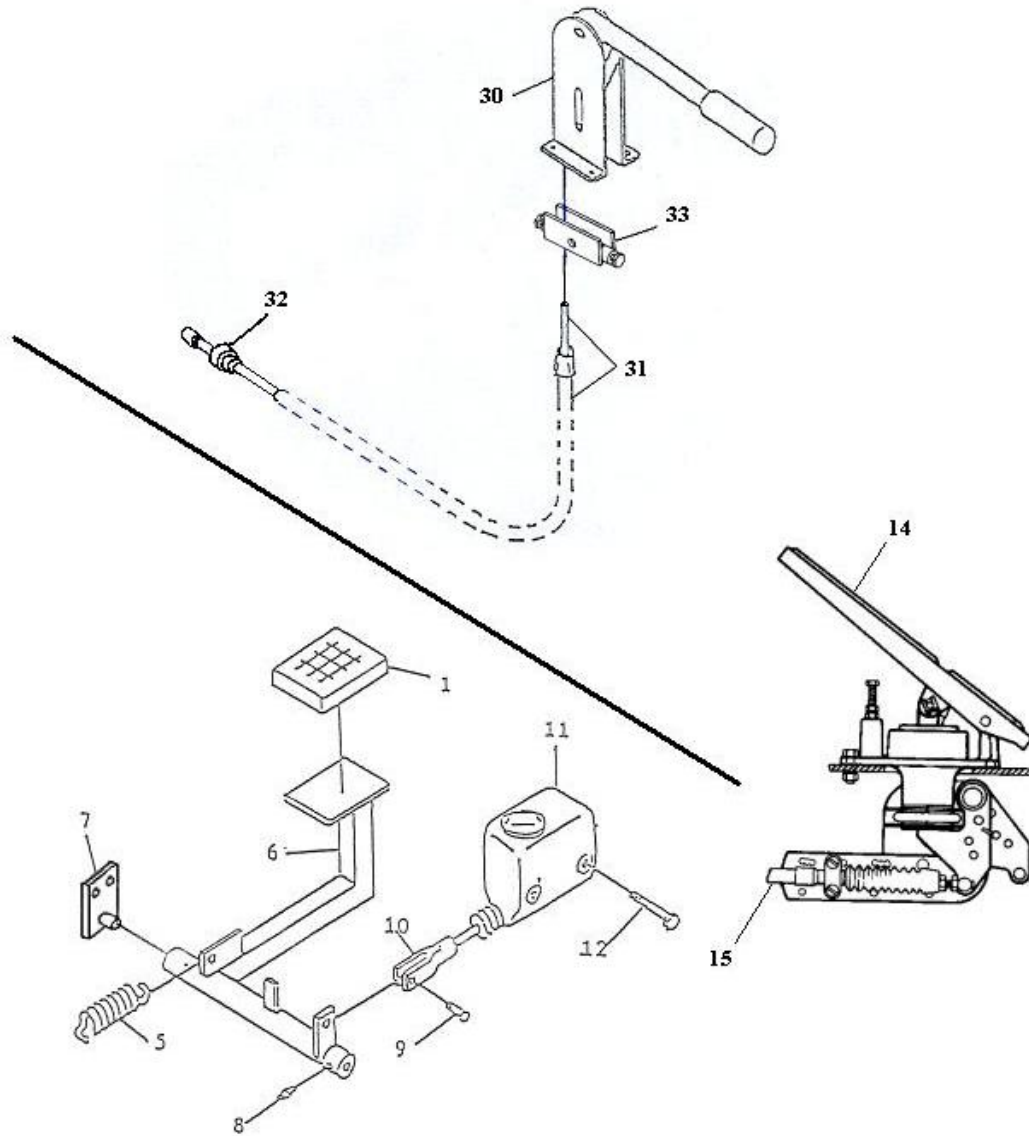


<i>REF</i>	<i>DESCRIPTION</i>	<i>PART #</i>	<i>REF</i>	<i>DESCRIPTION</i>	<i>PART #</i>
1	WHEEL NUTS ½-NF	2407006	29	½ NPT PLUG	5074008
2	SPACER	5007001	30	HYDRAULIC OIL TANK	
3	DISC	481433	31	MOTOR HOSE	4120501005
4	COTTERPIN		32	OUTLET HOSE	4120501001
5	NUTS	5080001	33	SUCTION HOSE	4120501004
6	HUB	5020006	34	RETURN HOSE	4120501003
7	STUD ½-NF x 1 ¾	2820007	35	OUTLET HOSE	4120501002
8	BOLT ½-NF x 2 ½		36	HYDROSTATIC PUMP FILTER	5074009
9	LOCK WASHER 1/2		37	FILTER	5074015
10	CABLE STOP	5016001	38	FITTING	4220000004
11	BOLT M12 x 1.75		39	BOLT 5/8-NF x 3 1/2	
12	SHOCK ABSORBER	242621	40	BOLT ½-NF x 10	
13	LEAF SPRING, REAR	5040003	41	RIGHT CALIPER	5016002
14	SHACKLE LINK	6640001		LEFT CALIPER	5016003
15	RUBBER BUSHING	242602		PADS	5016004
16	48" O.W. HOUSING	2177501001	42	FLEX. HOSE	481432
	54" O.W. HOUSING	6674013	50	SPECIFY VEHICLE SER. NO	
17	BOLT 5/8-NC x 3 1/2		52	HYDRAULIC MANIFOLD	4110501002
18	LOCK NUT 5/8-NC		60	SPECIFY VEHICLE SER. NO	
19	MOUNTING PLATE	2185501001		HYDRAULIC PUMP	50740014
20	NUT ½-NF				

ENGINE MUFFLER & MOUNTING, KUBOTA DIESEL

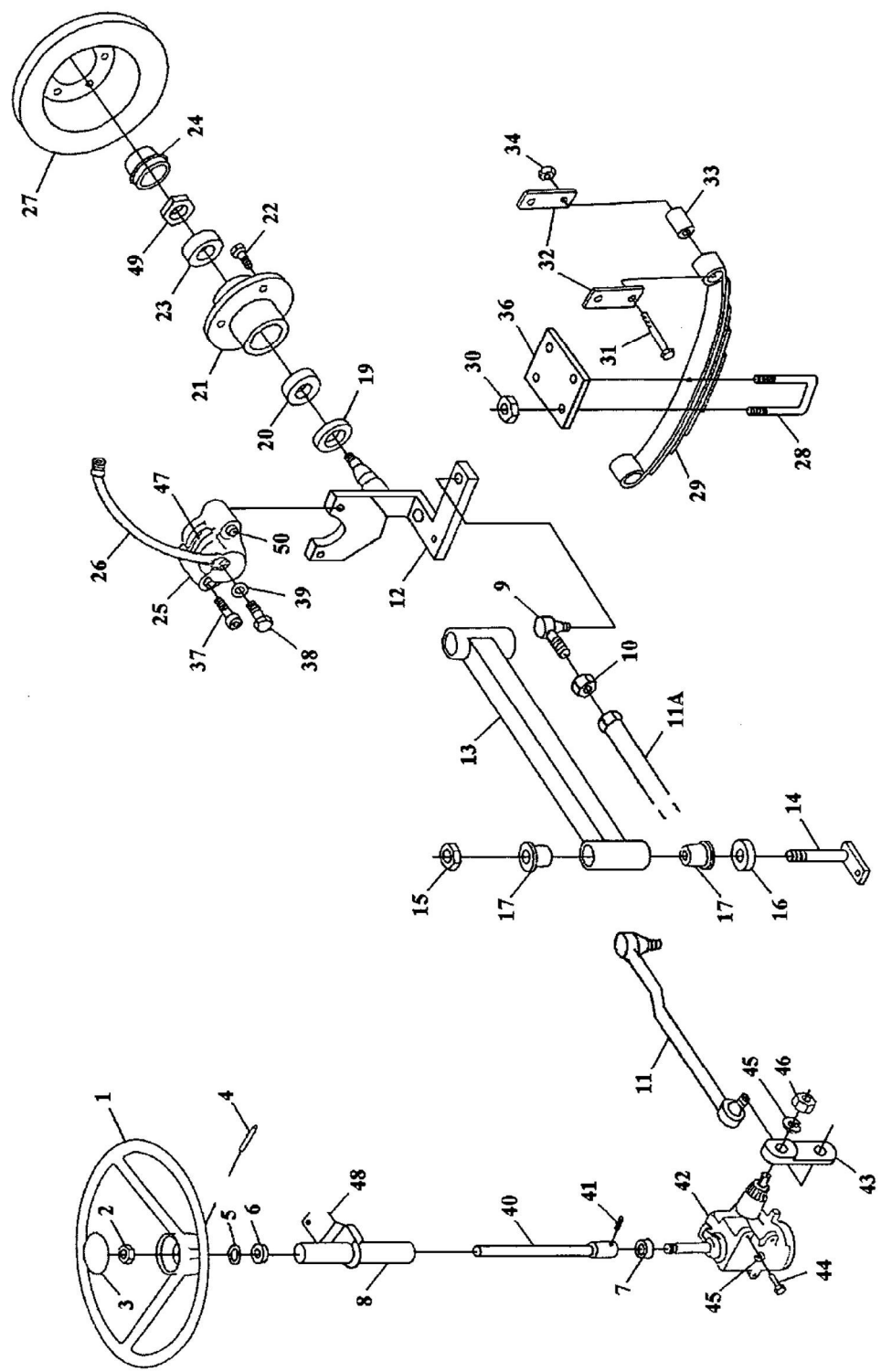


REF	DESCRIPTION	PART #	REF	DESCRIPTION	PART #
1	TURBO PRECLEANER	6650001	13	90° DEGRES EXHAUST	1E01912192
2	TURBO PRECLEANER HOLDER	2169501018	14	EXHAUST GASKET	
3	FLEX COUPLING	2912000003	15	CATALITIC MUFFLER	2157501001
4	AIR FILTER BOX	5080012	16	MUFFLER HOLDER	2169501023
5	AIR FILTER	6650005	17	RUBBER MOUNT MUFFLER	2169501026
	FILTER PROTECTOR (TUBE)	2169501005	18	MOTOR SUPPORT - REAR	2160501002
	FILTER PROTECTOR (BOX)	2169501007	19	MOTOR SUPPORT – FRONT	2160501006
6	ELBOW HOSE	2912000002	20	H.D. RUBBER MOUNT	2160124001
7	HEATHER	6690002	21	OIL FILTER	2153501001
8	HOSE	6690001B	22	FLYWHEEL	6650024
	HOSE ADAPTOR - HEATHER	2819501002	23	MOTOR COUPLING	6650010
9	DIFFUSER	6690001D	24	PUMP COUPLING	6650009
10	FITTING	2819501007	25	ADAPTOR – MOTOR/PUMP	6650008
11	RADIATOR	6650018			
	RADIATOR HOLDER	2169501001			
	RESERVE TANK - PRESTONE	2604501002			
12	ELECTRIC FAN	5069004			

BRAKE CONTROLS

REF	PART NO	DESCRIPTION	QTY	REF	PART NO	DESCRIPTION	QTY
1	242800	RUBBER	1	14	6685001	ACCELERATOR PEDAL	1
5	242816	SPRING	1	15	CALL	ACCELERATOR CABLE	1
6	2131501001	LEVER	1		FACTORY		
7	262807	PIVOT	2	30	3616013	8 in. HANDBRAKE LEVER	1
8	242817	LUBRICATING FITTING	1	31	162831A	CABLE	2
9		CLEVIS PIN 3/8 X 1	1	32	5016001	CABLE STOP	2
10	122813	YOKE	1	33	3016004	CABLE RETAINER	2
11	362805	MASTER CYLINDER	1				
12		BOLT 3/8-NC X 3	2				

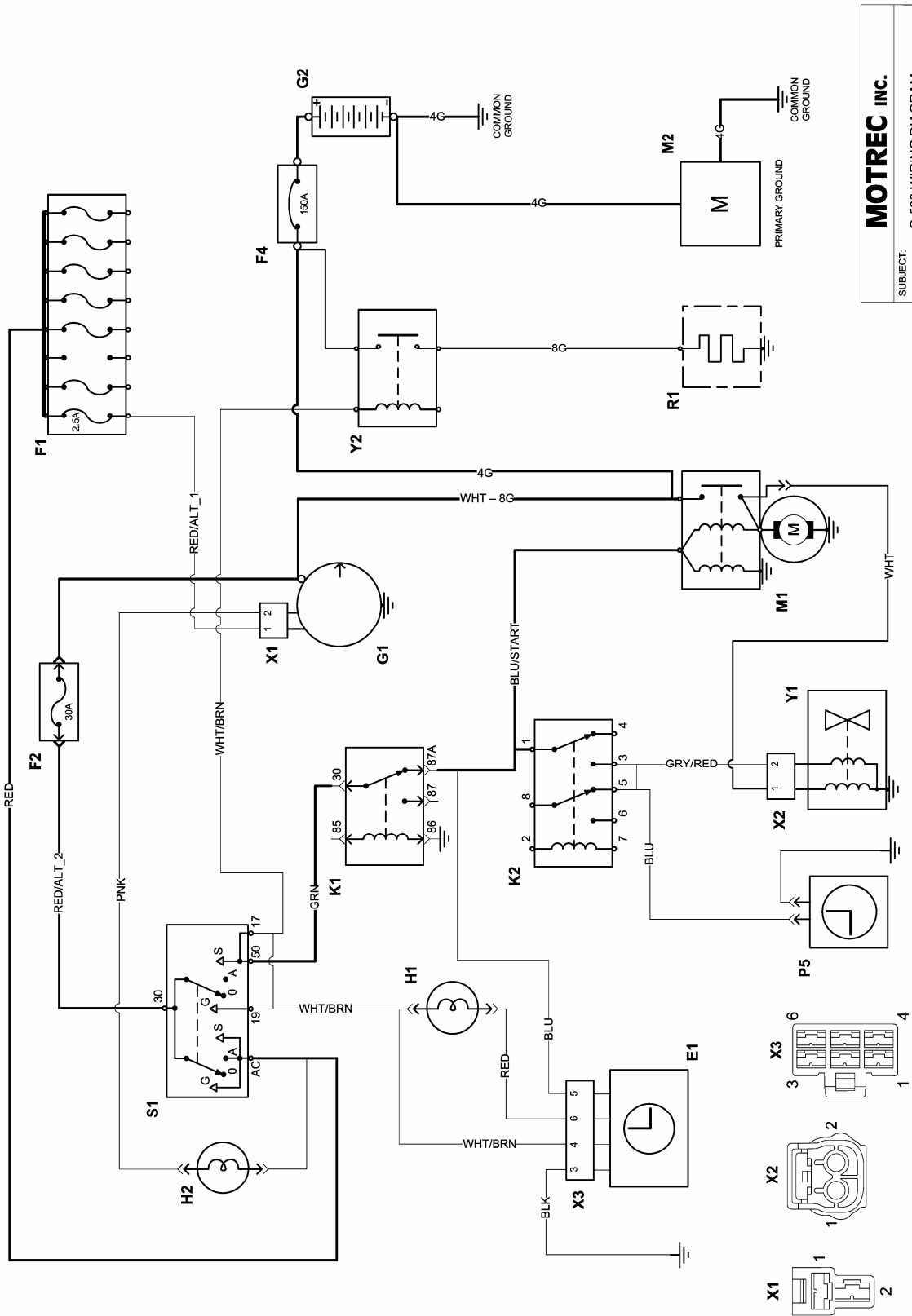
FRONT ASSEMBLY



<i>REF</i>	<i>PART NO</i>	<i>DESCRIPTION</i>	<i>REF</i>	<i>PART NO</i>	<i>DESCRIPTION</i>
1	481451	STEERING WHEEL	25	481431	RIGHT CALIPER
2	481452	NUT 3/4-16		481430	LEFT CALIPER
3	481453	COVER	26	481432	FLEX. HOSE
4	481454	PIN	27	481433	DISC
5	3030021	OIL SEAL	28	361425	U-BOLT
6	3030020	BUSHING	29	4840001	LEAF SPRINGS
7	481457	BUSHING			LEAF SPRING (4000 lbs.)
8	481458	TUBE	30		NUT 1/2-NF
9	401409	ROD END	31		BOLT 5/8-NC
		LEFT HAND	32	481439	SHACKLE LINK
	401423	ROD END	33	242602	BUSHING
		RIGHT HAND	34		NUT 5/8-NC
10	481435	NUT, LEFT HAND	36	3640002	PLATE
	481436	NUT, RIGHT HAND	37	481434	BOLT, LONG
11	481459	FRONT TIE ROD		481442	BOLT, SHORT
11A	481460	REAR TIE ROD	38	481440	BOLT
12	481461	RIGHT SPINDLE	39	481441	WASHER
	481462*	RIGHT SPINDLE	40	481465	SHAFT
	481463	LEFT SPINDLE	41	481466	SCREW
	481472*	LEFT SPINDLE	42	481467	GEAR
13	481464	AXLE BEAM	43	481468	ARM
14	481413	KING PIN	44		BOLT 7/16-NC
15	481473	NUT 3/4-NF	45	481470	LOCK WASHER
16	481414	THRUST BEARING	46	481471	NUT
17	481437	BUSHING	47	481438	PADS
19	361417	OIL SEAL	48	481474	STEERING SUPPORT
20	361418	TAPER BEARING	49	261422	CASTELLATED NUT
21	361419	HUB	50	3614002	BUSHING, LONG
22	361420	WHEEL BOLT		3614003	BUSHING, SHORT
23	361421	TAPER BEARING			
24	361422	DUST CAP			

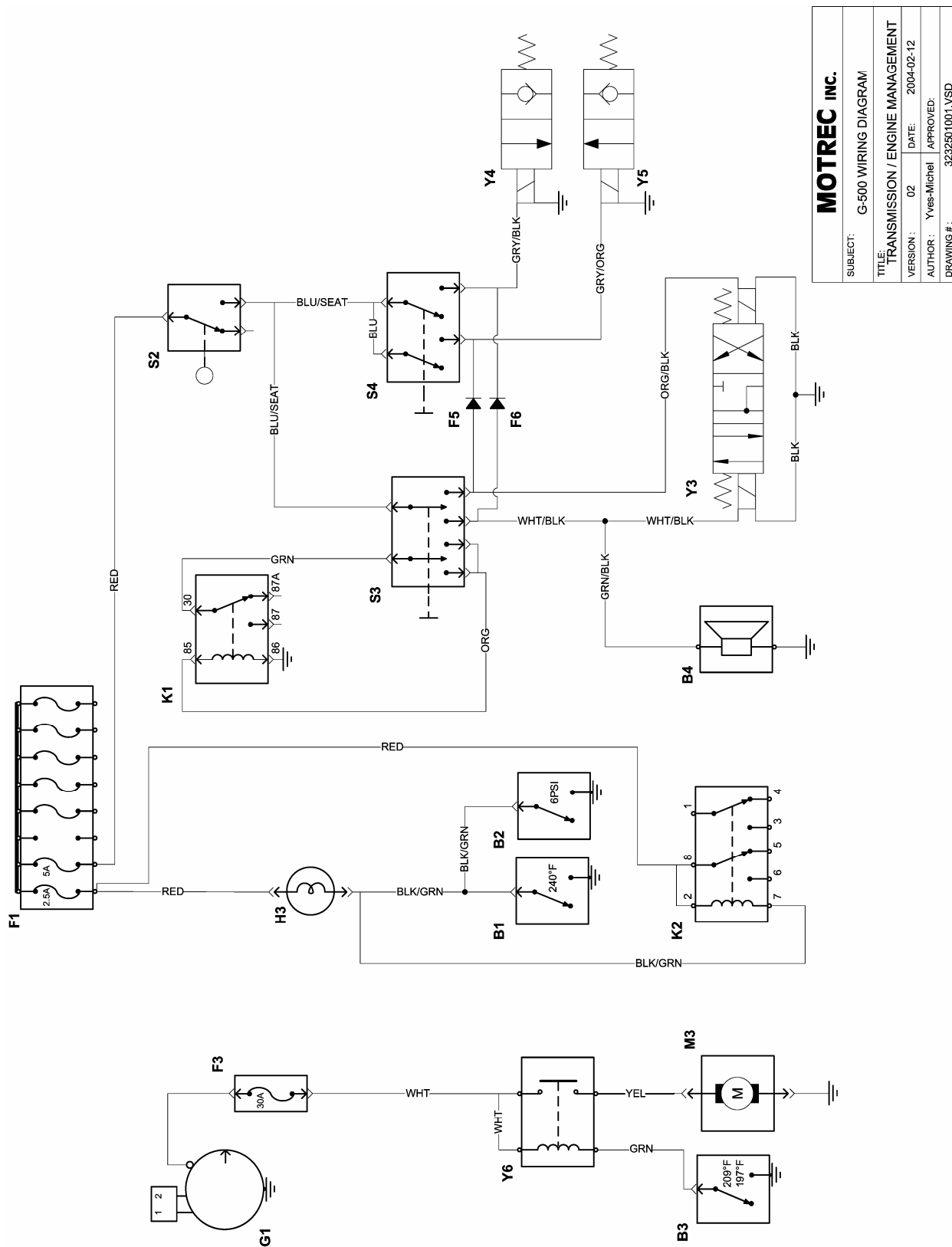
*Front axle with hydraulic disc brakes

ELECTRICAL DIAGRAM – START / CHARGE CIRCUIT



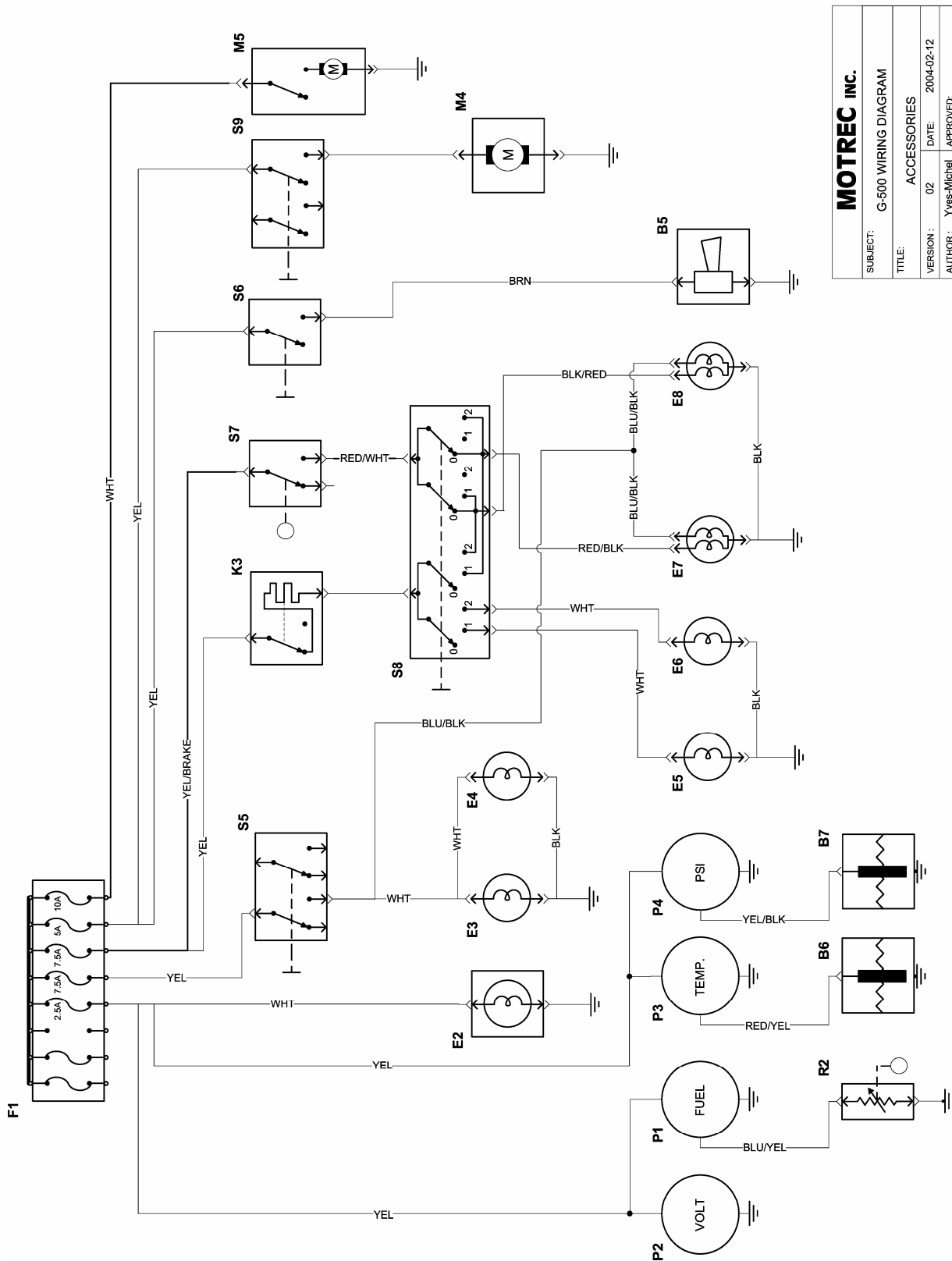
MOTREC INC.			
SUBJECT:	G-500 WIRING DIAGRAM		
TITLE:	START / CHARGE CIRCUIT		
VERSION :	02	DATE:	2004-02-12
AUTHOR :	Yves-Michel	APPROVED:	
DRAWING # :	3232501001.VSD		

ELECTRICAL DIAGRAM – TRANSMISSION / ENGINE MANAGEMENT



MOTREC INC.			
SUBJECT:	G-500 WIRING DIAGRAM		
TITLE:	TRANSMISSION / ENGINE MANAGEMENT		
VERSION :	02	DATE:	2004-02-12
AUTHOR :	Yves-Michel	APPROVED:	
DRAWING # :	3232501001.VSD		

ELECTRICAL DIAGRAM – ACCESSORIES



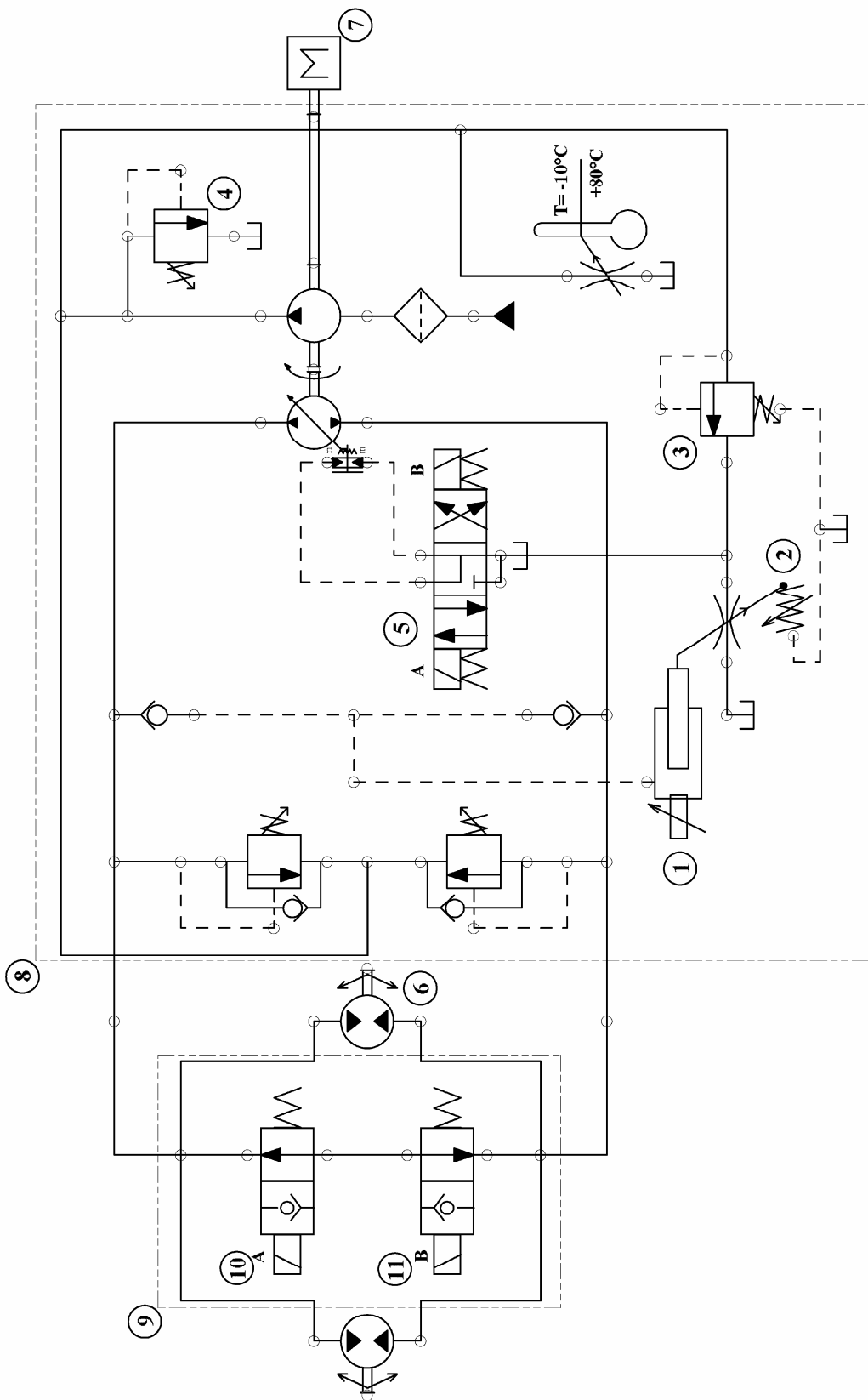
MOTREC INC.			
SUBJECT:	G-500 WIRING DIAGRAM		
TITLE:	ACCESSORIES		
VERSION :	02	DATE:	2004-02-12
AUTHOR :	Yves-Michel	APPROVED:	
DRAWING # :	3232501001.VSD		

PARTS LIST

NO	DESIGNATION	REF	QTY
B1	EMERGENCY THERMAL SWITCH	16222-83040	1
B2	EMERGENCY PRESSURE SWITCH	3109501001	1
B3	THERMAL SWITCH, COOLING FAN	TS156	1
B4	REVERSE ALARM	246051	1
B5	HORN	246003	1
B6	COOLANT TEMPERATURE SENDER	100183S	1
B7	OIL PRESSURE SENDER	100173S	1
E1	GLOW PLUG TIMER	-	1
E2	STROBOSCOPE	3690007	1
E3-E4	HEAD LAMP	3069012	2
E5-E6	SIDEMARKER	3069020	2
E7-E8	TAIL/BRAKE LIGHT	2469021	2
F1	AGC FUSE HOLDER	5069005	1
F2-F3	IN-LINE FUSE HOLDER	4890028	2
F4	CIRCUIT BREAKER	3107000001	1
F5-F6	DIODE	367012	2
G1	ALTERNATOR	-	1
G2	BATTERY	-	1
H1	GLOW PLUG LAMP	-	1
H2	CHARGE LAMP	246212	1
H3	EMERGENCY LAMP	246212	1
K1	RELAY 12V, F/R INTERRUPT	3069010	1
K2	RELAY 12V, MOTOR MAINTAIN	3127501001	1
K3	FLASHER RELAY	3064004	1
M1	STARTER	-	1
M2	INTERNAL COMBUSTION MOTOR	-	1
M3	RADIATOR COOLING FAN	5069004	1
M4	CAB HEATER FAN	6690002	1
M5	WIPER MOTOR	3113000001	1
P1	FUEL GAUGE	686203	1
P2	VOLTMETER	3069007	1
P3	ENGINE COOLANT TEMP GAUGE	100183	1
P4	OIL PRESS GAUGE	100173	1
P5	HOUR METER	3069008	1
R1	GLOW PLUGS	-	1
R2	FUEL SENDER	686207	1
S1	IGNITION SWITCH	1E01363591	1
S2	SEAT SWITCH	3109000003	1
S3	FORWARD/REVERSE SELECTOR	266211	1
S4	FREEWHEEL SWITCH	55017	1
S5	HEADLIGHT SWITCH	1269004	1
S6	HORN BUTTON	246210	1
S7	BRAKE SWITCH	246207	1
S8	TURN SIGNAL SWITCH	246050	1
S9	CAB HEATER SWITCH	55017	1
Y1	FUEL SOLENOID VALVE (ENGINE)	-	1

Y2	GLOW PLUG SOLENOID	246101	1
Y3	HYDRAUSTATIC DISTRIBUTOR	-	1
Y4-Y5	FREEWHEEL VALVE	SV16-23	2
	FREEWHEEL BLOCK KIT	4110501003	1
Y6	COOLING FAN SOLENOID	246101	1
X1	ALTERNATOR CONNECTOR	-	1
X2	FUEL VALVE CONNECTOR	-	1
X3	GLOW PLUG TIMER CONNECTOR	-	1

HYDRAULIC DIAGRAM



MOTREC inc.			
SUBJECT:	G-500 HYDRAULIC DIAGRAM		
TITLE:	DIESEL KUBOTA		
VERSION :	01	DATE:	JULY '16 2004
AUTHOR :	Y.-M.T.	APPROVED:	
DRAWING # :	4.311501002		

PARTS LIST

NO	DESIGNATION	REF	QTY
1	MACHINE START-UP ADJ. SCREW		
2	POWER LIMITER ADJ. SCREW		
3	MIN. CHARGE PRESSURE ADJ. SCREW		
4	CHARGE PRESSURE ADJ. SCREW		
5	HYDROSTATIC VALVE	5074017	0
6	HYDRAULIC MOTOR	Contact manuf.	2
7	DIESEL ENGINE 42HP	5080007	1
8	HYDRAUSTATIC PUMP	5070014	1
9	FREEWHEEL MANIFOLD	4110501003	1
10	FREEWHEEL SOLENOID	SV16-23	2

MOTREC ILLUSTRATED ACCESSORIES

 <p>Strobelight, polemount Amber 12-80V: 3690007 Red 12-80V: 2469001 Blue 12-80V: 3690008</p>	 <p>Red Tail/Brake light Housing: 3069012R Bulb 12V: 3117240001</p>	 <p>Headlight Left: 3111480009 Right: 3111480010 Bulb H/L: 3111480011 Bulb Turn: 3111480012 Bulb Mark: 3111480013</p>	 <p>Horn button VIP 2330014</p>
 <p>Strobelight, cab mount Amber 12-48V: 3116250001 Red 12-48V: 3069026 Blue 12-48V: 3069014 Amber 72-80V: 3116720001 Red 72-80V: 3116720002 Blue 72-80V: 3116720003</p>	 <p>Back-up lamp Grommet: 3269001 12V: 3669012 24V: 3669012A</p>	 <p>Turn signal switch 246050</p>	 <p>Horn button, column mount 246210</p>
 <p>Amber turn lamp 12V: 3069020 Bulb 12V: 3069021</p>	 <p>Clear lamp 12V: 3069012 Bulb 12V: 1269008</p>	 <p>Analog Voltmeter 12V : 3069007 24V : 2469002 36-48V : 3669002</p>	 <p>Horn button, dash mount 266210</p>
 <p>Red Tail/Brake light Grommet: 3269001 Plug: 246012A 12V : 2469021 24V : 2469022</p>	 <p>Pedestral head lamp 12V: 2569001 Bulb 12V: 2569001B Bulb 24V: 4469001</p>	 <p>HOBBS Gauge 24V: 2469026 36V: 3069038 48V: 4869037</p>	 <p>Horn button 3109250001</p>
 <p>Red Tail/Brake light 12V: 386002</p>	 <p>Headlight Left: 3111480003 Right: 3111480004 Bulb H/L: 3111480006 Bulb Turn: 3111480008 Bulb Mark: 3111480007</p>	 <p>Horn 12V: 246003 24V: 246013</p>	 <p>Limit switch 3030015</p>  <p>Back-up alarm 12-48V : 246051 72-80V : 3105720001</p>

<div data-bbox="246 239 435 390"></div> <div data-bbox="177 390 493 453"> DC-DC converter, 10A 12-48V: 3069019 </div> <hr/> <div data-bbox="246 485 435 604"></div> <div data-bbox="177 604 493 699"> DC-DC Converter, 25A 12-48V: 3124000002 72-80V: 3124720001 </div> <hr/> <div data-bbox="246 737 435 842"></div> <div data-bbox="177 848 493 942"> Wiper motor 12V: 366211 24V: 486211 </div>	<div data-bbox="586 249 769 323"></div> <div data-bbox="516 354 828 390"> Wiper arm 2800000001 </div> <hr/> <div data-bbox="586 474 769 533"></div> <div data-bbox="516 575 828 669"> Wiper blade 14" Blade: 2800000001 18" Blade: 2800000002 </div> <hr/> <div data-bbox="586 753 769 837"></div> <div data-bbox="516 858 828 921"> Pantograph wiper arm 246233A </div> <hr/> <div data-bbox="586 1005 769 1058"></div> <div data-bbox="516 1100 828 1163"> Pantograph wiper blade 246233 </div>	<div data-bbox="932 239 1101 369"></div> <div data-bbox="854 375 1167 495"> Cab heater 12V: 4869018 36V: 3669008 48V: 4869020 </div> <hr/> <div data-bbox="932 564 1101 674"></div> <div data-bbox="854 701 1167 732"> 12V Dome light 3669006 </div> <hr/> <div data-bbox="948 764 1089 963"></div> <div data-bbox="854 974 1167 1005"> 12V Fan 3669013 </div>	<div data-bbox="1273 239 1435 417"></div> <div data-bbox="1192 428 1503 459"> Headlamp 12V:3111250001 </div> <hr/> <div data-bbox="1256 491 1435 680"></div> <div data-bbox="1192 690 1503 785"> Headlamp 12V: 3111300001 Bulb 12V: 3111300002 </div> <hr/> <div data-bbox="1256 827 1419 911"></div> <div data-bbox="1192 932 1503 1026"> Red Pilot light 12V: 246212 Bulb 12V: 246212B </div>
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