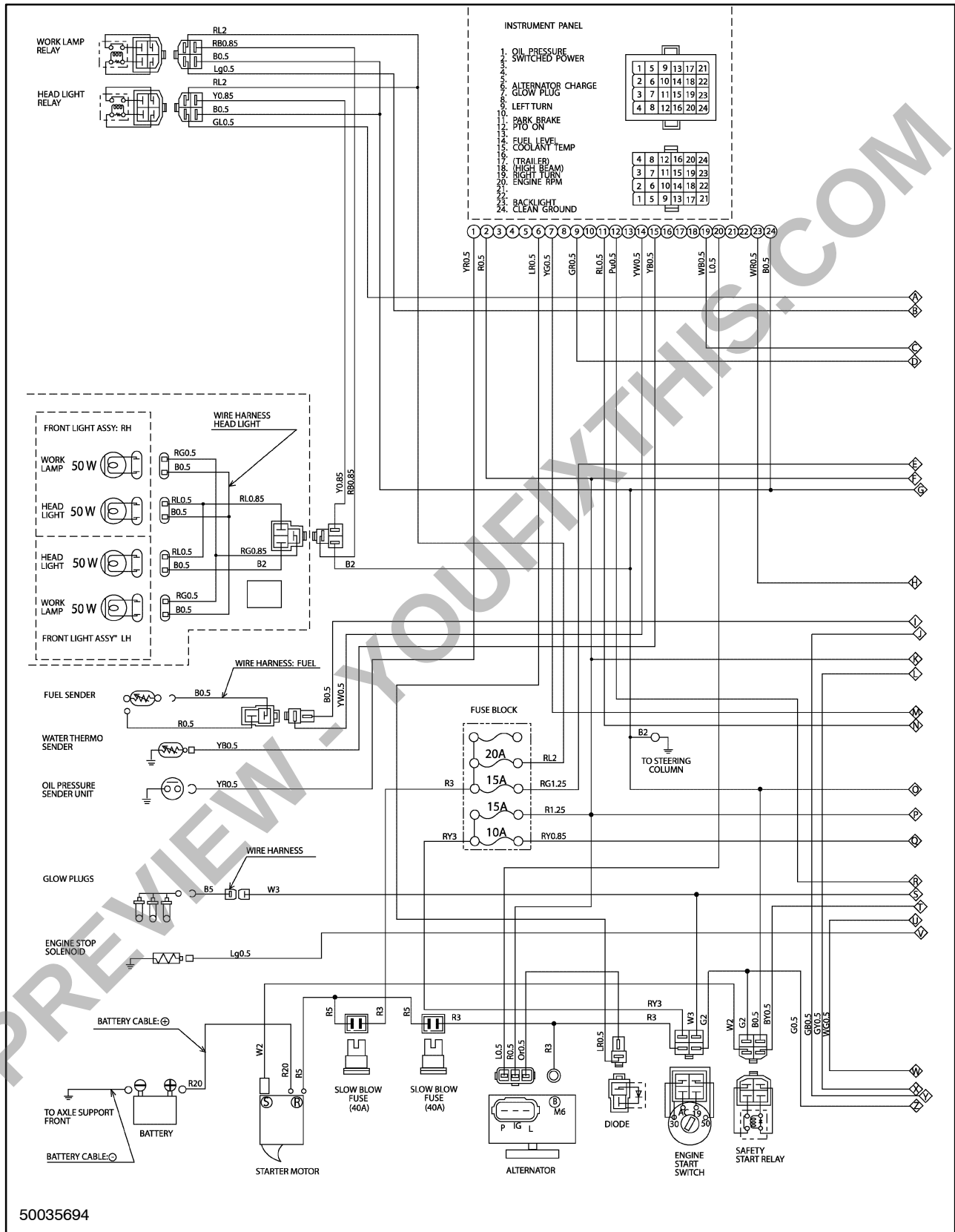
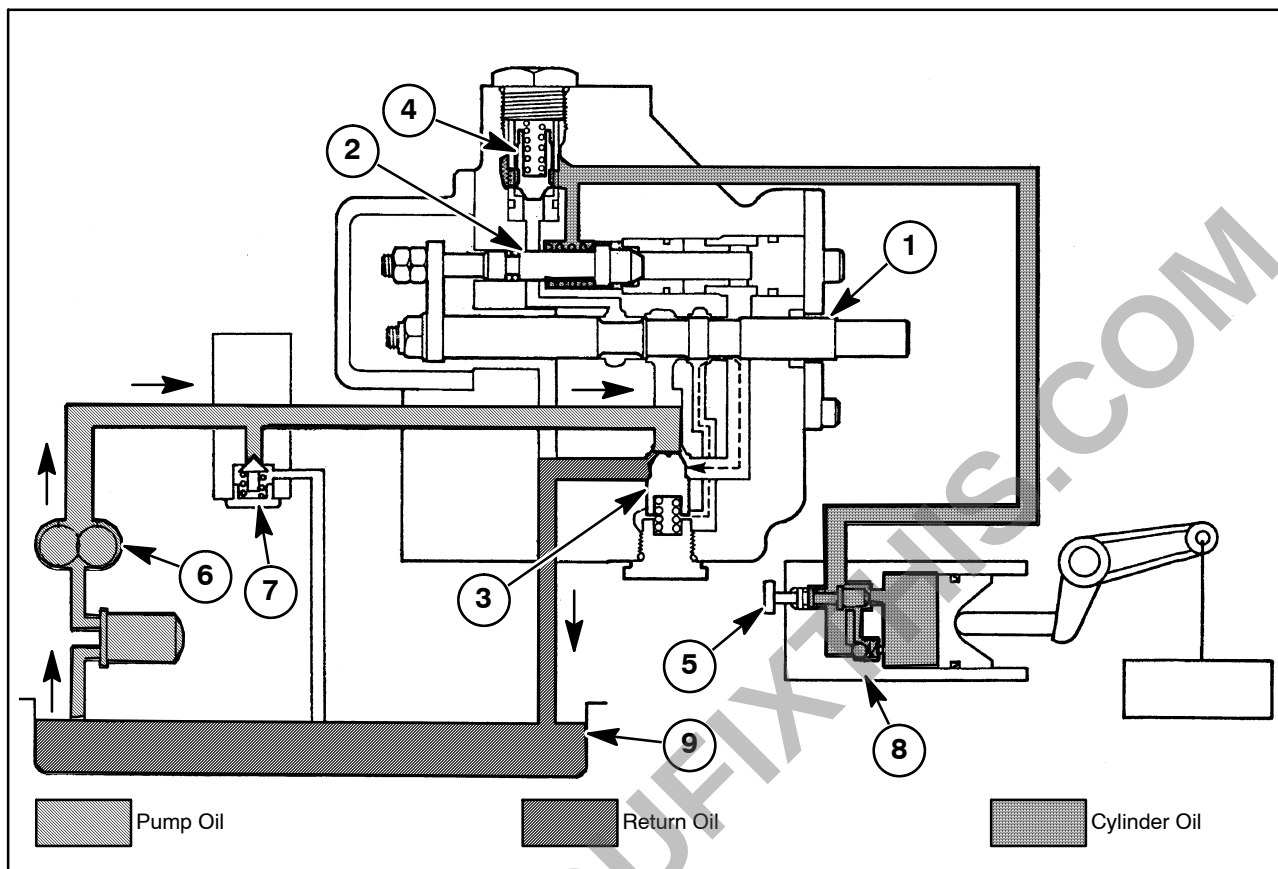


ELECTRICAL WIRING DIAGRAM





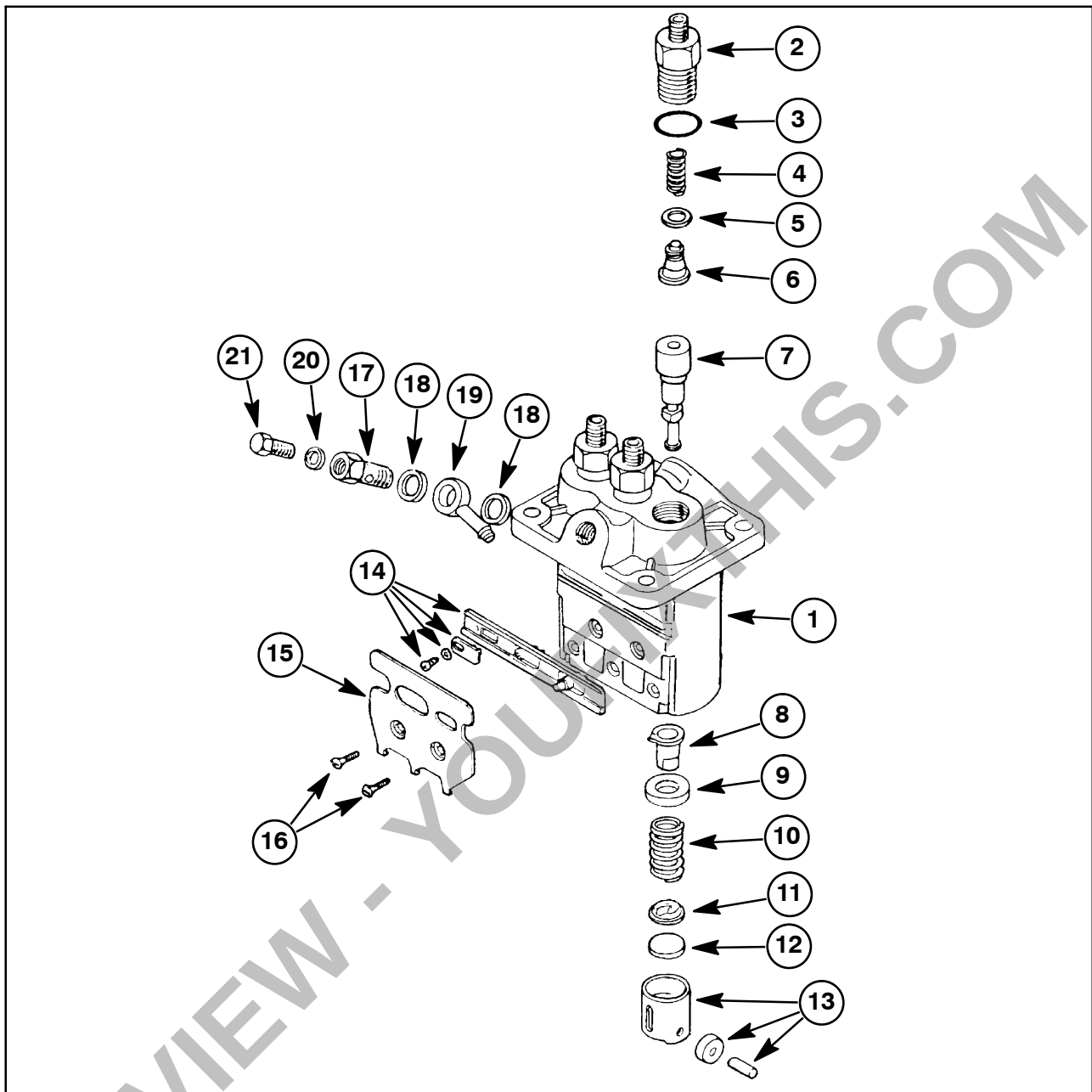
8

- | | |
|-------------------------|-----------------------------------|
| 1. Control Valve Spool | 6. Hydraulic Pump |
| 2. Lowering Valve Spool | 7. Diverter Relief Valve Manifold |
| 3. Unload Valve | 8. Hydraulic Cylinder |
| 4. Check Valve | 9. Sump |
| 5. Flow Control Valve | |

Op. 35 210**OIL FLOW****Neutral Position**

In the "neutral" position, the control valve spool, 1, is centered in the valve body. Oil pressure from the hydraulic pump, 6, is directed into the valve body. Since the control valve spool is centered, and is blocking all working ports of the valve, the oil pressure is directed to the front of the unload valve, 3. The oil pressure overcomes the spring pressure of the unload valve and opens the unload valve. The pump oil pressure then exits the valve returning to the reservoir.

The oil trapped in the lift cylinder, 8, under weight caused by the implement on the lift arms, exerts pressure on the cylinder side of the check valve, 4. This pressure holds the check valve in the closed position. The lowering valve spool, 2, retains the fluid in the lift cylinder and maintains the implement in a fixed position.



2

FUEL INJECTION PUMP

- | | |
|----------------------------|---------------------|
| 1. Housing Assembly | 12. Plate |
| 2. Delivery Valve Holder | 13. Tappet Assembly |
| 3. O Ring | 14. Rack Assembly |
| 4. Delivery Valve Spring | 15. Bracket |
| 5. Gasket | 16. Screw |
| 6. Valve and Seat Assembly | 17. Hollow Bolt |
| 7. Element Assembly | 18. Washer |
| 8. Sleeve Assembly | 19. Nipple |
| 9. Upper Spring Seat | 20. Washer |
| 10. Plunger Spring | 21. Screw |
| 11. Lower Spring Seat | |

MINIMUM HARDWARE TIGHTENING TORQUES

IN FOOT POUNDS (NEWTON-METERS) FOR NORMAL ASSEMBLY APPLICATIONS

INCH HARDWARE AND LOCKNUTS

NOMINAL SIZE	SAE GRADE 2		SAE GRADE 5		SAE GRADE 8		LOCKNUTS		NOMINAL SIZE
	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	UNPLATED or PLATED SILVER	PLATED W/ZnCr GOLD	GR.B w/GR5 BOLT	GR.C w/GR8 BOLT	
1/4	55* (6.2)	72* (8.1)	86* (9.7)	112* (13)	121* (14)	157* (18)	61* (6.9)	86* (9.8)	1/4
5/16	115* (13)	149* (17)	178* (20)	229* (26)	250* (28)	324* (37)	125* (14)	176* (20)	5/16
3/8	17 (23)	22 (30)	26 (35)	34 (46)	37 (50)	48 (65)	19 (26)	26 (35)	3/8
7/16	27 (37)	35 (47)	42 (57)	54 (73)	59 (80)	77 (104)	30 (41)	42 (57)	7/16
1/2	42 (57)	54 (73)	64 (87)	83 (113)	91 (123)	117 (159)	45 (61)	64 (88)	1/2
9/16	60 (81)	77 (104)	92 (125)	120 (163)	130 (176)	169 (229)	65 (88)	92 (125)	9/16
5/8	83 (112)	107 (145)	128 (174)	165 (224)	180 (244)	233 (316)	90 (122)	127 (172)	5/8
3/4	146 (198)	189 (256)	226 (306)	293 (397)	319 (432)	413 (560)	160 (217)	226 (306)	3/4
7/8	142 (193)	183 (248)	365 (495)	473 (641)	515 (698)	667 (904)	258 (350)	364 (494)	7/8
1	213 (289)	275 (373)	547 (742)	708 (960)	773 (1048)	1000 (1356)	386 (523)	545 (739)	1

NOTE: Torque values shown with * are inch pounds.

IDENTIFICATION CAP SCREWS AND CARRIAGE BOLTS



SAE GRADE 2



SAE GRADE 5



SAE GRADE 8



REGULAR NUTS



SAE GRADE 5
HEX NUTS



SAE GRADE 8
HEX NUTS

LOCKNUTS

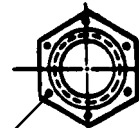


GRADE IDENTIFICATION

GRADE A NO NOTCHES

GRADE B ONE CIRCUMFERENTIAL NOTCH

GRADE C TWO CIRCUMFERENTIAL NOTCHES



GRADE IDENTIFICATION

GRADE A NO MARKS

GRADE B THREE MARKS

GRADE C SIX MARKS

MARKS NEED NOT BE LOCATED
AT CORNERS



GRADE IDENTIFICATION

GRADE A NO MARK

GRADE B LETTER B

GRADE C LETTER C

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTION
Engine does not develop full power	Clogged air cleaner	Inspect and replace air cleaner if necessary
	Fuel line obstructed	Check for crimping fuel line. Inspect fuel filter for cleanliness. Repair/replace components as required
	Improper injection Timing	Correct injection timing
	Improper nozzle injection pressure and angle	Inspect for proper injection pressure and angle
	Low cylinder compression	Check engine compression
	Insufficient fuel injection	Repair at authorized shop
	Improper valve lash adjustment	Adjust valves to correct tolerances
	Burned, worn, or sticking valves	Inspect and replace as necessary
	Blown head gasket	Replace head gasket
	Worn or sticking piston rings	Overhaul as necessary
	Faulty engine stop solenoid	Replace stop solenoid
Low oil pressure	Engine oil level low	Fill to proper level
	Wrong grade oil	Replace with correct grade oil
	Clogged oil filter	Change oil filter
	Faulty oil pressure relief valve	Replace relief valve
	Worn oil pump gears, or broken pipe	Inspect oil system and components. Replace defective components
	Excessive main or connecting rod bearing clearance	Replace bearings or crankshaft if necessary
Engine will not stop	Faulty engine stop solenoid	Replace stop solenoid
	Faulty starter switch	Replace starter switch

SPECIFICATIONS

	Model TC21DA— Hydrostatic/Gear	Model TC24DA— Hydrostatic/Gear
ENGINE		
Type	Diesel	Diesel
Engine Gross Horsepower	21.0	24.0
Cylinders	3	3
Bore	77 mm (3.03")	77 mm (3.03")
Stroke	72 mm (2.83")	81 mm (3.19")
Displacement	1.005 L (61.3 cu. in.)	1.131 L (69.0 cu. in.)
Compression Ratio	23:1	22:5
Firing Order	1-2-3	1-2-3
Low Idle Speed	1100-1200 RPM	1100-1200 RPM
Maximum Speed:		
High Idle	2800-2850 RPM	2800-2850 RPM
Rated	2600 RPM	2600 RPM
Valve Clearance (Cold):		
Intake	0.20 mm (0.008")	0.20 mm (0.008")
Exhaust	0.20 mm (0.008")	0.20 mm (0.008")
CAPACITIES		
Fuel Tank	20 liters/ 5.3 U.S. gals.	20 liters/ 5.3 U.S. gals.
Cooling System	3.5 liters/ 3.7 U.S. qts.	3.5 liters/ 3.7 U.S. qts.
Engine Crankcase:		
Less Filter	3.0 liters/ 3.2 U.S. qts.	3.0 liters/ 3.2 U.S. qts.
With Filter Change	3.3 liters/ 3.5 U.S. qts.	3.3 liters/ 3.5 U.S. qts.
Rear Axle & Transmission (Includes Hydraulics)	16 liters/ 4.23 U.S. gals.	16 liters/ 4.23 U.S. gals.
Front Axle Final Reduction	0.8 liter/ 0.85 U.S. qt. per side	0.8 liter/ 0.85 U.S. qt. per side
Differential Gear Case	1 liter/ 1.06 U.S. qts.	1 liter/ 1.06 U.S. qts.

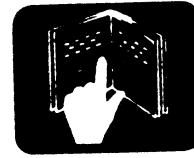
INSTRUCTION DECALS



Parking Brake

PART NO: SBA390194270

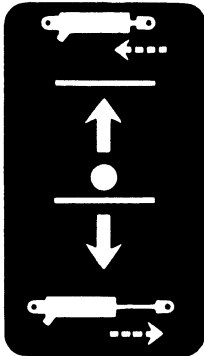
LOCATION: On L.H. Side of Parking
Brake Lever



Hydraulic Manifold Operation

PART NO: SBA390192850

LOCATION: Side of Hydraulic
Manifold and Air Filter Cap

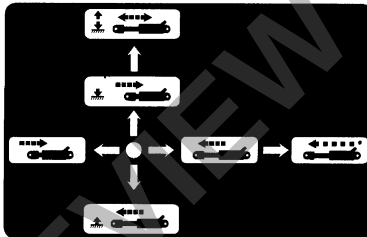


(Optional)

Operating Remote Control Valve - Single

PART NO: SBA390370300

LOCATION: R.H. Side Under Seat
(next to control handle)



(Optional)

Two Spool Remote Operation

PART NO: SBA86532911

LOCATION: On Remote Control Cover

WATCH YOUR PROOF METER HOURS LUBRICATION AND MAINTENANCE SERVICE INTERVALS				
LUBRICATION AND MAINTENANCE ITEM	CHECK	CLEAN	LUBE	ADJUST
Radiator Coolant	•			
Engine Oil Level	•			
Air Cleaner	•			
Transmission Oil Level	•			
Power Steering Oil Level	•			
Front Diff Oil Level	•			
Front Axle Oil Level	•			
Tires	•			
Clutch Pedal	•			•
Battery	•			
Lubrication Fittings	•			
Steering Linkage	•			
2-Wheel Drive King Pins	•			
3-Point Linkage	•			
Pivot Shaft	•			
Pedal Shaft	•			
Brake Pedal	•			
Drive Shaft Cover	•			
H.S.T. Foot Pedal Shaft	•			
Power Steering	•			
Engine Oil			•	
Engine Oil Filter			•	
Fuel Filter			•	
Air Cleaner			•	
Fuel Filter			•	
Fan Belt			•	
Brakes			•	
H.S.T. Cartridge Filter			•	
Front Axle Oil			•	
Front Diff Oil			•	
Hydraulic Filter			•	
Transmission Oil			•	
Fuel Injectors			•	
Valve Clearance			•	
Front Wheel Bearings			•	
Power Steering Oil			•	
Radiator Coolant				•
Air Cleaner Element				•

Refer to your Operator's Manual
for additional information

Lubrication and Maintenance Intervals

PART NO: SBA390198350

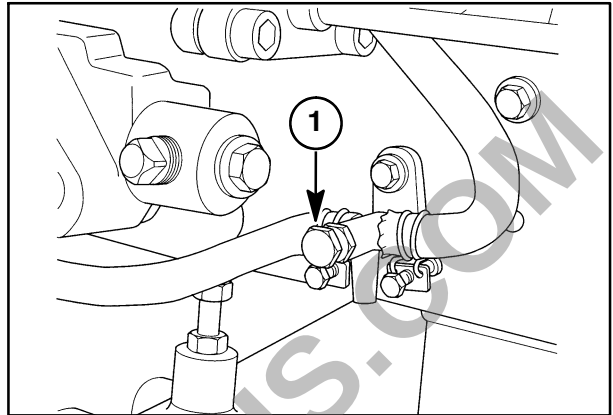
LOCATION: Underside of Hood

OVERHAUL - ENGINE

ENGINE PREPARATION

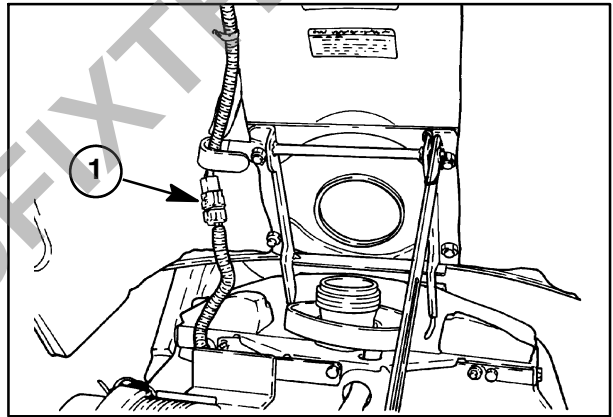
Disassembly

1. Open the radiator drain, 1, and drain and remove the radiator assembly. See "Radiator Removal" discussed later in this section.



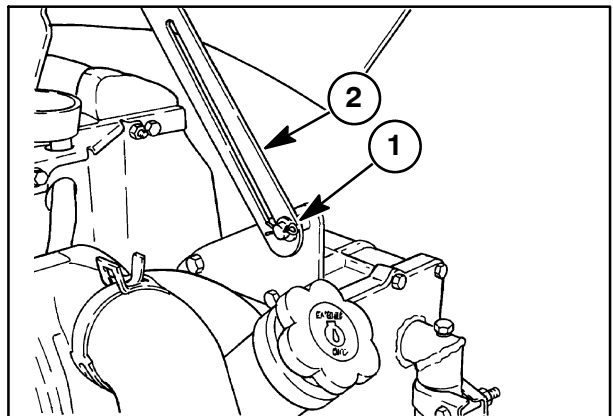
3

2. Disconnect the electrical connector, 1, for the head lamps.



4

3. Remove the clip pin, 1, from the hood support, 2, and gradually lower the hood.



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PRECAUTIONARY STATEMENTS

PERSONAL SAFETY

Throughout this manual and on machine decals, you will find precautionary statements (“**DANGER**”, “**WARNING**”, and “**CAUTION**”) followed by specific instructions. These precautions are intended for the personal safety of you and those working with you. Please take the time to read them.



DANGER



This word “**DANGER**” indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.



WARNING



This word “**WARNING**” indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.



CAUTION



This word “**CAUTION**” indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

FAILURE TO FOLLOW THE “**DANGER**”, “**WARNING**”, AND “**CAUTION**” INSTRUCTIONS MAY RESULT IN SERIOUS BODILY INJURY OR DEATH.

MACHINE SAFETY

The precautionary statement (“**IMPORTANT**”) is followed by specific instructions. This statement is intended for machine safety.

IMPORTANT: The word “**IMPORTANT**” is used to inform the reader of something he needs to know to prevent minor machine damage if a certain procedure is not followed.

INFORMATION

NOTE: Instructions used to identify and present supplementary information.

SECTION 10 - ENGINE SYSTEMS

BOOK 1 - 87053136

Chapter 1 - Engine Systems (Continued)

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	Flywheel	17
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18 110	Cylinder Head	18
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	Cylinder Head	24
	Assembly	24
	Cylinder Block	24
	Inspection	24
10 105	Pistons, Piston Rings, and Connecting Rods	25
	Disassembly	25

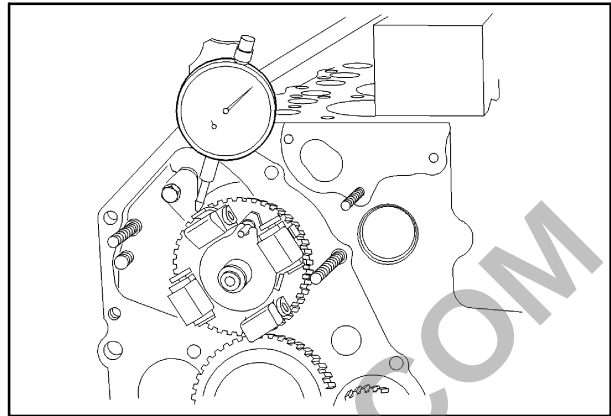
	Model TC21DA— Hydrostatic/Gear	Model TC24DA— Hydrostatic/Gear
COOLING SYSTEM		
Type	Pressurized Liquid with Recirculating Bypass	Pressurized Liquid with Recirculating Bypass
Water Pump:		
Type	Centrifugal	Centrifugal
Drive	V-Belt	V-Belt
Belt Deflection	10 mm-15 mm (7/16"-9/16") when 9-11 kg (20-25 lbs.) thumb pressure is applied mid- way between belt pulleys	10 mm-15 mm (7/16"-9/16") when 9-11 kg (20-25 lbs.) thumb pressure is applied mid- way between belt pulleys
Fan Diameter	335 mm (13.19")	335 mm (13.19")
Thermostat:		
Start to Open	82°C (200°F)	82°C (200°F)
Fully Open	95°C (228.6°F)	95°C (228.6°F)
Radiator Cap	0.9 bar (13 PSI)	0.9 bar (13 PSI)
ELECTRICAL SYSTEM		
Alternator	12-volt, heavy-duty, 40 amps	12-volt, heavy-duty, 40 amps
Battery	12-volt, w/ negative ground, 325 cca	12-volt, w/ negative ground, 325 cca
Starting Motor	Solenoid Pre-Engaged Reduction	Solenoid Pre-Engaged Reduction
FUEL SYSTEM		
Fuel Type	Diesel	Diesel
Type of Fuel to Use if Above 40°F	No. 2-Diesel, Cetane Rating: Minimum 40	No. 2-Diesel, Cetane Rating: Minimum 40
Type of Fuel to Use if Below 40°F	No. 1-Diesel, Cetane Rating: Minimum 40	No. 1-Diesel, Cetane Rating: Minimum 40
Injection Pump:		
Type	In-Line	In-Line
Timing	21° BTDC	24° BTDC

TIMING GEAR

Inspection

1. Check the timing gears for wear and damage on the contact areas. Replace if any defects are found.
2. Measure the backlash of the gears with a feeler gauge or a dial indicator. If the allowable limit is exceeded, replace all timing gears.

Standard	Allowable Limit
0.08 mm (0.003 in.)	0.25 mm (0.010 in.)

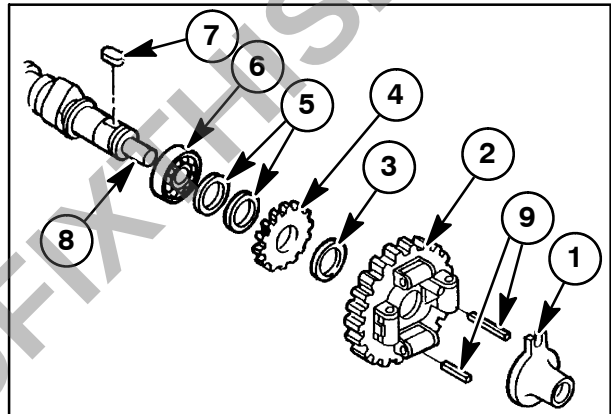


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CAMSHAFT

Disassembly

1. Remove the slider, 1, from the camshaft gear.
2. Using a gear puller, remove the gear and weight assembly, 2, spacer, 3, tachometer drive gear, 4, spacers, 5, bearing, 6, and key, 7, from the camshaft, 8.



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SPECIAL TOOLS

Oil Pressure Test Fittings -----	FNH00011
Piston Wrist Pin Remover -----	FNH01585
Port Block Remover -----	FNH11097
Port Block Installer -----	FNH11063A
Compression Tester Adapter -----	FNH00120
Compression Test Gauge Assembly -----	FNH02154
Dial Indicator (Magnetic Base) -----	FNH01345
Micrometer, Outside -----	0 - 1 inch
Micrometer, Outside -----	1 - 2 inch
Micrometer, Outside -----	2 - 3 inch
Micrometer, Inside -----	3/4 - 1 inch
Micrometer, Inside -----	1 - 2 Inch
Micrometer, Inside -----	2 - 3 inch

COMPRESSION TEST AND TOOLS

The compression test is performed through the glow plug ports. The test adapter tool is equipped with quick coupler ends for easy installation of the hose and gauge.

The procedures to perform a compression test are as follows:

NOTE: It will be necessary to remove the fuel injection pump to test the No. 1 cylinder.

1. Remove the wire from the fuel injection solenoid.
2. Remove the glow plug electrical wire and wire connector from the top of the glow plugs.
3. Remove all of the glow plugs.

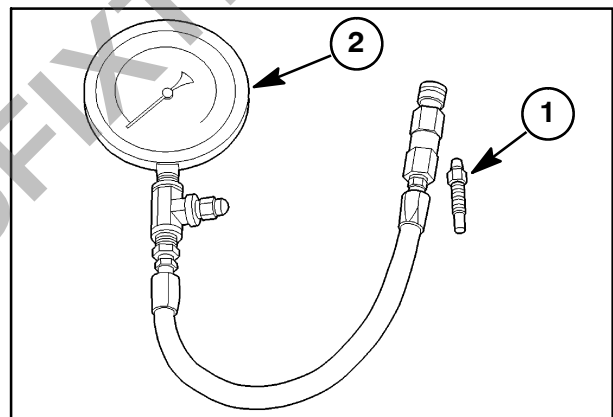
IMPORTANT: Be sure all glow plugs are removed before starting the compression tests.

4. Install the adapter tool no. FNH00120, 1, hose and gauge assembly FNH02154, 2, in each port and crank the engine until pressure stabilizes. The gauge should read 427 ± 50 psi.

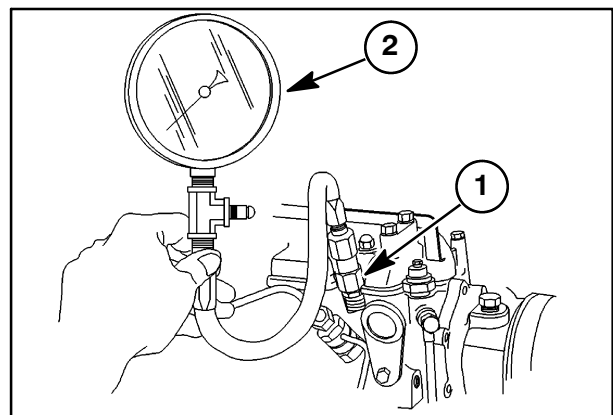
NOTE: It may be necessary to remove some injector fuel lines to install the adapter tool.

NOTE: There should not be more than 50 lbs variation between the cylinders.

5. When all three cylinders have been tested, reinstall the glow plugs, electrical connectors, injection pump and fuel lines.

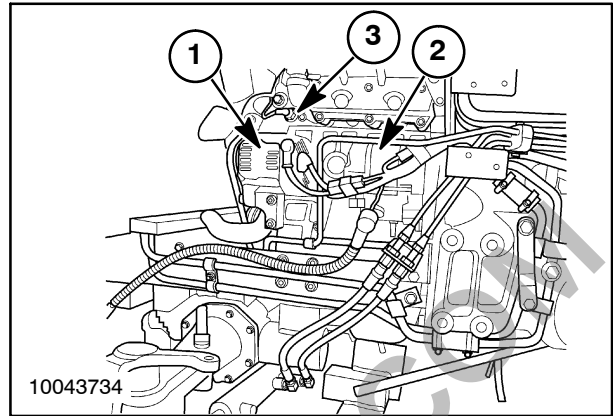


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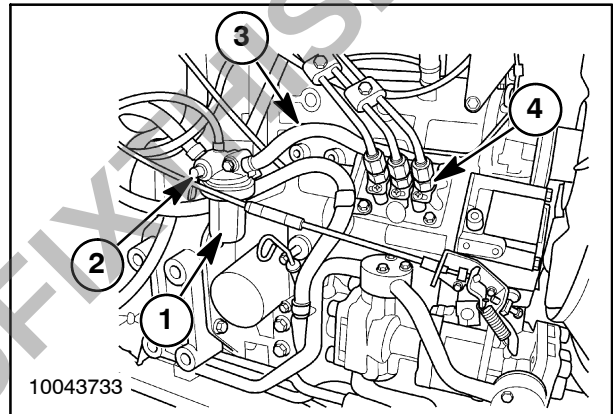
132

10. Reconnect the wiring harness to the alternator, 1, starter, 2, and the temperature sending unit, 3.



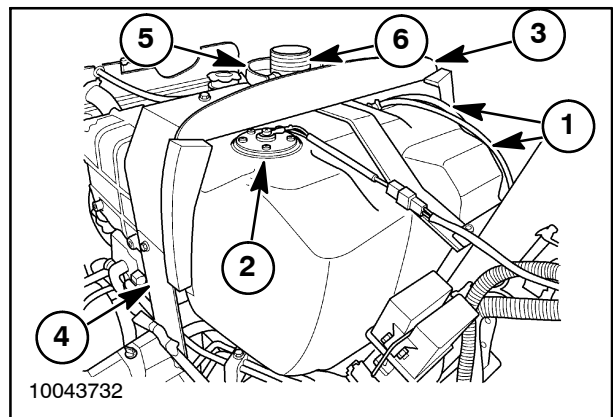
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11. Reinstall the fuel tank, and the fuel filter, 1, with bolt, 2. Reconnect the fuel line, 3, to the injection pump, 4.

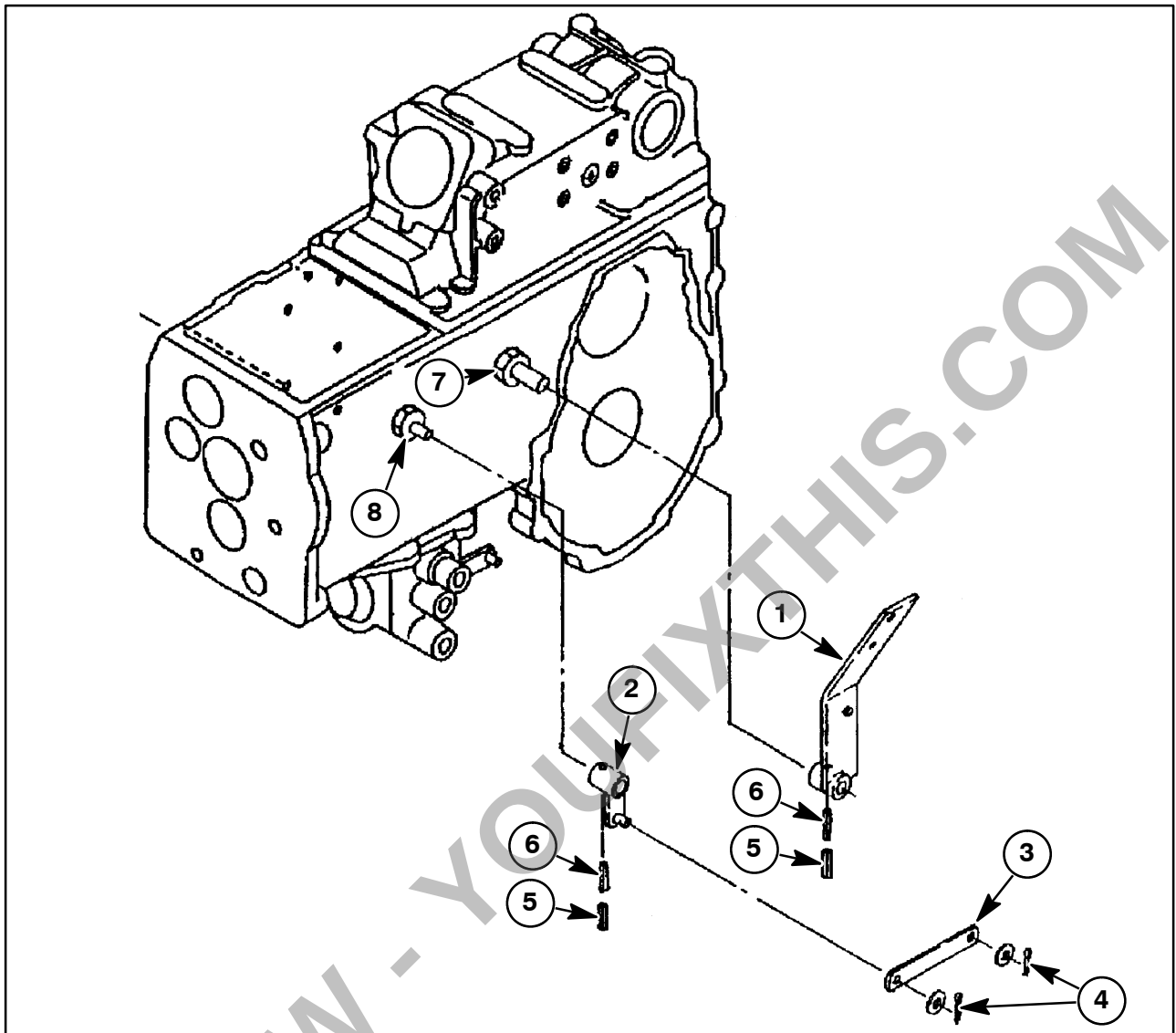


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12. Reconnect the fuel return hoses, 1, fuel sending unit connector, 2. Reattach the hood support, 3, to the firewall, 4. Reinstall the spillover collector, 5, to the fuel tank neck, 6.



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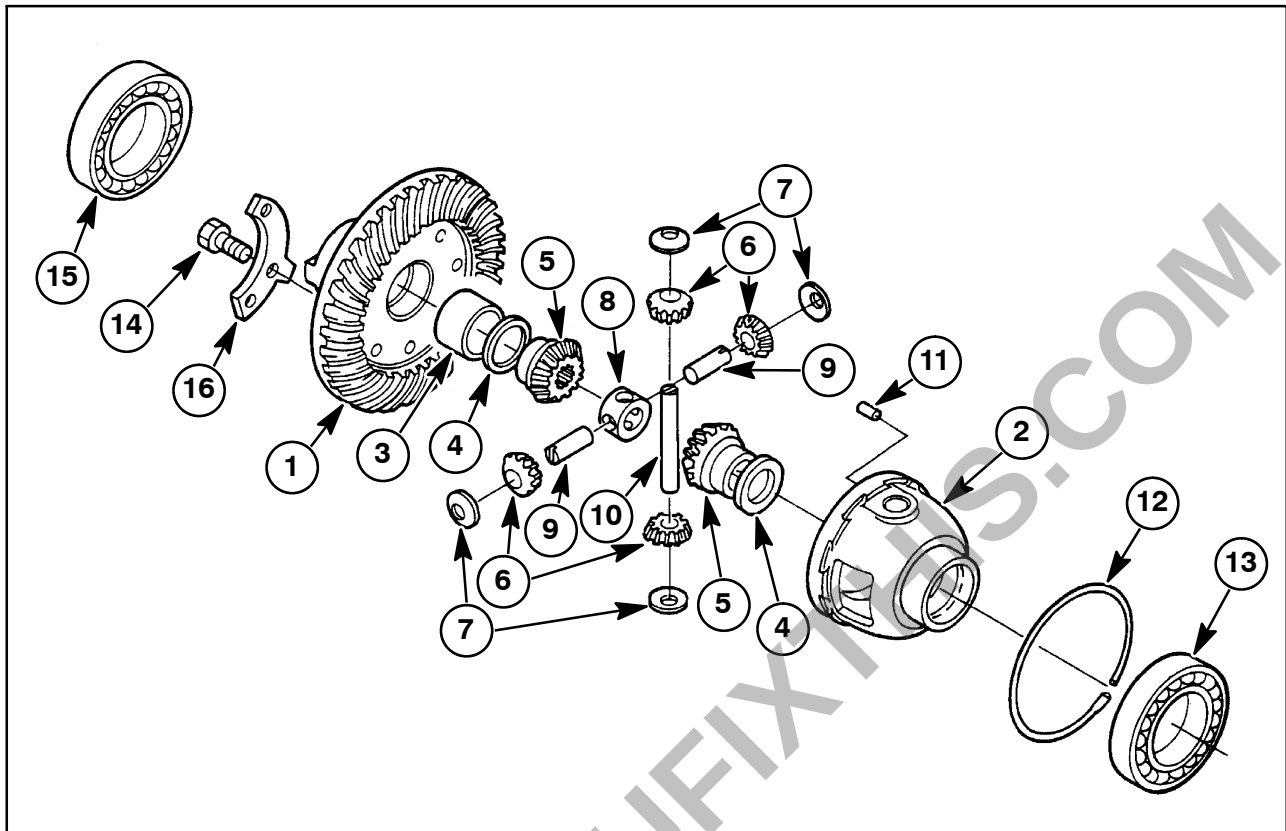


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RANGE AND REAR PTO SHIFT RAIL AND FORK

Removal

1. Remove range change lever, 1, PTO change lever, 2, and linkage, 3. Remove cotter pin, 4, from PTO lever and remove linkage plate, 3. Drive spring pins, 5 and 6, from both range change lever, 1, and PTO change lever, 2. Remove change levers from both range shift arm, 7, and PTO shift arm, 8.



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- | | |
|------------------|-------------------|
| 1. Ring Gear | 9. Pinion Shaft |
| 2. Case | 10. Pinion Shaft |
| 3. Bushing | 11. Dowel Pin |
| 4. Thrust Washer | 12. Clip |
| 5. Side Gear | 13. Bearing |
| 6. Pinion Gear | 14. Bolt |
| 7. Thrust Washer | 15. Bearing |
| 8. Joint | 16. Locking Plate |

DIFFERENTIAL

Disassembly

1. Remove the ring gear bolts, 14, and locking plate, 16, and discard. Separate the ring gear, 1, from the case, 2.
2. Remove the retaining clip, 12, three pinion shafts, 9 and 10, four thrust washers, 7, four pinion gears, 6, two side gears, 5 and two thrust washers, 4, from the case, 2.

Inspection

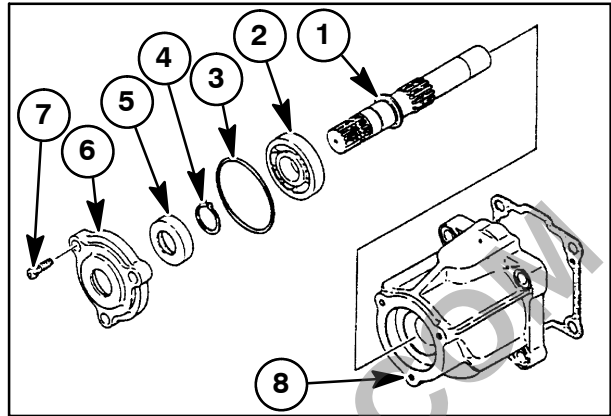
1. Inspect the gear teeth for excessive wear or damage.
2. Measure the thickness of the thrust washers, 4. Original thickness is 1.1 - 1.2 mm (0.043 - 0.047 in.). Replace if thickness is less than 0.9 mm (0.035 in.).

3. Inspect the pinion shaft and gears for excess wear. Original gear to shaft clearance is 0.1 mm (0.0039 in.). Replace if the clearance exceeds 0.5 mm (0.020 in.).
4. Inspect the pinion gear and ring gear tooth wear pattern. Normal pinion gear to ring gear backlash is 0.1 - 0.15 mm (0.004 - 0.006 in.). See "Ring Gear and Pinion Gear Pattern and Specification Adjustment", discussed later in this section.
5. Inspect the bearings for excess wear or binding when rotated by hand.

HST MOTOR CYLINDER BLOCK

Assembly

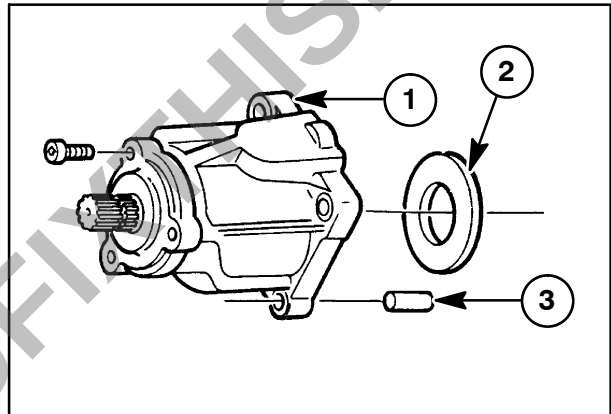
1. If removed, press the bearing, 2, onto the drive shaft, 1, and secure with snap ring, 4.
2. Install the oil seal, 5, and O ring, 3, into the case cover, 6.
3. Install the drive shaft, 1, into the motor housing, 8.
4. Install the cover, 6, and tighten the retaining bolts, 7, to 4.41-5.39 N•m (3.26-3.98 ft lbs).



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5. Position the thrust plate, 2, in the bottom of the motor housing, 1, against the fixed swash plate. If removed, install dowel pin, 3.

NOTE: Tapered edge of thrust plate faces towards the swash plate.

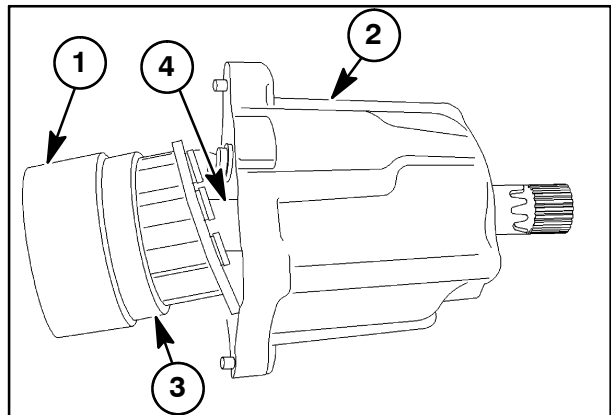


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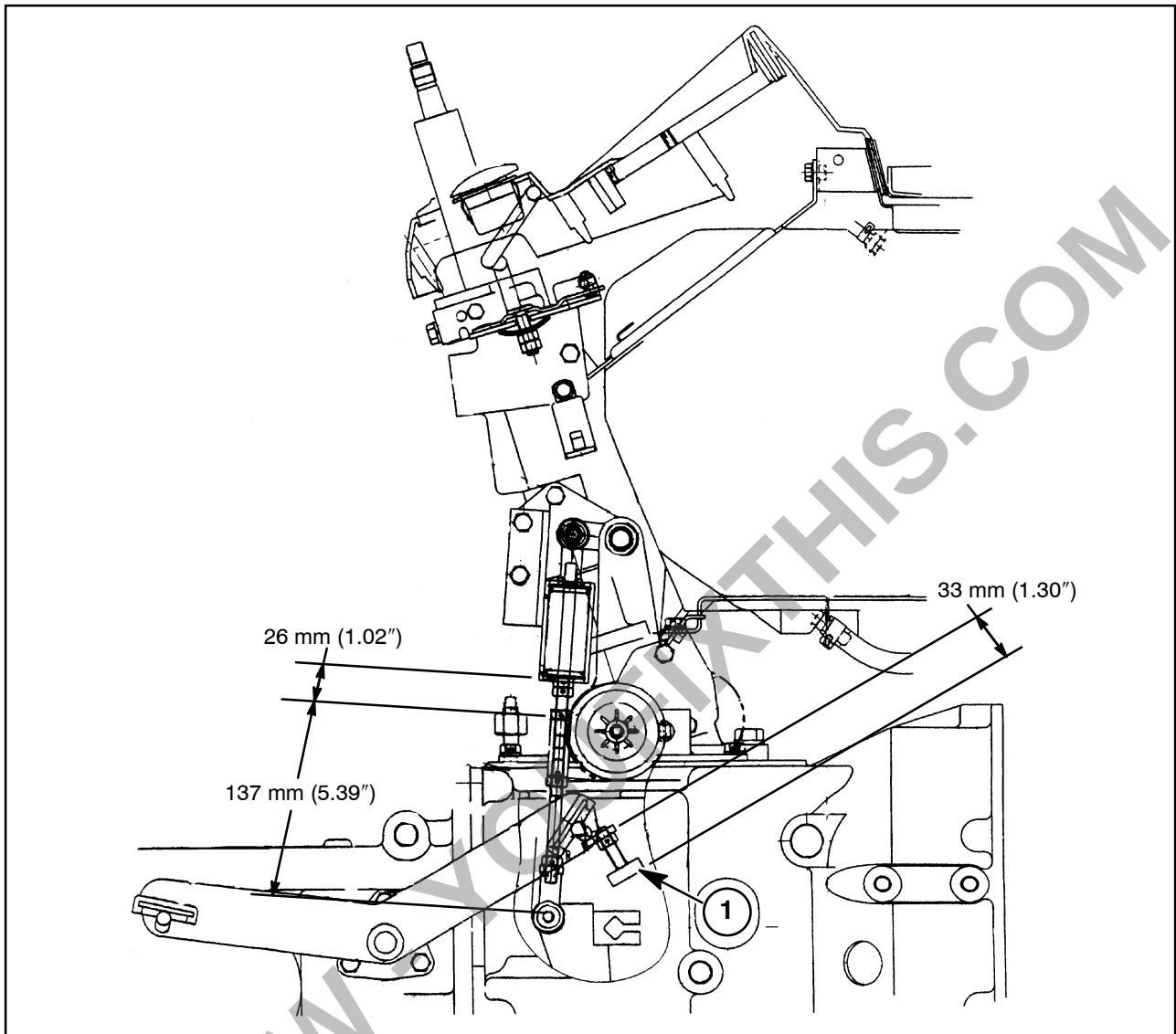
6. Position the motor cylinder block, 1, and pistons, 3, onto the output shaft, 4, into the pump housing, 2. Be careful to keep the pistons in the cylinder block holes.

NOTE: Check to be sure all three pins are in their correct location.

NOTE: Valve plate will be assembled with port block.



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INITIAL ADJUSTMENTS

CONTROL ROD

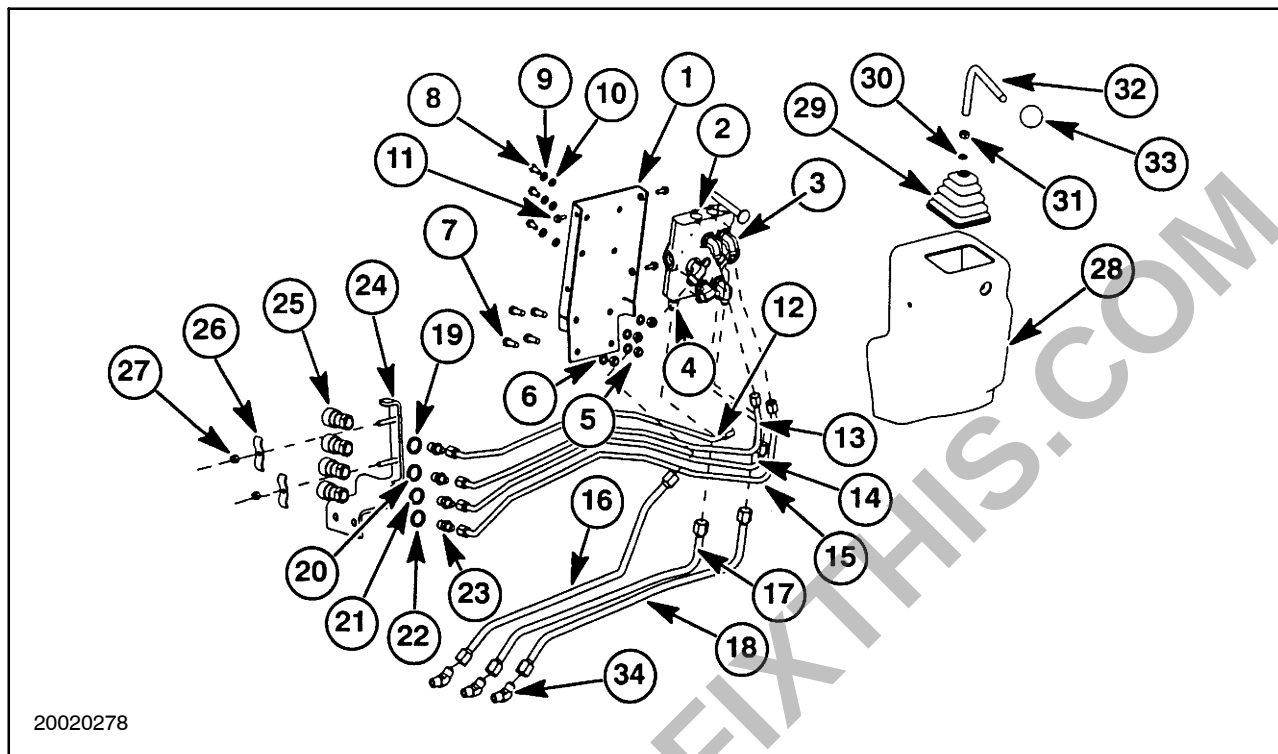
1. Adjust the length of the hydrostatic control rod, from the turnbuckle top end to the bottom rod end center, to 137 mm (5.39 in.).
2. Adjust the length from the top of the turnbuckle to the bottom of the spring holder to 26 mm (1.02 in.).

PEDAL STOP

Adjust the pedal stop bolt, 1, to a length of 33 mm (1.30 in.)

Section	Description	Page
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	Bucket REGEN Spool	49
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DOUBLE SPOOL REMOTE VALVE

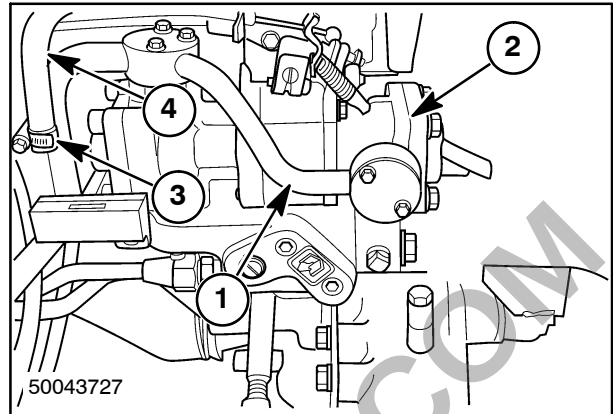


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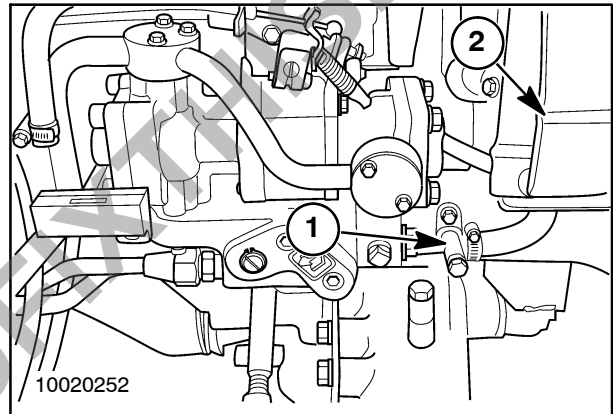
Item	Description	Qty.	Item	Description	Qty.
1	Bracket	1	18	Pressure (In) Red Tube	1
2	Valve Assembly	1	19	Blue Ring	1
3	O Ring - 37°90° Fitting	5	20	Red Ring	1
4	O Ring - 37° Fitting	2	21	Green Ring	1
5	M10 Nut	4	22	Yellow Ring	1
6	M10 Lock Washer	4	23	3/8" NP - 37° Adapter Fitting	4
7	M10x24 Retaining Bolt	4	24	Coupler Bracket	1
8	M8x16 Retaining Bolt	3	25	3/8" Female Coupler	4
9	M8 Lock Washer	3	26	Butterfly Clamps	2
10	M8 Flat Washer	3	27	M8 Locknut	2
11	M6x15 Flange Bolt	3	28	Valve Cover	1
12	B2-Blue Tube	1	29	Rubber Boot	1
13	A2-Red Tube	1	30	Serrated Washer Set	1
14	B1-Green Tube	1	31	1/2" Nut	1
15	A1-Yellow Tube	1	32	Handle	1
16	Pressure Beyond (PB) Blue Tube	1	33	Knob	1
17	Tank - (Out) Yellow Tube	1	34	3/8 NP - 37° adapter 45° Fitting	4

11. Reinstall the power steering oil pump, 2, onto engine.
12. Reconnect suction oil pipe, 4, to the oil pump. Tighten hose clamp, 3.
13. Reconnect the power steering high pressure oil pipe, 1, to the oil pump, 2



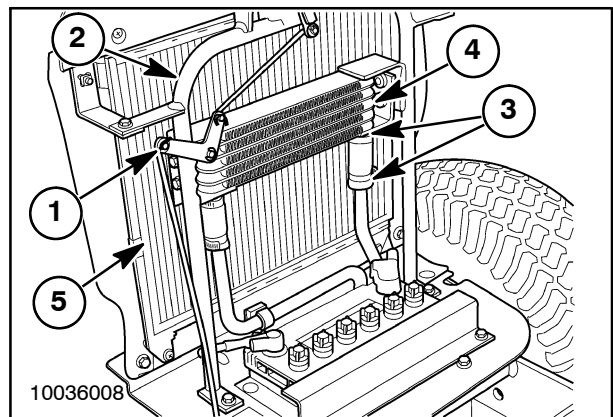
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14. Reinstall the radiator, 2, and reconnect the pet cock drain, 1, to the front axle support.



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On HST Models only – Reinstall split pin and hunger rod, 1, on radiator support, 2, and oil cooler, 4, onto radiator, 5. Reconnect hoses on oil cooler and tighten clamps, 3.

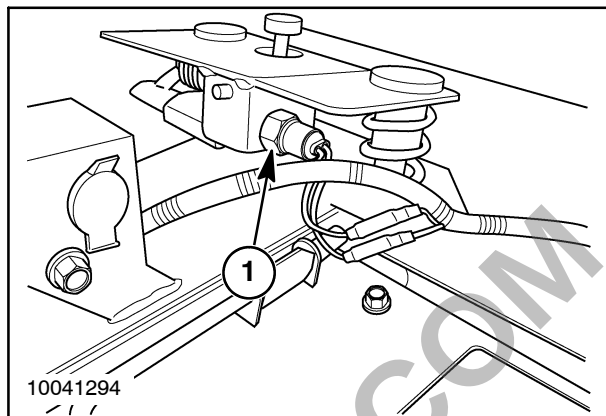


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Op. 55 408**SEAT SAFETY SWITCH**

The seat safety start switch, 1, is a single pole, push-button type switch located underneath the operator seat. When the operator is not present, the switch contacts are open and will not allow the tractor to start. When the operator is present, the switch contacts are closed, allowing the tractor to start.

NOTE: The operator seat was removed to better show the seat safety switch location. Removal of the seat is not necessary.



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Removal

1. Disconnect the negative (-) battery cable from the negative (-) battery terminal.
2. Tilt the operator seat forward to gain access to the seat safety switch.
3. Disconnect the two seat safety switch wire leads from the tractor wiring harness.
4. Unthread the retaining nut to remove the seat safety switch, 1, from the mounting bracket.

Testing

Use an ohmmeter to test the seat safety switch for electrical continuity.

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RIGHT TURN SIGNAL CIRCUIT

NOTE: There are no terminals markings on the flasher controller. Refer to the wire diagram for terminal identification.

1. Current flows from the positive (+) battery terminal, through the positive (+) battery cable to the starter.
2. From the starter, current flows to reach a wire splice. One path of the wire splice sends the current through the #1 40-amp main fuse to reach to the 15-amp fuse in the fuse block. The current from the 15-amp fuse flows to terminal #12 of the flasher controller.
3. The other path of the wire splice sends current to the #2 40-amp main fuse, current travels from the fuse to terminal 30 of the key switch. When the key switch is in the "RUN/AC" position current is transferred from terminal 30 to the "AC" terminal. Current is sent from the "AC" terminal to the 15-amp fuse of the fuse block.
4. Current leaves the 15-amp fuse and travels through the wire harness to reach the "GB" terminal of the combination switch.
5. When the switch is place in the "RIGHT" turn signal position, current is transferred from the "GB" to the "RY" terminal. From the "RY" terminal current is transferred to the #10 terminal of the flasher controller
6. When current is supplied to #10 terminal and ground circuit is completed to terminal #5 the flasher controller is energized.
7. When the flasher is energized, pulsing current flows from terminals #2 and #6 and continuous current flows from terminals #1 and #3.

Terminal 2

Current flows from terminal #2 to the right red taillight, the ground path is completed by the ground terminal located at the left rear side of the HPL housing. When current and ground are supplied the red taillight flashes on and off.

Terminal 6

Current flows from terminal #6 to a wire splice, from one path of this splice current flows to terminal #19 of the instrument panel for the right turn indicator light. Ground path for the indicator light is supplied by terminal #24. When current and ground circuits are complete, the indicator light flashes on and off.

The other path of this splice sends current to the right hazard light. The ground path for the hazard light is completed by the hazard light mounting bolt. When current and ground are supplied the hazard light flashes on and off.

Terminal 1

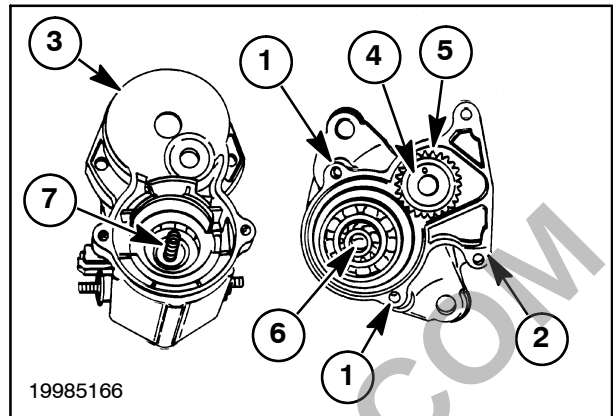
Current flows from terminal #1 to the left red taillight, the ground path is completed by the ground terminal located at the left rear side of the HPL housing. When current and ground are supplied the red taillight illuminates continuous.

Terminal 3

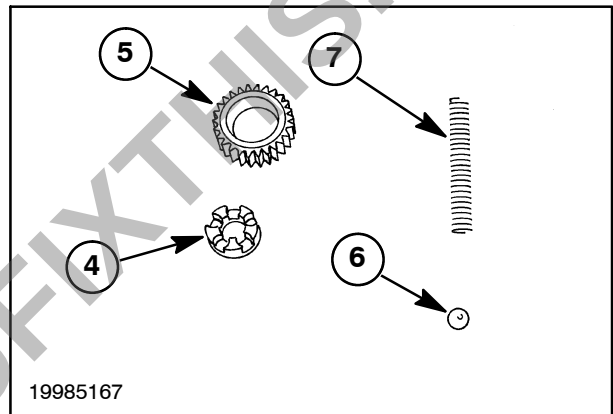
Current flows from terminal #6 to a wire splice, from one path of this splice current flows to terminal #9 of the instrument panel for the left turn indicator light. Ground path for the indicator light is supplied by terminal #24. When current and ground circuits are complete, the indicator light illuminates continuous.

The other path of this splice sends current to the right hazard light. The ground path for the hazard light is completed hazard light mounting bolt. When current and ground are supplied the hazard light illuminates continuous.

7. Remove the two screws, 1, to remove the front housing, 2, from the starter body, 3.
8. Remove retainer, 4, idler gear, 5, and steel ball, 6, from the front cover. Remove spring, 7, from the starter body.



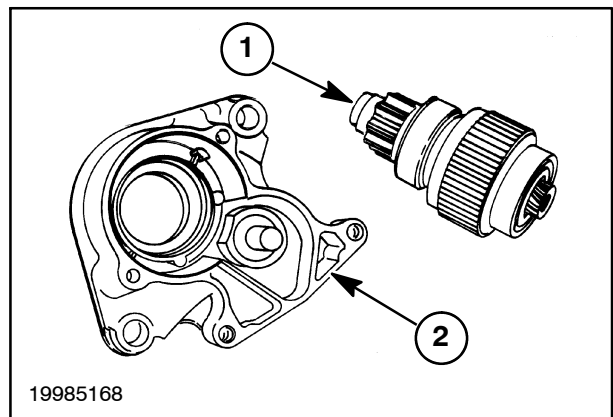
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9. Remove the clutch, 1, from the housing, 2. The clutch assembly is non-repairable.

NOTE: Do not damage the clutch bearing. Never disassemble the solenoid coil. If the coil is found to be defective, replace as an assembly. Never loosen the nut at the solenoid coil terminal bolt.



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