

VERSATILE

Service Manual

Bidirectional™ Tractors
256, 276, 276 II

40025631

Reprinted

CONTENTS

SECTION 1 - SPECIFICATIONS AND DATA	1-1
SECTION 2 - ENGINE SYSTEMS	2-1
SECTION 3 - PTO	3-1
SECTION 4 - DRIVETRAIN	4-1
SECTION 5 - HYDROSTATIC SYSTEM	5-1
SECTION 6 - HYDRAULICS	6-1
SECTION 7 - THREE-POINT HITCH	7-1
SECTION 8 - ELECTRICAL SYSTEM	8-1
SECTION 9 - ENVIRONMENTAL SYSTEMS	9-1
SECTION 10 - STRUCTURES	10-1
INDEX	10-9

Safety

This section contains general safety precautions which should be thoroughly studied and practised by all service personnel. See the operator's manual for more detailed safety information.

GENERAL SAFETY

1. Mount a fire extinguisher near the service area. Maintain it as recommended by the manufacturer.
2. Never operate the tractor in an enclosed building. If it is absolutely necessary to do so, be sure the building is well ventilated and ducting is used to carry exhaust fumes outside.
3. Always keep sleeves, jackets or other loose clothing relatively tight and belted. Loose clothing might catch in moving tractor parts.
4. Never jump from the tractor cab. Always use steps and handholds when mounting and dismounting tractor.
5. Park the tractor on a clear, level area before beginning any maintenance procedure. Shut down the engine and remove key; apply parkbrake; chock the front and back of at least two wheels. Ensure all operating controls are in neutral. Always disengage the PTO clutch and three-point hitch. Engage articulation lock.
6. Always lower implements to the ground when leaving equipment.
7. Always operate tractor controls from the operator's seat.
8. Use articulation lock during tractor servicing. See Section 10, STRUCTURES.

TRANSPORT SAFETY

1. Use a trailer having a carrying capacity of at least 5 500 kg (12 000 lb) to haul the tractor.
2. Securely chain the tractor to the trailer; block the wheels and engage the parkbrake to prevent tractor movement. Engage articulation lock.

JACKING SAFETY

1. Select a jack strong enough to carry the load. The minimum required required jack capacity is 4.5 tonnes (5 tons).
2. Stabilize the tractor by putting transmission into gear, engaging the parkbrake and chocking wheels securely. Engage articulation lock.
3. To prevent jackknifing, use two hoists or two rear jacks to lift the rear frame.
4. Put the jack securely under the axle tube, frame or drawbar where it is strong enough to keep the jack from tipping, sinking or shifting. Any additional blocking should be under the jack.
5. Jack up the front and/or rear frame just enough to install steel safety stands under the axle tubes or frame.
6. Check the jack position after it has started to lift. Lower the jack immediately if it starts to lean. Reset the jack; block the tractor more securely and lift again.
7. Keep the tractor stable by not raising it so high that it will slide off the jack.
8. Put support stands under the tractor. Lower the jack and let the tractor rest on the stands. This provides solid support for the tractor when the jack is removed.

HOIST SAFETY

1. Use a chain hoist and frame to lift the tractor. The minimum hoist capacity required is 4.5 tonnes (5 tons); 4.5 tonnes (5 tons) for the A-frame or overhead support; and 2.7 tonnes (3 tons) for the support stands.
2. Protect yourself from injury as the tractor is being raised by observing the following:
 - a. Do not stand on the tractor when it is being lifted.
 - b. Keep hands away from pinch points where the chain links tighten or the chain is against the tractor frame.
 - c. Do not let the tractor swing and strike personnel or the frame as it leaves the ground.

SECTION 1

SPECIFICATIONS AND DATA

1 Introduction

This section contains general information about specifications, capacities, fuel, fluids and lubricants for the tractor.

2 Hoists and Jacks

Refer to the Safety section at the beginning of this book.

3 Specifications

3.1 ACCESSORIES

Cold Start Kit Manual control, ether type
Engine Block Heater 750 W, immersion type
Engine End Frame Weights Cast iron, suitcase style at 34 kg (75 lb) each (six max)
Total weight including bracket is 227 kg (500 lb)
Hydraulic Tank Heater 300 W, immersion type
Radio AM/FM stereo cassette, headliner mounted with two 100 x 152 mm (4 x 6 in.) coaxial speakers and extendable roof mounted antenna

3.2 AIR CLEANER

Type Dual element with dump valve

3.3 AXLES

Differential Type Heavy Duty Hypoid
Differential Ratios
Below Serial No. 332100 3.73:1
Serial No. 332100-No. 432099 4.10:1
Serial No. D432100 and Up 4.56:1
Oil Capacity (each) 2.3 L (2.4 qt US)
Dropbox Spur gear
Dropbox Ratio 3.18:1
Oil Capacity (per box) 1.7 L (1.8 qt US)

3.4 BRAKES

Type Hydraulic, self adjusting, disc and caliper, driveline mounted

Caliper Single piston, floating hydraulically actuated by pedal

Controls Two foot pedals

Parkbrake Mechanically actuated by overcenter lever

3.5 CAB

3.5.1 Closed Cab (Optional)

Glass Tinted safety, 5.2 m² (56 ft²)

Doors Two

Emergency Exit Drawbar end window (engine end on '84 models)

Wipers Two wipers, two speed pantograph type

3.5.2 Open Cab

Type 6 post module enclosed rollover protective structure (ROPS S383)

Seats Black vinyl adjustable seat

3.5.3 General Features

Type 6 post module enclosed rollover protective structure (ROPS S383)

Isolation Full isolation on four rubber mounts, provision for tilt of 17° max.

Seat and Console Rotates 180°

Seat Belt Adjustable lap type, SAE J141, J385

Safety Systems Seat lock safety start, neutral safety switch

Fuses Three 15A fuses protecting ignition circuit, 3-pt hitch and compressor options

3.6 CAPACITIES

Axles, Differentials (each) 2.3 L (2.4 qt US)

Cooling System

256 22 L (23.2 qt US)

276 25 L (26.4 qt US)

276 II with Ford Engine 24 L (25.4 qt US)

Dropbox, Axle 1.5 L (1.6 qt US)

3.18.2 Engine End

Category II/I
Lift Capacity 909 kg (2 000 lb) at 610 mm
(24 in.) behind hitch points
1 485 kg (3 270 lb) at hitch points
Sway Control Sway Links
Hitch Type Claw hitch on lower links
Control Electronic position control

3.19 TIRES

Type R1, 6 ply tires in 13.6 x 26,
14.9 x 28 and 16.9 x 28 sizes
R2, 6 ply tires in 14.9 x 28 size

3.19.1 Tires — 276 II Ford

Type R1 6 ply tires
14.9 x 28
16.9 x 28
R2 6 ply tires
14.9 x 28
R4 8 ply tires
16.9 x 28

3.20 TRANSMISSION

Type 3 speed, constant mesh with sliding
shifting collar
Capacity 8.7 L (9 qt US)
Shift Cable operated via console
mounted lever

**TABLE 1-1: Speed Ranges at 2 500 r/min with
16.9 x 28 Loaded Radius 635 mm (25 in.) Tires**

Range	Speed		Serial Number
	km/h	mph	
1	0-8.2	5.1	256 84 205101 to 256 84 205789
2	0-15.1	9.4	
3	0-30.8	19.1	
1	0-8.2	5.1	256 85 209050 to 256 85 209555 276 85 241025 to 276 85 241074
2	0-13.3	8.2	
3	0-30.8	19.1	
1	0-9.5	5.9	256 85 209556 and on 276 85 241075 and on
2	0-13.3	8.2	
3	0-30.8	19.1	

**TABLE 1-2: 276 II Ford
Speed Ranges at 2 500 RPM with
16.9 x 28 Loaded 635 (25") Tires**

**Speed Range @ 2 500 RPM with 16.9 x 28 Tires,
Loaded Radius 660 mm (26.0 in)**

RANGE SPEED (FORWARD OR REVERSE)

1 0-8.9 km/h (5.53 mph)
2 0-12.46 km/h (7.74 mph)
3 0-28.90 km/h (17.96 mph)

3.21 WHEELS

Type

256/276 below serial #332100
fix rim or power adjustable
276 II serial number 332100
and above including
276 II with Ford engine
Eight position rim

Duals

256/276 below serial number
332100 - 13.6 x 28 and
14.9 x 28 R1 only
276 II serial number 332100
including 276 II with Ford engine
14.9 x 28 and 16.9 x 28

1.3.2 Engine Removal

Cummins engine shown - Ford engine similar.

1. Drain cooling system through draincock on bottom left hand corner of the radiator (Figure 2-1).

- CAUTION



DO NOT DRAIN THE COOLING SYSTEM WHEN HOT

- CAUTION

SET PARKBRAKE, CHOCK WHEELS AND ENGAGE ARTICULATION LOCK BEFORE SERVICING TRACTOR.

DISCONNECT BATTERY CABLES FIRST, TO PREVENT POSSIBLE DAMAGE TO ELECTRICAL SYSTEM.



2. Disconnect harnesses from electrical accessories (Figure 2-2).

NOTE

Label all wires as they are disconnected.

3. Disconnect the following harnesses:
 - a. Alternator harness.
 - b. Harness and battery cables from cranking motor.
 - c. Temperature probe harness.



FIGURE 2-1: Radiator Drain

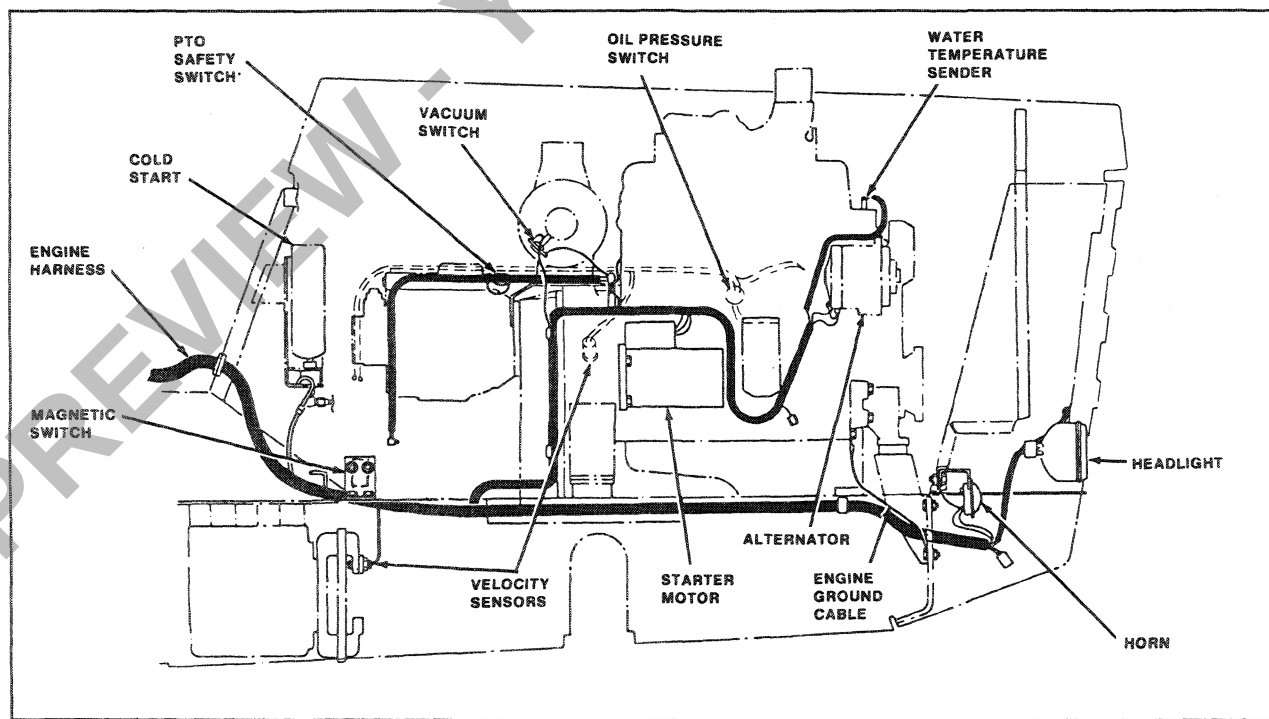


FIGURE 2-2: Engine Electrical Harnesses Removal

1.2 TROUBLESHOOTING

Refer to Table 2-3, Troubleshooting Engine Systems. The troubleshooting chart lists most problems related to the engine systems. For more detailed troubleshooting information, refer to the Cummins Engine Operator's and Service Manuals and the Ford Diesel Engine Diagnosis Manual.

1.3 ENGINE REPLACEMENT

1.3.1 Special Tools and Equipment

1. Hoist, 900 kg (1 ton) capacity
2. Lifting fixture with hooks
3. Engine stand
4. Hose plugs

TABLE 2-3: Troubleshooting Engine Systems

	Water in fuel	Dirty fuel filters/lines	External fuel leaks/air in lines	Plugged fuel tank vent	Dirty injector nozzles	Faulty fuel shutoff solenoid	Throttle linkage not adjusted	Wrong fuel/poor grade fuel	Internal fuel leak	Fuel system not primed	Faulty cold start	Restricted air intake	Restricted air filters	High exhaust back pressure	Faulty muffler	Air intake leak	Faulty turbocharger	Faulty water pump	Insufficient coolant	Faulty thermostats	Faulty indicator/gauge	Internal coolant leak	External coolant leak	Dirty radiator	Improper coolant mix	Oil level too high	Wrong grade oil	Oil level too low	Dirty oil filters	Oil leaks
Engine does not start	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Engine starts, runs poorly	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Excess smoke at idle	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Excess smoke under load	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Loss of low power	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Low max r/min	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Excess fuel consumption	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Erratic idle speed	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Surging at governed r/min	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Engine stalls	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Dilution of oil	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
High operating temperature	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Continually clogged air cleaner	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Excessive exhaust noise	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Low operating temperature	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Low/loss of coolant	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Coolant dirty	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Air in coolant	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Coolant freezes	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Excessive corrosion	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Low oil pressure	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Excessive oil consumption	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

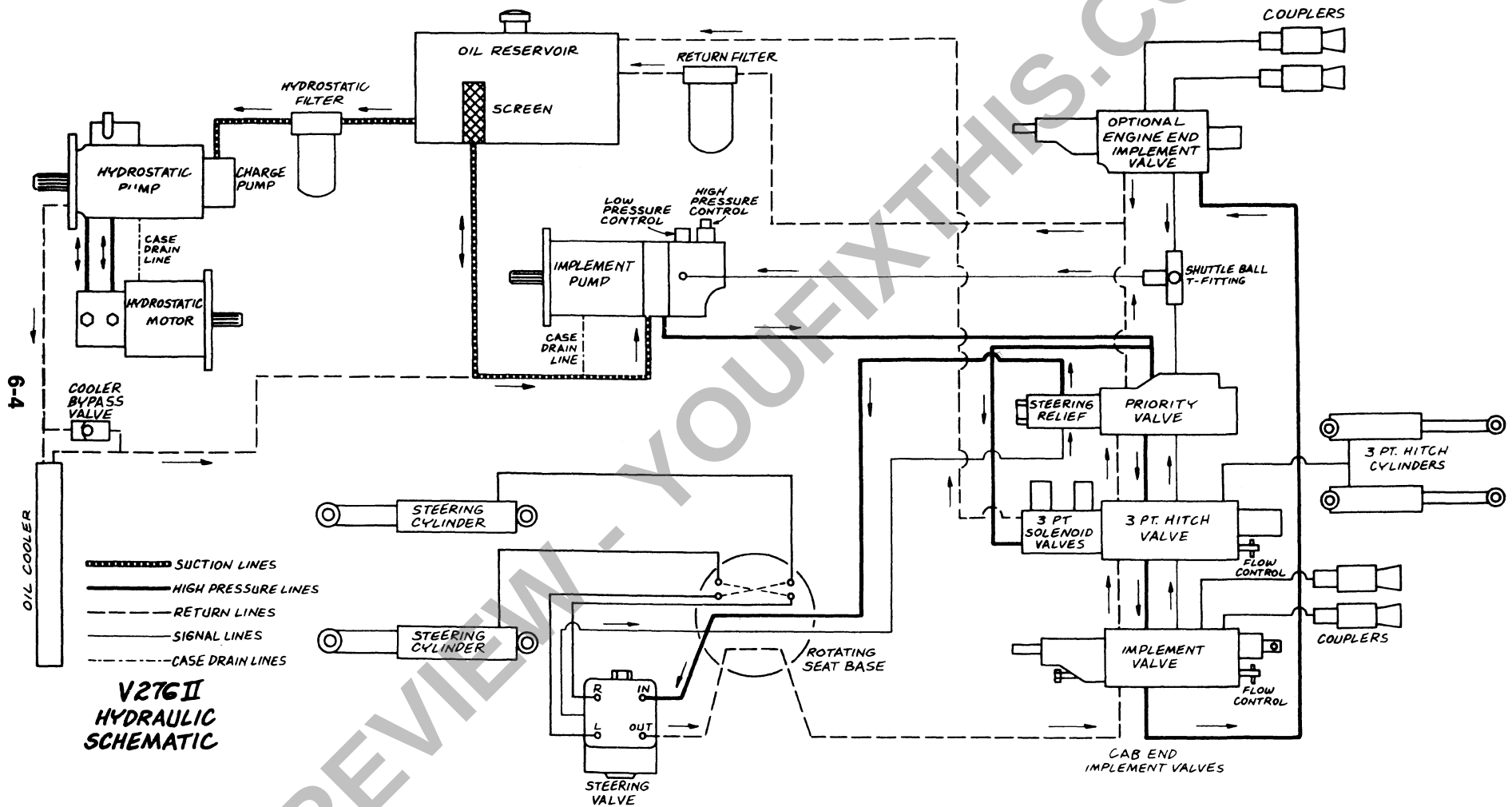


FIGURE 6-2A

1.1.2.A Engine - Ford

Model BSD 444T
 Type Diesel, Turbocharged
 Maximum Brake Power 87 kW (116 hp)
 Estimated Maximum PTO
 Power 75 kW (100 hp)
 Estimated Max Drawbar
 Power 53.6 kW (71.5 hp)
 Maximum Torque/@
 REV/min 295 lb ft @ 1 400
 Operating Torque @
 2500 REV/min 245 lb ft
 Bore 112 mm (4.4 in)
 Stroke 112 mm (4.4 in)
 Number of Cylinders 4
 Displacement 4.38 L (268 in³)
 Compression Ratio 16.5:1
 Full Load Governed Speed 2 500 REV/min
 Full Throttle No Load Speed 2 725 REV/min
 Idle Speed 1 000 REV/min
 Estimated Fuel Consumption
 @ Rated Speed & Power
 225 G/kW.hr (.37 lb/BHP-HR)
 Oil: - Capacity
 - Type 10W-30 SF/CD,

Engine Oil Pressure:

Idle 69 kPa (10 psi)
 Rated Speed 207 kPa (30 psi)
 Filter Type Full flow, spin on,
 dual paper element
 Oil Pan Gradability 30°
 Flywheel Housing SAE #3
 Piston Speed @ Rated REV/min 560 m/min
 (1 837 ft/min)
 Mounting Isolated on 3 rubber mounts

1.1.3 Torque Values

Front Engine Mounts 68 N.m (50 lbf ft)
 Rear Engine Mounts 270 N.m (200 lbf ft)
 Driveline Capscrews 35 N.m (26 lbf ft)
 Battery Terminal Nuts 10 N.m (7 lbf ft)
 Air Cleaner Wing Nuts 3.3 N.m (29 lbf in.)
 Capscrews See Table 2-2

TABLE 2-2: General Recommended Capscrew Torques

CAPSCREW SIZE	CLASS 9.8 (METRIC)* ARE CLASS 8.8		CLASS 10.9 (METRIC)	
	PLAIN	PLATED	PLAIN	PLATED
M6 × 1.0	10 N·m (7 lbf ft)	10 N·m (7 lbf ft)	15 N·m (10 lbf ft)	10 N·m (7 lbf ft)
M8 × 1.25	30 N·m (20 lbf ft)	20 N·m (15 lbf ft)	35 N·m (25 lbf ft)	25 N·m (18 lbf ft)
M10 × 1.5	55 N·m (40 lbf ft)	40 N·m (30 lbf ft)	70 N·m (50 lbf ft)	55 N·m (40 lbf ft)
M12 × 1.75	100 N·m (75 lbf ft)	75 N·m (55 lbf ft)	125 N·m (95 lbf ft)	95 N·m (70 lbf ft)
M14 × 2.0	155 N·m (115 lbf ft)	120 N·m (90 lbf ft)	200 N·m (150 lbf ft)	150 N·m (105 lbf ft)
M16 × 2.0	*255 N·m (170 lbf ft)	*170 N·m (120 lbf ft)	315 N·m (235 lbf ft)	235 N·m (175 lbf ft)
M20 × 2.5	*440 N·m (330 lbf ft)	*330 N·m (220 lbf ft)	610 N·m (450 lbf ft)	460 N·m (340 lbf ft)
M24 × 3.0	*765 N·m (570 lbf ft)	510 N·m (420 lbf ft)	1055 N·m (780 lbf ft)	790 N·m (580 lbf ft)

CAPSCREW SIZE	GRADE 5 (IMPERIAL)		GRADE 8 (IMPERIAL)	
	PLAIN	PLATED	PLAIN	PLATED
3/8-16	40 N·m (30 lbf ft)	35 N·m (25 lbf ft)	65 N·m (45 lbf ft)	50 N·m (35 lbf ft)
3/8-24	50 N·m (35 lbf ft)	35 N·m (25 lbf ft)	70 N·m (50 lbf ft)	50 N·m (35 lbf ft)
7/16-14	70 N·m (50 lbf ft)	50 N·m (35 lbf ft)	95 N·m (70 lbf ft)	72 N·m (55 lbf ft)
7/16-20	75 N·m (55 lbf ft)	55 N·m (40 lbf ft)	105 N·m (80 lbf ft)	80 N·m (60 lbf ft)
1/2-13	100 N·m (75 lbf ft)	75 N·m (55 lbf ft)	140 N·m (105 lbf ft)	105 N·m (80 lbf ft)
1/2-20	115 N·m (85 lbf ft)	90 N·m (65 lbf ft)	165 N·m (120 lbf ft)	120 N·m (90 lbf ft)
9/16-12	7115 N·m (110 lbf ft)	105 N·m (80 lbf ft)	210 N·m (155 lbf ft)	155 N·m (115 lbf ft)
9/16-18	165 N·m (120 lbf ft)	120 N·m (90 lbf ft)	230 N·m (170 lbf ft)	175 N·m (130 lbf ft)
5/8-11	205 N·m (150 lbf ft)	155 N·m (115 lbf ft)	285 N·m (210 lbf ft)	215 N·m (160 lbf ft)
5/8-18	230 N·m (170 lbf ft)	175 N·m (130 lbf ft)	325 N·m (240 lbf ft)	240 N·m (180 lbf ft)
3/4-10	360 N·m (265 lbf ft)	270 N·m (200 lbf ft)	510 N·m (375 lbf ft)	380 N·m (280 lbf ft)
3/4-16	400 N·m (295 lbf ft)	300 N·m (225 lbf ft)	510 N·m (420 lbf ft)	430 N·m (315 lbf ft)
7/8-9	580 N·m (430 lbf ft)	440 N·m (320 lbf ft)	820 N·m (605 lbf ft)	615 N·m (455 lbf ft)
7/8-14	640 N·m (475 lbf ft)	480 N·m (355 lbf ft)	905 N·m (670 lbf ft)	680 N·m (500 lbf ft)
1-8	875 N·m (645 lbf ft)	655 N·m (485 lbf ft)	1230 N·m (910 lbf ft)	925 N·m (680 lbf ft)
1-14	975 N·m (720 lbf ft)	735 N·m (540 lbf ft)	1380 N·m (1020 lbf ft)	1040 N·m (765 lbf ft)

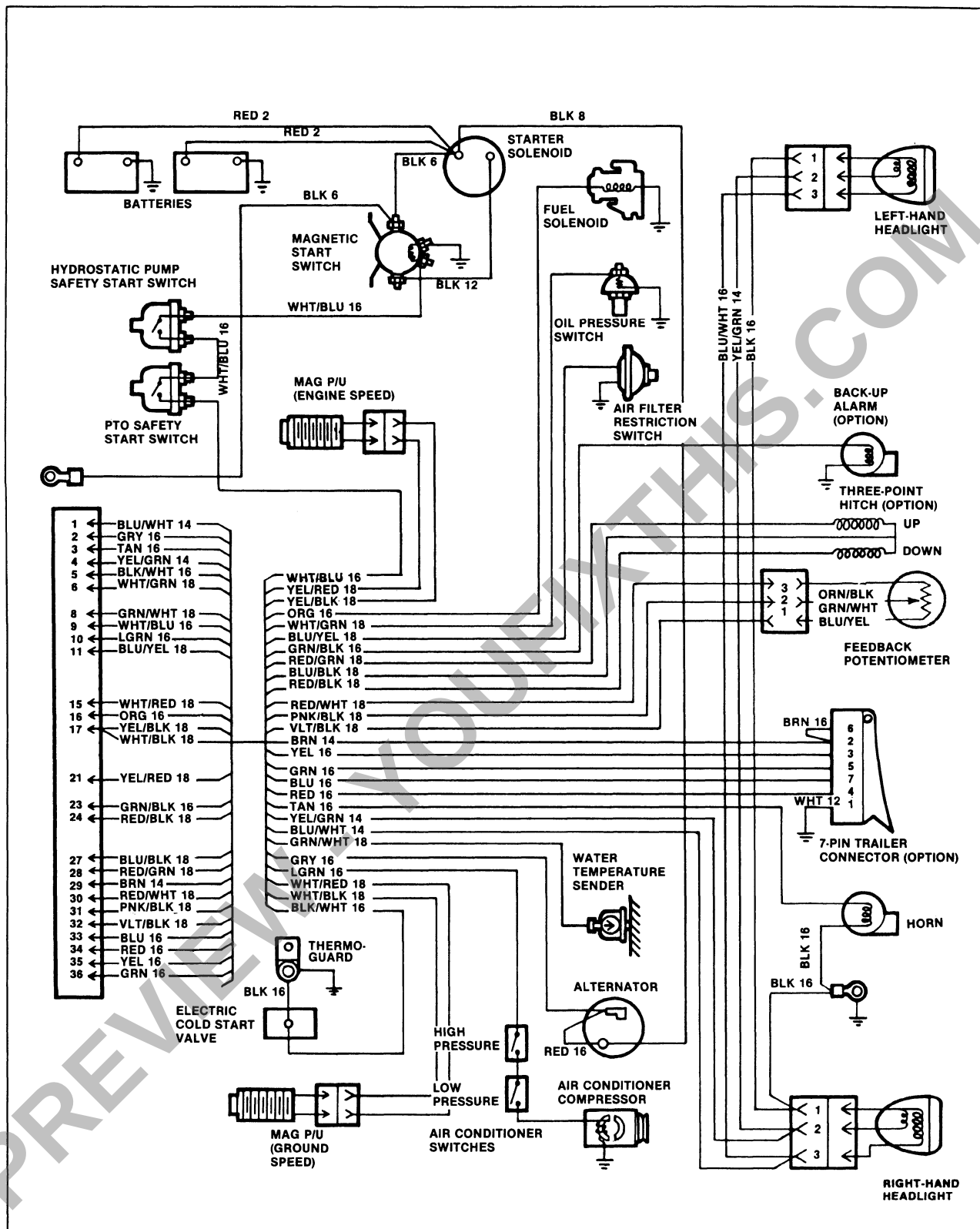
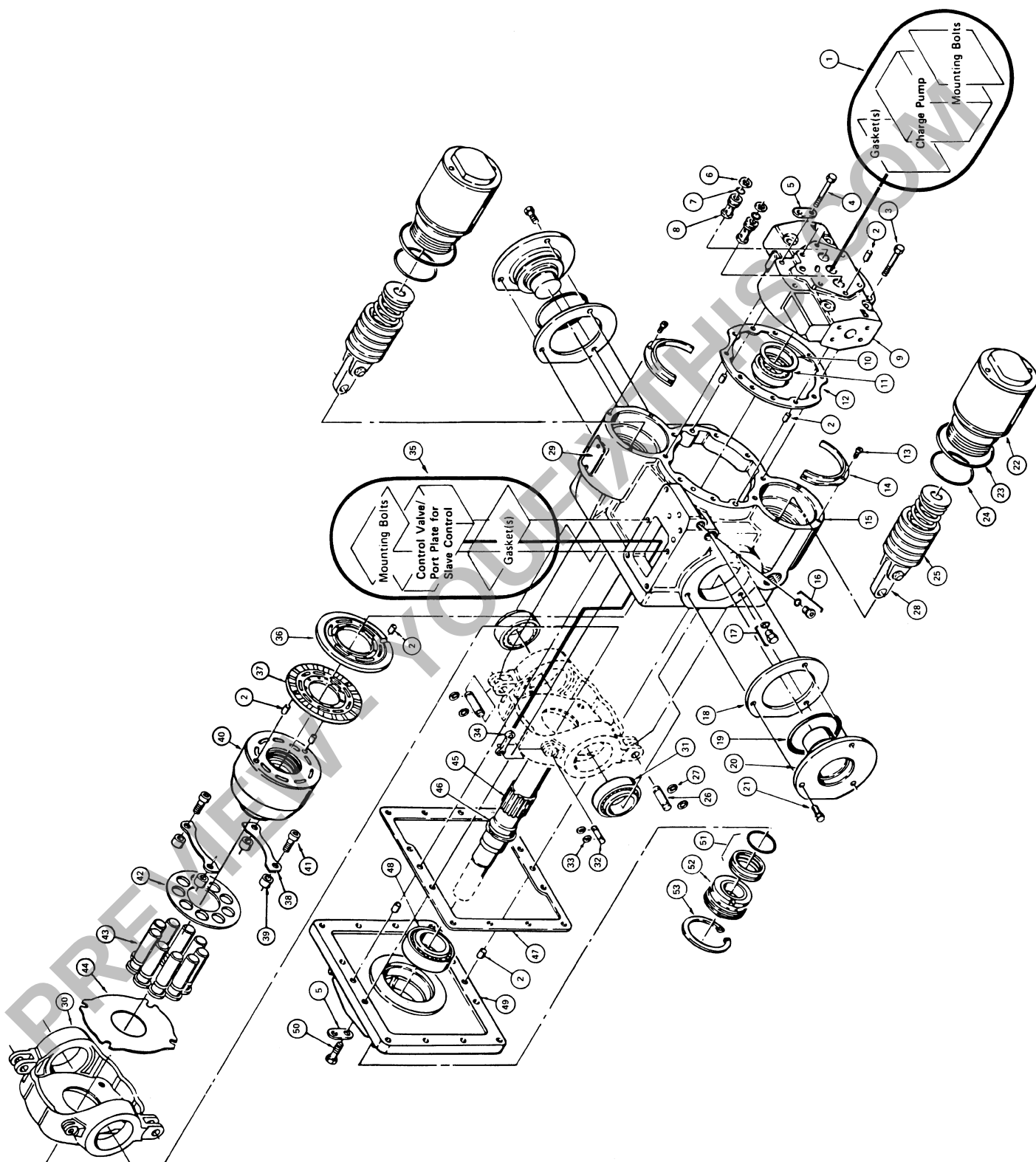


FIGURE 8-7: Engine Wiring Schematic



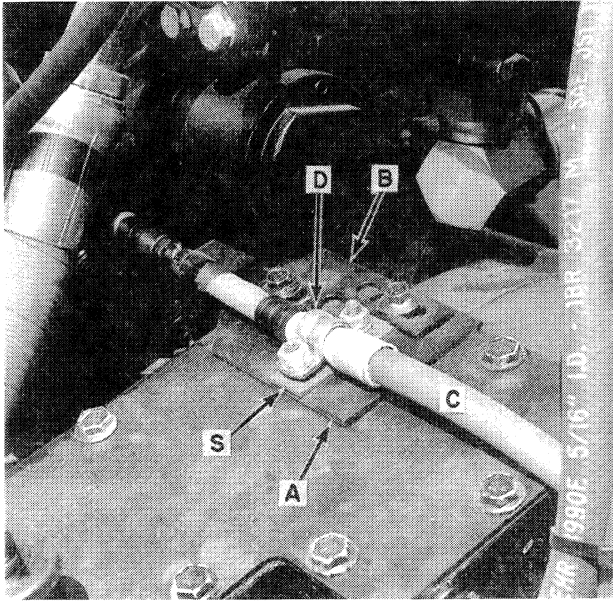


FIGURE 3-6

6. Remove the two nuts that attach the PTO clutch control cable, C, and cable clamp, D, Figure 3-6. Do not lose spacer, S. The

PTO safety switch bracket, B, and cable clamp bracket, A, can also be removed.

Remove the transfer gearbox cover.

7. Disconnect the control cables inside the transfer gearbox by removing nuts, 6, at the forks and then remove the inner jam nuts, 9, on the cables, Figure 3-7. Remove extension, 8.

NOTE: If the shifter forks, shaft and cables are the only parts that need to be replaced, proceed to "Removing the Shifter Forks and Shaft."

8. Remove the three nuts from the bolts attaching the transfer gearbox to the PTO clutch case.
9. Remove the four bolts attaching the left engine mount to the engine, M, Figure 3-2. Ford engine tractors must have the 20 mm cap screw removed on both engine mounts.
10. Pry up the engine just enough to slide the transfer gearbox rearward off the clutch output shaft. The transfer gearbox can be taken off the tractor. Do not raise the engine more than $\frac{3}{8}$ " or the fan blades may be damaged.

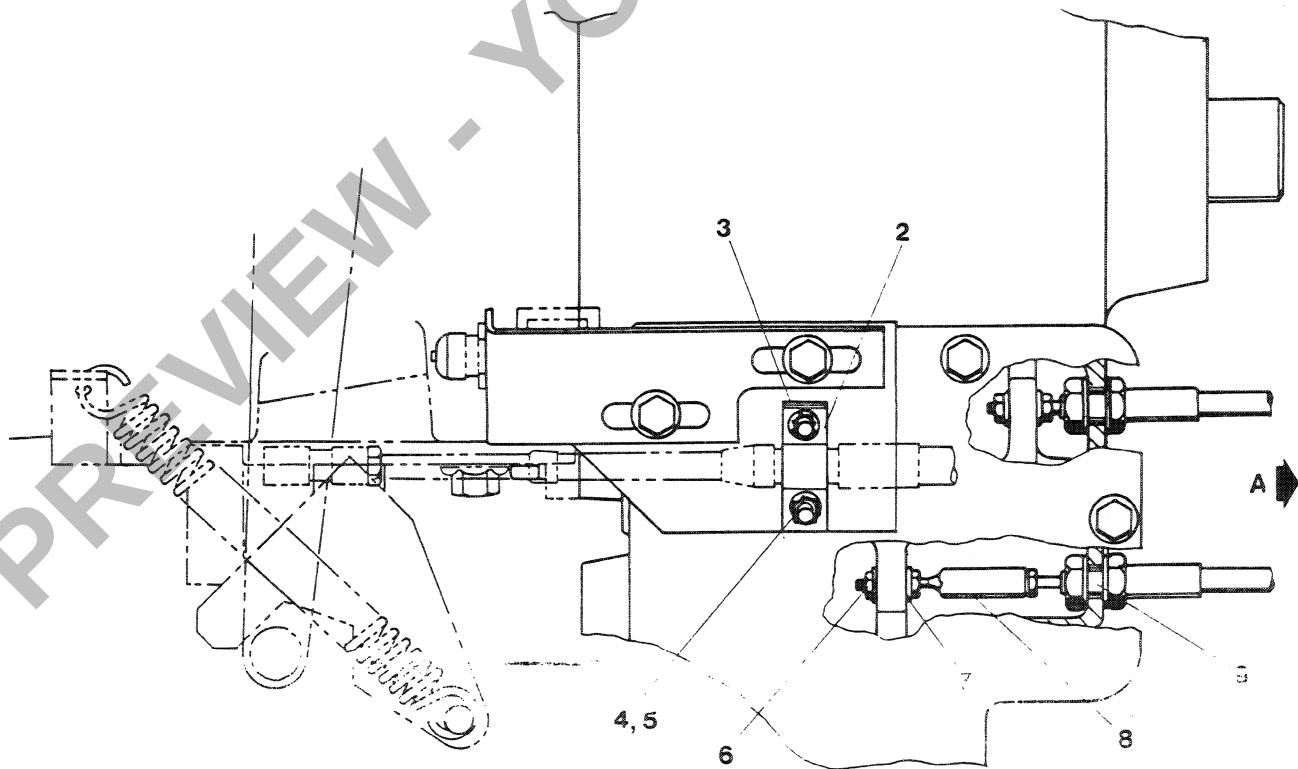


FIGURE 3-7

CARRIER SECTION

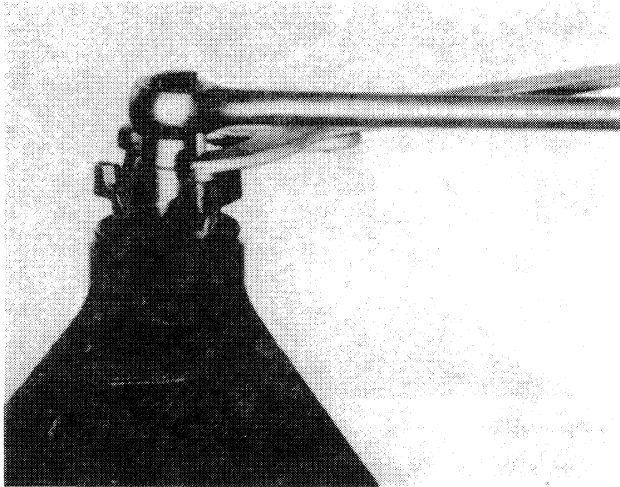


Figure 54

1010-54

Turn nose of carrier in a horizontal position to remove pinion nut. Hold end yoke or flange with tool similar to the one shown, and remove pinion nut and washer.

Tool: C-3281 Holding Wrench

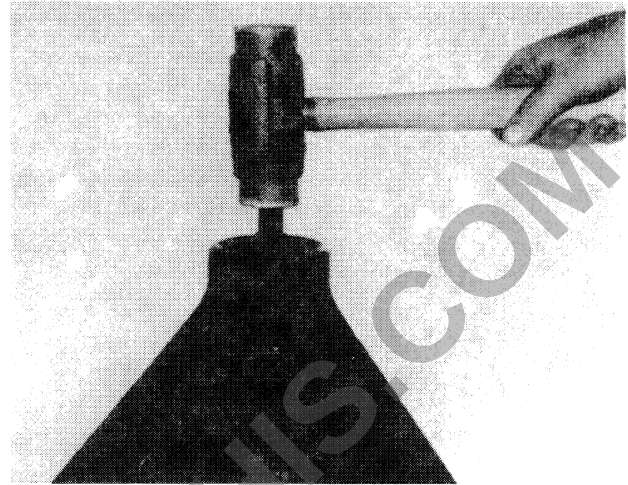


Figure 56

1010-56

Remove pinion by tapping with a rawhide hammer. Catch the pinion with your hand to prevent it from falling to the ground and being damaged.

NOTE

On the spline end of the pinion, there are bearing preload shims. These shims may stick to the bearing—pinion—or even fall out. The shims are to be collected and kept together since they will be used later in assembly. Try not to mutilate shims. If shims are mutilated, replace with new ones; shims are available in thicknesses of .003", .005", .010", and .030".



Figure 55

1010-55

Remove end yoke or flange with tools as shown. If yoke or flange shows wear in the area of the seal contact, it should be replaced.

Tools: C-452 Yoke Remover, C-3281 Holding Wrench



Figure 57

1010-57

Pull out pinion seal with puller as shown. **DISCARD SEAL.** Replace with new seal at time of assembly. Remove bearing cone and outer pinion oil slinger.

Tool: Slide Hammer D-131

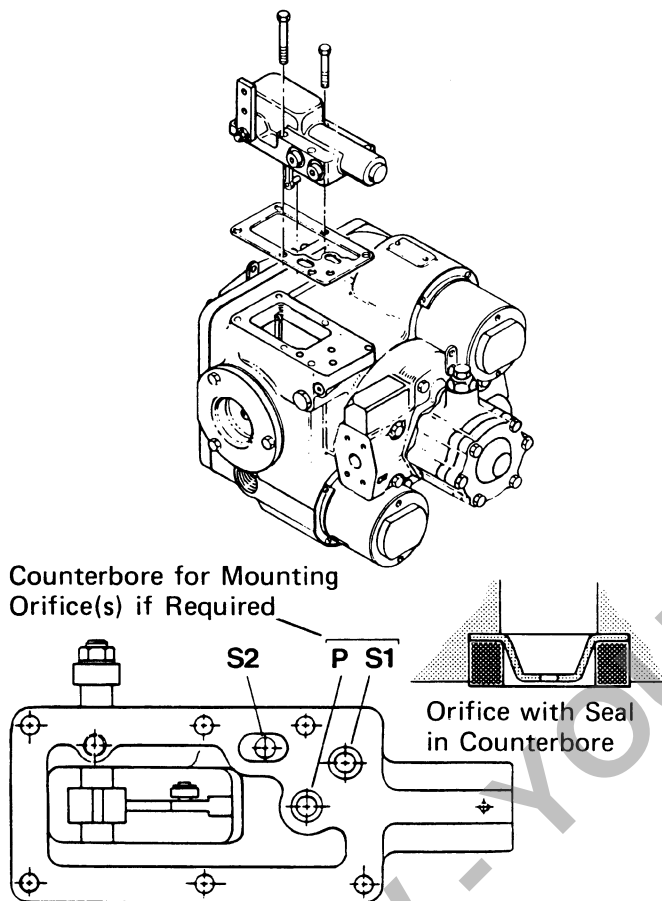


Figure 29

105 Install control valve gasket on housing, aligning cap screw and porting holes.

106 If control orifice was removed, insert it now in recess located in control body. Raised portion of orifice (top of hat) must point away from control housing.

107 Install square cut seal ring to keep orifice in place.

108 Install control valve assembly, aligning feedback linkage pin with swashplate link. Slide control valve assembly over to engage linkage assembly. Carefully set control valve assembly on housing, making sure swashplate link points toward end cover.

109 Install six cap screws in control valve housing and tighten them to 16 lb-ft [22 Nm]. Torque screws in star pattern. Then torque each screw a second time to compensate for gasket compression set.

Shaft Seal Installation

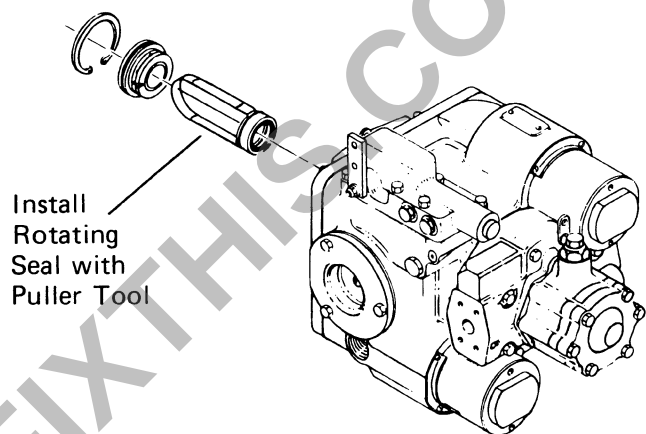


Figure 30

Important: The mating metal-to-metal seal surfaces are very critical and must be handled carefully. *Do not* put finger prints on these surfaces.

Mating areas of stationary and rotating seals must be cleaned with an aerosol cleaner such as Freon or trichlorethylene. The cleaner must evaporate and not leave any residue. It must also be compatible with Viton. Coat seals with clean filtered oil before assembly. Make sure rotating seal o-ring is inside rotating seal before assembling onto drive shaft.

110 Lubricate rotating shaft o-ring with petroleum jelly. Install o-ring in recess located in rotating shaft seal.

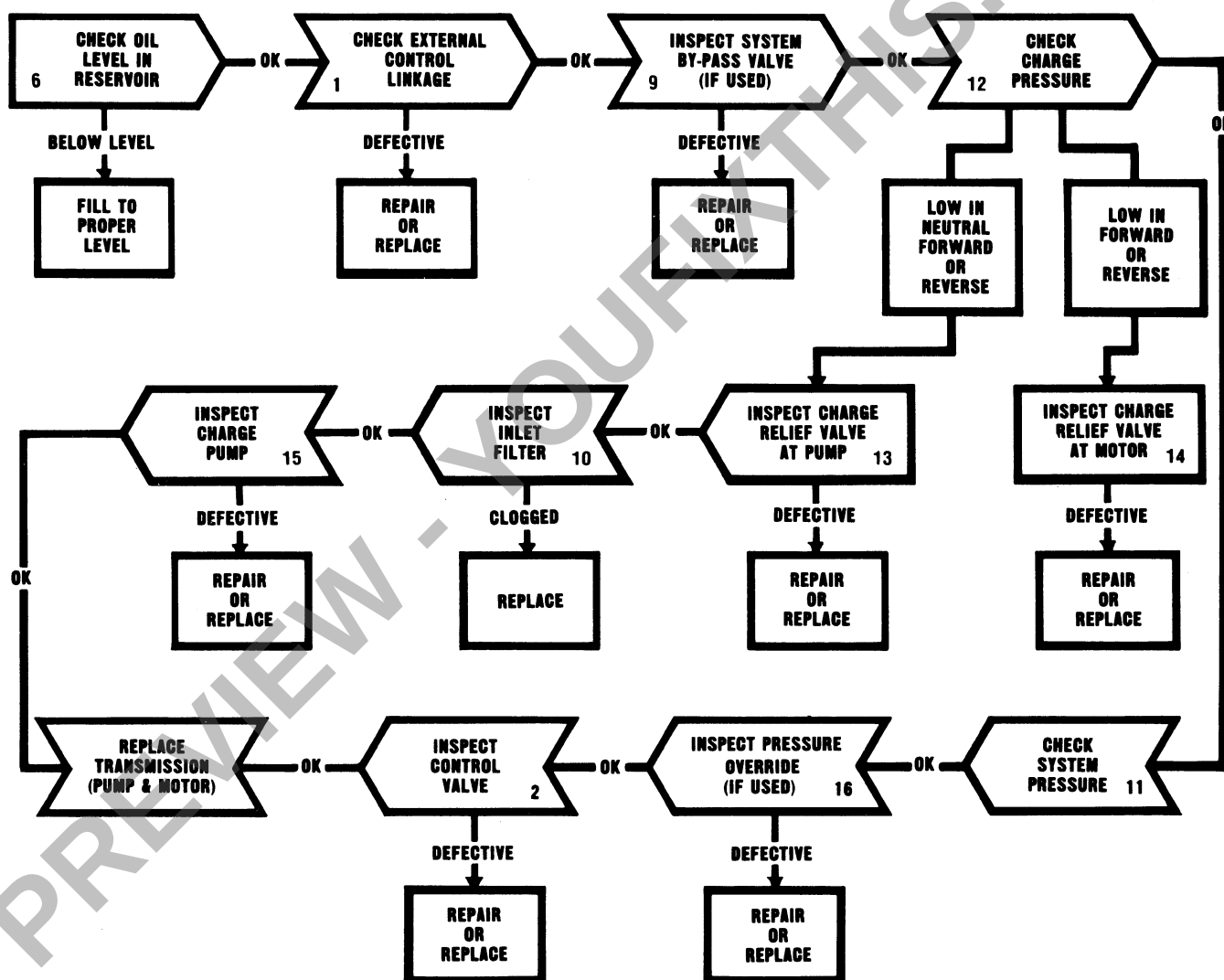
111 Use seal puller (figure 30) to grip outside diameter of rotating shaft seal. Push seal into place on pump shaft subassembly. Be careful not to scratch sealing surface of shaft seal during installation.

112 Lubricate stationary seal o-ring with petroleum jelly. Install o-ring in recess located in stationary portion of shaft seal.

113 Lightly coat surface of stationary shaft seal with clean hydraulic fluid. Carefully install stationary seal over pump shaft subassembly, into mounting flange.

114 Using retaining ring pliers, insert retaining ring (beveled side facing outward) into groove located in mounting flange.

System Will Not Operate in Either Direction



6 Hydraulic Oil Cooler

6.1 REMOVAL

1. Shut down engine, engage parkbrake and chock wheels. Open front grill.
2. Lower cooler mounting frame to access oil cooler mounted ahead of radiator on cooler frame top (Figure 6-27).

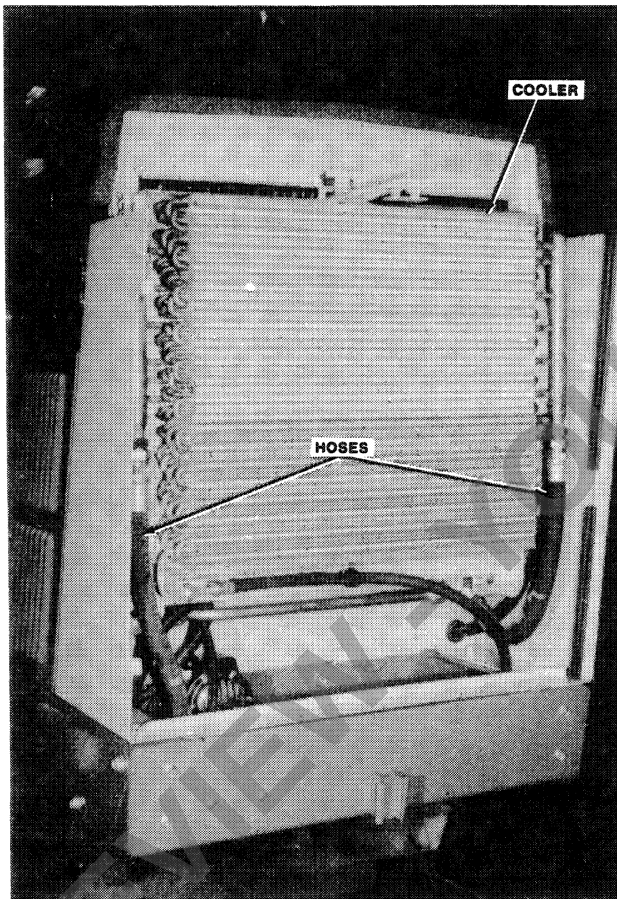


FIGURE 6-27: Oil Cooler Removal

3. Drain hydraulic reservoir and disconnect hydraulic hoses from cooler. Cap and label hoses and cap cooler ports.
4. Remove four screws securing cooler and remove cooler.

6.2 INSPECTION

1. Flush cooler with solvent and check for dirt and blockages.

WARNING

ESCAPING HYDRAULIC OIL UNDER PRESSURE CAN PENETRATE THE SKIN CAUSING SERIOUS PERSONAL INJURY. WEAR SAFETY GOGGLES AND GLOVES WHEN SEARCHING FOR LEAKS. GET MEDICAL ATTENTION IMMEDIATELY IF INJURED.



2. Check for broken tubing and crushed fins. Straighten bent fins with fin comb.

IMPORTANT

If cooler is damaged it must be repaired by a radiator repair specialist.

6.3 INSTALLATION

1. Install cooler to cooler frame with four screws. Tighten screws securely.
2. Remove caps from cooler and hydraulic hoses and install hoses to cooler ports. Tighten fittings securely.
3. Fill hydraulic reservoir with 32 L (8.5 gal US) of Dexron II or equivalent.
4. Start engine and operate hydraulic system.
5. Shut down engine and check for leaks. Tighten connections and top up hydraulic reservoir if necessary.

7 Hydraulic Reservoir

7.1 REMOVAL

1. Shut down engine, engage parkbrake and chock wheels.
2. Drain hydraulic reservoir.
3. Remove air intake cap and exhaust muffler.
4. Remove top hood, side and rear access panels. Refer to Section 10, STRUCTURES.

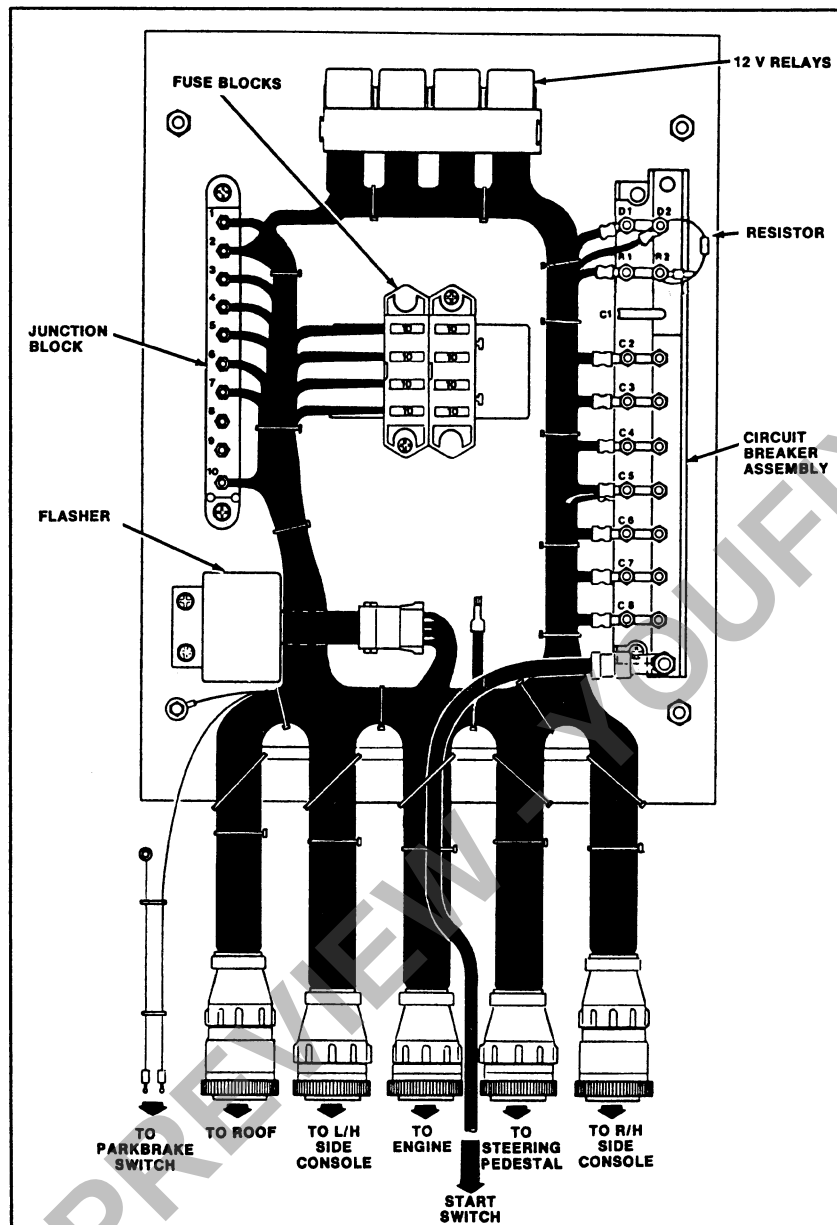


FIGURE 8-4: Junction Box Harness

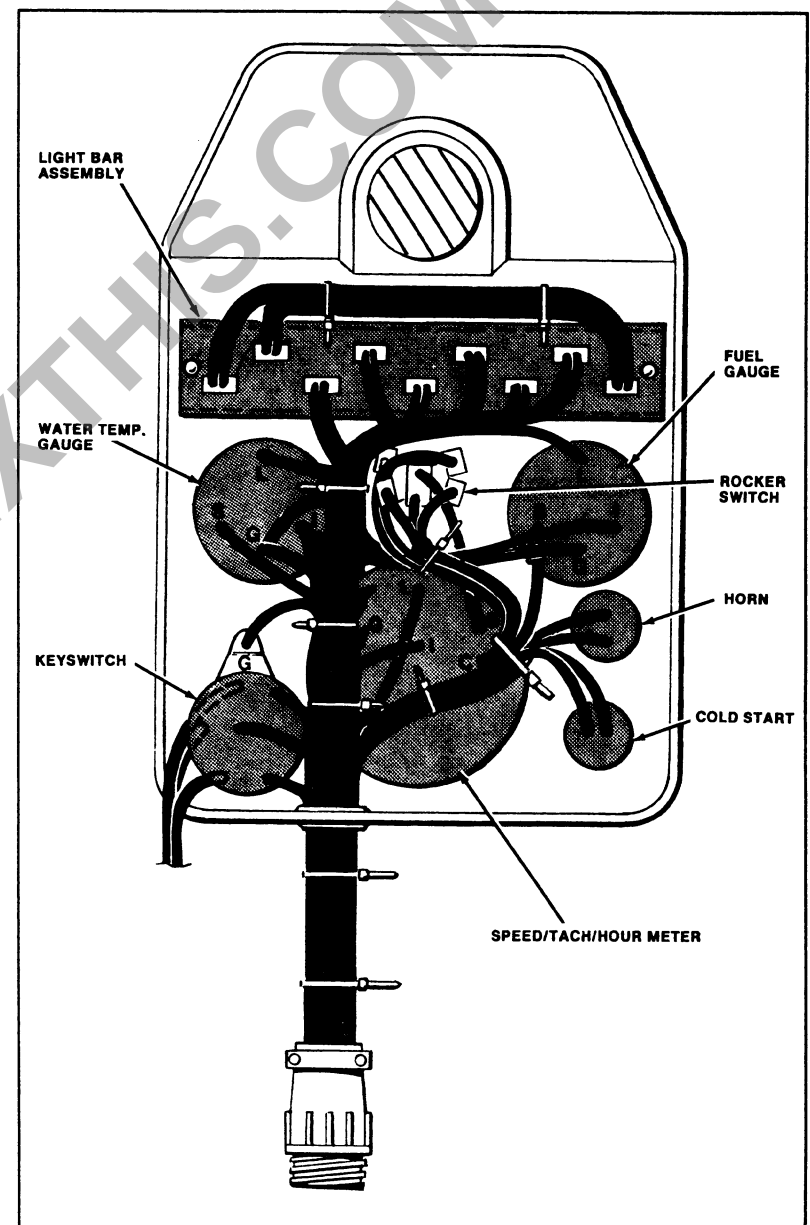


FIGURE 8-5: Steering Pedestal Harness

PREVIEW ONLY

You're viewing 17 of 382 pages

The full manual includes:

- All 382 pages, complete
 - Searchable PDF (find any keyword)
 - No watermarks
 - Instant download
 - Print-ready quality
-

GET FULL MANUAL NOW

Versatile 256, 276, 276 II, Bidirectional Tractors Service Manual



Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual