AIR INDUCTION SYSTEM - DESCRIPTION AND OPERATION

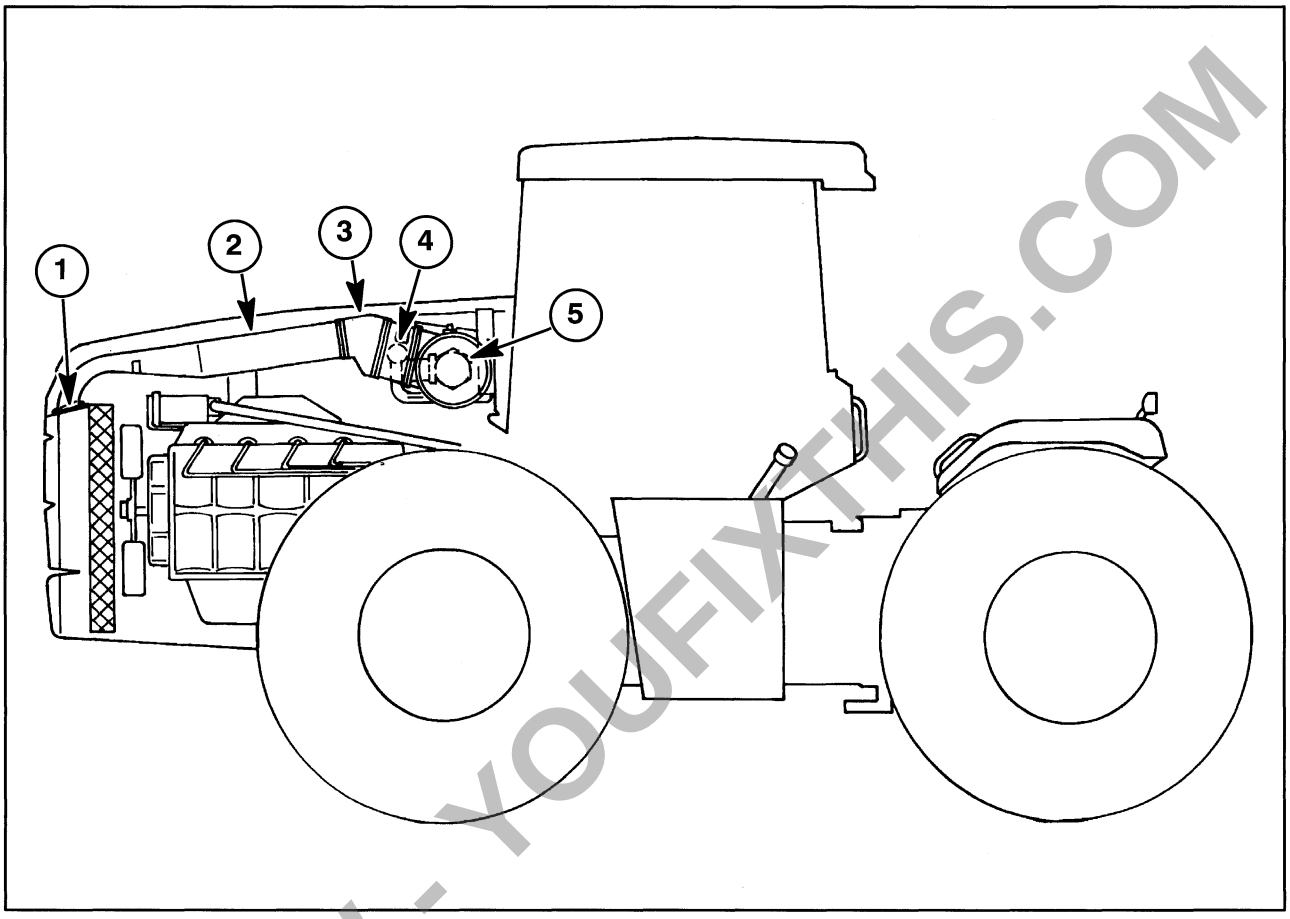


Figure 1-1

INTRODUCTION

The air induction system is the first section to be covered in the engine section. The air induction system has slight variations for the different engines supplied by the Cummins Engine Company. Though there are a few variations, the components are the same, for all 80/82 Series tractors.

The air induction system consists of a bulb seal, 1, surrounding the front edge of the air induction tube (Some early production tractors may not have the bulb seal installed. If not, install a seal at the time of service.); the air induction tube, 2, is mounted to the upper radiator shell and directs fresh air to the rubber boot, 3. The rubber boot is connected to the precleaner, 4. The precleaner is designed to eliminate larger particles of dirt and debris from entering into the air cleaner, 5.

The air cleaner is comprised of a primary (outer) air filter and a secondary (inner) air filter to ensure that no dirt or debris reaches, and damages, the turbocharger assembly.

The air cleaner is mounted to the rear engine frame by four bolts. Their are eight bolt holes on later production tractors to accommodate orientation of air induction components. When installing the air cleaner, be certain to mount it in the proper holes or the air induction components will not fit the tractor properly.

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

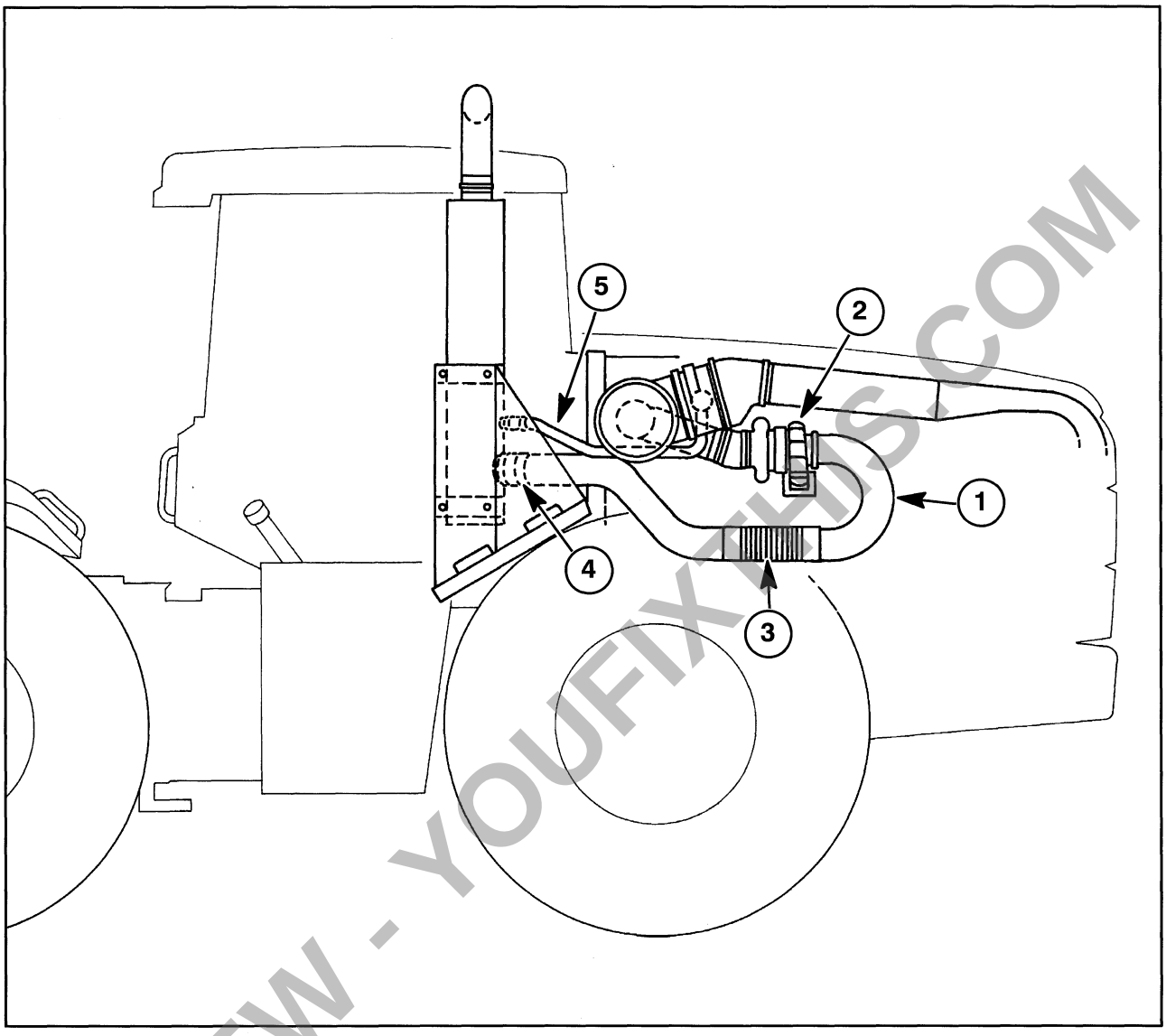


Figure 1-66

The 9480, 9680 and 9880 (14L) and the 9682 and 9882 (N14) Series tractors have a U shaped steel tube, 1, connected to the turbocharger, 2, outlet port and to the flex pipe, 3. The flex pipe connects to a steel tube on one end and to the base of the muffler, 4, on the other end. The aspirator tube, 5, connects to the muffler at one end and to the precleaner on the other end.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

The Engine Identification Plate for the 9282 tractor (C8.3) is located on the left side of the engine ahead of the fuel injection pump, 1.

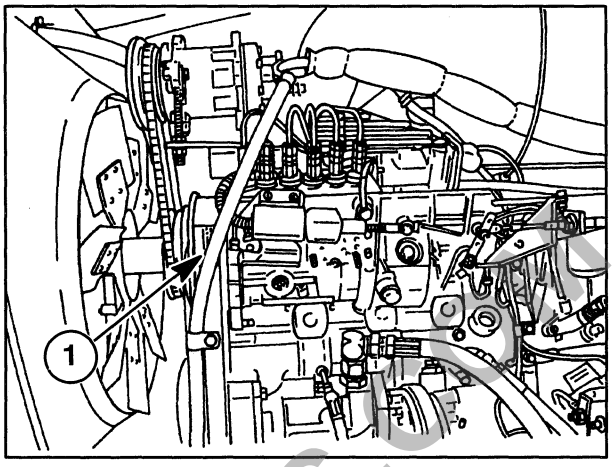


Figure 1-128

On the 9280 (L10) and the 9482 (M11) tractors the Engine Identification Plate, 1, is located on the left side of the engine below the valve cover.

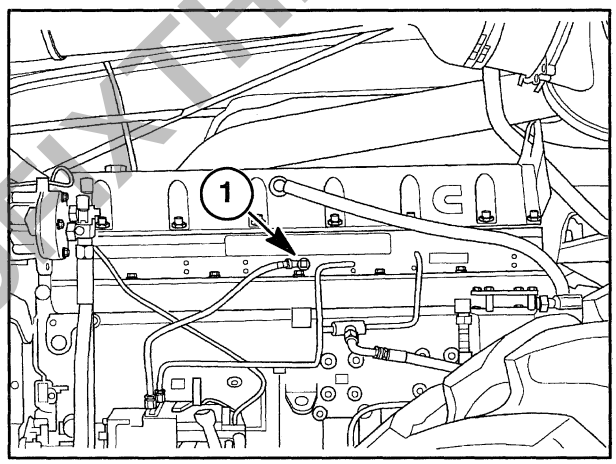


Figure 1-129

For the 9480, 9680 and 9880 tractors (14L) engines and the 9682 and 9882 (N14) engines, the Engine Identification Plate, 1, is located on the left side of the engine directly below the A/C compressor.

NOTE: It is very important to include the engine number, engine family and engine control parts listing (CPL) number when contact is made with you Cummins engine dealer/distributor.

IMPORTANT: Never attempt to modify or adjust the engine fuel injection system. Only a certified Cummins engine dealer or distributor is authorized to inspect the fuel injection system. Adjusting the fuel injection system above manufacturer's specification will void the tractor warranty and may result in criminal prosecution (engine emission standards).

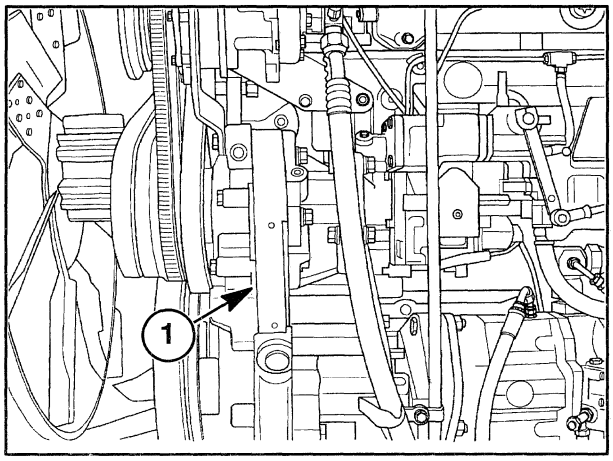


Figure 1-130

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

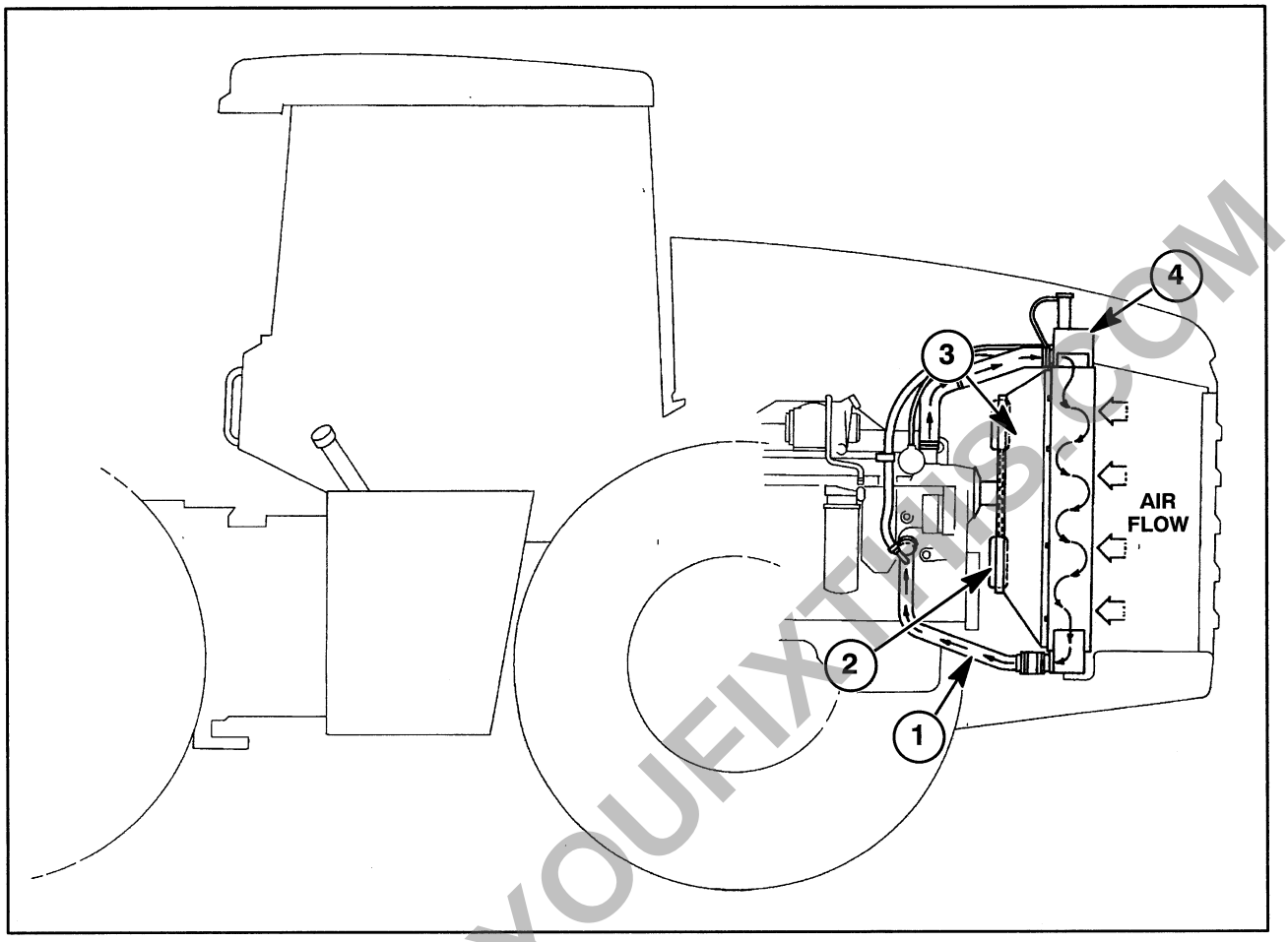


Figure 1-348

A side view of the cooling system shows the location of the lower radiator hose, 1, the fan, 2, and shroud, 3.

The coolant is pumped from the lower radiator hose into the engine by the water pump. The coolant flows through the engine and back into the top of the radiator via the upper radiator hose.

The lower radiator hose has a spring inside to prevent the hose from collapsing as the water pump draws the coolant from the radiator into the engine.

While the tractor is in use, a constant air flow is drawn through the radiator to cool the antifreeze. The fan draws the cooler air through the radiator to lower the temperature of the coolant. The engine speed, fan diameter and pitch width of the fan blades determines the amount of air drawn through the radiator. The greater the pitch width, the more cubic feet per minute (CFM) the fan will draw through the radiator.

The upper tank of the radiator is an expansion tank, 4, which allows for additional antifreeze to be stored during heating and cooling of the coolant during normal tractor operation.

The surge hose allows additional coolant to be directed to the radiator during deceleration and the slowing down of the water pump. The excess coolant is directed up through the surge hose and into the expansion tank.

The air bleed hose, located on top of the radiator, allows any trapped air within the cooling system to escape from the engine and back to the expansion tank of the radiator. If excessive air is trapped, the temperature readings will be higher and may illuminate the engine coolant light on the Electronic Instrument Control System (EICS) control panel.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

DESCRIPTION & OPERATION

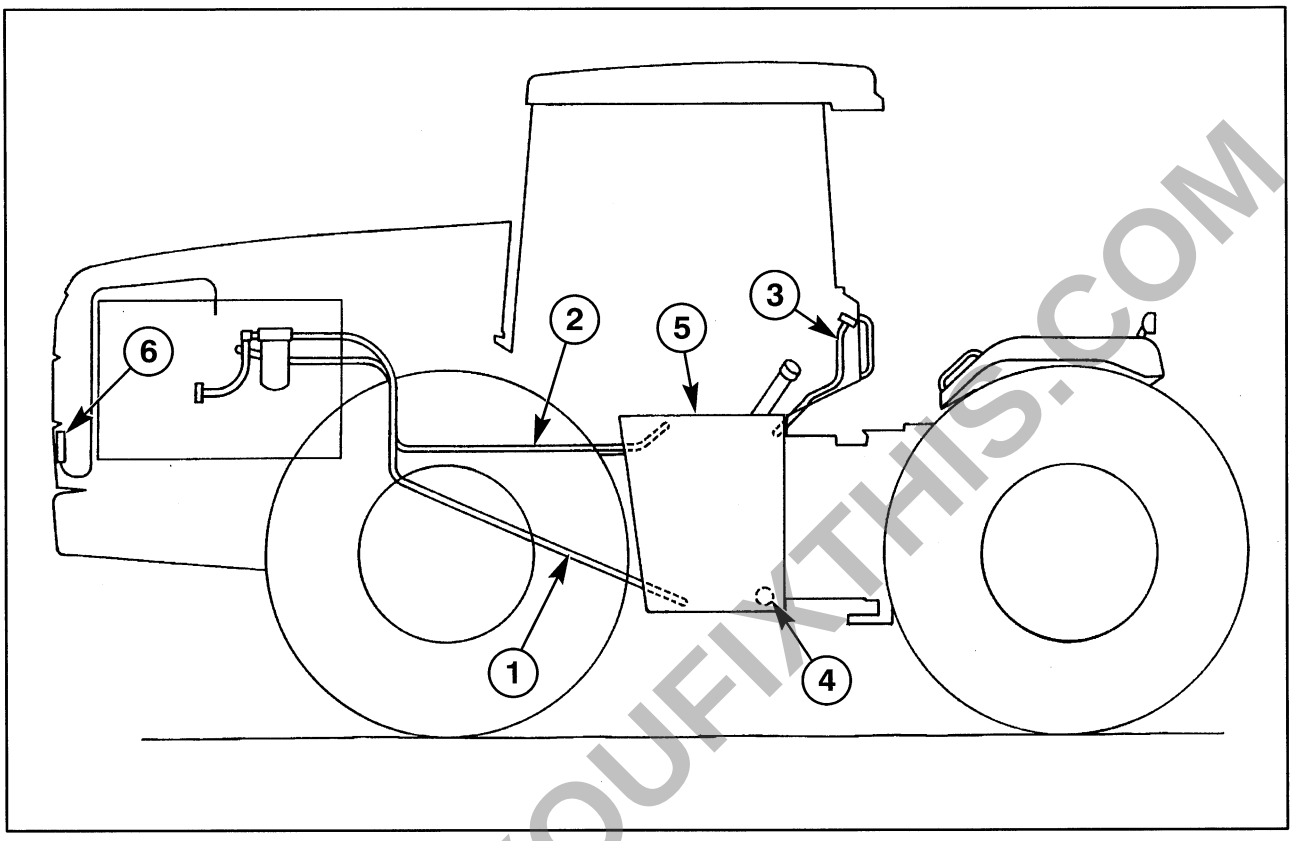


Figure 2-1

02-01-001

INTRODUCTION

This section covers the tanks and tubing between the return line fitting at the engine to the suction line fitting at the fuel filter. The cold start system and the throttle and decelerator linkage are also included.

All engine-related fuel system components starting at the fuel filter(s), including the fuel pump, injectors, and external tubing on the engine, are serviced by the Cummins Engine Company authorized Dealer/Distributors.

NOTE: The fuel filter(s) can be purchased from New Holland and serviced by the dealer or customer.

When contacting a Cummins dealer or distributor, have the engine serial number, engine model number, and control parts listing (CPL) number available. This information is contained on the engine identification tag located on the engine.

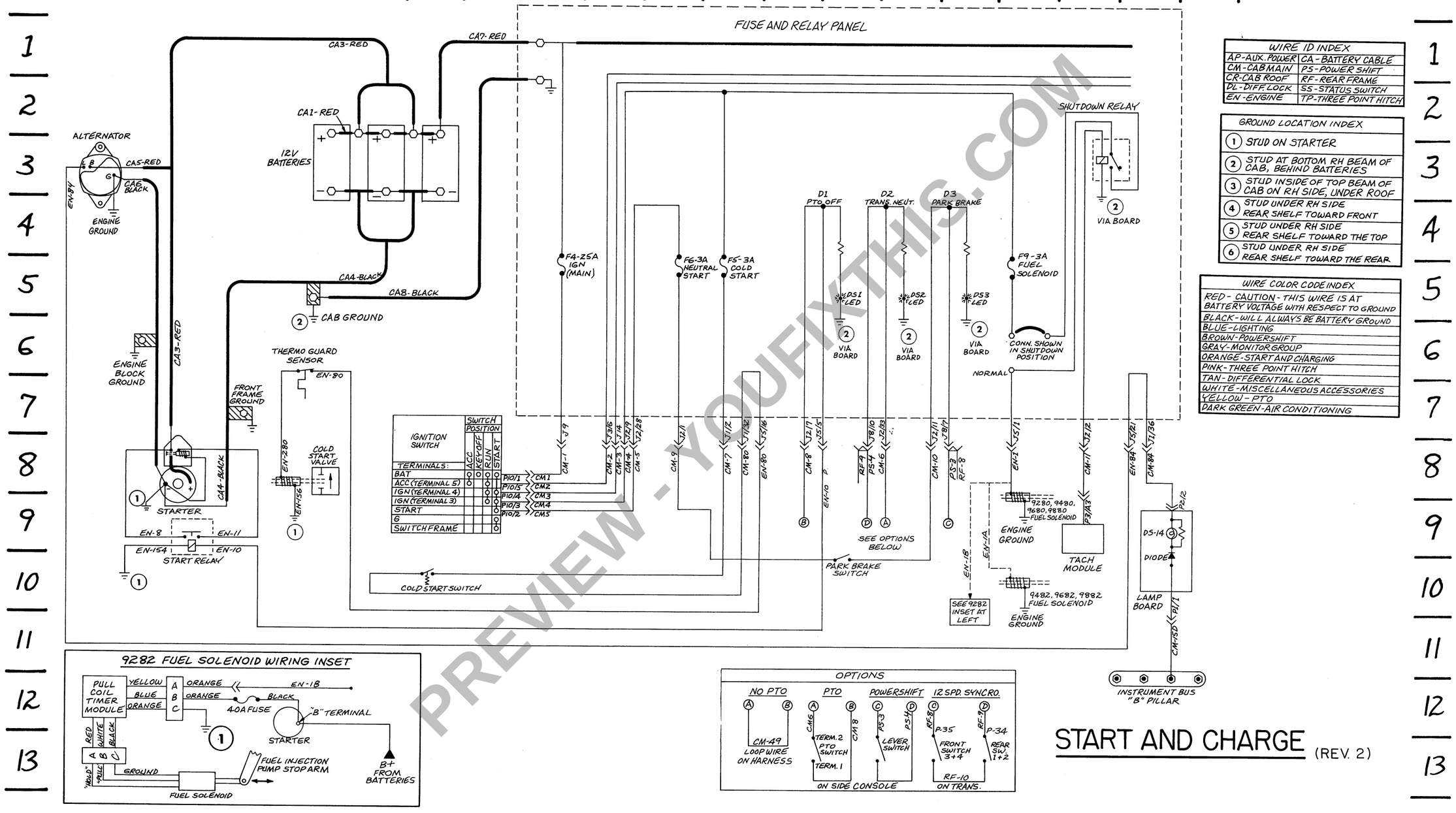
The figures contained in this section represent all model Cummins engines used in 80/82 Series tractors. Any appreciable differences will be noted in the text.

The fuel system on the 80/82 Series tractors consists of:

1 A fuel suction line
2 A fuel return line
3 A breather with hoses
4 A crossover tube
5 Two fuel tanks
6 Cold starting system
7 Throttle linkage (not pictured)
8 Decelerator (not pictured)

The fuel system is designed to carry and deliver clean fuel to and from the engine.

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com



WIRE ID INDEX	
AP-AUX. POWER	CA-BATTERY CABLE
CM-CAB MAIN	PS-POWER SHIFT
CR-CAB ROOF	RF-REAR FRAME
DL-DIFF. LOCK	SS-STATUS SWITCH
EN-ENGINE	TP-THREE POINT HITCH

GROUND LOCATION INDEX
(1) STUD ON STARTER
(2) STUD AT BOTTOM RH BEAM OF CAB, BEHIND BATTERIES
(3) STUD INSIDE OF TOP BEAM OF CAB ON RH SIDE, UNDER ROOF
(4) STUD UNDER RH SIDE REAR SHELF TOWARD FRONT
(5) STUD UNDER RH SIDE REAR SHELF TOWARD THE TOP
(6) STUD UNDER RH SIDE REAR SHELF TOWARD THE REAR

WIRE COLOR CODE INDEX
RED - CAUTION - THIS WIRE IS AT BATTERY VOLTAGE WITH RESPECT TO GROUND
BLACK - WILL ALWAYS BE BATTERY GROUND
BLUE - LIGHTING
BROWN - POWERSHIFT
GRAY - MONITOR GROUP
ORANGE - START AND CHARGING
PINK - THREE POINT HITCH
TAN - DIFFERENTIAL LOCK
WHITE - MISCELLANEOUS ACCESSORIES
YELLOW - PTO
DARK GREEN - AIR CONDITIONING

START AND CHARGE (REV. 2)

Figure 3-12

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

CAUTION: THE BATTERIES CONTAIN SULFURIC ACID. AVOID CONTACT WITH THE SKIN, EYES OR CLOTHING. WEAR PROTECTIVE CLOTHING AND EYE PROTECTION WHEN HANDLING THE BATTERIES. IN CASE OF CONTACT WITH THE SKIN, FLUSH AFFECTED AREA WITH WATER FOR FIVE MINUTES. SEEK MEDICAL ATTENTION IMMEDIATELY.

Visually examine the batteries to determine they are not cracked, leaking acid, or have a loose post. The batteries used in the 80/82 Series tractor are low maintenance. The level of the electrolyte can be checked and a specific gravity test can be performed.

Checking the Battery Electrolyte Level

1. Clean the top of the batteries with a damp cloth.
2. Remove the six fill plugs, 1, from each battery.
3. Check the electrolyte level is 6 mm (1/4 in.) below the filler neck of each cell.
4. Add distilled or demineralized water as required. Do not overfill.
5. Replace all fill plugs.

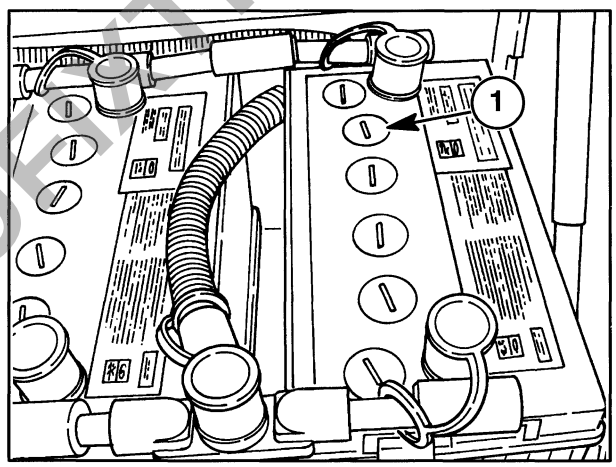


Figure 3-28

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

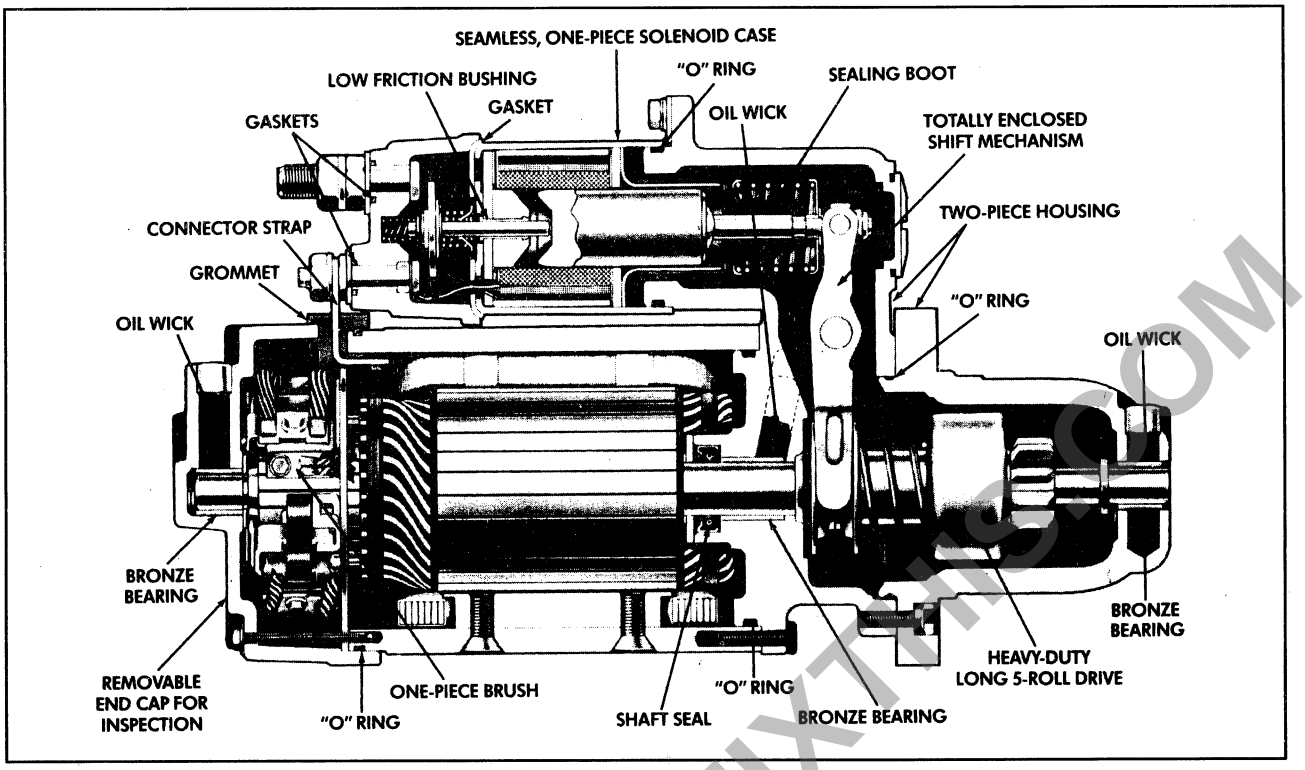


Figure 3-40

Delco-Remy, Series 37MT, Type 300, Model #1993958 Starter Motor
Used on the 9282 (8.3L) tractor

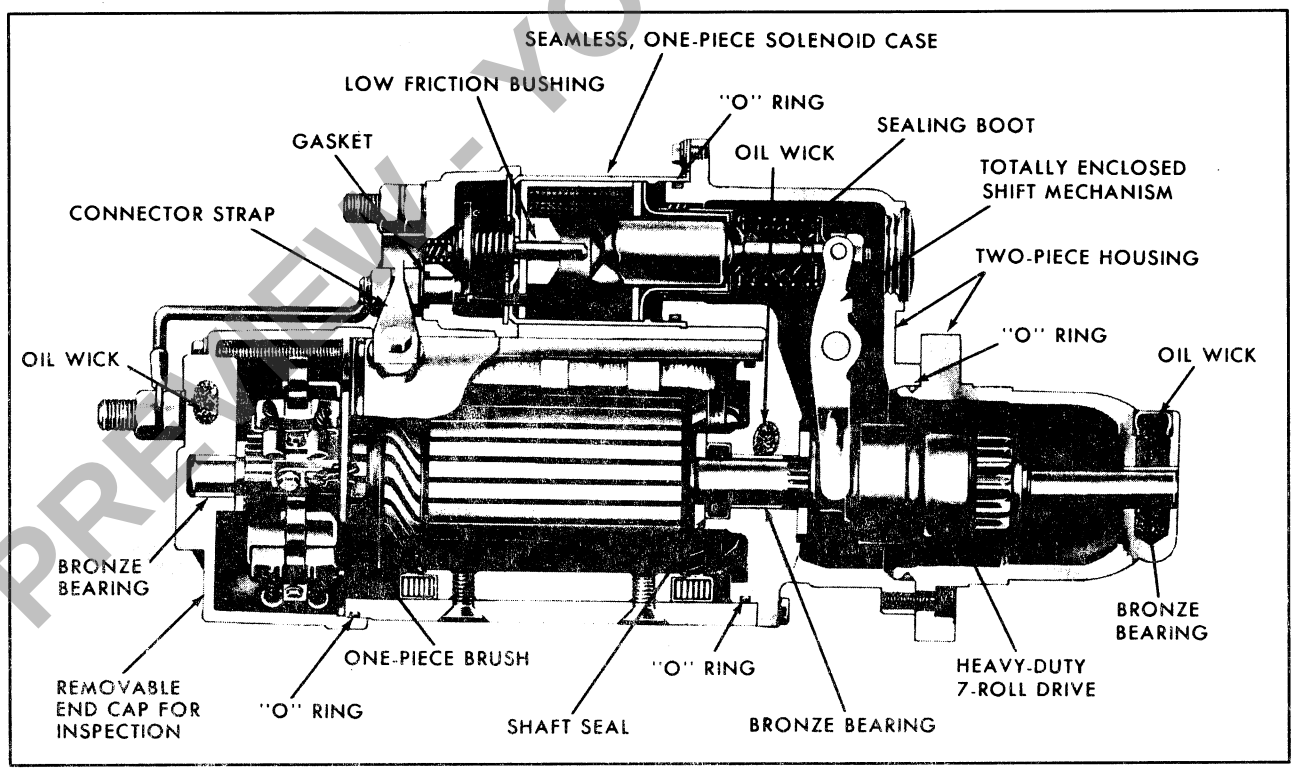


Figure 3-41

Delco-Remy, Series 42MT, Type 400, Model #10478832 Starter Motor
Used on the 9280 (L10), 9480, 9680, 9880 (14L), 9482 (M11), 9682, and 9882 (N14) Tractors

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Indicator Light Fault Testing

Test Equipment Needed:

- Jumper lead with 5-amp fuse.

1. If indicator light, 2, is on with engine running:

   Stop engine. Turn key switch, 3, to "run" position. Indicator light, 2, should be on. If not, got to step 3.

   Disconnect indicator light lead, 4, at alternator, 5. This will be the "I" terminal connector.

   If indicator light, 2, remains on, locate and correct shorted or grounded condition in indicator light circuit between the light and alternator.

   If indicator light, 2, goes out, light is working properly. Proceed to "Checking System With Indicator Light Working Properly."

2. If indicator light, 2, does not come on with the key switch, 3, in the "run" position with the engine stopped ("bulb check" mode):

   Leave key in "Run" position with engine stopped. Disconnect indicator light lead, 4, from alternator, 6. This will be at the "I" terminal. Use fused (5-amp) jumper lead, 5, to ground indicator lamp circuit in harness connector to alternator housing.

   If indicator light, 2, comes on with jumper lead in place, repair the alternator, 6.

   If indicator light, 2, does not come on with jumper lead, 5, in place, locate and correct open circuit in indicator light circuit. Circuit may be open or light bulb may be burned out. Correct as necessary.

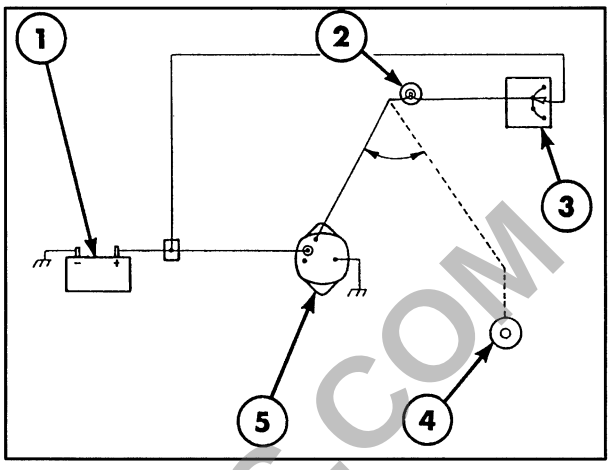


Figure 3-132

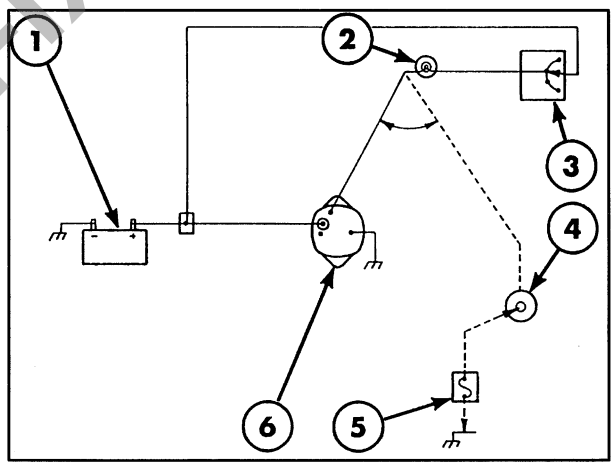


Figure 3-133

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Electronic Monitor

The electronic monitor, 1, is an LCD (Liquid Crystal Display) that is divided into two sections; an upper section, 2, and a lower section, 3.

The upper section of the monitor is dedicated to providing engine RPM readout at all times during normal tractor operation, regardless of the position of the rotary select switch.

The lower section of the monitor is dedicated to providing six different readouts, based on the position of the rotary select switch during normal tractor operation.

The electronic monitor also has an audible alarm which will call the operator's attention to the Electronic Instrument Control System.

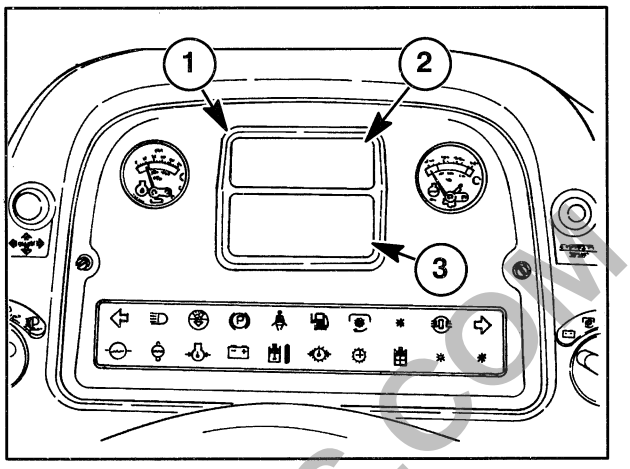


Figure 3-169

Electronic Monitor Acknowledge/Reset Button

The electronic monitor acknowledge/reset button is a push-button two-position momentary switch that allows the operator to acknowledge information provided by the Electronic Instrument Control System. The button is also used during the calibration procedure.

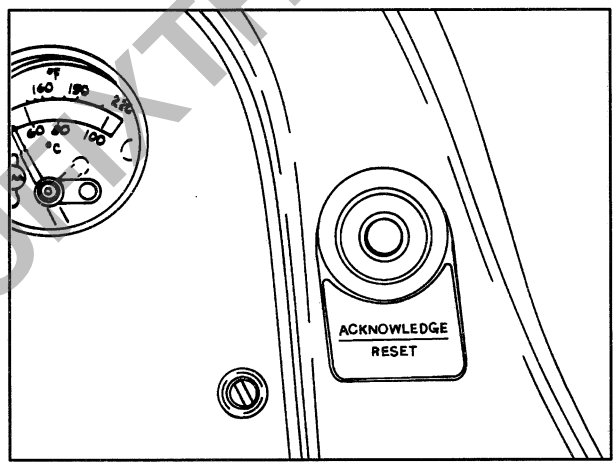


Figure 3-170

Electronic Monitor Rotary Select Switch

The electronic monitor rotary select switch is a six-position rotary switch used to select LCD readouts on the lower half of the electronic monitor.

1 Electrical system voltage

2 PTO speed

3 Tractor ground speed

4 Service interval one

5 Service interval two

6 Tractor accumulated hours

The rotary select switch is active at all times during normal operation of the tractor.

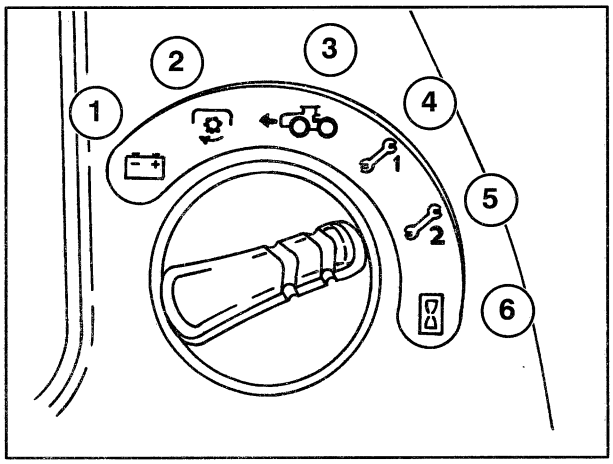


Figure 3-171

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Replacing the Windshield Wiper and Windshield Washer Motors

Instructions for removing and replacing windshield wiper and washer components are located in Section 11 - Cab.

SEAT COMPRESSOR

Information on the seat is located in Section 11 - Cab.

LIGHTS

Operation

The 80/82 Series tractor is equipped with lights to allow for nighttime and low light operating conditions.

Front lighting consists of four worklamps, 1, above the grille, one worklamp, 2, on each front fender and two safety flashers, 3, at the top of the cab.

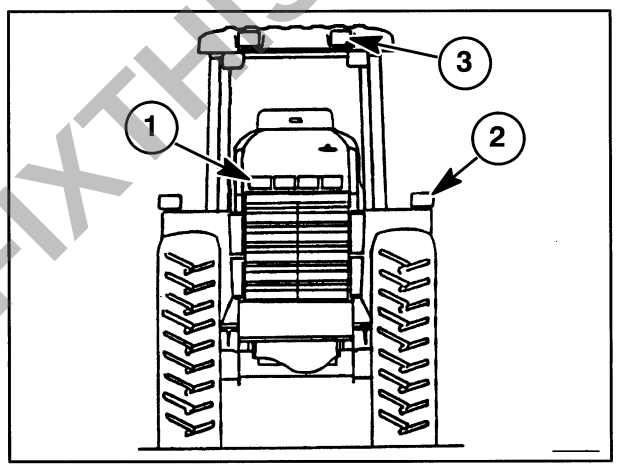


Figure 3-278

Rear lighting consists of two worklamps, 1, located on each rear fender. A combination brake and taillight, 2, is located in the rear fenders and amber safety flashers, 3, are mounted on the cab as standard equipment.

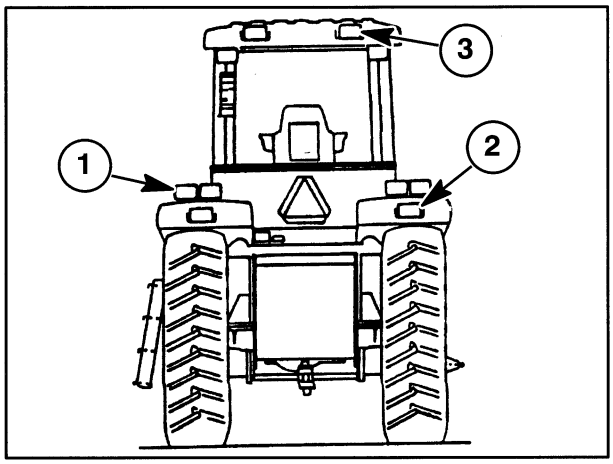


Figure 3-279

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

DESCRIPTION AND OPERATION

INTRODUCTION

This Section deals with the 12 × 4 Quadra Sync (QS) Transmission that is standard equipment on all model 80 and 82 Series tractors (Powershift transmissions are optional equipment).

An identical version of the 12 × 4 QS transmission is used in all model 80 or 82 Series tractors. There is no differentiation of transmissions or internal transmission components based on tractor horsepower.

Small changes have been made to the internal components of the transmission since original introduction of the 80 Series tractors. Any significant differences in the internal components will be referenced in the text of this manual.

The transmission, 1, is a self contained component that is mounted in the front frame of the tractor, directly under the cab.

A flex coupling, 2, and input driveline, 3, provide the connection between the engine and transmission. Any time the engine turns, the transmission input yoke and input shaft turn.

The front output shaft, 4, is connected to the transmission front output yoke and provides power out to the front axle, 5, of the tractor. The articulation driveshaft, 6, and rear driveshaft, 7, are connected to the transmission rear output yoke and provide power to the rear axle, 8, of the tractor.

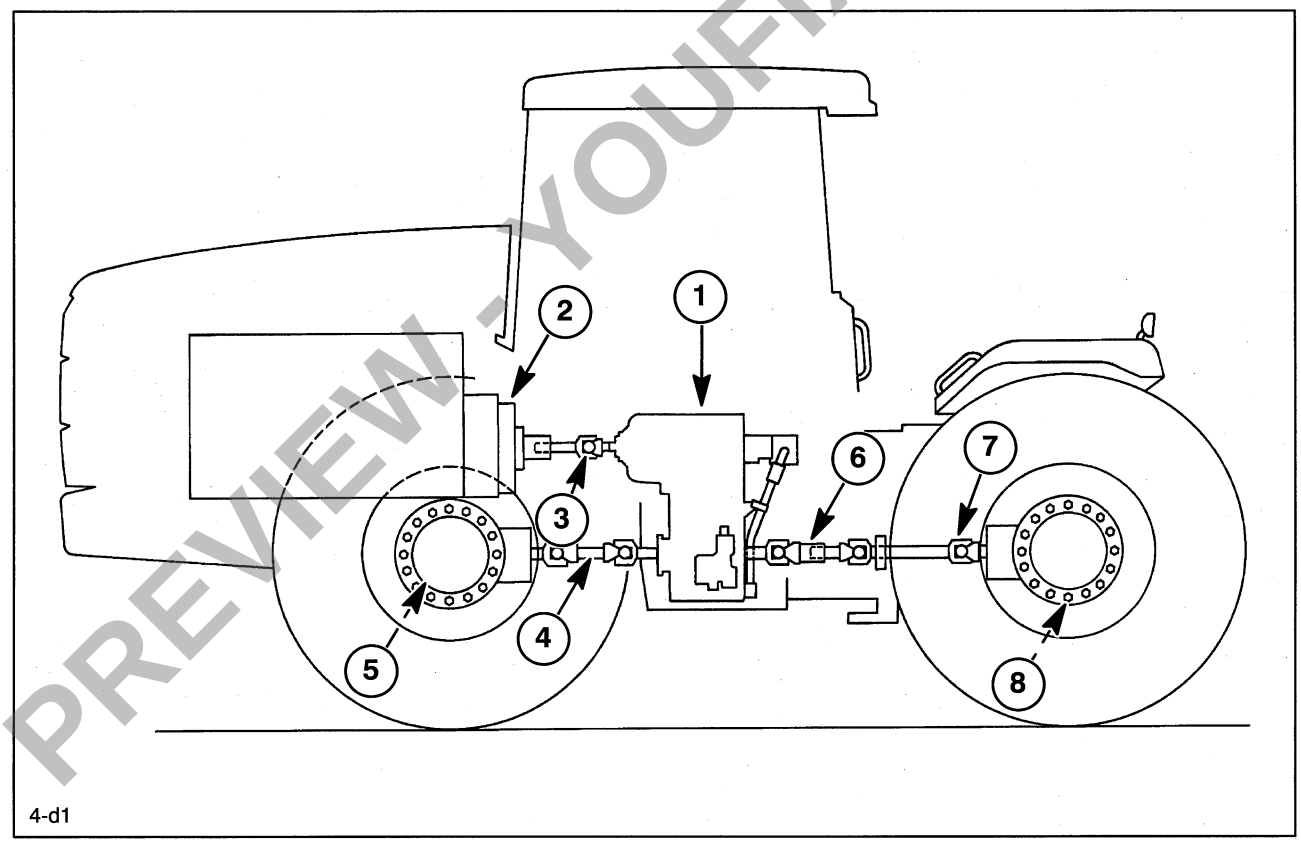


Figure 4-1

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

DESCRIPTION AND OPERATION

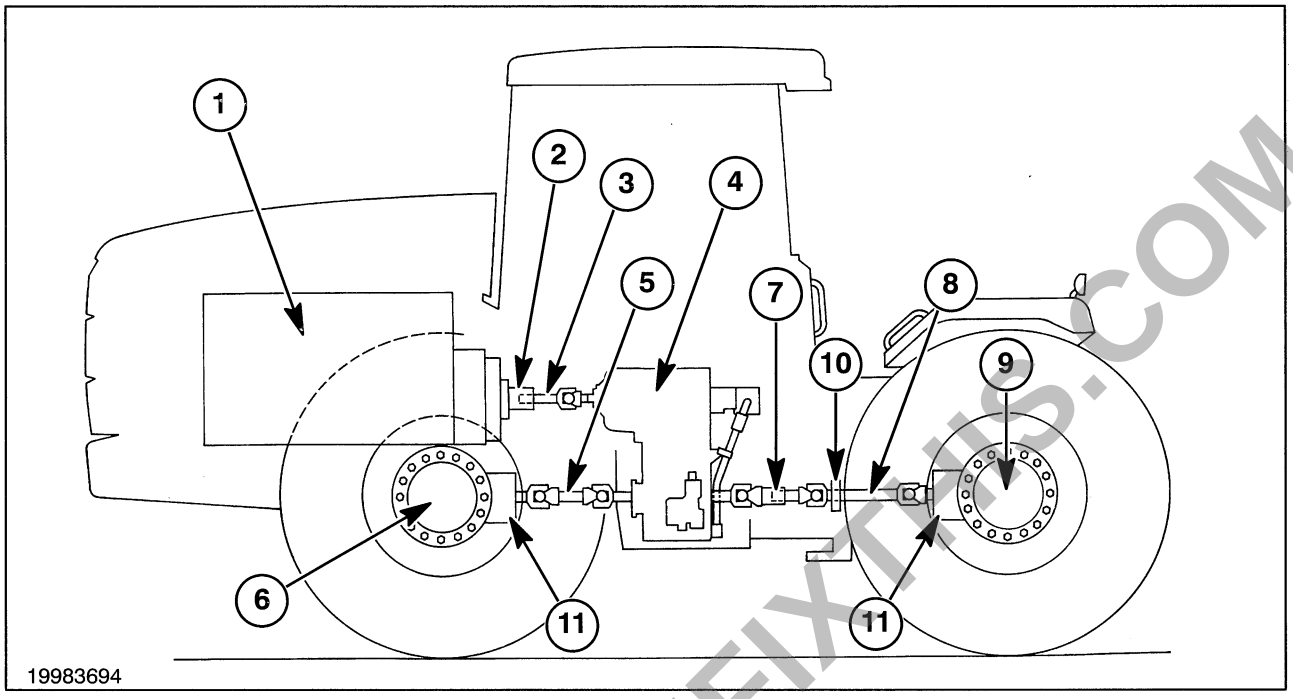


Figure 5-1

INTRODUCTION

The drive shafts and axles transfer the engine torque to the wheels. The drive shafts link the engine to the transmission and the transmission to the axles.

The power from the engine, 1, travels through the flexible coupler, 2, and input drive shaft, 3, to the transmission. The outer ring of the flexible coupler attaches to the engine flywheel and the inner ring attaches to the input drive shaft.

The transmission, 4, always drives the front and rear axles equally. The front axle drive shaft, 5, drives the front axle, 6. The articulation drive shaft, 7, and rear axle drive shaft, 8, drive the rear axle, 9.

A steady bearing, 10, holds the rear axle drive shaft steady in the rear frame while the articulation joint changes angles during steering articulation and oscillation.

The gears inside the differential head assembly, 11, and center housing, 12, change the direction of the rotational power from the drive shafts and transfer it to the axles.

On all models of 80/82 Series tractors, the engine turns counterclockwise (viewed from the operator's seat). In Forward and Reverse, the front and rear axle drive shafts always turn in the same direction at the same speed.

The differential lock electric shift unit, 13, bolts to the front differential head assembly, 11. The operator controls the differential lock function with a momentary switch, 14, on the right hand console in the cab. Differential lock keeps the axle shafts turning at the same rate during low torque conditions.

1. Engine
2. Flexible Coupler
3. Input Drive Shaft
4. Transmission
5. Front Axle Drive Shaft
6. Front Axle Shafts
7. Articulation Drive Shaft
8. Rear Axle Drive Shaft
9. Rear Axle Shafts
10. Steady Bearing
11. Differential Head Assembly
12. Center Housing
13. Electric Shift Unit — Differential Lock
14. Differential Lock Switch

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

DESCRIPTION AND OPERATION

INTRODUCTION

The 80/82 Series tractors utilize a single dry disc power braking system.

System actuation is accomplished by using a hydraulic service brake (foot pedal) and a mechanical park brake (hand lever).

Braking of the tractor is accomplished by loading a brake rotor that is bolted to the transmission output shaft thereby bringing the tractor to a stop.

Figure 6-1

The brake system consists of the following components:

1. Brake pedal and linkage
2. Brake fluid reservoir
3. Master cylinder
4. Brake lines
5. Caliper
6. Rotor
7. Park brake lever and cable

These components work together to provide the operator with safe braking capabilities.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

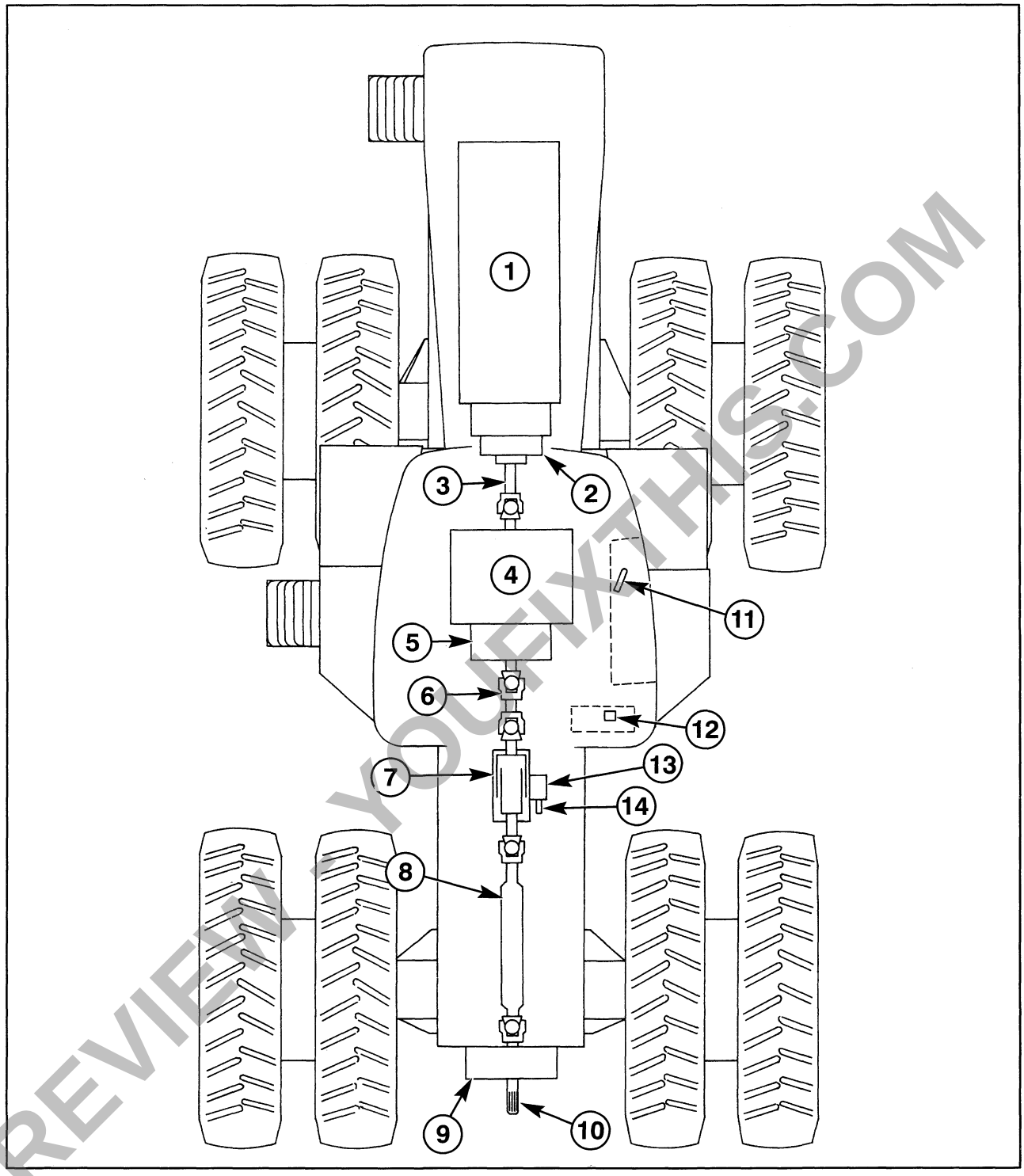


Figure 7-1

Power is transmitted to the PTO system via the engine, 1, and flex coupling, 2, (attached to the engine flywheel), through the transmission input drive shaft, 3, and into the transmission, 4.

A transfer case, 5, is attached to the rear of the transmission and drives the articulation drive shaft, 6. The articulation drive shaft is attached to the input yoke of the clutch/brake assembly, 7.

When the PTO is engaged, the output yoke of the clutch will turn the rear drive shaft, 8, and drop box, 9. The output shaft, 10, will provide power to the trailing implement.

The PTO switch, 11; relay, 12; solenoid valve manifold, 13; and solenoid valve, 14, make up the electrical control circuit the operator uses to turn the PTO on and off.

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Use the following information to identify the tractor being worked on:

80 SERIES - NON HI-FLO

If the inside right frame has a relief valve that has lines to the pump and steering valve, the tractor is non Hi-Flo - use the 80 Series section.

Note: The figure shows the original 80 Series open center steering system relief valve in two possible mounting configurations. The first relief valve, 1, is shown mounted in a horizontal, noise reduced, orientation. The second relief valve, 2, is shown in a vertical, non-noise reduced, orientation. Both valves are identical and part of the original 80 Series open center steering system.

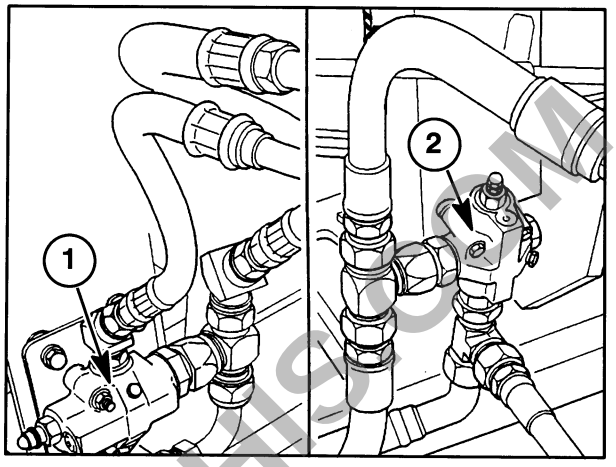


Figure 8-1

Model	Engine	Implement Pump Flow
9280	10 L	95 l/min (25 GPM)
9480, 9680, 9880 Serial Numbers D100000 to D101170	14 L	95 l/min (25 GPM)
9480, 9680, 9880 Serial Numbers D101171 to D103399	14 L	115 l/min (30 GPM)

82 SERIES AND HI-FLO 80 SERIES

If the inside right frame has a stack of two priority valves, 1, the tractor is Hi-Flo - use the 82 Series section.

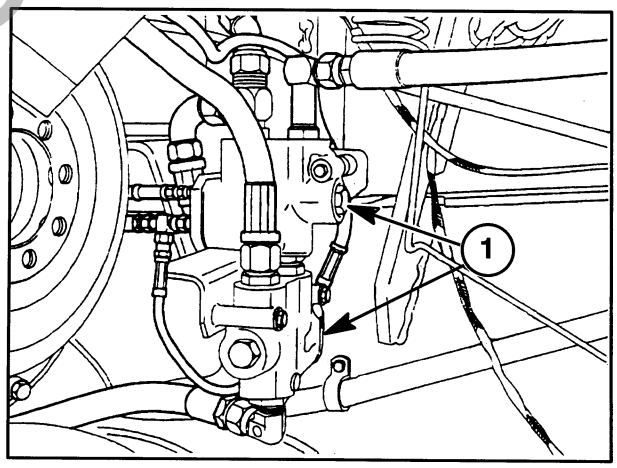


Figure 8-2

Model	Engine	Implement Pump Flow	HI-FLO Total Flow
9280	10 L	95 l/min (25 GPM)	170 l/min (45 GPM)
9480, 9680, 9880 Serial Numbers D100000 to D101170	14 L	95 l/min (25 GPM)	170 l/min (45 GPM)
9480, 9680, 9880 Serial Numbers D101171 to D103399	14 L	115 l/min (30 GPM)	190 l/min (50 GPM)
9282	8.3 L	95 l/min (25 GPM)	170 l/min (45 GPM)
9482	11 L	95 l/min (25 GPM)	170 l/min (45 GPM)
9682, 9882	14 L	115 l/min (30 GPM)	190 l/min (50 GPM)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

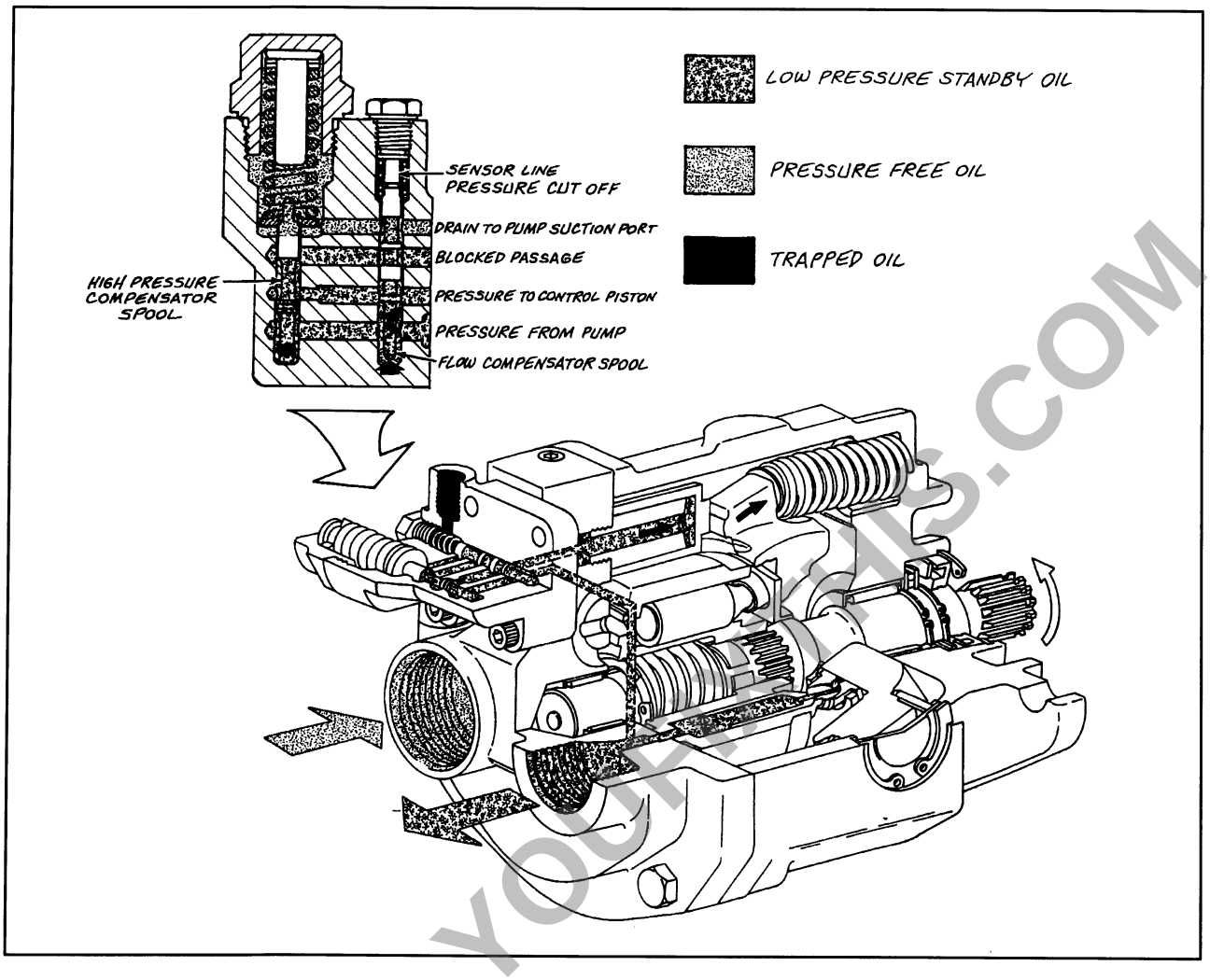


Figure 8-534

Low Pressure Standby Mode

The hydraulic pump is in the low pressure standby mode when:

- The engine is running.
- None of the implement valve sections are activated.

When there is no demand for oil flow and there is no pressure fed back to the pump compensator through the sense line, the pump will go into the low pressure standby position. The pump will build up a pressure in the pressure cavity of the pump outlet due to all the valve sections being in neutral. This pressure is directed to the compensator through drilled passages in the piston pump backplate. This pressure acts on the ends of the flow compensator spool and the high pressure compensator spool. Since the spring seating the flow compensator spool is set to allow the spool to move at 300 PSI, the flow spool will move and allow oil to pass into the passage leading to the control piston. The pressure on the control piston moves the pump camplate back to a near neutral position, causing the pump to destroke. In this condition, the pump will only pump enough oil to make up for internal oil leakage and maintain 300 PSI in the pressure line. The pump will remain in this condition as long as there is no pressure or flow demands for the pump that would create a sense signal in the sense line. In this position, the pump produces little heat and absorbs very little horsepower from the engine. This is one of the outstanding features of the pressure-flow compensated piston pump. The low standby pressure allows easy start-up of the engine, since the pump will destroke to low pressure stand-by as long as there is no system demand.

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Use the following information to identify the steering system being worked on:

80 SERIES - NON-HI-FLO

If the inside right frame has a relief valve that has lines to the pump and steering valve, the tractor is *non*-Hi-Flo - use the 80 Series section.

NOTE: The figure shows the original 80 Series open center steering system relief valve in two possible mounting configurations. Relief valve, 1, is shown mounted in a horizontal (noise reduced) orientation. Relief valve, 2, is shown mounted in a vertical, non-noise reduced orientation. Both valves are identical and part of the original 80 Series open center steering system.

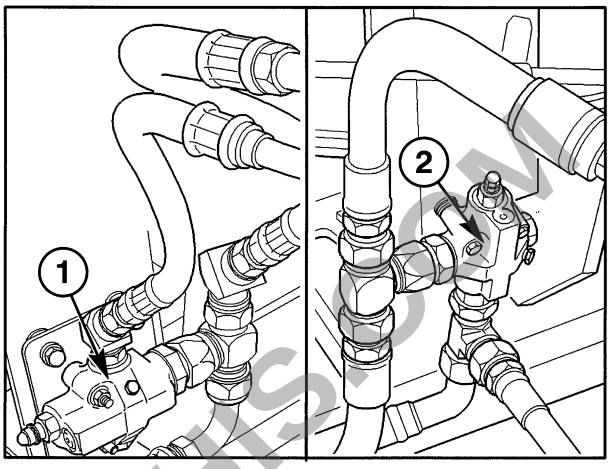


Figure 9-1

82 SERIES AND HI-FLO 80 SERIES

If the inside right frame has a stack of two priority valves, 1, the tractor is Hi-Flo - use the 82 Series section.

Refer to the figures on the next two pages to familiarize yourself with the two systems. Use the index at the very back of this manual to locate the information you need quickly.

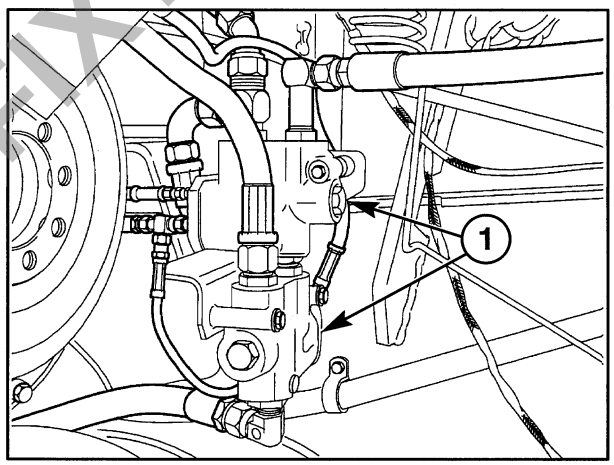
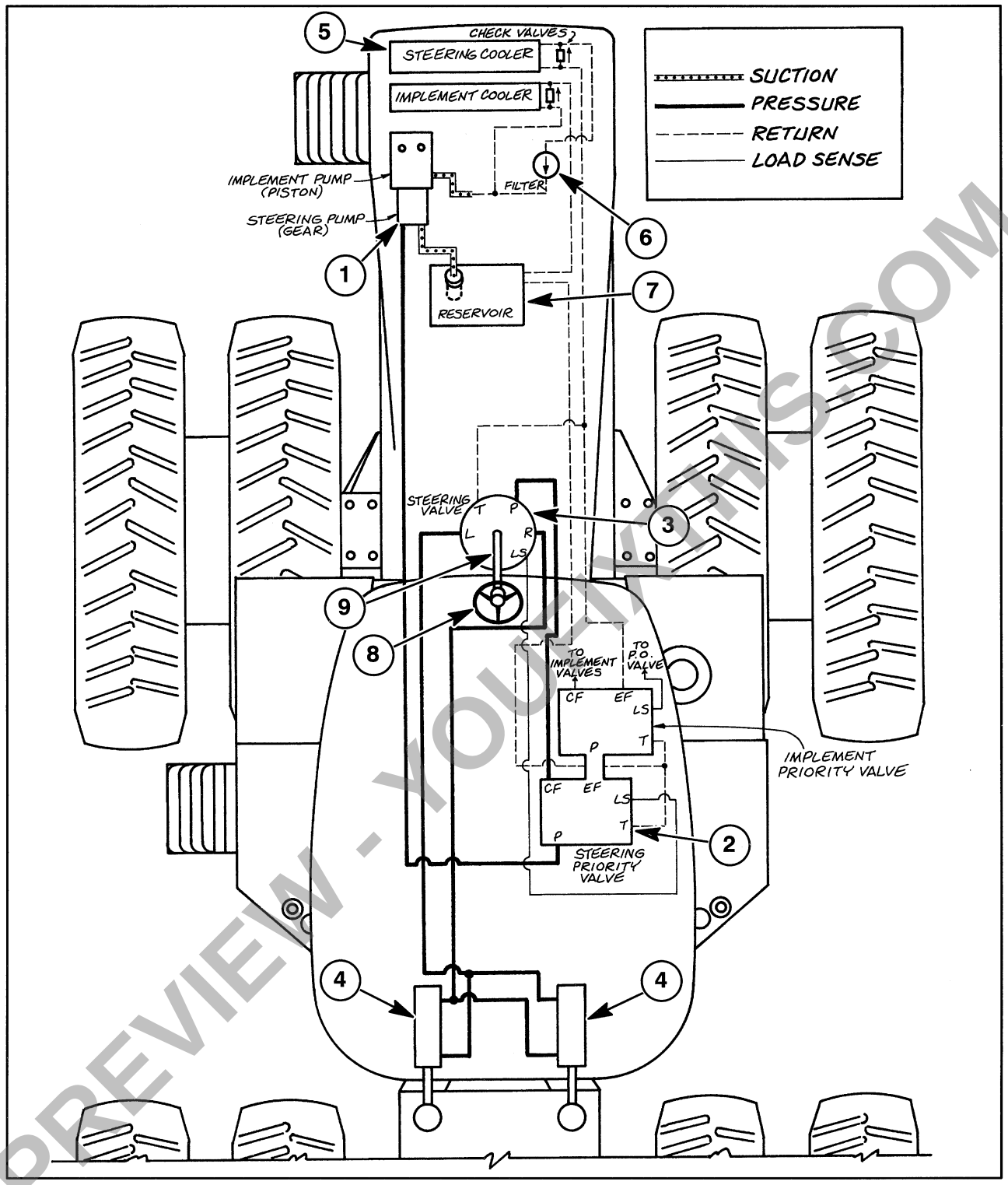


Figure 9-2

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



PREVIEW - YOUFIXTHIS.COM

Figure 9-357

82 SERIES *AND* HI-FLO HYDRAULICS
80 SERIES STEERING COMPONENTS

Use Second Half of Manual.

- Steering Pump (Gear) - 1
- Priority Valve - 2
- Steering Valve (Closed Center) - 3
- Cylinders - 4
- Oil Cooler - 5
- Oil Filter - 6
- Hydraulic Reservoir - 7
- Steering Wheel - 8
- Steering Column - 9

Download full manual at youfixthis.com

DESCRIPTION AND OPERATION

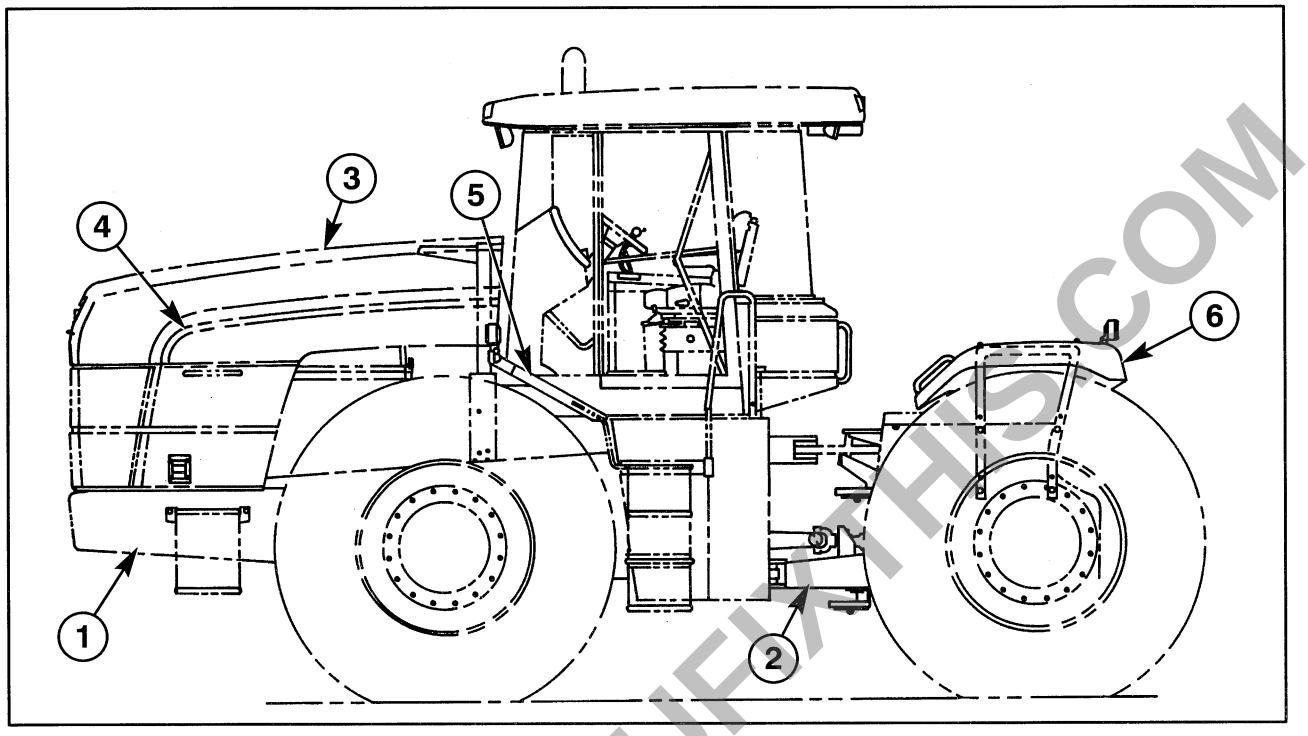


Figure 10-1

INTRODUCTION

The 80 and 82 Series tractors are 4-wheel drive, articulating vehicles. The tractor structure consists of front and rear frame assemblies which steer by pivoting at the center articulation joint. The front frame, 1, incorporates the engine, fuel tanks, transmission, front drive axle, and cab. The rear frame, 2, incorporates the rear drive axle and drawbar assembly and provides support for any implement that the tractor operates. This type of design allows for greater flexibility of weight distribution, depending upon operating conditions and type of implement. The tractor can be ballasted to best suit the needs of the particular operation.

The construction of the tractor is a modular-type design. This means that the major components (engine, transmission, axles) are individual units supported in the front and rear frames. This allows for easier serviceability and longer life due to reduced structural stress on drivetrain components.

The engine hood, 3, and side shields, 4, protect the operator from heated and/or moving engine parts. The side shields provide easy excess to the engine. Each side shield opens vertically, and is held open by a gas spring assembly. The hood and side shields are constructed from fiberglass. A front and rear hood support frame provide the attaching points for the hood and pivot points for each side shield.

The front fenders, 5, are made from steel, and provide mounts for the working lights and exhaust muffler. The rear fenders, 6, are made from molded fiberglass, and are mounted on steel tube supports. The supports have two sets of mounting holes so that the fenders can be moved up or down 75 mm (3″), depending on tire size and field conditions. The fenders provide a mounting location for the tail lights, the rear working lights, and the left hand grab handle.

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

DESCRIPTION & OPERATION

INTRODUCTION

A safety cab, 1, incorporating a Roll Over Protective Structure (ROPS) is standard equipment on the 80/82 Series tractors.

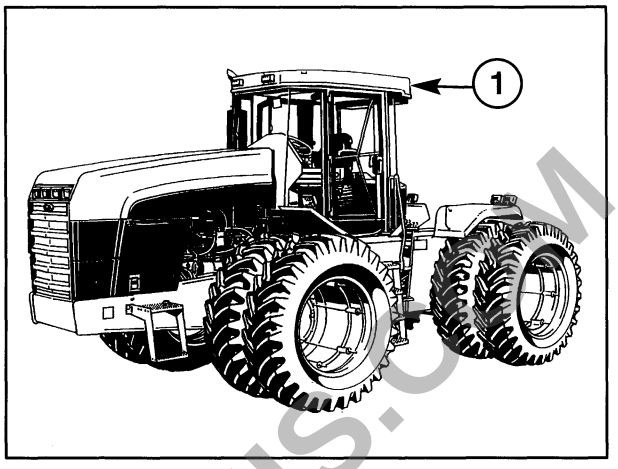


Figure 11-1

CAUTION: THE ROLL OVER PROTECTION STRUCTURE (ROPS) IS MANUFACTURED TO MEET STRICT SAFETY STANDARDS. NO ATTEMPT SHOULD BE MADE TO ALTER THE ROPS IN ANY FASHION (I.E. WELDING, DRILLING, ETC.).

IF THE ROPS IS DAMAGED IN SUCH A WAY AS TO CHANGE ITS INTEGRAL STRUCTURE, IT MUST BE REPLACED AS A COMPLETE UNIT. NEVER ATTEMPT TO REPAIR A DAMAGED ROPS.

The cab has been designed for operator safety, comfort, and convenience. The cab is noise reduced to provide a quiet atmosphere for the Operator to work in.

The cab is the control center of the tractor. The operator can easily monitor and adjust tractor functions using the conveniently located controls.

Standard features of the cab include one door, tinted glass, a hinged window, assist rails, a fresh air heater/defroster, air conditioning, an interior light, an air suspension seat, a storage tray, a cigar/cigarette lighter, and an ashtray.

The cab mounts to the front frame of the tractor in four (4) locations. Individual controls (i.e. transmission cables, hydraulic cables, wiring harnesses) are connected from the cab to the tractor components.

Four (4) individual rubber mount isolators, 1, are used at the mounting points to isolate the cab from the tractor frame. The mount is attached to the cab frame, 2, and rests on the tractor frame, 3.

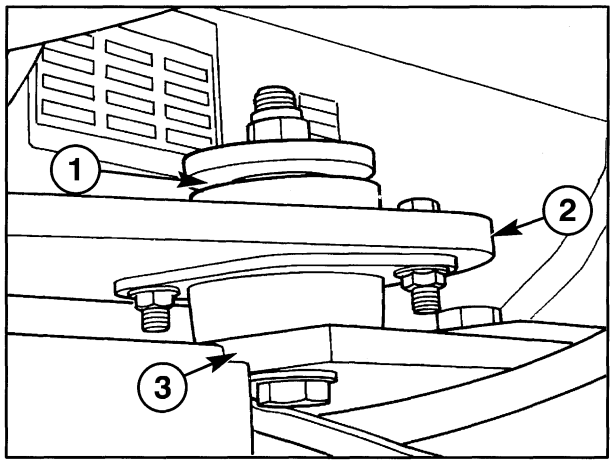


Figure 11-2

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

GENERAL DESCRIPTION AND OPERATION

The function of the air climate control system is to improve the operator's comfort by raising or lowering the air temperature in the cab, reducing the humidity level, and removing dust and pollen from the air within the cab compartment.

80 Series Cab Air Flow

Outside air is drawn into the system through the outside air filter, 1, by the blower motor assembly, 2. Air passes through the heater/evaporator core, 3, and then through a special recirculation air filter, 4, mounted in the cab roof.

The cooled/heated air enters a large hollow cavity above the operator's head called the plenum, 5. The plenum has ten adjustable louvers that allow air flow to enter the cab enclosure. One additional louver is located at the operator's feet.

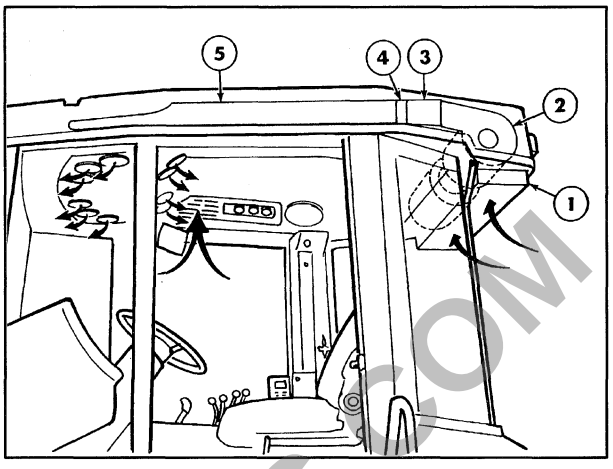


Figure 12-1

An overhead view shows the air flow through the plenum and air box. The plenum assembly, 1, also incorporates a recirculation corridor, 2, that will allow air that has been heated/cooled to return to the inlet side of the blower motor assembly, 4.

The operator can control the amount of air being recirculated by turning the recirculation knob on the air conditioning control panel. A cable connected to this knob opens and closes a door, 3, in the recirculation air passage in the air box. Also shown are the evaporator/heater core, 5, and the recirculation filter, 6.

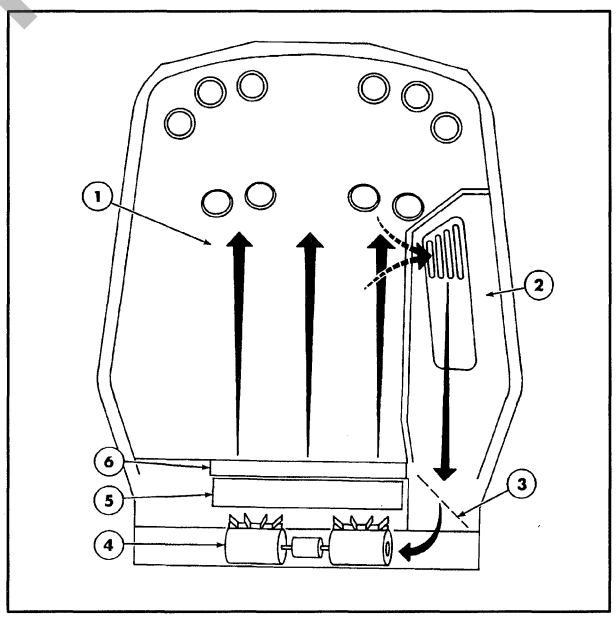


Figure 12-2

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

DESCRIPTION AND OPERATION

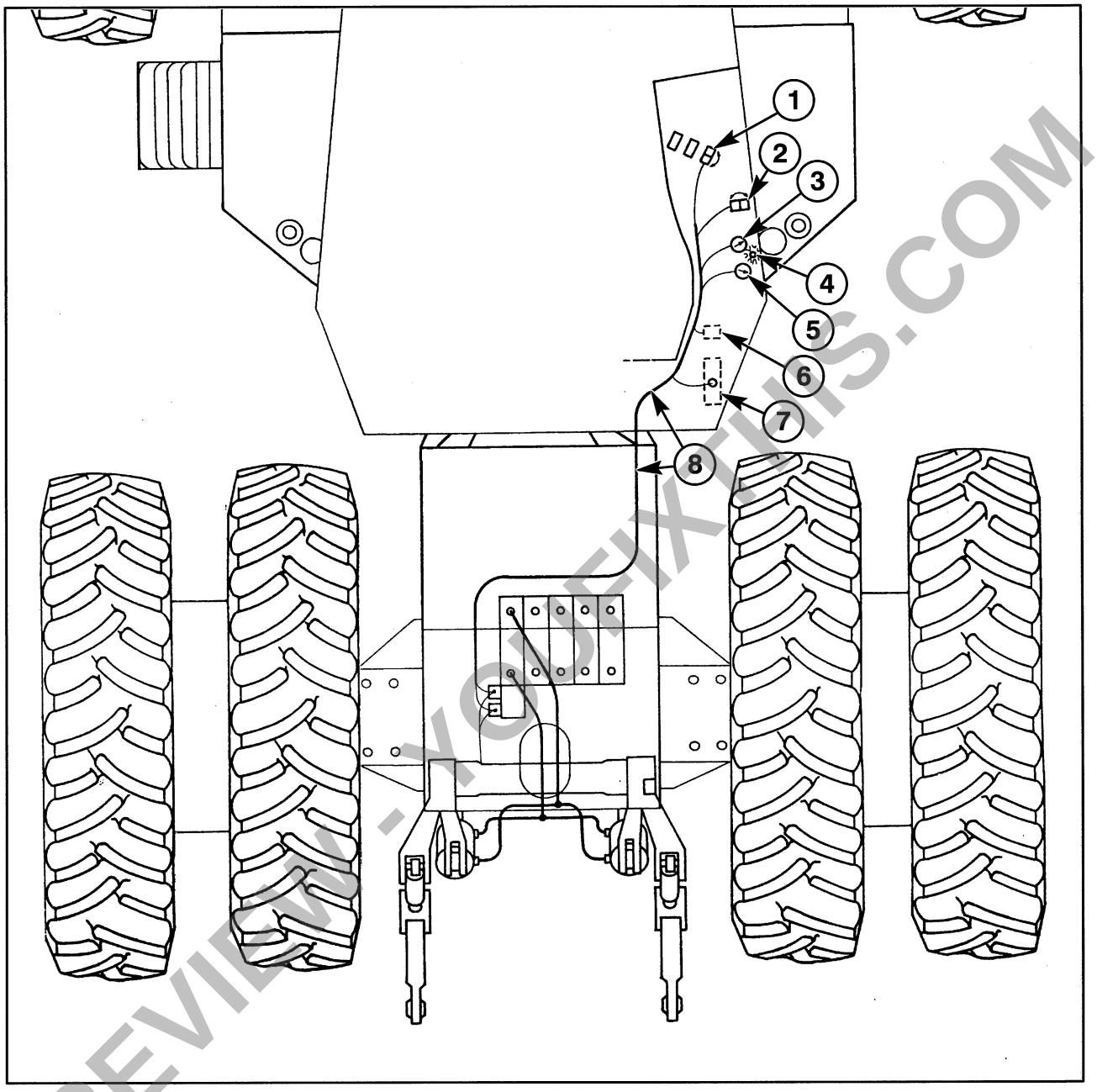


Figure 13-1

INTRODUCTION

The four wheel drive 80/82 Series tractors have a three-point hitch available as a factory or dealer installed option. The three-point hitch system utilizes an electrohydraulic control that contains a manual and automatic mode of operation. The electronic controls are located on the right hand side console panel of the cab. The three-point hitch is available for tractors equipped with or without an optional PTO system.

An overhead layout of the three-point hitch system on the 80/82 series tractors shows the automatic switch, 1, manual switch, 2, command potentiometer, 3, automatic indicator lamp, 4, and the lowering rate potentiometer, 5, on the right hand side console. The current controller, 6, and the three-point hitch controller, 7, are located behind the lower trim and access panels of the cab. The three-point hitch wiring harness, 8, connects the right hand side controls to the three-point hitch controller and solenoid valves.

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

INTRODUCTION

The engine section of this manual is broken into four separate sections:

- air induction system
- exhaust system
- engine removal and installation
- cooling system

The 80/82 Series tractors use a diesel engine manufactured for New Holland by the Cummins Engine Company and are available in five different sizes with eight different horsepower outputs.

The following chart is a list of tractor models with horsepower and engine classification:

Model	Horsepower	Engine Model
9280	250	L10
9282	260	C8.3
9480	300	14L
9482	310	M11
9680	350	14L
9682	360	N14
9880	400	14L
9882	425	N14

If an internal engine problem arises, that requires engine removal, this section will describe the proper procedure for removal and installation of the engine assembly. The engine will be repaired by an authorized Cummins dealer/distributor.

When contact is made with your Cummins dealer/distributor, it is important that the information contained on the Engine Identification Plate is given.

On the 9280 (Cummins L10 engine) and 9482 (Cummins M11) engines, the Engine Identification Plate is located on the left side of the engine block below the valve cover.

For the 9282 (Cummins C8.3) and 9682 and 9882 (Cummins N14) and the 9480, 9680 and 9880 (Cummins NTA855) tractors, the Engine Identification Plate is located on the left side of the engine ahead of the fuel injection pump.

NOTE: It is very important to include the engine number, engine family, and engine CPL (control parts listing) number when contacting your Cummins Engine Dealer/Distributor.

To locate your nearest Cummins Engine Dealer/Distributor, contact the Cummins Engine Co. at 1-800 DIESELS (North America, excluding Alaska and Hawaii).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

10. Remove the four cap screws and washers, 1, that retain the input shaft rear cap, 2, and shims.

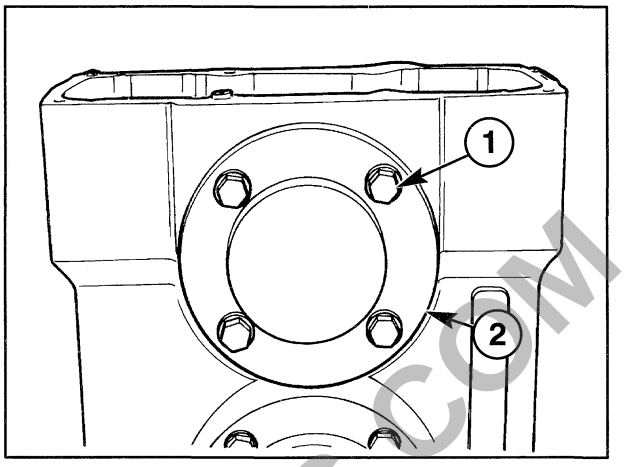


Figure 7-393

11. Discard the shims, 1, that were under the rear cap, 2.

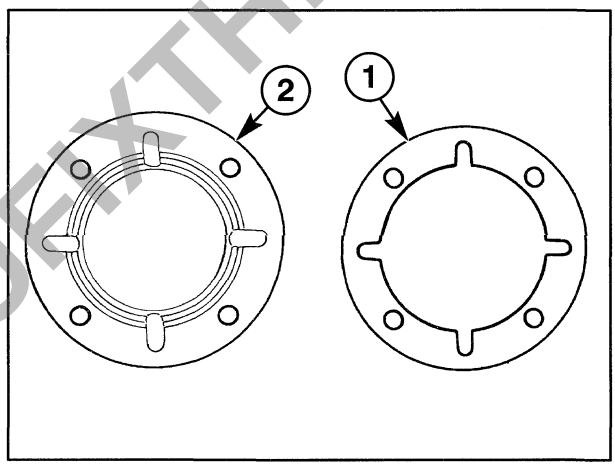


Figure 7-394

12. Use a brass drift to drive the input shaft rearward far enough to force the rear bearing cup, 1, from the housing.

    Remove the rear bearing cup from the housing.

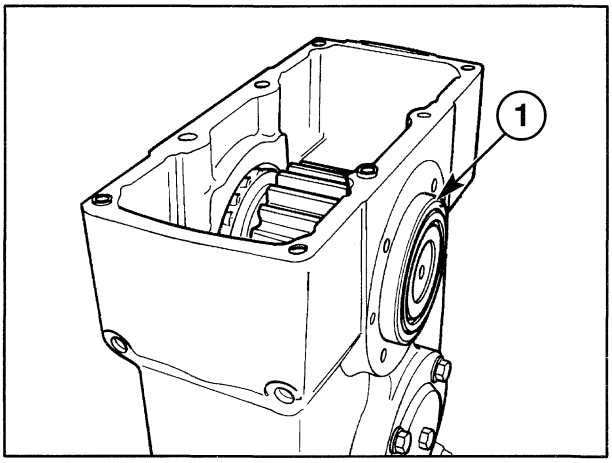


Figure 7-395

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 3032 pages

The full manual includes:

- All 3032 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Versatile 9280, 9480, 9680, 9880, 9282, 9482, 9682, 9882 Repair Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual