

# John Deere 2000 Series Tractors



## **SERVICE MANUAL** John Deere 2000 Series Tractors

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**John Deere Dubuque Works**  
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ENGLISH







## SERVICE MANUAL

# JOHN DEERE 2000 SERIES WHEEL TRACTORS

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## TO THE JOHN DEERE SERVICEMAN

This service manual contains maintenance instructions for John Deere 2000 Series Wheel tractors. Included are complete instructions for removal, disassembly, inspection, repair, assembly and installation of the major parts and assemblies of the tractor.

In addition, the manual contains brief descriptions of the more complicated systems of the tractor, and tells how they operate. Dimensions of many new wearing parts are given as an aid in determining when parts replacement is necessary. Tests and adjustments, required to keep the tractor operating efficiently, are explained in detail.

This manual was planned and written for the Service Department; its place is in the shop. Use the manual whenever in doubt about correct maintenance procedures. Use it as a text book for training new Service Department personnel who are unfamiliar with John Deere Tractors.

Daily use of the Service Manual as a guide for any and all service problems will reduce error and costly delay to a minimum and assure you the best in finished service work. In many instances your customer's confidence in your work will be improved when he sees you using the Service Manual. He knows you are following approved maintenance procedures and making proper adjustments. There is no guesswork when you use the manual.



## Section 10

# DESCRIPTION AND SPECIFICATIONS

### Group 5

## DESCRIPTION

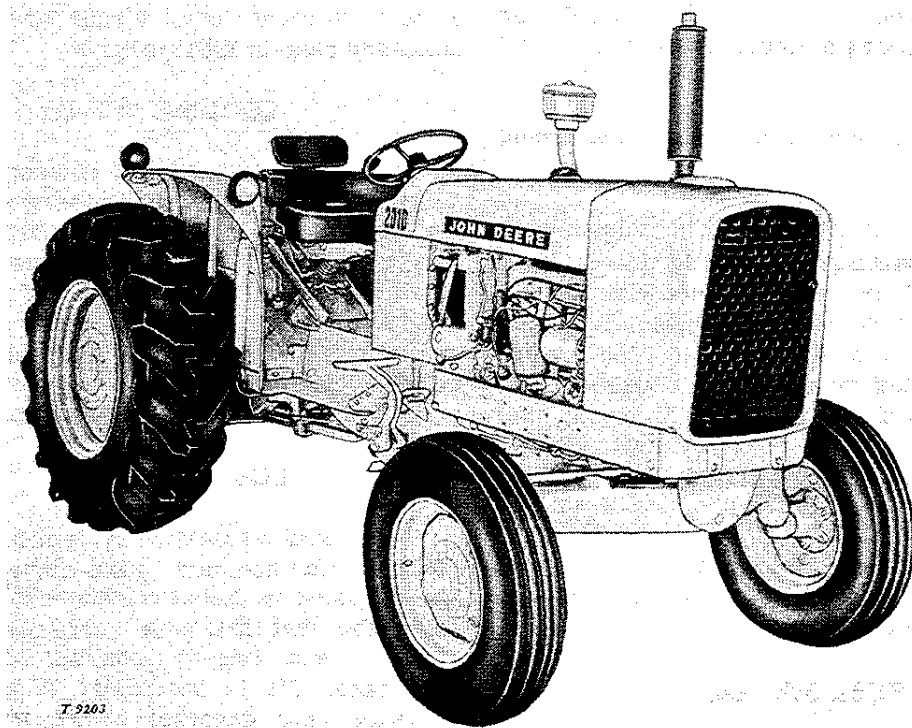


Fig. 10-5-1—Right Side View of John Deere 2010 Wheel Tractor

The John Deere 2010 Wheel Tractor is a low-built, general-purpose, industrial tractor. Features are described briefly in the paragraphs which follow.

#### DIESEL ENGINES

Each diesel tractor is powered by a vertical, 4-cylinder, valve-in-head, fuel injection, four-stroke cycle, internal combustion engine. A bore of 3-7/8 inches and a stroke of 3-1/2 inches give a piston displacement of approximately 165 cubic inches.

The compression ratio of the diesel engine is 19 to 1.

Crankshaft rotation is clockwise when viewed from the front.

The engine has replaceable precision-type main and connecting rod bearing inserts. All bearings and other parts of the engine are lubricated by a force-feed and splash-type system with an oil filter having a replaceable paper-type filter element. The crankcase is ventilated by means of a vent tube attached to the rocker arm cover and discharging below the crankcase flange. Engine speeds and injection timing are controlled by the fuel injection pump.

Replaceable, wet cylinder sleeves are used in the cylinder block.

### GASOLINE ENGINES

Each gasoline tractor is powered by a vertical, 4-cylinder, valve-in-head, four-stroke cycle, internal combustion engine. A bore of 3-5/8 inches and a stroke of 3-1/2 inches give a piston displacement of approximately 145 cubic inches.

The compression ratio of the gasoline engine is 7.9 to 1. (Special pistons are available for high altitudes giving a compression ratio of 9.0 to 1.)

Crankshaft rotation is clockwise when viewed from the front.

The engine has replaceable precision-type main and connecting rod bearing inserts. All bearings and other parts of the engine are lubricated by a force-feed and splash-type system with a replaceable oil filter. The crankcase is ventilated by means of a vent tube attached to the rocker arm cover. This tube discharges below the crankcase flange. Engine speeds are controlled by a fly-weight-type governor, gear-driven from the camshaft gear.

Replaceable wet cylinder sleeves are used in the engine block. This feature makes engine overhaul easier and less expensive.

### FUEL SYSTEM

The diesel engine uses a distributor-type fuel injection pump. The fuel system consists of the fuel tank, two fuel filters (one filter on tractors 42001-up), fuel strainer, fuel injection pump, fuel injector nozzles, and turbulence chambers. The fuel injection pump is an opposed plunger, inlet metering, distributor-type. Injector nozzles are of the pintle type and are located in turbulence chambers mounted at the top of each cylinder.

The gasoline fuel system is equipped with a 16 U.S. gallon fuel tank. The carburetor is a single-throat, updraft, adjustable idle jet type.

### IGNITION

Diesel engines are equipped with an electrical pre-heating system called "Glow Plugs" which are used to heat the turbulence chambers

during cold starting. A 12-volt battery actuates this system.

Gasoline models have a battery-distributor type ignition system with automatic spark advance. A 12-volt battery, generator, and starter are standard equipment.

### LIGHTING SYSTEM

All lighting equipment is optional and includes grille-mounted headlights, single fender-mounted headlights, a dash light, a tail light, a rear warning light, a rear work light, and auxiliary plug-in light socket.

### COOLING SYSTEM

The engines are liquid cooled; the coolant flows by pressure through passages around the sleeves in the block, and around the valves in the cylinder head. Coolant is circulated evenly in all passages in the block, head, and through the radiator by a centrifugal water pump located on the cylinder block, and operated by the fan belt. A thermostat and fixed bypass insure a quick and thorough engine warm-up.

### LUBRICATION

The engine lubrication system is forced by a positive displacement, gear-driven oil pump. The oil pump on diesel models is located underneath the fuel injection pump (distributor on gasoline) and extends into the bottom of the crankcase. Oil is fed under 35 to 50 pounds pressure onto governor bearings, crankshaft main bearings, and connecting rods, and splashed onto piston pins, and the valve tappet assembly. The lubrication system employs a bypass oil filter ( -42000) or a full-flow oil filter (42001-up) with a replaceable filter element.

### CLUTCH

The engine clutch is a spring-loaded, single dry-disk, pedal-operated clutch, located in the clutch housing and working off the engine fly-wheel.

### TRANSMISSION

Two types of transmissions are available for the 2000 Series Wheel Tractor: H-L-R or Constant Mesh. Each transmission is described briefly in the following paragraphs.

**H-L-R TRANSMISSION**

The H-L-R transmission is basically a standard collar shift transmission plus an automatic reverser and underdrive unit. The gears in the speed change box are shifted manually by clutching, while the gears in the range change box are shifted "on the go" without clutching by means of three hydraulic clutches—high, low, and reverse. (On 2010 Fork Lift Tractors, a special version of the H-L-R transmission is available with low range locked out. This transmission is called a direction reverser unit, giving comparable speeds in forward and reverse ranges.)

See Section 130 for further details.

**CONSTANT - MESH TRANSMISSION**

The constant-mesh transmission is a sliding collar type shift in series with four speed gear ratios to provide eight forward speeds and three reverse speeds. All shifts are made manually by clutching.

See Section 120 for further details.

**POWER TAKE-OFF**

The continuous running, "live," 540-1000 rpm dual PTO is engine-driven from the rear of the tractor and has its own separate clutch.

**BRAKES**

The disk-type, self-energizing brakes may be operated individually or simultaneously by means of the brake pedals. Brake housings are located on the outside of the final drive housings.

**STEERING MECHANISM**

Tractors are steered by a steering gear and drag link which connects to a spindle mechanism over the front wheels. Power steering, which provides a hydraulic assist to steering efforts, is available.

**REAR WHEELS**

The standard disk-type wheels are equipped with an offset in order to provide a two-position rear wheel tread. The regular setting of 62 inches can be increased to 74 inches by reversing the wheels. (Treads on 16.9 x 28 tires are 63 and 73 inches.)

**FRONT AXLE**

The front axle is of solid, nodular iron, one-piece construction and provides a fixed tread of 54 inches. "Swept-back" axle design permits sharper turns.

**HYDRAULIC SYSTEM**

The tractor is equipped with a constant-running hydraulic pump as regular equipment. Mounted on the transmission front cover, the pump is driven by the powershaft driven gear. The hydraulic pump supplies oil under pressure for power steering, remote cylinders, and rear rockshaft.

The hydraulic system is under constant pressure, and is "live"; that is, it can be operated when the engine is running, whether the tractor is moving or not.

The system may be equipped with either one or two remote cylinder valves, and one or two pairs of breakaway couplers. This permits use of one or two remote cylinders to hydraulically operate various tools. Remote cylinders may be of the single-acting or double-acting type.

The tractor may also be equipped with a single rear rockshaft which utilizes hydraulic power to control integral tools mounted on the 3-point hitch.



Tractors, Wheel, 2000 Series—  
Description and Specifications

10-5-4

*Description*

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## Group 10 SPECIFICATIONS

<b>PERFORMANCE</b>	Diesel	Gasoline	Constant mesh - Manual sliding gear with 8 forward speeds and 4 reverse speeds. Helical Gears. (Travel speeds are shown on next page.)	
Nebraska Test No. . . . .	799	800		
Max. drawbar pull . . . . .	4553 lbs.	4596 lbs.		
Tractor weighing . . . . .	6392 lbs.	6310 lbs.		
Max. drawbar pull without ballast . . . . .	3356 lbs.	3239 lbs.	<b>CAPACITIES (U.S. Standard Measures)</b>	
Max. PTO horsepower . . . . .	46.67	46.86	Fuel tank . . . . . 16 gals.	
Max. drawbar horsepower . . . . .	41.40	40.82	Engine crankcase (including filter) . . . . . 5 qts.	
Rim pull (pounds)	<u>Gear</u>		Cooling system . . . . . 3 gals.	
	1st	4020	3991	Air cleaner cup . . . . . To mark
	2nd	3735	3713	Transmission case:
	3rd	3147	3187	H-L-R . . . . . 27 qts.
	4th	2303	2271	Constant mesh . . . . . 32 qts.
	5th	1780	1825	Final drive cases (each) . . . . . 1 gal.
	6th	1255	1235	
	7th	1026	1027	<b>FINAL DRIVES ( -29010)</b>
	8th	--Not Tested--		Gear reduction ratio in first gear (engine to axle) (Constant Mesh transmission) -- 131 to 1
<b>ENGINE</b>			Gear reduction ratio in 8th gear (engine to axle) (Constant Mesh transmission) -- 18 to 1	
Flywheel horsepower (SAE corrected) . . . . .	52.0	52.0	Gear reduction ratio in first gear (engine to axle) (H-L-R transmission) -- 150.4 to 1	
Torque, max., at 1500 rpm (SAE corrected) . . . . .	124.5	119.0	Gear reduction ratio in 8th gear (engine to axle) (H-L-R transmission) -- 20.8 to 1	
	ft-lbs.	ft-lbs.		
Torque, at 2500 rpm (SAE corrected) . . . . .	109.3	109.3	<b>FINAL DRIVES (29011-Up)</b>	
	ft-lbs.	ft-lbs.	Gear reduction ratio in first gear (engine to axle) (Constant Mesh transmission) -- 143 to 1	
Number of cylinders . . . . .	4	4	Gear reduction ratio in 8th gear (engine to axle) (Constant Mesh transmission) -- 20 to 1	
Bore and stroke . . . . .	3-7/8 x 3-1/2 in.	3-5/8 x 3-1/2 in.	Gear reduction ratio in first gear (engine to axle) (H-L-R transmission) -- 164.3 to 1	
Displacement in cubic inches . . . . .	165	145	Gear reduction ratio in 8th gear (engine to axle) (H-L-R transmission) -- 22.7 to 1	
NACC or AMA horsepower rating for tax purposes . . . . .	24.03	21.03		
Intake valve clearance (cold) . . . . .	0.012 in.	0.012 in.	<b>ELECTRICAL SYSTEM</b>	
Exhaust valve clearance (cold) . . . . .	0.018 in.	0.018 in.	Battery (dry) voltage (nominal) . . . . . 12 volts	
Compression ratio . . . . .	19 to 1	7.9 to 1*	Battery specific gravity - full charge . . . . . 1.250 (plus or minus 0.010)	
Slow-idle (rpm) . . . . .	800 rpm	600 rpm	Battery terminal grounded . . . . . positive	
Fast-idle (rpm) . . . . .	2650 rpm	2700 rpm	Generator regulation . . . . . voltage regulator	
Working speed range (rpm) . . . . .	1500 to 2500 rpm	1500 to 2500 rpm		
Engine clutch:			<b>IGNITION SYSTEM (Gasoline)</b>	
Constant mesh . . . . .	11-inch, single disk		Type . . . . . battery-distributor	
H-L-R . . . . .	10-inch, single disk		Distributor point gap . . . . . 0.022 in.	
<b>TRANSMISSION</b>			Spark Plugs:	
H-L-R - Hydraulic assist with 8 forward speeds and 4 reverse speeds. Wet clutches.			Size . . . . . 14 mm	
			Gap . . . . . 0.025 in.	

\*9.0 to 1 for high altitude pistons

**Tractors, Wheel, 2000 Series—  
Description and Specifications**

10-10-2

*Specifications*

**DIMENSIONS**

(Tractor equipped with 14.9 x 28 rear tires, 6:00 x 16 front tires.)

Height to top of hood . . . . . 55-3/8 in.  
 Height to top of steering wheel . 61-3/8 in.  
 Over-all height . . . . . 74-3/4 in.  
 Over-all width, min. . . . . 75-11/16 in.  
 Over-all length, tire to tire edge 123-1/16 in.  
 Wheelbase . . . . . 82 in.  
 Clearance (front axle) . . . . . 16-5/8 in.  
 Clearance (minimum) . . . . . 12-3/16 in.  
 Shipping weight (approx.) 5000 lbs. (Gasoline)  
 5100 lbs. (Diesel)

**TIRE EQUIPMENT**

Front:-----	6:00 x 16	4-ply
	6.00 x 16	6-ply
	6.50 x 16	8-ply
	7.50 x 16	6-ply
	7.50 x 16	10-ply
	9.00 x 16	8-ply
Rear:-----	12.4 x 28	4-ply
	14.9 x 28	8-ply
	16.9 x 24	6-ply
	16.9 x 28	6-ply

**STEERING**

Steering ratio . . . . . 3-1/4 turns  
 Curb clearance circle with brakes . . 250 in.

**WHEEL TREADS**

Front: 54 inches (fixed tread)  
 Rear: 62 inches (regular tread)  
 74 inches (wheels reversed)

**TRANSMISSION TRAVEL SPEEDS (MPH based on 14.9 x 28 rear tires and zero slippage)**

CONSTANT MESH ( -29010)			
Gear	1500 rpm	1900 rpm	2500 rpm
1st	1.6	2.1	2.7
2nd	2.3	3.0	3.9
3rd	2.9	3.6	4.8
4th	4.0	5.1	6.7
5th	5.0	6.4	8.4
6th	7.1	9.0	11.9
7th	8.4	10.6	14.0
8th	11.9	15.0	19.8
Rev. 1	2.2	2.8	3.6
Rev. 2	3.8	4.8	6.3
Rev. 3	6.6	8.4	11.0

H-L-R ( 29010)			
Gear	1500 rpm	1900 rpm	2500 rpm
1st	1.4	1.8	2.4
2nd	2.0	2.6	3.4
3rd	2.5	3.2	4.1
4th	3.5	4.5	5.9
5th	4.4	5.5	7.3
6th	6.2	7.8	10.3
7th	7.3	9.2	12.2
8th	10.3	13.1	17.2
Rev. 1	1.9	2.5	3.2
Rev. 2	3.4	4.3	5.6
Rev. 3	5.9	7.5	9.9

CONSTANT MESH (29011-Up)			
Gear	1500 rpm	1900 rpm	2500 rpm
1st	1.5	1.9	2.5
2nd	2.1	2.7	3.6
3rd	2.6	3.3	4.4
4th	3.7	4.7	6.2
5th	4.6	5.8	7.7
6th	6.5	8.3	10.9
7th	7.7	9.7	12.8
8th	10.9	13.8	18.1
Rev. 1	2.0	2.5	3.3
Rev. 2	3.4	4.4	5.7
Rev. 3	6.1	7.7	10.1

H-L-R (29011-Up)			
Gear	1500 rpm	1900 rpm	2500 rpm
1st	1.3	1.7	2.2
2nd	1.8	2.4	3.1
3rd	2.3	2.9	3.8
4th	3.2	4.1	5.4
5th	4.0	5.1	6.7
6th	5.7	7.2	9.5
7th	6.7	8.5	11.1
8th	9.5	12.0	15.8
Rev. 1	1.8	2.3	3.0
Rev. 2	3.1	3.9	5.1
Rev. 3	5.4	6.9	9.0

*(Specifications and design subject to change without notice.)*

## Section 20

# TRACTOR SEPARATION

### Group 5

## SEPARATING FRONT END SUPPORT FROM ENGINE

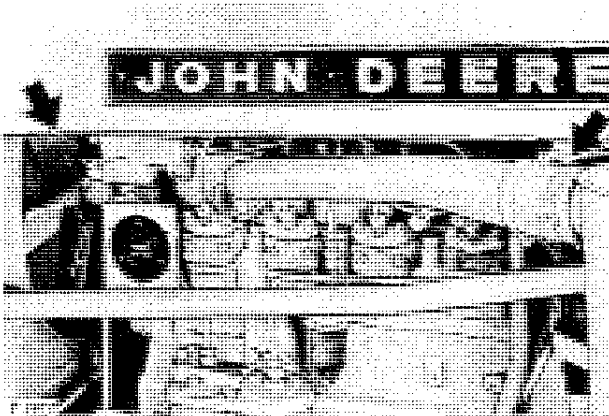


Fig. 20-5-1—Hood Attaching Points

Remove fuel tank cap and vertical muffler. Disconnect light leads if tractor is so equipped. Remove cap screws attaching heat shield to hood.

Loosen hex. nuts on the eyebolts attaching the front of the hood to the grille.

Remove the hex. nuts, washers, and cap screws attaching rear of hood to the battery support and lift off hood.

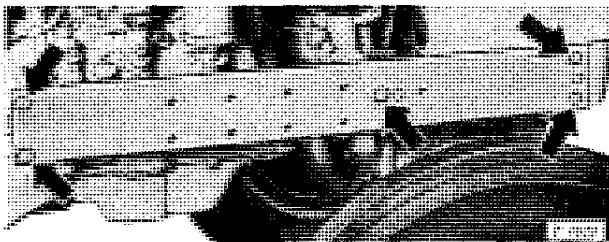


Fig. 20-5-2—Side Frame Attaching Screws

Remove the two cap screws attaching rear of each side frame to the clutch housing. Remove the three cap screws attaching the front of each side frame to the front end support. Pull side frames free from dowels.

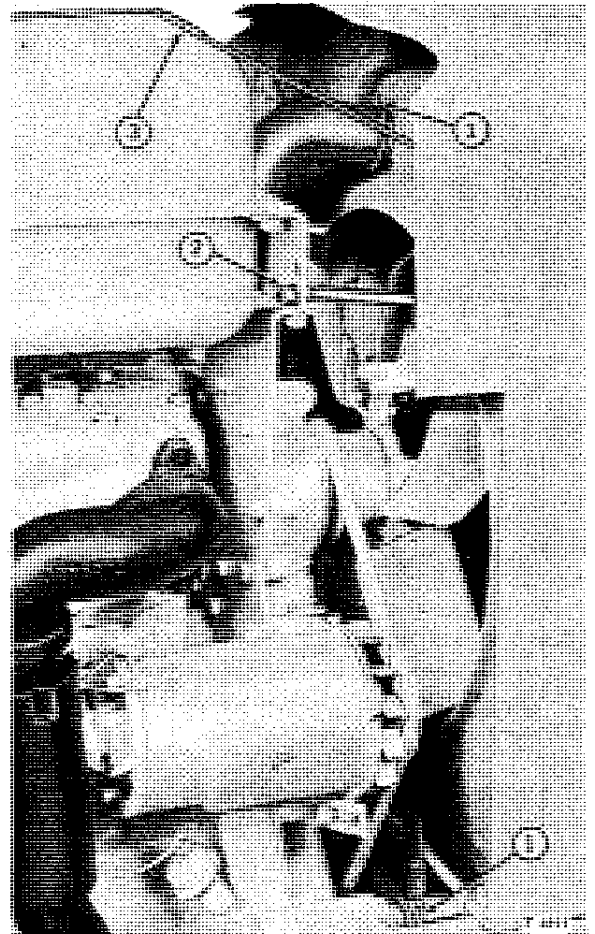


Fig. 20-5-3—Disconnecting Radiator

1. Drain radiator and disconnect water inlet and outlet hoses.

2. Remove the hex. nuts securing radiator brace rods to the fuel tank bracket.

3. Disconnect fuel tank vent line.

Remove grille screen. Remove the four machine screws attaching radiator baffle to grille housing. Disconnect drag link socket assembly from steering spindle arm and free the socket assembly from the baffle (Fig. 20-5-4).

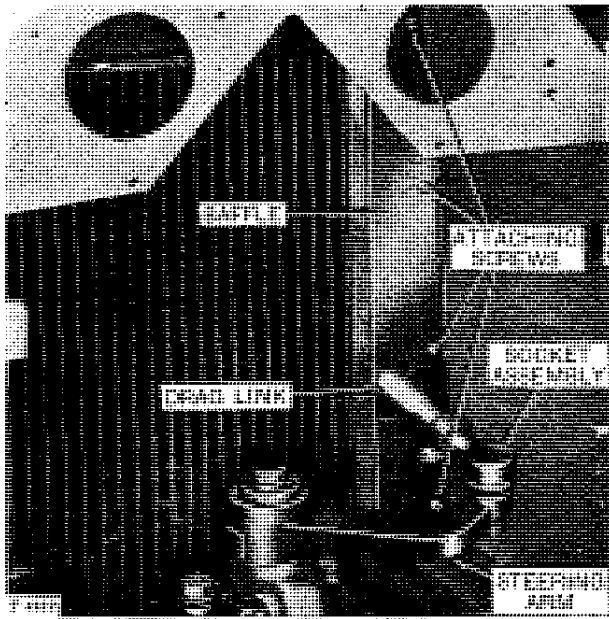


Fig. 20-5-4—Disconnecting Drag Link

Disconnect the power steering lines from the block connector on the right-hand side of the tractor. Cap ends of lines to prevent oil runoff.

Position JDG-2-A separating stand, with wheel, on the clutch housing. Insert a shim between housing and separating stand and attach to the clutch housing with cap screws. Adjust wheel to the floor (Fig. 20-5-5).

Place a wooden block between the front end support and axle on each side.

Remove radiator cap and attach a chain around grille housing and attach to a chain hoist as shown in Fig. 20-5-5.

**NOTE:** Place a wooden block between the rear, underside of the grille housing and the chain to prevent damage to the grille housing during separation.

Remove the four cap screws attaching the front end support to the engine block and roll front end free of engine.

#### ASSEMBLY

Position the front end support in line with the mounting points of the engine and install the four attaching cap screws. Tighten cap screws to 170 foot-pounds.

Secure the radiator brace rods to the fuel tank bracket with lock washers and hex. nuts.

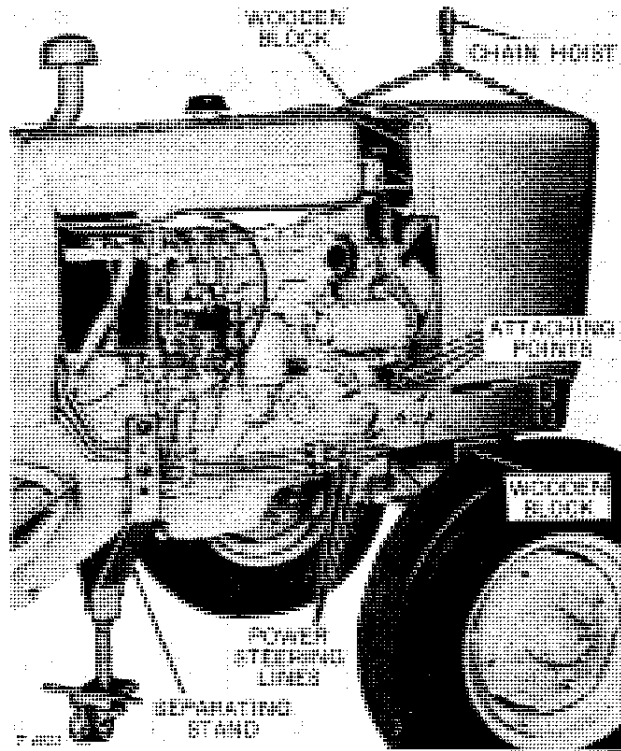


Fig. 20-5-5—Removing Front End Assembly

Remove chain from grille housing and install radiator cap.

Connect the power steering lines to the block connector on the right-hand side of the tractor.

Position radiator baffle on drag link socket assembly and attach baffle to the grille housing.

Connect the drag link socket assembly to the steering spindle arm and secure with the lock washer and hex. nut.

Connect the radiator inlet and outlet hoses.

Connect the fuel tank vent line.

Install hood and connect light leads.

Install vertical muffler if so equipped.

Remove separating stand.

Install side frames. Torque cap screws at rear of front end support and rear of side frame to 170 foot-pounds. Torque the front side frame cap screws to 85 foot-pounds.

Fill cooling system with clean soft water or anti-freeze solution as required.

## Group 10

# SEPARATING ENGINE FROM CLUTCH HOUSING

Remove hood (Group 5).

Remove heat shield.

Remove side frames (Group 5).

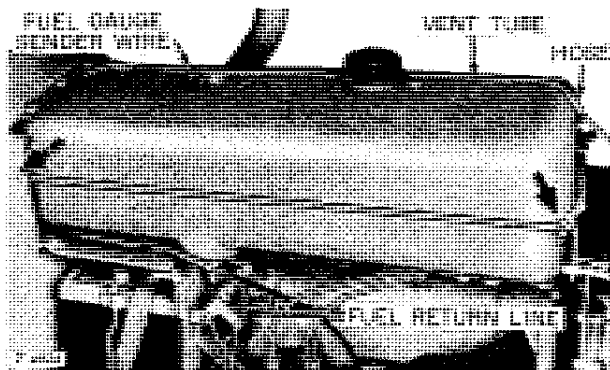


Fig. 20-10-1—Fuel Tank Attaching Points (Diesel Illustrated)

Disconnect fuel gauge wire at fuel gauge sender. (Fig. 20-10-1).

Drain fuel tank and disconnect fuel tank to fuel strainer line and fuel return line on diesel tractors.

Close fuel shut-off and disconnect fuel line on gasoline tractors.

Disconnect fuel tank vent tube from hose to vent tube extension at the front of the fuel tank.

Remove the four cap screws attaching fuel tank to the front and rear fuel tank support brackets and remove tank.

Remove grille screen. Remove the hex. nut and lock washer from socket assembly. Disconnect socket assembly from steering spindle arm. Remove the four machine screws attaching radiator baffle to grille housing and free the shield from the socket assembly (Fig. 20-10-2).

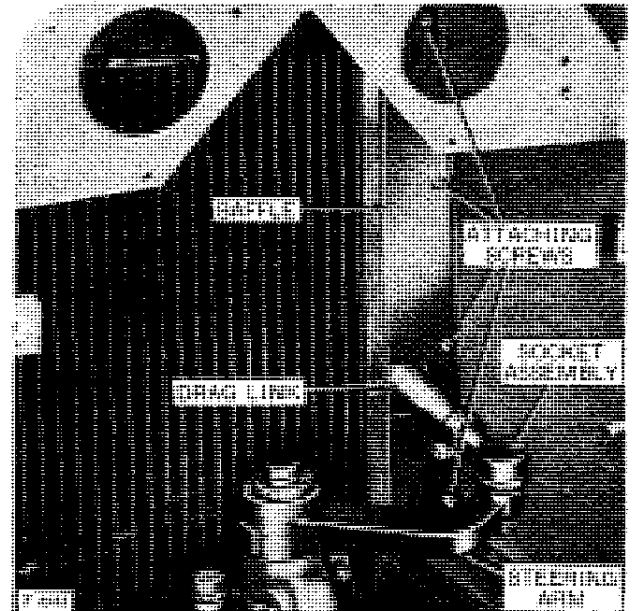


Fig. 20-10-2—Disconnecting Drag Link

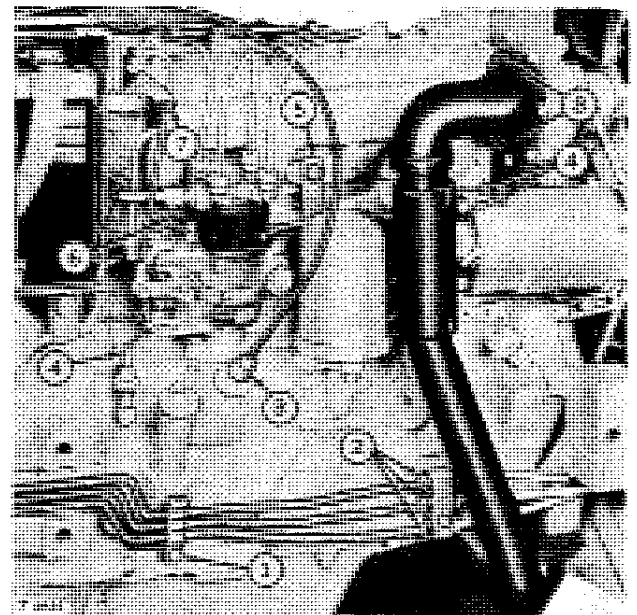


Fig. 20-10-3—Disconnecting Wiring and Linkage  
(Right Side of Engine)

Refer to Figure 20-10-3 and do the following:

1. Remove cap screw and clamp securing power steering lines to engine.
2. Disconnect power steering lines from the block connector. Cap ends of lines to prevent oil runout.
3. Disconnect tachometer cable at coupling.
4. Disconnect wiring harness at generator, negative terminal of coil (gasoline tractors) and oil pressure sending unit.
5. Remove cap screws securing wiring harness strap to cylinder head (diesel tractors), and pull wiring harness rearward.
6. Remove fuel shut-off cable (diesel tractors) from fuel injection pump and from clamp on battery box.
7. Remove cotter pin and washer and remove front control rod from front yoke.
8. If the tractor is equipped with an underneath muffler, loosen clamp securing exhaust pipe to muffler (left side), and disconnect exhaust pipe with elbow at the exhaust manifold.

Refer to Figure 20-10-4 and do the following:

1. Disconnect air cleaner hose to air intake manifold (diesel) or to carburetor (gasoline).
2. Disconnect water temperature sending unit from water outlet manifold.
3. Remove wiring harness from glow plugs (diesel tractors).
4. Disconnect wiring harness and battery cable from starter.
5. Loosen clamp to free fuel filter line from battery box (diesel tractors).
6. Remove starter.

NOTE: On diesel tractors the fuel filters must be removed to provide clearance so starter can be removed.

Disconnect throttle control rod from bell-crank and choke cable at carburetor (gasoline tractors).

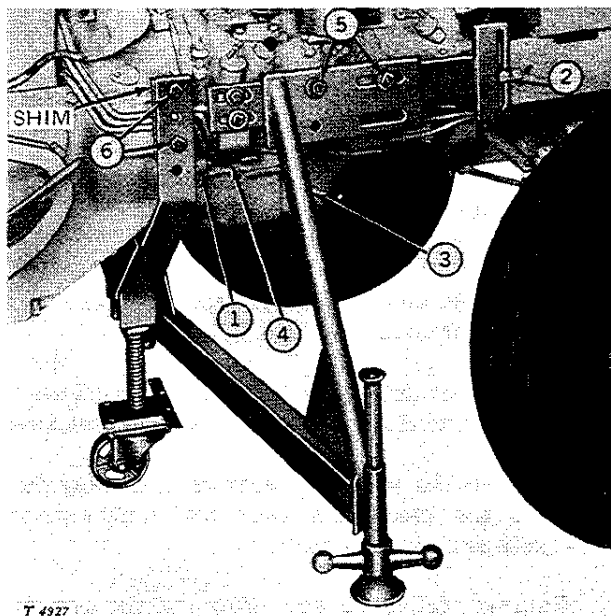


Fig. 20-10-5—Separating Stands Installed

Using Figure 20-10-5, install separating stands as follows:

1. Remove the lower cap screw attaching engine flange (on each side) to clutch housing.
2. Attach side bar to the front end support.

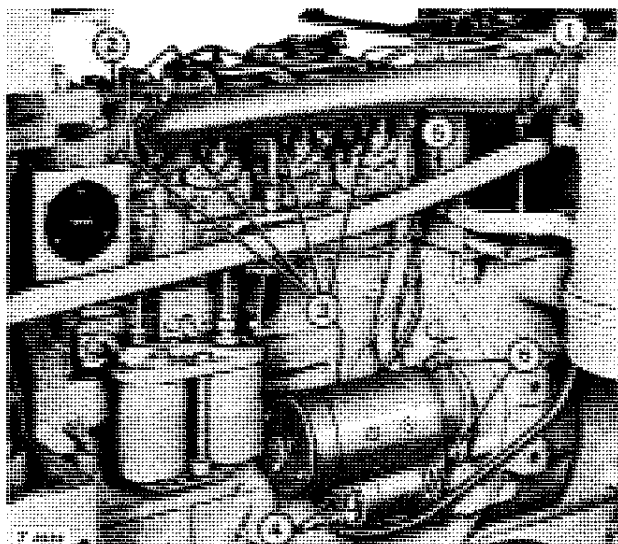


Fig. 20-10-4—Disconnecting Wiring and Linkage  
(Left Side of Engine)

3. Position front end stand on side bars. Do not install cap screws at this time.

4. Insert pin of offset bracket into engine flange hole and attach bracket to side bar.

5. Bolt front end stand to side bar. Adjust screw pads to floor.

6. Place rear end stand in position. Use shims (Fig. 20-10-5). Bolt in position and adjust caster to the floor.

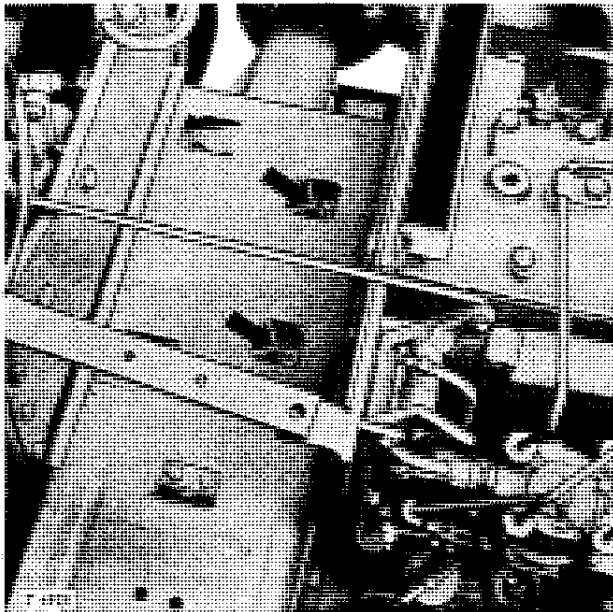


Fig. 20-10-6--Removing Nuts Through Battery Box

Slide battery on tray out of battery box. Now the nuts on the clutch housing studs can be removed through the square holes in the bottom of the battery box.


Remove the two cap screws securing engine flange to clutch housing.

Remove the cap screws securing engine rear cover and oil pan to clutch housing.

Roll front of tractor away from the clutch housing.

### ASSEMBLY

Before installing engine, be sure transmission is locked in "PARK" position, and that the transmission housing is firmly blocked in a horizontal position.

SM-2036 (10-61) 

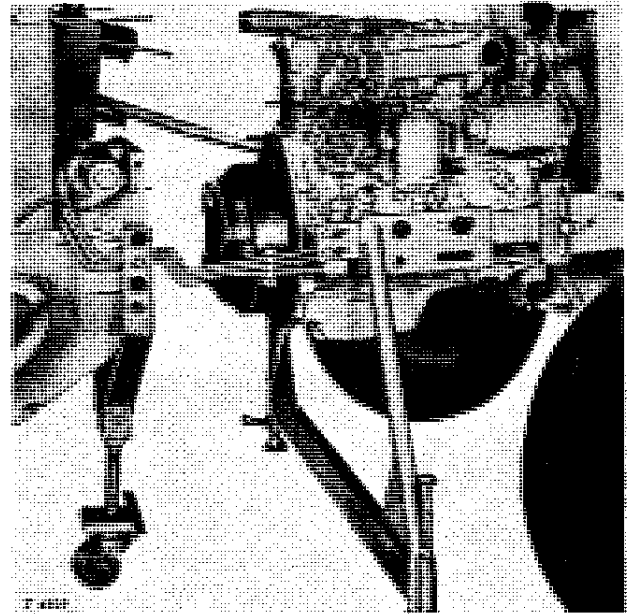


Fig. 20-10-7--Engine Separated from Clutch Housing

With engine in separating stand, roll engine into place against clutch housing.

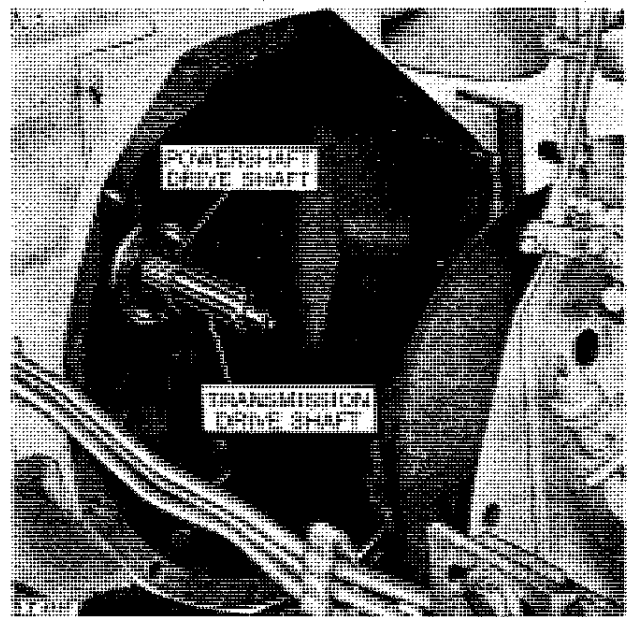


Fig. 20-10-8--Transmission and Powershaft Drive Shaft Indexing Points

**CAUTION:** Position engine securely against clutch housing. Do not attempt to force engine into position by drawing up with studs and cap screws.



The indexing of the front transmission drive shaft with the driven disk takes place before the indexing of the powershaft drive shaft with the pressure plate as shown in Figure 20-10-8.

Due to the time delay during indexing, it is possible that the powershaft drive shaft might not index with the pressure plate. This results in breakage of the pressure plate and driven disk. Make certain that both points are indexed before installing attaching cap screws.

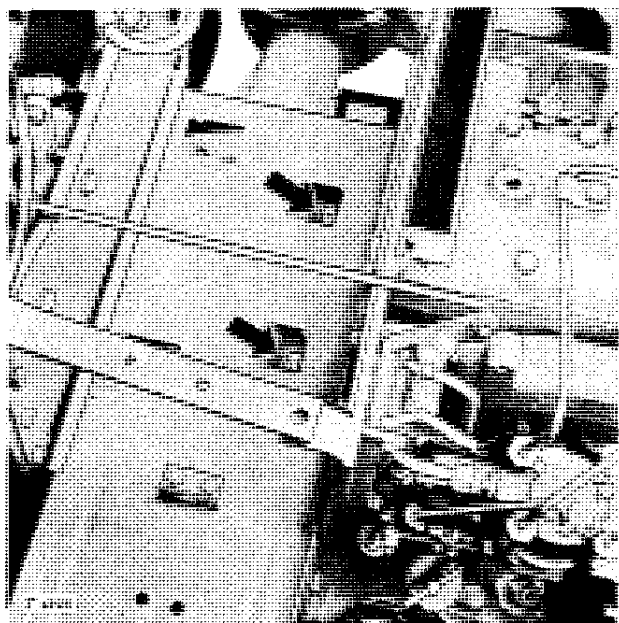


Fig. 20-10-9—Installing Clutch Housing Stud Nuts

Install nuts on clutch housing studs through square holes in bottom of battery box (Fig. 20-10-9).

Install the cap screws securing engine flange, engine rear cover and oil pan to clutch housing.

Remove separation stand and install engine flange to clutch housing cap screws.

Refer to Figure 20-10-4 for reference to install the following:

Install starter and fuel filters.

Connect throttle control rod to bellcrank and choke cable to carburetor (gasoline tractors).

Secure fuel filter line (diesel tractors) to battery box with clamp and a cap screw.

Install battery.

Connect battery cable and wiring harness to starter.

Connect wiring harness to glow plugs (diesel tractors).

Connect water temperature sending unit to water outlet manifold.

Connect air cleaner hose to air intake manifold or to carburetor.

Refer to Figure 20-10-3 for reference to install the following:

Remove the caps from the end of the power steering lines and connect lines to the block connector. Secure lines with clamp and cap screw to engine block.

Connect the wiring to the generator, negative terminal of coil (gasoline tractors) and to the oil pressure sending unit.

Secure wiring harness strap with cap screw to cylinder head (diesel tractors).

Attach front control rod to front yoke and secure with washer and cotter pin.

Connect fuel shut-off cable (diesel tractors) to fuel injection pump and secure to battery box clamp.

Connect tachometer cable to coupling below the distributor well or the fuel injection pump well.

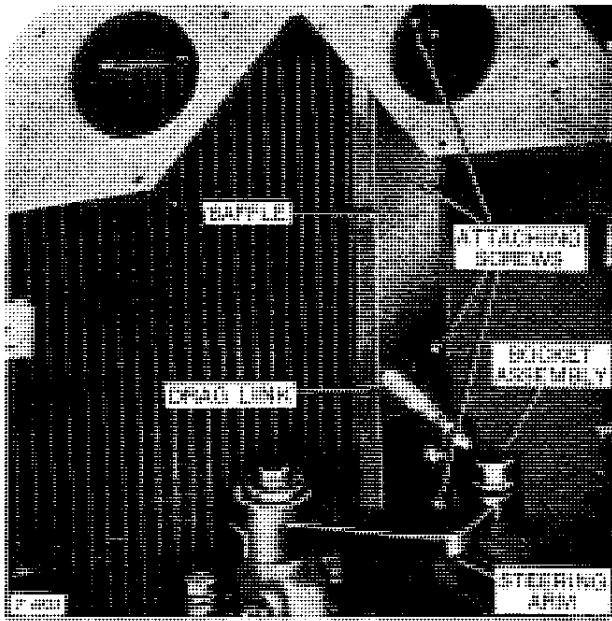


Fig. 20-10-10—Installing Drag Link

Position radiator baffle over drag link socket assembly and secure baffle to grille housing. Secure socket assembly to steering spindle arm with lock washer and hex. nut. Torque hex. nut to 55 foot-lbs. Install grille screen.

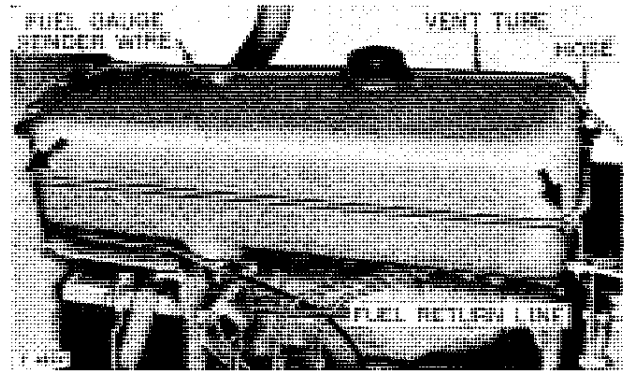


Fig. 20-10-11—Installing Fuel Tank

Install fuel tank and connect fuel tank lines and vent tube.

Connect fuel gauge sending unit.

Install hood.

Install side frames. Torque cap screws at rear of front end support and rear of side frame to 170 foot-pounds. Torque the front side frame cap screws to 85 foot-pounds.

Polarize generator before attempting to start engine.

