

**John Deere  
JD570 and JD570A  
Motor Grader**



**TECHNICAL MANUAL**

TM-1001 (Dec-87)

# JD570 AND JD570-A MOTOR GRADERS

Technical Manual  
TM-1001 (Dec-87)

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*The specifications and design information contained in this manual were correct at the time it was printed. It is John Deere's policy to continually improve and update our machines. Therefore, the specifications and design information are subject to change without notice.*

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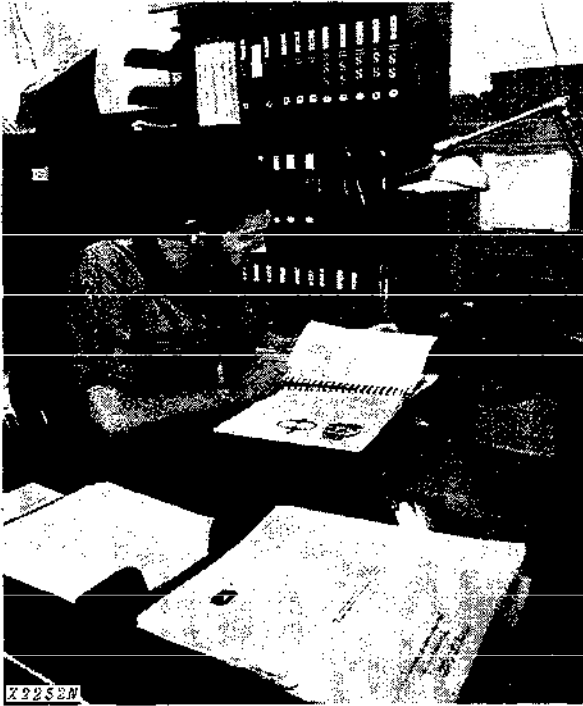
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## INTRODUCTION



Use FOS Manuals for Reference

This technical manual is part of a twin concept of service:

The two kinds of manuals work as a team to give you both the general background and technical details of shop service.

### • FOS Manuals—For Reference

*Fundamentals of Service (FOS) Manuals* cover basic theory of operation, *fundamentals* of trouble shooting, *general* maintenance, and *basic* types of failures and their causes. FOS Manuals are for training new personnel and for reference by experienced personnel.



When a service technician should refer to a FOS Manual for more information, a FOS symbol like the one at the left is used in the TM to identify the reference.

### • Technical Manuals—For Actual Service

*Technical Manuals* are concise service guides for a specific machine. Technical Manuals are on-the-job guides containing only the vital information needed by an experienced service technician.



Use Technical Manuals for Actual Service

This technical manual was planned and written for you—an experienced service technician. Keep it in a permanent binder in the shop where it is handy. Refer to it whenever in doubt about correct service procedures or specifications.

Some features of this technical manual:

- *Table of contents at front of manual*
- *Exploded views showing parts relationship*
- *Photos showing service techniques*
- *Specifications grouped for easy reference*

Using the technical manual as a guide will reduce error and costly delay. It will also assure you the best in finished service work.

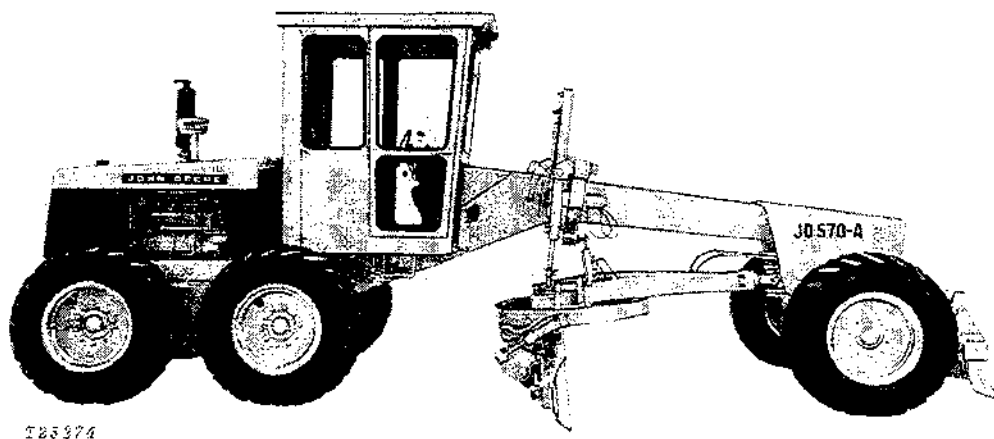


This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

## Section 10 GENERAL

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Fig. 1-JD570-A Motor Grader

## Group 5 SPECIFICATIONS

(Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, these specifications are based on a unit equipped with 13.00-24, 8-ply-rating, tubeless tires and standard equipment.)

### JD570-A

<b>Power</b> (@ 2300 engine rpm):	<b>SAE</b>	<b>DIN</b>
Gross .....	92 hp (68.6 kW*)	
Net .....	85 hp (63.4 kW)	86.2 PS

Net engine flywheel power is for an engine equipped with fan, air cleaner water pump, lubricating oil pump, fuel pump, alternator and muffler. The gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 500-ft. altitude and 85°F. temperature, and DIN 70 020 conditions (non-corrected). No derating is required up to 10,000 feet (3000 m) altitude.

\*In the international system of units (SI), power is expressed in kilowatts (kW).

**Engine:** John Deere turbocharged diesel, vertical 6-cylinder, valve-in-head, 4-stroke cycle

Bore and stroke .....	4.02x4.33 in. (102x110 mm)
Piston displacement .....	329 cu. in. (5392 cm <sup>3</sup> )
Compression ratio .....	16.2 to 1
Maximum torque @ 1300 rpm ...	238 lb-ft (323 Nm) (32.8 kg-m)
NACC or AMA (U.S. Tax) horsepower .....	38.6
Main bearings .....	7
Lubrication .....	Pressure system w/full-flow filter
Cooling .....	Pressurized w/thermostat and fixed bypass
Fan .....	Suction
Air cleaner w/restriction indicator .....	Dry
Electrical system .....	12-volt w/alternator
Batteries (2) .....	Reserve capacity: 360 minutes

**Transmission:** Power Shift, 8 forward and 4 reverse selections

**Differential Lock:** Foot-operated, hydraulically actuated

**Travel Speeds** (2300 engine rpm, no tire slip):

Shift Lever Position	mph	km/h
Forward 1	2.0	3.3
2	2.9	4.6
3	4.5	7.2
4	5.8	9.4
5	7.6	12.2
6	9.8	15.8
7	12.8	20.6
8	21.6	34.8
Reverse 1	2.5	4.0
2	3.5	5.6
3	5.5	8.8
4	7.1	11.4

**Final Drives:** Inboard planetary

#### Brakes:

Service ..... Foot-operated, hydraulically actuated, wet-disk, effective on 4 tandem wheels

Parking ..... Hand-operated, mechanical, expanding dry shoe, effective on 4 tandem wheels

#### Steering:

Front ..... Full hydraulic power system

Rear ..... Hydraulically articulated frame steering (22 deg. left or right)

Turning radius ..... 18 ft. (5.49 m)

Range ..... 51 deg. left or right

#### Hydraulic System: Closed-center

Pressure ..... 2000 psi (137.9 bar) (140.6 kg/cm<sup>2</sup>)

Pump ..... Variable displacement, 27 gpm (102 L/min) @ 2300 engine rpm

**Circle:** 5.50x1x4.62x1 in. (140x25x117x25 mm) welded angle, 4 ft. 6 in. (1.37 m) dia.

Rotation ..... 360 deg.

Drive ..... Hydraulic motor and worm gear

**Drawbar:** Tapered box, max. 3x7x0.375 in. (76x178x9.5 mm) wall, w/universal swivel

#### Blade:

	Standard	Optional
Length .....	12 ft. (3.66 m)	12 ft. (3.66 m)
Height .....	22 in. (559 mm)	22 in. (559 mm)
Thickness .....	0.62 in. (15.8 mm)	0.75 in. (19.1 mm)

#### Blade Lifting Mechanism:

Control ..... Dual-lever, hydraulic

Cylinders (2) ..... 3 in. (76 mm) dia. bore; 42 in. (1.07 m) stroke

#### Blade Range:

Lift above ground ..... 1 ft. 1 in. (330 mm)

#### Blade side-shift:

Right ..... 2 ft. 2.75 in. (679 mm)

Left ..... 2 ft. 7.25 in. (794 mm)

#### Shoulder reach outside wheels:

Right ..... 5 ft. 11.5 in. (1.82 m)

Left ..... 6 ft. 5.25 in. (1.96 m)

Pitch ..... 32 deg. total

**JD570-A**

**Saddle:**  
 Rotation ..... 45 deg. right or left, 5 positions  
 Control ..... Single foot-operated release hydraulically controls tapered locking pins

**Frame:** Tapered box  
 Section size, max. .... 16.5x8 in. (419x203 mm)  
 min. .... 12.5x8 in. (318x203 mm)  
 Weight per ft. max. .... 99 lb. (147.3 kg/m)  
 av. .... 91 lb. (135.4 kg/m)

**Tandems:** Welded steel box section 1 ft. 9.75 in. (552 mm)x6.5 in. (165 mm)  
 Drive ..... 1.75 in. (44 mm) pitch roller chain  
 Axle dia. at bearings ..... 3.25 in. (83 mm)  
 2.62 in. (67 mm)

**Front Axle:** Fabricated steel A-frame with cast alloy-steel spindles, tapered roller bearings  
 Diameter at bearing seats ..... 2.62 in. (67 mm)  
 2.06 in. (52 mm)  
 Total oscillation ..... 30 deg.  
 Wheel lean (either direction) ..... 20 deg.

**Rear Drive Axle:** Full floating with tapered roller bearings  
 Diameter at bearings ..... 3.28 in. (83 mm)

**Scarifier (Special Equipment):** V-type for 46 in. (1.17 m) cut with 3 manual pitch positions  
 Number of teeth ..... 5 standard, 9 optional  
 Lift above ground ..... 1 ft. 10.5 in. (572 mm)  
 Penetration ..... 8.75 in. (222 mm)  
 Maximum pressure—down ..... 7000 lb. (31.37 kN) (3175 kg)  
 up ..... 20,000 lb. (89.64 kN) (9072 kg)  
 Shank size ..... 1x3 in. (25x76 mm)

**Bulldozer** ..... (Special Equipment): Mounts on scarifier linkage. Angles 22 deg. left or right by articulating machine.  
 Length ..... 93 in. (2.36 m)  
 Height ..... 23.5 in. (597 mm)  
 Lift above ground ..... 27 in. (686 mm)  
 Penetration ..... 4 in. (102 mm)

Capacities:	U.S.	Imp	Liters
Fuel tank	50 gal.	41.7 gal.	189.3
Cooling system	5.6 gal.	4.7 gal.	21.2
Engine lubrication, including filter	3 gal.	2.5 gal.	11.4
Engine lubrication, without filter	10 qt.	2.1 gal.	9.5
Transmission and hydraulic system	21 gal.	17.5 gal.	79.5
Tandem housings (each)	5 gal.	4.2 gal.	18.9
Worm gearbox	1.5 qt.	1.3 qt.	1.4

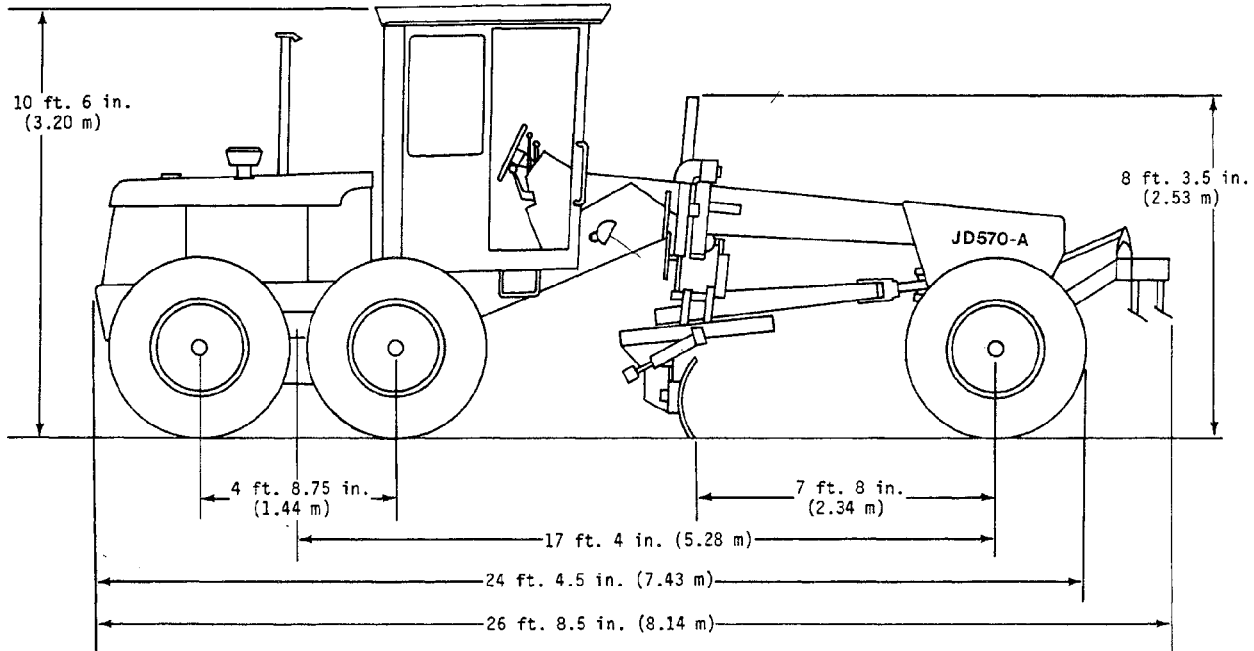
**Additional Standard Equipment:**

Transistorized voltage regulator	Gauges:
Lights	Coolant temperature
Turn signals	Transmission temperature
Electric hour meter	Engine oil pressure
Cigar lighter	Fuel
Horn	Cold weather starting aid
Deluxe seat	Precleaner
Transmission bottom guard	ROPS cab and seat belt
	Work lights
	Cab heater
	Front windshield wiper
	Rear windshield wiper

**Special Equipment:**

Scarifier	12 ft. (3.66 m) heavy-duty blade
Cab defroster fan	Engine side shields
Floor mat	Overlay end bits
ROPS canopy and seat belt	Bulldozer
2 ft. (610 mm) moldboard extensions, right or left	Wheel weights for 24 in. (610 mm) tires
Disconnect clutch	Heavy-duty cutting edges
	Automatic blade control

**JD570-A MOTOR GRADER DIMENSIONS**



T62257N

Height to top of steering wheel ..... 7 ft. 5 in. (2.26 m)

Tires . . . 13.00-24, 8-ply-rating; 15.5-25, 8-ply-rating; 13.00-24, 10-ply-rating

**DIMENSIONS:**

Tire Size	Wheel Tread		Width		Ground Clearance (Front Axle)
	Front	Rear	Front	Rear	
13.00-24	78.75 in. (2.00 m)	81.125 in. (2.06 m)	7 ft. 10.75 in. (2.41 m)	7 ft. 10.25 in. (2.39 m)	1 ft. 11.5 in. (597 mm)
15.5-25	81.375 in. (2.07 m)	83.75 in. (2.13 m)	8 ft. 3.75 in. (2.53 m)	8 ft. 3.25 in. (2.52 m)	1 ft. 10.9 in. (582 mm)

**SAE Operating Weight**

	On Front Wheels	On Rear Wheels	Total
Standard equipment	5705 lb. (2608 kg)	14,320 lb. (6495 kg)	20,025 lb. (9083 kg)
Standard equipment and scarifier	6755 lb. (3063 kg)	14,148 lb. (6418 kg)	20,903 lb. (9481 kg)
Standard equipment and wheel weights	5705 lb. (2608 kg)	14,920 lb. (6768 kg)	20,625 lb. (9355 kg)
Standard equipment, scarifier, and wheel weights	6755 lb. (3063 kg)	14,748 lb. (6690 kg)	21,503 lb. (9753 kg)

**IMPORTANT: Rear axle weight must not exceed 16,700 lb (7575 kg). If equipped with ripper or snow wing, do not add full liquid ballast. Maximum allowable rear end weight could be exceeded with full ballast.**

(Unit Equipped w/13.00 - 24, 8-ply Rating Tubeless Tires)

**JD570**

**HORSEPOWER** (at 2300 rpm)  
 Net engine flywheel at 500 ft.  
 altitude and 85 deg. F. temperature .....83

**ENGINE**  
 NACC or AMA taxable horsepower .....35.9  
 Cycle ..... 4  
 No. of Cylinders ..... 6  
 Rated RPM .....2300  
 Bore and Stroke .....3.86 in. x 4.33 in.  
 Piston Displacement .....303 Cu. in.  
 Electric System .....12 volts  
 Starting .....Electric

**TRANSMISSION**  
 Description .....Power Shift Transmission  
 Lock-Unlock Differential

**GROUND SPEEDS**  
 1st ..... 2.04 mph  
 2nd ..... 2.88 mph  
 3rd ..... 4.49 mph  
 4th ..... 5.81 mph  
 5th ..... 7.42 mph  
 6th ..... 9.67 mph  
 7th ..... 12.80 mph  
 8th ..... 21.40 mph  
 1st Rev. .... 2.36 mph  
 2nd Rev. .... 3.36 mph  
 3rd Rev. .... 5.24 mph  
 4th Rev. .... 6.77 mph

**STEERING**  
 Type  
 Front .....Full Hydraulic Power Steering  
 Rear .....Hydraulic-Articulated  
 Frame Steering  
 Turning Radius .....18 ft.

**BRAKES**  
 Service .....Foot-operated, hydraulic-ac-  
 tuated, wet-disk type, effec-  
 tive on 4 tandem wheels

Parking .....Hand-operated mechanical ex-  
 panding dry-shoe type, effective  
 on 4 tandem wheels

**CIRCLE**  
 Diameter .....54 in.  
 Type of Drive .....Hydraulic Motor and  
 Worm Gear  
 Rotation .....360 deg.

**BLADE RANGE**  
 Lift above Ground .....13 in.  
 Blade Side Shift  
 Right .....26.75 in.  
 Left .....31.25 in.  
 Shoulder Reach, Outside Wheels  
 Right .....71.50 in.  
 Left .....77.25 in.  
 Bank Cutting Angle (Right and Left) ..90 deg.  
 Pitch .....32 deg.

**BLADE LIFTING MECHANISM**  
 Saddle (Hydraulically  
 Actuated) .....5 position - 22.5 deg.  
 Increment Rotations  
 Total Rotation Right  
 or Left 45 deg.  
 Cylinders .....3 in. bore x 42 in. stroke

**BLADE ASSEMBLY**  
 Length .....10 ft. or 12 ft.  
 Height .....22 in.  
 Thickness .....standard 0.62 in.  
 heavy-duty 0.75 in.

**AXLE FRONT**  
 Front Wheel Lean .....20 deg. left and right  
 Steering Range .....51 deg. left and right  
 Ground Clearance  
 with 10.00-24 Tires  
 (Early Units) .....21.75 in.  
 with 13.00-24 Tires .....23.5 in.  
 with 15.50-25 Tires .....23.0 in.  
 Oscillation .....30 deg.

**HYDRAULIC SYSTEM**  
 Type .....Closed center  
 Pump .....Variable displacement piston type



**JD570**

**CAPACITIES**

Fuel Tank .....	50 gal.
Cooling System .....	22.4 quarts
Crankcase (with Filter) .....	10 quarts
Transmission (with Filters) (Includes Hydraulic System) .....	21 gal.
Tandem Housings (Each) .....	5 gal.
Worm Gear Box .....	1.5 quarts

**SCARIFIER**

Weight (without Teeth) .....	652 lbs.
(with Teeth) .....	878 lbs.
No. of Teeth .....	11
Lift Above Ground .....	22-1/2 in.
Penetration .....	8-3/4 in.
Pitch Positions .....	3
Controls .....	Hydraulic
Max. Force. 7,000 lbs. Down—20,000 lbs. Up	
Width of Cut .....	50 in.
Shank Size .....	1 in. x 3 in.
Type .....	"V"

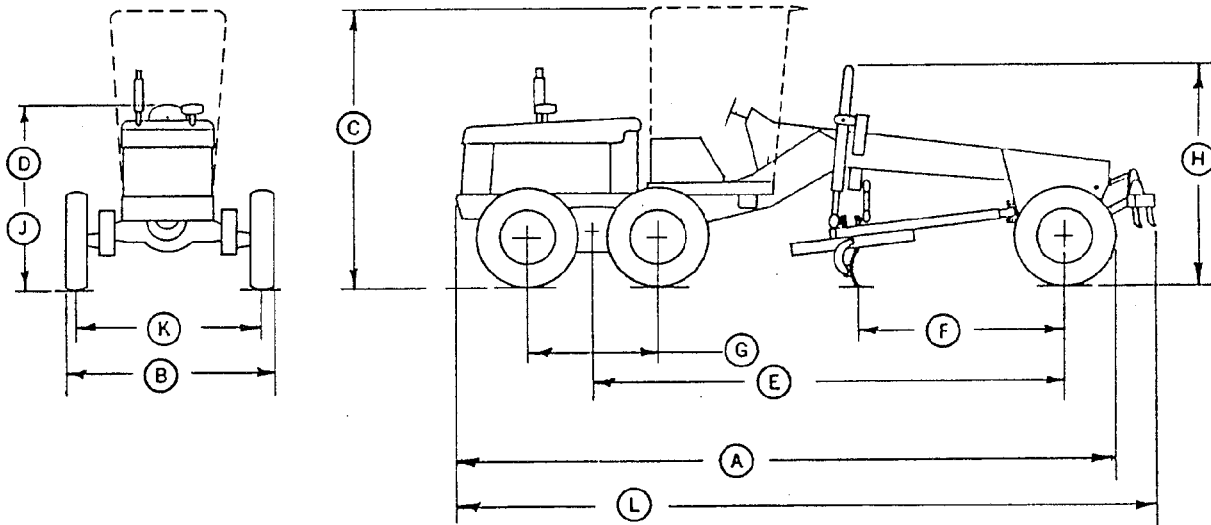


Fig. 2- JD570 Dimensions Specifications

Over-All Dimensions	Inches	Over-All Dimensions	Inches
A. Length .....	24 ft. 4.5 in.	G. Tandems (Center Line) .....	4 ft. 8.75 in.
B. Width (13.00-24 tires) .....	7 ft. 10.75 in.	H. Height (Top Lift Cylinders) .....	8 ft. 3.5 in.
(15.50-25 tires) .....	8 ft. 3.75 in.	J. Height (Top Air Cleaner) .....	7 ft. 5.5 in.
C. Height (with Cab) .....	10 ft. 6 in.	K. Tread (Front) 13.00-24 tires) ....	6 ft. 6.75 in.
D. Height (without Cab - To Top of Steering Wheel) .....	7 ft. 5 in.	(Front) (15.50-25 tires) .....	6 ft. 9.12 in.
E. Wheelbase .....	17 ft. 4 in.	(Rear) (13.00-24 tires) .....	6 ft. 9.12 in.
F. Bladebase .....	7 ft. 8 in.	(Rear) (15.50-25 tires) ....	6 ft. 11.75 in.
		L. Length with Scarifier (In Up Position) .....	26 ft. 8.5 in.

**JD570**

**WEIGHT**

Operating - Total		On Rear Wheels	
(standard equipment		(standard equipment	
without cab) .....	18625 lbs.	without cab) .....	13120 lbs.
(standard equipment		(with cab) .....	14220 lbs.
with cab) .....	19925 lbs.	(standard equipment	
(standard equipment		and scarifier) .....	14048 lbs.
and scarifier) .....	20803 lbs.		
On Front Wheels			
(standard equipment			
without cab) .....	5505 lbs.		
(with cab) .....	5705 lbs.		
(standard equipment			
and scarifier) .....	6755 lbs.		

*(Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards.)*

10 *General*  
5-8 *Specifications*

*Grader, Motor - JD570*  
*TM-1001 (Dec-87)*

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*Litho in U.S.A.*

# Group 10 PREDELIVERY, DELIVERY, AND AFTER-SALE SERVICES

## TEMPORARY UNIT STORAGE

After receiving your unit from the factory and before putting the machine into temporary storage, perform the following checks and services.

For long term storage (over 30 days) information, consult your JD570-A operator's manual.

1. Check battery electrolyte level and charge the battery, if necessary.
2. Check coolant level: Maintain 4 inches below the top of the filler neck.
3. Fill the fuel tank.
4. Check crankcase oil level. Oil should be between marks on dipstick after machine has been shut down for 10 minutes.
5. Relieve hydraulic pressure by stopping engine, lowering blade and operating control levers until system fails to respond.
6. Reduce shipping pressure of all tires to inflation pressure shown on page 10-10-9.
7. Cover unit for protection and cleanliness.

## PREDELIVERY SERVICE

Because of the shipping factors involved, plus extra finishing touches that are necessary to promote customer satisfaction, proper pre-delivery service is of prime importance to the dealer and the customer.

If adjustments are required, procedures are found in the after-sale section.

Use the following list when preparing a motor grader for delivery to the customer.

### 1. Pre-Cleaner



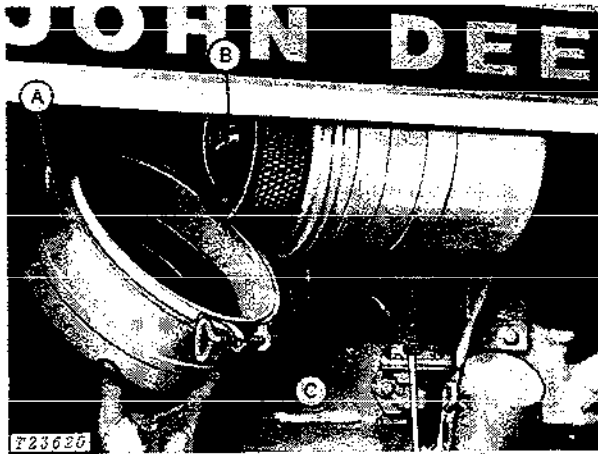
Fig. 1-Pre-Cleaner

Check pre-cleaner bowl. Clean if necessary.

Pre-cleaner checked

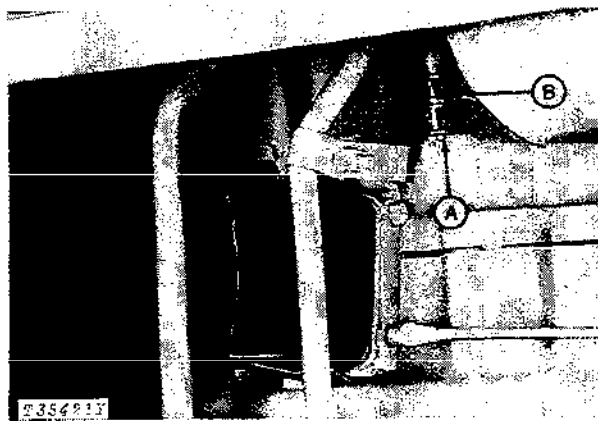
Yes No

## 2. Air Cleaner



A—Dust Cap  
 B—Wing Nut  
 C—Primary Element

Fig. 2—Air Cleaner



A—Reset Button  
 B—Red Signal

Fig. 3—Restriction Indicator

Check air cleaner restriction indicator. If indicator shows red, check elements. If only primary element is dirty, clean the element. If safety element is dirty, replace both elements.

Air cleaner checked	Yes	No
Elements replaced	Yes	No

## 3. Fuel Filter



Fig. 4—Fuel Filter

Check fuel filter for sediment. Drain if necessary.

To bleed fuel system, see page 10-10-21.

Sediment present in filter	Yes	No
----------------------------	-----	----

## 4. Batteries

Check battery electrolyte level. If distilled water is not available, use clean soft water. Avoid use of hard water. Remove foreign material from top of battery and coat terminals with petroleum jelly.

**IMPORTANT: Never add water to battery in freezing weather unless engine will be run 2 to 3 hours.**

Check battery connections.

Punch date code on battery.

Battery connections checked	Yes	No
Water added	Yes	No

### 5. Fuel Tank

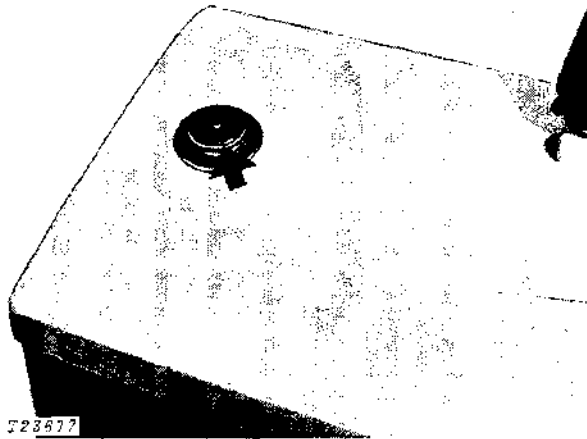


Fig. 5-Fuel Tank Filler Cap

Fill fuel tank with proper fuel. Check action of fuel gauge.



Fig. 6-Fuel Gauge

Fuel tank filled	Yes	No
Fuel gauge checked	Yes	No

### 6. Fuel Tank Sump

**IMPORTANT:** Sediment will settle over extended periods of transport or storage.

Open fuel tank drain cock. Drain liquid for several seconds. Close drain cock.

**NOTE:** Fuel tank sump drain is located on the bottom of the fuel tank.

Fuel sump drained	Yes	No
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### 7. Radiator

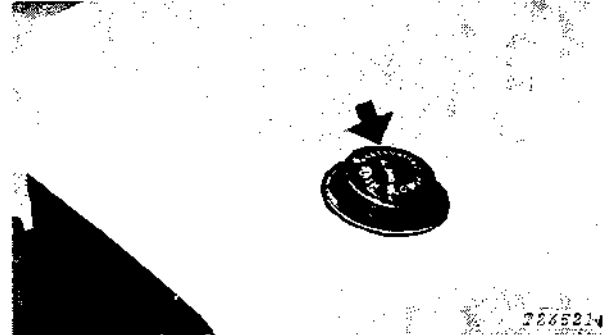


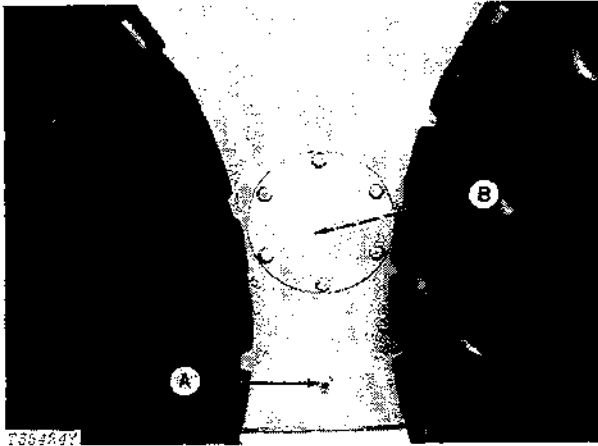
Fig. 7-Radiator Filler Cap

**CAUTION:** Remove radiator filler cap only when coolant temperature is below boiling point. Then loosen cap slightly to the stop to relieve pressure before removing the cap completely.

Check coolant level. Maintain 4 inches below the top of the filler neck. Add permanent-type antifreeze if cold weather is expected.

Radiator coolant level checked	Yes	No
Coolant or antifreeze added	Yes	No

8. Tandem Drives



A—Oil Level Plug                      B—Main Drive Sprocket Retainer

Fig. 8-Tandem Drives

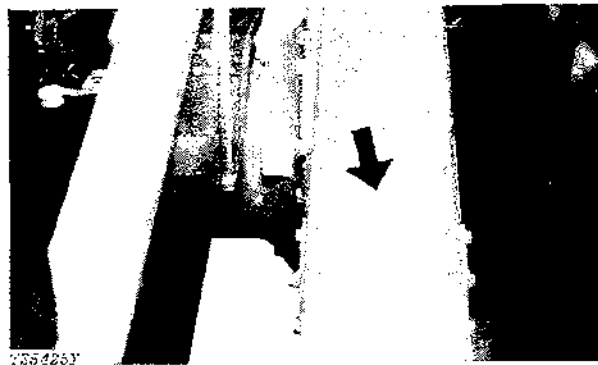


Fig. 9-Tandem Drive Inspection Plate

Park grader on level surface. Remove inspection plate from each tandem. Make sure oil reservoirs in front and rear outboard hubs are full.

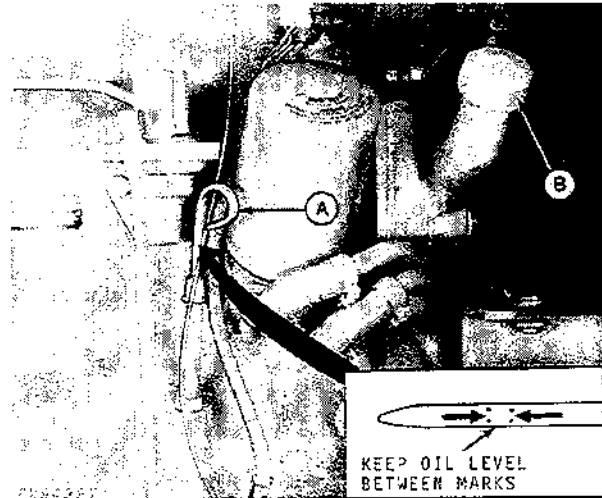
Remove oil level plug from each tandem. Oil should be level with plug hole.

If oil is needed, use John Deere HY-GARD® Oil or equivalent.

Install inspection plate and plug.

Tandem oil level checked                      Yes      No

9. Crankcase Oil Level



A—Crankcase Dipstick                      B—Crankcase Filler Cap

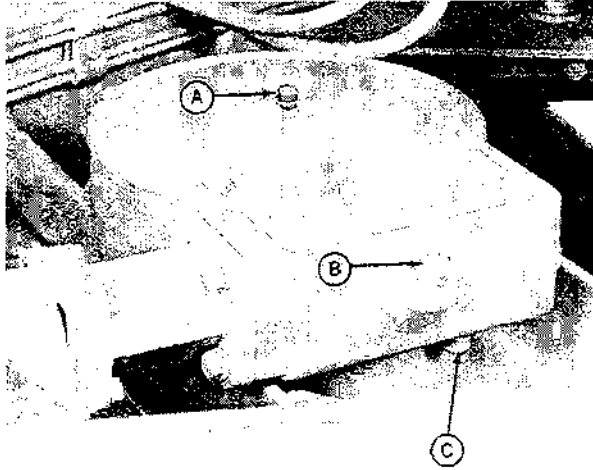
Fig. 10-Crankcase Oil Level

Check crankcase oil level with machine on level ground and engine off. If oil level is at or below bottom mark on dipstick, add oil specified on page 10-20-2 to bring oil level to between marks on dipstick. Do not operate engine with oil level below the bottom mark.

*NOTE: There is a 3-1/2 quart difference between the bottom mark and the top mark on the dipstick.*

Crankcase oil level checked                      Yes      No  
 Oil added, if any    \_\_\_\_\_qts.

### 10. Circle Drive Gear Box



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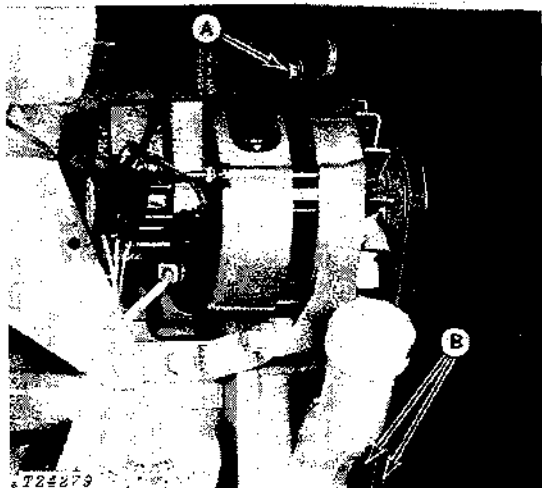
A—Vent  
 B—Oil Level and Filler Plug  
 C—Drain Plug

Fig. 11—Circle Drive Gear Box

With the blade resting on level ground, check the circle drive gear box oil level by removing the oil level plug. Oil should be level with the plug hole. If necessary, add John Deere SCL oil or equivalent. (See page 10-20-2.) Replace filler plug.

Circle drive gear box oil level checked Yes No  
 Oil added \_\_\_\_\_ qts.

### 11. Alternator - Fan Belts



A—Adjusting Cap Screw  
 B—Alternator-Fan Belts

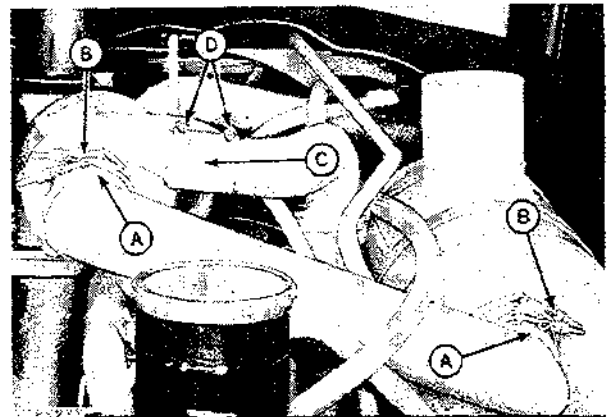
Fig. 12—Alternator - Fan Belts

Alternator-fan belt should deflect 3/4-inch when 20 pounds of force is applied to the belt midway between the two pulleys. Check front belt only. If a belt gauge is used, tighten new alternator belt to 100 pounds strand tension. After 3 minutes of operation, tension should be 90 pounds minimum.

**IMPORTANT:** Do not pry on the rear alternator housing as this may damage the alternator.

Alternator-fan belt tension \_\_\_\_\_ lbs. strand tension  
 \_\_\_\_\_ inch deflection

### 12. Air Intake Hoses



A—Air Intake Hose  
 B—Air Intake Hose Clamps  
 C—Turbocharger Inlet Hose  
 D—Turbocharger Inlet Hose Clamps

Fig. 13—Air Intake Hoses and Clamps

Check hoses (A) for cracks. Tighten clamps (B). Also check turbocharger inlet hose (C) and clamps (D).

Air intake hoses checked Yes No



### 13. Transmission-Hydraulic System Oil Level

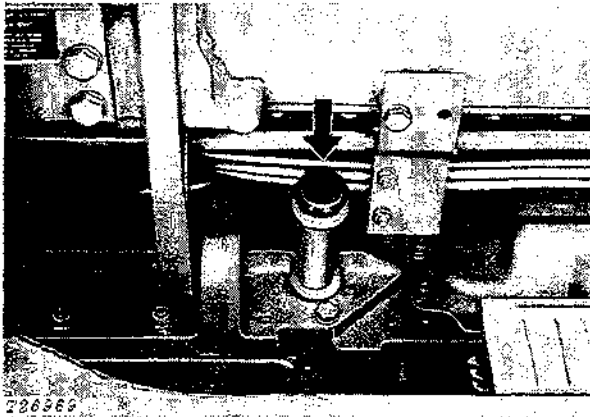


Fig. 14-Transmission-Hydraulic System Filler Cap and Dipstick

Be sure dipstick has been fully inserted before checking oil level. Do not start engine, unless oil is near top mark on dipstick. If oil level is low, add John Deere HY-GARD Oil or equivalent. Replace dipstick.

If the engine has been running and the transmission oil is warm, allow 10 minutes for oil to drain down before checking.

**NOTE:** Overfilling of the transmission-hydraulic system may cause overheating during extended 8th gear transport.

Transmission-hydraulic oil level checked Yes No  
 Transmission-hydraulic oil added \_\_\_\_\_ats.

### 14. Engine Speeds

Warm up engine and attach a tachometer in the hour meter drive plug hole to check engine speeds.

No-load, fast idle speed should be  $2450 \pm 50$  rpm. Slow idle should be  $900 \pm 25$  rpm.

If engine speeds need adjustment, see page 10-10-25.

Engine speeds checked Yes No

### 15. Parking Brake

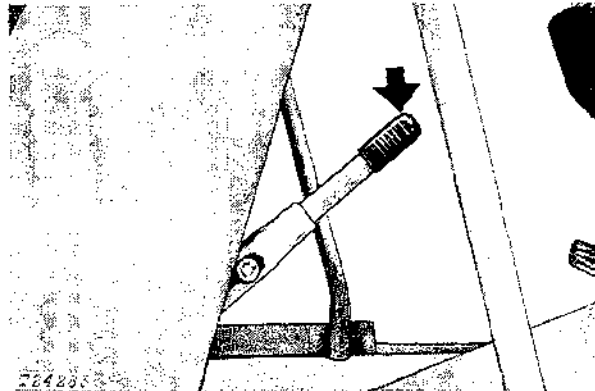


Fig. 15-Parking Brake Lever

Check parking brake adjustment.

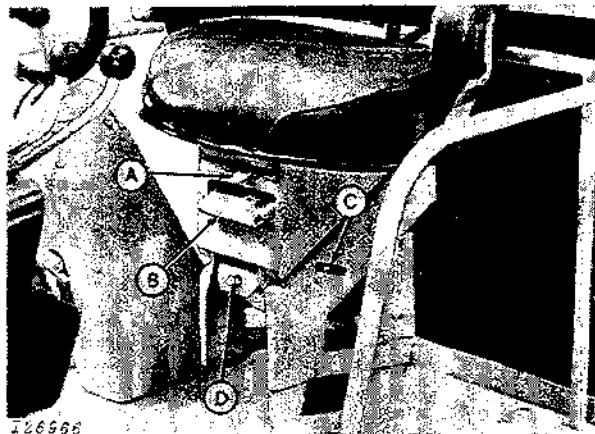
A lifting force of 75 lbs (minimum) is required to set the parking brake lever. Check with spring scale attached to adjustment knob on end of parking brake lever.

If adjustment is required, see page 10-10-26.

Parking brake operational Yes No

### 16. Seat Operation

Check operation of seat.



A—Seat Position Selector Lever  
 B—Seat Release Latch  
 C—Indicator  
 D—Weight Adjusting Screw

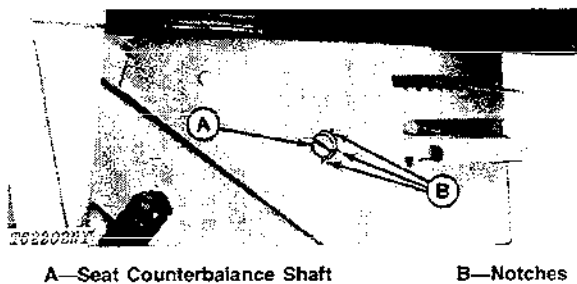
Fig. 16-Seat Operation

Move seat to upper rear position. Then sit down and move seat position selector lever (A) left or right until you reach desired position. Seat will always return to this position when you sit down after you have moved seat up and to rear for standing.

Turn weight adjusting screw (D) clockwise or counterclockwise until indicator (C) conforms to your weight.

To move seat up and back, stand up and lift seat-release latch (B). Seat will move automatically to upper rear position. Sit down to return seat to normal preset operating position.

If seat does not move fully to the rear when unlatched, adjust counterbalance spring as follows:



A—Seat Counterbalance Shaft B—Notches

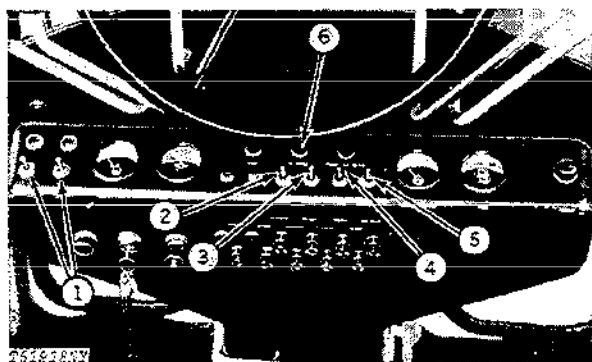
Fig. 17—Seat Counterbalance Shaft

Move the seat to the upper rear position. Insert a screwdriver in the slot in the counterbalance shaft, push in to unlatch the shaft, and turn the shaft counterclockwise. Align the latch in the end of the shaft with the notches in the side of the seat support and pull the screwdriver outward to latch the shaft.

Seat operation checked Yes No

### 17. Light Operation

Check operation of lights and switches.



1—Direction Signal Switches 4—Work Light Switch  
2—Beacon Light Switch 5—Drive Light Switch  
3—Panel Light Switch 6—Hi-Beam Indicator Light

Fig. 18—Light Switches

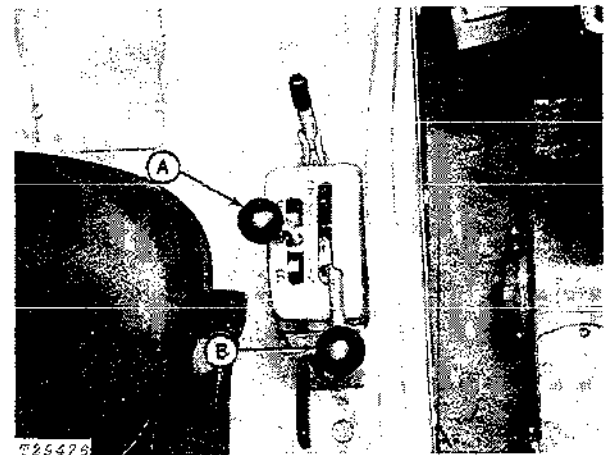
Push all switches forward to turn lights on. Pull switches rearward to turn lights off.

Turn signal switches (1) must be turned off after a turn. Turn both switches on for emergency flashers.

Dimmer switch on left floor panel controls high beam indicator light.

Lights and switches checked Yes No

### 18. Transmission Shifting



A—Forward-Reverse Lever B—Transmission Shift Lever

Fig. 19—Transmission Controls

Check operation of motor grader in all gears.

To move grader forward, release parking brake, push forward-reverse lever into forward position, and move transmission shift lever to desired gear. Shift one gear at a time.

Use the forward-reverse lever to change the direction of travel "on the go" without decutching or shifting gears.

Transmission checked Yes No

### 19. Reverser Operation

Check operation of forward-reverse lever.

**NOTE:** Parking brake must be released before forward-reverse lever can be shifted out of neutral.

To reverse grader, pull forward-reverse lever rearward to reverse position. With transmission shift lever in 5th gear or higher, forward-reverse lever cannot be put in reverse position.

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