

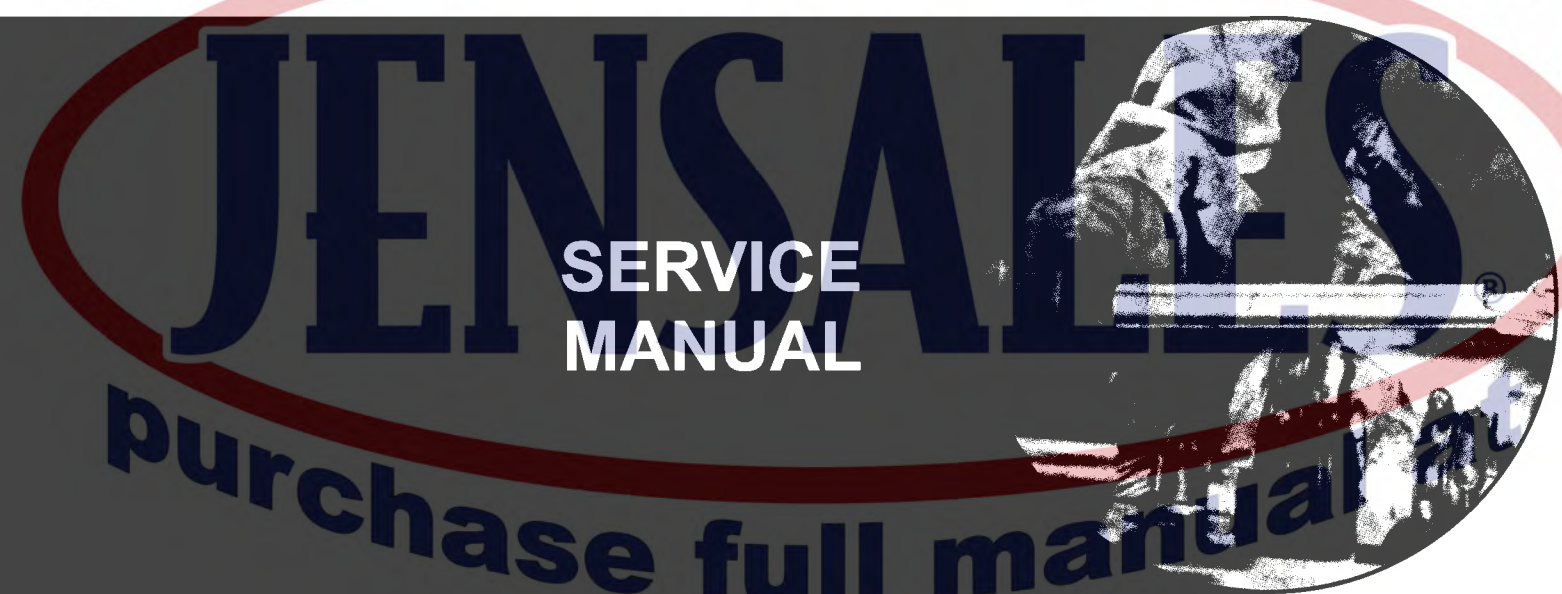
John Deere

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MODEL:

345 Rotoboom

MANUAL PREVIEW



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ROTOBOOM

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DESCRIPTION AND SPECIFICATIONS

Group 5 IDENTIFICATION AND SPECIFICATIONS

IDENTIFICATION

The 345 Rotoboom is designed to mount on John Deere JD350, JD450, 1010 and 2010 Crawler Tractors equipped with Bulldozers or Loaders and 2010, 3010, JD400, JD500, JD600 and 4010 Wheel Tractors equipped with Loaders. It can also be mounted on the JD440 Skidder.

The Rotoboom is a versatile unit. It can be equipped with a 3/8-yd. digging clam for excavating; a 1/2-yd. loose material clam for handling sand, gravel, loose fill, etc., and log grapples to handle 4-ft. or 8-ft. pulpwood. Depending on the tractor and attaching equipment used, the Rotoboom can be equipped with concrete bucket, winch attachment, railway car straightener or earth drill.

The large capacity pump and positive control valve make this machine quick acting. It is designed and built to withstand the heavy use that is required of machines of this type.

Operation of the Rotoboom is controlled completely by the boom, clam and crowd control levers. Two shorter levers control the stabilizers.

One or more of these functions can be operated at the same time, such as swinging the boom in or out at the same time it is moved to the right or left.

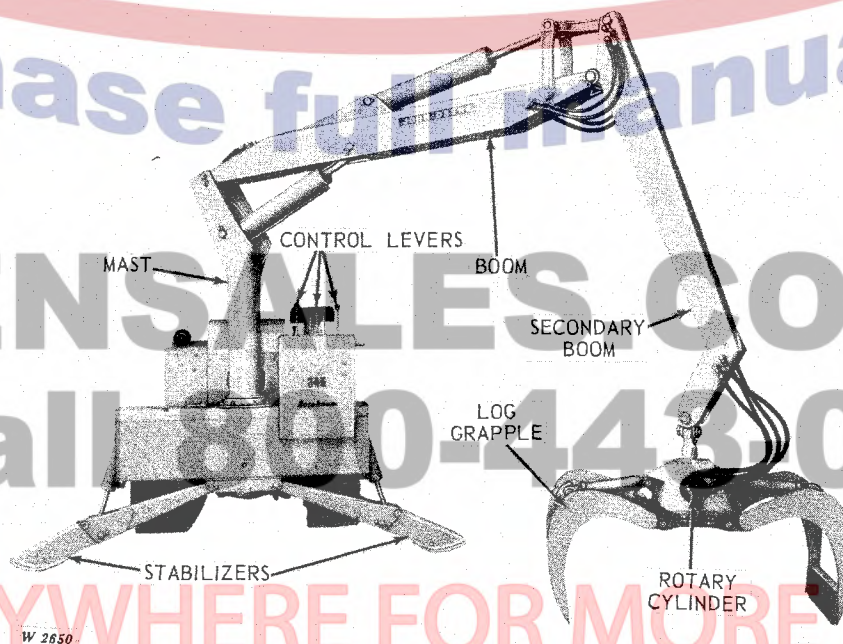


Fig. 10-5-1—John Deere 345 Rotoboom Mounted on a JD450 Crawler Bulldozer

SPECIFICATIONS

Tractor Mounting	Two-pin hookup to brackets on rear of following tractors: JD350, JD450, 1010 or 2010 Crawler Bulldozers JD350, JD450, 1010 or 2010 Crawler Loaders 2010, JD400, JD500 or JD600 Wheel Loaders JD440 Skidder			
Truck Mounting (Mast Mounted or Ground Controls).	Bolts to main frame channel in 20-inch space immedi- ately behind truck cab.			
Boom Options:				
Standard	Recommended for all tractor applications.			
Self-Loading.	Recommended for all truck applications.			
Boom Rotation.	360 degrees (180 degrees left or right)			
Clam Options.	Digging Clam		Loose Material Clam	
Capacity	3/8 cu. yd.		1/2 cu. yd.	
Clam Width	24 inches		32 inches	
Grapple Options.	For 4-ft. Logs		For 8-ft. Logs	
Capacity	1/4-cord		1/4-cord	
Grapple Width.	30 inches		28 inches	
Car Press Attachment.	Attaches to rotary cylinder (allied equipment)			
Concrete Bucket Attachment—1/2 Yard	Attaches to hook (allied equipment)			
Hook Attachment.	Attaches to boom end			
Lift Capacity	2500 lbs. 16-ft. reach — 3000 lbs. 13-ft. reach			
Winch Attachment.	Attaches to boom end			
Line Pull		Line Speed		
Drum Capacity, 7/16-inch Cable . . .	75 ft.			
4800 lbs. (Maximum) at.	35 fpm (approx.)			
4000 lbs. (Average) at.	50 fpm			
Earth Drill	Attaches to boom end (allied equipment)			
Clam or Grapple Rotation	210 degrees			
Reach from Center of Swing.	16-ft. maximum			
Maximum Lift Clearance (Standard Boom).				
	Tractor		Truck	
	16-ft. Boom	13-ft. Boom	16-ft. Boom	13-ft. Boom
Clam.	19' 5"	16' 9"	20' 8"	18' 0"
4-ft. Grapple	18' 11"	16' 3"	20' 2"	17' 6"
8-ft. Grapple	19' 5"	16' 9"	20' 8"	18' 0"
Hook.	22' 9"	20' 1"	24' 0"	21' 4"
Working Depth Below Ground Level (Standard Boom).				
	Tractor		Truck	
	16-ft. Boom	13-ft. Boom	16-ft. Boom	13-ft. Boom
Clam.	9' 6"	7' 6"	8' 3"	6' 3"
4-ft. Grapple	10' 0"	8' 0"	8' 9"	6' 9"
8-ft. Grapple	9' 6"	7' 6"	8' 3"	6' 3"
Hook.	6' 2"	4' 2"	4' 11"	2' 11"
Hydraulic System				
Operation Pressure.	2000 psi (2250 psi on JD500 Wheel Loaders and 2010 Crawler Loaders)			

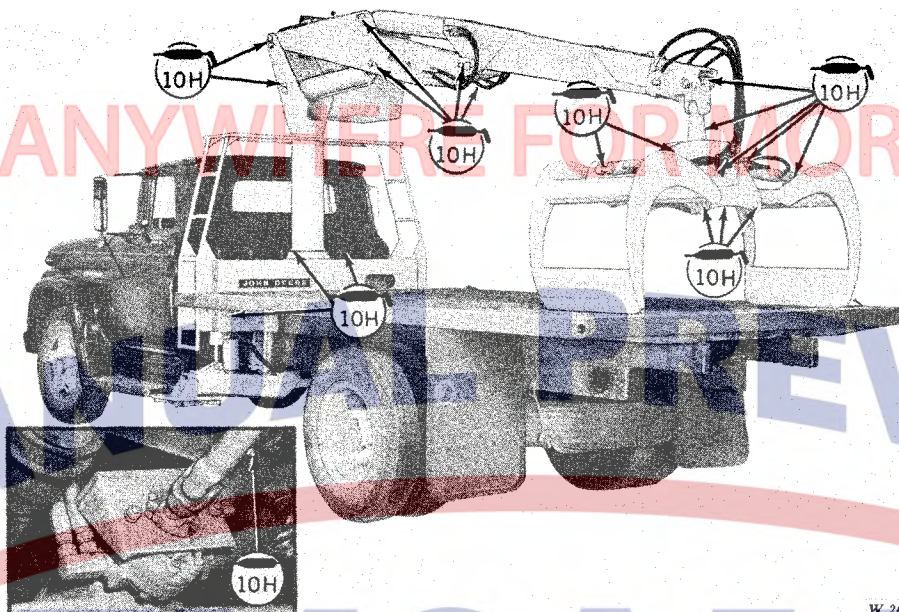


Fig. 20-5-2—345 Truck-Mounted Rotoboom

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NOTE: Lubrication points are similar whether the Rotoboom has mast-mounted or ground controls.

CHECKING OIL LEVEL IN RESERVOIR

Check oil level in reservoir daily. If necessary, add oil to bring level up to "FULL" mark on dipstick. Use oil recommended in chart below.

SYMBOLS



Lubricate every 10 hours with SAE Multipurpose-Type Grease.

TEMPERATURE—OIL WEIGHT CHART

Air Temperature	John Deere Type 303 Special Purpose Oil	Automatic Transmission Fluid, Type "A"
Above 90° F.	X	..
60° to 90° F.	X	X
32° to 60° F.	X	X
-10° to 32° F.	X	X
Below -10° F.	..	X

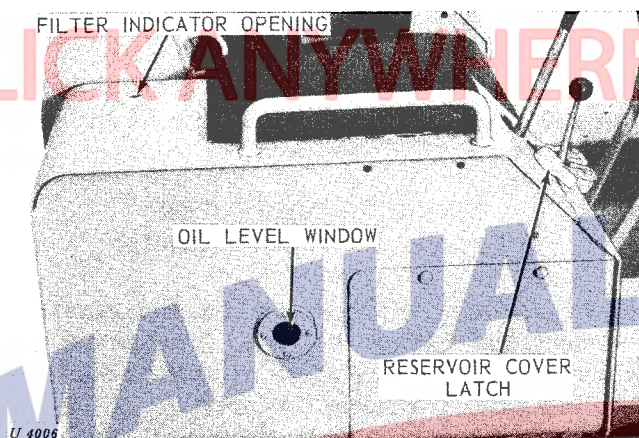
**SERVICING RESERVOIR MICRONIC FILTER
(JD350 and JD450 Crawler Tractors)**

Fig. 20-5-3—Reservoir on JD350 or JD450
Crawler Tractors

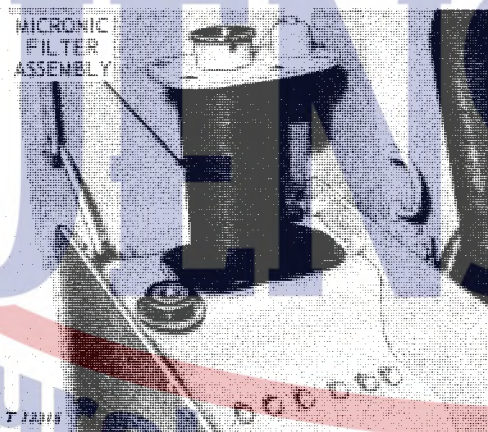


Fig. 20-5-4—Micronic Filter

To replace the filter, remove the six cap screws holding the micronic filter and indicator to the reservoir. Lift the filter assembly from the reservoir. Remove the filter from the filter cap by unscrewing the bolt inside the filter.

Reassemble the filter unit using a new micronic filter.

Replace the O-rings at the return oil and suction oil ports and beneath the filter baffle if necessary.

NOTE: Replace the micronic filter after the first 50 hours of operation and then every 600 hours or when the indicator stays in the raised position.

SERVICING RESERVOIR WIRE MESH FILTER

Fig. 20-5-5—Wire Mesh Filter

Reach into the reservoir and push down on the filter latch and remove wire mesh filter assembly from the suction tube.

Remove the wire mesh filter from the filter can by unscrewing the nut on the suction strainer rod.

Wash the wire mesh filter in diesel fuel and blow out the impurities lodged in the screen with compressed air.

Insert the wire mesh filter in the filter can and secure with a nut on the suction strainer rod.

Replace the wire mesh filter assembly over the suction tube and push down on the filter latch and release it into the latch catch. Make sure filter assembly is secure.

Replace the filter cap and micronic filter assembly in the reservoir, making sure that it fits over the return tube properly. Bolt the filter cap to the reservoir with six cap screws and lock washers.

CHANGING FILTER ASSEMBLY (1010 and 2010 Crawler Tractors)

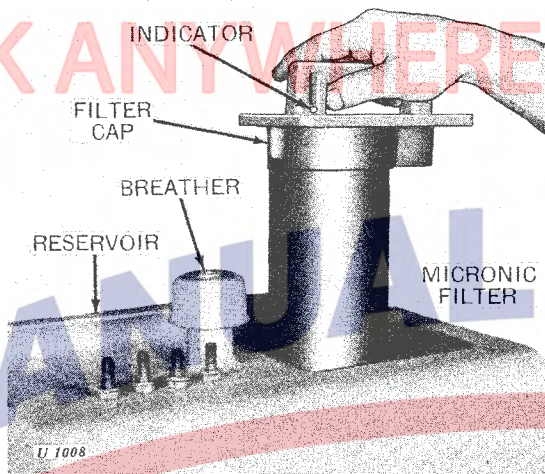


Fig. 20-5-6—Reservoir Filter

Remove four cap screws holding the filter cap and filters to the reservoir. Grasp the handle of the filter cap and lift the filter assembly from the reservoir.

Remove the filters from the filter cap by unscrewing the bolt inside the wire mesh filter.

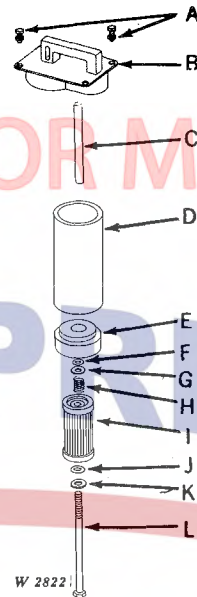
Replace the micronic filter when the indicator on the outside of the reservoir stays at or above the dirty filter mark when oil is warm.

Wash the wire mesh filter in a solvent such as diesel fuel oil and with compressed air blow out the impurities lodged in the screen.

Place a new micronic filter element in the filter cap and replace the spacers, baffle, O-ring, flat washer and wire mesh filter. Secure with a 3/8-inch machine bolt.

Replace the O-rings at the return oil and suction oil ports in the filter assembly if necessary.

Replace the filter cap and filter assembly in the reservoir, making sure that it fits over the suction and return tubes properly. Bolt the filter cap to the reservoir with four cap screws and lock washers.



- A - Cap Screws
- B - Reservoir Cap
- C - Spacer
- D - Micronic Filter
- E - Baffle
- F - O-Ring
- G - Flat Washer
- H - Spring
- I - Wire Mesh Filter
- J - O-Ring
- K - Flat Washer
- L - Machine Bolt

Fig. 20-5-7—Reservoir Filter on 1010 and 2010 Crawler Tractors

SERVICING OIL FILTER (Truck-Mounted)

The filtering unit consists of a micron paper element that filters the oil as it returns to the reservoir.

The filter head casting is equipped with a filter condition indicator. The by-pass valve built into the reservoir will begin to open as the indicator needle moves into the red danger zone. Therefore, the filter element should be changed as soon as the needle moves into the danger zone to avoid the possibility of circulating any dirty oil through the system.

NOTE: If oil is extremely cold, increased viscosity may cause the indicator needle to raise to the red danger zone. As soon as the oil reaches operating temperature the indicator needle should drop back to its normal position.

Disregard indicator reading until oil reaches operating temperature.