

**JOHN DEERE  
770A, 770AH AND  
772A, 772AH  
MOTOR GRADERS  
SERIAL NO. (500604- )**



**JOHN DEERE**

**OPERATORS MANUAL**

**JOHN DEERE 770A, 770AH AND 772A,  
772AH MOTOR GRADERS SERIAL NO.  
(500604- )**

OMT82708 G5 English

**JOHN DEERE DAVENPORT WORKS  
OMT82708 G5**

LITHO IN THE U.S.A.  
ENGLISH



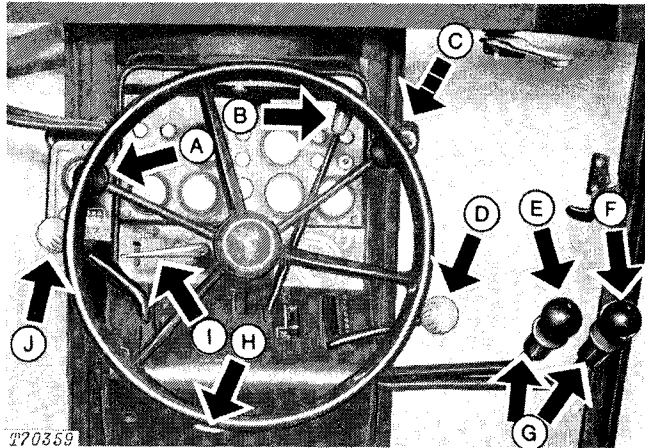
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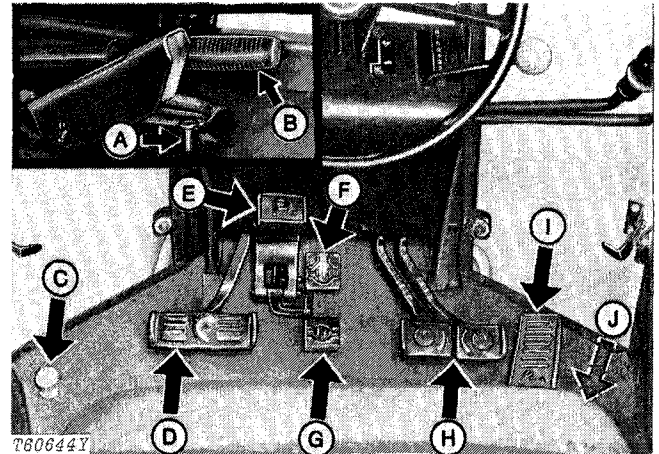


T70359

T70359

- A—Frame Steer Lever
- B—Hand Throttle
- C—Starter Button
- D—Transmission Shift Lever
- E—Left Blade Lift Lever

- F—Right Blade Lift Lever
- G—Blade Float Sleeves
- H—Parking Brake Release Handle
- I—Turn Signal Lever
- J—Direction Selector Lever

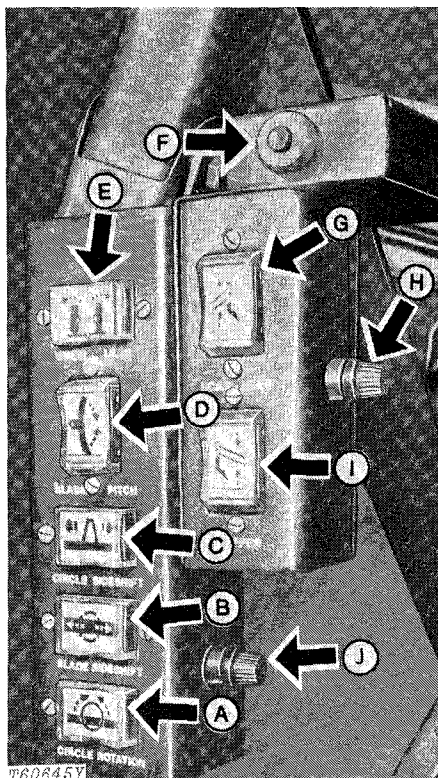


T60644Y

T60644Y

- A—Lift Arm Locking Pin Valve Plunger
- B—Engine Disconnect Lever (for cold weather)
- C—Dimmer Switch
- D—Inching Pedal (Clutch)
- E—Parking Brake Pedal

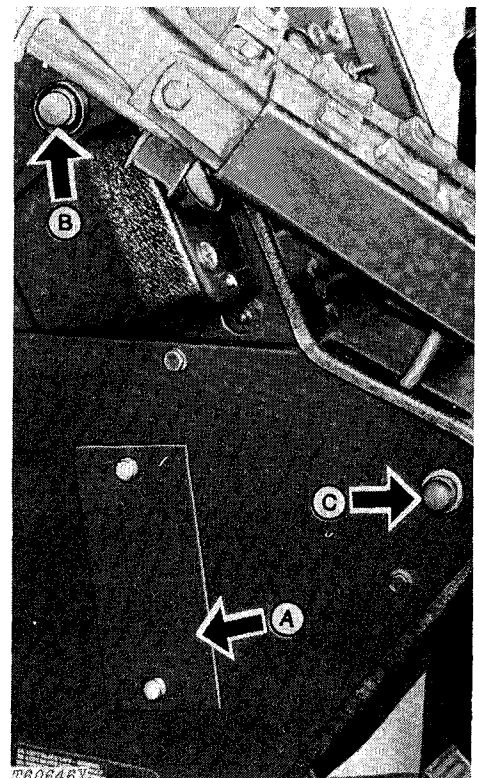
- F—Differential Disengage Pedal
- G—Differential Engage Pedal
- H—Brake Pedals
- I—Foot Throttle
- J—Decelerator



T60645Y

T60645Y

- A—Circle Rotation Control Switch
- B—Blade Side-Shift Control Switch
- C—Circle Side-Shift Control Switch
- D—Blade Pitch Control Switch
- E—Wheel Lean Control Switch
- F—Scarifier Float Switch
- G—Scarifier Control Switch
- H—Fuse - 5 amp
- I—Ripper Control Switch
- J—Fuse - 5 amp

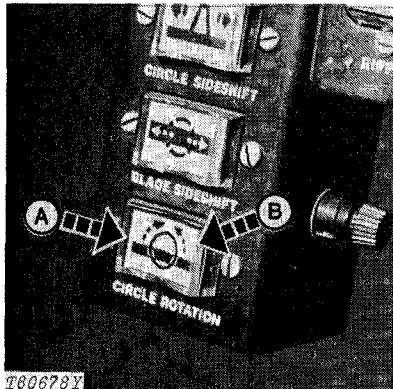


T60646Y

T60646Y

- A—Main Fuse Box
- B—Starting Aid Button
- C—Horn Button

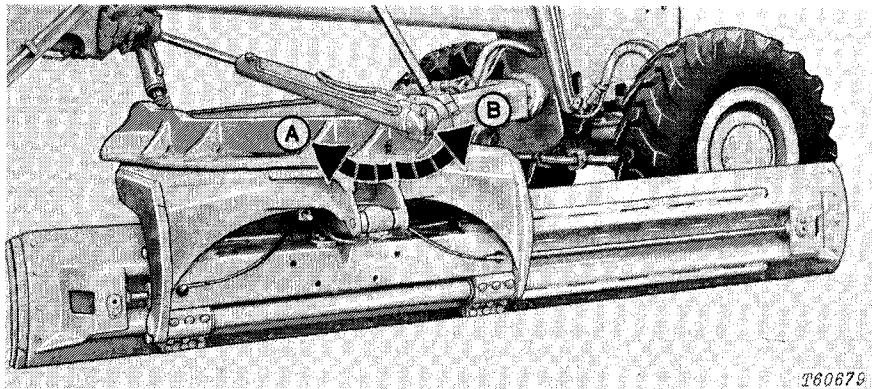
## CIRCLE ROTATION SWITCH



T60678Y

T60678Y

**A—Rotate Circle Clockwise**



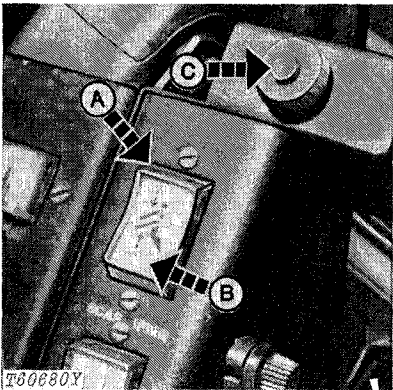
T60679

T60679

**B—Rotate Circle Counterclockwise**

**3**

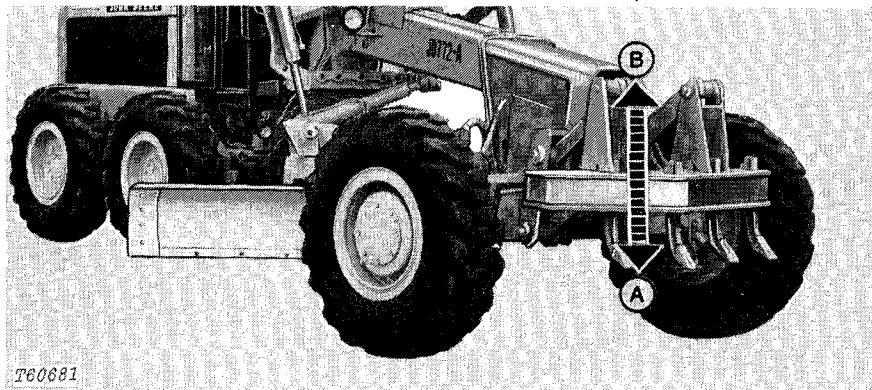
## SCARIFIER SWITCHES



T60680Y

T60680Y

**A—Lower Scarifier**



T60681

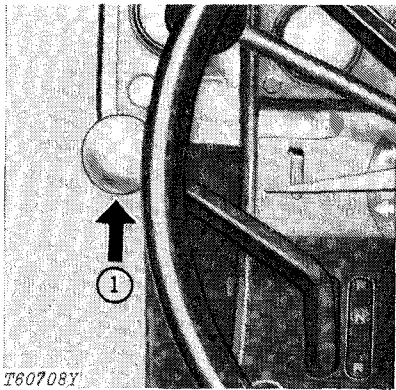
T60681

**B—Raise Scarifier**

**C—Scarifier Float**

Push down button C to put scarifier into float. Push down A or B to take scarifier out of float.

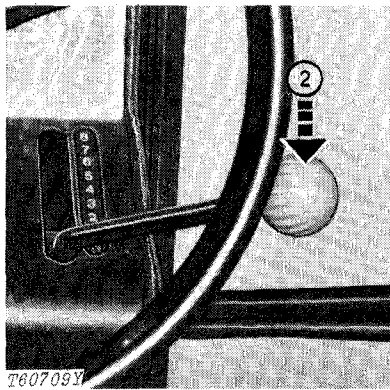
## PARKING THE GRADER



T60708Y

T60708Y

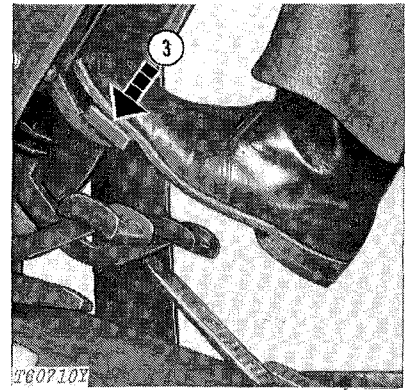
1. Shift direction selector lever to neutral (N).



T60709Y

T60709Y

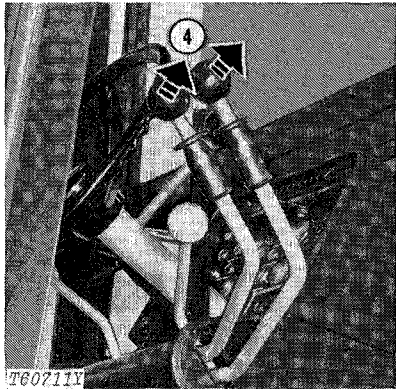
2. Move transmission shift lever to neutral (N).



T60710Y

T60710Y

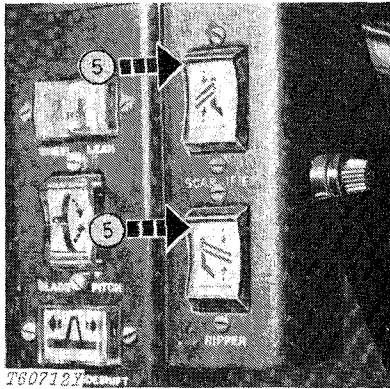
3. Engage parking brake.



T60711Y

T60711Y

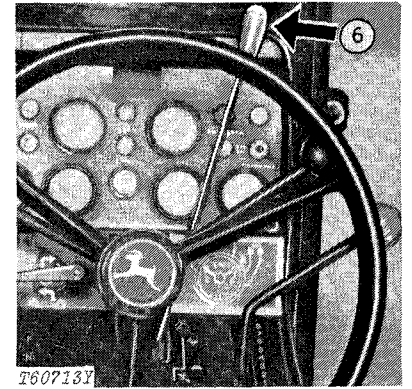
4. Lower blade to ground. Use blade float, if equipped.



T60712Y

T60712Y

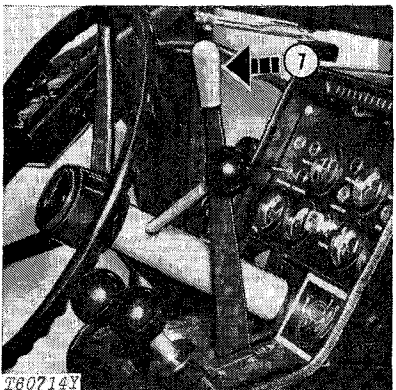
5. Lower scarifier and ripper to ground (or any other hydraulically-operated optional equipment).



T60713Y

T60713Y

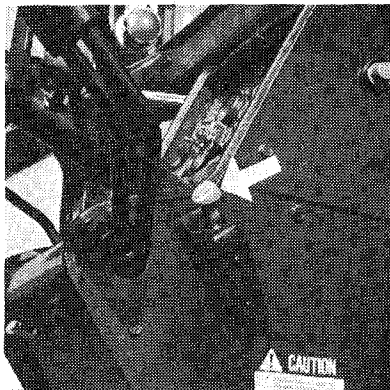
6. Run engine at half speed two minutes.



T60714Y

T60714Y

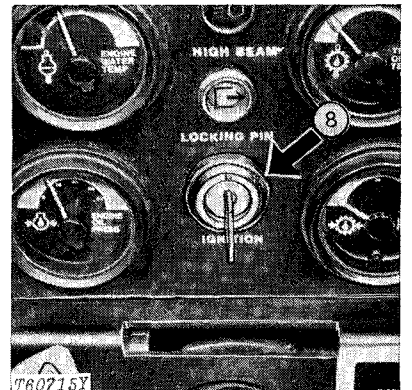
7. Pull hand throttle back to slow idle position.



T60715Y

T92842

8. Pull out fuel shut-off control.

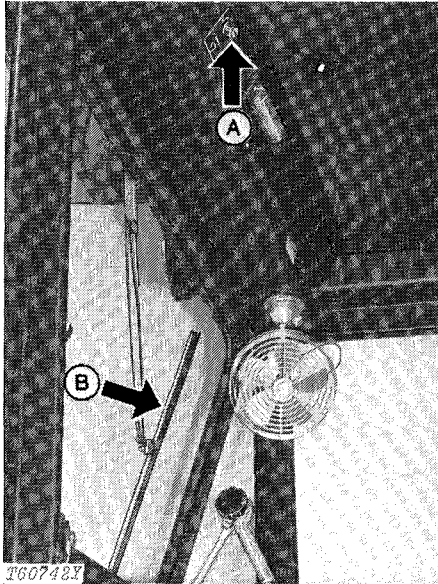


T60715Y

T60715Y

9. Turn key OFF. Remove key.

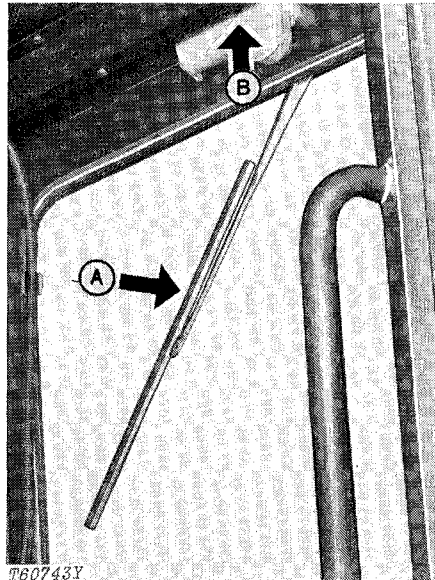
## Windshield Wipers



Front Windshield Wiper

Two-speed switch (A) controls front windshield wiper (B). Turn switch knob clockwise for low speed and high speed.

**IMPORTANT:** Do not operate windshield wiper when blade is frozen to windshield or when windshield is open.

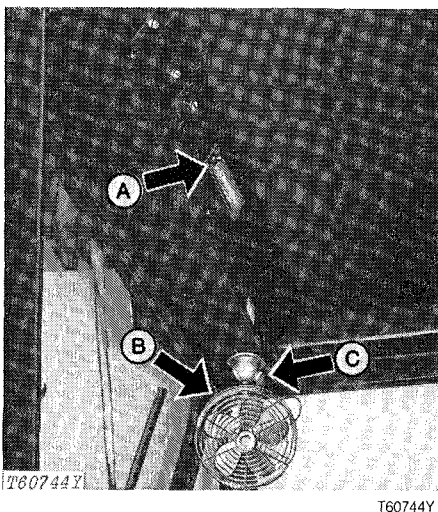


Rear Windshield Wiper

Single speed switch controls rear windshield wiper (A). Push the button (B) up to operate the wiper.

*NOTE: The ignition key must be on before the wiper switches will operate.*

## Dome Light and Defroster Fan



A - Dome light switch — Push the switch down to turn on the light.

B - Defroster fan — Turn the fan to blow air on the windshield or on the operator.

Turn the switch (C) counterclockwise to increase fan speed.

*NOTE: The ignition key must be on before the dome light or defroster fan will operate.*

## LUBRICANTS

### Engine Oils

Use John Deere TORQ-GARD SUPREME® engine oil.

Use John Deere TORQ-GARD SUPREME SAE 10W-20 oil or equivalent during the first 100 hours of operation for break-in.

Oils other than TORQ-GARD SUPREME should have one of the following specifications:

SINGLE VISCOSITY OILS	MULTI-VISCOSITY OILS
API Service CD-SC MIL-L-2104C Series 3	API Service CC/SE MIL-L-46152

### Oils and Air Temperature

Air Temperature	John Deere TORQ-GARD SUPREME	Other Oils	
		Single Vis- cosity Oil	Multi-Vis- cosity Oil
Above 32°F (0°C)	SAE 30	SAE 30	Not recom- mended
-10°F to 32°F (-23°C to 0°C)	SAE 10W-20	SAE 10W	SAE 10W-30
Below -10°F (-23°C)	SAE 5W-20	SAE 5W	SAE 5W-20

If you use SAE 5W-20 or SAE 5W oil, your engine may use more oil. Check the oil level often.

### Storing Lubricants

Store lubricants in clean containers in an area protected from dust, moisture, and other contamination.

When you handle lubricants, use clean containers.

### Transmission-Hydraulic Oils and Front Wheel Motors

Above -15°F (-26°C), use John Deere HY-GARD® Transmission and Hydraulic Oil (J20A) or an equivalent.

Use HY-GARD Winter Grade oil (J20B) when temperature is below -15°F (-26°C).

If you use HY-GARD Winter Grade oil (J20B) at temperatures above 68°F (20°C), transmission and hydraulic parts may wear faster than normal.

### Tandem Drives

Use John Deere HY-GARD Transmission and Hydraulic Oil (J20A) or an equivalent.

### Circle Drive Gearbox

Use a GL-5 extreme pressure (EP) gear oil, MIL-L-2105C, as shown below.

#### SINGLE VISCOSITY OIL

Air Temperature Range Fahrenheit (Centigrade)	Viscosity SAE Number
32° (0°) to 122° (50°) . . . . .	140
23° (-5°) to 104° (40°) . . . . .	90
14° (-10°) to 86° (30°) . . . . .	85W
-4° (-20°) to 68° (20°) . . . . .	80W
-31° (-35°) to 50° (10°) . . . . .	75W

#### MULTI-VISCOSITY OIL

23° (-5°) to 122° (50°) . . . . .	85W-140
23° (-5°) to 104° (40°) . . . . .	85W-90
5° (-15°) to 95° (35°) . . . . .	80W-90
-4° (-20°) to 86° (30°) . . . . .	80W-85W

### Greases

Use John Deere Multi-Purpose Grease or equivalent for all grease fittings and front wheel bearings.

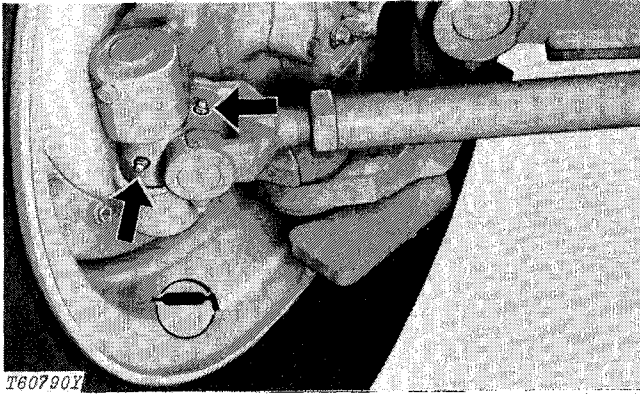
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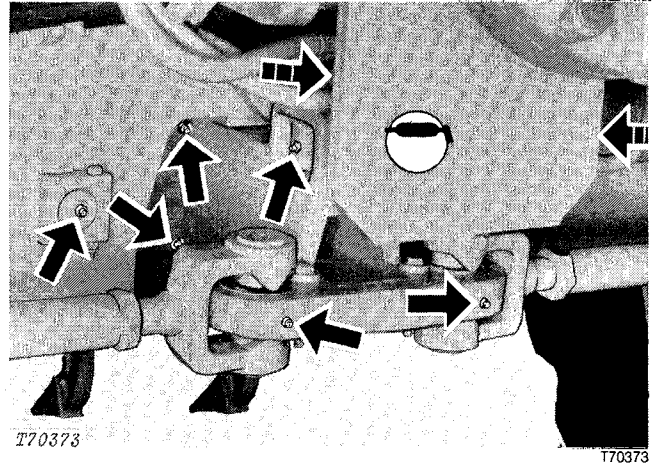


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Tie Rod Connector - Left Side Shown  
(4 points total)



Steering Yoke and Cylinder Pivots (8 points)



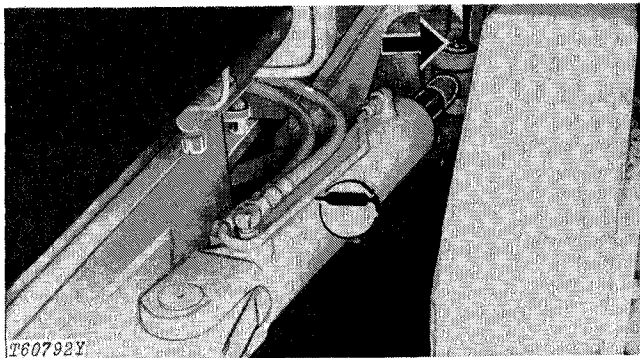
**8. Cab Air Filter**

Remove and clean if required.

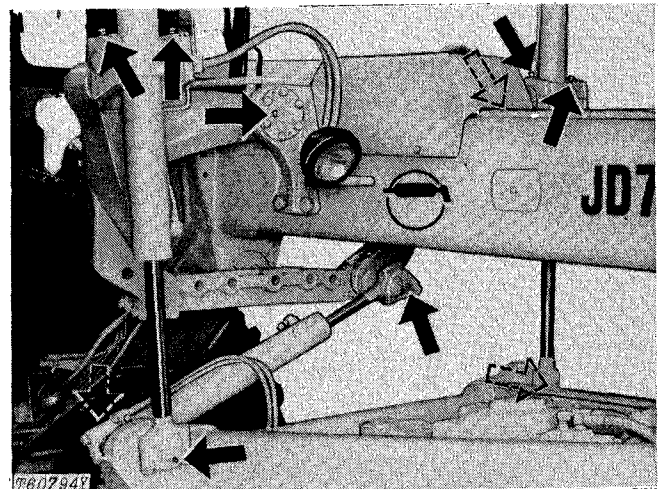
EVERY 50  HOURS

**9. Cylinder Trunnions, Draft Frame, and Circle Supports**

Lubricate with several shots of John Deere Multi-Purpose Grease or equivalent.



Frame Steering Cylinder - Left Side Shown  
(2 points total)



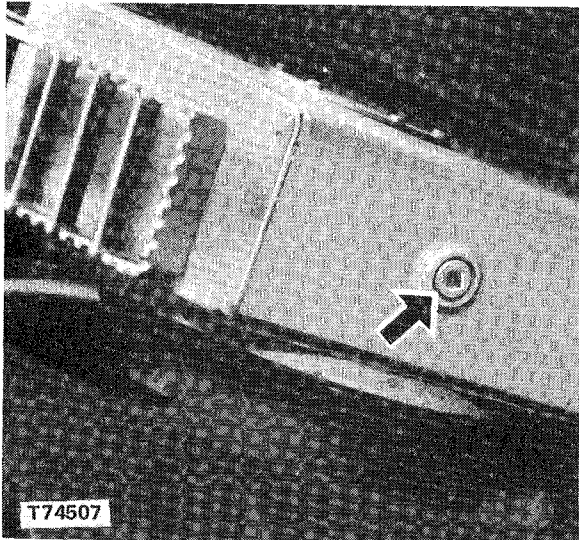
Ball Joints and Trunnions (10 points)

**10**

EVERY 2000  HOURS

27.

**Tandems**



*Drain Plug (right side)*

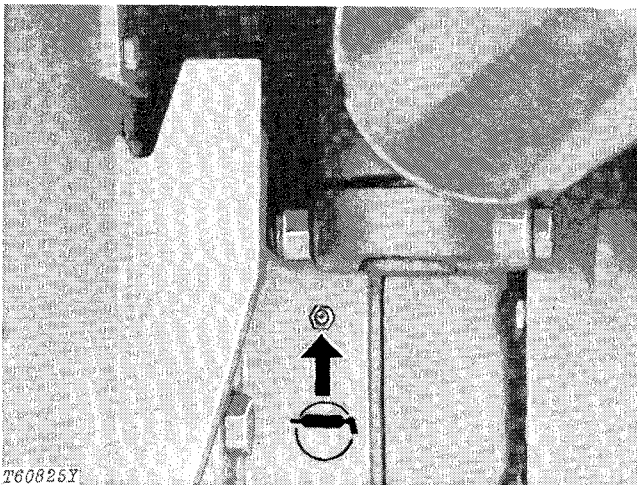
T74507

Drain and fill tandem drives.

1. Park grader on level ground.
2. Remove drain plug from front of right housing and from rear of left housing.
3. Flush each housing with diesel fuel. Install drain plugs.
4. Add 5 U.S. gallons (19 L) of John Deere HY-GARD Transmission and Hydraulic Oil to each housing. See item 19.

28.

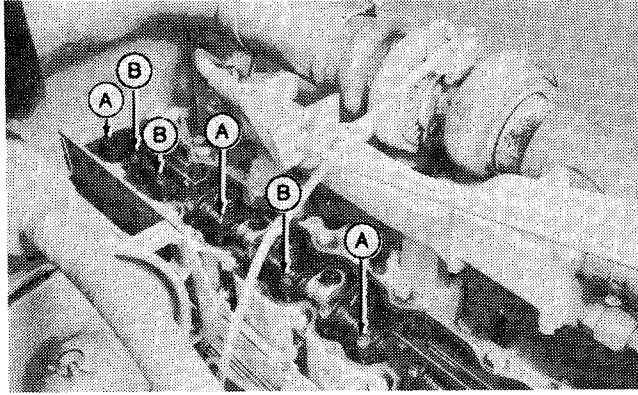
**Tandem Pivot**



*Tandem Pivot - Right Side  
(2 points)*

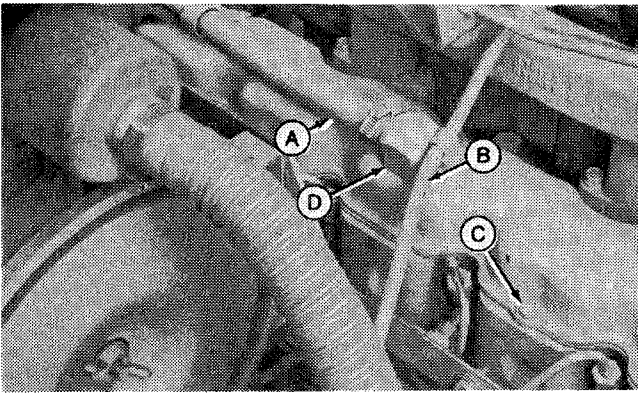
T60825Y

Lubricate with 10 to 20 shots of John Deere Multi-Purpose Lubricant or an equivalent.



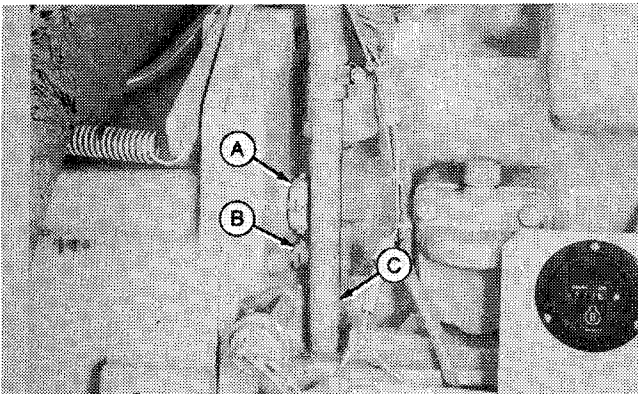
T92872

14. Remove timing pin, rotate flywheel one revolution (360°), and insert timing pin. This puts the piston in number six cylinder at (TDC) on compression stroke.
15. Adjust valve clearance on number two, four, and six exhaust valves (A) at  $0.028 \pm 0.002$  in. (0.71 to 0.05 mm).
16. Adjust valve clearance on number three, five, and six intake valves (B) at  $0.018 \pm 0.002$  in. (0.46  $\pm$  0.05 mm).



T92867

17. Clean cylinder head and rocker arm cover mating surfaces.
18. Install a new rocker arm cover gasket. DO NOT use any sealant on the gasket.
19. Install rocker arm cover and cap screws (C).
20. Connect hoses (A and B) to rocker arm cover fitting (D).

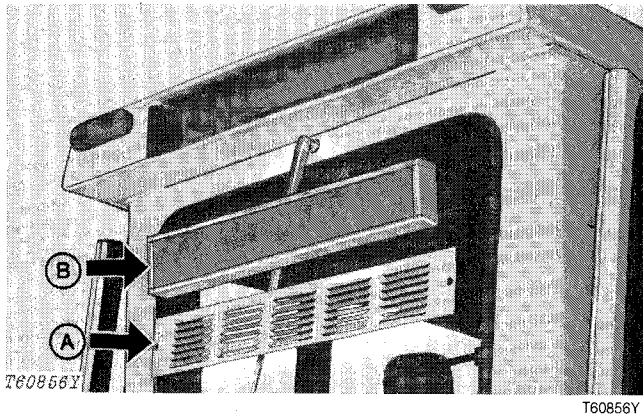


T92869

21. Remove flywheel turning tool and timing pin. Install plugs (A and B).
22. Install crankcase vent tube (C) in engine block.

## Air Conditioner Filters

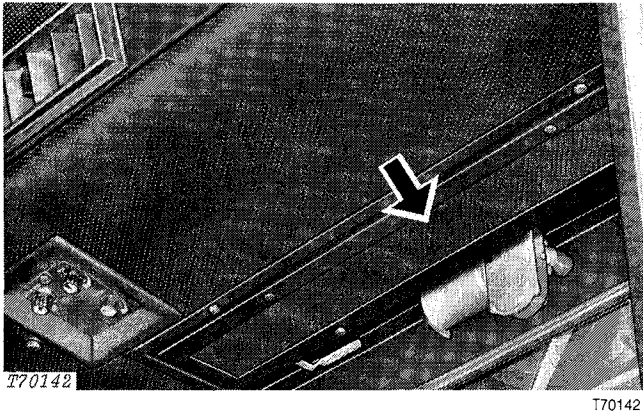
Clean elements as necessary.



Outside air filter: Remove two screws. Remove cover (A). Remove filter element (B).

To clean filter:

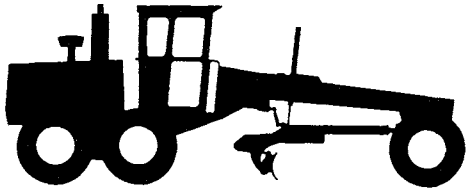
1. Tap filter on flat surface, dirty side down.
2. Blow low-pressure compressed air under 30 psi (210 kPa) through filter opposite to normal air flow.
3. Wash filter in warm, soapy water. Rinse and dry.



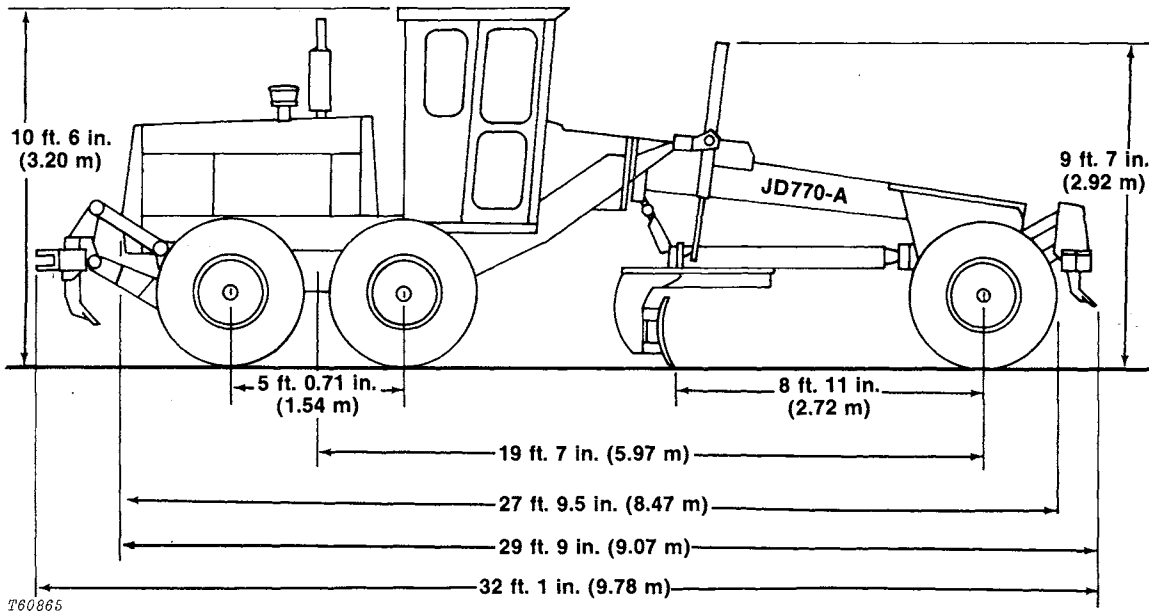
Recirculating filter:

1. Remove cover and filter.
2. Wash filter in warm, soapy water.
3. Rinse and dry.

**IMPORTANT: Do not use compressed air to dry a filter element.**



# Specifications



T60865

T60865

**NOTE:** Dimensions for 772A and 772AH are same as 770A and 770AH. When a motor grader is equipped with air conditioning, height is 10 ft. 7 in. (3.23 m).

## Operating Information

Grader width (13.00-24 tires) . . .	79.6 in. (2.02 m)
Turning radius . . . . .	22 ft. (6.7 m)
Moldboard (standard) . . . . .	12 ft. (3.7 m)
Blade pitch . . . . .	35 degrees total
Blade side-shift . . . . .	2 ft. 2.9 in. (683 mm)
Frame articulation . . . . .	25 degrees
Circle rotation . . . . .	360 degrees
Wheel lean (either direction) . . . . .	20 degrees
Front axle oscillation . . . . .	30 degrees total

	U.S.	Liters
Fuel tank . . . . .	70 gal.	265
Cooling system . . . . .	10 gal.	38
Engine lubrication, including filter . . . . .	20 qt.	19
Transmission-hydraulic system (including lines) 770A . . . . .	31 gal.	117
772A . . . . .	41 gal.	155
Tandem housings (each) . . . . .	5 gal.	19
Circle drive gearbox . . . . .	3 qt.	2.8
Hydraulic front wheel drive wheel motors (each) . . . . .	3 gal.	11.4

## SAE Operating Weights

	On Front Wheels	On Rear Wheels	Total
<b>770A and 770AH:</b>			
Standard Equipment	8,548 lb. (3 877 kg)	21,726 lb. (9 855 kg)	30,274 lb. (13 732 kg)
Standard Equipment and Scarifier	9,905 lb. (4 493 kg)	21,523 lb. (9 763 kg)	31,428 lb. (14 256 kg)
Standard Equipment Scarifier and Ripper	9,137 lb. (4 145 kg)	24,765 lb. (11 233 kg)	33,902 lb. (15 378 kg)
<b>772A and 772AH:</b>			
Standard Equipment	9,237 lb. (4 190 kg)	21,680 lb. (9 834 kg)	30,917 lb. (14 024 kg)
Standard Equipment and Scarifier	10,594 lb. (4 805 kg)	21,477 lb. (9 742 kg)	32,071 lb. (14 547 kg)
Standard Equipment Scarifier and Ripper	9,826 lb. (4 457 kg)	24,719 lb. (11 213 kg)	34,545 lb. (15 670 kg)

(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 12 ply rating, tubeless tires, 13 ft. [3.96 m] moldboard with 6 in. [152 mm] Dura-Max edges, and standard equipment. Weights include lubricants, coolants, full fuel tank and 175 lb. [79 kg] operator.)



# 770A, 770AH AND 772A, 772AH MOTOR GRADERS

## PREDELIVERY SERVICE CHECK - REGION COPY

Delivered by: \_\_\_\_\_

Owner's Name \_\_\_\_\_

Dealer \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

To insure proper grader operation and performance, perform the following predelivery service checks.

- |  |   |
|--|---|
| <input type="checkbox"/> 1. Dust Cap                                 | <input type="checkbox"/> 19. Lift Arm Locking Pin             |
| <input type="checkbox"/> 2. Air Cleaner                              | <input type="checkbox"/> 20. Cold Weather Starting Aid        |
| <input type="checkbox"/> 3. Fuel Filters                             | <input type="checkbox"/> 21. Lights                           |
| <input type="checkbox"/> 4. Batteries                                | <input type="checkbox"/> 22. Transmission Shifting            |
| <input type="checkbox"/> 5. Fuel Tank                                | <input type="checkbox"/> 23. Gauges, Switches, and Indicators |
| <input type="checkbox"/> 6. Fuel Tank Sump                           | <input type="checkbox"/> 24. Tire Pressure                    |
| <input type="checkbox"/> 7. Radiator                                 | <input type="checkbox"/> 25. Differential Lock                |
| <input type="checkbox"/> 8. Tandem Drive Oil Level                   | <input type="checkbox"/> 26. Service Brakes                   |
| <input type="checkbox"/> 9. Crankcase Oil Level                      | <input type="checkbox"/> 27. Control Levers and Switches      |
| <input type="checkbox"/> 10. Circle Drive Gearbox Oil Level          | <input type="checkbox"/> 28. Inching Pedal                    |
| <input type="checkbox"/> 11. Belt Tension                            | <input type="checkbox"/> 29. Steering                         |
| <input type="checkbox"/> 12. Air Intake Hose                         | <input type="checkbox"/> 30. Check Lubrication                |
| <input type="checkbox"/> 13. Transmission-Hydraulic System Oil Level | <input type="checkbox"/> 31. Wheel Retaining Cap Screws       |
| <input type="checkbox"/> 14. Engine Speed Controls                   | <input type="checkbox"/> 32. Accumulator Action               |
| <input type="checkbox"/> 15. Check Engine Speeds                     | <input type="checkbox"/> 33. Fluid Leakage                    |
| <input type="checkbox"/> 16. Parking Brake                           | <input type="checkbox"/> 34. Accessible Hardware Torque       |
| <input type="checkbox"/> 17. Seat                                    | <input type="checkbox"/> 35. Final Check                      |
| <input type="checkbox"/> 18. Cab Equipment                           |   |

*NOTE: Illustrated predelivery service checks can be found in TM-1187.*

### MACHINE NUMBERS (RECORD)

Product Identification Number \_\_\_\_\_

Transmission Serial Number \_\_\_\_\_

Engine Serial Number \_\_\_\_\_

Cab Serial Number \_\_\_\_\_

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