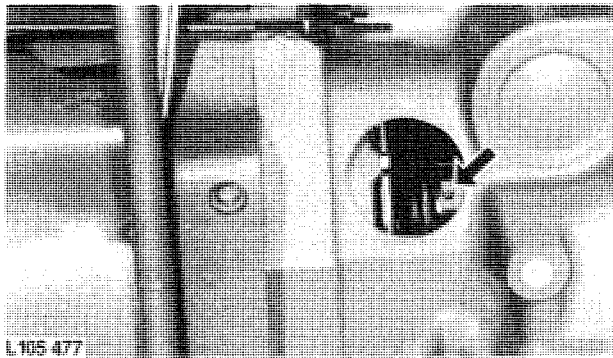


Lubricating Points

IMPORTANT: Thoroughly clean all grease fittings prior to greasing and replace damaged grease fittings immediately.

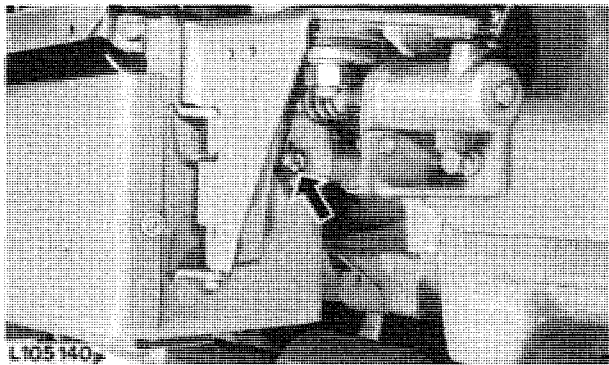
CLUTCH THROW-OUT BEARING (when equipped with grease fitting)

Lubricate clutch throw-out bearing with three strokes of grease gun. High temperature John Deere EP multipurpose grease must be used.



L105477

Fig. 13—Throw-out Bearing Grease Fitting (Tractor without SOUND-GARD Body shown)



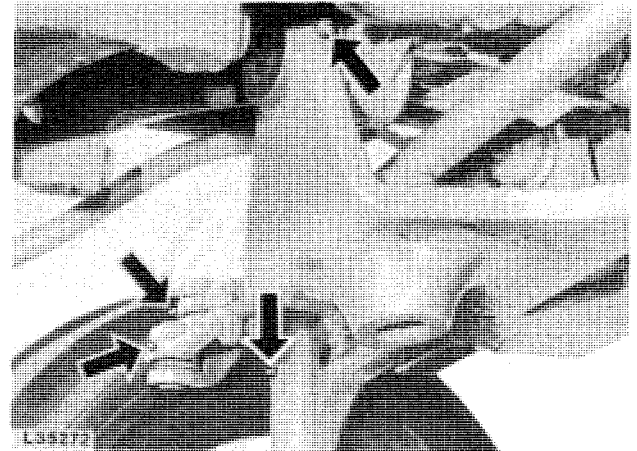
L150140

Fig. 14—Throw-out Bearing Grease Fitting (Tractor with SOUND-GARD Body shown)

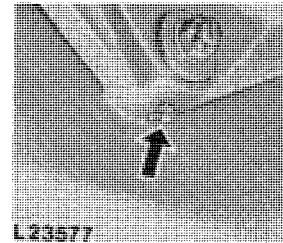
Service Interval: Every 100 hours

Lubricate grease fittings shown in Fig. 15 and 19 every 50 hours of operation. Use John Deere EP multipurpose grease.

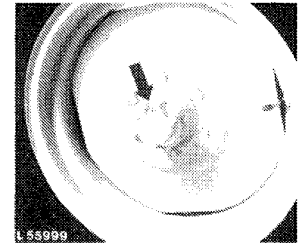
LUBRICATING FRONT AXLE AND FRONT WHEELS (TRACTORS WITHOUT FRONT WHEEL DRIVE)



L35272



L23577



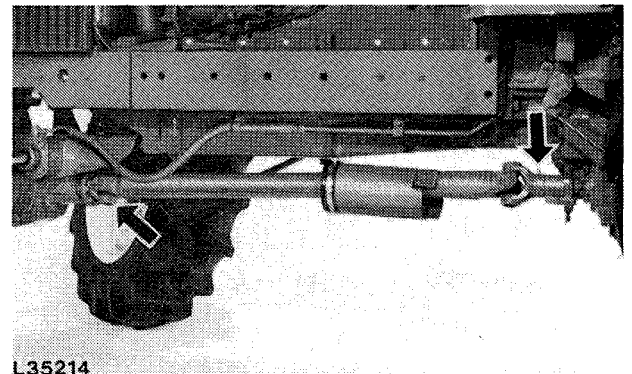
L55999

Fig. 15 - Front Axle and Front Wheel Grease Fittings

Service Interval: At predelivery and every 50 hours.

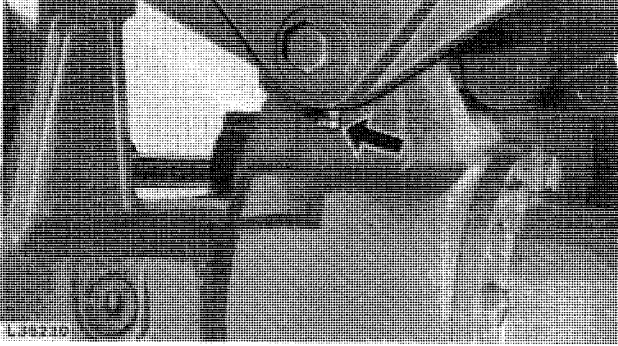
LUBRICATING FRONT AXLE (TRACTORS WITH MFWD)

Mechanical Front Wheel Drive



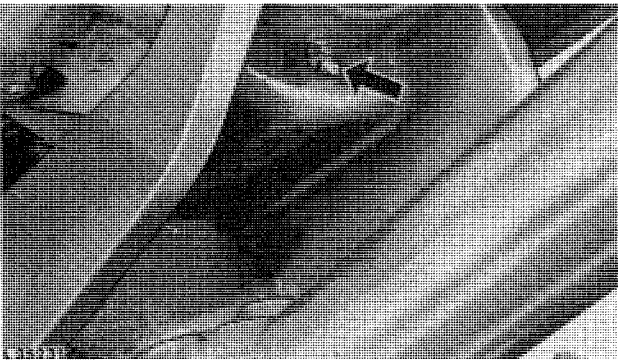
L35214

Fig. 16 - Jointed Drive Shaft Grease Fittings



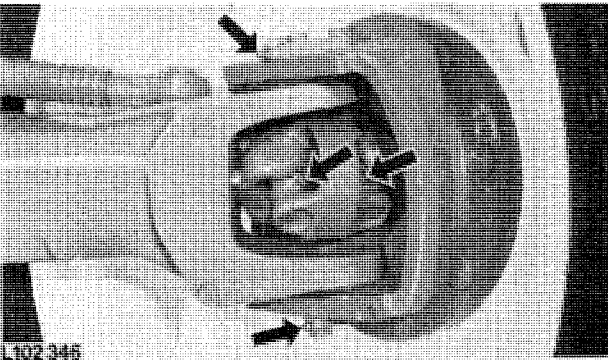
L35230

Fig. 17—Front Axle Carrier Grease Fitting



L35231

Fig. 18—Oscillating Support Grease Fitting



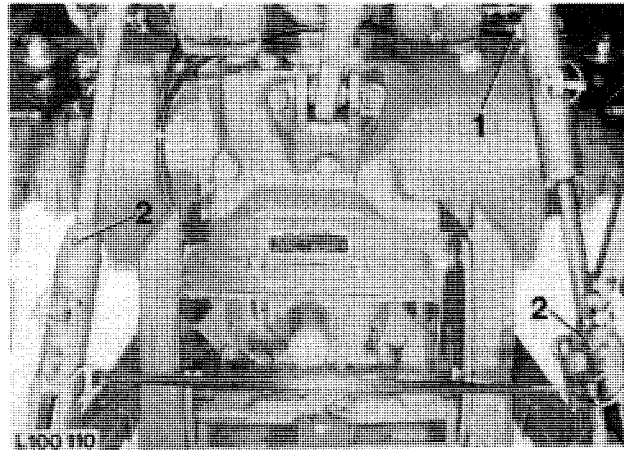
L102346

Fig. 19—Front Axle Grease Fittings

Service Interval: At predelivery and every 50 hours.

LUBRICATING THREE-POINT HITCH

1. Lubricate lift link oiler (1, Figs. 20 and 21) using engine oil.
2. Lubricate lift link grease fittings with several strokes of grease gun, using John Deere EP multipurpose or SAE EP multipurpose grease.

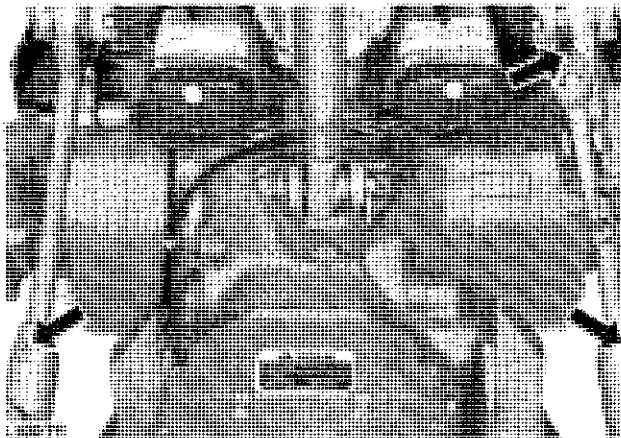


L100110

1—Oiler

2—Grease Fittings

Fig. 20—Lift Link Grease Fittings
(Tractor with SOUND-GARD Body shown)



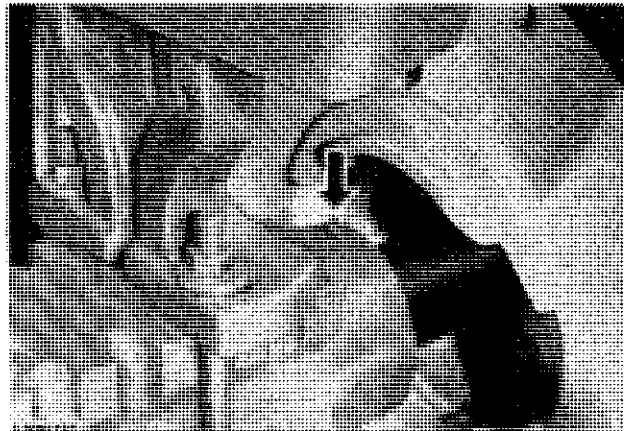
L100111

*Fig. 21—Lift Link Grease Fittings
(Tractors Without SOUND-GARD Body)*

Service Interval: Lubricate every 200 hours.

LUBRICATING REAR AXLE BEARINGS

Lubricate both bearings with 6 to 8 strokes of grease gun, using John Deere EP multipurpose grease or SAE EP multipurpose grease.



L100171

Fig. 22—Rear Axle Grease Fitting

Service Interval: Every 10 hours (only when operating in extremely wet and muddy conditions) and every 500 hours.

Group 15 TUNE-UP

PRELIMINARY ENGINE TESTING

Before tuning up a tractor, determine whether a tune-up will restore operating efficiency. When there is doubt, the following preliminary tests will help to determine if the engine can be tuned-up. Choose from the following procedures only those necessary to restore the unit.

1. After engine has been stopped for several hours, carefully loosen crankcase drain plug and watch for any water to seep out. A few drops could be due to condensation, but any more than this would indicate problems which require engine repairs rather than just a tune-up.
2. With engine stopped, inspect engine coolant for an oil film. With engine running, inspect coolant for air bubbles. Either condition would indicate problems which require engine repairs rather than just a tune-up.
3. Perform a dynamometer test and record horsepower. Repeat dynamometer test after tune-up, so horsepower output before and after tune-up can be compared.
4. Perform compression test. (See CTM-4, Engines.)

DYNAMOMETER TEST

If possible, test the engine on a dynamometer before it is tuned. This test gives the horsepower output and fuel consumption of the engine as it is. This will help determine if a tune-up can restore the engine or whether an overhaul is needed.

Good performance by the engine depends on these basic things:

1. An adequate supply of clean air and fuel.
2. Good compression.
3. Proper valve and injection pump timing for good combustion.
4. Proper air and fuel temperatures.

Make the dynamometer test as follows:

1. Connect the engine to the dynamometer using the manufacturers instructions.
2. Operate the engine at one-half load until the coolant and crankcase oil temperature are up to normal.
3. Run engine at fast idle (2610 to 2660 rpm).
4. Gradually increase the load on the engine until its speed is reduced to 2500 rpm.
5. Read the horsepower on the dynamometer.
6. Compare the reading taken with the following specifications:

PTO horsepower* at 2500 rpm rated engine speed
(PTO speed 565 or 1040 rpm):

According to SAE J 816b 56 kW 75 hp

* With engine run in (more than 100 hours of operation) and having reached operating temperature (engine and transmission); measured by means of a dynamometer. Permissible variation $\pm 5\%$.

TESTING COMPRESSION PRESSURE

NOTE: For testing compression pressure, see CTM-4, Engines.

ENGINE TUNE-UP

Air Intake System

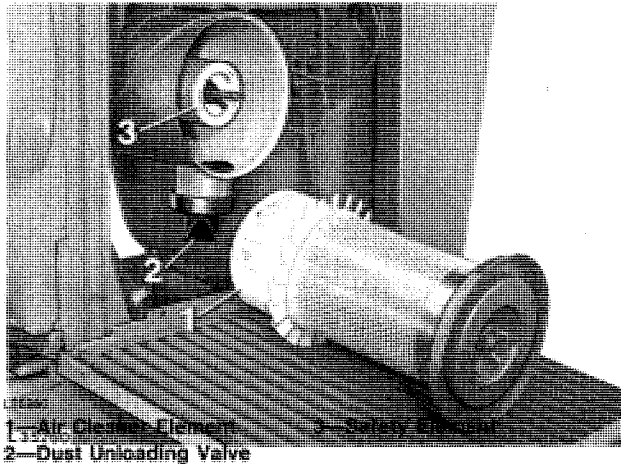
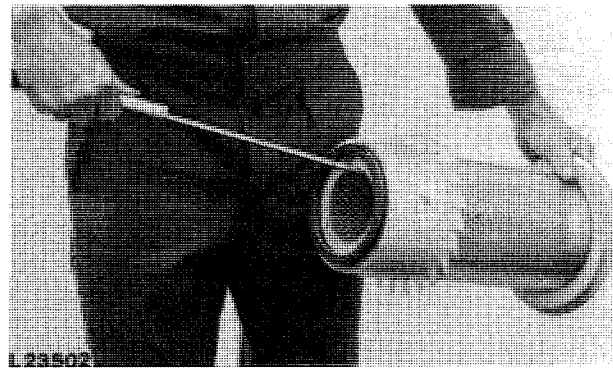


Fig. 1—Air Cleaner and Safety Element

Dusty Element

1. Check air cleaner element (1, Fig. 1). If dirty, tap it on the palm of your hand.
2. If tapping element does not remove dust, blow out dust with compressed air. Pressure not to exceed 600 kPa (6 bar; 85 psi) by inserting nozzle inside of element and blowing from the inside of the filter to the outside.



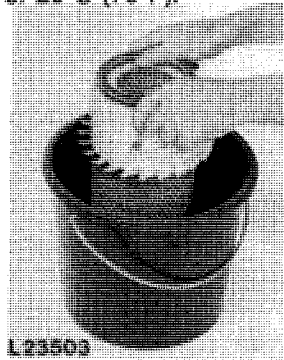
L23502

Fig. 2—Cleaning Air Cleaner Element by Means of Compressed Air

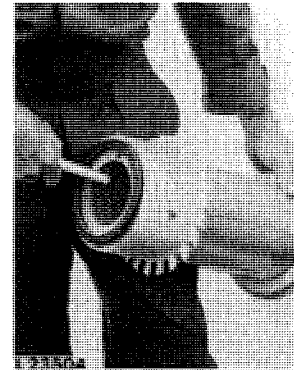
Oily or Sooty Element

IMPORTANT: Never wash element in fuel oil gasoline or strong cleaning agent. Never use compressed air to dry element.

1. Wash element in a solution of lukewarm water and non-foaming cleaning agent. Rinse element thoroughly from the inside with clean water (water pressure not above 300 kPa, 3 bar; 43 psi). Shake water from element and dry for approx. 24 hours at a temperature of 20°C (70°F).



L23503



L23504

Fig. 3—Wet Cleaning

2. After cleaning the element, inspect it by placing a bright light inside the filter. Discard any filter that shows the slightest rupture, indicated by light through the hole. Make sure gasket is in a serviceable condition

IMPORTANT: Replace filter element after six cleanings or one year of service, whichever occurs first.

3. When servicing the air cleaner always remove and clean the rubber dust unloading valve.
4. The valve must always be installed with slot facing direction of travel.

IMPORTANT: Do not operate engine without air cleaner element or rubber dust unloading valve installed.

Air Cleaner Secondary (Safety) Element

1. This filter element must be changed annually, when clogged or damaged and with every third service of air cleaner primary element.
2. Should it become necessary to clean primary filter element more often than usual, this is a sign that the secondary (safety) filter must be replaced.

IMPORTANT: Always replace secondary (safety) filter element, do not attempt to clean.

Air Intake Connections

Check all connections in air intake system for possible leaks. Tighten any loose clamps. Be sure rubber dust unloading valve is in good condition.

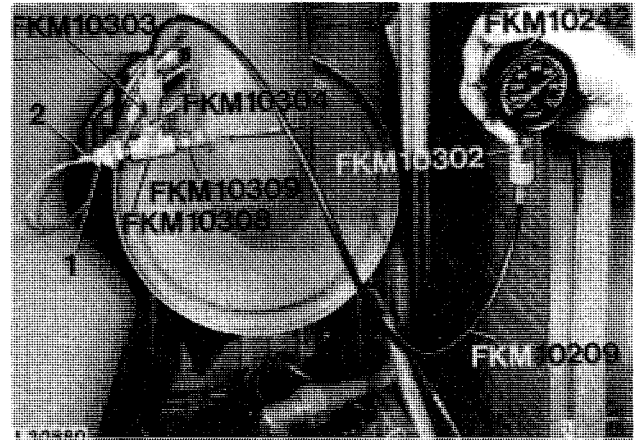
Measuring Air Intake System Vacuum

Check for restrictions in air intake system by measuring vacuum.

1. Clean air cleaner.
2. Remove left-hand radiator grille screen.
3. Run engine until it has reached normal operating temperature.
4. Pull wiring connector (2, Fig. 4) from warning switch (1). Now remove warning switch from air cleaner adapter.
5. Connect connector FKM 10309** and warning switch in T-piece FKM 10308** and screw assembly into bore of air cleaner adapter.
6. Reconnect wiring connector (2).
7. Install and tighten connector FKM 10304* in T-piece FKM 10308**.
8. Using connector FKM 10302*, pressure hose FKM 10209* and connector FKM 10303* attach vacuum gauge FKM 10242** to connector FKM 10304*.
9. Run engine at 2610 to 2660 rpm.

* Part of testing kit FKM 10002, available for Canada only. Otherwise use D-05522 ST.

**Part of kit FKM 10310.



L30880

- 1—Warning Switch
2—Wiring Connector

Fig. 4 - Measuring Air Intake System Vacuum

10. With a clean element installed, vacuum should be approx. 3.5 kPa (35 mbar; 14 in. water head), but never exceed 6 kPa (60 mbar; 25 in. water head). If this is the case, there is a restriction in the air intake system. Determine and remedy the cause.

11. At the same time check air cleaner restriction warning switch.

12. Run engine at 2500 rpm. Use a piece of cardboard to partially cover air cleaner intake. Increase the restriction until air cleaner indicator light goes on, and not vacuum reading.

13. Air cleaner restriction warning switch should close at a vacuum of 5.5 to 6.5 kPa (55 to 65 mbar; 22 to 26 in. water head). If not, replace switch.

Exhaust System

Inspect exhaust system for any leaks or restrictions. Correct as necessary.

Measuring Blow-By

NOTE: Measuring blow-by see CTM-4, Engines.



Suggest:

If the above button click is invalid.

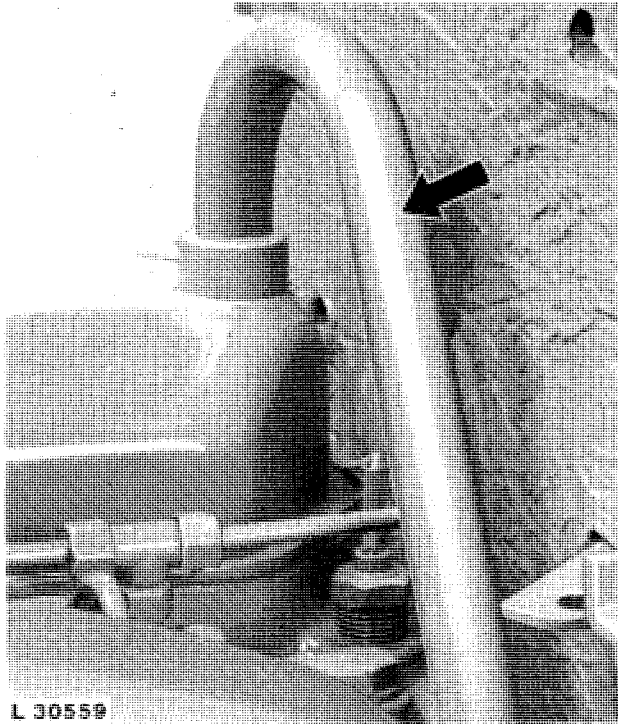
Please download this document

first, and then click the above link

to download the complete manual.

Thank you so much for reading

CRANKCASE VENT TUBE



L30559

Fig. 5—Crankcase Vent Tube

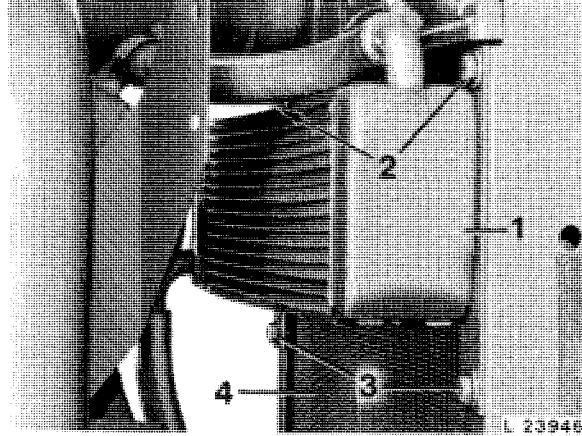
1. Inspect crankcase vent tube for restriction. Lack of ventilation causes sludge to form in engine crankcase. This can lead to clogging of oil passages and filters, resulting in serious engine damage.

2. If necessary, clean vent tube in solvent.

COOLING SYSTEM

Cleaning Radiator

1. Clean radiator grille screens, if necessary.



L23946

1—Oil Cooler
2—Cap Screws

3—Cap Screws
4—Radiator

Fig. 6 - Radiator and Oil Cooler

2. Clean radiator and oil cooler. To clean portion of radiator behind oil cooler, remove cap screws (2 and 3, Fig. 6).

Flushing Cooling System

1. Drain cooling system by opening drain cocks on radiator and engine block.

2. Turn cab heater (if equipped) on and leave it on until finished.

3. Close drain cocks and fill cooling system with clean water.

4. Run engine until it reaches operating temperature to stir up possible rust or sediment.