2240
TRACTOR

JOHN DEERE

OPERATORS MANUAL

2240
TRACTOR

OML31364 E8 English

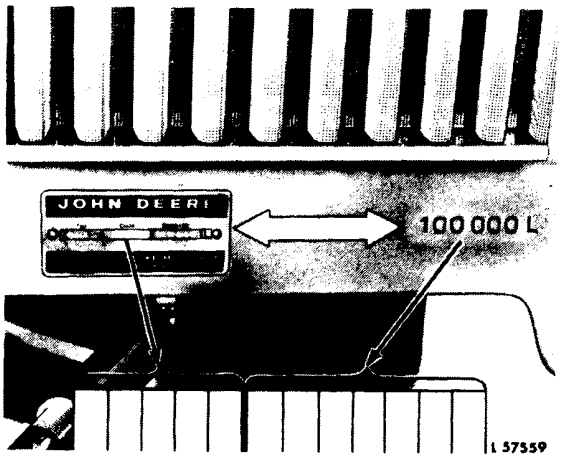
JOHN DEERE WERKE MANNHEIM
OML31364 E8

LITHO IN THE U.S.A. (REVISED)
ENGLISH

To the Purchaser

This new tractor was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read the instructions in this operator's manual. Each section is clearly identified so you can easily find the information you need – whether it is operation, lubrication and periodic service, or trouble shooting. Check the Contents to learn where each section is located. Use the alphabetical index for fast reference.

Record your tractor serial numbers in the spaces provided below. Your dealer needs this information to give you prompt, efficient service of parts. If your tractor requires replacement parts, go to your John Deere dealer where you can obtain genuine John Deere parts – accept no substitutes.

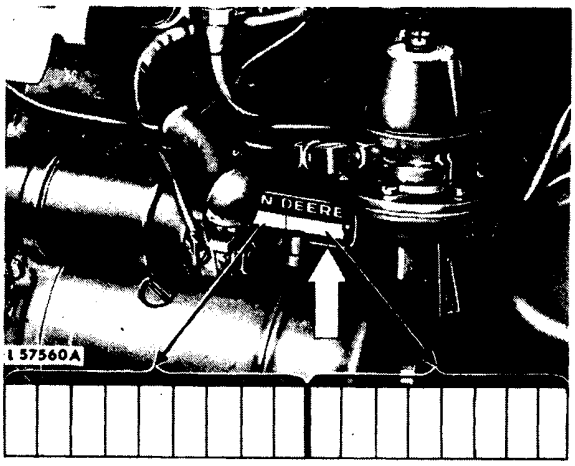


Record Tractor Serial Number Here

The warranty on this tractor appears on your copy of the purchase order which you should have received from your dealer when you purchased the tractor.

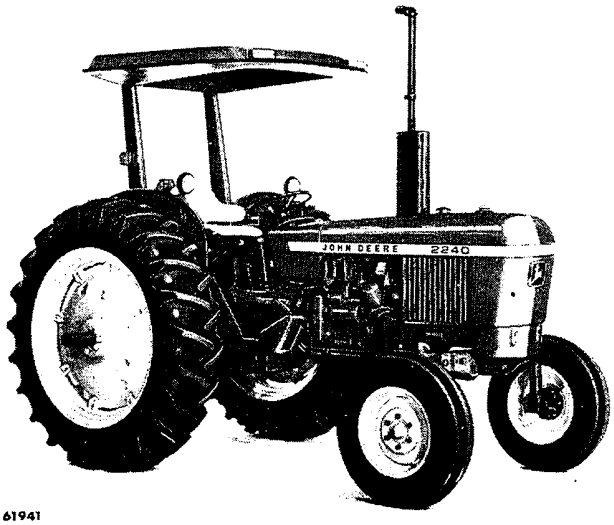
The references in this manual to the "right-hand" and the "left-hand" sides of the tractor are determined by facing in the direction of tractor forward travel.

This safety alert symbol indicates 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.

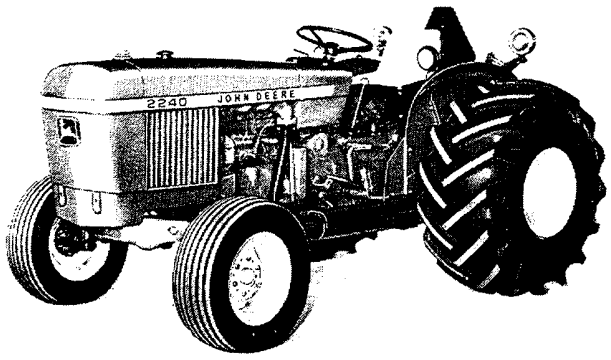


Record Engine Serial Number Here

Contents



L 61941



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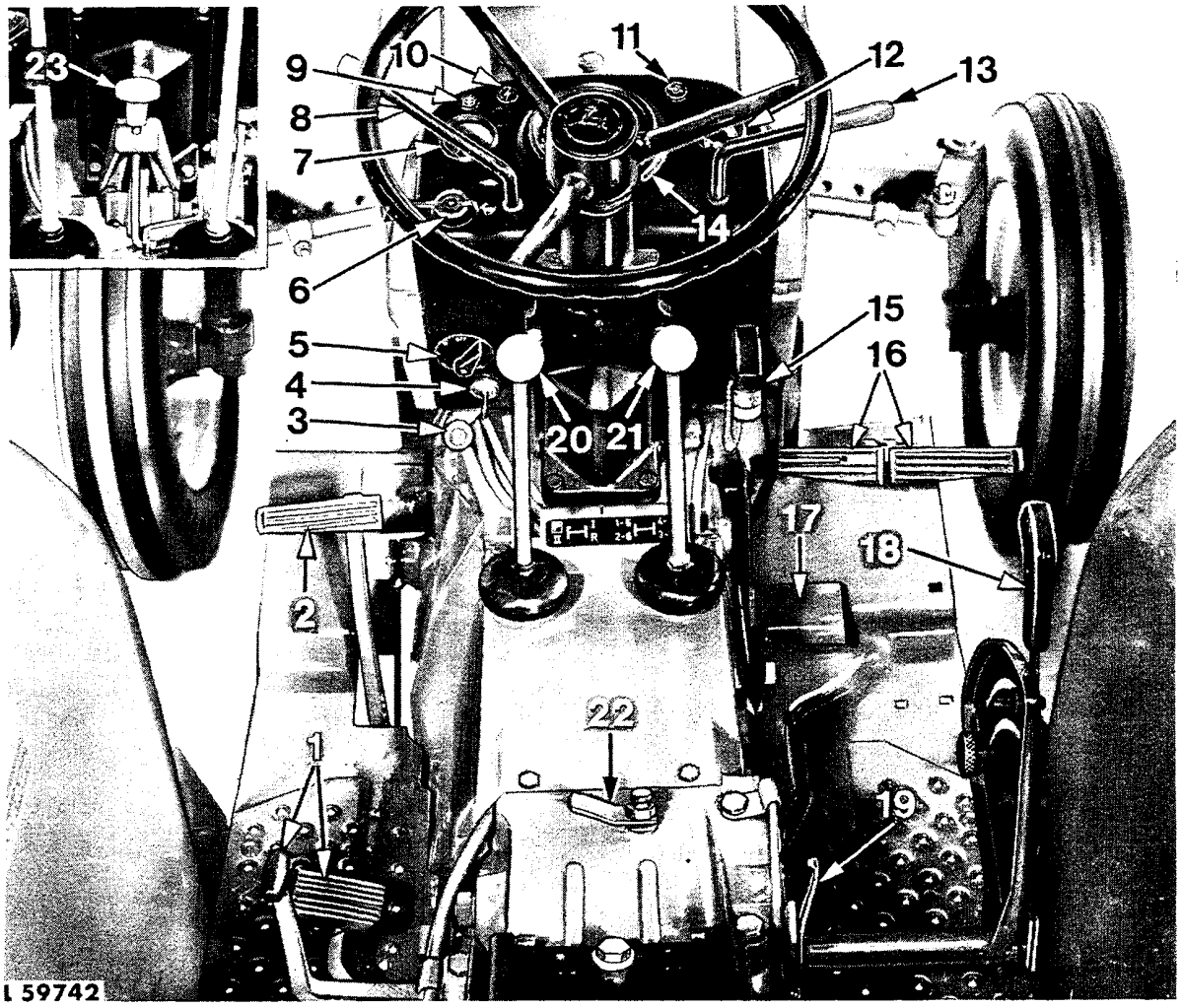
Controls and Instruments

Before attempting to operate your new tractor, become familiar with the location and purpose of its controls and instruments. Study the next few pages carefully, regardless of your previous tractor experience.



1 Differential lock (lever and pedal)*
2 Clutch pedal
3 Engine shut-off knob
4 Starter switch
5 Light switch
6 Turn-signal switch (if equipped)
7 Coolant temperature gauge
8 Hi-Lo shift lever
9 Air cleaner indicator light
10 Alternator indicator light
11 Engine oil pressure indicator light
12 Fuel gauge
13 Hand throttle
14 Speed-hour meter
15 Starting fluid adapter
16 Brake pedals
17 Foot throttle
18 Rockshaft control lever
19 Rockshaft selector lever
20 Range shift lever
21 Gear shift lever
22 Rate-of-drop lever
23 PTO control lever

* Narrow version – pedal only

Instruments

Control Lights

Alternator

Engine Oil Pressure

The above control lights should light up as soon as switch key is moved clockwise to first position. If this is not the case, a burnt-out bulb may be the cause. If necessary, replace defective bulb.

The control lights should go out as soon as the engine is running and the engine speed has been raised. If this is not the case or if a light goes on during operation, immediately shut off engine and correct the problem.

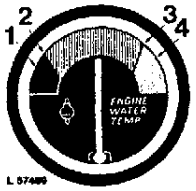
If alternator indicator light goes on during engine operation, the alternator is not charging. Check for loose alternator connections, slackness of V-belt, or defective alternator.

If engine oil pressure indicator light goes on during engine operation, stop the engine, check oil level and condition of engine oil filter.

Air Cleaner Indicator Light

If air cleaner indicator light goes on, clean air filter element or replace element after it has been cleaned six times. Indicator is behind left-hand grille screen on some tractors.

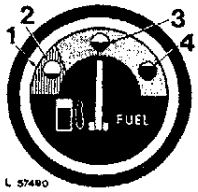
Coolant Temperature Gauge



1 38° C (100° F)
2 57° C (135° F)
3 107° C (224° F)
4 116° C (240° F)
Orange Warning Zone

If the gauge needle is in the orange warning zone, the engine is overheating and must be stopped at once. Check coolant level in radiator and check cooling system for leaks.

Fuel Gauge



1 Orange Warning Zone
2 Empty Tank
3 Half-Full Tank
4 Full Tank

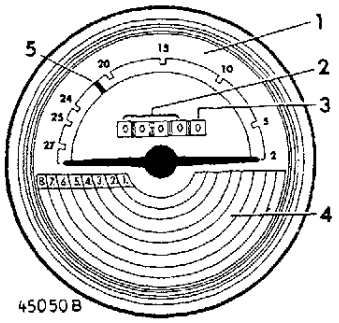
The fuel gauge shows the amount of fuel in tank, from "empty" to "half-full" and "full".

Refill tank as soon as needle points to orange zone.

Never run fuel tank completely dry.

Speed-Hour Meter

The speed-hour meter facilitates the economical use of the tractor under all operating conditions. It also facilitates choosing the right gear.



The speed-hour meter shows the following:

1 Engine speed on the upper half of the dial. The figure shown multiplied by 100 indicates the actual number of engine revolutions.

2 Hours of operation in full hours.

3 Hours of operation in tenths of hours.

The hour meter facilitates close observation of the proper service intervals.

4 The tractor speed for the gear engaged.

5 PTO operation. The green mark shows the engine speed required for powershaft operation.

Operation

PRE-STARTING INSPECTION

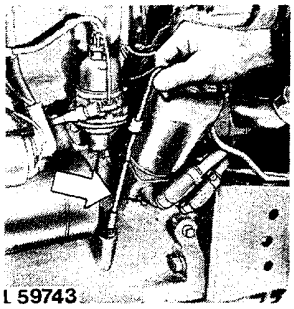
IMPORTANT: If the tractor is to be operated without battery (using a slave battery for starting), do not, under any circumstances, interrupt the circuit by switching off the starter switch before stopping engine by means of fuel pump stop cable. Having stopped the engine, switch off starter switch and remove key. It is also recommended to use additional current (lights) while engine is running.

Connect slave battery in the proper polarity (negative to ground).

Further details about the alternator are given on page 59.

The following items must be checked daily before commencing work:

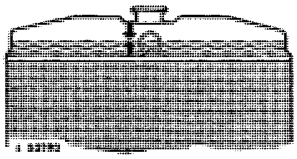
Oil Level in Engine Crankcase


L 59743

If oil level has dropped to bottom mark on dipstick, add sufficient oil to bring oil level up to top mark on dipstick.

See page 39 for correct oil.

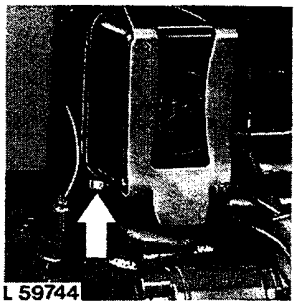
Radiator Coolant Level



Coolant should be maintained at a level midway between radiator core and filler neck.

See "Cooling System" section for correct coolant mixture.

Fuel Filter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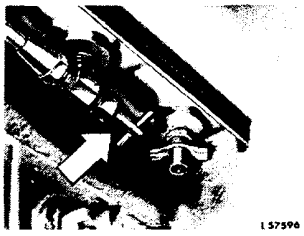
Drain all water and dirt deposits from fuel filter.

The drain plug is located at the bottom of the filter body.

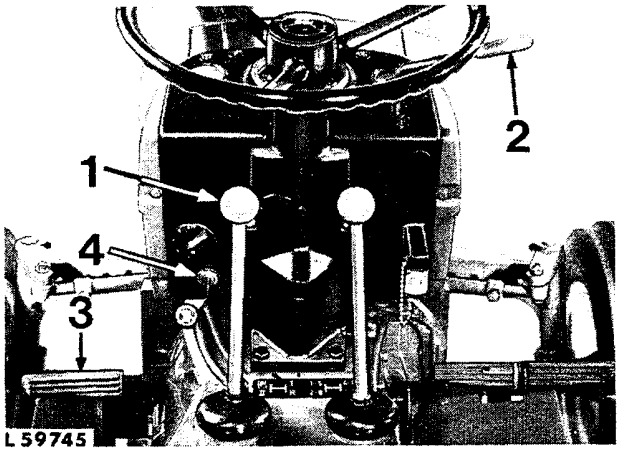
Fuel Shut-Off Valve


L 57596

Make sure fuel shut-off valve located under fuel tank is open.

STARTING THE ENGINE

CAUTION: Before starting engine make sure rockshaft lever is in forward (equipment lowered) position.



1 Place range shift lever in neutral or park position.

2 Place hand throttle in halfway-open position.

3 Depress clutch pedal to decrease drag on engine.

4 Turn starter key clockwise to engage starter. As soon as engine starts, release starter key. Do not crank engine for more than 30 seconds at a time. To do so may overheat the starter. Wait a minute or two before engaging starter again.

Release clutch pedal. In cold weather, warm engine and transmission for 5 minutes by operating engine at half throttle.

NOTE: If engine fails to start, refer to "Trouble Shooting" charts.

IMPORTANT: Never attempt to start a tractor equipped with Hi-Lo shift unit by towing or pushing as the clutches may be damaged.

CAUTION: A tractor without Hi-Lo shift unit may be started by towing or pushing. Tow the tractor for starting only in 6th, 7th, or 8th gear. Never tow at a speed greater than normal for the gear in which the tractor is being towed. Never tow the tractor at a speed greater than 25 km/h (15 mph).

COLD WEATHER STARTING AIDS

To assist in cold weather starting, several aids are available. These aids are effective at low temperatures only when the engine is otherwise operating satisfactorily. They will not correct such deficiencies as low battery charge, crankcase oil of too heavy viscosity, or high electrical resistance, any of which may prevent the engine from starting.

Auxiliary Batteries

Starting the engine in cold weather can be made easier by connecting an additional 12-volt battery in parallel with the 12-volt battery (or batteries) on the tractor.

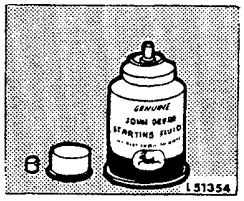
CAUTION: Gas given off by batteries is explosive. To avoid injury or battery damage, avoid sparks near the batteries.

Use jumper cables to connect the positive (+) terminal of the booster battery to the positive (+) terminal of the tractor batteries and the negative (-) terminal of the booster battery to a good ground on the tractor frame away from the battery. See your JOHN DEERE dealer for booster batteries.

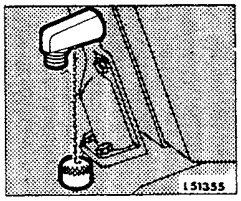
IMPORTANT: The batteries on your tractor are NEGATIVE grounded only. Reversed polarity in battery or alternator connections will result in damage to electrical system.

Diesel Starting Fluid Adapter

Your tractor is equipped with a starting fluid adapter. This attachment is used to inject atomized starting fluid into the engine air intake system when starting the engine at temperatures below 0° C (+ 32° F).



To use starting fluid, remove the safety cap and plastic spray button from the can.



Remove cap from adapter.

IMPORTANT: To avoid damage, turn engine with starter one or two revolutions before injecting starting fluid.

Inject starting fluid only while engine is turning. Inject starting fluid intermittently, not continuously.

L57706

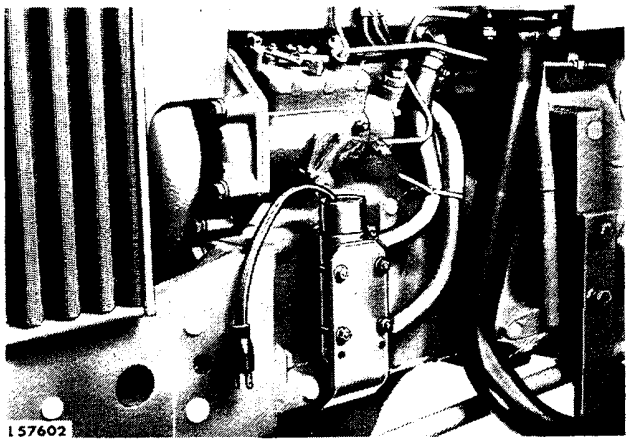
Position can onto adapter and inject fluid by pushing up on can for a short period.

Relax pressure on the can between "shots" of fluid. Stop injecting fluid as soon as the engine starts. If engine begins to die during the first few minutes of operation, inject another "shot" of fluid. When the engine is running smoothly, remove the can from the adapter and replace the safety cap on the can. Be sure to put the cap back on the adapter when not in use. This prevents dust from being drawn into the engine.

Store starting fluid in a cool, dry, and protected area to prevent accidental discharge. Keep the starting fluid away from extreme heat or cold.

CAUTION: Ether starting fluid is highly flammable. Do not use near fire, sparks, or flames. Read the cautionary information on the container.

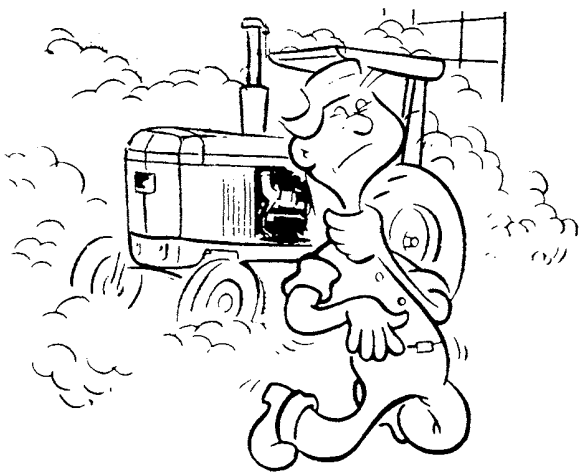
Engine Coolant Heater



L57602

A 1000-watt, 115-volt electrical coolant heater can be installed on the engine. The heater can be plugged into any 115-volt electrical source.

CAUTION: To avoid shock or hazardous operation, always use a three wire heavy-duty electrical cord equipped with 3 wire connectors. If a 2 to 3 contact adapter is used at the wall receptacle, always connect the green wire to a good ground.



CAUTION: Before starting the engine, make sure there is plenty of ventilation. Never operate the engine in a closed building.

ENGINE WARM-UP PERIOD

The engine must have attained the correct operating temperature before putting the unit under full load. To warm up the engine, run it for a few minutes with the hand throttle halfway open. Thus excessive wear on piston rings, cylinders and bearings is avoided.

ENGINE IDLING

Avoid unnecessary engine idling. Prolonged engine idling may cause the engine coolant temperature to drop below its normal range. This in turn causes crankcase oil dilution, due to incomplete fuel combustion, and permits formation of lacquer or gummy deposits on valves, pistons and piston rings. It also promotes rapid accumulation of engine sludge.

ENGINE SPEEDS

The engine working speed range is between 1300 and 2500 rpm. Within these limits the engine can be put under full load. Maximum continuous power is obtained at 2500 rpm.

Operate the engine at 2100 rpm to obtain SAE standard PTO speeds.

When using the PTO, set the hand throttle so that the engine speed pointer is even with the green mark on the speed-hour meter.

STOPPING THE ENGINE

Run the engine at 1400 rpm for a short time before shutting it off completely. This will allow the engine to cool off gradually.

To stop the engine, pull out the shut-off knob (located at bottom - left on dash). Push knob back in as soon as engine has stopped.

IMPORTANT: Never attempt to stop the engine by closing the shut-off valve at the fuel tank as this will cause the pump to run dry and damage internal parts.

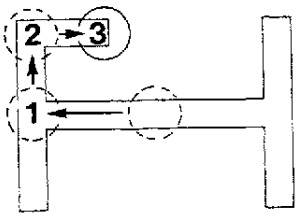
CAUTION: Remove starter key to prevent accidents, tampering, and unauthorized operation.

PARKING THE TRACTOR

Completely stop the tractor.

Engaging parking lock

Move the gear shift lever into 1st gear position.
Then engage parking lock as follows:



L 14659

1 Move range shift lever to the left (position 1)

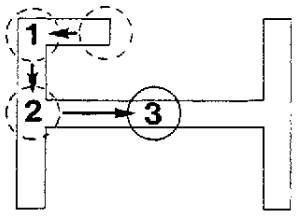
2 Move range shift lever forward (position 2)

3 Move range shift lever to the right (position 3)

Before dismounting, be sure all equipment is lowered to the ground and the light switch and other accessory switches are off.

Disengaging parking lock

Press foot brake pedal while disengaging parking lock (this makes shifting out of park easier on hillside). Then disengage parking lock as follows:



L 14657

1 Move range shift lever against spring pressure to the left (position 1)

2 Move range shift lever backwards (position 2)

3 Move range shift lever to the right (position 3 - neutral position)

TOWING THE TRACTOR

When towing the tractor, move both the gear and range shift levers to the neutral position to avoid any unnecessary transmission war.

CAUTION: Never tow the tractor at a speed greater than 25 km/h (15 mph).

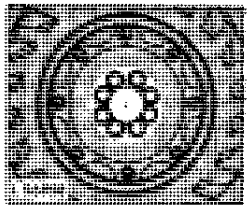
BREAK-IN PERIOD

After the first 4 hours and 8 hours of operation retighten all wheel retainers and front axle bolts. Check tightness of retainers and axle bolts frequently during the first 100 hours of operation.

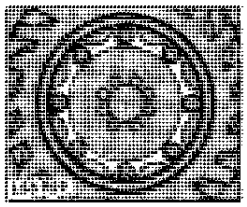
Thereafter check tightness of bolts and screws periodically.

Recommended torques are as follows:

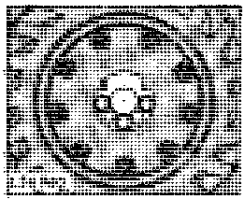
Rear Wheel



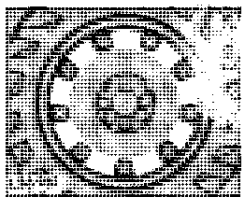
Wheel disk-to-axle flange 240 Nm (175 ft-lb) torque.



Rim-to-wheel disk 250 Nm (180 ft-lb) torque.

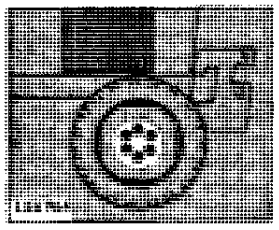


Wheel disk-to-hub (rack and pinion axle) 400 Nm (300 ft-lb) torque.



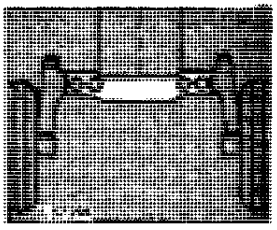
Rim-to-wheel disk (rack and pinion axle) 230 Nm (170 ft-lb) torque.

Front Wheels



Wheel-to-axle flange 180 Nm (130 ft-lb) torque.

Front Axle



Axle bolts 400 Nm (300 ft-lb) torque.

The tractor should be operated under normal load during the first 20 hours of operation.

IMPORTANT: Avoid light loads or excessive engine idling.

Ideal conditions for breaking in a tractor engine would require operating the tractor at full engine speed under 75% of full load. Under such operating conditions an engine would be broken in after approximately the first 100 hours.

BREAK-IN PERIOD – Continued

In most cases, however, it is practically impossible to operate the tractor under these conditions during the first hours. This is the reason why, in many cases, the duration of the break-in period is considerably longer than 100 hours.

Under very light load conditions some engines may never break in which results in glazed cylinder liners.

During the break-in period a higher-than-usual oil consumption should be considered as normal.

Check periodically to be sure that an adequate supply of oil is maintained in the crankcase.

At the end of the first 50 hours of operation, replace the transmission system oil filter.

At the end of the first 100 hours of operation, drain and refill crankcase and replace filter element.

We recommend that you ask your JOHN DEERE dealer to carry out a general inspection of the tractor before the first 100 operating hours are completed.

SELECTING TRAVEL SPEEDS

The tractor has eight forward gears and four reverse gears (sixteen forward and eight reverse speeds if tractor has Hi-Lo shift option). These gears, together with the engine speeds that may be selected, allow the operator to balance load and speed for maximum economy, and give him flexibility to meet varying work conditions. For example, for a given travel speed the operator may choose to work in a low gear at a high engine speed or in a higher gear at a lower engine speed.

Gears should be selected so as to avoid overloading of the engine.

HIGH SPEED DRIVING

A higher gear can be used when traveling on good, straight roads.

On bad, curvy roads or when working on slopes, it is necessary to shift to a lower gear and to reduce speed.

CAUTION: Fast driving causes many accidents. Couple the brake pedals together and always drive at a safe speed when driving on public roads.

TRAVEL SPEEDS AT 2100 ENGINE RPM

(Engine Speed For PTO Operation)

Tire Size		13.6 - 28		14.9 - 28		16.9 - 28		16.9 - 24		14.9 - 24		18.4 - 16.1		13.6 - 38	
Gear		km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
1	Lo	1.5	0.9	1.6	1.0	1.7	1.1	1.5	0.9	1.5	0.9	1.3	0.8	1.8	1.1
	Hi*	1.9	1.2	2.0	1.3	2.2	1.4	1.9	1.2	1.9	1.2	1.6	1.0	2.2	1.4
2	Lo	2.2	1.3	2.3	1.4	2.4	1.4	2.1	1.3	2.1	1.3	1.8	1.1	2.4	1.5
	Hi*	2.8	1.7	2.9	1.8	3.1	1.9	2.7	1.7	2.7	1.7	2.3	1.4	3.1	1.9
3	Lo	3.2	2.0	3.4	2.1	3.6	2.2	3.2	1.9	3.1	1.9	2.7	1.7	3.6	2.2
	Hi*	4.1	2.5	4.4	2.7	4.5	2.8	4.0	2.5	4.0	2.5	3.4	2.1	4.6	2.9
4	Lo	4.4	2.8	4.8	3.0	5.0	3.1	4.5	2.8	4.4	2.7	3.7	2.4	5.1	3.2
	Hi*	5.7	3.5	6.0	3.7	6.4	4.0	5.6	3.5	5.5	3.4	3.7	2.9	6.5	4.0
5	Lo	6.0	3.7	6.3	3.9	6.6	4.1	5.9	3.6	5.8	3.6	5.0	3.0	6.7	4.2
	Hi*	7.6	4.7	8.0	5.0	8.4	5.2	7.5	4.6	7.4	4.6	6.3	3.9	8.6	5.3
6	Lo	8.5	5.3	9.0	5.6	9.4	5.8	8.3	5.2	8.3	5.2	7.0	4.7	9.7	6.0
	Hi*	10.8	6.7	11.5	7.1	12.0	7.5	10.7	6.6	10.6	6.6	8.9	5.5	12.3	7.6

* *Speeds shown under "Hi" also apply to tractors equipped with collar-shift transmission*

TRAVEL SPEEDS AT 2500 ENGINE RPM

Tire Size		13.6 - 28		14.9 - 28		16.9 - 28		16.9 - 24		14.9 - 24		18.4 - 16.1		13.6 - 38	
Gear		km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
1	Lo	1.8	1.1	1.9	1.2	2.0	1.3	1.8	1.1	1.8	1.1	1.5	0.9	2.1	1.3
	Hi*	2.3	1.4	2.4	1.5	2.6	1.6	2.3	1.4	2.3	1.4	1.9	1.2	2.6	1.6
2	Lo	2.6	1.6	2.7	1.7	2.9	1.8	2.5	1.6	2.5	1.6	2.1	1.3	2.9	1.8
	Hi*	3.3	2.0	3.5	2.2	3.7	2.3	3.2	2.0	3.2	2.0	2.7	1.7	3.7	2.3
3	Lo	3.8	2.4	4.1	2.5	4.3	2.6	3.8	2.3	3.7	2.3	3.2	2.0	4.3	2.7
	Hi*	4.9	3.0	5.2	3.2	5.4	3.4	4.8	3.0	4.8	3.0	4.0	2.5	5.5	3.4
4	Lo	5.3	3.3	5.7	3.5	5.9	3.7	5.3	3.3	5.2	3.3	4.4	2.8	6.1	3.8
	Hi*	6.8	4.2	7.2	4.5	7.6	4.7	6.7	4.2	6.7	4.1	5.6	3.5	7.7	4.8
5	Lo	7.1	4.4	7.5	4.7	7.9	4.9	7.0	4.3	6.9	4.3	5.9	3.6	8.0	5.0
	Hi*	9.0	5.6	9.6	6.0	10.0	6.2	8.9	5.5	8.8	5.5	7.5	4.6	10.2	6.4
6	Lo	10.1	6.3	10.8	6.7	11.2	7.0	9.9	6.2	9.9	6.2	8.4	5.2	11.5	7.1
	Hi*	12.9	8.0	13.7	8.5	14.3	8.9	12.7	7.9	12.6	7.8	10.6	6.6	14.6	9.1
7	Lo	15.0	9.3	16.0	9.9	16.7	10.4	14.8	9.2	14.7	9.1	12.4	7.7	17.0	10.6
	Hi*	19.1	1.9	20.3	12.6	21.2	13.2	18.8	11.7	18.7	11.6	15.8	9.8	21.7	13.5
8	Lo	21.0	13.0	22.3	13.9	23.3	14.5	20.6	12.8	20.5	12.8	17.4	10.8	23.8	[illegible]
	Hi*	26.7	16.6	28.4	17.6	29.7	18.4	26.2	16.3	26.2	16.2	22.1	13.7	30.3	[illegible]
R1	Lo	2.1	1.3	2.2	1.4	2.3	1.5	2.1	1.3	2.1	1.3	1.7	1.1	2.4	1.5
	Hi*	2.7	1.7	2.8	1.8	3.0	1.8	2.6	1.6	2.6	1.6	2.2	1.4	3.0	1.9
R2	Lo	3.0	1.9	3.2	2.0	3.3	2.1	2.9	1.8	2.9	1.8	2.5	1.5	3.4	2.1
	Hi*	3.8	2.4	4.1	2.5	4.2	2.6	3.7	2.3	3.7	2.3	3.2	2.0	4.3	2.7
R3	Lo	4.4	2.8	4.7	2.9	4.9	3.1	4.4	2.7	4.4	2.7	3.7	2.3	5.0	3.1
	Hi*	5.7	3.5	6.0	3.7	6.3	3.9	5.6	3.5	5.5	3.4	4.7	2.9	6.4	4.0
R4	Lo	6.2	3.9	6.6	4.1	6.9	4.3	6.1	3.8	6.1	3.8	5.1	3.2	7.0	4.4
	Hi*	7.9	4.9	8.4	5.2	8.8	5.5	7.8	4.8	7.7	4.8	6.5	4.1	9.0	5.6

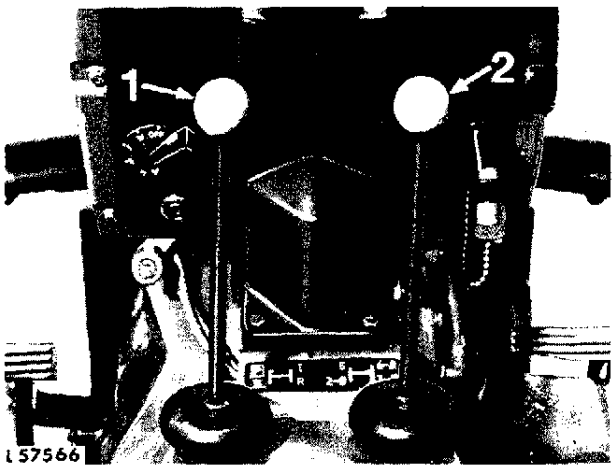
** Speeds shown under "Hi" also apply to tractors equipped with collar-shift transmission*

A Careful Operator

IS THE BEST INSURANCE AGAINST AN ACCIDENT

X1285N

SHIFTING GEARS



1 Range Shift Lever (Left-Hand-Lever)
2 Gear Shift Lever (Right-Hand-Lever)

Gear shifting is controlled by a range shift lever and a gear shift lever.
With the range shift lever a low or high range of gears can be engaged.

Shift Pattern

L56971

Range Shift Lever Positions	Gear Shift Lever Positions
I Low Range	P Park Position
II High Range	R Reverse Range

Use range shift lever to engage park (P) position.
The gear shift lever can be used to select 1st, 2nd, 3rd, and 4th gears when the range shift lever is in low range position; it can be used to select 5th, 6th, 7th, and 8th gears when the range shift lever is in high range position. When the range shift lever is in reverse range, reverse gears comparable to 1st, 2nd, 3rd, and 4th can be obtained.

Shifting from Neutral

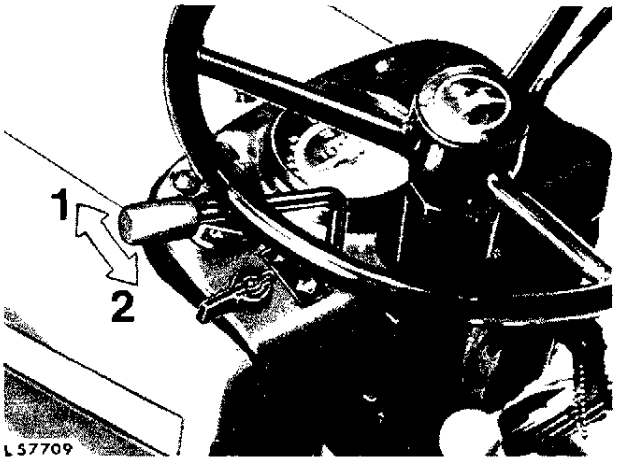
1 Depress clutch pedal.
2 Move range and gear shift levers in the position required.
3 Gradually release clutch pedal, however, do not allow clutch to slip longer than necessary to take up load smoothly.

To shift "on the go" from lower to higher gear, increase engine speed, depress clutch, decrease engine speed, engage higher gear, release clutch slowly and increase engine speed.
To shift "on the go" from higher to lower gear, decrease engine speed, depress clutch pedal, place gear shift lever in neutral, release clutch momentarily, increase engine speed, declutch and select lower gear. Release clutch slowly.
Avoid gear clash when shifting "on the go".

Shifting to Another Range

To shift to another range, fully stop the unit, disengage the clutch and then change gear range as required.

Hi-Lo Shift Unit



1 Low Speed
2 High Speed

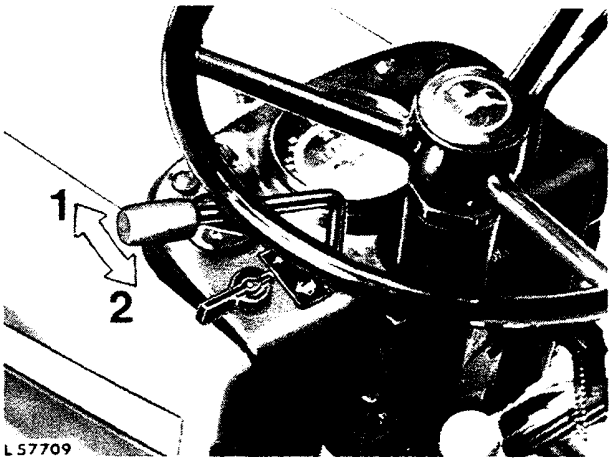
If the tractor has a Hi-Lo shift unit, the operator can decrease or increase tractor speed without using the clutch.
Shifting from Hi to Lo decreases the ground travel speed by 21% and provides up to 27% increase in pulling power in any of the travel speeds.

⚠ CAUTION: Do not allow tractor to coast downhill with clutch disengaged and transmission in gear. This could result in loss of control, in overspeeding and damage to the clutch.

REVERSER TRANSMISSION (OPTIONAL)

Forward and reverse travel can be obtained by operating the reverser control lever in gears 1—4.
The reverser control lever can be operated, "on the go" to reverse travel without disengaging the clutch.
When engaging the range shift lever in high range, the reverser control lever must be in the "Forward" position.

Reverser Control Lever



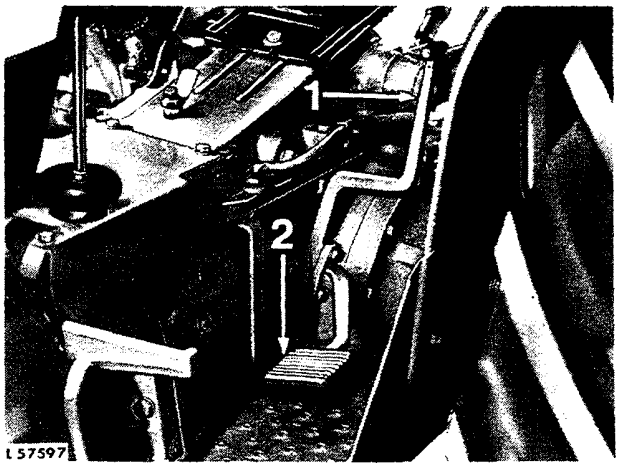
1—Forward travel (lever toward the front)
2—Rearward travel (lever toward the rear)

NOTE: An interlock in the transmission prevents selection of "Reverse" as long as the transmission is in high range (11).

⚠ CAUTION: Reverse speeds are 16% higher than their respective forward speeds. Extra care when travelling at higher speeds.

IMPORTANT: Never attempt to start the tractor by towing or pushing, otherwise damage to reverser unit will occur.

DIFFERENTIAL LOCK



1—Hand Lever
2—Pedal

With differential lock engaged, power is transferred equally to both rear wheels. This prevents the usual loss of traction when one wheel is slipping.

When slippery conditions are encountered with unequal wheel slip, engage differential lock (lever or pedal).*

*Narrow version – pedal only

Depress clutch pedal to engage differential lock if wheel slip varies greatly between both wheels or if one wheel has become stationary. Engage differential lock as clutch is re-engaged. The differential lock will disengage automatically as soon as traction has equalized.

If unequal traction is not continuous, retain lever or pedal in engaged position.

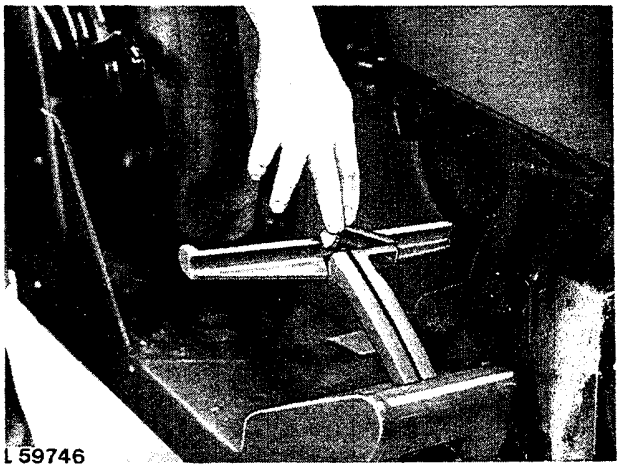
⚠ CAUTION: Do not operate the tractor at high speeds or attempt to turn the tractor with the differential lock engaged.

STEERING

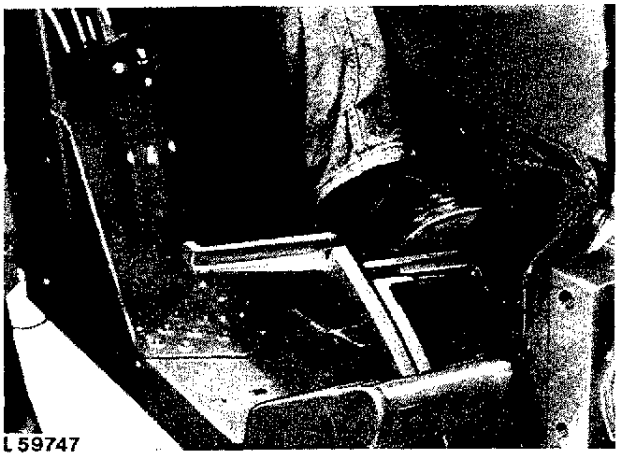
The tractor may be equipped with manual or power steering. Power steering makes steering and control of the tractor easier for the operator. In case of pressure failure, the tractor can be steered manually.

HYDRAULIC FOOT BRAKES

⚠ CAUTION: Brake pedals should be coupled together by means of pedal coupler when traveling at high speeds or when driving on public roads.



Coupling Brake Pedals Together



Using Foot Brake to Make a Sharp Left-Hand Turn

When turning the tractor, press down on a single brake pedal. Use the left pedal to turn left and the right pedal to turn right. When negotiating sharp turns, press brake pedal down more sharply as the steering wheel is being turned.

Use brake for steering purposes at low speed only.

When stopping the tractor, press down on both brake pedals.

CAUTION: Your safety depends on efficient brakes. Always maintain brakes in excellent condition and adjustment.

TOWED LOADS

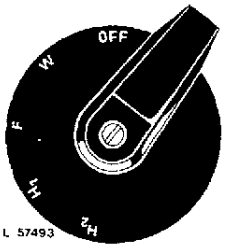
CAUTION: Towed loads that weigh more than twice the weight of the tractor should have brakes. If not, reduce speed and avoid inclines.

LIGHTS

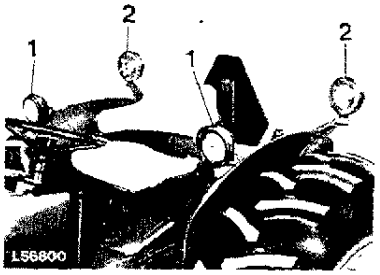
Light Switch

Switch positions are marked on the light switch plate. Turn switch clockwise until position required is in uppermost (vertical) position.

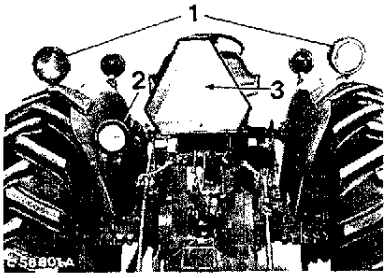
Light switch positions are as follows:



Off
- W — Warning Lamps
- F — Bright Headlights and Rear Work Light
- H1 — Bright Headlights, Tail Light, and Warning Lamps
- H2 — Dim Headlights, Tail Light and Warning Lamps

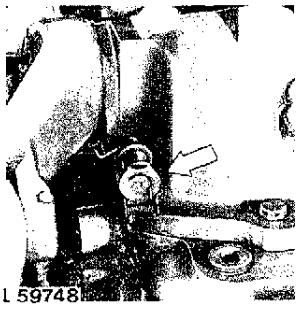


1 Headlights
2 Tractor Warning Lamps, Front View



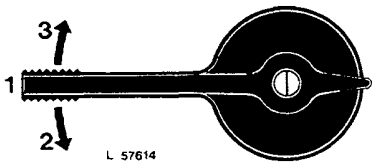
1 Tractor Warning Lamps, Rear View
2 Rear Work Light and Tail light
3 Slow moving vehicle emblem

CAUTION: Keep slow moving vehicle emblem in place and keep it clean.



Provision has been made for the installation of an electrical outlet socket at rear of tractor. If required, see your John Deere dealer.

Turn-Signal Switch (If Equipped)



1 Off
2 Turn Signal Light, Left
3 Turn Signal Light, Right

HIGHWAY DRIVING

When transporting (or driving) the tractor on a road or highway at night or during the day, use accessory lights and devices for adequate warning to the operators of other vehicles. In this regard, check local governmental regulations. Various safety lights and devices are available from your John Deere dealer.

When driving on the highway, use light switch position H1 or H2. Be sure the lights are adjusted so they will not blind the driver of an oncoming vehicle.

Always dim the tractor headlights (H2 position) when meeting a vehicle at night.

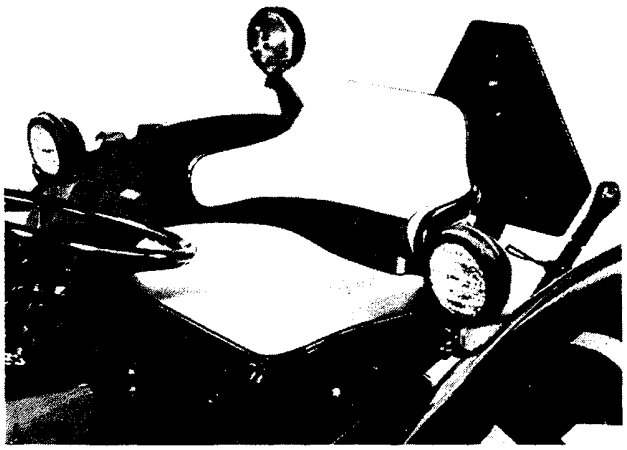
Your tractor is equipped with a warning lamp flasher. If local traffic regulations prohibit its use, change into constant burning lamps as follows:

1. Disconnect the orange with white stripe lead from the "W" terminal of the light switch.

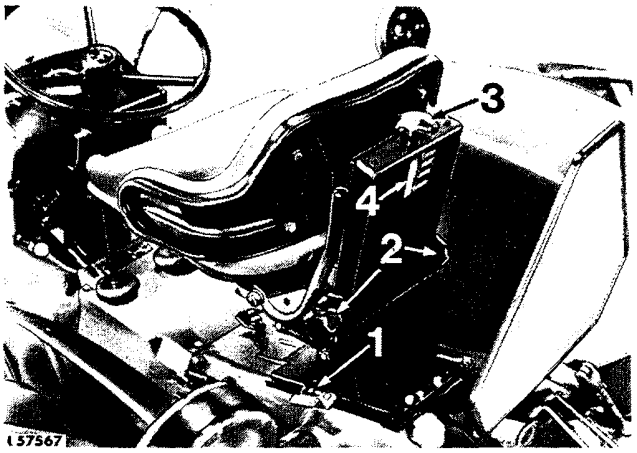
2. Disconnect the orange lead from the flasher and connect it to the "W" terminal.

A label (R56774) with the above instructions is attached to the left-hand warning lamp.

OPERATOR'S SEAT



The deluxe seat is adjustable for the operator's height and weight and folds back for standing.

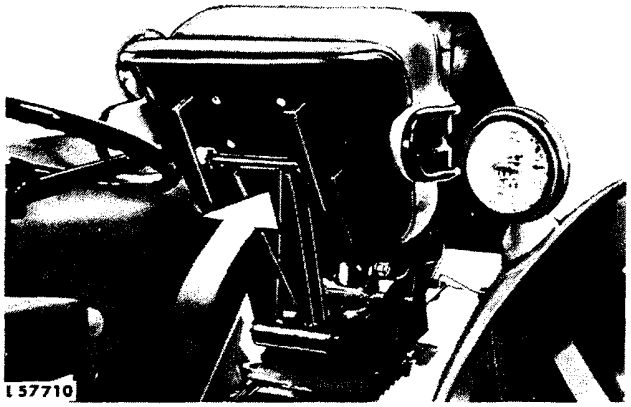


1 Raise catch and adjust horizontally.

2 Loosen handwheels on both sides and adjust seat to desired height. Retighten both handwheels securely.

3 Handwheel for adjusting according to operator's weight.

4 Weight adjustment pattern.

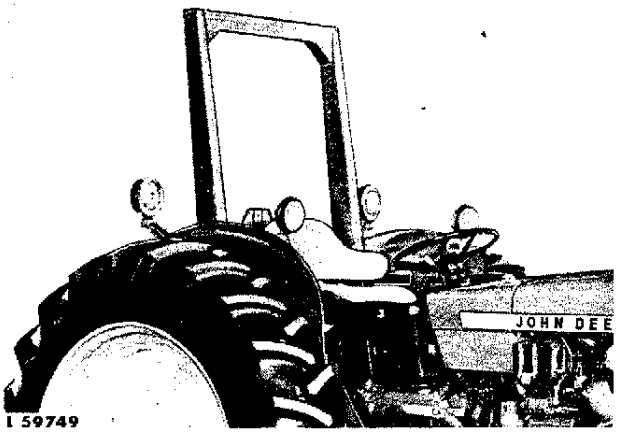


Lift up on operator's seat to fold it back against the backrest.

ROLL-GARD AND SEAT BELT

A protective Roll-Gard with seat belt is available for your tractor. A canopy that fits on top of the Roll-Gard is also available.

When installing a Roll-Gard, tighten the cap screws sufficiently to hold the mounting plate flat against the axle housing. Then in a diagonal sequence, tighten to 70 Nm (50 ft-lbs) torque. Retighten the cap screws in the same sequence to 400 Nm (300 ft-lbs) torque. After a few hours of service, retighten the cap screws and keep them tight.



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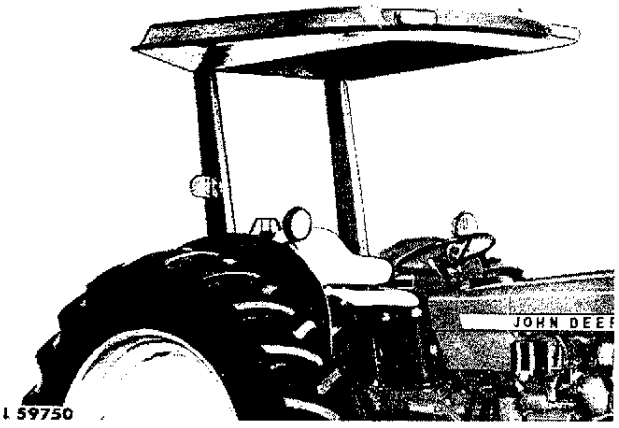

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CAUTION: Under almost all operating conditions:

1. **Use of the seat belt with the optional John Deere Roll-Gard is recommended.**

2. **Use of a seat belt without roll-over protective equipment is not recommended.**

CAUTION: A tractor roll-over may place a severe stress on the Roll-Gard structure. Therefore, re-use of the Roll-Gard is not recommended if its upright beams, cross-bar, or attaching parts have been bent, buckled, or stretched.

CAUTION: If your tractor has a Roll-Gard, use Non-Spill battery vent caps to prevent injury from spilled battery acid should the tractor overturn and be supported upside-down by the Roll-Gard **(see page 59).**

FRONT WHEEL TREADS

Adjustable Front Axle

Four types of front axle are available. The type of front axle installed is dependent upon the size of the rear wheels. Wheel treads available are shown in the following chart:

Front Axle Type	Front Tire Size	Front Wheel Tread		Maximum with Wheels Reversed
		Minimum	Maximum	
Narrow Swept-back Front Axle	27/9.5-15	1180 mm* 46.5 in.	1610 mm* 63.5 in.	–
	6.50 - 16	1120 mm* 44.0 in.	1550 mm* 61.0 in.	1685 mm 66.3 in.
Swept-back Front Axle	6.00 - 16 6.50 - 16 7.50 - 16	1260 mm* 49.6 in.	1885 mm* 74.2 in.	2020 mm 79.5 in.
	27/9.5 - 15	1320 mm* 52.0 in.	1945 mm* 76.5 in.	–
Extra-wide Straight Front Axle	6.00 - 16 6.50 - 16 7.50 - 16	1525 mm** 60.0 in.	2235 mm** 88.0 in.	2365 mm 93.10 in.
Straight Front Axle	6.00 - 16 6.50 - 16 7.50 - 16	1260 mm** 49.6 in.	1925 mm** 75.7 in.	2060 mm 81.0 in.

* *Front axle adjustable in increments of 48 mm (1.90 in.)*

** *Front axle adjustable in increments of 51 mm (2.00 in.)*

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

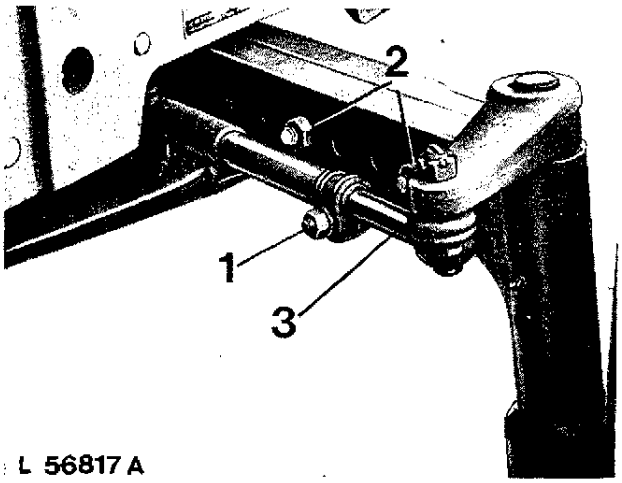
IMPORTANT: To avoid excessive stress on axle bolts, do not separate axle halves beyond the limits shown.

Bolt spacing should be 102 mm (4 in.) in maximum tread width and 153 mm (6 in.) in all other tread widths.

Adjusting Front Wheel Tread

Jack up front end of tractor.

Do not place jack under engine oil pan.



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1 Remove tie rod clamp bolts.

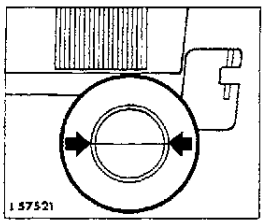
2 Remove axle bolts and reposition axle ends to the desired front wheel tread. Insert axle bolts and tighten nuts to 400 Nm (300 ft-lbs) torque.

3 The tie rods have grooves to simplify adjustment. Adjust the same distance as the axles. Insert and tighten tie rod clamp bolts to 120 Nm (85 ft-lbs) torque.

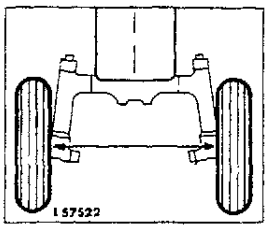
Check to see that front wheels turn equally to right and left. Check toe-in and adjust, if necessary.

Checking Front Wheel Toe-In

Check front wheel toe-in periodically with tractor on level ground and front wheels in straight-ahead position.



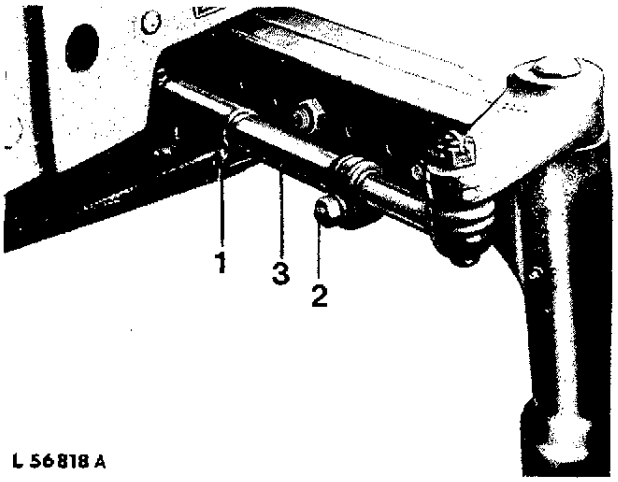
Measure front and rear of front wheels at hub height.



Measure from rim flange to rim flange.

Proper toe-in is 3 to 6 mm (0.13 to 0.25 in.) less in front than in rear.

Adjusting Front Wheel Toe-In



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1 Loosen inner clamping bolt.
2 Remove outer clamping bolt.
3 Turn tie-rod tube in or out.

Turn tie-rod in to shorten and turn out to increase amount of toe-in.

Turn each tie-rod an equal amount so that front wheels remain in straight-ahead position.

After toe-in adjustment is completed, tighten inner clamping bolts to 40 Nm (30 ft-lbs) torque. Insert and tighten outer clamping bolts to 120 Nm (85 ft-lbs) torque.

Periodically check the tightness of the front wheel retainer cap screws. They should be tightened to 120 Nm (85 ft-lbs) torque.