

JOHN DEERE 1020, 1120, 1630 TRACTORS



JOHN DEERE

OPERATORS MANUAL JOHN DEERE 1020, 1120, 1630 TRACTORS

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ENGLISH



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To the Purchaser

Your versatile new John Deere Tractor meets the exacting requirements of modern farming.

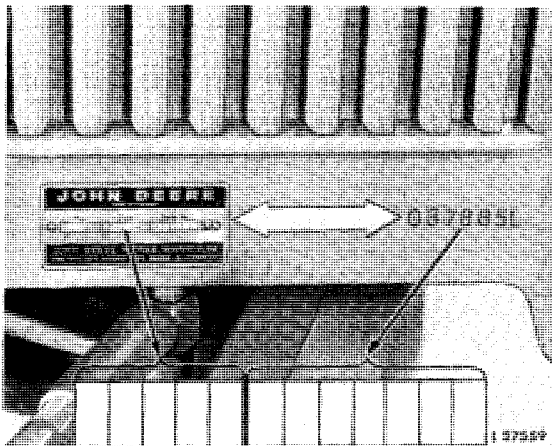
Operating ease and comfort, hydraulic power when and where you need it, the ability to match engine power and transmission speed to any job, outstanding economy and dependability, modern styling, and simplicity of lubrication and service are all special features of this tractor.

At the time the tractor was delivered, the John Deere dealer discussed with you its safe operation and proper care. However, before putting the tractor to work, read this manual.

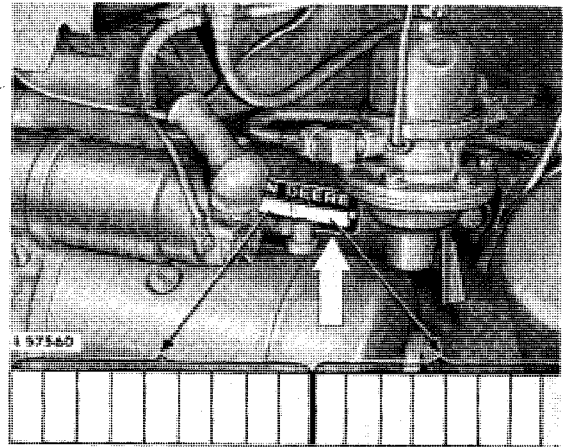
 This safety alert symbol indicates important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

When ordering new parts, only state the 6-digit number group — without letters — of the tractor and engine serial numbers.*

For ready reference, locate and record these numbers in the spaces provided under the following illustrations.



Record Tractor Serial Number Here



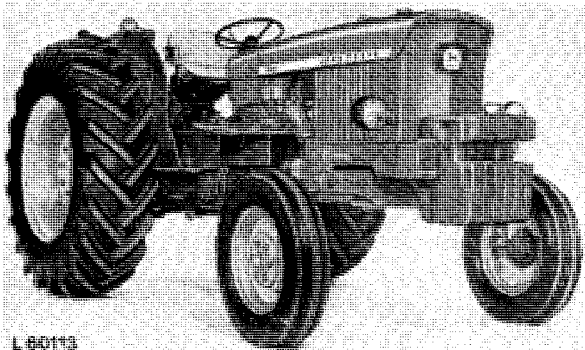
Record Engine Serial Number Here

* It is extremely important to quote complete serial number group together with all letters of both tractor and engine on all warranty claims or correspondence pertaining to this machine. This point cannot be overemphasized.



Contents

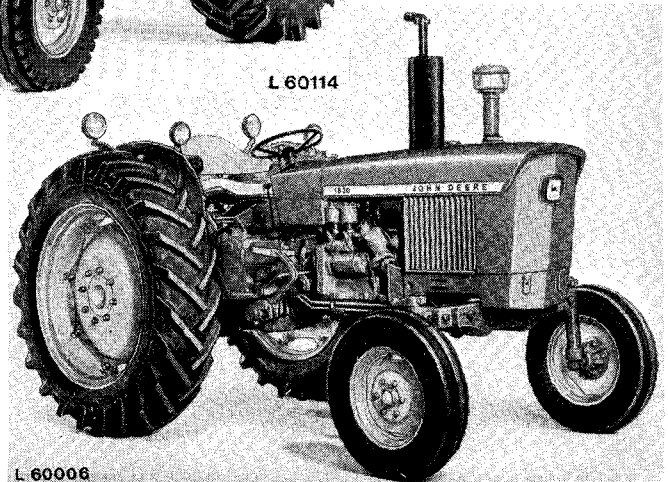
CONTROLS AND INSTRUMENTS	2	SERVICE	58
OPERATION	4	TRACTOR STORAGE	71
SAFETY RULES	41	TROUBLE SHOOTING	72
FUELS AND LUBRICANTS	43	HITCHES AND DRAWBARS	78
LUBRICATION AND PERIODIC SERVICE	45	SPECIFICATIONS	83
		INDEX	87



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Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

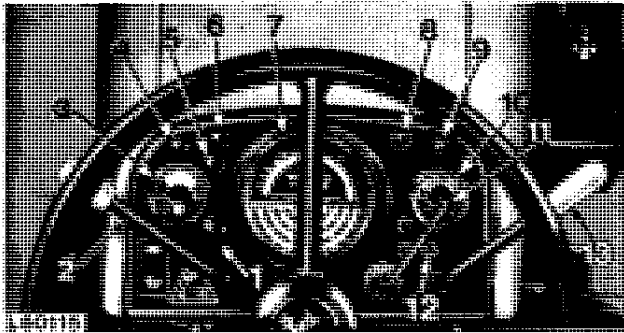
The full manual is available for immediate download.

<https://www.ebooklibonline.com>



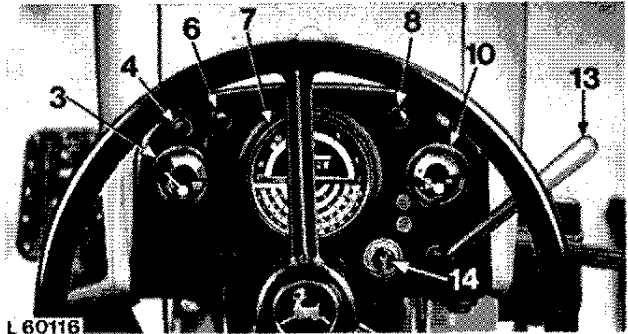
Controls and Instruments

"BILUX" LIGHTING SYSTEM



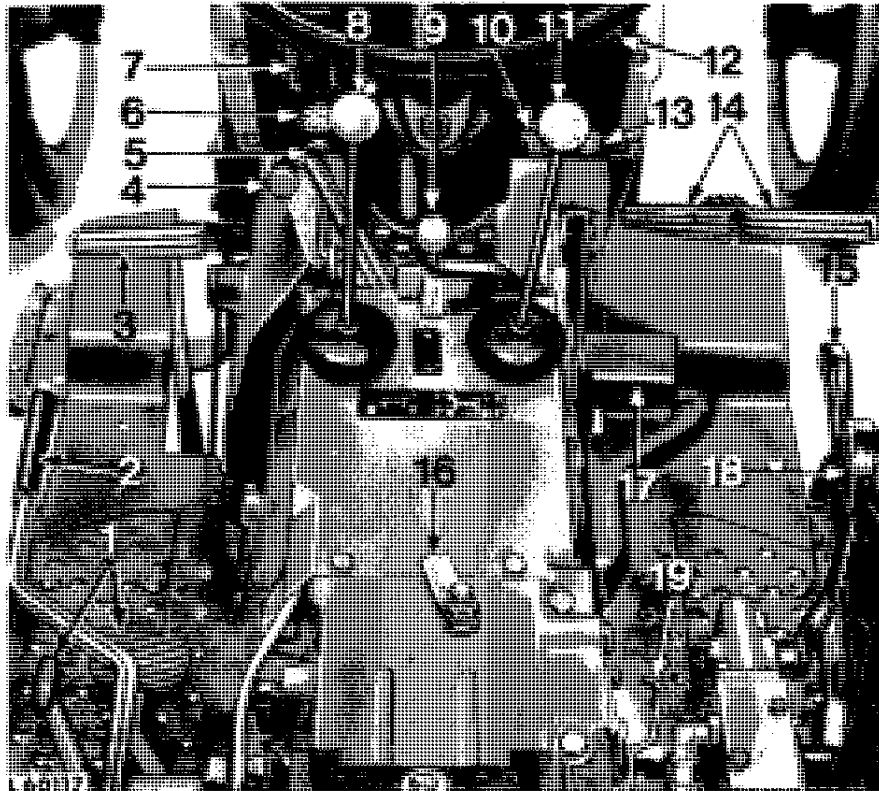
- 1 = Hazard warning light switch
- 2 = HIGH-LOW shift lever
- 3 = Coolant temperature gauge
- 4 = Air cleaner indicator light
- 5 = Transmission oil pressure indicator light

"SEALED-BEAM" LIGHTING SYSTEM



- 6 = Alternator indicator light
- 7 = Speed-hour meter
- 8 = Engine oil pressure indicator light
- 9 = Full beam indicator light
- 10 = Fuel gauge

- 11 = Turn signal switch
- 12 = Turn signal indicator lights
- 13 = Hand throttle
- 14 = Hazard warning light and rear worklight switch



- 1 = Differential lock (lever and pedal)
- 2 = Handbrake lever
- 3 = Clutch pedal
- 4 = Engine shut-off knob
- 5 = Starter button

- 6 = Main switch
- 7 = Fuse box
- 8 = Range shift lever
- 9 = PTO control lever
- 10 = Socket for handlamp

- 11 = Gear shift lever
- 12 = Horn button
- 13 = Cold weather starting aid (Thermostart)
- 14 = Brake pedals

- 15 = Rockshaft control lever
- 16 = Rate-of-drop lever
- 17 = Foot throttle
- 18 = Selective control valve lever
- 19 = Rockshaft selector lever

INSTRUMENTS

Control Lights

Transmission oil pressure



1 56 967

(only with HIGH-LOW unit)

Alternator



1 56 968

Engine oil pressure



1 56 966

The above control lights should light up as soon as main switch is moved to position "1". If this is not the case, a burnt-out bulb or blown fuse may be the cause. Replace defective bulb or fuse.

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 remedy the fault.

If **transmission oil pressure indicator light** goes on during tractor operation, check oil level and condition of transmission oil filter.

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.

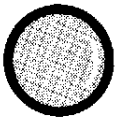
If **engine oil pressure indicator light** goes on during engine operation, check oil level and condition of engine oil filter. (In this case transmission oil pressure control light also goes on).



1 56 965

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.

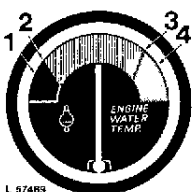


1 56 969

Full-beam indicator light

(not with sealed beam lights)

As soon as full-beam is turned on, the blue full-beam indicator light will go on. Dim the lights in case of oncoming traffic or when driving through populated areas.



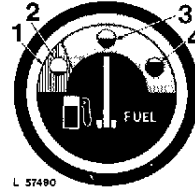
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Coolant temperature gauge

- 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



L 57490

- 1 = Orange warning zone
- 2 = Empty tank
- 3 = Half-full tank
- 4 = Full tank

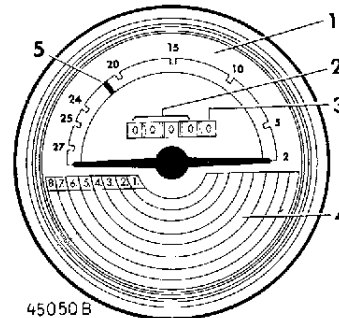
The fuel gauge shows the amount of fuel in tank, from "empty" via "half-full" to "full".

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.



45050 B

The speed-hour meter shows the following:

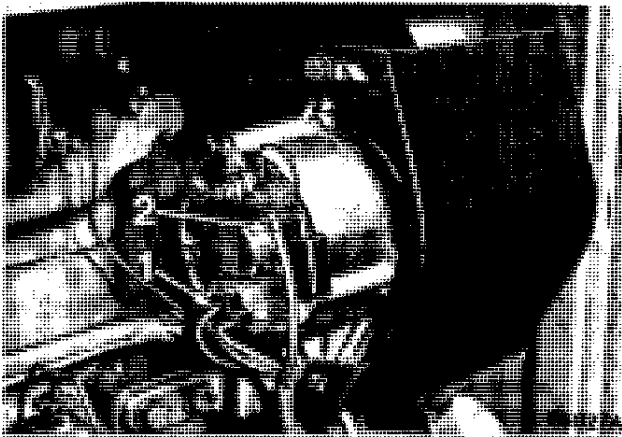
- 1 = **Engine speed** on the upper half of the dial. The figure shown multiplied by 100 indicates the actual number of engine revolutions.
- 2 = **Hours of operation** in full hours.
- 3 = **Hours of operation** in tenths of hours.
- The hour meter facilitates close observation of the proper service 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

ALTERNATOR



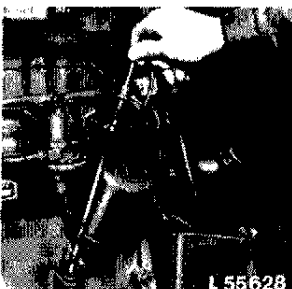
Prior to operating tractor for the first time, connect three-terminal plug 1 and red cable 2 to alternator.

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 main switch key to position "0" or "P". It is recommended to switch main switch key to position "2" before starting, thereby using additional current. When engine is running, main switch key must always be in position "2", "3" or "4". Only after having stopped the engine, switch main switch key to position "0" or "P" and remove switch key.

Further details about the alternator are given on page 64.

The following items must be checked daily before commencing work:

Oil level in engine crankcase



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

See page 43 for types of oil.

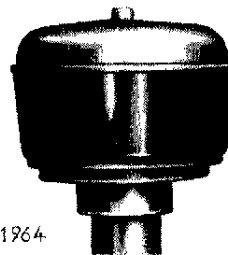
Radiator coolant level



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

See section "Cooling System" for correct coolant mixture.

Pre-cleaner (special equipment)



Clean collector bowl if dust has risen to mark.

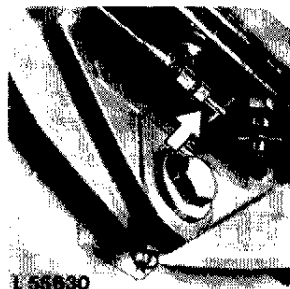
Fuel filter sediment bowls



Check sediment bowls for water or dirt deposits.

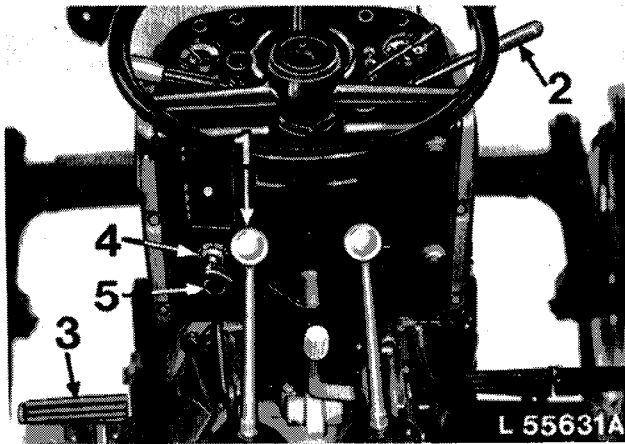
See page 59 for instructions on cleaning sediment bowls.

Fuel shut-off valve



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

STARTING THE ENGINE



- 1 = Range shift lever in neutral position.
- 2 = Place hand throttle in halfway-open position.
- 3 = Depress clutch pedal to decrease drag on engine.
- 4 = Turn switch key to position "1".
- 5 = Depress starter button. As soon as engine starts release button. Do not crank engine for more than 30 seconds at a time. Wait at least two minutes before trying 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 the tractor by towing or pushing as the HIGH-LOW shift unit may be damaged.

A tractor without HIGH-LOW 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.

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 Battery

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

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 negative (-) terminal of the tractor batteries. 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

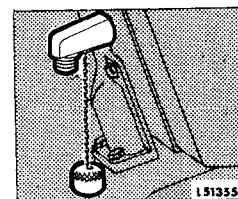
Your tractor may be equipped with a starting fluid adapter. This attachment is used to inject atomized starting fluid into the engine air intake system when starting the engine at temperatures below 0° C (+ 32° F).



CAUTION: Starting fluid is highly flammable.



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



Remove cap from adapter.

Injecting Diesel Starting Fluid

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.

6 Operation



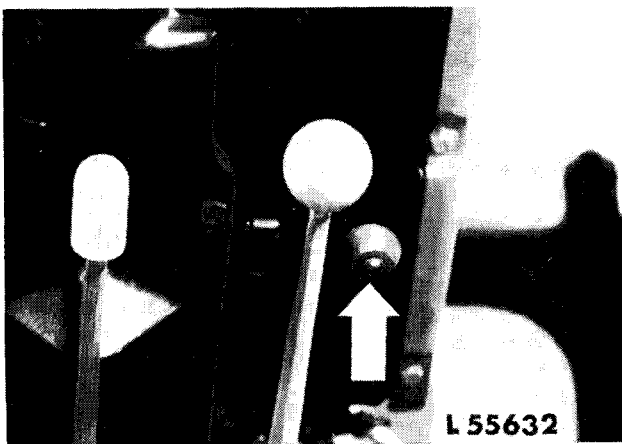
Position can onto adapter and inject fluid by pushing up on can for a short period.

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 cans where they will not be subject to extreme cold or heat. For best results, store fluid at room temperature.

CAUTION: Before discarding used starting fluid containers, empty them completely in a well ventilated area, at a good distance from sparks or open fire.

Thermostart Starting Aid



The unit can be equipped with a thermostart device.

NOTE: Never operate this starting device when the engine is hot.

With a cold engine and at ambient temperatures below + 10° C (+ 50° F), operate the thermostart device as follows:

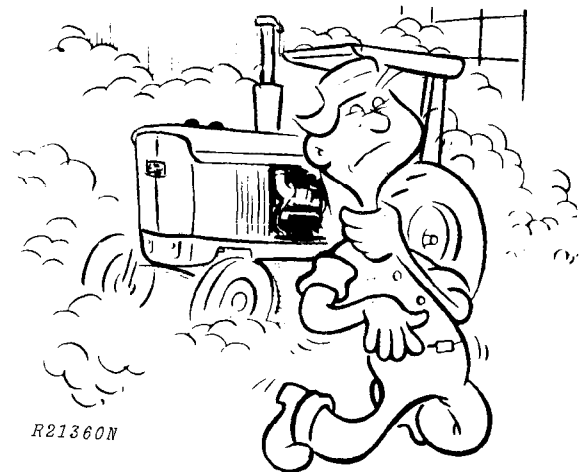
Keep thermostart button depressed for 15 - 20 seconds.

Crank engine with starter and continue depressing the thermostart button.

If the engine does not start within 15 seconds, release starter button but keep the thermostart button depressed.

After a ten-second pause, depress starter button again.

If the engine starts, release starter button at once but keep thermostart button depressed for another 15 seconds.



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.

ENGINE SPEEDS

The engine working speed range is between 1500 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 level with the green mark on the speed-hour meter.

STOPPING THE ENGINE

Run the engine at 1500 rpm for a short time before shutting it off completely. This will allow the engine to cool off gradually.

To stop the engine, pull the shut-off knob (bottom-left on instrument panel). Push the knob back in after the 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 switch key to prevent accidents and battery discharge.

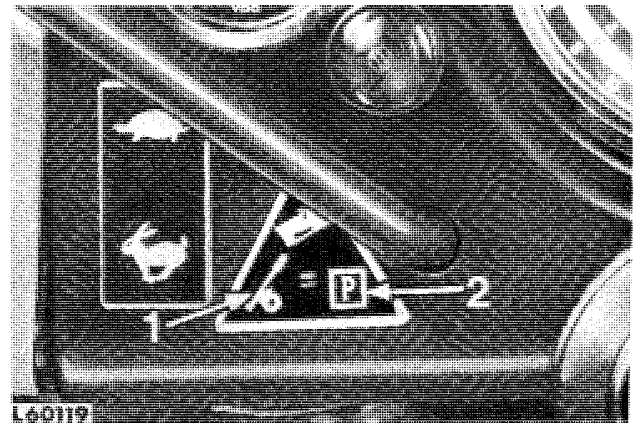
PARKING THE MACHINE

If the machine has a handbrake, it should be well applied when the tractor is parked or when it operates stationary.

If the machine is provided with a parking lock, engage a gear and place range shift lever in park position to block the transmission.

Parking Warning Sign

A warning sign is provided on the left-hand side of the instrument panel on all tractors equipped with HIGH-LOW shift unit.



1 = Symbol for handbrake.

Apply handbrake firmly when parking.

2 = Symbol for parking lock.

When parking, engage a gear and place range shift lever in "Park" position.



CAUTION: On tractors equipped with High-Low shift unit, engine and rear axle are disconnected with engine shut off.

Therefore, apply handbrake firmly since engaging a gear provides no safety. On machines equipped with a parking lock, first engage a gear before moving range shift lever in park (P) position. In this position the transmission is blocked and acts as a brake on the rear wheels.

TOWING THE TRACTOR

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



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

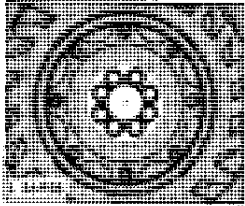
8 Operation

BREAK-IN PERIOD

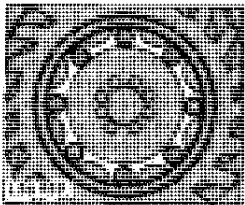
After the first 4 hours and 8 hours of operation retighten all wheel retainers and front axle bolts. Check tightness of retainers and axle bolts frequently during the first 100 hours of operation.

Recommended torques are as follows:

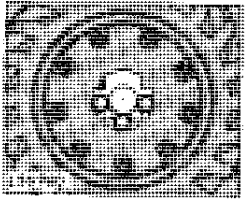
Rear Wheels



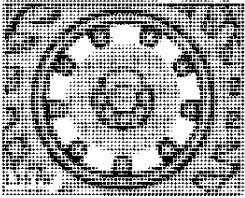
Wheel disk-to-axle flange
41.5 mkp (300 ft.lbs.)



Rim-to-wheel disk
20 mkp (145 ft.lbs.)

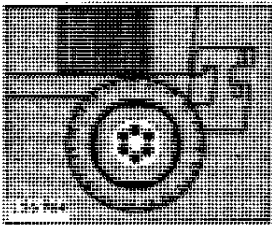


Wheel disk-to-hub
(rack and pinion axle)
41.5 mkp (300 ft.lbs.)



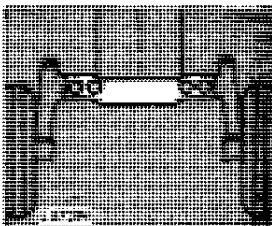
Rim-to-wheel disk
(rack and pinion axle)
23.5 mkp (170 ft.lbs.)

Front Wheels



Wheel-to-axle flange
12 mkp (85 ft.lbs.)

Front Axle



Axle bolts
41.5 mkp (300 ft.lbs.)

Thereafter check tightness of bolts and screws periodically.

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

IMPORTANT: Avoid light or too heavy loads and 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.

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. 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 a permanent overloading of the engine.

TRAVEL SPEEDS AT 2500 ENGINE RPM

Tire Sizes	12.4/11-28 9.5/9-36				13.6/12-28				14.9/13-28 12.4/11-32 12.4/11-36				16.9/14-28			
Type	1020				1020 - 1120				1020 - 1120				1120			
Speed Limit	over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)	
Gear	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
1 Low	1.7	1.1	1.6	1.0	1.7	1.1	1.6	1.0	1.7	1.1	1.6	1.0	1.7	1.1	1.6	1.0
1 High*	2.3	1.4	2.1	1.3	2.3	1.5	2.2	1.3	2.3	1.4	2.1	1.3	2.2	1.4	2.1	1.3
2 Low	2.4	1.5	2.2	1.4	2.5	1.5	2.3	1.4	2.4	1.5	2.2	1.4	2.4	1.5	2.1	1.3
2 High*	3.3	2.0	3.0	1.9	3.4	2.1	3.1	1.9	3.2	2.0	3.0	1.9	3.2	2.0	3.0	1.9
3 Low	3.6	2.2	3.3	2.0	3.7	2.3	3.4	2.1	3.6	2.2	3.3	2.1	3.5	2.2	3.3	2.1
3 High*	4.9	3.0	4.4	2.8	5.0	3.1	4.6	2.8	4.8	3.0	4.5	2.8	4.7	2.9	4.4	2.7
4 Low	5.0	3.1	4.6	2.9	5.2	3.2	4.7	2.9	5.0	3.1	4.7	2.9	4.9	3.0	4.6	2.9
4 High*	6.8	4.2	6.2	3.9	6.9	4.3	6.4	4.0	6.7	4.2	6.3	3.9	6.6	4.1	6.2	3.8
5 Low	6.7	4.1	6.1	3.8	6.8	4.2	6.3	3.9	6.6	4.1	6.2	3.8	6.5	4.0	6.1	3.8
5 High*	9.0	5.6	8.2	5.1	9.2	5.7	8.4	5.2	8.9	5.5	8.3	5.2	8.8	5.4	8.2	5.1
6 Low	9.5	5.9	8.7	5.4	9.7	6.1	8.9	5.5	9.4	5.9	8.8	5.5	9.3	5.7	8.7	5.4
6 High*	12.8	8.0	11.8	7.3	13.1	8.2	12.0	7.5	12.7	7.9	11.9	7.4	12.5	7.8	11.7	7.3
7 Low	14.1	8.8	12.9	8.0	14.5	9.0	13.3	8.2	14.0	8.7	13.1	8.1	13.8	8.6	12.9	8.0
7 High*	19.0	11.8	17.4	10.8	19.5	12.1	17.9	11.1	18.8	11.7	17.6	10.9	18.6	11.6	17.4	10.8
8 Low	19.8	12.2	18.1	11.2	20.2	12.5	18.5	11.5	19.6	12.1	18.3	11.4	19.3	12.0	18.0	11.2
8 High*	26.6	16.5	24.4	15.1	27.3	16.9	25.0	15.5	26.3	16.3	24.6	15.3	26.0	16.1	24.3	15.1
R1 Low	2.0	1.2	1.8	1.1	2.0	1.3	1.9	1.1	2.0	1.2	1.8	1.1	1.9	1.2	1.8	1.1
R1 High*	2.7	1.7	2.4	1.5	2.7	1.7	2.5	1.5	2.6	1.6	2.5	1.5	2.6	1.6	2.4	1.5
R2 Low	2.8	1.8	2.6	1.6	2.9	1.8	2.6	1.6	2.8	1.7	2.6	1.6	2.8	1.7	2.6	1.6
R2 High*	3.8	2.4	3.5	2.2	3.9	2.4	3.6	2.2	3.8	2.3	3.5	2.2	3.7	2.3	3.5	2.2
R3 Low	4.2	2.6	3.8	2.4	4.3	2.7	3.9	2.4	4.1	2.6	3.9	2.4	4.1	2.6	3.8	2.4
R3 High*	5.6	3.5	5.2	3.2	5.8	3.6	5.3	3.3	5.6	3.5	5.2	3.2	5.5	3.4	5.2	3.2
R4 Low	5.9	3.6	5.4	3.3	6.0	3.7	5.5	3.4	5.8	3.6	5.4	3.4	5.7	3.5	5.3	3.3
R4 High*	7.9	4.9	7.2	4.5	8.1	5.0	7.4	4.6	7.8	4.8	7.3	4.5	7.7	4.8	7.2	4.5

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



CAUTION: Speeding is the cause of many accidents.

TRAVEL SPEEDS AT 2500 ENGINE RPM

Tire Sizes	14.9/13-30 16.9/14-30				13.6/12-36				12.4/11-36 16.9/14-30				16.9/14-28** 13.6/12-36			
Type	1120				1120				1630				1630			
Speed Limit	over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)	
Gear	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
1 Low	1.7	1.0	1.5	0.9	1.8	1.1	1.6	1.0	1.9	1.2	1.6	1.0	2.0	1.2	1.7	1.0
High*	2.2	1.4	2.0	1.2	2.4	1.5	2.1	1.3	2.4	1.5	2.0	1.3	2.5	1.6	2.1	1.3
2 Low	2.4	1.5	2.1	1.3	2.5	1.6	2.2	1.4	2.8	1.7	2.3	1.4	2.8	1.8	2.4	1.5
High*	3.2	2.0	2.8	1.8	3.4	2.1	3.0	1.9	3.5	2.2	2.9	1.8	3.6	2.2	3.0	1.9
3 Low	3.5	2.2	3.1	1.9	3.7	2.3	3.3	2.1	4.1	2.5	3.4	2.1	4.2	2.6	3.5	2.2
High*	4.7	2.9	4.2	2.6	5.0	3.1	4.5	2.8	5.2	3.2	4.3	2.7	5.4	3.3	4.5	2.8
4 Low	4.9	3.0	4.4	2.7	5.2	3.2	4.7	2.9	5.7	3.5	4.8	3.0	5.9	3.7	4.9	3.1
High*	6.6	4.1	5.9	3.7	7.0	4.3	6.3	3.9	7.2	4.5	6.1	3.8	7.5	4.6	6.3	3.9
5 Low	6.5	4.0	5.8	3.6	6.9	4.3	6.1	3.8	7.5	4.7	6.3	3.9	7.8	4.8	6.5	4.0
High*	8.7	5.4	7.8	4.8	9.3	5.7	8.3	5.1	9.6	5.9	8.0	5.0	9.9	6.2	8.3	5.2
6 Low	9.2	5.7	8.3	5.1	9.8	6.1	8.8	5.4	10.8	6.7	9.0	5.6	11.1	6.9	9.3	5.8
High*	12.4	7.7	11.1	6.9	13.2	8.2	11.8	7.3	13.7	8.5	11.5	7.1	14.1	8.8	11.8	7.4
7 Low	13.7	8.5	12.3	7.6	14.6	9.1	13.0	8.1	15.9	9.9	13.4	8.3	16.5	10.2	13.8	8.6
High*	18.5	11.5	16.5	10.3	19.6	12.2	17.5	10.9	20.3	12.6	17.0	10.6	21.0	13.0	17.6	10.9
8 Low	19.2	11.9	17.1	10.6	20.4	12.6	18.2	11.3	22.3	13.9	18.7	11.6	23.0	14.3	19.3	12.0
High*	25.8	16.0	23.1	14.4	27.4	17.0	24.5	15.2	28.4	17.6	23.8	14.8	29.3	18.2	24.6	15.3
R1 Low	1.9	1.2	1.7	1.1	2.0	1.3	1.8	1.1	2.2	1.4	1.9	1.2	2.3	1.4	1.9	1.2
High*	2.6	1.6	2.3	1.4	2.7	1.7	2.5	1.5	2.8	1.8	2.4	1.5	2.9	1.8	2.5	1.5
R2 Low	2.7	1.7	2.5	1.5	2.9	1.8	2.6	1.6	3.2	2.0	2.7	1.7	3.3	2.0	2.8	1.7
High*	3.7	2.3	3.3	2.1	3.9	2.4	3.5	2.2	4.1	2.5	3.4	2.1	4.2	2.6	3.5	2.2
R3 Low	4.1	2.5	3.6	2.3	4.3	2.7	3.9	2.4	4.7	2.9	3.9	2.4	4.9	3.0	4.1	2.5
High*	5.5	3.4	4.9	3.0	5.8	3.6	5.2	3.2	6.0	3.7	5.0	3.1	6.2	3.9	5.2	3.2
R4 Low	5.7	3.5	5.1	3.2	6.0	3.7	5.4	3.3	6.6	4.1	5.5	3.4	6.8	4.2	5.7	3.6
High*	7.6	4.7	6.8	4.2	8.1	5.0	7.3	4.5	8.4	5.2	7.0	4.3	8.7	5.4	7.3	4.5

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

** This tire size is only for tractors with a speed limit of 25 km/h (15.5 mph)

TRAVEL SPEEDS AT 2100 ENGINE RPM
(Engine Speed For PTO Operation)

Tire Sizes	12.4/11-28 9.5/9-36				13.6/12-28				14.9/13-28 12.4/11-32 12.4/11-36				16.9/14-28			
Type	1020				1020 - 1120				1020 - 1120				1120			
Speed Limit	over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)	
Gear	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
1 Low	1.4	0.9	1.3	0.8	1.5	0.9	1.3	0.8	1.4	0.9	1.3	0.8	1.4	0.9	1.3	0.8
High*	1.9	1.2	1.8	1.1	2.0	1.2	1.8	1.1	1.9	1.2	1.8	1.1	1.9	1.2	1.8	1.1
2 Low	2.0	1.3	1.9	1.2	2.1	1.3	1.9	1.2	2.0	1.2	1.8	1.1	2.0	1.2	1.8	1.1
High*	2.8	1.7	2.5	1.6	2.9	1.8	2.6	1.6	2.7	1.7	2.5	1.6	2.7	1.7	2.5	1.6
3 Low	3.0	1.9	2.8	1.7	3.1	1.9	2.8	1.8	3.0	1.9	2.8	1.7	2.9	1.8	2.8	1.7
High*	4.1	2.5	3.7	2.3	4.2	2.6	3.8	2.4	4.0	2.5	3.8	2.4	3.9	2.4	3.7	2.3
4 Low	4.2	2.6	3.9	2.4	4.4	2.7	4.0	2.5	4.2	2.6	4.0	2.5	4.1	2.5	3.9	2.4
High*	5.7	3.5	5.2	3.3	5.8	3.6	5.3	3.3	5.6	3.5	5.2	3.2	5.5	3.4	5.2	3.2
5 Low	5.6	3.5	5.1	3.2	5.7	3.6	5.3	3.3	5.6	3.5	5.2	3.2	5.5	3.4	5.1	3.2
High*	7.5	4.7	6.9	4.3	7.7	4.8	7.1	4.4	7.5	4.7	7.0	4.3	7.4	4.6	6.9	4.3
6 Low	8.0	5.0	7.3	4.5	8.2	5.1	7.5	4.7	7.9	4.9	7.4	4.6	7.8	4.8	7.3	4.5
High*	10.8	6.7	9.8	6.1	11.0	6.8	10.1	6.3	10.7	6.6	10.0	6.2	10.5	6.5	9.8	6.1
7 Low	11.8	7.3	10.9	6.8	12.2	7.6	11.2	7.0	11.8	7.3	11.0	6.8	11.6	7.2	10.8	6.7
High*	16.3	10.1	14.6	9.1	16.4	10.2	15.0	9.3	15.8	9.8	14.8	9.2	15.6	9.7	14.6	9.1
8 Low	16.6	10.3	15.2	9.4	17.0	10.5	15.5	9.6	16.5	10.2	15.4	9.6	16.2	10.1	15.1	9.4
High*	22.3	13.9	20.5	12.7	22.9	14.2	21.0	13.0	22.1	13.7	20.7	12.9	21.8	13.5	20.4	12.7
R1 Low	1.7	1.1	1.5	0.9	1.7	1.1	1.6	1.0	1.6	1.0	1.5	0.9	1.6	1.0	1.5	0.9
High*	2.2	1.4	2.1	1.3	2.3	1.4	2.1	1.3	2.2	1.4	2.1	1.3	2.2	1.4	2.0	1.2
R2 Low	2.4	1.5	2.2	1.4	2.4	1.5	2.2	1.4	2.3	1.4	2.2	1.4	2.4	1.5	2.2	1.4
High*	3.2	2.0	2.9	1.8	3.3	2.1	3.0	1.9	3.2	2.0	2.9	1.8	3.1	1.9	2.9	1.8
R3 Low	3.5	2.2	3.2	2.0	3.6	2.2	3.3	2.1	3.5	2.2	3.3	2.1	3.4	2.1	3.2	2.0
High*	4.7	2.9	4.4	2.7	4.9	3.0	4.5	2.8	4.7	2.9	4.4	2.7	4.6	2.9	4.4	2.7
R4 Low	5.0	3.1	4.5	2.8	5.0	3.1	4.6	2.9	4.9	3.0	4.5	2.8	4.8	3.0	4.5	2.8
High*	6.6	4.1	6.1	3.8	6.8	4.2	6.2	3.9	6.6	4.1	6.1	3.8	6.5	4.0	6.0	3.7

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

12 Operation

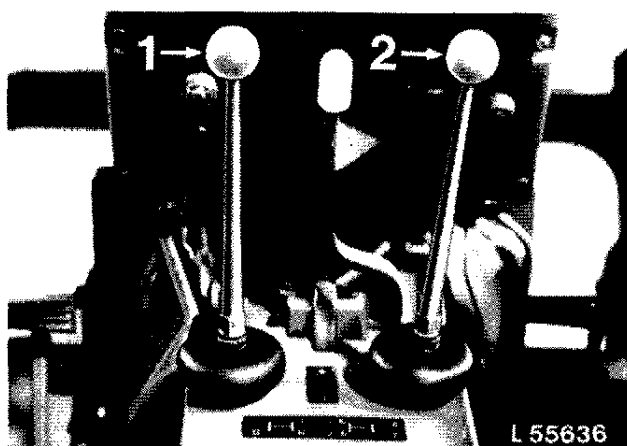
TRAVEL SPEEDS AT 2100 ENGINE RPM
(Engine Speed For PTO Operation)

Tire Sizes	14.9/13-30 16.9/14-30				13.6/12-36				12.4/11-36 16.9/14-30				16.9/14-28** 13.6/12-36			
Type	1120				1120				1630				1630			
Speed Limit	over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)		over 25 km/h (15.5 mph)		up to 25 km/h (15.5 mph)	
Gear	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
1 Low	1.4	0.9	1.3	0.8	1.5	0.9	1.3	0.8	1.6	1.0	1.3	0.8	1.7	1.1	1.4	0.9
High*	1.9	1.2	1.7	1.1	2.0	1.2	1.8	1.1	2.0	1.2	1.7	1.1	2.1	1.3	1.8	1.1
2 Low	2.0	1.2	1.8	1.1	2.1	1.3	1.8	1.1	2.4	1.5	1.9	1.2	2.4	1.5	2.0	1.2
High*	2.7	1.7	2.4	1.5	2.8	1.7	2.5	1.6	2.9	1.8	2.4	1.5	3.0	1.9	2.5	1.6
3 Low	2.9	1.8	2.6	1.6	3.1	1.9	2.8	1.7	3.5	2.2	2.9	1.8	3.5	2.2	2.9	1.8
High*	4.0	2.5	3.5	2.2	4.2	2.6	3.8	2.4	4.4	2.7	3.6	2.2	4.5	2.8	3.8	2.4
4 Low	4.1	2.5	3.7	2.3	4.4	2.7	3.9	2.4	4.8	3.0	4.0	2.5	5.0	3.1	4.1	2.5
High*	5.6	3.5	5.0	3.1	5.9	3.7	5.3	3.3	6.0	3.7	5.1	3.2	6.3	3.9	5.3	3.3
5 Low	5.4	3.4	4.9	3.0	5.8	3.6	5.1	3.2	6.3	3.9	5.3	3.3	6.6	4.1	5.5	3.4
High*	7.3	4.5	6.6	4.1	7.8	4.8	7.0	4.3	8.1	5.0	6.7	4.2	8.3	5.2	7.0	4.3
6 Low	7.8	4.8	7.0	4.3	8.2	5.1	7.4	4.6	9.1	5.7	7.6	4.7	9.3	5.8	7.8	4.8
High*	10.4	6.5	9.5	5.9	11.1	6.9	9.9	6.2	11.5	7.1	9.7	6.0	11.8	7.3	9.9	6.2
7 Low	11.5	7.1	10.3	6.4	12.2	7.6	10.9	6.8	13.4	8.3	11.3	7.0	13.9	8.6	11.6	7.2
High*	15.5	9.6	13.9	8.6	16.5	10.3	14.7	9.1	17.1	10.6	14.3	8.9	17.6	10.9	14.8	9.2
8 Low	16.1	10.0	14.4	8.9	17.1	10.6	15.3	9.5	18.7	11.6	15.7	9.8	19.3	12.0	16.2	10.1
High*	21.7	13.5	19.4	12.1	23.0	14.3	20.6	12.8	23.9	14.9	20.0	12.4	24.7	15.3	20.7	12.9
R1 Low	1.6	1.0	1.4	0.9	1.7	1.1	1.5	0.9	1.8	1.1	1.6	1.0	1.9	1.2	1.6	1.0
High*	2.2	1.4	1.9	1.2	2.3	1.4	2.1	1.3	2.4	1.5	2.0	1.2	2.4	1.5	2.1	1.3
R2 Low	2.3	1.4	2.1	1.3	2.4	1.5	2.2	1.4	2.7	1.7	2.3	1.4	2.8	1.7	2.4	1.5
High*	3.1	1.9	2.8	1.7	3.3	2.1	2.9	1.8	3.4	2.1	2.9	1.8	3.5	2.2	2.9	1.8
R3 Low	3.4	2.1	3.0	1.9	3.6	2.2	3.2	2.0	4.0	2.5	3.3	2.1	4.1	2.5	3.4	2.1
High*	4.6	2.9	4.1	2.5	4.9	3.0	4.4	2.7	5.0	3.1	4.2	2.6	5.2	3.2	4.4	2.7
R4 Low	4.8	3.0	4.3	2.7	5.1	3.2	4.5	2.8	5.6	3.5	4.6	2.9	5.7	3.5	4.8	3.0
High*	6.4	4.0	5.7	3.5	6.8	4.2	6.2	3.9	7.1	4.4	5.9	3.7	7.3	4.5	6.1	3.8

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

** This tire size is only for tractors with a speed limit of 25 km/h (15.5 mph)

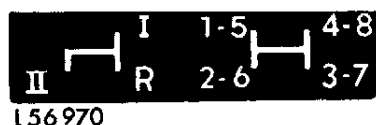
SHIFTING GEARS



- 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.

The following decal applies to tractors equipped with a hand brake.



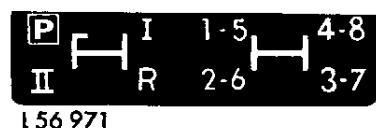
Range Shift Lever Positions

Gear Shift Lever Positions

- I = Low range
- II = High range
- R = Reverse range

With the range shift lever a low or high range of gears can be engaged.

The following decal applies to tractors provided with a parking lock



Range Shift Lever Positions

Gear Shift Lever Positions

- I = Low range
- II = High range
- P = Park position
- R = Reverse range

On tractors provided with parking lock, use range shift lever to engage park (P) position. In this position the transmission is blocked.

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.

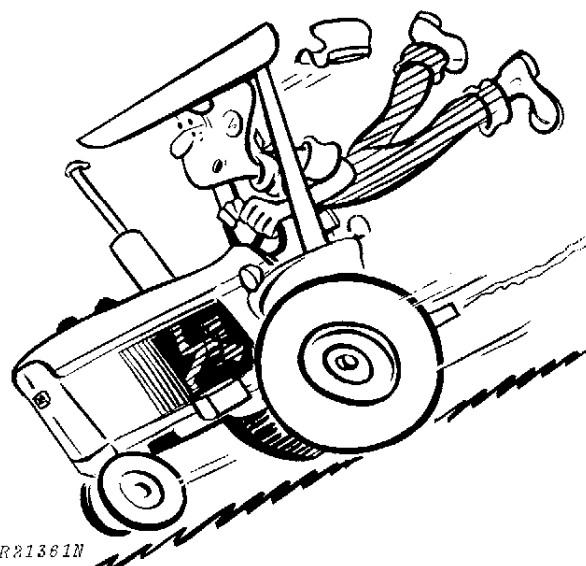
When the range shift lever is in reverse range, reverse gears comparable to 1st, 2nd, 3rd, and 4th can be obtained.

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.

Shifting to another range

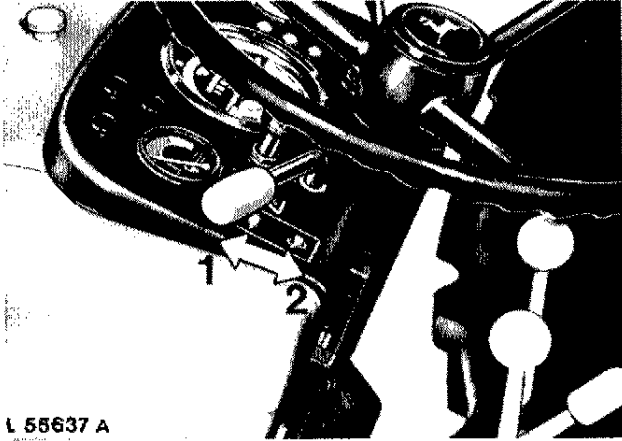
To shift to another range, fully stop the unit, disengage the clutch and then change gear range as required.



IMPORTANT: Do not allow tractor to coast downhill with clutch disengaged and transmission in gear. This will result in overspeeding and damage to the clutch.

HIGH-LOW SHIFT UNIT

HIGH-LOW Shift Lever



L 55637 A

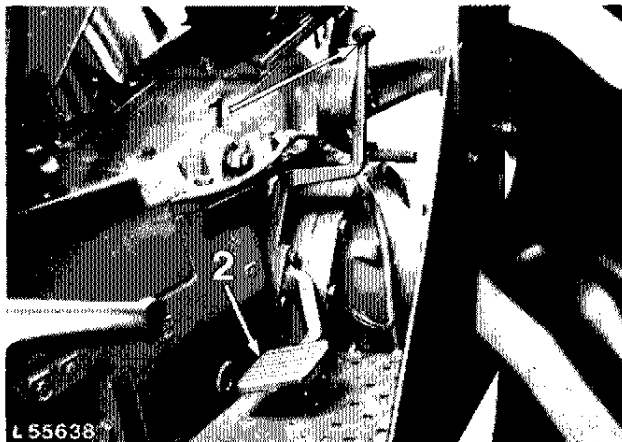
- 1 = Low speed
- 2 = High speed

If the tractor has a HIGH-LOW shift unit, the operator can decrease or increase tractor speed without using the clutch.

Shifting from HIGH to LOW decreases the ground travel speed by 21% and provides up to 27% increase in pulling power in any of the travel speeds.

DIFFERENTIAL LOCK

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



L 55638

- 1 = Hand lever
- 2 = Pedal

To engage the differential lock, push out on the lever (or down on the pedal). Unequal traction will keep the lock engaged. You may have to hold the lever or pedal engaged if unequal traction is not continuous.

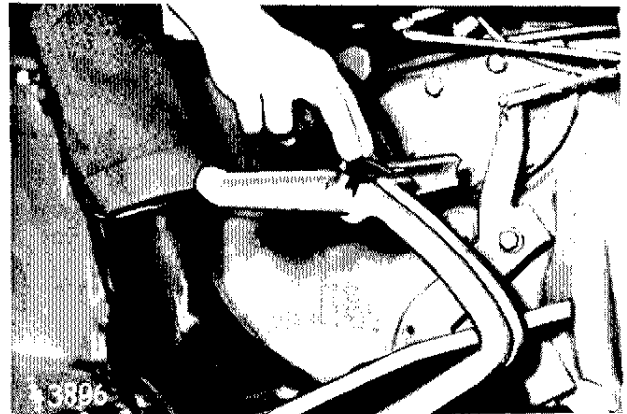
CAUTION: Do not attempt to turn the tractor with the differential lock engaged.

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 must be coupled together by means of a pedal coupler when driving on public roads.



Coupling brake pedals together



Using foot brake to make a sharp left-hand turn

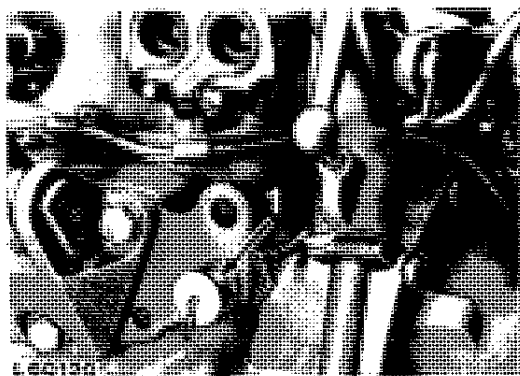
When turning the tractor, press down on a single brake pedal. Use the left pedal to turn left and the right pedal to turn right. When negotiating sharp turns, press brake pedal down more sharply as the steering wheel is being turned.

Use brake for steering purposes at low speed only!

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

CAUTION: Your safety depends on proper brakes. If they become defective have them repaired right away.

Hydraulic Trailer Brake



1 = Trailer brake coupler

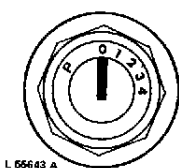
The tractor can be equipped with a hydraulic trailer brake coupler.

When connecting pressure hose, make sure connections are absolutely clean.

Press down on brake pedals to operate hydraulic trailer brake. Braking action depends on the pressure exerted on brake pedals.

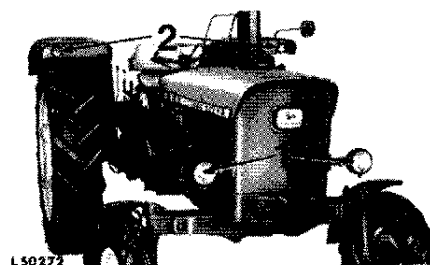
LIGHTING SYSTEM EQUIPPED WITH "BILUX" LIGHTS

Main Switch



- 1 = Lights switched off
- 2 = Parking lights
- 3 = Dimmed headlights
- 4 = Bright headlights
- P = Parking lights with switch key removed

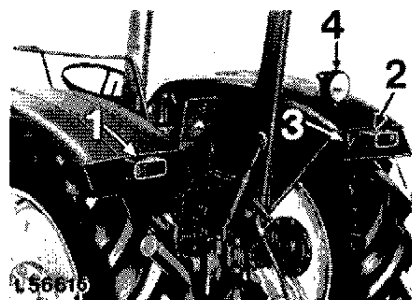
Tractor Equipped with Full Coverage Fenders



L 50272

- 1 = Headlights
- 2 = Turn signal lights

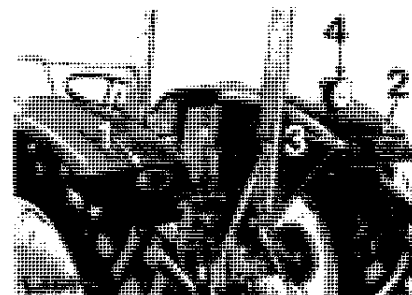
Rear Combination Light (Triple)



L 50610

- 1 = Tail, stop, turn signal and licence plate lights
- 2 = Tail, stop and turn signal lights
- 3 = Socket for trailer lighting
- 4 = Rear worklight (special equipment)

Rear Combination Light (Dual)



- 1 = Tail, stop, turn signal and licence plate lights
- 2 = Tail, stop and turn signal lights
- 3 = Socket for trailer lighting
- 4 = Rear worklight (special equipment)



Suggest:

If the above button click is invalid.

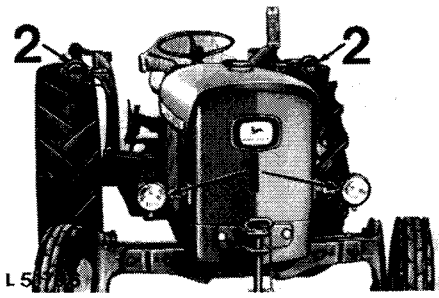
Please download this document

first, and then click the above link

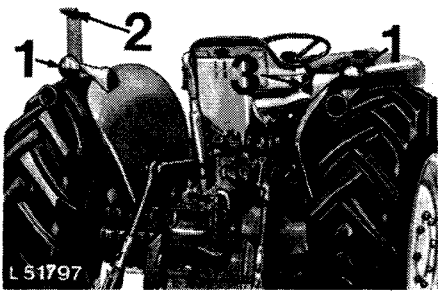
to download the complete manual.

Thank you so much for reading

Tractor Equipped with Shell-Type Fenders

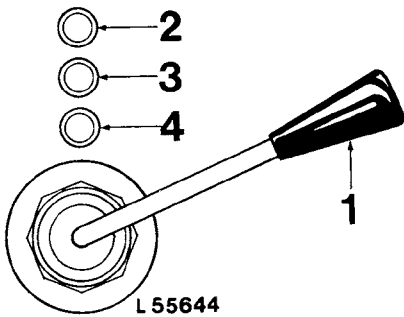


1 = Headlights 2 = Turn signal lights



1 = Tail, stop and turn signal lights
 2 = Licence plate light
 3 = Socket for trailer lights

Turn Signal Switch



1 = Turn signal switch
 2 = Turn signal indicator light for tractor
 3 = Turn signal indicator light for 1st trailer
 4 = Turn signal indicator light for 2nd trailer

Hazard Warning Lights

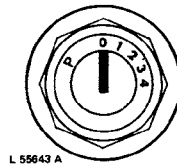
Whenever encountering any trouble on the tractor during road travel, turn on the flashing hazard warning lights. Do not turn off warning lights until tractor is again in proper operating condition.

Socket for Handlamp

The socket for handlamp is provided with a hinged cover and is located below the turn signal light switch. After inserting the plug into the socket, the handlamp goes on.

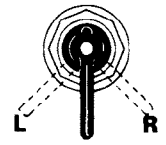
LIGHTS WITH "SEALED-BEAM" LAMPS

Main Switch



L 55643 A

Light Switch



1 30117 A

Switch Positions for Road Travel

Main switch in position 2
 Light switch in position L

Dim lights, warning lamp and tail lights

Main switch in position 3
 Light switch in position L

Bright lights, warning lamp and tail lights

Switch Positions in Case of Tractor Breakdown

Main switch in position 4
 Light switch in position L

Dim lights, warning lamp and rear work light

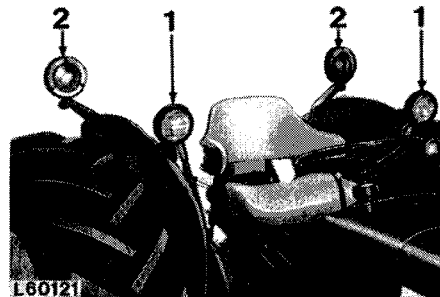
Switch Positions for Field Operation

Main switch in position 2 or 4
 Light switch in position R

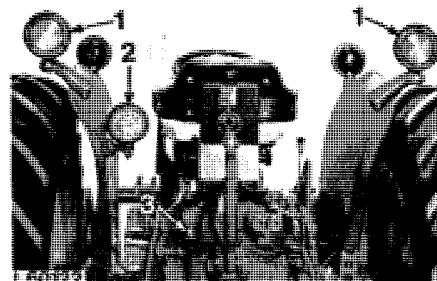
Dim lights and rear work light

Main switch in position 3
 Light switch in position R

Bright lights and rear work light



1 = Headlights
 2 = Tractor warning lamp, front



1 = Tractor warning lamp, rear
 2 = Rear work light and tail light
 3 = Electrical outlet socket

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Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

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