JOHN DEERE 8430 AND 8630 TRACTORS

JOHN DEERE

OPERATORS MANUAL

JOHN DEERE 8430 AND 8630 TRACTORS

OMR65222 I6 English

JOHN DEERE WATERLOO WORKS
OMR65222 I6

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.

Worldwide graphic symbols are used on the tractor to assist identification and operation. In this manual, an identical symbol is placed by the instructions like this example. The cylinder block in the symbol represents the engine, the drop signifies oil, and the arrows indicate pressure. Regardless of the language used in a nation, this symbol means engine oil pressure without translation.

Record your tractor serial numbers in the spaces provided on page 75. Your dealer needs this information to give you prompt, efficient service and parts. If your tractor requires replacement parts, go to your John Deere dealer where you can obtain genuine John Deere parts—accept no substitutes.

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 operator's manual contains SI Metric equivalents which follow immediately after the U.S. customary units of measure.

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.

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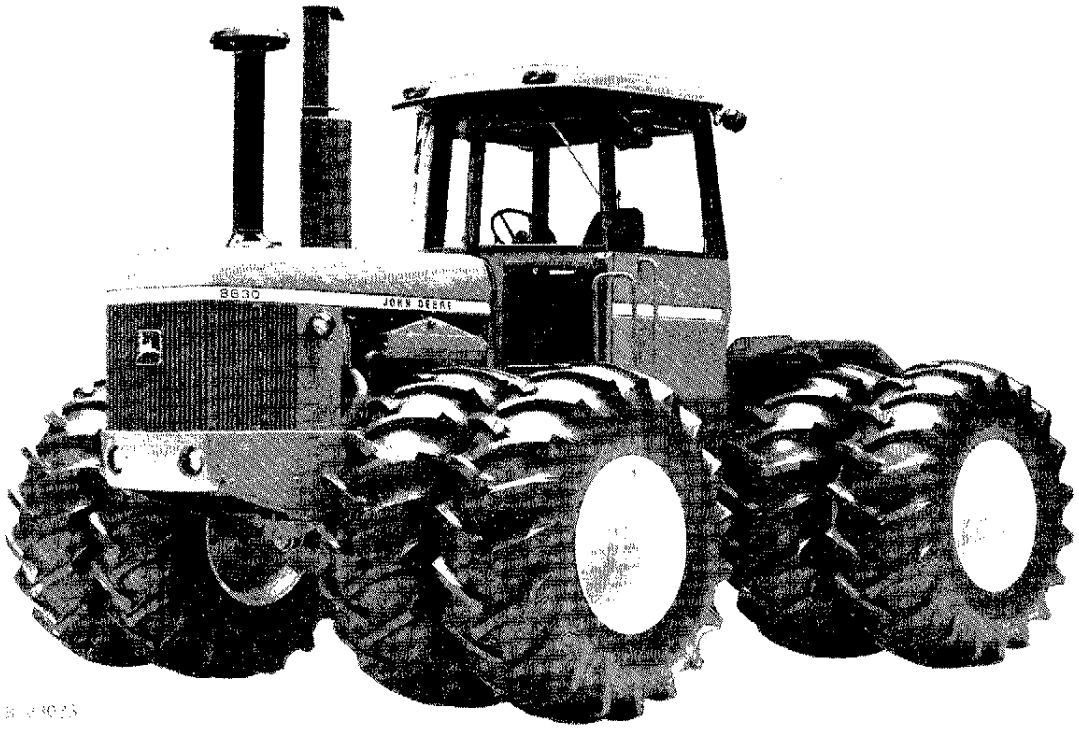


Safety Suggestions

Most machinery accidents are caused by careless or improper use. Guards, shields, and other safety features are built into the tractor, but it still takes caution to prevent accidents.

Keep a first-aid kit and a fire extinguisher handy in case of emergencies. Know how to use them, and see that they are properly maintained.

Keep sleeves and other clothing snug-fitting. Loose clothing can easily catch in moving parts.

SOUND-GARD BODY

A protective Roll-Gard is built into the Sound-Gard Body.

You should use the seat belt under almost all operating conditions.

For an emergency exit, Sound-Gard Body windows can be opened. Remove the quik-lock pins and headed pins from window latches, and push window open wide.

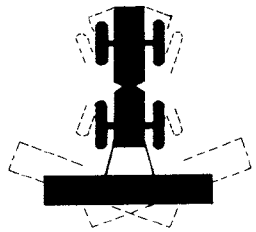
Sound-Gard Body air filters are not designed to filter out harmful chemicals. When using agricultural chemicals, follow the instructions given in the implement operator's manual and those given by the chemical manufacturer.

OPERATION

Never attempt to start or operate the tractor except from the operator's station.

Never allow riders on the tractor.

To avoid exhaust gas hazards, never run the engine in a closed building.



R 18205

Be sure everyone is clear of tractor and attached equipment before starting engine or moving steering wheel, because tractor and equipment move as pictured. Slight steering movement may occur as the engine starts.

Install lock bars on tractor hinge before operating stationary PTO equipment, performing service work near center of tractor, lifting tractor, or transporting on another vehicle.

Be sure lock bars are removed from hinge area before operating tractor.

Use extreme caution when hitching drawn implements to the drawbar. Steering action causes tractor movement even when tractor is in "PARK", First, back the tractor past the clevis, then move forward when making the connection. In this way the tractor will be moving away from the implement.

For hillside operation, use only double wheels, front and rear.

Before descending a steep hill, shift to a low gear to control the tractor with little or no braking. Never coast downhill.

Avoid holes, ditches, etc. which may cause the tractor to tip, especially on hillsides.

Avoid extreme uphill turns.

Never drive near the edge of a gully or steep embankment—it might cave in.

Slow down for hillsides, rough ground, and sharp turns.

A towed load of more than 40,000 lbs. (18 000 kg) should have brakes. If it does not, drive slowly and avoid hills. Avoid hard applications of the brakes when pulling heavy loads.

Hitch heavy towed loads only to the drawbar. When using a chain, take up the slack slowly.

Before dismounting, place the transmission in park, lower implements to the ground, and stop the engine.

Never try to get on or off a moving tractor.

POWER TAKE-OFF

Stop the engine and be sure the PTO has stopped before:

-Connecting or disconnecting a PTO shaft
-Making any adjustment to PTO drive train or hitch
-Cleaning out PTO driven equipment.

PTO master shield should be in place at all times except when connecting a PTO drive line or for special applications as directed in the operator's manual.

The PTO shaft guard should be in place when the PTO is not being used.

LIGHTS

When operating the tractor on a road, turn the light switch to the "H" position. This turns on headlights, taillights, and warning lights. Be sure the SMV emblem is visible and clean.

If flashing lights are prohibited by local regulations, be sure the flasher for warning lamps is disconnected.

See your John Deere dealer if additional safety devices are needed for towed or mounted equipment.

Always dim the headlights before meeting another vehicle. Keep the lights adjusted so they will not blind another driver.

SERVICING

Do not service the tractor or implement while it is in motion or while the engine is running unless specifically recommended.

Keep all equipment properly serviced to prevent safety hazards. Keep all bolts tight, and replace worn or damaged parts.

Do not remove the radiator cap when the engine is hot. Shut the engine off and wait until it cools. Then turn the cap to the first stop to relieve pressure before removing it completely.

Be careful with starting fluid or any type of fuel. Do not refuel the tractor when the engine is hot or running. Never smoke while handling fuel or servicing the fuel system.

Disconnect the battery ground cable before working on the electrical system or working in any area where you might accidentally contact electrical components. This minimizes the risk of sparks, burns, accidental starter operation, or damage to the system.

Before using booster batteries, read the instructions on page 8. Before connecting or disconnecting a battery charger, turn the charger off to avoid sparks.

HYDRAULICS

Hydraulic oil or diesel fuel escaping under pressure can penetrate the skin, causing serious injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure, be sure all connections are tight and all components are in good condition.

Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

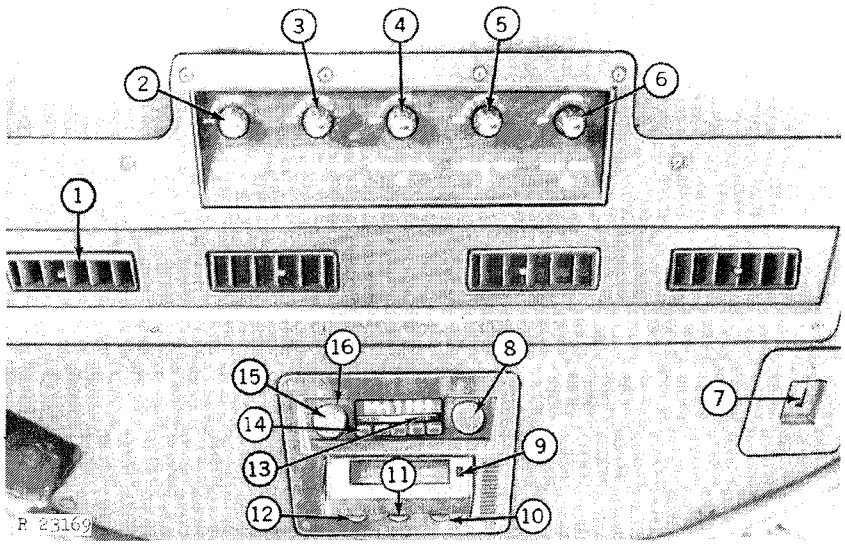
If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

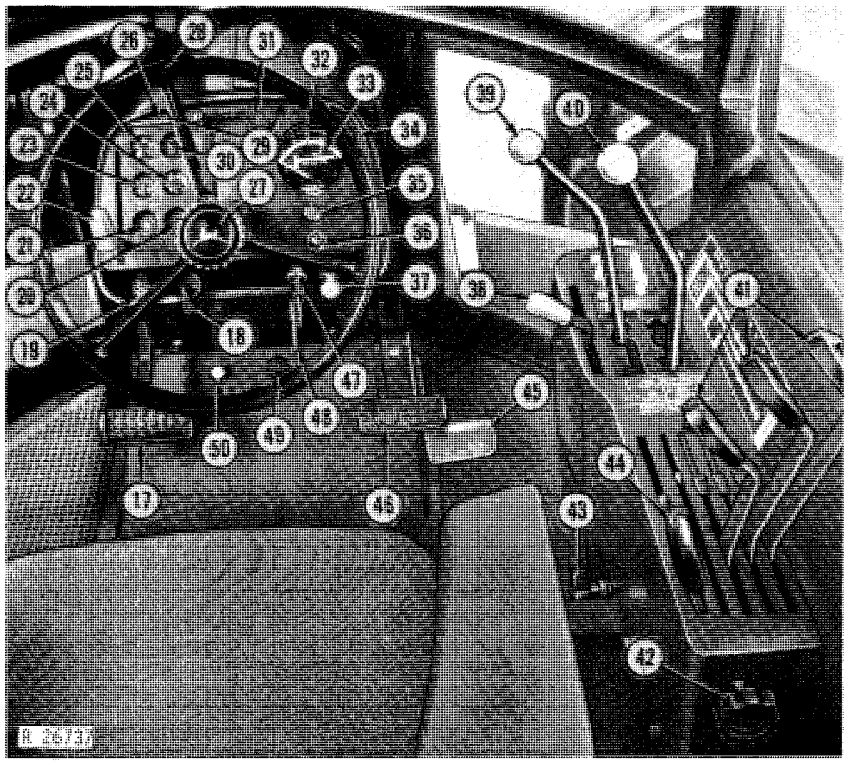
Before disconnecting the brake accumulator or brake valve, relieve all pressure in the accumulator. With the engine stopped, pump the brake pedals at least 50 strokes.

The accumulator is charged with dry nitrogen at a pressure of 35 bar (500 psi). If it needs to be recharged, have the job done only by a qualified serviceman and only with dry nitrogen.

Controls and Instruments

Before attempting to operate your new tractor, become familiar with the location and purpose of its controls and instruments. Additional information will be found on the page number following the control or instrument. Worldwide graphic symbols are used to assist identification and operation.





1—Air Louver (page 10)
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Operation

Complete instructions for operating your tractor safely and efficiently are given on the following pages. By following these directions carefully, you can be sure that you are taking full advantage of the many features built into your tractor.

PRESTARTING CHECKS

Perform the following checks and services before starting the engine for the first time each day—see page 40 for additional information.

(a) Check the engine crankcase oil level.
(b) Check the radiator coolant level.
(c) Lubricate hinge pivot pins, steering cylinder pivot pins, universal joints, and wide swing drawbar rollers.
(d) Check fuel pump sediment bowl and fuel filters. If water or sediment is present, remove it. See page 53.

OPERATING THE ENGINE

STARTING THE ENGINE

NOTE: If the prevailing temperature is below 40°F (5°C), it may be necessary to use a cold weather starting aid to start the engine—see next page.

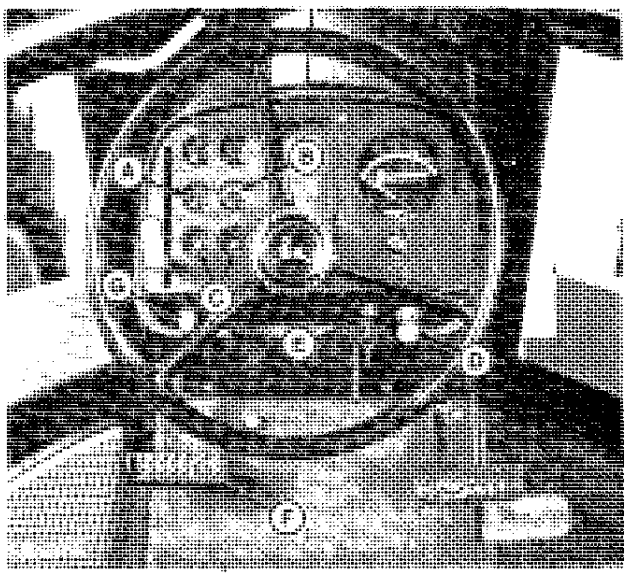
Perform the Prestarting Checks listed above.

⚠ CAUTION: See that everyone is clear of tractor and attached equipment before starting the engine. Slight steering movement may occur as the engine starts.

(1) First, see that range selector lever is in PARK position (see worldwide symbol at left). Starter will not operate unless the transmission is in neutral or park.

(2) Make sure engine stop knob is pushed all the way in. Move the throttle approximately 1/3 of the way forward (1200 rpm).

(3) Depress the clutch pedal.



A—Oil Pressure Gauge
B—Voltmeter
C—Indicator Lights
D—Engine Stop Knob
E—Key Switch
F—Clutch Pedal
G—Ether Starting Aid Button

Starting Controls

STARTING THE ENGINE—Continued

(4) Turn the key switch clockwise to the first position.

The voltmeter hand should rise to the green band for battery condition. If it does not, the battery voltage is low and the engine may be difficult to start. See "Trouble Shooting" for possible causes of low voltage.

The transmission oil indicator lamp should flash. If it does not flash, turn off key switch and determine the cause.

When starting the engine after the tractor has been idle for an extended period, pull the engine stop knob all the way out, and crank the engine with the starter until the engine oil pressure gauge indicates pressure. Do not operate the starter more than 30 seconds at a time. Wait at least two minutes before trying again. After pressure is indicated on the gauge, move the hand throttle forward about 1/3 of its travel. Make sure the engine stop knob is all the way in and start the engine.

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

(5) Turn the key switch all the way to the right to start the engine. Do not operate the starter more than 30 seconds at a time. Doing so might overheat it. If engine does not start on the first try, wait at least two minutes before trying again. If it does not start in four attempts, see "Trouble Shooting," page 68. Release the key switch as soon as the engine starts.

When the key switch is in the start position, the air cleaner indicator lamp and transmission lube indicator lamp should glow. If either lamp does not glow, turn off the key switch and determine the cause.

If the key switch is released before the engine starts, wait until the starter and the engine stop turning before trying again. This prevents possible damage.

(6) After the engine starts, release the key switch. The engine oil pressure gauge pointer should rise above the warning zone to indicate satisfactory oil pressure. The indicator lamps should go out. The voltmeter pointer should rise into the green band for charging. If an indicator lamp or gauge indicates some difficulty, stop the engine and determine the cause.

(7) After starting, operate the engine at approximately 1000 rpm. Do not accelerate or apply a load until the engine oil pressure gauge pointer is approximately straight up. In cold weather or after the engine has been idle for several weeks, idle the engine for several minutes at speeds below 1000 rpm to insure turbocharger lubrication before accelerating or applying a load.

Should the engine be killed when operating under load, restart it immediately. This prevents overheating of turbocharger and other engine parts, caused when the flow of oil for cooling and lubrication is stopped.

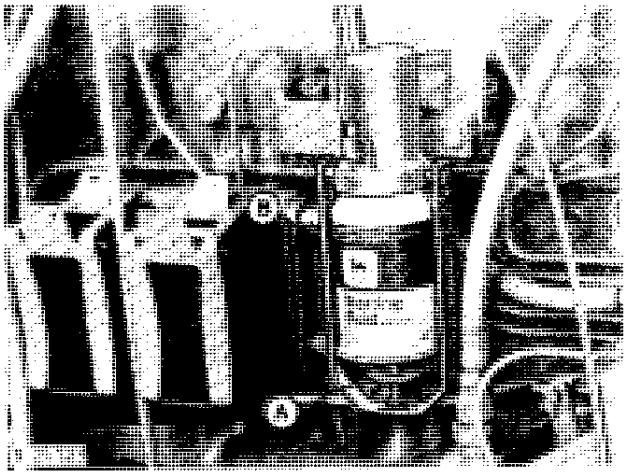
Always leave the key switch on while the engine is running so the instruments and indicator lights will function.

COLD WEATHER STARTING AIDS

To assist starting in cold weather, your tractor is equipped with an electric ether starting aid. It may also be equipped with an in-block coolant heater. These aids are effective only when all other engine areas are in satisfactory condition. They will not correct other problems (such as low battery charge) which may cause hard starting.

Always use No. 1 diesel fuel when temperature is below 40°F (5°C). Be sure engine oil is of the proper viscosity for prevailing temperatures, as indicated on page 39.

Electric Ether Aid



A—Jam Nut *B—Bail*

Electric Ether Aid

To install a can of starting fluid, remove the safety cap and plastic spray button from the can. Loosen the jam nut (A) on the bail (B) and remove the empty can from the adapter. Install the new can of starting fluid on the adapter as shown in the illustration above. Tighten the jam nut securely to hold the can in position. To prevent dust from being drawn into the engine, ALWAYS leave a can in place on the adapter.

IMPORTANT: To avoid damage, turn engine with starter one or two revolutions before injecting starting fluid. Inject starting fluid only while the engine is turning.

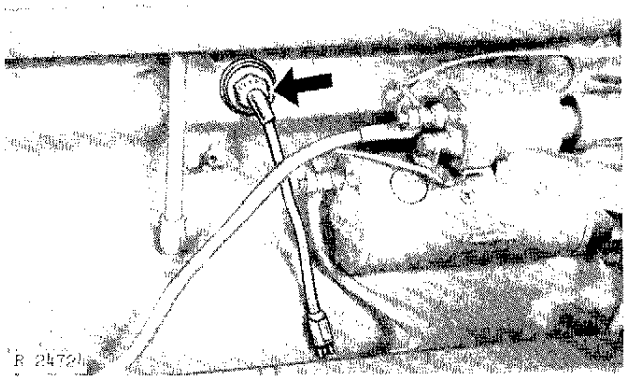
The electric ether aid control button is on the left side of the tractor dash. To inject starting fluid, momentarily depress the button. Inject the fluid only in short bursts.

Stop injecting fluid as soon as the engine starts. If the engine begins to die during the first few minutes of operation, inject a little more starting fluid.

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

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

In-Block Coolant Heater

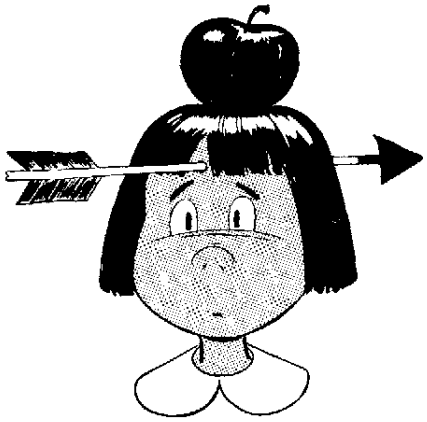


Coolant Heater

The optional coolant heater has a 1000-watt, 115-volt heating element. It mounts in the frost plug opening in the left-hand side of the engine block. By warming the engine, the heater reduces oil drag, eases starting, and shortens warm-up time.

Time required to sufficiently heat the coolant depends on how cold the weather is. As much as 5 hours may be required at temperatures above 0°F (−18°C). Even lower temperatures may require up to 8 hours.

⚠ 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.



Accidents don't just happen
They are CAUSED!

R 2380

Additional Battery

Cold weather starting can be made easier by connecting an additional 12-volt battery in parallel with the tractor batteries.

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

Connect a jumper cable to the POSITIVE (+) post of a 12-volt booster battery and to the POSITIVE (+) post of the tractor battery that is connected to the starter. Connect one end of the other jumper cable to the negative post of the booster battery. Connect the other end to the starter frame terminal.

IMPORTANT: To prevent damage to the alternator or the electrical system, be sure to connect the batteries in proper polarity.

See your John Deere dealer for additional booster battery information

TRACTOR WARM-UP PERIOD

Always be sure the tractor is warmed up properly before operating under a full load.

A good way to do this is first to idle the engine at about 1200 rpm for 5 minutes and then operate it at about 1500 rpm for another 5 minutes.

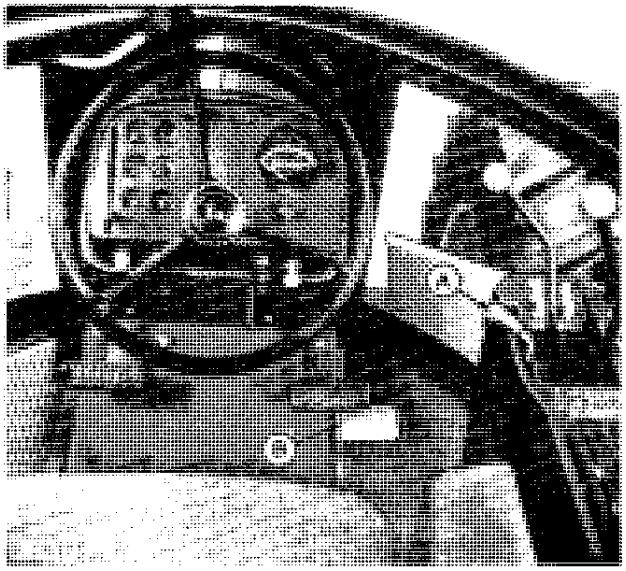
It is good practice to operate the tractor for the first 30 minutes in a lower gear than is normally required for the load. This gives the oil a chance to circulate freely and prevents undue wear on engine or transmission parts.

ENGINE IDLING

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

When the tractor is to remain idle longer than 10 minutes, it is usually best to stop the engine.

ENGINE SPEEDS



A—Hand Throttle *B—Foot Throttle*

The tractor engine is designed to operate at working speeds ranging from 1500 to 2100 rpm. The engine can be operated at any speed in the working range to meet various operating conditions.

For standard, 1000-rpm PTO speed, run the engine at 2100 rpm. See page 35 for more information on PTO work.

Use the hand throttle (A) to select slow idle or any of the variable governed speeds from 1500 to 2100 rpm.

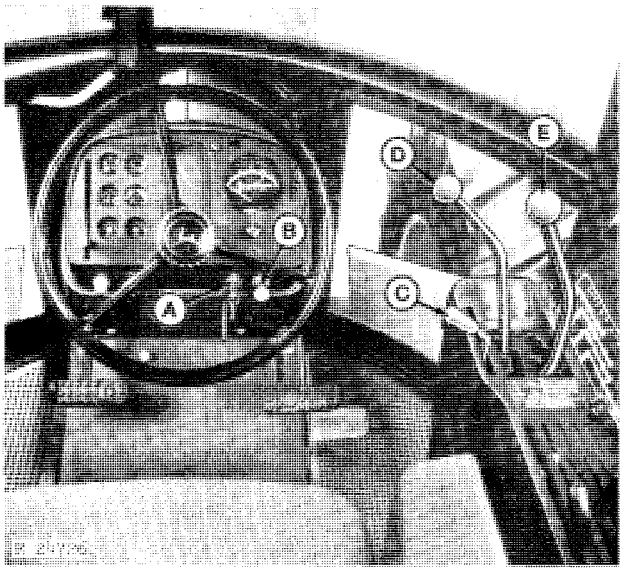
Pull the throttle rearward to obtain the slow idle speed of 800 rpm.

Push the throttle forward to obtain progressively higher engine speeds. Maximum rated speed of 2100 rpm is reached by pushing the throttle all the way forward.

The foot throttle (B) may be used to temporarily increase engine speed above the hand throttle setting. This is especially convenient for work requiring frequent changes in engine speed. Full throttle speed is the same as for the hand throttle.

The engine speed of 2100 rpm is the speed when under full load. At light or no-load condition the speed may rise to approximately 2300 rpm.

STOPPING THE ENGINE



A—Key Switch
B—Engine Stop Knob
C—Hand Throttle
D—Speed Selector
E—Range Selector

Stopping Controls

Place the shift levers in neutral and park. If the tractor has been used under load, allow the engine to idle 3 to 5 minutes before stopping.

Cooling (as well as lubrication) of the turbocharger and some engine parts is provided by engine oil. Sudden stopping of a hot engine may cause overheating and damage of some parts.

After idling the engine a few minutes at 800 rpm, pull the stop knob (B) all the way out. After the engine stops, push the stop knob all the way in and turn the key switch off.

CAUTION: Whenever the tractor is stopped, place the speed selector lever in neutral (N) and the range selector lever in "PARK" BEFORE DISMOUNTING. Never dismount from a moving tractor.

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

It is a good practice to remove the key each time you leave the tractor. This helps guard against theft or unauthorized operation. It also prevents accidental discharge of the battery due to leaving the switch in the "on" or "accessory" position.

CAUTION: Never use the steering wheel as a hand hold when dismounting. Moving steering wheel can cause rapid movement of the hinge area.

BREAKING IN THE ENGINE

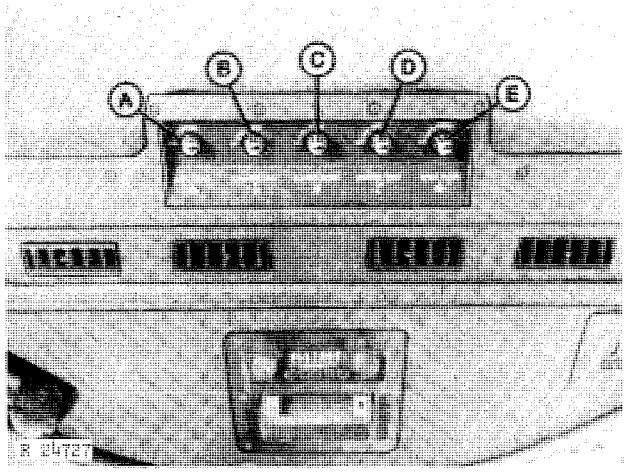
The engine is ready for normal operation. However, to facilitate break-in, avoid prolonged periods of engine idling for the first 100 hours of service.

If coolant temperature rises to the warning zone on the gauge, shift to a lower gear to reduce load on the engine. Be sure to follow the special break-in lubrication instructions given on page 40.

OPERATING THE TRACTOR

CAUTION: The Sound-Gard Body air filters are not designed to filter out harmful chemicals. When using agricultural chemicals, follow the instructions given in the implement operator's manual and those given by the chemical manufacturer.

SOUND-GARD BODY CONTROLS



A—Left-Hand Wiper Switch
B—Air Conditioning Temp. Control
C—Blower Switch
D—Heater Temp. Control
E—Right-Hand Wiper Switch

Blower

To maintain a clean atmosphere in the Sound-Gard Body when operating the tractor, run the blower continuously with the doors and windows closed. To obtain low fan speed, turn the blower switch knob clockwise to the first position. For high fan speed, turn the switch clockwise as far as it will go. Turn the switch counterclockwise to shut the fan off.

Adjust the louvers to control the direction of air flow forward or rearward and right or left.

Heater Temperature Control

The Sound-Gard Body is equipped with a heater. Engine coolant flow through the heater core is controlled by the heater temperature control knob.

To obtain maximum heat, turn the heater control knob all the way clockwise. Turn the knob counterclockwise to reduce the temperature. Turning the knob all the way counterclockwise shuts off the heater.

Adjust the volume of air flow with the blower switch.

Air Conditioning Temperature Control

On a Sound-Gard Body with air conditioning, the air conditioning temperature control knob turns the air conditioning system on and controls the cooling temperature. For maximum cooling, turn the knob all the way clockwise. For less cooling, turn it counterclockwise.

The blower switch must be turned on for the air conditioning system to operate.

Humidity Control

Turning the heater on when operating the air conditioner will help control humidity. However, under normal conditions, the heater temperature knob should be turned off when operating the air conditioner.

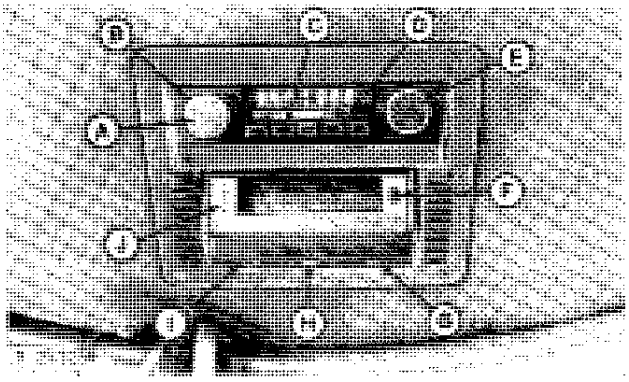
Wipers

The left-hand and right-hand windshield wipers have separate switches. To obtain lower wiper speed, turn the knob clockwise to the first position. For fast wiper speed, turn the knob all the way clockwise. The wiper blade returns to a park position when the switch is turned counterclockwise to the off position.

To avoid scratching windshield, never operate wipers when windshield is dry.

Both a windshield washer and a rear window wiper are available from your John Deere dealer.

Radio and Tape Player



A—On-Off Volume Knob
B—Tone Control
C—Push Buttons
D—AM-FM Selector
E—Tuning Knob
F—Channel Selector Button
G—Tone Control
H—Balance Control
I —Volume Control
J —Channel Indicator

AM-FM Radio and Tape Player

The tractor may be equipped with either AM or AM-FM radio. A stero tape player can be incorporated with either radio.

The AM radio has a combination on-off and volume knob (A) to the left of the dial and a tuning knob (E) to the right. Tone is controlled by a ring (B) behind the volume knob.

The AM-FM radio has two additional controls. Stereo speaker balance is controlled by a ring behind the tuning knob. Choice of AM or FM reception is controlled by a slider bar (D) below the radio dial. Slide the bar to the right for AM or to the left for FM reception.

If an FM stereo signal is weak, the radio automatically switches to monaural reception.

Both radios feature push-button tuning. To adjust a button, pull it out to the stop. Use the tuning knob to tune in the desired station. Then push the button all the way in and release it.

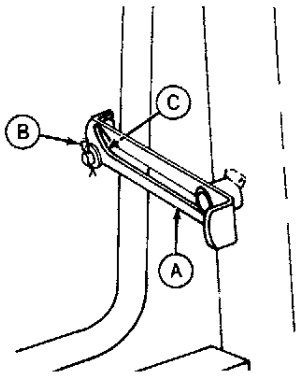
To operate the tape player, insert an eight-track tape cartridge, label side up and open end first, into the tape slot. Push the cartridge into the slot until it is firmly seated. This automatically turns on the tape player. To stop the player, remove the tape cartridge.

The radio and tape player are two separate units, and each has its own controls. Tape player controls are three thumb wheels on the bottom, front edge of the player. The left wheel controls volume; the center wheel, stereo balance; and the right wheel, tone.

The tape player automatically plays all four channels in order. An indicator light (J) at the left end of the tape slot shows which channel is playing. If you want a different channel, push the channel selector button (F) at the right end of the tape slot. The unit advances one channel each time the button is pushed.

Protect the open end of tape cartridges from damage and dirt. It helps to use a tape storage box to prevent dust accumulation on tapes.

Windows



A—Sliding Latch
B—Quik-Lock Pin
C—Headed Pin

Side and rear windows of the Sound-Gard Body can be opened. To open a window, lift and push BOTH sliding latches out to the notched detent.

IMPORTANT: For an emergency exist, windows can be opened wider. Remove the quik-lock pins (B) and headed pins (C) from sliding latches, and push window open wide.

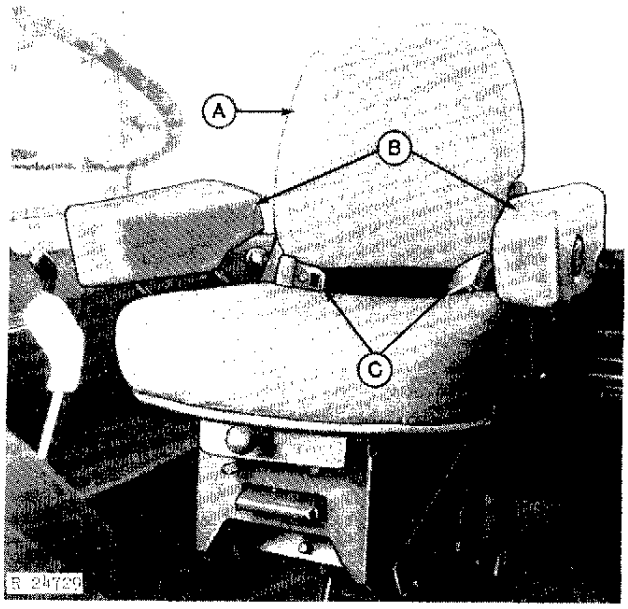
SEAT

Your tractor features a personal posture swivel seat. It is adjustable in six different respects and is upholstered in durable cloth fabric for operator comfort.

Seat fabric and arm rests should be vacuum cleaned or brushed with a soft bristle brush frequently to remove loose dirt and dust. Fabric cleaners may be used to clean normal soilage on fabric. A mild soap solution in warm water may be used to clean arm rests.

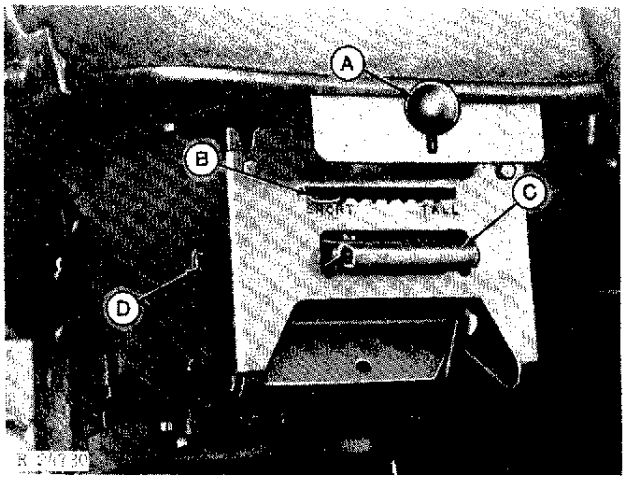
Grease or oil stains on fabric may be cleaned with commercially available solvent type spot removers. Follow label directions carefully.

SEAT—Continued



A—Two-Way Adjustable Backrest
B—Adjustable Armrests
C—Retracting Seat Belts

Adjusting Swivel Mechanism



A—Swivel Control Knob
B—Height Adjustment
C—Seat Release Latch
D—Counterbalance Shaft

The seat swivels through a 60° range. If desired, you can leave it free to swivel throughout that range. Or, you can lock it in any of five positions—straight ahead or 15° or 30° in either direction.

To free the swivel mechanism, lift the swivel control knob. Turn the seat to the desired position and release the knob. If you want the seat to swivel freely, lift the knob and hook it in the upper, right position.

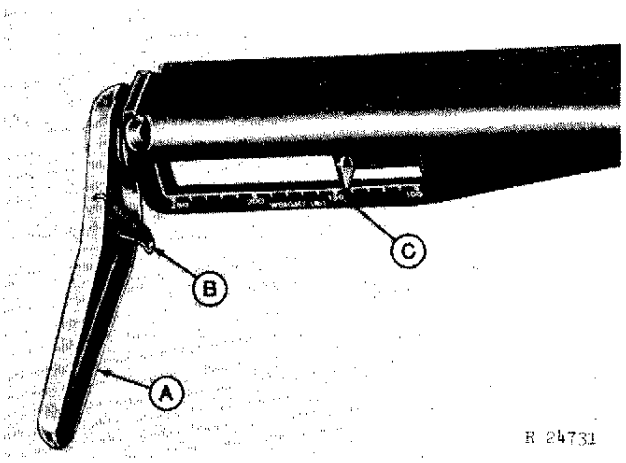
Adjusting for Height Of Operator

The seat position can be adjusted to suit operators of various heights. First, move the seat to the upper, rear position. To do so, stand up and lift the seat release lever. The seat should move automatically to the upper, rear position.

Then move the height adjustment lever to the desired position between "short" and "tall". Sit down and see if the pedals can be reached comfortably. If not, repeat the procedure.

Adjusting For Weight Of Operator

The seat should "float" between its upper and lower positions when the operator is seated. If the seat hits bottom, or if the suspension seems too firm, the steel compression spring can easily be adjusted.

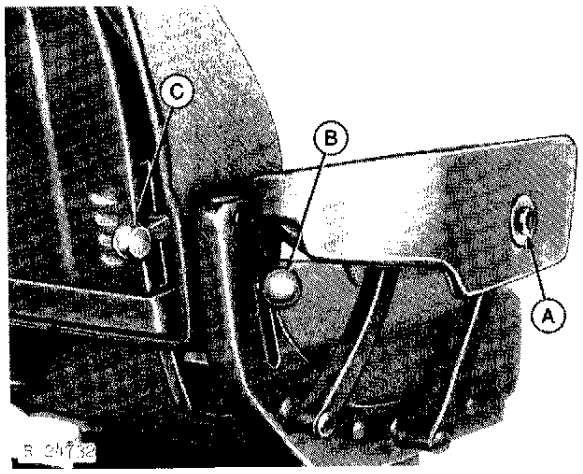


A—Weight Adjustment Lever
B—Ratchet Lock
C—Weight Indicator Scale

The weight adjustment lever (A) operates a ratchet assembly to provide a firmer or softer ride. Move the lever up and down repeatedly to adjust for your weight, as shown on the weight indicator scale (C). The seat is adjustable for operator weights from 100 to 250 pounds (45 to 115 kg).

To adjust for a firmer ride, flip the ratchet lock (B) to its rear position before operating the weight adjusting lever. For a softer ride, flip the ratchet lock forward.

Adjusting Armrest Height



A—Armrest Release Button
B—Backrest Angle Control
C—Lumbar Support Control

Armrest height is adjustable to five different positions. To change the height, simply press the armrest release button (A) and move the armrest to the desired position.

Avoid sitting on armrests. If you must sit on them, do so only when they are fully lowered.

Adjusting Backrest Angle

The backrest is adjustable through a 10° angle. To change the angle, raise or lower the backrest angle control knob (B, above) to a position which makes the backrest comfortable.

Adjusting Lumbar Support

A lumbar support mechanism is built into the backrest. You can choose from five different pressures against your low back. For more pressure, push the lumbar support control knob (C, above) down to a lower position.

Adjusting Counterbalance Spring

If the seat does not move fully to the rear when the seat release latch is lifted, the counterbalance spring needs to be tightened.

Before adjusting the spring, push the seat to the upper, rear position. Insert a screwdriver in the slotted end of the counterbalance shaft and press inward to release the shaft. Turn the shaft counterclockwise two or three turns, and be sure it engages the locking slots as you release pressure on the screwdriver.

If the seat still does not move fully to the rear, repeat the procedure.

Seat Belt

Your tractor is equipped with a convenient seat belt. Both belt ends are adjustable in length, so you can keep the buckle centered.

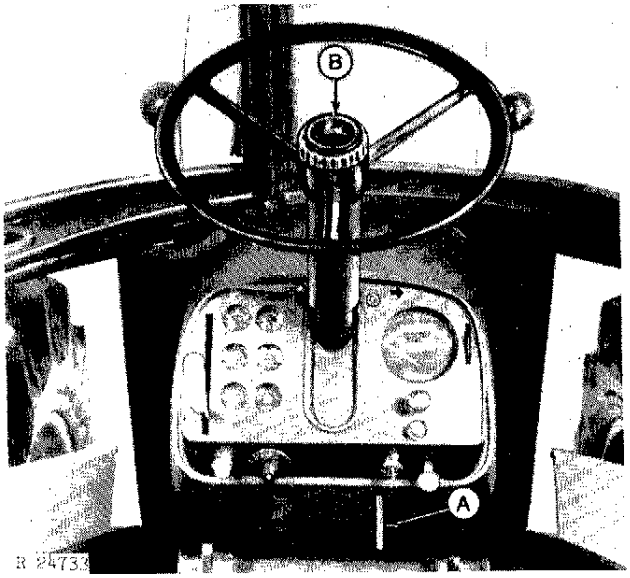
⚠ CAUTION: Under almost all operating conditions, use of the seat belt with the John Deere Roll-Gard is recommended.

ROLL-GARD

A protective, four-post Roll-Gard is built into the Sound-Gard Body.

⚠ CAUTION: A tractor rollover may place a severe stress on the Roll-Gard structure. Therefore, reuse of the Roll-Gard is not recommended if its structural members have been bent, buckled or stretched.

TILT-TELESCOPE STEERING WHEEL



A—Tilt Release Lever
B—Hub

A tilt-telescope steering wheel is standard equipment. The steering column may be set at any of seven different angles. To change the angle, lift the tilt release lever (A) and move the wheel to the desired position.

To change steering wheel height, loosen the hub (B) at the center of the wheel by turning it counterclockwise. Raise or lower the wheel, and tighten the hub.

SELECTING GROUND SPEED

The Quad-Range transmission provides 16 forward and 4 reverse speeds for maximum flexibility. You can balance power, speed, and economy by selecting the best gear and throttle setting.

A ground speed chart is shown below. Speeds are given in miles per hour, with kilometres per hour in parenthesis below.

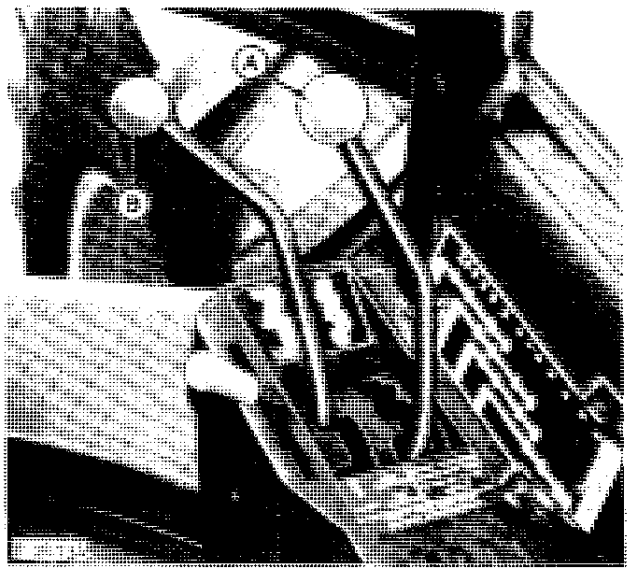
QUAD-RANGE TRANSMISSION GROUND SPEEDS

		Forward		Reverse	
Range	Speed	1500 rpm	2100 rpm	1500 rpm	2100 rpm
A	1	1.5	2.1	2.8	3.9
		(2.4)	(3.3)	(4.4)	(6.2)
	2	1.9	2.7	3.6	5.0
		(3.1)	(4.3)	(5.8)	(8.1)
	3	2.6	3.7	---	---
		(4.2)	(6.0)		
	4	3.4	4.8	---	---
		(5.5)	(7.7)		
B	1	3.3	4.6	6.2	8.6
		(5.3)	(7.4)	(9.9)	(13.9)
	2	4.2	5.9	8.0	11.2
		(6.8)	(9.6)	(12.9)	(18.0)
	3	5.9	8.3	---	---
		(9.5)	(13.3)		
	4	7.6	10.7	---	---
		(12.3)	(17.3)		
C	1	3.8	5.4	---	---
		(6.2)	(8.7)		
	2	5.0	7.0	---	---
		(8.1)	(11.2)		
	3	6.9	9.7	---	---
		(11.2)	(15.6)		
	4	9.0	12.6	---	---
		(14.5)	(20.3)		
D	1	6.2	8.7	---	---
		(10.0)	(14.0)		
	2	8.1	11.3	---	---
		(13.0)	(18.2)		
	3	11.2	15.7	---	---
		(18.0)	(25.3)		
	4	14.6	20.5	---	---
		(23.6)	(32.9)		

NOTE: Speeds shown in the chart are achieved with 23.1-30 R-1 tires. For different tire options, make the following corrections:

18.4-34 R-1 ..... Subtract 1%
18.4-34 R-2-0 .... No change
18.4-38 R-1 ..... Add 6%
18.4-38 R-2-0 ..... Add 7%
20.8-34 R-1 ..... Add 1%
20.8-34 R-2-0 ..... Add 9%
20.8-38 R-1 ..... Add 10%
23.1-30 R-2-0 ..... Add 5%
23.1-34 R-1. ..... Add 6%
23.1-34 R-2-0 ..... Add 11%
24.5-32 R-1 ..... Add 6%
24.5-32 R-2-0 ..... Add 10%
30.5-32 R-1 ..... Add 9%

QUAD-RANGE TRANSMISSION



A—Range Selector Lever *B—Speed Selector Lever*

Shifting with Range Selector Lever

The shift quadrant has four shift stations. Stations "A" and "B" have four forward speeds and two reverse speeds. Stations "C" and "D" have four forward speeds only.

Using the chart beside the selector lever, select a station having speeds so that most of the shifting with the speed selector lever will use the "on the go" power shifting available between 1 and 2 or between 3 and 4.

With the tractor stopped, the clutch pedal depressed, and the speed selector lever in neutral, move the range selector lever to the desired station.

IMPORTANT: To avoid damage to power train, always shift speed selector to neutral before shifting range selector. Never shift range selector on-the-go.

Shifting with Speed Selector Lever

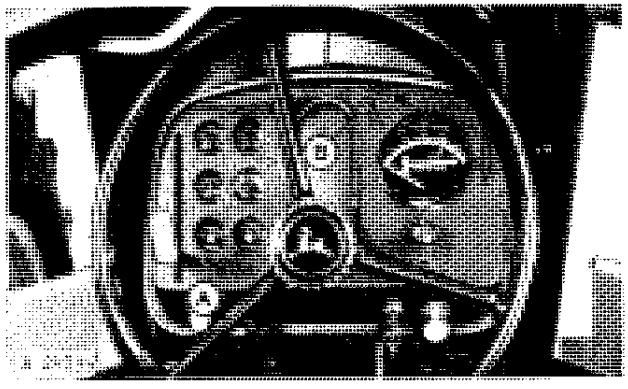
Moving the speed selector lever (B, page 14) sideways shifts the two-speed, power shift, planetary transmission between 1 and 2, 3 and 4, or 1R and 2R. The speed selector lever may be moved sideways without using clutch pedal to shift on-the-go.

Moving the lever forward or rearward of neutral "N" shifts the eight-speed portion of the Quad-Range transmission. Shifting the lever rearward permits engagement of the 1-2 forward speed station or the 1R-2R reverse speed station. Moving lever forward shifts the transmission into the 3-4 forward speed station. With the clutch pedal depressed, the speed selector may be shifted between forward speed stations while the tractor is in motion.

When moving the speed selector lever from a forward speed to a reverse speed, stop the tractor before shifting into the 1R-2R station.

Gradually release the clutch pedal to engage the clutch.

Operation



A—Transmission Oil Indicator Light
B—Transmission Lube Indicator Light

IMPORTANT: To prevent unnecessary wear or clutch damage, never "ride" the clutch pedal by resting your foot on the pedal.

Check the transmission oil indicator light (A) frequently. If the light flashes, stop the tractor and check for proper transmission-hydraulic system oil level. Keep the oil level within the safe operating range.

If the light flashes and oil level is correct, transmission-hydraulic system pressure has fallen too low. At engine speeds below 1500 rpm, the light may flicker when you release the clutch or make a power shift with the speed selector. If it stays on longer than three seconds, stop the tractor and correct the problem.

The most frequent cause is a clogged clutch oil filter. If the indicator light flickers, plan on changing the filter element at the next refueling and servicing. If it stays on longer than three seconds, change the filter element immediately. Never operate the tractor when the light stays on constantly.

Also check the transmission lube indicator light (B) frequently. If it glows, pressure has dropped too low for transmission lubrication. Stop the tractor immediately and consult your John Deere dealer.

NOTE: In cold weather, after starting a cold engine, hold the clutch pedal down for 10 to 15 seconds with an engine speed of 1500 rpm or more before shifting. Then move the range selector to the desired range. After shifting into a range, hold a steady pressure forward or rearward on the speed selector until the lever moves into the desired speed. Do not apply excessive force to the shift lever.

CHOOSING A GEAR

Avoid overloading the engine. Overloading causes undue strain on parts, eventually resulting in poor operation and unnecessary repair expense. The engine is not overloaded if slight movement of the throttle causes a change in engine speed.

When pulling only light loads, you achieve better fuel economy by shifting to a higher gear and reducing engine speed. Just don't overload the engine.

Suggest:

If the above button click is invalid.

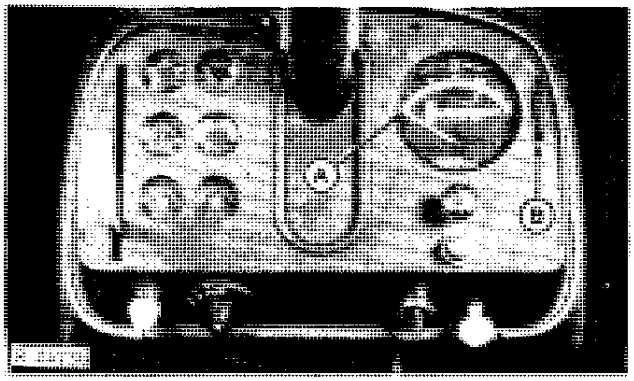
Please download this document

first, and then click the above link

to download the complete manual.

Thank you so much for reading

SPEED-HOUR METER



A—Speed-Hour Meter *B—Speed Indicator Wheel*

The speed-hour meter (A) shows engine rpm in hundreds, tractor speed in miles per hour, the accumulated hours of engine operation, and the engine speed necessary to obtain the standard 1000 rpm PTO speed.

To obtain tractor ground speed, turn the speed indicator wheel (B) on the instrument panel until the gear selected shows in the speed indicator. The speed-hour meter pointer will now indicate both engine speed and tractor ground speed.

PARKING THE TRACTOR

⚠ CAUTION: Whenever the tractor is stopped, place the transmission in PARK BEFORE DISMOUNTING. Never dismount from the tractor when it is in motion.

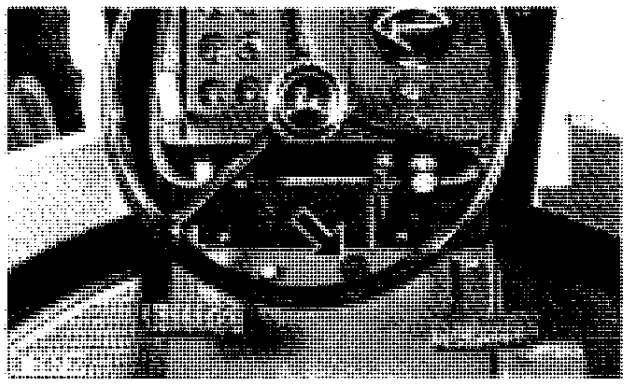
IMPORTANT: Be sure the tractor is stopped before placing the transmission in park.

To place the Quad-Range transmission in park, first move the speed selector lever to neutral. Then pull the range selector lever all the way rearward into park.

To shift from park, depress the clutch pedal and move the range selector forward into the shift station desired. Then move the speed selector lever to the speed desired.

When the tractor is parked on a steep incline, the park mechanism may be difficult to disengage. If this occurs, push the range selector lever forward against spring pressure into shift station "A". Then move the speed selector lever into "1" or "1R" position, whichever will move the tractor UP THE INCLINE. Very slowly engage the clutch. The transmission will shift out of park as soon as pressure against it is relieved.

DIFFERENTIAL LOCK



Differential Lock Operating Pedal

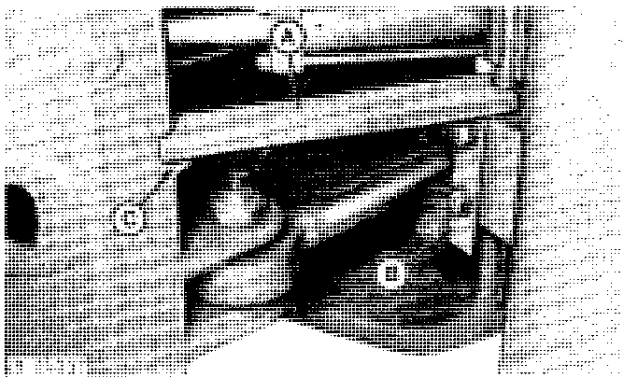
Your tractor may be equipped with a differential lock that will turn both rear wheels at the same speed. This prevents the usual loss of power when one wheel is slipping.

When one wheel starts to slip or whenever desired, engage the differential lock by depressing the operating pedal located between the clutch and brake pedals. When no longer required and before turning the tractor, disengage the differential lock by releasing the pedal. The tractor should be steered straight ahead when using the differential lock.

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

TRANSPORTING OR TOWING

IMPORTANT: Never tow the tractor in an attempt to start the engine.



A—Hinge Lock Bar *C—Protrusion*
B—Fuel Tank Bracket