4320
TRACTOR

JOHN DEERE

OPERATORS MANUAL

4320
TRACTOR

OMR48277 H1 English

JOHN DEERE WATERLOO WORKS

OMR48277 H1

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

To the Operator

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, or service.

Read the Contents to learn where each section is located. Use the alphabetical index on pages 76, 77, and 78 for fast reference.

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.

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

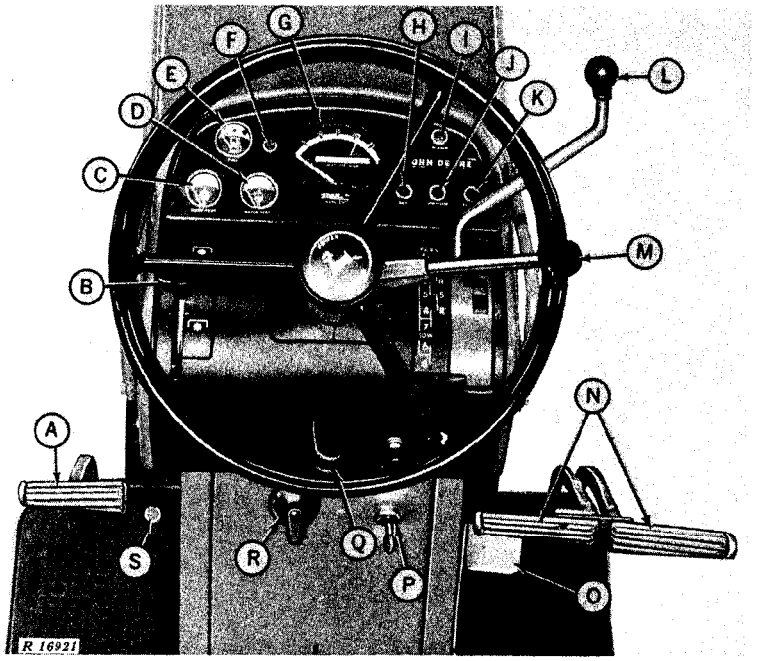
The warranty on this tractor appears on your copy of the purchase order which you should have received from your dealer when you purchased the tractor.

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.

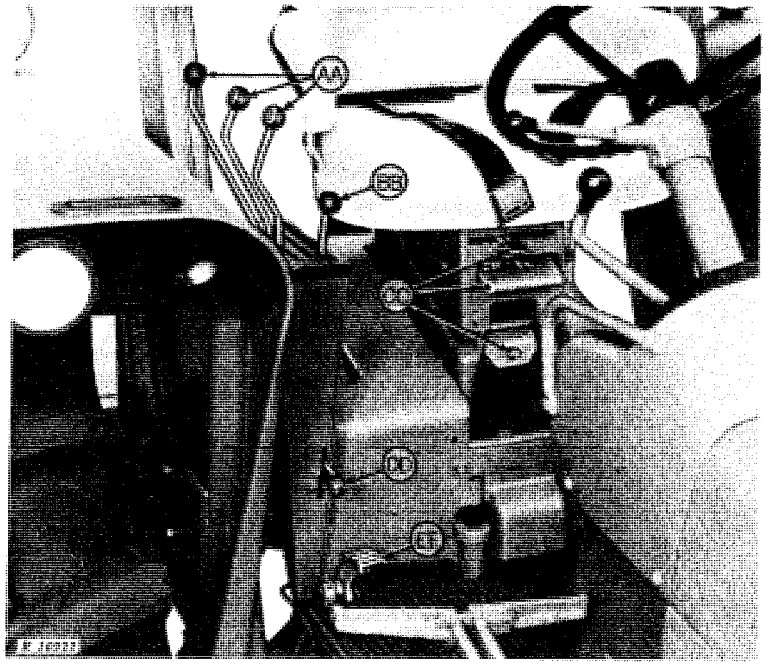
Contents

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.



A-Clutch Pedal (page 9)
B-Power Take-Off Clutch Lever (page 34)
C-Transmission Oil Temperature Gauge (page 10)
D-Coolant Temperature Gauge
E-Fuel Gauge
F-Speed Indicator Knob (page 9)
G-Speed-Hour Meter (pages 9 and 40)
H-Alternator Indicator Light (page 3)
I-Hi-Beam Indicator Light (page 20)
J-Air Cleaner Indicator Light (pages 3 and 42)
K-Oil Pressure Indicator Light (page 3)
L-Shift Lever (page 9)
M-Hand Throttle (page 6)
N-Brake Pedals (page 12)
O-Foot Throttle (page 7)
P-Key Switch (pages 3 and 7)
Q-Ether Starting Fluid Adapter (page 4)
R-Light Switch (page 21)
S-Dimmer Switch (page 21)



AA-Remote Cylinder Operating Levers (page 30)
BB-Rockshaft Control Lever (page 22)
CC-Seat Controls (page 8)
DD-Rockshaft Selector Lever (page 23)
EE-Differential Lock Pedal (page 11)

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 44 for additional information.

(1) Check the engine crankcase oil level.

(2) Check the radiator coolant level.

(3) Check the fuel filter sediment chamber.

(4) Lubricate the wide-swing drawbar, draft link support, front axle pivot pins, steering knuckle pins, and tie rod ends.

(5) Grease the front wheel bearings if the tractor has been operated in extremely wet or muddy conditions.

(6) Make sure the fuel shut-off valve on the fuel tank is open.

OPERATING THE ENGINE

STARTING THE ENGINE

NOTE: If the prevailing temperature is 40°F. or lower, it may be necessary to use a cold weather starting aid to start the engine (page 4).

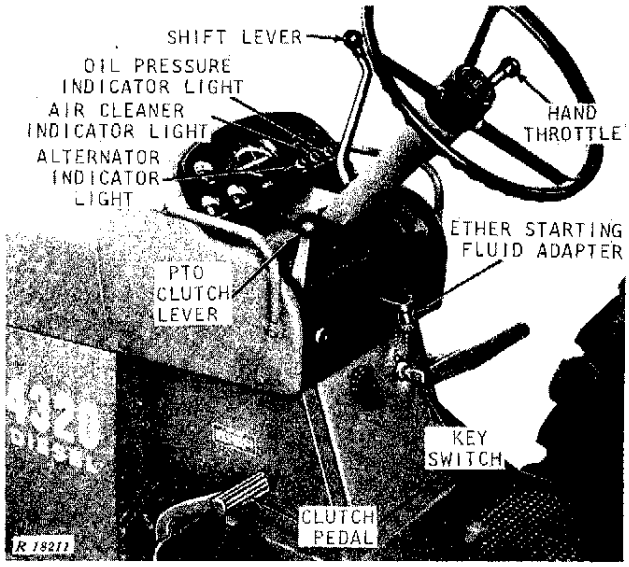
Perform the Prestarting checks listed above.

(1) Make sure the shift lever is in the "PARK" position, the PTO clutch lever is disengaged, the remote cylinder operating levers are in neutral, and the rockshaft control lever is in the lowered position. Depress the clutch pedal.

(2) Place the hand throttle in the 1200 rpm position, approximately one-third of its travel downward.

(3) Turn the key switch clockwise to the first position. The alternator and oil pressure indicator lights should glow. Turning the key switch further to the start position should cause the air cleaner indicator light to glow. If any light fails to glow, turn off the key switch and determine the cause.

(4) Turn the key switch all the way to the right to start the engine. Do not operate the starter for more than 30 seconds at a time. To do so may overheat the starter. If the engine does not start the first time, wait for a minute or two before trying again. If it does not start after four attempts, see "Trouble Shooting."



Starting Controls

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

Before the starter will operate, the shift lever must be in "PARK" or neutral.

(5) After the engine starts, the indicator lights should go out. If a light continues to glow after the engine has been running 10 seconds, stop the engine and determine the cause.

After starting the engine, do not accelerate or apply a load until the engine oil pressure indicator light goes out. 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, immediately restart the engine to prevent overheating caused by stopping the flow of oil for turbocharger cooling and lubrication.

When starting the engine after the tractor has been idle for an extended period, disconnect the injection pump electrical shut-off solenoid wire and crank the engine with the starter until the engine oil pressure indicator light goes out. Do not operate the starter more than 30 seconds at a time. After the indicator light goes out, reconnect the injection pump electrical shut-off solenoid wire and start the engine.

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

COLD WEATHER STARTING AIDS

For cold weather starting, the tractor may be equipped with an ether starting fluid adapter. Other starting aids are available from your John Deere dealer.

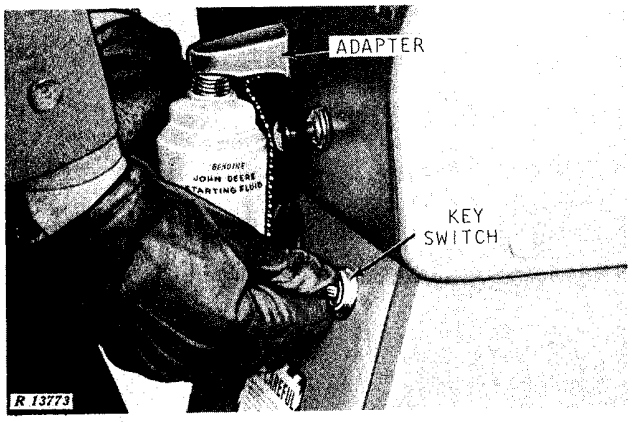
These aids are effective at low temperatures, only when the engine is otherwise operating satisfactorily. They will not correct such deficiencies as low battery charge, crankcase oil of heavy viscosity, and high electrical resistance which may prevent the engine from starting.

Ether Starting Fluid Adapter

This adapter is used to inject atomized starting fluid into the engine air intake system. Pressurized cans of starting fluid are available from your John Deere dealer.

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

To use the can of starting fluid, remove the safety cap and plastic spray button from the can. Remove the cap from the adapter and position the can under the adapter.



Injecting Starting Fluid

To inject a shot of starting fluid, momentarily push up on the can.

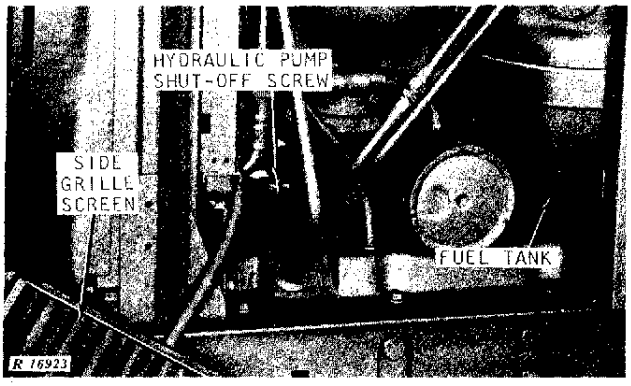
IMPORTANT: To avoid damage, turn engine with starter one or two revolutions before injecting starting fluid. Inject starting fluid only while the engine is turning.

Relax pressure on the can between "shots" of starting fluid. Stop injecting fluid after the engine starts. If the engine begins to die during the first few minutes of operation, inject another "shot" of fluid. When the engine is operating satisfactorily, remove the can from the adapter. Replace the safety cap on the can to avoid accidental discharge.

Install the cap on the adapter when it is not in use. This will prevent 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.

Hydraulic Pump Shut-Off



Hydraulic Pump Shut-Off Screw

If the tractor has a hydraulic pump shut-off screw, the starter speed may be increased during cold weather by shutting off the hydraulic pump so it will not build up pressure. This will also prevent inadvertant operation of the Power Front-Wheel Drive.

Turn the shut-off screw in (clockwise) one turn with a screwdriver. Then turn the screw in by hand until resistance is felt. Turn the screw in one more turn. After the engine has started, use a screwdriver to back the shut-off screw all the way out (counterclockwise with a screwdriver). Stop the engine before backing out the screw on tractors with Power Front-Wheel Drive.

NOTE: Oil will leak past the shut-off screw if it is not backed all the way out against the internal stop.

Electric Crankcase Oil and Coolant Heaters

To facilitate cold weather starting, 115-volt electrical crankcase oil and in-block coolant heaters are available from your John Deere dealer.

The crankcase oil heater is a 240-watt unit that may be installed in the front right-hand corner of the engine oil pan.

The in-block coolant heater is a 1000-watt unit that is on the left-hand side of the engine.

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

The use of either one of these heaters will reduce drag on the engine to improve starting.

Under normal conditions, up to 5 hours may be required at temperatures between 0° F. and 20° F. or up to 8 hours for temperatures below 0° F.

Additional Battery

Cold weather starting can be made easier by connecting an additional 12-volt battery in parallel with the two 6-volt batteries on the tractor.

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

Make sure all electrical switches or accessories are turned off and make the last connection or the first disconnection at some point away from the battery.

Connect a jumper cable of 000 size to the positive (+) post of a 12-volt booster battery and to the POSITIVE (+) post of the right-hand tractor battery that is connected to the starter. Connect one end of the other jumper cable to the negative post of the booster battery and to a good ground on the tractor frame away from the battery. Never connect jumper cables to pipes or thin sheet metal. (The negative post of the left-hand battery is grounded.)

IMPORTANT: Reversed polarity booster battery connections may damage the alternator or electrical wiring.

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 1500 rpm for 5 minutes and then operate it at about 1900 rpm for another 5 minutes.

It is good practice to operate the tractor for the first 30 minutes in a lower gear then 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 for a considerable length of time, stop the engine.

ENGINE SPEEDS

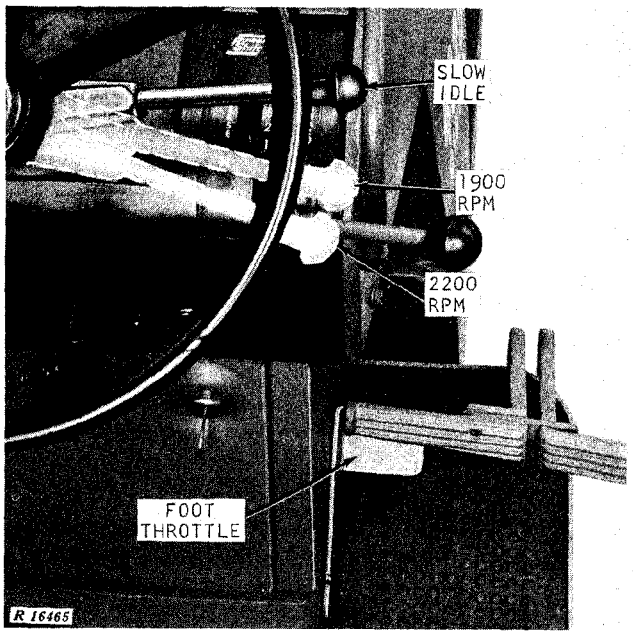
The tractor engine is designed to operate at working speeds ranging from 1500 to 2200 rpm. The engine can be operated at any speed in the working range to meet various operating conditions. Operate the engine at 1900 rpm to obtain the ASAE Standard PTO speeds.

In addition, engine speeds may be varied up to 2500 rpm to save you time when traveling on highways or on smooth-surfaced roads.

Normal slow idle speed is approximately 800 rpm.

The engine speeds of 1900, 2200, and 2500 rpm are speeds when under full load. At light or at no-load conditions, the speeds may rise to approximately 2150, 2400, and 2650 rpm respectively. See page 48 for no-load engine speeds.

Using Hand Throttle



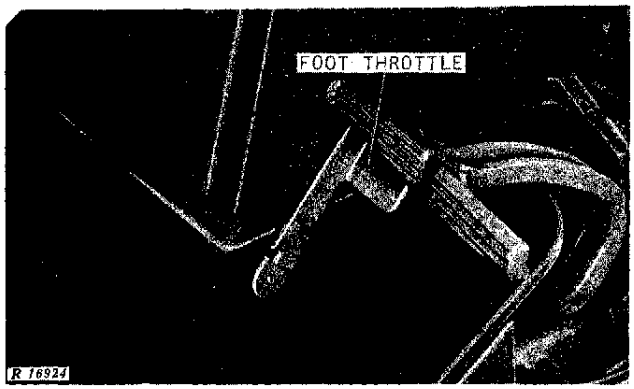
Range of Hand Throttle Positions

Use the hand throttle to select slow idle or any of the variable governed speeds from 1500 to 2200 rpm.

Push the throttle upward to obtain the slow idle speed of 800 rpm. To obtain the 1900 rpm load speed, pull the throttle downward to the first stop. Placing the throttle halfway between slow idle and 1900 rpm gives the 1500 rpm speed. Engine speeds between 1500 rpm and 1900 rpm may be selected by moving the lever between these two positions.

To obtain working speeds above 1900 rpm, pull out on the knob at the end of the hand throttle. With the knob pulled out, pull the throttle downward as far as it will go. This is the 2200 rpm load speed position. Engine speeds between 1900 rpm and 2200 rpm may be selected by moving the lever between these two positions.

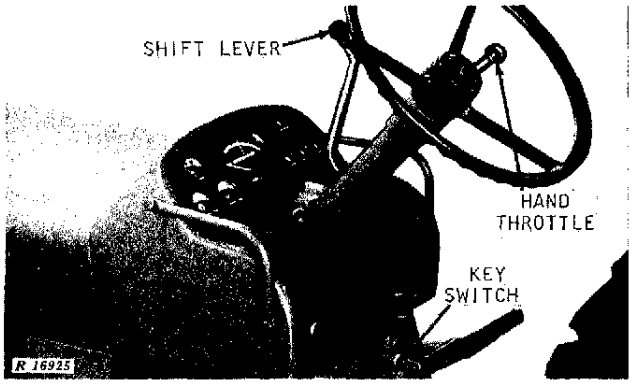
Using Foot Throttle



The foot throttle is used to obtain engine transport speeds or to raise engine speed momentarily. When the foot throttle is pushed all the way downward, the engine operates at 2500 rpm load speed.

NOTE: The foot throttle should not be used to increase the normal engine working speed.

STOPPING THE ENGINE



Stopping Controls

Place the shift lever in "PARK" and allow the engine to idle from 3 to 5 minutes to cool the engine and turbocharger.

Lubrication and cooling of the turbocharger and some engine parts is provided by the engine lubricating oil. Therefore, sudden stopping of a hot engine may allow some parts to overheat and cause possible damage.

After idling the engine for a few minutes, move the hand throttle up to the slow idle position and turn the key switch off.

After stopping the engine, remove the key from the switch to prevent tampering an unauthorized operation. Removing the key also prevents the switch from being accidentally left in the "on" or the "accessory" position and causing battery discharge.

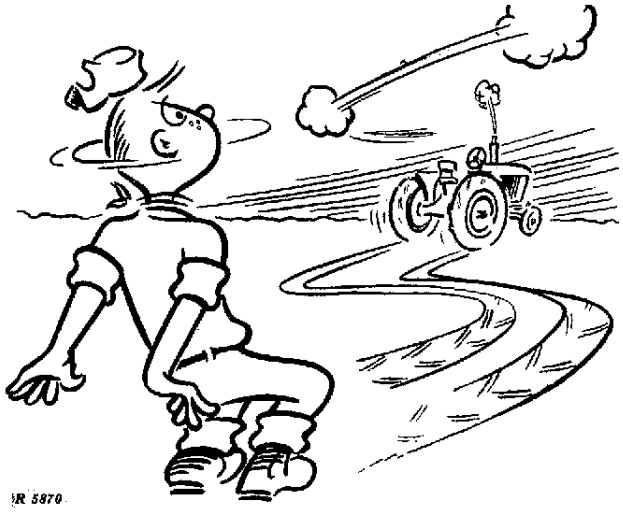
Before dismounting, be sure all equipment is lowered to the ground, the light switch and other accessory switches are off, and the transmission is in "PARK."

BREAKING IN THE ENGINE

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

With the following exceptions, the engine is ready for normal operation:

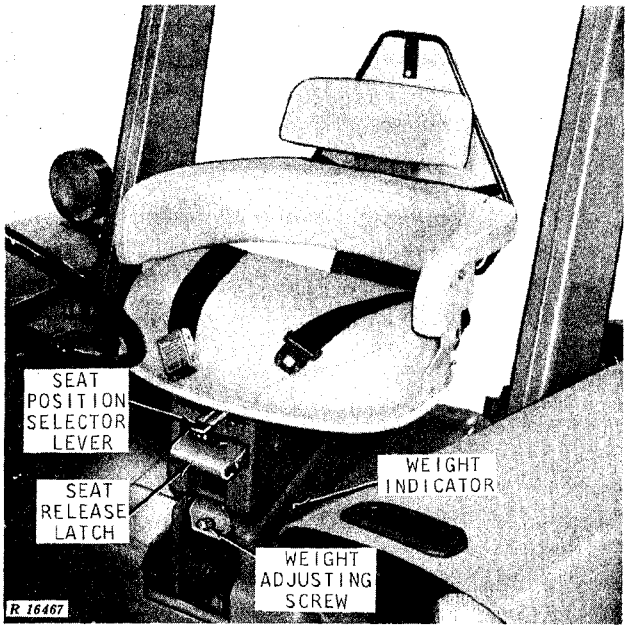
During the first 20 hours, do not use the foot throttle. To facilitate break-in, avoid prolonged periods of engine idling for the first 100 hours of service.



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

OPERATING THE TRACTOR

SEAT



Seat Controls

The deluxe foam-padded suspension seat contains a steel compression spring and shock absorber to provide "Float-Ride" comfort.

Use only warm water and a mild soap to clean the seat cushions. Never use strong solvents.

Moving Seat to Upper Rear Position

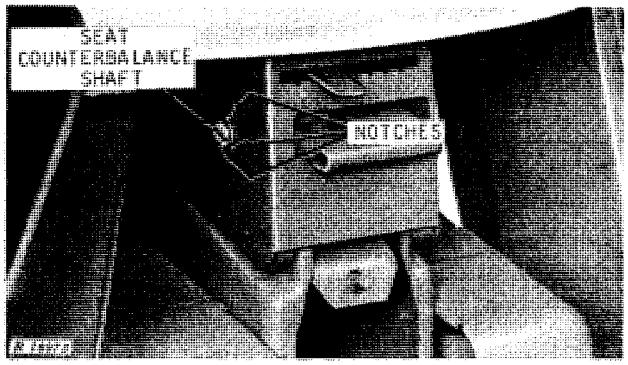
To move the seat up and back, stand up and lift the seat release latch. A counterbalance spring will move the seat to the upper rear position. Sit down to return the seat to the normal preset operating position.

Adjusting for Height and Weight of Operator

The seat can be adjusted to the height of the operator. With the seat in the upper rear position, shift the seat position selector lever between "short" and "tall" until the controls can be operated comfortably when you are seated.

The tension of the steel compression spring can be adjusted to conform to your weight. This enables the seat to "float" when you are traveling over rough ground. To make this adjustment, turn the weight-adjusting screw clockwise or counterclockwise until the indicator in the left-hand side of the seat conforms to your weight.

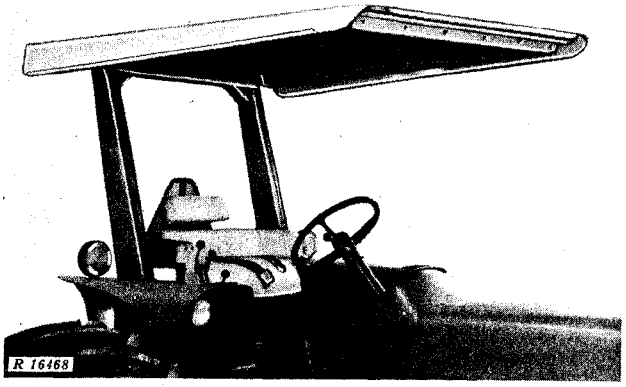
Adjusting Counterbalance Spring



Seat Counterbalance Shaft

If the seat does not move fully to the rear when unlatched, adjust the counterbalance spring. With the seat in the upper rear position, insert a screwdriver in the counterbalance shaft slot. Push in to unlatch the shaft and turn the shaft counterclockwise. Align the latch in the end of the shaft with one of the pair of notches. Pull the screwdriver outward so the latch will engage the notches.

ROLL-GARD, SEAT BELT, AND CANOPY



Roll-Gard, Seat Belt, and Canopy

A protective roll-gard with seat belt may be ordered for your tractor. A canopy that fits on top of the roll-gard and a weather enclosure are also available. See page 61 for more information.

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.**

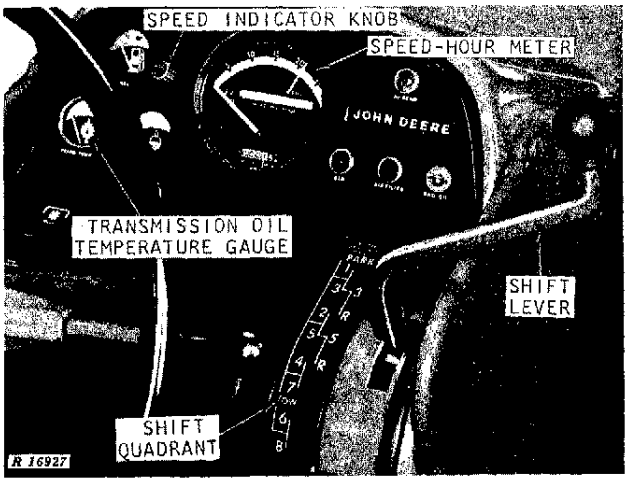
SELECTING GROUND SPEED

The tractor has eight forward speeds and two reverse speeds for each of the throttle positions that may be used. These combinations enable the operator to balance speed and power for maximum economy and allow him flexibility to meet varying working conditions. For example, for a given ground speed the operator may choose to work in a low gear at high engine speed for maximum reserve power or in a higher gear at a lower engine speed for maximum fuel economy.

Examples of the ground speeds at which the tractor will travel are shown below. Engine working speeds may be varied between 1500 rpm and 2200 rpm, and engine transport speeds may be varied up to 2500 rpm. Tractor ground speeds shown in the chart are only for engine speeds of 1500, 1900, 2200, and 2500 rpm.

Turn the speed indicator knob on the instrument panel until the gear selected shows on the speed indicator. The speed-hour meter pointer will now indicate the tractor ground speed in miles per hour.

Avoid overloading the tractor. When this occurs, operate in a lower gear. If moving the throttle slightly will change engine speed, the engine is not overloaded or lugging. Overloading causes undue strain on parts, eventually resulting in poor operation and unnecessary repair and expense.



Speed Indicator Knob and Shift Lever

SYNCRO-RANGE TRANSMISSION

Shifting Between Stations

The shift quadrant has four shift stations. Stations No. 1 and 2 have two forward speeds and one reverse speed. Stations No. 3 and 4 have two forward speeds only.

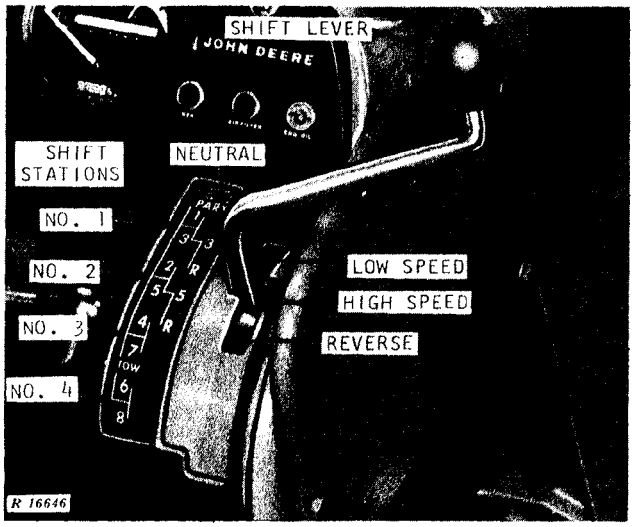
With the tractor stopped and the clutch pedal depressed, move the shift lever to a neutral position at the left side of the quadrant. Then move the shift lever to the station that has the desired speed. Move the lever to the right and into the speed desired.

TRACTOR GROUND SPEED IN MILES PER HOUR

NOTE: The following ground speeds are for 18.4-34 rear tires with a 29.5-inch loaded radius. 13.6-38 and 15.5-38 tires are 4% slower; 16.9-38, 3% faster; 18.4-38, 5.9% faster; 20.8-34, 3.7% faster; and 23.1-30, 1% faster.

Gear	Hand Throttle Operating Range			Maximum Foot Throttle Speed
	1500 rpm	* 1900 rpm	2200 rpm	2500 rpm
1st	1.3	1.6	1.9	2.1
2nd	2.0	2.6	3.0	3.4
3rd	2.7	3.4	4.0	4.5
4th	3.5	4.4	5.1	5.8
5th	4.4	5.5	6.4	7.3
6th	5.7	7.2	8.3	9.5
7th	7.4	9.4	10.9	12.4
8th	12.0	15.3	17.7	20.1
1st reverse	2.6	3.3	3.9	. . . .
2nd reverse	4.2	5.3	6.2	. . . .

** 1900 engine rpm gives the ASAE Standard 540 or 1000 rpm PTO speed. Some PTO-driven implements are operated at other speeds. See the implement operator's manual for detailed instructions.*



Syncro-Range Transmission Shift Quadrant

Gradually release the clutch pedal to take up the load smoothly.

To prevent unnecessary wear, never "ride" the clutch or brake pedals by resting the feet on the pedals.

Shifting Within Stations

With the clutch pedal depressed, the transmission can be shifted from one forward speed to the other forward speed within the same station while the tractor is in motion. For instance, you can shift between 1st and 3rd gears, 2nd and 5th gears, 4th and 7th gears, and 6th and 8th gears without stopping the tractor.

IMPORTANT: Stop tractor before shifting from a forward speed to a reverse speed to prevent damage to the transmission.

Transmission Temperature Gauge

If the pointer on the temperature gauge goes into the red zone, stop the tractor and clean all dirt and trash from the grille screens and the transmission-hydraulic oil cooler core. Check and if necessary, fill the transmission-hydraulic system to its proper oil level. A clogged filter can also cause overheating. If the difficulty continues, call your dealer. Do not operate the tractor when the temperature pointer is in the red zone.

PARKING THE TRACTOR

Be sure the tractor is STOPPED before placing the shift lever in the "PARK" position.

Move the shift lever to a neutral position at the left side of the quadrant. Then push the shift lever all the way into "PARK."

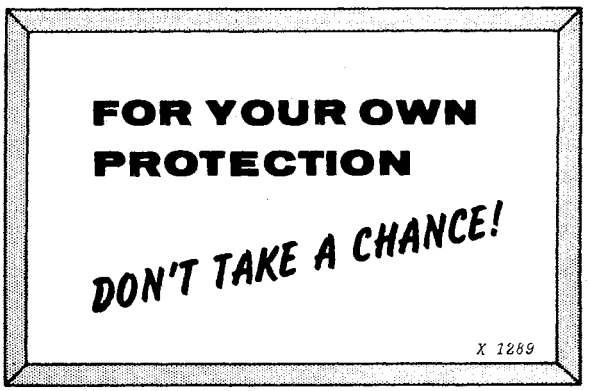
To shift from "PARK" when the tractor is not parked on a steep incline, simply move the shift lever rearward to the station desired. When the tractor is parked on a steep incline it may be necessary to do the following to relieve the load on the transmission park lock. Depress the clutch pedal and pull the shift lever rearward against spring pressure into the No. 1 shift station. Then shift into a forward or reverse gear that will move the tractor UP THE INCLINE. Very slowly engage the clutch and the transmission will shift out of "PARK."

TOWING THE TRACTOR

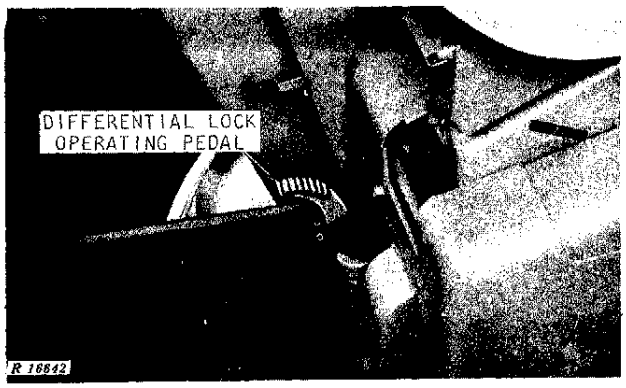
⚠ CAUTION: Never tow the tractor at high speeds. Tow tractor with the engine running to maintain power operation of steering and brakes.

When towing the tractor, the transmission-hydraulic system should be at the "FULL" mark. If the front end is raised, add one gallon of oil for each six inches the front end is raised. Be sure differential lock is disengaged.

IMPORTANT: Always place the shift lever in "TOW." Do not attach towing means to front wheel knuckles or steering mechanism.



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.

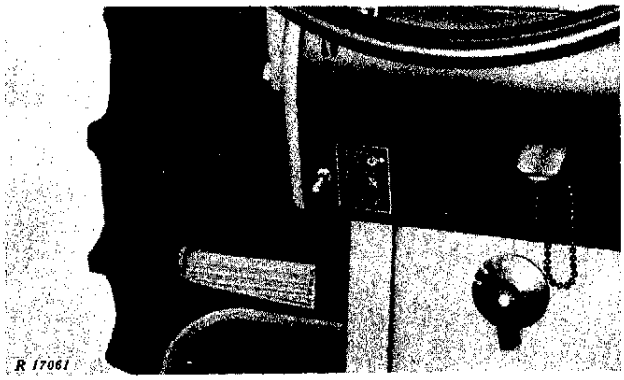
When one wheel starts to slip *or* whenever desired, engage the differential lock by depressing the operating pedal located at the right-rear side of the platform. When no longer required and before turning the tractor, disengage the differential lock by depressing one or both brake pedals. The front wheels should be in the straight ahead position when disengaging or engaging the differential lock.

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

POWER FRONT-WHEEL DRIVE

The Power Front-Wheel Drive has a fixed displacement, axial piston hydraulic motor and a planetary transmission in each front wheel. The tractor main hydraulic pump furnishes hydraulic power for the front wheels.

Use the Power Front-Wheel Drive in poor traction conditions or when needed to improve steering control. The drive can be engaged "on the go" or when the tractor is stopped by moving the drive operating switch up to high torque position (for maximum pulling power) or down to low torque position (when less power is required).



Power Front-Wheel Drive Operating Switch

Always move the switch to the center (off) position when the drive is not needed. Do not engage the drive when hitching to drawn equipment. Do not attempt to operate the tractor with the front-wheel drive only.

Whenever the clutch pedal is depressed, a switch disconnects the drive.

When the operating switch is moved up or down, the drive is automatically engaged or disengaged as necessary to synchronize the front drive when the shift lever is moved to the various transmission speeds. In low torque switch position the drive will be engaged in 1st through 6th forward speeds and in all reverse speeds. In high torque position, the drive will be engaged in 1st through 4th forward speeds and in all reverse speeds.

When a front wheel slips and a "differential lock action" is needed, move the switch down to the low torque position. This connects the hydraulic motors in series.

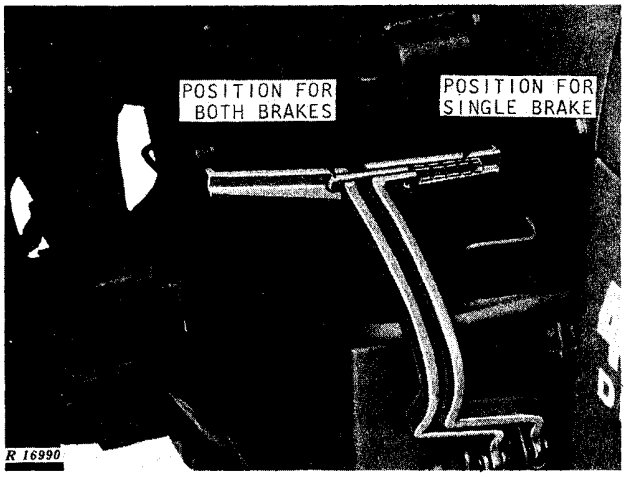
⚠ CAUTION: Always place transmission in PARK, lower implements to the ground, and shut engine off before dismounting. Always start the engine from the operator's seat. Shutting off the hydraulic pump as instructed on page 5 will prevent accidental tractor movement by the front wheels.

POWER STEERING AND BRAKES

The tractor is equipped with full hydraulic power steering and power brakes so that a minimum of effort will operate the tractor.

The brake accumulator supplies oil to the brakes for an emergency application immediately after the engine is stopped.

To assist in making sharp turns, apply the brakes individually or, to stop the tractor, apply both brakes simultaneously. When traveling at high speeds, couple the pedals together as shown and use a light pressure on the pedals.



Brake Pedals Coupled Together

TOWED LOADS

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

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

FRONT WHEEL TREAD

Double Front Wheels

The double front wheel tread may be set at the narrow spacing or at the wide spacing by reversing the dish of the front wheels.

To change the double front wheel spacing, unbolt the wheels from the hubs, reverse the wheels and tighten bolts to 85 ft-lbs torque.

Wide Front Axles

Adjustable-Tread Front Axle

The adjustable tread front axle is adjustable in 2-inch steps (the last widest step is 4 inches). The chart below lists the available tread ranges. Reverse the wheel "dish" in the same manner as for double front wheels.

Tire	Wheels Dished in	Wheels Dished Out
7.50-15 7.50-16 7.50-18	50-3/4″ to 74-3/4″	55-7/8″ to 79-7/8″
10.00-16 11.00-16	Not recommended	54-1/2″ to 78-1/2″
11L-15	52-3/4″ to 76-3/4″	53-7/8″ to 77-7/8″
11.2-24 12.4-24	. . . . .	64″ to 82″
12.4-24 C&R	. . . . .	66″ to 82″

For extra wide tread front axle, add 8 inches to each tread dimension.

To adjust the tread width, position the wheels straight ahead and jack up the front end of the tractor.

IMPORTANT: Do not place jack under engine oil pan or, on Power Front-Wheel Drive tractor, under the hose guard at the front axle.

To change the adjustable tread front axle, remove the tie rod lock bolts. Loosen the front axle clamp bolts and drive the lock bolts from the front axle hous-

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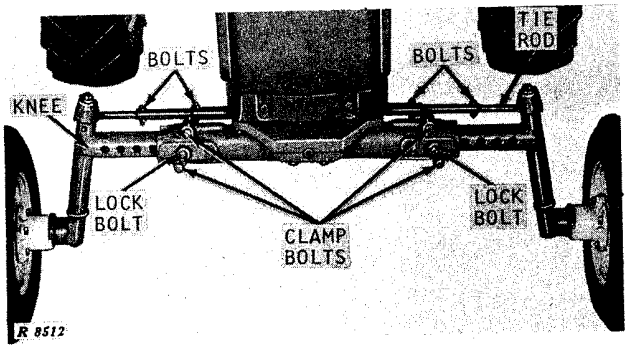


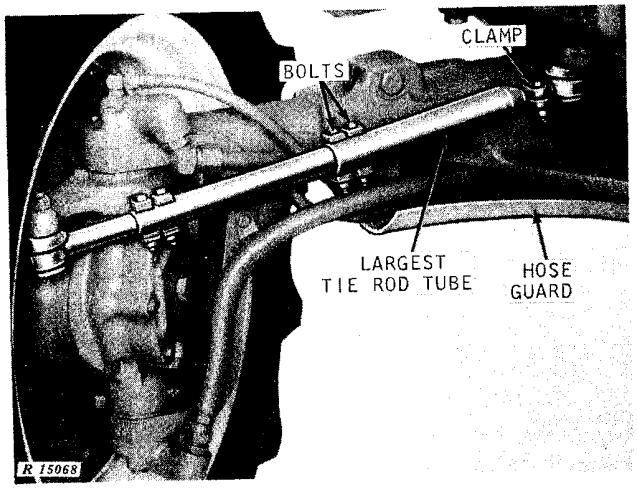
Front Axle Tread Adjustment

ing. Move the front axle knees in or out to the desired tread width. Install the lock bolts and tighten the clamp bolts to 300 ft-lbs torque. Position the tie rod tubes so the middle tubes are equally spaced with the wheels straight ahead. Install the tie rod bolts with the nuts down. Coat unpainted surfaces with rust preventative. Check toe-in.

If equipped with a Power Front-Wheel Drive, the tractor's power steering motor may be used to move the wheel assembly by resetting the tie rod length and using the full steering arm travel. After adjusting the tread, be sure the small bleed hose is free and not kinked or pinched so as to prevent oil flow.

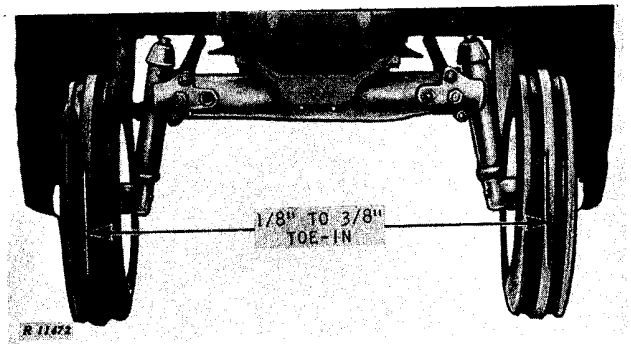
Fixed-Tread Front Axle

A fixed tread front axle with 7.50-18 tires has a tread of 55-1/2 inches with the wheels "dished" inward and 60-3/4 inches with the wheels "dished" outward. With 10.00-16 tires, the wheels are only mounted in the "dished" out position and the tread is 59 inches.



Tie Rod (Power Front-Wheel Drive)

Toe-In Adjustment



Correct Toe-In

Toe-in of the front wheels on a tractor with wide front axle should be 1/8 to 3/8 inch.

To check toe-in, turn the steering wheel until the front wheels point straight ahead, parallel to the center line of the tractor. Measure the distance from tire to tire, first at the front of the tires and then at the rear. Front measurement should be 1/8 to 3/8 inch less than rear measurement.

To adjust toe-in on adjustable tread axles, remove the bolts from the largest tie rod tubes and loosen the clamps on the inner end of the tie rods. On fixed tread axles, loosen the tie rod clamps.

Turn the tie rod tubes in or out until toe-in is correct. Replace the bolts and tighten the clamps. Do not overtighten the clamps. The tie rods should be of equal length so that the tractor will turn as sharp to the left as it will to the right.

REAR WHEEL TREAD

Limit single rear wheel tread to 110 inches when pulling heavy loads (in first, second, and third gears) that generate high weight transfer loads or draft loads.

Regular and Offset Wheels

The tread can be changed by moving the wheel on the axle by the rack and pinion, by reversing the wheel on the axle, or by changing the rim position on the wheel.

Rack and Pinion Method

This method of adjustment is accomplished by turning a pinion gear in the wheel hub that engages a