8010
Diesel Tractor

JOHN DEERE

OPERATORS MANUAL

8010
Diesel Tractor

OMR30814 H0 English

OMR30814 H0

LITHO IN U.S.A.
ENGLISH

To the purchaser

Your new John Deere 8010 Tractor is a powerful, versatile, heavyweight performer. Built to the traditionally high standards of John Deere, this tractor will handle large-capacity tools in the toughest field conditions at high speed and with unequalled economy. Added to the tractor's tremendous capacity for work are such modern features as four-wheel drive, power steering, air brakes, heavy-duty hydraulic clutch, "on the go" gear shifting, and oscillating front and rear sections which enable the tractor to cross over rough ground and cling to hillsides with great stability. New 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 dependability, and simplicity of lubrication and service are all in this great new tractor.

When used with equally advanced John Deere tools and implements, your 8010 will deliver all the power you need for better, easier, and more profitable farming.

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. It contains complete instructions for operating the tractor, caring for it, and taking full advantage of its many time and labor-saving features. After reading the manual, keep it in a convenient place for quick and easy reference if questions arise concerning operation, lubrication, or service.

The service policy which you received with you new tractor certifies that the tractor was properly inspected and prepared for delivery by your John Deere dealer. Keep this policy in a safe place and present it to the dealer whenever services which it authorizes are required.

Your John Deere dealer wants to help you get the most value from your new tractor. His skilled servicemen can handle every job efficiently. These men are trained in modern service methods and have all necessary tools and equipment.

When in need of parts, be prepared to furnish your dealer with the serial number of the tractor and the serial number of the engine or other component for which parts are required. This information will help the dealer give you quick, efficient service.

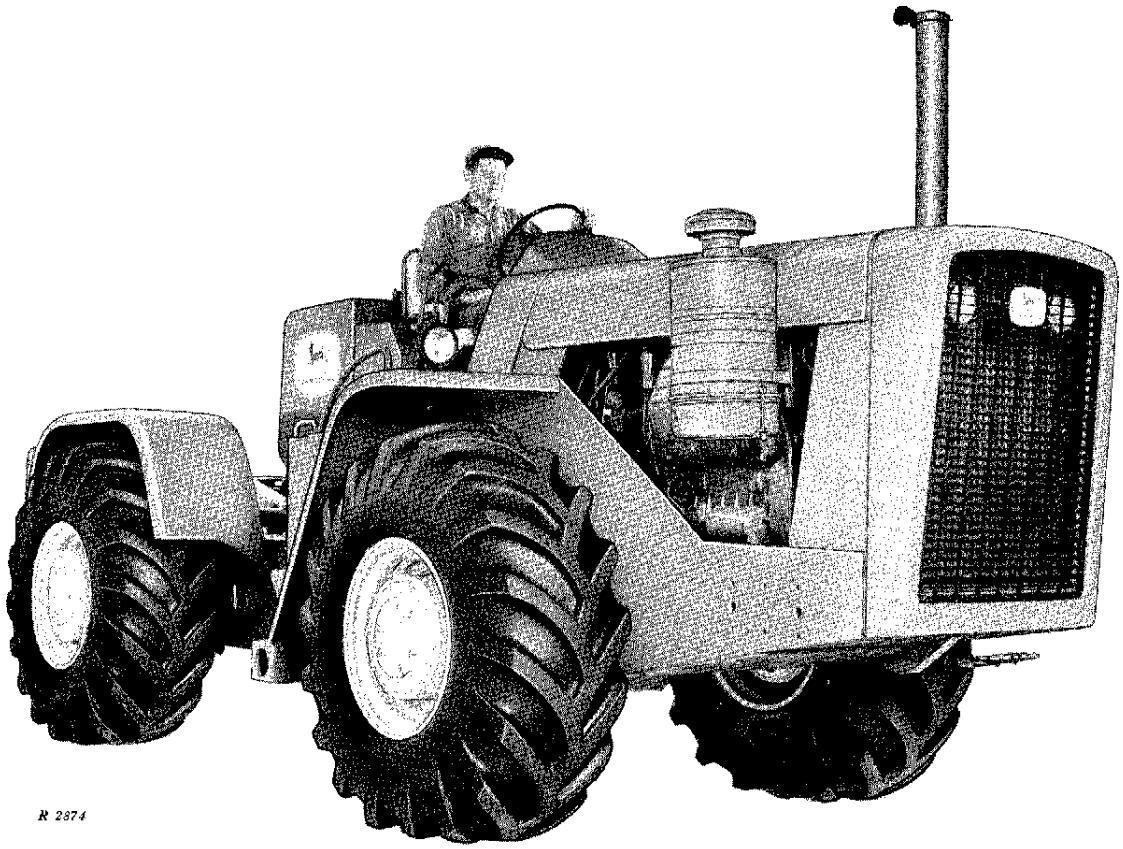
The tractor serial number plate is located on the left-hand side of the front section (bogie). The serial number of the engine is located on the right-hand side of the valve rocker arm cover. Serial numbers of other components are prominently displayed.

contents

specifications

POWER	
Engine horsepower	More than 200 h.p.
Drawbar pull	9,000 to 11,000 lbs.
SPEEDS	
1st	2 mph
2nd	2-7/8 mph
3rd	3-7/8 mph
4th	5 mph
5th	6-1/3 mph
6th	8-1/8 mph
7th	11 mph
8th	14 mph
9th	18 mph
Low reverse	1-7/8 mph
High reverse	5-5/8 mph
ENGINE	GM 2-cycle, 6-cylinder
Bore	4.25 in.
Stroke	5.00 in.
Displacement	425 cu. in.
Compression ratio	17 to 1
Rated speed	2100 rpm

CAPACITIES (U.S. MEASUREMENTS)	
Fuel tank	106 gals.
Hydraulic system	25 gals.
Cooling system	12 gals.
Crankcase	4.5 gals.
Transmission	2.2 gals.
Drop housing case	1.6 gals.
Axle housing and planetary	7 gals.
Oil bath air cleaner	1.6 gals.
Clutch and auxiliary reservoir	9 gals.
Hydraulic pump housing	3.3 qts.
FUEL SYSTEM	Recirculating bleed type with full-flow strainer and filter
ELECTRICAL SYSTEM	
Starting	24 volts
Lights and accessories	12 volts
LUBRICATION SYSTEM	
Type	Full pressure, force feed
Filters	One full-flow, one by-pass



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John Deere 8010 Diesel Tractor, right-hand side view

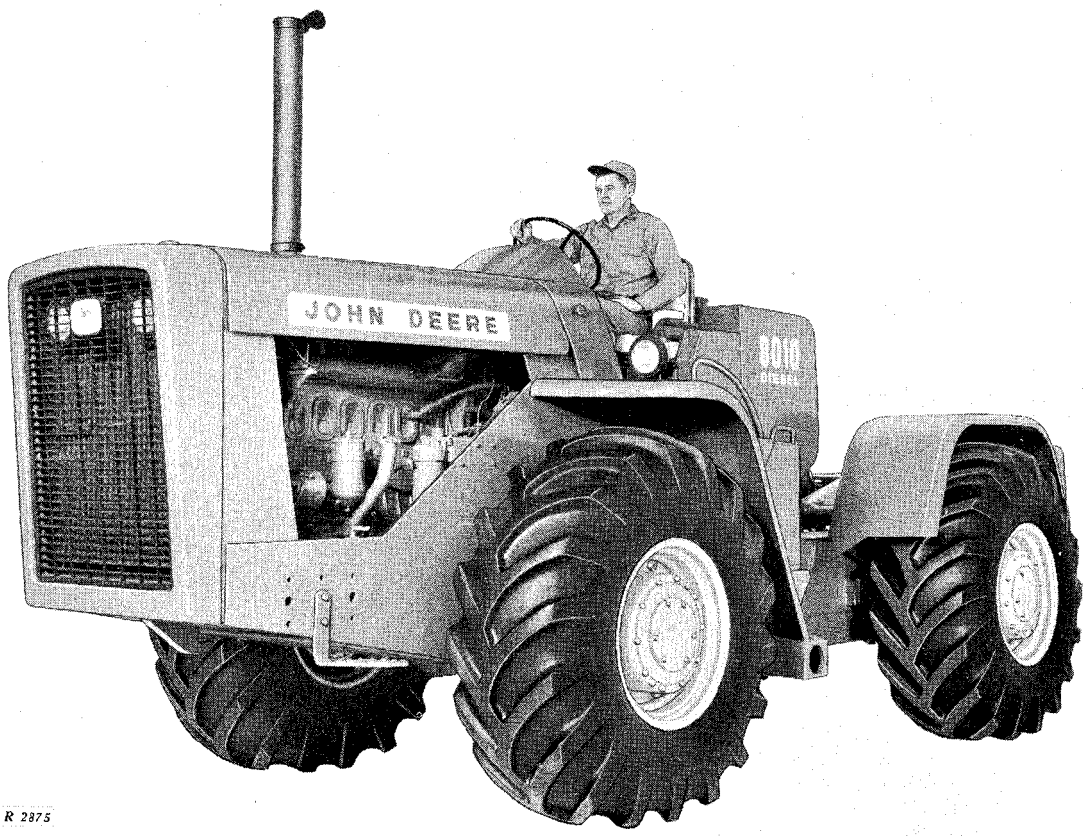
COOLING SYSTEM . . .	Bypass, pressure type
TRANSMISSION	
Type	Syncro-mesh, 2-range, air assisted between ranges
Speeds	9 forward, 2 reverse
CLUTCH	Heavy-duty, hydraulically actuated
STEERING	Fully hydraulic power steering
BRAKES	
Type	4 drums with internal expanding shoes
Operated by	Compressed air
Parking brake	Mechanical
DRIVE AXLES	Heavy-duty with planetary reduction
HYDRAULIC SYSTEM	Choice of two or three valves for double-acting remote cylinder operation. 3-point hitch available
TIRE SIZES	23.1 18-26, 12-ply, or 18.00 x 25, 20-ply

DIMENSIONS

Height to top of steering wheel	8 ft. 3 in.
Height to top of exhaust pipe . .	9 ft. 4-1/2 in.
Width over tires	96 in.
Wheelbase	120 in.
Length (grille to drawbar) . . .	19 ft. 10 in.
Turning radius	17 ft. 6 in.

WEIGHT

Front only (without liquid ballast)	13,750 lbs. (67%)
Rear only (without liquid ballast) .	6,950 lbs. (33%)
Total without liquid ballast	20,700 lbs.
Total with liquid ballast	26,700 lbs.

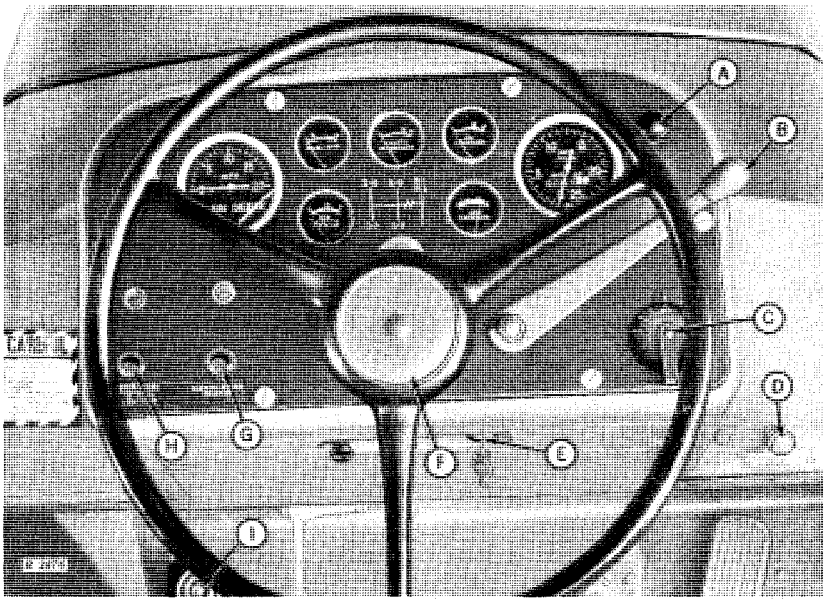


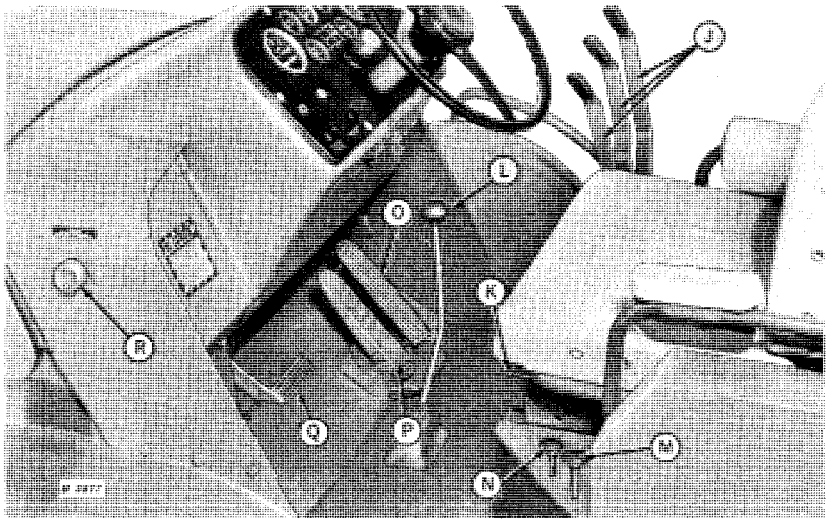
John Deere 8010 Diesel Tractor, left-hand side view

controls and instruments

Before attempting to operate your new tractor, become familiar with the location and purpose of its controls and instruments. Study the next few pages carefully regardless of your previous tractor experience. Complete information concerning the use of the controls and instruments is given in "Operation."

Controls





A – Engine stop knob
B – Hand throttle
C – Light switch
D – Engine emergency shutoff knob
E – Key switch
F – Horn button
G – Parking brake release knob
H – Transmission gear range selector knob
I – Parking brake pedal
J – Hydraulic system operating levers
K – Seat-adjusting lever
L – Shift lever
M – Hydraulic pump disconnect knob
N – Front axle drive disconnect knob
O – Foot throttle
P – Brake pedal
Q – Clutch pedal
R – Cold weather starting aid

A. Engine stop knob
The engine is normally stopped by pulling out on this knob.

B. Hand throttle
The hand throttle controls engine speed. Pulling the lever down increases engine speed; pushing it up decreases engine speed to slow idle.

C. Light switch
The light switch is used to turn on the lights.

D. Engine emergency shutoff knob
In rare instances, it may be impossible to stop the engine in the routine manner. In this case, the engine can be stopped by pulling out on the handle located on the right-hand cowl panel. This knob should be used ONLY in an emergency.

E. Key switch
This switch controls the electrical system of the tractor. The electrical equipment on the tractor will not operate until the key switch is turned on. Turning the key all the way to the right activates the starter to start the engine.

F. Horn button
Pushing the button in the center of the steering wheel sounds the horn.

G. Parking brake release knob
The parking brake is released by pulling this knob.

H. Transmission gear range selector knob
The transmission may be operated in either of two gear ranges (high and low) to obtain the various tractor speeds. The desired gear range is controlled by this knob. When the knob is pushed in, the transmission is in low range. When the knob is pulled out, the transmission is in high range.

I. Parking brake pedal
The mechanically operated parking brake is activated by this pedal at the extreme left-hand side of the platform. When depressed, the pedal applies the brake and automatically locks it.

J. Hydraulic system operating levers
These levers control the tractor hydraulic system. The tractor may be equipped with two or three levers, depending on the hydraulic equipment.

K. Seat-adjusting lever
The seat can be moved forward or back to suit the operator by releasing the lever under the left-hand side of the seat.

L. Shift lever
The transmission is shifted through its nine forward speeds and two reverse speeds by means of the shift lever.

M. Hydraulic pump disconnect knob
The hydraulic pump is engaged by pushing down on the rear knob at the left-hand corner of the seat support. The pump should be engaged ONLY when the engine is stopped.

N. Front axle drive disconnect knob
Pulling up on the front knob at the left-hand corner of the seat support disengages the front axle drive when four-wheel drive is unnecessary or when the tractor is traveling on the highway. Pushing the knob down engages the front axle drive.

O. Foot throttle
Engine speed may be increased beyond the hand throttle setting by depressing the foot throttle. When foot pressure is removed from the pedal, engine speed reverts to the speed determined by the position of the hand throttle.

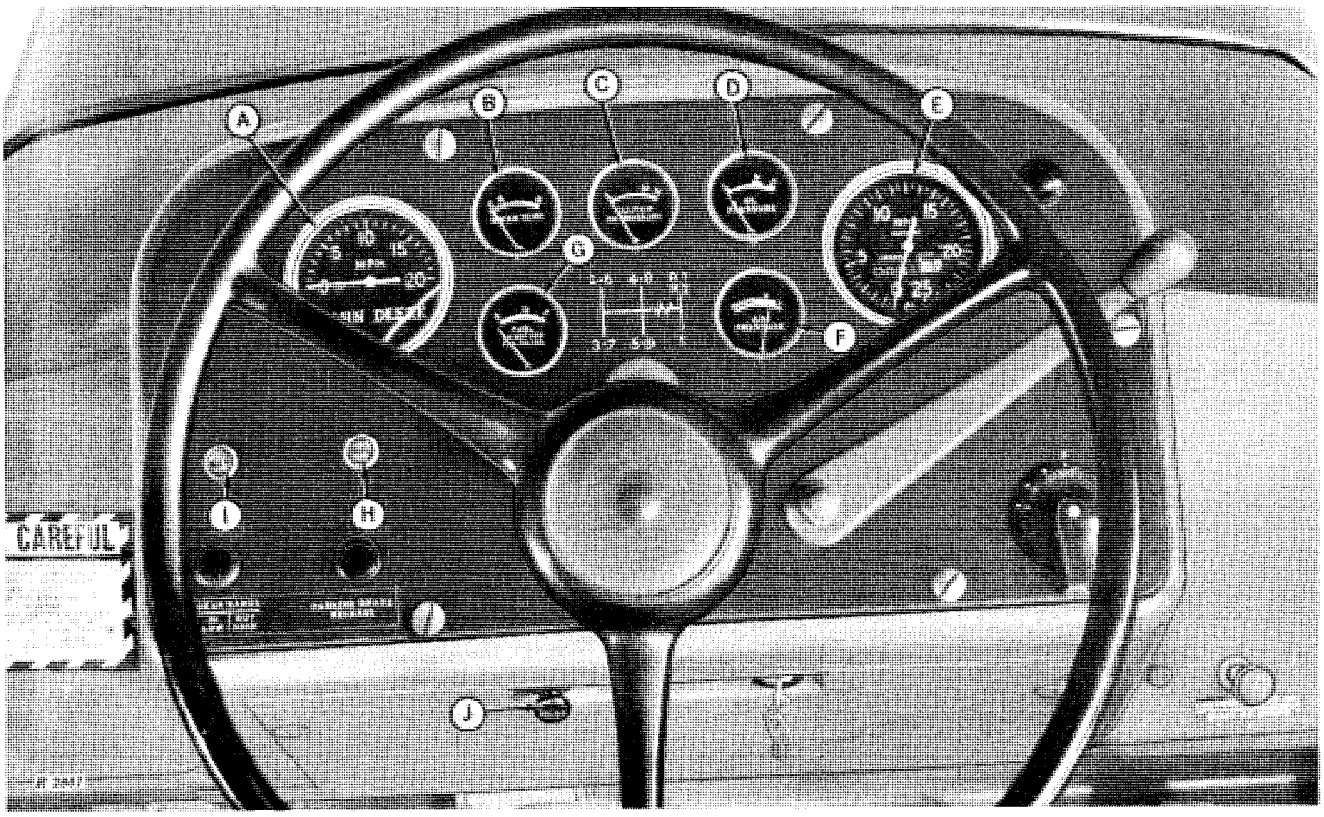
P. Brake pedal
This pedal activates the four air brakes. Braking effort is proportional to pedal travel.

Q. Clutch pedal
Depressing the clutch pedal disengages the clutch hydraulically to permit shifting of the gears.

R. Cold weather starting aid
The covered tube on the left-hand side of the cowl cover leads to the engine air intake system. During cold weather, starting fluid is sprayed into this tube to help start the engine.

Instruments

All instruments are conveniently grouped on the instrument panel where they may be observed at a glance by the operator.



A – Speedometer
B – Water temperature gauge
C – Clutch oil pressure gauge
D – Engine oil pressure gauge
E – Tachometer and hour meter
F – Air pressure gauge
G – Fuel gauge
H – Parking brake indicator light
I – Generator indicator light
J – Cigarette lighter

A. Speedometer

This instrument gives the tractor speed in miles per hour.

B. Water temperature gauge

This gauge indicates the temperature of the coolant in the engine cooling system. During operation, the indicator hand should remain in the "N" (normal) range.

C. Clutch oil pressure gauge

This gauge shows the pressure of the oil in the clutch hydraulic system. To avoid wear, stop the tractor immediately if clutch oil pressure is low.

D. Engine oil pressure gauge

This gauge shows whether or not the engine oil pump is operating satisfactorily. It does not reveal the condition or amount of oil in the crankcase. If the indicator hand does not register pressure, stop the engine immediately and determine the cause.

E. Tachometer and hour meter

The accumulated hours of engine service, measured in hours and tenths of hours, are shown by the hour meter. Engine revolutions per minute are also indicated.

F. Air pressure gauge

This gauge shows the pressure of air in the air brake reservoir. The indicator hand should be in the "N" (normal) range when the tractor is operating. If the hand drops into the "DANGER" range, indicating that the air pressure is less than 30 pounds per square inch, the horn will blow automatically as a warning to the operator.

G. Fuel gauge

This electrically-operated gauge indicates the amount of fuel in the tank. The gauge will not operate until the key switch is turned on.

H. Parking brake indicator light

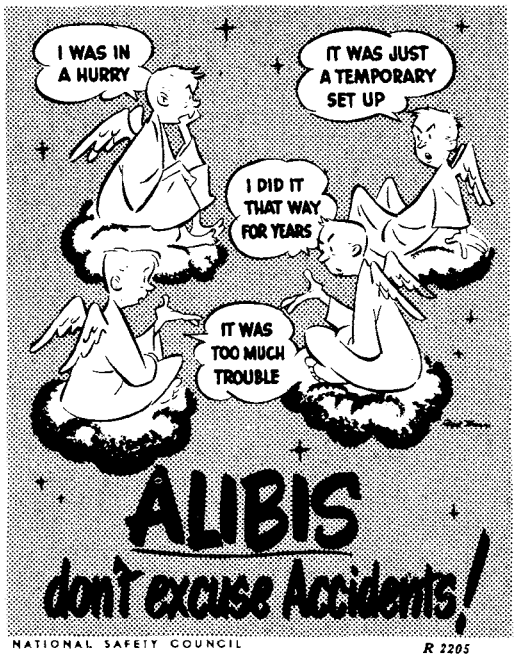
When the parking brake is applied, this lamp glows red if the key switch is turned on. It serves as a reminder to release the brake before operating the tractor.

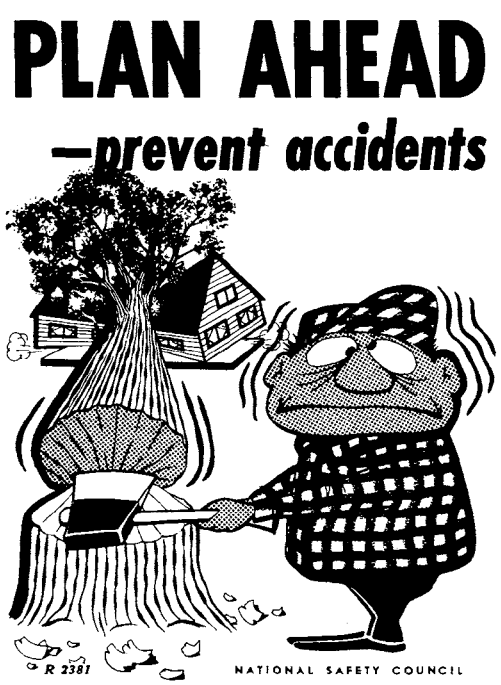
I. Generator indicator light

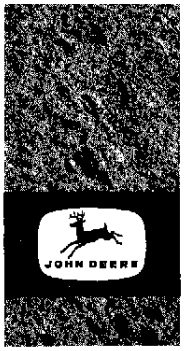
With the key switch on, this lamp glows red if the generator fails to charge. The lamp goes out when the generator is rotating fast enough to force a charge into the batteries.

J. Cigarette lighter

The tractor is equipped with a cigarette lighter located on the recessed panel below the instrument panel.







operation

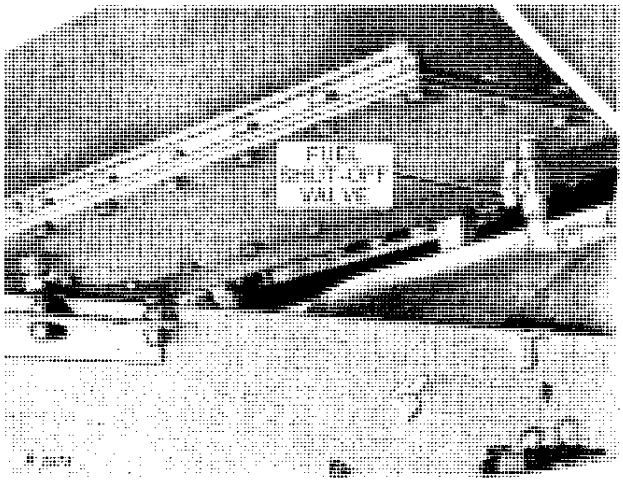
Complete instructions for operating your tractor safely and efficiently are given on the following pages. By following these directions carefully, you can be sure that you are taking full advantage of the many features built into your tractor.

Operating the engine

Starting the engine

(1) Perform the following checks and services before starting the engine for the first time each day:

(a) Check the engine crankcase oil level.
(b) Service the air cleaner.
(c) Check the radiator coolant level.
(d) Drain 1/4 pint of fuel from the fuel strainer and filter.
(e) Fill the fuel tank.

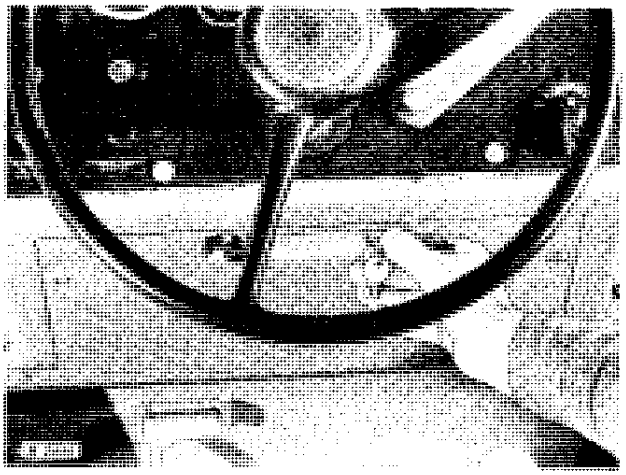


Fuel shut-off valve at bottom of fuel tank

(2) Make sure the fuel shut-off valve on the bottom of the fuel tank is open.

(3) Place the shift lever in neutral and depress the clutch pedal to decrease drag on the engine. During cold weather, disengage the hydraulic pump by pulling up on the hydraulic pump disconnect knob.

(4) Pull the hand throttle down to full-open position to set the injector racks and insure delivery of fuel to the injectors. Then move the throttle back to idle position (as far up as it will go).



Operating key switch

(5) Turn the key switch all the way to the right to operate the starter. Do not hold the key switch in start position 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 so before trying again. This will give the starter a chance to cool. If the engine fails to start after four such attempts, refer to "Trouble Shooting."

NOTE: If the prevailing temperature is 40 degrees Fahrenheit or lower, it may be necessary to use the cold weather starting aid to start the engine.

If the key switch is released before the engine starts, wait until the starter stops before turning the key again. This will prevent the possibility of damage to the starter.

(6) Watch the engine oil pressure and clutch oil pressure gauges as the engine begins to run. If the indicator hands are not in the "N" (normal) range, stop the engine immediately and determine the cause.

Make sure the generator indicator red light goes out as the engine picks up speed. If the light continues to glow, stop the engine and determine the cause.

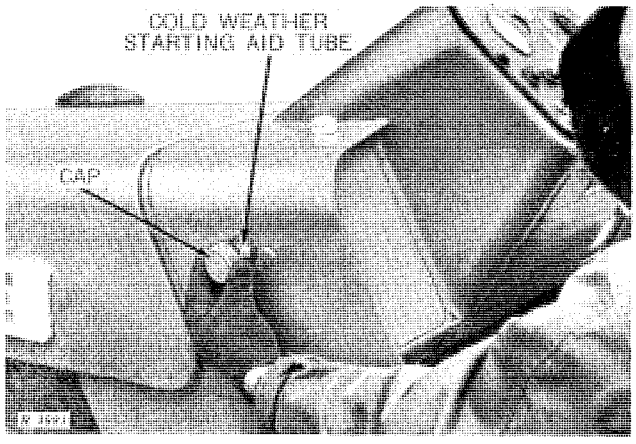
(7) After the engine starts, use the hand throttle or foot throttle to bring it to operating speed. Be sure the engine is warmed up before placing it under full load.

Cold weather starting

When the air temperature is extremely cold, the heat of compression in the engine combustion chamber may not be high enough to ignite the injected fuel.

If the outside temperature is 40 degrees Fahrenheit or lower, an engine starting aid may be necessary. The need for such a starting aid depends to some extent on the type of fuel used and the condition of the engine. A starting aid will not correct such deficiencies as low battery charge, crankcase oil of heavy viscosity, or high electrical resistance. Starting aids are intended for use only when the air is too cold for heat of compression to ignite the fuel-air mixture and the engine is otherwise operating satisfactorily.

Pressurized push-button cans containing starting fluid, which aids fuel conbustion, can be obtained from your John Deere dealer.

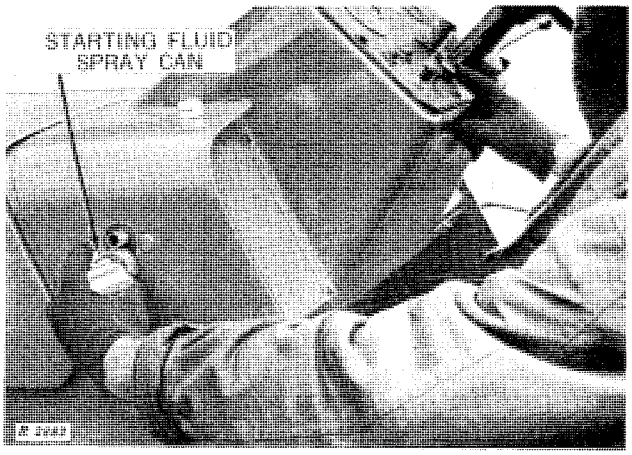


Removing cover from cold weather starting aid tube

To start the engine in cold weather, remove the cap from the cold weather starting aid inlet tube on the left-hand side of the cowl.

Follow steps (1) through (5) for normal starting. While attempting to start the engine (step 5), spray starting fluid into the inlet tube until the engine starts.

CAUTION: If the tractor is equipped with a cab, stand outside the cab while spraying the fluid. This will prevent any possibility of being overcome. Do not smoke while using the fluid. Be sure there are no other fire hazards. Avoid using the fluid inside buildings.



Spraying starting fluid into cold weather starting aid tube

During extremely cold weather, it may be necessary to continue spraying fluid for a short time after the engine starts to keep it running. However, avoid using an excessive amount of fluid. Too many "shots" of starting fluid may cause pre-ignition or flooding, either of which could damage the engine or starter.

After the engine is running satisfactorily, replace the cap on the starting aid inlet tube, making sure that the "O" ring in the cap is in good condition. This will prevent entrance of unfiltered air into the engine.

Do not spray fluid into the air cleaner intake as instructed on some starting fluid cans. Fluid drawn through the oil in the air cleaner loses much of its effectiveness. This practice can also result in getting too much fluid in the cylinders, especially when the air is extremely cold.

After engine is started, follow steps (6) and (7) for normal starting.

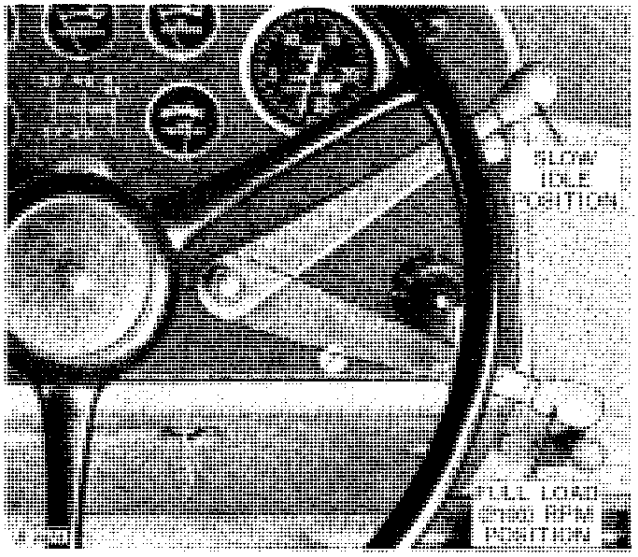
Engine speeds

Operating speeds

It is important for economy and best performance to operate the engine at full throttle whenever possible (2100 rpm). Correct fast idle (full open but no load) speed is 2230 to 2270 rpm, and correct slow idle speed is 550 to 600 rpm. The engine is designed to operate at these speeds. High fuel consumption, excessive smoke from the exhaust, and increased maintenance costs will result from operating the engine above the specified speeds. SUCH PRACTICE WILL ALSO VOID THE ENGINE WARRANTY.

Using hand throttle

Use the hand throttle to select slow idle or full load (2100 rpm) engine speed.



Hand throttle positions

Push the lever upward as far as it will go to obtain slow idle. Pull the lever downward as far as it will go to obtain full load.

It is always best to set the hand throttle in full load position and vary the tractor ground speed by shifting gears.

Using foot throttle

Depress the foot throttle only when conditions are such that it is more practical to speed up the tractor by this method than it would be to shift gears.

When the pedal is pressed downward as far as it will go, the engine is operating at full throttle. When the pedal is released, engine speed reverts to that established by the setting of the hand throttle.

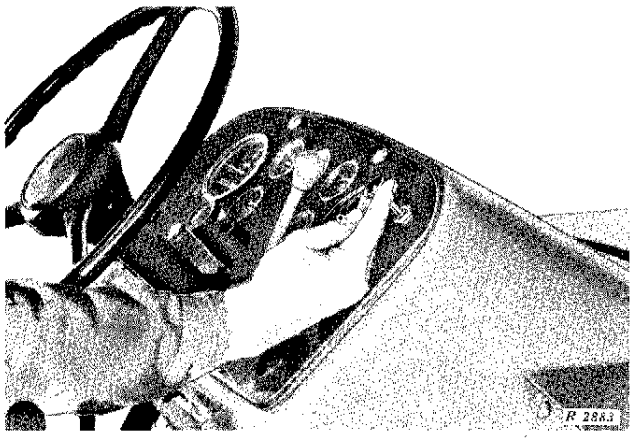
Engine idling

Avoid unnecessary engine idling. Prolonged idling may cause the engine coolant to fall below the specified range of 160° to 185° F. Low operating temperature causes crankcase dilution due to incomplete fuel combustion and permits the formation of lacquer or gummy deposits on valves, pistons, and rings. It also promotes a rapid accumulation of sludge within the engine. When the tractor is to remain idle for any length of time, stop the engine.

Stopping the engine

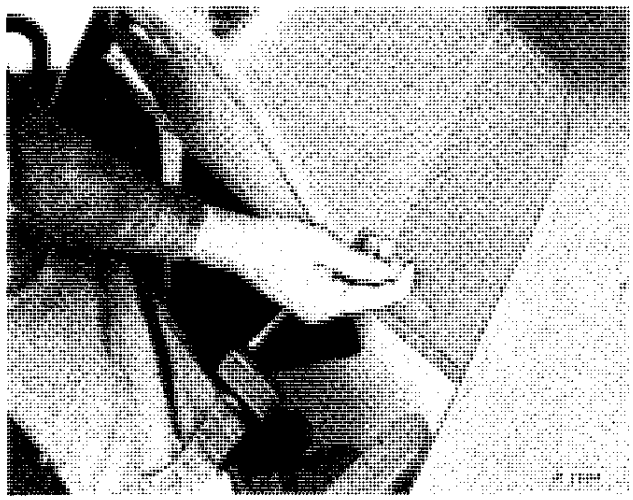
Routine stopping

Allow the engine to idle for a minute or so at half speed or lower, without load, before stopping it. This permits the engine to cool gradually. Sudden cooling of a hot engine may cause metal parts to contract unevenly and subject them to rapid wear.



Pulling out engine stop knob

With the hand throttle at slow idle, pull out the engine stop knob. After a few revolutions, the engine will stop. Pulling out on the stop knob shuts off the supply of fuel to the injectors.



Pulling out emergency engine shutoff knob

Turn the key switch off to prevent battery discharge through the generator indicator light and fuel gauge. Remove the key from the key switch to prevent tampering and unauthorized operation of the engine and electrical accessories. Apply the parking brake to hold the tractor stationary.

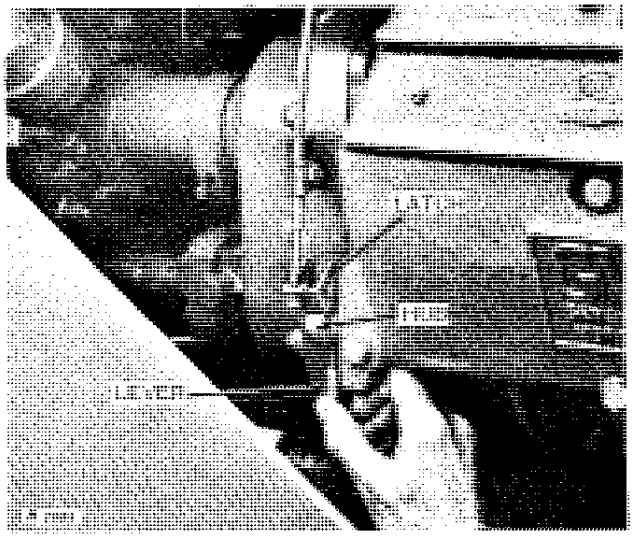
Emergency engine stopping

In rare instances, it may be impossible to stop the engine in the routine manner due to unusual wear or damage to the engine stopping mechanism. If this occurs, pull out on the engine emergency shutoff knob. This stops the engine by shutting off the engine air supply.

After the emergency shutoff is used, reset the mechanism. To do so, push the knob in as far as it will go. Then push down and inward on the lever at the engine end of the mechanism to engage the latch on the cable end with the hub of the operating shaft.

Before starting the engine, determine why it would not stop in the normal manner and correct the cause.

Use the emergency shutoff only in a case of emergency. Stopping the engine by this method may cause oil to be sucked past the oil seals into the blower housing. Damage to the engine may also result.



Resetting emergency engine shutoff mechanism

Breaking in the engine

Operate your new tractor for the first 20 hours at 1/2 to 3/4 load. After this 20-hour period, the tractor is then ready for full load service. At no time should the tractor be operated under full load until it has run long enough for the engine and crankcase oil to warm up thoroughly.

At the end of the first 100-hour period, drain the crankcase oil, service the oil filters, and fill the crankcase with diesel engine oil as specified in this manual.

Warm-up period

Before placing the tractor under full load, be sure it is warmed up to the proper operating temperature.

A good practice is to idle the engine at about half speed for 5 minutes and then operate it at fast idle for the same length of time before applying a load.

When starting to work with a cold engine, it is best to operate for about 30 minutes in a lower gear than is normally required for the load. This will give the oil a chance to circulate freely and will prevent undue wear on engine and transmission parts.

Driving the tractor

Preliminary checks

After the engine is started and warmed up, glance at the instruments to make sure everything is operating properly. The generator indicator light should be off and the oil pressure, temperature, and air pressure gauge indicator hands in the "N" (normal) range.

Shifting gears

Selecting proper speed

The tractor has 9 forward speeds and 2 reverse speeds which enable the operator to balance load and speed for maximum economy and provide flexibility of speed to meet varying working conditions.

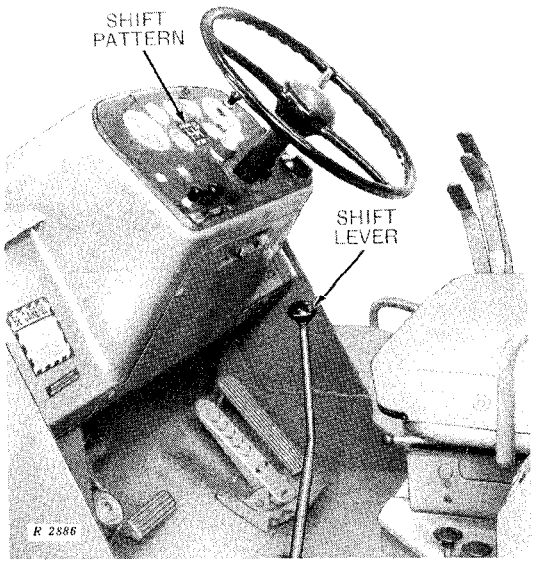
The transmission has two speed ranges, low and high, controlled by the transmission gear range selector knob on the instrument panel. Pushing the knob in places the transmission in low range; pulling the knob out places the transmission in high range. Once the knob is set, the transmission is shifted automatically by compressed air into the selected range whenever the shift lever is moved to neutral.

When the engine is operating at full load speed (2100 rpm), the ground speeds at which the tractor will travel are:

TRACTOR GROUND SPEEDS

Low range	
1st	2 mph
2nd	2-7/8 mph
3rd	3-7/8 mph
4th	5 mph
5th	6-1/3 mph
Reverse 1	1-7/8 mph
High range	
6th	8-1/8 mph
7th	11 mph
8th	14 mph
9th	18 mph
Reverse 2	5-5/8 mph

Each position of the shift lever in the quadrant except the one for 1st provides a different speed



Shift lever and shift pattern

in each range. In high range, the position used for 2nd in low range is used for 6th, the one for 3rd is used for 7th, the one for 4th is used for 8th, the one for 5th is used for 9th, and the one for reverse 1 is used for reverse 2.

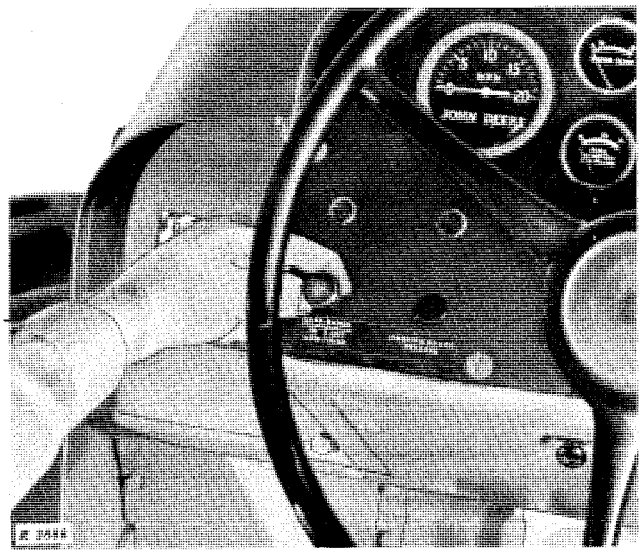
Select the proper gear for the work to be done. For best performance and maximum economy, it is good practice to operate the engine at full rated load speed whenever possible, using the transmission gears to change the speed of travel. If the load is light and you want to travel at slow speed, it is better to use the gear that gives the desired speed than to use a faster gear and throttle down. A tractor traveling slowly in a high gear with a light load and a retarded throttle is wasting fuel. On the other hand, if the selected gear is too high for the load, the overloaded engine will "lug" or labor, which increases engine wear.

Shifting from neutral

Having selected the proper gear, set the transmission gear range selector knob in position to obtain high or low range (knob down for low range, up for high range).

NOTE: There is no high range for first speed. The transmission is not designed to operate in this combination.

Releasing parking brake



Operating transmission gear range selector knob

Depress the clutch pedal and move the shift lever to the gear which gives the desired speed.

Release the parking brake by pulling up on the knob on the instrument panel. Then release the clutch pedal to take up the load smoothly.

Shifting from one speed to another

All gears except 1st and reverse are synchronized, making it possible to shift while the tractor is in motion. To shift from one speed to another in the same speed range, depress the clutch pedal and shift in the usual manner. When shifting down from a high speed to a lower speed, accelerate the engine to synchronize its speed with that of the transmission gears.

To shift from one speed range to the other, pull out or push in the transmission gear range selector knob. If desired, this can be done while the tractor is is motion at any time prior to the actual shifting. When the shift is to be made, depress the clutch pedal, move the shift lever into neutral, shift to the new speed, and release the clutch pedal. During the time that the shift lever is in neutral, the transmission will shift automatically into the new range.

Steering

Hydraulic power provides effortless, positive steering and eliminates wheel tug and ground shock. The system includes a hydraulic cylinder mounted between the two hinged front and rear sections (or "bogies") of the tractor.

Turning the steering wheel directs hydraulic oil under pressure to either end of the cylinder to extend or retract the piston. Piston motion causes the bogies to hinge and turn the tractor. When the operator stops turning the steering wheel, the tractor will remain in the same degree of turn established when steering wheel motion was discontinued. This is because a "follow-up" mechanism cuts off flow of oil to the steering cylinder when steering wheel motion is stopped. When the steering wheel is returned to neutral, the tractor continues straight ahead in the new direction.

Using air brakes

Operation of the air brakes differs very little from operation of conventional brakes. The distance the brake pedal is depressed determines the amount of air delivered to the brake-actuating mechanism and the resultant braking force.

Never operate the tractor until the indicator hand on the air pressure gauge is in the "N" (normal) range. If the hand drops into the "DANGER" range, indicating a pressure of 30 pounds per square inch or less, there is not sufficient pressure to operate the brakes effectively. The horn will sound automatically as a warning to the operator.

To use the brakes to best advantage, apply them at first as hard as speed and ground conditions permit, and gradually release them as tractor speed decreases. When the stop is completed, there should be only sufficient compressed air in the actuating mechanism to hold the tractor stationary. Never "fan" the brake pedal. To do so merely wastes compressed air and does not improve the stop.

NOTE: Normally there is sufficient compressed air in the reservoir to make two or three stops after the engine is stopped. Therefore, except in an emergency, the air brakes should NEVER be operated unless the engine is running.

Operating air brakes

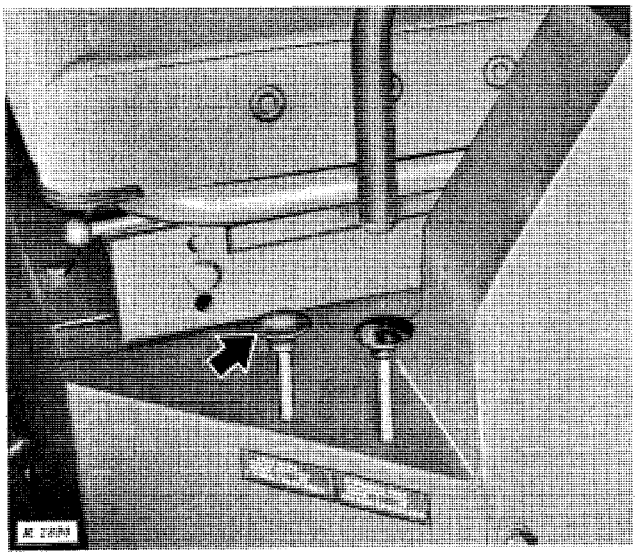
Using parking brake

To apply the parking brake, depress the pedal at the left-hand side of the platform. The brake will lock automatically in the applied position.

To release the brake, pull up on the parking brake release knob on the instrument panel.

Always apply the parking brake when the engine is stopped. Since the clutch is held in engagement by hydraulic pressure, when the engine is stopped there is no hydraulic pressure and the clutch is disengaged. Therefore, placing the transmission in gear will not keep the tractor from rolling on an incline.

Driving with front axle disconnected



Front axle drive disconnect knob

When four-wheel drive is unnecessary, or when traveling on the highway, the front axle should be disconnected from the engine. To do so stop the tractor, depress the clutch pedal, and place the tractor in gear. While pulling up on the front axle drive disconnect knob, release the clutch pedal and alternately speed up and slow down the tractor by means of the hand or foot throttle until the mechanism disengages.

To engage the front axle, place the tractor in gear and drive slowly forward and rearward while pushing down on the disconnect knob until the mechanism engages.

It is always advisable to disconnect the front axle when driving the tractor on a highway. Since there is usually some difference in rolling radius between the front and rear tires, due to such variable factors as tire pressure, tire wear, and weight of implements, the front and rear wheels may rotate at slightly different speeds. This will scuff the tires and subject them to rapid wear if the tractor is operated with four-wheel drive on the highway.

Overloading the tractor

The tractor will handle economically and efficiently all jobs for which it was designed. Using the tractor on loads beyond its power range places excessive strain on all its parts and will eventually result in unnecessary repair expense and impaired operating efficiency. An overloaded tractor can usually be detected by a gradual slowing down in ground speed and a laboring engine. Black or gray smoke from the exhaust due to unburned fuel is also an indication of an overloaded engine.

High speed driving

The purpose of the high speed gears in the tractor is to save time when traveling on highways or on smooth-surfaced roads. Regardless of road or field conditions, use care when operating the tractor at high speed. Fast driving is the cause of many accidents. As a safety measure, shift to a lower gear when operating over rough ground. Disconnect the front axle drive for all high speed road travel.

Suggest:

If the above button click is invalid.

Please download this document

first, and then click the above link

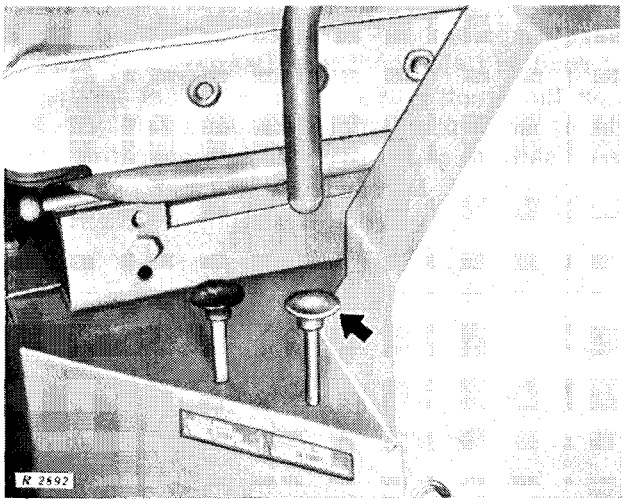
to download the complete manual.

Thank you so much for reading

Hydraulic system

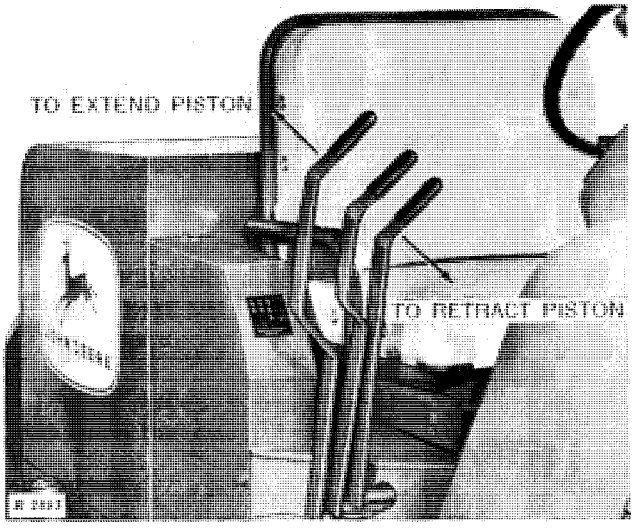
Engaging hydraulic pump

To engage the pump, stop the engine and press down on the hydraulic pump disconnect knob (on the left-front side of the seat support). It may be necessary to turn the engine over momentarily by turning the key switch to align the engaging parts.



Hydraulic pump disconnect knob

The pump is disengaged by pulling up on the knob while the engine is slowly idling. Disengage the pump if the hydraulic system is not being used.



Hydraulic system operating levers

Using hydraulic system operating levers

The tractor may be equipped to operate a rockshaft and 3-point implement hitch or two or three implement-mounted remote hydraulic cylinders connected to the tractor by means of hoses and breakaway couplings. The hydraulic equipment is operated by levers located at the right-hand side of the seat.

If the tractor has two levers, the inner lever controls oil flow to the rockshaft hydraulic cylinders or to the center and right-hand breakaway couplings. The outer lever controls oil flow to the left-hand breakaway coupling.

If the tractor has three levers, the inner lever controls oil flow to the rockshaft hydraulic cylinders, the center lever controls oil flow to the right-hand breakaway coupling, and the outer lever controls oil flow to the left-hand breakaway coupling.

If the tractor is equipped to operate three remote cylinders, the inner lever controls oil flow to the center coupling, the center lever to the right-hand coupling, and the outer lever to the left-hand coupling.

Pulling the levers to the rear extends the cylinder pistons. In most applications, this raises the implement. Pushing the levers forward retracts the pistons. In most applications, this lowers the implement. The further the levers are moved in either direction, the faster the hydraulic system will react.

CAUTION: Never overload the hydraulic system. Although the system has relief valves to protect it from overloads, never impose a greater load than that for which it was designed. Many implements have auxiliary springs to help raise them. If the implement will not rise when the hydraulic system operating levers are operated, adjust the auxiliary lifting spring. See the implement operator's manual.

When hand pressure is released from the hydraulic system operating levers, they will return automatically to neutral and the implement will remain in the position established when the levers were released.