720 GENERAL-PURPOSE AND STANDARD DIESEL TRACTORS WITH ELECTRIC STARTING (SERIAL NO. 7222600-UP)

JOHN DEERE

OPERATORS MANUAL

720 GENERAL-PURPOSE AND STANDARD
DIESEL TRACTORS WITH ELECTRIC STARTING
(SERIAL NO. 7222600-UP)

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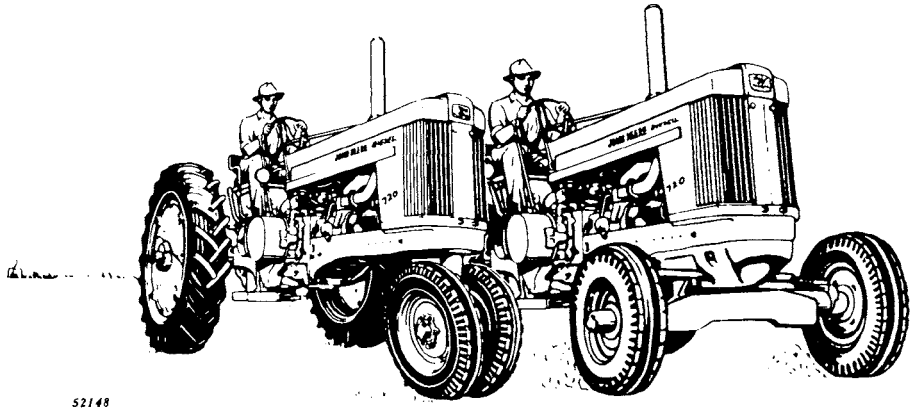

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To the Purchaser

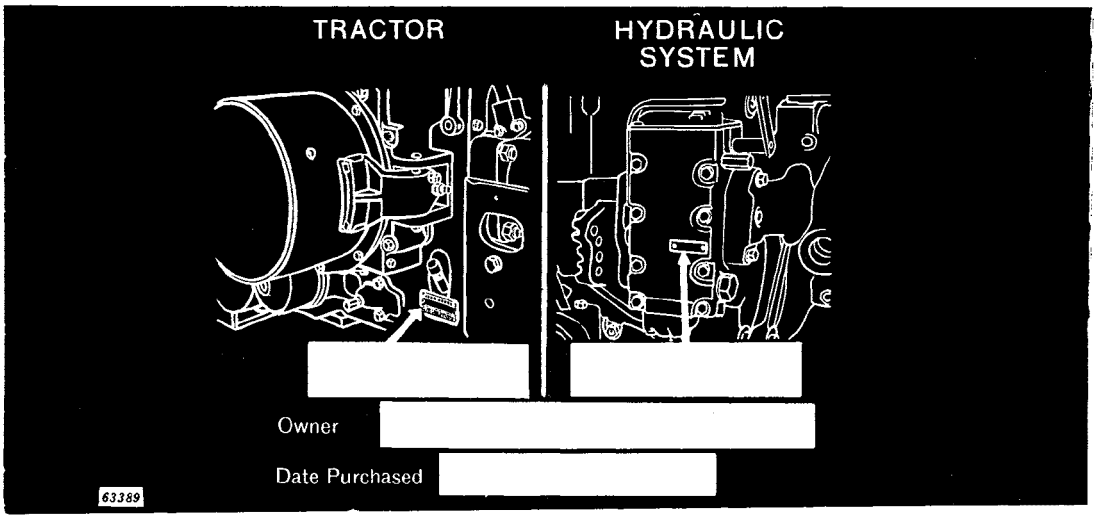
We welcome you to our ever-growing family of John Deere Tractor owners. We are confident that the dependable and economical performance of your John Deere Tractor will prove that you made a wise choice.

The purpose of this manual is to acquaint you with your new tractor. The manual explains how to operate and service your tractor, and how to maintain its high operating efficiency. Instructions are given clearly with the intention of making these operations as easy as possible.

Keep this manual in a convenient place for quick and easy reference. Use it as a guide whenever questions arise. You have purchased a dependable, sturdy tractor, but only by operating and caring for it properly can you expect to receive the service and long life for which it was designed.

If in the future you need new parts to replace those that may be worn, insist on genuine John Deere parts. They are exact duplicates of the originals, made from the same patterns and of the same high-quality materials.

When in need of parts, give your John Deere dealer the serial number of your tractor or hydraulic system (Powr-Trol), depending on the parts you need. The illustration below shows you where to find these serial numbers. Obtain them from your tractor—NOW—and insert them in the spaces provided in the illustrations below.



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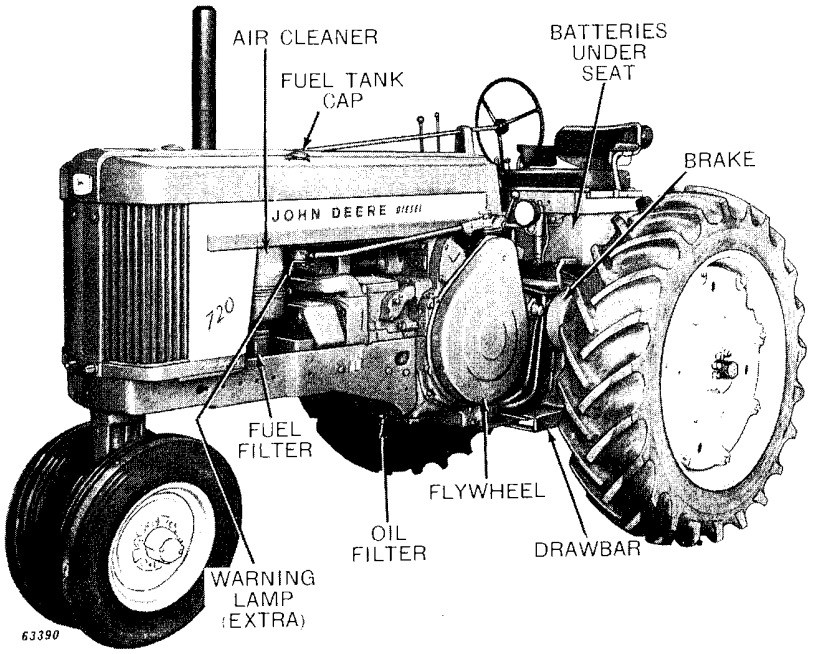
John Deere Tractor Service Policy

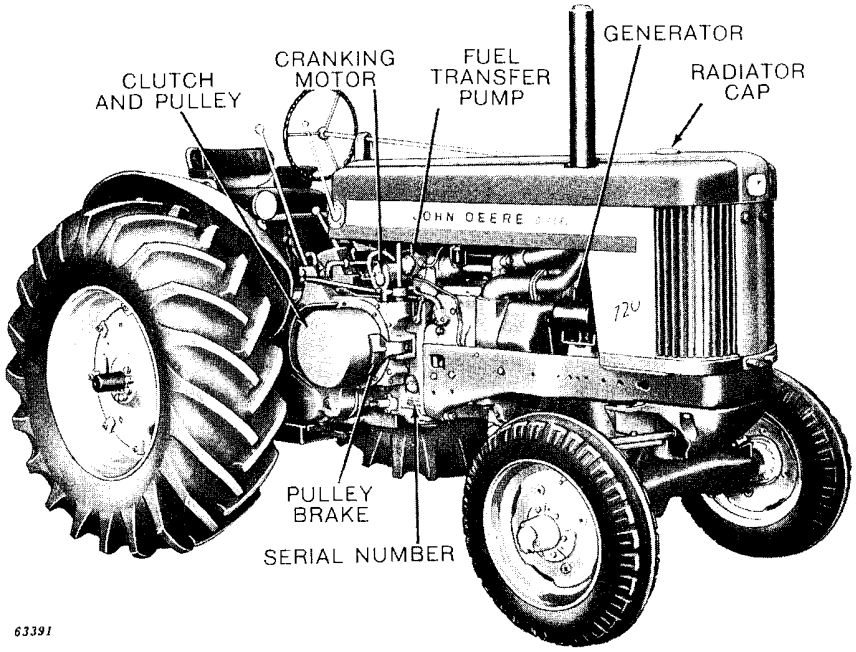
When your new tractor was delivered the John Deere dealer presented to you a copy of the Tractor Service Policy illustrated above. This policy certifies that your new John Deere Tractor was properly inspected and prepared for delivery by the dealer before he released it to you.

Present the policy to the dealer whenever any services which it authorizes are required. Keep the policy in a safe place for ready reference at all times.

This is Your New John Deere Tractor



John Deere "720" Series General-Purpose Tractor with Electric Starting—Flywheel Side
(Serial No. 7222600-)



John Deere "720" Series Standard Tractor with Electric Starting—Pulley Side
(Serial No. 7222600-)

SPECIFICATIONS

PERFORMANCE:

Capacity for Work:

Five 14-inch plow bottoms or the equivalent under most soil conditions.

***Maximum Horsepower:**

Belt	58.84
Drawbar	53.66

CAPACITIES (U. S. MEASUREMENTS):

Fuel Tank	20 Gals.
Crankcase	9 Qts.
Transmission	8 Gals.
Hydraulic System (Powr-Trol)	13 Qts.
Remote Cylinder	1 Qt.
Powershaft Clutch	4-1/2 Qts.
Cooling System	7 Gals.
First Reduction Gear Cover	1-1/2 Qts.
Power Steering Reservoir	5 Qts.

**SPEEDS:

Gear	13.6-38 Tires	15-30 Tires
1	1-1/3 mph	1-1/3 mph
2	2-1/4 mph	2-1/4 mph
3	3-1/2 mph	3-1/2 mph
4	4-1/3 mph	4-1/3 mph
5	5-3/4 mph	5-1/2 mph
6	11-1/4 mph	11 mph
Reverse	3-1/3 mph	3-1/4 mph

ENGINE:

Type..... Two-cylinder, cast-in-block, valves-in-head.

Engine Speeds:

Load	1125 rpm
Fast Idle	1250 rpm
Slow Idle	700 rpm
Bore and Stroke	6-1/8" x 6-3/8"
Displacement	376 cubic inches
Compression Ratio	16 to 1

LUBRICATION SYSTEM:

Type..... Force-feed pressure system with full-flow oil filter.

FUEL SYSTEM:

Type..... Gravity to sediment bowl. Transfer pump to filters.

Air Cleaners... Oil-wash type.

COOLING SYSTEM:

Type.... Pressure system—centrifugal pump with engine temperature controlled by heavy-duty thermostat.

ELECTRICAL SYSTEM:

Battery Voltage	24 Volts
Generator Regulation	Current-Voltage Regulator
Batteries	Four 6-Volt, Group I-H, in Series
Lights and Accessories	12 Volts
Electric Cranking Motor	24 Volts
Generator	24 Volts

CLUTCH:

Type..... Hand-operated, six 10-inch dry disks.

BELT PULLEY:

Diameter	12-7/8"
Width	7-3/8"
Rpm (Load)	1125
Belt Speed (fpm)	3790

TRANSMISSION:

Type..... Six speeds forward and one in reverse.

Gears..... Selective-type, straight spur-cut gears, forged and heat-treated.

Bearings.. Shafts operate on five roller bearings, six tapered roller bearings, and four ball bearings.

REAR WHEEL BRAKES:

Type... Two automotive-type internal-expanding rear wheel brakes.

REAR AXLES:

Diameter	3-1/8"
Bearings	Four tapered roller bearings.
Types Available	Regular, long, and extra long.

**Maximum h.p. corrected to 60°F. and 29.92 in. hg. (Nebraska Test No. 594)*

***Optional speeds available.*

SPECIFICATIONS

REAR WHEELS AND TIRES:

General-Purpose. 13.6-38, 6-ply tires on cast disk wheels. 15.5-38, 6-ply tires also available.

Standard..... 14-30, 6-ply tires mounted on cast disk wheels. 15-30, 6-ply and 18-26, 8-ply tires also available.

POWER TAKE-OFF:

Shaft Diameter..... 1-3/8″
Shaft rpm..... 547
Splined End Ahead of Hitch.... 14″
Splined Shaft Above Ground:
General-Purpose..... 25″
Standard..... 22-5/8″

FRONT WHEELS AND TIRES:

General-Purpose

Double and Adjustable Type:
Reversible for added clearance.
Bearings.. Four tapered roller bearings.
Tires..... 6.00 x 16″, 4-ply.
6.00 x 16″, 6-ply also available.

Single Type:
Bearings.... Two tapered roller bearings.
Tires..... 7.50 x 16″, 10-ply.

Standard

Bearings.... Four tapered roller bearings.
Tires..... 6.50 x 18″, 4-ply;
7.50 x 18″, 4-ply;
7.50 x 18″, 6-ply.

	General-Purpose			Standard
	Double Front Wheel	Single Front Wheel	Adjustable Tread Front Axle	
DIMENSIONS:				
Wheel-Base.....	91-3/8″	90-5/8″	93-7/8″	82-3/8″
Over-All Length.....	135-1/4″	135-1/4″	135-1/4″	130-1/4″
Over-All Height.....	88-1/4″	88-1/4″	88-1/4″	87-3/8″
Height to Top of Steering Wheel.....	81-1/4″	81-1/4″	81-1/4″	81″
Width Over Regular Axles.....	86-5/8″	86-5/8″	86-5/8″	86-5/8″
REAR WHEEL TREAD ADJUSTMENT:				
Regular Wheels, Regular Axles.....	60-88″	60-88″	60-88″	62-80″
Regular Wheels, Long Axles.....	62-1/2-97-1/4″	62-1/2-97-1/4″	62-1/2-97-1/4″	.....
Regular Wheels, Extra Long Axles.....	66-1/2-105-1/4″	66-1/2-105-1/4″	66-1/2-105-1/4″	.....
Offset Wheels, Long Axles.....	60-104″	60-104″	60-104″	.....
Offset Wheels, Extra Long Axles.....	60-112″	60-112″	60-112″	.....
Power-Adjusted Wheels, Regular Axles.....	60-94″	60-94″	60-94″	.....
Power-Adjusted Wheels, Long Axles	63-104″	63-104″	63-104″	.....
Power-Adjusted Wheels, Extra Long Axles.....	63-112″	63-112″	63-112″	.....
Front Wheel Tread Adjustment.....	.....	.....	48-80″	52-68″
Clearance.....	26″	26″	Front 23″ Rear 26″	Front 13″ Rear 25-1/4″
Turning Radius.....	9′ 6″	9′ 6″	14′ 9″	14′
SHIPPING WEIGHT.	7000 Lbs.	6990 Lbs.	7310 Lbs.	7685 Lbs.

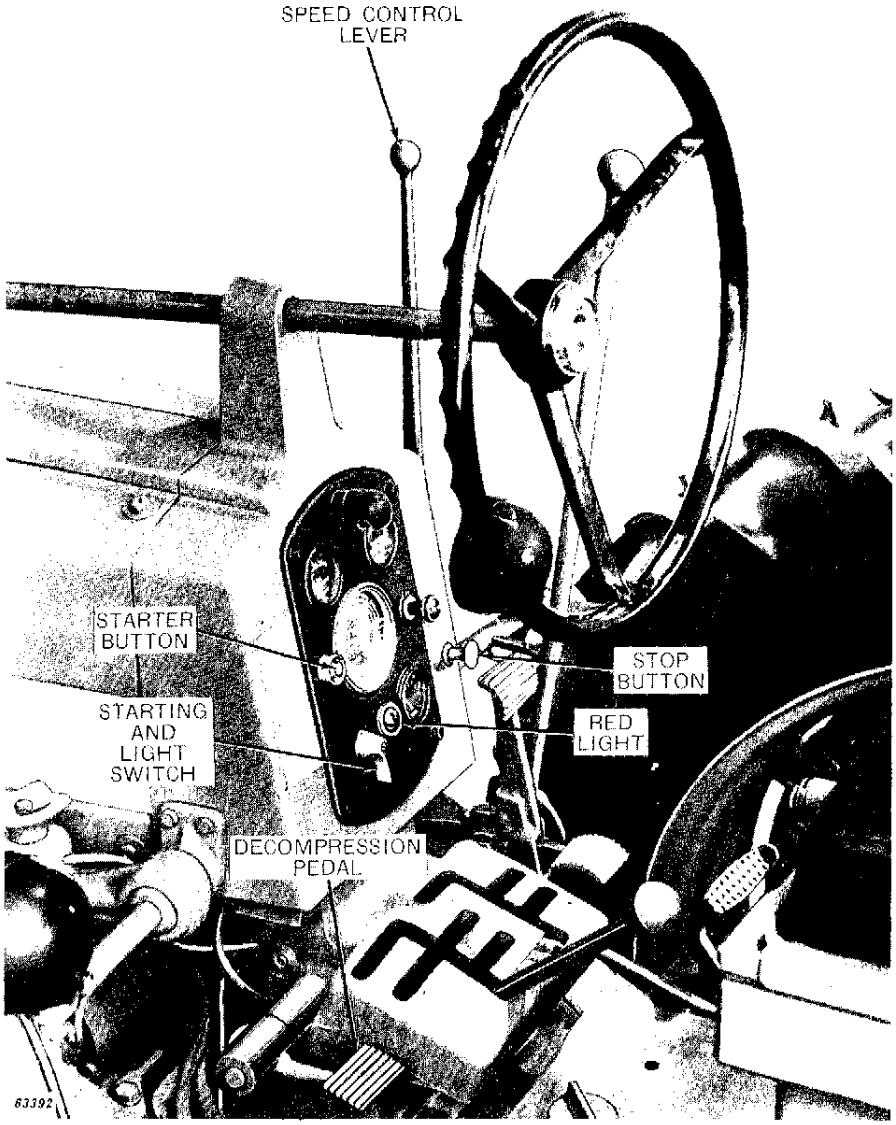
(Weights are for Tractors dry and with wheel equipment as shown under "Front Wheels" and "Rear Wheels.")

(Specifications and design subject to change without notice.)

CONTROLS

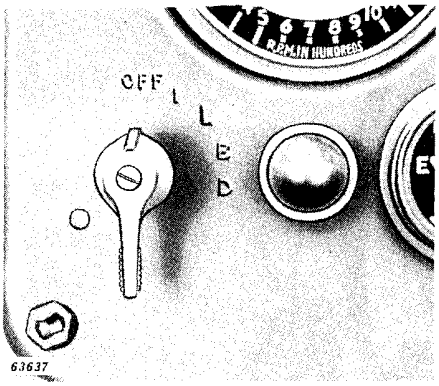
Familiarize yourself with all the controls provided for safe and easy operation of your new tractor. Regardless of your previous tractor experience, study this section covering controls carefully before you operate your tractor.

• STARTING CONTROLS •



Starting Controls

STARTING AND LIGHT SWITCH.



Starting and Light Switch and Red "Generator" Light

A combination starting and light switch is located on the instrument panel. The switch controls the electrical circuit to the starter button as well as to the lights and electrical accessories.

The lights on your tractor provide maximum use and convenience both for night work in the field and night travel on the highway. The combination rear lamp has a bright white light for illuminating drawn implements and a red light for highway travel.

All lights, as well as the starting circuit, are controlled by the combination starting and light switch. The switch has five positions as follows:

"OFF"—Starter button inactive and lights off.

"I" —Starting. Red "Generator" light "ON."

"L" —Bright front lights and white rear light.

"B" —Bright front lights and red rear light.

"D" —Dim front lights and red rear light.

RED GENERATOR LIGHT.

When the combination starting and light-switch is turned on the red light to the right of the switch will come on. As soon as the engine starts and the generator begins to charge the batteries, the red light goes out and will stay out as long as the batteries are being charged. If the generator fails to operate properly the red light will come on as a warning to the operator.

When the engine is stopped the red light will come on to remind the operator to turn off the switch.

Once the engine is started, it will continue to operate even though the starting and light switch is turned off. **However, during tractor operation the switch should be allowed to remain on;** otherwise neither the red light nor the fuel gauge will function.

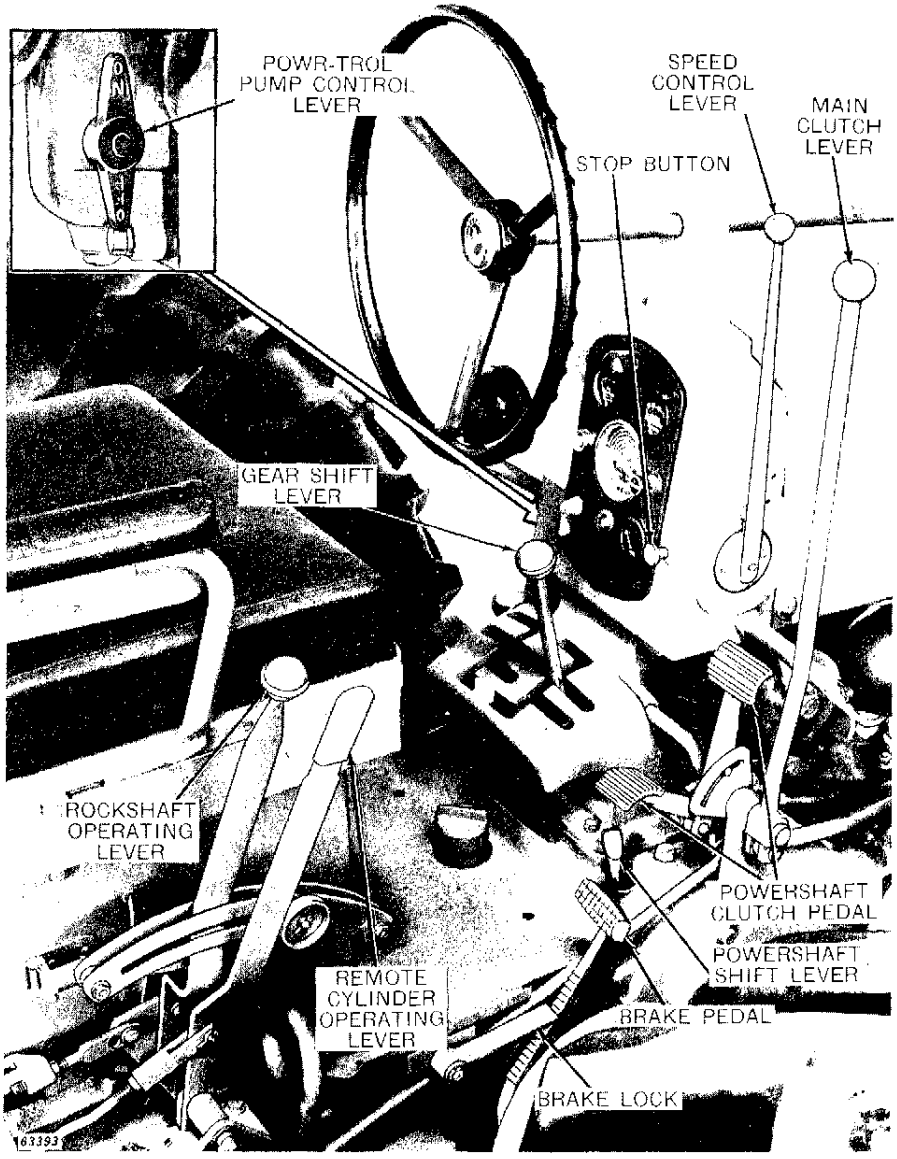
STARTER BUTTON.

Pushing the starter button activates the cranking motor which cranks the engine. The starter button will not operate until the starting and light switch is turned on.

DECOMPRESSION PEDAL.

Pushing down on the decompression pedal relieves compression in the engine for starting purposes.

• OPERATING CONTROLS •

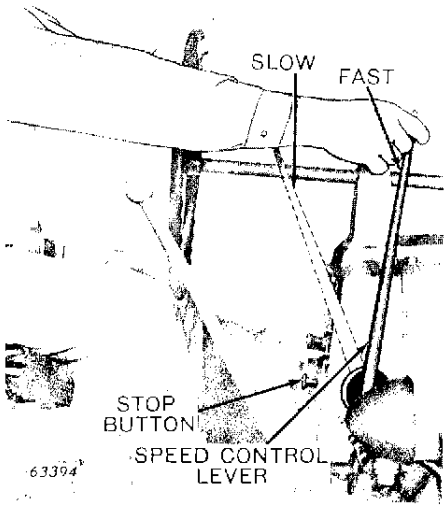


Operating Controls

• OPERATING CONTROLS •

SPEED CONTROL LEVER.

The lever mounted on the right-hand side of the hood support regulates the speed of the engine. Pushing it forward increases the speed and pulling it back decreases the speed. *NOTE: It is good practice to operate the engine with speed control lever in full forward position.*



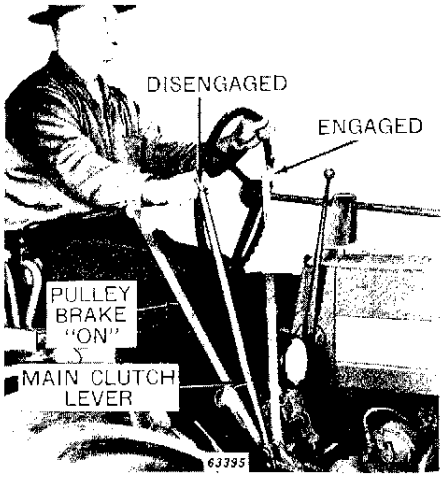
Speed Control Lever and Stop Button

SPEED CONTROL LEVER STOP BUTTON.

The speed control lever stop button, located on the right-hand side of the dash, enables the operator to slow the engine quickly to idle speed without danger of the engine stopping. When the button is pulled out, it allows the speed control lever to be moved to the "stop" position which cuts off delivery of fuel to the engine by the injection pumps causing the engine to stop.

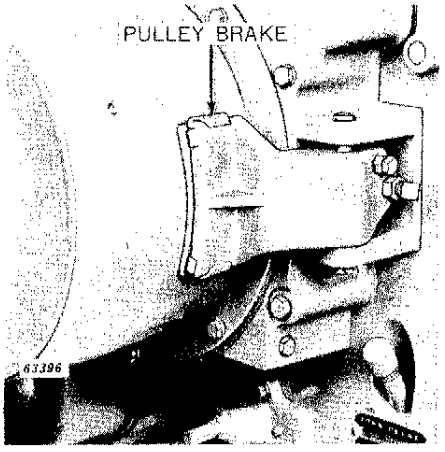
CLUTCH LEVER AND PULLEY BRAKE.

Power is applied gradually and smoothly to the drive system by slowly pushing the clutch lever forward. When the tractor picks up speed, a quick forward thrust on the lever snaps the clutch into engagement. Pull the lever back to the disengage position to disengage the clutch.



Clutch Lever

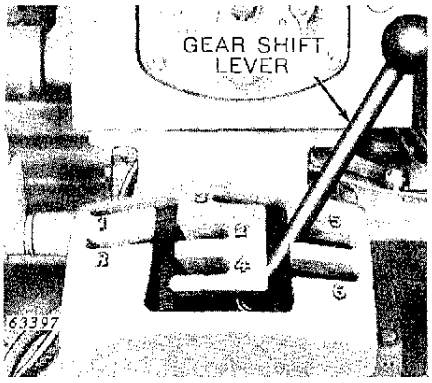
Pulling the clutch lever rearward beyond the disengaged position applies a pulley brake which stops the pulley from rotating. This permits easy shifting of the transmission gears. **CAUTION: Do not use the pulley brake to stop the tractor.**



Pulley Brake

GEARSHIFT LEVER.

The gearshift lever is used to select the proper gear depending upon the load and speed. Familiarize yourself with the shifting before attempting to operate the tractor.



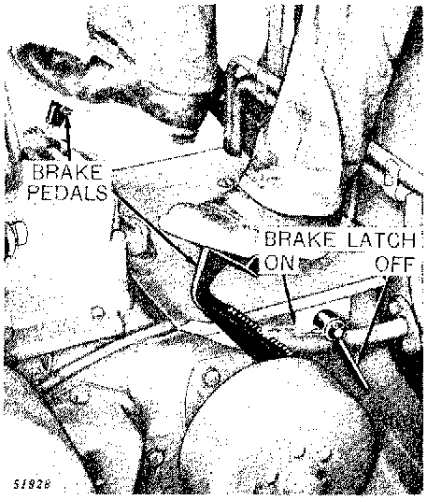
Gearshift Lever Positions

BRAKES.

Individual, foot-operated brakes make possible short turns.

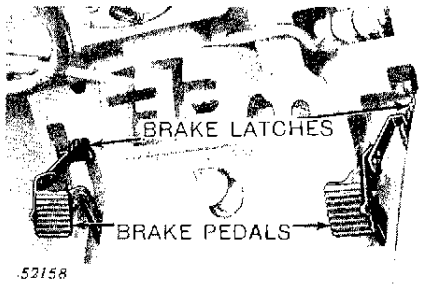
For safe stopping at high transport speeds, apply the brakes **evenly** to avoid drawing the tractor to one side.

A brake latch is conveniently located for locking each brake when doing belt work or when holding the tractor on a hill or incline.



Brake Pedals and Latches on General-Purpose Tractors

On Standard Tractors, the brakes are locked by tipping the top of the pedal forward to engage the latch. The brakes are released by pressing on the heel of the pedals.

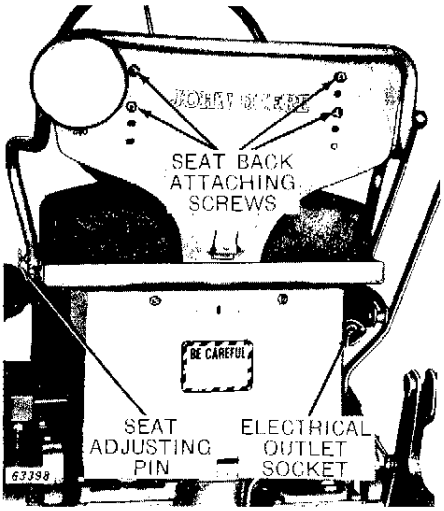


Brake Pedal and Latch on Standard Tractors

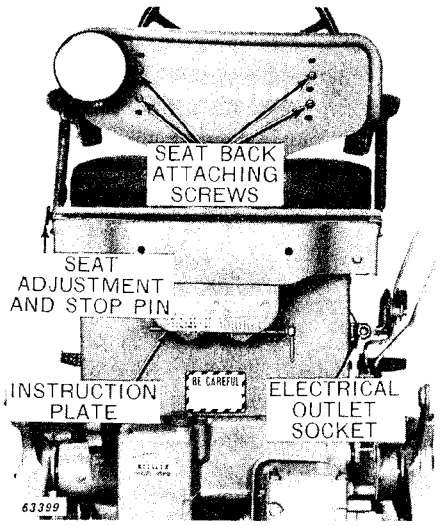
SEAT, BATTERY COMPARTMENT, ELECTRICAL OUTLET SOCKET AND TOOL BOX.

Standard Seat.

The roomy seat adds much to operator comfort and lessens fatigue. There is an adjustment on the left-hand side for moving the seat forward and backward to suit the convenience of the operator. The back of the seat can be adjusted up or down by means of the attaching screws.



Standard Seat, Electrical Outlet Socket, and Battery Compartment



Float-Ride Seat, Electrical Outlet Socket, and Battery Compartment

Special Float-Ride Seat.

A special float-ride seat having rubber torsion springs and a shock absorber is available as optional equipment. This seat has the same forward and backward adjustment and seat back adjustment as the regular seat but, in addition, the tension on the rubber springs can be adjusted to suit each rider. Adjustment is made by turning the handle located at the back of the seat. An instruction plate above the handle tells how to make the adjustment.

Battery Compartment.

The batteries are located in a compartment under the seat where they are readily accessible for periodic checking and service.

Electrical Outlet Socket (12-Volt).

A convenient electrical outlet socket is located on the right-hand side of the battery box.

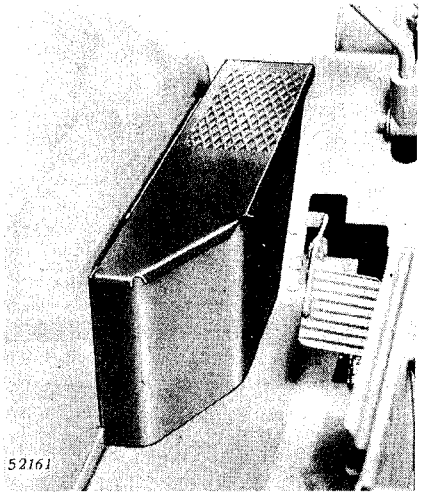
CAUTION: Do not adjust the rubber torsion springs while a rider is on the seat.

Tool Box.

A tool box is conveniently located to provide space for storing tools and other articles.

On general-purpose tractors the tool box is located in front of the engine.

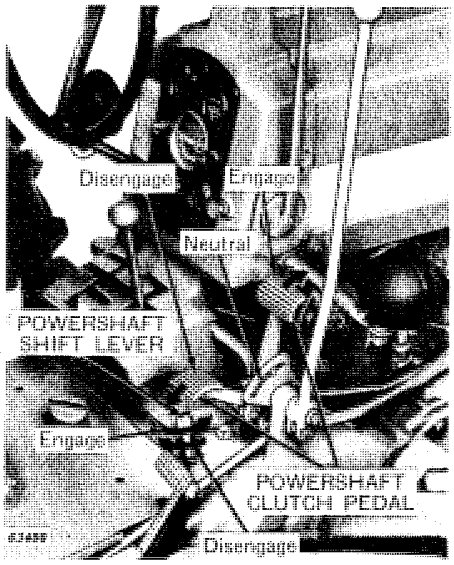
On standard tractors the tool box is located on the platform beside the left fender. A lid prevents loss of articles stored in the tool box.



Tool Box on Standard Tractor

POWERSHAFT SHIFT LEVER.

The powershaft is engaged by the powershaft shift lever located to the right of the gear shift lever. Turn the lever counter-clockwise to engage the powershaft and clockwise to disengage the shaft. **CAUTION: Do not engage the powershaft shift lever while the engine is running. Before engaging the lever, read the operating instructions on page 34.**



Powershaft Shift Lever and Clutch Pedal

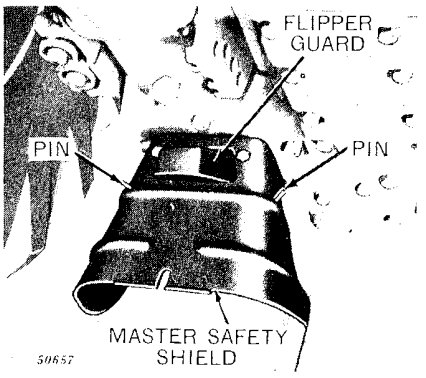
POWERSHAFT CLUTCH PEDAL.

A powershaft clutch makes it easy and convenient to start or to stop the powershaft.

The clutch is operated by a double pedal located to the right of the gear shift lever. Pushing forward on the upper pad of the double pedal engages the clutch. Pushing down on the lower pad disengages the clutch and applies a brake to keep the shaft from turning when not in use. For further information see page 34.

POWERSHAFT MASTER SAFETY SHIELD.

A master safety shield is mounted over the powershaft to protect the operator. This master shield should be removed only when it might interfere with operation of mounted integral equipment. To remove the shield, press up on the two pins protruding from the sides and lift the shield from the tractor. Replace the master shield immediately upon removal of the equipment. Install the master safety shield any time the powershaft is used.



Powershaft Master Safety Shield and Flipper Guard

POWERSHAFT FLIPPER GUARD.

Never remove the powershaft flipper guard from the tractor. Do not operate the tractor with the end of the powershaft exposed. If the flipper guard is damaged, repair or replace it immediately.

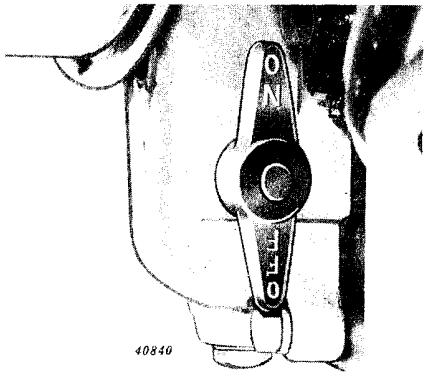
CAUTION: Make it a rule never to dismount from the tractor without first disengaging the powershaft.

POWR-TROL PUMP CONTROL LEVER.

The Powr-Trol pump is engaged by a control lever located below the flywheel housing.

CAUTION: Do not engage the Powr-Trol pump while the engine is running. Read operating instructions on page 35.

To engage the pump turn the control lever counter-clockwise until the word "ON" is on top, then start the engine. The pump can be disengaged while the engine is running at slow idle.

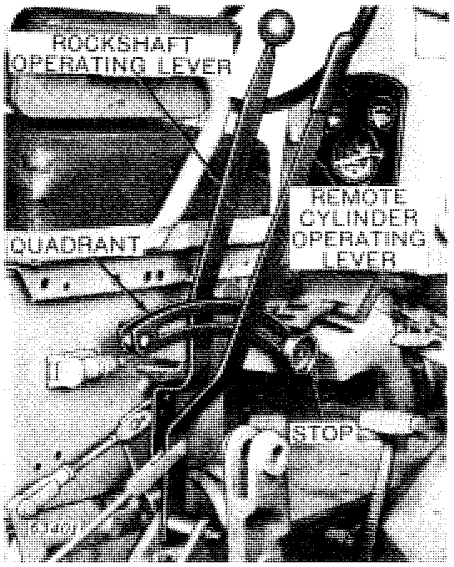


Powr-Trol Pump Control Lever

POWR-TROL OPERATING LEVERS.

Rockshaft Operating Lever.

The rockshaft is operated by a lever located to the right of the seat. Moving the lever rearward raises the implement while moving the lever forward lowers the implement. A depth-control stop on the quadrant can be set so that the implement always returns to the same working depth after it has been raised. For further information see page 36.

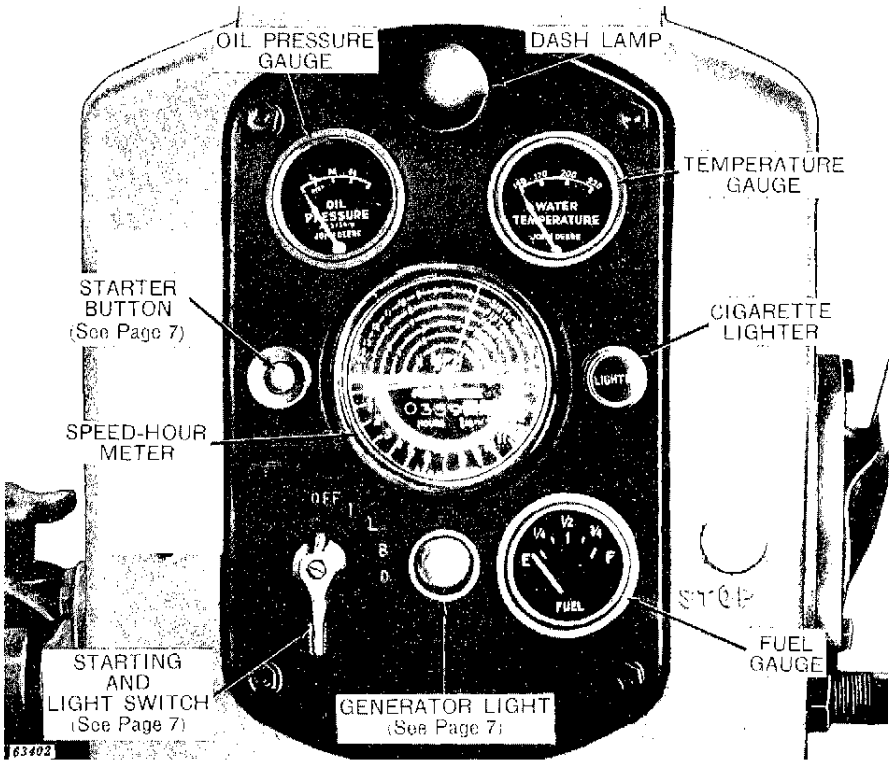


Powr-Trol System Operating Levers

Remote Cylinder Operating Levers.

Your tractor can be equipped to operate either one or two remote hydraulic cylinders. The cylinders are operated by the outer lever or levers located to the right of the seat. Implements are lowered by moving the proper lever forward and raised by moving the lever to the rear. For further information see page 48.

• INSTRUMENT PANEL •



Instrument Panel

TEMPERATURE GAUGE.

The temperature gauge indicates the temperature of the coolant in the cooling system. Engine temperatures are controlled by a thermostat in each cylinder water outlet.

OIL PRESSURE GAUGE.

The oil pressure gauge indicates whether or not the engine oil pump is working. The indicator hand on the gauge should rest between the letters "M" and "H" when the engine is hot and operating at fast idle.

If gauge does not indicate pressure, stop the engine immediately.

FUEL GAUGE (12-VOLT).

The electric fuel gauge indicates the amount of fuel in the fuel tank. The fuel gauge does not register unless the starting and light switch is turned "on."

DASH LAMP (12-VOLT).

A small lamp illuminates the dash at night. It is turned on by the starting and light switch when the main lights are turned on.

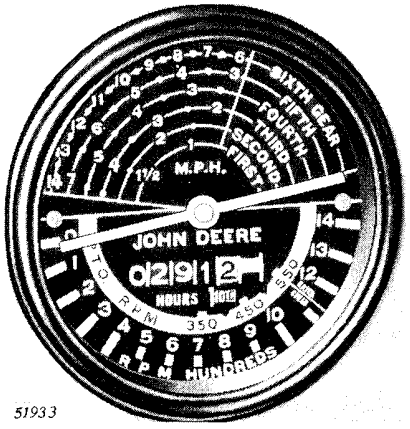
CIGARETTE LIGHTER (12-VOLT).

A cigarette lighter (special attachment) is provided for your convenience on the instrument panel.

SPEED-HOUR METER.

The speed-hour meter (special attachment), located in the center of the instrument panel, can be used to determine the following:

		Shown on
(1)	Ground Travel Speed in All Gears	Top Half of Dial
(2)	Power Take-Off Shaft Speed (rpm)	White Section of Lower Dial
(3)	Engine Speed (rpm)	Bottom Portion of Lower Dial
(4)	Accumulated Hours of Service	Center Portion of Lower Dial



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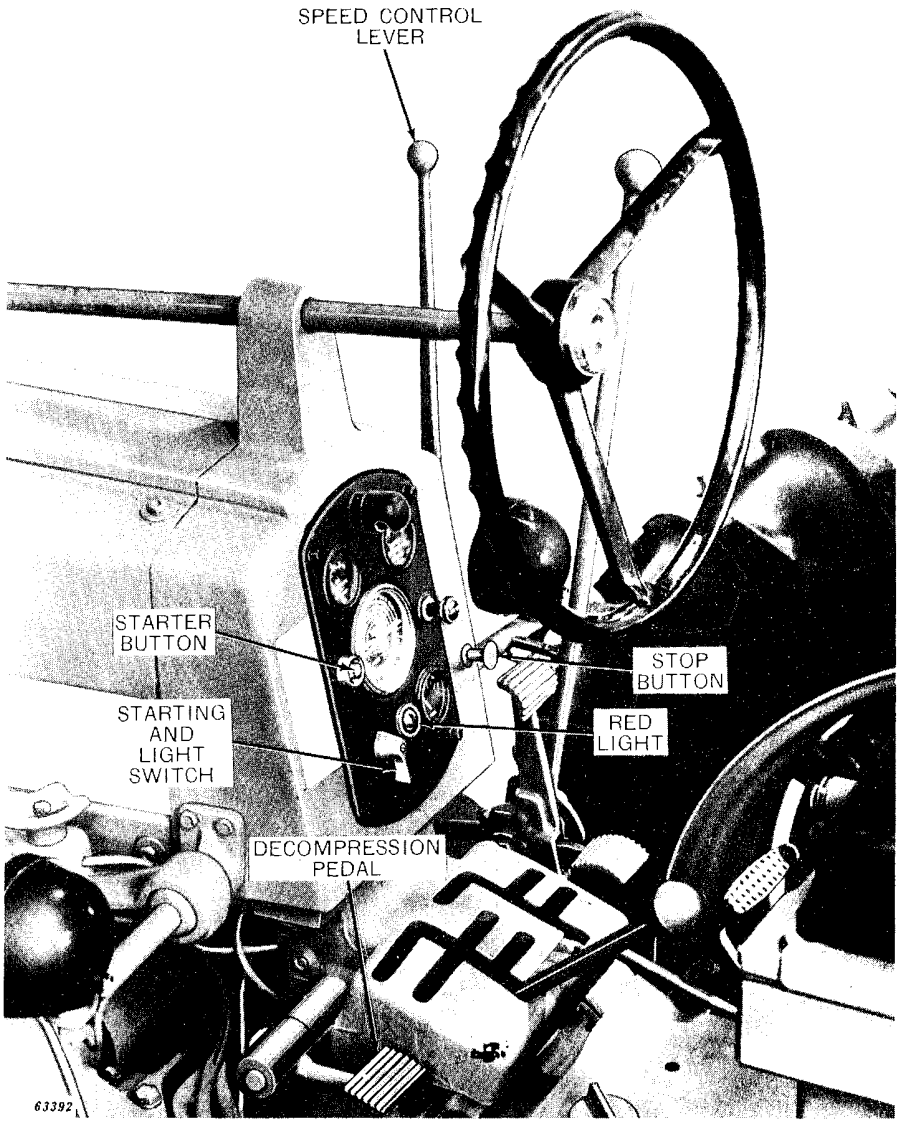
Speed-Hour Meter Dial



Starting Controls

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

OPERATING INSTRUCTIONS

The suggestions given on the following pages tell you how to take full advantage of the many features built into your new tractor, and how to obtain long trouble-free service. By following the instructions you will be able to perform your tractor work efficiently and avoid conditions likely to cause injury or damage.

• FUEL •

Now that you are familiar with the controls, your next consideration before starting your tractor is the type of fuel you are going to use.

FUEL SPECIFICATIONS.

Either No. 1-D or No. 2-D Diesel fuel as defined by ASTM Designation D-975-53-T for Diesel fuel oils may be used. The No. 2 fuel is the heavier fuel and will produce more work per gallon. General specifications are listed as follows:

Flash Point—100°F. minimum.

Pour Point—For cold weather operation, the pour point should be specified 10°F. below the temperature at which the engine is to be operated.

Distillation Temperature—90% recovered at 675°F. maximum.

Viscosity at 100° F.—Saybolt Universal Sec. 30.0 minimum, 45 maximum.

Cetane Number—40 minimum. Low atmospheric temperatures as well as engine operation at high altitudes may require use of fuels with higher cetane ratings.

Sulphur—The sulphur content should be as low as possible preferably less than 0.5% and in no case over 1.0%

Sediment and Water—0.10% maximum.

FUEL STORAGE.

Many Diesel engine difficulties can be traced to dirty fuel. To keep the fuel injection equipment in its most efficient condition it is necessary to keep all dirt, scale, water and other foreign matter out of the fuel.

The importance of proper fuel storage cannot be too highly stressed.

Fuel should be stored in a convenient place outside of buildings. A fuel tank, such as that illustrated on the next page, will provide good fuel storage. If fuel drums are used they should be located in a shady spot to prevent undue evaporation.