

# 730 General-Purpose and Standard Series Tractors Gasoline and All-Fuel (Serial No. 7300000- )



JOHN DEERE

## OPERATORS MANUAL

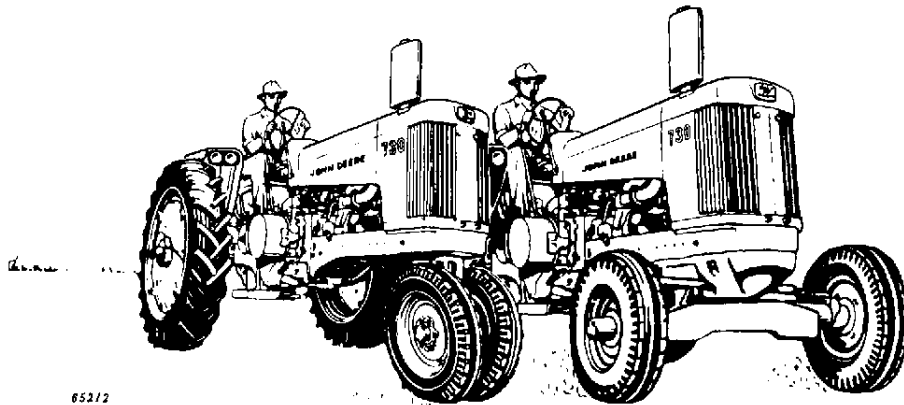
730 General-Purpose and Standard Series Tractors  
Gasoline and All-Fuel (Serial No. 7300000- )

OMR20697 (01APR59) English

OMR20697 (01APR59)

LITHO IN U.S.A.  
ENGLISH





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## *To the Purchaser*

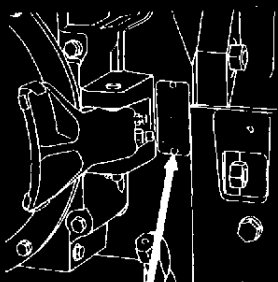
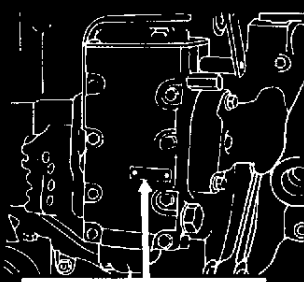
We welcome you to our ever-growing family of John Deere Tractor owners. We are confident that the dependable and economical performance of your John Deere Tractor will prove that you made a wise choice.

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.

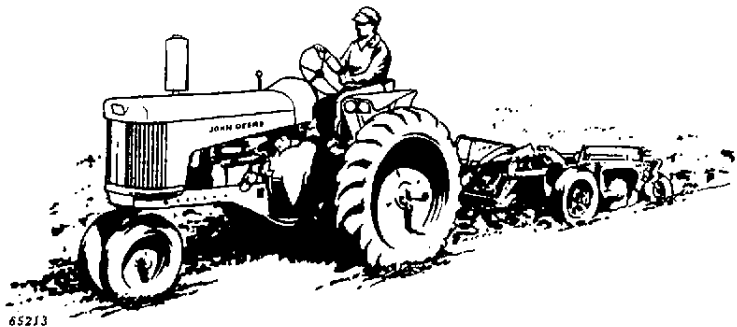
When in need of parts, give your John Deere dealer the serial number of your tractor or Powr-Trol hydraulic system, depending on the parts you need. The illustration below shows you where to find these serial numbers. Obtain them from your tractor—NOW—and insert them in the spaces provided in the illustrations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

TRACTOR	POWR-TROL
	
<input style="width: 100px; height: 20px;" type="text"/>	<input style="width: 100px; height: 20px;" type="text"/>
Owner <input style="width: 200px; height: 20px;" type="text"/>	
Date Purchased <input style="width: 100px; height: 20px;" type="text"/>	

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## *John Deere Tractor Service Policy*

**JOHN DEERE  
TRACTOR  
SERVICE POLICY**

OWNER'S NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_ STATE \_\_\_\_\_

TOWN \_\_\_\_\_

TRACTOR SERIES \_\_\_\_\_

TRACTOR SERIAL NO. \_\_\_\_\_


POWER TROL SERIAL NO. \_\_\_\_\_

ISSUED BY:

JOHN DEERE DEALER \_\_\_\_\_ STATE \_\_\_\_\_

TOWN \_\_\_\_\_

DEALER'S SIGNATURE \_\_\_\_\_

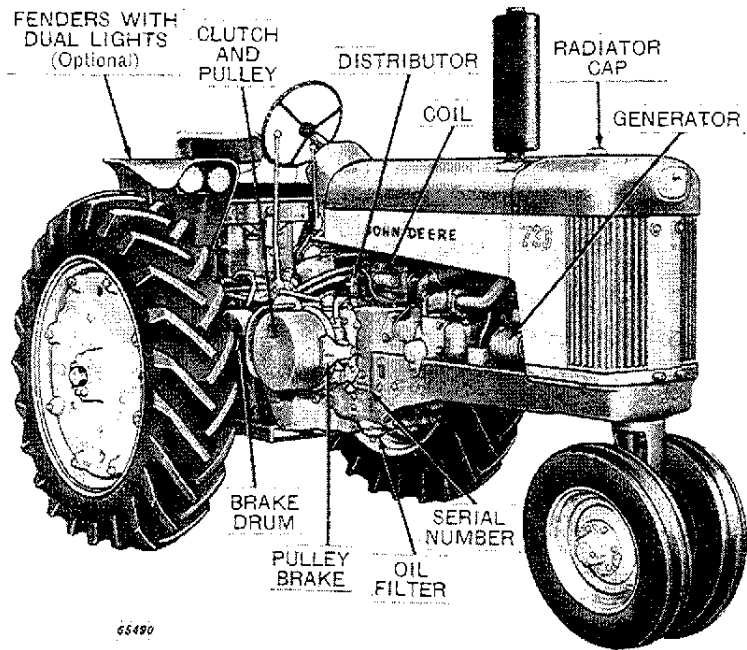


GASOLINE, ALL-FUEL, AND LP-GAS  
TRACTORS **A**

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.

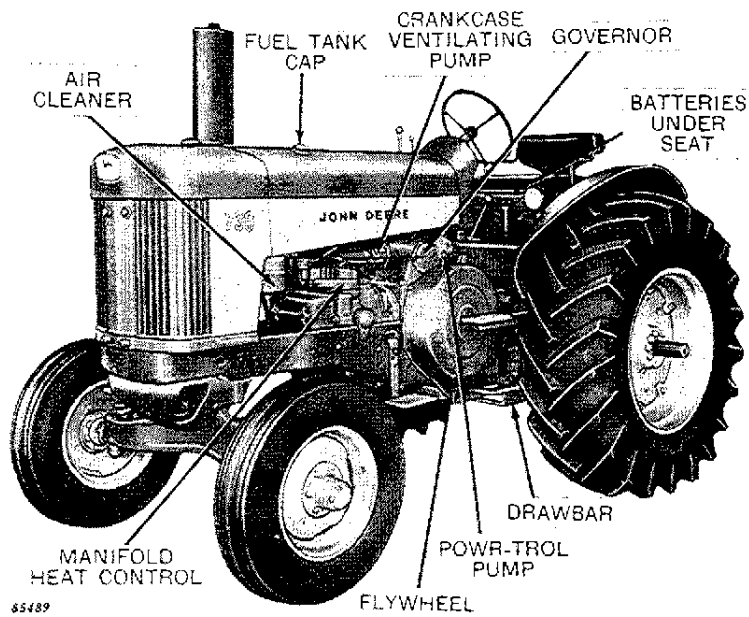
Present the policy to the dealer whenever any services which it authorizes are required. Keep the policy in a safe place for ready reference at all times.

# *This is Your New John Deere Tractor*



65490

**John Deere "730" Series General-Purpose Tractor—Pulley Side**  
(Serial No. 730000- )



65489

**John Deere "730" Series Standard Tractor—Flywheel Side**  
(Serial No. 730000- )

# SPECIFICATIONS

## PERFORMANCE:

### Capacity for Work:

Five 14-inch plow bottoms or the equivalent.

### Maximum Belt Horsepower:

\*Gasoline..... 59. 12  
\*All-Fuel..... 45. 33

### Maximum Drawbar Horsepower:

\*Gasoline..... 53. 05  
\*All-Fuel..... 41. 29

## CAPACITIES (U. S. MEASUREMENTS):

Gasoline Tank:	
Gasoline Tractor.....	26-1/2 Gals.
All-Fuel Tractor.....	1 Gal.
Fuel Tank (All-Fuel).....	24-1/2 Gals.
Crankcase.....	10 Qts.
Transmission.....	8 Gals.
Powr-Trol System.....	13 Qts.
Remote Cylinder.....	1 Qt.
Power Shaft Clutch.....	4-1/2 Qts.
Cooling System.....	7-1/8 Gals.
First Reduction Gear Cover	1-1/2 Qts.
Power Steering.....	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..... 1260 rpm  
Slow Idle..... 600 rpm

Bore and Stroke..... 6" x 6-3/8"

Displacement..... 360.5 cubic inches

### Compression Ratio:

Gasoline..... 6.11 to 1  
All-Fuel..... 4.91 to 1

## LUBRICATION SYSTEM:

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

\*Maximum h.p. corrected to 60°F. and 29.92 in. hg. (Nebraska Tests Nos. 605 and 606).

## FUEL SYSTEM:

Type..... Pressure regulated  
Carburetor..... Duplex type  
Air Cleaner..... Oil-wash type

## COOLING SYSTEM:

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

## IGNITION SYSTEM:

Type..... Battery-Distributor  
Distributor Point Gap..... .022"  
Spark Plugs:  
Size..... 18 mm.  
Spark Plug Gap..... .030"

## ELECTRICAL SYSTEM:

Battery Voltage..... 12 Volts  
Generator Regulation... Voltage Regulator  
Battery..... Group I

## 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 three roller bearings, four tapered roller bearings, and five 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 and long.

# SPECIFICATIONS

**REAR WHEELS AND TIRES:**

**General-Purpose**... 13.6-38, 6-ply tires on cast disk wheels. 15.5-38, 6-ply, 15-30, 6-ply, 12-38 C & R, 6-ply, and 13-38 C & R, 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, 18-26, 8-ply C & R, and 18-26, 8-ply low profile also available.

**POWER TAKE-OFF:**

Shaft Diameter..... 1-3/8"  
 Shaft rpm..... 540 or 1000  
 Splined End Ahead of Hitch... 14" or 16"  
 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, 7.50 x 15, 6-ply also available.

*Single-Type:*

Bearings... Two tapered roller bearings  
 Tires..... 7.50 x 16", 10-ply, 11.00 x 12", 12-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	
<b>DIMENSIONS:</b>				
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.....	79-3/8"	79-3/8"	79-3/8"	79-3/8"
Width Over Regular Axles.....	86-5/8"	86-5/8"	86-5/8"	86-5/8"
Turning Radius.....	9' 6"	9' 6"	14' 9"	14'
Clearance.....	26"	26"	Front 23" Rear 26"	Front 13" Rear 25-1/4"

**REAR WHEEL TREAD ADJUSTMENT:**

Regular Wheels, Regular Axles.....	60-88"	60-88"	60-88"	62-80"
Regular Wheels, Long Axles.....	66-1/2-97-1/4"	66-1/2-97-1/4"	66-1/2-97-1/4"	.....
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"
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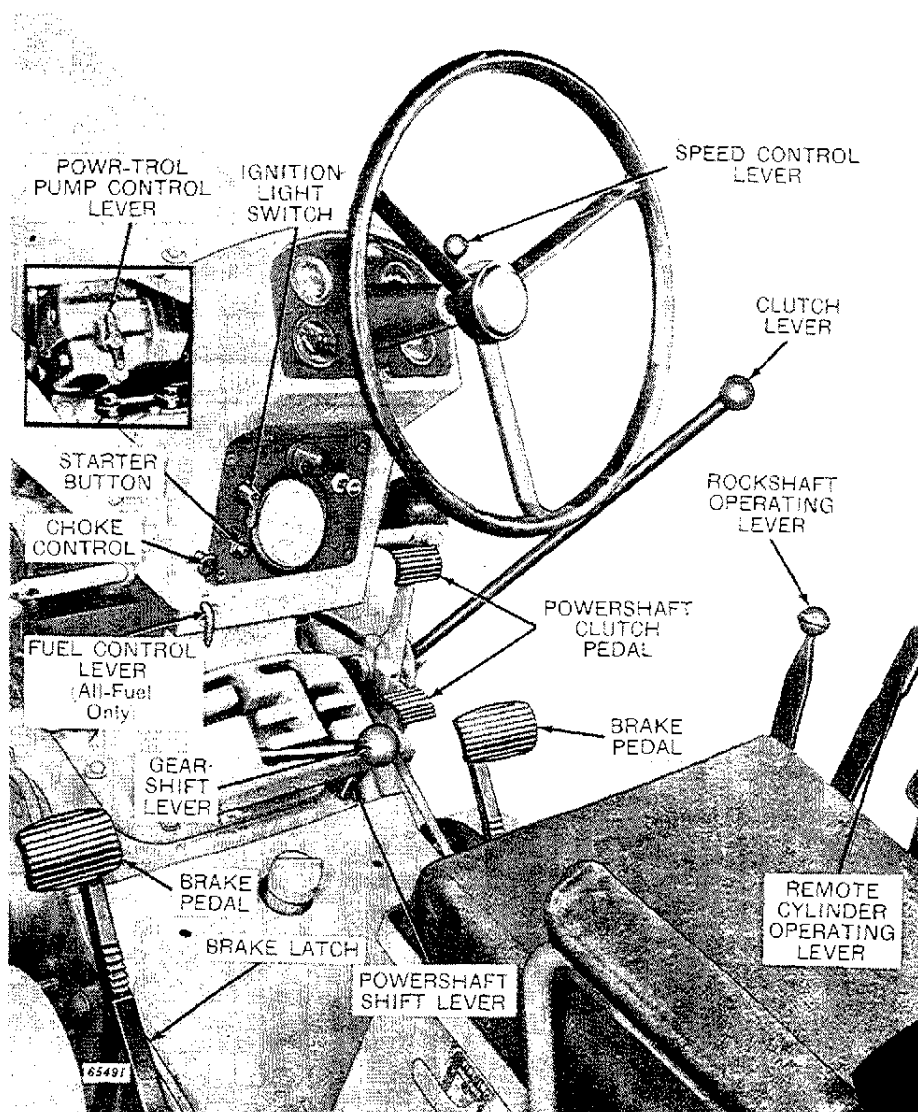
**SHIPPING WEIGHT.** 6790 lbs.      6470 lbs.      7090 lbs.      7380 lbs.

(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.

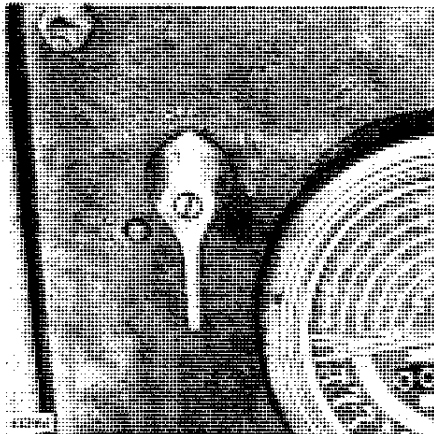


*Starting and Operating Controls*

## ● STARTING CONTROLS ●

### IGNITION-LIGHT SWITCH AND LIGHTS.

A combination ignition-light switch is located on the left-hand side of the lower instrument panel. Turning the switch to any position except "OFF" turns on the ignition.

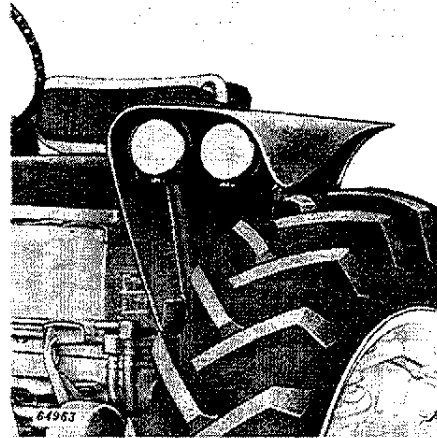


*Combination Ignition-Light Switch*

The lights on your tractor are designed to provide maximum use and convenience both for night work in the field and night travel on the highway.

Your tractor may have regular sealed-beam headlights, mounted on a horizontal support attached to the steering shaft support, or general purpose tractor may have, as optional equipment, fenders with built-in dual sealed-beam headlights which greatly increase visibility at night.

The inner lamps of the dual-lights throw a strong beam far ahead of the tractor. The outer lamps are flood lights which brilliantly illuminate the ground on both sides as well as ahead of the tractor. They also serve as the "dims" when you are traveling on the highway at night.



*Fender with Dual Headlights*

All lights are controlled by the combination ignition-light switch which has five positions. On tractors with regular headlights the positions are:

- "OFF" Both ignition and lights off.
- "I" Ignition only.
- "L" Bright front lights and white rear light.
- "B" Bright front lights and red rear light.
- "D" Dim front lights and red rear light.

If your tractor is equipped with fender-mounted dual-lights, the switch positions provide the following:

- "OFF" Both ignition and lights off.
- "I" Ignition only.
- "L" All front lights and white rear light.
- "B" All front lights and red rear light.
- "D" Front flood lights only and red rear light.

### FUEL-CONTROL LEVER (ALL-FUEL TRACTORS).

A three-way fuel control lever on All-Fuel tractors enables the operator to switch from gasoline for starting the engine to low-cost fuel for operation, or to shut off the fuel supply entirely without leaving his position at the wheel.

### STARTER BUTTON.

The engine is started by the button located on the left-hand side of the lower instrument panel. Pushing the button engages the cranking motor with the flywheel and then completes the electrical circuit to the cranking motor. The starter button will not operate until the ignition-light switch is turned on. (For starting instructions see page 17.)

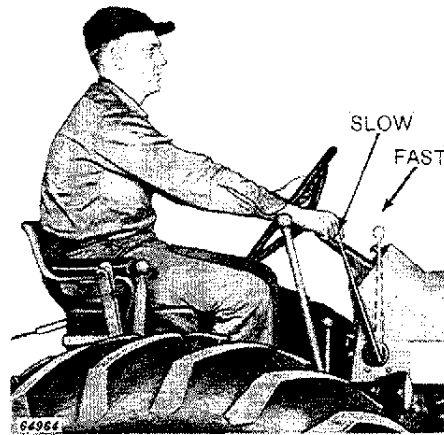
### CHOKE CONTROL BUTTON.

Pulling out the choke button provides a rich mixture for the engine when starting. When button is pushed in, the choke returns to its normal position.

## ● OPERATING CONTROLS ●

### SPEED CONTROL LEVER.

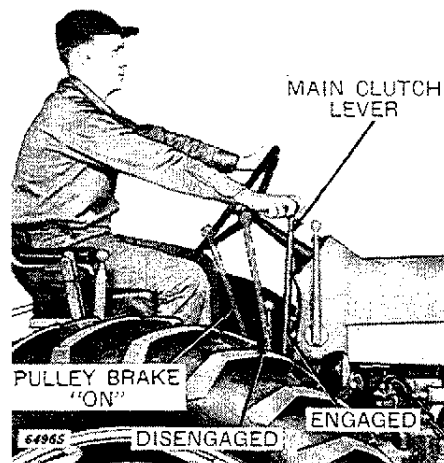
The lever mounted on the right-hand side of the hood support regulates the speed of the tractor engine. Pushing it forward opens the throttle and pulling it back closes the throttle. *NOTE: It is good practice to operate the engine whenever possible with speed control lever in the fully forward position.*



*Speed Control Lever*

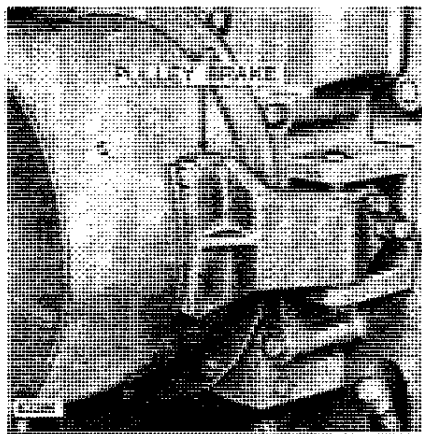
### CLUTCH LEVER AND PULLEY BRAKE.

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*

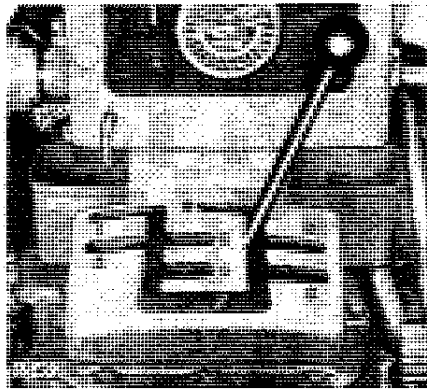
Pulling the clutch lever rearward beyond the disengaged position applies a pulley brake which stops the pulley from rotating. This permits easy shifting of the transmission gears. **CAUTION: Do not use the pulley brake to stop the tractor.**



*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. The seven gearshift positions are identified on top of the quadrant.



*Gearshift Lever*

Select the correct gear for the particular work being done before the tractor is set in motion. Tractors operating in a low gear with a light load are wasting fuel. If the gear ratio is too high for the load the engine will labor or "lug." In this case stop the tractor and shift to a lower gear. Lugging increases engine wear. Never attempt to shift from one gear to another after the tractor is in motion.

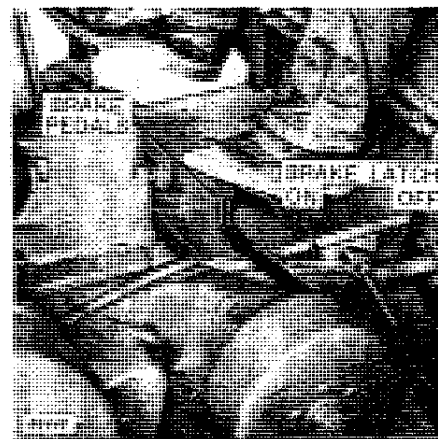
The speeds at which the tractor will travel in the various gears, when the engine is operating at rated load speed (1125 rpm), are given on page 4.

#### BRAKES.

Individual, foot-operated brakes make possible short turns.

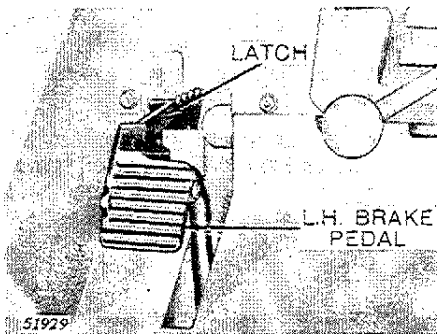
For safe stopping at high transport speeds, apply the brakes **evenly** to avoid drawing the tractor to one side.

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*

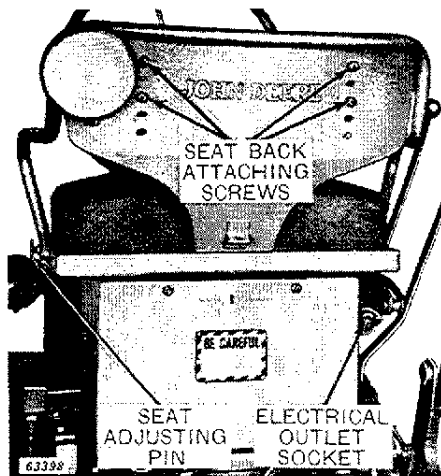
On standard tractors, the brakes are locked by tipping the top of the pedal forward to engage the latch. The brakes are released by pressing on the heel of the pedals.



*Brake Pedal and Latch on Standard Tractors*

#### STANDARD SEAT.

The roomy\* seat increases 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



*Standard Seat*

down by means of the attaching screws.

#### BATTERY COMPARTMENT.

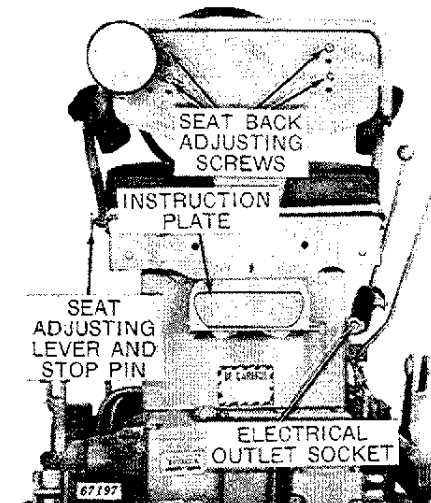
The batteries are located in a compartment under the seat where they are readily accessible for periodic checking and service.

#### ELECTRICAL OUTLET SOCKET.

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

#### 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. 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.

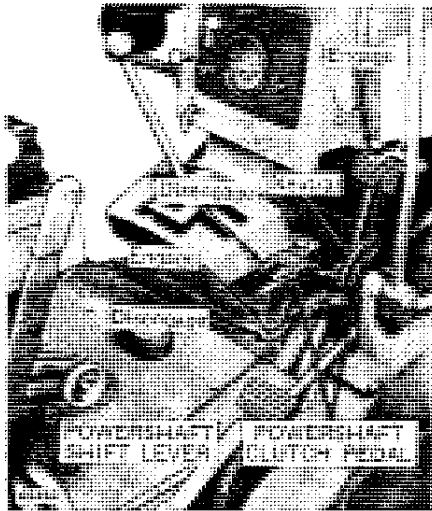


*Float-Ride Seat*

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

### POWERSHAFT SHIFT LEVER.

The powershaft is engaged by the powershaft shift lever located to the right of the gearshift 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 30.**



*Powershaft Shift Lever and Clutch Pedal*

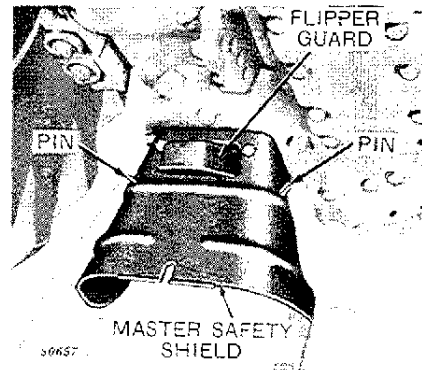
### POWERSHAFT CLUTCH PEDAL.

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 gearshift 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 30.

### 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 hydraulic Powr-Trol pump is engaged by rotating the control lever in a counter-clockwise direction and disengaged by turning the lever in a clockwise direction. **CAUTION: Do not engage the pump while the engine is running.** It may be necessary to turn the engine over by means of the cranking motor with the ignition switch off to engage the gears.

### POWR-TROL OPERATING LEVERS.

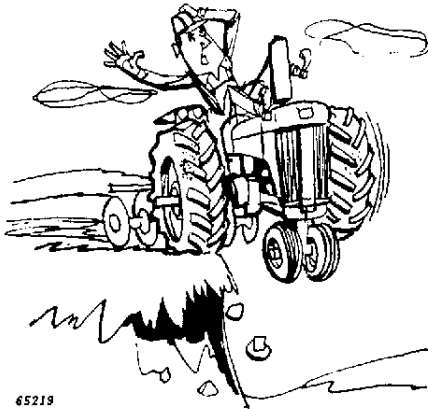
#### Rockshaft Operating Lever.

The rockshaft is operated by a lever located to the right of the seat. (A second rockshaft lever can be installed on the left-hand side of the seat if you desire it.) Moving the control lever rearward raises the

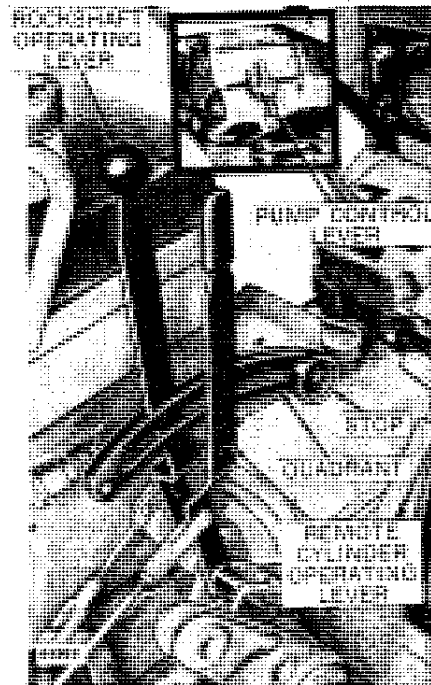
implement while moving the lever forward lowers the implement. A depth-control stop on the quadrant can be set so that the implement always returns to the same working depth after it has been raised. For further information see page 34.

#### 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 beside the seat. Normally the lever or levers are on the right side but can easily be shifted to the left side, if you desire to do so, by obtaining the attaching parts from your dealer. Implements are lowered by moving the proper lever forward and raised by moving the lever to the rear. For further information see page 46.



*Never Drive Too Close to Ditches*

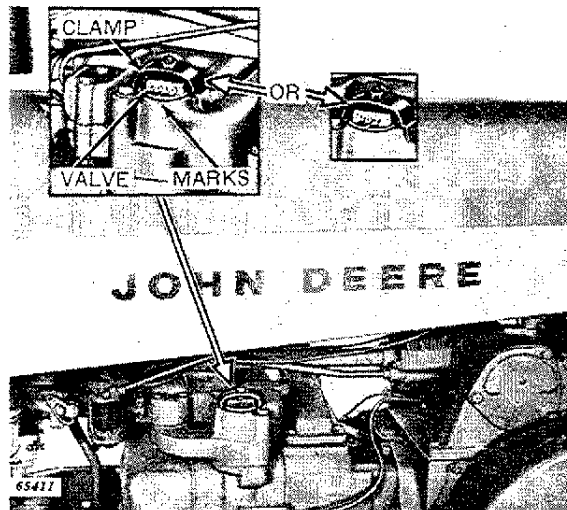


*Power-Trol Pump Control Lever and Power-Trol System Operating Levers*

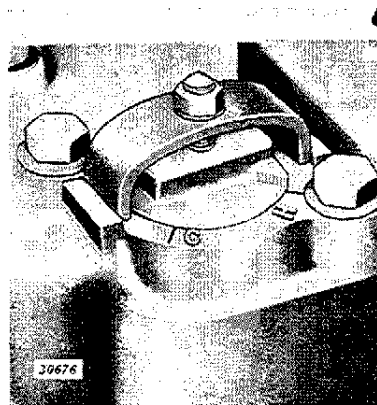
### MANIFOLD HEAT CONTROL VALVE.

The purpose of this control, located in the engine manifold, is to improve engine performance and efficiency in hot or cold weather by controlling the path taken by hot

exhaust gases. Use of the valve is described on page 76. Generally, the valve is set at "COLD" or "C" for air temperatures above 32°F. and at "HOT" or "H" for temperatures below 32°F. For instructions on changing the position of the valve, see page 76.

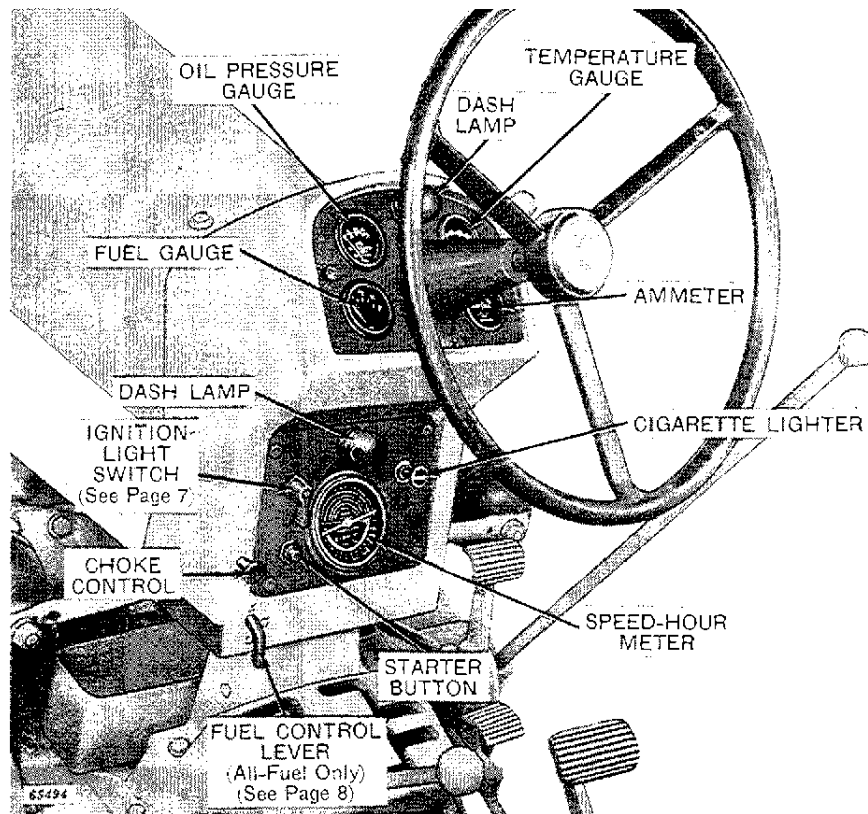


*Manifold Heat Control Valve on Gasoline-Burning Tractors*



*Manifold Heat Control Valve on All-Fuel Tractors*

### ● INSTRUMENT PANELS ●



*Instrument Panels*

#### TEMPERATURE GAUGE.

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

#### OIL PRESSURE GAUGE.

The oil pressure gauge indicates whether or not the oil pump is working. The gauge does not in any way tell the amount or condition of the oil in the crankcase. The indicator hand of the gauge should rest between the letters "M" and "H" when the engine is hot and operating at

fast idle. If the gauge does not register pressure when the engine is started, stop the engine immediately.

#### AMMETER.

The ammeter indicates whether or not the generator is charging the batteries.

#### DASH LAMPS.

Two small lamps illuminate the instrument panels at night. They are turned on by the ignition-light switch when the main lights are turned on



**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**

**CIGARETTE LIGHTER.**

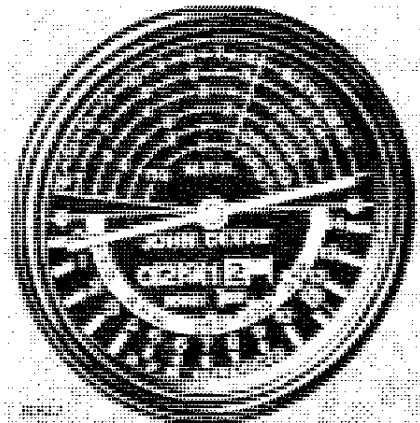
A cigarette lighter (special attachment) is provided for your convenience on the lower instrument panel.

**SPEED-HOUR METER.**

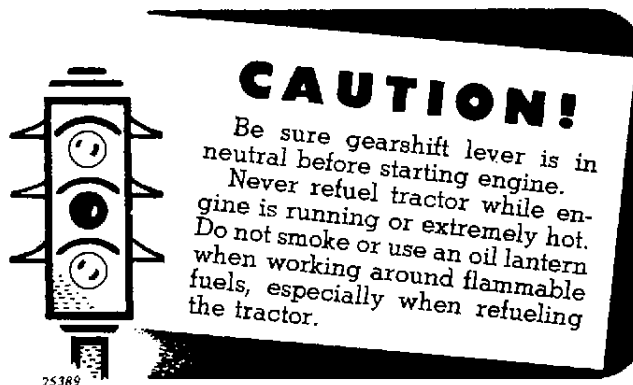
The speed-hour meter (special attachment), located in the center of the lower instrument panel, can be used to determine the following:

**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



*Speed-Hour Meter Dial*



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