

# **100 Tractors**

## **Operators Manual**

**1004459R2**

Reprinted

**CASE III**



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**McCORMICK  
FARMALL 100  
and  
INTERNATIONAL  
100  
TRACTORS**

**Operator's  
Manual**

Form No. 1 004 459 R2

CASE CORPORATION

**IMPORTANT FUEL SYSTEM SAFETY WARNING  
AND  
ANNOUNCEMENT OF FREE, REPLACEMENT GASOLINE CAP**



**CAUTION!** The following information pertains to personal safety. Be sure to read and follow these instructions.

**PROBLEM — Gasoline vapors can build up pressure in your gasoline tank.**

All gasoline fuels are more volatile today than ever before. They vaporize and build up pressure in your gasoline tank more easily than in the past. Winter grade gasoline is especially subject to vaporization and pressure build-up when used on hot Spring or Fall days. If you have a tractor which is out of tune or not properly maintained, it can run hotter and increase vaporization.

**DANGER — Fire and personal injury.**

If the fuel cap is removed when the gasoline tank is hot and vapor pressure has, under certain circumstances, built up in the tank, this sudden release of pressure could force gasoline out of the tank. If the gas cap is not fully secured and tightened, it could come off the tank, and again, gasoline could escape. This sudden eruption of gasoline exposes the operator to, and may cover him with, liquid fuel and vapors and is a clear fire hazard if a source of ignition is present. A running engine is a source of ignition, as are cigarettes, open flames, sparks, or a poorly maintained exhaust system. **An immediate fire could occur.** The operator or anyone in the area could be burned and suffer serious injury or even death.

**PRECAUTIONS — Observe the following steps for safe operation:**

- Always tighten gas caps securely.
- Never, under any circumstances, take the gas cap off a hot or running tractor.
- Never hold over Winter gasoline for use in the Spring. Remove any equipment unnecessary for warm weather operations, such as comfort covers, heat housers, or radiator covers.
- Maintain equipment properly and pay particular attention to electrical, exhaust, fuel, and cooling systems. Repair or replace frayed electrical wires; leaky exhaust manifolds, gaskets, pipes and mufflers; damaged carburetors, sediment bowls and fuel lines. Be sure radiators are clean inside and out. Clean off any accumulation of trash, oil or grease.
- Make sure that fuel cap vent holes are not plugged, gaskets are in good condition, and that cap tangs are firmly riveted. Repair worn, bent, or deformed filler necks and damaged heat shields or shield insulation. If your tractor is not equipped with a heat shield or insulation, install such equipment on applicable models.
- Be alert to any unusual sights and sounds during operation. If you suspect overheating or pressure build-up in the fuel system, do not touch the cap. Turn off the engine and allow the tractor to cool before you touch the cap.

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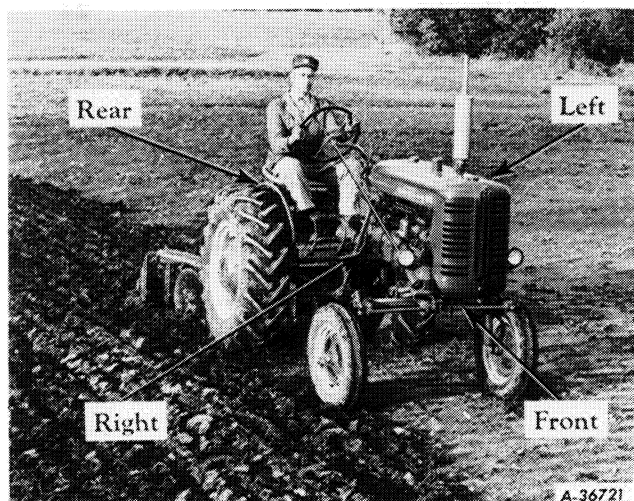
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# INTRODUCTION

Assembled in this book are operating and maintenance instructions for the Farmall 100 and 100 Hi-Clear Tractors. This material has been prepared in detail in the hope that it will help you to better understand the correct care and efficient operation of your tractor.

If you should need information not given in this manual, or require the services of a trained mechanic, get in touch with the International Harvester dealer in your locality. Dealers are kept informed on the latest methods of servicing tractors. They carry stocks of IH parts, and are backed in every case by the full facilities of a nearby International Harvester District Office.

Throughout this manual the use of the terms LEFT, RIGHT, FRONT, and REAR must be understood to avoid confusion when following instructions. LEFT and RIGHT indicate the left and right sides of the tractor when facing forward in the driver's seat. Reference to FRONT indicates the radiator end of the tractor, and REAR the drawbar end of the tractor. See *Illust. 2*.



**Illust. 2**

The illustrations in this manual are numbered to correspond with the pages on which they appear; for example, *Illusts. 2, 2A and 2B are on page 2*.

In order to provide a tractor equipped as nearly as possible to suit each customer's needs, a variety of extra equipment and accessories is available.

Many of these items are illustrated and described in the Extra Equipment and Accessories section of this manual.

Where operating or maintaining instruction on these items is required, it is included in the instructions for operating and maintaining the tractor. Disregard the instructions for equipment not on your tractor.

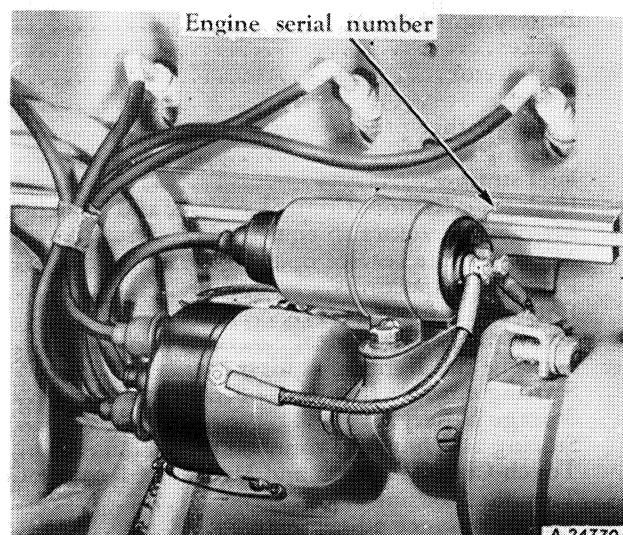
When in need of parts, always specify the tractor and engine serial numbers. The tractor serial number is stamped on a name plate attached to the left side of the clutch housing. See *Illust. 2A*.



**Illust. 2A**

Location of tractor serial number.

The engine serial number is stamped on the right side of the engine crankcase above the battery ignition unit. See *Illust. 2B*. This serial number is preceded by the prefix C-123, which indicates that it is a carbureted engine with a 123 cubic-inch piston displacement.

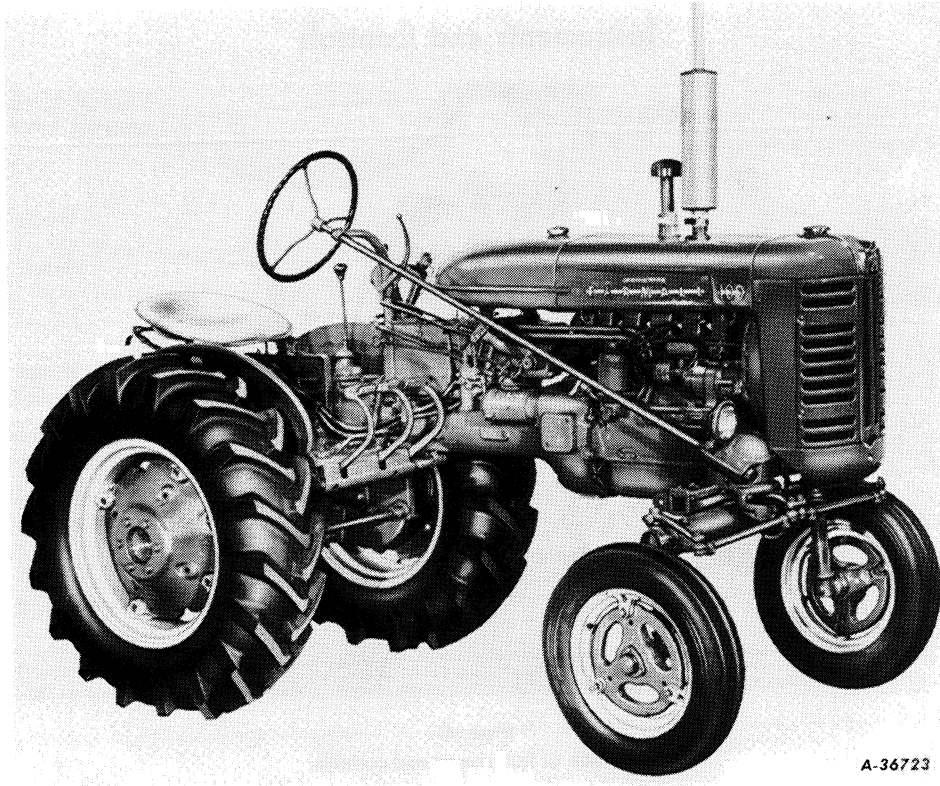


**Illust. 2B**

Location of engine serial number.

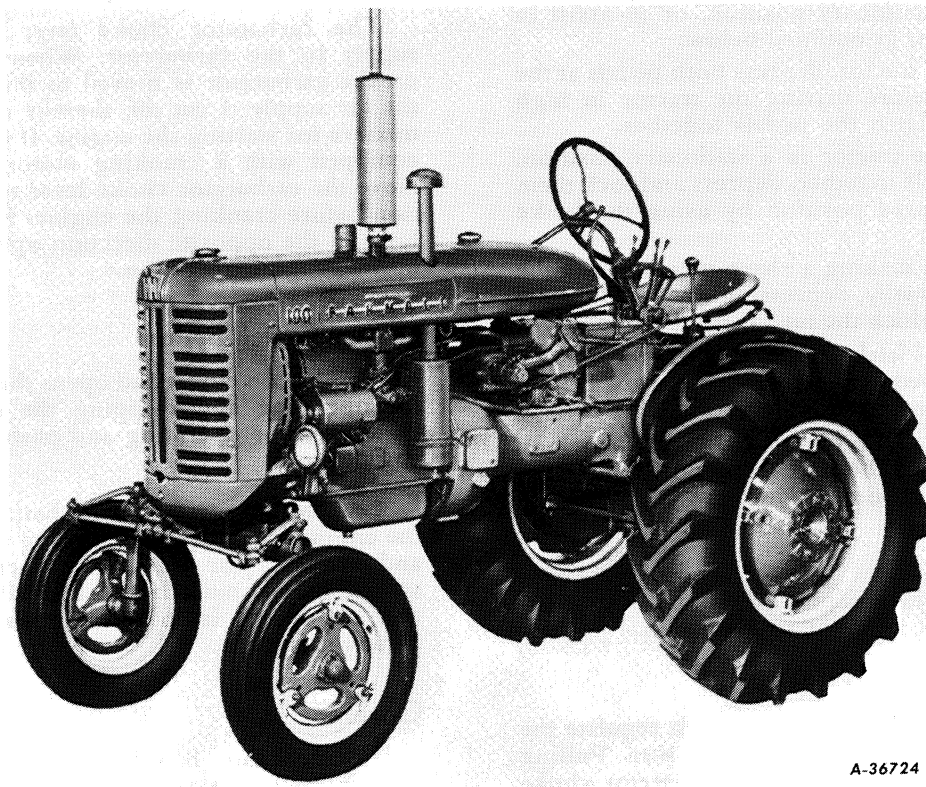
For ready reference we suggest that you write these serial numbers in the spaces provided on the Delivery Report.

# DESCRIPTION



A-36723

**Illust. 3**  
Right front view of the Farmall 100.

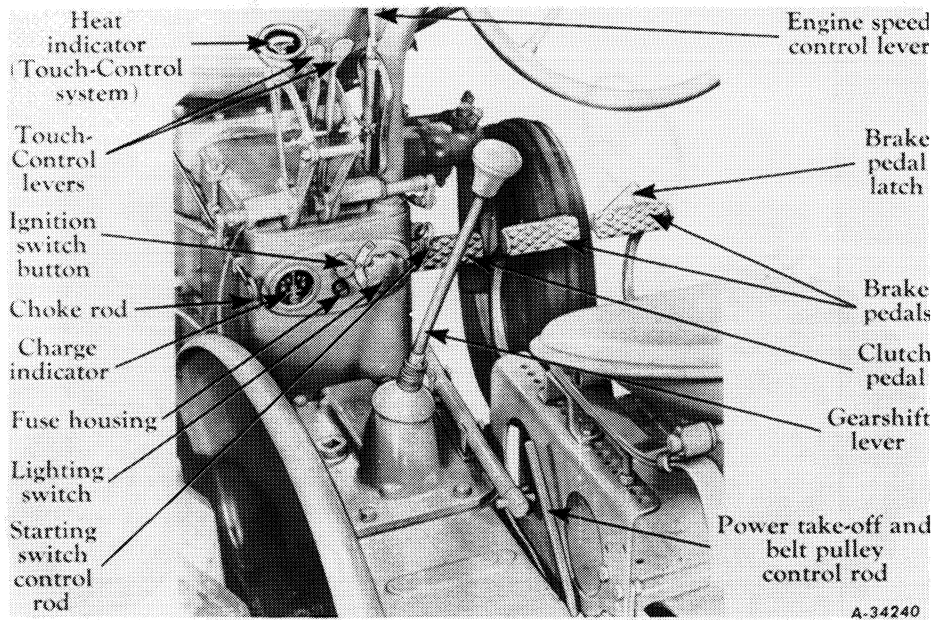


A-36724

**Illust. 3A**  
Left front view of the Farmall 100.

## DESCRIPTION

### Instruments and Controls



Illust. 4  
Location of instruments and controls.

#### Brake Pedals

These pedals are used to stop the tractor, to hold the tractor in a stationary position, or to assist in making sharp turns as outlined below:

To stop the tractor, depress both pedals at the same time. Before driving the tractor in high gear, always latch the pedals together.

To hold the tractor in a stationary position, latch the pedals together, depress and lock them in this depressed position by using the brake pedal lock.

To assist in making a sharp turn, operate the pedals individually, depressing the pedal on the side toward which the turn is to be made.

The brake pedal latch (*Illusts. 4 and 20*) is used to latch both brake pedals together, causing the brakes to operate simultaneously.

The brake pedal lock (*Illust. 20*) is used to lock the brake pedals in the depressed position. This prevents the tractor from moving.

#### Clutch Pedal

This pedal, when depressed all the way, disengages the engine from the transmission.

#### Choke Rod

The choke rod makes it possible to regulate the carburetor choke from the driver's seat. Pulling out on the choke rod closes the carburetor choke for starting the engine; pushing it back in opens the choke.

#### Carburetor Choke Lever

(Tractors without Cranking Motor)

The carburetor choke lever controls the air supply to the carburetor. When the choke lever on the carburetor is moved to the closed position, the air supply is cut off, thereby enriching the fuel mixture for starting the engine. If your tractor is not equipped with a cranking motor and choke rod, move the carburetor choke lever to the closed position before cranking the engine. Moving the choke lever in the opposite direction opens the choke for normal engine operation.

#### Ignition Switch Button

This button closes and opens the electrical circuit for operating and stopping the engine. Pull the button out for operating and push it in to stop the engine.

**Caution!** On tractors with battery ignition, when the engine is not operating or the engine has stalled and the operator leaves the tractor, the ignition switch button must be pushed all the way in, so that the switch is in the **off** position, to prevent battery discharge.

#### Governor

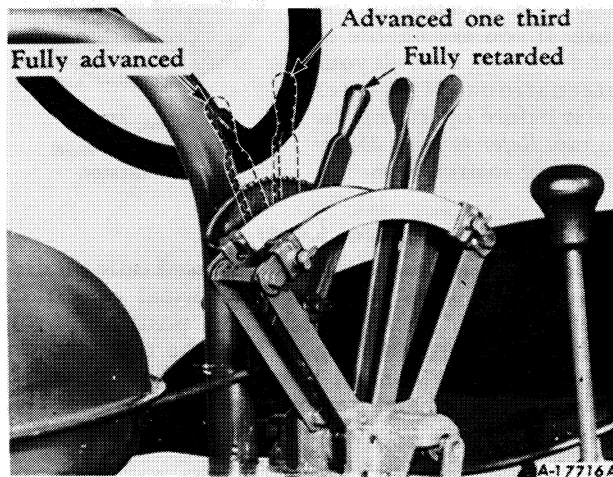
The governor is set at the factory and should require no adjustment. Consult your International Harvester dealer if the governor does not function properly.

## DESCRIPTION

### Engine Speed Control Lever

This lever controls the speed of the engine and, when set in a given position, will maintain a uniform engine speed even though the engine load may vary.

The rated or maximum full load governed speed is 1,400 r.p.m.; maximum idle speed is approximately 1,575 r.p.m., minimum idle speed (hand throttle) is 400 to 450 r.p.m. with the engine speed control lever fully retarded. See *Illust. 5*. Never operate the engine at more than the regular governed speed. Excessive speeds are harmful.



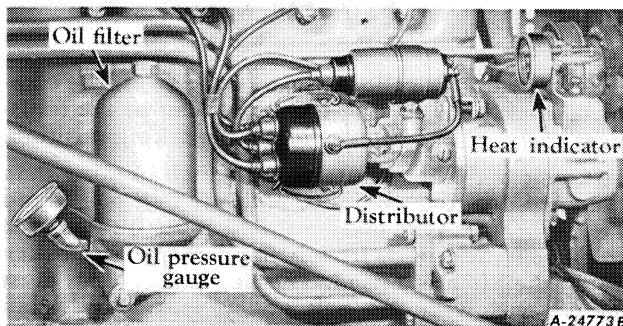
Illust. 5

Various positions of the engine speed control lever.

### Accelerator Pedal (Not illustrated)

The accelerator pedal is used when making frequent changes of tractor speeds. Pressing down with the foot increases the speed of the engine. The engine speed control lever should be retarded when the accelerator pedal is to be used.

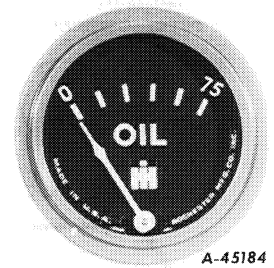
### Oil Pressure Gauge



Illust. 5A

Location of oil pressure gauge.

This gauge indicates (*Illusts. 5A and 5B*) whether lubricating oil is circulating through the engine. The indicator needle should be past the first mark above zero (*Illust. 5B*) when the engine is running at speeds approximately 100 r.p.m. above slow idle speed. If it is not, stop the engine immediately and investigate the cause of oil pressure failure. If you are unable to find the cause, consult your International Harvester dealer before operating the engine.



A-45184

Illust. 5B  
Oil pressure gauge.

### Starting Switch Control Rod

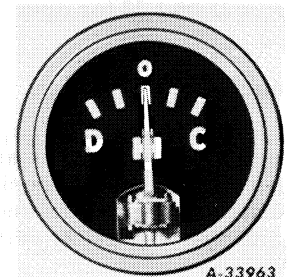
To start the engine, adjust the choke rod and pull out on the starting switch control rod as explained on page 13.

### Lighting Switch

The switch has three positions: "D"—dim lights, "B"—bright lights, and "O"—off.

### Charge Indicator

This instrument (*Illust. 5C*) indicates whether the generator is charging or the battery is discharging. If it shows discharge continuously, investigate the cause to avoid completely discharging the battery and possible damage to the generator. Refer to pages 57 to 64 for additional information on electrical equipment.



A-33963

Illust. 5C  
Charge indicator.

### Radiator Shutter Control Lever

The control lever opens and closes the radiator shutter, controlling the engine temperature. Pull the lever all the way back to close the shutter and move the lever forward to open the shutter.

**Note:** Tractors with gasoline engines are not regularly equipped with this feature.

### Hydraulic Remote Control Lever

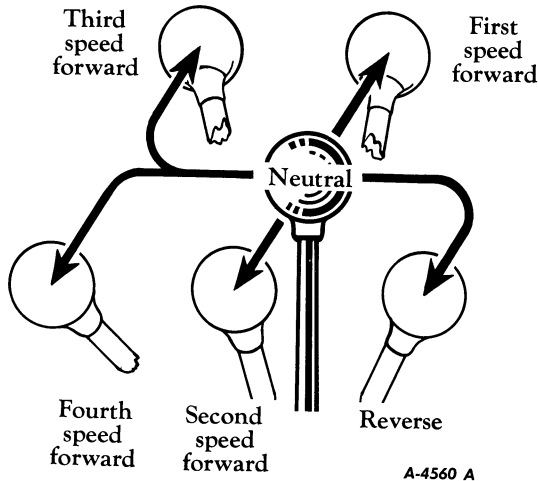
This lever (*Illust. 11*) is used to control the flow of fluid in the cylinder and thus raise or lower the implement the desired amount, within the limits of the system. See pages 25 to 27 for additional information.



## DESCRIPTION

### Gearshift Lever

This lever is used to select the various gear ratios in the transmission. There are four forward speeds and one reverse speed. See *Illust. 6*.



*Illust. 6*  
Gearshift positions.

### Belt Pulley and Power Take-Off Shifter Lever

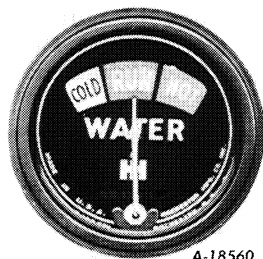
The shifter lever is used to engage or disengage either the belt pulley or the power take-off. Refer to pages 21 and 22 for operating instructions.

### Touch-Control Levers

These levers (*Illust. 4*) operate the Farmall Touch-Control system. This system raises, lowers, and regulates the working position of the various implements used with the tractor. For complete instructions refer to pages 24 and 25.

### Heat Indicator (Cooling System)

**Note:** Tractors with gasoline engines are not regularly equipped with this feature.

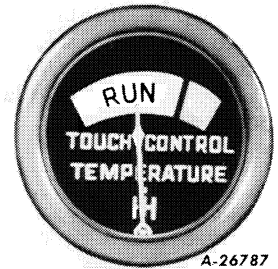


*Illust. 6A*  
Heat indicator, showing pointer in correct operating position when operating on distillate or kerosene.

This instrument (*Illust. 5A*) indicates the relative temperature range of the liquid in the cooling system for best engine performance. The indicator pointer should be in the center of the "RUN" range (*Illust. 6A*) for engines using distillate or kerosene for fuel, and on the low side of the "RUN" range for engines using gasoline for fuel.

### Heat Indicator (Touch-Control System)

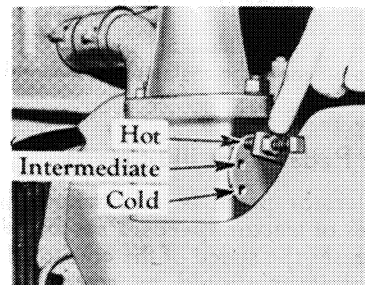
This indicator (*Illust. 4*) registers the relative temperature of the fluid in the Touch-Control system. When the Touch-Control system is operating, the indicator pointer should be in the "RUN" range approximately in the position shown in *Illust. 6B*. If the pointer moves into the "HOT" area, it is an indication that the system has been operating continually at high pressure. If this condition occurs, stop the engine immediately and investigate the cause. If you are unable to find the cause, consult your International Harvester dealer before operating the engine. Refer to page 25 for operating instructions.



*Illust. 6B*  
Touch-Control fluid heat indicator.

### Manifold Heat Control Lever

This control lever (*Illust. 6C*) is used only on distillate or kerosene engines. For normal operation set the lever in the top notch (hot) position. If the distillate or kerosene engine is to be operated on gasoline, set the control lever in the bottom notch (cold) position, and remove the manifold shield. For complete instructions refer to pages 16 and 17.



*Illust. 6C*  
Heat control valve set in hot position (distillate or kerosene engines only).

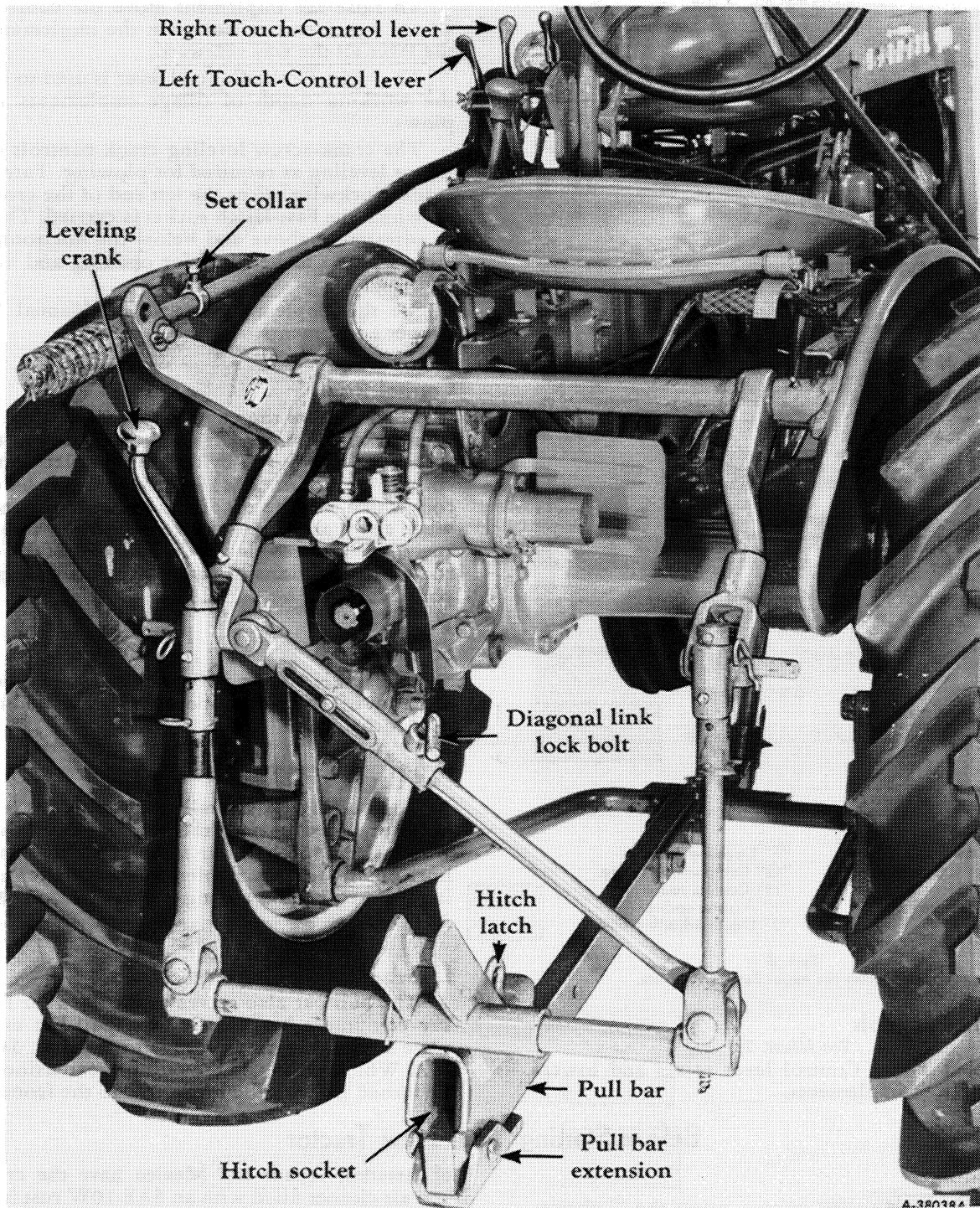
### Fast-Hitch

#### Cylinder

The hydraulic cylinder raises and lowers the complete hitch, thus raising the implement to the transport position, or lowering it to the working position.

**Caution!** When operating the hitch in other than the fixed drawbar position, both the belt pulley and the power take-off master shield must be removed to prevent these parts from being damaged or broken when the hitch is raised. The belt pulley shaft must be covered with the belt pulley spacer and shaft guard, and the power take-off shaft must be covered with the power take-off shaft guard if not already so protected.

## DESCRIPTION



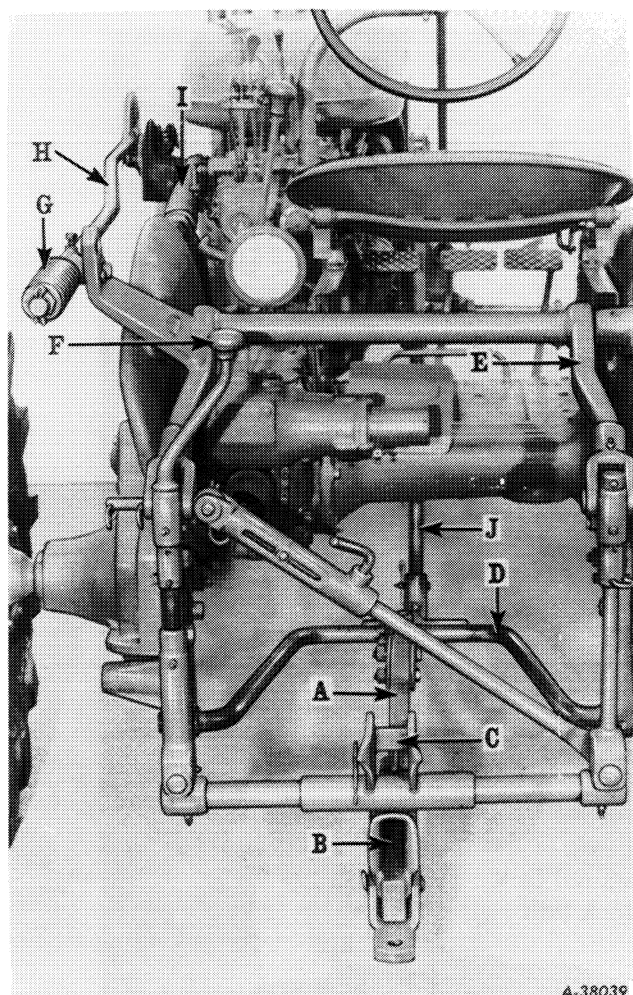
Illust. 7

Fast-Hitch component parts and controls.

**Important!** Before operating the Fast-Hitch for the first time, operate the Touch-Control so that the rockshaft arm (inner) is in the extreme forward

position, then back off lift arm helper spring guide bolt to provide approximately  $\frac{1}{8}$  inch clearance between bolt head and anchor bracket.

## DESCRIPTION



A-38039

- |                                  |                           |
|----------------------------------|---------------------------|
| "A" Pull bar.                    | "F" Leveling crank.       |
| "B" Socket with automatic latch. | "G" Compression spring.   |
| "C" Stabilizer yoke.             | "H" Control rod.          |
| "D" Bail.                        | "I" Assister spring.      |
| "E" Rockshaft.                   | "J" Depth adjusting link. |

Illust. 8  
View showing the major Fast-Hitch parts.

### Operating Controls

See *Illust. 7.*

The left Touch-Control lever raises and lowers the Fast-Hitch implements.

### Lubrication

Lubricate the entire tractor, using the "Lubrication Guide."

Check the oil levels of the engine crankcase, air cleaner, transmission, belt pulley housing, and all gear cases to see that they are filled to the correct levels with oil of the proper viscosity for the prevailing temperature. Refer to the "Lubrication Guide" and to the "Lubrication Table."

Tractors shipped to destinations in the United States

To raise the implement move the control lever all the way forward. To lower the implement move the lever all the way rearward.

The right Touch-Control lever is used to regulate the working depth of tillage implements such as plows.

The crank-screw leveling crank controls the tilting or leveling as required for plowing. Turning the crank clockwise raises the left end of the cross shaft on which the Fast-Hitch socket is carried. The range of adjustment above and below the horizontal level allows plows to be tilted for opening and finishing a furrow.

See the Implement Operator's Manual for the proper adjustments.

### Control Rod

The length of the control rod connecting Touch-Control to the rockshaft can be adjusted to suit the range of lift required by different implements. A set collar ("A," *Illust. 28A*) is provided on the control rod which can be readily tightened into position when down pressure is desired. A heavy compression spring is also provided at the rear end of the control rod which cushions heavy implements during transport.

### Socket

The single socket is on the end of the pull bar, the front of which is supported by a bail and the rear by a rockshaft.

### Pull Bar

The pull bar is laterally adjustable by means of holes provided in both the bail and the cross shaft, which allow the pull bar to be properly positioned horizontally for any implement (Fast-Hitch or trailing) and rear tread setting. See "A", *Illusts. 29A and 30.*

### Drawbar for Trailing Implements

The pull bar also serves as the drawbar for trailing equipment by reversing the pull bar extension plate so that the hitch hole is to the rear. See *Illust. 30A.* When not in use the pull bar extension should be turned in, with the hitch hole to the front.

## Before Starting Your New Tractor

of America, Canada and Mexico have the crankcase and air cleaner filled with an SAE-10W rust inhibited engine oil. This oil, which is primarily a preservative oil, may be used on light and medium loads at temperatures below +80°F. for the first 120 hours of operation. If temperatures are above +80°F. or the unit is to be used on heavy loads, drain the oil from the crankcase and air cleaner and replace it with the required amount of fresh oil having the physical properties and proper viscosity suitable for the prevailing temperature and type of service.

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