

450
Diesel Tractor
Operators Manual

1014058R1

Reprinted

CASE III



This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED. The message that follows the symbol contains important information about your safety. Carefully read the message. Make sure you fully understand the causes of possible injury or death.

SB001

IF THIS MACHINE IS USED BY AN EMPLOYEE, IS LOANED, OR IS RENTED, MAKE SURE THAT THE OPERATOR UNDERSTANDS THE TWO INSTRUCTIONS BELOW

BEFORE THE OPERATOR STARTS THE ENGINE:

- 1 GIVE INSTRUCTIONS TO THE OPERATOR ON SAFE AND CORRECT USE OF THE MACHINE.
- 2 MAKE SURE THE OPERATOR READS AND UNDERSTANDS THE OPERATOR'S MANUAL FOR THIS MACHINE.



IMPROPER OPERATION OF THIS MACHINE CAN CAUSE INJURY OR DEATH.

BEFORE STARTING THE ENGINE, DO THE FOLLOWING

- 1 READ THE OPERATOR'S MANUAL
- 2 READ ALL SAFETY DECALS ON THE MACHINE
- 3 CLEAR THE AREA OF OTHER PERSONS

LEARN AND PRACTICE SAFE USE OF MACHINE CONTROLS IN A SAFE, CLEAR AREA BEFORE YOU OPERATE THIS MACHINE ON A JOB SITE

It is your responsibility to observe pertinent laws and regulations and to follow manufacturer's instructions on machine operation and maintenance

See your Authorized Case dealer for additional operator's manuals, parts catalogs, and service manuals.

TO THE OWNER

The purpose of this manual is to assist you in realizing the benefits you anticipated when you purchased this International Harvester product. Literally thousands of people have contributed to the design and production of this product and its delivery to you. They have an interest in its successful performance and have provided this manual to give you the benefit of the experience they have gained through years of field testing and normal usage of this and similar products.

The way you operate and the care you give this product will have much to do with its successful performance. This manual has been carefully prepared and the information arranged and illustrated to make it as easy as possible for you to find the information you wish. It will pay you to read the entire manual carefully before operating and keep it handy for future reference. Your International Harvester Dealer will be glad to answer any further questions you may have on the operation or care of this product.

It is the policy of International Harvester Company to improve its products whenever it is possible and practical to do so. We reserve the right to make changes or add improvements at any time without incurring any obligation to make such changes on products sold previously.

All illustrations and descriptive matter in this publication apply to International Harvester products sold under the International, McCormick, McCormick-International, McCormick-Deering, or McCormick-Deering International trade name.

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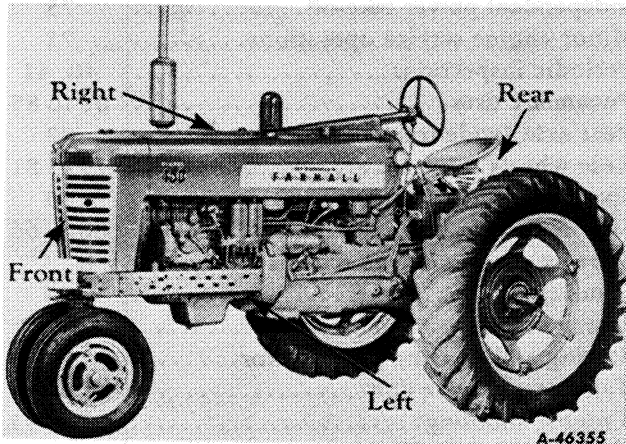
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INTRODUCTION

Assembled in this book are operating and maintenance instructions for the Farmall 450 Diesel and 450 Diesel 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; to REAR, the drawbar end. See *Illust. 2*.



Illust. 2

Terms of location.

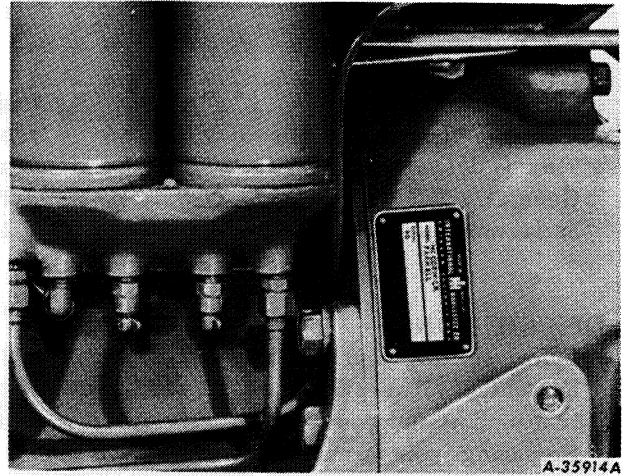
The illustrations in this manual are numbered to correspond with the pages on which they appear; for example, *Illusts. 2, 2A, and 2B* are on page 2.

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 and 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.

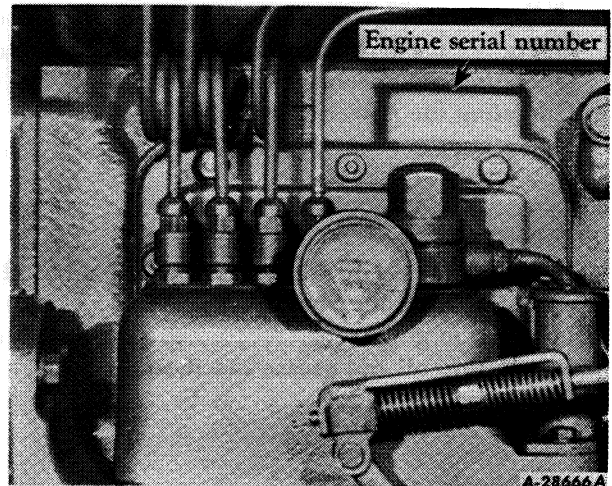
When in need of parts, always specify the tractor and engine serial numbers. The tractor serial number is stamped on a name plate attached on the left side of the clutch housing. See *Illust. 2A*.



Illust. 2A

Location of the tractor serial number.

The engine serial number is stamped on the left side of the engine crankcase above the fuel injection pump. See *Illust. 2B*. This serial number is preceded by the prefix D-281, which indicates that it is a diesel engine with a 281-cubic inch piston displacement.

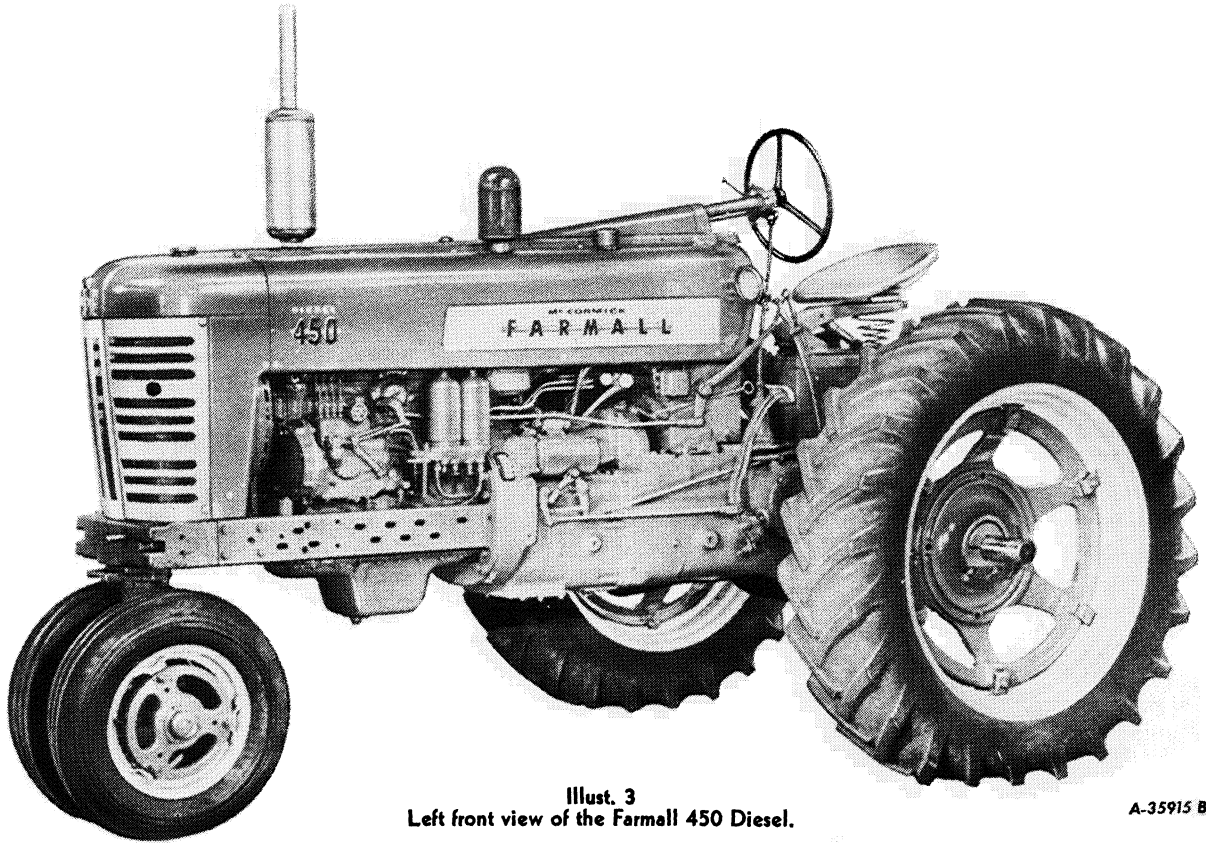


Illust. 2B

Location of the engine serial number.

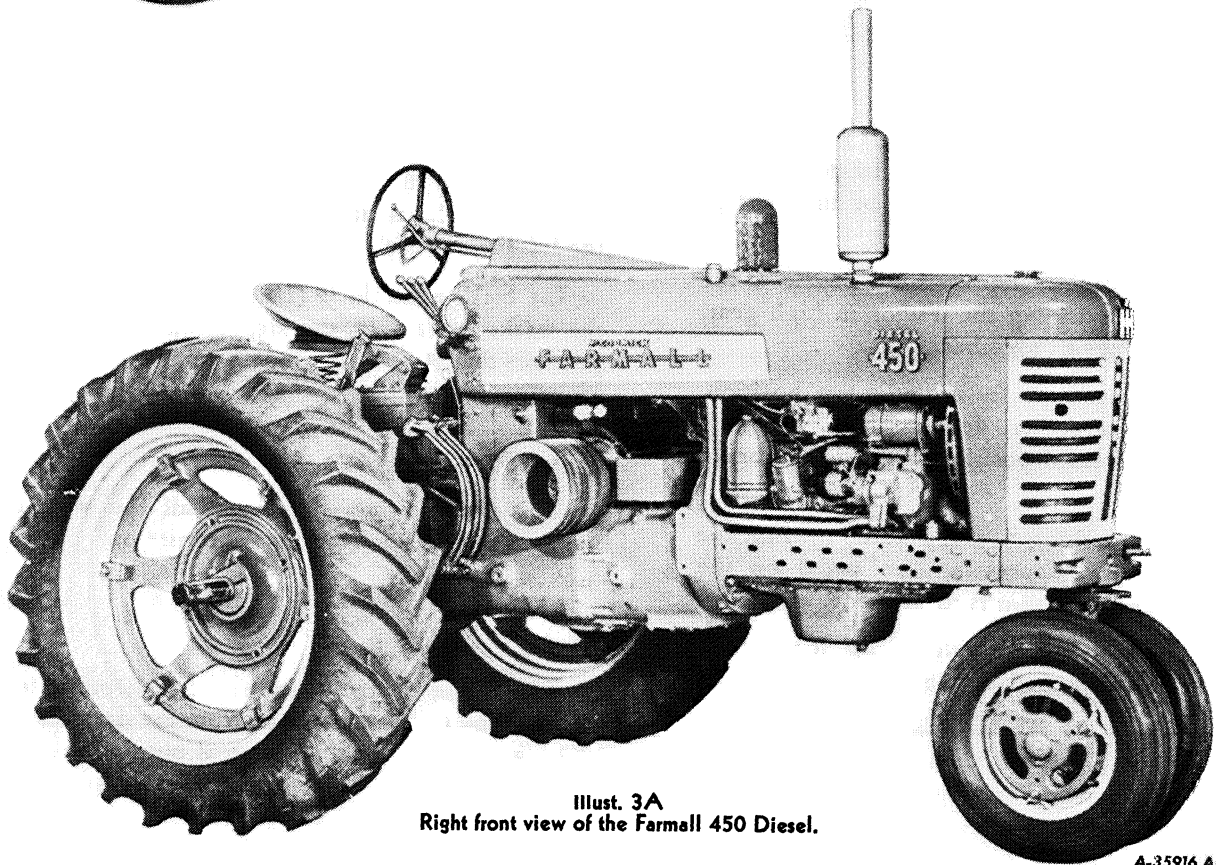
For ready reference, we suggest that you write these serial numbers in the spaces provided on the Delivery Report.

DESCRIPTION



Illust. 3
Left front view of the Farmall 450 Diesel.

A-35915 B

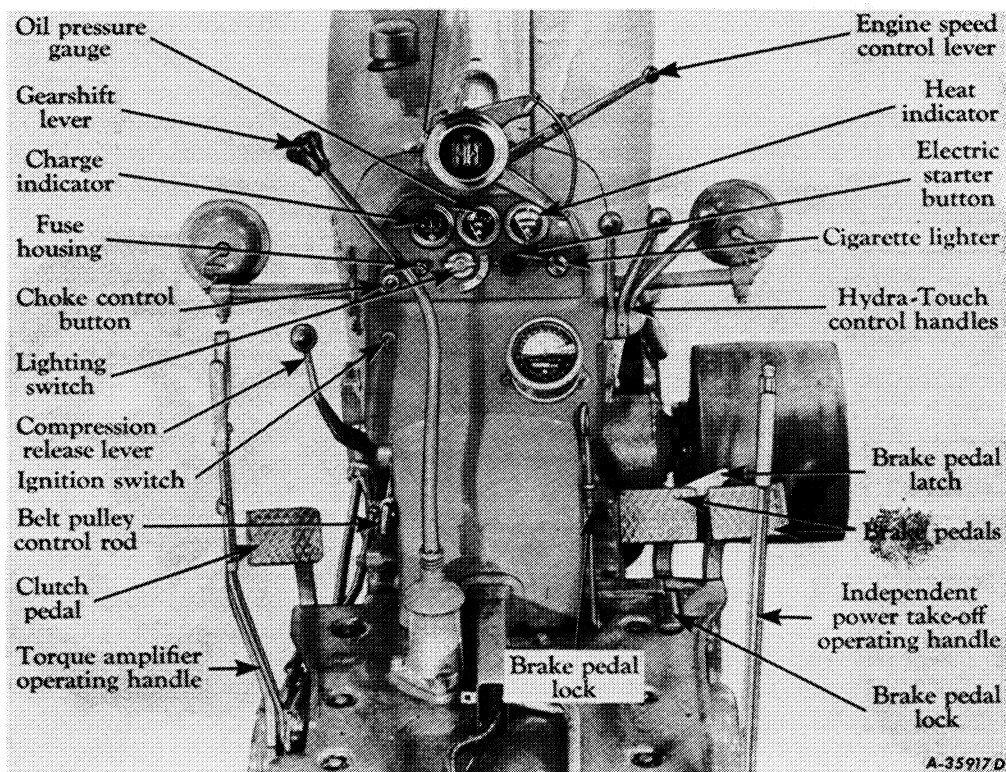


Illust. 3A
Right front view of the Farmall 450 Diesel.

A-35916 A

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 them, 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 16*) is used to latch both brake pedals together, causing the brakes to operate simultaneously.



Caution! Always latch the brake pedals together when driving the tractor in high gear (fifth speed). To latch the pedals

together, engage the latch (located in back of the left pedal, *Illust. 16*) in the slot in back of the right pedal. When the brake pedals are not latched together, the latch should rest in the slot in back of the left brake pedal.

The brake pedal lock (*Illust. 16*) 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 Control Button

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

DESCRIPTION

Ignition Switch

A key-type lock ignition switch (*Illust. 4*) is located near the left side of the instrument panel and reservoir shroud. Turn the key clockwise to a horizontal position to turn on the ignition. The key cannot be removed when in this position.

Caution! When the engine is not operating or the engine has stalled and the operator leaves the tractor, the key must be turned to the off position to prevent battery discharge, or possible damage to the coil.

Electric Starter Button

Pushing the button in completes the electrical circuit between the battery and the cranking motor solenoid and causes the cranking motor pinion to engage the flywheel ring gear, thereby cranking the engine. Refer to page 12 for starting the engine.

Lighting Switch

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

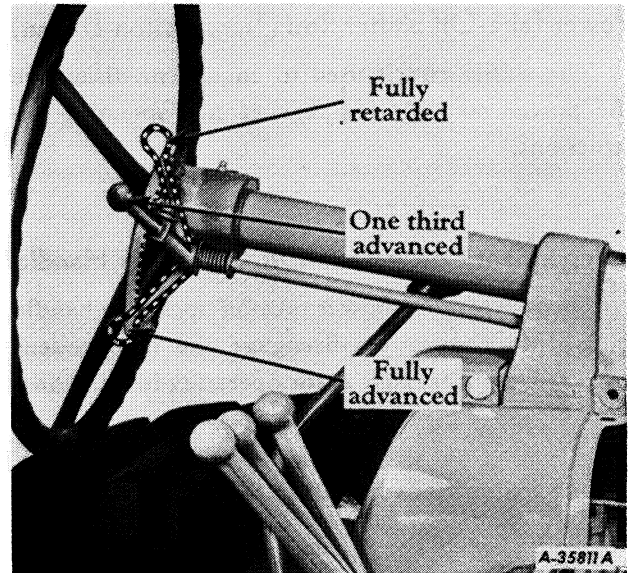
Cigarette Lighter

Push the lighter in to make electrical contact. When it pops back it is ready to use.

Engine Speed Control Lever

The engine speed control lever enables you to adjust the speed of the engine to the load to be handled. After you have selected the desired engine speed, the governor will automatically maintain this engine speed under variable loads. Retarding the engine speed control lever will decrease the load the tractor can handle.

The rated or maximum full-load governed speed is 1,450 r.p.m.; maximum idle speed is approximately 1,580 r.p.m.; minimum speed (hand-throttle) is approximately 600 r.p.m.



Illust. 5

Various positions of the engine speed control lever

Compression Release Lever

Moving the compression release lever all the way backward converts the diesel engine into a gasoline engine for starting. Reduced compression, spark plug ignition, and carbureted gasoline fuel permits starting the engine as a gasoline engine. After a quick cylinder warm-up, switch the engine to diesel operation by pushing the compression release lever all the way forward. See page 12 for the correct method of starting on gasoline and changing to diesel operation. See page 13 for changing back to gasoline operation before stopping the engine.

Radiator Shutter Control Crank

The control crank opens and closes the radiator shutter, controlling the engine temperature. Turn the crank counterclockwise to close the shutter and clockwise to open the shutter.

DESCRIPTION

Seat Position Release Lever

This lever is used to hold the seat in the desired position. For additional information, see page 13.

Power Take-Off Shifter Rod (Transmission-Driven)

The shifter rod is used to engage or disengage the power take-off. See page 22 for operating instructions.

Independent Power Take-Off Operating Handle

The independent power take-off operating handle is used to engage or disengage the independent power take-off. See page 22 for operating instructions.

Torque Amplifier Operating Handle

The torque amplifier operating handle is used to engage or disengage the torque amplifier. See page 18 for operating instructions.

Belt Pulley Control Rod

This rod is used to engage or disengage the belt pulley. See page 18 for operating instructions.

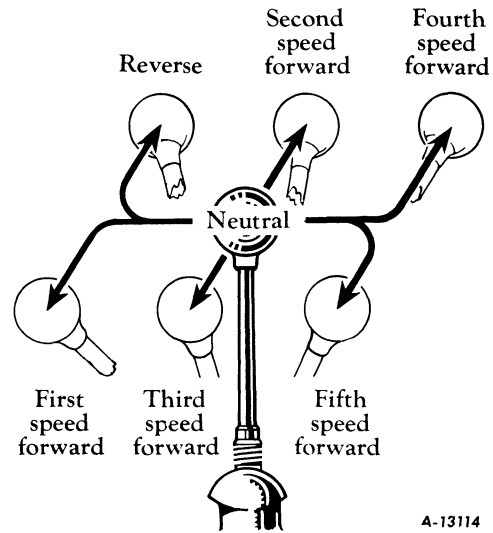
Hydra-Touch System Control Handles

These handles (Illustr. 4) operate the Hydra-Touch system. They are used to raise, partially raise, or lower direct connected or trailing-type implements. See page 24 for operating instructions.

Gearshift Lever

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

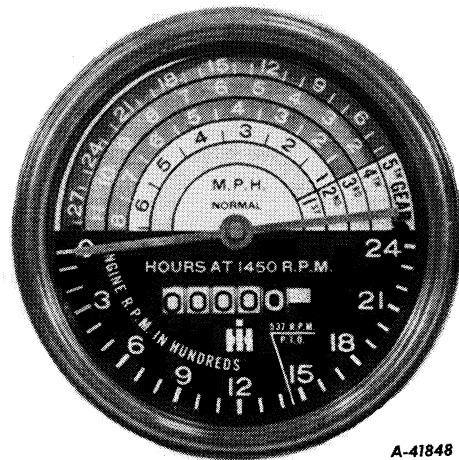
Note: The fifth speed is locked out when steel wheels are used. For further instructions, see page 14.



Illustr 6
Gearshift positions

Tachometer

This instrument records engine hours of operation, shows normal tractor speed in miles per hour in all forward gears, and indicates engine r.p.m., which provides a means of setting the exact engine speed specified for power take-off operations.



Illustr. 6A
Tachometer.

A mark on the lower half of the dial indicates a p.t.o. shaft speed of 537 r.p.m. at 1,450 engine r.p.m.

Refer to the table on page 17 for normal ground speeds according to tire sizes. Refer to "Power Take-Off Specifications" on page 21 for power take-off speeds.

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