

300
UTILITY TRACTOR
Operators Manual

1004400R4

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.

CONTENTS

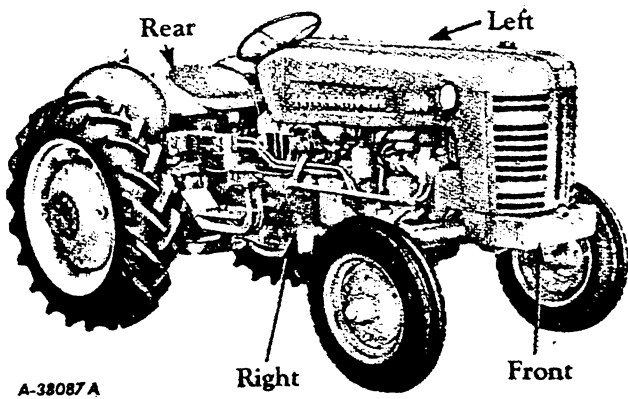
Description	Page No.	Description	Page
INTRODUCTION		MAINTENANCE	
Delivery report (to be filled in when tractor is delivered)	{ Inside Front Cover 2 2	Air cleaning system	44
General		Battery ignition unit	46 to 49
Serial numbers, engine and tractor		Brakes	65, 66
DESCRIPTION		Carburetor	38, 39
Before starting your new tractor	7	Clutches	66, 67
Instruments and controls	4 to 6	Cold weather operations	39, 40
Preparing your tractor for each day's work	8, 9	Cooling system	40 to 43
Views of the tractor	3	Front wheels	69 to 71
OPERATING YOUR TRACTOR		Fuel strainer	37
Driving the tractor	12 to 14	Hydra-Touch system	78, 79
Hitching the tractor to the implement	15, 16	Independent power take-off	68
Operating the engine	10, 11	Magneto	50 to 52
Operating the belt pulley	19, 20	Minor engine service operations	65
Operating the Fast-Hitch system	23, 25	Periodic inspections	36, 37
Operating the Hydra-Touch system	21, 22	Pneumatic tires	75 to 77
Operating the pneumatic tire pump	20	Rear wheels	72 to 74
Operating the power take-off	18, 19	Spark plugs and cables	45
Operating the torque amplifier	15	Starting and lighting equipment	
LUBRICATION		Tractors with battery ignition	53 to 60
General engine lubrication	26	Tractors with magneto	60
Greasing the front wheels	28	Starting engines that have been in storage	85
Lubrication guide	30 to 35	Storage battery	61, 62
Lubricating oil and grease specifications	28, 29	Storing and housing your tractor	84, 85
Oil filter	27	Tachometer drive unit	63
		Trouble shooting	80 to 84
		Valve clearance adjustment	64
		EXTRA EQUIPMENT AND ACCESSORIES	86 to 95
		SPECIFICATIONS	96, 97
		COMPREHENSIVE INDEX	98 to 101

INTRODUCTION

Assembled in this book are operating and maintenance instructions for the International 300 Utility Tractor. 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

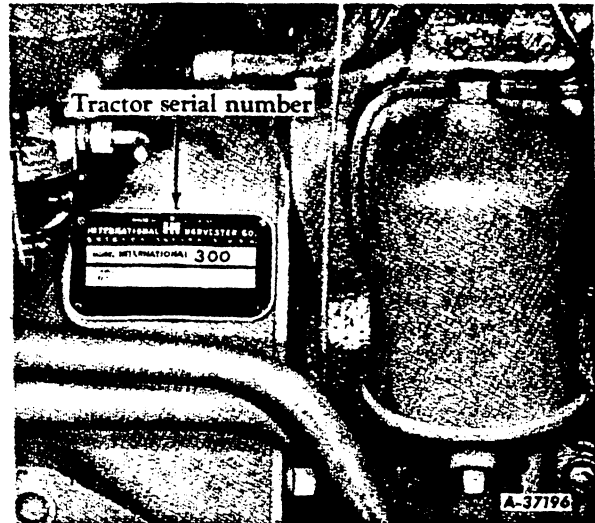
The illustrations in this manual are numbered to correspond with the pages on which they appear; for example, *Illust. 2*, *2A* and *2B* are on page 2.

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.

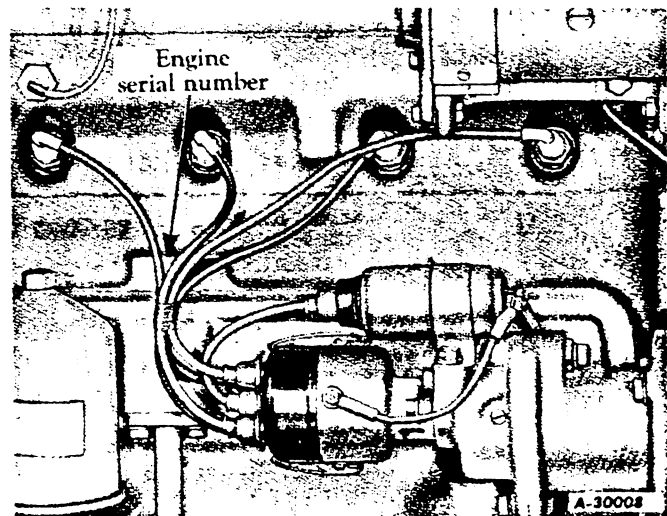
When in need of parts, always specify the tractor and engine serial numbers. The tractor serial number is stamped on a name plate attached to the right side of the clutch housing. See *Illust. 2A*.



Illust. 2A

Location of tractor serial number.

The engine serial number is stamped on the right side of the engine crankcase above the crankcase breather. See *Illust. 2B*. This serial number is preceded by the prefix C-169, which indicates that it is a carbureted engine with a 169-cubic-inch piston displacement.

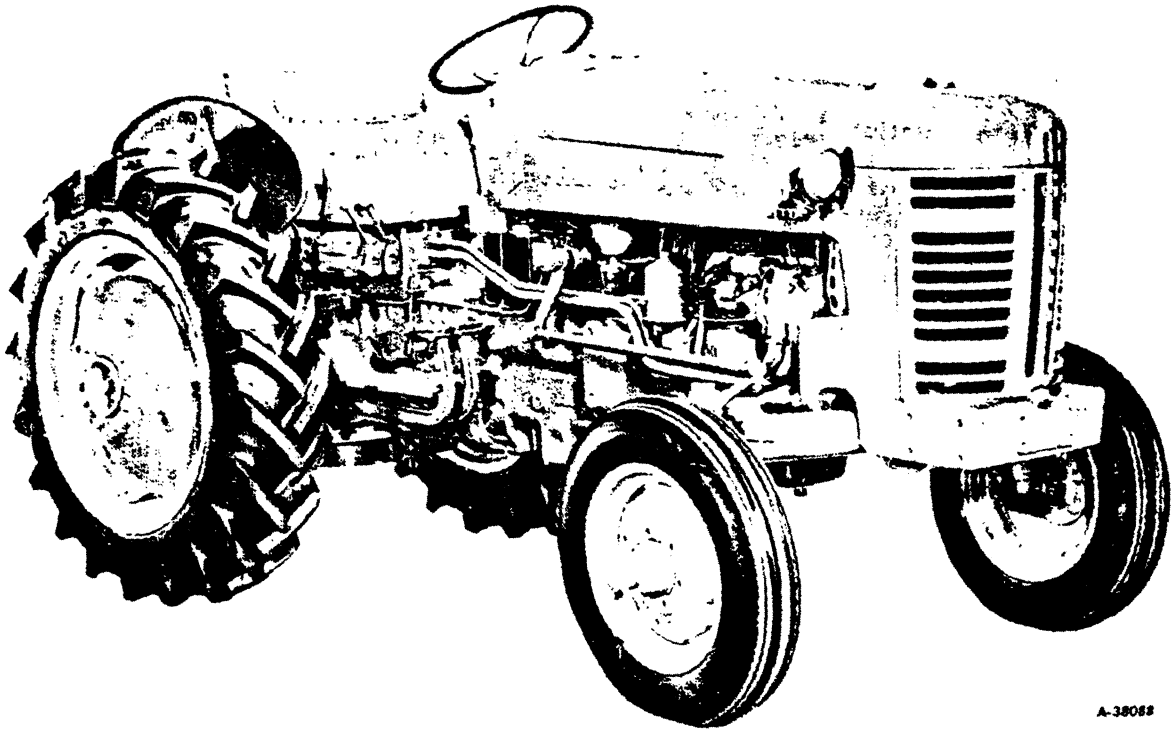


Illust. 2B

Location of engine serial number.

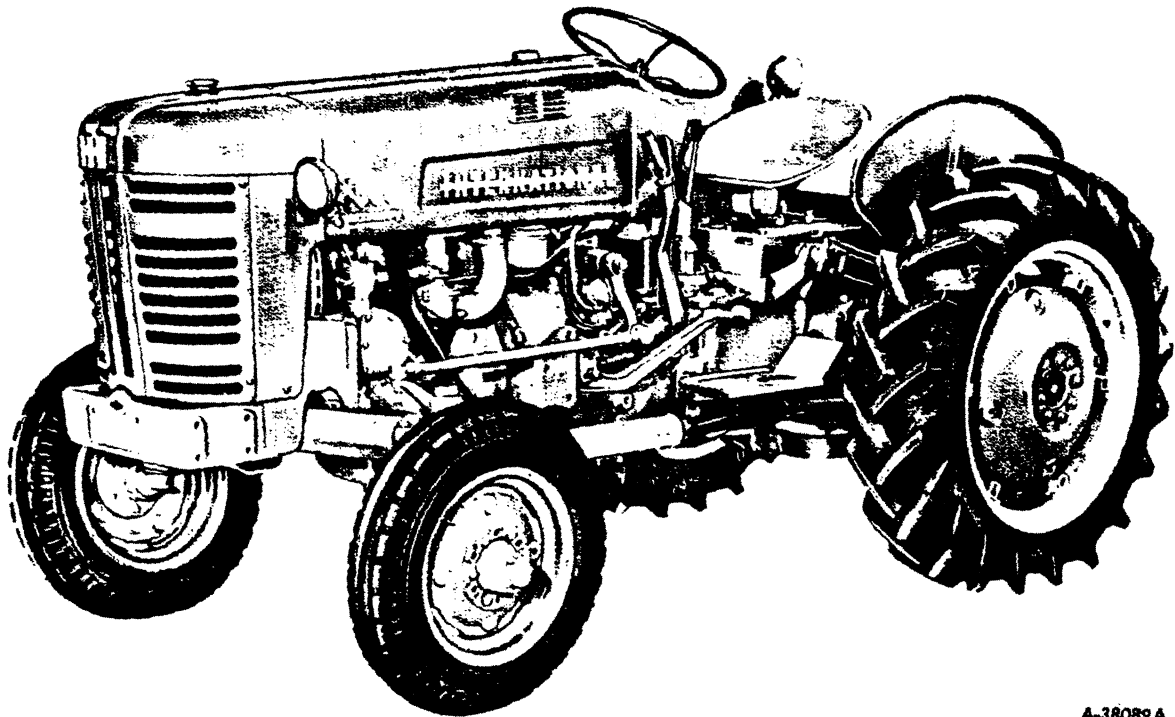
For ready reference, we suggest that you write these serial numbers in the spaces provided on the Delivery Report.

DESCRIPTION



A-38088

Illust. 3 - Right front view.



A-38089A

Illust. 3A - Left front view.

DESCRIPTION

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

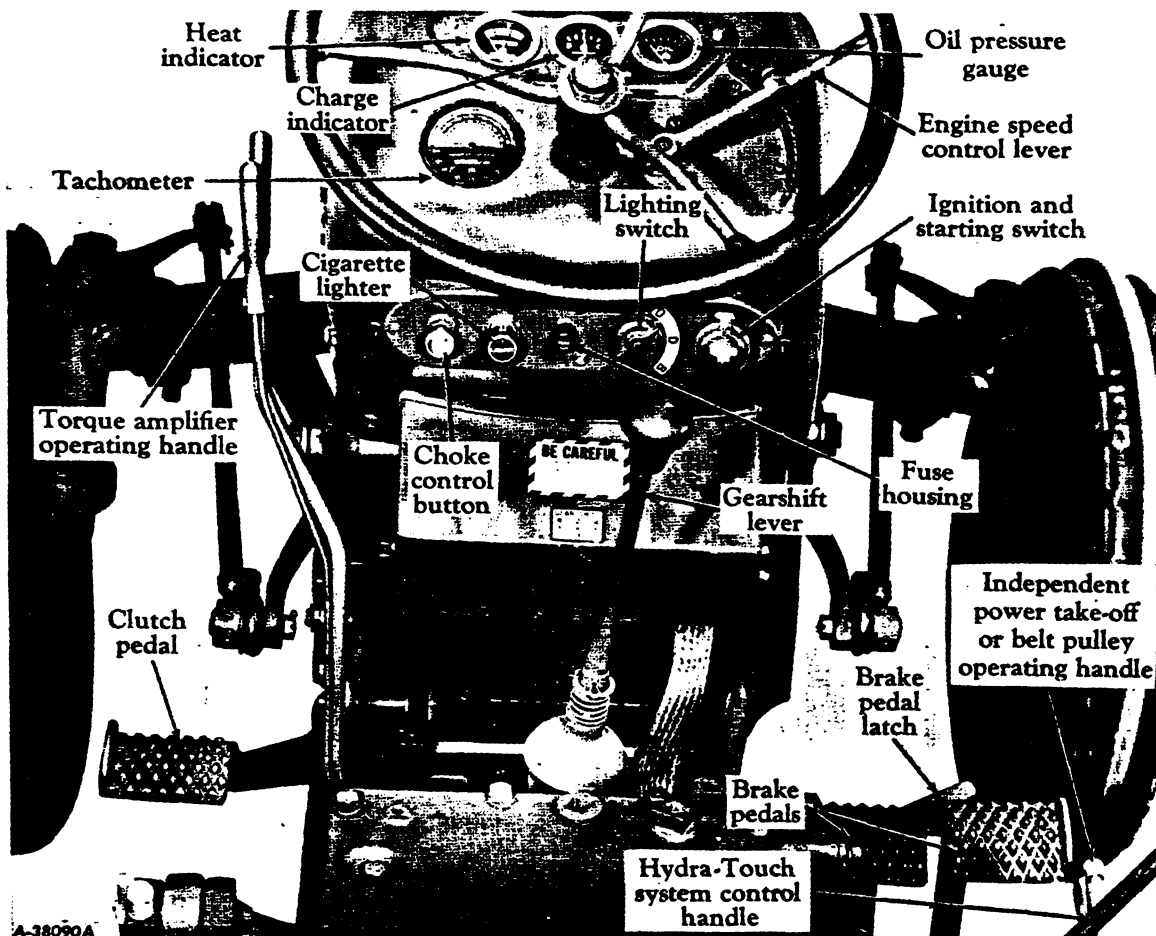


Caution! Always latch the brake pedals together when driving the tractor in high gear (fifth speed). To latch the pedals together, engage the latch (located in back of the left pedal), (*Illust. 14*) in the slot in back of the right pedal. When the brake pedals are not latched together, the latch should rest in the slot in back of the left brake pedal.

The brake pedal lock (*Illust. 14*) 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.



Illust. 4
Location of instruments and controls.

DESCRIPTION

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.

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 2,000 r.p.m.; maximum idle speed is approximately 2,200 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.

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

Lighting Switch

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

Cigarette Lighter

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

Ignition and Starting Switch

The key type ignition switch, located on the instrument panel, is a combination ignition and



Illust. 5

Various positions of the engine speed control lever.

starting switch. It is off when the key is vertical position. Turning the key clockwise (to the right), turns on the ignition. To start the engine, continue turning the key clockwise and when the engine starts, release the pressure on the key.

To use a cigarette lighter, or other accessories when the engine is not operating, turn the key counterclockwise (to the left of the off position). The key can be removed only when it is in the off 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.

Keep the ignition and starting switch cover closed at all times to prevent dust and moisture from entering the switch.

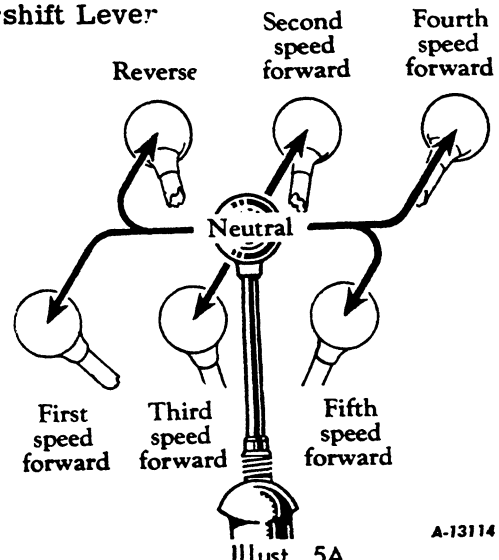
Transmission-Driven Power Take-Off or Belt Pulley Shifter Rod

The same shifter rod is used to engage or disengage the power take-off or belt pulley. See page 17 for power take-off operating instructions or page 19 for belt pulley operating instructions.

Independent Power Take-Off or Belt Pulley Operating Handle

The same operating handle is used to engage or disengage the independent power take-off or belt pulley. See page 17 for independent power take-off or page 19 for belt pulley operating instructions.

Gearshift Lever



Illust. 5A

Gearshift positions.

Continued on next page.

DESCRIPTION

Gearshift Lever - Continued

This lever is used to select the various gear ratios in the transmission. There are five forward speeds and one reverse speed. See *Illust. 5A*.

Hydra-Touch System Control Handle

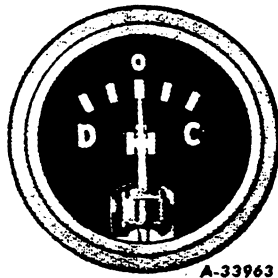
This handle (*Illust. 4*) operates the Hydra-Touch Remote Control. It is used to raise, partially raise or lower implements. See *page 21* for operating instructions.

Torque Amplifier Operating Handle

The torque amplifier operating handle is used to engage or disengage the torque amplifier. See *pages 14 and 15* for operating instructions.

Charge Indicator

This instrument (*Illust. 4 and 6*) 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. See *pages 53 to 62* for additional information on electrical equipment.



Illust. 6
Charge indicator.

Heat Indicator

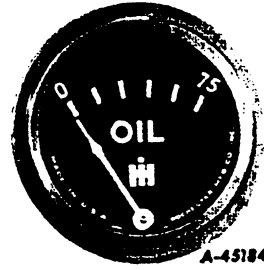
This instrument (*Illusts. 4 and 6A*) indicates the relative temperature range of the liquid in the cooling system for best engine performance. The indicator pointer should be on the low side of the "RUN" range for engines using gasoline for fuel.



Illust. 6A
Heat indicator.

Oil Pressure Gauge

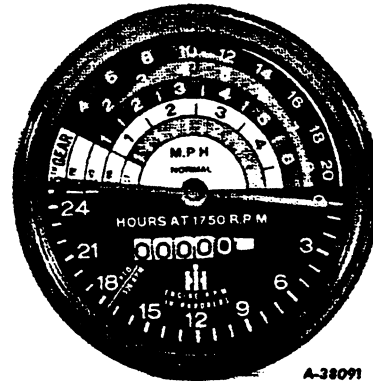
This gauge (on the instrument panel) indicates whether lubricating oil is circulating through the engine. The indicator needle should be past the first mark above zero



Illust. 6B
Oil pressure gauge.

when the engine is running at speeds approximately 100 r.p.m. above slow idle speed. See *Illust. 6B*. 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.

Tachometer (Special)



Illust. 6C
Tachometer.

This instrument records engine hours of operation, shows normal tractor speeds in miles per hour in all forward gears based on 12-28 rear tires, and indicates engine r. p. m. which provides a means of setting exact engine speed specified for Power Take-Off Operations.

For tractors with Independent Power Take-Off or Transmission Driven Power Take-Off with Torque Amplifier, there is a mark on the lower half of the dial indicating a P. T. O. shaft speed of 536 R. P. M. at 1750 engine R. P. M. as shown in *Illust. 6C*.

For tractors with Transmission Driven Power Take-Off without Torque Amplifier, there is a mark indicating a P. T. O. shaft speed of 541 R. P. M. at 1650 engine R. P. M.

Refer to the chart on *page 14* for normal ground speeds according to tire sizes. Refer to "Power Take-Off Specifications" on *page 17* for power take-off shaft speeds.

DESCRIPTION

Before Starting Your New Tractor

Lubrication

Tractors shipped to destinations in the United States of America, Canada and Mexico have the crankcase and air cleaner filled with SAE-10W oil from October 15 to April 15, and SAE-20 oil from April 15 to October 15. If the engine is to be operated at temperatures for which these oils are recommended (see the "Lubrication Table"), this oil can be used in the engine for 150 hours of operation. If temperatures are not within the range specified, 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.

Tractors packed for export have all oil drained from the engine crankcase, air cleaner and all gear cases.

Before starting the engine for the first time, remove the spark plugs and put about one teaspoonful of crankcase oil into each cylinder; replace the spark plugs and crank the engine to distribute the oil over the cylinder walls. This assures positive lubrication of the cylinders and pistons immediately after starting and eliminates the possibility of scoring.

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. See the "Lubrication Guide" on page 30 and the specifications of lubricants on pages 28 and 29.

Pneumatic Tires

Before moving the tractor, check the air pressure in the pneumatic tires and inflate or deflate the front and rear tires to the correct operating pressures. See the table on page 75.

Engine Cooling System

The cooling system capacity is approximately four U. S. gallons. Be sure the radiator drain and crankcase water drain (*Illust. 41A*) are closed; then fill the radiator to a level approximately 2-1/4 inches below the top of the filler neck. Filling the radiator to this level will allow for expansion of the coolant under normal operating conditions. Use clean water; soft or rain water is recommended, as it does not contain alkali, which forms scale and eventually clogs the passages.

Never start or operate the engine without water or antifreeze in the cooling system except as instructed in "Cold Weather Precautions" on page 39.

For further information see "Cooling System" (page 40). If the tractor is to be operated in freezing temperatures (+32°F. or lower) see "Cold Weather Precautions" on page 39.

Fuel System

Before attempting to use a fuel for which your tractor is not designed, see your International Harvester dealer or the nearest International Harvester Company District Office for full details.

International Harvester gasoline burning engines are specifically designed for use with regular grade gasoline having a minimum octane rating of 75 (motor method).

Fuels having a lower octane rating than 75 can be used satisfactorily in distillate burning engines. These engines are designed for use with fuels having a minimum octane rating of 40.

See the chart below for fuel octane ratings required to obtain the best engine performance and maximum engine life for your type of engine.

Type of Engine	Fuel Octane
Gasoline burning	75 and up

To obtain best results, use the fuel for which the tractor is designed, follow the operating instructions given for that fuel and observe the following precautions: Use clean fuel and keep it clean. Store fuel in tanks equipped with hose and nozzle to prevent contamination of the fuel. The use of funnels, cans and drums is not recommended because they are difficult to keep clean. During the first 100 hours of operation, mix one pint of light engine oil with every five U. S. gallons of fuel.

Battery-to-Ground Cable

Tractors shipped from the factory with starting and lighting equipment have the battery-to-ground cable disconnected and taped. Therefore, before attempting to start the engine, be sure the battery-to-ground cable is connected to the ground.

Instruments and Controls

Thoroughly acquaint yourself with all instruments and controls as described on pages 4 to 6.

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