# 454 Tractor

**Operators Manual** 

1084109R1

Reprinted





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

Your new International Harvester tractor is designed to meet today's exacting operating requirements. The ease and comfort of operation, the ability to match ground speeds to engine power and work requirement, and the effortless versatility of the hydraulic system are intended to lighten your work and shorten your hours on the job.

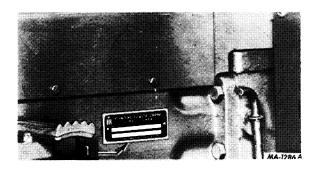
Your tractor has a synchromesh transmission.

The synchromesh transmission will require minimum service if recommended operating and maintenance procedures are followed.

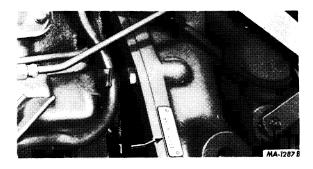
Should you have difficulties with the unit consult your International Harvester dealer.

These are a few facts that you should know about your tractor.

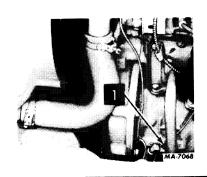
- 1. To tow the tractor, place the Range Lever in neutral. Refer to Towing Tractor on page 9.
- 2. Change the filters at the specified interval. The 10 hour and 100 hour changes are extremely important and must not be overlooked.



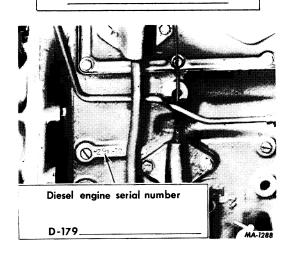
1 - Tractor serial number



1 - Skidded unit serial number



1 - Gasoline engine serial number C-157 Synchromesh transmission



## To The Owner

Your local International Harvester dealer is interested in the performance you receive from this tractor. He has factory-trained service men, informed in the latest method of servicing tractors, and modern tools, and original equipment IH service parts which assure proper fit and good performance.

To obtain top performance and assure economical operation the tractor should be inspected, depending on its use, periodically, or at least once a year, by your International Harvester dealer.

Before you operate the tractor study this manual carefully. It has been prepared to help you operate and maintain your tractor with utmost efficiency. New copies may be ordered from your dealer at a nominal price.

When in need of parts, always specify the tractor and engine serial numbers, including prefix and suffix letters. Write these serial numbers in the spaces provided.

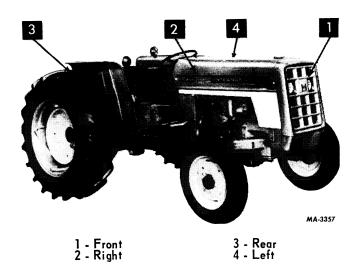
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## INTRODUCTION



Illust. 2
Left side view of International 454 Gasoline Tractor.
(Synchromesh transmission)



Illust. 2A Terms of location. LEFT and RIGHT indicate the left and right sides of the tractor when facing forward in the driver's seat. See Illust. 2A.

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

A variety of optional equipment is available. Refer to page 98. Operating and maintenance instruction on these items is included in the instructions for operating or maintaining the tractor. Disregard instructions for equipment not on your tractor.

## SAFETY SUGGESTIONS



This symbol is used to call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions.

#### BEFORE STARTING

- 1. Don't refuel hot or running engines. Do not smoke while refueling.
- 2. Keep brakes and clutch in proper adjustment.
- 3. Reduce tractor tipping hazards by spreading tractor wheels as far as practicable.
- 4. Do not oil, grease, or service engine while it is running.
- 5. Do not clean either oil cooler or radiator cores while engine is running.
- 6. When removing pressure radiator cap while engine is hot, first turn cap to the pressure release point. Let pressure and steam escape.
- 7. Always carry a fire extinguisher and first aid kit.
- 8. Put all controls in neutral before start-ing the engine.
- 9. Clean dirt, trash, and grease from operator's platform, pedals, steps, and steering wheel.
- 10. Avoid loose-fitting clothing that could catch in moving parts.
  - 11. Release park brake completely.

#### **DURING OPERATION**

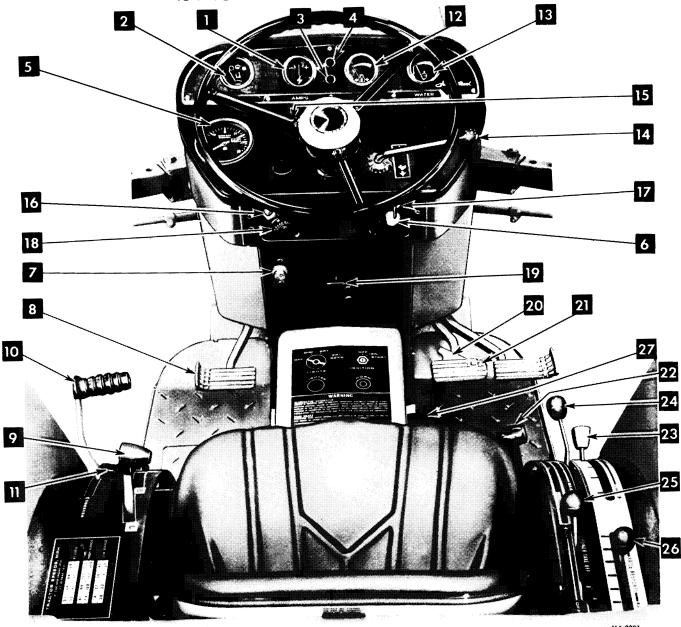
- 12. Reduce speed when traveling on rough road.
- 13. Avoid heavily-traveled roads when moving farm equipment.
- 14. Use red warning flags in daytime . . . lights at night . . . when you move equipment on public roads.
- 15. Set drawbar in lowest position when hitching to a heavy load, especially manure spreaders and two-wheel trailers.

- 16. Pull only from drawbar; never hitch to axle housing. Shift transmission to neutral and set park brake before dismounting to hitch implements.
- 17. Keep safety shielding in place when using power take-off.
- 18. Only the driver should ride on tractor. He should sit on seat or stand on the platform.
- 19. Keep children away from tractor and equipment.
- 20. Reduce speed before making a turn or applying brakes.
- 21. Avoid . . . sudden starts, excessive speeds and sudden stops when operating on hillside, rough ground, or most off-the-road operations.
- 22. When moving on highways, or from field to field, lock brake pedals together for simultaneous operation when making a stop.
- 23. Operate tractor inside a building only when doors are open.
- 24. Disengage PTO before adjusting or unclogging power-driven machinery.
- 25. Carefully supervise inexperienced drivers.
  - 26. Don't leave engine running unattended.

### AFTER OPERATING

- 27. Don't dismount while tractor is in motion.
  - 28. Disengage PTO before dismounting.
- 29. Lower all equipment before leaving tractor.
  - 30. Shut off engine and remove ignition key.
- 31. Lock the park-brake so tractor will not roll

# INSTRUMENTS AND CONTROLS



MA-3387

- 1 Ammeter (page 48)
- 2 Fuel gauge (page 12)
- 3 Parking brake warning light (page 51)
- 4 Transmission oil pressure tellite (page 50)
- 5 Tachometer (page 12)
- 6 Horn button (page 4)
- 7 Ether start push button (Diesel) (pages 19, 20)
- 8 Clutch pedal (page 69)
- 9 Transmission speed lever (page 8)
- 10 Transmission range lever (page 8)

- 11 Park brake (not seen) (page 10)
- 12 Engine oil pressure gauge (page 15)
- 13 Heat indicator (water) (page 41)
- 14 Engine speed control lever (page 63)
- 15 Fuse holder (not seen) (page 51)
- 16 Lighting switch (page 51)
- 17 Key starting switch (page 50)
- 18 Cigarette lighter (page 4)
- 19 Fuel control lever (Diesel)

(page 14)

(page 19) Choke control lever (Gasoline)

#### Illust. 4

Location of instruments and controls (International 454 Tractors) (Synchromesh transmission) Page references for items illustrated above.

20 - Brake pedal latch (page 11)

21 - Brake pedals (page 11)

22 - Auxiliary valve operating levers (page 36)

23 - Draft control lever (pages 29, 30)

24 - Position control lever (pages 24, 25)

25 - Independent power take-off (page 40)

26 - Raise response lever (pages 26, 27)

27 - Differential lock (pages 11,12)

### BEFORE OPERATING YOUR NEW TRACTOR

#### Tractor Break-In Procedure

Never operate an engine immediately under full load. Break it in carefully as shown in the table. Do not overload the engine at anytime.

Allow engine to warm up before operating at full load. If engine coolant temperature rises above range on temperature gauge, shift to lower gear on synchromesh transmission tractor.

	Engine Speed Control Lever	
Period	Position	Load
lst Hour	Fully advanced	Maintain engine speed 100 RPM above full load governed speed.
2nd Through 5th Hours	Fully advanced	Full load governed speed with occasional short periods of lighter load.

During first 100 hours of operation with shipaway oil, avoid prolonged periods of engine idling, but do not overload. Hydraulic filter elements must be changed as specified in "Lubrication Guide".

#### GOVERNOR (Gasoline)

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

Never operate the engine at more than the regular governed speed. Excessive speeds are harmful. Refer to "Engine Speeds" in the "Specifications" on page 95.

All parts of your new tractor are of matched design for maximum performance as shown under "Specifications".

Any attempt to increase the engine horsepower by increasing engine r.p.m. above its rated maximum, or by other means, not only affects traveling speeds but affects the life of matching parts and voids the company responsibility as outlined in the warranty.

#### LUBRICATION

Lubricate the entire tractor, using the "Lubrication Guide" and the "Lubrication Table". Check the oil levels. See pages 85 to 90.

### PNEUMATIC TIRES

Check the air pressures. See the tables on page 65.

### BEFORE OPERATING YOUR NEW TRACTOR

#### ENGINE COOLING SYSTEM

Never start or operate the engine without first checking to see if the radiator is filled to the proper level, for the prevailing temperature, with soft or rain water or antifreeze. See pages 71 and 72. Tractors shipped in the United States and Canada have the cooling system filled with antifreeze.

#### **FUEL SYSTEM**

#### Gasoline Engine

Use clean fuel having a minimum octane rating of 93 (Research Method).

#### Diesel Engine

Check the diesel fuel specifications requirement table on page 17. Carefully strain the fuel.

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.

#### INSTRUMENT AND CONTROLS

Thoroughly acquaint yourself with all instruments and controls.

## DRIVING THE TRACTOR

#### PREPARING THE TRACTOR FOR EACH DAY'S WORK

This engine is designed to operate on leaded gasoline with a 93 minimum octane rating or on unleaded or low lead gasoline with a 91 minimum octane rating (Research Method).

Check the level of the coolant in the radiator. See page 41.



Caution! Never remove the fuel tank cap or fill the fuel tank when the engine is running or is hot, or when near an open flame. Do not smoke or use an oil lantern when working around inflammable fuels. When pouring fuel, keep the hose and nozzle or the funnel and container in contact with the metal of the fuel tank to avoid the possibility of an electric spark igniting the fuel. Do not light matches near inflammable fuels, as the air around the tractor is mixed with a highly explosive

Check the oil level in the engine crankcase. Also lubricate the chassis points recommended for daily service. See the "Lubrication Guide" and "Lubrication Table".



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