International 484, 584, 684, 784, and Hydro 84 Tractors

Operator's Manual

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CASE IH

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THIS SAFETY ALERT SYMBOL INDICATES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL, CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY OR DEATH.

M171B

If Safety Decals on this machine use the words **Danger, Warning or Caution,** which are defined as follows:

- **DANGER:** Indicates an immediate hazardous situation which if not avoided, will result in death or serious injury. The color associated with Danger is RED.
- **WARNING:** Indicates an potentially hazardous situation which if not avoided, will result in serious injury. The color associated with Warning is ORANGE.
- **CAUTION:** Indicates an potentially hazardous situation which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

If Safety Decals on this machine are ISO two panel Pictorial, decals are defined as follows:

- The first panel indicates the nature of the hazard.
- The second panel indicates the appropriate avoidance of the hazard.
- Background color is YELLOW.
- Prohibition symbols such as  and  if used, are RED.

WARNING

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE INJURY OR DEATH. BEFORE USING THIS MACHINE, MAKE CERTAIN THAT EVERY OPERATOR:

- Is instructed in safe and proper use of the machine.
- Reads and understands the Manual(s) pertaining to the machine.
- Reads and understands ALL Safety Decals on the machine.
- Clears the area of other persons.
- Learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow Case Corporation instructions on machine operation and maintenance.

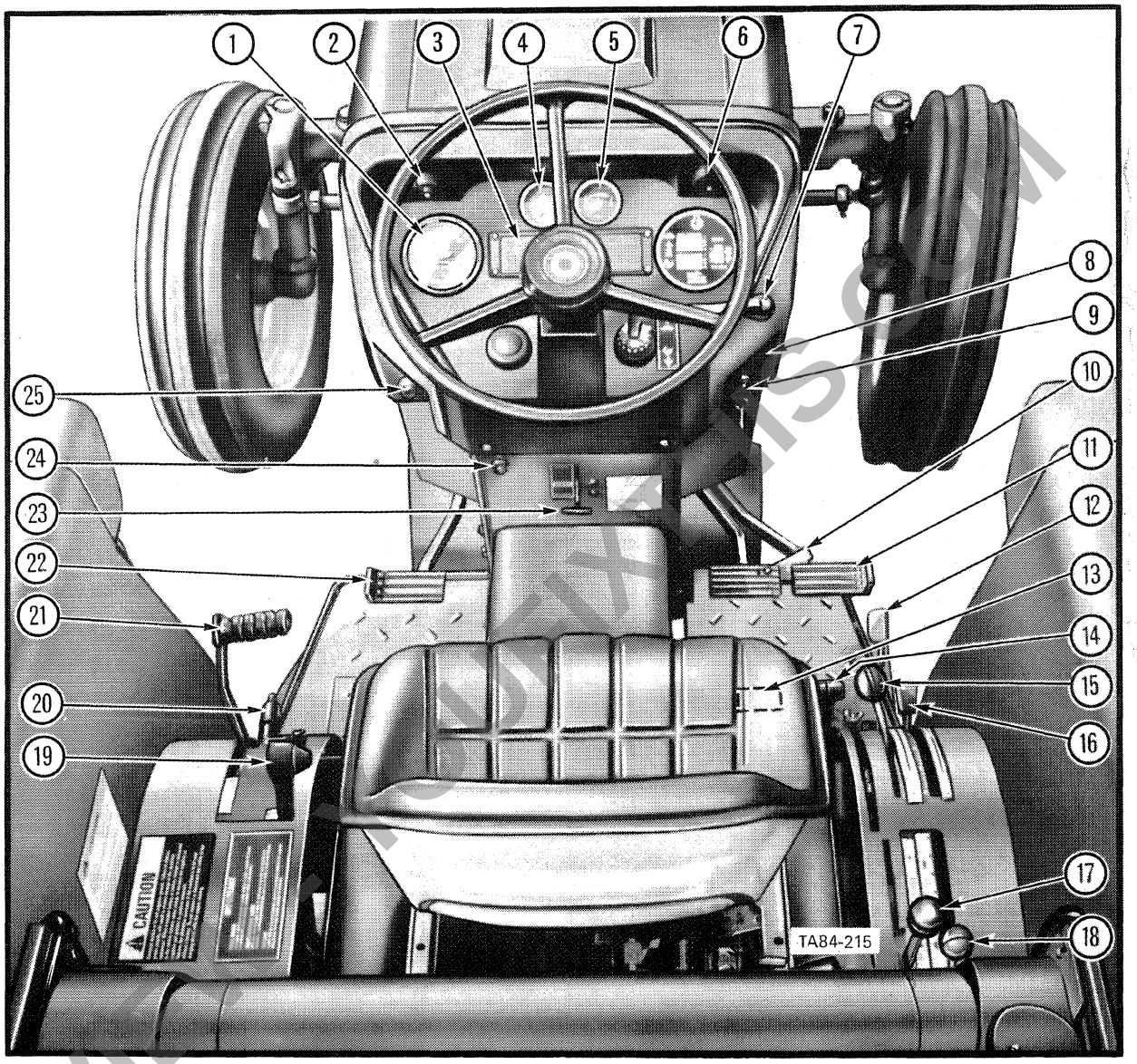
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1. Tachometer
2. Light switch
3. Warning Light panel
4. Fuel gauge
5. Engine coolant temperature gauge
6. Direction indicator switch
7. Engine speed control lever
8. Cigar lighter attachment
9. Keyswitch
10. Brake pedal latch
11. Brake pedals
12. Accelerator pedal
13. Differential lock pedal
14. Auxiliary control lever attachment
15. Position control lever
16. Draft control lever
17. Independent PTO lever
18. Raise response lever
19. Gear lever
20. Parking brake lever
21. Range lever
22. Clutch pedal
23. Fuel control
24. Ether start button
25. Horn button

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Release the clutch or Foot-N-Inch pedal.

Check the engine oil pressure, transmission oil and alternator warning lights.

CAUTION! Do not run the engine in an enclosed building any longer than is necessary for the immediate moving of the tractor out of or into the area. Exhaust gases are dangerous. Opening doors and windows may not provide adequate ventilation.

Do not run the engine with the keyswitch in the OFF position.

STOPPING THE ENGINE

Run the engine at 1500 rev/min for some minutes to allow the engine to cool while oil and coolant are still circulating.

Move the fuel control to the STOP position.

When the engine has come to rest turn the key to the OFF position.

DRIVING THE TRACTOR

The engine speeds mentioned apply to an engine that has been run-in. Refer to ENGINE RUN-IN PROCEDURE.

Ensure that the range lever is in NEUTRAL and the parking brake is ON then start the engine and allow a warming up period. Refer to AFTER STARTING.

CAUTION: There is no neutral position provided for the gear lever.

GEAR DRIVE

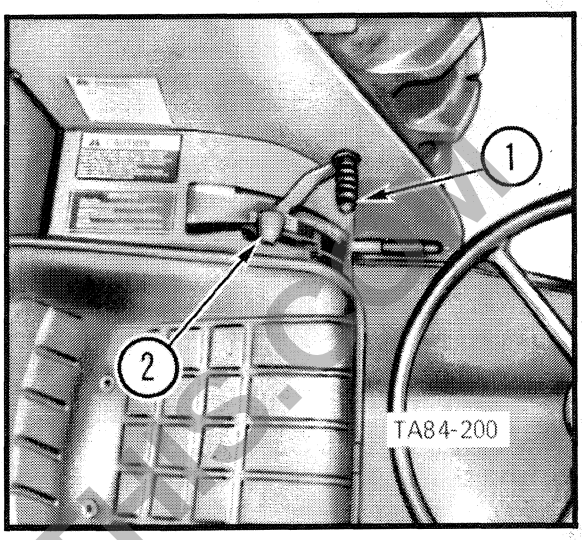
Depress the clutch pedal and select the required range and gear.

Release the parking brake ensuring that the warning light is OFF and if necessary hold the tractor with the footbrakes.

Adjust the engine speed control to suit the load to be handled then slowly release the clutch and brake pedals.

HYDROSTATIC DRIVE

Move the range lever to the desired range. Use HIGH range for road work and lighter field work such as mowing and cultivating where conditions permit. Use LOW range for heavier types of field work such as ploughing and deep cultivating etc. This type of field work requires a narrow speed band and with the range lever in LOW the SR lever gives a finer control. The LOW range also gives a considerable torque advantage to the tractor.

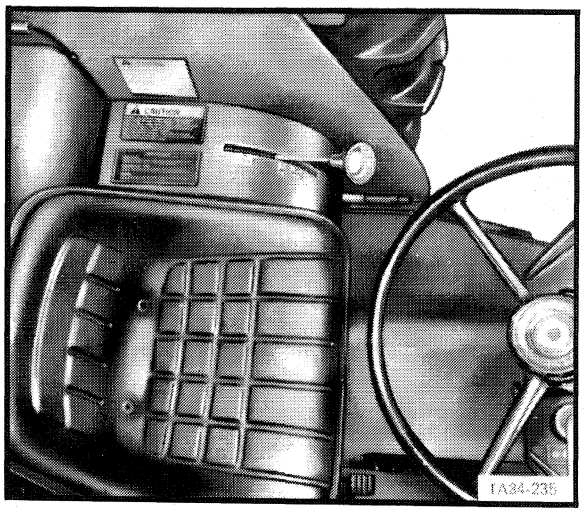


1. Range lever
2. Gear lever

Range and Gear Levers (Gear Drive)

Release the parking brake ensuring that the warning light is OFF and if necessary hold the tractor with the footbrakes.

Set the engine to rated speed or, for power take-off work, to the correct PTO operating speed for the implement.



Range Lever (Hydrostatic)

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PREVENTIVE MAINTENANCE GUIDE

AFTER THE FIRST 10 HOURS OF OPERATION

Transmission filter(s)	- Change filter(s), clean by-pass screen(s).

AFTER EVERY 10 HOURS OF OPERATION

Engine	- Check oil level
Cooling system	- Check coolant level
Radiator core	- Clean
Fuel system	- Drain water trap
Transmission	- Check fluid level
Tires	- Check pressures
Lubrication	- Lubricate tractor see Lubrication Guide.

AFTER THE FIRST 20 HOURS OF OPERATION

Engine	- Change oil and filter, check tighten cylinder head bolts, check valve clearances.
Aircleaning system	- Check manifold bolts
Injectors	- Service*
Engine clutch	- Check adjustment
Battery	- Check electrolyte level (If a standard battery)
Lighting and Electrics	- Check operation

AFTER THE FIRST 100 HOURS OF OPERATION

Transmission	- Change filter(s), clean by-pass screen(s)

AFTER THE FIRST 200 HOURS OF OPERATION

Engine	- Check tighten cylinder head bolts, check valve clearances
Aircleaning system	- Check manifold bolts

AFTER EVERY 200 HOURS OF OPERATION

Engine	- Change oil and filter. Check for leaks.
Crankcase breather	- Clean
Fan belt	- Check and adjust tension.
Aircleaner	- Check dust unloader lips
Battery	- Check electrolyte level (If a standard battery)
Lighting and Electrics	- Check operation
Transmission	- Change filter(s), clean by-pass screen(s), check for leaks.
Engine clutch	- Lubricate release shaft, check adjustment.
Wheels and Rims	- Check tightness of nuts.

AFTER EVERY 800 HOURS OF OPERATION

Engine	- Check tighten cylinder head bolts, check valve clearances.
Cooling system	- Drain and flush if IH anti-freeze is not used check for leaks.
Fuel system	- Service injectors*, change fuel filters, clean lift pump filter, check for leaks.
Aircleaning system	- Tighten manifold bolts, check hose clips.
Electrics	- Check connections.
Transmission	- Change oil, check for leaks.
Front wheels	- Repack wheel bearings.

PERIODIC

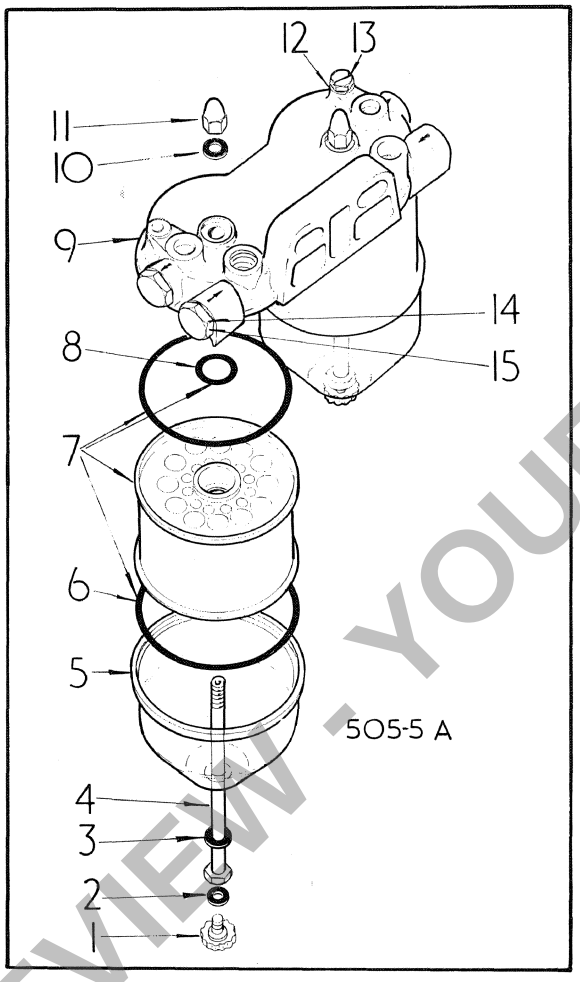
Aircleaning system	- Change element as shown by indicator or after 2 years, whichever is the sooner.

*Consult an International Harvester dealer for this service

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Install new small 'O' rings on the bosses in the filter head and new large 'O' rings in the filter head and sediment bowls. Position new elements on the sediment bowls then locate the filter and bowl assemblies in the filter head ensuring that the elements seat correctly.



1. Drain valve
2. Sealing washer
3. Sealing washer
4. Retaining bolt
5. Sediment bowl
6. Large 'O' ring
7. Element
8. Small 'O' ring
9. Filter head
10. Sealing washer
11. Crown nut
12. Sealing washer
13. Vent screw
14. Plug
15. Sealing washer

Fuel Filter Assembly (Exploded)

Secure the assembly with the retaining bolts tightened to a maximum of 0.8 kgm (6 lbft). Open the fuel shut-off valve at the tank.

Vent the fuel system and start the engine. Check the filters for leaks and tighten if necessary.

VENTING THE SYSTEM

If any part of the fuel system has been disconnected, ie. filter replacement etc., or if the tractor has been allowed to run out of fuel it will be necessary to vent the fuel system.

Ensure there is sufficient fuel in the tank and that the shut-off valve and balance valves are open.

Open the vent screw on the fuel filters until air free fuel flows then tighten the vent screw. On 484 tractors it will be necessary to individually vent the primary filter, mounted on the right side of the engine, and secondary filter, mounted on the left side of the engine.

Start the engine. If it runs unevenly start at No. 1 injector and slacken each connection in turn for a few seconds.

CHANGING THE ETHER START FLUID CONTAINER

Slacken the knurled nut at the base of the container retainer until the container can be removed. Ensure that the sealing gasket at the top of the container is not lost. Discard the container.

Ensure that the sealing gasket is correctly fitted to the injector body then position the new container between the retainer legs and up to the injector body. Tighten the knurled nut and at the same time turn the container back and forth to ensure an effective seal at the top of the container.

NOTE: If the ether start unit is not in use, the protective cover, or an empty container must be securely in position in order to keep out dirt, dust etc., which may block the injector body or its fine mesh screen.

INJECTORS

These are high precision units and must only be serviced by an International Harvester dealer's serviceman. The injectors must be serviced after the first 20 hours and thereafter every 800 hours of operation.

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GENERAL SPECIFICATIONS

The GENERAL SPECIFICATIONS refer to all machines described in this manual. Specifications that vary between machines are listed under individual headings which follow the GENERAL SPECIFICATIONS.

CAPACITIES	
Fuel tank	77 litres (20.4 US gal)
Transmission	
Gear Drive	34 litres (9 US gal)
Hydrostatic	52 litres (16.8 US gal)

These capacities are a guide to the quantities required. Always use dipsticks or level plugs to ensure that units are filled to the correct level.

ELECTRICAL SYSTEM	
Type	Negative ground
Voltage	12
Battery capacity at 20 hour rate	
Gear drive	95 amp h
Hydrostatic	128 amp h
Alternator output	28 amp
Lamps	
Head	35 watt sealed beam
Side	5 watt festoon
Plough	35 watt sealed beam
Direction indicator	21 watt SBC
Instrument warning lamps	3 watt capless wedge
Tachometer	3 watt capless wedge
Speedometer	3 watt capless wedge
Panel	5 watt festoon

CLUTCH (Gear Drive Machines)	
Type	Single plate dry
Diameter	280 mm (11 in)

FOOTBRAKES	
Type	Hydraulic self adjusting oil cooled discs
Diameter	254 mm (10 in)

HYDRAULIC SYSTEM	
Type	Independent with fully live hydraulic pump within the transmission
Working pressure	175 kg/cm^2 (2500 lb/in^2)
Pump output	57 l/min (15 US gal/min)

MAXIMUM STATIC LOADING	
On swinging drawbar	908 kg (2000 lb)

The drawbar is not always the load limiting factor. Ensure that tires suit the load, including ballast and additional weights.

SPECIAL TORQUE VALUES	
Rear wheel to rim	15 to 22 kgm (110 to 160 lbft)
Rear wheel to axle	28.5 to 30 kgm (205 to 220 lbft)
Front wheel nuts	
5.50 and 6.00 wheels	8.3 to 11.1 kgm (60 to 80 lbft)
7.50 wheels	11.1 to 13.8 kgm (80 to 100 lbft)
Axle extension bolts	34 to 37 kgm (246 to 272 lbft)
Brake bleedscrews	0.46 to 0.57 kgm (40 to 50 lbin)
Transmission filter bolt	1.7 to 2.2 kgm (12 to 16 lbft)
Rear frame drain plug	6.2 to 6.9 kgm (45 to 60 lbft)

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