



**International
Harvester
Operator's Manual
for McCORMICK-DEERING
TD-18A
Crawler**

Operator's Manual

**JENSALES.COM
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Operator's Manual



IHC

Mc CORMICK

TD-18A

CRAWLER TRACTOR

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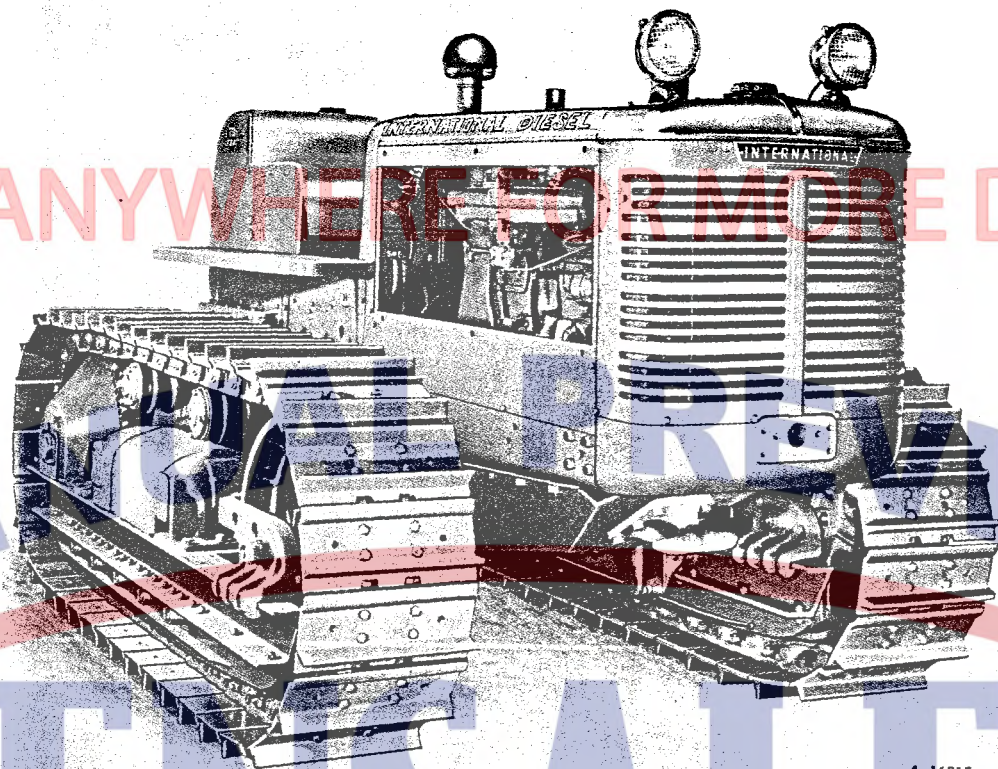
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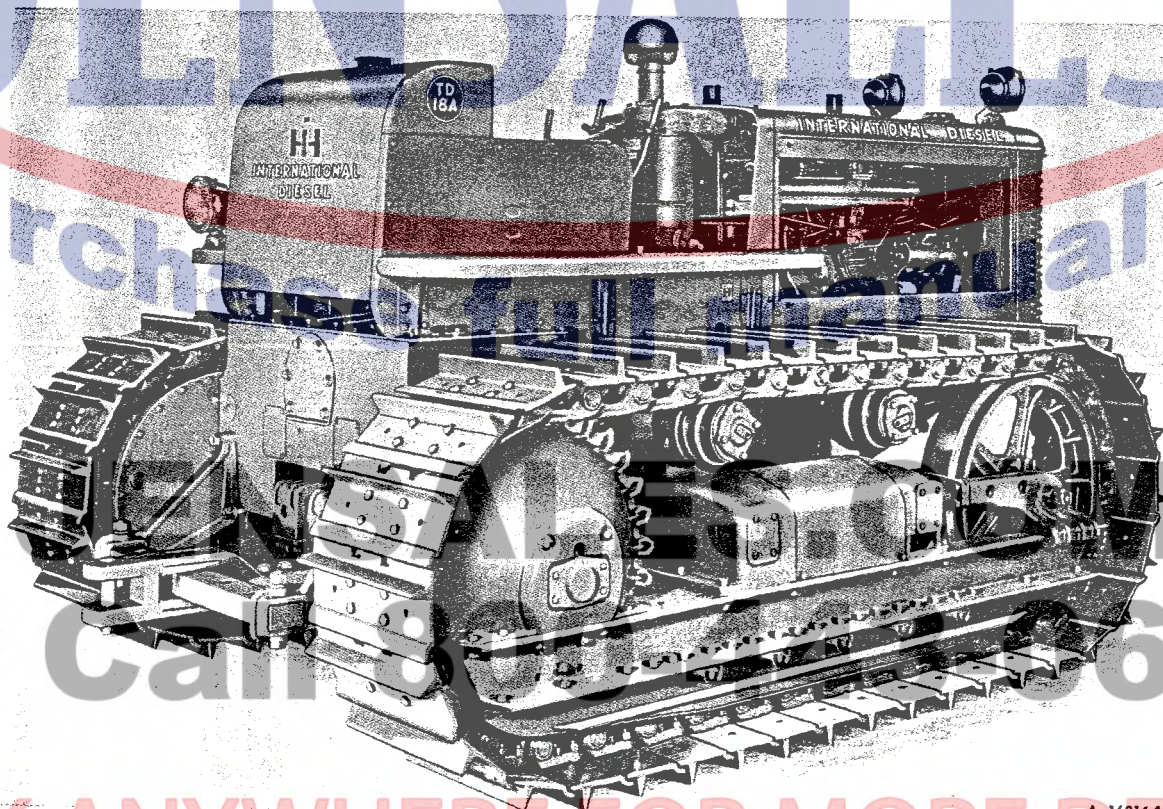
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A-16315

Tractor equipped with lighting attachment, crankcase guard, and pull hook.
(Right front view)



A-16316A

Tractor equipped with lighting attachment.
(Right rear view)

DESCRIPTION

MAIN COMPONENTS

The TD-18A Crawler Tractor is a full track-laying type tractor. The principal components of the tractor are the engine, engine clutch, transmission, steering clutches, sprocket drives and track assemblies.

Diesel Engine

Engine power is supplied by a full diesel, six-cylinder in-line engine. Features of the engine are: a seven-bearing, Tocco-hardened crankshaft, replaceable cylinder sleeves, precision-type bearings, full pressure lubrication system, and a thermostat-controlled, centrifugal water pump cooling system.

Engine Clutch

The engine clutch is a heavy-duty, 17-inch, single-plate, hand-operated, over-center type. The release mechanism has an automatic clutch brake to facilitate fast shifting of gears.

Transmission

The transmission is the selective spur-gear type providing six forward speeds and two reverse speeds.

There are three forward and one reverse speeds in the low range, and three more forward and one reverse in the high range. Shifting from one range to the other is controlled by the Hi-Lo gearshift lever.

The gearshift lock provides positive holding of the sliding gears of the transmission and is ideal for operation under heavy load conditions and frequent gear shifting.

Steering Clutches and Brakes

Steering is accomplished through two multiple dry-disc, spring-loaded steering clutches, by means of the two spring booster, hand-operated steering levers.

Steering brakes, operating on the steering clutch drums, make very sharp turns possible. The steering clutches transmit engine power from the bevel gear out to the sprocket drives. These clutches, with brakes, can be adjusted or replaced without disturbing adjacent units.

Sprocket Drives

The sprocket drives consist of sprocket drive gears and pinions which provide a fixed gear reduction and transmit power out to the

tracks. Gears and sprockets are ball-bearing mounted on the stationary pivot shaft. Sprockets are reversible, making it possible to use both sides of the teeth.

Track Assemblies

Track assemblies consist of track chains and shoes driven by sprockets. The chains travel forward over two track idlers and around the front idlers. Five track rollers on the bottom of each track frame carry the weight of the vehicle. Sprockets and idlers are also mounted on the welded channel-iron track frames.

SPECIFICATIONS AND CAPACITIES

Capacities (U. S. Measure)

Fuel tank	Approx. 60 gallons
Gasoline tank	1-1/3 gallons
Water cooling system	26 gallons
Transmission	7-1/2 gallons
Sprocket drive housings (each side)	5-1/2 quarts
Crankcase pan	26 quarts
Injection pump	7/8 pint
Air cleaner oil cup	6-3/4 pints

Engine (Diesel Type, Valve-in-Head)

Cylinders	6
Bore	4-3/4 inch
Stroke	6-1/2 inch
Fuel injection pump	IH
Carburetor	IH
Magneto with impulse coupling	IH Type F-6
Spark plug gap	.023 inch
Valve clearance (engine hot)	.018 inch
Valve clearance (engine cold)	.020 inch

Engine Speed

Full load	1350±10 r.p.m.
High idle	1500±30 r.p.m.
Low idle	500±50 r.p.m.

Engine Clutch

Over-center type (with automatic clutch brake)	17 inch
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Steering Clutches

Multiple dry-disc, spring-loaded type with manual release	15 inch
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Brakes

External (contracting on steering clutch drums)	17 inch
---	---------

DESCRIPTION

be primed. A few strokes of the primer button which sprays raw gasoline directly into the intake manifold, is usually sufficient. The number of strokes will depend upon the temperature.

Ammeter

This instrument is located in the upper right corner of the dash, just to the left of the oil pressure gauge. *See Illust. 4.* The ammeter indicates whether the batteries are being charged or discharged. The gauge should show "charge" whenever the engine is operating at normal speed. If the ammeter shows a constant discharge while the engine is operating, the cause must be determined and repaired in order to avoid completely discharging the batteries.

Light and Charging Rate Switch

The switch is located directly underneath the ammeter and oil pressure indicator. *See Illust. 4.* It also controls the generator charging rate. In its regular position at "L" it is set for low charging. Turn to the next position at the right, "H" for high charging rate, to the third position marked "D" for dim light, and to the last position marked "B" for bright lights.

Fuel Pressure Indicator



Illust. 5
Fuel pressure indicator.

This indicator, located on the injection pump, registers the pressure of the fuel from the primary pump through the final fuel filter to the injection pump. With the engine operating (either on gasoline or diesel cycle), the pointer of the indicator should be in the white or "Operating Range" area. If the pointer remains in the red or "Change Filter" area, the auxiliary or final fuel filter element needs replacement. *Refer to page 67.*

Oil Pressure Indicator

It is located in the upper right corner of the dash in the operator's compartment and it indicates the pressure of the oil circulating

through the engine. *See Illust. 4.* The indicator needle must be in the white sector of the gauge when the engine is operating and oil pressure is normal. If the indicator needle remains in the red sector, stop the engine immediately and investigate the cause of oil pressure failure. If you are unable to find the cause, consult your International Industrial Power distributor or dealer before operating the engine.

Heat Indicator



Illust. 6
Heat indicator.

The heat indicator is located in the upper right side of the dash. It indicates the temperature of the water circulating through the engine. If a radiator shutter is used, the shutter should be opened up just enough to maintain the operating temperature in the center of the "RUN" range.

Compression Release Lever

This is a short lever located in the upper left corner of the dash. *See Illust. 7.* Pulling down on this lever converts the engine from the diesel to the gasoline cycle for starting purposes. When placing the compression release lever in the gasoline position, be sure it latches securely. After the engine has operated on gasoline for about one minute (2 or 3 minutes for severe cold conditions), switch the engine to diesel operation by pushing the compression release lever all the way up. Leave the compression release lever in the diesel position (up position) after the engine has been stopped.

NOTE: For the correct method of starting the engine on gasoline, *refer to page 15.* For changing to diesel operation, *refer to page 16.* For changing back to gasoline operation before stopping the engine, *refer to pages 18 and 19.*

Engine Speed Control Lever

This lever is located directly in front of the operator, just to the right of the compres-

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