

# International Harvester

## Operator's Manual

## TD-24

## 241 Series

Operator's Manual



**IH-O-TD24 241**

# TD-24

(241-Series)

Torque-Converter

# Crawler Tractor

1014672R1

# CONTENTS

Tractor equipped with air cleaner pre-cleaner, mufflers, headlight guard, crankcase guard, pull hook, and seven-roller extended track frame attachments.

and with levers all the way back, the tractor is stopped with both pinion shaft brakes engaged.

Instant shift-up of one gear is made by pushing both steering levers forward from the middle position. Shift-down of one gear is made by pulling both levers back to the middle position.

To change to a pivot turn, it is merely necessary to pull the lever (in middle position) back slightly, when a "feathering" action takes place; and to change to a full pivot turn, pull the lever all the way back.

To make a gradual turn with both tracks pulling, the lever (on the side toward which it is desired to turn) is placed in the middle position, with the other lever forward. The outside track will then travel 27% faster than the inside track, making a gradual turn.

The spiral bevel gears, planetary cluster gears, and brake discs are located in a large compartment in the tractor rear main frame. Planetary gears are amply lubricated by pressure and splash.

### Track Frames

The track frames are one-piece, welded steel construction. Regular tracks have six lower rollers and two upper idlers on each side. The large bearings and the new type seals allow high tractor traveling speeds and long periods between track roller lubrication. A series of saucer-like bellville springs in enclosed cylinders permit the front idlers to recoil under heavy shock but hold them in position against full load track pull when the tractor travels in reverse.

Sprocket drive gears are mounted on sleeves independent of the track frame pivot shaft. Shock loads on the track frames, therefore, do not affect gear alignment. Track frames are relieved of leverage loads, and track alignment is maintained by the same arrangement that has been so successful on smaller sizes of International crawler tractors.

### 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 tapered roller bearing mounted on sleeves. Sprockets are reversible, making it possible to use both sides of the teeth.

## SPECIFICATIONS AND CAPACITIES

### Capacities (U.S. Measure) (Approximate)

| | |
|---|---|
| Diesel fuel tank | 135 gallons |
| Gasoline tank (starting) | 2-1/4 gallons |
| Cooling system | 47 gallons |
| Crankcase oil pan | 7-1/2 gallons |
| Transmission | 50 gallons |
| Sprocket drive (each side) | 5-1/4 gallons |
| Hydraulic control system | 4 gallons |
| Air cleaner oil cup | 10 pints |
| Torque converter (including lines) | 10 gallons |

### Engine

| | |
|---|---|
| Type | Diesel, 4 cycle, valve-in-head |
| Cylinders | 6 |
| Bore | 5-3/4 inches |
| Stroke | 7 inches |
| Fuel injection pump | IH |
| Carburetor (updraft) | IH Type C-12 |
| Distributor (fixed spark) | IH Model "K" |
| Distributor gap | .020 inch |
| Electrical system | 24 volt |
| Spark plug gap | .023 inch |
| Valve clearance(intake)(engine hot) | .023 inch |
| Valve clearance(intake)(engine cold) | .025 inch |
| Valve clearance(exhaust)(engine hot) | .029 inch |
| Valve clearance(exhaust)(engine cold) | .031 inch |

### Engine Speed

| | |
|---|---|
| Full load | 1500 ± 10 r.p.m. |
| High idle | 1635 ± 30 r.p.m. |
| Low idle | 500 ± 50 r.p.m. |

### Engine Clutch

| | |
|---|---|
| Single plate, over-center, dry disc | 16-3/4 inches |

### Steering

Two-range planet power drive for each side of tractor. Pivot brakes, one for each track, operated hydraulically by hand control levers. Joint application of pivot brakes through foot pedal and mechanical linkage.

### Cooling

| | |
|---|---|
| Type | Centrifugal pump with 2 bypass thermostats in closed system at 4 p.s.i. |
| Fan | 6 blade - 32 inch diam. |
| Radiator core | Replaceable type, 6 fins per inch, 4 in line tubes. |
| Converter fluid | Cooled by radiator water circulated through torque converter fluid cooler. |
| Engine oil | Cooled by radiator water circulated through engine oil cooler. |