

SECTION I — DESCRIPTION AND SPECIFICATIONS

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1. GENERAL DESCRIPTION

The description given herein and the information contained in this manual pertains to the Model "HD-6B" Tractor (Standard Model), unless otherwise stated.

The Model "HD-6B" Tractor is a 12,600 pound track-type tractor powered with a 4 cylinder, 4-stroke cycle, naturally aspirated, "Allis-Chalmers" Diesel Engine. Power from the engine is transmitted through a single plate, over-center type engine clutch to the transmission through a universal joint drive shaft assembly. From the transmission, the power is transmitted to the bevel gear, and from the bevel gear through the steering clutches to the final drives and the track drive sprockets.

The transmission provides 5 forward and 1 reverse speed ranges. At rated engine speed of 1800

R.P.M. (governed full load), the transmission provides forward speeds ranging from 1.5 M.P.H. in low gear to 5.5 M.P.H. in high gear and a reverse speed of 2.0 M.P.H.

Mechanical self-energizing brakes, wide operator's seat, and an unobstructed view of the front of both tracks assure easy, positive control of the tractor at all times.

The standard model tractor is equipped with 24-volt electric starting and lighting equipment, suction type cooling fan, muffler, full-width crankcase guard, bumper, hinged radiator guard, and 13" integral grouser track shoes. The truck wheels, track idlers, and track support rollers have positive type seals.

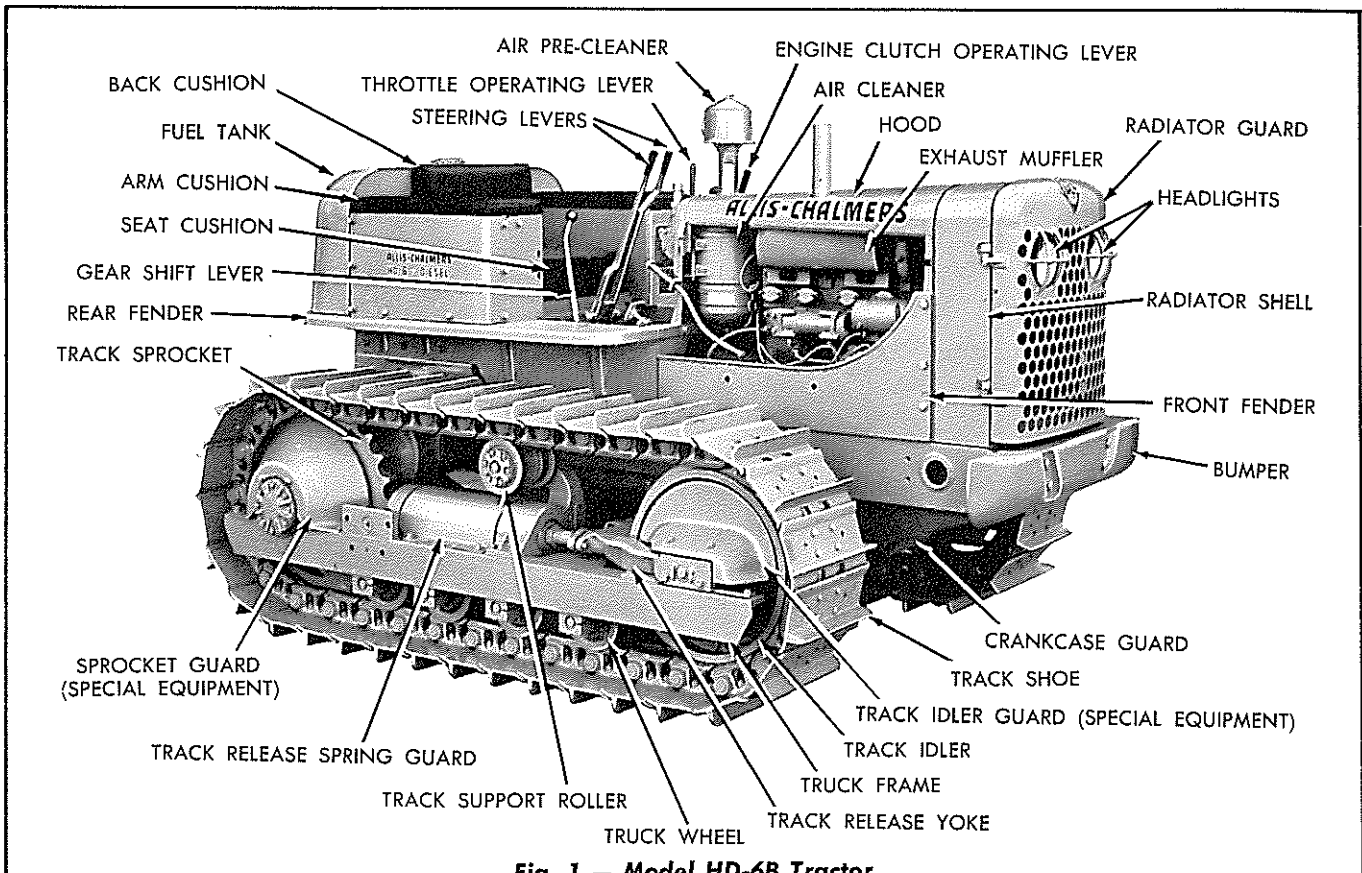


Fig. 1 — Model HD-6B Tractor

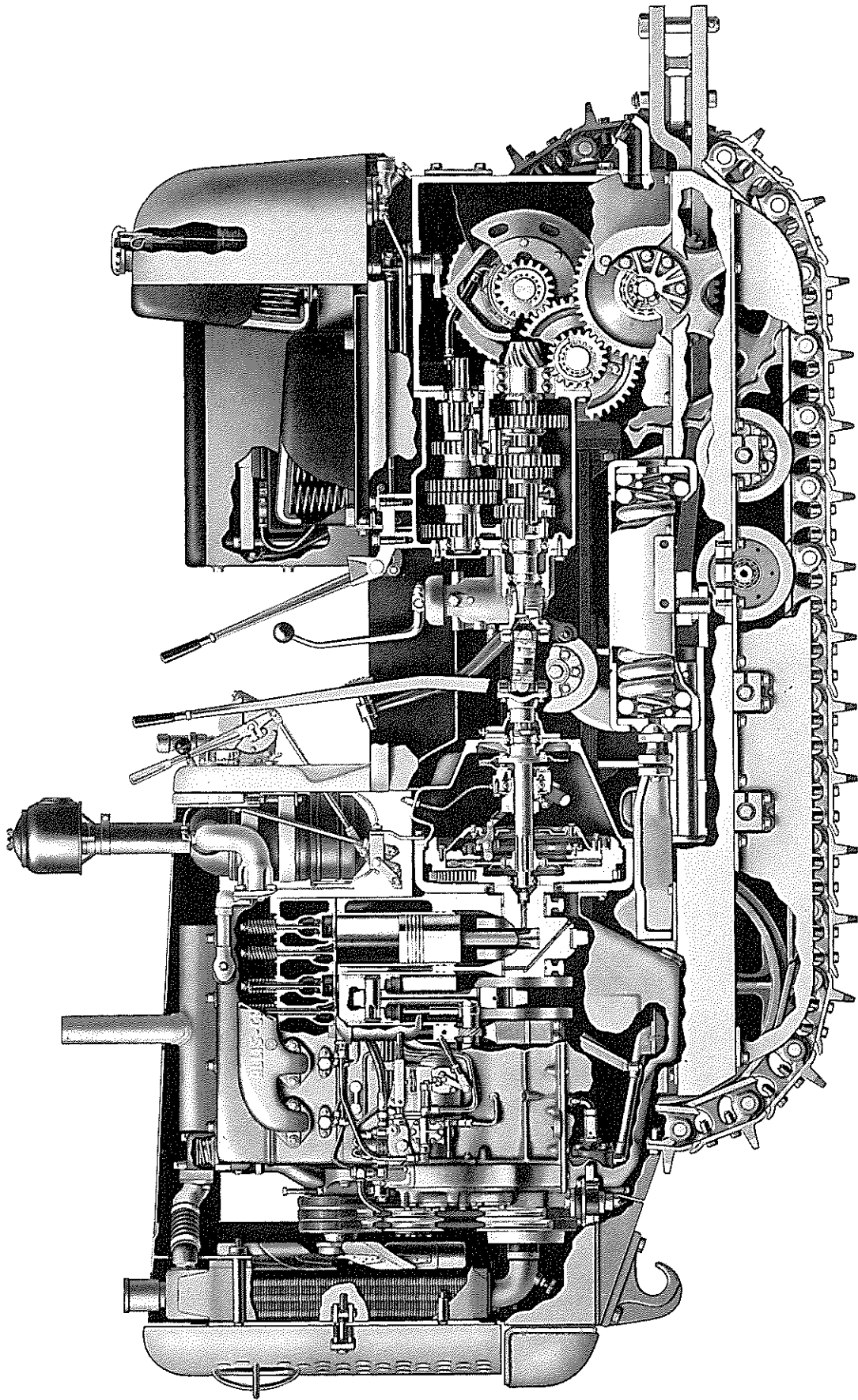


Fig. 2 — HD-6B Tractor (Sectional View)

2. GENERAL SPECIFICATIONS

GENERAL SPECIFICATIONS:

Overall Length	10 ft. 7 $\frac{3}{8}$ in.
Overall Height (including exhaust stack)	5 ft. 8 $\frac{5}{8}$ in.
Overall Width (standard shoes)	6 ft. 6 in.
Ground Clearance	11 $\frac{1}{4}$ in.
Drawbar Height (center line of jaw)	13 $\frac{1}{8}$ in.
Lateral Drawbar Movement	21 in.
Shipping Weight (approximate)	12,600 lbs.
Number of Track Shoes per Track:	
Prior to Tractor Serial Number 5100	33
Tractor Serial Number 5100 and above	34
Height of Grouser	2 $\frac{7}{8}$ in.
Diameter of Track Shoe Shoulder Bolt	$\frac{1}{32}$ in.
Diameter of Track Pins	1 $\frac{3}{8}$ in.
Diameter of Track Pin Bushings	2 in.
Length of Track on Ground (34 link track)	5 ft. 6 $\frac{7}{8}$ in.
Width of Standard Track Shoes	13 in.
Maximum Width Track Shoes Available	20 in.
Ground Contact Area (34 link track with standard shoes)	1739 sq. in.
Ground Pressure lbs. per sq. in. (34 link track with standard shoes)	7.2
Tread Width (center-to-center of tracks)	60 in.

TRACTOR SPEEDS (At Rated Engine Speed):

1st Gear	1.5 M.P.H.
2nd Gear	2.4 M.P.H.
3rd Gear	3.3 M.P.H.
4th Gear	4.0 M.P.H.
5th Gear	5.5 M.P.H.
Reverse Gear	2.0 M.P.H.

STEERING:

Method	Clutches
Controls	Mechanical
Turning Radius	7 ft. $\frac{1}{4}$ in.

ENGINE:

Make	"Allis-Chalmers" Diesel
Model	HD-344
Type	Four-stroke Cycle (Naturally Aspirated)
Lubrication	Full Pressure
Fuel Used	Diesel Fuel
Fuel Supplied By	"American Bosch" Fuel Injection Pump
Number of Cylinders	4
Compression Ratio	15:1
Bore (in.)	4 $\frac{1}{8}$
Stroke (in.)	5 $\frac{1}{8}$
Piston Displacement (cu. in.)	344
Crankshaft Rotation (when viewed from fan end)	Clockwise
Number of Main Bearings	5
Rated R.P.M. (Governed At Full Load)	1800
Low Idle Speed R.P.M.	525 to 550
High Idle Speed R.P.M.	1930 (+ or - 25)
Valve Timing	
Intake Valve Opens B.T.D.C.	24°
Intake Valve Closes A.B.D.C.	58°
Intake Valve Open — Duration	262°
Exhaust Valve Opens B.B.D.C.	65°
Exhaust Valve Closes A.T.D.C.	35°
Exhaust Valve Open — Duration	280°
Firing Order	1 — 3 — 4 — 2
Generator Speed	1.8 x Crankshaft Speed
Transmission Top Shaft Speed	.535 x Crankshaft Speed
Fuel Transfer Pump Speed	.5 x Crankshaft Speed
Fuel Injection Pump Timing (Prior to Tractor Serial Number 5100)	28° B.T.D.C.
Fuel Injection Pump Timing (After Tractor Serial Number 5100)	32° B.T.D.C.

CAPACITIES (Approximate):

	Metric Measure	U. S. Standard Measure
Cooling System	32.2 liters	8½ gals.
Crankcase and Filter	11.4 liters	3 gals.
Air Cleaner	1.9 liters	2 qts.
Transmission	18.9 liters	5 gals.
Final Drives (each)	11.4 liters	3 gals.
Fuel Tank	151.4 liters	40 gals.
Support Roller5 kg.	1 lb.
Track Idler8 kg.	1¾ lbs.
Truck Wheel5 kg.	1 lb.

The Allis-Chalmers Manufacturing Company reserves the right to make changes in the above specifications or to add improvements at any time without notice or obligation.