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January 1940

Test 346: International TracTractor Model T-6 (Wide Tread) (Gasoline)

Nebraska Tractor Test Lab

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Copy of Report of Official Tractor Test No. 346

Dates of test: May 14 to June 6, 1940.

Name and model of tractor: INTERNATIONAL TRACTOR (Wide Tread) T-6 (Gasoline)

Manufacturer: International Harvester Company, Chicago, Illinois.

Manufacturer's rating: NOT RATED.

B E L T H O R S E P O W E R T E S T S

H. P.	Crank shaft speed R.P.M.	Fuel Consumption			Water used gal. per hr.	Temp. Deg. F.		Barometer Inches of Mercury
		Gal. per hr.	H. P. hr. per gal.	Lb. per H. P. hr.		Cool- ing med.	Air	
TEST B - 100% MAXIMUM LOAD - TWO HOURS								
36.96	1446	3.044	12.14	0.502	0.000	201	75	28.780
TEST C - OPERATING MAXIMUM LOAD - ONE HOUR								
36.06	1449	2.982	12.09	0.504	0.000	206	76	28.725
*TEST D - ONE HOUR								
33.04	1448	2.761	11.97	0.510	0.000	206	75	28.720
TEST E - VARYING LOAD - TWO HOURS (20 minute runs; last line average)								
33.10	1447	2.759	12.00	0.508	--	206	76	--
1.36	1582	1.259	1.08	5.647	--	206	74	--
17.56	1525	2.061	8.52	0.716	--	206	74	--
35.46	1422	2.902	12.22	0.499	--	206	74	--
8.99	1560	1.618	5.56	1.098	--	206	73	--
25.76	1489	2.400	10.73	0.568	--	206	72	--
20.37	1501	2.166	9.40	0.649	0.000	206	74	28.715

D R A W B A R H O R S E P O W E R T E S T S

H. P.	Draw bar pull pounds	Speed miles per hr.	Crank shaft speed R.P.M.	Slip on drive wheels %	Fuel Consumption			Water used gal. per hr.	Temp.		Barometer Inches of Mercury
					Gal. per hr.	H.P. per gal.	Lb. per H.P. hr.		Deg. F.	Air	
									Cool- ing med.		
TEST F - 100% MAXIMUM LOAD - Second - GEAR											
30.85	5400	2.14	1450	3.74	---- Not Recorded ----			----	192	85	28.710
TEST G - OPERATING MAXIMUM LOAD											
28.52	7652	1.40	1450	8.59	---- Not Recorded ----			----	188	87	28.615
29.55	5215	2.13	1451	4.56	---- " " ----			----	192	82	28.735
29.38	3579	3.08	1449	2.06	---- " " ----			----	189	93	28.620
28.08	2767	3.81	1450	1.32	---- " " ----			----	189	93	28.630
25.24	1756	5.39	1449	1.05	---- " " ----			----	188	92	28.620

*TEST H - TEN HOURS - Second - GEAR

24.63	4266	2.16	1450	2.72	2.636	9.34	0.653	0.047	195	86	28.700
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*Formerly called RATED LOAD; see REMARKS 4, page 3.

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FUEL, OIL, AND TIME

Fuel Gasoline Octane 71 Weight per gallon 6.10 pounds

Oil: S.A.E. No. 20 To motor 2.760 gal. Drained from motor 2.266 gal.

Total time motor was operated 65 hours

BRIEF SPECIFICATIONS

Advertised speeds, miles per hour: First 1.5 Second 2.2

Third 3.1 Fourth 3.8 Fifth 5.4 Reverse 1.7

Belt pulley: Diam. 12.25" Face 8" R.P.M. 811 Belt Speed 2600 f.p.m.

Clutch: Make Rockford Type Single plate, dry disc Operated by hand

Seat Upholstered

Total weight as tested (with operator) 7680 pounds

MOTOR

Make Own Serial No. TBKM581 Type 4 cylinder, vertical

Head I Mounting Crankshaft lengthwise Lubrication Pressure

Bore and stroke 3-7/8" x 5-1/4" Rated R.P.M. 1450

Port diameter valves: Inlet 1.594" Exhaust 1.438"

Magneto: Make Own Model H-4

Carburetor: Make Own Model E-12 Size 1-1/4"

Governor: Make Own Type Variable speed, centrifugal

Air Cleaner: Make Donaldson Type Oil-washed, wire-screen filter

Oil Filter: Make Motor Improvements Inc. Type Partial flow, with replace-
able bakelite impregnated paper element

Cooling medium temperature control: Bishop and Babcock thermostat and Pines
radiator shutters

CHASSIS

Type Tracklayer Serial No. 679 Drive Enclosed gear

Tread width: 50" (wide tread) Measured length of track 16.0423'

Cleats: Type Integral with shoes No. per track 32

Size 2" high x 18" long (clipped corners)

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REPAIRS AND ADJUSTMENTS

No repairs or adjustments.

REMARKS

1. All results shown on page 1 of this report were determined from observed data and without allowances, additions, or deductions. Tests B and F were made with carburetor set for 100% maximum belt horsepower and data from these tests were used in determining the horsepower to be developed in tests D and H, respectively. Tests C, D, E, G, and H were made with an operating setting of the carburetor (selected by the manufacturer) of 97.9% of maximum belt horsepower.

	<u>DRAWBAR</u>	<u>BELT</u>
2. Observed maximum horsepower (tests F & B)	30.85	36.96
3. Sea level (calculated) maximum horsepower (based on 60° F. and 29.92" Hg.)	32.92	38.96
4. Seventy-five per cent of calculated maximum drawbar horsepower and eighty-five per cent of calculated maximum belt horsepower (formerly A.S.A.E. and S.A.E. ratings)	24.69	33.12

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 346.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut
Board of Tractor Test Engineers