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January 1940

Test 347: International TracTractor Model T-6 (Wide Tread) (Distillate)

Nebraska Tractor Test Lab

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 347

Dates of test: May 22 to June 10, 1940.

Name and model of tractor: INTERNATIONAL TRACTRACTOR (Wide Tread) T-6 (Distillate)

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

34.54	1448	2.822	12.24	0.565	0.000	199	86	28.860
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TEST C - OPERATING MAXIMUM LOAD - ONE HOUR

34.22	1445	2.783	12.30	0.563	0.000	* 201	93	28.845
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*TEST D - ONE HOUR

31.21	1450	2.694	11.59	0.597	0.000	202	95	28.800
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TEST E - VARYING LOAD - TWO HOURS (20 minute runs; last line average)

31.15	1449	2.688	11.59	0.597	--	201	95	--
1.45	1591	1.179	1.23	5.628	--	204	95	--
16.68	1547	1.916	8.71	0.795	--	200	95	--
33.19	1427	2.730	12.16	0.569	--	201	93	--
8.51	1567	1.483	5.74	1.206	--	204	96	--
24.35	1464	2.432	10.01	0.691	--	207	92	--
19.22	1508	2.072	9.28	0.746	0.000	203	94	28.795

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. Deg. F.		Barometer Inches of Mercury
					Gal. per hr.	H.P. hr. per gal.	Lb. per H.P. Hr.		Cool- ing med.	Air	

TEST F - 100% MAXIMUM LOAD - Second - GEAR

29.53	5146	2.15	1453	3.49	----	Not Recorded	----	197	91	28.750
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TEST G - OPERATING MAXIMUM LOAD

28.45	7434	1.44	1448	6.02	----	Not Recorded	----	204	87	28.605
28.88	5042	2.15	1450	3.44	----	"	"	196	81	28.795
28.03	3433	3.06	1452	2.82	----	"	"	196	92	28.750
26.99	2700	3.75	1450	2.78	----	"	"	196	92	28.750
24.40	1712	5.35	1452	2.06	----	"	"	194	89	28.680

*TEST H - TEN HOURS - Second - GEAR

23.58	4098	2.16	1450	2.99	2.431	9.70	0.713	0.051	198	84	28.770
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*Formerly called RATED LOAD; see REMARKS 4, page 3.

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FUEL, OIL, AND TIME

Fuel Distillate Octane 41 Weight per gallon 6.92 pounds
Oil: S.A.E. No. 20 To motor 2.445 gal. Drained from motor 2.396 gal.
Total time motor was operated 48 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. 12-1/4" 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. WBKME501 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 1.437"

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 rad-
iator shutters

CHASSIS

Type Tracklayer Serial No. 634 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 99.8% of maximum belt horsepower.

	<u>DRAWBAR</u>	<u>BELT</u>
2. Observed maximum horsepower (tests F & B)	29.53	34.54
3. Sea level (calculated) maximum horsepower (based on 60° F. and 29.92" Hg.)	31.63	36.68
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)	23.72	31.18

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 347.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut
Board of Tractor Test Engineers