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January 1937

## Test 280: McCormick-Deering TracTractor Model T-40 (Distillate)

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, [tractortestlab@unl.edu](mailto:tractortestlab@unl.edu)

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT  
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 280

Dates of test: April 7 to 29, 1937.

Name and model of tractor: McCORMICK-DEERING TracTracTor T-40 (Distillate).

Manufacturer: International Harvester Company, Chicago, Illinois.

Manufacturer's rating: NOT RATED.

B R A K E 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 Consumption per hour gallons			Temp. Deg. F.		Barometer Inches of Mercury
		Gal. per hr.	H.P. hr. per gal.	Lb. per H.P. hr.	Cool- ing	In fuel	Total	Cool- ing med.	Air	

TEST B - 100% MAXIMUM LOAD - TWO HOURS

49.34	1753	5.459	9.04	0.765	0.000	0.000	0.000	178	77	28.980
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TEST C - OPERATING MAXIMUM LOAD - ONE HOUR

48.15	1752	4.734	10.17	0.679	0.000	0.000	0.000	187	82	28.900
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\*TEST D - ONE HOUR

44.45	1750	4.548	9.77	0.707	0.000	0.000	0.000	181	85	28.830
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TEST E - VARYING LOAD - TWO HOURS (20 minute runs; last line average)

44.44	1746	4.528	9.81	0.704	--	--	--	183	86	--
0.74	1879	1.858	0.40	17.351	--	--	--	191	82	--
23.18	1817	2.944	7.87	0.877	--	--	--	193	86	--
46.59	1714	4.693	9.93	0.696	--	--	--	191	86	--
12.09	1854	2.475	4.88	1.414	--	--	--	193	84	--
34.39	1789	3.586	9.59	0.721	--	--	--	192	84	--
26.91	1800	3.347	8.04	0.860	0.000	0.000	0.000	190	84	28.790

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. hr. per gal.	Lb. per H.P. hr.		Cool- ing med.	Air	

TEST F - 100% MAXIMUM LOAD - Third GEAR

42.63	5758	2.78	1752	1.59	-----Not Recorded-----				172	73	28.480
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TEST G - OPERATING MAXIMUM LOAD

41.53	9023	1.73	1751	3.85	-----Not Recorded-----				172	55	28.405
40.96	6982	2.20	1753	2.61	-----"-----				168	57	28.380
40.77	5500	2.78	1754	1.59	-----"-----				185	71	28.485
40.31	4696	3.22	1749	1.50	-----"-----				184	76	28.455
39.15	3630	4.04	1752	1.50	-----"-----				181	75	28.450

\*TEST H - TEN HOURS - Third GEAR

33.95	4599	2.77	1751	1.85	4.255	7.98	0.866	0.000	177	51	28.540
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\*Formerly called RATED LOAD; see REMARKS 4, page 3.

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. TKE 608 Type 6 cylinder, vertical  
Head I Mounting Crankshaft lengthwise  
Bore and stroke: 3 3/4" x 4 1/2" Rated R.P.M. 1750  
Port Diam. Valves: Inlet 1.625" Exhaust 1.5"  
Belt pulley: Diam. 16 3/4" Face 9" R.P.M. 619  
Magneto Own Model F 6  
Carburetor Zenith Model 50-AY12 Size 1 1/2"  
Governor Own Type Centrifugal  
Air Cleaner Own Type Oil-washed, wire-filter  
Lubrication Pressure

CHASSIS: Type Tracklayer Serial No. TKC 6655 Drive Enclosed gear  
Clutch Rockford Type Single-plate, dry Operated by Hand  
Advertised speeds, miles per hour: First 1.75 Second 2.25  
Third 2.75 Fourth 3.25 Fifth 4.00 Reverse 2.25  
Measured length of track 19.106' Face 16"  
Lugs: Type Cleats integral with shoes No. per track 38  
Size 2" high x 16" face  
Seat Upholstered  
Total weight as tested (with operator) 12,770 pounds.

TIME, FUEL, AND OIL:

Total time motor was operated 92 hours  
Fuel Distillate Weight per gallon 6.91 pounds.  
Oil S.A.E. Viscosity No. 30  
Total oil to motor 5.877 gallons  
Total drained from motor 4.805 gallons

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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 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 97.6% of maximum horsepower.
2. Observed maximum horsepower (tests F & B)      Drawbar 42.63    Belt 49.34
3. Sea level (calculated) maximum horsepower      Drawbar 45.34    Belt 51.76  
(based on 60° F. and 29.92" Hg.)
4. Seventy-five per cent of calculated maximum Drawbar 34.01    Belt 44.00  
drawbar horsepower and eighty-five per cent  
of calculated maximum belt horsepower (form-  
erly A.S.A.E. and S.A.E. ratings).

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 280.

Carlton L. Zink  
Engineer-in-charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut  
Board of Tractor Test Engineers