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January 1937

Test 279: McCormick-Deering Tractor Model T-35 (gasoline)

Tractor Museum

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 279

Dates of test: May 14 to June 4, 1937.

Name and model of tractor: McCORMICK-DEERING Tractor T-35 (Gasoline).

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										
44.44	1749	5.151	8.63	0.707	0.000	0.000	0.000	169	67	28.975
TEST C - OPERATING MAXIMUM LOAD - ONE HOUR										
43.23	1750	4.600	9.40	0.649	0.000	0.000	0.000	182	77	28.935
*TEST D - ONE HOUR										
39.64	1750	4.225	9.38	0.650	0.000	0.000	0.000	180	78	28.920
TEST E - VARYING LOAD - TWO HOURS (20 minute runs; last line average)										
39.50	1747	4.215	9.37	0.651	--	--	--	180	78	--
0.52	1883	1.825	0.28	21.404	--	--	--	184	79	--
20.67	1822	2.951	7.00	0.871	--	--	--	182	79	--
42.34	1727	4.446	9.52	0.641	--	--	--	185	79	--
10.63	1855	2.366	4.49	1.357	--	--	--	182	79	--
30.87	1801	3.605	8.56	0.712	--	--	--	186	81	--
24.09	1806	3.234	7.45	0.819	0.000	0.000	0.000	183	79	28.870

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 - <u>Third</u> GEAR											
35.91	4883	2.76	1749	1.92	-----Not Recorded-----			188	88	28.515	
TEST G - OPERATING MAXIMUM LOAD											
36.58	8053	1.70	1753	5.05	-----Not Recorded-----			169	71	28.765	
36.18	6199	2.19	1752	2.89	-----" "-----			174	76	28.465	
34.94	4751	2.76	1751	2.08	-----" "-----			185	84	28.440	
35.02	4099	3.20	1753	2.04	-----" "-----			187	84	28.580	
33.64	3139	4.02	1749	1.77	-----" "-----			187	87	28.495	
*TEST H - TEN HOURS - <u>Third</u> GEAR											
29.07	3896	2.80	1751	0.62	3.956	7.35	0.830	0.000	176	71	28.475

*Formerly called RATED LOAD; see REMARKS 4, page 3.

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. FTM 2306 Type 6 cylinder, vertical
 Head I Mounting Crankshaft lengthwise
 Bore and stroke: 3 5/8" 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 K-5-1/2 S Size 1 3/8"
 Governor Own Type Centrifugal
 Air Cleaner Donaldson Type Oil-washed, wire-screen filter
 Lubrication Pressure

CHASSIS: Type Tracklayer Serial No. TKBB 604 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 18.07' Face 13"
 Lugs: Type Cleats integral with shoes No. per track 36
 Size 2" high x 13" face
 Seat Upholstered
 Total weight as tested (with operator) 10,600 pounds.

TIME, FUEL, AND OIL:

Total time motor was operated 48 hours
 Fuel Gasoline Weight per gallon 6.10 pounds.
 Oil S.A.E. Viscosity No. 30
 Total oil to motor 2.626 gallons
 Total drained from motor 1.954 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 97.3% of maximum horsepower.
2. Observed maximum horsepower (tests F & B) Drawbar 35.91 Belt 44.44
3. Sea level (calculated) maximum horsepower Drawbar 38.68 Belt 46.22
 (based on 60° F. and 29.92" Hg.)
4. Seventy-five per cent of calculated maximum Drawbar 29.01 Belt 39.29
 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. 279.

Carlton L. Zink
 Engineer-in-charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut
 Board of Tractor Test Engineers