

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Nebraska Tractor Tests

Tractor Test and Power Museum, The Lester F. Larsen

January 1937

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

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, tractortestlab@unl.edu

Follow this and additional works at: <https://digitalcommons.unl.edu/tractormuseumlit>



Part of the [Energy Systems Commons](#), [History of Science, Technology, and Medicine Commons](#), [Other Mechanical Engineering Commons](#), [Physical Sciences and Mathematics Commons](#), [Science and Mathematics Education Commons](#), and the [United States History Commons](#)

Nebraska Tractor Test Lab, "Test 279: McCormick-Deering Tractor Model T-35 (gasoline)" (1937). *Nebraska Tractor Tests*. 881.

<https://digitalcommons.unl.edu/tractormuseumlit/881>

This Article is brought to you for free and open access by the Tractor Test and Power Museum, The Lester F. Larsen at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Nebraska Tractor Tests by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

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 - Third 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 - Third 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.

BRIEF SPECIFICATIONS

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.			

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

3 Pages-Page 3

UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 279

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