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Larsen

January 1932

Test 211: McCormick-Deering Model T-40 "TracTractor"

Tractor Museum

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 211

Dates of test: October 11 to 20, 1932.

Name and model of tractor: McCORMICK-DEERING Tractor "T-40"

Manufacturer: International Harvester Co. of America, Chicago, Ill.

Manufacturer's rating: NOT RATED.

Highest rating permissible under the recommendations of the A.S.A.E. and
 S.A.E. Tractor Rating Codes: Drawbar - 33.24 H.P. Belt - 43.53 H.P.

One carburetor setting (95.0% of maximum) was used thruout this test.

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

H. P.	:Crank : :shaft :	Fuel Consumption			Water consumption			Temp. : :Deg. F. :	:Barometer :Inches of :Mercury
		:Gals. : :R.P.M. : :per :hour :	:H. P. : :H.P. : :H.P. : :hour :	:Lbs. @ :H.P. : :hour :	:Cool- : :In : :fuel : :Total : :ing : :med. :	:In : :Cool- : :ing : :Air : :med. :			

OPERATING MAXIMUM LOAD TEST. ONE HOUR

46.48	: 1602	: 5.164	: 9.00	: 0.682	: 0.00	: 0.00	: 0.00	: 206	: 80	: 28.560
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RATED LOAD TEST. ONE HOUR

43.33	: 1600	: 4.604	: 9.41	: 0.652	: 0.00	: 0.00	: 0.00	: 198	: 81	: 28.560
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*VARYING LOAD TEST. TWO HOURS

43.34	: 1602	: 4.627	: 9.37	: 0.656	: --	: --	: --	: 198	: 82	: --
0.36	: 1745	: 2.160	: 0.17	: 36.833	: --	: --	: --	: 196	: 82	: --
22.77	: 1681	: 3.420	: 6.66	: 0.922	: --	: --	: --	: 182	: 81	: --
45.73	: 1573	: 4.979	: 9.18	: 0.668	: --	: --	: --	: 193	: 80	: --
11.77	: 1708	: 2.805	: 4.20	: 1.463	: --	: --	: --	: 180	: 80	: --
33.11	: 1643	: 4.016	: 8.24	: 0.745	: --	: --	: --	: 177	: 78	: --
26.87	: 1659	: 3.668	: 7.33	: 0.838	: 0.00	: 0.00	: 0.00	: 188	: 80	: 28.550

*20 minute runs. Last line is average for two hours.

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 :	:Speed : :miles : :per :hour :	:Crank : :shaft : :speed : :R.P.M. : :wheels :	:Slip : :on : :drive : :wheels : :% :	Fuel Consumption			:Water : :used : :Gal. : :per :hour :	Temp. : :Cool- : :Air : :ing : :med. :	:Barometer :Inches of :Mercury
					:Gal. : :hr. : :per :H.P. : :gal. : :hour :	:Lbs. : :per :H.P. : :hour :	:H.P. : :per :H.P. : :hour :			

RATED LOAD TEST. TEN HOURS. THIRD GEAR.

33.69	: 4668	: 2.71	: 1599	: 1.11	: 4.371	: 7.71	: 0.797	: 0.00	: 177	: 52	: 29.075
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MAXIMUM LOAD TEST

41.78	: 9399	: 1.67	: 1600	: 4.38	: -----	: Not Recorded	: -----	: 184	: 72	: 28.500
42.72	: 7490	: 2.14	: 1600	: 2.44	: -----	: " "	: -----	: 176	: 78	: 28.500
40.17	: 5586	: 2.70	: 1599	: 1.46	: -----	: " "	: -----	: 188	: 81	: 28.500
39.76	: 4752	: 3.14	: 1602	: 1.40	: -----	: " "	: -----	: 181	: 81	: 28.500
38.89	: 3683	: 3.96	: 1602	: 0.75	: -----	: " "	: -----	: 179	: 81	: 28.500

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. FTM 508 Type 6 cylinder, Vertical
Head I Mounting Lengthwise
Bore and stroke: 3 5/8" x 4 1/2" Rated R.P.M. 1600
Port Dia. Valves: Inlet 1 5/8" Exhaust 1 1/2"
Belt pulley: Diam. 16 3/4" Face 9" R.P.M. 603.8
Magneto: Robert Bosch Model FU-6-BRS-540
Carburetor: Zenith Model K-5-S Size 1 1/4"
Governor: Own No. None Type Flyball - centrifugal
Air Cleaner: Own Type Oil-washed wire filter
Lubrication: Pressure

CHASSIS: Type Tracklayer Serial No. TAC 522 Drive Enclosed gear
Clutch: Own Type Single plate - dry disc operated by foot
Advertised speeds, miles per hour: First 1 3/4 Second 2 1/4
Third 2 3/4 Fourth 3 1/4 Fifth 4 Reverse 2 1/4
Measured length of track: 18.997 feet Face 16 inches
Lugs: Type Cleats integral with shoe No. per track 38 Size 16" x 2"
Extension rims: None
Seat: Upholstered
Total weight as tested (with operator) 10,790 pounds.

FUEL AND OIL:

Fuel: Gasoline Weight per gallon 6.14 pounds
Oil S.A.E. Viscosity No. 40 The oil was drained once -
at the end of the test.
Total oil to motor 2.757 gallons
Total drained from motor 1.797 gallons
Total time motor was operated 52 hours

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REPAIRS AND ADJUSTMENTS

During the preliminary belt tests, the cylinder head gasket was found to be leaking and was replaced with a new one.

REMARKS

The tests herein reported were conducted with one carburetor setting which remained unchanged thruout the tests. This condition should be recognized when comparing this test with any Nebraska test conducted prior to 1928.

The track and lug equipment used in the drawbar tests is the same as that described on page 2 of this report.

In the advertising literature submitted with the specifications and application for test of this tractor we find no claims and statements which, in our opinion, are unreasonable or excessive.

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 211.

Carlton L. Zink

Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis

Board of Tractor Test Engineers