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Nebraska Tractor Tests

Tractor Test and Power Museum, The Lester F. Larsen

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January 1932

## Test 210: McCormick-Deering Model W 30

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 Official Tractor Test No. 210

Dates of test: July 26 to August 10, 1932  
Name and model of tractor: McCORMICK-DEERING "W 30"  
Manufacturer: International Harvester Company 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 - 19.69 H.P. Belt - 31.31 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 : :speed : :R.P.M.: :	Fuel Consumption Gals. :H.P. : : per : : hrs. @ : : hour :	Lbs. @ :H.P. : : hour :	: Water consumption : : per hour gallons : : Cool- : In : : ing : fuel : : : : :	Temp. : : Deg. F. : : Cool- : : ing : Air : : med. : :	:Barometer :Inches of :Mercury :
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OPERATING MAXIMUM LOAD TEST. ONE HOUR

33.26	: 1160	: 3.270	: 10.17	: 0.663	: 0.00	: 0.00	: 0.00	: 184: 78	: 28.910
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RATED LOAD TEST. ONE HOUR

31.62	: 1160	: 3.018	: 10.48	: 0.643	: 0.00	: 0.00	: 0.00	: 187: 79	: 28.910
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\*VARYING LOAD TEST. TWO HOURS

31.56	: 1155	: 2.996	: 10.53	: 0.640	: --	: --	: --	: 190: 79	: --
0.46	: 1307	: 1.304	: 0.35	: 19.109	: --	: --	: --	: 186: 77	: --
16.86	: 1245	: 2.203	: 7.65	: 0.881	: --	: --	: --	: 188: 77	: --
32.70	: 1135	: 3.178	: 10.29	: 0.655	: --	: --	: --	: 187: 78	: --
8.94	: 1291	: 1.776	: 5.03	: 1.339	: --	: --	: --	: 187: 80	: --
24.57	: 1205	: 2.639	: 9.31	: 0.724	: --	: --	: --	: 187: 77	: --
19.90	: 1223	: 2.349	: 8.47	: 0.796	: 0.00	: 0.00	: 0.00	: 187: 78	: 28.910

\*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 : :pull : :pounds :	:Speed : :miles : :per : :hour :	:Crank : :shaft : :speed : :R.P.M.: :	: Slip : : on : : drive : : wheels : : % :	: Fuel Consumption : : H.P. : Lbs. : : Gal. : hr. : : per : per : : H.P. : per : : hour : gal. : : hour :	: Water : : used : : Gal. : : per : : hour :	Temp. : : Cool- : : ing : : med. : :	:Air:Barometer :Inches of :Mercury :
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RATED LOAD TEST. TEN HOURS INTERMEDIATE Gear

20.23	: 2008	: 3.78	: 1160	: 3.94	: 2.870	: 7.06	: 0.956	: 0.00	: 184 : 89 : 28.550
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MAXIMUM LOAD TEST

24.29	: 3118	: 2.92	: 1161	: 6.58	: --	: Not Recorded	: --	: 180 : 97 : 28.550
23.36	: 2359	: 3.71	: 1160	: 5.59	: --	: " "	: --	: 187 : 96 : 28.550
22.71	: 1961	: 4.34	: 1160	: 4.25	: --	: " "	: --	: 189 : 97 : 28.550

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Copy of Report of Official Tractor Test No. 210

BRIEF SPECIFICATIONS

MOTOR: Make: Own Serial No. X C 561 Type 4 Cylinder, Vertical

Head: I Mounting Lengthwise

Bore and stroke: 4 1/4" x 5" Rated R.P.M. 1160

Port Dia. Valves: Inlet 1.697" Exhaust 1.479"

Belt pulley: Diam. 15 1/4" Face 7" R.P.M. 681

Magneto: Own Model E 4 A

Carburetor: Zenith Model K 5 Size 1 1/4"

Governor: Own No. None Type Flyball

Air Cleaner: Own Type Oil washed wire filter

Lubrication: Circulating splash

CHASSIS: Type 4 wheels-2 drivers Serial No. W B 511 Drive Enclosed gear

Clutch: Own Type single plate-dry disc operated by foot

Advertised speeds, miles per hour: Low 2 1/2

Intermediate 3 1/4 High 3 3/4 Reverse 2 3/4

Drive wheels: Diameter 42" Face 12"

Lugs: Type Spade No. per wheel 32 Size 5" high - 3 3/8" face

Extension rims: Width 6", Lugs per rim 16 Size 5" high-3 3/8" face

Seat Pressed steel

Total weight as tested (with operator) 5575 pounds

FUEL AND OIL:

Fuel: Kerosene Weight per gallon 6.74 pounds

Oil: S.A.E. Viscosity No. 40

Total oil to motor 3.782 gallons

Total drained from motor 4.220 gallons.

The oil was drained to the middle cock and refilled to top cock after approximately each 10 hours of operation.

Total time motor was operated 43 hours

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REPAIRS AND ADJUSTMENTS

No repairs or adjustments.

REMARKS

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

The extension rims 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. 210.

Carlton L. Zink

Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis

Board of Tractor Test Engineers