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Larsen

January 1934

Test 231: McCormick-Deering "W-12" (Gasoline)

Tractor Museum

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 231

Dates of test: November 13 to 16, 1934.

Name and model of tractor: McCORMICK-DEERING "W-12" (Gasoline)

Manufacturer: International Harvester Company, Chicago, Illinois.

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 - 10.46 H.P. Belt - 16.07 H.P.

One carburetor setting (95.4% 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 : per hour gallons	: Temp. : : Deg. F. :	: Barometer : Inches of : Mercury
:speed : :R.P.M. : :	:Gals. : :per :hour :	: H.P. : :hrs.per: :gal. : :hour :	:Lbs.per: :Cool- : :ing. : : fuel : : : : : : :	: In : : Total : : Cool- : : Air : : ing : : med. : : : : :	: : : : : : : : : : : : : :

OPERATING MAXIMUM LOAD TEST. ONE HOUR

17.65	: 1700	: 1.752	: 10.07	: 0.611	: 0.000	: 0.000	: 0.000	: 193	: 60	: 29.170
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RATED LOAD TEST. ONE HOUR

16.17	: 1700	: 1.653	: 9.78	: 0.629	: 0.000	: 0.000	: 0.000	: 193	: 61	: 29.120
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*VARYING LOAD TEST. TWO HOURS

16.21	: 1699	: 1.650	: 9.81	: 0.627	: --	: --	: --	: 193	: 62	: --
0.73	: 1812	: 0.834	: 0.88	: 7.027	: --	: --	: --	: 193	: 61	: --
8.49	: 1757	: 1.195	: 7.10	: 0.866	: --	: --	: --	: 194	: 63	: --
17.08	: 1633	: 1.721	: 9.92	: 0.620	: --	: --	: --	: 194	: 61	: --
4.25	: 1795	: 0.975	: 4.36	: 1.412	: --	: --	: --	: 193	: 61	: --
12.43	: 1739	: 1.424	: 8.73	: 0.705	: --	: --	: --	: 193	: 61	: --
9.87	: 1739	: 1.300	: 7.59	: 0.811	: 0.000	: 0.000	: 0.000	: 193	: 61	: 29.103

*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. : : : : % :	:Slip : :on : :drive : :wheels : : : : % :	: Fuel Consumption : H.P. : :lbs. : :per :H.P. : :hour : :gal. : :hour :	: Water: : used : : Gal. : : per : hour :	: Temp. : : : : Cool- : : Air : : ing : : Med. : : : : :	: Barometer : Inches of : Mercury
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RATED LOAD TEST. TEN HOURS. SECOND GEAR

10.52	: 1250	: 3.16	: 1700	: 2.19	: 1.662	: 6.33	: 0.972	: 0.054	: 190	: 52	: 28.900
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MAXIMUM LOAD TEST

13.52	: 2140	: 2.37	: 1701	: 3.53	: -----	: Not Recorded	: -----	: 195	: 56	: 29.300
12.65	: 1507	: 3.15	: 1703	: 2.57	: -----	: " "	: -----	: 194	: 63	: 28.975
11.57	: 1065	: 4.07	: 1699	: 2.02	: -----	: " "	: -----	: 189	: 60	: 28.950

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. WS 637 Type 4 Cylinder, Vertical
Head I Mounting Lengthwise
Bore and stroke: 3" x 4" Rated R.P.M. 1700
Port Diam. Valves: Inlet 1 3/16" Exhaust 1 3/16"
Belt pulley: Diam. 13 1/4" Face 6 1/4" R.P.M. 787
Magneto: Own Model F-4
Carburetor: Own Model A-10 Size 1 inch
Governor: Own No. None Type Centrifugal
Air Cleaner: Own Type Oil-washed wire filter
Lubrication: Pressure

CHASSIS: Type 4 wheels, 2 drivers Serial No. WS 687 Drive Enclosed gear
Clutch: Rockford Type Single plate - dry disc operated by foot pedal
Advertised speeds, miles per hour: Low 2 1/4
Intermediate 2 3/4 High 3 3/4 Reverse 2 1/4
Drive wheels: Diameter 42 inches Face 8 inches
Lugs: Type Spade No. per wheel 24 Size 4" high x 2 5/8" face
Extension rims: None
Seat: Upholstered
Total weight as tested (with operator) 3,360 pounds.

FUEL AND OIL:

Fuel: Gasoline Weight per gallon 6.15 pounds
Oil: S.A.E. Viscosity No. 30 The oil was drained
once - at the end
of the test.
Total oil to motor 1.532 gallons
Total drained from motor 1.058 gallons
Total time motor was operated 33 hours

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REPAIRS AND ADJUSTMENTS

At the end of the rated load drawbar test the manifold bolt, which holds the choke rod bracket, was found to be loose.

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 drawbar tests were run with drive wheels equipped with spade lugs as listed 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. 231.

Carlton L. Zink

Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis

Board of Tractor Test Engineers