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January 1933

Test 212: McCormick-Deering Farmall "F-12"

Nebraska Tractor Test Lab

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 212

Dates of test: May 1 to 10, 1933.

Name and model of tractor: McCORMICK-DEERING FARMALL "F 12"

Manufacturer: International Harvester Co., 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 - 9.74 H.P. Belt - 14.68 H.P.

One carburetor setting (97.5% 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
:speed :	Gals. :H. P. :Lbs. @	:Cool- : In :	:Cool- : Inches of		
:R.P.M. :	per :hrs. @:H.P. :	ing : fuel :Total:ing :Air :	:Mercury		
:	: hour :gal. :hour :	:	: med. :		

OPERATING MAXIMUM LOAD TEST. ONE HOUR

16.20 : 1399 : 1.698 : 9.54 : 0.649 : 0.000 : 0.000 : 0.000 : 192 : 60 : 28.710

RATED LOAD TEST. ONE HOUR

14.61 : 1398 : 1.543 : 9.47 : 0.654 : 0.000 : 0.000 : 0.000 : 191 : 63 : 28.690

*VARYING LOAD TEST. TWO HOURS

14.61	: 1400	: 1.532	: 9.54	: 0.649	: --	: --	: --	: 191	: 69	: --
0.75	: 1470	: 0.746	: 1.01	: 6.160	: --	: --	: --	: 194	: 65	: --
7.50	: 1427	: 1.100	: 6.82	: 0.908	: --	: --	: --	: 193	: 64	: --
15.97	: 1356	: 1.653	: 9.66	: 0.641	: --	: --	: --	: 194	: 67	: --
3.83	: 1458	: 0.921	: 4.16	: 1.488	: --	: --	: --	: 194	: 65	: --
10.87	: 1399	: 1.284	: 8.47	: 0.731	: --	: --	: --	: 192	: 67	: --
9.08	: 1418	: 1.206	: 7.53	: 0.822	: 0.000	: 0.000	: 0.000	: 193	: 66	: 28.600

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

RATED LOAD TEST. TEN HOURS. Intermediate Gear.

10.09 : 1172 : 3.23 : 1401 : 2.61 : 1.608 : 6.27 : 0.986 : 0.000 : 195 : 48 : 28.660

MAXIMUM LOAD TEST

11.68	: 1870	: 2.34	: 1401	: 4.40	: -----	: Not Recorded	: -----	: 195	: 52	: 28.550
12.31	: 1442	: 3.20	: 1402	: 0.70	: -----	: " "	: -----	: 197	: 55	: 28.650
12.03	: 1091	: 4.14	: 1400	: 0.40	: -----	: " "	: -----	: 195	: 57	: 28.590

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. FS 609 Type 4 Cylinder, Vertical
Head I Mounting Lengthwise
Bore and stroke: 3" x 4" Rated R.P.M. 1400
Port Dia. Valves: Inlet 1 3/16" Exhaust 1 3/16"
Belt pulley: Diam. 12 3/8" Face 6 1/4" R.P.M. 800
Magneto: Own Model E 4 A
Carburetor: Own Model A-10 Size 1"
Governor: Own No. None Type Flyball - centrifugal
Air Cleaner: Own Type Oil-washed wire filter
Lubrication: Pressure

CHASSIS: Type 3 wheels, 2 drivers Serial No. FS533 Drive Enclosed gear
Clutch: Rockford Type Single plate - dry disc operated by foot
Advertised speeds, miles per hour: Low 2 1/4
Intermediate 3 High 3 3/4 Reverse 2 1/4
Drive wheels: Diameter 54" Face 6"
Lugs: Type Spade No. per wheel 16 Size 2 1/2" wide - 4" high
Extension rims: Width 6" Lugs per rim 16 Size 2 1/2" wide - 4" high
Seat Pressed Steel
Total weight as tested (with operator) 3280 pounds

FUEL AND OIL:

Fuel: Gasoline Weight per gallon 6.19 pounds
Oil: S.A.E. Viscosity No. 30
Total oil to motor 1.950 gallons The oil was drained once -
at the end of the test.
Total drained from motor 1.275 gallons
Total time motor was operated 47 hours

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REPAIRS AND ADJUSTMENTS

Before running the varying load belt test it was necessary to adjust the governor cross rod.

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. 212.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis
Board of Tractor Test Engineers