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Nebraska Tractor Tests

Tractor Test and Power Museum, The Lester F. Larsen

January 1930

Test 183: Oliver 90

Nebraska Tractor Test Lab

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Corrected Copy of Report of Official Tractor Test No. 183

Dates of test: October 13th to 27th, 1930.

Name and model of tractor: OLIVER HART-PARR (3-5 plow).

Manufacturer: Oliver Farm Equipment Co. (Hart Parr Division) Charles City, Iowa.

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 - 28 H.P. Belt - 44 H.P.

One carburetor setting (96% 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 : Gals. : H.P. : Lbs. @ :	Water consumption : : per hour gallons :	Temp. : : Deg. F. :	: Barometer
: speed :	: R.P.M. :	: per : hrs. @ : H.P. :	: Cool- : In : : ing : fuel :	: Cool- : ing : : med. : Air :	: Inches of : Mercury
:	: hour :	: gal. : hour :	:	:	:

OPERATING MAXIMUM LOAD TEST. ONE HOUR

49.04	: 1132	: 4.906	: 10.00	: 0.682	: 0.00	: 0.00	: 0.00	: 178	: 58	: 29.035
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RATED LOAD TEST. ONE HOUR

44.29	: 1125	: 4.252	: 10.42	: 0.655	: 0.00	: 0.00	: 0.00	: 186	: 53	: 29.015
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*VARYING LOAD TEST. TWO HOURS

44.11	: 1130	: 4.306	: 10.24	: 0.666	: --	: --	: --	: 177	: 76	: --
0.81	: 1240	: 1.654	: 0.49	: 13.926	: --	: --	: --	: 188	: 77	: --
23.19	: 1189	: 2.705	: 8.57	: 0.796	: --	: --	: --	: 192	: 75	: --
46.95	: 1107	: 4.786	: 9.81	: 0.695	: --	: --	: --	: 176	: 69	: --
12.00	: 1222	: 2.032	: 5.91	: 1.155	: --	: --	: --	: 188	: 73	: --
34.10	: 1160	: 3.334	: 10.23	: 0.667	: --	: --	: --	: 190	: 75	: --
27.53	: 1172	: 3.136	: 8.78	: 0.777	: 0.00	: 0.00	: 0.00	: 184	: 72	: 28.980

* 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 : : pounds :	: per : : hour :	: speed : : R.P.M. :	: drive : : wheels :	: Gal. : : per : : hour :	: hr. : : per : : hour :	: Gal. : : per : : hour :	: Cool: Air : : ing : : med. : :	: Inches of : Mercury
:	:	:	: % :	: hour :	: gal. : hour :	: hour :	:	:

RATED LOAD TEST. TEN HOURS. Intermediate Gear.

28.44	: 2940	: 3.63	: 1128	: 8.39	: 3.974	: 7.16	: 0.953	: 0.113	: 185	: 67	: 28.630
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MAXIMUM LOAD TEST

31.18	: 2412	: 4.85	: 1128	: 7.75	: -----	: Not Recorded	: -----	: 186	: 66	: 28.660
34.21	: 3650	: 3.51	: 1125	: 11.35	: -----	: " "	: -----	: 177	: 64	: 28.680
28.36	: 5116	: 2.08	: 1119	: 22.32	: -----	: " "	: -----	: 197	: 76	: 28.620

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 500105 Type 4 cylinder vertical
Head "I" Mounting Lengthwise
Bore and stroke: 4 3/4 x 6 1/4 in. Rated R.P.M. 1125
Port Dia. Valves: Inlet 2" Exhaust 2"
Belt pulley: Diam. 16 3/4 in. Face 8 1/4 in. R.P.M. 596
Magneto: American Bosch Model "U4"
Carburetor: Ensign Model "K" Size 1 1/2"
Governor: Own No. None Type Fly-ball
Air Cleaner: Donaldson - 2 unit Type centrifugal and oily fiber
Lubrication: Pressure

CHASSIS: Type 4 Wheels Serial No. 500105 Drive Enclosed gear
Clutch: Borg and Beck Type Single plate, dry operated by foot
Advertised speeds, miles per hour: Low 2.23
Intermediate 3.3 High 4.33 Reverse 2.63
Drive wheels: Diameter 46" Face 12"
Lugs: Type Spade No. per wheel 20 Size 5" high x 3 1/4" face
Extension rims: width 7" Lugs Spade 10 per rim Size 5" high x 3 1/4" face
Seat Pressed steel
Total weight as tested (with operator) 6415 pounds.

FUEL AND OIL:

Fuel: Kerosene Weight per gallon 6.82 pounds
Oil: S. A. E. Viscosity No. 30
Total oil to motor 5.929 gallons
Total drained from motor 1.840 gallons
Total time motor was operated 60 hours

The oil was drained
from the crankcase
once - at the end of
the test.

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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 thruout 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 and extension rims and lugs on the rims 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. 183.

Carlton L. Zink
Engineer-in-Charge.

E. E. Brackett

C. W. Smith

E. E. Lewis

Board of Tractor Test Engineers