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January 1930

Test 180: Oliver Hart-Parr 18-28

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, tractortestlab@unl.edu

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(Count Minutes)

UNIVERSITY OF NEBRASKA-AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 180

Dates of test: July 7th to July 15th, 1930
 Name and model of tractor: Oliver Hart-Parr (2-3 plow)
 Manufacturer: Oliver Farm Equipment Co., 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 - 18 H.P. Belt - 28 H.P.
 One carburetor setting (97.7% 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. @ : R.P.M.: per :hrs. @:H.P. : : : hour :gal. :hour :	: Water consumption : : per hour gallons : : Cool- : In : : ing : fuel :Total :ing : Air : : : : :med. : :	Temp. : : Deg. F. : : Cool- : : ing : : med. : :	: Barometer : Inches of : Mercury
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OPERATING MAXIMUM LOAD TEST. ONE HOUR

30.29	: 1192	: 3.042	: 9.96	: 0.677	: 1.645	: 0.00	: 1.645	: 213	: 101	: 28.91
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RATED LOAD TEST. ONE HOUR

28.30	: 1191	: 2.831	: 10.00	: 0.674	: 1.285	: 0.00	: 1.285	: 213	: 105	: 28.865
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*VARYING LOAD TEST. TWO HOURS

28.31	: 1189	: 2.835	: 9.99	: 0.675	: --	: --	: --	: 213	: 105	: --
1.64	: 1261	: 1.251	: 1.31	: 5.140	: --	: --	: --	: 196	: 105	: --
14.62	: 1230	: 1.972	: 7.41	: 0.909	: --	: --	: --	: 196	: 105	: --
28.58	: 1166	: 2.938	: 9.73	: 0.693	: --	: --	: --	: 215	: 106	: --
7.42	: 1246	: 1.571	: 4.72	: 1.427	: --	: --	: --	: 193	: 105	: --
21.65	: 1219	: 2.395	: 9.04	: 0.745	: --	: --	: --	: 203	: 105	: --
17.34	: 1217	: 2.160	: 8.03	: 0.840	: 1.115	: 0.00	: 1.115	: 203	: 105	: 28.82

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

18.99	: 2031	: 3.51	: 1188	: 9.26	: 2.436	: 7.80	: 0.865	: 0.135	: 199	: 89	: 28.90
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MAXIMUM LOAD TEST

23.56	: 3241	: 2.73	: 1206	: 13.23	: -----	: Not Recorded	: 209	: 83	: 29.03
21.86	: 2303	: 3.56	: 1190	: 9.87	: "	: "	: 206	: 76	: 29.03
22.22	: 1781	: 4.68	: 1188	: 6.65	: "	: "	: 201	: 86	: 29.00

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 248958 Type Vertical
Head "I" Mounting Lengthwise
Bore and stroke: 4 1/8" x 5 1/4" in. Rated R.P.M. 1190
Port. Dia. Valves: Inlet 1 3/4" Exhaust 1 3/4"
Belt pulley: Diam. 14 1/4" in. Face 7 1/2" in. R.P.M. 726
Magneto: American Bosch Model U4D2
Carburetor: Ensign Model KZ Size 1 1/4"
Governor: Own No. ----- Type Weight
Air Cleaner: Donaldson 2 unit Type Centrifugal and oily fibre
Lubrication: Pressure

CHASSIS: Type 4 wheels 2 drivers Serial No. 101763 Drive Enclosed gear
Clutch: Borg and Beck Type Single plate operated by foot
Advertised speeds, miles per hour: Low 2.6
Intermediate 3.2 High 4.15 Reverse 2.9
Drive wheels: Diameter 44" Face 10"
Lugs: Type Spade No. per wheel 24 Size 5" high, 3 3/8" wide
Extension rims: Width -----
Seat Pressed steel
Total weight as tested (with operator) 4420 pounds

FUEL AND OIL:

Fuel: Kerosene weight per gallon 6.74 pounds

Oil: S. A. E. Viscosity No. 30

Total oil to motor 2.214 gallons

Total drained from motor 2.518 gallons

Total time motor was operated 51 hours

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

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REPAIRS AND ADJUSTMENTS

During the rated drawbar test a lug bolt was lost and the lug bent. The lug 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 drawbar tests were run with drive wheels equipped with spade lugs as listed on Page 2 of this report.

No advertising literature was submitted with the specifications and application for test of this tractor, the manufacturer stating that no publications of this nature had been issued. Consequently, no comparison of results of the test with advertised claims or statements could be made.

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 180.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis
Board of Tractor Test Engineers.