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Test 185: Rumely Model 6A

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 185

Dates of test: Oct. 28 to Nov. 19, 1930 and April 7 to April 14, 1931.
 Name and model of tractor: RUMELY "6A"
 Manufacturer: Advance Rumely Thresher Co. Inc., La Porte, Indiana.
 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 - 27.65 H.P. Belt - 43.20 H.P.
 One carburetor setting (99% 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 :	Temp. :	: Barometer
: speed :	: Gals. :H. P. :Lbs. @ :	:Cool- : In :	:Cool- : Inches of	: Deg. F. :	:Mercury
: R.P.M.:	per :hrs. @:H.P. :	ing : fuel :Total :	ing : Air:	:med. :	:
:	: hour :gal. :hour :	: : : : : :	: : : : : :	: : : : : :	: : : : : :

OPERATING MAXIMUM LOAD TEST. ONE HOUR

48.37	: 1362	: 5.502	: 8.79	: 0.705	: 0.00	: 0.00	: 0.00	: 188	: 74	: 29.175
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RATED LOAD TEST. ONE HOUR

43.23	: 1366	: 5.008	: 8.63	: 0.718	: 0.00	: 0.00	: 0.00	: 187	: 76	: 29.133
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*VARYING LOAD TEST. TWO HOURS

43.27	: 1365	: 5.023	: 8.62	: 0.720	: --	: --	: --	: 187	: 76	: 29.130
1.14	: 1429	: 2.105	: 0.54	: 11.447	: --	: --	: --	: 190	: 76	: --
22.12	: 1385	: 3.402	: 6.50	: 0.953	: --	: --	: --	: 187	: 75	: --
46.84	: 1340	: 5.434	: 8.62	: 0.719	: --	: --	: --	: 178	: 77	: --
11.47	: 1411	: 2.835	: 4.05	: 1.533	: --	: --	: --	: 188	: 75	: --
33.27	: 1372	: 4.263	: 7.80	: 0.794	: --	: --	: --	: 181	: 73	: --
26.72	: 1382	: 3.844	: 6.95	: 0.892	: 0.00	: 0.00	: 0.00	: 185	: 75	: 29.130

*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 : Speed :	Crank : Slip :	Fuel Consumption	: Water :	Temp. :	: Barometer
: pull :	: Bar : miles :	: shaft : on :	: H.P. : Lbs. :	: used :	: Cool-: Air:	: Inches of
: pounds:	: hour :	: R.P.M.:	: wheels:	: per : gal. :	: H.P. : per :	: Mercury
:	:	:	: % :	: hour: gal. :	: hour :hour :	:med. :

RATED LOAD TEST. TEN HOURS. Low Gear.

27.10	: 3263	: 3.11	: 1364	: 5.36	: 4.762	: 5.71	: 1.752	: 0.00	: 183	: 76	: 28.770
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MAXIMUM LOAD TEST

33.57	: 4273	: 2.95	: 1365	: 9.96	: -----: Not Recorded:-----:		: 179	: 84	: 28.550
29.60	: 2733	: 4.06	: 1367	: 4.20	: -----: " " :-----:		: 176	: 72	: 28.780
29.10	: 2060	: 5.30	: 1364	: 5.16	: -----: " " :-----:		: 186	: 59	: 28.790

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BRIEF SPECIFICATIONS

MOTOR: Make Special Serial No. 6A502 Type Vertical
Head L Mounting Lengthwise
Bore and stroke: 4 1/4 x 4 3/4 in. Rated R.P.M. 1365
Port Dia. Valves: Inlet 1 5/8" Exhaust 1 5/8"
Belt pulley: Diam. 13 in. Face 8 in. R.P.M. 892.5
Magneto: American Bosch Model "U6"
Carburetor: Zenith Model 156 Size 1 1/2"
Governor: Own design No. None Type Centrifugal
Air Cleaner: Two unit Oil filter wire sponge
Vortex & Donaldson Type and dry centrifugal
Lubrication: Pressure

CHASSIS: Type 4 wheels, 2 drivers Serial No. 6A502 Drive Enclosed gear
Clutch: Twin Disc Type Disc operated by hand
Advertised speeds, miles per hour: Low 2.82
Intermediate 3.66 High 4.72 Reverse 3.44
Drive wheels: Diameter 48" Face 12"
Lugs: Type Spade No. per wheel 28 Size 4 3/4" high x 3 1/2" face
Extension rims: Width 7" Lugs: Spade - 14 per rim
Size 4 3/4" high x 3 1/2" face
Seat Pressed steel
Total weight as tested (with operator) 6370 pounds.

FUEL AND OIL:
Fuel: Gasoline Weight per gallon 6.07 pounds on drawbar tests
6.20 pounds on belt tests
Oil: S. A. E. Viscosity No. 50 The oil was
drained from the
Total oil to motor 2.976 gallons crankcase once -
Total drained from motor 2.546 gallons at the end of
the test.
Total time motor was operated 88 hours

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REPAIRS AND ADJUSTMENTS

After the belt tests were completed but before the drawbar tests were run, the valves were ground. During the maximum drawbar tests the stationary adjustable magneto breaker point was found to be broken. Both points were replaced with new ones.

Just before the completion of the rated load drawbar test, the portion of the fan hub, which carries the front bearing, broke and the fan damaged the radiator. A new fan and radiator were installed and the test was completed.

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 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. 185.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis

Board of Tractor Test Engineers