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January 1936

Test 252: Oliver Hart-Parr Row Crop 70 HC

Nebraska Tractor Test Lab

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Manufacturer's rating: NOT RATED.

H. P.	: Crank :				Water Consumption :	Temp. :	
	: shaft :	Fuel Consumption :			per hour gallons :	Deg. F. :	Barometer
	: speed :	Gals. :	H. P. :	Lbs. per :	Cool- :	In :	Cool- :
	: R.P.M. :	per :	hrs. per :	H. P. :	ing :	fuel :	Total :
	: :	hour :	gal. :	hour :	:	:	med. :
	:	:	:	:	:	:	:

28.40 : 1501 : 2.672 : 10.62 : 0.577 : 0.000 : 0.000 : 0.000 : 181 : 77 : 29.205

26.57 : 1500 : 2.400 : 11.07 : 0.554 : 0.000 : 0.000 : 0.000 : 172 : 78 : 29.180

25,33 : 1500 : 2,331 : 10,87 : 0,564 : 0,000 : 0,000 : 0,000 : 171 : 78 : 29,165

25.21	: 1495	: 2.320	: 10.87	: 0.564	: --	: --	: --	: 171	: 78	: --
0.75	: 1593	: 1.047	: 0.72	: 8.560	: --	: --	: --	: 175	: 75	: --
13.23	: 1555	: 1.639	: 8.07	: 0.760	: --	: --	: --	: 170	: 79	: --
25.47	: 1421	: 2.285	: 11.15	: 0.550	: --	: --	: --	: 183	: 82	: --
6.59	: 1566	: 1.316	: 5.01	: 1.225	: --	: --	: --	: 168	: 81	: --
18.89	: 1542	: 1.977	: 9.55	: 0.642	: --	: --	: --	: 170	: 81	: --
15.02	: 1529	: 1.764	: 8.51	: 0.720	: 0.000	: 0.000	: 0.000	: 173	: 79	: 29.145

*20 minute runs. Last line is average for two hours.

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

21.93 : 1878 : 4.38 : 1508 : 7.56 : -----Not Recorded----- : 180 : 60 : 29.060

18.03	: 3120	: 2.17	: 1510	: 19.11	: -----Not Recorded-----	: 170	: 61: 29.020
19.58	: 2201	: 3.34	: 1503	: 8.36	: -----" "-----	: 171	: 54: 29.140
19.49	: 1675	: 4.36	: 1504	: 7.65	: -----" "-----	: 173	: 59: 29.105
19.43	: 1207	: 6.04	: 1500	: 6.19	: -----" "-----	: 165	: 60: 29.035

16.94 : 1440 : 4.41 : 1499 : 6.31 : 2.235 : 7.58 : 0.809 : 0.048 : 183 : 65 : 28.840

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AGRICULTURAL COLLEGE, LINCOLN

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 1157 Type 6 cylinder, vertical
 Head I Mounting Crankshaft lengthwise
 Bore and stroke: 3 1/8" x 4 3/8" Rated R. P. M. 1500
 Port Diam. Valves: Inlet 1 3/8" Exhaust 1 1/16"
 Belt pulley: Diam. 12 3/4" Face 6 1/2" R. P. M. 774
 Magneto: American Bosch Model MJB6A - 302
 Carburetor Zenith Model 124 1/2 EX Size 1 1/4"
 Governor: Handy No. 157112 Type Centrifugal
 Air Cleaner: Donaldson Type Ejector and oil-washed wire screen
filter
 Lubrication: Pressure

CHASSIS: Type 4 wheels, 2 drivers Serial No. 202845 Drive Enclosed gear
 Clutch: Borg & Beck Type Single plate dry Operated by Foot
 Advertised speeds, miles per hour: First 2.44 Second 3.32
 Third 4.33 Fourth 5.88 Reverse 2.44
 Drive wheels: Diameter 55" Face 1/2"
 Lugs: Type Spade No. per wheel 24 Size 3" x 4 1/2"
 Seat Canvas Hammock
 Total weight as tested (with operator) 3500 pounds.

FUEL AND OIL:

Fuel: Gasoline (68-70 Octane) Weight per gallon 6.13 pounds.

Oil: S.A.E. #20

Total oil to motor 2.120 gallons

Total drained from motor 1.121 gallons

Total time motor was operated 44 hours

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

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REPAIRS AND ADJUSTMENTS

During the rated load drawbar test the pin in the starting crank dropped out and lodged in the tractor frame. This was replaced. On this same test a welded connection on the seat frame was broken.

REMARKS

All results shown on page 1 of this report were determined from observed data and without allowances, additions or deductions. Tests B and F were made with carburetor set for 100% maximum horsepower. These figures were used in determining the ratings recommended by the A.S.A.E. and S.A.E. tractor rating codes. Tests C, D, E, G and H were made with an operating setting of the carburetor (selected by the manufacturer) of 93.6% of maximum horsepower.

Observed maximum horsepower (tests B & F) Drawbar 21.93 Belt 28.40

Sea level (calculated) maximum horsepower Drawbar 22.58 Belt 29.56
 (Based on 60° F. and 29.92" Hg.)

Highest permissible horsepower ratings Drawbar 16.94 Belt 25.13
 (As recommended by A.S.A.E. and S.A.E. codes)

The 100% maximum belt and drawbar tests were not included in reports issued from 1928 to 1934 inclusive, except in those cases where the 100% maximum setting was used throughout the complete test.

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 252.

Carlton L. Zink
 Engineer-in-charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut
 Board of Tractor Test Engineers