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January 1926

Test 126: Huber 20-40

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. 126.

Dates of test: September 7th to September 18th, 1926.
 Name, model and rating of tractor: Huler 20-40.
 Serial No. Engine: 263027 Serial No. Chassis: 8282
 Manufacturer: The Huber Mfg. Co., Marion, Ohio.
 Tractor equipment used: Eisemann "GS4" Mag.; Kingston "L-3" Carb.
 Style and dimensions of wheel lugs: Cone, 54 per wheel, 3-1/2" high.

BRAKE HORSE POWER TESTS

H.P. Dev.	Crank Shaft	Time of Test	Kind of fuel	Gals. per Hour	H. P. per Gal.	Water Consumption Gals. per hour	Cooling In Total	Temp. in Cool- ing	Deg. F. *	Average Humidity %	Height of Barometer	In Inches

RATED LOAD TEST

40.23	: 1102.5	: 120	: Gaso.:	4.8865	: 8.23:	0.00	: 0.00:	0.00	: 167	: 75	: 83	: 28.87
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**VARYING LOAD TEST

40.30	: 1104	: 10	: Gaso.:		:		:		:		:	
40.63	: 1098	: 10	: "		:		:		:		:	
1.17	: 1257	: 10	: "		:		:		:		:	
11.14	: 1215	: 10	: "		:		:		:		:	
21.20	: 1157	: 10	: "		:		:		:		:	
31.00	: 1130	: 10	: "		:		:		:		:	
25.06	: 1160	: 60	: "	3.977	: 6.30:	0.00	: 0.00:	0.00	: 155	: 73	: 83	: 28.86

MAXIMUM LOAD TEST

50.05	: 1104	: 60	: Gaso.:	7.079	: 7.07:	0.00	: 0.00:	0.00	: 175	: 83	: 41	: 28.88
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HAIF LOAD TEST

20.79	: 1135.5	: 60	: Gaso.:	3.874	: 5.37:	0.00	: 0.00:	0.00	: 146	: 70	: 84	: 28.84
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* Taken in discharge line from engine.
 ** The last line is the average for the hour.
 REMARKS: The gasoline used as fuel weighed 6.17 pounds per gallon.

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DRAWBAR HORSE POWER TESTS

H. P.	Draw	Speed	Crank	Slip	Fuel Consumption			Water Used	Temp. Deg. F.		Average	Height of
					Kind	Am't.	Hrs.		Cooling	Air		
Dev.	Bar	Miles	Snait	on	Used	Per	Hrs.	Per	Fluid	*	f	In Inches
	Pull	Per	Speed	Drive		Hour	Per	Hour				
	Pounds	Hour	R.P.M.	Wheels		Gals.	Gal.	Gals.				
				%								

RATED LOAD TEST. TEN HOURS

32.12	3232.5	2.57	1111.	5.57	Gasol.	4.015	5.51	0.17	186	85	62.5	28.86
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MAXIMUM LOAD TEST

40.79	5932.5	2.575	1101.5	6.305	Gasol.	--	NOT RECORDED	--	176	88	57	28.65
37.785	3931	3.605	1093.5	3.96	Gasol.	--	NOT RECORDED	--	172	84.5	57	28.65

* Taken in discharge line from engine.

REMARKS: The first maximum and rated load tests were made in low gear, the second maximum test was made in high gear. The average distance measured on the ground of several revolutions of the drivers without load was used as a basis for calculating the slippage of the drive wheels.

OIL CONSUMPTION:

During the complete test consisting of about 47 hours running the following oil was used:
 For the engine, 4-1/2 gallons of Mobiloil "B"; 4 gallons to fill crankcase; 1/2 gallon added.
 For the transmission: None added.
 1/2 gallon Mobiloil "B" to fill air cleaner; none added during test.

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REPAIRS AND ADJUSTMENTS

During the rated brake horsepower test the fan belt broke and was replaced with a new belt.

No other repairs or adjustments were necessary during this test. At the end of the test the tractor was in good running order and there were no indications of undue wear nor of any weakness which might require early repair.

BRIEF SPECIFICATIONS

Motor: Stearns, 4 cylinder, valve-in-head, mounted crankshaft lengthwise. Bore 5-1/8". Stroke 6-1/2". Rated speed 1100 R.P.M.

Magneto: Eisemann "CS4", Carburetor: Kingston "I-5".

Air Cleaner: Pomona "Vortex", oiled spray type.

Governor: Kingston, fly ball type.

Chassis: Four wheels, two drivers; enclosed gear drive; twin disc clutch. Advertised speeds: Low 2.47 miles per hour; high 3.48 miles per hour; Reverse 1.94 miles per hour.

Total weight as tested (with operator) 9336 pounds.

REMARKS

In the advertising literature submitted with the specifications and application for test of this tractor, we find some claims and statements which cannot be directly compared with the results of this test as reported above. It is our opinion that none of these are excessive or unreasonable.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 126.

Lew Wallace
Engineer-in-Charge

Oscar W. Sjogren

E. E. Brackett

C. J. Smith
Board of Tractor Test Engineers.