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January 1926

Test 123: Huber New Super Four 18-36

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. 123

Dates of test: June 7th to June 12th, 1926
 Name, model and rating of tractor:: Huber New Super Four 18 - 36
 Serial No. Engine: 266078 Serial No. Chassis: 8110
 Manufacturer: The Huber Mfg. Co., Marion, Ohio.
 Tractor equipment used: Eiseman "GS4" Mag. Kingston "L3" Carb.
 Style and dimensions of wheel lugs: Cone 36 per wheel 3" base, 3-7/8" high.

BRAKE HORSE POWER TESTS

H. P. Dev.	Crank Shaft Speed R.P.M	Time of Test Min.	Fuel Consumption			Water consumption			Temp. Deg. F		Ave. Humid- ity %	Height of Barometor in Inches
			Kind of Fuel	Gals. per hour	H.P. hrs. @ Gal.	Gals. per hour		Cool- ing	Air			
						Cool- ing	in Fuel			Total		

RATED LOAD TEST

36.18	999	120	Gasol	4.577	7.90	0.00	0.00	0.00	197	88	24	28.60
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**VARYING LOAD TEST

36.06	995	10	Gasol									
36.22	995	10	"									
0.93	1175	10	"									
10.51	1153	10	"									
20.08	1104	10	"									
28.94	1063	10	"									
23.10	1081	60	"	3.640	6.35	0.00	0.00	0.00	182	88	24	28.60

MAXIMUM LOAD TEST

43.15	998	60	Gasol	5.857	7.37	0.00	0.00	0.00	195	83	26	28.74
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HALF LOAD TEST

19.31	1061	60	Gasol	3.015	6.40	0.00	0.00	0.00	195	81	26	28.74
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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 in these tests weighed 6.17 pounds per gallon.

- 2 -
Report of Official Tractor Test No. 123

DRAWBAR HORSE POWER TESTS

H. P. Dev.	Draw Bar Pull Pounds	Speed Miles Per Hour	Crank Shaft Speed R.P.M	Slip on Drive Wheels%	Fuel Consumption			Water Used Per Hour Gals.	Temp. Deg. F.		Average Humidity %	Height of Barometer In Inches
					Kind Used	Amt. Per Hour Gals	H.P. Hrs. Per Cal.		Cooling Fluid	Air		

RATED LOAD TEST. TEN HOURS

18.86	3198	2.21	1011	12.17	Gasol.	3.483	5.42	0.19	186	93	39.5	28.58
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MAXIMUM LOAD TEST

27.02	5419.5	1.87	1007	26.84	Gasol.	--- NOT RECORDED ---		187	97	42	28.53
30.35	2997	3.80	1000	10.35	Gasol.	--- NOT RECORDED ---		186	97	42	28.53

*Taken in discharge line from engine.

REMARKS: The rated load and first maximum tests were made with the tractor 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 43 hours running the following oil was used:
For the engine, 7-1/2 gallons of Mobiloil "B", 5 gallons to fill crankcase, 2-1/2 gallons added during test.
For the transmission, none. 1 lb. cup grease used on grease cups.

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REPAIRS AND ADJUSTMENTS

After the limber up run and before the brake tests were made the fan belt was replaced with a new one. Before the drawbar tests were run, the fan belt broke and was again replaced with a new belt. During the limber up run three cap screws sheared off of the steering post and clutch lever support. Before the brake tests were run a ball and socket connection was put on the governor throttle rod. During the maximum drawbar test the fuel line broke at the carburetor connection and was replaced with a new fuel pipe.

No other repairs nor 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 4-3/4", Stroke 6-1/2". Rated speed 1000 R.P.M.
Magneto: Eiseman "GS4". Carburetor: Kingston "L3".
1-11/16" throttle opening.
Manifold: Type "A" cold, bore 2-3/16".

Air cleaner: Pomona "Vortex", oiled fiber type.
Governor: Kingston, fly-ball type.

Chassis: Four wheels, two drivers; enclosed gear drive; twin disc clutch.
Advertised speeds: Low 2.2 miles per hour, high 3.8 miles per hour.

Total weight as tested (with operator) 8595 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. 123.

Lew Wallace
Engineer-in-charge

Oscar W. Sjogren

F. F. Brackett

C. W. Smith
Board of Tractor Test Engineers