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January 1939

Test 323: Cletrac General Model GG

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. 323

Dates of test: August 10 to 30, 1939.

Name and model of tractor: CLETRAC GENERAL GG

Manufacturer: Cleveland Tractor Company, Cleveland, Ohio.

Manufacturer's rating: NOT RATED.

B E L T H O R S E P O W E R T E S T S

H. P.	Crank shaft speed R.P.M.	Fuel Consumption			Water used gal. per hr.	Temp. Deg. F.		Barometer Inches of Mercury
		Gal. per hr.	H. P. hr. per gal.	Lb. per H. P. hr.		Cool- ing med.	Air	

TESTS B AND C - 100% MAXIMUM LOAD - TWO HOURS

19.29	1700	2.194	8.79	0.695	0.024	196	86	28.870
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*TEST D - ONE HOUR

17.42	1700	2.124	8.20	0.745	0.000	193	87	28.865
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TEST E - VARYING LOAD - TWO HOURS (20 minute runs; last line average)

17.40	1699	2.106	8.26	0.740	--	192	88	--
1.25	1714	0.859	1.46	4.200	--	172	88	--
8.97	1726	1.512	5.93	1.030	--	172	88	--
18.83	1674	2.160	8.72	0.701	--	196	88	--
4.54	1723	1.232	3.69	1.659	--	180	87	--
13.34	1723	1.851	7.21	0.848	--	187	88	--
10.72	1710	1.620	6.62	0.924	0.040	183	88	28.850

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

TESTS F AND G - 100% MAXIMUM LOAD

8.44	1699	1.86	1400	19.65	-----	Not Recorded	-----	196	78	28.820
13.29	1661	3.00	1397	18.09	-----	"	"	198	73	28.880
14.26	942	5.68	1399	5.91	-----	"	"	198	77	28.850

*TEST H - TEN HOURS - Second - GEAR

10.38	1172	3.32	1401	9.52	1.443	7.19	0.849	0.037	199	83	28.830
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*Formerly called RATED LOAD; see REMARKS 4, page 3.

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FUEL, OIL, AND TIME

Fuel Gasoline Octane 71 Weight per gallon 6.11 pounds
Oil: S.A.E. No. 30 To motor 1.503 gal. Drained from motor 1.245 gal.
Total time motor was operated 42 hours

BRIEF SPECIFICATIONS

Advertised speeds, miles per hour: First 2.25 Second 3.50
Third 6.00 Reverse 2.50
Belt pulley: Diam. 9 1/2" Face 5 1/2" R.P.M. 1280 Belt Speed 3183 f.p.m.
Clutch: Make Long Type Single plate Operated by foot pedal
Seat Pressed steel with sponge rubber pad
Total weight as tested (with operator) 3115 pounds

MOTOR

Make Hercules Serial No. 667995 Type 4 cylinder, vertical
Head L Mounting Crankshaft lengthwise Lubrication Pressure
Bore and stroke 3" x 4" Rated R.P.M. (Drawbar 1400
(Belt 1700
Port diameter valves: Inlet 1 1/4" Exhaust 1 1/8"
Magneto: Make Wico Model C1113B
Carburetor: Make Tillotson Model YC2A Size 7/8"
Governor: Make Hercules-Handy Type Variable speed centrifugal
Air Cleaner: Make Vortox Type Oil-washed wire filter
Oil Filter: Make Michiana Oil Purifier Type Removable waste pack unit
Cooling medium temperature control: None

CHASSIS

Type Tricycle Serial No. 2SA970 Drive Enclosed gear
Tread width: Rear 48" - 76" Front: Single wheel
Rear tires: No. 2 Size 9 x 24" - 4 ply Air Pressure 12 pounds
Front tires: No. 1 Size 5.50" x 16" - 4 ply Air Pressure 28 pounds
Added weight: Per rear wheel (Cast iron 300 pounds
(Calcium Chloride Solution 135 pounds

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REPAIRS AND ADJUSTMENTS

No repairs or adjustments.

REMARKS

1. 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 belt horsepower and data from these tests were used in determining the horsepower to be developed in tests D and H, respectively. Tests C, D, E, G, and H were made with the same setting.

	<u>DRAWBAR</u>	<u>BELT</u>
2. Observed maximum horsepower (tests F & B)	13.29	19.29
3. Sea level (calculated) maximum horsepower (based on 60° F. and 29.92" Hg.)	13.94	20.49
4. Seventy-five per cent of calculated maximum drawbar horsepower and eighty-five per cent of calculated maximum belt horsepower (formerly A.S.A.E. and S.A.E. ratings)	10.46	17.42

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 323.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut
Board of Tractor Test Engineers