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January 1937

Test 288: Cletrac Model BD

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, tractortestlab@unl.edu

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 288

Dates of test: September 16 to October 2, 1937.

Name and model of tractor: CLETRAC BD

Manufacturer: Cleveland Tractor Company, Cleveland, Ohio.

Manufacturer's rating: NOT RATED.

B R A K E 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 Consumption per hour gallons			Temp. Deg. F.		Barometer Inches of Mercury
		Gal. per hr.	H. P. hr. per gal.	Lb. per H. P. hr.	Cool- ing	In fuel	Total	Cool- ing	Air	

TESTS B AND C - MAXIMUM LOAD - TWO HOURS

41.97	1531	3.449	12.17	0.574	0.000	0.000	0.000	178	70	28.845
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*TEST D - ONE HOUR

37.65	1532	2.964	12.70	0.550	0.000	0.000	0.000	167	69	28.850
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TEST E - VARYING LOAD - TWO HOURS (20 minute runs; last line average)

37.78	1530	2.979	12.68	0.550	--	--	--	168	71	--
1.00	1569	1.079	0.93	7.530	--	--	--	151	72	--
19.08	1549	1.857	10.28	0.679	--	--	--	154	76	--
40.11	1485	3.331	12.04	0.580	--	--	--	176	74	--
9.56	1553	1.414	6.76	1.032	--	--	--	151	75	--
29.64	1533	2.433	12.20	0.573	--	--	--	165	79	--
22.86	1536	2.182	10.48	0.666	0.000	0.000	0.000	161	74	28.600

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 - MAXIMUM LOAD

34.10	7537	1.70	1531	6.58	-----	Not Recorded	-----	169	72	29.015
34.48	4964	2.60	1536	2.13	-----	"	"	170	68	28.975
32.37	3551	3.42	1531	1.61	-----	"	"	171	71	28.990

*TEST H - TEN HOURS - Second GEAR

26.86	3860	2.61	1530	1.57	2.773	9.68	0.721	0.016	159	71	29.020
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*Formerly called RATED LOAD; see REMARKS 4, page 3.

3 Pages- Page 2

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FUEL, OIL, AND TIME

Fuel Dieseline (specified) Weight per gallon 6.98 pounds
Oil: S.A.E. No. 30 To motor 3.059 gal Drained from motor 2.637 gal.
Total time motor was operated 40 hours

BRIEF SPECIFICATIONS

Advertised speeds, miles per hour: First 1.8 Second 2.625
Third 3.5 Reverse 1.325
Belt pulley: Diameter 12" Face 8 1/2" R.P.M. 1148
Clutch: Make Long Type Double-plate, dry Operated by Foot pedal
Seat Upholstered

Total weight as tested (with operator) 9200 pounds

MOTOR: Make Hercules Serial No. F 802526 Type 6 cylinder, vertical diesel

Head I Mounting Crankshaft lengthwise Lubrication Pressure

Bore and stroke 3 1/2" x 4 1/2" Rated R.P.M. 1530

Port diameter valves: Inlet 1.625" Exhaust 1.125"

Fuel system: Make Bosch Model PE6A65A410S506

Governor: Make Bosch Type Vacuum

Air cleaner: Make Vortex Type Oil-washed, wire filter and A-C pre-cleaner

CHASSIS: Type Tracklayer Serial No. 2D 644 Drive Enclosed gear

Tread width 44" Measured length of track 16.701'

Cleats: Type Removable rolled steel No. per track 30

Size 2" high x 14" long

3 Pages-Page 3

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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 fuel pumps set and sealed by the manufacturer 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.
2. Observed maximum horsepower (tests F & B) Drawbar 34.48 Belt 41.97
3. Sea level (calculated) maximum horsepower Drawbar 35.89 Belt 43.94
 (based on 60° F. and 29.92" Hg.)
4. Seventy-five per cent of calculated maximum Drawbar 26.92 Belt 37.35
 drawbar horsepower and eighty-five per cent
 of calculated maximum belt horsepower (form-
 erly A.S.A.E. and S.A.E. ratings.)

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 288.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

Ivan D. Wood

L. W. Hurlbut
Board of Tractor Test Engineers