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January 1923

Test 099: Best Model 30 20-30

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. 99.

Dates of test: September 11th to September 24th, 1923.

Name, model and rating of tractor: "Best 30" 20-30

Serial No. Engine: 3888 Serial No. Chassis: S-1800

Manufacturer: C. L. Best Tractor Company, San Leandro, California.

Tractor Equipment used: Bosch ZR4-3506081 Magneto - Ensign GT Carburetor.

Style and dimensions of wheel lugs "V" Shoes Track Type.

BRAKE HORSE POWER TESTS

H.P. Dev.	Crank Shaft Speed R.P.M.	Time of Test Min.	Fuel Consumption			Water Consump. Gals. Per Hour			Temp. Deg. F.		Average Humidity %	Height of Barometer in Inches
			Kind of Fuel	Gals. @ Hour	H.P. Hrs. @ Gal.	Cool- ing	In Fuel	Total	Cool- ing Fluid	Air		

RATED LOAD TEST

30.37	804	120	Gasol	4.107	7.40	0.00	0.00	0.00	190	83	53	28.87
Belt Slippage 1.50%												

VARYING LOAD TEST

30.16	798.0	10	Gasol									
30.16	794.5	10	"									
0.67	831.0	10	"									
7.84	822.5	10	"	Average Belt Slippage 0.98%								
15.45	813.0	10	"									
22.69	799.0	10	"									
18.06	810.0	60	Gasol	3.290	5.49	0.00	0.00	0.00	177	85	53	28.86

MAXIMUM LOAD TEST

32.55	802	60	Gasol	5.065	6.43	0.00	0.00	0.00	176	63	70	28.88
Belt Slippage 1.35%												

HALF LOAD TEST

15.33	805	60	Gasol	2.306	6.65	0.00	0.00	0.00	175	77	95	28.66
Belt Slippage 0.71%												

*Taken in discharge line from engine

***The last line is an average for the hour

REMARKS: The gasoline used as fuel in this test weighed 6.20 pounds per gallon.

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DRAWBAR HORSE POWER TESTS

H.P. Dev.	Draw Bar Pull Lbs.	Speed Miles Per Hour	Speed Crank Shaft R.P.M	Slip on Drive Wheels %	Fuel Consumption			Water Used Per Hour Gals.	Temp. Deg. F.		Ave. Humid- ity	Height of Barometer in Inches
					Kind Used	Per Hour Gal.	H.P. Hrs. Per Gal.		Cooling Fluid	Air		

RATED LOAD, TEN HOURS

20.75	2541	3.06	799	0.65	Gasol	3.697	5.61	0.046	191	72	63	28.67
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MAXIMUM LOAD TEST

25.46	3140	3.04	805	0.94	Gasol	--NOT RECORDED--			180	76	65	28.60
25.96	4930	1.98	806	2.63	"	"	"	"	180	76	65	28.60

*Taken in discharge line from engine.

***The distance advanced by the tractor without load on level earth for one complete revolution of the tracks, was used as a basis for computing track slippage.

REMARKS: The rated load test and the first maximum test were made in second gear. The second maximum test was made in low gear.

OIL CONSUMPTION:

During the complete test consisting of about 34 hours running the following oil was used:

For the engine, 5-1/2 gallons of Mobiloil "A" (5 gallons to fill crank case and 1/2 gallon added during test).

For the transmission, none.

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Repairs and adjustments

Just prior to the maximum brake test the magneto points were dressed.

No other adjustments or repairs were made.

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: Own, four cylinder, vertical valve-in-head. Bore - 4-3/4" stroke - 6-1/2". Rated speed 800 r.p.m Own governor.

Chassis: Track type, disc clutch. Rated speeds: 1st - 2.03 miles per hour, 2nd - 3.1 miles per hour.

Total weight - 8100 pounds.

REMARKS

In the advertising literature submitted with the application for test of this tractor, we find 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. 99.

E. E. Brackett
Engineer in Charge

Oscar W. Sjogren

C. W. Smith

Fred R. Hohavec
Board of Tractor Test Engineers