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January 1924

Test 104: Best Model S 30 25-30

Nebraska Tractor Test Lab

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UNIVERSITY OF CALIFORNIA
AGRICULTURAL ENGINEERING DEPARTMENT
 UNIVERSITY FARM, LINCOLN

Report of Official Tractor Test No. 104

Dates of test September 15 to September 22, 1924

Name, model and rating of tractor Best S 30 25-30

Serial No. Engine 4335 Serial No. Chassis 2460

Manufacturer C. L. Best Tractor Company, San Leandro, CA

Tractor equipment used Stromberg MP3 carburetor, Bosch 7R4 magneto

Style and dimensions of wheel lugs Cleat, integral with shoe

Brake Horse Power Tests

Horse Power Developed	Crank Shaft Speed R. P. M.	Length of Test Min.	Fuel Consumption			Water Consumption Gallons per Hour			Temperature Cooling Fluid Deg. F.	Temperature of Atmosphere Deg. F.	Humidity %	Barometric Pressure Inches Mercury
			Kind of Fuel	Amount Used per Hour Gallons	Horse Power Hours per Gallon	In Radiator	In Fuel Mixture	Total				
RATED LOAD TEST												
30.24	853.0	120	Gasol	3.259	9.28	0.00	0.00	0.00	173	74	66	28.68
Belt slippage			1.64%									
VARYING LOAD TEST												
29.96	842.0	10										
29.76	839.5	10										
1.05	976.5	10										
8.56	959.0	10										
16.56	930.0	10										
23.91	896.5	10										
19.01	907.0	60	Gasol	2.553	7.45	0.00	0.00	0.00	168	76	66	28.65
MAXIMUM LOAD TEST												
37.83	850.0	60	Gasol	4.907	7.71	0.00	0.00	0.00	198	79	64	28.62
Belt slippage			1.19%									
HALF LOAD TEST												
16.11	905.0	60	Gasol	4.907	7.71	0.00	0.00	0.00	160	76	65	28.65
Belt slippage			1.19%									

*Taken in discharge line from engine.

Remarks The gasoline used as fuel in this test weighed 6.22 lbs per gallon.

Drawbar Horse Power Tests

Horse Power Developed	Draw Bar Pull Pounds	Speed Miles per Hour	Crank Shaft Speed R. P. M.	Slippage of Drive Wheels %	Fuel Consumption			Water Used per Hour Gallons	*Temperature of Cooling Fluid Deg. F.	Temperature of Atmosphere Deg. F.	Average Humidity %	Barometric Pressure Inches Mercury
					Kind of Fuel Used	Amount Used per Hour Gallons	Horse Power Hours per Gallon					
RATED LOAD TEST. TEN HOURS												
26.56	3796	2.62	852	1.33	Gasol	3,397	7.82	0.00	181	79	27	29.05
MAXIMUM LOAD TEST												
33.21	4823	2.58	844	1.96	Gasol	---- Not Recorded ----		190	86	90	28.55	
30.20	7563	1.50	850	13.87	Gasol	"	"	"	188	88	90	28.55
32.03	3343	3.59	853	0.25	Gasol	"	"	"	188	88	90	28.55

Remarks The rated load test and the first maximum test were run in second gear. The second maximum test was run in low gear. The third maximum test was run in high gear. The slippage of the track was calculated from the distance traversed by one revolution of the track when the tractor was rolled ahead without load.

Oil Consumption:

During the complete test consisting of about 36 hours running the following oil was used:

For the engine, 5 gallons of Mobiloil "A" (4 gal. to fill crankcase, 1 gal added during test)
 For the transmission, 0 gallons of 600W

Report of Official Tractor Test No. 104.

Repairs and Adjustments. Endurance:

During the test of this tractor, no repairs or adjustments were necessary.

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, 4 cylinder, vertical, valve-in-head, removable head.
Bore 4-3/4", stroke 6 1/2". Rated speed, 850 r.p.m.

Chassis: Track type, disc clutch. Rated speeds: low, 1.75 miles per hour; 2nd, 2.63 miles per hour; high, 3.63 miles per hour.

Actual weight with driver, as tested - 9065 pounds

Remarks:

In the advertising literature submitted with the 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. 104.

E. E. Brackett
Engineer-in-charge

Oscar W. Sjogren

C. W. Smith

Fred R. Wohavec

Board of Tractor Test Engineers