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Test 105: Best A60 50-60

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UNIVERSITY OF NEBRASKA AGRICULTURAL ENGINEERING DEPARTMENT

AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 105

Dates of test: September 15th to 29th, 1924

Name, model and rating of tractor: Best A 60 50 - 60

Serial No. Engine: 1965 Serial No. Chassis: 1965

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

Tractor equipment used: Stromberg M4 Special carburetor. Bosch ZR4 Ed. 18 magneto

Style and dimensions of wheel lugs: Straight cross cleat 1-1/2" high integral with track shoe.

BRAKE HORSE POWER TESTS

H. P. :	Crank :	Time :	Fuel Consumption :	Water Consumption :	Temp. :	Humidity :	Average :	Inches :	Parameter :
Dev. :	Shaft :	of :	Kind :	Gals. per Hour :	Cool- In :	Def. F. :	Humidity :	inches :	Parameter :
:	Speed :	Test :	of :	Per :	Hrs. @ :	ing :	Fuel Total :	Cool-Air :	ing :
:	R.P.M. :	Min. :	Fuel Hour :	Gal. :	Gal. :	:	:	:	:

RATED LOAD TEST

60.00	: 651.0	: 120	: Gaso	: 7.814	: 7.68	: 0.00	: 0.00	: 0.00	: 196	: 87	: 28	: 28.95
Belt Slippage 1.97%												

** VARYING LOAD TEST

60.17	: 654.0	: 10	: Gaso	:	:	:	:	:	:	:	:	:
60.39	: 651.5	: 10	: "	:	:	:	:	:	:	:	:	:
0.92	: 695.5	: 10	: "	:	:	Average Belt Slippage 1.74%		:	:	:	:	:
15.57	: 671.5	: 10	: "	:	:	:	:	:	:	:	:	:
30.79	: 666.0	: 10	: "	:	:	:	:	:	:	:	:	:
45.87	: 656.5	: 10	: "	:	:	:	:	:	:	:	:	:
36.13	: 666.0	: 60	: Gaso	: 5.953	: 6.05	: 0.00	: 0.00	: 0.00	: 179	: 89	: 25	: 28.82

MAXIMUM LOAD TEST

72.51	: 653.0	: 60	: Gaso	: 11.360	: 6.38	: 0.00	: 0.00	: 0.00	: 195	: 87	: 25	: 26.56
Belt Slippage 2.07%												

HALF LOAD TEST

30.39	: 659.0	: 60	: Gaso	: 4.662	: 6.52	: 0.00	: 0.00	: 0.00	: 173	: 83	: 25	: 28.80
Belt Slippage 1.91%												

* 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 6.22 pounds per gallon.

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DRAWBAR HORSE POWER TESTS

H. P.	Draw	Speed	Crank	Slip	Fuel Consumption	Water	Temp. Deq. F.	Average Height of
Dev.	Bar	Miles	Shaft	On	Kind	Used	Cooling	Humidity
	Full	Per	Speed	Drive	Used	Per	Fluid	Barometer
	Pounds	Hour	R.P.M.	Wheels	Hour	Hour	Hour	In Inches
			%	**	Gal.	Gal.	%	

RATED LOAD TEST. TEN HOURS

51.61	7654	2.53	649	1.45	Gasol	8.493	6.08	0.00	175	77	52	28.96
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MAXIMUM LOAD TEST

51.33	12360	1.86	650	3.36	Gasol		---	RECORDED	166	82	44	28.60
61.27	9155	2.51	650	2.10	"	"	"	"	168	82	44	28.60
60.22	6240	3.52	648	1.55	"	"	"	"	166	80	44	29.60

* 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 taken as a basis for calculating track slippage.

REMARKS: The rated load and second maximum tests were run in 2nd gear. The first maximum test was run in low gear. The third maximum test was run in high gear.

OIL CONSUMPTION:

During the complete test consisting of about 34 hours running the following oil was used: For the engine, 8 gallons of Mobiloil "A". 5 gallons to fill crankcase and 3 gallons were added. For the transmission, none.

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REPAIRS AND ADJUSTMENTS

At the end of the test the vacuum tank leaked at the bottom seam. Exhaust valve on cylinder No. 1 would not hold compression.

Except as noted above the tractor was in good working order at the end of the test, and there were no indications of undue wear nor of any weakness which might require early repair.

BRIEF SPECIFICATIONS

Best A 60 50 - 60

Motor: Own, 4 cylinder, vertical, valve-in-head. Mounted crank shaft lengthwise. Bore, 6-1/2", stroke, 8-1/2". Rated speed, 650 r.p.m.

Air cleaner: Pomona (oil fibre type)

Governor: Own (flyball)

Chassis: Track type; two tracks, both drivers. Enclosed gear drive. Disc clutches. Advertised speeds: 1st, 1-7/8 miles per hour; 2nd, 2-5/8 miles per hour; 3rd, 3-5/8 miles per hour.

Total weight as tested (with driver) 20,000 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. . . 105.

E. E. Brackett
Engineer-in-Charge

Oscar W. Sjorren

G. W. Smith

Fred R. Nohavee