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January 1923

Test 092: Wallis OK 15-27

Tractor Museum

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UNIVERSITY OF NEBRASKA AGRICULTURAL ENGINEERING DEPARTMENT

AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 92

Dates of test: April 26th to May 5th, 1923.

Name, model and rating of tractor; Wallis OK 15-27

Serial No. Engine; 22802 Serial No. Chassis 23273

Manufacturer; J. I. Case Plow Works, Racine, Wisconsin.

Tractor equipment used; Bosch DU4 - ED 19 - 3440309 Magneto. Bennett (WS) Carburetor

Style and dimensions of wheel lugs; Spade - 4" high, 4-1/2" wide.

BRAKE HORSE POWER TESTS

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

RATED LOAD TEST

27.13	1017	120	Gas	3.129	8.67	0.48	0.00	0.48	206	84	67.0	28.53
Belt Slippage - 2.63%												

VARYING LOAD TEST***

27.05	1015	10	Gas									
27.10	986	10	"									
1.19	1245	10	"	Average Belt Slippage - 2.33%								
8.15	1217	10	"									
15.70	1174	10	"									
22.84	1137	10	"									
17.96	1129	60	Gas	2.524	7.12	0.375	0.00	0.375	189	86	67.0	28.55

MAXIMUM LOAD TEST

28.60	998	60	Gas	3.469	6.24	0.06	0.00	0.06	191	70	67.0	28.75
Belt Slippage 2.72%												

HALF LOAD TEST

15.44	1152	60	Gas	2.296	6.72	0.12	0.00	0.12	184	80	67.0	28.45
Belt Slippage - 2.13%												

*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 6.14 pounds per gallon.

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DRAWBAR HORSE POWER TESTS

H. P. Dev.	: Draw Bar Pull : Lbs.	: Speed Miles Per Hour	: Crank Shaft Speed : R. P. M.	: Slip on Drive Wheels : %**	: Fuel Consumption : Amt. : Kind : Used : Per Hour : Gal.	: Water : H. P. : Used : Per Hour : Gal.	: Temp. Deg. F. : * : Cooling Fluid	: Air	: Average Humidity : %	: Height of Barometer : in inches
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RATED LOAD TEST, TEN HOURS

13.28	: 2343	: 2.61	: 949	: 14.37 : 0.12	: Gaso. : 2.481	: 6.56	: 0.0254	: 183	: 69	: 33	: 28.75
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*** MAXIMUM LOAD TEST

13.15	: 2590	: 2.63	: 925	: 13.66 : - 0.71	: Gaso. : * - Not Recorded	: 188	: 66	: 31.0	: 29.00
14.53	: 1740	: 3.13	: 800	: 9.05 : - 6.07	: Gaso. : " "	: 188	: 66	: 31.0	: 29.00

*Taken in discharge line from engine.

**The first figure denotes slippage at the points of the lugs. The second figure denotes slippage at the rim of the wheel.

***The first maximum test and the rated load test were run in low gear. The second maximum test was run in high gear.

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". 2-1/2 gallons to fill crank case - 3-1/2 gallons added.
 For the transmission, None gallons
 For Air Cleaner 2-1/2 pints of used crank case oil.

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REPAIRS AND ADJUSTMENTS

April 27: During the limber up run the carburetor was cleaned twice.

April 30: Before any official data were taken all the valves were ground and the carburetor was cleaned.

The above repairs were made in an effort to stabilize the unsteady operation of the motor, but did not improve its performance.

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 Wallis O K 15-27

Motor: own, four cylinder, vertical, valve-in-head. Bore 4-1/4", stroke - 5-3/4". Rated speed 1000 R.P.M. Own Governor

Chassis: four wheel, disc clutch. Two speeds, low 2-1/2 miles per hour, high 3-1/2 miles per hour.

Total weight - 4020 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. 92.

E. E. Brackett
Engineer-in-Charge

Oscar W. Sjoerren

C. W. Smith

Fred R. Nohavec
Board of Tractor Test Engineers.