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Tractor Test and Power Museum, The Lester F. Larsen

January 1929

Test 164: Wallis 12-20

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. 164

Dates of test: June 18th to 27th, 1929

Name, model and rating of tractor: Wallis 12-20

Manufacturer: The Massey-Harris Company, Racine, Wisconsin.

B R A K E H O R S E P O W E R T E S T S

H. P.	:Crank	: Fuel Consumption			:Water consumption			: Temp.	:
	:shaft				:per hour gallons			: Deg. F.	:Barometer
	:speed	:Gals.	:H. P.	:Lbs.@	:Cool-	:In	:	:Cool-	:Inches of
	:R.P.M.	:per	:hrs.@	:H.P.	:ing	:fuel	:Total	:ing	:Air
	:	:hour	:gal.	:hour	:	:	:	:med.	: Mercury

OPERATING MAXIMUM LOAD TEST. ONE HOUR (96.7% of maximum load)

24.16	: 999	:2.467	: 9.79	: 0.709	: 1.06	: 0.0	: 1.06	: 212	: 90	: 28.68
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RATED LOAD TEST. ONE HOUR

20.32	:1001	:2.277	: 8.92	: 0.778	: 0.0	: 0.0	: 0.0	: 203	:72	: 28.69
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*VARYING LOAD TEST. TWO HOURS

20.28	:1003	:2.282	: 8.89	: 0.781	: 0.0	: 0.0	: 0.0	: 202	:72	:
0.90	:1093	:1.072	: 0.84	: 8.267	: 0.0	: 0.0	: 0.0	: 166	:70.5	:
10.76	:1057	:1.625	: 6.62	: 1.048	: 0.0	: 0.0	: 0.0	: 178.5	:73	:
21.45	: 990	:2.300	: 9.33	: 0.744	: 0.0	: 0.0	: 0.0	: 208.5	:75	:
5.52	:1082	:1.323	: 4.17	: 1.663	: 0.0	: 0.0	: 0.0	: 178	:74.5	:
15.68	:1027	:1.945	: 8.06	: 0.861	: 0.0	: 0.0	: 0.0	: 194	:76	:
12.69	:1040	:1.758	: 7.22	: 0.961	: 0.0	: 0.0	: 0.0	: 189	:73	: 28.69

*20 minute runs. Last line is average for two hours.

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	:Speed	:Crank	:Slip	: Fuel Consumption			:Water:	: Temp.	:
	:Bar	:miles	:shaft	:on	:H.P. :Lbs. :used			:	:	:Barometer
	:pull	:per	:speed	:drive	:Gal.	:hr.	:per	:Gal.	:Cool-	:Air:Inches of
	:pounds:	:hour	:R.P.M.	:wheels:	:per	:per	:H.P.	:per	:ing	: Mercury
	:	:	:	: %	:hour	:gal.	:hour	:Hour	:med.	:

RATED LOAD TEST. TEN HOURS. Intermediate GEAR.

12.34	:1232	: 3.76	: 1007	: 5.60	: 2.079	: 5.94	:1.169	: 0.05	:192	:81.5 28.645
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MAXIMUM LOAD TEST

17.25	:1784	: 3.62	: 1006	: 7.58	:-----	:Not recorded	:-----	:192.5	:88	: 28.82
16.59	:1293.5	: 4.81	: 995	: 5.19	:	: "	:	: 208	:92	: 28.85
18.07	:3018	: 2.24	: 1036	:18.73	:	:	:	:189	:83	: 28.50

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 148-99666 Type 4 Cylinder vertical
Head "I" Mounting Lengthwise
Bore and stroke: 3-7/8 x 5 1/4 in. Rated R.P.M. 1000
Port Dia. Valves: Inlet 1 1/2" Exhaust 1 1/2"
Belt pulley: Diam. 17 in. Face 6-5/16 in. R.P.M. 540.5
Magneto: American Bosch Model "U4 Ed2"
Carburetor: Kingston Model "L3V" Size 1-1/8"
Governor: Kingston No. Type Fly-ball
Air Cleaner: Own make Type oil filter
Lubrication: Pressure & Splash

CHASSIS: Type 4 Wheels Serial No. 100137 Drive enclosed gear
Clutch: Twin Disc Type Dry, three plate operated by hand
Advertised speeds, miles per hour: Low 2-1/3
Intermediate 3-1/3 High 4-1/3 Reverse 2-1/3
Drive wheels: Diameter 44 Face 10
Lugs: Type Spade No. per wheel 24 Size 4" High x 3 1/4" Face
Extension rims: Width None Seat Pressed Steel
Total weight as tested (with operator) 3893 pounds.

FUEL AND OIL

Fuel: Distillate Weight per gallon 6.94
Oil: Mobiloil A To fill crankcase 3.00 gallons
Additional amount used during test none
Total number of hours of test 48

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REPAIRS AND ADJUSTMENTS

During the maximum drawbar tests the carburetor and fuel tank were removed and the entire fuel system thoroughly cleaned.

REMARKS

The tests herein reported were conducted with one carburetor setting which remained unchanged throughout the tests. This condition should be recognized when comparing this test with any Nebraska test conducted prior to 1928.

In the advertising literature submitted with the specifications and application for test of this tractor we find no claims and statements which, in our opinion, are unreasonable or excessive.

The results of this test indicate that the rating of this tractor does not exceed the provisions of the tractor rating code of the American Society of Agricultural Engineers and the Society of Automotive Engineers.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 164.

Lew Wallace
Engineer-in-Charge

E. E. Brackett

C. W. Smith

E. B. Lewis
Board of Tractor Test Engineers