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Tractor Test and Power Museum, The Lester F. Larsen

January 1928

Test 151: Allis Chalmers 20-35

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. 151

Dates of test: June 18th to 26th, 1928
 Name, model and rating of tractor: Allis Chalmers 20-35
 Manufacturer: Allis Chalmers Mfg. Co., Milwaukee, Wis.

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

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

OPERATING MAXIMUM LOAD TEST. ONE HOUR (99% OF MAXIMUM LOAD)

44.29	: 931	:5.018	:8.83	:0.701	: 000	: 000	: 000	: 177	: 85	: 28.64
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RATED LOAD TEST. ONE HOUR

35.29	: 933	:4.226	:8.35	:0.741	: 000	: 000	: 000	: 179	: 86	: 28.65
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*VARYING LOAD TEST. TWO HOURS.

35.35	: 934	:4.255	:8.31	:0.745	: 000	: 000	: 000	: 179	: 87	: 28.65
1.16	: 994	:1.628	:0.71	:8.690	: 000	: 000	: 000	: 169	: 87	: 28.65
18.60	: 981	:2.889	:6.44	:0.961	: 000	: 000	: 000	: 174	: 86	: 28.65
37.79	: 923	:4.439	:8.51	:0.727	: 000	: 000	: 000	: 177	: 88	: 28.65
9.50	: 1001	:2.210	:4.30	:1.440	: 000	: 000	: 000	: 165	: 87	: 28.65
27.30	: 961	:3.606	:7.57	:0.818	: 000	: 000	: 000	: 180	: 90	: 28.65
22.05	: 966	:3.179	:6.94	:0.893	: 000	: 000	: 000	: 174	: 88	: 28.65

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

	:Draw :bar	:Speed :miles	:Crank :shaft	:Slip : on	: Fuel consumption	:Water	: Temp.	:	:Barometer
H. P.	:pull	:per	:speed	:drive	:Gal. :hr. :per	:Gal. :per	:Cool-:Air	:	:Inches of
	:pounds	:hour	:R.P.M.	:wheels	:per :per :H.P. :per	:per :per	:ing :	:	:mercury
	:	:	:	: %	:hour :gal. :hour	:hour :hour	:med :	:	:

RATED LOAD TEST. TEN HOURS. High GEAR.

21.25	: 2272	: 5.51	: 925	: 3.54	: 4.014	: 5.29	: 1.169	: 00	: 166	: 84	: 28.75
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MAXIMUM LOAD TEST

32.37	: 3488	: 3.48	: 933	: 5.62	: ---Not Recorded---			: 174	: 81	: 28.70
33.20	: 4400	: 2.83	: 938	: 9.19	: " "			: 177	: 78	: 28.70
:	:	:	:	:	:			:	:	:

*20 minute runs.

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 36002 Type 4 Cyl. Vertical
Head "I" Mounting Lengthwise
Bore and stroke: 4.75 x 6.5 in. Rated R.P.M. 930
Port Dia. Valves: Inlet 2 in. Exhaust 2 in.
Belt Pulley: Diam. 13 in. Face 8.5 in. R.P.M. 930
Magneto: Eisemann Model "GS4"
Carburetor: Kingston Model "L" Size 1 1/2"
Governor: Own No. _____ Type Fly-ball
Air Cleaner: Donaldson & A.C. Type Centrifugal & Oil Fiber
Lubrication: Pressure and splash

Chassis: Type 4 wheels Serial No. 13620 Drive Enclosed gear
Clutch: Own Type Expanding Shoe operated by hand
Advertised speeds, miles per hour: Low 2 1/2
Intermediate none High 3 1/4 Reverse 3 1/4
Drive Wheels: Diameter 50" Face 12 1/4"
Lugs: Type Spade No. per wheel 32 Size 4 3/4x3 1/4x6 1/4
Extension rims: Width 8 1/8" Seat Pressed steel
Total weight as tested (with operator) 7095 pounds.

FUEL AND OIL

Fuel: Gasoline Weight per gallon 6.19 pounds.
Oil: Mobiloil BB To fill crankcase 3 gallon
Additional amount used during test 3 quarts
Total number of hours of test 39

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REPAIRS AND ADJUSTMENTS

No repairs or adjustments.

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. 151.

Lew Wallace
Engineer-in-Charge

Oscar W. Sjogren

E. E. Brackett

C. W. Smith
Board of Tractor Test Engineers.