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January 1929

Test 170: Allis Chalmers Model U (United)

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. 170

Dates of test: October 21st to November 7th, 1929.

Name, model and rating of tractor: Allis Chalmers (United) Model U

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

OPERATING MAXIMUM LOAD TEST. ONE HOUR (99.3% of maximum load)

35.04	: 1200	: 4.181	: 8.38	: 0.724	: 0.00	: 0.00	: 0.00	: 182	: 63	: 28.93
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RATED LOAD TEST. ONE HOUR

30.27	: 1200	: 3.671	: 8.25	: 0.736	: 0.00	: 0.00	: 0.00	: 185	: 63	: 28.93
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*VARYING LOAD TEST. TWO HOURS

30.52	: 1196	: 3.647	: 8.37	: 0.725	: 0.00	: 0.00	: 0.00	: 190	: 72	: 28.80
1.07	: 1243	: 1.641	: 0.65	: 9.308	: 0.00	: 0.00	: 0.00	: 193	: 78	: "
15.75	: 1228	: 2.412	: 6.53	: 0.930	: 0.00	: 0.00	: 0.00	: 203.5	: 76.5	: "
32.14	: 1187	: 3.756	: 8.56	: 0.709	: 0.00	: 0.00	: 0.00	: 186.5	: 74	: "
8.05	: 1253	: 2.007	: 4.01	: 1.513	: 0.00	: 0.00	: 0.00	: 203	: 79	: "
23.15	: 1207	: 2.965	: 7.81	: 0.778	: 0.00	: 0.00	: 0.00	: 193.5	: 74	: "
18.71	: 1220	: 2.734	: 6.83	: 0.888	: 0.00	: 0.00	: 0.00	: 195	: 75	: "

*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

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

RATED LOAD TEST. TEN HOURS. Intermediate GEAR.

19.28	: 1934	: 3.74	: 1192	: 5.33	: 3.114	: 6.19	: 0.980	: 0.0	: 186	: 40.5	: 28.93
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MAXIMUM LOAD TEST

24.62	: 2466.5	: 3.74	: 1202	: 6.17	: -----	: Not Recorded	: -----	: 175	: 72	: 28.68
20.39	: 1314	: 5.82	: 1195	: 3.22	: -----	: "	: "	: 154	: 67	: 28.68
25.63	: 3679.5	: 2.61	: 1212	: 8.51	: -----	: "	: "	: 204	: 38	: 29.10

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BRIEF SPECIFICATIONS

MOTOR: Mako Continental Serial No. 3S101716 Type 4 Cylinder Vertical
Head "L" Mounting Lengthwise
Bore and stroke: 4 $\frac{1}{4}$ x 5 in. Rated R.P.M. 1200
Port Dia. Valves: Inlet 1-7/8 inch Exhaust 1-7/8 inch
Belt pulley: Diam. 10 in. Face 7 $\frac{1}{2}$ in. R.P.M. 1095
Magneto: Eisemann Model G4
Carburetor: Schebler Model H D Size 1 $\frac{1}{4}$ inch
Governor: Continental No. _____ Type Centrifugal
Air Cleaner: Donaldson and own Type Centrifugal and Oil Filter
Lubrication: Pressure

CHASSIS: Type 4 Wheels Serial No. U946 Drive Enclosed Gear
Clutch: Rockford Type Dry Plate operated by Foot
Advertised speeds, miles per hour: Low 2-1/3
Intermediate 3-1/3 High 5 Reverse 2-2/3
Drive wheels: Diameter 42 inches Face 11-1/8 inches
Lugs: Type Spade No. per wheel 30 Size 5" High x 3 $\frac{1}{2}$ " Face
Extension rims: Width 6 inches Seat pressed steel
Total weight as tested (with operator) 4821 pounds.

FUEL AND OIL

Fuel: Gasoline Weight per gallon 6.07
Oil: Mobiloil A To fill crankcase 3 Gallon
Additional amount used during test None
Total number of hours of test 35

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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. 170.

Lew Wallace
Engineer-in-Charge

E. E. Brackett

C. W. Smith

E. B. Lewis
Board of Tractor Test Engineers