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Tractor Test and Power Museum, The Lester F. Larsen

January 1929

Test 171: Monarch Model 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. 171

Dates of test: November 4th to 9th, 1929.

Name, model and rating of tractor: Monarch Model "35" - 30.

Manufacturer: Allis Chalmers Mfg. Co., Milwaukee, Wisconsin.

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

N O B E L T P U L L E Y

	: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 :Air :	Mercury		
	:	:hour	:gal.	:hour:	:	:med.	:	:	

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

: : : : : : : : :

RATED LOAD TEST. ONE HOUR

: : : : : : : : :

*VARYING LOAD TEST. TWO HOURS

: : : : : : : : :

: : : : : : : : :

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*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.	:	
	:Bar	:miles	:shaft	:on	:H.P. :Lbs.:	used :		:	Barometer
H. P.	: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.

30.08 : 4126 : 2.73 : 923 : 1.28 : 4.142 : 7.26 : 0.836 : 0.0 : 172 : 48 : 29.15

MAXIMUM LOAD TEST

38.63 : 5337 : 2.71 : 924 : 1.72 : -----Not Recorded----- : 192 : 42 : 29.05

40.59 : 8450 : 1.82 : 945 : 4.17 : ----- " " ----- : 188 : 40 : 29.10

37.67 : 3525 : 4.01 : 930 : 0.79 : ----- " " ----- : 176.5 : 42 : 29.05

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 39277 Type 4 Cylinder Vertical
Head "I" Mounting Lengthwise
Bore and stroke: $4\frac{3}{4}$ x $6\frac{1}{2}$ in. Rated R.P.M. 930
Port Dia. Valves: Inlet 2" Exhaust 2"
Belt Pulley: Diam. None in. Face in. R.P.M.
Magneto: Eisemann Model "G4"
Carburetor: Zenith Model 6C Size $1\frac{1}{2}$ "
Governor: Own No. Type Fly-ball
Air Cleaner: Own Type Oil filter & Centrifugal
Lubrication: Pressure

CHASSIS: Type Crawler Serial No. 39277 Drive enclosed gear
Clutch: Own make Type Single plate operated by Hand
Advertised speeds, miles per hour: Low 1.84
Intermediate 2.76 High 4.01 Reverse 2.13
Tracks: Length 19.72' Face 11"
Shoes: No. per Track 36 Size
Extension rims: Width None Seat Upholstered
Total weight as tested (with operator) 10,680 pounds.

FUEL AND OIL

Fuel: Gasoline Weight per gallon 6.07
Oil: Mobiloil A To fill crankcase $3\frac{3}{4}$ gallons
Additional amount used during test one quart
Total number of hours of test 27

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REPAIRS AND ADJUSTMENTS

During the maximum drawbar tests the economizer jet on the carburetor became loose at its lower end and had to be soldered twice.

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 exceed the provisions of the tractor rating code of the American Society of Agricultural Engineers and the Society of Automotive Engineers, and should not be rated to exceed 29
Horsepower.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 171.

Lew Wallace
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis

Board of Tractor Test Engineers