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Nebraska Tractor Tests

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Larsen

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January 1929

## Test 162: Minneapolis 27-42

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. 162

Dates of test: May 28th to June 11th, 1929.

Name, model and rating of tractor; The Minneapolis 27-42

Manufacturer: The Minneapolis Threshing Co., Hopkins, Minnesota.

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

	:Crank :shaft	: Fuel Consumption : Gals. :H. P. :Lbs.@ :R.P.M. : per :hrs.@ :H.P. : : hour :gal. :hour	:Water consumption :per hour gallons :Cool- :In : : :Cool-: :ing :fuel :Total : ing :Air : : : : : med. : : :	: Temp. : Deg. F. :	: Barometer : Inches of : Mercury :
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OPERATING MAXIMUM LOAD TEST. ONE HOUR (99.6% of maximum load)

48.42	:925	:5.133	: 9.43	:0.653	: 0.0	: 0.0	: 0.0	: 187	: 58	: 28.95
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RATED LOAD TEST. ONE HOUR

42.30	:926	:4.240	: 9.98	:0.617	: 0.0	: 0.0	: 0.0	: 165	: 66	: 28.94
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\*VARYING LOAD TEST. TWO HOURS

42.33	:926	:4.208	:10.06	:0.612	: 0.0	: 0.0	: 0.0	: 165	: 66	: :
1.23	:991.5	:1.490	: 0.83	:7.463	: 0.0	: 0.0	: 0.0	: 165.5	: 67	: :
21.83	:952.5	:2.688	: 8.12	:0.759	: 0.0	: 0.0	: 0.0	: 160	: 67	: :
46.12	:920	:4.782	: 9.64	:0.639	: 0.0	: 0.0	: 0.0	: 185.5	: 70	: :
11.24	:977.5	:2.114	: 5.32	:1.158	: 0.0	: 0.0	: 0.0	: 157	: 70	: :
32.30	:940	:3.468	: 9.31	:0.661	: 0.0	: 0.0	: 0.0	: 156	: 69	: :
26.29	:949	:3.125	: 8.41	:0.732	: 0.0	: 0.0	: 0.0	: 165	: 68	: 28.94

\*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 :Bar	:Speed :miles :per :hour	:Crank :shaft :speed :R.P.M.	:Slip :on :drive :wheels :%	: Fuel Consumption :Gals. :hr. :per :per :H.P. :per :hour :gal. :hour	:Water: :used : :Gal. :Cool- :Air :per :ing : : :hour :hour : med. : : :	: Temp. :	: Barometer : Inches of : Mercury :
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RATED LOAD TEST. TEN HOURS. High GEAR.

27.79	: 2956	: 3.53	: 926	: 4.78	:4.190	: 6.63	:0.929	: 0.09	: 186	: 94	: 28.45
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MAXIMUM LOAD TEST

34.30	: 36935	: 3.48	: 926	: 4.72	:---Not Recorded-----			: 176	: 76	: 28.75
33.99	: 4918	: 2.59	: 917	: 6.98	:--- " " -----			: 181	: 77	: 28.75

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 10801 Type 4 Cylinder, vertical  
Head "I" Mounting Crosswise  
Bore and stroke: 4-7/8 x 7 in. Rated R.P.M. 925  
Port Dia. Valves: Inlet 2" Exhaust 2"  
Belt pulley: Diam. 15-1/2 in. Face 7-1/2 in. R.P.M. 925  
Magneto: American Bosch Model "ZR4Ed34"  
Carburetor: Stromberg Model "UTR" Size 1-1/2"  
Governor: Own No.  Type Fly-ball  
Air Cleaner: Donaldson "Simplex" Type Oiled-fiber  
Lubrication: Pressure & Splash

CHASSIS: Type 4 Wheels Serial No. 9044 Drive Enclosed gear  
Clutch: Own make Type disc operated by hand  
Advertised speeds, miles per hour: Low 2.69  
Intermediate none High 3.42 Reverse 2.52  
Drive wheels: Diameter 53 Face 12  
Lugs: Type Spade No. per wheel 54 Size 4.2"H x 3.7"  
Extension rims: Width 7" Seat Pressed steel  
Total weight as tested (with operator) 8373 pounds.

FUEL AND OIL

Fuel: Gasoline Weight per gallon 6.16 pounds  
Oil: Mobiloil A To fill crankcase 1.50 gallons  
Additional amount used during test 10.25 gallons  
Mechanical lubricator Madison-Kipp Capacity 1 gallon  
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. 162.

Lew Wallace  
Engineer-in-Charge

E. E. Brackett

C. W. Smith

E. B. Lewis