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Nebraska Tractor Tests

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Larsen

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January 1934

## Test 222: John Deere A

Nebraska Tractor Test Lab

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Copy of Report of Official Tractor Test No. 222

Dates of test: April 19 to 27, 1934.

Name and model of tractor: JOHN DEERE GENERAL PURPOSE "MODEL A"

Manufacturer: John Deere Tractor Company, Waterloo, Iowa.

Manufacturer's rating: NOT RATED.

Highest rating permissible under the recommendations of the A.S.A.E. and

S.A.E. Tractor Rating Codes: Drawbar - 16.22 H.P. Belt - 23.52 H.P.

One carburetor setting (93.5% of maximum) was used thruout this test.

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

H.P.	:Crank :shaft :speed :R.P.M. :	: Fuel Consumption : Gals. : per : hour :	: H.P. : H.P. : H.P. :	: Lbs. @ : H.P. : H.P. :	: Cool- : ing :	: In : fuel :	: Total : Total :	: Temp. : Deg. F. : Cool- : ing : med :	: Barometer : Inches of : Mercury :
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OPERATING MAXIMUM LOAD TEST. ONE HOUR

24.71 : 974 : 2.447 : 10.10 : 0.697 : 0.000 : 0.000 : 0.000 : 209 : 72 : 28.900

RATED LOAD TEST. ONE HOUR

23.63 : 976 : 2.251 : 10.50 : 0.671 : 0.000 : 0.000 : 0.000 : 209 : 70 : 28.900

\*VARYING LOAD TEST. TWO HOURS

23.77 : 978 : 2.254 : 10.55 : 0.668 : -- : -- : -- : 209 : 70 : --  
 0.85 : 1057 : 1.232 : 0.69 : 10.200 : -- : -- : -- : 209 : 70 : --  
 12.48 : 1029 : 1.619 : 7.71 : 0.913 : -- : -- : -- : 208 : 70 : --  
 24.29 : 947 : 2.403 : 10.11 : 0.697 : -- : -- : -- : 209 : 69 : --  
 6.56 : 1038 : 1.513 : 4.34 : 1.623 : -- : -- : -- : 209 : 69 : --  
 18.49 : 1000 : 1.947 : 9.50 : 0.741 : -- : -- : -- : 209 : 68 : --  
 14.41 : 1008 : 1.828 : 7.88 : 0.893 : 0.148 : 0.000 : 0.148 : 209 : 69 : 28.918

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

16.31 : 1839 : 3.33 : 976 : 3.33 : 2.219 : 735 : 0.958 : 0.071 : 203 : 53 : 28.623

MAXIMUM LOAD TEST

18.72 : 2923 : 2.40 : 976 : 9.29 : -----: Not Recorded : --- : 204 : 65 : 28.864  
 18.43 : 2089 : 3.31 : 974 : 4.60 : -----: " " : --- : 202 : 63 : 28.735  
 16.55 : 1166 : 5.32 : 974 : 2.15 : -----: " " : --- : 207 : 56 : 29.020  
 14.06 : 748 : 7.05 : 972 : 1.13 : -----: " " : --- : 204 : 63 : 28.800

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AGRICULTURAL COLLEGE, LINCOLN

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 410009 Type 2 Cylinder, Horizontal  
 Head I Mounting Crosswise  
 Bore and stroke: 5 1/2" by 6 1/2" Rated R.P.M. 975  
 Port Diam. Valves: Inlet 1 7/8" Exhaust 1 5/8"  
 Belt pulley: Diam. 12 13/16" Face 7 3/8" R.P.M. 975  
 Magneto: Fairbanks-Morse Model DRV 2A  
 Carburetor: Schebler Model DLTX8 Size 1 1/2"  
 Governor: Own No. None Type Centrifugal  
 Air Cleaner: Vortox No. 2071D Type Oil washed wire filter  
 Lubrication: Pressure

CHASSIS: Type 4 wheels, 2 drivers Serial No. 410009 Drive Enclosed gear  
 Clutch: Own Type Disc operated by Hand  
 Advertised speeds, miles per hour: First 2 1/3 Second 3  
 Third 4 3/4 Fourth 6 1/4 Reverse 3 1/2  
 Drive wheels: Diameter 50" Face 6"  
 Lugs: Type Spade No. per wheel 12 Size 4 1/4" high by 3 1/4" face  
 Extension rims: Width 6" Lugs per rim 12 Size 4 1/4" by 3 1/4"  
 Seat: Pressed steel  
 Total weight as tested (with operator) 4059 pounds.

FUEL AND OIL:

Fuel: Distillate Weight per gallon 7.04 pounds  
 Oil: S.A.E. Viscosity No. 40 The oil was drained once  
 - at the end of the test.  
 Total oil to motor 4.565 gallons  
 Total drained from motor 1.992 gallons  
 Total time motor was operated 53 hours

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REPAIRS AND ADJUSTMENTS

During the drawbar tests grease leaked from the left end of the rear axle housing. The exhaust pipe to exhaust manifold connection became loose and was tightened during the maximum drawbar tests.

REMARKS

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

The drawbar tests were run with drive wheels equipped with spade lugs and extension rims and lugs as listed on Page 2 of this report.

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.

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 222.

Carlton L. Zink  
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis

Board of Tractor Test Engineers