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January 1935

Test 232: John Deere B

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. 232

Dates of test : November 15, 1934 to April 19, 1935.
 Name and model of tractor: JOHN DEERE GENERAL PURPOSE "B".
 Manufacturer: John Deere Tractor Co., Waterloo, Iowa.
 Manufacturer's rating: NOT RATED.

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

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

TEST B 100% MAXIMUM LOAD. TWO HOURS

16.01 : 1150 : 2.071 : 7.73 : 0.899 : 0.000 : 0.000 : 0.000 : 195 : 67 : 28.775

TEST C OPERATING MAXIMUM LOAD. ONE HOUR

15.07 : 1149 : 1.479 : 10.19 : 0.682 : 0.059 : 0.000 : 0.059 : 198 : 66 : 28.775

TEST D RATED LOAD. ONE HOUR

14.30 : 1151 : 1.391 : 10.28 : 0.676 : 0.060 : 0.000 : 0.060 : 203 : 67 : 28.765

TEST E *VARYING LOAD. TWO HOURS

14.34 : 1151 : 1.386 : 10.35 : 0.672 : : : : 206 : 70 :
 1.04 : 1283 : 0.881 : 1.18 : 5.885 : : : : 207 : 70 :
 7.71 : 1242 : 0.988 : 7.80 : 0.891 : : : : 208 : 72 :
 14.44 : 1077 : 1.420 : 10.17 : 0.684 : : : : 207 : 72 :
 4.05 : 1267 : 1.062 : 3.81 : 1.822 : : : : 206 : 73 :
 11.35 : 1198 : 1.178 : 9.63 : 0.722 : : : : 205 : 72 :
 8.82 : 1203 : 1.153 : 7.65 : 0.908 : 0.016 : 0.000 : 0.016 : 206 : 71 : 28.760

*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 :	Speed :	Crank :	Slip :	Fuel Consumption	:Water :	Temp :	:Baro-
: Bar :	Miles :	: shaft :	on :	: H.P. :	Lbs. :	:used :	: :	:meter
: pull :	per :	: speed :	drive:	:Gal. :	: hr. :	: per :	:Gal. :	:Cool:
:pounds:	hour :	: R.P.M.:	wheels:	:per :	: per :	: H.P. :	: per :	:ing :
:	:	:	% :	:hour :	: gal. :	: hour :	: hour :	: med.:

TEST F 100% MAXIMUM LOAD. SECOND GEAR.

11.80 ; 1297 : 3.41 : 1149 : 1.88 : Not Recorded : 194: 61: 28.570

TEST G OPERATING MAXIMUM LOAD

11.84 : 1728 : 2.57 : 1151 : 2.70 : Not Recorded : 200: 62: 28.605
 10.92 : 1194 : 3.43 : 1152 : 1.59 : " " : 204: 60: 28.605
 8.00 : 557 : 5.38 : 1150 : 0.93 : " " : 197: 66: 28.570
 5.40 : 284 : 7.13 : 1149 : 0.38 : " " : 201: 57: 28.605

TEST H RATED LOAD. TEN HOURS. SECOND GEAR.

9.38 : 1023 : 3.44 : 1146 : 0.77 : 1.468 : 6.39 : 1.088 : 0.078 : 200: 63: 28.850

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BRIEF SPECIFICATIONS

MOTOR Make Own Serial No. 1005 Type 2 cylinder horizontal
 Head I Mounting Crank-Shaft crosswise
 Bore and stroke: 4 1/4 x 5 1/4 in. Rated R.P.M. 1150
 Port Diam. Valves: Inlet 1 15/32" Exhaust 1 11/32"
 Belt pulley: Diam. 10 5/8 in. Face 6 in. R.P.M. 1150
 Magneto: Fairbanks-Morse Model DRV-2B
 Carburetor: Wheeler-Schebler Model DLTX-10 Size 1 1/8"
 Governor: Own No. None Type Centrifugal
 Air Cleaner: Donaldson Type Oil washed wire filter
 Lubrication: Full pressure

CHASSIS: Type 4 wheels, 2 drivers Serial No. 1005 Drive Enclosed gear
 Clutch: Own Type Disc Operated by Hand
 Advertised speeds, miles per hour: First 2 1/4 Second 3 1/3
 Third 4 3/4 Fourth 6 3/4 Reverse 3 3/4
 Drive wheels: Diameter 48" Face 5 1/4"
 Lugs: Type Spade No. per wheel 10 Size 4 1/4" high x 3 1/4" face
 Extension rims: Width 5 1/4" Lugs No. per rim 10
 Size 4 1/4" high x 3 1/4" face
 Seat Pressed steel
 Total weight as tested (with operator) 3275 pounds.

FUEL AND OIL:

Fuel: Distillate Weight per gallon 6.95 pounds
 Oil: S.A.E. Viscosity No. 30
 Total oil to motor 3.996 gallons
 Total drained from motor 2.654 gallons
 Total time motor was operated 75 hours

The oil was drained twice - at the end of 64 hours of operation, and again at the end of the test.

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REPAIRS AND ADJUSTMENTS

No repairs or adjustments.

REMARKS

All results shown on page 1 of this report were determined from observed data and without allowances, additions, or deductions. Tests B and F were made with carburetor set for 100% maximum horsepower and these figures were used in determining the ratings recommended by the A.S.A.E. and S.A.E. tractor rating codes. Tests C, D, E, G, and H were made with an operating setting of the carburetor (selected by the manufacturer) of 94.1% of maximum horsepower.

Observed maximum horsepower (tests B & F) Drawbar 11.80. Belt 16.01.

Sea level (calculated) maximum horsepower
 (Based on 60° F. and 29.92" Hg.) Drawbar 12.37. Belt 16.76.

Highest permissible horsepower ratings
 (As recommended by A.S.A.E. and S.A.E.
 codes) Drawbar 9.28. Belt 14.25.

The 100% maximum belt and drawbar tests were not included in reports issued from 1928 to 1934 inclusive, except in those cases where the 100% maximum setting was used throughout the complete test.

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 232.

Carlton L. Zink
 Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis
 Board of Tractor Test Engineers