

January 1935

Test 232: John Deere B

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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.	: per hour	: Deg. F.	:meter
:R.P.M.	:per	:hrs. per	:Cool- : In	:Cool- : Air	:Inches of Mercury
:	:hour	:gal.	:hour	: med.	:

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 : Bar	Speed : Miles	Crank : shaft	Slip : on	Fuel Consumption	Water	Temp	Baro-	
:	: pull : pounds	: per hour	: speed : R.P.M.	: drive : wheels	: Gal. : per hour	: Hr. : per hour	: Gal. : per hour	: Cool- : Air	: Inches of Mercury
:	:	:	:	: %	: gal. : hour	: gal. : 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	:	:	:	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 The oil was drained
 Total oil to motor 3.996 gallons twice - at the end
 Total drained from motor 2.654 gallons of 64 hours of oper-
 ation, and again at
 Total time motor was operated 75 hours 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