

1-1-1935

Test 236: John Deere D

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 236

Dates of test: June 26 to July 2, 1935.
 Name and Model of tractor: JOHN DEERE MODEL "D"
 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. :	: Barometer
: speed:	:Gals. : H. P. :	:Lbs. per:	: per hour gallons :	: Deg. F. :	: Inches of
:R.P.M.:	: per :hrs. per:	: H. P. :	: For Cooling :	: Cool- :	: Air :
:	: hour : Gal. :	: hour :	: and :	: ing :	: Mercury
:	:	:	: in fuel, Total :	:	:

*Water for the fuel mixture taken from the cooling system.

TEST B 100% MAXIMUM LOAD. TWO HOURS

41.59	: 900	: 4.329	: 9.61	: 0.724	: 2.960	: 192	: 79	: 28.815
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TEST C OPERATING MAXIMUM LOAD. ONE HOUR

40.11	: 901	: 3.955	: 10.14	: 0.686	: 2.323	: 195	: 83	: 28.820
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TEST D RATED LOAD. ONE HOUR

37.51	: 900	: 3.580	: 10.48	: 0.664	: 1.972	: 202	: 88	: 28.820
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TEST E **VARYING LOAD. TWO HOURS

37.65	: 902	: 3.599	: 10.46	: 0.665	: --	: 204	: 87	:
0.84	: 965	: 1.560	: 0.54	: 12.929	: --	: 207	: 88	:
19.64	: 942	: 2.595	: 7.57	: 0.920	: --	: 204	: 90	:
40.51	: 880	: 3.948	: 10.26	: 0.678	: --	: 204	: 91	:
10.19	: 965	: 2.198	: 4.64	: 1.501	: --	: 204	: 90	:
28.65	: 918	: 2.974	: 9.63	: 0.723	: --	: 205	: 90	:
22.91	: 929	: 2.813	: 8.14	: 0.854	: 0.898	: 204	: 89	: 28.815

**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. :	: Barometer
: bar :	: miles :	: shaft :	: on :	: H. P.:	: Lbs. :	: used :	: Cool-:	: Inches of
: pull :	: per :	: speed :	: drive:	: Gal. :	: hour :	: per :	: Gal. :	: Air:
: pounds:	: hour :	: R.P.M.:	: wheels:	: per :	: per :	: H. P.:	: per :	: Mercury
:	:	:	: % :	: hour :	: Gal. :	: hour :	: hour :	:

TEST F 100% MAXIMUM LOAD. Second GEAR

29.90	: 2899	: 3.87	: 898	: 4.21	: Not Recorded	: 198	: 92	: 28.780
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TEST G OPERATING MAXIMUM LOAD

30.74	: 4037	: 2.86	: 897	: 5.48	: Not Recorded	: 203	: 94	: 28.800
29.37	: 2847	: 3.87	: 900	: 4.42	: " "	: 206	: 93	: 28.810
26.69	: 1773	: 5.64	: 898	: 2.57	: " "	: 200	: 93	: 28.795

TEST H RATED LOAD. TEN HOURS. Second GEAR

24.64	: 2357	: 3.92	: 900	: 3.19	: 3.361	: 7.33	: 0.949	: 1.831	: 202	: 88	: 28.830
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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 121132 Type 2 cylinder horizontal
 Head I Mounting Crosswise
 Bore and stroke: 6 3/4 x 7 in. Rated R.P.M. 900
 Port Diam. Valves: Inlet 2 5/16" Exhaust 2 5/16"
 Belt pulley: Diam. 13 1/4 in. Face 8 1/2 R.P.M. 900
 Magneto: Splitdorf Model 246 T
 Carburetor Schebler Model DLTX6 Size 1 1/2"
 Governor: Own No. * Type Centrifugal
 Air Cleaner: Donaldson Type Oil washed screen filter
 Lubrication: Pressure
 CHASSIS: Type 4 wheels, 2 drivers Serial No. 121132 Drive (Enclosed gear and chain)
 Clutch: Own Type double disc Operated by hand
 Advertised speeds, miles per hour: First 2 1/2 Second 3 1/2
 Third 5 Reverse 2
 Drive wheels: Diameter 46" Face 11 1/8"
 Lugs: Type Spado No. per wheel 24 Size 4 1/4" high x 3 1/4" face
 Extension rims: Width 6" Lugs Spado No. per rim 12
 Size 4 1/4" high x 3 1/4" face
 Seat Pressed steel
 Total weight as tested (with operator) 5690 pounds.

FUEL AND OIL:

Fuel: Distillate Weight per gallon 6.96
 Oil: S.A.E. #40
 Total oil to motor 4.014 gallons
 Total drained from motor 2.792 gallons
 Total time motor was operated 43 hours
 The oil was drained once - 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 96.4% of maximum horsepower.

Observed maximum horsepower (tests B & F)	Drawbar 29.90	Belt 41.59
Sea level (calculated) maximum horsepower (Based on 60° F. and 29.92" Hg.)	Drawbar 32.02	Belt 43.96
Highest permissible horsepower ratings (as recommended by A.S.A.E. and S.A.E. codes)	Drawbar 24.02	Belt 37.37

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. 236

Carlton L. Zink
 Engineer-in-charge

E. E. Prackott

C. W. Smith

E. B. Lewis

Board of Tractor Test Engineers