

January 1936

Test 251: Case RC

Nebraska Tractor Test Laboratory Collected by Larsen Museum
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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
 AGRICULTURAL COLLEGE, LINCOLN

Report of Official Tractor Test No. 251

Dates of test: April 7 to 16, 1936.
 Name and model of tractor: CASE "RC"
 Manufacturer: J. I. Case Company, Racine, Wisconsin.
 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 :Gals. : H. P. : :R.P.M. : per : : hour :	:Lbs. per: : H. P. : : hour :	Water Consumption : per hour gallons : Cool-:: In : : ing : fuel : Total : : : : : med. :	Temp. : : Deg. F. : : Cool-: : : ing : Air : : : : :	:Barometer :Inches of :Mercury : : :
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TEST B 100% MAXIMUM LOAD. TWO HOURS

19.80	: 1428	: 2.335	: 8.48	: 0.727	: 0.000	: 0.000	: 0.000	: 193	: 60	: 28.870
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TEST C OPERATING MAXIMUM LOAD. ONE HOUR

18.98	: 1425	: 1.958	: 9.69	: 0.635	: 0.000	: 0.000	: 0.000	: 193	: 74	: 28.760
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TEST D RATED LOAD. ONE HOUR

17.55	: 1423	: 1.778	: 9.87	: 0.624	: 0.000	: 0.000	: 0.000	: 203	: 92	: 28.630
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TEST E *VARYING LOAD. TWO HOURS

17.58	: 1426	: 1.821	: 9.85	: 0.638	: --	: --	: --	: 204	: 96	: --
.84	: 1508	: 0.769	: 1.09	: 5.643	: --	: --	: --	: 179	: 94	: --
9.30	: 1489	: 1.257	: 7.52	: 0.819	: --	: --	: --	: 194	: 94	: --
18.51	: 1394	: 1.890	: 9.79	: 0.629	: --	: --	: --	: 202	: 94	: --
4.77	: 1506	: 0.930	: 5.13	: 1.201	: --	: --	: --	: 196	: 92	: --
13.24	: 1467	: 1.593	: 8.31	: 0.741	: --	: --	: --	: 192	: 88	: --
10.71	: 1465	: 1.373	: 7.80	: 0.790	: 0.000	: 0.000	: 0.000	: 194	: 93	: 28.620

*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 : : per : hour :	Crank : : shaft : : speed : : R.P.M. : : : wheels : : % :	Slip : : on : : drive : : per : : per : : hour :	Fuel Consumption : Gal. : hour : : per : : per : : hour : gal. :	Water: : used : : Gal. : : per : : hour : : hour :	Temp. : : : : Cool-: : : ing : : med. :	:Barometer :Inches of :Mercury : : :
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TEST F 100% MAXIMUM LOAD. Second GEAR.

14.21	: 1519	: 3.51	: 1424	: 4.51	: -----	: Not Recorded	: -----	: 200	: 77	: 28.740
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TEST G OPERATING MAXIMUM LOAD

13.26	: 2103	: 2.36	: 1430	: 3.96	: -----	: Not Recorded	: -----	: 200	: 70	: 28.660
12.80	: 1343	: 3.52	: 1426	: 4.38	: -----	"	"	: 200	: 78	: 28.730
12.06	: 942	: 4.81	: 1412	: 4.16	: -----	"	"	: 200	: 77	: 28.660

TEST H RATED LOAD. TEN HOURS. Second GEAR.

11.61	: 1228	: 3.55	: 1424	: 3.47	: 1.728	: 6.72	: .917	: 0.298	: 196	: 57	: 29.120
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BRIEF SPECIFICATIONS

MOTOR: Make Waukesha Serial No. R0300875 Type 4 cylinder, vertical
 Head L Mounting Crankshaft lengthwise
 Bore and stroke: 3 1/4" x 4" Rated R. P. M. 1425
 Port Diam. Valves: Inlet 1 3/16" Exhaust 1 3/16"
 Belt pulley: Diam. 10 1/8" Face 6 1/4" R. P. M. 991
 Magneto: American Bosch Model MJB4A108
 Carburetor Zenith Model 193 1/2 Size 7/8"
 Governor: Case Waukesha No. -- Type Centrifugal
 Air Cleaner: United Type Oil-washed wire filter
 Lubrication: Pressure

CHASSIS: Type 3 wheels, 2 drivers Serial No. -- Drive Enclosed chain
 Clutch: Twin Disc Type Single plate Operated by Hand
 Advertised speeds, miles per hour: First 2.33 Second 3.33
 Third 4.5 Fourth --- Reverse 2.5
 Drive wheels: Diameter 48" Face 2 1/2"
 Lugs: Type Spade No. per wheel 18 Size 3 1/2" wide, 4" high
 Seat Pressed steel
 Total weight as tested (with operator) 3350 pounds.

FUEL AND OIL:

Fuel: Gasoline Weight per gallon 6.16 pounds
 Oil: Gasoline S.A.E. #20
 Total oil to motor 1.633 gallons
 Total drained from motor 0.942 gallons
 Total time motor was operated 52 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. 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 95.9%.

Observed maximum horsepower (tests B & F) Drawbar 14.21 Belt 19.80

Sea level (calculated) maximum horsepower Drawbar 15.03 Belt 20.52
 (Based on 60° F. and 29.92" Hg.)

Highest permissible horsepower ratings Drawbar 11.27 Belt 17.44
 (As recommended by A.S.A.E. and S.A.E.
 codes)

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. 251.

 Engineer-in-charge

 Board of Tractor Test Engineers