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January 1936

Test 265: Massey-Harris Challenger

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, tractortestlab@unl.edu

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16.29 : 1638 : 3.73 : 1200 : 5.00 : 2.450 : 6.65 : 1.038 : 0.028 : 196 : 99 : 28.620

UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 265

BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 130656 Type 4 cylinder, vertical
 Head I Mounting Crankshaft lengthwise
 Bore and stroke: 3 7/8" x 5 1/4" Rated R. P. M. 1200
 Port Diam. Valves: Inlet 1 3/8" Exhaust 1 1/2"
 Belt pulley: Diam. 12" Face 6 1/4" R. P. M. 831
 Magneto American Bosch Model U4EL4V1
 Carburetor Kingston Size 1 1/4"
 Governor: Handy No. RD2231-C Type Centrifugal
 Air Cleaner: Own Type Oil circulated over wool
 Lubrication: Pressure

CHASSIS: Type 4 wheels, 2 drivers Serial No. 131127 Drive Enclosed gear
 Clutch Twin Disc Type Single-plate, dry Operated by Hand
 Advertised speeds, miles per hour: First 2.4 Second 3.3
 Third 4.1 Fourth 8.5 Reverse 3.0
 Drive wheels: Diameter 52" Face 8"
 Lugs: Type Spade No. per wheel 28 Size 2 1/2" face x 5" high
 Seat Pressed steel
 Total weight as tested (with operator) 4200 pounds.

FUEL AND OIL:

Fuel Distillate Weight per gallon 6.90 pounds.
 Oil S.A.E. Viscosity No. 40
 Total oil to motor 3.056 gallons
 Total drained from motor 3.693 gallons
 Total time motor was operated 44 hours

The oil was
 drained once -
 at the end of
 the test.

UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLNCopy of Report of Official Tractor Test No. 265REPAIRS 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 95.0% of maximum horsepower.

Observed maximum horsepower (tests B & F) Drawbar 20.03 Belt 28.58

Sea level (calculated) maximum horsepower Drawbar 21.49 Belt 30.58
(Based on 60° F. and 29.92" Hg.)Highest permissible horsepower ratings Drawbar 16.12 Belt 25.99
(As recommended by A.S.A.E. and S.A.E.
codes)

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 265.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut
Board of Tractor Test Engineers