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January 1935

Test 248: Twin City M-M Model MTA

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. 248

BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 526653 Type 4 cylinder vertical
 Head I Mounting Crankshaft lengthwise
 Bore and stroke: 4 1/4" x 5" Rated R.P.M. 1150
 Port Diam. Valves: Inlet 1 1/2" Exhaust 1 3/8"
 Belt pulley: Diam. 14" Face 7" R.P.M. 822
 Magneto: American Bosch Model U-4
 Carburetor Schebler Model TTX 15 Size 1"
 Governor: Own No. None Type Centrifugal
 Air Cleaner: Donaldson Type Combination oil and centrifugal wire
screen labyrinth
 Lubrication: Pressure

CHASSIS: Type 4 wheels, 2 drivers Serial No. 525789 Drive Enclosed gear
 Clutch: Twin Disc Type Single plate Operated by hand
 Advertised speeds, miles per hour: First 2.1 Second 3.1
Third 4.1 Reverse 1.8
 Drive wheels: Diam. 42" Face 10"
 Lugs: Type Spade No. per wheel 20 Size 4" high x 2" face
 Extension rims: Width 6" Lugs No. per rim 10 Size 4" high x 2" face
 Seat Pressed steel
 Total weight as tested (with operator) 5495 pounds.

FUEL AND OIL:

Fuel: Distillate Weight per gallon 6.91 pounds.
 Oil: S.A.E. #30 The oil was drained
 Total oil to motor 4.494 gallons twice - once at the
 Total drained from motor 5.017 gallons end of approximately
 Total time motor was operated 48 hours at the end of the
test.

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AGRICULTURAL COLLEGE, LINCOLNCopy of Report of Official Tractor Test No. 248REPAIRS 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 the carburetor set for 100% maximum horsepower. Test B figures were used in determining the belt rating recommended by the A.S.A.E. and S.A.E. tractor rating codes.

**Since the horsepower obtained in second gear with the operating setting of the carburetor exceeded that obtained with the 100% setting, test 248 G, second gear, was used as a basis for determining the drawbar rating 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 95.7% of maximum horsepower.

Observed maximum horsepower (tests B & F) Drawbar 24.50 Belt 33.23

Sea level (calculated) maximum horsepower Drawbar 25.82 Belt 34.86
(Based on 60° F. and 29.92" Hg.)Highest permissible horsepower ratings Drawbar 19.37 Belt 29.63
(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. 248.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis

Board of Tractor Test Engineers