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January 1936

Test 255: Caterpillar Model RD-7 (Diesel) 1000 r. p. m.

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. 255

BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 9G687 Type 4 cylinder, vertical, diesel
 Head I Mounting Crankshaft lengthwise
 Bore and stroke 5 3/4" x 8" Rated R. P. M. 1000
 Port Diam. Valves: Inlet 2 1/16" Exhaust 2 1/16"
 Belt pulley: Diam. 13 3/8" Face 12 1/2" R. P. M. 887
 Fuel system Own
 Governor Own No. None Type Centrifugal
 Air Cleaner Donaldson Type Combination oil and wire-screen labyrinth
 Lubrication Pressure

CHASSIS: Type Tracklayer Serial No. 9G687 Drive Enclosed gear
 Clutch Own Type Single-plate, dry Operated by Hand
 Advertised speeds, miles per hour: First 1.8 Second 2.9
 Third 4.0 Fourth 5.5 Reverse 2.2
 Measured length of track 21.9844 feet Face 18"
 Lugs: Type Cleats integral with shoes No. per track 35
 Size 18" x 2 1/4"
 Seat Upholstered
 Total weight as tested (with operator) 21020 pounds.

FUEL AND OIL:

Fuel Diesoline Weight per gallon 6.95 pounds.

Oil S.A.E. #30

Total oil to motor 4.383 gallons

Total drained from motor 2.930 gallons

Total time motor was operated 32 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 the fuel pumps set to deliver the maximum belt horsepower at rated engine speed. 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 the same setting.

Observed maximum horsepower (tests B & F) Drawbar 78.35 Belt 95.97

Sea level (calculated) maximum horsepower Drawbar 82.58 Belt 100.96
(based on 60° F. and 29.92" Hg)

Highest permissible horsepower ratings Drawbar 61.94 Belt 85.82
(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. 255.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut
Board of Tractor Test Engineers