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January 1932

## Test 209: Caterpillar Model 65

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, [tractortestlab@unl.edu](mailto:tractortestlab@unl.edu)

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT  
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 209

Dates of test: July 5 to 22, 1932.  
 Name and model of tractor: CATERPILLAR "65"  
 Manufacturer: Caterpillar Tractor Company, Peoria, Illinois.  
 Manufacturer's rating: NOT RATED.  
 Highest rating permissible under the recommendations of the A.S.A.E. and  
 S.A.E. Tractor Rating Codes: Drawbar - 54.15 H.P. Belt - 72.02 H.P.  
 One carburetor setting (98.5% of maximum) was used throughout this test.

B R A K E H O R S E P O W E R T E S T S

H. P. shaft	:Crank : :speed : :R.P.M. : :	:Fuel Consumption : :Gals. : :per : :hour :	:H. P. : :H.P. : :H.P. : :	:Lbs. @ : :H.P. : :hour :	:Water consumption : :per hour gallons : :Cool- : :ing :	:In : :fuel : :Total : :	:Temp. : :Dog. F. : :Cool- : :ing :	:Barometer : :Inches of : :Mercury : :
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OPERATING MAXIMUM LOAD TEST. ONE HOUR

78.41	: 650	: 9.474	: 8.28	: 0.739	: 0.838	: 0.00	: 0.838	: 210	: 93	: 28.895
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RATED LOAD TEST. ONE HOUR

72.32	: 650	: 8.812	: 8.21	: 0.746	: 0.490	: 0.00	: 0.490	: 199	: 98	: 28.910
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\*VARYING LOAD TEST. TWO HOURS

72.30	: 651	: 8.848	: 8.17	: 0.749	: --	: --	: --	: 200	: 100	: --
0.58	: 711	: 3.324	: 0.15	: 40.345	: --	: --	: --	: 193	: 99	: --
37.73	: 680	: 5.814	: 6.49	: 0.943	: --	: --	: --	: 197	: 101	: --
74.83	: 625	: 8.877	: 8.43	: 0.726	: --	: --	: --	: 213	: 101	: --
19.93	: 694	: 4.804	: 4.15	: 1.475	: --	: --	: --	: 190	: 104	: --
54.60	: 662	: 7.074	: 7.72	: 0.793	: --	: --	: --	: 203	: 104	: --
44.66	: 670	: 6.540	: 6.83	: 0.896	: 1.614	: 0.00	: 1.614	: 199	: 101	: 28.910

\*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. shaft	:Draw : :pull : :pounds :	:Speed : :per : :hour :	:Crank : :shaft : :R.P.M. : :	:Slip : :on : :drive : : % :	:Fuel Consumption : :Gal. : :per : :hour :	:H.P. : :H.P. : :H.P. : :	:Lbs. : :per : :hour :	:Water : :used : :per : :hour :	:Temp. : :Gal. : :Cool- : :ing :	:Air : :ing : :med. : :	:Barometer : :Inches of : :Mercury : :
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RATED LOAD TEST. TEN HOURS. SECOND GEAR

54.18	: 8004	: 2.54	: 650	: 1.85	: 8.057	: 6.72	: 0.910	: 0.00	: 193	: 92	: 28.710
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MAXIMUM LOAD TEST

67.86	: 13597	: 1.87	: 649	: 2.19	: -----	: Not Recorded	: -----	: 203	: 102	: 28.850
66.79	: 9906	: 2.53	: 648	: 1.85	: -----	: "	: -----	: 198	: 102	: 28.880
57.42	: 4950	: 4.35	: 651	: 1.15	: -----	: "	: -----	: 196	: 105	: 28.860

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 2 D 148 Type 4 Cylinder, Vertical  
Head I Mounting Lengthwise  
Bore and stroke: 7" x 8 1/2" Rated R.P.M. 650  
Port Dia. Valves: Inlet 2 5/16" Exhaust 2 5/16"  
Belt pulley: Diam. 15" Face 11" R.P.M. 650  
Magneto: Eisemann Model G V 4  
Carburetor: Ensign Model K Size 1 3/4"  
Governor: Own No. None Type Flyball  
Air Cleaner: Own under Vortex patents Type Centrifugal, oil and matted wire  
Lubrication: Pressure

CHASSIS: Type Tracklayer Serial No. 2 D 148 Drive Enclosed gear  
Clutch: Own Type Single plate - dry operated by hand lever  
Advertised speeds, miles per hour: Low 1.9  
Intermediate 2.6 High 4.4 Reverse 1.4  
Measured length of track 22.7488 feet Face 20 inches  
Lugs: Type Cloats integral with shoes No. per track 34 Size 20" x 2 1/2"  
Extension rims: None  
Seat: Upholstered  
Total weight as tested (with operator) 24965 pounds.

FUEL AND OIL:

Fuel: Gasoline Weight per gallon 6.12 pounds  
Oil: S. A. E. Viscosity No. 50 The oil was drained once -  
at the end of the test.  
Total oil to motor 4.949 gallons  
Total drained from motor 3.677 gallons  
Total time motor was operated 55 hours

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REPAIRS AND ADJUSTMENTS

No repairs or adjustments.

REMARKS

The tests herein reported were conducted with one carburetor setting which remained unchanged throughout the tests. This condition should be recognized when comparing this test with any Nebraska test conducted prior to 1928.

The track and lug equipment used in the drawbar tests is the same as that described on page 2 of this report.

In the advertising literature submitted with the specifications and application for test of this tractor we find no claims and statements which, in our opinion, are unreasonable or excessive.

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 209.

Carlton L. Zink  
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis  
Board of Tractor Test Engineers