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Nebraska Tractor Tests

Tractor Test and Power Museum, The Lester F. Larsen

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January 1932

## Test 207: Caterpillar Model 15

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. 207

Dates of test: June 7 to 29, 1932.

Name and model of tractor: CATERPILLAR "15"

Manufacturer: Caterpillar Tractor Co., 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 - 13.46 H.P. Belt - 18.45 H.P.

One carburetor setting (99.6% 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.	:Crank : :shaft :	Fuel Consumption	: Water consumption : : per hour gallons :	Temp. : : Deg. F. :	: Barometer
:speed :	Gals. :H. P. :lbs. @	:Cool- : In :	:Cool- : Inches of		
:R.P.M. :	per :hrs.@ :H. P. :	:ing : fuel :Total :	:ing :Air :	:Mercury	
:	: hour :gal. :hour :	:	:med. : :		

OPERATING MAXIMUM LOAD TEST. ONE HOUR

20.39	: 1501	: 2.244	: 9.09	: 0.668	: 0.00	: 0.00	: 0.00	: 180	: 79	: 28.703
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RATED LOAD TEST. ONE HOUR

18.75	: 1500	: 2.107	: 8.90	: 0.682	: 0.00	: 0.00	: 0.00	: 180	: 80	: 28.695
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\*VARYING LOAD TEST. TWO HOURS

18.73	: 1498	: 2.110	: 8.88	: 0.684	: --	: --	: --	: 180	: 80	: --
0.76	: 1690	: 1.048	: 0.73	: 8.368	: --	: --	: --	: 180	: 80	: --
9.93	: 1576	: 1.483	: 6.70	: 0.906	: --	: --	: --	: 179	: 80	: --
19.57	: 1451	: 2.160	: 9.06	: 0.670	: --	: --	: --	: 176	: 79	: --
5.01	: 1598	: 1.186	: 4.22	: 1.437	: --	: --	: --	: 181	: 79	: --
14.52	: 1543	: 1.769	: 8.21	: 0.740	: --	: --	: --	: 183	: 79	: --
11.80	: 1558	: 1.626	: 7.26	: 0.836	: 0.00	: 0.00	: 0.00	: 180	: 79	: 28.688

\*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 :Speed :Crank :Slip : Fuel Consumption :Water: Temp. :	
:bar :miles :shaft :on : H.P. : Lbs. :used : : :Barometer		
:pull :per :speed :drive :Gal. : hour : per :Gal. :Cool-:Air:Inches of		
:lbs. :hour :R.P.M.:wheels:per : per : H.P. :per :ing : : Mercury		
:	: : : % :hour : gal. : hour :hour :med. : :	

RATED LOAD TEST. TEN HOURS. SECOND GEAR.

13.74	: 2023	: 2.55	: 1501	: 1.96	: 1.942	: 7.08	: 0.858	: 0.00	: 179	: 84	: 28.650
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MAXIMUM LOAD TEST

16.24	: 3105	: 1.96	: 1501	: 3.64	: -----	: Not Recorded	: -----	: 186	: 88	: 28.780
16.99	: 2507	: 2.54	: 1500	: 2.11	: -----	: " "	: -----	: 184	: 82	: 28.800
15.66	: 1707	: 3.44	: 1500	: 2.21	: -----	: " "	: -----	: 187	: 86	: 28.800

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 7 C 1 Type 4 Cylinder, Vortical  
Head L Mounting Lengthwise  
Bore and stroke: 3 3/8" x 4" Rated R.P.M. 1500  
Port Dia. Valves: Inlet 1 5/16" Exhaust 1 3/16"  
Belt pulley: Diam. 9 1/2" Face 6 1/2" R.P.M. 1050  
Magneto: Eisemann Model G V 4  
Carburetor: Ensign Model B o T Size 1"  
Governor: Own No. None Type Flyball  
Air Cleaner: Own under Vortox patents Type Centrifugal, oil and matted wire  
Lubrication: Pressure

CHASSIS: Type Tracklayer Serial No. 7 C 1 Drive Enclosed gear  
Clutch: Own Type Single plate- dry operated by foot pedal  
Advertised speeds, miles per hour: Low 2.0  
Intermediate 2.6 High 3.5 Reverse 2.1  
Measured length of track 13.965 feet Face 8 inches  
Lugs: Type Cloats integral with shoes No. per track 29 Size 8" x 1 3/4"  
Extension rims: None  
Seat: Upholstered  
Total weight as tested (with operator) 4750 pounds.

FUEL AND OIL:

Fuel: Gasoline Weight per gallon 6.07 pounds  
Oil: S. A. E. Viscosity No. 50 The oil was drained once -  
at the end of the test.  
Total oil to motor 1.764 gallons  
Total drained from motor 1.529 gallons  
Total time motor was operated 45 1/2 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. 207.

Carlton L. Zink  
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis  
Board of Tractor Test Engineers