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Nebraska Tractor Tests

Tractor Test and Power Museum, The Lester F. Larsen

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January 1932

## Test 203: Caterpillar Model 25

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, tractortestlab@unl.edu

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT  
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 203

Dates of test: May 16 to 23, 1932.

Name and model of tractor: CATERPILLAR "25"

Manufacturer: Caterpillar Tractor Company, Peoria, Illinois.

Manufacturer's rating: Drawbar - 26 H.P. Maximum. Belt - 30 H.P. Maximum

Highest rating permissible under the recommendations of the A.S.A.E. and

S.A.E. Tractor Rating Codes: Drawbar - 22.07 H.P. Belt - 29.94 H.P.

One carburetor setting (99.5% of maximum) was used thruout 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	: Temp. :	: Barometer
		:Gals. : :H. P. : :Lbs. @ : :Cool- : :In : :Cool- : :Inches of	: per hour gallons	: Deg. F.	
	:speed : :R.P.M. : :per : :hour :	:H. P. : :Lbs. @ : :H.P. : :ing : :fuel : :Total : :ing : :Air : :Mercury	: per hour	: med. :	

OPERATING MAXIMUM LOAD TEST. ONE HOUR.

32.97 : 1100 : 3.415 : 9.65 : 0.631 : 0.00 : 0.00 : 0.00 : 192 : 92 : 28.880

RATED LOAD TEST. ONE HOUR

29.98 : 1100 : 3.046 : 9.84 : 0.619 : 0.00 : 0.00 : 0.00 : 185 : 91 : 28.855

\*VARYING LOAD TEST. TWO HOURS

30.03	1105	3.103	9.68	0.629	--	--	--	185	91	--
0.52	1215	1.424	0.37	16.673	--	--	--	182	89	--
16.26	1184	2.241	7.26	0.839	--	--	--	180	90	--
30.93	1041	3.256	9.50	0.641	--	--	--	190	89	--
8.23	1212	1.887	4.36	1.396	--	--	--	181	85	--
22.93	1155	2.675	8.57	0.710	--	--	--	179	86	--
18.79	1153	2.431	7.73	0.788	0.00	0.00	0.00	183	88	28.840

\*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 : :Bar :	:Speed : :miles : :per : :hour :	:Crank : :shaft : :on : :drive : :wheels : :per : :%	: Slip : :on : :drive : :wheels : :per : :%	: Fuel Consumption	: Water	: Temp. :	: Barom-
					: H.P. : : Lbs. : : per : : H.P. : : gal. : : hr. : : per : : gal. : : hr. :	: used : : Gal. : : per : : hour :	: Cool- : : Air : : ing : : med. :	: eter
	:pull : :pounds : : :							: Inches

RATED LOAD TEST. TEN HOURS. SECOND GEAR.

22.74 : 3366 : 2.53 : 1099 : 2.25 : 3.026 : 7.52 : 0.810 : 0.00 : 178 : 82 : 28.780

MAXIMUM LOAD TEST

26.74	6011	1.67	1098	6.98	-----	Not Recorded	-----	179	87	28.870
27.11	4068	2.50	1100	3.57	-----	" "	-----	181	79	28.860
26.01	2746	3.55	1100	2.38	-----	" "	-----	176	85	28.870

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BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. 3 C 2 Type 4 Cylinder, Vertical  
Head I Mounting Lengthwise  
Bore and stroke: 4" x 5 1/2" Rated R.P.M. 1100  
Port Dia. Valves: Inlet 1 1/2" Exhaust 1 5/16"  
Belt pulley: Diam. 11 7/8" Face 6 1/2" R.P.M. 836  
Magneto: Eisemann Model G V 4  
Carburetor: Ensign Model A e L c Size 1 1/4"  
Governor: Own No. None Type Flyball  
Air Cleaner: Own under Vortox patent Type Centrifugal, oil and matted wire  
Lubrication: Pressure

CHASSIS: Type Tracklayer Serial No. 3 C 2 Drive Enclosed gear  
Clutch: Own Type Single plate - dry operated by hand  
Advertised speeds, miles per hour: Low 1.8  
Intermediate 2.6 High 3.6 Reverse 2.0  
Measured length of track: 16.460 feet Face 11 inches  
Lugs: Type Cleats integral with shoes No. per track 29 Size 11" by 1 3/4"  
Extension rims: None  
Seat: Upholstered  
Total weight as tested (with operator) 8087 pounds.

FUEL AND OIL:

Fuel: Gasoline Weight per gallon 6.09 pounds  
Oil: S.A.E. Viscosity No. 50  
Total oil to motor 2.473 gallons The oil was drained once -  
Total drained from motor 1.537 gallons at the end of the test.  
Total time motor was operated 39 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 thruout 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. 203.

Carlton L. Zink  
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis  
Board of Tractor Test Engineers