

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Nebraska Tractor Tests

Tractor Test and Power Museum, The Lester F. Larsen

January 1931

Test 199: McCormick-Deering "TracTractor"

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, tractortestlab@unl.edu

Follow this and additional works at: <https://digitalcommons.unl.edu/tractormuseumlit>



Part of the [Energy Systems Commons](#), [History of Science, Technology, and Medicine Commons](#), [Other Mechanical Engineering Commons](#), [Physical Sciences and Mathematics Commons](#), [Science and Mathematics Education Commons](#), and the [United States History Commons](#)

Nebraska Tractor Test Lab, "Test 199: McCormick-Deering "TracTractor"" (1931). *Nebraska Tractor Tests*. 807.

<https://digitalcommons.unl.edu/tractormuseumlit/807>

This Article is brought to you for free and open access by the Tractor Test and Power Museum, The Lester F. Larsen at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Nebraska Tractor Tests by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 199

Dates of test: October 10 to 26, 1931.

Name and model of tractor: McCORMICK-DEERING Tractor

Manufacturer: International Harvester Co. Chicago, Ill.

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 - 18.33 H.P. Belt - 25.31 H.P.

One carburetor setting (92.9% 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 : : per hour gallons :	Temp. : : Deg. F. :	: Barometer
:speed : :R.P.M. :	Gals. : per :	H.P. : hrs. @:	:lbs. @: ing :	: Cool- : ing :	:Inches of :Mercury
:	: hour :	: gal. : hour :	:	: med. : :	:

OPERATING MAXIMUM LOAD TEST. ONE HOUR

26.59	: 1248	: 2.648	: 10.04	: 0.673	: 0.00	: 0.00	: 0.00	: 177	: 71	: 28.980
-------	--------	---------	---------	---------	--------	--------	--------	-------	------	----------

RATED LOAD TEST. ONE HOUR

25.12	: 1248	: 2.553	: 9.84	: 0.687	: 0.00	: 0.00	: 0.00	: 183	: 74	: 29.005
-------	--------	---------	--------	---------	--------	--------	--------	-------	------	----------

*VARYING LOAD TEST. TWO HOURS

25.15	: 1249	: 2.543	: 9.89	: 0.683	: ---	: ---	: ---	: 182	: 73	: ---
0.70	: 1396	: 1.220	: 0.57	: 11.786	: ---	: ---	: ---	: 175	: 72	: ---
13.55	: 1349	: 1.970	: 6.88	: 0.983	: ---	: ---	: ---	: 183	: 73	: ---
26.29	: 1227	: 2.649	: 9.92	: 0.681	: ---	: ---	: ---	: 186	: 74	: ---
6.91	: 1376	: 1.531	: 4.51	: 1.498	: ---	: ---	: ---	: 183	: 73	: ---
19.79	: 1311	: 2.299	: 8.61	: 0.785	: ---	: ---	: ---	: 184	: 74	: ---
15.88	: 1317	: 2.036	: 7.80	: 0.866	: 0.00	: 0.00	: 0.00	: 182	: 73	: 29.008

*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 :	:Crank : :shaft :	:Slip : :on :	: Fuel Consumption : : H.P. : :lbs. :	: Water : : used :	Temp. : : :	: Barometer
:pull : :pounds :	:per : :hour :	:speed : :R.P.M. :	:drive : :wheels :	:Gal. : :per :	: hr. : :per :	: per : :H.P. :	: Gal. : : per :	: Cool-:Air: :ing : :Mercury
:	:	:	: % :	:hour : :gal. :	:hour :	:hour :	:hour :	: med. : :

RATED LOAD TEST. TEN HOURS. INTERMEDIATE GEAR

18.04	: 2528	: 2.68	: 1253	: 1.42	: 2.481	: 7.27	: 0.932	: 0.138	: 180	: 77	: 28.450
-------	--------	--------	--------	--------	---------	--------	---------	---------	-------	------	----------

MAXIMUM LOAD TEST

23.33	: 5156	: 1.70	: 1247	: 3.12	: -----	: Not Recorded	: -----	: 175	: 66	: 28.830
22.63	: 3160	: 2.69	: 1255	: 1.22	: -----	: " "	: -----	: 179	: 75	: 28.690
20.19	: 2007	: 3.77	: 1251	: 0.68	: -----	: " "	: -----	: 175	: 72	: 28.805

UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Corrected Copy of Report of Official Tractor Test No. 199

BRIEF SPECIFICATIONS

MOTOR: Make Own Serial No. F M 526 Type 4 Cylinder, Vertical
Head I Mounting Lengthwise
Bore and stroke: 3 3/4" x 5" Rated R.P.M. 1250
Port Dia. Valves: Inlet 1.562" Exhaust 1.562"
Belt pulley: Diam. 15 1/4" Face 7" R.P.M. 682
Magneto: Own Model E 4 A
Carburetor: Zenith Model K 5 Size 1 1/4"
Governor: Own 15. None Type Centrifugal
Air Cleaner: Own Type Oil-washed wire filter
Lubrication: Circulating - Splash

CHASSIS: Type Tracklayer Serial No. ST 526 Drive Enclosed gear
Clutch: Own Type Single plate, Dry disc operated by foot
Advertised speeds, miles per hour: Low 1 3/4
Intermediate 2 3/4 High 3 3/4 Reverse 2
Measured length of track: 15.125 feet Face 10 in.
Lugs: Type Cleats integral with shoe Size 10" long, 2" high
Extension rims: None
Seat: Upholstered
Total weight as tested (with operator) 7010 pounds

FUEL AND OIL
Fuel: Kerosene Weight per gallon 6.76 pounds on brake tests
6.78 pounds on rated drawbar tests
Oil: S. A. E. Viscosity No. 30
Total oil to motor 4.683 gallons
Total drained from motor 5.760 gallons
Total time motor was operated 50 hours
The oil was drained to the middle cock and refilled to the top cock after approximately each 10 hours of operation. All of the oil was drained at the end of the test.

UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 199

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. 199.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis
Board of Tractor Test Engineers