

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Nebraska Tractor Tests

Tractor Test and Power Museum, The Lester F. Larsen

January 1926

Test 119: Cletrac Model K 15-25

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 119: Cletrac Model K 15-25" (1926). *Nebraska Tractor Tests*. 740.
<https://digitalcommons.unl.edu/tractormuseumlit/740>

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. 119

Dates of test: April 22nd to May 5th, 1926

Name, model and rating of tractor: Cletrac Model K 15-25

Serial No. Engine: K 800 S

Serial No. Chassis: K 890

Manufacturer: Cleveland Tractor Co., Cleveland, Ohio

Tractor equipment used: Eiseman "GSL" Mag., Tillotson "R2" Carburetor

Style and dimensions of wheel lugs: Angles 12" long, 2-1/4" high at center

BRAKE HORSE POWER TESTS

| H.P. | Crank | Time | Kind | Fuel Consumption | | Water consumption | | Temp. | | Average | Humidity | Height of | Barometer | Inches |
|--------|-------|------|------|------------------|-------|-------------------|-------|---------|---------|---------|----------|-----------|-----------|--------|
| | | | | Gals | H.P. | Gals. per Hour | Cool- | Deg. F. | Deg. F. | | | | | |
| Dev. | Shaft | of | of | Per | Hrs.@ | ing | Fuel | Total | ing | Air | | | | |
| Speed | Test | Fuel | Hour | Gal. | | | | | * | | | | | |
| R.P.M. | Min. | | | | | | | | | | | | | |

RATED LOAD TEST

25.38: 1384 : 120 :Kero: 2.796: 9.08 : 0.00 : 0.00: 0.00 : 180 : 67 : 88:28.69

**VARYING LOAD TEST

| | | | | | | | | | | | | | | |
|--------|------|---|----|--------|---|--------|------|---|-------|-------|------|---|-----|-----------------|
| 25.46: | 1395 | : | 10 | :Kero: | : | : | : | : | : | : | : | : | : | : |
| 26.23: | 1372 | : | 10 | : | : | : | : | : | : | : | : | : | : | : |
| 0.93: | 1598 | : | 10 | : | : | : | : | : | : | : | : | : | : | : |
| 7.32: | 1584 | : | 10 | : | : | : | : | : | : | : | : | : | : | : |
| 14.27: | 1556 | : | 10 | : | : | : | : | : | : | : | : | : | : | : |
| 20.74: | 1505 | : | 10 | : | : | : | : | : | : | : | : | : | : | : |
| 16.45: | 1502 | : | 60 | : | : | 2.399: | 6.86 | : | 0.00: | 0.00: | 0.00 | : | 170 | : 68 : 88:28.69 |

MAXIMUM LOAD TEST

28.44: 1378 : 60 :Kero: 3.098: 9.18 : 0.26 : 0.00: 0.26 : 205 : 83 : 15:28.70

HALF LOAD TEST

14.15: 1534 : 60 :Kero: 2.254: 6.28 : 0.00 : 0.00: 0.00 : 183 : 72 : 47 : 28.67

* Taken in discharge line from engine.

** The last line is the average for the hour

REMARKS: The kerosene used as fuel in these tests weighed 6.76 pounds per gallon.

Copy of Report of Official Tractor Test No. 119

DRAWBAR HORSE POWER TESTS

| H.P. | Draw | Speed | Crank | Slip | Fuel consumption | Water | Temp. Deg. F. | Average | Height of |
|------|--------|-------|--------|--------|------------------|-------|---------------|---------|-----------|
| Dev. | Bar | Miles | Shaft | on | Kind | Amt. | H.P. | Used | Cooling |
| | Pull | Per | Speed | Drive | Used | Per | Hrs. | Per | Fluid |
| | Pounds | Hour | R.P.M. | Wheels | | Hour | Per | Hour | Air |
| | | | | % | | Gal. | Gal | Gal | * |
| | | | | | | | | | % |
| | | | | | | | | | Inches |

RATED LOAD TEST. TEN HOURS

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------|------|---|------|---|------|---|------|---|------|---|-------|---|------|---|-------|---|-----|---|----|---|------|---|-------|
| 15.30: | 2703 | : | 2.12 | : | 1426 | : | 4.08 | : | Kero | : | 2.636 | : | 5.80 | : | 0.024 | : | 174 | : | 50 | : | 26.5 | : | 23.90 |
|--------|------|---|------|---|------|---|------|---|------|---|-------|---|------|---|-------|---|-----|---|----|---|------|---|-------|

MAXIMUM LOAD TEST

| | | | | | | | | | | | | | | | | | | | |
|--------|------|---|-------|---|------|---|-------|---|------|---|--------------------|---|-----|---|----|---|----|---|-------|
| 23.42: | 4375 | : | 2.005 | : | 1379 | : | 7.14 | : | Kero | : | -- NOT RECORDED -- | : | 190 | : | 82 | : | 38 | : | 28.53 |
| 20.125 | 1790 | : | 4.215 | : | 1372 | : | 1.245 | : | Kero | : | -- NOT RECORDED -- | : | 160 | : | 83 | : | 38 | : | 28.53 |

* Taken in discharge line from engine.

REMARKS: The distance advanced by the tractor without load on level ground for one complete revolution of the tracks was taken as a basis for calculating track slippage.

The rated load and first maximum tests were made in low gear, the second maximum test was made in high gear.

OIL CONSUMPTION:

During the complete test consisting of about 45 hours running the following oil was used:
For the engine, 3-3/4 gallons of Mobiloil "BB", 1-1/4 gallons to fill crankcase, 2-1/2 gallons were added.
For the transmission, 1/2 gallon of Mobiloil "BB".

Copy of Report of Official Tractor Test No. 119

REPAIRS AND ADJUSTMENTS

During the half load brake horsepower test the oil pressure line sprung a leak.

During the low gear rated and maximum drawbar horsepower tests the gear shift lever had to be fastened in place in order to keep the gears in mesh.

At the end of the test the tractor was in good running order and there was no indication of undue wear nor of any weakness which might require early repair.

BRIEF SPECIFICATIONS

Motor: Own, 4 cylinder, vertical, valve-in-head, mounted crankshaft lengthwise. Bore 4", stroke 5-1/2". Rated speed 1375 R.P.M.

Govenor: Own, fly-ball type

Air cleaner: Pomona, oil fiber type.

Magneto: Eiseman "GS4". Carburetor "R2" Tillotson.

Chassis: Track-layer, two tracks, enclosed gear drive, single disc clutch. Advertised speeds: Low 2.25 miles per hour, High 4.50 miles per hour, Reverse 2.25 miles per hour.

Total weight as tested (with operator) 4775 pounds.

REMARKS

In the advertising literature submitted with application for test of this tractor, we find some claims and statements which cannot be directly compared with the results of this test as reported above. It is our opinion that none of these are excessive or unreasonable, except advertised speed in miles per hour, Low 2.25, High 4.50 and Reverse 2.25, should be Low 2.13, High 4.23 and Reverse 1.66 miles per hour at 1375 R.P.M. of the engine.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 119.

Lew Wallace
Engineer-in-Charge

Oscar W. Sjogren

E. E. Brackett

C. W. Smith

Board of Tractor Test Engineers.