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Tractor Test and Power Museum, The Lester F. Larsen

January 1931

Test 195: Cletrac Model 40-30

Nebraska Tractor Test Lab

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 195

Dates of test: July 28 to August 17, 1931.

Name and model of tractor: CLETRAC "40-30"

Manufacturer: Cleveland Tractor Company, Cleveland, Ohio.

Manufacturer's rating: Drawbar - 30 H.P. Belt - 44 H.P.

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

S.A.E. Tractor Rating Codes: Drawbar - 31.17 H.P. Belt - 42.44 H.P.

One carburetor setting (98.4% 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 : | 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

45.64 : 1449 : 5.588 : 8.17 : 0.748 : 0.00 : 0.00 : 0.00 : 199 : 93 : 28.788

RATED LOAD TEST. ONE HOUR

44.36 : 1453 : 6.227 : 7.12 : 0.858 : 0.00 : 0.00 : 0.00 : 192 : 95 : 28.700

*VARYING LOAD TEST. TWO HOURS

| | | | | | | | | | | |
|-------|--------|---------|--------|----------|--------|--------|--------|-------|------|----------|
| 44.50 | : 1456 | : 6.231 | : 7.14 | : 0.856 | : -- | : -- | : -- | : 192 | : 96 | : -- |
| 0.93 | : 1578 | : 2.725 | : 0.34 | : 17.903 | : -- | : -- | : -- | : 190 | : 94 | : -- |
| 23.00 | : 1516 | : 4.306 | : 5.34 | : 1.144 | : -- | : -- | : -- | : 191 | : 95 | : -- |
| 45.35 | : 1435 | : 6.069 | : 7.47 | : 0.818 | : -- | : -- | : -- | : 197 | : 97 | : -- |
| 11.50 | : 1513 | : 3.506 | : 3.28 | : 1.863 | : -- | : -- | : -- | : 178 | : 95 | : -- |
| 34.23 | : 1513 | : 5.151 | : 6.65 | : 0.919 | : -- | : -- | : -- | : 194 | : 94 | : -- |
| 27.12 | : 1503 | : 4.664 | : 5.81 | : 1.051 | : 0.00 | : 0.00 | : 0.00 | : 190 | : 95 | : 28.685 |

*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 | : Water: : : used : : | Temp. : : :Barometer |
|----------|---------------------|----------------------|----------------------|------------------|------------------|--------------------------|-------------------------|
| : pull : | per | : speed : | drive | :Gal. : hr. : | per | :Gal. :Cool-:Air: | :Inches of |
| :pounds: | hour | : R.P.M.: | wheels: | per | per | : H.P. :per | :ing : :Mercury |
| : | : | : | : % | :hour | :gal. : | :hour | :hour med. : : |

RATED LOAD TEST. TEN HOURS. INTERMEDIATE Gear.

30.44 : 3741 : 3.05 : 1451 : 0.99 : 5.482 : 5.55 : 1.097 : 0.078 : 192 : 87 : 28.890

MAXIMUM LOAD TEST

| | | | | | | | | | | |
|-------|--------|--------|--------|--------|---------|-----------------|---------|-------|------|----------|
| 33.94 | : 2870 | : 4.43 | : 1447 | : 0.87 | : ----- | : Not Recorded: | : ----- | : 202 | : 90 | : 29.000 |
| 39.77 | : 4912 | : 3.04 | : 1451 | : 1.46 | : ----- | : " " | : ----- | : 201 | : 85 | : 29.020 |
| 40.66 | : 7580 | : 2.01 | : 1451 | : 3.62 | : ----- | : " " | : ----- | : 201 | : 93 | : 28.980 |

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BRIEF SPECIFICATIONS

MOTOR: Make Hercules Serial No. 600329 Type Vertical
Head L Mounting Lengthwise
Bore and stroke: 4 1/4 x 4 1/2 in. Rated R.P.M. 1450
Port Dia. Valves: Inlet 1 5/8" Exhaust 1 1/2"
Belt pulley: Diam. 13 in. Face 8 1/2 in. R.P.M. 943
Ignition: Delco-Remy - Battery
Carburetor: Tillotson Model Y 7 A Size 1 1/2"
Governor: Hercules No. None Type Flyball
Air Cleaner: Pomona Vortex Type Wet sump and wire mesh
Lubrication: Pressure

CHASSIS: Type Tracklayer Serial No. 205 Drive Enclosed gear
Clutch: Borg & Beck Type Dry, single plate operated by foot
Advertised speeds, miles per hour: Low 2.06
Intermediate 3.05 High 4.42 Reverse 2.28
Tracks: Length 18.13 feet Width 8 1/2"
Cleats
Lugs: Type Removable No. per track 30 Size 2 1/2" high, 14" long
Extension rims: None
Seat Upholstered
Total weight as tested (with operator) 9700 pounds.

FUEL AND OIL:
Fuel: Gasoline Weight per gallon 6.11 pounds on belt tests
6.09 pounds on drawbar tests
Oil: S.A.E. Viscosity No. 50 The oil was drained once -
at the end of the test.
Total oil to motor 2.209 gallons
Total drained from motor 1.818 gallons
Total time motor was operated 53 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 side motor shields were removed during the complete test as is customary for summer operation. This allowed the rear shield clips to hang down where, early in the drawbar tests, they caught in the tread and were broken.

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. 195.

Carlton L. Zink
Engineer-in-charge

E. E. Brackett

C. W. Smith

E. B. Lewis
Board of Tractor Test Engineers