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Larsen

January 1936

Test 263: Cletrac Model FD

Tractor Museum

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UNIVERSITY OF NEBRASKA - AGRICULTURAL ENGINEERING DEPARTMENT
 AGRICULTURAL COLLEGE, LINCOLN

Copy of Report of Official Tractor Test No. 263

Dates of test: June 15 to July 17, 1936.
 Name and model of tractor: CLETRAC FD
 Manufacturer: Cleveland Tractor Company, Cleveland, Ohio.
 Manufacturer's rating: NOT RATED.

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 |
|----------|--------------------------|--------------------|-----------------------|-----------|-------------|
| :speed : | Gals. : H. P. :Lbs. per: | Cool- : In : | :Cool-: | Inches of | |
| :R.P.M.: | per :hrs.per: H. P. : | ing : fuel : Total | ing : Air | Mercury | |
| : | : hour :: gal. : hour : | : | :med. : | : | |

TESTS B & C 100% MAXIMUM LOAD. TWO HOURS

| | | | | | | | | | | |
|--------|--------|---------|---------|---------|---------|---------|---------|-------|------|----------|
| 100.58 | : 1298 | : 7.396 | : 13.60 | : 0.513 | : 0.089 | : 0.000 | : 0.089 | : 204 | : 93 | : 28.860 |
|--------|--------|---------|---------|---------|---------|---------|---------|-------|------|----------|

TEST D RATED LOAD. ONE HOUR

| | | | | | | | | | | |
|-------|--------|---------|---------|---------|---------|---------|---------|-------|------|----------|
| 91.55 | : 1300 | : 6.529 | : 14.02 | : 0.497 | : 0.000 | : 0.000 | : 0.000 | : 180 | : 82 | : 28.830 |
|-------|--------|---------|---------|---------|---------|---------|---------|-------|------|----------|

TEST E *VARYING LOAD. TWO HOURS

| | | | | | | | | | | |
|-------|--------|---------|---------|---------|---------|---------|---------|-------|------|----------|
| 91.52 | : 1303 | : 6.491 | : 14.10 | : 0.494 | : -- | : -- | : -- | : 179 | : 81 | : -- |
| 1.69 | : 1362 | : 2.019 | : 0.84 | : 8.325 | : -- | : -- | : -- | : 136 | : 80 | : -- |
| 46.65 | : 1345 | : 4.076 | : 11.45 | : 0.609 | : -- | : -- | : -- | : 149 | : 80 | : -- |
| 98.78 | : 1282 | : 7.067 | : 13.98 | : 0.499 | : -- | : -- | : -- | : 181 | : 80 | : -- |
| 24.49 | : 1352 | : 3.013 | : 8.13 | : 0.857 | : -- | : -- | : -- | : 143 | : 79 | : -- |
| 67.75 | : 1331 | : 5.083 | : 13.33 | : 0.523 | : -- | : -- | : -- | : 159 | : 79 | : -- |
| 55.15 | : 1329 | : 4.625 | : 11.92 | : 0.584 | : 0.000 | : 0.000 | : 0.000 | : 157 | : 80 | : 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 : Speed : Crank : Slip : | Fuel Consumption | :Water: | Temp. : | : Barometer |
|---------------|---------------------------------|----------------------|---------|---------|-------------|
| : pull : per | : bar : miles : shaft : on : | : H. P. : Lbs. : | used : | : : | : Inches of |
| :pounds: hour | : speed : drive: Gal.: hour | : per : Gal. :Cool-: | : : | :Air: | Mercury |
| : | : R.P.M.:wheels: per : per | : H.P. :per | :ing | :med. : | : |
| : | : % : hour: gal. : hour | :hour | :hour | : | : |

TESTS F AND G MAXIMUM LOAD.

| | | | | | | | | |
|-------|--------|--------|--------|--------|-------------------------|-------|-------|--------|
| 86.18 | :19152 | : 1.69 | : 1299 | : 3.99 | :-----Not Recorded----- | : 202 | :101: | 28.800 |
| 83.75 | :11435 | : 2.75 | : 1299 | : 1.03 | :-----" "----- | : 211 | :109: | 28.785 |
| 74.76 | : 6554 | : 4.28 | : 1299 | : 0.56 | :-----" "----- | : 205 | :110: | 28.765 |

TEST H RATED LOAD. TEN HOURS Second GEAR.

| | | | | | | | | | | | |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|-------|------|----------|
| 68.83 | : 9386 | : 2.75 | : 1300 | : 0.95 | : 6.064 | : 11.35 | : 0.614 | : 0.080 | : 197 | : 99 | : 28.820 |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|-------|------|----------|

Corrected Copy of Report of Official Tractor Test No. 263

BRIEF SPECIFICATIONS

MOTOR: Make Hercules Serial No. H360340 Type 6 cylinder, vertical diesel
Head I Mounting Crankshaft lengthwise
Bore and stroke 5" x 6" Rated R.P.M. 1300
Port Diam. Valves: Inlet 2 3/8" Exhaust 1 5/8"
Belt pulley: Diam. 24 1/2" Face 15" R.P.M. 535
Fuel system American Bosch Model APE6B80 B300S91 No. 14801
Governor Hercules No. -- Type Centrifugal
Air Cleaner Vortex Type Intake deflector and oil-washed, wire-filter
Lubrication Pressure

CHASSIS: Type Tracklayer Serial No. 6364 Drive Enclosed gear
Clutch Long Type Two-plate, dry Operated by Foot pedal
Advertised speeds, miles per hour: First 1.75 Second 2.75
Third 4.25 Reverse 2.125
Measured length of track 23.1144 feet Face 20"
Lugs Removable cast steel cleats No. per track 28
Size 3" high x 20" long
Seat Upholstered
Total weight as tested (with operator) 27,370 pounds.

FUEL AND OIL:

Fuel Dieseline Weight per gallon 6.97 pounds.
Oil S.A.E. Viscosity No. 30
Total oil to motor 5,397 gallons The oil was drained
Total drained from motor 5,048 gallons once - at the end
Total time motor was operated 46 hours of the test.

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REPAIRS AND ADJUSTMENTS

During the belt tests, the fuel line to #6 cylinder cracked.
 This line was replaced with a new one.

REMARKS

All results shown on page 1 of this report were determined from observed data and without allowances, additions or deductions. In tests B and F, the 100% maximum horsepower was determined using the fuel pump adjustment as set and sealed by the manufacturer. These figures were used in determining the ratings recommended by the A.S.A.E. and S.A.E. tractor rating codes. Tests C, D, E, G and H were made with the same setting.

Observed maximum horsepower (tests B & F) Drawbar 83.75 Belt 100.58

Sea level (calculated) maximum horsepower Drawbar 91.04 Belt 107.52
 (Based on 60° F. and 29.92" Hg)

Highest permissible horsepower ratings Drawbar 68.28 Belt 91.39
 (as recommended by A.S.A.E. and S.A.E.
 codes)

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 263.

Carlton L. Zink
 Engineer-in-charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut
 Board of Tractor Test Engineers