January 1939

Test 333: Farmall H Gasoline

Nebraska Tractor Test Laboratory Collected by Larsen Tractor Test Museum

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Copy of Report of Official Tractor Test No. 333

Dates of test: October 5 to 11, 1939
Name and model of tractor: McCormick-Deering Farmall H (Gasoline)
Manufacturer's rating: NOT RATED

Belt Horsepower Tests

<table>
<thead>
<tr>
<th>H.P.</th>
<th>Crankshaft speed RPM</th>
<th>Fuel Consumption</th>
<th>Water Used</th>
<th>Temp. Deg. F.</th>
<th>Barometer Inches of Mercury</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Gal. per hr.</td>
<td>H.P. per gal. per H.P. per hr.</td>
<td>Gal. per Lb. per hr.</td>
<td>Cooling Air Med.</td>
</tr>
<tr>
<td>TEST B - 100% Maximum Load - Two Hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.20</td>
<td>1652</td>
<td>2.261</td>
<td>11.59</td>
<td>0.532</td>
<td>0.000</td>
</tr>
</tbody>
</table>

TEST C - Operating Maximum Load - One Hour

| 24.23 | 1650 | 2.075 | 11.70 | 0.527 | 0.000 | 196 | 89 | 28.670 |

*TEST D - One Hour

| 23.83 | 1649 | 2.079 | 11.46 | 0.538 | 0.000 | 199 | 90 | 28.655 |

TEST E - Varying Load - Two Hours (20 minute runs: last line average)

| 23.89 | 1651 | 2.081 | 11.48 | 0.537 | 200 | 90 | 28.645 |
| 23.91 | 1595 | 2.013 | 11.88 | 0.519 | 192 | 88 | 28.645 |
| 22.65 | 2634 | 3.23 | 1652 | 5.59 | 191 | 73 | 28.490 |
| 22.85 | 2211 | 3.88 | 1648 | 4.65 | 186 | 74 | 28.575 |
| 22.03 | 1673 | 4.94 | 1649 | 3.47 | 189 | 78 | 28.570 |

Drawbar Horsepower Tests

<table>
<thead>
<tr>
<th>H.P.</th>
<th>Draw Bar Speed</th>
<th>Crank on Shaft Drive</th>
<th>Fuel Consumption</th>
<th>Water Used</th>
<th>Temp. Deg. F.</th>
<th>Barometer Inches of Mercury</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gal. per hr.</td>
<td>H.P. per Gal. per H.P. per hr.</td>
<td>Gal. per Lb. per hr.</td>
<td>Cooling Air Med.</td>
</tr>
<tr>
<td>TEST F - 100% Maximum Load - Second - Gear</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.17</td>
<td>28.41</td>
<td>3.19</td>
<td>1643</td>
<td>6.09</td>
<td>200</td>
<td>90</td>
</tr>
</tbody>
</table>

TEST G - Operating Maximum Load

| 19.84 | 3603 | 2.06 | 1656 | 17.86 | 200 | 90 | 28.550 |
| 22.65 | 2634 | 3.23 | 1652 | 5.59 | 191 | 73 | 28.570 |
| 22.85 | 2211 | 3.88 | 1648 | 4.65 | 186 | 74 | 28.575 |
| 22.03 | 1673 | 4.94 | 1649 | 3.47 | 189 | 78 | 28.570 |

*TEST H - Ten Hours - Second - Gear

| 19.14 | 2211 | 3.25 | 1650 | 4.83 | 200 | 90 | 28.570 |

*Formerly called RATED LOAD: See "REMARKS" 4, page 3.
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FUEL, OIL, AND TIME
Fuel: Gasoline  Octane: 71  Weight per gallon: 6.17 pounds
Total time motor was operated 43 hours.

BRIEF SPECIFICATIONS
Advertised speeds, mile per hour:  First 2 5/8  Second 3 1/2
Third 4 1/4  Fourth 5 1/8  Fifth 16 3/8  Reverse 2 3/4
Belt pulley:  Diam. 9 3/4"  Face 7 1/2"  R.P.M. 1019  Belt speed 2601 f.p.m.
Clutch: Make Rockford  Type Single plate, dry disc  Operated by foot
Seat  Pressed steel with sponge rubber pad
Total weight as tested (with operator) 5550 pounds

MOTOR
Make Own  Serial No. FBH602  Type 4 cylinder, vertical
Head I  Mounting Crankshaft lengthwise  Lubrication Pressure
Bore and stroke 3 3/8" x 4 1/4"  Rated R.P.M. 1650
Port diameter valves:  Inlet 1.344"  Exhaust 1.217"
Magneto: Make Own  Model H-4
Carburetor: Make Own  Model D-10  Size 1"
Governor: Make Own  Type Variable speed, centrifugal
Air Cleaner: Make Donaldson  Type Oil-washed, wire screen filter
Oil Filter: Make Purolator  Type Partial flow, with replaceable bakelite
Coating element
Cooling medium temperature control: Bishop and Babcock thermostat & Pines
Radiator shutters

CHASSIS
Type Tricycle  Serial No. FBH602  Drive Enclosed gear
Tread width: Rear 44" - 80"  Front: Top 13"  Bottom 8"
Rear tires: No. 2  Size 10.00" x 36" - 6 ply  Air pressure 16 pounds.
Front tires: No. 2  Size 5.50" x 16" - 6 ply  Air pressure 25 pounds
 Added weight: Per rear wheel (Cast Iron 568 pounds)
                  (Water 280 pounds)
                  Per front wheel (Cast Iron 80 pounds)
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REPAIRS AND ADJUSTMENTS

No repairs or adjustments.

REMARKS

1. All results shown on page 1 of this report were determined from observed data and without allowances, additions, or deductions. Tests B and F were made with carburetor set for 100% maximum belt horsepower and data from these tests were used in determining the horsepower to be developed in tests D and H, respectively. Tests C, D, E, G, and H were made with an operating setting of the carburetor (selected by the manufacturer of 93.3% of maximum belt horsepower.

2. Observed maximum horsepower (tests F and B) | Drawbar: 24.17 | Belt: 26.20

3. Sea level (calculated) maximum horsepower  (based on 60°F and 29.92" Hg.)  | 25.50 | 27.90

4. Seventy-five per cent of calculated maximum drawbar horsepower and eighty-five per cent of calculated maximum belt horsepower (formerly A.S.A.E. and S.A.E. ratings) | 19.13 | 23.72

We, the undersigned, certify that the above is a true and correct report of official tractor test No. 333.

Carlton L. Zink  
Engineer-in-Charge

E. E. Brackett

C. W. Smith

L. W. Hurlbut  
Board of Tractor Test Engineers