January 1928

Test 153: John Deere GP 10-20

Tractor Test Museum

University of Nebraska

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Copy of Report of Official Tractor Test No. 153

Dates of test: October 22 to 29, 1928
Name, model and rating of tractor: John Deere "General Purpose" 10-20
Manufacturer: John Deere Tractor Co., Waterloo, Iowa.

<table>
<thead>
<tr>
<th>Brake Horse Power Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crank : Fuel Consumption</td>
</tr>
<tr>
<td>shaft : per hour gallons</td>
</tr>
<tr>
<td>H. P. : speed : Gals. : H. P. : Lbs. @ : Cool- : In :</td>
</tr>
<tr>
<td>: per : hrs. @ : H. P. : ing : fuel : Total : ing : Air : mercury</td>
</tr>
</tbody>
</table>

OPERATING MAXIMUM LOAD TEST. ONE HOUR (27% of maximum load)


RATED LOAD TEST. ONE HOUR

| 20.20 : 943 : 2.362 : 8.55 : 0.795 : 0.93 : - - : 0.93 : 197 : 62 : 29.03 |

VARYING LOAD TEST. TWO HOURS

| 20.21 : 950.5 : 2.565 : 7.32 : 0.870 : - - : - - : 195 : 56.5 : ----- |
| 10.52 : 984.5 : 1.429 : 7.26 : 0.924 : - - : - - : 196.5 : 62.5 : ----- |
| 22.01 : 940.5 : 2.629 : 8.37 : 0.812 : - - : - - : 198.5 : 63.5 : ----- |
| 5.26 : 979.5 : 1.341 : 3.92 : 1.734 : - - : - - : 185.5 : 64 : ----- |
| 15.61 : 974.5 : 1.738 : 8.98 : 0.757 : - - : - - : 199.5 : 65 : ----- |
| 12.70 : 975 : 1.829 : 6.94 : 0.820 : 0.48 : - - : 0.48 : 191 : 62 : 23.95 |

*20 minute runs. Last line is average for two hours.

<table>
<thead>
<tr>
<th>Draw : Horse Power Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>bar : miles : shaft : on : H. P. : Lbs. : used : Barometer</td>
</tr>
</tbody>
</table>

RATED LOAD TEST. TEN HOURS, Intermediate Gear.


MAXIMUM LOAD TEST

| 16.35 : 1337.5 : 5.46 : - - : Not Recorded : 185 : 52 : 28.86 |
BRIEF SPECIFICATIONS

MOTOR:  
Make: Own  Serial No.: 200112  Type: 2 Cylinder horizontal
Head: "L"  Mounting: Crosswise
Bore and stroke: 5 3/2 x 6 in.  Rated R.P.M.: 950
Port Dia. Valves: Inlet 2 1/2"  Exhaust 2 1/2"
Belt pulley Diam.: 13 in.  Face 6 1/2 in.  R.P.M.: 950
Magneto: Fairbanks-Morse  Model: "John Deere"
Carburetor: Ensign  Model: BJ  Size: 1 1/2"
Governor: Own  No.: --------  Type: Fly-Ball
Air Cleaner: Donaldson-Simplex  Type: Aux. Twister and Oil Fiber
Lubrication: Pressure

CHASSIS:  
Type: 4 wheels  Serial No.: 200112  Drive: Enclosed gear and chain
Clutch: Own  Type: Disc  Operated by: hand
Advertised speeds, miles per hour:  
Low: 2 1/3  
Intermediate: 3 1/8  
High: 4 1/3  
Reverse: 2
Drive wheels: Diameter: 42 3/4"  Face: 10"
Lugs: Type: Spade  No. per wheel: 24  Size: 4 1/2"H x 3 1/8" x 3 3/8"
Extension rims: Width: --------  Seat: Pressed steel
Total weight as tested (with operator): 4265 pounds.

FUEL AND OIL

Fuel: Kerosene  Weight per gallon: 6.80 lbs.
Oil: Mobileoil A  To fill crankcase: 1 3/4 gallons
Additional amount used during test: 4 1/2 gallons
Total number of hours of test: 42
UNIVERSITY OF NEBRASKA AGRICULTURAL ENGINEERING DEPARTMENT
AGRICULTURAL COLLEGE, LINCOLN

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REPAIRS AND ADJUSTMENTS

Before the operating maximum belt load test, oil was found to be leaking from around the flywheel end of the crankshaft. This was repaired by readjusting the gasket and tightening gasket cover plate.

REMARKS

The tests herein reported were conducted with one carburetor setting which remained unchanged throughout the tests. This condition should be recognized when comparing this test with any Nebraska test conducted prior to 1928.

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.

The results of this test indicate that the rating of this tractor does not exceed the provisions of the tractor rating code of the American Society of Agricultural Engineers and the Society of Automotive Engineers.

We, the undersigned, certify that above is a true and correct report of official tractor test No. 153.

Law Wallace
Engineer-in-charge

O. W. Sjogren

E. E. Brackett

C. W. Smith
Board of Tractor Test Engineers