NEBRASKA TRACTOR TEST 1771
JOHN DEERE 5205 DIESEL
8 SPEED

Location of Test: Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln
Nebraska 68583-0832
Dates of Test: April 27-May 17, 2000
Manufacturer: John Deere Commercial Products Inc., 700 Horizon South Parkway, Grovetown
Ga. USA, 30813

FUEL, OIL and TIME: Fuel No. 2 Diesel Specific gravity converted to 60°/60° F (15°/15°C)
0.8487 Fuel weight 7.067 lbs/gal (0.847 kg/l) Oil SAE 15W40 API service classification CG-4
Transmission and hydraulic lubricant John Deere Hy-Gard Fluid Front axle lubricant SAE
80W90 API GL-5 Total time engine was operated 10.0 hours

ENGINE: Make John Deere Diesel Type three cylinder vertical Serial No. *PE30920DU7154*
Crankshaft lengthwise Rated engine speed 2500 rpm Bore and stroke 4.19" x 4.33" (106.4 mm x 110.0
mm) Compression ratio 17.4 to 1 Displacement 179 cu in (2934 ml) Starting system 12 volt
Lubrication pressure Air cleaner one paper element and one polyester felt element Oil filter
one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil Fuel filter one
paper element Muffler underhood Exhaust vertical Cooling medium temperature control
one thermostat

ENGINE OPERATING PARAMETERS: Fuel rate: 18.8 - 20.8 lb/h (8.5 - 9.4 kg/h) High idle: 2475 - 2525 rpm

CHASSIS: Type front wheel assist Serial No. *LV5205B120101* Tread width rear 55.8" (1417
mm) to 71.7" (1820 mm) front 52.8" (1340 mm) to 75.0" (1904 mm) Wheelbase 76.8" (1950 mm) Hydraulie control system direct engine drive Transmission selective gear fixed ratio Nominal travel speeds mph at 19 mph 1.94 (3.13) second 2.78 (4.48) third 3.95 (6.33) fourth 5.51 (8.87) fifth 6.44 (10.36) sixth 9.72 (15.64) seventh 13.74 (22.11) eight 19.26 (31.00) reverse 2.32 (3.74), 3.32 (5.34), 4.70 (7.56), 6.58 (10.59) Clutch single dry disc operated by foot pedal Brakes single wet disc mechanically operated by two foot pedals which can be locked together Steering hydrostatic Power take-off 540 rpm at 2199 engine rpm Unladen tractor mass 4520 lb (2050 kg)

<table>
<thead>
<tr>
<th>Power Take-Off Performance</th>
<th>Power (HP)</th>
<th>HP/hr</th>
<th>Mean Atmospheric Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crankshaft Speed rpm</td>
<td>2500</td>
<td>11.01</td>
<td>36.35</td>
</tr>
<tr>
<td>Gal/hr</td>
<td>2.91</td>
<td>0.422</td>
<td>36.30</td>
</tr>
<tr>
<td>lb/hr hp hr</td>
<td>16.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hp/hr gal</td>
<td>0.422</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VARYING POWER AND FUEL CONSUMPTION

<table>
<thead>
<tr>
<th>Power (HP)</th>
<th>Gal/hr</th>
<th>lb/hr hp hr</th>
<th>Mean Atmospheric Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>42.74</td>
<td>2.50</td>
<td>0.428</td>
<td>74°F (23°C)</td>
</tr>
<tr>
<td>32.58</td>
<td>2.08</td>
<td>0.451</td>
<td>Relative humidity</td>
</tr>
<tr>
<td>21.92</td>
<td>1.70</td>
<td>0.547</td>
<td>61%</td>
</tr>
<tr>
<td>11.25</td>
<td>1.27</td>
<td>0.800</td>
<td>Barometer</td>
</tr>
<tr>
<td>0.58</td>
<td>0.95</td>
<td>11.328</td>
<td>28.91&quot;Hg (97.91 kPa)</td>
</tr>
</tbody>
</table>

Maximum Torque 133 lb-ft. (180 Nm) at 1400 rpm
Maximum Torque Rise - 19.8%
Torque rise at 1800 rpm - 14%

<table>
<thead>
<tr>
<th>Tractor Sound Level Without Cab</th>
<th>Engaged dB(A)</th>
<th>Disengaged dB(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At no load in 3rd(A3) gear</td>
<td>87.8</td>
<td>87.5</td>
</tr>
<tr>
<td>Transport speed-no load-8th(B4)gear</td>
<td>92.7</td>
<td></td>
</tr>
<tr>
<td>Bystander in 8th(B4)gear</td>
<td>--</td>
<td>82.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tires and Weight</th>
<th>Tested Without Ballast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear Tires No., size, ply &amp; psi(kPa)</td>
<td>Two 15.9-20/8;12 (85)</td>
</tr>
<tr>
<td>Front Tires No., size, ply &amp; psi(kPa)</td>
<td>Two 9.5-24;6;12 (87)</td>
</tr>
<tr>
<td>Height of Drawbar</td>
<td>17.5 in (445 mm)</td>
</tr>
<tr>
<td>Static Weight with operator</td>
<td>Rear 2775 lb (1259 kg)</td>
</tr>
<tr>
<td></td>
<td>Front 1920 lb (871 kg)</td>
</tr>
<tr>
<td></td>
<td>Total 4695 lb (2130 kg)</td>
</tr>
</tbody>
</table>
THREE POINT HITCH PERFORMANCE (OECD Static Test)

Quick Attach: None
Maximum Force Exerted Through Whole Range: (14.1 kN)

i) Opening pressure of relief valve:
   Sustained pressure of the open relief valve: 2820 psi
ii) Pump delivery rate at minimum pressure
    hydraulic power: 11.8 GPM (44.7 l/min)
    Delivery pressure: 2540 psi
    Power: 14.7 HP

THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi. 2760(190)
Hydraulic oil temperature: °F(°C) 158(70)
Location: hydraulic sump
Category: II
Quick attach: none

SAE/ASAE Test System pressure 2485 psi (171 Bar)
Hitch point distance to ground level in. (mm) 8.0(203) 15.0(381) 22.0(559) 29.0(737) 36.0(914)
Lift force on frame lb “ “ “ “ “ (kN) (17.0) (18.6) (19.4) (19.0) (18.3)

OECD Test

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. For the maximum power tests, the fuel temperature at the injection pump inlet was maintained at 127°F (53°C).

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. 1771, July 7, 2000.

Leonard L. Bashford
Director
G. J. Hoffman
M. F. Kocher
R. D. Grisso Jr.
Board of Tractor Test Engineers

SAE/ASAE Test          OECD Test

<table>
<thead>
<tr>
<th>SAE/ASAE Test</th>
<th>OECD Test</th>
</tr>
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<tbody>
<tr>
<td>inch</td>
<td>mm</td>
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</table>

A  24.3 617  25.2 641
B  11.4 290  11.4 290
C  13.2 334  13.2 334
D  12.1 308  12.1 308
E  12.0 305  12.0 305
F  4.9 124  4.9 124
G  26.4 670  26.4 670
H  1.8  46  1.8  46
I  12.0 305  12.0 305
J  21.5 546  21.5 546
K  15.8 402  15.8 402
L  36.2 918  36.2 918
M  21.9 555  21.9 555
N  29.9 760  29.9 760
O  8.0  203  8.0  203
P  40.5 1029 45.5 1156
Q  36.1 916  36.1 916
R  22.5 572  22.5 572

HITCH DIMENSIONS AS TESTED - NO LOAD

John Deere 5205 Diesel