Power increase at 2002 engine rpm - 2%
Torque rise at 1682 engine rpm - 23%
Maximum torque rise - 31.6%
Maximum torque 209 lb.-ft.

Transport speed - no load - 9th (C3) gear          91.9

TIRES AND WEIGHT
 Tested without ballast
 Rears - No., size, ply & psi (kPa)
 Fronts - No., size, ply & psi (kPa)
 Height of Drawbar
 Static Weight with operator - Rear
 = Total

NEBRASKA TRACTOR TEST 2139
JOHN DEERE 5075E DIESEL
9 SPEED

CHASSIS SERIAL NUMBERS EXXXXXXX AND HIGHER

Location of tests: Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln Nebraska 68583-0892
Dates of tests: March 22 to April 1, 2016

MANUFACTURER: John Deere Commercial Products Inc., Grovetown Operations, P.O. Box 15458
Augusta Ga. USA, 30919-1458

FUEL, OIL and TIME: Fuel No. 2 Diesel
Specific gravity converted to 60°/60°F (15°/15°C)
0.8417 Fuel weight 7.008 lbs/gal (0.840 kg/l)
OIL SAE 15W-40 API service classification CJ-4
Transmission and hydraulic lubricant John Deere Hy-Gard fluid
Front axle lubricant John Deere Hy-Gard fluid
Total time engine was operated: 11.0 hours

ENGINE: Make John Deere Diesel Type
three cylinder vertical with turbocharger and air to air intercooler
Serial No. *YP3029H030370*
Crankshaft lengthwise Rated engine speed 2100
Bore and stroke 4.19" x 4.33" (106.5 mm x 110.0 mm)
Compression ratio 17.8 to 1 Displacement
179 cu in (2938 ml) Starting system 12 volt
Lubrication system
Oil filter one paper elements Oil cooler
one full flow cartridge Oil cooler engine coolant heat exchanger for cranking
Fuel filter one paper element Fuel cooler
one paper element Fuel cooler radiator for pump return fluid
Exhaust regenerative aftertreatment system consisting of
DOC (diesel oxidation catalyst) and DPF (diesel particulate filter)
integrated within an underhood muffler with vertical exhaust
Cooling medium temperature control one thermostat

ENGINE OPERATING PARAMETERS: Fuel rate:
30.0 - 32.9 lb/h (13.6 - 14.9 kg/h) Idling:
2190 - 2210 rpm Turbo boost: nominal 15.9 - 18.9 psid (110 - 130 kPa) as measured 17.7 psi (122 kPa)

CHASSIS: Type front wheel assist Serial No.
*1PY5075EEF4113159* Tread width rear 55.8" (1417 mm) to 71.7" (1821 mm)
front 52.8" (1340 mm) to 75.0" (1905 mm) Wheelbase 80.7" (2050 mm)
Hydraulic control system direct engine drive
Transmission selective gear fixed ratio Nominal travel speeds mph (km/h) first 1.43 (2.30) second
1.94 (3.13) third 2.68 (4.31) fourth 3.63 (5.84) fifth 4.94 (7.95) sixth 6.79 (10.93) seventh 9.26
(14.91) eighth 12.61 (20.30) ninth 17.34 (27.91) reverse 2.12 (3.41), 5.38 (8.65), 13.73 (22.09)
Clutch single dry disc operated by foot pedal
Brakes single wet disc hydraulically actuated by two foot pedals which can be locked together
Steering hydraulic Power take-off 540 rpm at
2083 engine rpm Unladen tractor mass 5795 lb
(2629 kg)

MAXIMUM POWER AND FUEL CONSUMPTION

<table>
<thead>
<tr>
<th>Power HP (kW)</th>
<th>Crankshaft speed rpm</th>
<th>Gal/hr (l/h)</th>
<th>Bhp/hr (kgf/W-hr)</th>
<th>Hp/hr/gal (kW/l)</th>
<th>Mean Atmospheric Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.64 (47.45)</td>
<td>2102</td>
<td>4.55</td>
<td>0.502</td>
<td>13.97</td>
<td>Fuel used during active exhaust regeneration-0.18 gal (0.67 l) (see note 1, p. 2)</td>
</tr>
<tr>
<td>64.24 (47.90)</td>
<td>2083</td>
<td>4.49</td>
<td>0.455</td>
<td>14.35</td>
<td></td>
</tr>
<tr>
<td>65.05 (48.51)</td>
<td>2002</td>
<td>4.46</td>
<td>0.480</td>
<td>14.59</td>
<td></td>
</tr>
</tbody>
</table>

VARYING POWER AND FUEL CONSUMPTION

<table>
<thead>
<tr>
<th>Power HP (kW)</th>
<th>Crankshaft speed rpm</th>
<th>Gal/hr (l/h)</th>
<th>Bhp/hr (kgf/W-hr)</th>
<th>Hp/hr/gal (kW/l)</th>
<th>Mean Atmospheric Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.64 (47.45)</td>
<td>2102</td>
<td>4.55</td>
<td>0.502</td>
<td>13.97</td>
<td></td>
</tr>
<tr>
<td>55.27 (41.22)</td>
<td>2148</td>
<td>4.14</td>
<td>0.525</td>
<td>13.35</td>
<td></td>
</tr>
<tr>
<td>42.23 (31.49)</td>
<td>2187</td>
<td>3.55</td>
<td>0.589</td>
<td>11.90</td>
<td></td>
</tr>
<tr>
<td>28.43 (21.26)</td>
<td>2200</td>
<td>3.05</td>
<td>0.753</td>
<td>9.31</td>
<td></td>
</tr>
<tr>
<td>14.19 (10.58)</td>
<td>2200</td>
<td>2.24</td>
<td>1.105</td>
<td>6.34</td>
<td></td>
</tr>
<tr>
<td>0.67 (0.50)</td>
<td>2200</td>
<td>1.48</td>
<td>15.34</td>
<td>0.45</td>
<td></td>
</tr>
</tbody>
</table>

Maximum power 209 lb.-ft. (294 Nm) at 2149 rpm
Maximum torque rise 51.6%
Torque rise at 1682 engine rpm - 23%
Power increase at 2002 engine rpm - 2%

Location: Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln, Nebraska 68583-0892
Dates of tests: March 22 to April 1, 2016

Manufacturer: John Deere Commercial Products Inc., Grovetown Operations, P.O. Box 15458
Augusta Ga. USA, 30919-1458

FUEL, OIL and TIME: Fuel No. 2 Diesel
Specific gravity converted to 60°/60°F (15°/15°C)
0.8417 Fuel weight 7.008 lbs/gal (0.840 kg/l)
OIL SAE 15W-40 API service classification CJ-4
Transmission and hydraulic lubricant John Deere Hy-Gard fluid
Front axle lubricant John Deere Hy-Gard fluid
Total time engine was operated: 11.0 hours

ENGINE: Make John Deere Diesel Type
three cylinder vertical with turbocharger and air to air intercooler
Serial No. *YP3029H030370*
Crankshaft lengthwise Rated engine speed 2100
Bore and stroke 4.19" x 4.33" (106.5 mm x 110.0 mm)
Compression ratio 17.8 to 1 Displacement 179 cu in (2938 ml)
Starting system 12 volt
Lubrication system
Oil filter one paper element Oil cooler
one full flow cartridge Oil cooler engine coolant heat exchanger for cranking
Fuel filter one paper element Fuel cooler
one paper element Fuel cooler radiator for pump return fluid
Exhaust regenerative aftertreatment system consisting of
DOC (diesel oxidation catalyst) and DPF (diesel particulate filter)
integrated within an underhood muffler with vertical exhaust
Cooling medium temperature control one thermostat

ENGINE OPERATING PARAMETERS: Fuel rate:
30.0 - 32.9 lb/h (13.6 - 14.9 kg/h) Idling:
2190 - 2210 rpm Turbo boost: nominal 15.9 - 18.9 psid (110 - 130 kPa) as measured 17.7 psi (122 kPa)

CHASSIS: Type front wheel assist Serial No.
*1PY5075EEF4113159* Tread width rear 55.8" (1417 mm) to 71.7" (1821 mm)
front 52.8" (1340 mm) to 75.0" (1905 mm) Wheelbase 80.7" (2050 mm)
Hydraulic control system direct engine drive
Transmission selective gear fixed ratio Nominal travel speeds mph (km/h) first 1.43 (2.30) second
1.94 (3.13) third 2.68 (4.31) fourth 3.63 (5.84) fifth 4.94 (7.95) sixth 6.79 (10.93) seventh 9.26
(14.91) eighth 12.61 (20.30) ninth 17.34 (27.91) reverse 2.12 (3.41), 5.38 (8.65), 13.73 (22.09)
Clutch single dry disc operated by foot pedal
Brakes single wet disc hydraulically actuated by two foot pedals which can be locked together
Steering hydraulic Power take-off 540 rpm at
2083 engine rpm Unladen tractor mass 5795 lb (2629 kg)
HYDRAULIC PERFORMANCE

CATEGORY: II
Quick attach: None
OECD Static test
Maximum force exerted through whole range: 3591 lbs (16.0 kN)
i) Sustained pressure of the open relief valve: 2921 psi (201 bar)
and rated engine speed:
ii) Pump delivery rate at minimum pressure
and rated engine speed: 11.6 GPM (43.8 l/min)
iii) Pump delivery rate at maximum hydraulic power:
Delivery pressure: 2579 psi (178 bar)
Power: 16.5 HP (12.3 kW)

THREE POINT HITCH PERFORMANCE

Observed maximum pressure psi (bar): 2796 (193)
Location: remote outlet
Hydraulic oil temperature: °F (°C): 185 (85)
Location: hydraulic sump
Category: II
Quick attach: none

SAE Static Test—System pressure 2480 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): 6635 (29.5) 5486 (24.4) 5067 (22.5) 4734 (21.1) 3978 (17.7)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE 1. The manufacturer declares that the average time between active regenerations is 50 hours. A 1% power increase was observed during the active exhaust regeneration.

NOTE 2. The performance values on this report apply to 5075E models equipped with a 2 post ROPS structure.

NOTE 3: The performance data on this report applies to tractors with chassis serial numbers that end with EXXXXXXX and higher.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. 2159, May 16, 2016.

Roger M. Hoy
Director

M.F. Kocher
J.D. Luck
P.J. Jasa
Board of Tractor Test Engineers

Institute of Agriculture and Natural Resources
University of Nebraska–Lincoln

John Deere 5075E Diesel