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2013

## Test 2056: John Deere 6115D

Nebraska Tractor Test Lab

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# NEBRASKA TRACTOR TEST 2056

## JOHN DEERE 6115D DIESEL

### 9 SPEED

### CHASSIS SERIAL NUMBERS 5xxxx AND HIGHER

#### POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
<b>MAXIMUM POWER AND FUEL CONSUMPTION</b>					
<b>Rated Engine Speed—(PTO speed—1066 rpm)</b>					
95.03 (70.87)	2199	6.16 (23.31)	0.454 (0.276)	15.43 (3.04)	Fuel used during active exhaust regeneration - 0.66 gal (2.51 l) (see Note 1 p.2)
<b>Rated Engine Speed—2100 rpm</b>					
98.83 (73.70)	2100	6.14 (23.24)	0.435 (0.265)	16.10 (3.17)	
<b>Standard Power Take-off Speed—(PTO speed—1000 rpm)</b>					
100.40 (74.87)	2065	6.14 (23.22)	0.428 (0.260)	16.36 (3.22)	
<b>Maximum Power (1 hour)</b>					
101.83 (75.94)	1950	6.02 (22.80)	0.414 (0.252)	16.91 (3.33)	

#### VARYING POWER AND FUEL CONSUMPTION

95.03 (70.87)	2199	6.16 (23.31)	0.454 (0.276)	15.43 (3.04)	Air temperature
83.40 (62.19)	2261	5.67 (21.48)	0.477 (0.290)	14.70 (2.90)	74°F (23°C)
63.20 (47.13)	2280	4.69 (17.75)	0.520 (0.316)	13.48 (2.65)	Relative humidity
42.50 (31.69)	2298	3.80 (14.38)	0.626 (0.381)	11.19 (2.20)	13%
21.60 (16.11)	2300	2.93 (11.09)	0.950 (0.578)	7.37 (1.45)	Barometer
2.00 (1.49)	2300	2.17 (8.22)	7.610 (4.629)	0.92 (0.18)	29.06" Hg (98.41 kPa)

Maximum Torque - 316 lb.-ft. (428 Nm) at 1499 rpm  
Maximum Torque Rise - 39.4%  
Torque rise at 1759 engine rpm - 30%  
Power increase at 1950 engine rpm - 7.2%

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 4th (B1) gear	77.2	77.0
Transport speed - no load - 9th (C3) gear		81.1
Bystander in 9th (C3) Gear		81.9

#### TIRES AND WEIGHT

**Rear Tires** - No., size, ply & psi (kPa)  
**Front Tires** - No., size, ply & psi (kPa)  
**Height of Drawbar**  
**Static Weight with operator** - Rear  
- Front  
- Total

#### Tested Without Ballast

Two 18.4-34; 8; 12 (85)  
Two 13.6-24; 8; 12 (85)  
15.5 in (395 mm)  
6195 lb (2810 kg)  
3750 lb (1701 kg)  
9945 lb (4511 kg)

**Location of tests:** Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln, Nebraska 68583-0832

**Dates of tests:** March 26- April 8, 2013

**Manufacturer:** Industrious John Deere, Boulevard Valdez Sanchez # 470, Saltillo, Coahuila CP25005 Mexico

**FUEL, OIL and TIME:** Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.8416 Fuel weight 7.007 lbs/gal (0.840 kg/l) Oil SAE 15W-40 API service classification CH-4 Transmission and hydraulic lubricant John Deere Hy-Gard fluid Front axle lubricant SAE 85W-140 API GL-5 Total time engine was operated: 12.0 hours

**ENGINE: Make** John Deere Diesel **Type** Four cylinder vertical with turbocharger and air to air aftercooler **Serial No.** \*PE4045R020485\* **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.19" x 5.00" (106.5 mm x 127.0 mm) **Compression ratio** 19.0 to 1 **Displacement** 276 cu in (4525 ml) **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil **Fuel filter** one paper element and prestrainer **Fuel cooler** radiator for pump return fuel **Exhaust** regenerative particulate filter integrated within an underhood muffler **Exhaust** vertical **Cooling medium temperature control** thermostat and variable speed fan.

**ENGINE OPERATING PARAMETERS: Fuel rate:** 41.8 - 45.3 lb/h (19.0 - 20.5 kg/h) **High idle:** 2280 - 2320 rpm **Turbo boost:** nominal 19.6 - 22.5 psi (135 - 155 kPa) as measured 21.4 psi (147 kPa)

**CHASSIS: Type** front wheel assist **Serial No.** \*1P06115DCCM050058\* **Tread width** rear 59.5" (1512 mm) to 79.2" (2012 mm) front 60.0" (1523 mm) to 80.0" (2033 mm) **Wheelbase** 92.5" (2450 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 1.80 (2.90) second 2.49 (4.00) third 3.19 (5.14) fourth 4.24 (6.82) fifth 5.85 (9.41) sixth 7.51 (12.09) seventh 10.16 (16.35) eighth 14.04 (22.59) ninth 18.03 (29.02) reverse 1.86 (3.00), 2.57 (4.14), 3.31 (5.32), 4.38 (7.05), 6.05 (9.73), 7.77 (12.51), 10.51 (16.92), 14.52 (23.37), 18.65 (30.02) **Clutch** dry disc operated by foot pedal **Brakes** wet disc operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2085 engine rpm or 1000 rpm at 2066 engine rpm **Unladen tractor mass** 9770 lb (4432 kg)

## HYDRAULIC PERFORMANCE

CATEGORY: II  
Quick Attach: No

Maximum force exerted through whole range:	<u>Lift cylinders</u> 5722 lbs (25.5 kN) 2 x 70 mm 7304 lbs (32.5 kN) 2 x 80 mm 2932 psi (202 bar)
i) Maximum observed pressure:	<u>two outlet sets combined</u>
ii) Pump delivery rate at minimum pressure and rated engine speed:	20.8 GPM (78.5 l/min)
iii) Pump delivery rate at maximum hydraulic power:	19.4 GPM (73.3 l/min)
Delivery pressure:	2653 psi (183 bar)
Power:	30.0 HP (22.3 kW)
	<u>single outlet set</u>
ii) Pump delivery rate at minimum pressure and rated engine speed:	20.5 GPM (77.6 l/min)
iii) Pump delivery rate at maximum hydraulic power:	19.2 GPM (72.8 l/min)
Delivery pressure:	2515 psi (173 bar)
Power:	28.2 HP (21.0 kW)

**REPAIRS AND ADJUSTMENTS:** No repairs or adjustments.

**NOTE 1.** The manufacturer declares that the average time between active regenerations is 100 hours, while operated in Auto Filter Cleaning Mode, at rated speed, full PTO load, under steady state conditions.

**NOTE 2:** The performance figures on this report apply to tractors with chassis serial numbers 5xxxx and higher.

**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 139°F (59°C).

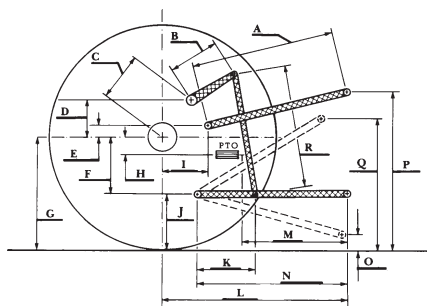
We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **2056**, May 14, 2013.

Roger M. Hoy  
Director

M.R. Riley  
P.J. Jasa  
J.D. Luck  
Board of Tractor Test Engineers

## HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	24.8	630
B	13.6	345
C	18.7	474
D	14.3	364
E	9.3	236
F	10.8	275
G	32.3	820
H	1.9	48
I	20.9	532
J	21.5	545
K	17.5	444
L	46.7	1187
M	24.9	632
N	33.1	840
O	9.0	230
P	45.5	1155
Q	38.0	965
R	30.5	775



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Institute of Agriculture and Natural Resources  
University of Nebraska-Lincoln