

NEBRASKA OECD TRACTOR TEST 2057–SUMMARY 877

JOHN DEERE 6130D 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
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed—(PTO speed—1065 rpm)					
104.94 (78.25)	2200	6.32 (23.94)	0.422 (0.257)	16.60 (3.27)	Fuel used during active exhaust regeneration - 0.53 gal (1.99 l) (see Note 1 p.2)
Power at 2100 engine rpm					
107.92 (80.48)	2100	6.31 (23.87)	0.410 (0.249)	17.10 (3.37)	
Standard Power Take-off Speed (1000 rpm)					
109.20 (81.43)	2065	6.29 (23.80)	0.403 (0.245)	17.37 (3.42)	
Maximum Power (1 hour)					
111.98 (83.50)	1900	6.27 (23.74)	0.393 (0.239)	17.85 (3.52)	

VARYING POWER AND FUEL CONSUMPTION

104.94 (78.25)	2200	6.32 (23.94)	0.422 (0.257)	16.60 (3.27)	Air temperature
91.73 (68.40)	2261	5.88 (22.26)	0.449 (0.273)	15.60 (3.07)	74°F (23°C)
69.53 (51.85)	2285	4.87 (18.42)	0.490 (0.298)	14.29 (2.82)	Relative humidity
46.66 (34.79)	2300	3.79 (14.36)	0.570 (0.347)	12.29 (2.42)	20%
23.34 (17.40)	2301	2.79 (10.58)	0.839 (0.510)	8.35 (1.65)	Barometer
2.33 (1.74)	2300	1.91 (7.23)	5.740 (3.491)	1.22 (0.24)	28.92 Hg (97.93 kPa)

Maximum torque - 347 lb.-ft. (470 Nm) at 1500 rpm
 Maximum torque rise - 38.4%
 Torque rise at 1760 engine rpm - 29%
 Power increase at 1900 engine rpm - 6.7%

DRAWBAR PERFORMANCE

UNBALLASTED - FRONT DRIVE ENGAGED

FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp. °F (°C) cool- ing med	Barom. inch Hg (kPa)
Power at Rated Engine Speed—5th (B2) Gear								
93.07 (69.40)	5976 (26.58)	5.84 (9.40)	2200	7.3	0.475 (0.289)	14.74 (2.90)	183 (84)	48 (9)
75% of Pull at Rated Engine Speed—5th (B2) Gear								
73.50 (54.81)	4467 (19.87)	6.17 (9.93)	2272	5.1	0.523 (0.318)	13.39 (2.64)	181 (83)	57 (14)
50% of Pull at Rated Engine Speed—5th (B2) Gear								
49.97 (37.26)	2956 (13.15)	6.34 (10.20)	2296	3.4	0.613 (0.373)	11.43 (2.25)	180 (82)	57 (14)
75% of Pull at Reduced Engine Speed—6th (B3) Gear								
73.39 (54.73)	4490 (19.97)	6.13 (9.87)	1757	5.0	0.457 (0.278)	15.34 (3.02)	182 (83)	58 (15)
50% of Pull at Reduced Engine Speed—6th (B3) Gear								
50.00 (37.28)	2948 (13.11)	6.36 (10.24)	1790	3.3	0.512 (0.311)	13.69 (2.70)	178 (81)	58 (14)

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

Dates of tests: March 27 to April 11, 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 CJ-4 Transmission and hydraulic lubricant John Deere Hy-Gard fluid Front axle lubricant John Deere Hy-Gard fluid Total time engine was operated: 16.5 hours

ENGINE: Make John Deere Diesel **Type** Four cylinder vertical with turbocharger and air to air intercooler **Serial No.** *PE4045R020549* **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 and aspirator **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil **Fuel filter** two paper elements **Fuel cooler** radiator for pump return fuel **Exhaust** regenerative particulate filter integrated within an underhood muffler **Cooling medium temperature control** two thermostats and variable speed fan

ENGINE OPERATING PARAMETERS: Fuel rate: 43.8 - 47.5 lb/h (19.9 - 21.5 kg/h) **High idle:** 2280 - 2320 rpm **Turbo boost:** nominal 19.6 - 22.5 psi (135 - 155 kPa) as measured 21.0 psi (145 kPa)

CHASSIS: Type front wheel assist **Serial No.** *1P06130DHCM050019* **Tread width** rear 59.5" (1512 mm) to 79.2" (2012 mm) front 60.1" (1527 mm) to 80.3" (2039 mm) **Wheelbase** 96.5" (2450 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 1.92 (3.09) second 2.65 (4.26) third 3.41 (5.48) fourth 4.51 (7.26) fifth 6.23 (10.03) sixth 8.00 (12.88) seventh 10.82 (17.42) eighth 14.94 (24.05) ninth 19.20 (30.90) reverse 1.99 (3.20), 2.74 (4.41), 3.52 (5.67), 4.67 (7.51), 6.44 (10.37), 8.28 (13.33), 11.20 (18.02), 15.46 (24.88), 19.87 (31.97) **Clutch** wet multiple disc hydraulically actuated by foot pedal **Brakes** wet multiple disc mechanically 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** 10000 lb (4536 kg)

DRAWBAR PERFORMANCE
UNBALLASTED - FRONT DRIVE ENGAGED
MAXIMUM POWER IN SELECTED GEARS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Temp. °F (°C) cool- ing med	Barom. inch Hg (kPa)		
3rd(A3)Gear									
72.14 (53.80)	8929 (39.72)	3.03 (4.88)	2267	14.8	0.554 (0.337)	12.66 (2.49)	183 (84)	53 (11)	29.04 (98.34)
4th(B1)Gear									
89.40 (66.67)	8392 (37.33)	4.00 (6.43)	2203	12.7	0.496 (0.302)	14.13 (2.78)	183 (84)	46 (8)	29.06 (98.41)
5th(B2)Gear									
93.07 (69.40)	5976 (26.58)	5.84 (9.40)	2200	7.3	0.475 (0.289)	14.74 (2.90)	183 (84)	48 (9)	29.06 (98.41)
6th(B3)Gear									
93.55 (69.76)	4574 (20.35)	7.67 (12.34)	2200	5.1	0.475 (0.289)	14.77 (2.91)	184 (84)	50 (10)	29.05 (98.37)

UNBALLASTED - FRONT DRIVE ENGAGED-1900 ENGINE RPM

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Temp. °F (°C) cool- ing med	Barom. inch Hg (kPa)		
3rd(A3)Gear									
72.25 (53.88)	8927 (39.71)	3.04 (4.88)	2267	14.6	0.544 (0.331)	12.88 (2.54)	183 (84)	52 (11)	29.04 (98.34)
4th(B1)Gear									
89.43 (66.69)	8406 (37.39)	3.99 (6.42)	2205	12.8	0.490 (0.298)	14.30 (2.82)	183 (84)	47 (8)	29.06 (98.41)
5th(B2)Gear									
96.95 (72.30)	7435 (33.07)	4.89 (7.87)	1900	10.1	0.454 (0.276)	15.43 (3.04)	184 (84)	49 (9)	29.06 (98.41)
6th(B3)Gear									
99.15 (73.94)	5712 (25.41)	6.51 (10.48)	1900	6.7	0.444 (0.270)	15.79 (3.11)	183 (84)	50 (10)	29.05 (98.37)

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 4th (B1) gear	79.3	78.6
Transport speed - no load - 9th (C3) gear		81.7
Bystander in 9th (C3) gear		83.1

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 18.4-38;8;12(85)
 Two 14.9-24;8;12(85)
 18.0 in (455 mm)
 6355 lb (2882 kg)
 3820 lb (1733 kg)
 10175 lb (4615 kg)

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 fuel pump inlet was maintained at 137°F (58°C). The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **2057**, Nebraska Summary 877, May 14, 2013.

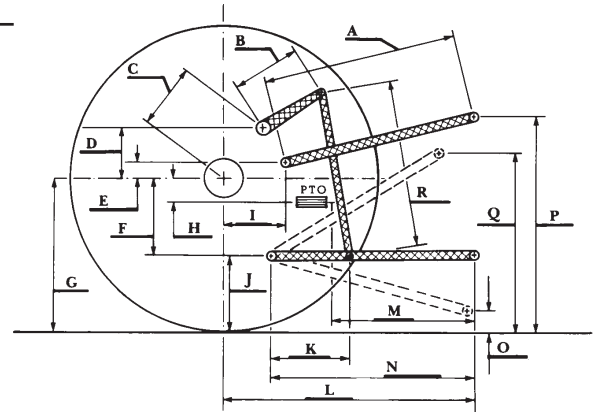
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HYDRAULIC PERFORMANCE

CATEGORY: II
Quick Attach: No

	<u>Lift cylinders</u>
Maximum force exerted through whole range:	5722 lbs (25.5 kN) 2 x 70 mm 7304 lbs (32.5 kN) 2 x 80 mm
i) Maximum observed pressure:	3006 psi (207 bar) two outlet sets combined
ii) Pump delivery rate at minimum pressure and rated engine speed:	20.4 GPM (77.2 l/min)
iii) Pump delivery rate at maximum hydraulic power:	19.4 GPM (73.6 l/min)
Delivery pressure:	2710 psi (187 bar)
Power:	30.7 HP (22.9 kW) single outlet set
ii) Pump delivery rate at minimum pressure and rated engine speed:	20.7 GPM (78.2 l/min)
iii) Pump delivery rate at maximum hydraulic power:	19.3 GPM (73.2 l/min)
Delivery pressure:	2646 psi (182 bar)
Power:	29.9 HP (22.3 kW)



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



JOHN DEERE 6130D DIESEL

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