

SUMMARY OF OECD TEST 3083 - NEBRASKA SUMMARY 1142

JOHN DEERE 6130R POWRQUAD-PLUS DIESEL

24 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Diesel Consumption		D.E.F. Consumption		Mean Atmospheric Conditions
		Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Gal/hr (l/h)	
MAXIMUM POWER AND FUEL CONSUMPTION						
Rated Engine Speed—(PTO speed—1070 rpm)						
111.7 (83.3)	2100	6.94 (26.25)	0.436 (0.265)	16.09 (3.17)	0.14 (0.54)	Fuel used during the active exhaust regeneration - 0.6 gal (2.3 l) (see Note 1, p.2)
Standard Power Take-off Speed (1000 rpm)						
122.3 (91.2)	1962	7.20 (27.26)	0.413 (0.251)	16.98 (3.35)	0.17 (0.65)	
Maximum Power (1 hour)						
125.3 (93.5)	1900	7.28 (27.56)	0.407 (0.247)	17.22 (3.39)	0.15 (0.58)	

VARYING POWER AND FUEL CONSUMPTION

111.7 (83.3)	2100	6.94 (26.25)	0.436 (0.265)	16.09 (3.17)	0.14 (0.54)	Air temperature
95.9 (71.5)	2122	6.29 (23.80)	0.459 (0.279)	15.26 (3.01)	0.13 (0.49)	68°F (20°C)
72.5 (54.0)	2137	5.36 (20.30)	0.517 (0.314)	13.53 (2.67)	0.08 (0.31)	Relative humidity
48.8 (36.4)	2161	4.36 (16.50)	0.627 (0.381)	11.19 (2.20)	0.06 (0.24)	45%
24.5 (18.3)	2177	3.30 (12.50)	0.942 (0.573)	7.43 (1.46)	0.05 (0.20)	Barometer
--	2198	2.14 (8.10)	--	--	0.06 (0.22)	30.1" Hg (102.0 kPa)

Maximum torque - 401 lb.-ft. (544 Nm) at 1600 rpm
 Maximum torque rise - 43.5%
 Torque rise at 1700 engine rpm - 35%
 Power increase at 1900 engine rpm - 12.2%

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)	D.E.F. Consumption lb/hp.hr (kg/kW.h)	D.E.F. cool- ing med	Temp. °F(°C) Air dry bulb	Barom. inch Hg (kPa)	
Power at Rated Engine Speed—10th (C2) Gear										
104.5 (77.9)	7400 (32.91)	5.30 (8.52)	2099	3.9	0.473 (0.288)	14.67 (2.89)	0.012 (0.007)	180 (82)	66 (19)	29.4 (99.5)
75% of Pull at Rated Engine Speed—10th (C2) Gear										
82.2 (61.3)	5530 (24.60)	5.57 (8.97)	2188	3.0	0.538 (0.328)	12.88 (2.54)	0.018 (0.006)	174 (79)	64 (18)	29.4 (99.4)
50% of Pull at Rated Engine Speed—10th (C2) Gear										
55.5 (41.4)	3670 (16.33)	5.67 (9.13)	2204	2.1	0.649 (0.395)	10.69 (2.11)	0.008 (0.005)	169 (76)	64 (18)	29.4 (99.4)
75% of Pull at Reduced Engine Speed—11th (C3) Gear										
82.2 (61.3)	5505 (24.50)	5.60 (9.01)	1832	2.8	0.459 (0.279)	15.13 (2.98)	0.018 (0.011)	172 (78)	63 (17)	29.4 (99.4)
50% of Pull at Reduced Engine Speed—11th (C3) Gear										
55.7 (41.5)	3665 (16.30)	5.69 (9.16)	1849	2.1	0.529 (0.322)	13.10 (2.58)	0.010 (0.006)	167 (75)	63 (17)	29.4 (99.4)

Location of tests: DLG e.V. Test Centre, Technology and Farm inputs, Max-Eyth-Weg 1, D-64823 Gross-Umstadt, Germany

Dates of tests: October, 2017

Manufacturer: John Deere GmbH & Co., KG Mannheim Germany

CONSUMABLE Fluids: Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.8408 Fuel weight 7.01 lbs/gal (0.839 kg/l) Diesel Exhaust Fluid (DEF) 32% aqueous urea solution DEF weight 9.071 lbs/gal (1.087 kg/l) Oil SAE 10W-30 API service classification CJ-4 Transmission and hydraulic lubricant John Deere Hy-Gard fluid Front axle lubricant John Deere Hy-Gard fluid

ENGINE: Make John Deere Diesel Type four cylinder vertical with two turbochargers, air to air intercooler and D.E.F. (diesel exhaust fluid) exhaust treatment Serial No. *CD4045U038056* Crankshaft lengthwise Rated engine speed 2100 Bore and stroke 4.19" x 5.00" (106.5 mm x 127.0 mm) Compression ratio 17.2 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 one paper element and prestrainer Fuel cooler radiator for pump return fuel Exhaust DOC (diesel oxidation catalyst)/DPF (diesel particulate filter) System and SCR (selective catalyst reduction) with a vertical muffler Cooling medium temperature control thermostat and variable speed fan

CHASSIS: Type front wheel assist Serial No. *1L06130RHHK881958* Tread width rear 65.1 (1654 mm) to 104.3" (2650 mm) front 64.0" (1625 mm) to 83.4" (2118 mm) Wheelbase 101.6" (2580 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio with partial (4) range operator controlled power shift Nominal travel speeds mph (km/h) first 1.14 (1.84) second 1.38 (2.22) third 1.65 (2.66) fourth 2.03 (3.26) fifth 2.80 (4.50) sixth 3.37 (5.42) seventh 4.03 (6.49) eighth 4.56 (7.34) ninth 4.94 (7.95) tenth 5.49 (8.83) eleventh 6.57 (10.58) twelfth 7.48 (12.04) thirteenth 8.05 (12.96) fourteenth 9.00 (14.49) fifteenth 10.79 (17.36) sixteenth 12.15 (19.56) seventeenth 13.22 (21.27) eighteenth 14.63 (23.55) nineteenth 17.44 (28.07) twentieth 17.53 (28.21) twenty-first 21.11 (33.97) twenty-second 21.48 (34.56) twenty-third 25.15 (40.48) twenty-fourth 26.10 (42.00) (electronically limited)

DRAWBAR PERFORMANCE

UNBALLASTED - FRONT DRIVE ENGAGED - 1900 ENGINE RPM 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)	Hp.hr/gal (kW.h/l)	D.E.F. Consumption lb/hp.hr (kg/kW.h)	Temp. ^o F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
5th (B1) Gear										
89.8 (67.0)	14030 (62.40)	2.40 (3.87)	2115	15.2	0.543 (0.330)	12.76 (2.51)	0.018 (0.011)	180 (82)	73 (23)	29.4 (99.4)
6th (B2) Gear										
99.5 (74.2)	13920 (61.92)	2.68 (4.31)	1952	14.7	0.517 (0.314)	13.41 (2.64)	0.013 (0.008)	181 (83)	73 (23)	29.4 (99.4)
7th (B3) Gear										
109.2 (81.4)	12295 (54.68)	3.33 (5.36)	1901	9.1	0.473 (0.288)	14.67 (2.89)	0.015 (0.009)	183 (84)	73 (23)	29.4 (99.4)
8th (C1) Gear										
111.7 (83.3)	10850 (48.27)	3.86 (6.21)	1902	7.0	0.457 (0.278)	15.18 (2.99)	0.012 (0.007)	183 (84)	70 (21)	29.4 (99.5)
9th (B4) Gear										
112.0 (83.5)	9925 (44.15)	4.23 (6.81)	1902	6.0	0.461 (0.280)	15.04 (2.96)	0.010 (0.006)	183 (84)	73 (23)	29.4 (99.5)
10th (C2) Gear										
112.9 (84.2)	8925 (39.70)	4.74 (7.63)	1903	5.1	0.455 (0.277)	15.25 (3.01)	0.016 (0.010)	183 (84)	72 (22)	29.4 (99.5)
11th (C3) Gear										
114.8 (85.6)	7520 (33.44)	5.73 (9.22)	1900	4.2	0.446 (0.272)	15.53 (3.06)	0.018 (0.011)	183 (84)	72 (22)	29.4 (99.5)
12th (D1) Gear										
115.6 (86.2)	6595 (29.34)	6.57 (10.57)	1901	3.5	0.446 (0.272)	15.53 (3.06)	0.015 (0.009)	181 (83)	72 (22)	29.4 (99.5)
13th (C4) Gear										
114.7 (85.5)	6055 (26.94)	7.10 (11.42)	1900	3.1	0.449 (0.273)	15.43 (3.04)	0.012 (0.007)	183 (84)	72 (22)	29.4 (99.5)
14th (D2) Gear										
113.7 (84.8)	5360 (23.84)	7.95 (12.80)	1900	2.9	0.451 (0.275)	15.37 (3.03)	0.015 (0.009)	181 (83)	72 (22)	29.4 (99.4)
*15th (D3) Gear										
118.0 (88.0)	4620 (20.54)	9.58 (15.42)	1903	2.4	0.448 (0.272)	15.48 (3.05)	0.012 (0.007)	181 (83)	72 (22)	29.4 (99.4)
*17th (D4) Gear										
125.0 (93.2)	3950 (17.57)	11.87 (19.09)	1913	2.1	0.449 (0.273)	15.43 (3.04)	0.010 (0.006)	181 (83)	72 (22)	29.4 (99.4)

*Intelligent Power Management system activated

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 8th (C1) gear	71.3	71.1
Transport speed - no load - 24th (F4) gear		71.7
Bystander		--

Horizontal distances of drawbar hitch point behind rear wheel axis - 33.5 in (850 mm), 37.4 in (950 mm), 39.4 in (1000 mm)

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 600/65R38;***;12(80)
 Two 540/65R24;***;12(80)
 19.7 in (500 mm)
 7815 lb (3545 kg)
 5635 lb (2555 kg)
 13450 lb (6100 kg)

reverse 1.19 (1.92), 1.44 (2.32), 1.72 (2.77), 2.11 (3.40), 2.91 (4.69), 3.51 (5.65), 4.21 (6.77), 4.75 (7.65), 5.15 (8.29), 5.73 (9.22), 6.86 (11.04), 7.80 (12.56), 8.40 (13.52), 9.94 (15.12), 11.25 (18.11), 12.68 (20.41), 13.79 (22.19), 15.27 (24.58), 18.20 (29.29), 18.29 (29.44), 21.91 (35.26), 22.41 (36.06), 26.25 (42.24), 32.15 (51.74) **Clutch** wet multiple disc hydraulically actuated by foot pedal **Brakes** wet multiple disc hydraulically operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1967 engine rpm or 1000 rpm at 1962 engine rpm **Unladen tractor mass** 13285 lb (6025 kg)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE 1: The manufacturer declares that the average time between active regenerations is 100 hours.

NOTE 2: This tractor has an engine control feature, I.P.M. (Intelligent Power Management) that allows the engine to run in a "boosted" mode, increased power level, at elevated drawbar travel speeds.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The manufacturer's claim of 125 PTO Hp (93 kW), with I.P.M. activated was not verified. 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 summary of data from OECD Report No. **3083**, Nebraska Summary 1142, June 11, 2018.

Roger M. Hoy
 Director

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 J.D. Luck
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 Board of Tractor Test Engineers

HYDRAULIC PERFORMANCE WITH 45cc pump

CATEGORY: 3N

Quick Attach: No

Lift cylinders:

2 x 70 mm 2 x 80 mm

Maximum force exerted through whole range: 6880 lbs (30.6 kN) 8700 lbs (38.7 kN)

i) Sustained pressure at compensator cutoff: 2960 psi (204 bar)
two outlet sets combined

ii) Pump delivery rate at minimum pressure: 30.1 GPM (114.1 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 27.1 GPM (102.7 l/min)

Delivery pressure: 2730 psi (188 bar)

Power: 43.2 HP (32.2 kW)

single outlet set

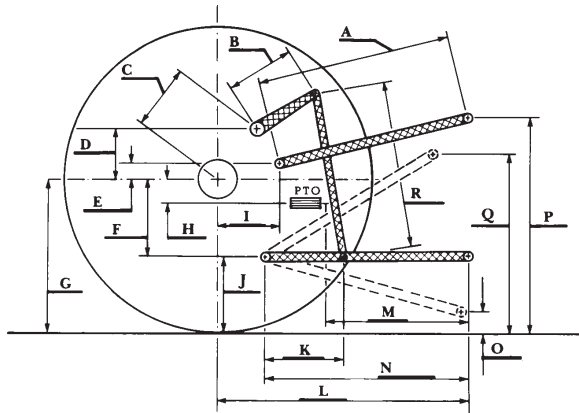
ii) Pump delivery rate at minimum pressure: 29.8 GPM (112.7 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 28.7 GPM (108.5 l/min)

Delivery pressure: 2190 psi (151 bar)

Power: 36.6 HP (27.3 kW)



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	28.7	730
B	15.4	390
C	21.7	552
D	20.7	525
E	12.6	320
F	8.8	224
G	32.5	825
H	2.6	65
I	16.8	427
J	23.7	601
K	22.0	560
L	45.3	1150
M	24.4	620
N	40.0	1015
O	9.1	230
P	50.6	1286
Q	39.2	995
R	33.5	850

RECOMMENDED CITATION FORMAT:

NTTL.(2018). OECD tractor test 3083 for John Deere 6130R PowerQuad Plus Diesel.

Lincoln, NE:Nebraska Tractor Test Laboratory. Retrieved from <http://tractortestlab.unl.edu>