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2021

Nebraska Summary 1193: John Deere 6130M FT4

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SUMMARY OF OECD TEST 3268 - NEBRASKA SUMMARY 1193

JOHN DEERE 6130M AUTOQUAD PLUS DIESEL

24 SPEED

Engine Serial numbers 4045U and higher

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)						
100.0 (74.6)	2100	6.66 (25.20)	0.457 (0.278)	15.02 (2.96)	0.15 (0.56)	Fuel used during the active exhaust regeneration - 0.74 gal (2.79 l) (see Note 1, p.2)
Standard Power Take-off Speed (1000 rpm)						
113.7 (84.8)	1962	7.09 (26.85)	0.428 (0.260)	16.04 (3.16)	0.15 (0.58)	
Maximum Power (1 hour)						
119.1 (88.8)	1800	7.14 (27.04)	0.411 (0.250)	16.67 (3.29)	0.17 (0.65)	

VARYING POWER AND FUEL CONSUMPTION

100.0 (74.6)	2100	6.66 (25.20)	0.457 (0.278)	15.02 (2.96)	0.15 (0.56)	Air temperature
87.7 (65.4)	2165	6.28 (23.78)	0.492 (0.299)	13.96 (2.75)	0.12 (0.47)	68°F (20°C)
66.4 (49.5)	2185	5.54 (20.99)	0.573 (0.349)	11.98 (2.36)	0.10 (0.36)	Relative humidity
44.8 (33.4)	2211	4.60 (17.40)	0.705 (0.429)	9.75 (1.92)	0.06 (0.23)	32%
22.7 (16.9)	2241	3.69 (13.95)	1.116 (0.679)	6.14 (1.21)	0.05 (0.18)	Barometer
--	2251	2.64 (10.00)	--	--	0.05 (0.19)	30.4" Hg (103.0 kPa)

Maximum torque - 380 lb.-ft. (515 Nm) at 1600 rpm
 Maximum torque rise - 51.8%
 Torque rise at 1700 engine rpm - 48%
 Power increase at 1800 engine rpm - 19.1%

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)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Power at Rated Engine Speed—10th (C2) Gear									
94.8 (70.7)	6635 (29.52)	5.36 (8.62)	2097	4.0	0.485 (0.295)	14.21 (2.80)	0.013 (0.008)	163 (73)	50 (10) (100.5)
75% of Pull at Rated Engine Speed—10th (C2) Gear									
74.3 (55.4)	4975 (22.12)	5.60 (9.01)	2168	2.9	0.561 (0.341)	12.28 (2.42)	0.013 (0.008)	174 (79)	48 (9) (100.5)
50% of Pull at Rated Engine Speed—10th (C2) Gear									
49.7 (37.1)	3265 (14.53)	5.71 (9.19)	2195	2.1	0.700 (0.426)	9.85 (1.94)	0.013 (0.008)	171 (77)	50 (10) (100.5)
75% of Pull at Reduced Engine Speed—11th (C3) Gear									
74.4 (55.5)	4940 (21.98)	5.65 (9.09)	1817	2.5	0.482 (0.293)	14.29 (2.81)	0.013 (0.008)	180 (82)	55 (13) (100.4)
50% of Pull at Reduced Engine Speed—11th (C3) Gear									
49.8 (37.1)	3240 (14.42)	5.76 (9.27)	1835	1.6	0.576 (0.350)	11.95 (2.35)	0.012 (0.007)	167 (75)	55 (13) (100.4)

Location of tests: DLG TestService, GmbH, Max-Eyth-Weg 1, D-64823 Gross-Umstadt, Germany

Dates of tests: February to March, 2021

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

CONSUMABLE Fluids: Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.8240 Fuel weight 6.88 lbs/gal (0.823 kg/l) Diesel Exhaust Fluid (DEF) 32% aqueous urea solution DEF weight 9.071 lbs/gal (1.087 kg/l) Oil SAE 15W-30 API service classification CK-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.** *CD4045U148695* **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.** *1L06130MHLK977490* **Tread width** rear 63.5" (1612 mm) to 75.4" (1916 mm) front 55.9" (1420 mm) to 83.5" (2120 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 21.00 (33.79) twenty-second 21.48 (34.56) twenty-third 24.86 (40.00) twenty-fourth 24.86 (40.00) (electronically limited)

DRAWBAR PERFORMANCE

UNBALLASTED - FRONT DRIVE ENGAGED - 1700 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. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
7th (B3) Gear										
101.2 (75.5)	13310 (59.21)	2.85 (4.59)	1713	14.8	0.482 (0.293)	14.31 (2.83)	0.016 (0.010)	178 (81)	46 (8)	29.7 (100.6)
8th (C1) Gear										
105.1 (78.4)	11670 (51.91)	3.38 (5.44)	1701	9.9	0.455 (0.277)	15.13 (2.98)	0.018 (0.011)	196 (91)	55 (13)	29.6 (100.4)
9th (B4) Gear										
109.4 (81.6)	10955 (48.74)	3.75 (6.03)	1700	7.8	0.448 (0.273)	15.41 (3.04)	0.016 (0.010)	178 (81)	43 (6)	29.7 (100.6)
10th (C2) Gear										
108.9 (81.2)	9645 (42.91)	4.23 (6.82)	1699	6.3	0.442 (0.268)	15.61 (3.07)	0.018 (0.011)	201 (94)	59 (15)	29.6 (100.4)
11th (C3) Gear										
110.4 (82.3)	8030 (35.72)	5.16 (8.30)	1703	5.0	0.442 (0.268)	15.61 (3.07)	0.018 (0.011)	203 (95)	57 (14)	29.6 (100.3)
12th (D1) Gear										
110.5 (82.4)	7030 (31.28)	5.89 (9.49)	1700	4.3	0.436 (0.265)	15.80 (3.11)	0.016 (0.010)	196 (91)	57 (14)	29.6 (100.3)
13th (C4) Gear										
110.4 (82.3)	6480 (28.83)	6.39 (10.28)	1705	3.8	0.443 (0.269)	15.56 (3.06)	0.018 (0.011)	201 (94)	57 (14)	29.6 (100.3)
14th (D2) Gear										
110.6 (82.5)	5775 (25.69)	7.18 (11.56)	1703	3.4	0.442 (0.269)	15.58 (3.07)	0.016 (0.010)	201 (94)	55 (13)	29.6 (100.3)
15th (D3) Gear										
111.4 (83.1)	4830 (21.48)	8.65 (13.92)	1700	2.6	0.440 (0.267)	15.68 (3.09)	0.016 (0.010)	178 (81)	41 (5)	29.7 (100.6)

reverse 1.14 (1.84), 1.38 (2.22), 1.65 (2.66), 2.03 (3.26), 2.80 (4.50), 3.37 (5.42), 4.03 (6.49), 4.56 (7.34), 4.94 (7.95), 5.49 (8.83), 5.57 (10.58), 7.48 (12.04), 9.05 (12.96), 9.00 (14.49), 10.79 (17.36), 12.15 (19.56), 13.22 (21.27), 14.63 (23.55), 17.44 (28.07), 17.53 (28.21), 21.00 (33.79), 21.48 (34.56), 24.86 (40.00), 24.86 (40.00) (electronically limited)
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 12965 lb (5880 kg)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE 1: The manufacturer declares that the average time between active regenerations is 50 hours.

NOTE 2: The performance data on this report applies to tractors that have engine serial numbers containing 4045U.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The manufacturer's remote hydraulic flow claim of 21.1 GPM (80 l/min) with 35 cc pump was not verified. The manufacturer's PTO power claims of 102 hp (76 kW) at rated speed and 127 hp (93 kW) at 1000 PTO rpm with IPM (Intelligent Power Management) engaged was not verified. This tractor fell 0.9% short of meeting the manufacturer's 3 point lift claim at ball ends of 12566 lbs (5700 kg) with 85 mm lift cylinders. 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. **3268**, Nebraska Summary 1193, February 9, 2022.

Roger M. Hoy
Director

P.J. Jasa
J.D. Luck
S. Pitla
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 9th (B4) gear	70.1	69.5
Transport speed - no load - 24th (F4) gear		70.5
Bystander		--

Horizontal distances of drawbar hitch point behind rear wheel axis - 30.7 in (780 mm), 34.6 in (880 mm)
36.6 in (930 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 520/70R38;***;12(80)
 Two 480/70R24;***;12(80)
 20.9 in (530 mm)
 8005 lb (3630 kg)
 5125 lb (2325 kg)
 13130 lb (5955 kg)

HYDRAULIC PERFORMANCE

CATEGORY: 3N

Quick Attach: No

Lift cylinders:

lift cylinders

Maximum force exerted through whole range:
 on the frame: $2 \times 80 \text{ mm}$ $2 \times 85 \text{ mm}$
 8385 lbs (37.3 kN) 9465 lbs (42.1 kN)
 at hitch points: 11040 lbs (49.1 kN) 12455 lbs (55.4 kN)

i) Sustained pressure at compensator cutoff: 2960 psi (204 bar)

two outlet sets combined

ii) Pump delivery rate at minimum pressure: 31.2 GPM (118.1 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 28.7 GPM (108.8 l/min)

Delivery pressure: 2655 psi (183 bar)

Power: 44.4 HP (33.1 kW)

single outlet set

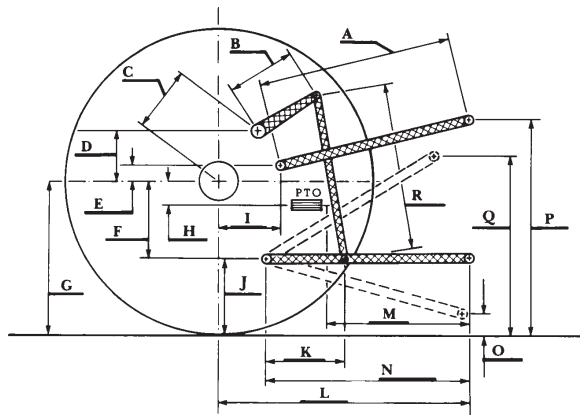
ii) Pump delivery rate at minimum pressure: 30.8 GPM (116.8 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 28.9 GPM (109.3 l/min)

Delivery pressure: 2295 psi (158 bar)

Power: 38.6 HP (28.8 kW)



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	27.6	700
B	15.4	390
C	21.7	552
D	20.7	525
E	9.3	235
F	8.1	205
G	32.5	825
H	3.0	75
I	17.3	439
J	24.4	620
K	21.3	540
L	45.3	1150
M	24.4	620
N	40.0	1015
O	9.1	230
P	51.4	1305
Q	37.8	961
R	35.6	905

RECOMMENDED CITATION FORMAT:

NTTL.(2022). OECD tractor test 3268 for John Deere 6130M AutoQuad Plus Diesel.

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