

SUMMARY OF OECD TEST 3021 - NEBRASKA SUMMARY 1113

JOHN DEERE 6175M AUTOQUAD-PLUS DIESEL

20 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—1077 rpm)						
149.1 (111.2)	2100	8.84 (33.46)	0.414 (0.252)	16.87 (3.32)	0.22 (0.85)	Fuel used during active exhaust regeneration - 1.14 gal (4.30 l) (see Note 1.p.2)
Standard Power Take-off Speed (1000 rpm)						
164.1 (122.4)	1950	9.25 (35.00)	0.393 (0.239)	17.75 (3.50)	0.27 (1.02)	
Maximum Power (1 hour)						
167.4 (124.8)	1800	9.15 (34.64)	0.382 (0.232)	18.29 (3.60)	0.30 (1.13)	

VARYING POWER AND FUEL CONSUMPTION

149.1 (111.2)	2100	8.84 (33.46)	0.414 (0.252)	16.87 (3.32)	0.22 (0.85)	Air temperature
130.1 (97.0)	2154	8.08 (30.60)	0.434 (0.264)	16.09 (3.17)	0.17 (0.63)	68°F (20°C)
99.0 (73.8)	2186	6.84 (25.90)	0.482 (0.293)	14.48 (2.85)	0.10 (0.38)	Relative humidity
67.0 (50.0)	2219	5.49 (20.80)	0.573 (0.349)	12.20 (2.40)	0.09 (0.33)	52%
33.9 (25.3)	2244	4.07 (15.40)	0.839 (0.510)	8.34 (1.64)	0.06 (0.24)	Barometer
--	2250	2.78 (10.52)	--	--	0.08 (0.31)	30.1" Hg (101.9 kPa)

Maximum torque - 536 lb.-ft. (727 Nm) at 1300 rpm

Maximum torque rise - 43.6%

Torque rise at 1700 engine rpm - 35%

Power increase at 1800 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 Hp.hr/gal (kW.h/l)	Temp. °F(°C)	Barom. inch Hg (kPa)
Power at Rated Engine Speed—7th (B3) Gear								
140.4 (104.7)	11370 (50.57)	4.63 (7.45)	2100	4.3	0.452 (0.275)	15.43 (3.04)	0.012 (0.007)	181 (83)
75% of Pull at Rated Engine Speed—7th (B3) Gear								
111.6 (83.2)	8530 (37.95)	4.91 (7.89)	2187	2.7	0.487 (0.296)	14.33 (2.82)	0.012 (0.007)	178 (81)
50% of Pull at Rated Engine Speed—7th (B3) Gear								
75.8 (56.5)	5675 (25.25)	5.01 (8.05)	2210	1.7	0.569 (0.346)	12.28 (2.42)	0.007 (0.004)	174 (79)
75% of Pull at Reduced Engine Speed—8th (C1) Gear								
110.9 (82.7)	8540 (37.99)	4.87 (7.83)	1969	2.8	0.469 (0.285)	14.84 (2.93)	0.010 (0.006)	180 (82)
50% of Pull at Reduced Engine Speed—8th (C1) Gear								
74.7 (55.7)	5650 (25.13)	4.96 (7.98)	1989	2.0	0.543 (0.330)	12.86 (2.53)	0.010 (0.006)	176 (80)

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 to November, 2016

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

CONSUMABLE Fluids: Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.8384 Fuel weight 6.99 lbs/gal (0.837 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 six cylinder vertical with turbocharger, air to air intercooler and D.E.F. (diesel exhaust fluid) exhaust treatment Serial No. *CD6068U020548* Crankshaft lengthwise Rated engine speed 2100 Bore and stroke 4.19 x 5.00" (106.5 mm x 127.0 mm) Compression ratio 17.0 to 1 Displacement 414 cu in (6788 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. *1L06175MJGG864446* Tread width rear 68.3" (1736 mm) to 100.5" (2552 mm) front 63.3" (1608 mm) to 88.3" (2244 mm) Wheelbase 110.2" (2800 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 1.58 (2.55) second 1.91 (3.07) third 2.28 (3.67) fourth 2.80 (4.50) fifth 3.36 (5.40) sixth 4.04 (6.50) seventh 4.83 (7.78) eighth 5.34 (8.59) ninth 5.92 (9.53) tenth 6.43 (10.34) eleventh 7.70 (12.39) twelfth 9.43 (15.17) thirteenth 9.88 (15.90) fourteenth 11.90 (19.15) fifteenth 14.25 (22.93) sixteenth 14.64 (23.56) seventeenth 17.45 (28.09) eighteenth 17.63 (28.37) nineteenth 21.11 (33.97) twentieth 25.86 (41.62) reverse 1.65 (2.66), 1.99 (3.20), 2.38 (3.83), 2.91 (4.69), 3.50 (5.63), 4.21 (6.78), 5.05 (8.12), 5.57 (8.96), 6.18 (9.95), 6.70 (10.79), 8.03 (12.92), 9.84 (15.83), 10.31 (16.59), 12.42 (19.98), 14.87 (23.93), 15.27 (24.58), 18.21 (29.31), 18.39 (29.60), 22.03 (35.45), 26.99 (43.43)

DRAWBAR PERFORMANCE

UNBALLASTED - FRONT DRIVE ENGAGED - 1800 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)
6th(B2) Gear										
135.8 (101.3)	16540 (73.58)	3.08 (4.96)	1874	14.9	0.473 (0.288)	14.78 (2.91)	0.020 (0.012)	178 (81)	46 (8)	29.9 (101.4)
7th(B3) Gear										
151.4 (112.9)	14525 (64.61)	3.91 (6.29)	1799	5.8	0.422 (0.257)	16.55 (3.26)	0.015 (0.009)	174 (79)	46 (8)	29.9 (101.4)
8th(C1) Gear										
150.7 (112.4)	12985 (57.75)	4.35 (7.00)	1800	4.9	0.426 (0.259)	16.40 (3.23)	0.018 (0.011)	178 (81)	46 (8)	29.9 (101.4)
9th(B4) Gear										
152.7 (113.9)	11725 (52.16)	4.88 (7.86)	1801	3.9	0.417 (0.254)	16.75 (3.30)	0.018 (0.011)	181 (83)	46 (8)	29.9 (101.4)
10th(C2) Gear										
150.3 (112.1)	10595 (47.13)	5.32 (8.56)	1803	3.7	0.424 (0.258)	16.47 (3.25)	0.016 (0.010)	176 (80)	34 (1)	30.0 (101.5)
11th(C3) Gear										
151.0 (112.6)	8810 (39.20)	6.43 (10.34)	1803	2.9	0.424 (0.258)	16.47 (3.25)	0.016 (0.010)	176 (80)	34 (1)	30.0 (101.5)
12th(C4) Gear										
147.6 (110.1)	6995 (31.12)	7.91 (12.74)	1803	2.3	0.433 (0.263)	16.14 (3.18)	0.018 (0.011)	180 (82)	45 (7)	29.9 (101.4)
13th(D1) Gear										
147.5 (110.0)	6620 (29.44)	8.36 (13.45)	1805	1.7	0.436 (0.265)	16.04 (3.16)	0.018 (0.011)	181 (83)	45 (7)	29.9 (101.4)
14th(D2) Gear										
145.4 (108.4)	5420 (24.10)	10.06 (16.19)	1806	1.5	0.442 (0.269)	15.79 (3.11)	0.018 (0.011)	180 (82)	45 (7)	29.9 (101.4)

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 1950 engine rpm or 1000 rpm at 1950 engine rpm **Unladen tractor mass** 17150 lb (7780 kg)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

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

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor fell 0.7% short of meeting the manufacturer's remote hydraulic flow claim of 30.1 GPM (114 l/min). 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. **3021**, Nebraska Summary 1113, October 17, 2017.

Roger M. Hoy
Director

M.F. Kocher
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Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 7th (B3) gear	74.1	68.8
Transport speed - no load - 20th (E4) gear		72.5
Bystander		--

Horizontal distance of drawbar hitch point behind rear wheel axis - 35.4 in (900 mm), 38.6 in (980 mm), 40.6 in (1030 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 620/70R42;***;12(80)
Two 480/70R30;***;12(80)
18.5 in (470 mm)
10515 lb (4770 kg)
6800 lb (3085 kg)
17315 lb (7855 kg)

HYDRAULIC PERFORMANCE

CATEGORY: 3

Quick Attach: No

Lift cylinders:

2 x 85 mm

Maximum force exerted through whole range: 11240 lbs (50.0 kN)

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

three outlet sets combined

ii) Pump delivery rate at minimum pressure: 29.9 GPM (113.0 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 26.7 GPM (101.2 l/min)

Delivery pressure: 2740 psi (189 bar)

Power: 42.8 HP (31.9 kW)

single outlet set

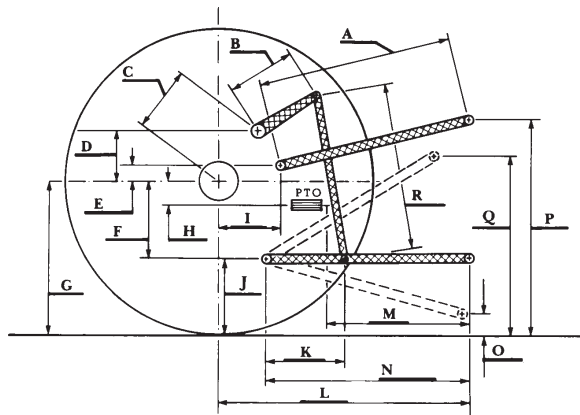
ii) Pump delivery rate at minimum pressure: 29.7 GPM (112.4 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 27.5 GPM (104.2 l/min)

Delivery pressure: 2450 psi (169 bar)

Power: 39.3 HP (29.3 kW)



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	29.7	755
B	16.1	410
C	24.6	624
D	23.8	605
E	7.4	189
F	10.8	275
G	36.4	925
H	6.5	165
I	21.8	555
J	25.6	650
K	25.6	649
L	50.3	1277
M	25.1	637
N	42.6	1082
O	9.1	231
P	52.6	1335
Q	40.1	1019
R	42.5	1080

NTTL.(2017) OECD tractor test 3021 for John Deere 6175M AutoQuad Plus Diesel.
Lincoln, NE:Nebraska Tractor Test Laboratory. Retrieved from <http://tractortestlab.unl.edu>