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2012

Test 2029: John Deere 6330 T3

Nebraska Tractor Test Laboratory

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NEBRASKA TRACTOR TEST 2029

JOHN DEERE 6330 DIESEL

16 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/lp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed (PTO speed-1041 rpm)					
86.58 (64.57)	2299	5.98 (22.64)	0.486 (0.296)	14.48 (2.85)	
Standard Power Take-off Speed (1000 rpm)					
91.22 (68.02)	2208	6.01 (22.75)	0.463 (0.282)	15.18 (2.99)	
Maximum Power (1 hour)					
94.35 (70.36)	1950	5.88 (22.25)	0.438 (0.266)	16.05 (3.16)	

VARYING POWER AND FUEL CONSUMPTION

86.58 (64.57)	2299	5.98 (22.64)	0.486 (0.296)	14.48 (2.85)	Air temperature
75.55 (56.34)	2372	5.58 (21.13)	0.520 (0.316)	13.53 (2.67)	78°F (25°C)
58.50 (43.62)	2400	4.91 (18.57)	0.590 (0.359)	11.92 (2.35)	Relative humidity
38.90 (29.01)	2421	4.18 (15.83)	0.756 (0.460)	9.30 (1.83)	35%
19.85 (14.80)	2461	3.17 (12.00)	1.123 (0.683)	6.26 (1.23)	Barometer
2.90 (2.16)	2460	2.38 (9.02)	5.781 (3.516)	1.22 (0.24)	28.65" Hg (97.00 kPa)

Maximum Torque - 283 lb.-ft. (383 Nm) at 1599 rpm
 Maximum Torque rise - 43.0%
 Torque rise at 1849 engine rpm - 35%
 Power increase at 1950 rpm - 9.0%

TRACTOR SOUND LEVEL WITH CAB

	Front Wheel Drive Engaged dB(A)	Disengaged dB(A)
At no load in 7th(B3) Gear	73.0	72.9
Transport in 16th(D4) gear	--	73.7
Bystander in 16th(D4) gear	--	80.8

TIRES AND WEIGHT

Rear Tires -No., size, ply & psi (kPa)	Tested Without Ballast
Front Tires -No., size, ply & psi (kPa)	Two 460/85R34; **, 12 (80)
Height of Drawbar	Two 380/85R24; **, 12 (80)
Static Weight with operator -Rear	16.5 in (420 mm)
- Front	6165 lb (2796 kg)
- Total	3800 lb (1724 kg)
	9965 lb (4520 kg)

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

Dates of tests: May 17 - 21, 2012

Manufacturer: John Deere Werke, Mannheim Germany

FUEL, OIL and Time: Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.8448 Fuel weight 7.034 lbs/gal (0.843 kg/l) Oil SAE 15W-40 API service classification CJ-4 Transmission and hydraulic lubricant John Deere Hy-Gard II fluid Front axle lubricant John Deere Hy-Gard II fluid Total time engine was operated 11.0 hours.

ENGINE: Make John Deere Diesel Type four cylinder vertical with turbocharger and water to air intercooler Serial No. *CD4045L241315* Crankshaft lengthwise Rated engine speed 2300 Bore and stroke 4.19" x 5.00" (106.5 mm x 127.0 mm) Compression ratio 16.7 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, engine coolant heat exchanger for hydraulic and transmission oil Fuel filter one paper element Fuel cooler radiator for pump return fuel Muffler underhood Exhaust vertical Cooling medium temperature control thermostat and variable speed fan

ENGINE OPERATING PARAMETERS: Fuel rate: 39.0 - 42.3 lb/h (17.7 - 19.2 kg/h) High idle: 2410 - 2510 rpm Turbo boost: nominal 13.1-16.0 psi (90-110 kPa) as measured 14.5 psi (100 kPa)

CHASSIS: Type front wheel assist Serial No. *1LO6330XJBH700976* Tread width rear 56.9" (1446 mm) to 75.4" (1916 mm) front 59.9" (1522 mm) to 79.3" (2014 mm) Wheel base 94.5" (2400 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio with partial (4) range operator controlled powershift Nominal travel speeds mph (km/h) first 1.60 (2.57) second 1.92 (3.09) third 2.30 (3.70) fourth 2.81 (4.53) fifth 3.20 (5.15) sixth 3.85 (6.20) seventh 4.61 (7.42) eighth 5.26 (8.46) ninth 5.65 (9.09) tenth 6.33 (10.19) eleventh 7.58 (12.20) twelfth 9.29 (14.95) thirteenth 10.83 (17.43) fourteenth 13.04 (20.98) fifteenth 15.62 (25.13) sixteenth 19.13 (30.78) reverse 1.67 (2.68), 2.01 (3.23), 2.40 (3.86), 2.94 (4.73), 3.34 (5.37), 4.02 (6.47), 4.82 (7.75), 5.49 (8.84), 5.90 (9.49), 6.61 (10.64), 7.92 (12.74), 9.69 (15.60), 11.31 (18.20), 13.61 (21.90), 16.30 (26.23), 19.96 (32.12)

HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: none

OECD Static test

Maximum force exerted through whole range: 4450 lbs (19.8 kN)
 pump size 21.1 GPM(79.8 l/min) 29.0 GPM(109.8 l/min)

i) Sustained pressure of the open relief valve: 2997 psi (207 bar) 2996 psi (207 bar)

ii) Pump delivery rate at minimum pressure: 22.8 GPM (86.3 l/min) 32.1 GPM(121.6 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 23.1 GPM(87.3 l/min) 31.2 GPM(118.2 l/min)

Delivery pressure: 2592 psi (179 bar) 2608 psi (180 bar)

Power: 34.9 HP (26.0 kW) 47.5 HP (35.4 kW)

THREE POINT HITCH PERFORMANCE(SAE static test)

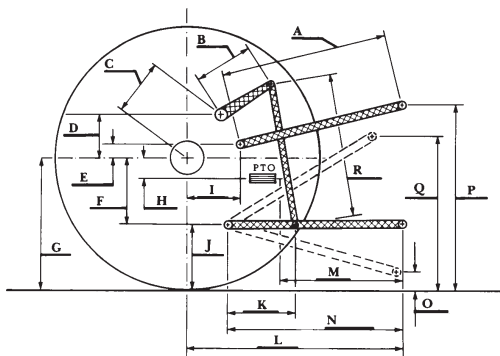
Observed maximum pressure psi. (bar)	2990(206)
Location:	lift cylinder
Hydraulic oil temperature: °F(°C)	149(65)
Location:	hydraulic valve
Category:	II
Quick attach:	none

System pressure - 2480 psi (171 Bar)

Hitch point distance to ground level in. (mm)	8.0(203)	15.0(381)	22.0(559)	29.0(737)	36.0(915)
Lift force on frame lb	5622	6020	6106	5970	5356
" " " " " " (kN)	(25.0)	(26.8)	(27.2)	(26.6)	(23.8)

HITCH DIMENSIONS AS TESTED—NO LOAD

	OECD test		SAE test	
	inch	mm	inch	mm
A	25.8	655	24.4	620
B	12.6	320	12.6	320
C	20.0	507	20.0	507
D	23.9	475	23.9	475
E	9.7	245	9.7	245
F	8.7	220	8.7	220
G	32.3	820	32.3	820
H	4.9	125	4.9	125
I	17.6	448	17.6	448
J	23.6	600	23.6	600
K	19.8	502	19.8	502
L	42.3	1076	42.3	1076
M	21.5	546	21.5	546
N	37.2	945	37.2	945
O	7.9	200	7.9	200
P	47.6	1210	42.6	1083
Q	34.6	880	34.6	880
R	31.3	795	31.3	795



JOHN DEERE 6330 DIESEL

Clutch multiple wet disc hydraulically operated by foot pedal
Brakes wet disc hydraulically operated by two foot pedals which can be locked together
Steering hydrostatic **Power take-off** 540 rpm at 2143 engine rpm or 1000 rpm at 2208 engine rpm
Unladen tractor mass 9790 lb (4441 kg)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

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 118°F (48°C).

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **2029**, June 27, 2012.

Roger M. Hoy
 Director

M.A. Hanna
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 J.D. Luck
 Board of Tractor Test Engineers