January 2003

Nebraska Summary 444: John Deere 6615 Diesel 16-Speed

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SUMMARY OF OECD TEST 2128—NEBRASKA SUMMARY 444
JOHN DEERE 6615 DIESEL
16 SPEED

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-1041 rpm)					
99.6 *(74.3)*	2298	6.55 *(24.80)*	0.455 *(0.277)*	15.23 *(3.00)*	
Standard Power Take-off Speed (1000 rpm)					
103.5 *(77.2)*	2208	6.59 *(24.95)*	0.441 *(0.268)*	15.70 *(3.09)*	
Maximum Power (2 hours)					
105.3 *(78.5)*	2097	6.54 *(24.77)*	0.431 *(0.262)*	16.09 *(3.17)*	
VARYING POWER AND FUEL CONSUMPTION					
99.6 *(74.3)*	2298	6.55 *(24.80)*	0.455 *(0.277)*	15.23 *(3.00)*	Air temperature
87.0 *(64.9)*	2362	6.06 *(22.94)*	0.482 *(0.293)*	14.37 *(2.83)*	70°F *(21°C)*
66.0 *(49.2)*	2393	5.20 *(19.67)*	0.546 *(0.332)*	12.69 *(2.50)*	Relative humidity
44.4 *(33.1)*	2413	4.34 *(16.41)*	0.677 *(0.412)*	10.23 *(2.02)*	47%
22.5 *(16.8)*	2451	3.20 *(12.11)*	0.981 *(0.597)*	7.06 *(1.39)*	Barometer
-- --	2459	2.31 *(8.74)*	-- --	-- --	29.7" Hg *(100.5 kPa)*

Maximum Torque - 311 lb.-ft. *(422 Nm)* at 1499 rpm
Maximum Torque Rise - 36.5%
Torque rise at 1800 engine rpm - 26%

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	Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power—10th (B4) Gear									
83.4 *(62.2)*	5985 *(26.62)*	5.23 *(8.42)*	2302	6.2	0.554 *(0.337)*	12.54 *(2.47)*	171 *(77)*	37 *(3)*	29.4 *(99.5)*
75% of Pull at Maximum Power—10th (B4) Gear									
65.0 *(48.5)*	4440 *(19.75)*	5.49 *(8.83)*	2374	4.4	0.619 *(0.376)*	11.22 *(2.21)*	169 *(76)*	39 *(4)*	29.4 *(99.5)*
50% of Pull at Maximum Power—10th (B4) Gear									
44.3 *(33.0)*	2945 *(13.09)*	5.64 *(9.08)*	2403	2.7	0.763 *(0.464)*	9.10 *(1.79)*	167 *(75)*	37 *(3)*	29.4 *(99.5)*
75% of Pull at Reduced Engine Speed—11th (C3) Gear									
65.3 *(48.7)*	4440 *(19.75)*	5.52 *(8.88)*	1848	4.2	0.522 *(0.317)*	13.31 *(2.62)*	163 *(73)*	39 *(4)*	29.4 *(99.5)*
50% of Pull at Reduced Engine Speed—11th (C3) Gear									
44.3 *(33.0)*	2940 *(13.08)*	5.64 *(9.08)*	1860	2.8	0.589 *(0.358)*	11.79 *(2.32)*	161 *(72)*	37 *(3)*	29.4 *(99.5)*

Location of Test: DLG Testing Station for Agricultural Machinery Max - Eyth - Weg 1, D-64823 Gros-Umstadt, Germany

Dates of Test: November 2003 to January 2004

Manufacturer: Deere & Company, Moline, Illinois, USA

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.832 **Fuel weight** 6.93 lbs/gal *(0.830 kg/l)* **Oil SAE** 15W-40 **API service classification** CF-4 **Transmission and hydraulic lubricant** John Deere Hy-Gard fluid **Front axle lubricant** SAE 80W90.

ENGINE: Make John Deere Diesel **Type** six cylinder vertical with turbocharger and intercooler **Serial No.** 814658 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 4.19" x 5.00" *(106.5 mm x 127.0 mm)* **Compression ratio** 16.9 to 1 **Displacement** 414 cu in *(6788 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, radiator for hydraulic and transmission oil **Fuel filter** one paper element **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** 388154 **Tread width** rear 63.5" *(1612 mm)* to 98.0" *(2490 mm)* front 59.7" *(1516 mm)* to 79.3" *(2016 mm)* **Wheel base** 104.3" *(2650 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph *(km/h)*** first 1.22 *(1.96)* second 1.58 *(2.55)* third 2.20 *(3.54)* fourth 2.44 *(3.93)* fifth 2.80 *(4.51)* sixth 3.18 *(5.11)* seventh 4.01 *(6.46)* eighth 4.41 *(7.09)* ninth 5.22 *(8.40)* tenth 5.61 *(9.03)* eleventh 7.25 *(11.66)* twelfth 8.27 *(13.31)* thirteenth 9.23 *(14.86)* fourteenth 10.74 *(17.29)* fifteenth 14.92 *(24.01)* sixteenth 19.01 *(30.60)* reverse 1.27 *(2.05)*, 1.65 *(2.66)*, 2.29 *(3.69)*, 2.55 *(4.10)*, 2.92 *(4.70)*, 3.31 *(5.33)*, 4.19 *(6.75)*, 4.60 *(7.40)*, 5.44 *(8.76)*, 5.86 *(9.43)*, 7.56 *(12.17)*, 8.63 *(13.89)*, 9.64 *(15.51)*, 11.22 *(18.05)*, 15.57 *(25.06)*, 19.85 *(31.94)* **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** 10670 lb *(4840 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)*	Hp.hr/gal *(kW.h/l)*	Temp.°F*(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
				7th (C1) Gear					
83.1 *(62.0)*	9875 *(43.93)*	3.16 *(5.08)*	2101	14.8	0.554 *(0.337)*	12.54 *(2.47)*	167 *(75)*	34 *(1)*	29.5 *(99.8)*
				8th (B3) Gear					
85.0 *(63.4)*	8990 *(40.00)*	3.55 *(5.71)*	2099	12.1	0.541 *(0.329)*	12.84 *(2.53)*	169 *(76)*	34 *(1)*	29.4 *(99.4)*
				9th (C2) Gear					
86.1 *(64.2)*	7495 *(33.33)*	4.31 *(6.93)*	2101	9.3	0.534 *(0.325)*	12.99 *(2.56)*	169 *(76)*	32 *(0)*	29.4 *(99.4)*
				10th (B4) Gear					
88.1 *(65.7)*	7060 *(31.41)*	4.68 *(7.53)*	2101	8.4	0.522 *(0.317)*	13.30 *(2.62)*	169 *(76)*	34 *(1)*	29.4 *(99.5)*
				11th (C3) Gear					
87.6 *(65.3)*	5305 *(23.60)*	6.19 *(9.96)*	2102	5.8	0.526 *(0.320)*	13.20 *(2.60)*	167 *(75)*	34 *(1)*	29.4 *(99.5)*
				12th (D1) Gear					
87.4 *(65.2)*	4585 *(20.40)*	7.15 *(11.51)*	2100	4.4	0.526 *(0.320)*	13.20 *(2.60)*	169 *(76)*	34 *(1)*	29.4 *(99.5)*
				13th (C4) Gear					
88.0 *(65.6)*	4120 *(18.32)*	8.01 *(12.90)*	2102	4.1	0.522 *(0.318)*	13.30 *(2.62)*	167 *(75)*	34 *(1)*	29.4 *(99.5)*
				14th (D2) Gear					
86.2 *(64.3)*	3435 *(15.29)*	9.41 *(15.14)*	2101	3.2	0.534 *(0.325)*	12.99 *(2.56)*	167 *(75)*	34 *(1)*	29.4 *(99.5)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturers claim of 17.5 GPM *(66.2 l/min)* hydraulic flow. The performance results on this summary were taken from OECD tests conducted under the Code II Test Code procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2128** Nebraska Summary 444, August 18, 2004.

Leonard L. Bashford
Director

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Board of Tractor Test Engineers

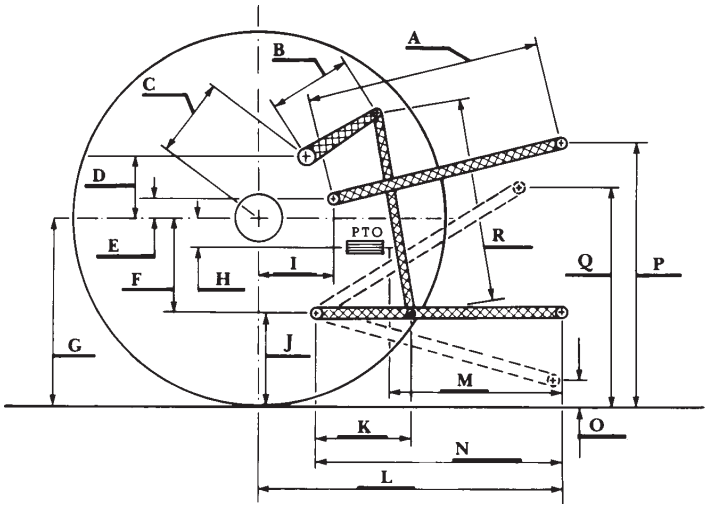
TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive Engaged dB(A)	Front Wheel Drive Disengaged dB(A)
At no load in 9th(C2) Gear	72.5	72.0
Maximum Sound level	73.5	74.0
Bystander	--	--

TIRES AND WEIGHT	Tested Without Ballast
Rear Tires–No., size, ply & psi *(kPa)*	Two 18.4-38; 8; 12 *(80)*
Front Tires–No., size, ply & psi *(kPa)*	Two 14.9-24; 6; 12 *(80)*
Height of Drawbar	19.3 in *(490 mm)*
Static Weight with operator– Rear	6525 lb *(2960 kg)*
– Front	4310 lb *(1955 kg)*
– Total	10835 lb *(4915 kg)*

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II
Quick Attach: none
Maximum Force Exerted Through Whole Range: 6475 lbs *(28.80 kN)*

i) Opening pressure of relief valve:	NA	
Sustained pressure of the open relief valve:	3005 psi *(207 bar)*	
	one outlet set	**two outlet sets combined**
ii)Pump delivery rate at minimum pressure:	17.1 GPM *(64.7 l/min)*	17.2 GPM *(65.1 l/min)*
iii)Pump delivery rate at maximum hydraulic power:	16.6 GPM *(62.9 l/min)*	16.7 GPM *(63.1 l/min)*
Delivery pressure:	2610 psi *(180 bar)*	2700 psi *(186 bar)*
Power:	25.3 HP *(18.9 kW)*	26.3 HP *(19.6 kW)*



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	25.8	*655*
B	12.0	*305*
C	20.0	*508*
D	18.7	*475*
E	7.3	*185*
F	8.9	*225*
G	32.3	*820*
H	2.8	*70*
I	18.1	*460*
J	23.4	*595*
K	19.9	*505*
L	42.5	*1080*
M	21.7	*550*
N	37.2	*945*
O	7.9	*200*
P	47.4	*1205*
Q	34.6	*880*
R	32.1	*815*

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