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Nebraska Summary: S157 John Deere 6300

Nebraska Tractor Test Lab
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SUMMARY OF OECD TEST 1524/1—NEBRASKA SUMMARY 157
JOHN DEERE 6300 POWRQUAD DIESEL
16 SPEED

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

Dates of Test: June, 1994

Manufacturer: John Deere Werke Mannhein D-68008, Mannhein, Germany

FUEL and OIL: Fuel No. 2 Diesel **Cetane No.** NA **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.831 **Fuel weight** 6.92 lbs/gal *(0.829 kg/l)* **Oil SAE** 10W40 **Oil consumption for 10 hours** NA **Transmission and hydraulic lubri-cant** John Deere Hy-Gard SAE 75 **Front axle lubricant** SAE 80W/90 API GL-5

ENGINE: Make John Deere Diesel **Type** four cylinder vertical with turbocharger **Serial No.** CD 4039 TL 007 10 19 67 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 4.19"×4.331" *(106.5 mm×110.0 mm)* **Compression ratio** 17.2 to 1 **Displacement** 239 cu in *(3920 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.** 1000 38 **Tread width** rear 63.5" *(1612 mm)* to 75.3" *(1912 mm)* front 59.7" *(1516 mm)* to 79.4" *(2016 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 1.48 *(2.38)* second 1.79 *(2.87)* third 2.14 *(3.44)* fourth 2.62 *(4.21)* fifth 2.98 *(4.79)* sixth 3.59 *(5.77)* seventh 4.29 *(6.91)* eighth 4.85*(7.81)* ninth 5.26 *(8.46)* tenth 5.85 *(9.41)* eleventh 7.00 *(11.26)* twelfth 8.57 *(13.79)* thirteenth 10.43 *(16.79)* fourteenth 12.57 *(20.23)* fifthteenth 15.05 *(24.21)* sixteenth 18.43 *(29.66)* reverse 1.76 *(2.83)*, 2.12 *(3.41)*, 2.54 *(4.08)*, 3.11 *(5.00)* , 3.53 *(5.68)*, 4.25 *(6.84)*, 5.09 *(8.19)*, 5.76 *(9.26)*, 6.24 *(10.03)*, 6.93 *(11.16)*, 8.30 *(13.35)*, 10.17 *(16.36)* **Clutch** wet multiple disc operated by foot pedal **Brakes** multiple wet disc operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2143 engine rpm and 1000 rpm at 2208 rpm **Unladen tractor mass** 9480 lb *(4300 kg)*

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 manufacturers claim of 35% torque rise or 3 point lift

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—1042 rpm)					
76.0 *(56.7)*	2300	4.45 *(16.83)*	0.404 *(0.246)*	17.10 *(3.37)*	
Standard Power Take-off Speed (PTO—1000 rpm)					
77.5 *(57.8)*	2208	4.46 *(16.87)*	0.398 *(0.242)*	17.39 *(3.43)*	
Maximum Power (2 hours)					
77.5 *(57.8)*	2208	4.46 *(16.87)*	0.398 *(0.242)*	17.39 *(3.43)*	
VARYING POWER AND FUEL CONSUMPTION					
76.0 *(56.7)*	2300	4.45 *(16.83)*	0.404 *(0.246)*	17.10 *(3.37)*	Air temperature
66.0 *(49.2)*	2355	4.06 *(15.38)*	0.426 *(0.259)*	16.24 *(3.20)*	70°F *(21°C)*
50.4 *(37.6)*	2385	3.42 *(12.96)*	0.469 *(0.285)*	14.75 *(2.90)*	Relative humidity
33.9 *(25.3)*	2406	2.80 *(10.61)*	0.570 *(0.347)*	12.10 *(2.39)*	38%
17.0 *(12.7)*	2416	2.15 *(8.12)*	0.871 *(0.530)*	7.94 *(1.56)*	Barometer
....	2440	1.47 *(5.56)*	....	....	29.5" Hg *(100.0 kPa)*

Maximum Torque 231 lb.-ft. *(313 Nm)* at 1507 rpm
Maximum Torque Rise 33.2%
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 8th (1C) Gear									
61.5 *(45.9)*	5060 *(22.51)*	4.56 *(7.34)*	2303	7.5	0.505 *(0.307)*	14.06 *(2.77)*	180 *(82)*	66 *(19)*	29.7 *(100.5)*
75%of Pull at Maximum Power 8th (1C) Gear									
48.5 *(36.1)*	3795 *(16.87)*	4.79 *(7.71)*	2366	5.3	0.547 *(0.333)*	12.97 *(2.56)*	180 *(82)*	68 *(20)*	29.7 *(100.5)*
50% of Pull at Maximum Power 8th (1C) Gear									
33.4 *(24.9)*	2540 *(11.29)*	4.93 *(7.94)*	2391	3.5	0.651 *(0.396)*	10.91 *(2.15)*	180 *(82)*	63 *(17)*	29.7 *(100.5)*
75% of Pull at Reduced Engine Speed 9th (4B) Gear									
48.8 *(36.4)*	3840 *(17.07)*	4.77 *(7.68)*	2168	5.5	0.533 *(0.324)*	13.33 *(2.63)*	178 *(81)*	63 *(17)*	29.7 *(100.5)*
50% of Pull at Reduced Engine Speed 9th (4B) Gear									
33.1 *(24.7)*	2535 *(11.27)*	4.90 *(7.89)*	2188	3.5	0.623 *(0.379)*	11.40 *(2.25)*	178 *(81)*	63 *(17)*	29.7 *(100.5)*

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)*
				5th (1B) Gear					
58.6 *(43.7)*	8480 *(37.73)*	2.59 *(4.17)*	2325	14.9	0.528 *(0.321)*	13.45 *(2.65)*	178 *(81)*	64 *(18)*	29.7 *(100.5)*
				6th (2B) Gear					
62.0 *(46.2)*	7665 *(34.09)*	3.03 *(4.88)*	2206	13.4	0.501 *(0.305)*	14.16 *(2.79)*	178 *(81)*	72 *(22)*	29.7 *(100.5)*
				7th (3B) Gear					
63.4 *(47.3)*	6275 *(27.91)*	3.79 *(6.10)*	2208	10.1	0.492 *(0.299)*	14.45 *(2.85)*	180 *(82)*	73 *(23)*	29.7 *(100.5)*
				8th (1C) Gear					
62.1 *(46.3)*	5375 *(23.91)*	4.33 *(6.97)*	2205	8.0	0.498 *(0.303)*	14.26 *(2.81)*	180 *(82)*	75 *(24)*	29.7 *(100.5)*
				9th (4B) Gear					
62.1 *(46.3)*	4870 *(21.65)*	4.78 *(7.70)*	2205	7.4	0.500 *(0.304)*	14.21 *(2.80)*	180 *(82)*	70 *(21)*	29.7 *(100.5)*
				10th (2C) Gear					
62.3 *(46.5)*	4385 *(19.51)*	5.33 *(8.58)*	2204	6.5	0.496 *(0.302)*	14.31 *(2.82)*	180 *(82)*	73 *(23)*	29.7 *(100.5)*
				11th (3C) Gear					
62.6 *(46.7)*	3650 *(16.24)*	6.43 *(10.35)*	2210	5.2	0.495 *(0.301)*	14.37 *(2.83)*	178 *(81)*	68 *(20)*	29.7 *(100.5)*
				12th (4C) Gear					
61.0 *(45.5)*	2900 *(12.91)*	7.89 *(12.69)*	2203	4.2	0.508 *(0.309)*	13.98 *(2.75)*	176 *(80)*	72 *(22)*	29.7 *(100.5)*

capacity of 5850 lbs *(2654 kg)*. The performance results on this summary were taken from a test conducted upder the OECD Code II Restricted Standard Test Code procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **1524/1**, Nebraska Summary 157, September 23, 1994.

LOUIS I. LEVITICUS
Engineer-in-Charge

R.D. GRISSO
M.F. KOCHER
K. VON BARGEN
Board of Tractor Test Engineers

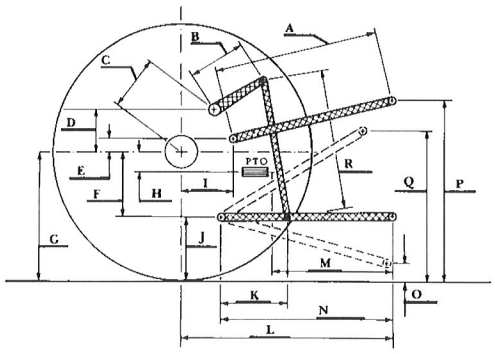
TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive Disengaged dB(A)	Front Wheel Drive Engaged dB(A)
Gear closest to 4.7 mph *(7.5 km/h)* 8th (1C) Gear	72.5	73.5
Maximum sound level in 8th (1C) Gear	72.5	73.5
Transport speed—no load 16th (4D) Gear	74.0	. . .
Bystander	. . .	. . .

TIRES, BALLAST AND WEIGHT

	Tested Without Ballast
Rear Tires—No., size, ply & psi *(kPa)*	Two 16.9-38; 8; 12 *(80)*
Front Tires—No., size, ply & psi *(kPa)*	Two 14.9-24; 8; 12 *(80)*
Height of Drawbar	18.1 in *(460 mm)*
Static Weight with Operator—Rear	6160 lb *(2795 kg)*
—Front	3485 lb *(1580 kg)*
—Total	9645 lb *(4375 kg)*

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II		
Quick Attach: None		
Maximum Force Exerted Through Whole Range:	4900 lbs	*(21.8 kN)*
i) Opening pressure of relief valve:	NA	
Sustained pressure of the open relief valve:	2830 psi	*(195 bar)*
ii) Pump delivery rate at minimum pressure:	18.0 GPM	*(68.2 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	16.9 GPM	*(63.8 l/min)*
Delivery pressure:	2465 psi	*(170 bar)*
Power:	24.3 HP	*(18.1 kW)*



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	26.0	*660*
B	12.0	*305*
C	19.9	*505*
D	18.7	*475*
E	6.8	*173*
F	8.9	*225*
G	31.3	*795*
H	3.1	*80*
I	17.8	*452*
J	22.4	*570*
K	19.8	*503*
L	42.5	*1080*
M	21.7	*550*
N	37.2	*945*
O	7.9	*200*
P	46.4	*1180*
Q	34.3	*872*
R	30.9	*785*

Agricultural Research Division
Institute of Agriculture and Natural Resources
University of Nebraska–Lincoln
Darrell Nelson, Dean and Director