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Nebraska Summary: S929 John Deere 6115R

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SUMMARY OF OECD TEST 2808—NEBRASKA SUMMARY 929
JOHN DEERE 6115R AUTOQUAD-PLUS DIESEL
24 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—1071 rpm)					
95.4 *(71.1)*	2100	6.24 *(23.63)*	0.458 *(0.278)*	15.28 *(3.01)*	
Standard Power Take-off Speed (1000 rpm)					
108.6 *(81.0)*	1961	6.69 *(25.32)*	0.431 *(0.262)*	16.24 *(3.20)*	
Maximum Power (1 hour)					
109.8 *(81.8)*	1800	6.60 *(24.97)*	0.420 *(0.256)*	16.64 *(3.28)*	
VARYING POWER AND FUEL CONSUMPTION					
95.4 *(71.1)*	2100	6.24 *(23.63)*	0.458 *(0.278)*	15.28 *(3.01)*	Air temperature
83.3 *(62.1)*	2157	5.74 *(21.72)*	0.482 *(0.293)*	14.52 *(2.86)*	73°F *(23°C)*
63.3 *(47.2)*	2185	4.78 *(18.08)*	0.528 *(0.322)*	13.24 *(2.61)*	Relative humidity
42.9 *(32.0)*	2223	3.86 *(14.62)*	0.629 *(0.382)*	11.12 *(2.19)*	61%
21.6 *(16.1)*	2240	2.90 *(10.98)*	0.936 *(0.569)*	7.47 *(1.47)*	Barometer
-- --	2250	2.09 *(7.90)*	-- --	-- --	30.0" Hg *(101.5 kPa)*

Maximum Torque - 359.6 lb.-ft. *(487.5 Nm)* at 1400 rpm
Maximum Torque rise - 50.4%
Torque rise at 1700 engine rpm - 40%
Power increase at 1800 rpm - 15.0%

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 (C2) Gear									
83.4 *(62.2)*	5755 *(25.60)*	5.44 *(8.75)*	2100	3.0	0.510 *(0.310)*	13.45 *(2.65)*	183 *(84)*	86 *(30)*	29.6 *(100.3)*
75% of Pull at Maximum Power—10th (C2) Gear									
65.7 *(49.0)*	4300 *(19.13)*	5.73 *(9.22)*	2192	2.2	0.569 *(0.346)*	12.03 *(2.37)*	183 *(84)*	88 *(31)*	29.6 *(100.3)*
50% of Pull at Maximum Power—10th (C2) Gear									
44.5 *(33.2)*	2855 *(12.70)*	5.84 *(9.40)*	2213	1.3	0.675 *(0.411)*	10.15 *(2.00)*	180 *(82)*	86 *(30)*	29.6 *(100.3)*
75% of Pull at Reduced Engine Speed—11th (C3) Gear									
65.7 *(49.0)*	4285 *(19.06)*	5.75 *(9.26)*	1835	2.1	0.505 *(0.307)*	13.55 *(2.67)*	180 *(82)*	88 *(31)*	29.6 *(100.3)*
50% of Pull at Reduced Engine Speed—11th (C3) Gear									
44.5 *(33.2)*	2865 *(12.74)*	5.83 *(9.39)*	1851	1.4	0.579 *(0.352)*	11.83 *(2.33)*	178 *(81)*	86 *(30)*	29.6 *(100.3)*

Location of tests: DLG Test Centre, Technology and Farm inputs, Max-Eyth-Weg 1, D-64823 Gross-Umstadt, Germany

Dates of tests: June - September, 2013

Manufacturer: John Deere Werke Mannheim, John-Deere-StraBe 90, Mannheim Germany

FUEL, OIL and Time: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.840 **Fuel weight** 6.99 lbs/gal *(0.838 kg/l)* **Oil SAE** 10W-30 **API service classification** CJ-4 **Transmission and hydraulic lubricant** John Deere Hy-Gard II fluid **Front axle lubricant** John Deere Hy-Gard II fluid

ENGINE: Make John Deere Diesel **Type** four cylinder vertical with turbocharger and air to air intercooler **Serial No.** *CD4045R011314* **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 **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 and one paper cartridge with water separator **Fuel cooler** radiator for pump return fuel **Exhaust** regenerative particulate filter integrated within an underhood muffler with vertical outlet **Cooling medium temperature control** two thermostats and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** *1L06115RPDK753555* **Tread width** rear 63.5" *(1612 mm)* to 75.4" *(1916 mm)* front 63.6" *(1616 mm)* to 75.7" *(1924 mm)* **Wheel base** 101.6" *(2580 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 1.14 *(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 25.15 *(40.48)* twenty-fourth 26.10 *(42.00)* electronically limited

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)*	Temp.°F*(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
				6th (B2) Gear					
87.3 *(65.1)*	12775 *(56.82)*	2.56 *(4.12)*	1831	14.7	0.519 *(0.316)*	13.27 *(2.62)*	183 *(84)*	75 *(24)*	29.6 *(100.3)*
				7th (B3) Gear					
93.9 *(70.0)*	10825 *(48.16)*	3.25 *(5.23)*	1799	7.9	0.480 *(0.292)*	14.37 *(2.83)*	185 *(85)*	81 *(27)*	29.6 *(100.3)*
				8th (C1) Gear					
95.1 *(70.9)*	9485 *(42.20)*	3.76 *(6.05)*	1799	5.9	0.472 *(0.287)*	14.62 *(2.88)*	183 *(84)*	82 *(28)*	29.6 *(100.3)*
				9th (B4) Gear					
94.8 *(70.7)*	8645 *(38.46)*	4.11 *(6.62)*	1800	4.9	0.475 *(0.289)*	14.52 *(2.86)*	183 *(84)*	82 *(28)*	29.6 *(100.3)*
				10th (C2) Gear					
96.4 *(71.9)*	7825 *(34.80)*	4.62 *(7.43)*	1801	4.0	0.470 *(0.286)*	14.67 *(2.89)*	183 *(84)*	82 *(28)*	29.6 *(100.3)*
				11th (C3) Gear					
97.6 *(72.8)*	6605 *(29.39)*	5.54 *(8.92)*	1797	3.5	0.462 *(0.281)*	14.92 *(2.94)*	181 *(83)*	82 *(28)*	29.6 *(100.3)*
				12th (D1) Gear					
97.4 *(72.6)*	5715 *(25.43)*	6.39 *(10.28)*	1802	3.0	0.467 *(0.284)*	14.77 *(2.91)*	185 *(85)*	82 *(28)*	29.6 *(100.3)*
				13th (C4) Gear					
94.9 *(70.8)*	5190 *(23.09)*	6.86 *(11.04)*	1800	2.8	0.477 *(0.290)*	14.43 *(2.84)*	185 *(85)*	84 *(29)*	29.6 *(100.3)*
				14th (D2) Gear					
96.2 *(71.7)*	4660 *(20.73)*	7.74 *(12.45)*	1808	2.4	0.475 *(0.289)*	14.52 *(2.86)*	185 *(85)*	84 *(29)*	29.6 *(100.3)*
				15th (D3) Gear					
97.5 *(72.7)*	3950 *(17.58)*	9.25 *(14.89)*	1796	1.8	0.469 *(0.285)*	14.69 *(2.89)*	185 *(85)*	82 *(28)*	29.6 *(100.3)*
				16th (E1) Gear					
100.0 *(74.6)*	3550 *(15.79)*	10.57 *(17.01)*	1818	1.4	0.476 *(0.289)*	14.49 *(2.85)*	187 *(86)*	82 *(28)*	29.6 *(100.3)*

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive Engaged dB(A)	Disengaged dB(A)
At no load in 9th(B4) Gear	69.0	68.7
Transport in 24th(F4) gear		73.4
Bystander		--

TIRES AND WEIGHT — **Tested Without Ballast**

Rear Tires–No., size, ply & psi *(kPa)*	Two 460/85R38;**; 12 *(80)*
Front Tires–No., size, ply & psi *(kPa)*	Two 380/85R24;**; 12 *(80)*
Height of Drawbar	19.7 in *(500 mm)*
Static Weight with operator– Rear	8180 lb *(3710 kg)*
– Front	4885 lb *(2215 kg)*
– Total	13065 lb *(5925 kg)*

reverse 1.19 *(1.92)*, 1.44 *(2.32)*, 1.72 *(2.77)*, 2.11 *(3.40)*, 2.91 *(4.69)*, 3.51 *(5.65)*, 4.21 *(6.77)*, 4.75 *(7.65)*, 5.15 *(8.29)*, 5.72 *(9.22)*, 6.86 *(11.04)*, 7.80 *(12.56)*, 8.40 *(13.52)*, 9.40 *(15.12)*, 11.25 *(18.11)*, 12.68 *(20.41)*, 13.79 *(22.19)*, 15.27 *(24.58)*, 18.20 *(29.29)*, 18.29 *(29.44)*, 21.91 *(35.26)*, 22.41 *(36.06)*, 26.10 *(42.00)*, 26.10 *(42.00)* electronically limited **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 1967 engine rpm or 1000 rpm at 1962 engine rpm **Unladen tractor mass** 12895 lb *(5850 kg)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE. The manufacturer declares that the average time between active regenerations is 100 hours, while operated in Auto Filter Cleaning Mode, at rated speed, full PTO load, under steady state conditions.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test code procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2808,** Nebraska Summary 929, April 4, 2014.

Roger M. Hoy
Director

M.F. Kocher
P.J. Jasa
J.D. Luck
Board of Tractor Test Engineers

This vehicle is equipped with an electronically controlled engine power management system (Intelligent Power Management, IPM) that monitors and boosts engine power output in certain circumstances. This is achieved by electronically changing the characteristics of the engine power-speed curve. IPM becomes active when ground speed exceeds 15 km/h (9.3 mph). This power boost persists until the ground speed drops below 10 km/h (6.2 mph). The system is also activated when using PTO driven implements. An overide system is provided to enable PTO operations at the "boosted" power level while the vehicle is stationary for test purposes. The results of this PTO output test are presented below.

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—1071 rpm)					
116.8 *(87.1)*	2100	7.28 *(27.55)*	0.436 *(0.265)*	16.04 *(3.16)*	
Standard Power Take-off Speed (1000 rpm)					
122.3 *(91.2)*	1961	7.32 *(27.72)*	0.419 *(0.255)*	16.70 *(3.29)*	
Maximum Power (1 hour)					
122.8 *(91.5)*	1800	7.20 *(27.25)*	0.410 *(0.249)*	17.06 *(3.36)*	
VARYING POWER AND FUEL CONSUMPTION					
116.8 *(87.1)*	2100	7.28 *(27.55)*	0.436 *(0.265)*	16.04 *(3.16)*	Air temperature
102.0 *(76.0)*	2157	6.63 *(25.10)*	0.455 *(0.276)*	15.39 *(3.03)*	68°F *(20°C)*
77.6 *(57.8)*	2188	5.44 *(20.58)*	0.491 *(0.299)*	14.25 *(2.81)*	Relative humidity
52.6 *(39.2)*	2224	4.28 *(16.20)*	0.569 *(0.346)*	12.28 *(2.42)*	42%
26.5 *(19.8)*	2243	3.09 *(11.70)*	0.816 *(0.497)*	8.57 *(1.69)*	Barometer
-- --	2250	1.95 *(7.40)*	-- --	-- --	30.1" Hg *(101.9 kPa)*

Maximum Torque - 379.5 lb.-ft. *(514.6 Nm)* at 1600 rpm
Maximum Torque rise - 29.9%
Torque rise at 1700 engine rpm - 26%
Power increase at 1800 rpm - 5%

HYDRAULIC PERFORMANCE

CATEGORY: IIIN
Quick Attach: none
OECD Static test
Maximum force exerted through whole range: 5775 lbs *(25.7 kN)* (65 mm cylinders)
7935 lbs *(35.3 kN)* (75 mm cylinders)

Two outlet sets combined
45 cc pump

i) Sustained pressure of the open relief valve:	2975 psi *(205 bar)*
ii) Pump delivery rate at minimum pressure:	33.2 GPM *(125.7 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	29.9 GPM *(113.3 l/min)*
Delivery pressure:	2700 psi *(186 bar)*
Power:	47.1 HP *(35.1 kW)*

single outlet set

ii) Pump delivery rate at minimum pressure:	32.8 GPM *(124.3 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	30.2 GPM *(114.2 l/min)*
Delivery pressure:	2290 psi *(158 bar)*
Power:	40.3 HP *(30.0 kW)*

HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	28.1	*715*
B	15.4	*390*
C	21.7	*552*
D	20.7	*525*
E	12.6	*320*
F	8.8	*224*
G	32.5	*825*
H	2.6	*65*
I	16.8	*427*
J	23.7	*601*
K	22.2	*564*
L	45.3	*1150*
M	24.0	*610*
N	40.0	*1015*
O	9.1	*230*
P	50.6	*1286*
Q	39.8	*1012*
R	35.0	*890*

