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2012

Nebraska Summary: S898 Massey Ferguson 7614

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SUMMARY OF OECD TEST 2754–NEBRASKA SUMMARY 898
MASSEY FERGUSON 7614 DYNA 4 DIESEL
16 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP *(kW)*	Crank shaft speed rpm	Diesel Consumption Gal/hr *(l/h)*	lb/hp.hr *(kg/kW.h)*	D.E.F. Consumption Hp.hr/gal *(kW.h/l)*	D.E.F. Consumption Gal/hr *(l/h)*	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION						
Rated Engine Speed—(PTO speed—1035 rpm)						
121.2 *(90.4)*	2101	7.32 *(27.72)*	0.421 *(0.256)*	16.55 *(3.26)*	0.30 *(1.15)*	
Standard Power Take-off Speed (1000 rpm)						
132.6 *(98.9)*	2030	7.62 *(28.86)*	0.400 *(0.244)*	17.40 *(3.43)*	0.35 *(1.31)*	
Maximum Power (1 hour)						
135.6 *(101.1)*	2002	7.76 *(29.38)*	0.399 *(0.243)*	17.46 *(3.44)*	0.36 *(1.36)*	
VARYING POWER AND FUEL CONSUMPTION						
121.2 *(90.4)*	2101	7.32 *(27.72)*	0.421 *(0.256)*	16.55 *(3.26)*	0.30 *(1.15)*	Air temperature
104.5 *(77.9)*	2121	6.44 *(24.39)*	0.431 *(0.262)*	16.21 *(3.19)*	0.25 *(0.96)*	74°F *(23°C)*
78.7 *(58.7)*	2128	5.32 *(20.14)*	0.472 *(0.287)*	14.79 *(2.91)*	0.22 *(0.82)*	Relative humidity
52.7 *(39.3)*	2139	4.12 *(15.58)*	0.545 *(0.332)*	12.78 *(2.52)*	0.16 *(0.60)*	46%
26.4 *(19.7)*	2146	2.93 *(11.09)*	0.774 *(0.471)*	9.00 *(1.77)*	0.10 *(0.36)*	Barometer
-- --	2152	1.99 *(7.54)*	-- --	-- --	-- --	29.7" Hg *(100.7 kPa)*

Maximum torque - 438.0 lb.-ft. *(594.0 Nm)* at 1200 rpm
Maximum torque rise - 44.5%
Torque rise at 1700 engine rpm - 37%
Power increase at 2002 engine rpm - 11.8%

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)*	Fuel Consumption Hp.hr/gal *(kW.h/l)*	Temp.°F cool-ing med	Temp. *(°C)* Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power—9th(3A) Gear									
100.6 *(75.0)*	6320 *(28.1)*	5.97 *(9.60)*	2099	4.2	0.461 *(0.281)*	15.07 *(2.97)*	183 *(84)*	73 *(23)*	29.8 *(101.0)*
75% of Pull at Maximum Power—9th(3A) Gear									
76.0 *(56.7)*	4725 *(21.0)*	6.03 *(9.71)*	2116	2.7	0.509 *(0.310)*	13.65 *(2.69)*	180 *(82)*	73 *(23)*	29.8 *(101.0)*
50% of Pull at Maximum Power—9th(3A) Gear									
49.2 *(36.7)*	3050 *(13.6)*	6.05 *(9.74)*	2140	1.9	0.612 *(0.372)*	11.37 *(2.24)*	180 *(82)*	75 *(24)*	29.8 *(101.0)*
75% of Pull at Reduced Engine Speed—10th(3B) Gear									
76.2 *(56.8)*	4765 *(21.2)*	5.99 *(9.65)*	1718	2.4	0.439 *(0.267)*	15.84 *(3.12)*	180 *(82)*	73 *(23)*	29.8 *(101.0)*
50% of Pull at Reduced Engine Speed—10th(3B) Gear									
50.2 *(37.4)*	3105 *(13.8)*	6.06 *(9.75)*	1725	1.6	0.509 *(0.309)*	13.66 *(2.69)*	178 *(81)*	73 *(23)*	29.8 *(101.0)*

Location of tests: IRSTEA, Centre d'Antony, 1 rue Pierre-Gilles de Gennes CS 10030 Antony, 92163, Cedex, France

Dates of tests: April - May, 2012

Manufacturer: AGCO S.A. BP 307, Avenue Blaise Pascal, 60026 Beauvais, France

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.837 **Fuel weight** 6.97 lbs/gal *(0.835 kg/l)* **Diesel Exhaust Fluid (DEF)** 32% aqueous urea solution **DEF weight** 9.10 lbs/gal *(1.091 kg/l)* **Oil SAE** 15W40 **API service classification** CJ-4 **Transmission and hydraulic lubricant** BP Terrac Tractan 9 15W/40 **Front axle lubricant** BP Terrac Tractan 9 15W/40

ENGINE: Make Sisu AGCO Power Diesel **Type** six cylinder vertical with turbocharger and air to air intercooler and SCR (selective catalyst reduction) exhaust treatment **Serial No.** W00406 **Crankshaft** lengthwise **Rated engine speed** 2100 **Bore and stroke** 4.252" x 4.724" *(108.0 mm x 120.0 mm)* **Compression ratio** 17.4 to 1 **Displacement** 402 cu in *(6596 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **Oil filter** one full flow cartridge **Oilcooler** engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil **Fuel filter** two paper cartridges **Muffler** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** B 230 901 **Tread width** rear 52.8" *(1340 mm)* to 87.8" *(2230 mm)* front 52.8" *(1340 mm)* to 87.8" *(2230 mm)* **Wheelbase** 113.2" *(2875 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 1.24 *(2.00)* second 1.53 *(2.46)* third 1.86 *(3.00)* fourth 2.29 *(3.69)* fifth 2.95 *(4.74)* sixth 3.62 *(5.83)* seventh 4.42 *(7.11)* eighth 5.43 *(8.74)* ninth 5.98 *(9.62)* tenth 7.36 *(11.84)* eleventh 8.97 *(14.44)* twelfth 11.04 *(17.76)* thirteenth 13.79 *(22.20)* fourteenth 16.96 *(27.30)* fifteenth 20.69 *(33.30)* sixteenth 25.46 *(40.97)* reverse 1.24 *(2.00)*, 1.53 *(2.46)*, 1.86 *(3.00)*, 2.29 *(3.69)*, 2.95 *(4.74)*, 3.62 *(5.83)*, 4.42 *(7.11)*, 5.43 *(8.74)*, 5.98 *(9.62)*, 7.36 *(11.84)*, 8.97 *(14.44)*, 11.04 *(17.76)*, 13.79 *(22.20)*, 16.96 *(27.30)*, 20.69 *(33.30)*, 25.46 *(40.97)*

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(2A) Gear					
81.9 *(61.1)*	11735 *(52.2)*	2.62 *(4.22)*	2122	15.1	0.519 *(0.316)*	13.40 *(2.64)*	181 *(83)*	73 *(23)*	29.8 *(101.0)*
				6th(2B) Gear					
98.3 *(73.3)*	11510 *(51.2)*	3.20 *(5.15)*	2060	12.0	0.489 *(0.297)*	14.21 *(2.80)*	180 *(82)*	72 *(22)*	29.8 *(101.0)*
				7th(2C) Gear					
108.4 *(80.8)*	10140 *(45.1)*	4.01 *(6.45)*	2001	8.1	0.459 *(0.279)*	15.13 *(2.98)*	180 *(82)*	72 *(22)*	29.8 *(101.0)*
				8th(2D) Gear					
111.0 *(82.8)*	8375 *(37.2)*	4.97 *(8.00)*	2000	5.8	0.450 *(0.274)*	15.43 *(3.04)*	181 *(83)*	72 *(22)*	29.8 *(101.0)*
				9th(3A) Gear					
111.7 *(83.3)*	7575 *(33.7)*	5.53 *(8.90)*	2001	5.0	0.445 *(0.271)*	15.63 *(3.08)*	183 *(84)*	73 *(23)*	29.8 *(101.0)*
				10th(3B) Gear					
112.0 *(83.5)*	6070 *(27.0)*	6.92 *(11.13)*	1994	4.0	0.446 *(0.272)*	15.57 *(3.07)*	185 *(85)*	73 *(23)*	29.8 *(101.0)*
				11th(3C) Gear					
110.7 *(82.6)*	4880 *(21.7)*	8.51 *(13.69)*	2000	3.3	0.449 *(0.273)*	15.48 *(3.05)*	185 *(85)*	75 *(24)*	29.8 *(101.0)*
				12th(3D) Gear					
107.1 *(79.9)*	3850 *(17.1)*	10.43 *(16.79)*	1992	2.8	0.469 *(0.285)*	14.82 *(2.92)*	187 *(86)*	73 *(23)*	29.8 *(101.0)*

TRACTOR SOUND LEVEL WITH CAB	Front wheel drive Engaged dB(A)	Disengaged dB(A)
At no load in 7th (2C) gear	69.0	69.0
Bystander		--

TIRES, BALLAST AND WEIGHT — **Tested without ballast**

Rear Tires - No., size, ply & psi*(kPa)*	Two 520/85R38;**;14*(100)*
Front Tires - No., size, ply & psi*(kPa)*	Two 420/85R28;**;15*(105)*
Height of Drawbar	19.7 in *(500 mm)*
Static Weight with operator - Rear	7780 lb *(3530 kg)*
- Front	6305 lb *(2860 kg)*
- Total	14085 lb *(6390 kg)*

Clutch multiple wet disc operated by foot pedal
Brakes multiple wet disc hydraulically operated by two foot pedals that can be locked together
Steering hydrostatic **Power take-off** 540 rpm at 1885 engine rpm or 1000 rpm at 2030 engine rpm **Unladen tractor mass** 13920 lb *(6315 kg)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE: The performance figures on this report are the result of replacing the electronic engine control module of the Massey Ferguson 7615 with the Massey Ferguson 7614 module.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's remote hydraulic flow claims of 29 GPM *(110 lpm)* with two outlets combined, 24.3 GPM *(92 lpm)* single outlet set nor 3 point lift capacity of 9800 lbs *(4445 kg)*. 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. **2754,** Nebraska Summary 898, January 22, 2014.

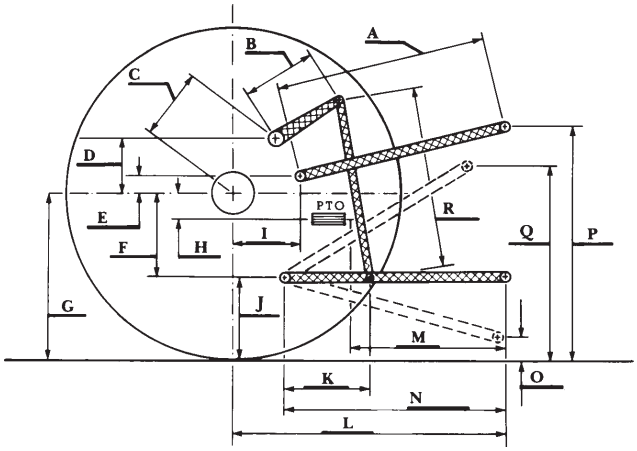
Roger M. Hoy
Director

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

HYDRAULIC PERFORMANCE

CATEGORY: II
Quick Attach: None
OECD Static test

Maximum force exerted through whole range:	9305 lbs *(41.4 kN)*
i) Sustained pressure of the open relief valve:	2780 psi *(191 bar)*
	two outlet sets combined
ii) Pump delivery rate at minimum pressure:	25.1 GPM *(94.9 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	23.4 GPM *(88.9 l/min)*
Delivery pressure:	2170 psi *(149 bar)*
Power:	29.6 HP *(22.1 kW)*
	single outlet set
ii) Pump delivery rate at minimum pressure:	23.1 GPM *(87.6 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	22.1 GPM *(83.6 l/min)*
Delivery pressure:	1835 psi *(126 bar)*
Power:	23.6 HP *(17.6 kW)*



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	27.7	*704*
B	11.6	*295*
C	13.9	*354*
D	13.0	*330*
E	9.8	*250*
F	11.0	*280*
G	34.4	*875*
H	3.2	*82*
I	16.3	*413*
J	23.4	*595*
K	21.4	*543*
L	43.3	*1101*
M	24.6	*626*
N	37.0	*940*
O	8.3	*212*
P	47.4	*1205*
Q	36.6	*930*
R	30.7	*780*