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2015

Nebraska Summary: S991 Massey Ferguson 8732

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SUMMARY OF OECD TEST 2908–NEBRASKA SUMMARY 991A
MASSEY FERGUSON 8732 DIESEL
ALSO MASSEY FERGUSON 8732S DIESEL
DYNA VT TRANSMISSION

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—1065 rpm)						
263.9 *(196.8)*	2097	15.13 *(57.26)*	0.399 *(0.243)*	17.45 *(3.44)*	0.67 *(2.52)*	
Standard Power Take-off Speed (999 rpm)						
282.2 *(210.4)*	1968	15.60 *(59.05)*	0.386 *(0.235)*	18.09 *(3.56)*	0.73 *(2.78)*	
Maximum Power (1 hour)						
284.8 *(212.4)*	1954	15.57 *(58.95)*	0.381 *(0.232)*	18.29 *(3.60)*	0.73 *(2.78)*	
VARYING POWER AND FUEL CONSUMPTION						
263.9 *(196.8)*	2097	15.13 *(57.26)*	0.399 *(0.243)*	17.45 *(3.44)*	0.67 *(2.52)*	Air temperature
226.4 *(168.8)*	2112	13.20 *(49.97)*	0.407 *(0.248)*	17.15 *(3.38)*	0.60 *(2.26)*	68°F *(20°C)*
169.9 *(126.7)*	2115	10.81 *(40.93)*	0.444 *(0.270)*	15.71 *(3.09)*	0.49 *(1.87)*	Relative humidity
114.0 *(85.0)*	2123	8.25 *(31.22)*	0.505 *(0.307)*	13.81 *(2.72)*	0.30 *(1.13)*	34%
57.3 *(42.7)*	2136	5.23 *(19.78)*	0.637 *(0.388)*	10.95 *(2.16)*	0.16 *(0.59)*	Barometer
---- ----	2143	2.93 *(11.08)*	---- ----	---- ----	---- ----	30.4" Hg *(102.8 kPa)*

Maximum torque - 970 lb.-ft. *(1315 Nm)* at 1043 rpm
Maximum torque rise - 46.8%
Torque rise at 1700 engine rpm - 29%
Power increase at 1954 engine rpm - 7.9%

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 *(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
Power at Rated Engine Speed—Rabbit 11									
214.3 *(159.8)*	12815 *(57.0)*	6.27 *(10.09)*	2101	5.5	0.500 *(0.304)*	13.81 *(2.72)*	192 *(89)*	45 *(7)*	30.1 *(101.9)*
75% of Pull at Rated Engine Speed—Rabbit 11									
160.8 *(119.9)*	9555 *(42.5)*	6.31 *(10.16)*	2124	2.6	0.542 *(0.329)*	12.75 *(2.51)*	190 *(88)*	45 *(7)*	30.1 *(101.9)*
50% of Pull at Rated Engine Speed—Rabbit 11									
111.7 *(83.3)*	6430 *(28.6)*	6.51 *(10.48)*	2131	2.0	0.624 *(0.380)*	11.07 *(2.18)*	190 *(88)*	45 *(7)*	30.1 *(101.9)*
75% of Pull at Reduced Engine Speed—Rabbit 14									
160.0 *(119.3)*	9575 *(42.6)*	6.26 *(10.08)*	1641	2.4	0.492 *(0.299)*	14.06 *(2.77)*	187 *(86)*	45 *(7)*	30.1 *(101.9)*
50% of Pull at Reduced Engine Speed—Rabbit 14									
112.1 *(83.6)*	6475 *(28.8)*	6.49 *(10.45)*	1646	1.7	0.512 *(0.312)*	13.48 *(2.66)*	181 *(83)*	45 *(7)*	30.1 *(101.9)*

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

Dates of tests: January to April, 2015.

Manufacturer: AGCO S.A.S, 41 Avenue Blaise Pascal, 60000 Beauvais, France

CONSUMABLE FLUIDS: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.837 **Fuel weight** 6.98 lbs/gal *(0.836 kg/l)* **Diesel Exhaust Fluid (DEF)** 32% aqueous urea solution **DEF weight** 9.08 lbs/gal *(1.091 kg/l)* **Oil SAE** 15W40 **API service classification** CJ-4 **Transmission and hydraulic lubricant** Terrac Trantan 9 10W/40 **Front axle lubricant** SAE 85W90 API GL4

ENGINE: Make AGCO Power Diesel **Type** six cylinder vertical with two turbochargers, air to air intercooler and D.E.F.(diesel exhaust fluid) technology **Serial No.** 84AWF 1020 T06951 **Crankshaft** lengthwise **Rated engine speed** 2100 **Bore and stroke** 4.370" x 5.709" *(111.0 mm x 145.0 mm)* **Compression ratio** 16.7 to 1 **Displacement** 513 cu in *(8419 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** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** D035901 **Tread width** rear 76.0" *(1930 mm)* to 89.1" *(2262 mm)* front 61.5" *(1560 mm)* to 89.4" *(2268 mm)* **Wheelbase** 121.8" *(3093 mm)* **Hydraulic control system** direct engine drive **Transmission** CVT. A combination of mechanical and hydrostatic sections allow an infinite speed adjustment within the ranges noted. The transmission has two mechanical ranges. **Nominal travel speeds mph *(km/h)*** forward: Low range 0-20 *(0-32)*, high range 0-25 *(0-40)* reverse: Low range 0-12 *(0-20)*, high range 0-18 *(0-30)* **Clutch** a foot pedal controls the hydrostatic oil flow **Brakes** multiple wet disc hydraulically operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 1000 rpm at 1970 engine rpm **Unladen tractor mass** 24670 lb *(11190 kg)*

DRAWBAR PERFORMANCE

(Unballasted - Front Drive Engaged)
MAXIMUM POWER AT SELECTED TRAVEL SPEEDS

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)*
					Turtle 3				
87.6 *(65.3)*	22480 *(100.0)*	1.46 *(2.35)*	2133	14.2	0.731 *(0.445)*	9.44 *(1.86)*	174 *(79)*	43 *(6)*	30.2 *(102.1)*
					Turtle 5				
146.7 *(109.4)*	22030 *(98.0)*	2.50 *(4.02)*	2100	12.8	0.602 *(0.366)*	11.47 *(2.26)*	178 *(81)*	43 *(6)*	30.2 *(102.1)*
					Turtle 6.5				
200.9 *(149.8)*	20275 *(90.2)*	3.72 *(5.98)*	2049	7.5	0.521 *(0.317)*	13.25 *(2.61)*	178 *(81)*	43 *(6)*	30.2 *(102.1)*
					Turtle 8				
229.4 *(171.1)*	18410 *(81.9)*	4.67 *(7.52)*	1952	5.8	0.473 *(0.288)*	14.60 *(2.88)*	189 *(87)*	43 *(6)*	30.1 *(102.0)*
					Turtle 11				
232.4 *(173.3)*	14140 *(62.9)*	6.16 *(9.92)*	1937	4.8	0.463 *(0.282)*	14.91 *(2.94)*	192 *(89)*	45 *(7)*	30.1 *(102.0)*
					Turtle 14				
232.7 *(173.5)*	10700 *(47.6)*	8.15 *(13.12)*	1945	2.8	0.458 *(0.279)*	15.08 *(2.97)*	187 *(86)*	45 *(7)*	30.1 *(102.0)*
					*Turtle 16				
229.4 *(171.1)*	9260 *(41.2)*	9.29 *(14.95)*	1948	2.6	0.508 *(0.309)*	13.60 *(2.68)*	198 *(92)*	45 *(7)*	30.1 *(101.8)*
					*Turtle 18				
229.0 *(170.8)*	7825 *(34.8)*	10.98 *(17.67)*	1944	2.2	0.522 *(0.318)*	13.22 *(2.61)*	199 *(93)*	45 *(7)*	30.1 *(101.8)*
					Rabbit 8.5				
226.2 *(168.7)*	17950 *(79.8)*	4.72 *(7.61)*	1956	6.3	0.475 *(0.289)*	14.55 *(2.87)*	192 *(89)*	45 *(7)*	30.1 *(101.8)*
					Rabbit 11				
231.1 *(172.3)*	14435 *(64.2)*	6.00 *(9.66)*	1959	5.9	0.469 *(0.286)*	14.71 *(2.90)*	194 *(90)*	45 *(7)*	30.1 *(101.8)*
					Rabbit 14				
231.3 *(172.5)*	10545 *(46.9)*	8.23 *(13.24)*	1951	2.8	0.471 *(0.287)*	14.66 *(2.89)*	187 *(86)*	45 *(7)*	30.1 *(101.8)*
					*Rabbit 16				
231.7 *(172.8)*	8815 *(39.2)*	9.86 *(15.87)*	1955	2.6	0.511 *(0.311)*	13.50 *(2.66)*	203 *(95)*	46 *(8)*	30.1 *(101.8)*
					*Rabbit 18				
232.5 *(173.4)*	7845 *(34.9)*	11.12 *(17.89)*	1947	2.1	0.510 *(0.310)*	13.55 *(2.67)*	198 *(92)*	46 *(8)*	30.0 *(101.7)*
					*Rabbit 21				
226.9 *(169.2)*	6700 *(29.8)*	12.70 *(20.44)*	1964	1.8	0.525 *(0.320)*	13.14 *(2.59)*	194 *(90)*	48 *(9)*	30.0 *(101.7)*

* Boosted mode

TRACTOR SOUND LEVEL WITH CAB	dB(A)
At no load in Turtle - 4.9 mph *(7.9 km/h)* - no load	71.0
Bystander	---

Horizontal distance of drawbar hitch point behind rear wheel axis - 36.8 in *(935 mm)*, 38.8 in *(985 mm)*, 42.7 in, *(1085 mm)*, 48.6 in *(1235 mm)*

TIRES AND WEIGHT	Tested Without Ballast
Rear Tires - No., size, ply & psi*(kPa)*	Two 710/75R42;***;12*(80)*
Front Tires - No., size, ply & psi*(kPa)*	Two 600/65R34;**;19*(130)*
Height of Drawbar	21.7 in *(550 mm)*
Static Weight with operator - Rear	13615 lb *(6175 kg)*
- Front	11220 lb *(5090 kg)*
- Total	24835 lb*(11265 kg)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE 1: This tractor has an engine control feature that allows the engine to run in a "boosted" mode, increased power level, at travel speeds above 8.7 mph *(14.0 km/h)*.

NOTE 2: The performance figures on this report are the result of replacing the electronic engine control module of the Massey Ferguson 8730 with the Massey Ferguson 8732 module.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor fell 1.9% short of meeting the manufacturer's claim of 54.2 GPM *(205 l/min)* remote hydraulic flow. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

REPORT REISSUED: Supplemental sales permit for Massey Ferguson 8732S Diesel, September, 2018.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2908,** Nebraska Summary 991A, September12, 2018.

Roger M. Hoy
Director

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

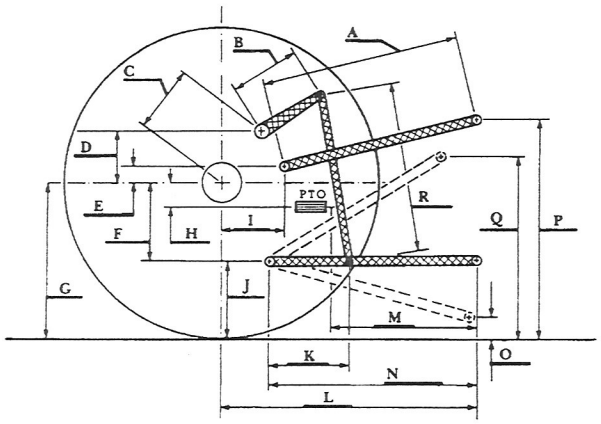
HYDRAULIC PERFORMANCE

CATEGORY: III	
Quick Attach: Yes	
OECD Static test	
Maximum force exerted through whole range:	20390 lbs *(90.7 kN)* (at 24"*(610 mm)* behind QA ends)
	22460 lbs *(99.9 kN)* (at QA ends)
i) Sustained pressure at compensator cutoff:	2885 psi *(199 bar)*
	two outlet sets combined
ii) Pump delivery rate at minimum pressure:	53.1 GPM *(201.1 l/min)*
iii)Pump delivery rate at maximum hydraulic power:	47.3 GPM *(179.2 l/min)*
Delivery pressure:	2435 psi *(168 bar)*
Power:	67.3 HP *(50.2 kW)*
	single outlet set
ii) Pump delivery rate at minimum pressure:	35.8 GPM *(135.5 l/min)*
iii)Pump delivery rate at maximum hydraulic power:	33.8 GPM *(127.9 l/min)*
Delivery pressure:	2265 psi *(156 bar)*
Power:	44.6 HP *(33.2 kW)*

HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	31.9	*810*
B	14.6	*370*
C	19.1	*484*
D	15.9	*405*
E	8.9	*225*
F	13.0	*330*
G	40.4	*1025*
H	2.4	*60*
I	18.8	*478*
J	27.4	*695*
K	24.7	*628*
L	49.2	*1250*
*L'	53.9	*1370*
M	26.8	*680*
N	39.9	*1014*
O	10.2	*260*
P	50.4	*1280*
Q	38.5	*977*
R	37.4	*950*

*L' to Quick Attach ends



RECOMMENDED CITATION FORMAT:

NTTL.(2018). OECD tractor test 2908 for Massey Ferguson 8732S Diesel. Lincoln, NE:Nebraska Tractor Test Laboratory. Retrieved from http://tractortestlab.unl.edu