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Nebraska Summary: S839 Massey Ferguson 7620

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SUMMARY OF OECD TEST 2704—NEBRASKA SUMMARY 839

MASSEY FERGUSON 7620 DYNA VT DIESEL

CONTINUOUSLY VARIABLE TRANSMISSION

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Diesel Consumption		D.E.F. Consumption		Mean Atmospheric Conditions
		Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Gal/hr (l/h)	
MAXIMUM POWER AND FUEL CONSUMPTION						
Rated Engine Speed—(PTO speed—1032 rpm)						
162.3 (121.0)	2100	9.29 (35.17)	0.399 (0.243)	17.46 (3.44)	0.43 (1.63)	
Standard Power Take-off Speed (1000 rpm)						
169.1 (126.1)	2034	9.59 (36.29)	0.396 (0.241)	17.64 (3.47)	0.45 (1.70)	
Maximum Power (1 hour)						
183.2 (136.6)	1951	9.94 (37.63)	0.378 (0.230)	18.43 (3.63)	0.52 (1.98)	
VARYING POWER AND FUEL CONSUMPTION						
162.3 (121.0)	2100	9.29 (35.17)	0.399 (0.243)	17.46 (3.44)	0.43 (1.63)	Air temperature
138.7 (103.4)	2107	8.22 (31.11)	0.414 (0.252)	16.87 (3.32)	0.34 (1.27)	72°F (22°C)
104.3 (77.8)	2120	6.38 (24.15)	0.427 (0.260)	16.34 (3.22)	0.27 (1.03)	Relative humidity
69.9 (52.1)	2130	4.80 (18.15)	0.479 (0.291)	14.57 (2.87)	0.21 (0.78)	58%
34.7 (25.9)	2139	3.34 (12.65)	0.671 (0.408)	10.39 (2.05)	0.14 (0.52)	Barometer
---	2149	2.04 (7.72)	---	---	---	30.3" Hg (102.5 kPa)

Maximum torque - 599 lb.-ft. (812 Nm) at 1450 rpm
 Maximum torque rise - 47.6%
 Torque rise at 1700 engine rpm - 34%
 Power increase at 1951 engine rpm - 12%

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		Temp. °F (°C)	Barom.	
					lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)		cool- ing med	Air dry bulb Hg (kPa)
Maximum Power—Turtle 8									
124.4 (92.8)	10095 (44.9)	4.62 (7.44)	2099	5.6	0.476 (0.290)	14.62 (2.88)	174 (79)	39 (4)	30.1 (102.0)
75% of Pull at Maximum Power—Turtle 8									
94.9 (70.8)	7575 (33.7)	4.70 (7.56)	2125	4.0	0.509 (0.309)	13.68 (2.69)	172 (78)	39 (4)	30.1 (102.0)
50% of Pull at Maximum Power—Turtle 8									
63.6 (47.4)	5060 (22.5)	4.71 (7.58)	2148	3.8	0.584 (0.355)	11.93 (2.35)	171 (77)	39 (4)	30.1 (102.0)
75% of Pull at Reduced Engine Speed—Turtle 10									
94.7 (70.6)	7510 (33.4)	4.73 (7.61)	1405	4.1	0.417 (0.253)	16.70 (3.29)	169 (76)	39 (4)	30.1 (102.0)
50% of Pull at Reduced Engine Speed—Turtle 10									
64.1 (47.8)	5105 (22.7)	4.71 (7.58)	1412	3.5	0.468 (0.284)	14.88 (2.93)	167 (75)	39 (4)	30.1 (102.0)

Location of tests: Centre d'Antony, 1 rue Pierre-Giles de Gennes, CS 10030 92761 Antony, Cedex France

Dates of tests: January - March, 2012

Manufacturer: AGCO S.A. ZA, n2, BP 60307, Avenue Blaise Pascal, 60026 Beauvais, Cedex, France

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F (15°/15°C)** 0.838 **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 CH4 Transmission and hydraulic lubricant** BPTerrac Tractan 910W/40 **Front axle lubricant** SAE 85W140 API GL-5

ENGINE: Make Sisu Diesel **Type** six cylinder vertical with turbocharger, air to air intercooler and SCR (selective catalyst reduction) technology **Serial No.** W00454 **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 **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.** B013901 **Tread width** rear 52.8" (1340 mm) to 87.8" (2230 mm) front 52.8" (1340 mm) to 87.8" (2230 mm) **Wheelbase** 117.8" (2993 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 0-19 (0-30), high range 0-25 (0-40) reverse: Low range 0-11 (0-17), high range 0-19 (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** 540 rpm at 1932 engine rpm or 1000 rpm at 2035 engine rpm **Unladen tractor mass** 18495 lb (8390 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)	Consumption Hp.hr/gal (kW.h/l)	Temp. ^o F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Turtle 3									
74.2 (55.3)	16995 (75.6)	1.64 (2.63)	2126	14.0	0.592 (0.360)	11.77 (2.32)	169 (76)	37 (3)	30.1 (102.0)
Turtle 4.5									
112.4 (83.8)	16320 (72.6)	2.58 (4.16)	2092	13.8	0.519 (0.316)	13.40 (2.64)	169 (76)	37 (3)	30.1 (102.0)
Turtle 6.5									
147.6 (110.1)	13760 (61.2)	4.02 (6.48)	1959	10.3	0.442 (0.269)	15.74 (3.10)	176 (80)	39 (4)	30.1 (102.0)
Turtle 8									
148.3 (110.6)	11915 (53.0)	4.67 (7.51)	1946	6.3	0.441 (0.268)	15.79 (3.11)	176 (80)	39 (4)	30.1 (102.0)
Turtle 10									
146.4 (109.2)	9665 (43.0)	5.68 (9.14)	1949	5.5	0.450 (0.273)	15.48 (3.05)	178 (81)	39 (4)	30.1 (102.0)
Turtle 12									
146.4 (109.2)	7530 (33.5)	7.29 (11.73)	1945	4.6	0.443 (0.269)	15.71 (3.09)	178 (81)	41 (5)	30.1 (102.0)
Turtle 14.5									
143.2 (106.8)	6050 (26.9)	8.88 (14.29)	1964	3.1	0.456 (0.278)	15.25 (3.00)	180 (82)	41 (5)	30.1 (102.0)
Rabbit 9									
137.9 (102.8)	9890 (44.0)	5.23 (8.41)	1950	5.3	0.455 (0.277)	15.28 (3.01)	176 (80)	41 (5)	30.1 (102.0)
Rabbit 12									
145.4 (108.4)	7575 (33.7)	7.20 (11.58)	1952	4.6	0.448 (0.272)	15.55 (3.06)	177 (81)	43 (6)	30.1 (102.0)
Rabbit 15.5									
146.6 (109.3)	5910 (26.3)	9.30 (14.96)	1941	4.1	0.436 (0.265)	15.95 (3.14)	180 (82)	43 (6)	30.1 (102.0)
Rabbit 17									
145.0 (108.1)	5530 (24.6)	9.83 (15.82)	1951	3.1	0.439 (0.267)	15.84 (3.12)	180 (82)	43 (6)	30.1 (102.0)

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 7622 with the Massey Ferguson 7620 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 claim of 15% power bulge. The manufacturer's claim of 39 GPM (150 lpm) remote hydraulic flow, with optional pump was not verified. 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. **2704**, Nebraska Summary 839, January 30, 2013.

Roger M. Hoy
Director

M.R. Riley
P.J. Jasa
J.D. Luck
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front wheel drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in Turtle 8	70.0	70.0
Bystander		--

TIRES, BALLAST AND WEIGHT

Rear Tires - No., size, ply & psi(kPa)
Front Tires - No., size, ply & psi(kPa)
Height of Drawbar
Static Weight with operator - Rear
 - Front
 - Total

Tested without ballast

Two 650/65R38; **; 14(100)
 Two 540/65R30; **; 14(100)
 23.6 in (600 mm)
 10570 lb (4795 kg)
 8090 lb (3670 kg)
 18660 lb (8465 kg)

HYDRAULIC PERFORMANCE

CATEGORY: III

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 13715 lbs (61.0 kN)

i) Sustained pressure of the open relief valve: 2900 psi (200 bar)

two outlet sets combined

ii) Pump delivery rate at minimum pressure: 31.0 GPM (117.5 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 29.2 GPM (110.5 l/min)

Delivery pressure: 2250 psi (155 bar)

Power: 38.3 HP (28.5 kW)

one outlet set

ii) Pump delivery rate at minimum pressure: 30.6 GPM (116.1 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 27.7 GPM (104.7 l/min)

Delivery pressure: 1945 psi (134 bar)

Power: 31.4 HP (23.4 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	31.9	810
B	14.0	355
C	14.4	365
D	12.0	305
E	8.8	223
F	10.9	276
G	36.4	925
H	2.4	60
I	16.4	416
J	25.5	649
K	26.2	665
L	47.6	1209
M	26.9	684
N	40.6	1030
O	8.5	216
P	49.6	1259
Q	39.7	1008
R	31.1	790

