

SUMMARY OF OECD TEST 2333-NEBRASKA SUMMARY 549

CHALLENGER MT555B TECHSTAR DIESEL CONTINUOUSLY VARIABLE TRANSMISSION

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—1081 rpm)					
131.9 (98.4)	2199	8.94 (33.86)	0.471 (0.287)	14.75 (2.91)	
Standard Power Take-off Speed(1000 rpm)					
140.0 (104.4)	2034	8.93 (33.79)	0.443 (0.270)	15.68 (3.09)	
Maximum Power (2 hours)					
141.2 (105.3)	1900	8.65 (32.76)	0.426 (0.259)	16.31 (3.21)	
VARYING POWER AND FUEL CONSUMPTION					
131.9 (98.4)	2199	8.94 (33.86)	0.471 (0.287)	14.75 (2.91)	Air temperature
112.4 (83.8)	2205	7.77 (29.41)	0.480 (0.292)	14.47 (2.85)	66°F (19°C)
84.6 (63.1)	2215	6.29 (23.81)	0.517 (0.314)	13.45 (2.65)	Relative humidity
56.7 (42.3)	2223	4.99 (18.89)	0.611 (0.372)	11.37 (2.24)	30%
28.5 (21.2)	2231	3.32 (12.56)	0.810 (0.493)	8.58 (1.69)	Barometer
--	2235	2.16 (8.18)	--	--	29.5" Hg (99.9 kPa)
Maximum torque - 464 lb.-ft. (629 Nm) at 1387 rpm					
Maximum torque rise - 47.3%					
Torque rise at 1800 engine rpm - 29%					

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 dry med	Barom. inch Hg (kPa)
Maximum Power—Turtle								
107.3 (80.0)	8430 (37.49)	4.77 (7.68)	2199	4.9	0.580 (0.353)	11.98 (2.36)	178 (81)	63 (17)
75% of Pull at Maximum Power—Turtle								
83.1 (62.0)	6405 (28.49)	4.87 (7.84)	2211	3.4	0.614 (0.374)	11.31 (2.23)	178 (81)	63 (17)
50% of Pull at Maximum Power—Turtle								
56.2 (41.9)	4250 (18.90)	4.96 (7.99)	2220	2.2	0.718 (0.437)	9.68 (1.91)	178 (81)	63 (17)
75% of Pull at Reduced Engine Speed—Turtle								
82.5 (61.5)	6400 (28.46)	4.83 (7.78)	1958	3.6	0.550 (0.335)	12.63 (2.49)	172 (78)	63 (17)
50% of Pull at Reduced Engine Speed—Turtle								
55.9 (41.7)	4245 (18.89)	4.93 (7.94)	1967	2.4	0.627 (0.381)	11.08 (2.18)	176 (80)	63 (17)

Location of tests: DLG testing Station for Agricultural Machinery, Max-Eyth-Weg 1 D-64823, Gros - Umstadt, Germany

Dates of tests: April - June, 2005
Operator sound level - December 19, 2006

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

FUEL and OIL: Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.835 Fuel weight 6.95 lbs/gal (0.8328 kg/l) Oil SAE 10W40 API service classification CH4 Transmission and hydraulic lubricant SAE10W/40 Front axle lubricant Gear oil SAE 85W/90

ENGINE: Make Caterpillar Diesel Type six cylinder vertical with turbocharger and air to air intercooler Serial No. 207-1097 33.40.38.08 Crankshaft lengthwise Rated engine speed 2200 Bore and stroke 3.937" x 5.00" (100.0 mm x 127.0 mm) Compression ratio 17.5 to 1 Displacement 366 cu in (5985 ml) Starting system 12 volt Lubrication pressure Air cleaner two paper elements and aspirator Oil filter one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil, radiator for hydraulic and final drive oil, radiator for 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. N009101 Tread width rear 66.5" (1690 mm) to 79.5" (2020 mm) front 64.6" (1640 mm) to 78.1" (1984 mm) Wheelbase 118.4" (3007 mm) Hydraulic control system direct engine drive Transmission AGCO CVT. A combination of mechanical and hydrostatic sections are electronically controlled to give the travel speeds shown. The transmission has two mechanical ranges. Nominal travel speeds mph (km/h) forward: Low range 0 - 17 (0 - 28), high range 0 - 25 (0 - 40) reverse: Low range 0 - 11 (0 - 18), high range 0 - 12 (0 - 19) 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 2062 engine rpm or 1000 rpm at 2033 engine rpm Unladen tractor mass 14320 lb (6495 kg)

DRAWBAR PERFORMANCE

(Unballasted - Front Drive Engaged) MAXIMUM POWER AT SELECTED 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)
99.6 (74.3)	14455 (64.30)	2.58 (4.16)	1965	15.2	Turtle 0.606 (0.368)	11.47 (2.26)	180 (82)	64 (18)	29.4 (99.5)
107.1 (79.9)	12830 (57.08)	3.13 (5.04)	1900	9.1	Turtle 0.554 (0.337)	12.54 (2.47)	180 (82)	64 (18)	29.4 (99.5)
112.4 (83.8)	11865 (52.78)	3.55 (5.71)	1899	7.5	Turtle 0.531 (0.323)	13.10 (2.58)	180 (82)	64 (18)	29.4 (99.5)
110.5 (82.4)	10540 (46.89)	3.93 (6.33)	1901	6.3	Turtle 0.536 (0.326)	12.95 (2.55)	185 (85)	81 (27)	29.3 (99.3)
112.4 (83.8)	9505 (42.28)	4.44 (7.14)	1900	5.1	Turtle 0.533 (0.324)	13.05 (2.57)	174 (79)	81 (27)	29.3 (99.3)
111.2 (82.9)	7925 (35.26)	5.26 (8.46)	1901	4.7	Turtle 0.535 (0.326)	12.98 (2.56)	180 (82)	81 (27)	29.3 (99.3)
112.2 (83.7)	6785 (30.18)	6.20 (9.98)	1900	4.0	Turtle 0.531 (0.323)	13.10 (2.58)	181 (83)	81 (27)	29.3 (99.3)
110.9 (82.7)	6125 (27.25)	6.79 (10.93)	1902	3.7	Turtle 0.538 (0.327)	12.91 (2.54)	183 (84)	81 (27)	29.3 (99.3)
108.7 (81.1)	5065 (22.53)	8.05 (12.95)	1901	3.0	Turtle 0.550 (0.334)	12.64 (2.49)	178 (81)	81 (27)	29.3 (99.3)
104.9 (78.2)	8460 (37.64)	4.65 (7.48)	1900	5.0	Rabbit 0.567 (0.345)	12.23 (2.41)	176 (80)	81 (27)	29.3 (99.3)
105.3 (78.5)	7510 (33.41)	5.26 (8.46)	1902	4.4	Rabbit 0.564 (0.343)	12.33 (2.43)	189 (87)	81 (27)	29.3 (99.3)
107.8 (80.4)	6500 (28.91)	6.22 (10.01)	1901	3.6	Rabbit 0.552 (0.336)	12.59 (2.48)	183 (84)	81 (27)	29.3 (99.3)
108.4 (80.8)	5820 (25.89)	6.98 (11.24)	1905	3.2	Rabbit 0.550 (0.334)	12.64 (2.49)	183 (84)	81 (27)	29.3 (99.3)
108.1 (80.6)	5320 (23.67)	7.62 (12.26)	1901	3.0	Rabbit 0.550 (0.335)	12.63 (2.49)	180 (82)	81 (27)	29.3 (99.3)
107.7 (80.3)	4555 (20.25)	8.87 (14.28)	1904	2.5	Rabbit 0.554 (0.337)	12.54 (2.47)	183 (84)	81 (27)	29.3 (99.3)

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 the manufacturer's 3 point lift capacity claim of 13700 lbs (6214 kg) at 24" behind link ends. The performance figures on this summary were taken from a test conducted under the OECD Code II test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2333**, Nebraska Summary 549, January 5, 2007.

Roger M. Hoy
Director

M.F. Kocher
V.I. Adamchuk
J.A. Smith
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB

dB(A)

At no load in Turtle range-4.6mph (7.5 km/h)	70.4
Bystander in Rabbit range	--

TIRES, BALLAST AND WEIGHT

	With Ballast	Without Ballast
Rear Tires - No., size, ply & psi(kPa)	Four 480/80R42;**,9(60)	Two 520/85R42;**,12(80)
Ballast - Duals (total)	1770 lb (803 kg)	None
- Cast Iron (total)	1225 lb (555 kg)	None
Front Tires - No., size, ply & psi(kPa)	Two 380/85R30;**,15(100)	Two 420/90R30;**,12(80)
Ballast - Liquid (total)	None	None
- Cast Iron (total)	465 lb (212 kg)	None
Height of Drawbar	21.3 in (540 mm)	21.3 in (540 mm)
Static Weight with operator - Rear	11550 lb (5240 kg)	8675 lb (3935 kg)
- Front	6395 lb (2900 kg)	5810 lb (2635 kg)
- Total	17945 lb (8140 kg)	14485 lb (6570 kg)

DRAWBAR PERFORMANCE
(Ballasted - Front Drive Engaged)
MAXIMUM POWER AT SELECTED 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)	Temp. °F cool- ing med	Temp. °C Air dry bulb	Barom. inch Hg (kPa)
Maximum Power—Turtle								
101.0 (75.3)	7890 (35.09)	4.80 (7.72)	2201	3.0	0.598 (0.364)	11.62 (2.29)	183 (84)	75 (24) 29.4 (99.7)
75% of Pull at Maximum Power—Turtle								
76.6 (57.1)	5890 (26.20)	4.88 (7.85)	2209	2.2	0.643 (0.391)	10.81 (2.13)	181 (83)	77 (25) 29.4 (99.7)
50% of Pull at Maximum Power—Turtle								
51.4 (38.3)	3890 (17.31)	4.95 (7.97)	2218	1.5	0.766 (0.466)	9.08 (1.79)	174 (79)	75 (24) 29.4 (99.7)
75% of Pull at Reduced Engine Speed—Turtle								
77.1 (57.5)	5890 (26.21)	4.91 (7.90)	1956	2.0	0.570 (0.347)	12.18 (2.40)	172 (78)	75 (24) 29.4 (99.6)
50% of Pull at Reduced Engine Speed—Turtle								
51.9 (38.7)	3915 (17.41)	4.98 (8.01)	1955	1.3	0.649 (0.395)	10.71 (2.11)	171 (77)	75 (24) 29.4 (99.7)
MAXIMUM POWER IN SELECTED GEARS								
98.0 (73.1)	17945 (79.82)	2.05 (3.30)	1942	14.9	Turtle 0.611 (0.372)	11.37 (2.24)	181 (83)	77 (25) 29.4 (99.5)
105.3 (78.5)	16270 (72.38)	2.43 (3.91)	1899	9.7	Turtle 0.566 (0.345)	12.27 (2.42)	180 (82)	73 (23) 29.4 (99.5)
108.9 (81.2)	15165 (67.45)	2.70 (4.34)	1901	8.2	Turtle 0.545 (0.331)	12.76 (2.51)	181 (83)	73 (23) 29.4 (99.5)
105.1 (78.4)	12545 (55.80)	3.14 (5.06)	1900	5.9	Turtle 0.563 (0.342)	12.34 (2.43)	181 (83)	86 (30) 29.7 (100.6)
105.9 (79.0)	11270 (50.13)	3.52 (5.67)	1899	5.5	Turtle 0.560 (0.341)	12.41 (2.45)	178 (81)	86 (30) 29.7 (100.6)
112.4 (83.8)	10470 (46.58)	4.02 (6.47)	1901	4.8	Turtle 0.529 (0.322)	13.15 (2.59)	183 (84)	81 (27) 29.7 (100.6)
112.8 (84.1)	8980 (39.95)	4.71 (7.58)	1901	3.8	Turtle 0.526 (0.320)	13.20 (2.60)	178 (81)	81 (27) 29.7 (100.6)
104.9 (78.2)	6350 (28.24)	6.20 (9.97)	1900	2.6	Turtle 0.566 (0.344)	12.28 (2.42)	178 (81)	82 (28) 29.7 (100.6)
104.3 (77.8)	5495 (24.44)	7.11 (11.45)	1902	2.2	Turtle 0.569 (0.346)	12.20 (2.40)	176 (80)	79 (26) 29.7 (100.6)
102.2 (76.2)	4670 (20.76)	8.21 (13.22)	1901	1.9	Turtle 0.583 (0.354)	11.93 (2.35)	180 (82)	79 (26) 29.7 (100.6)
99.9 (74.5)	4010 (17.85)	9.34 (15.03)	1901	1.3	Turtle 0.595 (0.362)	11.67 (2.30)	178 (81)	79 (26) 29.7 (100.6)
109.3 (81.5)	8185 (36.42)	5.01 (8.06)	1901	3.5	Rabbit 0.545 (0.332)	12.74 (2.51)	174 (79)	79 (26) 29.7 (100.7)
110.0 (82.0)	7660 (34.08)	5.39 (8.67)	1901	3.0	Rabbit 0.541 (0.329)	12.84 (2.53)	172 (78)	64 (18) 29.8 (100.8)
111.0 (82.8)	6800 (30.25)	6.12 (9.85)	1901	2.9	Rabbit 0.537 (0.327)	12.94 (2.55)	172 (78)	64 (18) 29.7 (100.7)
110.4 (82.3)	5915 (26.32)	7.00 (11.26)	1901	2.2	Rabbit 0.541 (0.329)	12.84 (2.53)	174 (79)	66 (19) 29.7 (100.7)
109.3 (81.5)	5115 (22.76)	8.01 (12.89)	1906	2.2	Rabbit 0.545 (0.332)	12.74 (2.51)	174 (79)	68 (20) 29.7 (100.7)
106.7 (79.6)	4570 (20.32)	8.76 (14.10)	1903	2.0	Rabbit 0.557 (0.339)	12.49 (2.46)	183 (84)	73 (23) 29.7 (100.7)

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: III

Quick Attach: None

Maximum force exerted through whole range: 11230 lbs (49.95 kN)

i) Opening pressure of relief valve: NA

Sustained pressure of the open relief valve: 2875 psi (198 bar)

one coupler set two outlet sets combined

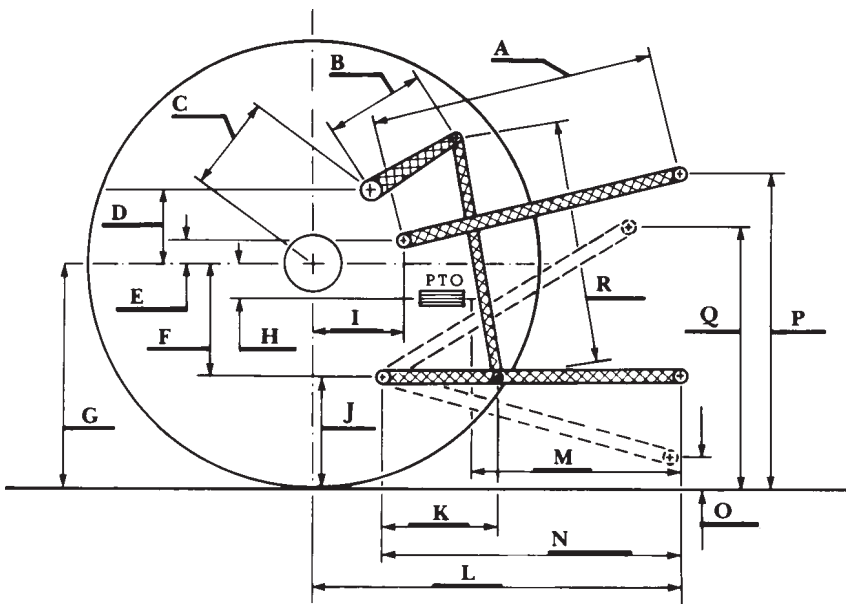
ii) Pump delivery rate at minimum pressure: 26.9 GPM (101.7 l/min) 32.2 GPM (122.0 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 26.0 GPM (98.4 l/min) 29.0 GPM (109.7 l/min)

Delivery pressure: 2465 psi (170 bar) 2610 psi (180 bar)

Power: 37.4 HP (27.9 kW) 44.1 HP (32.9 kW)



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	31.7	805
B	14.0	355
C	13.7	347
D	12.0	305
E	8.5	215
F	10.0	255
G	36.2	920
H	1.8	45
I	15.7	400
J	26.2	665
K	23.6	600
L	46.3	1175
M	26.2	665
N	40.6	1030
O	9.1	230
P	53.1	1350
Q	42.1	1070
R	29.1	740