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2005

Nebraska Summary: S550 Challenger MT565B

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SUMMARY OF OECD TEST 2335-NEBRASKA SUMMARY 550

CHALLENGER MT565B 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) | | | | | |
| 145.6 (108.6) | 2199 | 9.73 (36.82) | 0.464 (0.282) | 14.97 (2.95) | |
| Standard Power Take-off Speed(1000 rpm) | | | | | |
| 152.2 (113.5) | 2034 | 9.72 (36.78) | 0.443 (0.270) | 15.68 (3.09) | |
| Maximum Power (2 hours) | | | | | |
| 153.1 (114.2) | 1999 | 9.64 (36.50) | 0.437 (0.266) | 15.89 (3.13) | |
| VARYING POWER AND FUEL CONSUMPTION | | | | | |
| 145.6 (108.6) | 2199 | 9.73 (36.82) | 0.464 (0.282) | 14.97 (2.95) | Air temperature |
| 124.0 (92.5) | 2207 | 8.55 (32.37) | 0.478 (0.291) | 14.52 (2.86) | 66°F(19°C) |
| 93.5 (69.7) | 2215 | 6.93 (26.24) | 0.515 (0.313) | 13.50 (2.66) | Relative humidity |
| 62.6 (46.7) | 2223 | 5.37 (20.33) | 0.596 (0.363) | 11.65 (2.30) | 55% |
| 31.5 (23.5) | 2231 | 3.76 (14.24) | 0.830 (0.505) | 8.38 (1.65) | Barometer |
| -- | 2238 | 2.06 (7.78) | -- | -- | 29.3" Hg(99.2 kPa) |
| Maximum torque - 465 lb.-ft. (630 Nm) at 1401 rpm | | | | | |
| Maximum torque rise - 33.5% | | | | | |
| Torque rise at 1800 engine rpm - 27% | | | | | |

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) 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 bulb | Barom. inch Hg (kPa) | |
|---|--------------------------------|------------------------|---------------------------------|-----------|---|-----------------------|---|-------------------------------|-----------------|
| Maximum Power—Turtle | | | | | | | | | |
| 120.4 (89.8) | 9375 (41.71) | 4.82 (7.75) | 2201 | 4.9 | 0.559 (0.340) | 12.44 (2.45) | 178 (81) | 57 (14) | 29.6 (100.4) |
| 75% of Pull at Maximum Power—Turtle | | | | | | | | | |
| 92.0 (68.6) | 6985 (31.07) | 4.94 (7.95) | 2212 | 3.4 | 0.587 (0.357) | 11.83 (2.33) | 180 (82) | 57 (14) | 29.6 (100.4) |
| 50% of Pull at Maximum Power—Turtle | | | | | | | | | |
| 62.2 (46.4) | 4645 (20.65) | 5.02 (8.08) | 2222 | 2.2 | 0.681 (0.414) | 10.20 (2.01) | 176 (80) | 57 (14) | 29.6 (100.4) |
| 75% of Pull at Reduced Engine Speed—Turtle | | | | | | | | | |
| 92.7 (69.1) | 7000 (31.14) | 4.96 (7.99) | 1967 | 3.4 | 0.533 (0.324) | 13.05 (2.57) | 172 (78) | 59 (15) | 29.6 (100.4) |
| 50% of Pull at Reduced Engine Speed—Turtle | | | | | | | | | |
| 62.5 (46.6) | 4635 (20.62) | 5.06 (8.13) | 1968 | 2.4 | 0.573 (0.349) | 12.13 (2.39) | 171 (77) | 57 (14) | 29.6 (100.4) |

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) | Consumption Hp.hr/gal (kW.h/l) | Temp. °F(°C) cool- ing med | Air dry bulb | Barom. inch Hg (kPa) |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|--------------------------------------|-------------------------------------|--------------------|-------------------------------|
| 113.7 (84.8) | 14835 (66.00) | 2.87 (4.63) | 2153 | 15.0 | Turtle 0.593 (0.360) | 11.73 (2.31) | 173 (78) | 52 (11) | 29.6 (100.4) |
| 118.4 (88.3) | 14495 (64.47) | 3.06 (4.93) | 2001 | 12.2 | Turtle 0.557 (0.339) | 12.49 (2.46) | 176 (80) | 55 (13) | 29.6 (100.4) |
| 121.5 (90.6) | 12450 (55.39) | 3.66 (5.89) | 1998 | 7.6 | Turtle 0.542 (0.330) | 12.79 (2.52) | 176 (80) | 57 (14) | 29.6 (100.4) |
| 125.4 (93.5) | 11365 (50.56) | 4.14 (6.66) | 1999 | 6.2 | Turtle 0.526 (0.320) | 13.20 (2.60) | 176 (80) | 50 (10) | 29.4 (99.4) |
| 125.1 (93.3) | 9515 (42.32) | 4.93 (7.94) | 2000 | 4.9 | Turtle 0.527 (0.321) | 13.18 (2.60) | 180 (82) | 55 (13) | 29.4 (99.4) |
| 124.6 (92.9) | 8035 (35.75) | 5.82 (9.36) | 2000 | 4.0 | Turtle 0.531 (0.323) | 13.10 (2.58) | 178 (81) | 57 (14) | 29.4 (99.4) |
| 123.6 (92.2) | 7120 (31.68) | 6.51 (10.47) | 2002 | 3.4 | Turtle 0.535 (0.325) | 12.99 (2.56) | 180 (82) | 59 (15) | 29.3 (99.3) |
| 121.9 (90.9) | 6175 (27.46) | 7.40 (11.91) | 2000 | 2.9 | Turtle 0.542 (0.330) | 12.82 (2.53) | 180 (82) | 57 (14) | 29.3 (99.3) |
| 120.0 (89.5) | 5210 (23.17) | 8.64 (13.91) | 2001 | 2.1 | Turtle 0.550 (0.335) | 12.64 (2.49) | 181 (83) | 52 (11) | 29.6 (100.4) |
| 120.2 (89.6) | 8045 (35.78) | 5.60 (9.02) | 2001 | 4.5 | Rabbit 0.550 (0.334) | 12.64 (2.49) | 181 (83) | 50 (10) | 29.3 (99.3) |
| 122.6 (91.4) | 7015 (31.20) | 6.55 (10.54) | 2001 | 4.0 | Rabbit 0.539 (0.328) | 12.89 (2.54) | 181 (83) | 50 (10) | 29.3 (99.3) |
| 122.8 (91.6) | 6415 (28.53) | 7.18 (11.56) | 2000 | 3.7 | Rabbit 0.538 (0.327) | 12.91 (2.54) | 181 (83) | 50 (10) | 29.3 (99.3) |
| 122.8 (91.6) | 5630 (25.06) | 8.18 (13.16) | 2002 | 3.1 | Rabbit 0.538 (0.327) | 12.91 (2.54) | 180 (82) | 49 (9) | 29.4 (99.4) |
| 126.4 (94.3) | 5355 (23.83) | 8.85 (14.24) | 2004 | 3.0 | Rabbit 0.523 (0.318) | 13.30 (2.62) | 180 (82) | 50 (10) | 29.4 (99.4) |
| 125.2 (93.4) | 4585 (20.40) | 10.24 (16.47) | 1999 | 3.0 | Rabbit 0.528 (0.321) | 13.15 (2.59) | 180 (80) | 52 (11) | 29.3 (99.3) |

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) | 1565 lb (710 kg) | None |
| Front Tires - No., size, ply & psi(kPa) | Two 380/85R30;**,20(140) | Two 420/90R30;**,12(80) |
| Ballast - Liquid (total) | None | None |
| - Cast Iron (total) | 1825 lb (827 kg) | None |
| Height of Drawbar | 21.3 in (540 mm) | 21.3 in (540 mm) |
| Static Weight with operator - Rear | 11555 lb (5240 kg) | 8675 lb (3935 kg) |
| - Front | 8090 lb (3670 kg) | 5810 lb (2635 kg) |
| - Total | 19645 lb (8910 kg) | 14485 lb (6570 kg) |

NOTE:The performance figures on this report are the result of replacing the electronic engine control module of the Challenger MT555B with the Challenger MT565B module.

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. **2335**, Nebraska Summary 550, January 5, 2007.

Roger M. Hoy
Director

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

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) | Fuel Consumption Hp.hr/gal (kW.h/l) | Temp.°F (°C) cool- ing med | Air dry bulb | Barom. inch Hg (kPa) |
|---|--------------------------------|------------------------|---------------------------------|-----------|---|---|-------------------------------------|--------------------|-------------------------------|
| Maximum Power—Turtle | | | | | | | | | |
| 117.6 (87.7) | 10550 (46.93) | 4.18 (6.72) | 2198 | 4.7 | 0.574 (0.349) | 12.10 (2.38) | 176 (80) | 70 (21) | 29.6 (100.4) |
| 75% of Pull at Maximum Power—Turtle | | | | | | | | | |
| 89.6 (66.8) | 7870 (35.00) | 4.27 (6.87) | 2212 | 3.3 | 0.597 (0.363) | 11.63 (2.29) | 172 (78) | 70 (21) | 29.6 (100.4) |
| 50% of Pull at Maximum Power—Turtle | | | | | | | | | |
| 60.4 (45.0) | 5210 (23.17) | 4.35 (7.00) | 2221 | 2.2 | 0.694 (0.422) | 10.00 (1.97) | 172 (78) | 66 (19) | 29.6 (100.4) |
| 75% of Pull at Reduced Engine Speed—Turtle | | | | | | | | | |
| 88.6 (66.1) | 7875 (35.03) | 4.22 (6.79) | 1935 | 3.2 | 0.537 (0.327) | 12.94 (2.55) | 172 (78) | 68 (20) | 29.6 (100.4) |
| 50% of Pull at Reduced Engine Speed—Turtle | | | | | | | | | |
| 60.3 (44.9) | 5235 (23.29) | 4.32 (6.95) | 1947 | 2.5 | 0.600 (0.365) | 11.57 (2.28) | 171 (77) | 72 (22) | 29.6 (100.4) |

MAXIMUM POWER IN SELECTED GEARS

| | | | | | | | | | |
|-----------------|------------------|-----------------|------|------|----------------------------|-----------------|-------------|------------|-----------------|
| 110.4 (82.3) | 19450 (86.52) | 2.13 (3.43) | 2074 | 15.0 | Turtle 0.606 (0.368) | 11.47 (2.26) | 174 (79) | 68 (20) | 29.7 (100.5) |
| 118.3 (88.2) | 17425 (77.51) | 2.55 (4.10) | 2002 | 9.7 | Turtle 0.559 (0.340) | 12.44 (2.45) | 176 (80) | 73 (23) | 29.7 (100.5) |
| 121.0 (90.2) | 15645 (69.58) | 2.90 (4.66) | 2000 | 7.3 | Turtle 0.545 (0.332) | 12.74 (2.51) | 178 (81) | 70 (21) | 29.7 (100.5) |
| 122.3 (91.2) | 14005 (62.30) | 3.27 (5.27) | 2000 | 6.3 | Turtle 0.539 (0.328) | 12.89 (2.54) | 180 (82) | 66 (19) | 29.7 (100.5) |
| 124.3 (92.7) | 12265 (54.57) | 3.80 (6.12) | 1999 | 5.0 | Turtle 0.530 (0.322) | 13.11 (2.58) | 181 (83) | 68 (20) | 29.7 (100.5) |
| 124.3 (92.7) | 10995 (48.91) | 4.24 (6.83) | 2001 | 4.4 | Turtle 0.531 (0.323) | 13.10 (2.58) | 169 (76) | 72 (22) | 29.7 (100.6) |
| 120.6 (89.9) | 8955 (39.84) | 5.05 (8.13) | 2000 | 3.6 | Turtle 0.547 (0.333) | 12.69 (2.50) | 176 (80) | 72 (22) | 29.7 (100.6) |
| 120.6 (89.9) | 7675 (34.14) | 5.89 (9.48) | 2000 | 3.2 | Turtle 0.550 (0.334) | 12.64 (2.49) | 176 (80) | 70 (21) | 29.7 (100.6) |
| 120.6 (89.9) | 6785 (30.17) | 6.67 (10.73) | 2001 | 2.7 | Turtle 0.547 (0.333) | 12.69 (2.50) | 178 (81) | 68 (20) | 29.7 (100.6) |
| 119.4 (89.0) | 5905 (26.26) | 7.58 (12.20) | 2001 | 2.4 | Turtle 0.552 (0.336) | 12.59 (2.48) | 176 (80) | 59 (15) | 29.7 (100.6) |
| 117.3 (87.5) | 5160 (22.95) | 8.53 (13.73) | 2004 | 2.1 | Turtle 0.563 (0.342) | 12.34 (2.43) | 176 (80) | 57 (14) | 29.7 (100.6) |
| 117.5 (87.6) | 9600 (42.70) | 4.59 (7.38) | 2001 | 3.8 | Rabbit 0.563 (0.343) | 12.33 (2.43) | 172 (78) | 66 (19) | 29.7 (100.7) |
| 119.8 (89.3) | 8385 (37.30) | 5.36 (8.62) | 2001 | 3.3 | Rabbit 0.550 (0.335) | 12.63 (2.49) | 178 (81) | 66 (19) | 29.7 (100.7) |
| 121.4 (90.6) | 7625 (33.91) | 5.97 (9.61) | 2001 | 2.8 | Rabbit 0.542 (0.330) | 12.79 (2.52) | 180 (82) | 64 (18) | 29.7 (100.7) |
| 120.4 (89.8) | 6900 (30.69) | 6.54 (10.53) | 2001 | 2.6 | Rabbit 0.547 (0.333) | 12.69 (2.50) | 180 (82) | 68 (20) | 29.7 (100.7) |
| 120.4 (89.8) | 6040 (26.86) | 7.48 (12.03) | 2003 | 2.4 | Rabbit 0.550 (0.334) | 12.64 (2.49) | 176 (80) | 68 (20) | 29.7 (100.7) |
| 120.4 (89.8) | 5400 (24.01) | 8.36 (13.46) | 2002 | 2.1 | Rabbit 0.548 (0.334) | 12.67 (2.50) | 174 (79) | 66 (19) | 29.7 (100.6) |

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

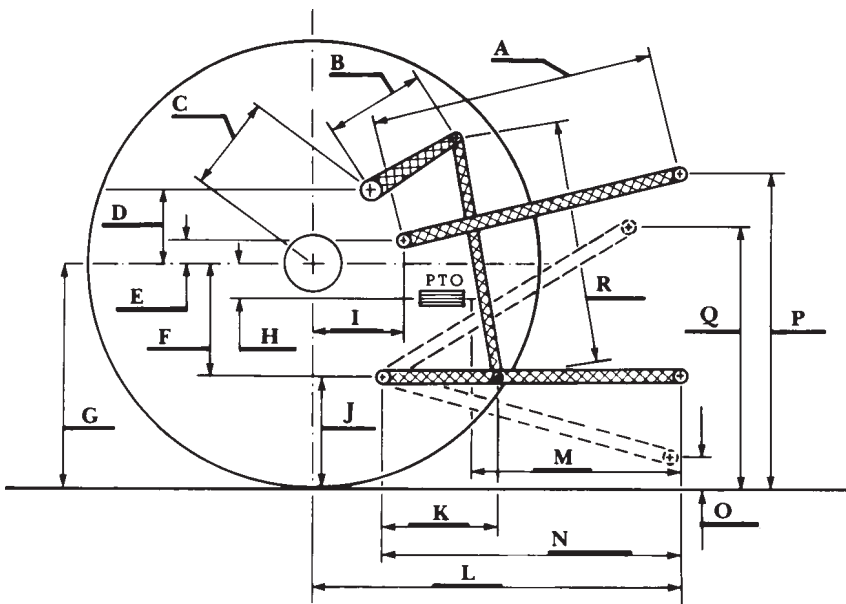
ii) Pump delivery rate at minimum pressure: 26.9 GPM (101.7 l/min) 32.2 GPM (122.0 l/min)

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 |