

SUMMARY OF OECD TEST 2789–NEBRASKA SUMMARY 926 CHALLENGER MT535D AP6 DIESEL 24 SPEED

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—1034 rpm) | | | | | | |
| 126.1 (94.0) | 2099 | 7.51 (28.42) | 0.415 (0.253) | 16.80 (3.31) | 0.30 (1.15) | |
| Standard Power Take-off Speed (1000 rpm) | | | | | | |
| 137.9 (102.8) | 2030 | 7.92 (29.98) | 0.401 (0.244) | 17.41 (3.43) | 0.36 (1.35) | |
| Maximum Power (1 hour) | | | | | | |
| 141.2 (105.3) | 1998 | 8.03 (30.41) | 0.397 (0.242) | 17.58 (3.46) | 0.36 (1.38) | |

VARYING POWER AND FUEL CONSUMPTION

| | | | | | | |
|-----------------|------|-----------------|------------------|-----------------|----------------|----------------------|
| 126.1 (94.0) | 2099 | 7.51 (28.42) | 0.415 (0.253) | 16.80 (3.31) | 0.30 (1.15) | Air temperature |
| 108.8 (81.1) | 2124 | 6.59 (24.95) | 0.422 (0.257) | 16.27 (3.25) | 0.29 (1.08) | 71°F (22°C) |
| 82.1 (61.2) | 2133 | 5.37 (20.34) | 0.456 (0.278) | 15.27 (3.01) | 0.22 (0.85) | Relative humidity |
| 54.6 (40.7) | 2138 | 4.08 (15.45) | 0.523 (0.318) | 13.37 (2.63) | 0.16 (0.60) | 60% |
| 27.5 (20.5) | 2149 | 2.94 (11.12) | 0.747 (0.454) | 9.36 (1.84) | 0.10 (0.39) | Barometer |
| -- | 2153 | 1.83 (6.93) | -- | -- | -- | 29.8" Hg (100.8 kPa) |

Maximum torque - 454.2 lb.-ft. (615.8 Nm) at 1100 rpm
 Maximum torque rise - 44.1%
 Torque rise at 1700 engine rpm - 32%
 Power increase at 1998 engine rpm - 12.0%

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. inch Hg (kPa) |
|--|--------------------------------|------------------------|---------------------------------|-----------|-----------------------|-----------------------|---------------------|--------------------|-------------------------------|
| | | | | | lb/hp.hr (kg/kW.h) | Hp.hr/gal (kW.h/l) | cool- ing med | Air dry bulb | |
| Maximum Power—12th(3A) Gear | | | | | | | | | |
| 107.3 (80.0) | 7935 (35.3) | 5.07 (8.16) | 2100 | 4.4 | 0.466 (0.284) | 14.91 (2.94) | 183 (84) | 38 (4) | 30.1 (102.0) |
| 75% of Pull at Maximum Power—12th(3A) Gear | | | | | | | | | |
| 80.9 (60.3) | 5880 (26.2) | 5.16 (8.30) | 2126 | 3.6 | 0.486 (0.295) | 14.31 (2.82) | 181 (83) | 38 (4) | 29.8 (101.0) |
| 50% of Pull at Maximum Power—12th(3A) Gear | | | | | | | | | |
| 55.4 (41.3) | 3955 (17.6) | 5.25 (8.45) | 2133 | 2.2 | 0.566 (0.344) | 12.28 (2.42) | 181 (83) | 38 (4) | 30.1 (102.0) |
| 75% of Pull at Reduced Engine Speed—14th(3B) Gear | | | | | | | | | |
| 81.3 (60.6) | 5875 (26.1) | 5.19 (8.36) | 1775 | 3.5 | 0.437 (0.266) | 15.89 (3.13) | 183 (84) | 38 (3) | 30.1 (102.0) |
| 50% of Pull at Reduced Engine Speed—14th(3B) Gear | | | | | | | | | |
| 55.8 (41.6) | 3955 (17.6) | 5.29 (8.51) | 1784 | 2.1 | 0.503 (0.306) | 13.81 (2.72) | 183 (84) | 38 (3) | 30.1 (102.0) |

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

Dates of tests: November, 2012 to July, 2013

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) 0.838 Fuel weight 6.98 lbs/gal (0.836 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. W00421 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 two paper cartridges Muffler vertical Cooling medium temperature control thermostat and variable speed fan

CHASSIS: Type front wheel assist Serial No. B 262 901 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 (6) range operator controlled powershift Nominal travel speeds mph (km/h) first 0.96 (1.55) second 1.16 (1.86) third 1.36 (2.19) fourth 1.63 (2.63) fifth 1.92 (3.09) sixth 2.31 (3.72) seventh 2.60 (4.19) eighth 3.13 (5.03) ninth 3.67 (5.91) tenth 4.42 (7.11) eleventh 5.19 (8.36) twelfth 5.29 (8.51) thirteenth 6.25 (10.06) fourteenth 6.35 (10.22) fifteenth 7.46 (12.00) sixteenth 8.97 (14.44) seventeenth 10.55 (16.98) eighteenth 12.19 (19.62) nineteenth 12.70 (20.44) twentieth 14.65 (23.58) twenty-first 17.20 (27.68) twenty-second 20.69 (33.30) twenty-third 24.33 (39.16) twenty-fourth 24.86 (40.00) electronically limited reverse 0.96 (1.55), 1.16 (1.86), 1.36 (2.19), 1.63 (2.63), 1.92 (3.09), 2.31 (3.72), 2.60 (4.19), 3.13 (5.03), 3.67 (5.91), 4.42 (7.11), 5.19 (8.36), 5.29 (8.51), 6.25 (10.06), 6.35 (10.22), 7.46 (12.00), 8.97 (14.44), 10.55 (16.98), 12.19 (19.62), 12.70 (20.44), 14.65 (23.58), 17.20 (27.68), 20.69 (33.30), 24.33 (39.16), 24.86 (40.00) electronically limited

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. °F(°C) cool- ing med | Air dry bulb | Barom. inch Hg (kPa) |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|--------------------------------------|-------------------------------------|--------------------|-------------------------------|
| 6th(1F) Gear | | | | | | | | | |
| 69.9 (52.1) | 13195 (58.7) | 1.99 (3.20) | 2121 | 14.7 | 0.550 (0.335) | 12.64 (2.49) | 181 (83) | 40 (4) | 30.1 (102.0) |
| 7th(2A) Gear | | | | | | | | | |
| 79.5 (59.3) | 13175 (58.6) | 2.26 (3.64) | 2117 | 13.7 | 0.519 (0.316) | 13.40 (2.64) | 181 (83) | 40 (4) | 30.1 (102.0) |
| 8th(2B) Gear | | | | | | | | | |
| 91.5 (68.2) | 12440 (55.3) | 2.75 (4.44) | 2101 | 12.2 | 0.466 (0.283) | 14.92 (2.94) | 183 (84) | 40 (4) | 30.1 (102.0) |
| 9th(2C) Gear | | | | | | | | | |
| 100.7 (75.1) | 11770 (52.4) | 3.21 (5.17) | 2005 | 8.3 | 0.437 (0.266) | 15.89 (3.13) | 181 (83) | 40 (4) | 30.1 (102.0) |
| 10th(2D) Gear | | | | | | | | | |
| 112.5 (83.9) | 10770 (47.9) | 3.92 (6.31) | 2000 | 6.6 | 0.428 (0.260) | 16.24 (3.20) | 183 (84) | 40 (4) | 30.1 (102.0) |
| 11th(2E) Gear | | | | | | | | | |
| 119.9 (89.4) | 9600 (42.7) | 4.68 (7.54) | 1998 | 5.0 | 0.428 (0.260) | 16.24 (3.20) | 185 (85) | 40 (4) | 30.1 (102.0) |
| 12th(3A) Gear | | | | | | | | | |
| 119.1 (88.8) | 9305 (41.4) | 4.80 (7.72) | 1995 | 4.7 | 0.431 (0.262) | 16.14 (3.18) | 185 (85) | 40 (4) | 30.1 (102.0) |
| 13th(2F) Gear | | | | | | | | | |
| 118.0 (88.0) | 7745 (34.5) | 5.71 (9.20) | 2007 | 4.4 | 0.437 (0.266) | 15.89 (3.13) | 181 (83) | 39 (4) | 30.1 (102.0) |
| 14th(3B) Gear | | | | | | | | | |
| 119.2 (88.9) | 7710 (34.3) | 5.80 (9.33) | 2003 | 4.3 | 0.443 (0.270) | 15.68 (3.09) | 187 (86) | 38 (3) | 30.1 (102.0) |
| 15th(3C) Gear | | | | | | | | | |
| 118.1 (88.1) | 6495 (28.9) | 6.82 (10.97) | 1997 | 4.2 | 0.439 (0.267) | 15.84 (3.12) | 187 (86) | 38 (3) | 30.1 (102.0) |
| 16th(3D) Gear | | | | | | | | | |
| 118.5 (88.4) | 5390 (24.0) | 8.24 (13.26) | 2000 | 3.4 | 0.442 (0.269) | 15.74 (3.10) | 187 (86) | 38 (3) | 30.1 (102.0) |
| 17th(3E) Gear | | | | | | | | | |
| 116.0 (86.5) | 4430 (19.7) | 9.82 (15.80) | 2005 | 2.6 | 0.446 (0.272) | 15.57 (3.07) | 187 (86) | 38 (4) | 30.1 (102.0) |
| 18th(3F) Gear | | | | | | | | | |
| 108.2 (80.7) | 3545 (15.8) | 11.45 (18.43) | 2011 | 2.0 | 0.475 (0.289) | 14.62 (2.88) | 189 (87) | 38 (4) | 30.1 (102.0) |

| TRACTOR SOUND LEVEL WITH CAB | Front wheel drive | |
|------------------------------|-------------------|---------------------|
| | Engaged dB(A) | Disengaged dB(A) |
| At no load in 10th (2D) gear | 69.0 | 68.0 |
| 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 20.8R38;**,14(100)
Two 16.9R28;**,15(105)
19.7 in (500 mm)
8090 lb (3670 kg)
6845 lb (3105 kg)
14935 lb (6775 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 1980 engine rpm or 1000 rpm at 2030 engine rpm
Unladen tractor mass 14770 lb (6700 kg)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE: The data on this summary was obtained from OECD report 2789 conducted on the Massey Ferguson 7616 Dyna 6 Diesel.

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 claim of 29 GPM (110 lpm) nor 3 point lift capacity claim of 12500 lbs. The manufacturer's remote hydraulic flow claim of 39 GPM (150 lpm) for 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. **2789**, Nebraska Summary 926, May 12, 2014.

Roger M. Hoy
Director

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

HYDRAULIC PERFORMANCE

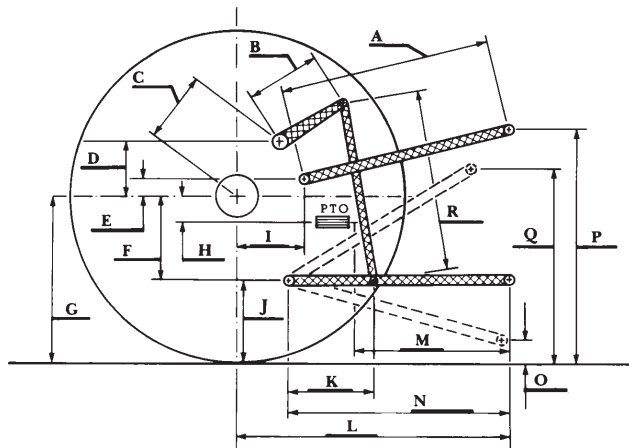
CATEGORY: II

Quick Attach: None

OECD Static test

- Maximum force exerted through whole range: 8925 lbs (39.7 kN)
- i) Sustained pressure of the open relief valve: 2845 psi (196 bar)
two outlet sets combined
- ii) Pump delivery rate at minimum pressure: 28.6 GPM (108.3 l/min)
- iii) Pump delivery rate at maximum
 hydraulic power: 26.6 GPM (100.6 l/min)
 Delivery pressure: 1930 psi (133 bar)
 Power: 29.9 HP (22.3 kW)
single outlet set
- ii) Pump delivery rate at minimum pressure: 28.8 GPM (109.0 l/min)
- iii) Pump delivery rate at maximum
 hydraulic power: 25.7 GPM (97.2 l/min)
 Delivery pressure: 1915 psi (132 bar)
 Power: 28.7 HP (21.4 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD



| | inch | mm |
|---|------|------|
| A | 28.7 | 728 |
| B | 11.6 | 295 |
| C | 13.9 | 354 |
| D | 19.1 | 330 |
| E | 13.0 | 201 |
| F | 11.0 | 280 |
| G | 34.4 | 875 |
| H | 2.0 | 50 |
| I | 15.5 | 394 |
| J | 23.4 | 595 |
| K | 21.7 | 550 |
| L | 43.3 | 1101 |
| M | 24.6 | 626 |
| N | 37.0 | 940 |
| O | 7.7 | 195 |
| P | 47.4 | 1205 |
| Q | 35.8 | 909 |
| R | 30.7 | 780 |