

# SUMMARY OF OECD TEST 2517-NEBRASKA SUMMARY 699 MASSEY FERGUSON 6495 DIESEL 24 SPEED

Tractor chassis S/N R184038 and higher

## 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
<b>MAXIMUM POWER AND FUEL CONSUMPTION</b>					
<b>Rated Engine Speed—(PTO speed—1100 rpm)</b>					
165.8 (123.6)	2200	10.10 (38.24)	0.434 (0.264)	16.41 (3.23)	
<b>Standard Power Take-off Speed(1000 rpm)</b>					
196.3 (146.4)	2000	10.52 (39.84)	0.382 (0.232)	18.65 (3.67)	
<b>Maximum Power (1 hour)</b>					
196.3 (146.4)	2000	10.52 (39.84)	0.382 (0.232)	18.65 (3.67)	

## VARYING POWER AND FUEL CONSUMPTION

165.8 (123.6)	2200	10.10 (38.24)	0.434 (0.264)	16.41 (3.23)	Air temperature
142.1 (106.0)	2220	8.69 (32.88)	0.435 (0.265)	16.36 (3.22)	68°F (20°C)
106.9 (79.7)	2226	6.92 (26.18)	0.460 (0.280)	15.46 (3.05)	Relative humidity
71.6 (53.4)	2239	5.21 (19.72)	0.517 (0.315)	13.75 (2.71)	46%
35.8 (26.7)	2248	3.52 (13.33)	0.698 (0.425)	10.18 (2.01)	Barometer
--	2253	2.11 (8.00)	--	--	29.9" Hg (101.3 kPa)

Maximum Torque - 627.2 lb.-ft. (850.4 Nm) at 1250 rpm  
Maximum Torque rise - 58.5%  
Torque rise at 1750 engine rpm - 45%

## 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 med	Air dry bulb	Barom. inch Hg (kPa)
<b>Maximum Power—11th(3A) Gear</b>									
136.0 (101.4)	9680 (43.1)	5.27 (8.48)	2191	4.0	0.494 (0.300)	14.37 (2.83)	185 (85)	57 (14)	30.3 (102.7)
<b>75% of Pull at Maximum Power—11th(3A) Gear</b>									
103.9 (77.5)	7240 (32.2)	5.38 (8.66)	2203	2.7	0.519 (0.316)	13.65 (2.69)	183 (84)	57 (14)	30.3 (102.7)
<b>50% of Pull at Maximum Power—11th(3A) Gear</b>									
70.8 (52.8)	4890 (21.7)	5.43 (8.74)	2210	2.1	0.602 (0.366)	11.78 (2.32)	183 (84)	57 (14)	30.3 (102.7)
<b>75% of Pull at Reduced Engine Speed—13th(3B) Gear</b>									
103.7 (77.3)	7250 (32.2)	5.36 (8.63)	1831	4.0	0.464 (0.282)	15.28 (3.01)	181 (83)	57 (14)	30.3 (102.7)
<b>50% of Pull at Reduced Engine Speed—13th(3B) Gear</b>									
70.7 (52.7)	4875 (21.7)	5.44 (8.75)	1844	3.3	0.519 (0.316)	13.65 (2.69)	181 (83)	57 (14)	30.3 (102.7)

**Location of tests:** Groupement d'Antony, Parc de Touvoie, BP 44 Antony, France 92163

**Dates of tests:** January - April, 2009

**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)** 0.855 **Fuel weight** 7.12 lbs/gal (0.853 kg/l) **Oil SAE** 15W40 **API service classification** CH4 **Transmission and hydraulic lubricant** BPTerrac Tractan 9 10W/40 **Front axle lubricant** BPTerrac Tractan 9 10W/40

**ENGINE:** Make Sisu Diesel **Type** six cylinder vertical with turbocharger and air to air intercooler **Serial No.** U22768 **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.252" x 4.724" (108.0 mm x 120.0 mm) **Compression ratio** 18.5 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.** T276002 **Tread width** rear 60.0" (1524 mm) to 119.0" (3022 mm) front 60.0" (1524 mm) to 80.0" (2032 mm) **Wheelbase** 118.5" (3011 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 1.06 (1.70) second 1.27 (2.04) third 1.49 (2.40) fourth 1.79 (2.88) fifth 2.11 (3.39) sixth 2.54 (4.08) seventh 2.85 (4.59) eighth 3.43 (5.52) ninth 4.03 (6.48) tenth 4.84 (7.79) eleventh 5.46 (8.79) twelfth 5.70 (9.17) thirteenth 6.57 (10.57) fourteenth 6.85 (11.03) fifteenth 7.71 (12.40) sixteenth 9.28 (14.93) seventeenth 10.91 (17.55) eighteenth 12.40 (19.96) nineteenth 13.12 (21.12) twentieth 14.91 (23.99) twenty-first 17.50 (28.16) twenty-second 21.05 (33.88) twenty-third 24.76 (39.84) twenty-fourth 24.86 (40.00) reverse 1.06 (1.70), 1.27 (2.04), 1.49 (2.40), 1.79 (2.88), 2.11 (3.39), 2.54 (4.08), 2.85 (4.59), 3.43 (5.52), 4.03 (6.48), 4.84 (7.79), 5.46 (8.79), 5.70 (9.17), 6.57 (10.57), 6.85 (11.03), 7.71 (12.40), 9.28 (14.93), 10.91 (17.55), 12.40 (19.96), 13.12 (21.12), 14.91 (23.99), 17.50 (28.16), 21.05 (33.88), 24.76 (39.84), 24.86 (40.00)

**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)
4th(1D) Gear									
65.0 (48.5)	15510 (69.0)	1.57 (2.53)	2204	13.5	0.699 (0.425)	10.15 (2.00)	180 (82)	52 (11)	30.3 (102.7)
5th(1E) Gear									
75.2 (56.1)	15105 (67.2)	1.87 (3.01)	2204	12.0	0.641 (0.390)	11.07 (2.18)	180 (82)	53 (12)	30.3 (102.7)
6th(1F) Gear									
91.2 (68.0)	14925 (66.4)	2.29 (3.69)	2200	10.4	0.595 (0.362)	11.92 (2.35)	181 (83)	52 (11)	30.3 (102.7)
7th(2A) Gear									
103.3 (77.0)	14925 (66.4)	2.60 (4.18)	2195	9.8	0.544 (0.331)	12.55 (2.57)	181 (83)	53 (12)	30.3 (102.7)
8th(2B) Gear									
124.2 (92.6)	14760 (65.7)	3.16 (5.08)	2194	8.7	0.512 (0.311)	13.05 (2.73)	181 (83)	52 (11)	30.3 (102.7)
9th(2C) Gear									
140.4 (104.7)	14545 (64.7)	3.62 (5.83)	2139	8.6	0.496 (0.301)	14.31 (2.82)	183 (84)	53 (12)	30.3 (102.7)
10th(2D) Gear									
156.8 (116.9)	14430 (64.2)	4.07 (6.56)	2002	8.6	0.454 (0.276)	15.63 (3.08)	189 (87)	53 (12)	30.3 (102.7)
11th(3A) Gear									
167.4 (124.8)	13520 (60.1)	4.64 (7.47)	2000	8.1	0.452 (0.275)	15.68 (3.09)	189 (87)	57 (14)	30.3 (102.7)
12th(2E) Gear									
157.0 (117.1)	12005 (53.4)	4.90 (7.89)	1997	6.1	0.455 (0.277)	15.58 (3.07)	185 (85)	53 (12)	30.3 (102.7)
13th(3B) Gear									
171.2 (127.7)	11240 (50.0)	5.71 (9.19)	1999	5.9	0.444 (0.270)	15.99 (3.15)	190 (88)	57 (14)	30.3 (102.7)
14th(2F) Gear									
159.2 (118.7)	9915 (44.1)	6.02 (9.69)	2000	4.3	0.450 (0.274)	15.77 (3.11)	187 (86)	53 (12)	30.3 (102.7)
15th(3C) Gear									
173.1 (129.1)	9645 (42.9)	6.73 (10.83)	1998	4.7	0.437 (0.266)	16.24 (3.20)	190 (88)	57 (14)	30.3 (102.7)
*16th(3D) Gear									
171.0 (127.5)	8085 (36.0)	7.93 (12.76)	2000	5.9	0.441 (0.268)	16.09 (3.17)	190 (88)	59 (15)	30.3 (102.7)

\*Front Drive disengaged

**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 1998 engine rpm or 1000 rpm at 2000 engine rpm **Unladen tractor mass** 16850 lb (7645 kg)

**NOTE 1:** The engine on this tractor is electronically controlled to give 2 power levels. A "boosted" level is available when the PTO is engaged, tractor stationary, and when the tractor is operated in ranges 3 and 4.

**NOTE 2:** The performance figures on this report apply to tractors with chassis S/N R184038 and higher.

**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 manufacturers three point lift claim of 16500 lbs (7480 kg). 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. **2517**, Nebraska Summary 699, February 15, 2010.

Roger M. Hoy  
 Director

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 Board of Tractor Test Engineers

**TIRES, BALLAST AND WEIGHT**

	<b>With Ballast</b>	<b>Without Ballast</b>
<b>Rear tires</b> - No., size, ply & psi (kPa)	Four 480/80R46;***;12(80)	Two 480/80R46;***;15(100)
Ballast - Duals(total)	1785 lb (810 kg)	None
- Cast iron(total)	880 lb (400 kg)	None
<b>Front tires</b> - No., size, ply & psi (kPa)	Two 420/90R30;***;12(80)	Two 420/90R30;***;16(110)
Ballast - Liquid(total)	None	None
- Cast Iron(total)	1700 lb (770 kg)	None
<b>Height of Drawbar</b>	22.4 in (570 mm)	22.4 in (570 mm)
<b>Static Weight with operator</b> - Rear	12435 lb (5640 kg)	10240 lb (4645 kg)
- Front	8995 lb (4080 kg)	6825 lb (3095 kg)
- Total	21430 lb (9720 kg)	17065 lb (7740 kg)

**DRAWBAR PERFORMANCE**  
**(Ballasted - 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)
53.4 (39.8)	21445 (95.4)	0.93 (1.50)	2202	12.9	0.744 (0.453)	9.53 (1.88)	180 (82)	52 (11)	29.5 (99.9)
1st(1A) Gear									
64.0 (47.7)	21290 (94.7)	1.13 (1.81)	2192	12.6	0.665 (0.404)	10.67 (2.10)	180 (82)	52 (11)	29.5 (99.9)
2nd(1B) Gear									
74.6 (55.6)	21130 (94.0)	1.32 (2.13)	2200	12.5	0.644 (0.392)	11.01 (2.17)	181 (83)	52 (11)	29.5 (99.9)
3rd(1C) Gear									
89.3 (66.6)	21020 (93.5)	1.59 (2.56)	2192	12.4	0.602 (0.366)	11.78 (2.32)	180 (82)	54 (12)	29.5 (99.9)
4th(1D) Gear									
105.1 (78.4)	20885 (92.9)	1.89 (3.04)	2190	10.9	0.577 (0.351)	12.28 (2.42)	183 (84)	52 (11)	29.5 (99.9)
5th(1E) Gear									
126.3 (94.2)	20390 (90.7)	2.32 (3.74)	2178	9.1	0.538 (0.327)	13.20 (2.60)	187 (86)	52 (11)	29.5 (99.9)
6th(1F) Gear									
138.8 (103.5)	20100 (89.4)	2.59 (4.17)	2150	8.9	0.502 (0.305)	14.13 (2.78)	187 (86)	52 (11)	29.5 (100.0)
7th(2A) Gear									
154.1 (114.9)	19955 (88.8)	2.90 (4.66)	2005	8.8	0.469 (0.285)	15.13 (2.98)	187 (86)	52 (11)	29.5 (99.9)
8th(2B) Gear									
159.8 (119.2)	17105 (76.1)	3.50 (5.64)	2002	5.8	0.450 (0.274)	15.74 (3.10)	189 (87)	52 (11)	29.5 (99.9)
9th(2C) Gear									
163.2 (121.7)	14355 (63.8)	4.26 (6.86)	2002	4.7	0.439 (0.267)	16.14 (3.18)	190 (88)	52 (11)	29.5 (99.9)
10th(2D) Gear									
171.8 (128.1)	13375 (59.5)	4.82 (7.75)	2001	4.6	0.442 (0.269)	16.04 (3.16)	190 (88)	52 (11)	29.5 (99.9)
11th(3A) Gear									
159.6 (119.0)	11825 (52.6)	5.06 (8.14)	2001	4.1	0.451 (0.274)	15.73 (3.10)	189 (87)	52 (11)	29.5 (99.9)
12th(2E) Gear									
173.1 (129.1)	11150 (49.6)	5.82 (9.37)	1999	4.1	0.440 (0.268)	16.13 (3.18)	190 (88)	52 (11)	29.5 (99.9)
13th(3B) Gear									
161.5 (120.4)	9945 (44.2)	6.09 (9.80)	1998	3.7	0.445 (0.271)	15.94 (3.14)	189 (87)	52 (11)	29.5 (99.9)
14th(2F) Gear									
173.8 (129.6)	9500 (42.3)	6.86 (11.04)	1994	3.2	0.441 (0.268)	16.09 (3.17)	189 (89)	52 (11)	29.5 (99.9)
15th(3C) Gear									
173.5 (129.4)	8015 (35.7)	8.12 (13.06)	1994	4.0	0.435 (0.265)	16.29 (3.21)	189 (87)	52 (11)	29.5 (100.0)
*16th(3D) Gear									

\*Front Drive disengaged

**TRACTOR SOUND LEVEL WITH CAB**

**dB(A)**

At no load in 10th (2D) gear	69.0
Bystander	--

**HYDRAULIC PERFORMANCE**

CATEGORY: III

Quick Attach: None

OECD Static test

Maximum force exerted through whole range:	13490 lbs (60.0 kN)	
	<u>Standard pump</u>	<u>High flow pump</u>
i) Sustained pressure of the open relief valve:	2845 psi (196 bar)	2830 psi (195 bar)
ii) Pump delivery rate at minimum pressure:	30.5 GPM (115.6 l/min)	39.8 GPM (150.5 l/min)
iii) Pump delivery rate at maximum		
hydraulic power:	26.5 GPM (100.2 l/min)	36.2 GPM (137.1 l/min)
Delivery pressure:	2290 psi (158 bar)	1855 psi (128 bar)
Power:	35.4 Hp (26.4 kW)	39.3 HP (29.3 kW)

**HITCH DIMENSIONS AS TESTED—NO LOAD**

	OECD test		SAE test	
	inch	mm	inch	mm
A	29.3	745	29.5	750
B	15.7	400	15.7	400
C	20.7	525	20.7	525
D	19.1	485	19.1	485
E	8.3	210	11.6	295
F	12.2	310	12.2	310
G	36.4	925	36.4	925
H	2.8	70	2.8	70
I	17.7	450	16.9	430
J	24.2	615	24.2	615
K	21.8	554	21.8	554
L	46.6	1183	46.6	1183
M	23.0	583	23.0	583
N	36.4	925	36.4	925
O	9.3	235	9.3	235
P	51.2	1300	46.2	1174
Q	42.0	1066	42.0	1066
R	36.3	923	36.3	923

**THREE POINT HITCH PERFORMANCE - SAE Test**

Observed Maximum Pressure psi. (bar)	2830 (195)
Location:	lift cylinder
Hydraulic oil temperature: °F (°C)	145 (63)
Location:	hydraulic sump
Category:	III
Quick attach:	None

**SAE Static Test—System pressure 2540 psi (175 bar)**

Hitch point distance to ground level in. (mm)	11.8 (296)	16.4 (471)	24.2 (620)	30.1 (774)	35.4 (921)	41.3 (1110)
Lift force on frame lb	15735	16140	16390	16455	16165	15490
" " " " " " (kN)	(70.0)	(71.8)	(72.9)	(73.2)	(71.9)	(68.9)

