

SUMMARY OF OECD TEST 2412-NEBRASKA SUMMARY 694

AGCO RT 120A DIESEL

24 SPEED

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—1084 rpm)					
127.8 (95.3)	2200	7.86 (29.76)	0.438 (0.266)	16.25 (3.20)	
Standard Power Take-off Speed(1000 rpm)					
143.9 (107.3)	2030	8.25 (31.22)	0.408 (0.248)	17.45 (3.44)	
Maximum Power (1 hour)					
147.2 (109.8)	1900	8.05 (30.49)	0.389 (0.237)	18.28 (3.60)	
VARYING POWER AND FUEL CONSUMPTION					
127.8 (95.3)	2200	7.86 (29.76)	0.438 (0.266)	16.25 (3.20)	Air temperature
109.5 (81.7)	2217	7.09 (26.82)	0.461 (0.280)	15.44 (3.04)	73°F (23°C)
82.3 (61.4)	2223	5.87 (22.24)	0.508 (0.309)	14.01 (2.76)	Relative humidity
55.2 (41.2)	2232	4.49 (16.98)	0.579 (0.352)	12.29 (2.42)	38%
27.6 (20.6)	2242	3.09 (11.68)	0.794 (0.483)	8.96 (1.77)	Barometer
--	2250	2.03 (7.67)	--	--	30.5" Hg (103.3 kPa)
Maximum Torque - 478.3 lb.-ft. (648.5 Nm) at 1400 rpm					
Maximum Torque Rise - 56.8%					
Torque rise at 1750 engine rpm - 43%					

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)
Maximum Power—12th(3A) Gear									
97.1 (72.4)	6750 (30.0)	5.39 (8.68)	2201	3.2	0.502 (0.305)	14.18 (2.79)	180 (82)	43 (6)	30.4 (103.1)
75% of Pull at Maximum Power—12th(3A) Gear									
73.6 (54.9)	5060 (22.5)	5.46 (8.78)	2208	2.8	0.550 (0.334)	12.95 (2.55)	178 (81)	43 (6)	30.4 (103.1)
50% of Pull at Maximum Power—12th(3A) Gear									
50.0 (37.3)	3390 (15.1)	5.53 (8.90)	2218	1.7	0.635 (0.386)	11.22 (2.21)	178 (81)	43 (6)	30.4 (103.1)
75% of Pull at Reduced Engine Speed—14th(3B) Gear									
73.5 (54.8)	5060 (22.5)	5.45 (8.77)	1835	3.0	0.475 (0.289)	14.97 (2.95)	176 (80)	41 (5)	30.4 (103.2)
50% of Pull at Reduced Engine Speed—14th(3B) Gear									
50.0 (37.3)	3395 (15.1)	5.52 (8.89)	1839	1.9	0.538 (0.327)	13.25 (2.61)	176 (80)	41 (5)	30.4 (103.1)

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

Dates of tests: November 2007 - January 2008
Cab sound tests - March 31, 2010

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** BP Terrac **Tractan 9 10W/40** **Front axle lubricant** BP Terrac **Tractan 9 10W/40**

ENGINE: Make Sisu Diesel **Type** six cylinder vertical with turbocharger and air to air intercooler **Serial No.** T09020 **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.** S127019 **Tread width** rear 54.1" (1375 mm) to 86.8" (2205 mm) front 62.9" (1597 mm) to 80.0" (2033 mm) **Wheelbase** 109.4" (2780 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 1.01 (1.62) second 1.21 (1.95) third 1.42 (2.29) fourth 1.71 (2.75) fifth 2.01 (3.24) sixth 2.42 (3.90) seventh 2.73 (4.39) eighth 3.27 (5.27) ninth 3.85 (6.19) tenth 4.63 (7.45) eleventh 5.44 (8.76) twelfth 5.54 (8.91) thirteenth 6.55 (10.54) fourteenth 6.66 (10.71) fifteenth 7.81 (12.57) sixteenth 9.40 (15.13) seventeenth 11.05 (17.79) eighteenth 12.77 (20.55) nineteenth 13.30 (21.41) twentieth 15.35 (24.70) twenty-first 18.02 (29.00) twenty-second 21.68 (34.89) twenty-third 24.86 (40.00) twenty-fourth 24.86 (40.00) reverse 1.01 (1.62), 1.21 (1.95), 1.42 (2.29), 1.71 (2.75), 2.01 (3.24), 2.42 (3.90), 2.73 (4.39), 3.27 (5.27), 3.85 (6.19), 4.63 (7.45), 5.44 (8.76), 5.54 (8.91), 6.55 (10.54), 6.66 (10.71), 7.81 (12.57), 9.40 (15.13), 11.05 (17.79), 12.77 (20.55), 13.30 (21.41), 15.35 (24.70), 18.02 (29.00), 21.68 (34.89), 24.86 (40.00), 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									
53.4 (39.8)	13265 (59.0)	1.51 (2.43)	2208	15.1	0.674 (0.410)	10.56 (2.08)	178 (81)	39 (4)	30.5 (103.2)
5th(1E) Gear									
63.2 (47.1)	13055 (58.0)	1.82 (2.92)	2205	12.9	0.638 (0.388)	11.17 (2.20)	180 (82)	39 (4)	30.5 (103.2)
6th(1F) Gear									
76.2 (56.8)	12970 (57.7)	2.20 (3.54)	2201	12.2	0.587 (0.357)	12.13 (2.39)	180 (82)	39 (4)	30.5 (103.2)
7th(2A) Gear									
85.6 (63.8)	12970 (57.7)	2.47 (3.98)	2195	12.1	0.556 (0.338)	12.79 (2.52)	180 (82)	41 (5)	30.5 (103.2)
8th(2B) Gear									
101.0 (75.3)	12750 (56.7)	2.97 (4.78)	2191	12.0	0.519 (0.316)	13.71 (2.70)	180 (82)	41 (5)	30.5 (103.2)
9th(2C) Gear									
107.6 (80.2)	12020 (53.5)	3.36 (5.40)	2058	9.7	0.494 (0.300)	14.42 (2.84)	180 (82)	41 (5)	30.5 (103.2)
10th(2D) Gear									
111.7 (83.3)	10370 (46.1)	4.04 (6.50)	2012	6.7	0.461 (0.281)	15.43 (3.04)	178 (81)	43 (6)	30.4 (103.1)
11th(2E) Gear									
111.4 (83.1)	9240 (41.1)	4.52 (7.28)	1916	5.9	0.437 (0.266)	16.29 (3.21)	180 (82)	43 (6)	30.4 (103.1)
12th(3A) Gear									
128.9 (96.1)	10635 (47.3)	4.55 (7.32)	1910	6.6	0.436 (0.265)	16.29 (3.21)	180 (82)	43 (6)	30.4 (103.1)
13th(2F) Gear									
111.6 (83.2)	7620 (33.9)	5.49 (8.83)	1903	4.6	0.433 (0.264)	16.43 (3.24)	180 (82)	43 (6)	30.4 (103.1)
14th(3B) Gear									
129.9 (96.9)	8815 (39.2)	5.53 (8.90)	1900	5.0	0.433 (0.263)	16.45 (3.24)	180 (82)	41 (5)	30.4 (103.1)
15th(3C) Gear									
130.9 (97.6)	7530 (33.5)	6.52 (10.50)	1901	4.9	0.427 (0.260)	16.64 (3.28)	181 (83)	41 (5)	30.4 (103.1)
*16th(3D) Gear									
128.8 (96.1)	6260 (27.8)	7.72 (12.41)	1901	5.0	0.436 (0.265)	16.34 (3.22)	183 (84)	41 (5)	30.4 (103.1)
*17th(3E) Gear									
124.6 (92.9)	5075 (22.6)	9.21 (14.82)	1903	3.0	0.450 (0.274)	15.83 (3.12)	183 (84)	41 (5)	30.4 (103.1)

* 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 1976 engine rpm or 1000 rpm at 2030 engine rpm
Unladen tractor mass 14725 lb (6680 kg)

NOTE: 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.

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. 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. **2412**, Nebraska Summary 694, May 5, 2010.

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 Board of Tractor Test Engineers

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 480/80R42;**,14(100)
 Two 16.9R28;**,16 (110)
 23.6 in (600 mm)
 8915 lb (4045 kg)
 5975 lb (2710 kg)
 14890 lb (6755 kg)

TRACTOR SOUND LEVEL WITH CAB	Front wheel drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 10th (2D) gear	68.8	68.2
Bystander		--

HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range:	8810 lbs (39.2 kN)
i) Sustained pressure of the open relief valve:	2840 psi (196 bar)
ii) Pump delivery rate at minimum pressure:	29.5 GPM (111.7 l/min)
iii) Pump delivery rate at maximum	
hydraulic power:	27.2 GPM (102.8 l/min)
Delivery pressure:	2265 psi (156 bar)
Power:	35.9 HP (26.7 kW)

	OECD test		SAE test	
	inch	mm	inch	mm
A	28.7	730	28.1	715
B	11.6	295	11.6	295
C	13.9	354	13.9	354
D	13.0	330	13.0	330
E	7.9	200	11.4	290
F	11.0	280	11.0	280
G	34.4	875	34.4	875
H	1.7	43	1.7	43
I	15.3	389	15.3	389
J	23.4	595	23.4	595
K	21.4	544	21.4	544
L	43.5	1104	43.5	1104
M	24.8	629	24.8	629
N	37.1	943	37.1	943
O	8.1	207	10.8	275
P	47.4	1205	42.4	1077
Q	37.1	942	38.0	965
R	29.9	760	28.7	730

THREE POINT HITCH PERFORMANCE SAE Test

Observed Maximum Pressure psi. (bar)	2840 (196)
Location:	lift cylinder
Hydraulic oil temperature: °F (°C)	154 (68)
Location:	hydraulic sump
Category:	II
Quick attach:	None

SAE Static Test—System pressure 2560 psi (176 bar)

Hitch point distance to ground level in. (mm)	10.8 (275)	16.2 (411)	21.7 (552)	27.4 (695)	33.0 (837)	38.0 (965)
Lift force on frame lb	11395	11285	11240	11015	10565	9845
" " " " " " (kN)	(50.7)	(50.2)	(50.0)	(49.0)	(47.0)	(43.8)

