

SUMMARY OF OECD TEST 2514—NEBRASKA SUMMARY 692

AGCO LT85A DIESEL

16 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—1100 rpm)					
96.2 (71.7)	2200	6.00 (22.70)	0.444 (0.270)	16.04 (3.16)	
Standard Power Take-off Speed(1000 rpm)					
110.1 (82.1)	2000	6.10 (23.10)	0.394 (0.240)	18.05 (3.56)	
Maximum Power (1 hour)					
110.1 (82.1)	2000	6.10 (23.10)	0.394 (0.240)	18.05 (3.56)	

VARYING POWER AND FUEL CONSUMPTION

96.2 (71.7)	2200	6.00 (22.70)	0.444 (0.270)	16.04 (3.16)	Air temperature
82.9 (61.8)	2215	5.19 (19.66)	0.446 (0.271)	15.95 (3.14)	70°F (21°C)
61.7 (46.0)	2223	4.20 (15.88)	0.484 (0.294)	14.71 (2.90)	Relative humidity
41.2 (30.7)	2230	3.09 (11.69)	0.534 (0.325)	13.34 (2.63)	35%
20.8 (15.5)	2242	2.09 (7.91)	0.714 (0.434)	9.97 (1.96)	Barometer
--	2249	1.35 (5.11)	--	--	29.5" Hg (100.0 kPa)

Maximum torque - 346.4 lb.-ft. (501.3 Nm) at 1100 rpm

Maximum torque rise - 61.1%

Torque rise at 1750 engine rpm - 39%

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)	Temp. °F (°C) cool- ing med	Barom. inch Hg (kPa)
Maximum Power—9th(3A) Gear							
74.0 (55.2)	4400 (19.6)	6.31 (10.15)	2199	2.9	0.518 (0.315)	13.71 (2.70)	189 (87)
75% of Pull at Maximum Power—9th(3A) Gear							
55.8 (41.6)	3295 (14.7)	6.35 (10.22)	2207	2.5	0.571 (0.348)	12.43 (2.45)	187 (86)
50% of Pull at Maximum Power—9th(3A) Gear							
38.0 (28.3)	2210 (9.8)	6.44 (10.37)	2209	1.2	0.639 (0.389)	11.12 (2.19)	187 (86)
75% of Pull at Reduced Engine Speed—10th(3B) Gear							
55.5 (41.4)	3290 (14.6)	6.33 (10.19)	1784	2.4	0.455 (0.277)	15.58 (3.07)	185 (85)
50% of Pull at Reduced Engine Speed—10th(3B) Gear							
37.5 (28.0)	2195 (9.8)	6.41 (10.31)	1790	1.2	0.501 (0.305)	14.16 (2.79)	185 (85)

Location of tests: Groupement d'Antony, Parc de Touvoie, BP 44 Antony, Cedex, France 92163
Dates of tests: February to March, 2009

Manufacturer: AGCOS.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 fluid **Front axle lubricant** API GL5 - SAE 85W140

ENGINE: Make Sisu Diesel **Type** four cylinder vertical with turbocharger and air to air intercooler
Serial No. P07427 **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.252" x 4.724" (108.0 mm x 120.0 mm) **Compression ratio** 17.4 to 1 **Displacement** 268 cu in (4397 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.** T249078 **Tread width** rear 53.4" (1357 mm) to 76.9" (1954 mm) front 52.4" (1332 mm) to 68.6" (1743 mm) **Wheelbase** 97.0" (2464 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with partial (4) range operator controlled powershift **Nominal travel speeds mph (km/h)** first 1.32 (2.12) second 1.62 (2.60) third 1.97 (3.17) fourth 2.43 (3.91) fifth 3.11 (5.01) sixth 3.83 (6.17) seventh 4.68 (7.53) eighth 5.75 (9.26) ninth 6.33 (10.19) tenth 7.79 (12.53) eleventh 9.50 (15.29) twelfth 11.68 (18.80) thirteenth 13.54 (21.79) fourteenth 16.65 (26.80) fifteenth 20.31 (32.69) sixteenth 24.99 (40.21) reverse 1.32 (2.12), 1.62 (2.60), 1.97 (3.17), 2.43 (3.91), 3.11 (5.01), 3.83 (6.17), 4.68 (7.53), 5.75 (9.26), 6.33 (10.19), 7.79 (12.53), 9.50 (15.29), 11.68 (18.80), 13.54 (21.79), 16.65 (26.80), 20.31 (32.69), 24.99 (40.21) **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 2000 engine rpm **Unladen tractor mass** 10605 lb (4810 kg)

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)	Temp. °F(°C) cool- ing med	Hp.hr/gal (kW.h/l)	Air dry bulb	Barom. inch Hg (kPa)
1st(1A) Gear									
31.8 (23.7)	10450 (46.5)	1.14 (1.84)	2213	15.2	0.803 (0.488)	8.85 (1.74)	185 (85)	55 (13)	30.0 (101.7)
2nd(1B)Gear									
39.2 (29.2)	10440 (46.4)	1.41 (2.26)	2203	14.7	0.721 (0.439)	9.85 (1.94)	183 (84)	55 (13)	30.0 (101.7)
3rd(1C)Gear									
47.7 (35.6)	10365 (46.1)	1.73 (2.78)	2197	14.6	0.675 (0.410)	10.53 (2.07)	185 (85)	52 (11)	30.0 (101.7)
4th(1D)Gear									
59.0 (44.0)	10340 (46.0)	2.14 (3.44)	2197	13.5	0.631 (0.384)	11.26 (2.22)	185 (85)	52 (11)	30.0 (101.7)
5th(2A)Gear									
73.6 (54.9)	10025 (44.6)	2.75 (4.43)	2108	10.1	0.517 (0.314)	13.73 (2.70)	187 (86)	50 (10)	30.0 (101.7)
6th(2B) Gear									
81.1 (60.5)	9175 (40.8)	3.31 (5.33)	1999	7.6	0.491 (0.298)	14.47 (2.85)	189 (87)	50 (10)	30.0 (101.7)
7th(2C)Gear									
84.5 (63.0)	7710 (34.3)	4.11 (6.62)	2002	5.8	0.465 (0.283)	15.25 (3.00)	187 (86)	50 (10)	30.0 (101.7)
8th(2D)Gear									
84.8 (63.2)	6185 (27.5)	5.14 (8.27)	1998	4.4	0.471 (0.286)	15.09 (2.97)	187 (86)	50 (10)	30.0 (101.7)
9th(3A)Gear									
96.2 (71.7)	6365 (28.3)	5.67 (9.12)	2000	4.8	0.457 (0.278)	15.53 (3.06)	189 (87)	50 (10)	30.0 (101.7)
10th(3B) Gear									
95.9 (71.5)	5145 (22.9)	6.99 (11.25)	2002	4.0	0.459 (0.279)	15.46 (3.04)	189 (87)	50 (10)	30.0 (101.7)
11th(3C) Gear									
96.8 (72.2)	4300 (19.1)	8.44 (13.59)	2002	3.9	0.455 (0.277)	15.58 (3.07)	189 (87)	50 (10)	30.0 (101.7)
12th(3D) Gear									
93.3 (69.6)	3360 (14.9)	10.41 (16.76)	2004	3.1	0.469 (0.285)	15.14 (2.98)	191 (88)	52 (11)	30.0 (101.7)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

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.

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 claim of 26 GPM (100 lpm) hydraulic flow at the remote outlets. 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. **2514**, Nebraska Summary 692, February 2, 2010.

Roger M. Hoy
Director

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

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Disengaged dB(A)	Engaged dB(A)
At no load in 7th(2C) gear	71.4	71.1
Bystander	--	--

TIRES 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 18.4R38; **,15(100)
 Two 380/85R28; **,15(100)
 22.4 in (570 mm)
 6405 lb (2905 kg)
 4385 lb (1990 kg)
 10790 lb (4895 kg)

DRAWBAR PERFORMANCE
(Unballasted - Front Drive Disengaged)
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 cool- ing med	Temp.°C Air dry bulb	Barom. inch Hg (kPa)
2nd(1B) Gear									
29.9 (22.3)	8035 (35.8)	1.40 (2.25)	2208	15.5	0.823 (0.501)	8.62 (1.70)	183 (84)	52 (11)	30.1 (101.9)
3rd(1C) Gear									
37.0 (27.6)	7950 (35.4)	1.75 (2.81)	2206	13.8	0.742 (0.451)	9.57 (1.88)	185 (85)	52 (11)	30.1 (101.9)
4th(1D) Gear									
45.6 (34.0)	7935 (35.3)	2.16 (3.47)	2203	12.6	0.694 (0.422)	10.22 (2.01)	180 (82)	52 (11)	30.1 (101.9)
5th(2A) Gear									
59.4 (44.3)	7800 (34.7)	2.86 (4.60)	2196	9.7	0.587 (0.357)	12.08 (2.38)	187 (86)	52 (11)	30.1 (101.9)
6th(2B) Gear									
70.3 (52.4)	7565 (33.6)	3.48 (5.60)	2156	9.1	0.550 (0.334)	12.90 (2.54)	187 (86)	52 (11)	30.1 (101.9)
7th(2C) Gear									
79.5 (59.3)	7555 (33.6)	3.95 (6.35)	2004	8.9	0.499 (0.303)	14.22 (2.80)	189 (87)	52 (11)	30.1 (101.9)
8th(2D) Gear									
81.4 (60.7)	6080 (27.0)	5.02 (8.08)	2002	5.8	0.490 (0.298)	14.47 (2.85)	187 (86)	52 (11)	30.1 (101.9)
9th(3A) Gear									
94.3 (70.3)	6435 (28.6)	5.49 (8.84)	2000	6.0	0.471 (0.287)	15.02 (2.96)	189 (87)	52 (11)	30.1 (101.9)
10th(3B) Gear									
94.4 (70.4)	5195 (23.1)	6.82 (10.97)	1998	5.3	0.466 (0.284)	15.21 (3.00)	189 (87)	52 (11)	30.1 (101.9)
11th(3C) Gear									
95.9 (71.5)	4275 (19.0)	8.41 (13.54)	1999	4.0	0.458 (0.279)	15.48 (3.05)	189 (87)	52 (11)	30.1 (101.9)
12th(3D) Gear									
92.9 (69.3)	3340 (14.9)	10.44 (16.81)	2003	3.5	0.474 (0.288)	14.97 (2.95)	190 (88)	52 (11)	30.1 (101.9)

TIRES 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 18.4R38; **,15(100)
Two 380/85R28; **,15(100)
33.5 in (850 mm)
6405 lb (2905 kg)
4385 lb (1990 kg)
10790 lb (4895 kg)

HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 7817 lbs (34.8 kN) (66 mm lift cylinders)

9189 lbs (40.9 kN) (75 mm lift cylinders)

Open center system

100 l/min pump 57 l/min pump

Closed center system

110 l/min pump

- i) Sustained pressure of the open relief valve: 3136 psi (216 bar) 2785 psi (192 bar) 2848 psi (196 bar)
- ii) Pump delivery rate at minimum pressure: 24.1 GPM (91.2 l/min) 16.2 GPM (61.3 l/min) 29.8 GPM (112.7 l/min)
- iii) Pump delivery rate at maximum
 - hydraulic power: 22.4 GPM (84.8 l/min) 14.2 GPM (53.7 l/min) 24.2 GPM (91.6 l/min)
 - Delivery pressure: 2338 psi (161 bar) 2450 psi (169 bar) 2708 psi (187 bar)
 - Power: 30.6 HP (22.8 kW) 20.2 Hp (15.1 kW) 38.2 hp (28.5 kW)

THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi. (bar)	2770 (191)
Location:	lift cylinder
Hydraulic oil temperature: °F (°C)	152 (67)
Location:	hydraulic valve
Category:	II
Quick attach:	none

66 mm lift cylinders

SAE Static Test—System pressure 2490 psi (172 Bar)

Hitch point distance to ground level in. (mm)	9.9 (251)	15.0 (381)	22.0 (559)	29.0 (737)	36.0 (914)
Lift force on frame lb	15561	12897	11745	10314	9126
" " " " " " (kN)	(69.2)	(57.4)	(51.0)	(45.9)	(40.6)

75 mm lift cylinders

SAE Static Test—System pressure 2490 psi (172 Bar)

Hitch point distance to ground level in. (mm)	10.2 (259)	15.0 (381)	22.0 (559)	29.0 (737)	36.0 (914)
Lift force on frame lb	18747	15849	14310	12789	11421
" " " " " " (kN)	(83.4)	(70.5)	(63.7)	(56.9)	(50.8)

HITCH DIMENSIONS AS TESTED—NO LOAD

	SAE test		OECD test	
	inch	mm	inch	mm
A	24.8	629	24.8	629
B	11.6	295	11.6	295
C	13.9	353	13.9	353
D	13.0	330	13.0	330
E	7.9	200	7.9	200
F	10.2	260	10.2	260
G	30.3	770	30.3	770
H	1.4	35	1.4	35
I	16.2	413	16.2	413
J	20.1	510	20.1	510
K	24.2	615	24.2	615
L	41.2	1046	41.2	1046
M	23.5	596	23.5	596
N	37.2	946	37.2	946
O	8.0	203	8.0	203
P	40.2	1020	44.1	1120
Q	33.5	850	33.5	850
R	29.0	737	29.0	737

