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January 2002

Nebraska Summary 382: AGCO RT115 Diesel

Nebraska Tractor Test Lab

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SUMMARY OF OECD TEST 2000—NEBRASKA SUMMARY 382

AGCO RT 115 DIESEL

32 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)					
116.2 (86.7)	2200	7.29 (27.60)	0.446 (0.271)	15.94 (3.14)	
Standard Power Take-off Speed(1000 rpm)					
120.4 (89.8)	2000	7.11 (26.92)	0.419 (0.255)	16.92 (3.33)	
Maximum Power (2 hours)					
121.4 (90.5)	1949	7.10 (26.87)	0.414 (0.252)	17.11 (3.37)	

VARYING POWER AND FUEL CONSUMPTION

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
116.2 (86.7)	2200	7.29 (27.60)	0.446 (0.271)	15.94 (3.14)	Air temperature
101.9 (76.0)	2239	6.60 (24.97)	0.459 (0.279)	15.45 (3.04)	75°F(24°C)
77.1 (57.5)	2288	5.41 (20.49)	0.498 (0.303)	14.26 (2.81)	Relative humidity
52.4 (39.1)	2324	4.33 (16.41)	0.585 (0.356)	12.11 (2.39)	33%
26.9 (20.1)	2357	3.24 (12.27)	0.852 (0.518)	8.32 (1.64)	Barometer
--	2387	2.26 (8.55)	--	--	29.6" Hg(100.4 kPa)

Maximum Torque - 386.2 lb.-ft. (523.7 Nm) at 1347 rpm
 Maximum Torque Rise - 39.1%
 Torque rise at 1780 engine rpm - 26%

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—21st(2LA) Gear									
104.1 (77.6)	4745 (21.1)	8.23 (13.24)	2204	3	0.496 (0.301)	14.31 (2.82)	187 (86)	57 (14)	30.0 (101.7)
75% of Pull at Maximum Power—21st(2LA) Gear									
79.8 (59.5)	3520 (15.7)	8.50 (13.68)	2254	2	0.550 (0.334)	12.90 (2.54)	183 (84)	57 (14)	30.0 (101.7)
50% of Pull at Maximum Power—21st(2LA) Gear									
55.6 (41.5)	2390 (10.6)	8.73 (14.05)	2299	1	0.632 (0.385)	11.22 (2.21)	181 (83)	57 (14)	30.0 (101.7)
75% of Pull at Reduced Engine Speed—22nd(2LB) Gear									
79.1 (59.0)	3500 (15.6)	8.48 (13.65)	1945	3	0.480 (0.292)	14.77 (2.91)	185 (85)	57 (14)	30.0 (101.7)
50% of Pull at Reduced Engine Speed—22nd(2LB) Gear									
55.9 (41.7)	2380 (10.6)	8.81 (14.18)	1998	2	0.555 (0.338)	12.78 (2.52)	181 (83)	57 (14)	30.0 (101.7)

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

Dates of Test: April - June, 2002

Manufacturer: AGCO S.A. Z.A.-No.2 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)** 0.852 **Fuel weight** 7.09 lbs/gal (0.850 kg/l) **Oil SAE 10W30 API service classification** CD/CE **Transmission and hydraulic lubricant** BP TerracManager 10W30 **Front axle lubricant** API GL5 -SAE 85W140

ENGINE: Make Cummins Diesel **Type** six cylinder vertical with turbocharger **Serial No.** 21505301 **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.016" x 4.724"(102.0 mm x 120.0 mm) **Compression ratio** 17.4 to 1 **Displacement** 359 cu in (5880 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.** L044011 **Tread width** rear 60.6" (1538 mm) to 118.5" (3010 mm) front 61.7" (1566 mm) to 78.0" (1980 mm) **Wheelbase** 108.3" (2750 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 1.27 (2.05) second 1.49 (2.39) third 1.76 (2.83) fourth 2.06 (3.31) fifth 2.16 (3.48) sixth 2.52 (4.06) seventh 2.84 (4.57) eighth 2.98 (4.80) ninth 3.32 (5.35) tenth 3.49 (5.62) eleventh 3.85 (6.19) twelfth 3.93 (6.32) thirteenth 4.50 (7.24) fourteenth 4.60 (7.40) fifteenth 4.77 (7.67) sixteenth 5.31 (8.55) seventeenth 5.57 (8.97) eighteenth 6.22 (10.01) nineteenth 6.58 (10.59) twentieth 7.71 (12.40) twenty-first 8.10 (13.03) twenty-second 9.48 (15.25) twenty-third 10.65 (17.14) twenty-fourth 11.19 (18.00) twenty-fifth 12.47 (20.07) twenty-sixth 13.09 (21.06) twenty-seventh 14.42 (23.20) twenty-eighth 14.72 (23.69) twenty-ninth 16.87 (27.15) thirtieth 17.22 (27.72) thirty-first 19.92 (32.05) thirty-second 23.31 (37.51) reverse 1.27 (2.05), 1.49 (2.39), 1.76 (2.83), 2.06 (3.31), 2.16 (3.48), 2.52 (4.06), 2.84 (4.57), 2.98 (4.80), 3.32 (5.35), 3.49 (5.62), 3.85 (6.19), 3.93 (6.32), 4.50 (7.24), 4.60 (7.40), 4.77 (7.67), 5.31 (8.55), 5.57 (8.97), 6.22 (10.01), 6.58 (10.59), 7.71 (12.40), 8.10 (13.03), 9.48 (15.25), 10.65 (17.14)

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	Barom. inch Hg (kPa)
88.6 (66.1)	10630 (47.3)	3.13 (5.03)	2219	15	0.577 (0.351)	183 (84)	30.0 (101.7)
10th(2TD) Gear							
93.9 (70.0)	9915 (44.1)	3.55 (5.71)	2195	12	0.538 (0.332)	180 (82)	30.0 (101.7)
11th(4TA) Gear							
96.3 (71.8)	9915 (44.1)	3.64 (5.86)	2191	11	0.538 (0.327)	187 (86)	30.0 (101.7)
12th(3TC) Gear							
101.9 (76.0)	9735 (43.3)	3.93 (6.33)	2024	10	0.499 (0.304)	181 (83)	30.0 (101.7)
13th(4TB) Gear							
102.2 (76.2)	9485 (42.2)	4.04 (6.50)	2033	9	0.499 (0.304)	183 (84)	30.0 (101.7)
14th(3TD) Gear							
103.3 (77.0)	9535 (42.4)	4.06 (6.54)	1971	9	0.496 (0.302)	183 (84)	30.0 (101.7)
15th(1LA) Gear							
104.1 (77.6)	8540 (38.0)	4.57 (7.35)	1950	8	0.489 (0.298)	181 (83)	30.0 (101.7)
16th(4TC) Gear							
105.3 (78.5)	8160 (36.3)	4.84 (7.79)	1959	7	0.483 (0.294)	183 (84)	30.0 (101.7)
17th(1LB) Gear							
105.3 (78.5)	7215 (32.1)	5.47 (8.81)	1961	6	0.483 (0.294)	183 (84)	30.0 (101.7)
18th(4TD) Gear							
106.5 (79.4)	6930 (30.8)	5.76 (9.27)	1945	6	0.479 (0.292)	183 (84)	30.0 (101.7)
19th(1LC) Gear							
107.7 (80.3)	5935 (26.4)	6.80 (10.95)	1941	5	0.472 (0.287)	185 (85)	30.0 (101.7)
20th(1LD) Gear							
110.0 (82.0)	5725 (25.5)	7.21 (11.59)	1947	4	0.467 (0.284)	183 (84)	30.0 (101.7)
21st(2LA) Gear							
106.2 (79.2)	4765 (21.2)	8.36 (13.45)	1946	5	0.477 (0.290)	185 (85)	30.0 (101.7)
22nd(2LB) Gear							
104.2 (77.7)	4150 (18.5)	9.42 (15.16)	1942	5	0.483 (0.294)	185 (85)	30.0 (101.7)
23rd(3LA) Gear							

11.19 (18.00), 12.47 (20.07), 13.09 (21.06), 14.42 (23.20), 14.72 (23.69), 16.87 (27.15), 17.22 (27.72), 19.92 (32.05), 23.31 (37.51) **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 2000 engine rpm **Unladen tractor mass** 12900 lb (5850 kg)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

Note: This tractor has an electronic control system that automatically disengages the front axle when the travel speed exceeds 8.0 mph (13.0 km/h).

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 II test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2000**, Nebraska Summary 382, January 13, 2003.

Leonard L. Bashford
Director

M.F. Kocher
V.I. Adamchuk
W.P. Campbell
Board of Tractor Test Engineers

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 14.9R28; **, 16 (110)
33.9 in (860 mm)
8355 lb (3790 kg)
4720 lb (2140 kg)
13075 lb (5930 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(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
81.7 (60.9)	8900 (39.6)	3.44 (5.53)	2228	15	0.597 (0.363)	11.88 (2.34)	183 (84)	57 (14)	29.7 (100.7)
84.9 (63.3)	8775 (39.0)	3.63 (5.83)	2235	12	0.582 (0.354)	12.18 (2.40)	181 (83)	57 (14)	29.8 (100.8)
94.7 (70.6)	8545 (38.0)	4.16 (6.70)	2196	11	0.555 (0.338)	12.77 (2.52)	181 (83)	55 (13)	29.8 (100.8)
94.7 (70.6)	8395 (37.3)	4.23 (6.80)	2177	10	0.556 (0.338)	12.76 (2.51)	181 (83)	55 (13)	29.8 (100.9)
97.8 (72.9)	8385 (37.3)	4.37 (7.03)	2125	8	0.525 (0.320)	13.50 (2.66)	178 (81)	55 (13)	29.8 (100.9)
100.0 (74.6)	8005 (35.6)	4.68 (7.54)	2029	8	0.508 (0.309)	13.96 (2.75)	178 (81)	54 (12)	29.8 (101.0)
102.7 (76.6)	7925 (35.3)	4.86 (7.82)	2003	7	0.496 (0.301)	14.32 (2.82)	180 (82)	54 (12)	29.8 (101.0)
103.1 (76.9)	7240 (32.2)	5.34 (8.60)	1953	6	0.493 (0.300)	14.40 (2.84)	180 (82)	54 (12)	29.8 (101.0)
104.6 (78.0)	6925 (30.8)	5.66 (9.11)	1949	6	0.487 (0.296)	14.57 (2.87)	180 (82)	52 (11)	29.8 (101.0)
106.3 (79.3)	5950 (26.5)	6.70 (10.79)	1946	5	0.480 (0.292)	14.77 (2.91)	180 (82)	52 (11)	29.8 (101.0)
106.6 (79.5)	5690 (25.3)	7.03 (11.32)	1936	4	0.482 (0.293)	14.72 (2.90)	180 (82)	52 (11)	29.9 (101.1)
105.8 (78.9)	4735 (21.1)	8.38 (13.48)	1946	4	0.483 (0.294)	14.67 (2.89)	181 (83)	50 (10)	29.9 (101.1)
105.7 (78.8)	4180 (18.6)	9.48 (15.25)	1948	3	0.480 (0.292)	14.77 (2.91)	183 (84)	50 (10)	29.9 (101.1)

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Disengaged dB(A)	Engaged dB(A)
At no load in 13th (4TB) gear	77.0	77.0
Bystander	--	--

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II

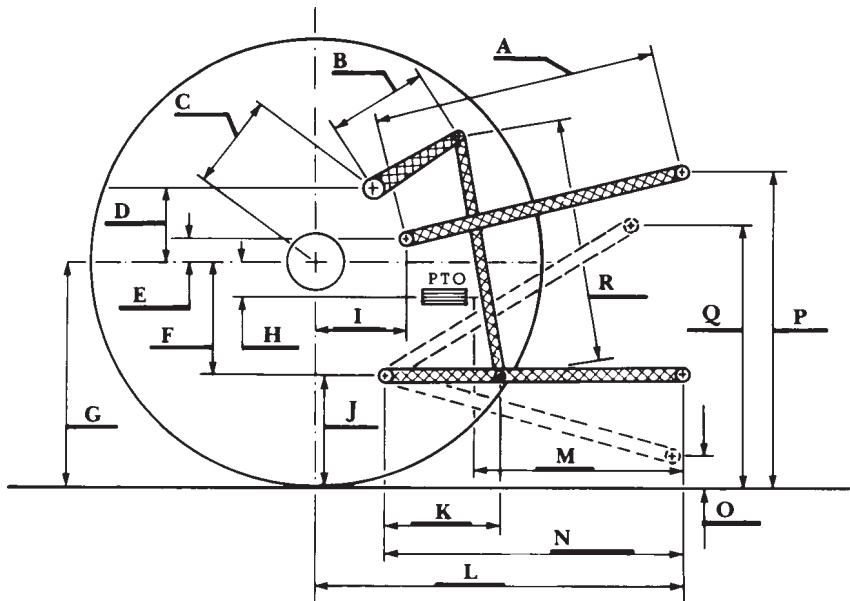
Quick Attach: None

Maximum Force Exerted

Through Whole Range: 9440 lbs (42.0 kN)

- i) Opening pressure of relief valve: NA
- Sustained pressure of the open relief valve: 2815 psi (194 bar)
- ii) Pump delivery rate at minimum pressure: 28.1 GPM (106.4 l/min)
- iii) Pump delivery rate at maximum
 - hydraulic power: 24.4 GPM (92.2 l/min)
 - Delivery pressure: 2280 psi (157 bar)
 - Power: 32.4 HP (24.1 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD



	inch	mm
A	28.3	720
B	11.6	295
C	13.9	354
D	13.0	330
E	9.8	250
F	11.0	280
G	32.3	820
H	1.0	25
I	15.3	389
J	21.3	540
K	21.4	543
L	43.5	1104
M	22.6	574
N	37.1	943
O	7.6	193
P	45.3	1150
Q	34.5	877
R	29.7	755