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## Test 1719: White 6215 Diesel 18-Speed (Chassis S/N 602001PL and Higher)

Nebraska Tractor Test Lab

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# NEBRASKA OECD TRACTOR TEST 1719—SUMMARY 214

## WHITE 6215 DIESEL

### 18 SPEED

#### (CHASSIS SERIAL NUMBERS 602001PL AND HIGHER)

#### POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal./hr (l/h)	lb./hp.hr (kg/kWh)	Hp.hr/gal (kWh/l)	Mean Atmospheric Conditions
<b>MAXIMUM POWER AND FUEL CONSUMPTION</b>					
<b>Rated Engine Speed—(PTO speed—1055 rpm)</b>					
215.44 (160.66)	2200	14.09 (53.32)	0.458 (0.279)	15.30 (3.01)	
<b>Standard Power Take-off Speed (1000 rpm)</b>					
230.68 (172.02)	2086	14.37 (54.40)	0.437 (0.266)	16.05 (3.16)	
<b>Maximum Power (2 hours)</b>					
247.81 (184.79)	1900	14.56 (55.10)	0.412 (0.251)	17.02 (3.35)	

#### VARYING POWER AND FUEL CONSUMPTION

215.44 (160.66)	2200	14.09 (53.32)	0.458 (0.279)	15.30 (3.01)	Air temperature
186.94 (139.40)	2244	12.75 (48.26)	0.478 (0.291)	14.66 (2.89)	75°F (24°C)
143.21 (106.79)	2291	10.61 (40.16)	0.520 (0.316)	13.50 (2.66)	Relative humidity
97.37 (72.61)	2345	8.51 (32.23)	0.613 (0.373)	11.44 (2.25)	30%
49.51 (36.92)	2384	6.16 (23.32)	0.873 (0.531)	8.04 (1.58)	Barometer
1.10 (0.82)	2419	4.32 (16.36)	27.438 (16.690)	0.26 (0.05)	29.04"Hg (98.34 kPa)

Maximum Torque 766 lb.-ft. (1038 Nm) at 1400 rpm  
Maximum Torque Rise 48.9%  
Torque rise at 1800 rpm 38%

#### DRAWBAR PERFORMANCE (UNBALLASTED)

##### 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/kWh)	Hp.hr/gal (kWh/l)	Temp. °F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
<b>Maximum Power—11th Gear</b>									
185.60 (138.40)	8965 (39.88)	7.76 (12.49)	2192	3.08	0.532 (0.324)	13.17 (2.60)	188 (87)	48 (9)	28.74 (97.32)
<b>75% of Pull at Maximum Power—11th Gear</b>									
145.81 (108.73)	6764 (30.09)	8.08 (13.01)	2265	2.17	0.577 (0.351)	12.16 (2.40)	187 (86)	49 (9)	28.70 (97.19)
<b>50% of Pull at Maximum Power—11th Gear</b>									
99.83 (74.45)	4497 (20.00)	8.33 (13.40)	2317	1.53	0.687 (0.418)	10.21 (2.01)	186 (86)	50 (10)	28.68 (97.12)
<b>75% of Pull at Reduced Engine Speed—13th Gear</b>									
145.62 (108.59)	6767 (30.10)	8.07 (12.99)	1687	2.27	0.468 (0.285)	14.98 (2.95)	185 (85)	50 (10)	28.69 (97.12)
<b>50% of Pull at Reduced Engine Speed—13th Gear</b>									
99.88 (74.48)	4492 (19.98)	8.34 (13.42)	1731	1.62	0.529 (0.322)	13.26 (2.61)	184 (84)	50 (10)	28.67 (97.09)

**Location of Test:** Tractor Testing Laboratory,  
University of Nebraska, Lincoln, Nebraska 68583-  
0832

**Dates of Test:** October 25-November 7, 1996

**Manufacturer:** AGCO Corporation, Duluth,  
Georgia 30136

**FUEL OIL and TIME:** Fuel No. 2 Diesel Cetane  
No. 50.6 Specific gravity converted to 60°/60°  
F (15°/15°C) 0.8422 Fuel weight 7.012 lbs/gal  
(0.840 kg/l) Oil SAE 15W-40 API service  
classification CE-II, CD To motor 4.316 gal  
(16.339 l) Drained from motor 3.912 gal (14.810 l)  
Transmission and hydraulic lubricant AGCO  
Power Fluid 821XL Front axle lubricant AGCO  
Gear Lube 715 SAE 80W-90 Total time engine  
was operated 27.0 hours.

**ENGINE:** Make Consolidated Diesel Corporation  
Diesel Type six cylinder vertical with turbocharger  
and intercooler Serial No. 45366811 Crankshaft  
lengthwise Rated engine speed 2200 Bore and  
stroke (as specified) 4.488" × 5.315" (114.0 mm × 135  
mm) Compression ratio 16.5 to 1 Displacement  
505 cu in (8268 ml) Starting system 12 volt  
Lubrication pressure Air cleaner two paper  
elements and aspirator Oil filter two full flow cartridges  
Oil cooler engine coolant heat exchanger for crankcase  
oil, radiator for hydraulic and final drive oil, radiator  
for transmission oil Fuel filter two paper elements  
Muffler underhood Exhaust vertical Cooling  
medium temperature control two thermostats.

**ENGINE OPERATING PARAMETERS:** Fuel  
rate: 95.8-101.4 lb/h (43.5-46.0 kg/h) High idle:  
2380-2480 rpm Turbo boost nominal 21.8 psi (150  
kPa) as measured 22.7 psi (156 kPa)

**CHASSIS:** Type front wheel assist Serial No.  
602319PTread width rear 64.1" (1560 mm) to 126.6"  
(3216 mm) front 58.7" (1490 mm) to 89.6" (2276 mm)  
Wheel base 115.0" (2921 mm) Hydraulic control  
system direct engine drive Transmission selective  
gear fixed ratio with full range operator controlled  
powershift Nominal travel speeds mph (km/h)  
first 1.64 (2.63) second 1.94 (3.14) third 2.22 (3.54)  
fourth 2.50 (4.02) fifth 3.00 (4.83) sixth 3.52 (5.58)  
seventh 4.11 (6.63) eighth 4.89 (7.89) ninth 5.70 (9.18)  
tenth 6.72 (10.83) eleventh 7.79 (12.55) twelfth 9.16  
(14.76) thirteenth 10.64 (17.12) fourteenth 12.54  
(20.11) fifteenth 14.60 (23.47) sixteenth 17.09 (27.48)  
seventeenth 20.32 (32.71) eighteenth 23.79 (38.28)  
reverse 1.90 (3.06), 2.33 (3.75), 2.70 (4.34), 3.11 (5.00),  
3.59 (5.80), 4.24 (6.84), 5.10 (8.20), 5.92 (9.53), 7.03  
(11.32) Clutch multiple wet disc electro-hydraulically  
actuated by foot pedal Brakes wet multiple disc  
hydraulically actuated by two foot pedals which can be  
locked together Steering hydrostatic Power take-

### DRAWBAR PERFORMANCE (UNBALLASTED TRACTOR) 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)	Hp.hr/gal (kW.h/l)	Temp. °F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
6th Gear									
153.01 (114.10)	18409 (81.89)	3.12 (5.02)	2241	14.76	0.617 (0.376)	11.36 (2.24)	186 (85)	49 (9)	28.86 (97.73)
7th Gear									
176.83 (131.87)	17504 (77.86)	3.79 (6.10)	2178	9.52	0.558 (0.339)	12.57 (2.48)	186 (86)	53 (12)	28.86 (97.73)
8th Gear									
195.09 (145.48)	17236 (76.67)	4.25 (6.83)	2024	7.86	0.523 (0.318)	13.42 (2.64)	187 (86)	47 (8)	28.73 (97.29)
9th Gear									
205.72 (153.41)	16353 (72.74)	4.72 (7.59)	1903	6.71	0.495 (0.301)	14.16 (2.79)	188 (87)	48 (9)	28.75 (97.36)
10th Gear									
211.91 (158.02)	14313 (63.67)	5.55 (8.94)	1900	5.53	0.481 (0.293)	14.57 (2.87)	188 (86)	48 (9)	28.75 (97.36)
11th Gear									
214.48 (159.93)	12068 (53.68)	6.66 (10.73)	1905	4.14	0.476 (0.289)	14.74 (2.90)	188 (87)	48 (9)	28.73 (97.29)
12th Gear									
212.04 (158.12)	10118 (45.00)	7.86 (12.65)	1905	3.35	0.483 (0.294)	14.51 (2.86)	188 (87)	48 (9)	28.72 (97.26)
13th Gear									
210.65 (157.08)	8737 (38.86)	9.04 (14.55)	1903	2.90	0.485 (0.295)	14.46 (2.85)	188 (87)	49 (9)	28.71 (97.22)

### DRAWBAR PERFORMANCE (BALLASTED TRACTOR) MAXIMUM POWER IN SELECTED GEARS

4th Gear									
165.01 (123.04)	26448 (117.65)	2.34 (3.77)	2231	10.73	0.584 (0.355)	12.01 (2.37)	186 (86)	47 (8)	28.83 (97.63)
5th Gear									
184.55 (137.62)	25491 (113.39)	2.71 (4.37)	2129	8.39	0.539 (0.328)	13.01 (2.56)	187 (86)	47 (8)	28.83 (97.63)
6th Gear									
199.84 (149.02)	25213 (112.15)	2.97 (4.78)	1989	8.07	0.514 (0.312)	13.65 (2.69)	187 (86)	48 (9)	28.84 (97.66)
7th Gear									
210.44 (156.93)	23027 (102.43)	3.43 (5.52)	1901	5.77	0.484 (0.294)	14.48 (2.85)	188 (87)	49 (10)	28.85 (97.70)
8th Gear									
210.79 (157.19)	19150 (85.18)	4.13 (6.64)	1904	4.31	0.485 (0.295)	14.46 (2.85)	188 (87)	51 (11)	28.85 (97.70)
9th Gear									
210.60 (157.04)	16219 (72.15)	4.87 (7.84)	1903	3.34	0.483 (0.294)	14.50 (2.86)	188 (87)	51 (11)	28.85 (97.70)
10th Gear									
214.74 (160.13)	14163 (63.00)	5.69 (9.15)	1904	2.90	0.473 (0.287)	14.84 (2.92)	188 (87)	51 (11)	28.85 (97.70)
11th Gear									
214.77 (160.15)	11883 (52.86)	6.78 (10.91)	1911	2.36	0.475 (0.289)	14.77 (2.91)	188 (87)	52 (11)	28.84 (97.66)
12th Gear									
210.52 (156.98)	9905 (44.06)	7.97 (12.83)	1913	2.08	0.486 (0.295)	14.43 (2.84)	188 (87)	52 (11)	28.84 (97.66)
13th Gear									
207.84 (154.99)	8574 (38.14)	9.09 (14.63)	1900	1.72	0.490 (0.298)	14.32 (2.82)	188 (87)	52 (11)	28.84 (97.66)

off 1000 rpm at 2084 engine rpm **Unladen tractor mass** 19310 lb (8759 kg)

**REPAIRS AND ADJUSTMENTS:** No repairs or adjustments

**NOTE:** The performance figures on this report apply to tractor chassis serial numbers 602001PL and higher.

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. For the maximum power tests, the fuel temperature at the injection pump return was maintained at 154°F (68°C). The pull in 4th gear (ballasted tractor) was limited to avoid excessive tractor bouncing. The performance results on this summary were taken from OECD tests conducted under the Code II Restricted Standard Test Code procedure.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **1719**, Summary 214, November 26, 1996.

LOUIS I. LEVITICUS  
Engineer-in-Charge

L.L. BASHFORD  
G.J. HOFFMAN  
M.F. KOCHER  
Board of Tractor Test Engineers

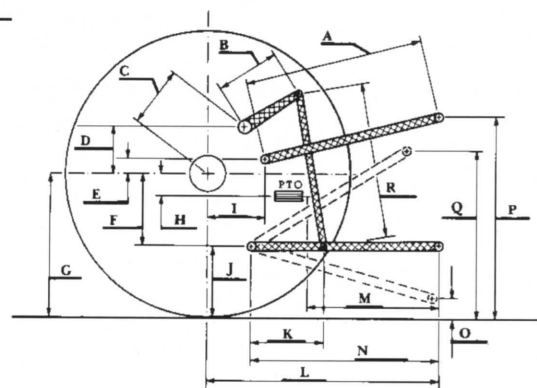
# TRACTOR SOUND LEVEL WITH CAB

dB(A)

At 75% load in 8th Gear	79.0
Bystander in 18th Gear	88.5

## TIRES, BALLAST AND WEIGHT

	With Ballast	Without Ballast
<b>Rear Tires</b> —No., size, ply & psi (kPa)	Four 20.8R42; **, 14 (95)	Two 20.8R42; **, 20 (140)
<b>Ballast</b> —Liquid (total)	2186 lb (992 kg)	None
—Duals (total)	1940 lb (880 kg)	None
<b>Front Tires</b> —No., size, ply & psi (kPa)	Two 16.9R30; **, 24 (165)	Two 16.9R30; **, 24 (165)
<b>Ballast</b> —Liquid (total)	None	None
—Cast Iron (total)	1936 lb (878 kg)	None
<b>Height of Drawbar</b>	21.5 in (545 mm)	21.0 in (535 mm)
<b>Static Weight with Operator</b> —Rear	16290 lb (7389 kg)	12758 lb (5787 kg)
—Front	9248 lb (4195 kg)	6718 lb (3047 kg)
—Total	25538 lb (11584 kg)	19476 lb (8834 kg)



## THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: III

Quick Attach: None

Maximum Force Exerted Through Whole Range:	13113 lbs (58.3 kN)
i) Opening pressure of relief valve:	NA
Sustained pressure with pump stalled:	2770 psi (191 bar)
ii) Pump delivery rate at minimum pressure and rated engine speed:	27.3 GPM (103.3 l/min)
iii) Pump delivery rate at maximum hydraulic power:	25.6 GPM (96.9 l/min)
Delivery pressure:	2350 psi (162 bar)
Power:	35.1 HP (26.2 kW)

## HITCH DIMENSIONS AS TESTED—NO LOAD

	OECD test		SAE test	
	inch	mm	inch	mm
A	26.8	679	27.8	705
B	23.7	603	23.7	603
C	19.8	503	19.8	503
D	18.0	457	18.0	457
E	11.4	289	11.4	289
F	10.6	269	10.6	269
G	36.2	920	36.2	920
H	3.5	89	3.5	89
I	19.4	492	19.4	492
J	25.6	651	25.6	651
K	26.6	676	26.6	676
L	47.0	1195	47.0	1195
M	25.5	647	25.5	649
N	36.5	928	36.5	928
O	9.0	229	8.0	203
P	52.9	1343	47.9	1217
Q	42.0	1067	38.5	978
R	41.0	1041	42.6	1082

## THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed Maximum Pressure psi. (bar)	2650 (183)				
Location	lift cylinder				
Hydraulic oil temperature °F (°C)	140 (60)				
Location	hydraulic pump				
Category	III				
Quick attach	none				
Hitch point distance					
to ground level in.	8.0	16.0	24.0	32.0	40.0
to ground level (mm)	(203)	(406)	(610)	(813)	(1010)
Lift force on frame lb.	19548	16128	16668	16830	16812
Lift force on frame (kN)	(87.0)	(71.7)	(74.1)	(74.9)	(74.8)



WHITE 6215 DIESEL

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University of Nebraska—Lincoln  
Darrell Nelson, Dean and Director