

# NEBRASKA TRACTOR TEST 1763

## WHITE 6710 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
<b>MAXIMUM POWER AND FUEL CONSUMPTION</b>					
<b>Rated Engine Speed—(PTO speed—1099 rpm)</b>					
95.62 (71.30)	2200	6.11 (23.11)	0.453 (0.275)	15.66 (3.09)	
<b>Standard Power Take-off Speed - (1000 rpm)</b>					
100.18 (74.71)	2000	5.94 (22.47)	0.420 (0.255)	16.88 (3.32)	
<b>Maximum Power (2 hours)</b>					
101.99 (76.06)	1800	5.75 (21.76)	0.399 (0.243)	17.74 (3.50)	

VARYING POWER AND FUEL CONSUMPTION					
95.62 (71.30)	2200	6.11 (23.11)	0.453 (0.275)	15.66 (3.09)	Air temperature
83.22 (62.06)	2258	5.59 (21.15)	0.476 (0.289)	14.89 (2.93)	76°F (24°C)
63.66 (47.47)	2286	4.74 (17.95)	0.526 (0.320)	13.43 (2.65)	Relative humidity
42.99 (32.06)	2317	3.85 (14.58)	0.635 (0.386)	11.16 (2.20)	48%
21.22 (15.82)	2347	2.88 (10.90)	0.961 (0.585)	7.37 (1.45)	Barometer
1.69 (1.26)	2369	2.03 (7.69)	8.517 (5.181)	0.83 (0.16)	29.10" Hg (98.54 kPa)

Maximum Torque 324 lb.-ft. (440 Nm) at 1500 rpm  
 Maximum Torque Rise - 42.0%  
 Torque rise at 1801 rpm - 30%

#### TRACTOR SOUND LEVEL WITH CAB

	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 14th(3LD) gear	76.4	76.4
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;\*\*\*; 16(110)  
 Two 13.6R28;\*\*\*; 24(165)  
 17.0 in (430 mm)  
 6730 lb (3053 kg)  
 4550 lb (2064 kg)  
 11280 lb (5117 kg)

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

**Dates of Test:** September 16-23, 1999

**Manufacturer:** AGCO Corporation, Duluth Georgia 30096

**FUEL, OIL and TIME:** Fuel No. 2 Diesel Specific gravity converted to 60°/60° F (15°/15°C) 0.8512 Fuel weight 7.087 lbs/gal (0.849 kg/l) Oil SAE 10W-30 API service classification CE/CF-4 Transmission and hydraulic lubricant AGCO Power Fluid 821 XL fluid Front axle lubricant AGCO Gear Lube 715 Total time engine was operated 11.5 hours

**ENGINE:** Make Cummins Diesel Type six cylinder vertical with turbocharger Serial No. 21307453 Crankshaft lengthwise Rated engine speed 2200 Bore and stroke 4.016" x 4.72" (102.0 mm x 120.0 mm) Compression ratio 17.4 to 1 Displacement 359 cu in (5883 ml) Starting system 12 volt Lubrication pressure Air cleaner two paper elements and aspirator Oil filter one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil, radiator for transmission and hydraulic oil Fuel filter two paper elements and water separator Muffler underhood Exhaust vertical Cooling medium temperature control one thermostat and variable speed fan

**ENGINE OPERATING PARAMETERS:** Fuel rate: 42.6 - 48.1 lb/h (19.3 - 21.8 kg/h) High idle: 2350 - 2450 rpm Turbo boost: nominal 15.0 - 17.0 psi (103 - 117 kPa) as measured 16.0 psi (110 kPa)

**CHASSIS:** Type front wheel assist Serial No. G118024 Tread width rear 66.9" (1699 mm) to 86.6" (2199 mm) front 61.1" (1553 mm) to 80.3" (2040 mm) Wheelbase 107.8" (2739 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 1.30 (2.10) second 1.52 (2.45) third 1.80 (2.90) fourth 2.11 (3.39) fifth 2.21 (3.56) sixth 2.59 (4.17) seventh 2.91 (4.69) eighth 3.06 (4.92) ninth 3.41 (5.49) tenth 3.58 (5.76) eleventh 3.94 (6.34) twelfth 4.03 (6.48) thirteenth 4.61 (7.42) fourteenth 4.71 (7.58) fifteenth 4.90 (7.88) sixteenth 5.44 (8.76) seventeenth 5.71 (9.19) eighteenth 6.38 (10.26) nineteenth 6.74 (10.85) twentieth 7.89 (12.70) twenty-first 8.30 (13.35) twenty-second 9.71 (15.62) twenty-third 10.92 (17.57) twenty-fourth 11.46 (18.44) twenty-fifth 12.78 (20.56) twenty-sixth 13.41 (21.58) twenty-seventh 14.77 (23.77) twenty-eighth 15.08 (24.27) twenty-ninth 17.29 (27.82)

### THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II

Quick Attach: None

Maximum Force Exerted Through Whole Range: 7362 lbs (32.7 kN)

i) Opening pressure of relief valve: NA

Sustained pressure of the open relief valve: 2890 psi (199 bar)

ii) Pump delivery rate at minimum pressure and rated engine speed: 29.4 GPM (111.3 l/min)

iii) Pump delivery rate at maximum hydraulic power: 26.0 GPM (98.8 l/min)

Delivery pressure: 2700 psi (186 bar)

Power: 41.0 HP (30.5 kW)

### THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi.(bar) 2840(196)

Location: lift cylinder

Hydraulic oil temperature: °F(°C) 149(65)

Location: hydraulic sump

Category: II

Quick attach: none

SAE Static Test—System pressure 2555 psi (176 Bar)

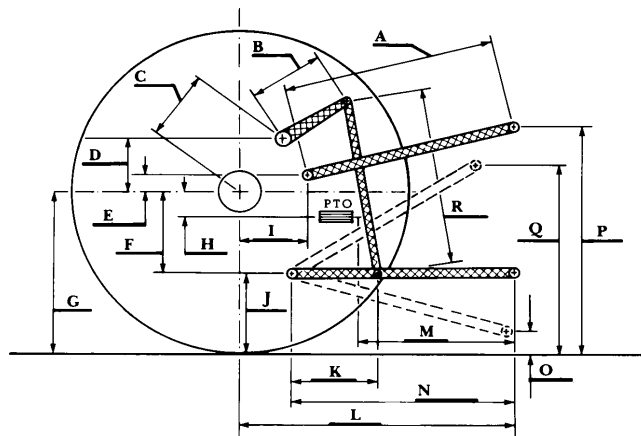
Hitch point distance to ground level in.(mm) 7.9(201) 14.9(378) 21.9(556) 28.9(734) 35.9(912)

Lift force on frame lb 10211 9940 9603 9171 8145

" " " " " (kN) (45.4) (44.2) (42.7) (40.8) (36.2)

	inch	mm
A	26.9	683
B	11.6	295
C	13.9	354
D	13.0	330
E	7.9	200
F	10.2	260
G	32.3	820
H	1.7	43
I	15.0	382
J	22.1	560
K	21.7	550
L	40.9	1040
M	24.2	615
N	37.0	940
O	7.9	200
P	46.1	1170
Q	36.1	918
R	28.3	719

HITCH DIMENSIONS AS TESTED - NO LOAD



Agricultural Research Division  
 Institute of Agriculture and Natural Resources  
 University of Nebraska-Lincoln  
 Darrell Nelson, Dean and Director

thirtieth 17.65 (28.41) thirty-first 20.41(32.84)  
 thirty-second 23.89 (38.44) reverse 1.22 (1.97),  
 1.44 (2.31), 1.70 (2.73), 1.98 (3.19), 2.08 (3.35),  
 2.44 (3.92), 2.74 (4.41), 2.88 (4.63), 3.21(5.16),  
 3.37 (5.42), 3.71 (5.97), 3.78 (6.09), 4.34 (6.99),  
 4.43 (7.13), 4.59 (7.39), 5.13 (8.25), 5.38 (8.65),  
 6.00(9.65), 6.34(10.21), 7.43 (11.96), 7.80 (12.56),  
 9.13 (14.70), 10.28 (16.54), 10.78 (17.35), 12.02  
 (19.35), 12.62 (20.31), 13.90(22.37), 14.19(22.84),  
 16.27 (26.19), 16.62 (26.74), 19.21 (30.91), 22.48  
 (36.18) **Clutch** multiple wet disc operated by foot  
 pedal **Brakes** single wet disc hydraulically  
 operated by two foot pedals which can be locked  
 together **Steering** hydrostatic **Power take-off**  
 540 rpm at 1997 engine rpm or 1000 rpm at  
 2000 engine rpm **Unladen tractor mass** 11115  
 lb (5042 kg)

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

**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 was  
 maintained at 155°F (68°C).

We, the undersigned, certify that this is a true  
 and correct report of official Tractor Test No.  
**1763**, November 18, 1999.

DAVID L. MORGAN  
 Assistant Director

L.L. BASHFORD  
 M.F. KOCHER  
 R.D. GRISSO Jr.  
 Board of Tractor Test Engineers



White 6710 Diesel