

# NEBRASKA TRACTOR TEST 1781A

## AGCO ALLIS 9755 DIESEL

### 18 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—1052 rpm)</b>					
163.45 (121.89)	2200	10.88 (41.18)	0.468 (0.285)	15.02 (2.96)	
<b>Standard Power Take-off Speed (1000 rpm)</b>					
168.92 (125.97)	2091	10.52 (39.82)	0.438 (0.266)	16.06 (3.16)	
<b>Maximum Power (2 Hours)</b>					
174.25 (129.94)	2000	10.40 (39.37)	0.420 (0.255)	16.75 (3.30)	

#### VARYING POWER AND FUEL CONSUMPTION

163.45 (121.89)	2200	10.88 (41.18)	0.468 (0.285)	15.02 (2.96)	Air temperature
141.72 (105.68)	2240	10.12 (38.30)	0.502 (0.305)	14.01 (2.76)	77°F (25°C)
109.90 (81.95)	2322	9.13 (34.58)	0.584 (0.355)	12.03 (2.37)	Relative humidity
74.86 (55.82)	2370	7.47 (28.28)	0.701 (0.427)	10.02 (1.97)	32%
37.28 (27.80)	2375	5.55 (21.01)	1.046 (0.636)	6.72 (1.32)	Barometer
2.16 (1.61)	2375	3.80 (14.38)	12.355 (7.515)	0.57 (0.11)	28.81 Hg (97.56 kPa)

Maximum Torque - 567 lb.-ft. (768 Nm) at 1301 rpm  
 Maximum Torque Rise - 45.3%  
 Torque rise at 1800 engine rpm - 23%

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive Engaged dB(A)	Disengaged dB(A)
At no load in 9th gear	80.7	75.7
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 18.4R42; \*\*, 22 (150)  
 Two 14.9R30; \*\*\*, 24 (165)  
 18.0 in (455 mm)  
 12055 lb (5468 kg)  
 7300 lb (3311 kg)  
 19355 lb (8779 kg)

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

**Dates of Test:** September 21-22, 2000

**Manufacturer:** AGCO Corporation, 4205 River Green Parkway, Duluth, Georgia, 30096-2568

**FUEL and OIL:** Fuel No. 2 Diesel **Specific gravity converted to 60°/60° F (15°/15°C)** 0.8441 **Fuel weight** 7.028 lbs/gal (0.842 kg/l) **Oil SAE 15W40 API service classification** CE/CF-4 **Transmission and hydraulic lubricant** AGCO Power Fluid 821 XL **Front axle lubricant** AGCO Gear Lube 715 **Total time engine was operated** 10.0 hours

**ENGINE: Make** Navistar Diesel **Type** six cylinder vertical with turbocharger **Serial No.** WN4195N1121886 **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.591" x 5.35" (116.6 mm x 135.9 mm) **Compression ratio** 16.5 to 1 **Displacement** 531 cu in (8700 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 hydraulic and transmission oil **Fuel filter** two paper elements **Muffler** vertical **Cooling medium temperature control** thermostat and variable speed fan

**ENGINE OPERATING PARAMETERS:**  
**Fuel rate:** 73.7 - 77.5 lb/h (33.4 - 35.2 kg/h) **High idle:** 2304 - 2404 rpm **Turbo boost:** nominal 18.2 - 22.2 psi (125 - 153 kPa) as measured 20.2 psi (139 kPa)

**CHASSIS: Type** front wheel assist **Serial No.** \*CG239001\* **Tread width** rear 61.5" (1562 mm) to 126." (3299 mm) front 59.9" (1522 mm) to 87.9" (2233 mm) **Wheelbase** 112.5" (2858 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 1.36 (2.19) second 1.76 (2.83) third 2.27 (3.65) fourth 2.59 (4.17) fifth 2.92 (4.70) sixth 3.33 (5.36) seventh 3.78 (6.09) eighth 4.31 (6.94) ninth 4.88 (7.85) tenth 5.56 (8.95) eleventh 6.31 (10.16) twelfth 7.20 (11.58) thirteenth 8.13 (13.09) fourteenth 9.26 (14.91) fifteenth 10.53 (16.94) sixteenth 13.56 (21.82) seventeenth 17.54 (28.23) eighteenth 22.60 (36.37) reverse 1.36 (2.19), 2.27 (3.65), 2.59 (4.17), 3.78 (6.09), 4.31 (6.94), 6.31 (10.16) **Clutch** multiple wet disc electro-hydraulically operated by foot pedal **Brakes** single wet disc hydraulically operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1991 engine rpm or 1000 rpm at 2091 engine rpm **Unladen tractor mass** 19180 lb (8700 kg)

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

CATEGORY: III

Quick Attach: None

Maximum Force Exerted

Through Whole Range: 16101 lbs (71.6 kN)

		<u>High flow option</u>
i) Opening pressure of relief valve:	NA	NA
Sustained pressure of the open relief valve:	2860 psi (197 bar)	2850 psi (196 bar)
ii) Pump delivery rate at minimum pressure and rated engine speed:	29.7 GPM (112.4 l/min)	39.3 GPM (148.8 l/min)
iii) Pump delivery rate at maximum hydraulic power:	22.7 GPM (85.9 l/min)	35.9 GPM (135.9 l/min)
Delivery pressure:	2690 psi (185 bar)	2490 psi (172 bar)
Power:	35.6 HP (26.6 kW)	52.2 Hp (38.9 kW)

### THREE POINT HITCH PERFORMANCE

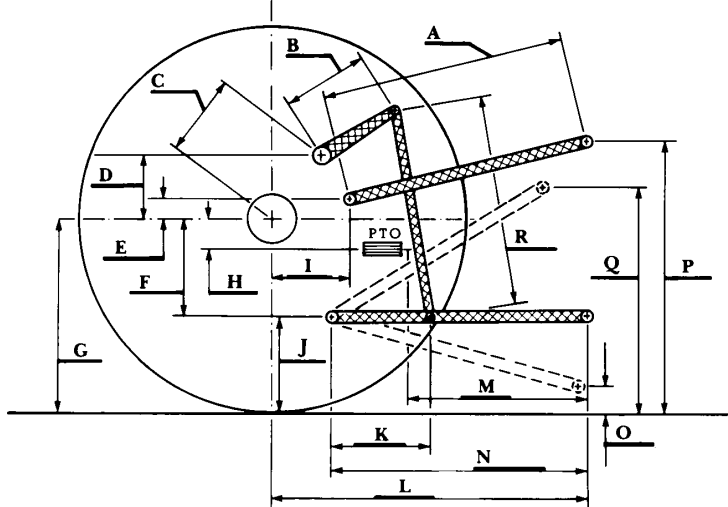
Observed Maximum Pressure psi. (bar)	3015 (208)
Location:	lift cylinder
Hydraulic oil temperature: °F (°C)	153 (67)
Location:	hydraulic sump
Category:	III
Quick attach:	none

#### SAE Static Test—System pressure 2715 psi (187 Bar)

Hitch point distance to ground level in. (mm)	9.7 (246)	16.0 (406)	24.0 (610)	32.0 (813)	40.0 (1016)
Lift force on frame lb	18963	18432	18441	18054	16965
" " " " " (kN)	(84.4)	(82.0)	(82.0)	(80.3)	(75.5)

	SAE TEST		OECD TEST	
	inch	mm	inch	mm
A	28.8	732	29.8	756
B	15.0	380	15.0	380
C	19.4	492	19.4	492
D	17.6	447	17.6	447
E	11.0	280	11.0	280
F	13.0	330	13.0	330
G	34.3	870	34.3	870
H	3.9	100	3.9	100
I	17.6	447	17.6	447
J	21.3	540	21.3	540
K	21.3	540	23.2	590
L	48.2	1225	48.2	1225
M	23.1	588	23.1	588
N	38.4	975	38.4	975
O	9.6	245	9.3	235
P	43.3	1100	48.2	1225
Q	39.5	1004	37.4	949
R	34.0	864	35.1	892

HITCH DIMENSIONS AS TESTED—NO LOAD



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

NOTE: See Nebraska Tractor Test 1781, on the White 8510 Diesel, for drawbar performance for this model.

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 inlet was maintained at 116°F (47°C).

We, the undersigned, certify that this is a true and correct report of Official Tractor Test No. 1781A, December 15, 2000.

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 Board of Tractor Test Engineers



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