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## Test 1779: AGCO Allis 8775 Diesel 32-Speed

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, [tractortestlab@unl.edu](mailto:tractortestlab@unl.edu)

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# NEBRASKA TRACTOR TEST 1779

## AGCO ALLIS 8775 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
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#### MAXIMUM POWER AND FUEL CONSUMPTION

		Rated Engine Speed		PTO speed	1100 rpm)
96.60 (72.03)	2200	6.34 (24.00)	0.464 (0.282)	15.23 (3.00)	
		Maximum Power (2 hours)			
99.62 (74.29)	2100	6.50 (24.59)	0.461 (0.280)	15.34 (3.02)	
		Standard Power Take-off Speed(1000 rpm)			
98.14 (73.18)	2001	6.34 (24.00)	0.457 (0.278)	15.48 (3.05)	

#### VARYING POWER AND FUEL CONSUMPTION

96.60 (72.03)	2200	6.34 (24.00)	0.464 (0.282)	15.23 (3.00)	Air temperature
86.46 (64.48)	2315	5.90 (22.34)	0.482 (0.293)	14.65 (2.89)	76°F(24°C)
65.83 (49.09)	2344	4.75 (17.98)	0.510 (0.310)	13.85 (2.73)	Relative humidity
43.72 (32.60)	2365	3.69 (13.98)	0.597 (0.363)	11.84 (2.33)	44%
22.11 (16.49)	2382	2.80 (10.61)	0.896 (0.545)	7.89 (1.55)	Barometer
1.14 (0.85)	2397	1.91 (7.23)	11.837 (7.200)	0.60 (0.12)	29.28"Hg (99.15 kPa)

Maximum Torque 298 lb.-ft. (404 Nm) at 1249 rpm  
Maximum Torque Rise -29.2%  
Torque rise at 1801 rpm -20%

#### TRACTOR SOUND LEVEL WITH CAB

	Front Wheel Drive	
	Disengaged	Engaged
	dB(A)	dB(A)
At no load in 14th(3LD) gear	76.1	76.2
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)  
18.0 in (405 mm)  
6735 lb (3055 kg)  
4410 lb (2000 kg)  
11145 lb (5055 kg)

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

**Dates of Test:** June 2-6, 2000

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

**FUEL, OIL and TIME:** Fuel No. 2 Diesel  
**Specific gravity converted to 60°/60° F (15°/15°C)** 0.8487  
**Fuel weight** 7.067 lbs/gal (0.847 kg/l)  
**Oil** SAE 15W40  
**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** 9.0 hours

**ENGINE:** Make SiSu Diesel **Type** six cylinder vertical **Serial No.** J04752 **Crankshaft** lengthwise  
**Rated engine speed** 2200 **Bore and stroke** 4.252" x 4.724" (108.0 mm x 120.0 mm)  
**Compression ratio** 16.5 to 1 **Displacement** 402 cu in (6600 ml)  
**Starting system** 12 volt **Lubrication** pressure **Air cleaner** one paper element and one polyester felt element and aspirator **Oil filter** one full flow cartridge **Oil cooler** radiator for hydraulic and transmission oil **Fuel filter** one paper element and water separator **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** one thermostat and variable speed fan

**ENGINE OPERATING PARAMETERS:** **Fuel rate:** 42.9 - 45.7 lb/h (19.5 - 20.8 kg/h) **High idle:** 2300 - 2400 rpm

**CHASSIS:** **Type** front wheel assist **Serial No.** H110022 **Tread width** rear 62.3" (1583 mm) to 88.3" (2244 mm) front 61.7" (1567 mm) to 80.8" (2053 mm) **Wheelbase** 112.6" (2860 mm)  
**Hydraulic control system** direct engine drive  
**Transmission** selective gear fixed ratio with partial(4) range operator controlled powershifting  
**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 6.39 (10.28) 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) thirtieth 17.65 (28.41) thirty-first 20.41 (32.84) thirty-second 23.89 (38.44)

## THREE POINT HITCH PERFORMANCE (OECD Static Test)

### CATEGORY: II

Quick Attach: None

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

i) Opening pressure of relief valve: NA

Sustained pressure of the open relief valve: 2860 psi (197 bar)

ii) Pump delivery rate at minimum pressure

and rated engine speed: 29.8 GPM (112.8 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 25.7 GPM (97.3 l/min)

Delivery pressure: 2680 psi (185 bar)

Power: 40.2 HP (30.0 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:

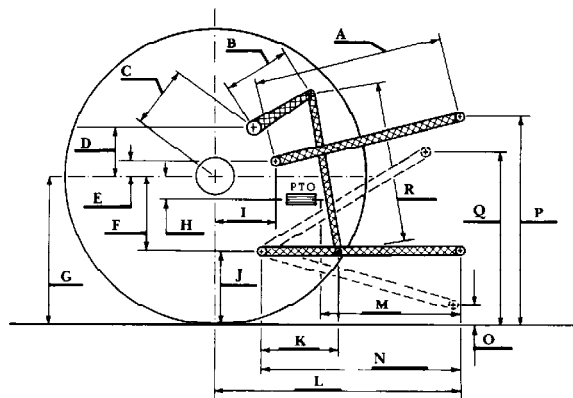
none

### 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)

### HITCH DIMENSIONS AS TESTED - NO LOAD

	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



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

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 1980 engine rpm or 1000 rpm at 2000 engine rpm **Unladen tractor mass** 10970 lb (4975 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 144°F (62°C).

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **1779**, June 28, 2000.

David L. Morgan  
Assistant Director

L.L. Bashford  
G.J. Hoffman  
M.F. Kocher  
Board of Tractor Test Engineers



AGCO Allis 8775 Diesel