NEBRASKA OECD TRACTOR TEST 1794 - SUMMARY 354
WHITE 8710 DIESEL
ALSO AGCO ALLIS 9775 DIESEL(CUMMINS ENGINE)
ALSO AGCO DT200 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
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed—(PTO speed—1052 rpm)					
204.33 *(152.37)*	2200	13.04 *(49.35)*	0.448 *(0.273)*	15.67 *(3.09)*	
Standard Power Take-off Speed (1000 rpm)					
221.42 *(165.11)*	2092	13.43 *(50.85)*	0.426 *(0.259)*	16.48 *(3.25)*	
Maximum Power (2 Hours)					
225.28 *(167.99)*	2050	13.47 *(50.98)*	0.420 *(0.256)*	16.73 *(3.29)*	
VARYING POWER AND FUEL CONSUMPTION					
204.33 *(152.37)*	2200	13.04 *(49.35)*	0.448 *(0.273)*	15.67 *(3.09)*	Air temperature
178.05 *(132.78)*	2255	11.70 *(44.28)*	0.462 *(0.281)*	15.22 *(3.00)*	76°F *(24°C)*
136.91 *(102.09)*	2305	9.78 *(37.01)*	0.502 *(0.305)*	14.00 *(2.76)*	Relative humidity
92.15 *(68.71)*	2342	7.64 *(28.93)*	0.583 *(0.354)*	12.06 *(2.38)*	31%
47.09 *(35.11)*	2377	5.64 *(21.33)*	0.841 *(0.512)*	8.36 *(1.65)*	Barometer
1.66 *(1.24)*	2435	3.54 *(13.41)*	14.980 *(9.112)*	0.47 *(0.09)*	29.22" Hg *(98.95 kPa)*

Maximum Torque - 716 lb.-ft. *(970 Nm)* at 1300 rpm
Maximum Torque Rise - 46.6%
Torque rise at 1799 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—11th Gear									
177.14 *(132.10)*	10171 *(45.24)*	6.53 *(10.51)*	2200	2.79	0.516 *(0.314)*	13.62 *(2.68)*	188 *(87)*	69 *(21)*	28.63 *(96.95)*
75% of Pull at Maximum Power—11th Gear									
136.78 *(102.00)*	7574 *(33.69)*	6.77 *(10.90)*	2267	2.33	0.557 *(0.339)*	12.62 *(2.49)*	188 *(87)*	85 *(29)*	28.63 *(96.95)*
50% of Pull at Maximum Power—11th Gear									
94.27 *(70.30)*	5061 *(22.51)*	6.98 *(11.24)*	2322	1.59	0.646 *(0.393)*	10.89 *(2.14)*	185 *(85)*	86 *(30)*	28.67 *(97.09)*
75% of Pull at Reduced Engine Speed—13th Gear									
137.09 *(102.23)*	7606 *(33.83)*	6.76 *(10.88)*	1757	2.33	0.456 *(0.277)*	15.42 *(3.04)*	186 *(85)*	86 *(30)*	28.66 *(97.05)*
50% of Pull at Reduced Engine Speed—13th Gear									
93.95 *(70.06)*	5066 *(22.53)*	6.96 *(11.19)*	1795	1.59	0.508 *(0.309)*	13.83 *(2.72)*	185 *(85)*	87 *(31)*	28.69 *(97.16)*

Location of Test: Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln Nebraska 68583-0832
Dates of Test: May 7- 18, 2001

Manufacturer: AGCO Corporation, 4205 River Green Parkway, Duluth, Georgia, 30096 USA.

FUEL, OIL and TIME: Fuel No. 2 Diesel **Specific gravity converted to 60°/60° F *(15°/15°C)*** 0.8439 **Fuel weight** 7.027 lbs/gal *(0.842 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** 22.0 hours

ENGINE: Make Cummins Diesel **Type** six cylinder vertical with turbocharger and intercooler **Serial No.** 45665128 **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.488" x 5.315" *(114.0 mm x 135.0 mm)* **Compression ratio** 17.3 to 1 **Displacement** 505 cu in *(8268 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** vertical **Cooling medium temperature control** one thermostat and variable speed fan

ENGINE OPERATING PARAMETERS: Fuel rate: 86.6 - 95.7 lb/h *(39.3 - 43.4 kg/h)* **High idle:** 2400 - 2460 rpm **Turbo boost:** nominal 17.7 - 24.0 psi *(122 - 165 kPa)* as measured 23.3 psi *(161 kPa)*

CHASSIS: Type front wheel assist **Serial No.** *CG133003* **Tread width** rear 64.1" *(1628 mm)* to 128.9" *(3274 mm)* front 60.0" *(1524 mm)* to 88.0" *(2235 mm)* **Wheelbase** 121.0" *(3073 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 1.39 *(2.24)* second 1.80 *(2.89)* third 2.32 *(3.74)* fourth 2.65 *(4.26)* fifth 3.00 *(4.82)* sixth 3.41 *(5.49)* seventh 3.87 *(6.23)* eighth 4.41 *(7.10)* ninth 4.99 *(8.03)* tenth 5.69 *(9.15)* eleventh 6.46 *(10.39)* twelfth 7.36 *(11.84)* thirteenth 8.32 *(13.39)* fourteenth 9.48 *(15.25)* fifteenth 10.76 *(17.32)* sixteenth 13.86 *(22.31)* seventeenth 18.56 *(29.87)* eighteenth 23.10 *(37.18)* reverse 1.39 *(2.24)*, 2.32 *(3.74)*, 2.65 *(4.26)*, 3.87 *(6.23)*, 4.41 *(7.10)*, 6.46 *(10.39)* **Clutch** multiple wet disc electro-hydraulically operated by foot pedal **Brakes** multiple wet disc hydraulically operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 1000 rpm at 2091 engine rpm **Unladen tractor mass** 19630 lb *(8904 kg)*

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)*	Hp.hr/gal *(kW.h/l)*	Temp.°F*(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
					6th Gear				
149.51 *(111.49)*	17996 *(80.05)*	3.12 *(5.01)*	2245	13.97	0.579 *(0.352)*	12.14 *(2.39)*	188 *(87)*	69 *(21)*	28.63 *(96.95)*
					7th Gear				
167.43 *(124.85)*	17236 *(76.67)*	3.64 *(5.86)*	2203	9.66	0.547 *(0.333)*	12.85 *(2.53)*	189 *(87)*	70 *(21)*	28.64 *(96.99)*
					8th Gear				
178.64 *(133.21)*	16801 *(74.73)*	3.99 *(6.42)*	2088	8.48	0.519 *(0.315)*	13.55 *(2.67)*	187 *(86)*	72 *(22)*	28.64 *(96.99)*
					9th Gear				
186.52 *(139.09)*	15330 *(68.19)*	4.56 *(7.34)*	2052	5.81	0.497 *(0.302)*	14.13 *(2.78)*	188 *(87)*	73 *(23)*	28.64 *(96.99)*
					10th Gear				
189.34 *(141.19)*	13452 *(59.84)*	5.28 *(8.49)*	2051	4.41	0.490 *(0.298)*	14.34 *(2.82)*	189 *(87)*	75 *(24)*	28.64 *(96.99)*
					11th Gear				
191.06 *(142.47)*	11845 *(52.69)*	6.05 *(9.73)*	2047	3.25	0.486 *(0.296)*	14.45 *(2.85)*	188 *(86)*	69 *(21)*	28.63 *(96.95)*
					12th Gear				
190.89 *(142.35)*	10392 *(46.23)*	6.89 *(11.09)*	2042	2.97	0.486 *(0.296)*	14.46 *(2.85)*	189 *(87)*	80 *(27)*	28.64 *(96.99)*
					13th Gear				
189.42 *(141.25)*	9038 *(40.20)*	7.86 *(12.65)*	2051	2.70	0.491 *(0.298)*	14.32 *(2.82)*	189 *(87)*	81 *(27)*	28.64 *(96.99)*
					14th Gear				
186.55 *(139.11)*	7907 *(35.17)*	8.85 *(14.24)*	2047	2.82	0.496 *(0.302)*	14.17 *(2.79)*	189 *(87)*	82 *(28)*	28.64 *(96.99)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE: The front drive axle on this model automatically disengages at travel speeds above 8.7 mph*(14.0 km/h)*.

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 135°F *(57°C)*. The pull in 4th gear (ballasted tractor) was limited to avoid excessive tractor bouncing.The performance figures on this Summary were taken from a test conducted under the OECD Code II test procedure.

Report reissued: Supplemental sales permit for AGCO Allis 9775 Diesel (Cummins engine) and AGCO DT200 Diesel, November, 2001.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **1794**, Nebraska Summary 354, November 13, 2001.

Brent T. Sampson
Test Engineer

L.L. Bashford
M. F. Kocher
V.I. Adamchuk
Board of Tractor Test Engineers

TIRES, BALLAST AND WEIGHT	With Ballast	Without Ballast
Rear tires - No.,size, ply & psi*(kPa)*	Four 20.8R42;**;16 *(110)*	Two 20.8R42;**;20*(150)*
Ballast - Duals(total)	2350 lb *(1066 kg)*	None
- Cast Iron(total)	2750 lb *(1248 kg)*	None
Front tires - No.,size, ply & psi*(kPa)*	Two 16.9R30; **;24 *(205)*	Two 16.9R30;**;24*(165)*
Ballast - Liquid(total)	None	None
- Cast Iron(total)	1975 lb *(896 kg)*	None
Height of Drawbar	18.0 in *(445 mm)*	17.0 in *(445 mm)*
Static Weight with operator- Rear	16935 lb *(7682 kg)*	12415 lb *(5631 kg)*
- Front	9945 lb *(4511 kg)*	7390 lb *(3352 kg)*
- Total	26880 lb*(12193 kg)*	19805 lb *(8983 kg)*

DRAWBAR PERFORMANCE

BALLASTED - 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)*	Hp.hr/gal *(kW.h/l)*	Temp.°F *(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
					4th Gear				
165.15 *(123.16)*	24468 *(108.84)*	2.53 *(4.07)*	2211	8.47	0.549 *(0.334)*	12.79 *(2.52)*	187 *(86)*	74 *(23)*	28.62 *(96.92)*
					5th Gear				
174.62 *(130.21)*	23559 *(104.80)*	2.78 *(4.47)*	2123	7.41	0.531 *(0.323)*	13.23 *(2.61)*	187 *(86)*	75 *(24)*	28.62 *(96.92)*
					6th Gear				
183.65 *(136.95)*	22186 *(98.69)*	3.10 *(5.00)*	2049	5.89	0.504 *(0.307)*	13.94 *(2.75)*	189 *(87)*	76 *(24)*	28.61 *(96.88)*
					7th Gear				
187.87 *(140.09)*	19686 *(87.57)*	3.58 *(5.76)*	2049	4.67	0.494 *(0.300)*	14.23 *(2.80)*	189 *(87)*	77 *(25)*	28.61 *(96.88)*
					8th Gear				
189.79 *(141.52)*	17323 *(77.06)*	4.11 *(6.61)*	2047	3.79	0.489 *(0.298)*	14.36 *(2.83)*	189 *(87)*	78 *(26)*	28.61 *(96.88)*
					9th Gear				
188.95 *(140.90)*	15124 *(67.27)*	4.69 *(7.54)*	2053	3.25	0.491 *(0.299)*	14.31 *(2.82)*	189 *(87)*	79 *(26)*	28.62 *(96.92)*
					10th Gear				
189.75 *(141.50)*	13301 *(59.16)*	5.35 *(8.61)*	2049	2.88	0.488 *(0.297)*	14.39 *(2.83)*	189 *(87)*	80 *(27)*	28.62 *(96.92)*
					11th Gear				
187.75 *(140.00)*	11504 *(51.17)*	6.12 *(9.85)*	2056	2.52	0.492 *(0.299)*	14.27 *(2.81)*	189 *(87)*	81 *(27)*	28.62 *(96.92)*
					12th Gear				
187.64 *(139.92)*	10102 *(44.94)*	6.97 *(11.21)*	2048	2.24	0.494 *(0.300)*	14.23 *(2.80)*	189 *(87)*	82 *(28)*	28.63 *(96.95)*
					13th Gear				
186.71 *(139.23)*	8856 *(39.39)*	7.91 *(12.72)*	2051	1.87	0.496 *(0.302)*	14.16 *(2.79)*	189 *(87)*	83 *(28)*	28.63 *(96.95)*
					14th Gear				
183.11 *(136.54)*	7695 *(34.23)*	8.92 *(14.36)*	2048	1.98	0.504 *(0.307)*	13.93 *(2.74)*	190 *(88)*	84 *(29)*	28.63 *(96.95)*

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive Engaged dB(A)	Front Wheel Drive Disengaged dB(A)
At no load in 8th gear	76.9	76.7
Bystander	--	--

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: III
Quick Attach: None
Maximum Force Exerted
Through Whole Range: 19710 lbs *(87.7 kN)*

		High flow option
i) Opening pressure of relief valve:	NA	
Sustained pressure of the open relief valve:	2840 psi *(196 bar)*	2850 psi *(196 bar)*
ii) Pump delivery rate at minimum pressure and rated engine speed:	29.1 GPM *(110.2 l/min)*	39.3 GPM *(148.8 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	25.7 GPM *(97.3 l/min)*	35.9 GPM *(135.9 l/min)*
Delivery pressure:	2575 psi *(177 bar)*	2490 psi *(172 bar)*
Power:	38.6 HP *(28.8 kW)*	52.2 Hp *(38.9 kW)*

THREE POINT HITCH PERFORMANCE

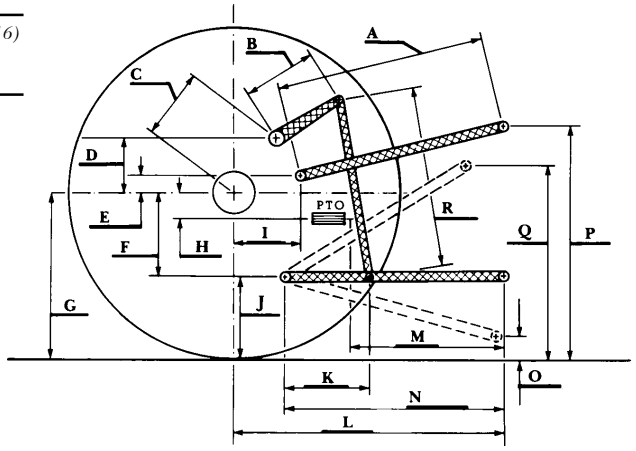
Observed Maximum Pressure psi. *(bar)*	3020 *(208)*
Location:	lift cylinder
Hydraulic oil temperature: °F *(°C)*	149 *(65)*
Location:	hydraulic sump
Category:	III
Quick attach:	none

SAE Static Test—System pressure 2720 psi *(188 Bar)*

Hitch point distance to ground level in. *(mm)*	11.7 *(297)*	16.0 *(406)*	24.0 *(610)*	32.0 *(813)*	40.0 *(1016)*
Lift force on frame lb	22635	23229	22302	22860	21726
" " " " " " " *(kN)*	*(100.7)*	*(103.3)*	*(99.2)*	*(101.7)*	*(96.6)*

	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	36.3	*920*	34.3	*870*
H	3.9	*100*	3.9	*100*
I	17.6	*447*	17.6	*447*
J	23.3	*590*	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	11.6	*295*	9.3	*235*
P	45.3	*1150*	48.2	*1225*
Q	41.5	*1054*	36.9	*937*
R	34.0	*864*	36.0	*914*

HITCH DIMENSIONS AS TESTED - NO LOAD



White 8710 Diesel

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