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Nebraska Summary: S589 AGCO RT165A

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SUMMARY OF OECD TEST 2389–NEBRASKA SUMMARY 589
AGCO RT 165A DIESEL
24 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—1100 rpm)					
182.4 *(136.0)*	2200	11.27 *(42.65)*	0.441 *(0.268)*	16.18 *(3.19)*	
Standard Power Take-off Speed(1000 rpm)					
208.9 *(155.8)*	2000	12.10 *(45.81)*	0.413 *(0.251)*	17.26 *(3.40)*	
Maximum Power (1 hour)					
208.9 *(155.8)*	2000	12.10 *(45.81)*	0.413 *(0.251)*	17.26 *(3.40)*	
VARYING POWER AND FUEL CONSUMPTION					
182.4 *(136.0)*	2200	11.27 *(42.65)*	0.441 *(0.268)*	16.19 *(3.19)*	Air temperature
155.5 *(115.9)*	2207	9.96 *(37.69)*	0.455 *(0.277)*	15.62 *(3.08)*	73°F *(23°C)*
117.3 *(87.5)*	2221	7.93 *(30.02)*	0.482 *(0.293)*	14.79 *(2.91)*	Relative humidity
78.6 *(58.6)*	2229	5.75 *(21.76)*	0.521 *(0.317)*	13.67 *(2.69)*	36%
39.7 *(29.6)*	2239	3.76 *(14.25)*	0.676 *(0.411)*	10.52 *(2.07)*	Barometer
-- --	2246	2.07 *(7.83)*	-- --	-- --	30.39" Hg *(102.9 kPa)*

Maximum Torque - 633.9 lb.-ft. *(859.4 Nm)* at 1450 rpm
Maximum Torque rise - 45.6%
Torque rise at 1760 engine rpm - 35%

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—15th(3C) Gear									
149.8 *(111.7)*	8025 *(35.7)*	7.00 *(11.27)*	2201	4	0.524 *(0.319)*	13.55 *(2.67)*	189 *(87)*	81 *(27)*	29.7 *(100.6)*
75% of Pull at Maximum Power—15th(3C) Gear									
113.7 *(84.8)*	6015 *(26.8)*	7.09 *(11.41)*	2207	3	0.579 *(0.352)*	12.28 *(2.42)*	192 *(89)*	81 *(27)*	29.7 *(100.5)*
50% of Pull at Maximum Power—15th(3C) Gear									
77.5 *(57.8)*	4025 *(17.9)*	7.22 *(11.62)*	2225	2	0.635 *(0.386)*	11.19 *(2.20)*	185 *(85)*	81 *(27)*	29.7 *(100.5)*
75% of Pull at Reduced Engine Speed—16th(3D) Gear									
113.7 *(84.8)*	6005 *(26.7)*	7.10 *(11.42)*	1852	3	0.494 *(0.300)*	14.38 *(2.83)*	187 *(86)*	81 *(27)*	29.7 *(100.5)*
50% of Pull at Reduced Engine Speed—16h(3D) Gear									
77.1 *(57.5)*	4030 *(17.9)*	7.17 *(11.54)*	1845	2	0.550 *(0.334)*	12.92 *(2.54)*	181 *(83)*	81 *(27)*	29.7 *(100.5)*

Location of tests: Groupement d'Antony, Parc de Touvoie, BP 44 Antony, France 92163
Dates of tests: April - May, 2007

Manufacturer: AGCO S.A. BP 307, Avenue Blaise Pascal, 60026 Beauvais , France

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.855 **Fuel weight** 7.12 lbs/gal *(0.853 kg/l)* **Oil SAE** 15W40 **API service classification** CH4 **Transmission and hydraulic lubricant** BP Terrac Tractan 9 10W/40 **Front axle lubricant** Terrac Tractan 9 10W/40

ENGINE: Make Sisu Diesel **Type** six cylinder vertical with turbocharger and air to air intercooler **Serial No.** T04242 **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.252" x 5.276" *(108.0 mm x 134.0 mm)* **Compression ratio** 17.5 to 1 **Displacement** 449 cu in *(7365 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil **Fuel filter** one paper element **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** S066022 **Tread width** rear 61.7" *(1567 mm)* to 95.2" *(2417 mm)* front 68.8" *(1747 mm)* to 75.4" *(1915 mm)* **Wheelbase** 118.0" (*2996 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with partial (6) range operator controlled powershift **Nominal travel speeds mph *(km/h)*** first 0.99 *(1.59)* second 1.19 *(1.91)* third 1.39 *(2.24)* fourth 1.68 *(2.70)* fifth 1.97 *(3.17)* sixth 2.37 *(3.82)* seventh 2.67 *(4.29)* eighth 3.21 *(5.16)* ninth 3.77 *(6.06)* tenth 4.53 *(7.29)* eleventh 5.11 *(8.22)* twelfth 5.33 *(8.57)* thirteenth 6.14 *(9.88)* fourteenth 6.41 *(10.31)* fifteenth 7.21 *(11.60)* sixteenth 8.67 *(13.96)* seventeenth 10.20 *(16.41)* eighteenth 11.60 *(18.66)* nineteenth 12.27 *(19.75)* twentieth 13.94 *(22.44)* twenty-first 16.36 *(26.33)* twenty-second 19.69 *(31.69)* twenty-third 23.16 *(37.27)* twenty-fourth 27.86 *(44.84)* reverse 0.99 *(1.59)*, 1.19 *(1.91)*, 1.39 *(2.24)*, 1.68 *(2.70)*, 1.97 *(3.17)*, 2.37 *(3.82)*, 2.67 *(4.29)*, 3.21 *(5.16)*, 3.77 *(6.06)*, 4.53 *(7.29)*, 5.11 *(8.22)*, 5.33 *(8.57)*, 6.14 *(9.88)*, 6.41 *(10.31)*, 7.21 *(11.60)*, 8.67 *(13.96)*, 10.20 *(16.41)*, 11.60 *(18.66)*, 12.27 *(19.75)*, 13.94 *(22.44)*, 16.36 *(26.33)*, 19.69 *(31.69)*, 23.16 *(37.27)*, 27.86 *(44.84)*

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)*	Fuel Consumption Hp.hr/gal *(kW.h/l)*	Temp.°F*(°C)* cool-ing med	Temp.°F*(°C)* Air dry bulb	Barom. inch Hg *(kPa)*
					3rd(1C) Gear				
48.3 *(36.0)*	15085 *(67.1)*	1.20 *(1.93)*	2224	15	0.804 *(0.489)*	8.83 *(1.74)*	180 *(82)*	72 *(22)*	29.7 *(100.6)*
					4th(1D) Gear				
57.3 *(42.7)*	14905 *(66.3)*	1.44 *(2.32)*	2216	14	0.767 *(0.466)*	9.26 *(1.82)*	180 *(82)*	72 *(22)*	29.7 *(100.6)*
					5th(1E) Gear				
65.8 *(49.1)*	14275 *(63.5)*	1.73 *(2.79)*	2213	13	0.720 *(0.438)*	9.86 *(1.94)*	181 *(83)*	72 *(22)*	29.7 *(100.6)*
					6th(1F) Gear				
78.9 *(58.8)*	14005 *(62.3)*	2.11 *(3.40)*	2210	11	0.679 *(0.413)*	10.46 *(2.06)*	185 *(85)*	72 *(22)*	29.7 *(100.6)*
					7th(2A) Gear				
89.0 *(66.4)*	13960 *(62.1)*	2.39 *(3.85)*	2206	11	0.669 *(0.407)*	10.61 *(2.09)*	180 *(82)*	72 *(22)*	29.7 *(100.6)*
					8th(2B) Gear				
106.9 *(79.7)*	13780 *(61.3)*	2.91 *(4.68)*	2202	10	0.627 *(0.382)*	11.32 *(2.23)*	185 *(85)*	72 *(22)*	29.7 *(100.6)*
					9th(2C) Gear				
124.6 *(92.9)*	13715 *(61.0)*	3.41 *(5.48)*	2195	9	0.608 *(0.370)*	11.67 *(2.30)*	185 *(85)*	72 *(22)*	29.7 *(100.6)*
					10th(2D) Gear				
139.1 *(103.7)*	12320 *(54.8)*	4.23 *(6.81)*	2189	7	0.575 *(0.349)*	12.36 *(2.43)*	192 *(89)*	73 *(23)*	29.7 *(100.6)*
					11th(3A) Gear				
158.5 *(118.2)*	12760 *(56.8)*	4.66 *(7.50)*	2164	8	0.524 *(0.319)*	13.55 *(2.67)*	187 *(86)*	73 *(23)*	29.7 *(100.6)*
					12th(2E) Gear				
158.5 *(118.2)*	12655 *(56.3)*	4.70 *(7.56)*	2081	7	0.511 *(0.311)*	13.91 *(2.74)*	185 *(85)*	73 *(23)*	29.7 *(100.7)*
					13th(3B) Gear				
173.9 *(129.7)*	12110 *(53.9)*	5.39 *(8.67)*	2052	6	0.507 *(0.308)*	14.01 *(2.76)*	190 *(88)*	81 *(27)*	29.7 *(100.6)*
					14th(2F) Gear				
160.3 *(119.5)*	10865 *(48.3)*	5.53 *(8.90)*	2005	5	0.536 *(0.326)*	13.25 *(2.61)*	194 *(90)*	81 *(27)*	29.7 *(100.6)*
					15th(3C) Gear				
180.2 *(134.4)*	10925 *(48.6)*	6.19 *(9.96)*	1999	5	0.487 *(0.297)*	14.57 *(2.87)*	185 *(85)*	79 *(26)*	29.7 *(100.6)*
					16th(3D) Gear				
178.4 *(133.0)*	8800 *(39.1)*	7.60 *(12.23)*	2001	4	0.496 *(0.302)*	14.31 *(2.82)*	196 *(91)*	79 *(26)*	29.7 *(100.6)*
					*17th(3E) Gear				
176.3 *(131.5)*	7640 *(34.0)*	8.65 *(13.93)*	2003	7	0.500 *(0.304)*	14.21 *(2.80)*	196 *(91)*	81 *(27)*	29.7 *(100.6)*

* Front Drive disengaged

Clutch multiple wet disc operated by foot pedal **Brakes** multiple wet disc hydraulically operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1998 engine rpm or 1000 rpm at 2000 engine rpm **Unladen tractor mass** 17460 lb *(7920 kg)*

NOTE 1: The engine on this tractor is electronically controlled to give 2 power levels. A "boosted" level is available when the PTO is engaged, tractor stationary, and when the tractor is operated in ranges 3 and 4.

NOTE 2: The data on this summary was obtained from OECD report 2389 conducted on the Massey Ferguson 6497 Diesel.

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's claim of 69.0 dB(A) cab sound level. The manufacturer's remote flow claim of 39.0 GPM *(150 lpm)* was not verified. The performance figures on this summary were taken from a test conducted under the OECD Code II test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2389,** Nebraska Summary 589, March 17, 2009.

Roger M. Hoy
Director

M.F. Kocher
V.I. Adamchuk
J.A. Smith
Board of Tractor Test Engineers

TIRES, BALLAST AND WEIGHT	**With Ballast**	**Without Ballast**
Rear tires - No.,size, ply & psi*(kPa)*	Four 480/80R46; ***;16*(110)*	Two 520/85R42;**;15*(100)*
Ballast - Duals(total)	2190 lb *(993 kg)*	None
- Cast iron(total)	1875 lb *(850 kg)*	None
Front tires - No.,size, ply & psi*(kPa)*	Two 16.9R30; **;16*(110)*	Two 16.9R30;**;15*(100)*
Ballast - Liquid(total)	None	None
- Cast Iron(total)	1795 lb *(815 kg)*	None
Height of Drawbar	22.5 in *(570 mm)*	22.5 in *(570 mm)*
Static Weight with operator- Rear	15070 lb *(6835 kg)*	10670 lb *(4840 kg)*
- Front	8850 lb *(4015 kg)*	6965 lb *(3160 kg)*
- Total	23920 lb *(10850 kg)*	17635 lb *(8000 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)*
					5th(1E) Gear				
92.0 *(68.6)*	19740 *(87.8)*	1.75 *(2.81)*	2212	15	0.642 *(0.390)*	11.07 *(2.18)*	176 *(80)*	61 *(16)*	29.7 *(100.6)*
					6th(1F) Gear				
111.7 *(83.3)*	19290 *(85.8)*	2.17 *(3.50)*	2212	12	0.597 *(0.363)*	11.89 *(2.34)*	181 *(83)*	61 *(16)*	29.7 *(100.6)*
					7th(2A) Gear				
123.4 *(92.0)*	19085 *(84.9)*	2.42 *(3.90)*	2201	12	0.583 *(0.354)*	12.19 *(2.40)*	183 *(84)*	61 *(16)*	29.7 *(100.6)*
					8th(2B) Gear				
148.5 *(110.7)*	18840 *(83.8)*	2.96 *(4.76)*	2199	11	0.524 *(0.319)*	13.55 *(2.67)*	187 *(86)*	61 *(16)*	29.7 *(100.6)*
					9th(2C) Gear				
161.3 *(120.3)*	18705 *(83.2)*	3.23 *(5.20)*	2039	10	0.503 *(0.306)*	14.11 *(2.78)*	183 *(84)*	63 *(17)*	29.7 *(100.6)*
					10th(2D) Gear				
169.6 *(126.5)*	15670 *(69.7)*	4.06 *(6.53)*	2028	6	0.476 *(0.289)*	14.92 *(2.94)*	174 *(79)*	63 *(17)*	29.7 *(100.6)*
					11th(3A) Gear				
181.0 *(135.0)*	14905 *(66.3)*	4.55 *(7.33)*	2016	6	0.491 *(0.298)*	14.48 *(2.85)*	189 *(87)*	63 *(17)*	29.7 *(100.6)*
					12th(2E) Gear				
170.8 *(127.4)*	13400 *(59.6)*	4.78 *(7.69)*	2012	5	0.500 *(0.304)*	14.21 *(2.80)*	190 *(88)*	63 *(17)*	29.7 *(100.6)*
					13th(3B) Gear				
182.5 *(136.1)*	12530 *(55.7)*	5.46 *(8.79)*	2000	5	0.484 *(0.294)*	14.67 *(2.89)*	192 *(89)*	63 *(17)*	29.7 *(100.6)*
					14th(2F) Gear				
169.0 *(126.0)*	10995 *(48.9)*	5.76 *(9.27)*	2006	5	0.512 *(0.312)*	13.86 *(2.73)*	189 *(87)*	64 *(18)*	29.7 *(100.6)*
					15th(3C) Gear				
186.7 *(139.2)*	10790 *(48.0)*	6.49 *(10.44)*	2005	5	0.476 *(0.289)*	14.92 *(2.94)*	192 *(89)*	64 *(18)*	29.7 *(100.6)*
					16th(3D) Gear				
184.8 *(137.8)*	8870 *(39.5)*	7.81 *(12.57)*	1999	5	0.479 *(0.291)*	14.82 *(2.92)*	194 *(90)*	64 *(18)*	29.7 *(100.6)*
					*17th(3E) Gear				
175.9 *(131.2)*	7185 *(32.0)*	9.18 *(14.78)*	2001	5	0.501 *(0.305)*	14.16 *(2.79)*	190 *(88)*	64 *(18)*	29.7 *(100.5)*

* Front Drive disengaged

TRACTOR SOUND LEVEL WITH CAB	dB(A)
At no load in 10th (2D) gear	71.0
Bystander	--

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II
Quick Attach: None

Maximum force exerted through whole range:	14545 lbs *(64.7 kN)*
i) Opening pressure of relief valve:	NA
Sustained pressure of the open relief valve:	2815 psi *(194 bar)*
ii) Pump delivery rate at minimum pressure:	30.8 GPM *(116.6 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	26.4 GPM *(99.9 l/min)*
Delivery pressure:	2265 psi *(156 bar)*
Power:	34.9 HP *(26.0 kW)*

THREE POINT HITCH PERFORMANCE SAE Test

Observed Maximum Pressure psi. *(bar)*	2815 *(194)*
Location:	lift cylinder
Hydraulic oil temperature: °F *(°C)*	150 *(66)*
Location:	hydraulic sump
Category:	II
Quick attach:	None

SAE Static Test—System pressure 2520 psi *(175 bar)*

Hitch point distance to ground level in. *(mm)*	13.7 *(349)*	18.9 *(480)*	23.6 *(600)*	30.3 *(770)*	36.1 *(918)*	41.2 *(1046)*
Lift force on frame lb	15700	15870	16275	16750	17110	17085
" " " " " " *(kN)*	*(69.8)*	*(70.6)*	*(72.4)*	*(74.5)*	*(76.1)*	*(76.0)*

HITCH DIMENSIONS AS TESTED - NO LOAD

	OECD test		SAE test	
	inch	*mm*	inch	*mm*
A	30.1	*765*	31.3	*795*
B	15.7	*400*	15.7	*400*
C	20.7	*525*	20.7	*525*
D	19.1	*485*	19.1	*485*
E	8.3	*210*	11.6	*295*
F	12.2	*310*	12.2	*310*
G	36.4	*925*	36.4	*925*
H	2.0	*50*	2.0	*50*
I	17.7	*450*	16.9	*430*
J	24.2	*615*	24.2	*615*
K	22.9	*581*	22.9	*581*
L	48.2	*1225*	48.2	*1225*
M	24.6	*625*	24.6	*625*
N	38.1	*967*	38.1	*967*
O	10.7	*272*	13.7	*349*
P	48.2	*1225*	43.2	*1098*
Q	40.6	*1030*	41.2	*1046*
R	36.1	*918*	34.5	*877*

