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January 2004

Test 1840: AGCO LT75 Diesel

Nebraska Tractor Test Laboratory Submitted by Larsen Museum

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NEBRASKA TRACTOR TEST 1840

AGCO LT75 DIESEL

16 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—1101 rpm)					
77.27 (57.62)	2201	5.13 (19.40)	0.465 (0.283)	15.07 (2.97)	
Standard Power Take-off Speed - (1001 rpm)					
78.98 (58.89)	2000	4.80 (18.18)	0.426 (0.259)	16.44 (3.24)	
Maximum Power (2 hours)					
78.98 (58.89)	2000	4.80 (18.18)	0.426 (0.259)	16.44 (3.24)	

VARYING POWER AND FUEL CONSUMPTION

77.27 (57.62)	2201	5.13 (19.40)	0.465 (0.283)	15.07 (2.97)	Air temperature
70.45 (52.53)	2367	5.31 (20.09)	0.528 (0.321)	13.28 (2.62)	75°F (24°C)
53.58 (39.95)	2398	4.54 (17.17)	0.594 (0.361)	11.81 (2.33)	Relative humidity
36.11 (26.92)	2407	3.85 (14.58)	0.748 (0.455)	9.38 (1.85)	37%
17.74 (13.23)	2402	2.95 (11.18)	1.167 (0.710)	6.01 (1.18)	Barometer
1.15 (0.86)	2421	2.27 (8.58)	13.792 (8.389)	0.51 (0.10)	28.49" Hg (96.48 kPa)

Maximum Torque 240 lb.-ft. (326 Nm) at 1650 rpm
 Maximum Torque Rise - 30.3%
 Torque rise at 1805 rpm - 24%

TRACTOR SOUND LEVEL WITH CAB

	Front wheel drive Engaged	Disengaged dB(A)
At no load in 7th(4L.C) gear	79.5	79.5
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 18.4R34;**,16(110)
 Two 14.9R24;**,16(110)
 18.0 in (455 mm)
 5860 lb (2658 kg)
 3915 lb (1776 kg)
 9775 lb (4434 kg)

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

Dates of Test: October 18-22, 2004

Manufacturer: AGCO Corporation, Duluth Georgia 30096

FUEL, OIL and TIME: Fuel No. 2 Diesel Specific gravity converted to 60°/60° F (15°/15°C) 0.8420 Fuel weight 7.011 lbs/gal (0.840 kg/l) Oil SAE 15W40 API service classification CE/CF-4 Transmission and hydraulic lubricant AGCO Power Fluid 821 XL fluid Total time engine was operated 10.5 hours

ENGINE: Make Cummins Diesel Type four cylinder vertical with turbocharger Serial No. 21598115 Crankshaft lengthwise Rated engine speed 2200 Bore and stroke 4.094" x 5.197" (104.0 mm x 132.0 mm) Compression ratio 17.5 to 1 Displacement 274 cu in (4485 ml) Starting system 12 volt Lubrication pressure Air cleaner one paper element and one polyester felt element Oil filter one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil Fuel filter one paper element and water separator Muffler underhood Exhaust vertical Cooling medium temperature control one thermostat

ENGINE OPERATING PARAMETERS: Fuel rate: 35.4 - 39.1 lb/h (16.1 - 17.7 kg/h) High idle: 2350 - 2450 rpm Turbo boost: nominal 12.1-14.7 psi (83 - 101 kPa) as measured 12.8 psi (88 kPa)

CHASSIS: Type front wheel assist Serial No. N120003 Tread width rear 56.1" (1530 mm) to 83.9" (2144 mm) front 54.0" (1568 mm) to 78.0" (2051 mm) Wheelbase 100.5" (2553 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio with partial (2) range operator controlled powershift Nominal travel speeds mph (km/h) first 1.57 (2.52) second 1.98 (3.19) third 2.37 (3.81) fourth 3.00 (4.82) fifth 3.50 (5.64) sixth 4.44 (7.14) seventh 4.75 (7.65) eighth 6.20 (9.97) ninth 6.33 (10.18) tenth 7.83 (12.60) eleventh 9.37 (15.08) twelfth 11.30 (18.18), thirteenth 13.15 (21.17) fourteenth 16.63 (26.76), fifteenth 17.80 (28.65) sixteenth 22.50 (36.21) reverse 1.57 (2.52), 1.98 (3.19), 2.37 (3.81), 3.00, (4.82), 3.50 (5.64), 4.44 (7.14), 4.75 (7.65), 6.20 (9.97), 6.33 (10.18), 7.83 (12.60), 9.37 (15.08), 11.30 (18.18), 13.15 (21.17), 16.63 (26.76), 17.80 (28.65), 22.50 (36.21) Clutch multiple wet disc electro-hydraulically 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 1902 engine rpm or 1000 rpm at 2000 engine rpm Unladen tractor mass 9600 lb (4354 kg)

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II

Quick Attach: None

Maximum Force Exerted Through Whole Range: 7817 lbs (34.8 kN) High lift option
9189 lbs (40.9 kN)
i) Opening pressure of relief valve: NA Combined flow
with both pumps

Sustained pressure of the open relief valve: 2926 psi (202 bar) 3079 psi (212 bar)
ii) Pump delivery rate at minimum pressure and rated engine speed: 15.0 GPM (56.8 l/min) 24.9 GPM (94.3 l/min)
iii) Pump delivery rate at maximum hydraulic power: 15.1 GPM (57.2 l/min) 25.6 GPM (96.9 l/min)
Delivery pressure: 2422 psi (167 bar) 2208 psi (152 bar)
Power: 21.3 HP (15.9 kW) 33.0 HP (24.6 kW)

THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi. (bar) 2770 (191)
Location: lift cylinder
Hydraulic oil temperature: °F (°C) 152 (67)
Location: hydraulic valve
Category: II
Quick attach: none

SAE Static Test—System pressure 2490 psi (172 Bar)

Hitch point distance to ground level in. (mm)	9.9 (251)	15.0 (381)	22.0 (559)	29.0 (737)	36.0 (914)
Lift force on frame lb	15561	12897	11475	10314	9126
" " " " " (kN)	(69.2)	(57.4)	(51.0)	(45.9)	(40.6)

High lift Option

SAE Static Test—System pressure 2490 psi (172 Bar)

Hitch point distance to ground level in. (mm)	10.2 (259)	15.0 (381)	22.0 (559)	29.0 (737)	36.0 (914)
Lift force on frame lb	18747	15849	14310	12789	11421
" " " " " (kN)	(83.4)	(70.5)	(63.7)	(56.9)	(50.8)

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. This tractor did not meet the manufacturer's claim of 26.4 GPM (100 lpm) combined hydraulic flow at remote outlets. For the maximum power tests, the fuel temperature at the injection pump was maintained at 149°F (65°C).

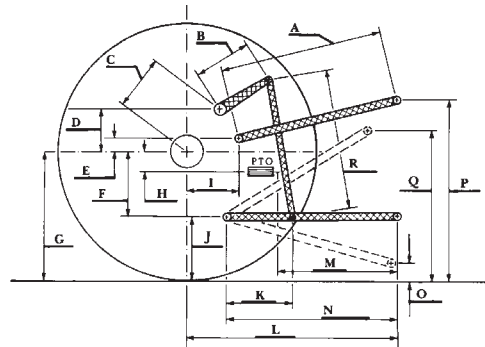
We, the undersigned, certify that this is a true and correct report of official Tractor Test No. 1840, February 4, 2005.

Leonard L. Bashford
Director

M.F. Kocher
V.I. Adamchuk
W.P. Campbell
Board of Tractor Test Engineers

SAE test OECD test

	inch	mm	inch	mm
A	24.8	629	24.8	629
B	11.6	295	11.6	295
C	13.9	353	13.9	353
D	13.0	330	13.0	330
E	7.9	200	7.9	200
F	10.2	260	10.2	260
G	30.3	770	30.3	770
H	1.4	35	1.4	35
I	16.2	413	16.2	413
J	20.1	510	20.1	510
K	24.2	615	24.2	615
L	41.2	1046	41.2	1046
M	23.5	596	23.5	596
N	37.2	946	37.2	946
O	8.0	203	8.0	203
P	40.2	1020	44.1	1120
Q	33.5	850	33.5	850
R	29.0	737	29.0	737



HITCH DIMENSIONS AS TESTED - NO LOAD



AGCO LT 75 Diesel