

# SUMMARY OF OECD TEST 2574-NEBRASKA SUMMARY 772

## MASSEY FERGUSON 6465 DIESEL

### 24 SPEED

### SISU Engine

#### 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—1084 rpm)</b>					
106.5 (79.4)	2200	6.70 (25.38)	0.448 (0.273)	15.89 (3.13)	
<b>Standard Power Take-off Speed(1000rpm)</b>					
119.9 (89.4)	2030	6.95 (26.30)	0.412 (0.251)	17.27 (3.40)	
<b>Maximum Power (1 hour)</b>					
123.5 (92.1)	2000	7.08 (26.79)	0.408 (0.248)	17.45 (3.44)	

#### VARYING POWER AND FUEL CONSUMPTION

106.5 (79.4)	2200	6.70 (25.38)	0.448 (0.273)	15.89 (3.13)	Air temperature
91.2 (68.0)	2219	5.93 (22.44)	0.480 (0.292)	15.38 (3.03)	64°F (18°C)
68.9 (51.4)	2229	5.01 (18.98)	0.518 (0.315)	13.76 (2.71)	Relative humidity
46.0 (34.3)	2241	3.93 (14.86)	0.607 (0.370)	11.72 (2.31)	26%
23.1 (17.2)	2248	2.86 (10.84)	0.883 (0.537)	8.07 (1.59)	Barometer
--	2253	1.94 (7.35)	--	--	30.3" Hg (102.6 kPa)

Maximum Torque - 412.3 lb.-ft. (559.0 Nm) at 1299 rpm  
 Maximum Torque Rise - 62.1%  
 Torque rise at 1750 engine rpm - 42%

#### 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)
<b>Maximum Power—12th(3A) Gear</b>									
94.8 (70.7)	6070 (27.0)	5.86 (9.43)	2203	4.7	0.505 (0.307)	14.11 (2.78)	181 (83)	63 (17)	29.8 (101.0)
<b>75% of Pull at Maximum Power—12th(3A) Gear</b>									
74.2 (55.3)	4565 (20.3)	6.10 (9.82)	2225	2.8	0.552 (0.336)	12.89 (2.54)	183 (84)	63 (17)	29.8 (101.0)
<b>50% of Pull at Maximum Power—12th(3A) Gear</b>									
50.0 (37.3)	3035 (13.5)	6.18 (9.94)	2230	1.9	0.662 (0.403)	10.75 (2.12)	181 (83)	64 (18)	29.9 (101.1)
<b>75% of Pull at Reduced Engine Speed—14th(3B) Gear</b>									
75.0 (55.9)	4580 (20.4)	6.14 (9.89)	1877	3.0	0.482 (0.293)	14.77 (2.91)	180 (82)	64 (18)	29.9 (101.1)
<b>50% of Pull at Reduced Engine Speed—14th(3B) Gear</b>									
49.6 (37.0)	3015 (13.4)	6.17 (9.93)	1868	2.0	0.543 (0.330)	13.10 (2.58)	178 (81)	64 (18)	29.9 (101.1)

**Location of tests:** Groupement d'Antony, Parc de Touvoie, BP 44 Antony, France 92163

**Dates of tests:** March - April, 2010

**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** BP Terrac Tractan 9 10W/40

**ENGINE:** Make Sisu Diesel **Type** six cylinder vertical with turbocharger and air to air intercooler **Serial No.** V14982 **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.252" x 4.724" (108.0 mm x 120.0 mm) **Compression ratio** 17.4 to 1 **Displacement** 402 cu in (6596 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.** U 317020 **Tread width** rear 55.9" (1420 mm) to 85.4" (2168 mm) front 56.5" (1436 mm) to 86.0" (2184 mm) **Wheelbase** 113.1" (2874 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 1.11 (1.78) second 1.33 (2.14) third 1.56 (2.51) fourth 1.88 (3.02) fifth 2.21 (3.55) sixth 2.65 (4.27) seventh 2.99 (4.81) eighth 3.60 (5.79) ninth 4.22 (6.79) tenth 5.08 (8.17) eleventh 6.07 (9.77) twelfth 6.16 (9.91) thirteenth 7.18 (11.56) fourteenth 7.30 (11.75) fifteenth 8.57 (13.79) sixteenth 10.31 (16.60) seventeenth 12.13 (19.52) eighteenth 12.99 (20.90) nineteenth 14.60 (23.49) twentieth 15.62 (25.13) twenty-first 18.33 (29.50) twenty-second 22.05 (35.49) twenty-third 24.86 (40.00) twenty-fourth 24.86 (40.00) reverse 1.11 (1.78), 1.33 (2.14), 1.56 (2.51), 1.88 (3.02), 2.21 (3.55), 2.65 (4.27), 2.99 (4.81), 3.60 (5.79), 4.22 (6.79), 5.08 (8.17), 6.07 (9.77), 6.16 (9.91), 7.18 (11.56), 7.30 (11.75), 8.57 (13.79), 10.31 (16.60), 12.13 (19.52), 12.99 (20.90), 14.60 (23.49), 15.62 (25.13), 18.33 (29.50), 22.05 (35.49), 24.86 (40.00), 24.86 (40.00)

**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)	Consumption Hp.hr/gal (kW.h/l)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
4th(1D) Gear									
47.5 (35.4)	11160 (49.7)	1.60 (2.57)	2220	15.6	0.749 (0.455)	9.51 (1.87)	180 (82)	61 (16)	29.8 (100.9)
5th(1E) Gear									
57.3 (42.7)	11040 (49.1)	1.95 (3.14)	2212	13.2	0.661 (0.402)	10.76 (2.12)	181 (83)	61 (16)	29.8 (100.9)
6th(1F) Gear									
68.3 (50.9)	10770 (47.9)	2.38 (3.83)	2211	12.0	0.577 (0.351)	12.33 (2.43)	181 (83)	61 (16)	29.8 (100.9)
7th(2A) Gear									
76.4 (57.0)	10745 (47.8)	2.67 (4.30)	2208	11.5	0.580 (0.353)	12.27 (2.42)	181 (83)	61 (16)	29.8 (100.9)
8th(2B) Gear									
88.9 (66.3)	10160 (45.2)	3.28 (5.28)	2182	10.4	0.508 (0.309)	14.01 (2.76)	181 (83)	63 (17)	29.8 (101.0)
9th(2C) Gear									
92.4 (68.9)	9465 (42.1)	3.66 (5.89)	2080	9.0	0.497 (0.302)	14.31 (2.82)	183 (84)	63 (17)	29.8 (101.0)
10th(2D) Gear									
97.0 (72.3)	8315 (37.0)	4.37 (7.03)	1998	6.2	0.482 (0.293)	14.77 (2.91)	181 (83)	63 (17)	29.8 (101.0)
11th(2E) Gear									
97.0 (72.3)	6885 (30.6)	5.28 (8.50)	2003	4.6	0.478 (0.291)	14.87 (2.93)	181 (83)	63 (17)	29.8 (101.0)
12th(3A) Gear									
102.2 (76.2)	7295 (32.4)	5.25 (8.45)	2005	6.0	0.473 (0.288)	15.05 (2.97)	183 (84)	63 (17)	29.8 (101.0)
13th(2F) Gear									
97.0 (72.3)	5700 (25.4)	6.38 (10.27)	2004	4.5	0.489 (0.297)	14.54 (2.86)	183 (84)	63 (17)	29.8 (101.0)
14th(3B) Gear									
100.0 (74.6)	5775 (25.7)	6.49 (10.44)	2004	4.6	0.490 (0.298)	14.52 (2.86)	185 (85)	64 (18)	29.8 (101.0)
15th(3C) Gear									
101.8 (75.9)	4925 (21.9)	7.75 (12.48)	1999	3.9	0.496 (0.302)	14.35 (2.83)	183 (84)	64 (18)	29.9 (101.1)
*16th(3D) Gear									
96.0 (71.6)	4090 (18.2)	8.80 (14.17)	1996	4.5	0.503 (0.306)	14.16 (2.79)	185 (85)	64 (18)	29.9 (101.1)

\*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 1976 engine rpm or 1000 rpm at 2030 engine rpm  
**Unladen tractor mass** 13645 lb (6190 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 performance figures on this report apply to tractors equipped with a Sisu engine.

**REPAIRS AND ADJUSTMENTS:** No repairs or adjustments

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD test procedures. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2574**, Nebraska Summary 772, September 19, 2011.

Roger M. Hoy  
 Director

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**TIRES, BALLAST 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 520/85R38;\*\*,14(100)  
 Two 420/85R28;\*\*,14(100)  
 19.7 in (500 mm)  
 7795 lb (3535 kg)  
 6020 lb (2730 kg)  
 13815 lb (6265 kg)

TRACTOR SOUND LEVEL WITH CAB	Front wheel drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 10th (2D) gear	68.8	68.2
Bystander		--

### HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range:	9105 lbs (40.5 kN)
i) Sustained pressure of the open relief valve:	2830 psi (195 bar)
ii) Pump delivery rate at minimum pressure:	29.9 GPM (113.1 l/min)
iii) Pump delivery rate at maximum	
hydraulic power:	27.3 GPM (103.3 l/min)
Delivery pressure:	2235 psi (154 bar)
Power:	35.6 HP (26.6 kW)

### HITCH DIMENSIONS AS TESTED—NO LOAD

	OECD test		SAE test	
	inch	mm	inch	mm
A	28.9	735	28.1	713
B	11.6	295	11.6	295
C	13.9	354	13.9	354
D	13.0	330	13.0	330
E	7.9	200	11.4	290
F	10.2	260	10.2	260
G	34.4	875	34.4	875
H	3.9	98	3.9	98
I	15.3	389	15.3	389
J	24.2	615	24.2	615
K	24.9	633	24.9	633
L	41.7	1060	41.7	1060
M	23.0	585	23.0	585
N	37.8	960	37.8	960
O	8.0	204	10.2	258
P	48.2	1225	43.2	1098
Q	37.0	941	37.5	952
R	29.9	760	28.7	730

### THREE POINT HITCH PERFORMANCE

Observed maximum pressure psi. (bar)	2830 (195)
Location:	lift cylinder
Hydraulic oil temperature: °F (°C)	157 (69)
Location:	hydraulic sump
Category:	II
Quick attach:	None

#### SAE Static Test—System pressure 2545 psi (176 bar)

Hitch point distance to ground level in. (mm)	10.2 (258)	16.3 (414)	22.0 (560)	28.3 (718)	33.9 (861)	37.5 (952)
Lift force on frame lb	11825	11555	11330	11040	10455	9915
" " " " " " (kN)	(52.6)	(51.4)	(50.4)	(49.1)	(46.5)	(44.1)

