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January 1998

## Nebraska Summary 301: Massey Ferguson 6255 Diesel 32-Speed

Nebraska Tractor Test Lab

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# SUMMARY OF OECD TESTS 1852 & 1865-NEBRASKA SUMMARY 301

## MASSEY FERGUSON 6255 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
<b>MAXIMUM POWER AND FUEL CONSUMPTION</b>					
<b>Rated Engine Speed (PTO speed 1100 rpm)</b>					
85.3 (63.6)	2200	5.68 (21.50)	0.473 (0.288)	15.03 (2.96)	
<b>Standard Power Take-off Speed(999 rpm)</b>					
83.3 (62.1)	1997	5.40 (20.46)	0.461 (0.281)	15.40 (3.03)	

#### VARYING POWER AND FUEL CONSUMPTION

85.3 (63.6)	2200	5.68 (21.50)	0.473 (0.288)	15.03 (2.96)	Air temperature
73.9 (55.1)	2247	5.49 (20.78)	0.528 (0.321)	13.45 (2.65)	70°F (21°C)
55.9 (41.7)	2276	4.59 (17.37)	0.583 (0.354)	12.18 (2.40)	Relative humidity
37.1 (27.7)	2298	3.65 (13.81)	0.697 (0.424)	10.18 (2.01)	40%
18.4 (13.7)	2321	2.42 (9.16)	0.933 (0.567)	7.59 (1.50)	Barometer
--	2325	1.76 (6.68)	--	--	30.2" Hg (102.3 kPa)

Maximum Torque - 252.8 lb.-ft. (342.7 Nm) at 1379 rpm

Maximum Torque Rise - 24.3%

Torque rise at 1760 engine rpm - 15%

#### 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 19th(ILC) Gear</b>									
74.2 (55.3)	4725 (21.0)	5.89 (9.47)	2016	5	0.519 (0.316)	13.69 (2.70)	192 (89)	75 (24)	29.6 (100.4)
<b>75% of Pull at Maximum Power 19th(ILC) Gear</b>									
52.4 (39.1)	2940 (13.1)	6.69 (10.76)	2247	3	0.666 (0.405)	10.66 (2.10)	192 (89)	79 (26)	29.6 (100.2)
<b>50% of Pull at Maximum Power 19th(ILC) Gear</b>									
35.7 (26.6)	1975 (8.8)	6.77 (10.90)	2264	2	0.851 (0.518)	8.34 (1.64)	191 (88)	79 (26)	29.6 (100.2)
<b>75% of Pull at Reduced Engine Speed 20th(1LD) Gear</b>									
52.6 (39.2)	2955 (13.2)	6.68 (10.76)	1922	3	0.583 (0.355)	12.18 (2.40)	191 (88)	79 (26)	29.6 (100.2)
<b>50% of Pull at Reduced Engine Speed 20th(1LD) Gear</b>									
35.3 (26.3)	1965 (8.7)	6.73 (10.83)	1913	2	0.717 (0.436)	9.90 (1.95)	189 (87)	79 (26)	29.6 (100.2)

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

**Dates of Test:** December 1998 - July 1999

**Manufacturer:** AGCO S.A. Z.A.-No.2 BP 60307, Avenue Blaise Pascal, 60026 Beauvais, France

**FUEL and OIL:** Fuel No. 2 Diesel **Specific gravity converted to 60°/60° F (15°/15°C)** 0.853  
**Fuel weight** 7.10 lbs/gal (0.851 kg/l) **Oil SAE** 10W30 **API service classification** CD/CE  
**Transmission and hydraulic lubricant** BP Terrac Extra 10W/30 **Front axle lubricant** API GL5 - SAE 85W140

**ENGINE: Make** Perkins Diesel **Type** four cylinder vertical with turbocharger **Serial No.** U765993B **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 3.937" x 5.00" (100.0 mm x 127.0 mm) **Compression ratio** 17.3 to 1  
**Displacement** 243 cu in (3990 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** 2WD and FWA **Serial No.** F189054 **Tread width** rear 60.6" (1538 mm) to 84.1" (2136 mm) front -2WD - 54.3" (1380 mm) to 91.7" (2330 mm), FWA - 61.7" (1566 mm) to 80.9" (2054 mm) **Wheelbase** 100.5" (2553 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with partial (4) range operator controlled powershift **Nominal travel speeds mph (km/h)** first 1.26 (2.03) second 1.48 (2.38) third 1.75 (2.81) fourth 2.04 (3.29) fifth 2.15 (3.46) sixth 2.51 (4.04) seventh 2.83 (4.55) eighth 2.96 (4.77) ninth 3.31 (5.32) tenth 3.47 (5.59) eleventh 3.82 (6.15) twelfth 3.90 (6.28) thirteenth 4.47 (7.20) fourteenth 4.57 (7.35) fifteenth 4.73 (7.62) sixteenth 5.28 (8.50) seventeenth 5.54 (8.92) eighteenth 6.18 (9.95) nineteenth 6.54 (10.53) twentieth 7.66 (12.32) twenty-first 8.05 (12.95) twenty-second 9.42 (15.16) twenty-third 10.59 (17.04) twenty-fourth 11.12 (17.89) twenty-fifth 12.40 (19.95) twenty-sixth 13.01 (20.94) twenty-seventh 14.33 (23.06) twenty-eighth 14.63 (23.55) twenty-ninth 16.77 (26.99) thirtieth 17.13 (27.56) thirty-first 19.80 (31.86) thirty-second 23.17 (37.29) reverse 1.19 (1.91), 1.39 (2.24), 1.64 (2.64), 1.92 (3.09), 2.02 (3.25), 2.37 (3.81), 2.66 (4.28), 2.79 (4.49), 3.11 (5.01), 3.27 (5.26), 3.60 (5.79), 3.67 (5.91), 4.21 (6.78), 4.30 (6.92), 4.46 (7.17), 4.97 (8.00), 5.21 (8.39), 5.82 (9.36), 6.15 (9.90), 7.20 (11.59), 7.57 (12.18), 8.85 (14.25), 9.96 (16.03),

## 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)	Temp.°F(°C) cool- ing med	Barom. inch Hg (kPa)		
8th(2TC)Gear									
63.2 (47.1)	8970 (39.9)	2.64 (4.25)	2220	15	0.639 (0.389)	11.12 (2.19)	75 (24)	29.6 (100.4)	
9th(3TB)Gear									
68.4 (51.0)	8455 (37.6)	3.03 (4.88)	2198	11	0.593 (0.361)	11.98 (2.36)	185 (85)	75 (24)	29.6 (100.4)
10th(2TD)Gear									
68.4 (51.0)	8060 (35.9)	3.18 (5.12)	2191	11	0.590 (0.359)	12.03 (2.37)	192 (89)	75 (24)	29.6 (100.4)
11th(4TA)Gear									
69.3 (51.7)	7605 (33.8)	3.42 (5.50)	2103	10	0.566 (0.345)	12.54 (2.47)	189 (87)	75 (24)	29.6 (100.4)
12th(3TC)Gear									
71.6 (53.4)	7720 (34.3)	3.48 (5.59)	2089	9	0.548 (0.333)	12.96 (2.55)	191 (88)	75 (24)	29.6 (100.4)
13th(4TB)Gear									
70.3 (52.4)	6520 (29.0)	4.04 (6.50)	2080	8	0.555 (0.338)	12.79 (2.52)	187 (86)	75 (24)	29.6 (100.4)
14th(3TD)Gear									
71.6 (53.4)	6505 (28.9)	4.13 (6.64)	2076	8	0.547 (0.333)	12.98 (2.56)	189 (87)	75 (24)	29.6 (100.4)
15th(1LA)Gear									
71.6 (53.4)	6345 (28.2)	4.23 (6.81)	2052	7	0.547 (0.332)	13.00 (2.56)	191 (88)	75 (24)	29.6 (100.4)
16th(4TC)Gear									
71.9 (53.6)	5760 (25.6)	4.69 (7.54)	2014	7	0.534 (0.325)	13.30 (2.62)	191 (88)	75 (24)	29.6 (100.4)
17th(1LB)Gear									
71.5 (53.3)	5370 (23.9)	4.99 (8.03)	2041	6	0.547 (0.333)	12.98 (2.56)	191 (88)	75 (24)	29.6 (100.4)
18th(4TD)Gear									
72.4 (54.0)	4910 (21.9)	5.53 (8.90)	2007	5	0.529 (0.322)	13.43 (2.65)	192 (89)	75 (24)	29.6 (100.4)
19th(1LC)Gear									
74.2 (55.3)	4720 (21.0)	5.89 (9.47)	2016	5	0.519 (0.316)	13.68 (2.70)	192 (89)	75 (24)	29.6 (100.4)
20th(1LD)Gear									
73.9 (55.1)	4025 (17.9)	6.89 (11.08)	1998	4	0.512 (0.312)	13.86 (2.73)	192 (88)	75 (24)	29.6 (100.4)
21st(2LA)Gear									
69.9 (52.1)	3610 (16.1)	7.26 (11.69)	1999	4	0.544 (0.331)	13.05 (2.57)	192 (89)	75 (24)	29.6 (100.4)
22nd(2LB)Gear									
67.2 (50.1)	3050 (13.6)	8.26 (13.30)	1985	4	0.562 (0.342)	12.64 (2.49)	194 (90)	75 (24)	29.6 (100.4)

10.46 (16.83), 11.66 (18.76), 12.24 (19.69), 13.48 (21.69), 13.76 (22.15), 15.78 (25.39), 16.11 (25.92), 18.62 (29.97), 21.80 (35.08) **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 2000 engine rpm **Unladen tractor mass** 2WD- 9250 lb (4195 kg), FWA- 9820 lb (4455 kg)

**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 claims of 12987 lbs (5850 kg) lift at link ends nor lift of 7000 lb (3182 kg) at 24" with 2 5/8" (66.7 mm) cylinders. 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 Reports No. **1852 & 1865**, Nebraska Summary 301, June 21, 2000.

Brent T. Sampson  
Test Engineer

L.L. Bashford  
M.F. Kocher  
R.D. Grisso Jr.  
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	2WD dB(A)	Front Wheel Drive Engaged dB(A)
At no load in 15th (1LA) gear	74.0	75.0
Bystander	--	--

## DRAWBAR PERFORMANCE

(Unballasted - 2WD)

### 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)	Consumption Hp.hr/gal (kW.h/l)	Temp.°F cool- ing med	Temp.°C Air dry bulb	Barom. inch Hg (kPa)
<b>Maximum Power 15th(1LA) Gear</b>									
74.0 (55.2)	6675 (29.7)	4.16 (6.70)	2094	11	0.540 (0.329)	13.15 (2.59)	187 (86)	79 (26)	29.9 (101.4)
<b>75% of Pull at Maximum Power 15th(1LA) Gear</b>									
56.3 (42.0)	4565 (20.3)	4.62 (7.44)	2246	7	0.613 (0.373)	11.57 (2.28)	187 (86)	81 (27)	29.9 (101.2)
<b>50% of Pull at Maximum Power 15th(1LA) Gear</b>									
38.2 (28.5)	3005 (13.4)	4.77 (7.67)	2273	6	0.735 (0.447)	9.66 (1.90)	185 (85)	81 (27)	29.9 (101.2)
<b>75% of Pull at Reduced Engine Speed 17th(1LB) Gear</b>									
56.3 (42.0)	4565 (20.3)	4.62 (7.43)	1909	7	0.526 (0.320)	13.50 (2.66)	187 (86)	81 (27)	29.9 (101.2)
<b>50% of Pull at Reduced Engine Speed 17th(1LB) Gear</b>									
38.2 (28.5)	2995 (13.3)	4.78 (7.70)	1947	6	0.603 (0.367)	11.78 (2.32)	187 (86)	81 (27)	29.9 (101.2)
<b>MAXIMUM POWER IN SELECTED GEARS</b>									
<b>12th(3TC) Gear</b>									
66.6 (49.7)	7215 (32.1)	3.45 (5.56)	2215	15	0.601 (0.366)	11.81 (2.33)	190 (88)	79 (26)	29.9 (101.4)
<b>13th(4TB) Gear</b>									
70.9 (52.9)	6855 (30.5)	3.88 (6.25)	2102	13	0.560 (0.340)	12.69 (2.50)	190 (88)	79 (26)	29.9 (101.4)
<b>14th(3TD) Gear</b>									
72.4 (54.0)	6890 (30.6)	3.94 (6.34)	2076	12	0.546 (0.332)	12.99 (2.56)	187 (86)	79 (26)	29.9 (101.4)
<b>15th(1LA) Gear</b>									
74.0 (55.2)	6675 (29.7)	4.16 (6.70)	2094	11	0.540 (0.329)	13.15 (2.59)	187 (86)	79 (26)	29.9 (101.4)
<b>16th(4TC) Gear</b>									
73.5 (54.8)	5850 (26.0)	4.71 (7.58)	2092	10	0.547 (0.333)	13.01 (2.56)	189 (87)	79 (26)	29.9 (101.4)
<b>17th(1LB) Gear</b>									
73.8 (55.0)	5645 (25.1)	4.90 (7.89)	2073	9	0.536 (0.326)	13.25 (2.61)	187 (86)	79 (26)	29.9 (101.4)
<b>18th(4TD) Gear</b>									
73.4 (54.7)	5030 (22.4)	5.47 (8.80)	2054	8	0.538 (0.327)	13.20 (2.60)	187 (86)	79 (26)	29.9 (101.4)
<b>19th(1LC) Gear</b>									
74.4 (55.5)	4895 (21.8)	5.70 (9.18)	2021	8	0.522 (0.318)	13.60 (2.68)	189 (87)	79 (26)	29.9 (101.4)
<b>20th(1LD) Gear</b>									
74.0 (55.2)	4180 (18.6)	6.64 (10.68)	1990	7	0.522 (0.318)	13.60 (2.68)	189 (87)	79 (26)	29.9 (101.4)
<b>21st(2LA) Gear</b>									
73.1 (54.5)	3895 (17.3)	7.04 (11.32)	1998	7	0.534 (0.325)	13.30 (2.62)	190 (88)	79 (26)	29.9 (101.4)
<b>22nd(2LB) Gear</b>									
73.0 (54.4)	3300 (14.7)	8.30 (13.35)	1996	5	0.530 (0.322)	13.40 (2.64)	190 (88)	79 (26)	29.9 (101.4)

### Tested Without Ballast

#### 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

#### Front Wheel Assist

Two 16.9R38; \*\*,15(100)

Two 13.6R28; \*\*,16(110)

20.5 in (520 mm)

6050 lb (2745 kg)

3935 lb (1785 kg)

9985 lb (4530 kg)

#### 2WD

Two 16.9R38; \*\*,15(100)

Two 10.00-16; 8; 36(250)

31.5 in (800 mm)

6015 lb (2730 kg)

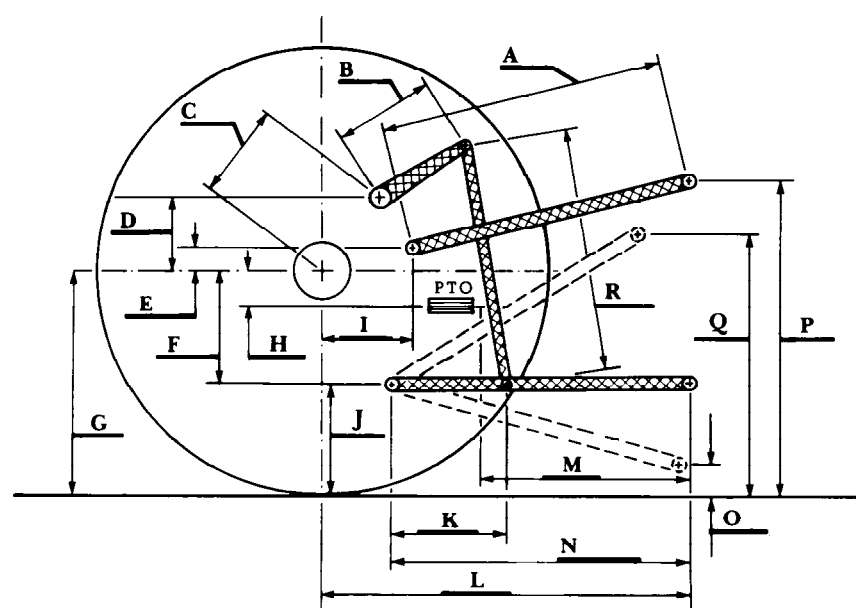
3395 lb (1540 kg)

9415 lb (4270 kg)

### THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II	lift cylinder diameter	
Quick Attach: None	66.7 mm	75 mm
Maximum Force Exerted		
Through Whole Range:	6655 lbs (29.6 kN)	8475 lbs (37.7 kN) (at the frame)
	8160 lbs (36.3 kN)	10385 lbs (46.2 kN) (at the hitch points)

	open center system	closed center system
i) Opening pressure of relief valve:	NA	NA
Sustained pressure of the open relief valve:	2845 psi (196 bar)	2845 psi (196 bar)
ii) Pump delivery rate at minimum pressure:	15.6 GPM (59.0 l/min)	25.3 GPM (95.7 l/min)
iii) Pump delivery rate at maximum		
hydraulic power:	14.1 GPM (53.4 l/min)	25.0 GPM (94.5 l/min)
Delivery pressure:	2640 psi (182 bar)	2305 psi (159 bar)
Power:	21.7 HP (16.2 kW)	33.6 HP (25.0 kW)



HITCH DIMENSIONS AS TESTED NO LOAD

	inch	mm
A	26.4	670
B	11.6	295
C	13.9	354
D	13.0	330
E	7.9	200
F	11.0	280
G	31.3	795
H	1.7	43
I	15.3	389
J	20.3	515
K	21.4	543
L	43.5	1104
M	24.8	629
N	37.1	943
O	7.3	186
P	44.3	1125
Q	33.7	855
R	28.1	715