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January 1999

## Nebraska Summary 317: Massey Ferguson 263 Diesel 8-Speed

Nebraska Tractor Test Lab

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# SUMMARY OF OECD TEST 1850-NEBRASKA SUMMARY 317

## MASSEY FERGUSON 263 DIESEL

### 8 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 679 rpm)					
53.0 (39.5)	2250	3.58 (13.56)	0.472 (0.287)	14.79 (2.91)	
Standard Power Take-off Speed(540 rpm)					
49.2 (36.7)	1790	2.99 (11.31)	0.424 (0.258)	16.47 (3.25)	
VARYING POWER AND FUEL CONSUMPTION					
53.0 (39.5)	2250	3.58 (13.56)	0.472 (0.287)	14.79 (2.91)	Air temperature
45.7 (34.1)	2292	3.26 (12.34)	0.498 (0.303)	14.01 (2.76)	73°F(23°C)
34.7 (25.9)	2319	2.72 (10.30)	0.546 (0.332)	12.77 (2.52)	Relative humidity
23.3 (17.4)	2341	2.14 (8.12)	0.641 (0.390)	10.89 (2.15)	44%
11.9 (8.9)	2365	1.55 (5.86)	0.911 (0.554)	7.66 (1.51)	Barometer
--	2374	0.99 (3.75)	--	--	29.9" Hg(101.3 kPa)
Maximum Torque - 161.8 lb.-ft.(219.4 Nm) at 1321 rpm					
Maximum Torque Rise -30.8%					
Torque rise at 1790 engine rpm - 16%					

#### 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 5th(1H) Gear									
42.4 (31.6)	2795 (12.4)	5.69 (9.16)	2246	7.4	0.583 (0.354)	11.99 (2.36)	169 (76)	63 (17)	30.1 (101.8)
75% of Pull at Maximum Power 5th(1H) Gear									
33.0 (24.6)	2080 (9.3)	5.95 (9.58)	2299	5.4	0.641 (0.390)	10.89 (2.14)	171 (77)	61 (16)	30.1 (101.8)
50% of Pull at Maximum Power 5th(1H) Gear									
22.9 (17.1)	1400 (6.2)	6.13 (9.86)	2325	3.7	0.744 (0.452)	9.39 (1.85)	171 (77)	61 (16)	30.1 (101.8)
75% of Pull at Reduced Engine Speed 6th(2H) Gear									
33.0 (24.6)	2080 (9.3)	5.95 (9.58)	1532	5.3	0.500 (0.304)	13.96 (2.75)	169 (76)	64 (18)	30.1 (101.8)
50% of Pull at Reduced Engine Speed 6th(2H) Gear									
22.8 (17.0)	1400 (6.2)	6.11 (9.82)	1543	3.7	0.551 (0.335)	12.69 (2.50)	169 (76)	66 (19)	30.1 (101.8)

**Location of Test:** Silsoe Research Institute Wrest Park, Silsoe, Bedford, England MK45 4HS

**Dates of Test:** May - June , 1999

**Manufacturer:** AGCO LTD, P.O. Box 62, Banner lane, Coventry, West Midlands, England CV4 9GF

**FUEL and OIL:** Fuel No. 2 Diesel **Specific gravity converted to 60°/60° F (15°/15°C)** 0.839 **Fuel weight** 6.98 lbs/gal (0.837 kg/l) **Oil SAE** 15W30 **API service classification** CD **Transmission and hydraulic lubricant** SAE 15W-30 **Front axle lubricant** SAE 15W30

**ENGINE:** Make Perkins Diesel **Type** three cylinder vertical with turbocharger **Serial No.** U320214 **Crankshaft** lengthwise **Rated engine speed** 2250 **Bore and stroke** 3.74" x 5.00"(95.0 mm x 127.0 mm) **Compression ratio** 17.3 to 1 **Displacement** 165 cu in (2701 ml) **Starting system** 12volt **Lubrication** pressure **Air cleaner** two paper elements **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil **Fuel filter** one paper element **Muffler** vertical **Cooling medium temperature control** thermostat

**CHASSIS:** **Type** front wheel assist **Serial No.** F35045 **Treadwidth** rear 56.3"(1430mm) to 83.4"(2130 mm) front 44.0"(1118mm) to 64.1"(1629mm) **Wheelbase** 76.0"(1930 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 1.54 (2.48) second 2.31 (3.72) third 3.35 (5.39) fourth 4.75 (7.65) fifth 6.16 (9.91) sixth 9.24 (14.87) seventh 13.40 (21.56) eighth 19.02 (30.61) reverse 1.81(2.92), 2.72(4.38), 3.94(6.34), 5.60 (9.01), 7.25 (11.67), 10.87 (17.50), 15.77 (25.38), 22.38 (36.03) **Clutch** dual dry disc operated by foot pedal **Brakes** multiple wet disc operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1789 engine rpm **Unladen tractor mass** 5110 lb (2318 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)	Consumption Hp.hr/gal (kW.h/l)	Temp.°F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
3rd(3L) Gear									
34.6 (25.8)	4520 (20.1)	2.87 (4.62)	2281	15.0	0.662 (0.402)	10.56 (2.08)	169 (76)	61 (16)	30.1 (101.8)
4th(4L) Gear									
40.8 (30.4)	3785 (15.9)	4.26 (6.86)	2253	10.4	0.607 (0.369)	11.52 (2.27)	171 (77)	61 (16)	30.1 (101.8)
5th(1H) Gear									
42.4 (31.6)	2795 (12.4)	5.69 (9.16)	2246	7.4	0.583 (0.354)	11.99 (2.36)	169 (76)	63 (17)	30.1 (101.8)
6th(2H) Gear									
42.2 (31.5)	1795 (8.0)	8.82 (14.19)	2251	4.6	0.585 (0.356)	11.92 (2.35)	171 (77)	61 (16)	30.1 (101.8)

**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 manufacture's claim of 4046 lbs (1835 kg) lift at 3 point hitch link ends. The performance figures on this summary were taken from a test conducted under the OECD Code II test code procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **1850**, Nebraska Summary 317, September 18, 2000.

Brent T. Sampson  
Test Engineer

## DRAWBAR PERFORMANCE

### (Unballasted - Front Drive Disengaged) 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(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Maximum Power 5th(1H) Gear									
40.9 (30.5)	2875 (12.8)	5.33 (8.57)	2254	13.9	0.601 (0.366)	11.62 (2.29)	171 (77)	68 (20)	30.1 (101.8)
75% of Pull at Maximum Power 5th(1H) Gear									
32.9 (24.5)	2160 (9.6)	5.70 (9.18)	2300	9.6	0.648 (0.394)	10.79 (2.13)	171 (77)	68 (20)	30.1 (101.8)
50% of Pull at Maximum Power 5th(1H) Gear									
23.1 (17.2)	1445 (6.4)	5.98 (9.62)	2328	6.4	0.737 (0.449)	9.47 (1.87)	167 (75)	68 (20)	30.1 (101.8)
75% of Pull at Reduced Engine Speed 6th(2H) Gear									
32.7 (24.4)	2150 (9.6)	5.71 (9.19)	1535	9.7	0.510 (0.310)	13.71 (2.70)	171 (77)	68 (20)	30.1 (101.8)
50% of Pull at Reduced Engine Speed 6th(2H) Gear									
23.1 (17.2)	1445 (6.4)	6.00 (9.65)	1558	6.5	0.535 (0.325)	13.06 (2.57)	169 (76)	68 (20)	30.1 (101.8)

### MAXIMUM POWER IN SELECTED GEARS

4th(4L) Gear									
33.3 (24.8)	3055 (13.6)	4.08 (6.57)	2286	15.0	0.667 (0.406)	10.47 (2.06)	169 (76)	66 (19)	30.1 (101.8)
5th(1H) Gear									
40.9 (30.5)	2875 (12.8)	5.33 (8.57)	2254	13.9	0.604 (0.366)	11.62 (2.29)	171 (77)	68 (20)	30.1 (101.8)
6th(2H) Gear									
42.1 (31.4)	1855 (8.2)	8.52 (13.71)	2252	8.2	0.587 (0.357)	11.91 (2.35)	172 (78)	66 (19)	30.1 (101.8)

TRACTOR SOUND LEVEL WITHOUT CAB	Front Wheel Drive	
	Disengaged dB(A)	Engaged dB(A)
Maximum Sound level in 4th(4L) gear	92.0	92.0
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 14.9-28; 6; 11(76)  
Two 300/70R20; \*\*, 12(83)  
18.5 in (470 mm)  
3190 lb (1447 kg)  
2085 lb (946 kg)  
5275 lb (2393 kg)

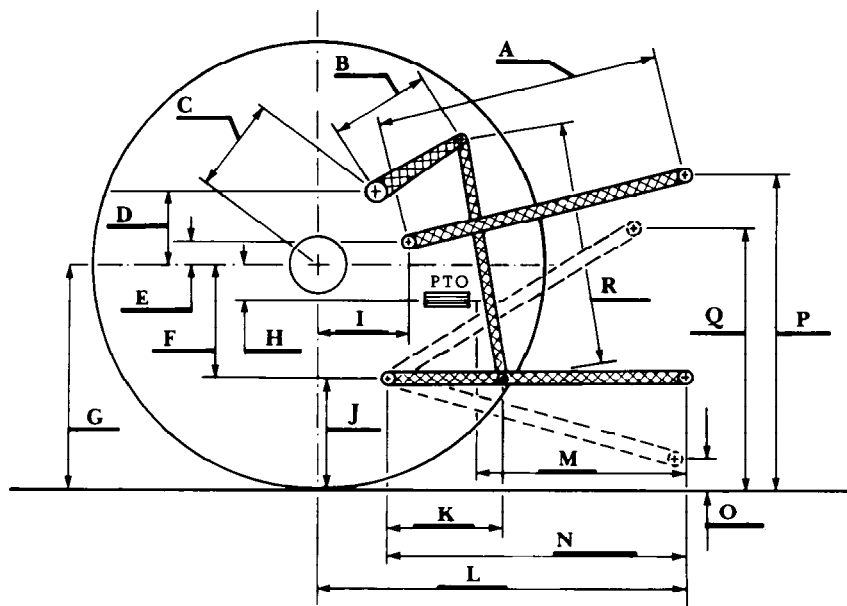
### THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II

Quick Attach: None

Maximum Force Exerted Through Whole Range: 2765 lbs (12.3 kN) (at the frame)  
3530 lbs (15.7 kN) (at the hitch points)

- i) Opening pressure of relief valve: NA
- Sustained pressure of the open relief valve: 2685 psi (185 bar)
- ii) Pump delivery rate at minimum pressure: 11.3 GPM (42.9 l/min)
- iii) Pump delivery rate at maximum hydraulic power: 10.7 GPM (40.4 l/min)
- Delivery pressure: 2495 psi (172 bar)
- Power: 15.5 HP (11.58 kW)



HITCH DIMENSIONS AS TESTED NO LOAD

	inch	mm
A	27.2	690
B	10.5	267
C	12.0	304
D	9.2	233
E	8.1	205
F	8.3	212
G	25.2	640
H	5.5	140
I	7.3	186
J	16.9	428
K	16.9	428
L	33.4	848
M	20.3	515
N	34.6	880
O	7.9	200
P	40.9	1038
Q	33.5	850
R	24.1	612