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1997

Nebraska Summary: S200 Massey Ferguson 8160

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SUMMARY OF OECD TESTS 1724 & 1725—NEBRASKA SUMMARY 200
MASSEY FERGUSON 8160 DYNASHIFT 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
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed (PTO speed–1060 rpm)					
180.2 *(134.4)*	2215	11.50 *(43.52)*	0.455 *(0.277)*	15.66 *(3.09)*	
Standard Power Take-off speed (1000 rpm)					
181.1 *(135.1)*	2092	11.07 *(41.89)*	0.436 *(0.265)*	16.36 *(3.22)*	
Maximum Power(2 hours)					
181.1 *(135.1)*	2092	11.07 *(41.89)*	0.436 *(0.265)*	16.36 *(3.22)*	
VARYING POWER AND FUEL CONSUMPTION					
180.2 *(134.4)*	2215	11.50 *(43.52)*	0.455 *(0.277)*	15.66 *(3.09)*	Air temperature
155.9 *(116.3)*	2249	10.28 *(38.92)*	0.470 *(0.286)*	15.16 *(2.99)*	73°F *(23°C)*
118.7 *(88.5)*	2284	8.39 *(31.75)*	0.504 *(0.306)*	14.14 *(2.79)*	Relative humidity
80.4 *(60.0)*	2325	6.58 *(24.90)*	0.583 *(0.355)*	12.21 *(2.41)*	50%
40.6 *(30.3)*	2358	4.90 *(18.56)*	0.862 *(0.524)*	8.27 *(1.63)*	Barometer
-- --	2408	3.13 *(11.84)*	-- --	-- --	29.7"Hg *(100.6 kPa)*

Maximum Torque 558 lb.-ft. *(756.8 Nm)* at 1379 rpm
Maximum Torque Rise 30.1%
Torque rise at 1760 engine rpm – 21%

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)*	Hp.hr/gal *(kW.h/l)*	Temp.°F (°C) cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power—12th (3TC) Gear									
149.5 *(111.5)*	13150 *(58.5)*	4.26 *(6.86)*	2160	7	0.534 *(0.325)*	13.33 *(2.63)*	187 *(86)*	70 *(21)*	29.8 *(101.0)*
75% of Pull at Maximum Power—12th (3TC) Gear									
113.7 *(84.8)*	9260 *(41.2)*	4.60 *(7.41)*	2256	4	0.585 *(0.356)*	12.17 *(2.40)*	185 *(85)*	73 *(23)*	29.9 *(101.2)*
50% of Pull at Maximum Power—12th (3TC) Gear									
78.3 *(58.4)*	6160 *(27.4)*	4.77 *(7.68)*	2298	2	0.659 *(0.401)*	10.80 *(2.13)*	185 *(85)*	73 *(23)*	29.9 *(101.2)*
75% of Pull at Reduced Engine Speed—13th(1LA) Gear									
113.0 *(84.3)*	9330 *(41.5)*	4.54 *(7.31)*	2023	4	0.519 *(0.316)*	13.71 *(2.70)*	187 *(86)*	73 *(23)*	29.9 *(101.2)*
50% of Pull at Reduced Engine Speed—13th(1LA) Gear									
78.4 *(58.5)*	6225 *(27.7)*	4.72 *(7.60)*	2070	3	0.577 *(0.351)*	12.33 *(2.43)*	183 *(84)*	73 *(23)*	29.9 *(101.2)*

Location of Test: Groupement D'Antony. Parc de tourvoie. BP 121 92185 Antony, France.

Dates of Test: May - September, 1997

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

FUEL AND OIL: Fuel No. 2 Diesel **Cetane No.** NA **Specific gravity converted to 60°/60° F *(15°/15°C)*** 0.855 **Fuel weight** 7.13 lbs/gal *(0.853 kg/l)* **Oil SAE** 10W-30 **Oil consumption for 10 hours** NA **Transmission and hydraulic lubricant** B.P. Terrac Extra SAE 10W-30 API GL-4 **Front axle lubricant** B.P. Terrac Trans SAE 85W/90 API GL-5

ENGINE: Make Valmet Diesel **Type** six cylinder vertical with turbocharger **Serial No.** F1549 **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.251" × 5.276" *(108 mm × 134 mm)* **Compression ratio** 16.5 to 1 **Displacement** 449 cu in *(7365 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements and aspirator **Oil filter** two full flow cartridges **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for transmission and hydraulic fluid **Fuel filter** two paper elements **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type 2WD and FWA **Serial No.** E 092 016 **Tread width** rear 72.9" *(1851 mm)* to 82.9" *(2105 mm)* front 2WD - 60.7" *(1543 mm)* to 91.9" *(2333 mm)* FWA - 66.4" *(1687 mm)* to 85.5" *(2172 mm)* **Wheel base** 115.7"*(2940 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 1.54 *(2.48)* second 1.80 *(2.90)* third 2.13 *(3.43)* fourth 2.34 *(3.76)* fifth 2.49 *(4.01)* sixth 2.74 *(4.41)* seventh 3.23 *(5.20)* eighth 3.34 *(5.38)* ninth 3.78 *(6.09)* tenth 3.91 *(6.29)* eleventh 4.55 *(7.32)* twelfth 4.62 *(7.43)* thirteenth 5.08 *(8.17)* fourteenth 5.33 *(8.57)* fifteenth 5.41 *(8.69)* sixteenth 5.95 *(9.56)* seventeenth 6.29 *(10.11)* eighteenth 7.02 *(11.29)* nineteenth 7.36 *(11.83)* twentieth 7.70 *(12.40)* twenty-first 8.21 *(13.21)* twenty-second 9.02 *(14.51)* twenty-third 10.64 *(17.13)* twenty-fourth 11.01 *(17.72)* twenty-fifth 12.47 *(20.05)* twenty-sixth 12.89 *(20.73)* twenty-seventh 14.99 *(24.11)* twenty-eighth 15.21 *(24.47)* twenty-ninth 17.54 *(28.22)* thirthieth 17.80 *(28.64)* thirty-first 20.70 *(33.31)* thirty-second 24.22 *(38.98)* reverse 1.42 *(2.28)*, 1.66 *(2.67)*, 1.96 *(3.15)*, 2.16 *(3.47)*, 2.29 *(3.69)*, 2.52 *(4.06)*, 2.98 *(4.79)*, 3.08 *(4.95)*, 3.49 *(5.60)*, 3.60 *(5.79)*, 4.19 *(6.74)*, 4.25 *(6.84)*, 4.67 *(7.52)*, 4.90 *(7.89)*, 4.98 *(8.00)*, 5.47 *(8.80)*, 5.79 *(9.31)*, 6.46 *(10.39)*, 6.77 *(10.90)*, 7.10 *(11.41)*, 7.56

DRAWBAR PERFORMANCE (Unballasted—2WD)
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)*
				12th(3TC) Gear					
149.5 *(111.5)*	13150 *(58.5)*	4.26 *(6.86)*	2160	7	0.534 *(0.325)*	13.23 *(2.63)*	187 *(86)*	70 *(21)*	29.8 *(101.0)*
				13th(1LA) Gear					
153.9 *(114.8)*	12860 *(57.2)*	4.49 *(7.23)*	2061	7	0.500 *(0.304)*	14.23 *(2.80)*	189 *(87)*	70 *(21)*	29.8 *(101.0)*
				14th(4TB) Gear					
148.3 *(110.6)*	11530 *(51.3)*	4.82 *(7.76)*	2079	5	0.525 *(0.319)*	13.55 *(2.67)*	190 *(88)*	70 *(21)*	29.8 *(101.0)*
				15th(3TD) Gear					
151.1 *(112.7)*	11575 *(51.5)*	4.90 *(7.88)*	2075	5	0.512 *(0.311)*	13.91 *(2.74)*	189 *(87)*	70 *(21)*	29.8 *(101.0)*
				16th(1LB) Gear					
154.9 *(115.5)*	10835 *(48.2)*	5.36 *(8.62)*	2058	4	0.496 *(0.302)*	14.35 *(2.83)*	185 *(85)*	70 *(21)*	29.8 *(101.0)*
				17th(4TC) Gear					
149.9 *(111.8)*	10050 *(44.7)*	5.59 *(9.00)*	2016	4	0.503 *(0.306)*	14.16 *(2.79)*	190 *(88)*	70 *(21)*	29.8 *(101.0)*
				18th(1LC) Gear					
155.3 *(115.8)*	9125 *(40.6)*	6.38 *(10.26)*	2047	4	0.498 *(0.303)*	14.30 *(2.82)*	189 *(87)*	70 *(21)*	29.8 *(101.0)*
				19th(4TD) Gear					
147.6 *(110.1)*	8350 *(37.1)*	6.63 *(10.67)*	2024	4	0.516 *(0.314)*	13.78 *(2.71)*	190 *(88)*	70 *(21)*	29.8 *(101.0)*
				20th(2LA) Gear					
156.1 *(116.4)*	8455 *(37.6)*	6.92 *(11.14)*	2019	4	0.487 *(0.296)*	14.62 *(2.88)*	189 *(87)*	70 *(21)*	29.8 *(101.0)*
				21st(1LD) Gear					
152.7 *(113.9)*	7790 *(34.7)*	7.35 *(11.83)*	2004	4	0.495 *(0.301)*	14.40 *(2.84)*	192 *(89)*	70 *(21)*	29.8 *(101.0)*
				22nd(2LB) Gear					
153.1 *(114.2)*	7050 *(31.4)*	8.14 *(13.10)*	2017	3	0.494 *(0.301)*	14.40 *(2.84)*	189 *(87)*	70 *(21)*	29.8 *(101.0)*
				23rd(3LC) Gear					
149.7 *(111.6)*	5840 *(26.0)*	9.61 *(15.47)*	2003	2	0.503 *(0.306)*	14.16 *(2.79)*	192 *(89)*	70 *(21)*	29.8 *(101.0)*
				24th(3LA) Gear					
149.0 *(111.1)*	5615 *(25.0)*	9.95 *(16.02)*	2014	3	0.508 *(0.309)*	14.01 *(2.76)*	190 *(88)*	70 *(21)*	29.8 *(101.0)*

TRACTOR SOUND LEVEL WITH CAB	2WD dB(A)	FWA dB(A)
Maxium Sound Level	78.0	78.0
Bystander	—	—

TIRES, BALLAST AND WEIGHT	Front Wheel Assist Without Ballast	2WD Without Ballast
Rear Tires—No., size, ply & psi *(kPa)*	Two 20.8R42; **; 13*(90)*	Two 20.8R42;**;13*(90)*
Ballast—Liquid (total)	None	None
—Cast Iron (total)	None	None
Front Tires—No., size, ply & psi *(kPa)*	Two 16.9R30; **; 13 *(90)*	Two 11.00-16;8;36*(250)*
Ballast—Liquid (total)	None	None
—Cast Iron (total)	None	None
Height of Drawbar	22.0 in *(560 mm)*	35.4 in *(900 mm)*
Static Weight with Operator—Rear	10495 lb *(4760 kg)*	10415 lb *(4725 kg)*
—Front	6935 lb *(3145 kg)*	5885 lb *(2670 kg)*
—Total	17430 lb *(7905 kg)*	16300 lb *(7395 kg)*

(12.16), 8.31 *(13.36)*, 9.81 *(15.77)*, 10.13 *(16.31)*, 11.48 *(18.46)*, 11.86 *(19.09)*, 13.79 *(22.20)*, 14.01 *(22.53)*, 16.15 *(25.98)*, 16.39 *(26.37)*, 19.05 *(30.66)*, 22.30 *(35.89)* **Clutch** wet multiple disc operated by foot pedal **Brakes** single wet disc hydraulically actuated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1993 engine rpm and 1000 rpm at 2091 engine rpm **Unladen tractor mass** 2WD - 16135 lb *(7320 kg)*, FWA - 17270 lb *(7833 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. The performance figures on this summary were taken from a test conducted under to OECD Code II restricted standard test code procedure.

We, the undersigned, certify that this is a true summmary of data from OECD Reports No. **1724** and **1725**, Nebraska Summary 200, November 17, 1998.

LEONARD L. BASHFORD
Director

M.F. KOCHER
R.D. GRISSO
G.J. HOFFMAN
Board of Tractor Test Engineers

The following performance figures apply to the tractor equipped with a Front Drive Axle.

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)*	Hp.hr/gal *(kW.h/l)*	Temp.°F (°C) cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
				4th(2TA) Gear					
92.9 *(69.3)*	15690 *(69.8)*	2.22 *(3.57)*	2284	11	0.623 *(0.379)*	11.42 *(2.25)*	181 *(83)*	75 *(24)*	29.6 *(100.1)*
				5th(1TD) Gear					
98.3 *(73.3)*	15445 *(68.7)*	2.39 *(3.84)*	2267	10	0.602 *(0.366)*	11.83 *(2.33)*	178 *(81)*	75 *(24)*	29.6 *(100.1)*
				6th(2TB) Gear					
106.2 *(79.2)*	15240 *(67.8)*	2.61 *(4.20)*	2263	10	0.592 *(0.360)*	12.03 *(2.37)*	181 *(83)*	75 *(24)*	29.6 *(100.1)*
				7th(2TC) Gear					
123.8 *(92.3)*	15175 *(67.5)*	3.06 *(4.92)*	2238	9	0.575 *(0.350)*	12.39 *(2.44)*	183 *(84)*	75 *(24)*	29.6 *(100.1)*
				8th(3TA) Gear					
127.0 *(94.7)*	15040 *(66.9)*	3.17 *(5.10)*	2234	9	0.561 *(0.341)*	12.69 *(2.50)*	187 *(86)*	75 *(24)*	29.6 *(100.1)*
				9th(2TD) Gear					
141.2 *(105.3)*	15060 *(67.0)*	3.52 *(5.66)*	2212	9	0.569 *(0.346)*	12.51 *(2.46)*	187 *(86)*	75 *(24)*	29.6 *(100.1)*
				10th(3TB) Gear					
151.4 *(112.9)*	15150 *(67.4)*	3.75 *(6.03)*	2209	7	0.538 *(0.327)*	13.25 *(2.61)*	189 *(87)*	75 *(24)*	29.6 *(100.1)*
				11th(4TA) Gear					
153.3 *(114.3)*	13220 *(58.8)*	4.35 *(7.00)*	2160	5	0.521 *(0.317)*	13.65 *(2.69)*	190 *(88)*	75 *(24)*	29.6 *(100.1)*
				12th(3TC) Gear					
151.9 *(113.3)*	13535 *(60.2)*	4.21 *(6.78)*	2070	5	0.513 *(0.312)*	13.88 *(2.74)*	187 *(86)*	75 *(24)*	29.6 *(100.1)*
				13th(1LA) Gear					
153.7 *(114.6)*	12410 *(55.2)*	4.64 *(7.47)*	2056	4	0.503 *(0.306)*	14.16 *(2.79)*	185 *(85)*	75 *(24)*	29.6 *(100.1)*
				14th(4TB) Gear					
152.6 *(113.8)*	11645 *(51.8)*	4.91 *(7.90)*	2067	4	0.510 *(0.310)*	13.96 *(2.75)*	194 *(90)*	75 *(24)*	29.6 *(100.1)*
				15th(3TD) Gear					
151.3 *(112.8)*	11490 *(51.1)*	4.94 *(7.95)*	2046	4	0.510 *(0.310)*	13.96 *(2.75)*	190 *(88)*	75 *(24)*	29.6 *(100.1)*
				16th(1LB) Gear					
153.0 *(114.1)*	10465 *(46.5)*	5.48 *(8.82)*	2053	4	0.501 *(0.305)*	14.21 *(2.80)*	185 *(85)*	75 *(24)*	29.6 *(100.1)*
				17th(4TC) Gear					
141.3 *(105.4)*	9385 *(41.8)*	5.65 *(9.09)*	2049	5	0.544 *(0.331)*	13.10 *(2.58)*	189 *(87)*	75 *(24)*	29.6 *(100.1)*
				18th(1LC) Gear					
151.4 *(112.9)*	8700 *(38.7)*	6.53 *(10.51)*	2062	3	0.508 *(0.309)*	14.01 *(2.76)*	189 *(87)*	75 *(24)*	29.6 *(100.1)*
				19th(4TD) Gear					
139.5 *(104.0)*	8000 *(35.6)*	6.54 *(10.52)*	2004	4	0.541 *(0.329)*	13.15 *(2.59)*	192 *(89)*	75 *(24)*	29.6 *(100.1)*
				20th(2LA) Gear					
148.2 *(110.5)*	8025 *(35.7)*	6.93 *(11.15)*	2021	4	0.518 *(0.315)*	13.76 *(2.71)*	189 *(87)*	75 *(24)*	29.6 *(100.1)*
				21st(1LD) Gear					
145.2 *(108.3)*	7390 *(32.9)*	7.37 *(11.86)*	2010	4	0.519 *(0.316)*	13.71 *(2.70)*	190 *(88)*	75 *(24)*	29.6 *(100.1)*
				22nd(2LB) Gear					
146.8 *(109.5)*	6820 *(30.3)*	8.07 *(12.99)*	2000	3	0.514 *(0.313)*	13.84 *(2.73)*	194 *(90)*	75 *(24)*	29.6 *(100.1)*

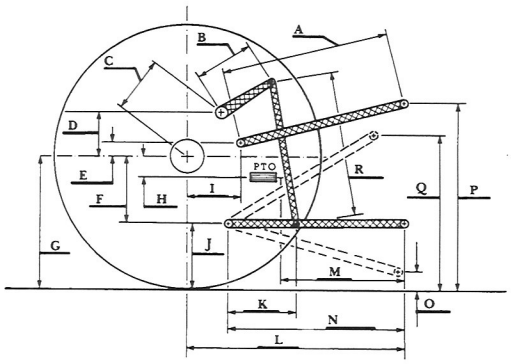
The following performance figures apply to the tractor equipped with a Front Drive Axle.

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—12th(3TC) Gear									
151.9	13535	4.21	2070	5	0.513	13.89	187	75	29.6
(113.3)	*(60.2)*	*(6.78)*			*(0.312)*	*(2.74)*	*(86)*	*(24)*	*(100.1)*
75% of Pull at Maximum Power——12th(3TC) Gear									
117.3	9420	4.67	2244	3	0.564	12.64	189	75	29.6
(87.5)	*(41.9)*	*(7.52)*			*(0.343)*	*(2.49)*	*(87)*	*(24)*	*(100.1)*
50% of Pull at Maximum Power——12th(3TC) Gear									
80.8	6285	4.82	2289	2	0.644	11.05	187	75	29.6
(60.2)	*(28.0)*	*(7.76)*			*(0.392)*	*(2.18)*	*(86)*	*(24)*	*(100.1)*
75% of Pull at Reduced Engine Speed—13th(1LA) Gear									
117.1	9395	4.67	2040	4	0.515	13.83	187	75	29.6
(87.3)	*(41.8)*	*(7.52)*			*(0.313)*	*(2.72)*	*(86)*	*(24)*	*(100.1)*
50% of Pull at Reduced Engine Speed—13th(1LA) Gear									
81.0	6305	4.82	2078	3	0.565	12.61	183	75	29.6
(60.4)	*(28.1)*	*(7.75)*			*(0.343)*	*(2.48)*	*(84)*	*(24)*	*(100.1)*

HITCH DIMENSIONS AS TESTED—NO LOAD



THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II		
Quick Attach: None		
Maximum Force Exerted Through Whole Range:	11935 lbs	*(53.1 kN)*
i) Opening pressure of relief valve:	NA	
Sustained pressure of the open relief valve:	2860 psi	*(197 bar)*
ii) Pump delivery rate at minimum pressure:	26.9 GPM	*(102.0 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	21.0 GPM	*(79.5 l/min)*
Delivery pressure:	2350 psi	*(162 bar)*
Power:	28.8 HP	*(21.5 kW)*

	inch	*mm*
A	31.3	*795*
B	14.3	*362*
C	18.5	*470*
D	17.0	*432*
E	9.3	*237*
F	11.8	*300*
G	35.6	*905*
H	5.4	*138*
I	16.9	*428*
J	23.8	*605*
K	21.6	*548*
L	47.4	*1205*
M	27.8	*706*
N	38.6	*981*
O	12.8	*325*
P	47.8	*1215*
Q	38.0	*966*
R	32.7	*830*

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