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8-31-1979

## Test 1321: Massey-Ferguson 2675 Diesel 8-Speed

Nebraska Tractor Test Lab

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# NEBRASKA TRACTOR TEST 1321 — MASSEY-FERGUSON 2675 DIESEL 8 SPEED

## POWER TAKE-OFF PERFORMANCE

Power Hp (kW)	Crank shaft speed rpm	Fuel Consumption			Temperature °F(°C)			Barometer inch Hg (kPa)
		gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Cooling medium	Air wet bulb	Air dry bulb	
MAXIMUM POWER AND FUEL CONSUMPTION								
Rated Engine Speed—Two Hours (PTO Speed—1196 rpm)								
100.84 (75.19)	2500	7.374 (27.912)	0.512 (0.311)	13.68 (2.694)	197 (91.5)	71 (21.5)	75 (24.1)	28.840 (97.388)
Standard Power Take-off Speed (1000 rpm)—One Hour								
95.00 (70.84)	2091	6.331 (23.967)	0.467 (0.284)	15.00 (2.956)	199 (92.6)	69 (20.4)	75 (23.8)	28.875 (97.507)
VARYING POWER AND FUEL CONSUMPTION—Two Hours								
90.37 (67.39)	2636	6.613 (25.032)	0.512 (0.312)	13.67 (2.692)	193 (89.4)	68 (20.0)	75 (23.9)	..... .....
0.00 (0.00)	2751	2.546 (9.637)	..... .....	..... .....	181 (82.8)	68 (20.0)	75 (23.9)	..... .....
46.45 (34.64)	2700	4.440 (16.807)	0.669 (0.407)	10.46 (2.061)	185 (85.0)	68 (20.0)	75 (23.9)	..... .....
102.23 (76.23)	2500	7.431 (28.131)	0.509 (0.310)	13.76 (2.710)	196 (91.1)	68 (19.7)	75 (23.9)	..... .....
23.27 (17.35)	2724	3.300 (12.492)	0.993 (0.604)	7.05 (1.389)	184 (84.2)	68 (20.0)	75 (23.9)	..... .....
68.69 (51.22)	2668	5.383 (20.376)	0.549 (0.334)	12.76 (2.514)	188 (86.7)	68 (20.0)	75 (23.9)	..... .....
Av Av	55.17 (41.14)	2663 (18.746)	4.952 (0.382)	0.628 (2.195)	11.14 (86.5)	188 (20.0)	68 (23.9)	75 (97.625)

## DRAWBAR PERFORMANCE

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption			Cool- ing med	Temp. °F(°C)		Barom. inch Hg (kPa)
					gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)		Air wet bulb	Air dry bulb	
Maximum Available Power—Two Hours 4th Gear											
82.65 (61.63)	6127 (27.26)	5.06 (8.14)	2501	8.06	7.196 (27.241)	0.609 (0.371)	11.48 (2.262)	208 (97.5)	68 (19.7)	85 (29.2)	28.960 (97.794)
75% of Pull at Maximum Power—Ten Hours 4th Gear											
69.69 (51.97)	4745 (21.11)	5.51 (8.86)	2656	5.74	6.021 (22.794)	0.605 (0.368)	11.57 (2.280)	190 (87.6)	61 (15.9)	72 (22.3)	29.070 (98.165)
50% of Pull at Maximum Power—Two Hours 4th Gear											
49.15 (36.65)	3241 (14.42)	5.69 (9.15)	2694	4.02	4.911 (18.589)	0.699 (0.425)	10.01 (1.972)	185 (85.0)	63 (16.9)	71 (21.7)	28.980 (97.861)
50% of Pull at Reduced Engine Speed—Two Hours 6th Gear											
48.41 (36.10)	3198 (14.22)	5.68 (9.14)	1679	4.06	3.482 (13.181)	0.503 (0.306)	13.90 (2.739)	187 (85.8)	66 (18.6)	78 (25.6)	28.995 (97.912)
MAXIMUM POWER IN SELECTED GEARS											
65.01 (48.48)	10226 (45.49)	2.38 (3.84)	2648	14.81	2nd Gear			186 (85.6)	61 (16.1)	66 (18.9)	28.980 (97.861)
83.34 (62.15)	9244 (41.12)	3.38 (5.44)	2501	12.58	3rd Gear			193 (89.2)	61 (16.1)	66 (18.9)	28.980 (97.861)
85.44 (63.71)	6328 (28.15)	5.06 (8.15)	2499	7.81	4th Gear			204 (95.6)	67 (19.4)	79 (26.1)	28.990 (97.895)
86.18 (64.26)	5466 (24.32)	5.91 (9.51)	2498	6.96	5th Gear			204 (95.3)	68 (20.0)	83 (28.3)	28.980 (97.861)
85.62 (63.85)	3825 (17.01)	8.39 (13.51)	2500	4.67	6th Gear			201 (93.9)	68 (20.0)	83 (28.3)	28.970 (97.827)
LUGGING ABILITY IN 4th GEAR											
Crankshaft Speed rpm			2499	2250	1996	1751	1490	1245			
Pull—lbs (kN)			6328 (28.15)	6792 (30.21)	7238 (32.20)	7591 (33.77)	7589 (33.76)	7445 (33.12)			
Increase in Pull %			0	7	14	20	20	18			
Power—Hp (kW)			85.44 (63.71)	81.95 (61.11)	76.87 (57.32)	70.17 (52.32)	59.65 (44.48)	48.95 (36.51)			
Speed—Mph (km/h)			5.06 (8.15)	4.52 (7.28)	3.98 (6.41)	3.47 (5.58)	2.95 (4.74)	2.47 (3.97)			
Slip %			7.81	8.58	9.41	9.82	10.22	9.95			

Department of Agricultural Engineering

Dates of Test: August 31 to September 8, 1979

Manufacturer: MASSEY-FERGUSON INC.,  
1901 Bell Avenue, Des Moines, Iowa 50315

**FUEL, OIL AND TIME:** Fuel No. 2 Diesel Cetane No. 49.0 (rating taken from oil company's typical inspection data) Specific gravity converted to 60°/60° (15°/15°) 0.8407 Fuel weight 7.000 lbs/gal (0.838 kg/l) Oil SAE 20-20W API service classification SB/SE-CA/CC To motor 4.195 gal (15.878 l) Drained from motor 3.716 gal (14.065 l) Transmission and final drive lubricant MF Permatran Total time engine was operated 31.5 hours

**ENGINE:** Make Perkins Diesel Type six cylinder vertical Serial No. TW31008N28496F Crankshaft lengthwise Rated rpm 2500 Bore and stroke 3.875" × 5.0" (98.4 mm × 127.0 mm) Compression ratio 16.0 to 1 Displacement 354 cu in (5801 ml) Cranking system 12 volt Lubrication pressure Air cleaner two paper elements with aspirator Oil filter one paper cartridge Oil cooler engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil Fuel filter two paper elements Muffler vertical Cooling medium temperature control two thermostats

**CHASSIS:** Type standard Serial No. 9R 002625 Tread width rear 65" (1651 mm) to 95" (2413 mm) front 60" (1524 mm) to 80" (2032 mm) Wheel base 105.4" (2677 mm) Center of gravity (without operator or ballast, with minimum tread, with fuel tank filled and tractor serviced for operation) Horizontal distance forward from centerline of rear wheels 34.4" (874 mm) Vertical distance above roadway 43.3" (1100 mm) Horizontal distance from center of rear wheel tread 0" (0 mm) to the right/left Hydraulic control system direct engine drive Transmission selective gear fixed ratio Advertised speeds mph (km/h) first 1.9 (3.1) second 2.6 (4.2) third 3.8 (6.1) fourth 5.4 (8.7) fifth 6.3 (10.1) sixth 8.7 (14.0) seventh 12.7 (20.4) eighth 18.0 (29.0) reverse 1.6 (2.6), 2.2 (3.6), 3.2 (5.2), 4.6 (7.4), 5.4 (8.6), 7.4 (11.9) Clutch single dry disc operated by foot pedal Brakes single wet disc hydraulically operated by two foot pedals which can be locked together Steering hydrostatic Turning radius (on concrete surface with brake applied) right 135" (3.44 m) left 135" (3.44 m) (on concrete surface without brake) right 180" (4.57 m) left 180" (4.57 m) Turning space diameter (on concrete surface with brake applied) right 294" (7.46 m) left 294" (7.46 m) (on concrete surface without brake) right 381" (9.69 m) left 381" (9.69 m) Power take-off 1000 rpm at 2091 engine rpm and 540 rpm at 1992 engine rpm.

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

TRACTOR SOUND LEVEL WITH CAB		dB(A)
Maximum Available Power—Two Hours		79.0
75% of Pull at Maximum Power—Ten Hours		82.0
50% of Pull at Maximum Power—Two Hours		82.5
50% of Pull at Reduced Engine Speed—Two Hours		79.0
Bystander in 8th gear		90.5
<b>TIRES, BALLAST AND WEIGHT</b>		
<b>Rear Tires</b>		
—No., size, ply & psi (kPa)	Two 18.4-38; 10; 22 (150)	Two 18.4-38; 10; 22 (150)
Ballast	965 lb (438 kg)	None
—Liquid (each)	None	None
—Cast Iron (each)	None	None
<b>Front Tires</b>		
—No., size, ply & psi (kPa)	Two 11.00-16; 6; 32 (220)	Two 11.00-16; 6; 32 (220)
Ballast	None	None
—Liquid (each)	None	None
—Cast Iron (each)	None	None
<b>Height of Drawbar</b>		
	21.5 in (545 mm)	21.5 in (545 mm)
<b>Static Weight with Operator—Rear</b>		
	10500 lb (4763 kg)	8570 lb (3887 kg)
—Front	3780 lb (1715 kg)	3780 lb (1715 kg)
—Total	14280 lb (6478 kg)	12350 lb (5602 kg)

**REMARKS:** All test results were determined from observed data obtained in accordance with SAE and ASAE test code or official Nebraska test procedure. Temperature at injection pump was 147°F (63.8°C). Five gears were chosen between 15% slip and 10 mph (16.1 km/h).

We, the undersigned, certify that this is a true and correct report of official Tractor Test 1321.

LOUIS I. LEVITICUS  
Engineer-in-Charge

G. W. STEINBRUEGGE, Chairman  
W. E. SPLINTER  
K. VON BARGEN  
Board of Tractor Test Engineers



**Massey-Ferguson 2675 Diesel**