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Test 1222: Ford 2600 and 2310 (8x2) Diesel 8-Speed

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, tractortestlab@unl.edu

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NEBRASKA TRACTOR TEST 1222 — FORD 2600 DIESEL, ALSO FORD 2310 (8 X 2) 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—597 rpm)									
32.47 (24.21)	2000	2.277 (8.618)	0.491 (0.299)	14.26 (2.809)	214 (101.0)	64 (17.9)	75 (23.8)	29.067 (98.154)	
Standard Power Take-off Speed (540 rpm)—One Hour									
30.76 (22.94)	1810	2.105 (7.967)	0.479 (0.291)	14.62 (2.879)	216 (102.2)	69 (20.4)	75 (23.9)	29.065 (98.148)	
VARYING POWER AND FUEL CONSUMPTION—Two Hours									
29.31 (21.86)	2125	2.130 (8.064)	0.509 (0.309)	13.76 (2.711)	202 (94.4)	72 (21.9)	75 (23.9)	..... .....
0.00 (0.00)	2228	0.823 (3.115)	..... .....	..... .....	174 (79.2)	71 (21.7)	74 (23.6)	..... .....
15.06 (11.23)	2182	1.444 (5.468)	0.671 (0.408)	10.43 (2.054)	180 (82.2)	72 (22.2)	75 (23.9)	..... .....
32.69 (24.37)	2001	2.297 (8.697)	0.492 (0.299)	14.23 (2.803)	211 (99.4)	72 (22.2)	76 (24.2)	..... .....
7.60 (5.67)	2204	1.093 (4.138)	1.006 (0.612)	6.96 (1.371)	176 (80.0)	72 (22.2)	75 (23.9)	..... .....
22.31 (16.64)	2155	1.783 (6.750)	0.559 (0.340)	12.51 (2.465)	186 (85.6)	72 (22.2)	76 (24.4)	..... .....
Av Av	17.83 (13.30)	2149	1.595 (6.039)	0.626 (0.381)	11.18 (2.202)	188 (86.8)	72 (22.1)	75 (24.0)	29.047 (98.086)

DRAWBAR PERFORMANCE

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption			Temp. °F (°C)				Barom. inch Hg (kPa)
					gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Cool- ing med	Air wet bulb	Air dry bulb		
Maximum Available Power—Two Hours 4th Gear												
27.51 (20.51)	2249 (10.00)	4.59 (7.38)	2000	6.40	2.304 (8.721)	0.586 (0.357)	11.94 (2.352)	185 (84.7)	47 (8.1)	54 (12.2)	29.015 (97.979)	
75% of Pull at Maximum Power—Ten Hours 4th Gear												
22.48 (16.77)	1696 (7.54)	4.97 (8.00)	2150	5.66	2.004 (7.585)	0.624 (0.379)	11.22 (2.210)	173 (78.2)	60 (15.3)	61 (15.8)	28.793 (97.230)	
50% of Pull at Maximum Power—Two Hours 4th Gear												
15.42 (11.50)	1116 (4.96)	5.18 (8.34)	2191	3.51	1.679 (6.355)	0.762 (0.464)	9.18 (1.809)	165 (73.6)	43 (6.1)	47 (8.1)	28.995 (97.912)	
50% of Pull at Reduced Engine Speed—Two Hours 6th Gear												
15.60 (11.64)	1131 (5.03)	5.17 (8.32)	1460	3.40	1.375 (5.206)	0.617 (0.375)	11.35 (2.235)	166 (74.4)	44 (6.7)	51 (10.6)	29.020 (97.996)	
MAXIMUM POWER IN SELECTED GEARS												
22.32 (16.64)	4452 (19.80)	1.88 (3.03)	2142	14.49	2nd Gear			169 (75.8)	44 (6.7)	46 (7.8)	29.060 (98.131)	
26.72 (19.92)	3059 (13.61)	3.28 (5.27)	2000	9.08	3rd Gear			199 (92.8)	62 (16.7)	74 (23.3)	28.930 (97.692)	
27.59 (20.57)	2254 (10.03)	4.59 (7.39)	2000	6.33	4th Gear			198 (92.2)	61 (16.1)	72 (22.2)	28.960 (97.794)	
28.18 (21.01)	1898 (8.44)	5.56 (8.96)	1999	5.15	5th Gear			199 (92.8)	62 (16.7)	74 (23.3)	28.920 (97.659)	
27.81 (20.74)	1482 (6.59)	7.04 (11.33)	2000	3.95	6th Gear			193 (89.2)	62 (16.7)	74 (23.3)	28.910 (97.625)	
26.16 (19.51)	775 (3.45)	12.66 (20.37)	2003	1.86	7th Gear			196 (90.8)	62 (16.7)	74 (23.3)	28.900 (97.591)	
LUGGING ABILITY IN (4th) GEAR												
Crankshaft Speed rpm				2000	1783	1620	1417	1194		1015		
Pull—lbs (kN)				2254 (10.03)	2410 (10.72)	2474 (11.00)	2555 (11.37)	2586 (11.50)		2518 (11.20)		
Increase in Pull %				0	7	10	13	15		12		
Power—Hp (kW)				27.59 (20.57)	26.18 (19.52)	24.38 (18.18)	21.93 (16.35)	18.69 (13.94)		15.48 (11.54)		
Speed—Mph (km/h)				4.59 (7.39)	4.07 (6.56)	3.70 (5.95)	3.22 (5.18)	2.71 (4.36)		2.31 (3.71)		
Slip %				6.33	6.80	7.00	7.31	7.42		7.31		

Department of Agricultural Engineering

Dates of Test: September 20 to 28, 1976

Manufacturer: FORD MOTOR COMPANY,
Tractor Operations, 2500 East Maple Rd, Troy,
Michigan 48084

FUEL, OIL AND TIME: Fuel No. 2 Diesel
Cetane No. 51.8 (rating taken from oil company's
typical inspection data) **Specific gravity converted**
to 60°/60° (15.6°/15.6°) 0.8406 **Fuel weight** 6.999
lbs/gal (0.839 kg/l) **Oil** SAE 30 **API service classi-**
fication SB/SE-CA/CD **To motor** 1.468 gal
(5.557l) **Drained from motor** 1.305 gal (4.940 l)
Transmission and final drive lubricant Ford M-
2C53-A **Total time engine was operated** 46
hours

ENGINE Make Ford Diesel **Type** 3 cylinder
vertical **Serial No.** B 082560 **Crankshaft**
lengthwise **Rated rpm** 2000 **Bore and stroke** 4.2"
× 3.8" (106.68 mm × 96.52 mm) **Compression**
ratio 17.3 to 1 **Displacement** 158 cu in (2588 ml)
Cranking system 12 volt **Lubrication** pressure
Air cleaner outer paper and safety felt elements
with dust evacuator **Oil filter** full flow cotton
blend spin-on cartridge **Oil cooler** radiator for
hydraulic and rear axle oil **Fuel Filter** nylon
gauze in bottom of tank and paper element
Muffler vertical **Cooling medium** temperature
control thermostat

CHASSIS: **Type** standard **Serial No.**
C 510312 **Tread width** rear 52" (1320 mm) to 76"
(1930 mm) front 52" (1320 mm) to 80" (2030 mm)
Wheel base 75.8" (1925 mm) **Center of gravity**
(without operator or ballast, with minimum tread,
with fuel tank filled and tractor serviced for oper-
ation) Horizontal distance forward from center-
line of rear wheels 26.3" (668 mm) Vertical distance
above roadway 34.1" (866 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 1.6 (2.6) sec-
ond 2.0 (3.2) third 3.6 (5.8) fourth 4.8 (7.7) fifth
5.8 (9.3) sixth 7.2 (11.6) seventh 12.8 (20.6) eighth
17.4 (28.0) reverse 2.4 (3.9), 8.4 (13.5) **Clutch**
single plate dry disc operated by foot pedal
Brakes internal expanding shoes operated by two
foot pedals which can be locked together **Steering**
power assist **Turning radius** (on concrete surface
with brake applied) right 117" (2.97 m) left 117"
(2.97 m) (on concrete surface without brake) right
129" (3.28 m) left 129" (3.28 m) **Turning space**
diameter (on concrete surface with brake applied)
right 240" (6.10 m) left 240" (6.10 m) (on concrete
surface without brake) right 267" (6.78 m) left 267"
(6.78 m) **Power take-off** 540 rpm at 1810 engine
rpm.

REPAIRS and ADJUSTMENTS: No repairs or
adjustments.

TRACTOR SOUND LEVEL WITH CAB

dB(A)

Maximum Available Power—Two Hours	82.0
75% of Pull at Maximum Power—Ten Hours	81.0
50% of Pull at Maximum Power—Two Hours	81.5
50% of Pull at Reduced Engine Speed—Two Hours	80.0
Bystander in 8th gear	88.0

TIRES, BALLAST AND WEIGHT

		With Ballast	Without Ballast
Rear Tires	—No., size, ply & psi (kPa)	Two 14.9-24; 4; 14 (100)	Two 14.9-24; 4; 14 (100)
Ballast	—Liquid (each)	100 lb (45 kg)	None
	—Cast Iron (each)	50 lb (23 kg)	None
Front Tires	—No., size, ply & psi (kPa)	Two 6.50-16; 6; 40 (280)	Two 6.50-16; 6; 40 (280)
Ballast	—Liquid (each)	None	None
	—Cast Iron (each)	80 lb (36 kg)	None
Height of drawbar		22.5 in (570 mm)	22.5 in (570 mm)
Static weight with operator —rear		3915 lb (1776 kg)	3615 lb (1640 kg)
front		2085 lb (946 kg)	1925 lb (873 kg)
total		6000 lb (2722 kg)	5540 lb (2513 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 return was 148°F (64.4°C). Six gears were chosen between 15% slip and 15 mph (24.1 km/h).

We, the undersigned, certify that this is a true and correct report of official Tractor Test **1222**.

LOUIS I. LEVITICUS
Engineer-in Charge

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



Ford 2600 Diesel