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Test 1226: Ford 3600 and 3610 Gasoline 8-Speed

Nebraska Tractor Test Lab

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NEBRASKA TRACTOR TEST 1226 — FORD 3600 GASOLINE ALSO FORD 3610 GASOLINE 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)								
40.62 (30.29)	2000	3.815 (14.440)	0.576 (0.351)	10.65 (2.097)	209 (98.1)	54 (12.3)	75 (23.8)	29.032 (98.036)
Standard Power Take-off Speed (540 rpm)—One Hour								
38.29 (28.55)	1810	3.351 (12.686)	0.537 (0.327)	11.42 (2.251)	212 (100.0)	54 (12.2)	75 (23.9)	29.035 (98.047)
VARYING POWER AND FUEL CONSUMPTION—Two Hours								
36.28 (27.06)	2100	3.421 (12.951)	0.579 (0.352)	10.60 (2.089)	202 (94.4)	54 (12.2)	75 (23.9)	..... .....
0.00 (0.00)	2211	1.413 (5.347)	..... .....	..... .....	163 (72.8)	54 (12.5)	75 (23.9)	..... .....
18.32 (13.66)	2121	2.586 (9.787)	0.867 (0.527)	7.08 (1.395)	182 (83.3)	54 (12.5)	76 (24.2)	..... .....
41.00 (30.57)	2000	3.768 (14.265)	0.564 (0.343)	10.88 (2.143)	208 (97.5)	53 (11.7)	74 (23.3)	..... .....
9.28 (6.92)	2151	1.955 (7.401)	1.293 (0.786)	4.75 (0.935)	173 (78.3)	54 (11.9)	75 (23.9)	..... .....
27.12 (20.23)	2095	3.030 (11.471)	0.686 (0.417)	8.95 (1.763)	190 (87.8)	53 (11.7)	74 (23.3)	..... .....
Av Av	22.00 (16.41)	2.696 (10.204)	0.752 (0.457)	8.16 (1.608)	186 (85.7)	54 (12.1)	75 (23.8)	29.030 (98.030)

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											
33.80 (25.20)	2587 (11.51)	4.90 (7.88)	2002	6.74	3.747 (14.184)	0.680 (0.414)	9.02 (1.777)	190 (87.8)	57 (13.9)	71 (21.4)	28.970 (97.827)
75% of Pull at Maximum Power—Ten Hours 4th Gear											
28.56 (21.30)	2049 (9.11)	5.23 (8.41)	2094	4.81	3.332 (12.612)	0.716 (0.436)	8.57 (1.689)	173 (78.5)	51 (10.4)	63 (17.1)	29.113 (98.310)
50% of Pull at Maximum Power—Two Hours 4th Gear											
19.21 (14.32)	1366 (6.08)	5.27 (8.48)	2084	3.51	2.790 (10.561)	0.892 (0.542)	6.88 (1.356)	176 (79.7)	58 (14.4)	75 (23.9)	28.960 (97.794)
50% of Pull at Reduced Engine Speed—Two Hours 6th Gear											
19.49 (14.54)	1395 (6.21)	5.24 (8.43)	1384	3.45	2.261 (8.557)	0.712 (0.433)	8.62 (1.699)	189 (87.2)	59 (15.0)	75 (23.9)	28.980 (97.861)

MAXIMUM POWER IN SELECTED GEARS

26.93 (20.08)	5123 (22.79)	1.97 (3.17)	2110	14.96	2nd Gear			161 (71.7)	47 (8.3)	55 (12.8)	28.670 (96.814)	
34.55 (25.77)	3714 (16.52)	3.49 (5.62)	2001	9.58	3rd Gear			180 (81.9)	52 (11.1)	59 (15.0)	28.920 (97.659)	
35.54 (26.50)	2723 (12.11)	4.89 (7.88)	2001	6.71	4th Gear			176 (80.0)	51 (10.6)	57 (13.9)	28.890 (97.557)	
35.90 (26.77)	2270 (10.10)	5.93 (9.54)	2001	5.64	5th Gear			180 (82.2)	53 (11.7)	61 (16.1)	28.950 (97.760)	
35.58 (26.53)	1778 (7.91)	7.50 (12.08)	2001	4.31	6th Gear			178 (80.8)	53 (11.7)	62 (16.7)	28.950 (97.760)	
32.88 (24.52)	916 (4.08)	13.46 (21.66)	2001	2.27	7th Gear			177 (80.6)	54 (12.2)	64 (17.8)	28.960 (97.794)	

LUGGING ABILITY IN 4th GEAR

Crankshaft Speed rpm	2001	1799	1597	1398	1201	988	802
Pull—lbs (kN)	2723 (12.11)	2871 (12.77)	2952 (13.13)	2887 (12.84)	2729 (12.14)	3101 (13.79)	3051 (13.57)
Increase in Pull %	0	5	8	6	0	14	12
Power—Hp (kW)	35.54 (26.50)	33.55 (25.02)	30.55 (22.78)	26.21 (19.54)	21.33 (15.91)	19.73 (14.71)	15.76 (11.76)
Speed—Mph (km/h)	4.89 (7.88)	4.38 (7.05)	3.88 (6.24)	3.40 (5.48)	2.93 (4.72)	2.39 (3.84)	1.94 (3.12)
Slip %	6.71	7.10	7.32	7.21	6.88	7.98	7.87

Department of Agricultural Engineering

Dates of Test: September 23 to October 14, 1976

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

FUEL, OIL AND TIME: Fuel unleaded gaso-
line Octane no. Motor 82.0 Research 91.5 (rating
taken from oil company's typical inspection data)
**Specific gravity converted to 60°/60° (15.6°/
15.6°) 0.7373 Fuel weight 6.138 lbs/gal (0.736 kg/
l) Oil SAE 10W-30 API service classification
SB/SE-CA/CB To motor 1.479 gal (5.599 l)
Drained from motor 1.419 gal (5.371 l)
Transmission and final drive lubricant Ford M-
2C53A fluid Total time engine was operated 54
hours**

ENGINE Make Ford gasoline **Type** 3 cylinder
vertical **Serial No.** *C068695* **Crankshaft**
lengthwise **Rated rpm** 2000 **Bore and stroke** 4.2"
× 4.2" (106.68 mm × 106.68 mm) **Compression**
ratio 7.75 to 1 **Displacement** 175 cu in (2861 ml)
Carburetor size 1 1/4" (32 mm) **Ignition system** 12
volt battery **Cranking system** 12 volt **Lubrication**
pressure **Air cleaner** paper and fiber elements
with dust evacuator **Oil filter** full flow cotton
blend screw-on cartridge **Oil cooler** radiator for
hydraulic and rear axle oil **Fuel filter** edge type
filter element **Muffler** vertical **Cooling medium**
temperature control thermostat

CHASSIS: Type standard **Serial No.** C510278
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 operation)
Horizontal distance forward from center-line of
rear wheels 26.4" (671 mm) Vertical distance above
roadway 34.5" (876 mm) Horizontal distance from
center of rear wheel tread 0.06" (2 mm) to the left
Hydraulic control system direct engine drive
Transmission selective gear fixed ratio **Adver-
tised speeds mph (km/h)** first 1.6 (2.6) second 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 shoe 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: Throttle lever
friction disc was tightened, radiator cap replaced
and two quarts of coolant were added during pre-
liminary drawbar tests.

TRACTOR SOUND LEVEL WITH CAB**dB(A)**

Maximum Available Power—Two Hours	80.5
75% of Pull at Maximum Power—Ten Hours	80.5
50% of Pull at Maximum Power—Two Hours	80.5
50% of Pull at Reduced Engine Speed—Two Hours	77.5
Bystander in 7th gear	80.5

TIRES, BALLAST AND WEIGHT

		With Ballast	Without Ballast
Rear Tires	—No., size, ply & psi (kPa)	Two 16.9-24; 6; 16 (110)	Two 16.9-24; 6; 16 (110)
Ballast	—Liquid (each)	550 lb (249 kg)	None
	—Cast Iron (each)	100 lb (45 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)	100 lb (45 kg)	None
Height of drawbar		24 in (610 mm)	24 in (610 mm)
Static weight with operator—rear		4820 lb (2186 kg)	3520 lb (1596 kg)
front		2080 lb (944 kg)	1880 lb (853 kg)
total		6900 lb (3130 kg)	5400 lb (2449 kg)

REMARKS: All test results were determined from observed data obtained in accordance with SAE and ASAE test code or official Nebraska test procedure. 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 **1226**.

LOUIS I. LEVITICUS

Engineer-in Charge

G. W. STEINBRUEGGE, Chairman

W. E. SPLINTER

K. VON BARGEN

Board of Tractor Test Engineers



Ford 3600 Gasoline