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Test 997: Ford 5000 Gasoline Select-O-Speed (Also Ford 5000 Gasoline Select-O-Speed Row Crop)

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NEBRASKA TRACTOR TEST 997 – FORD 5000 GASOLINE SELECT-O-SPEED (ALSO FORD 5000 GASOLINE SELECT-O-SPEED ROW CROP)

POWER TAKE-OFF PERFORMANCE

Hp	Crankshaft speed rpm	Fuel Consumption		Temperature Degrees F				Barometer inches of Mercury
		Gal per hr	Lb per hp-hr	Hp-hr per gal	Cooling medium	Air wet bulb	Air dry bulb	
MAXIMUM POWER AND FUEL CONSUMPTION								
Rated Engine Speed—Two Hours								
65.64	2100	5.660	0.525	11.60	210	55	75	29.143
Standard Power Take-off Speed (540 rpm)—One Hour								
61.97	1901	5.290	0.520	11.71	210	55	75	29.145
VARYING POWER AND FUEL CONSUMPTION—TWO HOURS								
57.70	2170	5.317	0.562	10.85	204	55	74	.....
0.00	2358	2.013	.....	.....	194	54	71	.....
30.09	2265	3.672	0.744	8.19	202	55	74	.....
65.51	2100	5.651	0.526	11.59	209	56	77	.....
15.30	2303	2.895	1.153	5.28	198	55	75	.....
44.44	2228	4.431	0.608	10.03	204	56	76	.....
Av 35.51	2237	3.997	0.686	8.88	202	55	74	29.165

DRAWBAR PERFORMANCE

Hp	Drawbar pull lbs	Speed miles per hr	Fuel Consumption			Temp Degrees F			Barometer inches of Mercury
			Crankshaft speed rpm	Slip of drivers %	Gal per hr	Lb per hp-hr	Hp-hr per gal	Cooling med		Air wet bulb	Air dry bulb

VARYING DRAWBAR POWER AND FUEL CONSUMPTION WITH BALLAST

Maximum Available Power—Two Hours—6th Gear											
54.53	4895	4.18	2097	7.82	5.466	0.611	9.98	203	49	62	29.020
75% of Pull at Maximum Power—Ten Hours—6th Gear											
44.46	3695	4.51	2216	5.70	4.884	0.669	9.10	204	42	49	29.006
50% of Pull at Maximum Power—Two Hours—6th Gear											
32.51	2559	4.76	2286	3.62	4.153	0.779	7.83	195	44	54	29.005

MAXIMUM POWER WITH BALLAST

37.59	7138	1.98	2185	14.08	4th Gear	.....	206	49	60	29.000
53.50	6436	3.12	2099	11.79	5th Gear	.....	206	50	62	29.000
54.69	4922	4.17	2100	8.33	6th Gear	.....	206	50	64	29.000
53.80	4142	4.87	2100	6.89	7th Gear	.....	206	51	64	29.010
53.29	3135	6.37	2100	5.28	8th Gear	.....	205	50	64	29.010
50.64	1803	10.53	2098	3.08	9th Gear	.....	205	51	65	29.000

MAXIMUM PULL WITHOUT BALLAST

42.37	4937	3.22	2207	14.01	5th Gear	200	42	54	28.550
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VARYING DRAWBAR PULL AND TRAVEL SPEED WITH BALLAST

Pounds pull	4922	5119	5275	5240	5173	5148
Horsepower	54.69	51.10	46.55	40.13	34.11	28.19
Crankshaft speed rpm	2100	1897	1679	1459	1253	1041
Miles per hour	4.17	3.74	3.31	2.87	2.47	2.05
Slip of drivers, %	8.33	8.74	8.85	8.97	8.74	8.97

TIRES, BALLAST and WEIGHT

	With Ballast	Without Ballast
Rear tires	—No, size, ply & psi	Two 16.9-30; 6; 16
Ballast	—Liquid	798 lb each
	—Cast iron	1012 lb each
Front tires	—No, size, ply & psi	Two 7.50-16; 4; 24
Ballast	—Liquid	74 lb each
	—Cast iron	111 lb each
Height of drawbar	22½ inches	24 inches
Static weight with operator—Rear	7350 lb	3730 lb
	Front	2350 lb
	Total	9700 lb
		5710 lb

The University of Nebraska Agricultural Experiment Station
E. F. Frolik, Dean; H. W. Ottoson, Director; Lincoln, Nebraska

Department of Agricultural Engineering
Date of Test: November 7 to November 25, 1968
Manufacturer: FORD MOTOR COMPANY,
FORD TRACTOR OPERATIONS, BIRMINGHAM, MICHIGAN

FUEL, OIL and TIME Fuel regular gasoline Octane No Motor 84.8 Research 93.2 (rating taken from oil company's typical inspection data) Specific gravity converted to 60°/60° 0.7320 Weight per gallon 6.094 lb Oil SAE 10W-30 API service classification MS DG DM To motor 1.705 gal Drained from motor 1.360 gal Transmission lubricant Ford oil ESN-M2C41-A or M-2C53-B Final-drive lubricant Ford oil ESN-M2C53-A or M2C53B Total time engine was operated 57 hours.

ENGINE Make Ford gasoline Type 4 cylinder vertical Serial No E006783 Crankshaft mounted lengthwise Rated rpm 2100 Bore and stroke 4.4" x 4.2" Compression ratio 7.75 to 1 Displacement 256 cu in Carburetor size 1½/16" Ignition system battery Cranking system 12 volt electric Lubrication pressure Air cleaner oil washed wire mesh Oil filter full flow replaceable cotton blend element Oil cooler engine coolant heat exchanger in lower radiator tank for transmission oil Fuel filter edge type filter in sediment bowl Muffler was used Cooling medium temperature control thermostat.

CHASSIS Type standard Serial No C209905 Tread width rear 52" to 80" front 52" to 80" Wheel base 87.5" 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 27.30" Vertical distance above roadway 32.95" Horizontal distance from center of rear wheel tread 0" to the right/left Hydraulic control system direct engine drive Transmission selective gear fixed ratio with operator controlled full range power shifting Advertised speeds mph first 1.0 second 1.5 third 1.7 fourth 2.3 fifth 3.6 sixth 4.6 seventh 5.3 eighth 6.9 ninth 11.1 tenth 16.4 reverse 3.1 and 4.6 Clutch oil cooled multiple disc clutches within transmission hydraulically operated Brakes oil cooled multiple disc mechanically operated by two foot pedals which can be locked Steering mechanical with power assist Turning radius (on concrete surface with brake applied) right 117" left 117" (on concrete surface without brake) right 141" left 141" Turning space diameter (on concrete surface with brake applied) right 249" left 249" (on concrete surface without brake) right 294" left 294" Belt pulley 1072 rpm at 2050 engine rpm diam 11" face 6.5" Belt speed 3087 fpm Power take-off 540 rpm at 1900 engine rpm.

REPAIRS AND ADJUSTMENTS During preliminary pto runs cylinder head was removed and combustion chamber cleaned. This was done twice. New spark plugs and ignition points were installed.

REMARKS: All test results were determined from observed data obtained in accordance with the SAE and ASAE test code. First, second and third gears were not run as it was necessary to limit the pull in fourth gear because of the stability formula. Tenth gear was not run because it exceeded 15 mph. During no ballast run it was necessary to limit the pull to avoid excessive tractor bounce.

We, the undersigned, certify that this is a true and correct report of official Tractor Test 997.

L. F. LARSEN
Engineer-In-Charge

G. W. STEINBRUEGGE, Chairman
W. E. SPLINTER
D. E. LANE
Board of Tractor Test Engineers