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## Test 882: Ford 3000 Select-O-Speed (Diesel)

Tractor Museum

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# NEBRASKA TRACTOR TEST 882 - FORD 3000 SELECT-O-SPEED DIESEL

## POWER TAKE-OFF PERFORMANCE

Hp	Crankshaft speed rpm	Fuel Consumption		Hp-hr per gal	Temperature Degrees F			Barometer inches of Mercury
		Gal per hr	Lb per hp-hr		Cooling medium	Air wet bulb	Air dry bulb	
<b>MAXIMUM POWER AND FUEL CONSUMPTION</b>								
<b>Rated Engine Speed—Two Hours</b>								
38.06	2000	2.531	0.459	15.04	195	58	75	29.237
<b>Standard Power Take-off Speed (540 rpm)—One Hour</b>								
35.96	1811	2.321	0.446	15.49	195	58	75	29.195
<b>Standard Power Take-off Speed (1000 rpm)—One Hour</b>								
37.85	1961	2.522	0.460	15.01	196	58	75	29.165
<b>VARYING POWER AND FUEL CONSUMPTION—TWO HOURS</b>								
33.93	2098	2.332	0.475	14.55	192	58	75	.....
0.00	2199	0.856	.....	.....	180	57	72	.....
17.29	2139	1.529	0.611	11.31	186	59	76	.....
38.32	2000	2.593	0.467	14.78	196	58	74	.....
8.87	2192	1.186	0.923	7.48	182	60	76	.....
25.95	2139	1.946	0.518	13.34	189	58	75	.....
Av 20.73	2128	1.740	0.580	11.91	187	58	74	29.173

## DRAWBAR PERFORMANCE

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

### VARYING DRAWBAR POWER AND FUEL CONSUMPTION WITH BALLAST

<b>Maximum Available Power—Two Hours—6th Gear</b>											
30.60	2577	4.45	2000	5.34	2.476	0.559	12.36	197	59	73	28.680
<b>75% of Pull at Maximum Power—Ten Hours—6th Gear</b>											
25.44	2051	4.65	2061	4.00	2.139	0.581	11.89	190	57	63	28.573
<b>50% of Pull at Maximum Power—Two Hours—6th Gear</b>											
18.12	1420	4.79	2100	3.13	1.754	0.669	10.33	185	54	55	28.525

### MAXIMUM POWER WITH BALLAST

27.48	5016	2.05	2037	11.87	4th Gear	.....	189	52	55	28.740
33.35	3696	3.38	2002	7.54	5th Gear	.....	191	52	55	28.740
33.24	2815	4.43	2000	5.91	6th Gear	.....	191	52	55	28.740
32.62	2386	5.13	1995	5.10	7th Gear	.....	191	52	55	28.740
31.02	1733	6.71	2004	3.61	8th Gear	.....	195	58	74	28.720
28.97	982	11.06	2008	2.12	9th Gear	.....	195	58	74	28.720

### MAXIMUM POWER WITHOUT BALLAST

32.38	2828	4.29	1998	9.60	6th Gear	.....	195	53	60	28.680
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### VARYING DRAWBAR PULL AND TRAVEL SPEED WITH BALLAST—6th Gear

Pounds pull	2815	2990	3181	3209	3318	3235
Horsepower	33.24	31.50	29.90	26.31	23.32	18.95
Crankshaft speed, rpm	2000	1789	1602	1402	1201	1001
Miles per hour	4.43	3.95	3.53	3.08	2.64	2.20
Slip of drivers, %	5.91	6.34	6.55	7.28	6.76	6.97

### TIRES, BALLAST and WEIGHT

		With Ballast	Without Ballast
Rear tires	—No, size, ply & psi	Two 14.9-24; 4; 14	Two 14.9-24; 4; 12
Ballast	—Liquid	575 lb each	None
	—Cast iron	770 lb each	None
Front tires	—No, size, ply & psi	Two 6.00-16; 4; 28	Two 6.00-16; 4; 28
Ballast	—Liquid	None	None
	—Cast iron	None	None
Height of drawbar		20 inches	21½ inches
Static weight	—Rear	4990 lb	2300 lb
	—Front	1680 lb	1710 lb
Total weight with operator		6845 lb	4185 lb

## Department of Agricultural Engineering

Dates of Test: MARCH 24 TO APRIL 9, 1965

Manufacturer: FORD MOTOR COMPANY, BIRMINGHAM, MICHIGAN

**FUEL, OIL and TIME** Fuel No 2 diesel Cetane No 57.0 (rating taken from oil company's typical inspection data) Specific gravity converted to 60°/60° 0.8295 Weight per gallon 6.907 lb Oil SAE 10W API service classification DS To motor 1.932 gal Drained from motor 1.147 gal Transmission lubricant Ford M2C41-A Final Drive M2C 77A Total time engine was operated 58½ hours.

**ENGINE** Make Ford Diesel Type 3 cylinder vertical Serial No ND003437M4 Crankshaft mounted lengthwise Rated rpm 2000 Bore and stroke 4.2" x 4.2" Compression ratio 16.5 to 1 Displacement 175 cu in Cranking system 12 volt electric Lubrication pressure Air cleaner oil washed wire mesh Oil filter full flow replaceable cotton element Oil cooler heat exchanger in lower radiator tank for transmission oil Fuel filter one filter with replaceable nylon gauze element and one filter with replaceable paper element Muffler was used Cooling medium temperature control thermostat.

**CHASSIS** Type standard Serial No C100955 Tread width rear 52" to 76" front 52" to 80" Wheel base 75.8" 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 32.8" Vertical distance above roadway 25.2" 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 1.4 third 1.6 fourth 2.2 fifth 3.6 sixth 4.6 seventh 5.4 eighth 6.8 ninth 11.0 tenth 16.4 reverse 3.2 and 4.6 Clutch multiple disc wet clutches within transmission hydraulically operated Brakes internal expanding shoe operated by two foot pedals that can be locked together Steering mechanical with power assist Turning radius (on concrete surface with brake applied) right 117" left 117" (on concrete surface without brake) right 129" left 129" Turning space diameter (on concrete surface with brake applied) right 240" left 240" (on concrete surface without brake) right 267" left 267" Belt pulley 1085 rpm at 1950 engine rpm diam 10.25" face 6.5" Belt speed 2911 fpm Power take-off 537 rpm at 1800 engine rpm and 995 rpm at 1950 engine rpm.

**REPAIRS and ADJUSTMENTS** No repairs or adjustments.

**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 as it exceeded 15 mph.

We, the undersigned, certify that this is a true and correct report of official Tractor Test 882.

L. F. LARSEN

Engineer-in-Charge

G. W. STEINBRUEGGE, Chairman

J. J. SULEK

D. E. LANE

Board of Tractor Test Engineers

\*During drawbar runs one rear tire slipped on the rim causing a slight leakage.