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January 1973

## Test 1122: Ford 9600 Diesel Dual Power, Ford 9600 Diesel Dual Power Row Crop, Ford 9600 Diesel 8-Speed All Purpose and Ford 9600 Diesel 8-Speed Row Crop

Nebraska Tractor Test Lab

University of Nebraska-Lincoln, [tractortestlab@unl.edu](mailto:tractortestlab@unl.edu)

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# NEBRASKA TRACTOR TEST 1122 – FORD 9600 DIESEL DUAL POWER

(ALSO FORD 9600 DIESEL DUAL POWER ROW CROP)

(ALSO FORD 9600 DIESEL 8-SPEED ALL PURPOSE)

(ALSO FORD 9600 DIESEL 8-SPEED ROW CROP)

## POWER TAKE-OFF PERFORMANCE

Hp	Crank- shaft 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	
MAXIMUM POWER AND FUEL CONSUMPTION								
Rated Engine Speed—Two Hours (PTO Speed—1137 rpm)								
135.46	2200	8.418	0.433	16.09	198	58	75	28.803
Standard Power Take-off Speed (1000 rpm)—One Hour								
128.46	1934	7.612	0.413	16.88	197	58	75	28.825
VARYING POWER AND FUEL CONSUMPTION—Two Hours								
120.21	2299	7.766	0.450	15.48	190	59	75	.....
0.00	2438	2.500	.....	.....	172	57	73	.....
61.72	2355	5.008	0.565	12.32	178	57	73	.....
135.28	2201	8.438	0.434	16.03	197	59	76	.....
31.12	2385	3.745	0.838	8.31	173	57	73	.....
91.41	2328	6.409	0.488	14.26	182	58	75	.....
Av 73.29	2334	5.644	0.536	12.99	182	57	74	28.853

## 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—8th Gear (5 PD)</b>											
111.40	9146	4.57	2200	9.19	8.368	0.522	13.31	175	46	55	29.115
<b>75% of Pull at Maximum Power—Ten Hours—8th Gear (5 PD)</b>											
93.38	6991	5.01	2346	6.43	7.387	0.550	12.64	175	47	54	29.117
<b>50% of Pull at Maximum Power—Two Hours—8th Gear (5 PD)</b>											
65.71	4743	5.19	2373	4.00	5.943	0.629	11.06	170	59	63	28.790
<b>50% of Pull at Reduced Engine Speed—Two Hours—11th Gear (6 PD)</b>											
66.43	4782	5.21	1687	4.32	4.758	0.498	13.96	164	58	62	28.830

### MAXIMUM POWER WITH BALLAST

98.66	12203	3.03	2345	12.35	5th Gear (3 PD)....		176	44	53	29.120
109.20	11085	3.69	2198	11.34	6th Gear (3 DD)....		175	45	56	29.110
109.33	10651	3.85	2201	11.34	7th Gear (4 PD)....		178	43	51	29.110
114.34	9387	4.57	2200	9.19	8th Gear (5 PD)....		178	41	49	29.110
116.40	6565	6.65	2200	6.33	11th Gear (6 PD)....		180	45	53	29.110
112.42	4110	10.26	2202	4.00	13th Gear (7 PD)....		178	47	56	29.110

### VARYING DRAWBAR PULL AND TRAVEL SPEED WITH BALLAST—8th Gear (5 PD)

Pounds Pull	9387	10189	10844	10476	9943	8995
Horsepower	114.34	109.88	103.72	87.94	72.22	54.97
Crankshaft Speed rpm	2200	1970	1758	1541	1324	1101
Miles Per Hour	4.57	4.04	3.59	3.15	2.72	2.29
Slip of Drivers %	9.19	10.25	10.66	10.80	10.11	8.98

### TRACTOR SOUND LEVEL dB (A)

Maximum Available Power 2 Hours	84.0
75% of Pull at Max. Power 10 Hours	85.0
50% of Pull at Max. Power 2 Hours	85.0
50% of Pull at Reduced Engine Speed 2 Hours	82.5
Bystander 16th Gear (8 DD)	84.5

### TIRES, BALLAST AND WEIGHT

		With Ballast	Without Ballast
Rear Tires	—No., size, ply & psi	Two 23.1-34;8;16	Two 23.1-34;8;16
	—Liquid	1960 lb each	None
	Cast Iron	1130 lb each	None
Front tires	—No., size, ply & psi	Two 11.00-16;6;28	Two 11.00-16;6;28
	—Liquid	None	None
	Cast Iron	None	None
Height of drawbar		20½ inches	21½ inches
Static weight with operator—Rear		14220 lb	8040 lb
	Front	3780 lb	3820 lb
	Total	18000 lb	11860 lb

Department of Agricultural Engineering

Dates of Test: April 2 to April 17 1973

Manufacturer: FORD MOTOR COMPANY,  
FORD TRACTOR OPERATIONS, TROY,  
MICHIGAN

**FUEL, OIL AND TIME** Fuel No. 2 Diesel Cetane No 50.1 (rating taken from oil company's typical inspection data) Specific gravity converted to 60°/60° 0.8360 Weight per gallon 6.961 lb Oil SAE 30 API service classification SB/SE-CA/CD (formerly MS-DS) To motor 4.109 gal Drained from motor 1.998 gal Transmission and final drive lubricant Ford oil M-2C53-B or ESN-M2C53-A Total time engine was operated 58 hours.

**ENGINE** Make Ford Diesel Type 6 cylinder vertical with turbo-charger Serial No H488548 Crankshaft Mounted lengthwise Rated rpm 2200 Bore and stroke 4.4" x 4.4" Compression ratio 16.5 to 1 Displacement 401 cu in Cranking system 12 volt electric Lubrication Pressure Air cleaner dry type with replaceable paper element and automatic dust unloader Oil filter dual media full flow with replaceable element Oil cooler engine cooler heat exchanger for engine oil and radiator for transmission and hydraulic oil Fuel filter screen in tank dual replaceable paper elements with water traps Muffler was used Cooling medium temperature control thermostat.

**CHASSIS** Type standard Serial No C365301 Tread width rear 68" to 90" front 56" to 84" Wheel base 91.5" 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 28.4" Vertical distance above roadway 38.0" 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 partial range operator controlled power shifting Advertised speeds mph first 1.5 second 1.9 third 2.1 fourth 2.7 fifth 3.1 sixth 4.0 seventh 4.2 eighth 4.9 ninth 5.3 tenth 6.2 eleventh 6.9 twelfth 8.8 thirteenth 10.4 fourteenth 13.2 fifteenth 13.9 sixteenth 17.6 reverse 1.8, 2.4, 6.1 and 7.8 Clutch single plate dry disc operated by foot pedal Brakes wet disc hydraulically actuated by two foot pedals which can be locked together Steering hydrostatic Turning radius (on concrete surface with brake applied) right 132" left 132" (on concrete surface without brake) right 156" left 156" Turning space diameter (on concrete surface with brake applied) right 287" left 287" (on concrete surface without brake) right 322" left 322" Power take-off 1000 rpm at 1935 engine rpm or 1137 rpm at 2200 engine rpm.

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

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

First, second, third and fourth gears were not run as it was necessary to limit the pull in fifth gear because of the tire tangential pull limit. Ninth, tenth, twelfth, fourteenth, fifteenth and sixteenth gears were not run as test procedure requires only six travel speeds.

We, the undersigned, certify that this is a true and correct report of official Tractor Test 1122.

L. F. Larsen  
Engineer-in-Charge

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

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