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January 1975

## Test 1182: White Field Boss 2-150 Diesel 18-Speed

Tractor Museum

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# NEBRASKA TRACTOR TEST 1182 - WHITE FIELD BOSS 2-150 DIESEL 18 SPEED

## 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 (PTO Speed—1007 rpm)</b>								
147.49	2200	10.199	0.479	14.46	199	71	76	28.890
<b>VARYING POWER AND FUEL CONSUMPTION—Two Hours</b>								
131.06	2300	9.165	0.484	14.30	195	71	75	.....
0.00	2355	3.142	.....	.....	170	68	71	.....
66.37	2333	5.789	0.604	11.46	193	69	74	.....
146.13	2201	10.240	0.485	14.27	200	70	74	.....
33.47	2345	4.359	0.902	7.68	187	70	75	.....
98.79	2313	7.289	0.511	13.55	196	71	76	.....
<b>Av 79.30</b>	<b>2308</b>	<b>6.664</b>	<b>0.582</b>	<b>11.90</b>	<b>190</b>	<b>70</b>	<b>74</b>	<b>28.895</b>

## DRAWBAR PERFORMANCE

Hp	Draw-bar 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	
<b>VARYING DRAWBAR POWER AND FUEL CONSUMPTION WITHOUT BALLAST</b>											
<b>Maximum Available Power—Two Hours—9th Gear (4 UD)</b>											
121.35	9865	4.61	2200	6.12	10.057	0.574	12.07	203	73	81	29.030
<b>75% of Pull at Maximum Power—Ten Hours—9th Gear (4 UD)</b>											
99.49	7643	4.88	2286	4.45	8.197	0.570	12.14	197	77	90	29.058
<b>50% of Pull at Maximum Power—Two Hours—9th Gear (4 UD)</b>											
68.11	5092	5.02	2319	3.14	6.410	0.652	10.63	195	67	68	29.035
<b>50% of Pull at Reduced Engine Speed—Two Hours—11th Gear (4 DD)</b>											
67.68	5066	5.01	1918	2.99	5.525	0.565	12.25	194	70	73	29.030

## MAXIMUM POWER WITHOUT BALLAST

99.49	15059	2.48	2285	14.68	4th Gear (2-UD)			198	69	75	29.030
122.54	11367	4.04	2201	7.49	8th Gear (3-DD)			202	72	76	29.040
124.92	10174	4.60	2200	6.31	9th Gear (4-UD)			200	72	75	29.040
127.49	8494	5.63	2200	4.93	11th Gear (4-DD)			201	72	77	29.040
123.55	6781	6.83	2199	3.80	13th Gear (4-OD)			202	72	78	29.030
121.36	4706	9.67	2201	2.47	15th Gear (5-OD)			201	72	78	29.030

## VARYING DRAWBAR PULL AND TRAVEL SPEED WITHOUT BALLAST—9th Gear (4 UD)

Pounds Pull	10174	10765	11211	11512	11639	11333
Horsepower	124.92	117.68	109.52	97.39	84.06	68.35
Crankshaft Speed rpm	2200	1970	1770	1540	1317	1033
Miles Per Hour	4.60	4.10	3.66	3.17	2.71	2.26
Slip of Drivers %	6.34	6.77	7.35	7.91	8.05	7.77

## TRACTOR SOUND LEVEL (with cab)

	dB(A)
Maximum Available Power 2 Hours	91.0
75% of Pull at Max. Power 10 Hours	90.0
50% of Pull at Max. Power 2 Hours	90.5
50% of Pull at Reduced Engine Speed 2 Hours	90.5
Bystander 18th Gear (6-OD)	89.0

## TIRES, BALLAST AND WEIGHT

		Tested Without Ballast
<b>Rear Tires</b>	—No., size, ply & psi	Four 18.4-38; 8; 14
<b>Ballast</b>	—Liquid	None
	—Cast iron	None
<b>Front Tires</b>	—No., size, ply & psi	Two 11.00-16; 8; 32
<b>Ballast</b>	—Liquid	None
	—Cast iron	None
<b>Height of drawbar</b>		20 inches
<b>Static weight with operator—rear</b>		12630 lb
	front	4310 lb
	total	16940 lb

Department of Agricultural Engineering

Dates of Test: June 16 to June 30, 1975

Manufacturer: WHITE FARM EQUIPMENT COMPANY, 2625 Butterfield Road, Oakbrook, Illinois 60521

**FUEL, OIL AND TIME** Fuel No 2 Diesel Cetane No 51.7 (rating taken from oil company's typical inspection data) Specific gravity converted to 60°/60° 0.8315 Weight per gallon 6.923 lb Oil SAE 30 API service classification SB/SE-CA/CD To motor 7.287 gal Drained from motor 5.779 gal Transmission and final drive lubricant SAE 80-90 Total time engine was operated 50.5 hours.

**ENGINE** Make White Farm Equipment Diesel Type six cylinder vertical Serial No 45204165 Crankshaft lengthwise Rated rpm 2200 Bore and stroke 4.75" x 5.5" Compression ratio 15.3 to 1 Displacement 585 cu in Crank-ing system 12 volt Lubrication pressure Air cleaner two stage dry paper elements with aspirated pre-cleaner Oil filter replaceable pleated paper element Oil cooler engine coolant heat exchanger for crankcase oil, radiator for hydraulic oil Fuel filter replaceable paper cartridge Muffler vertical Cooling medium temperature control thermostat.

**CHASSIS** Type standard with duals Serial No 2596593410 Tread width rear 61" to 128" front 61" to 85" Wheel base 111.15" 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 27.8" Vertical distance above roadway 38.7" 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 (3) range operator controlled power shift Advertised speeds mph first 1.5 second 1.8 third 2.2 fourth 2.8 fifth 3.4 sixth 3.8 seventh 4.1 eighth 4.5 ninth 5.0 tenth 5.4 eleventh 6.0 twelfth 7.0 thirteenth 7.2 fourteenth 8.4 fifteenth 10.1 sixteenth 12.3 seventeenth 14.8 eighteenth 17.7 reverse 1.9, 2.2, 2.7, 4.5, 5.5, 6.6 Clutch dry disc operated by foot pedal Brakes triple disc hydraulically power actuated by two foot pedals which can be locked together Steering hydrostatic Turning radius (on concrete surface with brake applied) right 146" left 146" (on concrete surface without brake) right 176.5" left 176.5" Turning space diameter (on concrete surface with brake applied) right 304" left 304" (on concrete surface without brake) right 365" left 365" Power take-off 542, 1007 and 2200 rpm at 2200 engine rpm.

**REPAIRS AND ADJUSTMENTS:** Oil seal on left rear axle leaked and was replaced. Number 6 piston seized and scored cylinder wall. 10 hour test was rerun after replacement of piston and rear cylinder block.

**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 selected within the limits of 15% slip and 10 mph.

Fuel temperature at injection pump return was 149 degrees F.

We, the undersigned, certify that this is a true and correct report of official Tractor Test 1182.

LOUIS I. LEVITICUS

Engineer-in-Charge

G. W. STEINBRUEGGE, Chairman  
W. E. SPLINTER  
D. E. LANE

Board of Tractor Test Engineers

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