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## Test 1265: John Deere 4440 Diesel

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NEBRASKA TRACTOR TEST 1265 — JOHN DEERE 4440 DIESEL

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—1002 rpm)									
130.58 (97.38)	2200	8.585 (32.496)	0.458 (0.279)	15.21 (2.997)	188 (86.9)	57 (13.8)	75 (23.9)	28.777 (97.174)	
VARYING POWER AND FUEL CONSUMPTION—Two Hours									
115.03 (85.78)	2280	8.015 (30.339)	0.485 (0.295)	14.35 (2.827)	181 (82.8)	58 (14.4)	75 (23.9)	..... .....	
0.00 (0.00)	2356	2.963 (11.216)	..... .....	..... .....	175 (79.4)	58 (14.2)	75 (23.9)	..... .....	
58.11 (43.33)	2299	5.375 (20.345)	0.644 (0.392)	10.81 (2.130)	181 (82.8)	58 (14.4)	75 (23.9)	..... .....	
131.04 (97.72)	2200	8.643 (32.719)	0.459 (0.279)	15.16 (2.987)	189 (87.2)	58 (14.4)	75 (23.9)	..... .....	
29.15 (21.74)	2318	4.147 (15.699)	0.991 (0.603)	7.03 (1.385)	176 (80.3)	58 (14.2)	74 (23.6)	..... .....	
86.50 (64.50)	2285	6.658 (25.203)	0.536 (0.326)	12.99 (2.559)	184 (84.4)	57 (13.9)	74 (23.6)	..... .....	
<b>Av</b> <i>Av</i>	<b>69.97</b> (52.18)	<b>2290</b>	<b>5.967</b> (22.587)	<b>0.594</b> (0.361)	<b>11.73</b> (2.310)	<b>181</b> (82.8)	<b>58</b> (14.3)	<b>75</b> (23.8)	<b>28.700</b> (96.916)

DRAWBAR PERFORMANCE

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption			Temp. °F (°C)			
					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	Barom. inch Hg (kPa)
Maximum Available Power—Two Hours 6th (C-1) Gear											
108.59 (80.98)	8106 (36.06)	5.02 (8.08)	2201	5.75	8.559 (32.401)	0.549 (0.334)	12.69 (2.499)	184 (84.4)	47 (8.1)	56 (13.1)	28.640 (96.713)
75% of Pull at Maximum Power—Ten Hours 6th (C-1) Gear											
89.52 (66.76)	6311 (28.07)	5.32 (8.56)	2293	4.18	7.565 (28.638)	0.589 (0.358)	11.83 (2.331)	181 (82.8)	36 (2.2)	45 (7.4)	28.909 (97.621)
50% of Pull at Maximum Power—Two Hours 6th (C-1) Gear											
61.11 (45.57)	4213 (18.74)	5.44 (8.75)	2313	2.83	6.173 (23.367)	0.704 (0.428)	9.90 (1.950)	179 (81.7)	43 (6.1)	53 (11.4)	28.660 (96.781)
50% of Pull at Reduced Engine Speed—Two Hours 11th (C-3) Gear											
60.95 (45.45)	4203 (18.70)	5.44 (8.75)	1400	2.87	4.450 (16.846)	0.509 (0.309)	13.70 (2.698)	180 (82.2)	42 (5.3)	44 (6.7)	28.680 (96.848)
MAXIMUM POWER IN SELECTED GEARS											
101.06 (75.36)	13392 (59.57)	2.83 (4.55)	2263	14.78	3rd (A-3) Gear			180 (81.9)	20 (-6.6)	22 (-5.5)	29.380 (99.212)
111.39 (83.06)	10027 (44.60)	4.17 (6.70)	2200	7.22	5th (B-1) Gear			185 (85.0)	46 (7.8)	54 (12.2)	28.610 (96.612)
112.56 (83.94)	8406 (37.39)	5.02 (8.08)	2202	5.75	6th (C-1) Gear			185 (85.0)	45 (7.2)	53 (11.7)	28.600 (96.578)
111.59 (83.21)	7736 (34.41)	5.41 (8.70)	2200	5.15	7th (B-2) Gear			186 (85.6)	46 (7.8)	55 (12.8)	28.620 (96.645)
111.84 (83.40)	6479 (28.82)	6.47 (10.42)	2200	4.24	8th (C-2) Gear			186 (85.6)	47 (8.3)	56 (13.3)	28.630 (96.679)
112.41 (83.82)	5904 (26.26)	7.14 (11.49)	2201	3.93	9th (B-3) Gear			185 (85.0)	47 (8.3)	57 (13.9)	28.640 (96.713)
LUGGING ABILITY IN RATED GEAR 6th (C-1)											
Crankshaft Speed rpm				2202	1980	1759	1542	1315	1084		
Pull—lbs (kN)				8406 (37.39)	9167 (40.78)	9662 (42.98)	10764 (47.88)	10749 (47.81)	9799 (43.59)		
Increase in Pull %				0	9	15	28	28	17		
Power—Hp (kW)				112.56 (83.94)	109.63 (81.75)	102.09 (76.13)	98.61 (73.53)	83.77 (62.17)	63.79 (47.57)		
Speed—Mph (km/h)				5.02 (8.08)	4.48 (7.22)	3.96 (6.38)	3.44 (5.53)	2.92 (4.70)	2.44 (3.93)		
Slip %				5.75	6.56	6.86	8.01	8.15	6.86		

Department of Agricultural Engineering

Dates of Test: November 8 to 21, 1977

Manufacturer: JOHN DEERE WATERLOO TRACTOR WORKS, P.O. Box 270, Waterloo, Iowa 50704

FUEL, OIL AND TIME: Fuel No. 2 Diesel Cetane No. 50.8 (rating taken from oil company's typical inspection data) Specific gravity converted to 60°/60° (15°/15°) 0.8366 Fuel weight 6.966 lbs/gal (0.837 kg/l) Oil SAE 30 API service classification CD, CC and SD To motor 3.860 gal (14.612 l) Drained from motor 3.519 gal (13.321 l) Transmission and final drive lubricant John Deere Hy-Gard Transmission and Hydraulic Oil Total time engine was operated 41.5 hours

ENGINE Make John Deere Diesel Type 6 cylinder vertical with turbocharger Serial No. 6466TR-03 024358RG Crankshaft lengthwise Rated rpm 2200 Bore and stroke 4.5625" × 4.75" (115.9 mm × 120.7 mm) Compression ratio 15.5 to 1 Displacement 466 cu in (7636 ml) Cranking system 12 volt Lubrication pressure Air cleaner paper primary and safety elements with dust evacuator Oil filter one screw-on cartridge Oil cooler engine coolant heat exchanger for crankcase oil, radiator for transmission and hydraulic oil Fuel filter two snap-on cartridges Muffler vertical Cooling medium temperature control 2 thermostats.

CHASSIS: Type standard with duals Serial No. 4440H 001781R Tread width rear 60" (1524 mm) to 130" (3302 mm) front 53.5" (1359 mm) to 73.6" (1869 mm) Wheel base 106.6" (2709 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 32.9" (836 mm) Vertical distance above roadway 39.9" (1014 mm) Horizontal distance from center of rear wheel tread 0.3" (7 mm) to the left Hydraulic control system direct engine drive Transmission selective gear fixed ratio with partial (2) range operator controlled power shift Advertised speeds mph (km/h) first 1.9 (3.1) second 2.4 (3.9) third 3.2 (5.1) fourth 4.0 (6.5) fifth 4.4 (7.1) sixth 5.2 (8.5) seventh 5.6 (9.0) eighth 6.7 (10.7) ninth 7.3 (11.8) tenth 8.1 (13.0) eleventh 8.7 (14.0) twelfth 9.3 (15.0) thirteenth 10.2 (16.5) fourteenth 11.0 (17.7) fifteenth 13.3 (21.4) sixteenth 16.9 (27.2) reverse 3.1 (5.0), 3.9 (6.3), 7.1 (11.4), 8.4 (13.5), 9.0 (14.5), 10.7 (17.2) Clutch multiple wet disc hydraulically power actuated and operated by foot pedal Brakes wet disc hydraulically power actuated and operated by two foot pedals which can be locked together Steering hydrostatic Turning radius (on concrete surface with brake applied) right 146" (3.71 m) left 146" (3.71 m) (on concrete surface without brake) right 163" (4.14 m) left 163" (4.14 m) Turning space diameter (on concrete surface with brake applied) right 302" (7.67 m) left 302" (7.67 m) (on concrete surface without brake) right 338" (8.58 m) left 338" (8.58 m) Power take-

TRACTOR SOUND LEVEL WITH CAB		dB(A)	
Maximum Available Power—Two Hours		78.0	
75% of Pull at Maximum Power—Ten Hours		78.0	
50% of Pull at Maximum Power—Two Hours		79.0	
50% of Pull at Reduced Engine Speed—Two Hours		75.5	
Bystander in 16th (D-4) gear		88.0	
TIRES, BALLAST AND WEIGHT		With Ballast	Without Ballast
Rear Tires	—No., size, ply & psi (kPa)	Four 18.4-38; 6; 14 (100)	Four 18.4-38; 6; 14 (100)
Ballast	—Liquid (each inner)	1115 lb (506 kg)	None
	—Cast Iron (each)	None	None
Front Tires	—No., size, ply & psi (kPa)	Two 11.00-16; 8; 40 (280)	Two 11.00-16; 8; 40 (280)
Ballast	—Liquid (each)	None	None
	—Cast Iron (each)	20 lb (9 kg)	None
Height of drawbar		22.5 in (570 mm)	22.5 in (570 mm)
Static weight with operator—	rear	11790 lb (5348 kg)	9560 lb (4338 kg)
	front	3750 lb (1701 kg)	3710 lb (1683 kg)
	total	15540 lb (7049 kg)	13270 lb (6021 kg)

off 1002 rpm at 2200 engine rpm, 540 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. Temperature at injection pump return was 140°F (60.1°C). 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 **1265**.

LOUIS I. LEVITICUS  
Engineer-in Charge

G. W. STEINBRUEGGE, Chairman  
W. E. SPLINTER  
K. VON BARGEN  
Board of Tractor Test Engineers



John Deere 4440 Diesel