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January 2002

## Test 1807: John Deere 7810 Diesel IVT

Nebraska Tractor Test Lab

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

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# NEBRASKA OECD TRACTOR TEST 1807-SUMMARY 373

## JOHN DEERE 7810 IVT DIESEL

### INFINITELY VARIABLE TRANSMISSION

#### POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
151.14 (112.70)	2100	9.63 (36.46)	0.449 (0.273)	15.69 (3.09)	
167.58 (124.96)	1800	9.69 (36.67)	0.407 (0.248)	17.30 (3.41)	
VARYING POWER AND FUEL CONSUMPTION					
151.14 (112.70)	2100	9.63 (36.46)	0.449 (0.273)	15.69 (3.09)	Air temperature
134.76 (100.49)	2204	8.94 (33.85)	0.467 (0.284)	15.07 (2.97)	75°F (24°C)
101.51 (75.70)	2213	7.49 (28.37)	0.520 (0.316)	13.54 (2.67)	Relative humidity
67.93 (50.66)	2223	5.79 (21.92)	0.601 (0.365)	11.73 (2.31)	21%
34.09 (25.42)	2232	4.26 (16.12)	0.880 (0.535)	8.01 (1.58)	Barometer
1.02 (0.76)	2240	2.81 (10.64)	19.365 (11.779)	0.36 (0.07)	28.99" Hg (98.17 kPa)
Maximum Torque - 568 lb.-ft. (770 Nm) at 1250 rpm					
Maximum Torque Rise - 50.2%					
Torque rise at 1700 engine rpm - 34%					

#### DRAWBAR PERFORMANCE

#### UNBALLASTED - AUTO MODE

#### FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp. °F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
139.47 (104.00)	10742 (47.78)	4.87 (7.84)	1998	2.33	0.470 (0.286)	14.99 (2.95)	197 (92)	52 (11)	28.83 (97.63)
105.74 (78.85)	8063 (35.86)	4.92 (7.92)	1713	1.63	0.457 (0.278)	15.42 (3.04)	193 (89)	53 (12)	28.82 (97.60)
70.96 (52.91)	5380 (23.93)	4.95 (7.96)	1243	1.28	0.467 (0.284)	15.07 (2.97)	193 (89)	56 (13)	28.80 (97.53)
106.18 (79.18)	8067 (35.88)	4.94 (7.94)	1730	1.81	0.464 (0.282)	15.19 (2.99)	191 (88)	54 (12)	28.82 (97.60)
70.80 (52.80)	5375 (23.91)	4.94 (7.95)	1238	1.19	0.468 (0.285)	15.06 (2.97)	191 (88)	57 (14)	28.79 (97.49)

**Location of Test:** Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln, Nebraska 68583-0832

**Dates of Test:** April 24-May 31, 2002

**Manufacturer:** John Deere Tractor Works, 3500 East Donald St., P.O. Box 270, Waterloo Ia, 50704-0270

**FUEL, OIL and TIME:** Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.8457 Fuel weight 7.042 lbs/gal (0.844 kg/l) Oil SAE 15W-40 API service classification CH-4 Transmission and hydraulic lubricant John Deere Hy-Gard fluid Front axle lubricant John Deere Hy-Gard fluid Total time engine was operated: 34.5 hours

**ENGINE:** Make John Deere Diesel Type six cylinder vertical with turbocharger Serial No. \*RG6081T148757\* Crankshaft lengthwise Rated engine speed 2100 Bore and stroke 4.56" x 5.06" (115.9 mm x 128.5 mm) Compression ratio 17.0 to 1 Displacement 496 cu in (8132 ml) Starting system 12 volt Lubrication pressure Air cleaner two paper elements and aspirator Oil filter one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil Fuel filter one paper element and prestrainer Fuel cooler radiator for pump return fuel Muffler vertical Cooling medium temperature control 2 thermostats and variable speed fan

**ENGINE OPERATING PARAMETERS:** Fuel rate: 65.5 - 72.3 lb/h (29.6 - 32.8 kg/h) High idle: 2225 - 2275 rpm Turbo boost: nominal 17.1 - 21.5 psi (118 - 148 kPa) as measured 19.3 psi (133 kPa)

**CHASSIS:** Type front wheel assist Serial No. \*RW7810D072278\* Tread width rear 60.0" (1524 mm) to 108.3 (2752 mm) front 60.0" (1524 mm) to 88.0" (2235 mm) Wheelbase 110.2" (2800 mm) Hydraulic control system direct engine drive Transmission Infinity variable with two ranges with automatic shifting between ranges. Nominal travel speeds mph (km/h) Low range 0-11 mph (0-17 km/h), high range 0-26.0 mph, (0-42 km/h) Clutch wet multiple disc hydraulically actuated by foot pedal Brakes wet multiple disc hydraulically operated by two foot pedals that can be locked together Steering hydrostatic Power take-off 540 rpm at 2072 engine rpm or 1000 rpm at 2086 engine rpm Unladen tractor mass 16190 lb (7343 kg)

## DRAWBAR PERFORMANCE

### UNBALLASTED - Auto mode MAXIMUM POWER AT SELECTED SPEEDS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp.°F cool- ing med	°C Air dry bulb	Barom. inch Hg (kPa)
3.2 mph (5.1 km/h)									
131.12 (97.78)	16698 (74.27)	2.94 (4.74)	1977	6.77	0.510 (0.310)	13.82 (2.72)	192 (89)	62 (17)	28.52 (96.58)
3.8 mph (6.1 km/h)									
135.64 (101.14)	16040 (71.35)	3.17 (5.10)	1967	5.33	0.494 (0.300)	14.27 (2.81)	201 (94)	62 (17)	28.52 (96.58)
4.4 mph (7.1 km/h)									
138.17 (103.03)	15349 (68.28)	3.38 (5.43)	1964	4.68	0.485 (0.295)	14.52 (2.86)	203 (95)	61 (16)	28.51 (96.55)
4.8 mph (7.7 km/h)									
141.21 (105.30)	14234 (63.32)	3.72 (5.99)	1960	3.77	0.477 (0.290)	14.77 (2.91)	202 (94)	60 (16)	28.50 (96.51)
5.0 mph (8.0 km/h)									
143.74 (107.19)	13672 (60.81)	3.94 (6.35)	1958	3.43	0.468 (0.285)	15.06 (2.97)	202 (94)	59 (15)	28.49 (96.48)
5.6 mph (9.0 km/h)									
143.32 (106.88)	12225 (54.38)	4.40 (7.08)	1958	2.93	0.470 (0.286)	15.00 (2.95)	207 (97)	57 (14)	28.47 (96.41)
6.2 mph (10.0 km/h)									
143.74 (107.19)	11082 (49.29)	4.86 (7.83)	1958	2.50	0.466 (0.284)	15.11 (2.98)	205 (96)	56 (13)	28.46 (96.38)
6.8 mph (10.9 km/h)									
144.55 (107.79)	10103 (44.94)	5.37 (8.63)	1989	2.24	0.466 (0.284)	15.10 (2.98)	207 (97)	50 (10)	28.46 (96.38)
7.4 mph (11.9 km/h)									
144.33 (107.63)	9251 (41.15)	5.85 (9.42)	1958	1.90	0.462 (0.281)	15.24 (3.00)	204 (95)	46 (8)	28.74 (97.33)
8.0 mph (12.9 km/h)									
157.13 (117.17)	8458 (37.62)	6.97 (11.21)	1957	1.72	0.464 (0.282)	15.20 (2.99)	209 (98)	47 (8)	28.75 (97.36)
8.6 mph (13.8 km/h)									
154.52 (115.22)	7758 (34.51)	7.47 (12.02)	1957	1.72	0.472 (0.287)	14.92 (2.94)	210 (99)	49 (9)	28.79 (97.49)
9.2 mph (14.8 km/h)									
138.86 (103.55)	6457 (28.72)	8.06 (12.98)	2005	1.37	0.494 (0.300)	14.27 (2.81)	207 (97)	50 (10)	28.81 (97.56)

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

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. For the maximum power tests the fuel temperature at the injection pump inlet was maintained at 125°F(52°C). The maximum drawbar pull was limited to avoid excessive tractor bouncing. The performance figures on this summary were taken from a test conducted under the OECD Code II test code procedure.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **1807**, Nebraska Summary 373, July 23, 2002.

Brent T. Sampson  
Test Engineer

L.L. Bashford  
G.J. Hoffman  
V.I. Adamchuk  
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Auto Mode dB(A)
At no load at 4.6 mph(7.5 km/h)	66.3
Transport speed-no load-	73.6
Bystander	83.5

### TIRES, BALLAST AND WEIGHT

**Rear Tires** - No., size, ply & psi(kPa)

**Ballast** - Duals (total)

- Cast Iron (total)

**Front Tires** - No., size, ply & psi(kPa)

**Ballast** - Liquid (total)

- Cast Iron (total)

**Height of Drawbar**

**Static Weight with operator** - Rear

- Front

- Total

#### With Ballast

Four 18.4R42;\*\*,10(70)

1520 lb (689 kg)

1405 lb (637 kg)

Two 14.9R30;\*\*\*,19(130)

None

480 lb (219 kg)

21.0 in (535 mm)

13340 lb (6051 kg)

6430 lb (2917 kg)

19770 lb (8968 kg)

#### Without Ballast

Two 18.4R42;\*\*,16(110)

None

None

Two 14.9R30;\*\*\*,14(95)

None

None

21.0 in(535 mm)

10600 lb(4804 kg)

5765 lb (2619 kg)

16365 lb (7423 kg)

**DRAWBAR PERFORMANCE**  
**UNBALLASTED - 1800 RPM - MANUAL MODE**  
**MAXIMUM POWER AT SELECTED SPEEDS**

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp.°F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
104.41 (77.86)	17309 (76.99)	2.26 (3.64)	2209	2.5 mph (4.0 km/h) 9.43	0.613 (0.373)	11.49 (2.26)	193 (89)	57 (14)	28.53 (96.59)
123.32 (91.96)	16583 (73.76)	2.79 (4.49)	2057	3.2 mph (5.1 km/h) 6.29	0.534 (0.325)	13.20 (2.60)	198 (92)	60 (16)	28.53 (96.59)
134.33 (100.17)	16081 (71.53)	3.13 (5.04)	1921	3.8 mph (6.1 km/h) 5.41	0.496 (0.302)	14.20 (2.80)	204 (95)	62 (17)	28.52 (96.55)
141.66 (105.64)	15483 (68.87)	3.43 (5.52)	1813	4.4 mph (7.1 km/h) 4.85	0.463 (0.282)	15.22 (3.00)	205 (96)	61 (16)	28.51 (96.52)
143.78 (107.22)	14229 (63.29)	3.79 (6.10)	1809	4.8 mph (7.7 km/h) 3.77	0.462 (0.281)	15.25 (3.00)	207 (97)	60 (16)	28.50 (96.48)
145.12 (108.21)	13727 (61.06)	3.96 (6.38)	1810	5.0 mph (8.0 km/h) 3.43	0.456 (0.277)	15.46 (3.04)	205 (96)	59 (15)	28.49 (96.45)
146.39 (109.16)	12262 (54.54)	4.48 (7.21)	1817	5.6 mph (9.0 km/h) 2.76	0.452 (0.275)	15.58 (3.07)	209 (98)	58 (14)	28.48 (96.42)
146.24 (109.05)	11056 (49.18)	4.96 (7.98)	1812	6.2 mph (10.0 km/h) 2.33	0.451 (0.275)	15.61 (3.08)	208 (98)	56 (13)	28.47 (96.38)
146.87 (109.52)	10080 (44.84)	5.46 (8.79)	1824	6.8 mph (10.9 km/h) 2.16	0.450 (0.274)	15.66 (3.09)	208 (98)	52 (11)	28.46 (96.35)
146.59 (109.31)	9245 (41.12)	5.95 (9.57)	1809	7.4 mph (11.9 km/h) 1.90	0.450 (0.274)	15.66 (3.09)	205 (96)	45 (7)	28.73 (97.26)
145.12 (108.21)	8456 (37.61)	6.44 (10.36)	1806	8.0 mph (12.9 km/h) 1.81	0.457 (0.278)	15.43 (3.04)	206 (97)	47 (8)	28.75 (97.33)
143.30 (106.86)	7748 (34.46)	6.94 (11.16)	1807	8.6 mph (13.8 km/h) 1.63	0.457 (0.278)	15.40 (3.03)	207 (97)	48 (9)	28.77 (97.40)
127.10 (94.78)	6420 (28.56)	7.42 (11.95)	1805	9.2 mph (14.8 km/h) 1.37	0.518 (0.315)	13.60 (2.68)	208 (98)	49 (9)	28.80 (97.50)
128.31 (95.68)	5937 (26.41)	8.11 (13.04)	1808	10.0 mph (16.1 km/h) 1.28	0.510 (0.310)	13.81 (2.72)	209 (98)	51 (11)	28.82 (97.57)

# DRAWBAR PERFORMANCE

## UNBALLASTED - MANUAL MODE

### FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Temp.°F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
<b>Maximum Power 5.0 mph (8.0 km/h)</b>									
134.21 (100.08)	10771 (47.91)	4.67 (7.52)	2103	2.24	0.482 (0.293)	14.63 (2.88)	204 (95)	52 (11)	28.83 (97.63)
<b>75% of Pull at Maximum Power 5.0 mph (8.0 km/h)</b>									
106.60 (79.49)	8076 (35.92)	4.95 (7.97)	2215	1.72	0.530 (0.322)	13.30 (2.62)	197 (91)	53 (12)	28.83 (97.63)
<b>50% of Pull at Maximum Power 5.0 mph (8.0 km/h)</b>									
72.27 (53.89)	5427 (24.14)	4.99 (8.04)	2226	1.37	0.620 (0.377)	11.36 (2.24)	191 (88)	56 (13)	28.80 (97.53)
<b>75% of Pull at Reduced Engine Speed 6.2 mph (10.0 km/h)</b>									
106.56 (79.46)	8075 (35.92)	4.95 (7.96)	1889	1.81	0.478 (0.291)	14.73 (2.90)	193 (89)	53 (12)	28.82 (97.60)
<b>50% of Pull at Reduced Engine Speed 6.2 mph (10.0 km/h)</b>									
71.44 (53.27)	5366 (23.87)	4.99 (8.04)	1901	1.37	0.539 (0.328)	13.08 (2.58)	185 (85)	57 (14)	28.79 (97.49)
<b>MAXIMUM POWER AT SELECTED SPEEDS</b>									
<b>2.5 mph (4.0 km/h)</b>									
104.52 (77.94)	17338 (77.12)	2.26 (3.64)	2209	9.66	0.617 (0.375)	11.42 (2.25)	196 (91)	57 (14)	28.53 (96.59)
<b>3.2 mph (5.1 km/h)</b>									
122.46 (91.32)	15882 (70.65)	2.89 (4.65)	2103	5.17	0.537 (0.327)	13.11 (2.58)	197 (92)	58 (14)	28.53 (96.59)
<b>3.8 mph (6.1 km/h)</b>									
127.41 (95.01)	13624 (60.60)	3.51 (5.64)	2107	3.43	0.513 (0.312)	13.73 (2.70)	200 (93)	62 (17)	28.52 (96.55)
<b>4.4 mph (7.1 km/h)</b>									
130.96 (97.66)	12052 (53.61)	4.07 (6.56)	2096	2.67	0.498 (0.303)	14.15 (2.79)	202 (94)	61 (16)	28.51 (96.52)
<b>4.8 mph (7.7 km/h)</b>									
132.32 (98.67)	11091 (49.34)	4.47 (7.20)	2104	2.50	0.498 (0.303)	14.14 (2.79)	202 (94)	60 (16)	28.50 (96.48)
<b>5.0 mph (8.0 km/h)</b>									
134.21 (100.08)	10771 (47.91)	4.67 (7.52)	2103	2.24	0.482 (0.293)	14.63 (2.88)	204 (95)	52 (11)	28.83 (97.60)
<b>5.6 mph (9.0 km/h)</b>									
133.64 (99.65)	9604 (42.72)	5.22 (8.40)	2098	2.07	0.491 (0.298)	14.36 (2.83)	204 (96)	58 (14)	28.48 (96.42)
<b>6.2 mph (10.0 km/h)</b>									
133.34 (99.43)	8613 (38.31)	5.81 (9.34)	2107	1.98	0.490 (0.298)	14.39 (2.83)	206 (96)	56 (13)	28.47 (96.38)
<b>6.8 mph (10.9 km/h)</b>									
131.48 (98.05)	7748 (34.46)	6.36 (10.24)	2098	1.63	0.498 (0.303)	14.14 (2.78)	202 (94)	55 (13)	28.46 (96.35)
<b>7.4 mph (11.9 km/h)</b>									
131.66 (98.18)	7125 (31.69)	6.93 (11.15)	2099	1.54	0.497 (0.303)	14.16 (2.79)	202 (94)	45 (7)	28.72 (97.22)
<b>8.0 mph (12.9 km/h)</b>									
129.46 (96.54)	6458 (28.72)	7.52 (12.10)	2101	1.37	0.506 (0.308)	13.93 (2.74)	203 (95)	46 (8)	28.74 (97.30)
<b>8.6 mph (13.8 km/h)</b>									
126.66 (94.45)	5878 (26.15)	8.08 (13.00)	2099	1.28	0.519 (0.316)	13.58 (2.68)	203 (95)	48 (9)	28.77 (97.40)

**DRAWBAR PERFORMANCE**  
**BALLASTED - 1800 RPM - MANUAL MODE**  
**MAXIMUM POWER AT SELECTED SPEEDS**

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)	
102.47 (76.41)	21232 (94.44)	1.81 (2.91)	2118	2.1 mph (3.4 km/h) 9.86	0.639 (0.389)	11.03 (2.17)	194 (90)	67 (19)	28.64 (96.99)
115.59 (86.20)	20038 (89.13)	2.16 (3.48)	2042	2.5 mph (4.0 km/h) 6.37	0.572 (0.348)	12.31 (2.43)	200 (93)	68 (20)	28.63 (96.95)
130.19 (97.08)	19037 (84.68)	2.56 (4.13)	1868	3.2 mph (5.1 km/h) 5.33	0.510 (0.310)	13.82 (2.72)	208 (98)	69 (21)	28.63 (96.95)
135.64 (101.15)	17018 (75.70)	2.99 (4.81)	1808	3.8 mph (6.1 km/h) 3.86	0.487 (0.297)	14.45 (2.85)	208 (98)	69 (21)	28.62 (96.92)
141.61 (105.60)	15211 (67.66)	3.49 (5.62)	1808	4.4 mph (7.1 km/h) 2.85	0.466 (0.283)	15.12 (2.98)	205 (96)	69 (21)	28.61 (96.88)
141.49 (105.51)	13900 (61.83)	3.82 (6.14)	1805	4.8 mph (7.7 km/h) 2.59	0.464 (0.282)	15.17 (2.99)	210 (99)	69 (21)	28.60 (96.85)
141.53 (105.54)	13310 (59.21)	3.99 (6.42)	1806	5.0 mph (8.0 km/h) 2.42	0.466 (0.283)	15.13 (2.98)	210 (99)	69 (21)	28.59 (96.82)
141.36 (105.41)	11855 (52.73)	4.47 (7.20)	1804	5.6 mph (9.0 km/h) 2.08	0.466 (0.283)	15.12 (2.98)	210 (99)	74 (23)	28.58 (96.78)
141.16 (105.27)	10658 (47.41)	4.97 (7.99)	1808	6.2 mph (10.0 km/h) 1.90	0.466 (0.284)	15.11 (2.98)	208 (98)	74 (23)	28.58 (96.78)
141.12 (105.23)	9701 (43.15)	5.46 (8.78)	1807	6.8 mph (10.9 km/h) 1.73	0.467 (0.284)	15.07 (2.97)	209 (98)	74 (23)	28.58 (96.78)
139.21 (103.81)	8791 (39.10)	5.94 (9.56)	1804	7.4 mph (11.9 km/h) 1.56	0.475 (0.289)	14.82 (2.92)	211 (99)	77 (25)	28.58 (96.78)
138.09 (102.98)	8040 (35.76)	6.44 (10.37)	1805	8.0 mph (12.9 km/h) 1.47	0.478 (0.291)	14.75 (2.90)	207 (97)	76 (24)	28.58 (96.78)
136.65 (101.90)	7394 (32.89)	6.93 (11.15)	1807	8.6 mph (13.8 km/h) 1.38	0.482 (0.293)	14.62 (2.88)	208 (98)	75 (24)	28.58 (96.78)
121.27 (90.43)	6119 (27.22)	7.43 (11.96)	1803	9.2 mph (14.8 km/h) 1.12	0.544 (0.331)	12.96 (2.55)	210 (99)	75 (24)	28.58 (96.78)
122.35 (91.24)	5681 (25.27)	8.08 (13.00)	1804	10.0 mph (16.1 km/h) 1.03	0.540 (0.329)	13.04 (2.57)	209 (98)	74 (23)	28.58 (96.78)

### THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: III

Quick Attach: Walterscheid lower link ends

lift cylinders

2 x 80 mm

Maximum Force Exerted Through Whole Range: 10161 lbs (45.2 kN)

i) Opening pressure of relief valve:

NA

Sustained pressure at compensator cutoff:

2870 psi (198 bar)

ii) Pump delivery rate at minimum pressure and rated engine speed:

26.8 GPM (101.4 l/min)

iii) Pump delivery rate at maximum

hydraulic power:

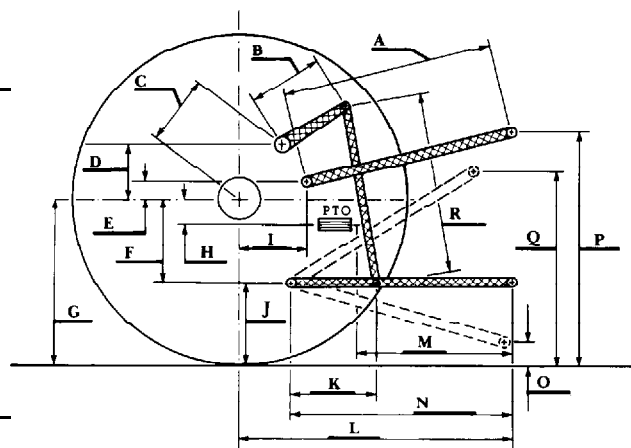
25.7 GPM (97.3 l/min)

Delivery pressure:

2550 psi (176 bar)

Power:

38.3 HP (28.6 kW)



HITCH DIMENSIONS AS TESTED NO LOAD

	OECD test		SAE test	
	inch	mm	inch	mm
A	27.2	692	26.6	676
B	14.8	375	14.8	375
C	24.5	623	24.5	623
D	23.1	588	23.1	588
E	11.1	283	7.5	190
F	10.8	275	10.8	275
G	35.6	905	34.2	870
H	4.1	105	4.1	105
I	19.8	504	19.8	504
J	24.8	630	23.4	595
K	24.1	612	23.1	587
L	47.5	1206	46.4	1179
M	23.1	586	22.0	559
N	39.8	1011	38.7	984
O	9.0	229	8.0	203
P	51.8	1315	45.4	1153
Q	38.8	984	36.8	933
R	38.1	968	35.9	911

### THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi.(bar)

2950(203)

Location:

lift cylinders

Hydraulic oil temperature: °F(°C)

144(62)

Location:

hydraulic sump

Category:

IIIN

Quick attach:

No

**SAE Static Test** System pressure 2650 psi (182 Bar)  
with lift cylinders (1) x 70 mm and (1) x 80 mm

Hitch point distance to ground level in. (mm)	8.1(206)	16.0(406)	24.0(610)	32.0(813)	40.0(1016)
Lift force on frame lb	10953	10994	10629	9855	8397
" " " " " " (kN)	(48.7)	(48.7)	(47.3)	(43.8)	(37.4)

with lift cylinders (2) x 80 mm

Hitch point distance to ground level in. (mm)	7.7(196)	16.0(406)	24.0(610)	32.0(813)	40.0(1016)
Lift force on frame lb	12177	12564	12177	11268	9549
" " " " " " (kN)	(54.2)	(55.9)	(54.2)	(50.1)	(42.5)

**ASAE Static Test** System pressure 2860 psi (197 Bar)  
with lift cylinders (1) x 70 mm and (1) x 80 mm

Hitch point distance to ground level in. (mm)	8.1(206)	16.0(406)	24.0(610)	32.0(813)	40.0(1016)
Lift force on frame lb	11959	11949	11605	10760	9168
" " " " " " (kN)	(53.2)	(53.2)	(51.6)	(47.9)	(40.8)

with lift cylinders (2) x 80 mm

Hitch point distance to ground level in. (mm)	7.7(196)	16.0(406)	24.0(610)	32.0(813)	40.0(1016)
Lift force on frame lb	13295	13718	13295	12303	10426
" " " " " " (kN)	(59.1)	(61.0)	(59.1)	(54.7)	(46.4)



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