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2012

Test 2024: John Deere 7280R

Nebraska Tractor Test Laboratory

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NEBRASKA OECD TRACTOR TEST 2024-SUMMARY 823

JOHN DEERE 7280R 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					
Rated Engine Speed—(PTO speed—1077 rpm)					
238.00 (177.48)	2100	13.66 (51.70)	0.404 (0.246)	17.43 (3.43)	
Standard Power Take-off Speed (1000 rpm)					
267.27 (199.30)	1950	14.85 (56.22)	0.391 (0.238)	18.00 (3.55)	
Maximum Power (1 hour)					
275.90 (205.74)	1751	14.94 (56.57)	0.381 (0.232)	18.46 (3.64)	

VARYING POWER AND FUEL CONSUMPTION

238.00 (177.48)	2100	13.66 (51.70)	0.404 (0.246)	17.43 (3.43)	Air temperature
207.30 (154.58)	2154	12.33 (46.68)	0.418 (0.255)	16.81 (3.31)	73°F (23°C)
155.75 (116.14)	2163	10.18 (38.54)	0.460 (0.280)	15.30 (3.01)	Relative humidity
104.15 (77.66)	2175	7.89 (29.87)	0.533 (0.324)	13.20 (2.60)	34%
52.25 (38.96)	2186	5.47 (20.70)	0.736 (0.448)	9.55 (1.88)	Barometer
2.00 (1.49)	2192	3.37 (12.77)	11.860 (7.214)	0.59 (0.12)	28.47" Hg (96.41 kPa)

Maximum torque - 882 lb.-ft. (1196 Nm) at 1601 rpm
 Maximum torque rise - 48.3%
 Torque rise at 1701 engine rpm - 43%
 Power increase at 1751 engine rpm - 15.9%

DRAWBAR PERFORMANCE

UNBALLASTED - FRONT DRIVE ENGAGED

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)
Maximum Power—5.6 mph (9.0 km/h)-Manual Mode									
198.81 (148.25)	13982 (62.20)	5.33 (8.58)	2099	2.2	0.489 (0.298)	14.38 (2.83)	215 (102)	75 (24)	28.43 (96.28)
75% of Pull at Maximum Power—5.6 mph (9.0 km/h)-Manual Mode									
153.26 (114.28)	10408 (46.29)	5.52 (8.88)	2158	1.6	0.525 (0.320)	13.39 (2.64)	218 (103)	83 (28)	28.43 (96.28)
50% of Pull at Maximum Power—5.6 mph (9.0 km/h)-Manual Mode									
103.23 (76.98)	6952 (30.92)	5.57 (8.96)	2170	1.0	0.616 (0.374)	11.43 (2.25)	217 (103)	84 (29)	28.43 (96.28)
75% of Pull at Reduced Engine Speed—5.6 mph (9.0 km/h)-Auto Mode									
153.16 (114.21)	10460 (46.53)	5.49 (8.84)	1545	1.6	0.457 (0.278)	15.38 (3.03)	216 (102)	83 (28)	28.43 (96.28)
50% of Pull at Reduced Engine Speed—5.6 mph (9.0 km/h)-Auto Mode									
103.48 (77.16)	7028 (31.26)	5.52 (8.88)	1348	1.0	0.471 (0.286)	14.94 (2.94)	208 (98)	83 (28)	28.43 (96.28)

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

Dates of tests: April 27-May 15, 2012

Manufacturer: John Deere Tractor Works, 3500 East Donald Street, 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) 0.8448 Fuel weight 7.034 lbs/gal (0.843 kg/l) Oil SAE 15W-40 API service classification CJ-4 Transmission and hydraulic lubricant John Deere Hy-Gard fluid Front axle lubricant John Deere Hy-Gard fluid Total time engine was operated: 29.0 hours

ENGINE: Make John Deere Diesel Type six cylinder vertical with turbocharger and air to air aftercooler Serial No. *RG6090R015904* Crankshaft lengthwise Rated engine speed 2100 Bore and stroke 4.661 x 5.354" (118.4 mm x 136.0 mm) Compression ratio 16.2 to 1 Displacement 548 cu in (8984 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 thermostat and variable speed fan

ENGINE OPERATING PARAMETERS: Fuel rate: 91.2 - 98.8 lb/h (41.4 - 44.8 kg/h) High idle: 2150 - 2250 rpm Turbo boost: nominal 21.8 - 24.7 psi (150 - 170 kPa) as measured 23.3 psi (161 kPa)

CHASSIS: Type front wheel assist with duals Serial No. *1RW7280RHCD005183* Tread width rear 60.0" (1524 mm) to 128.9" (3272 mm) front 60.0" (1524 mm) to 88.0" (2235 mm) Wheelbase 115.2" (2925 mm) Hydraulic control system direct engine drive Transmission infinitely variable with two mechanical ranges and automatic shifting between ranges. Nominal travel speeds mph (km/h) forward - 0-25.0 mph (0-40 km/h), reverse - 0-12.4 mph (0-20 km/h) Clutch a foot pedal controls the hydrostatic oil flow Brakes wet multiple disc hydraulically operated by two foot pedals that can be locked together Steering hydrostatic Power take-off 540 rpm at 1958 engine rpm or 1000 rpm at 1950 engine rpm Unladen tractor mass 23760 lb (10777 kg)

DRAWBAR PERFORMANCE
UNBALLASTED - FRONT DRIVE ENGAGED-2100 RPM
MAXIMUM POWER AT SELECTED TRAVEL 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)	
				2.8 mph (4.5 km/h)					
162.16 (120.92)	23656 (105.22)	2.57 (4.14)	2154	9.8	0.550 (0.334)	12.80 (2.52)	217 (103)	73 (23)	28.57 (96.75)
				3.9 mph (6.2 km/h)					
192.81 (143.78)	20345 (90.50)	3.56 (5.72)	2101	5.2	0.498 (0.303)	14.12 (2.78)	217 (103)	75 (24)	28.57 (96.75)
				4.3 mph (7.0 km/h)					
196.24 (146.33)	18081 (80.43)	4.07 (6.55)	2100	4.0	0.494 (0.301)	14.23 (2.80)	219 (104)	79 (26)	28.57 (96.75)
				4.7 mph (7.6 km/h)					
195.50 (145.78)	16448 (73.16)	4.46 (7.17)	2101	3.2	0.497 (0.302)	14.15 (2.79)	210 (99)	80 (27)	28.56 (96.72)
				5.1 mph (8.2 km/h)					
196.46 (146.50)	15297 (68.04)	4.82 (7.75)	2100	2.8	0.496 (0.302)	14.18 (2.79)	211 (99)	80 (27)	28.56 (96.72)
				5.6 mph (9.0 km/h)					
198.81 (148.25)	13982 (62.20)	5.33 (8.58)	2099	2.2	0.489 (0.298)	14.38 (2.83)	215 (102)	75 (24)	28.43 (96.28)
				6.2 mph (10.0 km/h)					
199.63 (148.86)	12589 (56.00)	5.95 (9.57)	2099	1.9	0.484 (0.295)	14.53 (2.86)	217 (103)	71 (21)	28.41 (96.21)
				6.8 mph (11.0 km/h)					
201.46 (150.22)	11519 (51.24)	6.56 (10.56)	2101	1.7	0.482 (0.293)	14.58 (2.87)	217 (103)	74 (23)	28.43 (96.28)
				7.5 mph (12.0 km/h)					
200.33 (149.38)	10517 (46.78)	7.14 (11.49)	2101	1.7	0.483 (0.294)	14.58 (2.87)	219 (104)	71 (26)	28.56 (96.72)
				8.1 mph (13.0 km/h)					
200.99 (149.87)	9744 (43.34)	7.74 (12.45)	2100	1.6	0.481 (0.293)	14.62 (2.88)	219 (104)	80 (27)	28.55 (96.68)
				8.7 mph (14.0 km/h)					
203.13 (151.47)	9116 (40.55)	8.36 (13.45)	2100	1.5	0.483 (0.294)	14.57 (2.87)	218 (103)	81 (27)	28.55 (96.68)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE 1: During testing the engine was operated for 29.0 hours. During this period, the tractor experienced one active exhaust filter cleaning while operated in Auto Filter Cleaning Mode. This occurred after 25.0 hours of operation.

NOTE 2: The manufacturer declared that the active exhaust filter cleanings consume an average of 0.04 gal/hr (0.15 l/hr) across total tractor use. Fuel consumed during the active exhaust filter cleanings will normally be less than 1% of the total fuel consumed. The manufacturer declared that no active exhaust filter cleanings occurred during 12 hours of continuous operation of the tractor in the Auto Filter Cleaning Mode at 30% loading and the engine speed at which the maximum torque occurs.

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 130°F (54°C). The pull was limited to avoid excessive tractor power hop. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **2024**, Nebraska Summary 823, October 2, 2012.

Roger M. Hoy
 Director

M.A. Hanna
 P.J. Jasa
 J.D. Luck
 Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB

	Front Wheel Drive Engaged dB(A)	Disengaged dB(A)
At no load at 4.6 mph (7.5 km/h) engine speed - 2190 rpm	71.1	71.0
At no load at 4.6 mph (7.5 km/h) engine speed - 1200 rpm	63.4	63.3
Transport speed - no load - manual mode		73.1
Transport speed - no load - Full Automode		70.4
Bystander		82.9

TIRES, BALLAST AND WEIGHT

	With Ballast	Without Ballast
Rear Tires - No., size, ply & psi (kPa)	Four 480/80R46;***;16(110)	Four 480/80R46;***;12(85)
Ballast - Liquid (total)	None	None
- Cast Iron (total)	4980 lb (2259 kg)	None
Front Tires - No., size, ply & psi (kPa)	Two 16.9R30;***;32(220)	Two 16.9R30;***;18(125)
Ballast - Liquid (total)	None	None
- Cast Iron (total)	2360 lb (1070 kg)	None
Height of Drawbar	18.5 in (470 mm)	19.0 in (485 mm)
Static Weight with operator - Rear	19825 lb (8992 kg)	15675 lb (7110 kg)
- Front	11450 lb (5194 kg)	8260 lb (3747 kg)
- Total	31275 lb (14186 kg)	23935 lb (10857 kg)

DRAWBAR PERFORMANCE
UNBALLASTED - FRONT DRIVE ENGAGED - 1750 RPM
MAXIMUM POWER AT SELECTED TRAVEL SPEEDS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption		Temp. °F(°C)		Barom. inch Hg (kPa)	
					lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	cool- ing med	Air dry bulb		
164.14 (122.40)	23673 (105.30)	2.60 (4.18)	2154	8.7	2.9 mph (4.6 km/h) 0.540 (0.328)		13.04 (2.57)	216 (102)	71 (22)	28.57 (96.75)
198.63 (148.11)	22020 (97.95)	3.38 (5.44)	2041	7.3	3.9 mph (6.2 km/h) 0.510 (0.310)		13.80 (2.72)	219 (104)	77 (25)	28.56 (96.72)
209.07 (155.90)	21393 (95.16)	3.67 (5.90)	1933	6.3	4.3 mph (7.0 km/h) 0.507 (0.309)		13.86 (2.73)	206 (96)	80 (27)	28.57 (96.75)
215.33 (160.57)	20659 (91.90)	3.91 (6.28)	1888	5.6	4.7 mph (7.6 km/h) 0.495 (0.301)		14.20 (2.80)	212 (100)	79 (26)	28.56 (96.72)
223.08 (166.35)	19865 (88.36)	4.21 (6.78)	1871	4.5	5.1 mph (8.2 km/h) 0.478 (0.291)		14.70 (2.90)	219 (104)	81 (27)	28.44 (96.31)
224.01 (167.04)	18768 (83.48)	4.48 (7.20)	1785	3.7	5.6 mph (9.0 km/h) 0.478 (0.291)		14.71 (2.90)	205 (96)	76 (24)	28.42 (96.24)
229.13 (170.86)	17580 (78.20)	4.89 (7.87)	1750	3.1	6.2 mph (10.0 km/h) 0.465 (0.283)		15.13 (2.98)	218 (103)	72 (22)	28.41 (96.21)
228.29 (170.24)	15797 (70.27)	5.42 (8.72)	1751	2.6	6.8 mph (11.0 km/h) 0.470 (0.286)		14.96 (2.95)	208 (98)	74 (23)	28.43 (96.28)
230.36 (171.78)	14626 (65.06)	5.91 (9.50)	1750	2.5	7.5 mph (12.0 km/h) 0.461 (0.281)		15.25 (3.00)	211 (99)	80 (27)	28.55 (96.68)
234.79 (175.08)	13751 (61.17)	6.41 (10.31)	1751	2.4	8.1 mph (13.0 km/h) 0.456 (0.277)		15.44 (3.04)	219 (104)	81 (27)	28.55 (96.68)
234.92 (175.18)	12744 (56.69)	6.91 (11.12)	1750	2.2	8.7 mph (14.0 km/h) 0.456 (0.277)		15.43 (3.04)	217 (103)	80 (27)	28.55 (96.68)
236.45 (176.32)	11794 (52.46)	7.52 (12.10)	1750	2.0	9.4 mph (15.2 km/h) 0.453 (0.275)		15.54 (3.06)	219 (104)	80 (27)	28.55 (96.68)
239.43 (178.54)	11056 (49.18)	8.12 (13.07)	1750	1.8	10.2 mph (16.4 km/h) 0.445 (0.271)		15.79 (3.11)	219 (104)	80 (27)	28.54 (96.65)

DRAWBAR PERFORMANCE
UNBALLASTED - FRONT DRIVE ENGAGED - AUTO MODE
MAXIMUM POWER AT SELECTED TRAVEL 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	Temp. °F(°C) Air dry bulb	Barom. inch Hg (kPa)	
				2.9 mph (4.6 km/h)					
161.63 (120.53)	23467 (104.39)	2.59 (4.16)	1647	9.8	0.499 (0.303)	14.11 (2.78)	215 (102)	73 (23)	28.57 (96.75)
				3.9 mph (6.2 km/h)					
208.39 (155.39)	21951 (97.64)	3.56 (5.73)	1850	7.6	0.507 (0.308)	13.89 (2.74)	219 (104)	79 (26)	28.56 (96.72)
				4.3 mph (7.0 km/h)					
216.52 (161.46)	21558 (95.89)	3.77 (6.06)	1734	7.1	0.490 (0.298)	14.34 (2.83)	208 (98)	80 (27)	28.57 (96.75)
				4.7 mph (7.6 km/h)					
218.33 (162.80)	20914 (93.03)	3.92 (6.30)	1733	5.4	0.485 (0.295)	14.49 (2.85)	205 (96)	78 (25)	28.44 (96.31)
				5.1 mph (8.2 km/h)					
222.77 (166.12)	19917 (88.60)	4.20 (6.75)	1740	4.8	0.479 (0.292)	14.67 (2.89)	208 (98)	82 (28)	28.44 (96.31)
				5.6 mph (9.0 km/h)					
225.45 (168.12)	18690 (83.14)	4.53 (7.28)	1757	3.6	0.473 (0.288)	14.88 (2.93)	205 (96)	77 (25)	28.43 (96.27)
				6.2 mph (10.0 km/h)					
228.94 (170.72)	17526 (77.96)	4.90 (7.89)	1727	3.1	0.465 (0.283)	15.11 (2.98)	217 (103)	73 (23)	28.42 (96.24)
				6.8 mph (11.0 km/h)					
233.10 (173.82)	15869 (70.59)	5.51 (8.86)	1732	2.7	0.457 (0.278)	15.38 (3.03)	214 (101)	74 (23)	28.43 (96.24)
				7.5 mph (12.0 km/h)					
231.03 (172.28)	14639 (65.12)	5.92 (9.53)	1737	2.6	0.462 (0.281)	15.23 (3.00)	210 (99)	81 (27)	28.55 (96.68)
				8.1 mph (13.0 km/h)					
235.06 (175.28)	13727 (61.06)	6.42 (10.33)	1726	2.4	0.453 (0.276)	15.51 (3.06)	219 (104)	82 (28)	28.55 (96.68)
				8.7 mph (14.0 km/h)					
235.68 (175.74)	12777 (56.83)	6.92 (11.13)	1732	2.2	0.451 (0.274)	15.59 (3.07)	217 (103)	80 (27)	28.56 (96.72)
				9.4 mph (15.2 km/h)					
238.23 (177.65)	11884 (52.86)	7.52 (12.09)	1733	2.0	0.449 (0.273)	15.67 (3.09)	219 (104)	80 (27)	28.55 (96.68)
				10.2 mph (16.4 km/h)					
239.37 (178.50)	11009 (48.97)	8.16 (13.12)	1731	1.8	0.442 (0.269)	15.91 (3.13)	219 (104)	81 (27)	28.55 (96.68)

DRAWBAR PERFORMANCE
BALLASTED - FRONT DRIVE ENGAGED - 1750 RPM
MAXIMUM POWER AT SELECTED TRAVEL 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)	Fuel Consumption Hp.hr/gal (kW.h/l)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
2.5 mph (4.0 km/h)									
169.60 (126.47)	30438 (135.39)	2.09 (3.36)	2112	14.2	0.566 (0.344)	12.42 (2.45)	216 (102)	57 (14)	28.88 (97.80)
3.1 mph (5.0 km/h)									
201.15 (150.00)	29361 (130.60)	2.57 (4.13)	1987	10.3	0.518 (0.315)	13.59 (2.68)	218 (103)	61 (16)	28.87 (97.77)
3.9 mph (6.2 km/h)									
219.16 (163.42)	27458 (122.14)	2.99 (4.81)	1810	7.2	0.483 (0.294)	14.57 (2.87)	218 (103)	62 (17)	28.86 (97.73)
4.3 mph (7.0 km/h)									
224.66 (167.53)	25171 (111.96)	3.35 (5.38)	1750	5.5	0.470 (0.286)	14.97 (2.95)	218 (103)	62 (17)	28.87 (97.77)
4.7 mph (7.6 km/h)									
227.36 (169.54)	23330 (103.78)	3.66 (5.88)	1750	4.6	0.465 (0.283)	15.12 (2.98)	218 (103)	63 (17)	28.87 (97.77)
5.1 mph (8.2 km/h)									
230.20 (171.66)	21701 (96.53)	3.98 (6.41)	1751	3.9	0.459 (0.279)	15.31 (3.02)	218 (103)	64 (18)	28.87 (97.77)
5.6 mph (9.0 km/h)									
231.28 (172.46)	19761 (87.90)	4.39 (7.07)	1750	3.2	0.456 (0.277)	15.44 (3.04)	218 (103)	64 (18)	28.87 (97.77)
6.2 mph (10.0 km/h)									
229.33 (171.01)	17529 (77.97)	4.91 (7.89)	1750	2.7	0.460 (0.280)	15.28 (3.01)	218 (103)	66 (19)	28.86 (97.73)
6.8 mph (11.0 km/h)									
234.10 (174.56)	16165 (71.90)	5.44 (8.75)	1750	2.4	0.452 (0.275)	15.55 (3.06)	218 (103)	65 (18)	28.86 (97.73)
7.5 mph (12.0 km/h)									
235.93 (175.93)	14871 (66.15)	5.95 (9.58)	1751	2.2	0.448 (0.272)	15.72 (3.10)	218 (103)	66 (19)	28.87 (97.77)
8.1 mph (13.0 km/h)									
237.15 (176.84)	13806 (61.41)	6.45 (10.37)	1751	2.0	0.445 (0.271)	15.79 (3.11)	218 (103)	66 (19)	28.86 (97.73)
8.7 mph (14.0 km/h)									
238.22 (177.64)	12852 (57.17)	6.95 (11.18)	1749	1.8	0.444 (0.270)	15.83 (3.12)	218 (103)	66 (19)	28.86 (97.73)
9.4 mph (15.2 km/h)									
238.93 (178.17)	11867 (52.78)	7.55 (12.15)	1750	1.7	0.443 (0.270)	15.87 (3.13)	218 (103)	67 (19)	28.85 (97.70)
10.2 mph (16.4 km/h)									
241.39 (180.00)	11093 (49.34)	8.16 (13.13)	1750	1.6	0.439 (0.267)	16.02 (3.16)	218 (103)	67 (19)	28.85 (97.70)

HYDRAULIC PERFORMANCE

CATEGORY: III

Quick Attach: Yes

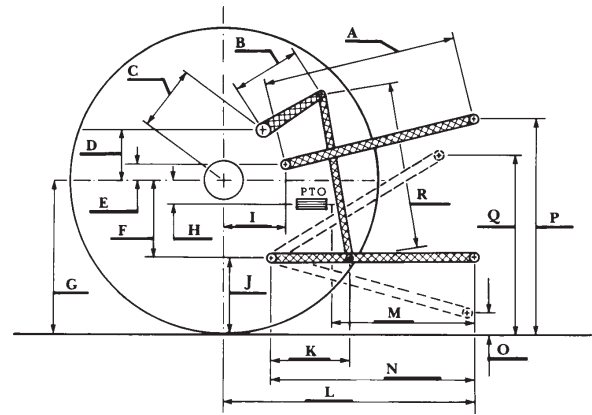
OECD Static test

	<u>lift cylinders</u>	
Maximum force exerted through whole range:	15862 lbs (70.6 kN) (2x100 mm)	18025 lbs (80.2 kN) (1x100 mm & 1x112 mm)
	18302 lbs (81.4 kN) (1x100 mm & 1x115 mm)	
	<u>63 cc pump</u> <u>85 cc pump</u>	
i) Sustained pressure at compensator cutoff:	2971 psi (205 bar)	2943 psi (203 bar)
	<u>three outlet sets combined</u>	
ii) Pump delivery rate at minimum pressure and rated engine speed:	47.1 GPM (178.4 l/min)	62.4 GPM (236.2 l/min)
iii) Pump delivery rate at maximum hydraulic power:	46.5 GPM (175.8 l/min)	61.6 GPM (233.3 l/min)
Delivery pressure:	2733 psi (188 bar)	2542 psi (175 bar)
Power:	74.1 HP (55.2 kW)	91.4 HP (68.1 kW)
	<u>single outlet set</u>	
ii) Pump delivery rate at minimum pressure and rated engine speed:	38.8 GPM (147.0 l/min)	38.4 GPM (145.5 l/min)
iii) Pump delivery rate at maximum hydraulic power:	38.0 GPM (143.8 l/min)	38.0 GPM (143.8 l/min)
Delivery pressure:	2310 psi (159 bar)	2239 psi (154 bar)
Power:	51.2 HP (38.2 kW)	49.6 HP (37.0 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	28.0	710
B	20.5	520
C	22.9	581
D	18.9	480
E	7.3	185
F	14.4	365
G	38.8	985
H	3.5	90
I	22.4	570
J	24.4	620
K	29.3	745
L	52.0	1321
*L'	56.0	1423
M	28.0	712
N	43.4	1102
O	9.0	230
P	51.9	1319
Q	39.4	1001
R	44.9	1140

*L' to Quick Attach ends



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