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Test 2102: John Deere 8370R

Nebraska Tractor Test Lab

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NEBRASKA OECD TRACTOR TEST 2102—SUMMARY 967

JOHN DEERE 8370R DIESEL

INFINITELY VARIABLE TRANSMISSION

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Diesel Consumption Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	D.E.F. Consumption Gal/hr (l/h)	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION						
Rated Engine Speed—(PTO speed—1050 rpm)						
323.14 (240.97)	2100	17.61 (66.67)	0.383 (0.233)	18.35 (3.61)	0.35 (1.33)	Fuel used during active exhaust regeneration-1.09 gal (4.11 l) (see note 1, p.2)
Standard Power Take-off Speed(1000 rpm)						
351.19 (261.89)	2000	18.93 (71.67)	0.379 (0.231)	18.55 (3.65)	0.41 (1.55)	
Maximum Power (1 hour)						
364.94 (272.14)	1850	19.36 (73.29)	0.373 (0.227)	18.85 (3.71)	0.47 (1.78)	

VARYING POWER AND FUEL CONSUMPTION

323.14 (240.97)	2100	17.61 (66.67)	0.383 (0.233)	18.35 (3.61)	0.35 (1.33)	Air temperature
282.12 (210.38)	2154	15.54 (58.83)	0.388 (0.236)	18.15 (3.58)	0.34 (1.29)	73°F (23°C)
212.58 (158.52)	2165	12.15 (46.01)	0.402 (0.245)	17.49 (3.45)	0.27 (1.04)	Relative humidity
142.62 (106.35)	2175	9.10 (34.44)	0.449 (0.273)	15.68 (3.09)	0.23 (0.88)	35%
71.58 (53.38)	2185	6.46 (24.46)	0.635 (0.386)	11.08 (2.18)	0.17 (0.64)	Barometer
3.32 (2.48)	2196	3.87 (14.67)	8.213 (4.996)	0.86 (0.17)	0.11 (0.41)	28.84" Hg (97.66 kPa)

Maximum Torque - 1159 lb.-ft. (1572 Nm) at 1600 rpm

Maximum Torque Rise - 43.6%

Torque rise at 1679 engine rpm - 39%

Power increase at 1850 rpm - 12.9%

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)	D.E.F. Consumption lb/hp.hr (kg/kW.h)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Maximum Power—6.2 mph (10.0 km/h)-Manual mode										
293.48 (218.85)	18940 (84.25)	5.81 (9.35)	2100	3.4	0.420 (0.255)	16.76 (3.30)	0.010 (0.006)	213 (101)	47 (8)	28.84 (97.66)
75% of Pull at Maximum Power—6.2 mph (10.0 km/h)-Manual mode										
228.24 (170.20)	14177 (63.06)	6.04 (9.72)	2159	2.3	0.431 (0.262)	16.32 (3.22)	0.011 (0.007)	213 (101)	75 (24)	28.81 (97.56)
50% of Pull at Maximum Power—6.2 mph (10.0 km/h)-Manual mode										
154.87 (115.48)	9461 (42.08)	6.14 (9.88)	2171	1.3	0.471 (0.287)	14.93 (2.94)	0.013 (0.008)	204 (95)	76 (25)	28.80 (97.53)
75% of Pull at Reduced Engine Speed—Auto mode										
228.04 (170.05)	14234 (63.31)	6.01 (9.67)	1738	2.3	0.408 (0.248)	17.23 (3.39)	0.012 (0.007)	213 (100)	76 (24)	28.81 (97.56)
50% of Pull at Reduced Engine Speed—Auto mode										
154.43 (115.15)	9533 (42.40)	6.08 (9.78)	1349	1.3	0.415 (0.252)	16.96 (3.34)	0.014 (0.008)	208 (98)	76 (25)	28.79 (97.49)

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

Dates of tests: October 20 to November 6, 2014

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

CONSUMABLE Fluids, OIL and TIME: Fuel
No. 2 Diesel **Specific gravity converted to 60°/60°F**
(15°/15°C) 0.8450 **Fuel weight** 7.036 lbs/gal (0.843
kg/l) **Diesel Exhaust Fluid (DEF)** 32% aqueous urea
solution **DEF weight** 9.071 lbs/gal (1.087 kg/l) **Oil**
SAE 10W-30 **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:**
32.5 hours

ENGINE: Make John Deere **Diesel Type** six
cylinder vertical with two turbochargers and air to
air aftercooler and D.E.F (diesel exhaust fluid)
exhaust treatment **Serial No.***RG6090U003417*
Crankshaft lengthwise **Rated engine speed** 2100
Bore and stroke 4.661" x 5.354" (118.4 mm x 136.0
mm) **Compression ratio** 16.0 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
water separator **Fuel cooler** radiator for pump
return fuel **Exhaust** DOC (diesel oxidation catalyst),
SCR (selective catalyst reduction) and regenerative
DPF (diesel particulate filter) integrated within a
vertical muffler **Cooling medium temperature**
control thermostat and variable speed fan

ENGINE OPERATING PARAMETERS: Fuel
rate: 117.5 - 127.2 lb/h (53.3 - 57.7 kg/h) **High idle:**
2190 - 2210 rpm **Turbo boost:** nominal 26.8 - 29.7
psi (185 - 205 kPa) as measured 28.3 psi (195 kPa)

CHASSIS: Type front wheel assist with duals
Serial No.*1RW8370RPED091048* **Tread width**
rear 60.0" (1524 mm) to 132.6" (3368 mm) front
64.0" (1625 mm) to 88.0" (2235 mm) **Wheelbase**
121.3" (3080 mm) **Hydraulic control system** direct
engine drive **Transmission** Infinitely variable with
four mechanical ranges and automatic shifting
between ranges. **Nominal travel speeds mph (km/**
h) forward - 0 - 26.1 mph, (0 - 42 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 1000 rpm at 2000 engine rpm **Unladen**
tractor mass 27865 lb (12639 kg)

DRAWBAR PERFORMANCE UNBALLASTED - FRONT DRIVE ENGAGED

MANUAL MODE - 2100 ENGINE RPM DRAWBAR POWER AT SELECTED TRAVEL SPEED SETTINGS

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)	D.E.F Consumption lb/hp.hr (kg/kW.h)	Temp.°F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
4.0 mph (6.4 km/h)										
257.01 (191.65)	28506 (126.80)	3.39 (5.45)	2121	13.0	0.472 (0.287)	14.90 (2.93)	0.010 (0.006)	212 (100)	55 (13)	28.79 (96.49)
4.3 mph (7.0 km/h)										
275.11 (205.15)	26868 (119.51)	3.84 (6.18)	2100	8.7	0.448 (0.273)	15.69 (3.09)	0.010 (0.006)	214 (101)	58 (15)	28.80 (97.53)
4.7 mph (7.6 km/h)										
278.54 (207.71)	24536 (109.14)	4.26 (6.86)	2100	6.8	0.442 (0.269)	15.91 (3.13)	0.011 (0.007)	216 (102)	77 (25)	28.77 (97.43)
5.1 mph (8.2 km/h)										
283.79 (211.62)	22835 (101.58)	4.66 (7.50)	2099	5.4	0.433 (0.263)	16.25 (3.20)	0.010 (0.006)	216 (102)	77 (25)	28.77 (97.43)
5.6 mph (9.0 km/h)										
290.63 (216.72)	21020 (93.50)	5.19 (8.34)	2100	4.2	0.424 (0.258)	16.60 (3.27)	0.010 (0.006)	213 (101)	53 (12)	28.85 (97.70)
6.2 mph (10.0 km/h)										
293.48 (218.85)	18940 (84.25)	5.81 (9.35)	2100	3.4	0.420 (0.255)	16.76 (3.30)	0.010 (0.006)	213 (101)	47 (8)	28.84 (97.66)
6.8 mph (11.0 km/h)										
292.65 (218.23)	17118 (76.14)	6.41 (10.32)	2099	3.0	0.421 (0.256)	16.70 (3.29)	0.010 (0.006)	213 (101)	59 (15)	28.85 (97.70)
7.5 mph (12.0 km/h)										
288.81 (215.37)	15421 (68.60)	7.02 (11.30)	2100	2.6	0.426 (0.259)	16.52 (3.25)	0.010 (0.006)	214 (101)	66 (19)	28.84 (97.66)
8.1 mph (13.0 km/h)										
288.29 (214.98)	14175 (63.05)	7.63 (12.28)	2100	2.3	0.428 (0.260)	16.45 (3.24)	0.010 (0.006)	214 (101)	69 (21)	28.84 (97.66)
8.7 mph (14.0 km/h)										
287.81 (214.62)	13104 (58.29)	8.24 (13.26)	2100	2.0	0.429 (0.261)	16.41 (3.23)	0.010 (0.006)	215 (102)	71 (22)	28.83 (97.63)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE 1: The manufacturer declares that the average time between active regenerations is 50 hours, while operated in Auto Filter Cleaning Mode, at rated speed, full load, under steady state conditions.

NOTE 2: Custom mode settings are as follows: ECO on, ECO on minimum engine speed=900 rpm, PTO off Droop = 26%.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. This tractor did not meet the manufacturer's remote hydraulic flow claim of 85 GPM (321l/min) with the dual pumps combined. For the maximum power tests the fuel temperature at the injection pump inlet was maintained at 100°F(38°C). 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. **2102**, Nebraska Summary 967, December 19, 2014.

Roger M. Hoy
Director

M.F. Kocher
J.D. Luck
P.J. Jasa
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load at 4.7 mph (7.6 km/h) engine speed - 2190 rpm	67.3	67.5
At no load at 4.7 mph (7.6 km/h) Auto mode - engine speed - 1200 rpm	61.0	60.8
At no load at 4.7 mph (7.6 km/h) Custom mode - engine speed - 900 rpm	59.1	58.6
Transport speed - no load - manual mode		70.1
Transport speed - no load - Auto mode		68.5
Transport speed - no load - Custom mode		68.2
Bystander		84.1

TIRES, BALLAST AND WEIGHT

	With Ballast	Without Ballast
Rear Tires - No., size, ply & psi(kPa)	Six 480/80R50;***;12(85)	Four 480/80R50;***;12(85)
Ballast - Triples (total)	2420 lb (1098 kg)	None
- Cast Iron (total)	5750 lb (2608 kg)	None
Front Tires - No., size, ply & psi(kPa)	Four 420/85R34;***;19(130)	Two 420/85R34;***;26(180)
Ballast - Duals (total)	1600 lb (726 kg)	None
- Cast Iron (total)	2600 lb (1179 kg)	None
Height of Drawbar	21.5 in (545 mm)	21.0 in (535 mm)
Static Weight with operator - Rear	23030 lb (10446 kg)	16200 lb (7348 kg)
- Front	17380 lb (7884 kg)	11840 lb (5371 kg)
- Total	40410 lb (18330 kg)	28040 lb (12719 kg)

DRAWBAR PERFORMANCE
UNBALLASTED - FRONT DRIVE ENGAGED - AUTO MODE
(Loads based on 2100 engine rpm manual mode performance runs)
DRAWBAR POWER AT SELECTED TRAVEL SPEED SETTINGS

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)	D.E.F Consumption lb/hp.hr (kg/kW.h)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
4.0 mph (6.4 km/h)										
261.40 (194.93)	28403 (126.34)	3.45 (5.55)	1973	12.4	0.453 (0.276)	15.53 (3.06)	0.012 (0.007)	214 (101)	56 (13)	28.80 (97.53)
4.2 mph (6.8 km/h)										
273.85 (204.21)	27066 (120.40)	3.80 (6.11)	1977	9.3	0.439 (0.267)	16.04 (3.16)	0.011 (0.007)	214 (101)	60 (15)	28.81 (97.56)
4.6 mph (7.4 km/h)										
278.56 (207.72)	24613 (109.48)	4.25 (6.83)	1988	7.0	0.432 (0.263)	16.29 (3.21)	0.012 (0.007)	216 (102)	78 (25)	28.76 (97.39)
5.0 mph (8.0 km/h)										
284.68 (212.29)	22975 (102.20)	4.65 (7.48)	1990	5.6	0.426 (0.259)	16.50 (3.25)	0.011 (0.007)	216 (102)	78 (25)	28.77 (97.43)
5.5 mph (8.8 km/h)										
291.08 (217.05)	21034 (93.56)	5.19 (8.35)	1990	4.2	0.416 (0.253)	16.90 (3.33)	0.011 (0.006)	213 (101)	55 (13)	28.84 (97.66)
6.1 mph (9.8 km/h)										
293.46 (218.83)	18884 (84.00)	5.83 (9.38)	1990	3.4	0.412 (0.250)	17.09 (3.37)	0.011 (0.007)	213 (100)	49 (9)	28.85 (97.70)
6.7 mph (10.8 km/h)										
292.42 (218.05)	17004 (75.64)	6.45 (10.38)	1990	3.0	0.414 (0.252)	16.98 (3.35)	0.011 (0.007)	214 (101)	61 (16)	28.85 (97.70)
7.4 mph (11.8 km/h)										
288.86 (215.40)	15315 (68.12)	7.07 (11.38)	1990	2.6	0.417 (0.254)	16.87 (3.32)	0.011 (0.007)	214 (101)	68 (20)	28.84 (97.66)
8.0 mph (12.8 km/h)										
288.44 (215.09)	14058 (62.53)	7.69 (12.38)	1990	2.3	0.419 (0.255)	16.81 (3.31)	0.011 (0.006)	214 (101)	70 (21)	28.84 (97.66)
8.6 mph (13.8 km/h)										
287.66 (214.50)	12969 (57.69)	8.32 (13.39)	1990	2.0	0.419 (0.255)	16.79 (3.31)	0.011 (0.007)	215 (102)	71 (22)	28.83 (97.63)

DRAWBAR PERFORMANCE
UNBALLASTED - FRONT DRIVE ENGAGED
CUSTOM MODE (See p.2, Note 2 for settings used)
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)	D.E.F Consumption lb/hp.hr (kg/kW.h)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Maximum Power—6.1 mph (9.8 km/h)										
293.44 (218.81)	18881 (83.99)	5.83 (9.38)	1676	3.4	0.406 (0.247)	17.32 (3.41)	0.012 (0.008)	212 (100)	51 (10)	28.84 (97.66)
75% of Pull at Maximum Power—6.1 mph (9.8 km/h)										
228.09 (170.09)	14238 (63.33)	6.01 (9.67)	1415	2.3	0.409 (0.249)	17.20 (3.39)	0.011 (0.007)	213 (100)	76 (25)	28.80 (97.53)
50% of Pull at Maximum Power—6.1 mph (9.8 km/h)										
153.93 (114.78)	9497 (44.24)	6.08 (9.78)	1139	1.2	0.426 (0.259)	16.51 (3.25)	0.025 (0.015)	208 (98)	77 (25)	28.78 (97.46)

POWER AT SELECTED TRAVEL SPEED SETTINGS-CUSTOM MODE
(Loads based on 2100 engine rpm manual mode performance runs)

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)	D.E.F Consumption lb/hp.hr (kg/kW.h)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
4.0 mph (6.4 km/h)										
260.38 (194.17)	28306 (125.91)	3.45 (5.55)	1608	12.4	0.445 (0.271)	15.80 (3.11)	0.008 (0.005)	214 (101)	57 (14)	28.80 (97.53)
4.2 mph (6.8 km/h)										
269.35 (200.85)	26818 (119.29)	3.77 (6.07)	1613	10.0	0.430 (0.261)	16.37 (3.22)	0.010 (0.006)	213 (101)	61 (16)	28.80 (97.53)
4.6 mph (7.4 km/h)										
278.34 (207.56)	24661 (109.70)	4.24 (6.82)	1637	7.0	0.424 (0.258)	16.60 (3.27)	0.012 (0.008)	216 (102)	78 (26)	28.75 (97.36)
5.0 mph (8.0 km/h)										
284.32 (212.01)	22955 (102.11)	4.65 (7.48)	1647	5.7	0.416 (0.253)	16.90 (3.33)	0.012 (0.008)	216 (102)	77 (25)	28.76 (97.39)
5.5 mph (8.8 km/h)										
291.05 (217.04)	21045 (93.61)	5.19 (8.35)	1682	4.2	0.408 (0.248)	17.23 (3.39)	0.012 (0.007)	213 (100)	57 (14)	28.85 (97.70)
6.1 mph (9.8 km/h)										
293.44 (218.81)	18881 (83.99)	5.83 (9.38)	1676	3.4	0.406 (0.247)	17.32 (3.41)	0.012 (0.008)	212 (100)	51 (10)	28.84 (97.66)
6.7 mph (10.8 km/h)										
292.38 (218.03)	17008 (75.65)	6.45 (10.38)	1656	2.9	0.406 (0.247)	17.35 (3.42)	0.012 (0.007)	213 (101)	63 (17)	28.84 (97.66)
7.4 mph (11.8 km/h)										
288.60 (215.21)	15306 (68.08)	7.07 (11.38)	1651	2.6	0.409 (0.249)	17.20 (3.39)	0.012 (0.007)	214 (101)	68 (20)	28.84 (97.66)
8.0 mph (12.8 km/h)										
288.51 (215.14)	14063 (62.56)	7.69 (12.38)	1679	2.3	0.410 (0.249)	17.17 (3.38)	0.011 (0.007)	214 (101)	71 (21)	28.83 (97.63)
8.6 mph (13.8 km/h)										
287.46 (214.36)	12962 (57.66)	8.32 (13.39)	1690	2.0	0.408 (0.248)	17.24 (3.40)	0.012 (0.007)	215 (101)	72 (22)	28.82 (97.60)

DRAWBAR PERFORMANCE
UNBALLASTED - FRONT DRIVE ENGAGED
MANUAL MODE - 1850 ENGINE RPM
MAXIMUM POWER AT SELECTED TRAVEL SPEED SETTINGS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Consumption Hp.hr/gal (kW.h/l)	D.E.F Consumption lb/hp.hr (kg/kW.h)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
4.0 mph (6.4 km/h)										
258.63 (192.86)	28491 (126.73)	3.41 (5.48)	2122	12.5	0.466 (0.284)	15.09 (2.97)	0.010 (0.006)	212 (100)	55 (13)	28.79 (97.49)
4.3 mph (7.0 km/h)										
275.24 (205.25)	26935 (119.81)	3.84 (6.17)	2100	8.9	0.444 (0.270)	15.84 (3.12)	0.010 (0.006)	214 (101)	59 (15)	28.80 (97.53)
4.7 mph (7.6 km/h)										
285.39 (212.82)	26107 (116.13)	4.10 (6.60)	2063	8.6	0.444 (0.270)	15.86 (3.12)	0.010 (0.006)	214 (101)	62 (17)	28.81 (97.56)
5.1 mph (8.2 km/h)										
297.04 (221.50)	25319 (112.62)	4.40 (7.08)	2032	7.8	0.436 (0.265)	16.16 (3.18)	0.010 (0.006)	214 (101)	63 (17)	28.81 (97.56)
5.6 mph (9.0 km/h)										
309.82 (231.03)	24419 (108.62)	4.76 (7.66)	1983	6.8	0.430 (0.262)	16.36 (3.22)	0.010 (0.006)	215 (102)	63 (17)	28.81 (97.56)
6.2 mph (10.0 km/h)										
321.29 (239.58)	23807 (105.90)	5.06 (8.14)	1889	6.3	0.425 (0.258)	16.57 (3.26)	0.011 (0.007)	215 (102)	64 (18)	28.80 (97.53)
6.8 mph (11.0 km/h)										
324.36 (241.88)	22070 (98.17)	5.51 (8.87)	1850	5.5	0.420 (0.256)	16.75 (3.30)	0.011 (0.007)	215 (102)	66 (19)	28.81 (97.56)
7.5 mph (12.0 km/h)										
325.87 (243.00)	20137 (89.57)	6.07 (9.77)	1851	4.5	0.419 (0.255)	16.77 (3.30)	0.011 (0.006)	215 (102)	66 (19)	28.81 (97.56)
8.1 mph (13.0 km/h)										
327.11 (243.92)	18549 (82.51)	6.62 (10.65)	1850	3.9	0.417 (0.253)	16.89 (3.33)	0.011 (0.006)	215 (102)	67 (19)	28.80 (97.53)
8.7 mph (14.0 km/h)										
326.42 (243.41)	17109 (76.10)	7.16 (11.51)	1850	3.5	0.418 (0.254)	16.85 (3.32)	0.011 (0.007)	216 (102)	68 (20)	28.80 (97.53)
9.3 mph (15.0 km/h)										
326.78 (243.68)	15930 (70.86)	7.69 (12.38)	1850	3.1	0.418 (0.254)	16.84 (3.32)	0.010 (0.006)	216 (102)	68 (20)	28.80 (97.53)
9.9 mph (16.0 km/h)										
326.68 (243.61)	14885 (66.21)	8.23 (13.24)	1850	2.8	0.417 (0.254)	16.86 (3.32)	0.011 (0.006)	216 (102)	70 (21)	28.79 (97.49)

DRAWBAR PERFORMANCE
BALLASTED- FRONT DRIVE ENGAGED
MANUAL MODE - 1850 ENGINE RPM
MAXIMUM POWER AT SELECTED TRAVEL SPEED SETTINGS

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)	D.E.F Consumption lb/hp.hr (kg/kW.h)	Temp.°F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
2.7 mph (4.4 km/h)										
249.84 (186.31)	40840 (181.67)	2.30 (3.69)	2110	14.1	0.492 (0.299)	14.31 (2.82)	0.012 (0.007)	210 (99)	52 (11)	28.77 (97.43)
3.2 mph (5.2 km/h)										
284.80 (212.37)	39329 (174.94)	2.72 (4.37)	2020	10.2	0.462 (0.281)	15.24 (3.00)	0.012 (0.008)	215 (101)	54 (12)	28.78 (97.46)
3.7 mph (6.0 km/h)										
305.18 (227.57)	38318 (170.45)	2.99 (4.81)	1903	9.0	0.448 (0.273)	15.69 (3.09)	0.013 (0.008)	215 (101)	56 (13)	28.79 (97.49)
4.2 mph (6.8 km/h)										
315.17 (235.02)	35029 (155.82)	3.38 (5.43)	1850	6.6	0.433 (0.264)	16.23 (3.20)	0.013 (0.008)	215 (101)	57 (14)	28.79 (97.49)
4.7 mph (7.6 km/h)										
322.34 (240.37)	31552 (140.35)	3.83 (6.16)	1850	5.1	0.425 (0.258)	16.57 (3.26)	0.013 (0.008)	215 (102)	57 (14)	28.79 (97.49)
5.1 mph (8.2 km/h)										
325.04 (242.38)	29274 (130.22)	4.16 (6.69)	1850	4.4	0.422 (0.257)	16.68 (3.29)	0.013 (0.008)	215 (102)	57 (14)	28.79 (97.49)
5.6 mph (9.0 km/h)										
325.92 (243.04)	26586 (118.26)	4.60 (7.40)	1850	3.9	0.420 (0.255)	16.76 (3.30)	0.013 (0.008)	216 (102)	57 (14)	28.79 (97.49)
6.2 mph (10.0 km/h)										
329.94 (246.03)	24092 (107.16)	5.14 (8.27)	1850	3.4	0.416 (0.253)	16.90 (3.33)	0.013 (0.008)	215 (102)	57 (14)	28.79 (97.49)
6.8 mph (11.0 km/h)										
329.10 (245.41)	21771 (96.84)	5.67 (9.12)	1849	3.0	0.417 (0.253)	16.89 (3.33)	0.012 (0.008)	216 (102)	58 (14)	28.79 (97.49)
7.5 mph (12.0 km/h)										
328.15 (244.70)	19831 (88.21)	6.21 (9.99)	1850	2.6	0.418 (0.254)	16.84 (3.32)	0.012 (0.008)	216 (102)	58 (14)	28.79 (97.49)
8.1 mph (13.0 km/h)										
324.61 (242.06)	18061 (80.34)	6.74 (10.85)	1851	2.4	0.420 (0.256)	16.73 (3.30)	0.013 (0.008)	215 (102)	61 (16)	28.77 (97.43)
8.7 mph (14.0 km/h)										
322.51 (240.49)	16631 (73.98)	7.27 (11.70)	1850	2.2	0.422 (0.257)	16.66 (3.28)	0.013 (0.008)	215 (102)	62 (17)	28.77 (97.43)
9.3 mph (15.0 km/h)										
322.68 (240.62)	15505 (68.97)	7.80 (12.55)	1850	2.0	0.424 (0.258)	16.59 (3.27)	0.013 (0.008)	216 (102)	63 (17)	28.77 (97.43)
9.9 mph (16.0 km/h)										
320.47 (238.97)	14410 (64.10)	8.34 (13.42)	1850	1.9	0.425 (0.259)	16.54 (3.26)	0.013 (0.008)	216 (102)	63 (17)	28.77 (97.43)

HYDRAULIC PERFORMANCE

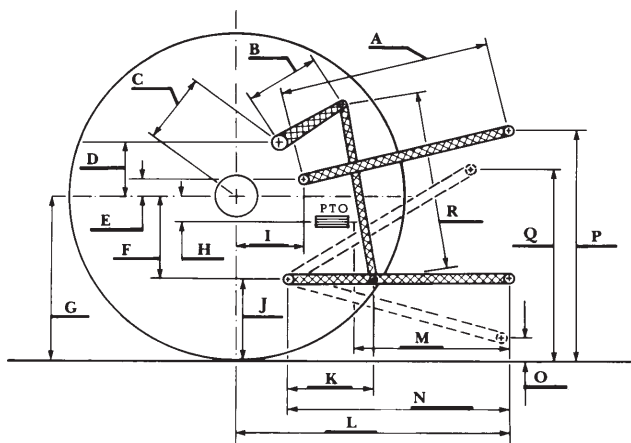
CATEGORY: IVN
Quick Attach: Yes
OECD Static test

	Lift cylinders	
Maximum force exerted through whole range:	20254 lbs (90.1 kN) 2x115 mm 15229 lbs (67.7 kN) 2x100 mm	
	<u>85 cc pump</u>	<u>85 cc and 35cc pumps combined</u>
i) Sustained pressure at compensator cutoff:	2915 psi (201 bar)	2941 psi (203 bar)
	<u>three outlet sets combined</u>	
ii) Pump delivery rate at minimum pressure and rated engine speed:	60.6 GPM (229.6 l/min)	84.2 GPM (318.7 l/min)
iii) Pump delivery rate at maximum hydraulic power:	60.2 GPM (228.0 l/min)	80.0 GPM (302.9 l/min)
Delivery pressure:	2494 psi (172 bar)	2114 psi (146 bar)
Power:	87.6 HP (65.4 kW)	98.7 HP (73.6 kW)
	<u>single outlet set</u>	
ii) Pump delivery rate at minimum pressure and rated engine speed:	<u>1/2" couplers</u> 36.4 GPM (137.8 l/min)	<u>3/4" couplers</u> 42.9 GPM (162.5 l/min)
iii) Pump delivery rate at maximum hydraulic power:	34.4 GPM (130.3 l/min)	41.5 GPM (157.2 l/min)
Delivery pressure:	2404 psi (166 bar)	2301 psi (159 bar)
Power:	48.3 HP (36.0 kW)	55.8 HP (41.6 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	28.5	725
B	20.5	520
C	20.9	532
D	18.9	480
E	12.0	304
F	14.4	365
G	38.2	970
H	9.1	230
I	23.6	599
J	23.8	605
K	28.7	730
L	52.8	1340
*L'	58.7	1490
M	25.9	657
N	40.1	1019
O	9.1	230
P	50.1	1272
Q	41.5	1055
R	45.7	1160

*L' to Quick Attach ends



JOHN DEERE 8370R DIESEL