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2015

## Test 2134: John Deere 9570RT

Nebraska Tractor Test Laboratory

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# NEBRASKA OECD TRACTOR TEST 2134—SUMMARY 1004

## JOHN DEERE 9570RT DIESEL

### 18 SPEED

#### POWER TAKE-OFF PERFORMANCE

| Power<br>HP<br>(kW)                            | Crank<br>shaft<br>speed<br>rpm | Diesel<br>Consumption |                       | D.E.F.<br>Consumption |                 | Mean Atmospheric<br>Conditions   |
|--|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------|--|
|  |                                | Gal/hr<br>(l/h)       | lb/hp.hr<br>(kg/kW.h) | Hp.hr/gal<br>(kW.h/l) | Gal/hr<br>(l/h) |  |
| <b>MAXIMUM POWER AND FUEL CONSUMPTION</b>      |                                |                       |                       |                       |                 |  |
| <b>Rated Engine Speed—(PTO speed—1109 rpm)</b> |                                |                       |                       |                       |                 |  |
| 307.32<br>(229.17)                             | 2101                           | 19.31<br>(73.11)      | 0.440<br>(0.268)      | 15.91<br>(3.13)       | 0.82<br>(3.11)  | Fuel used during active exhaust<br>regeneration-0.85 gal (3.20 l)<br>(see note 1, p.2) |
| <b>Standard Power Take-off Speed(1000 rpm)</b> |                                |                       |                       |                       |                 |  |
| 347.69<br>(259.28)                             | 1895                           | 20.33<br>(76.94)      | 0.409<br>(0.249)      | 17.11<br>(3.37)       | 0.70<br>(2.66)  |  |
| <b>Maximum Power (1 hour)</b>                  |                                |                       |                       |                       |                 |  |
| 357.27<br>(266.42)                             | 1701                           | 20.02<br>(75.79)      | 0.393<br>(0.239)      | 17.84<br>(3.52)       | 0.79<br>(3.00)  |  |

#### VARYING POWER AND FUEL CONSUMPTION

|                    |      |                  |                    |                 |                |                       |
|--------------------|------|------------------|--------------------|-----------------|----------------|-----------------------|
| 307.32<br>(229.17) | 2101 | 19.31<br>(73.11) | 0.440<br>(0.268)   | 15.91<br>(3.13) | 0.82<br>(3.11) | Air temperature       |
| 262.69<br>(195.89) | 2112 | 17.31<br>(65.54) | 0.462<br>(0.281)   | 15.17<br>(2.99) | 0.76<br>(2.87) | 73°F (23°C)           |
| 197.79<br>(147.49) | 2123 | 14.37<br>(54.41) | 0.509<br>(0.310)   | 13.76<br>(2.71) | 0.53<br>(1.99) | Relative humidity     |
| 132.74<br>(98.99)  | 2134 | 11.56<br>(43.77) | 0.610<br>(0.371)   | 11.48<br>(2.26) | 0.48<br>(1.81) | 37%                   |
| 66.54<br>(49.62)   | 2145 | 9.02<br>(34.15)  | 0.950<br>(0.578)   | 7.38<br>(1.45)  | 0.28<br>(1.06) | Barometer             |
| 0.81<br>(0.60)     | 2157 | 6.67<br>(25.26)  | 58.007<br>(35.284) | 0.12<br>(0.02)  | 0.17<br>(0.66) | 28.14" Hg (95.30 kPa) |

Maximum Torque - 1160 lb.-ft. (1573 Nm) at 1552 rpm

Maximum Torque Rise - 51.0%

Torque rise at 1682 engine rpm - 44%

Power increase at 1701 rpm - 16.3%

#### DRAWBAR PERFORMANCE (Unballasted) FUEL CONSUMPTION CHARACTERISTICS

| Power<br>Hp<br>(kW)  | Drawbar<br>pull<br>lbs<br>(kN) | Speed<br>mph<br>(km/h) | Crank-<br>shaft<br>speed<br>rpm | Slip<br>% | Fuel Consumption      |                       | D.E.F.<br>Consumption | Temp. °F (°C)       | Barom.<br>inch<br>Hg<br>(kPa) |                  |
|--|--------------------------------|------------------------|---------------------------------|-----------|-----------------------|-----------------------|-----------------------|---------------------|-------------------------------|------------------|
|  |                                |                        |                                 |           | lb/hp.hr<br>(kg/kW.h) | Hp.hr/gal<br>(kW.h/l) | lb/hp.hr<br>(kg/kW.h) | cool-<br>ing<br>med | Air<br>dry<br>bulb            |                  |
| <b>Maximum Power—7th Gear- Manual mode</b>                               |                                |                        |                                 |           |                       |                       |                       |                     |                               |                  |
| 441.46<br>(329.20)   | 32641<br>(145.19)              | 5.07<br>(8.16)         | 2099                            | 2.1       | 0.437<br>(0.266)      | 16.03<br>(3.16)       | 0.017<br>(0.011)      | 208<br>(98)         | 51<br>(11)                    | 28.70<br>(97.19) |
| <b>75% of Pull at Maximum Power—7th Gear- Manual mode</b>                |                                |                        |                                 |           |                       |                       |                       |                     |                               |                  |
| 345.92<br>(257.95)   | 24453<br>(108.77)              | 5.31<br>(8.54)         | 2173                            | 1.1       | 0.455<br>(0.277)      | 15.40<br>(3.03)       | 0.025<br>(0.015)      | 207<br>(97)         | 57<br>(14)                    | 28.60<br>(96.85) |
| <b>50% of Pull at Maximum Power—7th Gear- Manual mode</b>                |                                |                        |                                 |           |                       |                       |                       |                     |                               |                  |
| 234.78<br>(175.07)   | 16295<br>(72.48)               | 5.40<br>(8.69)         | 2202                            | 0.6       | 0.510<br>(0.310)      | 13.73<br>(2.70)       | 0.031<br>(0.019)      | 205<br>(96)         | 58<br>(14)                    | 28.57<br>(96.75) |
| <b>75% of Pull at Reduced Engine Speed— 5.3 mph (8.6 km/h)-Auto mode</b> |                                |                        |                                 |           |                       |                       |                       |                     |                               |                  |
| 344.97<br>(257.24)   | 24451<br>(108.76)              | 5.29<br>(8.51)         | 1585                            | 1.2       | 0.404<br>(0.245)      | 17.36<br>(3.42)       | 0.027<br>(0.016)      | 206<br>(97)         | 57<br>(14)                    | 28.59<br>(96.82) |
| <b>50% of Pull at Reduced Engine Speed— 5.5 mph (8.8 km/h)-Auto mode</b> |                                |                        |                                 |           |                       |                       |                       |                     |                               |                  |
| 234.80<br>(175.09)   | 16173<br>(71.94)               | 5.44<br>(8.75)         | 1467                            | 0.5       | 0.432<br>(0.263)      | 16.23<br>(3.20)       | 0.030<br>(0.018)      | 193<br>(89)         | 58<br>(15)                    | 28.56<br>(96.72) |

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

**Dates of tests:** October 27 to November 13, 2015

**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)** 0.8412 **Fuel weight** 7.004 lbs/gal (0.839 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, hydraulic and final drive lubricant** John Deere Hy-Gard fluid **Total time engine was operated:** 33.0 hours

**ENGINE: Make** Cummins Diesel **Type** six cylinder vertical with turbocharger, air to air aftercooler and D.E.F. (diesel exhaust fluid) exhaust treatment **Serial No.** \*79809376\* **Crankshaft** lengthwise **Rated engine speed** 2100 **Bore and stroke** 5.394" x 6.654" (137.0 mm x 169.0 mm) **Compression ratio** 17.2 to 1 **Displacement** 912 cu in (14948 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 transmission/hydraulic oil also feeding rear axle **Fuel filter** two paper cartridges **Fuel cooler** radiator for returned 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:** Stationary PTO operation (395 engine hp) 130.3 - 141.0 lb/h (59.1 - 64.0 kg/h), Drawbar operations (470 engine hp) 155.1 - 167.2 lb/h (70.4 - 75.8 kg/h), (495 engine hp) 165.3 - 178.4 lb/h (75.0 - 80.9 kg/h), (520 engine hp) 173.5 - 187.6 lb/h (78.7 - 85.1 kg/h), (545 engine hp) 180.7 - 194.8 lb/h (82.0 - 88.4 kg/h), (570 engine hp) 189.0 - 204.1 lb/h (85.7 - 92.6 kg/h) **High idle:** 2215 - 2265 rpm (2125 - 2175 rpm with PTO engaged) **Turbo boost:** (570 engine hp) nominal 26.8 - 29.7 psi (185 - 205 kPa) as measured 28.0 psi (195 kPa)

**CHASSIS: Type** tracklayer-rubber tracked **Serial No.** \*1RW9570RJFP907080\* **Track width** 107.4" (2728 mm) **Length of track on ground** 111.0" (2819 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with full range operator controlled power shift **Nominal travel speeds mph (km/h)** first 2.51 (4.04) second 3.09 (4.97) third 3.41 (5.49) fourth 3.82 (6.14) fifth 4.20 (6.76) sixth 4.70 (7.56) seventh 5.20 (8.36)

**DRAWBAR PERFORMANCE**  
**(Unballasted at 2100 rpm, Manual Mode)**

**MAXIMUM POWER IN SELECTED GEARS**

| Power Hp (kW)      | Drawbar pull lbs (kN) | Speed mph (km/h) | Crankshaft speed rpm | Slip % | Fuel Consumption lb/hp.hr (kg/kW.h) | D.E.F Consumption Hp.hr/gal (kW.h/l) | Temp. °F(°C) cooling med | Air dry bulb | Barom. inch Hg (kPa) |                  |
|--------------------|-----------------------|------------------|----------------------|--------|-------------------------------------|--------------------------------------|--------------------------|--------------|----------------------|------------------|
|                    |                       |                  |                      |        | <b>1st Gear</b>                     |                                      |                          |              |                      |                  |
| 300.91<br>(224.39) | 51005<br>(226.88)     | 2.22<br>(3.56)   | 2118                 | 12.3   | 0.520<br>(0.317)                    | 13.46<br>(2.65)                      | 0.027<br>(0.016)         | 206<br>(97)  | 51<br>(11)           | 28.73<br>(97.29) |
|                    |                       |                  |                      |        | <b>2nd Gear</b>                     |                                      |                          |              |                      |                  |
| 336.15<br>(250.67) | 43355<br>(192.85)     | 2.91<br>(4.68)   | 2100                 | 5.7    | 0.472<br>(0.287)                    | 14.85<br>(2.92)                      | 0.024<br>(0.015)         | 206<br>(97)  | 53<br>(12)           | 28.71<br>(97.22) |
|                    |                       |                  |                      |        | <b>3rd Gear</b>                     |                                      |                          |              |                      |                  |
| 366.42<br>(273.24) | 42557<br>(189.30)     | 3.23<br>(5.20)   | 2099                 | 5.2    | 0.457<br>(0.278)                    | 15.33<br>(3.02)                      | 0.023<br>(0.014)         | 207<br>(97)  | 54<br>(12)           | 28.71<br>(97.22) |
|                    |                       |                  |                      |        | <b>4th Gear</b>                     |                                      |                          |              |                      |                  |
| 390.56<br>(291.24) | 40153<br>(178.61)     | 3.65<br>(5.87)   | 2100                 | 4.2    | 0.450<br>(0.273)                    | 15.58<br>(3.07)                      | 0.022<br>(0.013)         | 207<br>(97)  | 55<br>(13)           | 28.72<br>(97.26) |
|                    |                       |                  |                      |        | <b>5th Gear</b>                     |                                      |                          |              |                      |                  |
| 412.68<br>(307.73) | 38285<br>(170.30)     | 4.05<br>(6.51)   | 2100                 | 3.5    | 0.443<br>(0.270)                    | 15.80<br>(3.11)                      | 0.020<br>(0.012)         | 207<br>(97)  | 50<br>(10)           | 28.54<br>(96.65) |
|                    |                       |                  |                      |        | <b>6th Gear</b>                     |                                      |                          |              |                      |                  |
| 436.55<br>(325.53) | 35911<br>(159.74)     | 4.56<br>(7.34)   | 2100                 | 2.8    | 0.442<br>(0.269)                    | 15.83<br>(3.12)                      | 0.017<br>(0.010)         | 208<br>(98)  | 54<br>(12)           | 28.64<br>(97.00) |
|                    |                       |                  |                      |        | <b>7th Gear</b>                     |                                      |                          |              |                      |                  |
| 441.46<br>(329.20) | 32641<br>(145.19)     | 5.07<br>(8.16)   | 2099                 | 2.1    | 0.437<br>(0.266)                    | 16.03<br>(3.16)                      | 0.017<br>(0.011)         | 208<br>(98)  | 51<br>(11)           | 28.70<br>(97.19) |
|                    |                       |                  |                      |        | <b>8th Gear</b>                     |                                      |                          |              |                      |                  |
| 440.79<br>(328.69) | 29197<br>(129.87)     | 5.66<br>(9.11)   | 2100                 | 1.6    | 0.434<br>(0.264)                    | 16.14<br>(3.18)                      | 0.018<br>(0.011)         | 208<br>(98)  | 49<br>(10)           | 28.71<br>(97.22) |
|                    |                       |                  |                      |        | <b>9th Gear</b>                     |                                      |                          |              |                      |                  |
| 440.40<br>(328.40) | 26235<br>(116.70)     | 6.30<br>(10.13)  | 2100                 | 1.3    | 0.436<br>(0.265)                    | 16.08<br>(3.17)                      | 0.017<br>(0.011)         | 208<br>(98)  | 52<br>(11)           | 28.69<br>(97.16) |
|                    |                       |                  |                      |        | <b>10th Gear</b>                    |                                      |                          |              |                      |                  |
| 440.50<br>(328.48) | 23556<br>(104.78)     | 7.01<br>(11.28)  | 2100                 | 1.0    | 0.437<br>(0.266)                    | 16.03<br>(3.16)                      | 0.017<br>(0.010)         | 208<br>(98)  | 53<br>(12)           | 28.69<br>(97.16) |
|                    |                       |                  |                      |        | <b>11th Gear</b>                    |                                      |                          |              |                      |                  |
| 437.87<br>(326.52) | 21150<br>(94.08)      | 7.76<br>(12.49)  | 2099                 | 0.8    | 0.438<br>(0.266)                    | 16.01<br>(3.15)                      | 0.018<br>(0.011)         | 208<br>(98)  | 54<br>(12)           | 28.67<br>(97.09) |
|                    |                       |                  |                      |        | <b>12th Gear</b>                    |                                      |                          |              |                      |                  |
| 438.19<br>(326.76) | 19009<br>(84.56)      | 8.65<br>(13.91)  | 2099                 | 0.6    | 0.438<br>(0.266)                    | 16.00<br>(3.15)                      | 0.018<br>(0.011)         | 208<br>(98)  | 54<br>(12)           | 28.66<br>(97.05) |

eighth 5.77 (9.29) ninth 6.39 (10.29) tenth 7.10 (11.43) eleventh 7.85 (12.63) twelfth 8.73 (14.05) thirteenth 9.66 (15.55) fourteenth 10.75 (17.30) fifteenth 13.29 (21.39) sixteenth 16.35 (26.31) seventeenth 20.07 (32.30) eighteenth 24.72 (39.77) reverse 2.51 (4.04), 3.41 (5.49), 3.82 (6.14), 5.20 (8.36), 5.77 (9.29), 7.85 (12.63) **Clutch** wet multiple disc hydraulically actuated by foot pedal **Brakes** wet multiple disc hydraulically actuated by foot pedal **Steering** electro-hydraulic differential steering controlled by steering wheel **Power take-off** 1000 rpm at 1895 engine rpm **Unladen tractor mass** 47500 lb (21546 kg)

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

**NOTE 1.** The manufacturer declares that the average time between active regenerations is 60 hours.

**NOTE 2.** The 9570RT engine has an electronic control system which provides a vehicle protection system to avoid overloading the drive train. This system provides five different engine power levels. At 2100 rpm the engine produces up to 470 hp when the transmission is in forward gears 1 and 2. At 2100 rpm the engine produces 495 hp when the transmission is in gear 3. The engine produces 520 hp when the transmission is in gear 4. The engine produces 545 hp when the transmission is in gear 5. The engine produces 570 hp at 2100 rpm for all other gears.

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. 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. **2134**, Nebraska Summary 1004, January 19, 2016

Roger M. Hoy  
Director

M.F. Kocher  
P.J. Jasa  
S.K. Pitla  
Board of Tractor Test Engineers

**TRACTOR SOUND LEVEL WITH CAB**

**dB(A)**

|                                       |      |
|---------------------------------------|------|
| At no load in 6th gear                | 73.2 |
| Transport speed - no load - 18th gear | 75.0 |
| Bystander in 18th gear                | 89.9 |

**TIRES, BALLAST AND WEIGHT**

|                                    | <b>With Ballast</b> | <b>Without Ballast</b> |
|------------------------------------|---------------------|------------------------|
| <b>Track width</b>                 | 36.0 in (915 mm)    | 36.0 in (915 mm)       |
| <b>Ballast - Cast iron (front)</b> | 3260 lb (1479 kg)   | None                   |
| - Cast iron (idlers)               | 340 lb (154 kg)     | None                   |
| - Cast iron (side)                 | 2725 lb (1236 kg)   | None                   |
| <b>Height of Drawbar</b>           | 21.0 in (535 mm)    | 21.0 in (535 mm)       |
| <b>Static Weight with operator</b> | 54000 lb (24494 kg) | 47675 lb (21625 kg)    |

**DRAWBAR PERFORMANCE**  
**UNBALLASTED - AUTO MODE**  
**(Loads based on 2100 engine rpm manual mode performance runs)**  
**DRAWBAR POWER AT SELECTED TRAVEL SPEEDS**

| Power<br>Hp<br>(kW) | Drawbar<br>pull<br>lbs<br>(kN) | Speed<br>mph<br>(km/h) | Crank-<br>shaft<br>speed<br>rpm | Slip<br>% | Fuel Consumption<br>lb/hp.hr<br>(kg/kW.h) | Hp.hr/gal<br>(kW.h/l) | D.E.F.<br>Consumption<br>lb/hp.hr<br>(kg/kW.h) | Temp. °F (°C)<br>cool-<br>ing<br>med | Air<br>dry<br>bulb | Barom.<br>inch<br>Hg<br>(kPa) |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|-----------------------|--|--------------------------------------|--------------------|-------------------------------|
| 3.9 mph (6.2 km/h)  |                                |                        |                                 |           |   |                       |  |                                      |                    |                               |
| 390.21<br>(290.98)  | 39538<br>(175.87)              | 3.70<br>(5.95)         | 1562                            | 4.0       | 0.410<br>(0.249)                          | 17.10<br>(3.37)       | 0.022<br>(0.013)                               | 208<br>(98)                          | 54<br>(12)         | 28.72<br>(97.26)              |
| 4.2 mph (6.8 km/h)  |                                |                        |                                 |           |   |                       |  |                                      |                    |                               |
| 413.66<br>(308.47)  | 38027<br>(169.15)              | 4.08<br>(6.57)         | 1713                            | 3.5       | 0.411<br>(0.250)                          | 17.02<br>(3.35)       | 0.022<br>(0.013)                               | 207<br>(97)                          | 51<br>(10)         | 28.53<br>(96.61)              |
| 4.7 mph (7.6 km/h)  |                                |                        |                                 |           |   |                       |  |                                      |                    |                               |
| 438.21<br>(326.77)  | 35793<br>(159.21)              | 4.59<br>(7.39)         | 1723                            | 2.8       | 0.407<br>(0.248)                          | 17.21<br>(3.39)       | 0.022<br>(0.013)                               | 208<br>(98)                          | 55<br>(13)         | 28.63<br>(96.95)              |
| 5.2 mph (8.4 km/h)  |                                |                        |                                 |           |   |                       |  |                                      |                    |                               |
| 440.74<br>(328.66)  | 32318<br>(143.76)              | 5.11<br>(8.22)         | 1719                            | 2.1       | 0.408<br>(0.248)                          | 17.17<br>(3.38)       | 0.023<br>(0.014)                               | 207<br>(97)                          | 52<br>(11)         | 28.70<br>(97.19)              |
| 5.7 mph (9.2 km/h)  |                                |                        |                                 |           |   |                       |  |                                      |                    |                               |
| 439.52<br>(327.75)  | 29281<br>(130.25)              | 5.63<br>(9.06)         | 1696                            | 1.6       | 0.403<br>(0.245)                          | 17.37<br>(3.42)       | 0.024<br>(0.015)                               | 207<br>(97)                          | 50<br>(10)         | 28.70<br>(97.19)              |
| 6.3 mph (10.2 km/h) |                                |                        |                                 |           |   |                       |  |                                      |                    |                               |
| 440.27<br>(328.31)  | 26364<br>(117.27)              | 6.26<br>(10.07)        | 1700                            | 1.3       | 0.404<br>(0.246)                          | 17.35<br>(3.42)       | 0.025<br>(0.015)                               | 207<br>(97)                          | 53<br>(12)         | 28.69<br>(97.16)              |
| 7.1 mph (11.4 km/h) |                                |                        |                                 |           |   |                       |  |                                      |                    |                               |
| 439.46<br>(327.71)  | 23496<br>(104.51)              | 7.01<br>(11.28)        | 1708                            | 1.0       | 0.403<br>(0.245)                          | 17.39<br>(3.43)       | 0.024<br>(0.015)                               | 207<br>(97)                          | 54<br>(12)         | 28.68<br>(97.12)              |
| 7.8 mph (12.6 km/h) |                                |                        |                                 |           |   |                       |  |                                      |                    |                               |
| 438.50<br>(326.99)  | 21156<br>(94.10)               | 7.77<br>(12.50)        | 1707                            | 0.8       | 0.408<br>(0.248)                          | 17.16<br>(3.38)       | 0.024<br>(0.015)                               | 208<br>(98)                          | 54<br>(12)         | 28.66<br>(97.05)              |
| 8.7 mph (14.0 km/h) |                                |                        |                                 |           |   |                       |  |                                      |                    |                               |
| 437.87<br>(326.52)  | 19004<br>(84.53)               | 8.64<br>(13.90)        | 1704                            | 0.7       | 0.405<br>(0.246)                          | 17.31<br>(3.41)       | 0.024<br>(0.015)                               | 207<br>(97)                          | 54<br>(12)         | 28.65<br>(97.02)              |

**DRAWBAR PERFORMANCE**  
**(Unballasted at 1750 RPM, Manual mode)**  
**MAXIMUM POWER IN SELECTED GEARS**

| Power<br>Hp<br>(kW) | Drawbar<br>pull<br>lbs<br>(kN) | Speed<br>mph<br>(km/h) | Crank-<br>shaft<br>speed<br>rpm | Slip<br>% | Fuel Consumption<br>lb/hp.hr<br>(kg/kW.h) | Hp.hr/gal<br>(kW.h/l) | D.E.F<br>Consumption<br>lb/hp.hr<br>(kg/kW.h) | Temp. °F(°C)<br>cool-<br>ing<br>med | Air<br>dry<br>bulb | Barom.<br>inch<br>Hg<br>(kPa) |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|-----------------------|---|-------------------------------------|--------------------|-------------------------------|
| 1st Gear            |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 301.96<br>(225.17)  | 51150<br>(227.53)              | 2.22<br>(3.56)         | 2118                            | 12.3      | 0.518<br>(0.315)                          | 13.52<br>(2.66)       | 0.028<br>(0.017)                              | 206<br>(97)                         | 51<br>(11)         | 28.74<br>(97.33)              |
| 2nd Gear            |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 348.56<br>(259.92)  | 47255<br>(210.20)              | 2.77<br>(4.46)         | 2043                            | 7.7       | 0.475<br>(0.289)                          | 14.76<br>(2.91)       | 0.024<br>(0.015)                              | 207<br>(97)                         | 53<br>(11)         | 28.73<br>(97.29)              |
| 3rd Gear            |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 376.18<br>(280.52)  | 45535<br>(202.55)              | 3.10<br>(4.99)         | 2054                            | 7.0       | 0.459<br>(0.279)                          | 15.27<br>(3.01)       | 0.023<br>(0.014)                              | 207<br>(97)                         | 54<br>(12)         | 28.71<br>(97.22)              |
| 4th Gear            |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 408.50<br>(304.62)  | 44141<br>(196.35)              | 3.48<br>(5.59)         | 2033                            | 5.8       | 0.448<br>(0.272)                          | 15.65<br>(3.08)       | 0.021<br>(0.012)                              | 208<br>(98)                         | 54<br>(12)         | 28.71<br>(97.22)              |
| 5th Gear            |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 440.83<br>(328.73)  | 43431<br>(193.19)              | 3.81<br>(6.13)         | 2019                            | 5.5       | 0.442<br>(0.269)                          | 15.84<br>(3.12)       | 0.019<br>(0.012)                              | 208<br>(98)                         | 54<br>(12)         | 28.71<br>(97.22)              |
| 6th Gear            |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 471.29<br>(351.44)  | 42570<br>(189.36)              | 4.16<br>(6.69)         | 1961                            | 5.2       | 0.438<br>(0.266)                          | 16.00<br>(3.15)       | 0.017<br>(0.010)                              | 209<br>(98)                         | 55<br>(13)         | 28.71<br>(97.22)              |
| 7th Gear            |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 486.50<br>(362.78)  | 41530<br>(184.73)              | 4.40<br>(7.07)         | 1867                            | 4.8       | 0.425<br>(0.258)                          | 16.49<br>(3.25)       | 0.017<br>(0.011)                              | 209<br>(98)                         | 55<br>(13)         | 28.71<br>(97.22)              |
| 8th Gear            |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 491.26<br>(366.33)  | 40073<br>(178.25)              | 4.60<br>(7.40)         | 1750                            | 4.2       | 0.419<br>(0.255)                          | 16.73<br>(3.30)       | 0.018<br>(0.011)                              | 209<br>(98)                         | 51<br>(11)         | 28.52<br>(96.58)              |
| 9th Gear            |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 494.67<br>(368.87)  | 35984<br>(160.06)              | 5.16<br>(8.30)         | 1749                            | 3.0       | 0.415<br>(0.253)                          | 16.87<br>(3.32)       | 0.018<br>(0.011)                              | 209<br>(98)                         | 49<br>(9)          | 28.55<br>(96.68)              |
| 10th Gear           |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 498.19<br>(371.50)  | 32322<br>(143.77)              | 5.78<br>(9.30)         | 1750                            | 2.1       | 0.411<br>(0.250)                          | 17.06<br>(3.36)       | 0.019<br>(0.011)                              | 209<br>(98)                         | 46<br>(8)          | 28.58<br>(96.78)              |
| 11th Gear           |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 498.47<br>(371.71)  | 29096<br>(129.42)              | 6.43<br>(10.34)        | 1750                            | 1.6       | 0.411<br>(0.250)                          | 17.04<br>(3.36)       | 0.018<br>(0.011)                              | 208<br>(98)                         | 46<br>(8)          | 28.58<br>(96.78)              |
| 12th Gear           |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 500.05<br>(372.88)  | 26173<br>(116.42)              | 7.17<br>(11.53)        | 1750                            | 1.3       | 0.411<br>(0.250)                          | 17.06<br>(3.36)       | 0.018<br>(0.011)                              | 208<br>(98)                         | 47<br>(8)          | 28.58<br>(96.78)              |
| 13th Gear           |                                |                        |                                 |           |   |                       |   |                                     |                    |                               |
| 492.88<br>(367.54)  | 23238<br>(103.37)              | 7.95<br>(12.79)        | 1750                            | 1.0       | 0.416<br>(0.253)                          | 16.85<br>(3.32)       | 0.019<br>(0.011)                              | 208<br>(98)                         | 48<br>(9)          | 28.56<br>(96.72)              |

**Lugging ability in 11th gear**

| Crankshaft speed rpm | 2099               | 2001               | 1900               | 1850               | 1749               | 1599               | 1399               | 1100               |
|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Pull-lbs<br>(kN)     | 21100<br>(93.86)   | 24116<br>(107.27)  | 26317<br>(117.06)  | 27269<br>(121.30)  | 29166<br>(129.74)  | 30894<br>(137.42)  | 30225<br>(134.45)  | 28186<br>(125.38)  |
| Increase in pull%    | 0                  | 14                 | 25                 | 29                 | 38                 | 46                 | 43                 | 34                 |
| Power-Hp<br>(kW)     | 436.88<br>(325.78) | 474.73<br>(354.01) | 491.08<br>(366.20) | 494.87<br>(369.02) | 499.31<br>(372.34) | 482.42<br>(359.74) | 413.44<br>(308.30) | 304.02<br>(226.71) |
| Speed-mpH<br>(km/h)  | 7.76<br>(12.49)    | 7.38<br>(11.88)    | 7.00<br>(11.27)    | 6.81<br>(10.96)    | 6.42<br>(10.33)    | 5.86<br>(9.43)     | 5.13<br>(8.26)     | 4.04<br>(6.50)     |
| Slip %               | 0.8                | 1.0                | 1.3                | 1.4                | 1.6                | 1.8                | 1.7                | 1.4                |

**DRAWBAR PERFORMANCE**  
**(Ballasted at 1750 RPM, Manual mode)**  
**MAXIMUM POWER IN SELECTED GEARS**

| Power<br>Hp<br>(kW) | Drawbar<br>pull<br>lbs<br>(kN) | Speed<br>mph<br>(km/h) | Crank-<br>shaft<br>speed<br>rpm | Slip<br>% | Fuel Consumption<br>lb/hp.hr<br>(kg/kW.h) | Hp.hr/gal<br>(kW.h/l) | D.E.F<br>Consumption<br>lb/hp.hr<br>(kg/kW.h) | Temp. °F(°C)<br>cool-<br>ing<br>med | Air<br>dry<br>bulb | Barom.<br>inch<br>Hg<br>(kPa) |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|-----------------------|---|-------------------------------------|--------------------|-------------------------------|
|                     |                                |                        |                                 |           | 1st Gear                                  |                       |   |                                     |                    |                               |
| 335.66<br>(250.30)  | 58525<br>(260.33)              | 2.15<br>(3.46)         | 2035                            | 11.6      | 0.493<br>(0.300)                          | 14.20<br>(2.80)       | 0.023<br>(0.014)                              | 208<br>(98)                         | 58<br>(14)         | 28.59<br>(96.82)              |
|                     |                                |                        |                                 |           | 2nd Gear                                  |                       |   |                                     |                    |                               |
| 374.08<br>(278.95)  | 55187<br>(245.48)              | 2.55<br>(4.10)         | 1891                            | 8.8       | 0.457<br>(0.278)                          | 15.31<br>(3.02)       | 0.022<br>(0.013)                              | 208<br>(98)                         | 60<br>(15)         | 28.59<br>(96.82)              |
|                     |                                |                        |                                 |           | 3rd Gear                                  |                       |   |                                     |                    |                               |
| 409.21<br>(305.14)  | 54023<br>(240.31)              | 2.85<br>(4.58)         | 1894                            | 7.9       | 0.442<br>(0.269)                          | 15.83<br>(3.12)       | 0.020<br>(0.012)                              | 208<br>(98)                         | 62<br>(16)         | 28.60<br>(96.85)              |
|                     |                                |                        |                                 |           | 4th Gear                                  |                       |   |                                     |                    |                               |
| 425.54<br>(317.32)  | 50001<br>(222.42)              | 3.20<br>(5.14)         | 1900                            | 7.6       | 0.453<br>(0.275)                          | 15.47<br>(3.05)       | 0.019<br>(0.012)                              | 212<br>(100)                        | 81<br>(27)         | 28.54<br>(96.65)              |
|                     |                                |                        |                                 |           | 5th Gear                                  |                       |   |                                     |                    |                               |
| 450.83<br>(336.18)  | 49516<br>(220.26)              | 3.42<br>(5.50)         | 1843                            | 7.4       | 0.445<br>(0.271)                          | 15.73<br>(3.10)       | 0.018<br>(0.011)                              | 212<br>(100)                        | 82<br>(28)         | 28.55<br>(96.68)              |
|                     |                                |                        |                                 |           | 6th Gear                                  |                       |   |                                     |                    |                               |
| 473.32<br>(352.95)  | 48592<br>(216.15)              | 3.66<br>(5.88)         | 1750                            | 7.1       | 0.442<br>(0.269)                          | 15.86<br>(3.13)       | 0.017<br>(0.011)                              | 214<br>(101)                        | 81<br>(27)         | 28.56<br>(96.72)              |
|                     |                                |                        |                                 |           | 7th Gear                                  |                       |   |                                     |                    |                               |
| 491.07<br>(366.19)  | 44601<br>(198.40)              | 4.13<br>(6.64)         | 1750                            | 4.6       | 0.427<br>(0.260)                          | 16.41<br>(3.23)       | 0.016<br>(0.010)                              | 213<br>(101)                        | 79<br>(26)         | 28.57<br>(96.75)              |
|                     |                                |                        |                                 |           | 8th Gear                                  |                       |   |                                     |                    |                               |
| 498.58<br>(371.79)  | 40225<br>(178.93)              | 4.65<br>(7.48)         | 1750                            | 3.4       | 0.421<br>(0.256)                          | 16.62<br>(3.27)       | 0.017<br>(0.010)                              | 214<br>(101)                        | 80<br>(27)         | 28.56<br>(96.72)              |
|                     |                                |                        |                                 |           | 9th Gear                                  |                       |   |                                     |                    |                               |
| 496.96<br>(370.58)  | 35821<br>(159.34)              | 5.20<br>(8.37)         | 1750                            | 2.4       | 0.419<br>(0.255)                          | 16.73<br>(3.30)       | 0.016<br>(0.009)                              | 211<br>(99)                         | 75<br>(24)         | 28.59<br>(96.82)              |
|                     |                                |                        |                                 |           | 10th Gear                                 |                       |   |                                     |                    |                               |
| 500.27<br>(373.05)  | 32303<br>(143.69)              | 5.81<br>(9.34)         | 1750                            | 1.9       | 0.419<br>(0.255)                          | 16.71<br>(3.29)       | 0.016<br>(0.010)                              | 212<br>(100)                        | 76<br>(24)         | 28.59<br>(96.82)              |
|                     |                                |                        |                                 |           | 11th Gear                                 |                       |   |                                     |                    |                               |
| 500.49<br>(373.21)  | 29130<br>(129.57)              | 6.45<br>(10.37)        | 1750                            | 1.5       | 0.419<br>(0.255)                          | 16.74<br>(3.30)       | 0.016<br>(0.009)                              | 212<br>(100)                        | 77<br>(25)         | 28.58<br>(96.78)              |
|                     |                                |                        |                                 |           | 12th Gear                                 |                       |   |                                     |                    |                               |
| 501.16<br>(373.72)  | 26163<br>(116.38)              | 7.19<br>(11.56)        | 1750                            | 1.2       | 0.417<br>(0.254)                          | 16.80<br>(3.31)       | 0.016<br>(0.010)                              | 211<br>(99)                         | 78<br>(25)         | 28.58<br>(96.78)              |
|                     |                                |                        |                                 |           | 13th Gear                                 |                       |   |                                     |                    |                               |
| 493.05<br>(367.67)  | 23204<br>(103.22)              | 7.97<br>(12.83)        | 1749                            | 1.0       | 0.424<br>(0.258)                          | 16.54<br>(3.26)       | 0.016<br>(0.010)                              | 212<br>(100)                        | 78<br>(25)         | 28.58<br>(96.78)              |



## HYDRAULIC PERFORMANCE

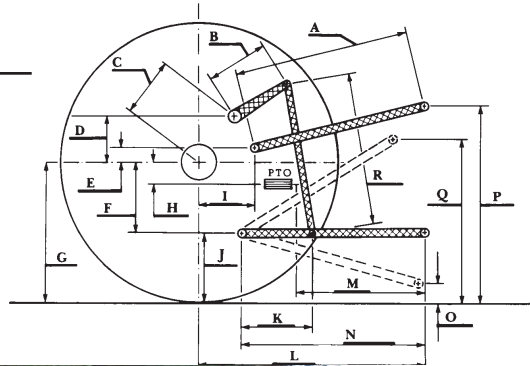
CATEGORY: 4N/4  
Quick Attach: Yes  
OECD Static test

|  | <u>Category 4N</u>                | <u>lift cylinders</u>    |
|--|-----------------------------------|--------------------------|
| Maximum force exerted through whole range:                         | 15410 lbs(68.5 kN)                | (1 x 90 mm and 1x100 mm) |
|  | 20679 lbs(92.0 kN)                | (2 x 110 mm)             |
|  | <u>Category 4</u>                 |                          |
|  | 15346 lbs(68.3 kN)                | (1 x 90 mm and 1x100 mm) |
|  | 20526 lbs(91.3 kN)                | (2 x 110 mm)             |
|  | <u>Base pump</u>                  | <u>Tandem pump</u>       |
|  | <u>three outlet sets combined</u> |                          |
| i) Sustained pressure at compensator cutoff:                       | 2959 psi (204 bar)                | 2910 psi (201 bar)       |
| ii) Pump delivery rate at minimum pressure and rated engine speed: | 61.2 GPM (231.6 l/min)            | 56.8 GPM (214.9 l/min)   |
| Combined flow:   | 118.0 GPM (446.5 l/min)           |                          |
| iii) Pump delivery rate at maximum hydraulic power:                | 61.2 GPM (231.8 l/min)            | 57.2 GPM (216.3 l/min)   |
| Delivery pressure:   | 2614 psi (180 bar)                | 2458 psi (169 bar)       |
| Power:   | 93.4 HP (69.6 kW)                 | 82.0 HP (61.1 kW)        |
|  | <u>single outlet set</u>          |                          |
|  | <u>3/4" couplers</u>              | <u>1/2" couplers</u>     |
| i) Sustained pressure at compensator cutoff:                       | 2856 psi (197 bar)                | 2957 psi (204 bar)       |
| ii) Pump delivery rate at minimum pressure and rated engine speed: | 43.1 GPM (163.2 l/min)            | 37.0 GPM (140.2 l/min)   |
| iii) Pump delivery rate at maximum hydraulic power:                | 42.5 GPM (160.9 l/min)            | 35.0 GPM (132.6 l/min)   |
| Delivery pressure:   | 2226 psi (153 bar)                | 2284 psi (157 bar)       |
| Power:   | 55.2 HP (41.2 kW)                 | 46.7 HP (34.8 kW)        |

|     | <u>Category 4N</u> |           | <u>Category 4</u> |           |
|-----|--------------------|-----------|-------------------|-----------|
|     | <u>inch</u>        | <u>mm</u> | <u>inch</u>       | <u>mm</u> |
| A   | 31.4               | 798       | 30.1              | 765       |
| B   | 19.7               | 500       | 19.7              | 500       |
| C   | 25.0               | 635       | 25.0              | 635       |
| D   | 24.4               | 620       | 24.4              | 620       |
| E   | 12.8               | 325       | 12.8              | 325       |
| F   | 13.8               | 350       | 13.8              | 350       |
| G   | 36.6               | 930       | 36.6              | 930       |
| H   | 2.4                | 60        | 2.4               | 60        |
| I   | 18.7               | 474       | 18.7              | 474       |
| J   | 22.8               | 580       | 22.8              | 580       |
| K   | 30.9               | 785       | 30.9              | 785       |
| L   | 52.8               | 1342      | 52.8              | 1342      |
| *L' | 58.7               | 1491      | 59.6              | 1515      |
| M   | 22.8               | 580       | 22.8              | 580       |
| N   | 51.5               | 1308      | 51.5              | 1308      |
| O   | 9.0                | 230       | 9.0               | 230       |
| P   | 49.8               | 1266      | 49.8              | 1266      |
| Q   | 40.3               | 1023      | 40.1              | 1018      |
| R   | 50.2               | 1275      | 50.4              | 1280      |

\*L' to Quick Attach ends

### HITCH DIMENSIONS AS TESTED—NO LOAD



**JOHN DEERE 9570RT DIESEL**

Institute of Agriculture and Natural Resources  
University of Nebraska-Lincoln