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2018

## Test 2206: Challenger MT740

Nebraska Tractor Test Lab

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# NEBRASKA OECD TRACTOR TEST 2206—SUMMARY 1155

## CHALLENGER MT740 DIESEL

### CONTINUOUSLY VARIABLE TRANSMISSION

#### 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—1054rpm)</b>  |                                |                       |                       |                       |                 |                                |
| 345.28<br>(257.48)                             | 1701                           | 18.44<br>(69.82)      | 0.374<br>(0.227)      | 18.72<br>(3.69)       | 0.98<br>(3.72)  |                                |
| <b>Standard Power Take-off Speed(1000 rpm)</b> |                                |                       |                       |                       |                 |                                |
| 349.49<br>(260.61)                             | 1614                           | 18.45<br>(69.83)      | 0.369<br>(0.225)      | 18.95<br>(3.73)       | 0.99<br>(3.75)  |                                |
| <b>Maximum Power (1 hour)</b>                  |                                |                       |                       |                       |                 |                                |
| 350.91<br>(261.68)                             | 1601                           | 18.49<br>(70.00)      | 0.369<br>(0.224)      | 18.98<br>(3.74)       | 1.00<br>(3.79)  |                                |

#### VARYING POWER AND FUEL CONSUMPTION

|                    |      |                  |                  |                 |                |                     |
|--------------------|------|------------------|------------------|-----------------|----------------|---------------------|
| 345.28<br>(257.48) | 1701 | 18.44<br>(69.82) | 0.374<br>(0.227) | 18.72<br>(3.69) | 0.98<br>(3.72) | Air temperature     |
| 297.14<br>(221.58) | 1721 | 16.12<br>(61.03) | 0.380<br>(0.231) | 18.43<br>(3.63) | 0.83<br>(3.15) | 72°F(22°C)          |
| 224.86<br>(167.68) | 1738 | 12.74<br>(48.24) | 0.397<br>(0.241) | 17.64<br>(3.48) | 0.68<br>(2.57) | Relative humidity   |
| 151.19<br>(112.74) | 1752 | 9.49<br>(35.92)  | 0.439<br>(0.267) | 15.93<br>(3.14) | 0.47<br>(1.78) | 22%                 |
| 75.97<br>(56.65)   | 1764 | 6.28<br>(23.76)  | 0.578<br>(0.352) | 12.10<br>(2.38) | 0.31<br>(1.17) | Barometer           |
| 2.80<br>(2.09)     | 1775 | 3.35<br>(12.67)  | 8.349<br>(5.078) | 0.84<br>(0.17)  | 0.18<br>(0.69) | 28.92" Hg(97.94kPa) |

Maximum torque - 1198 lb.-ft. (1624 Nm) at 1251 rpm

Maximum torque rise - 12.4%

Torque rise at 1360 engine rpm - 11.0%

Power increase at 1601 engine rpm - 1.6%

#### DRAWBAR PERFORMANCE

##### 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<br>lb/hp.hr<br>(kg/kW.h) | D.E.F.<br>Consumption<br>Hp.hr/gal<br>(kW.h/l) | Temp. °F(°C)<br>cool-<br>ing<br>med<br>bulb | Barom.<br>inch<br>Hg<br>(kPa) |
|---|--------------------------------|------------------------|---------------------------------|-----------|---|--|---|-------------------------------|
| <b>Power at Rated Engine Speed—5.6 mph(9.0 km/h)</b>          |                                |                        |                                 |           |   |  |   |                               |
| 285.72<br>(213.06)  | 19372<br>(86.17)               | 5.53<br>(8.90)         | 1700                            | 2.4       | 0.454<br>(0.276)                          | 15.42<br>(3.04)                                | 0.031<br>(0.019)                            | 206<br>(97)                   |
| <b>75% of Pull at Rated Engine Speed—5.6 mph(9.0 km/h)</b>    |                                |                        |                                 |           |   |  |   |                               |
| 216.03<br>(161.09)  | 14516<br>(64.57)               | 5.58<br>(8.98)         | 1729                            | 1.2       | 0.470<br>(0.286)                          | 14.89<br>(2.93)                                | 0.030<br>(0.018)                            | 206<br>(96)                   |
| <b>50% of Pull at Rated Engine Speed—5.6 mph(9.0 km/h)</b>    |                                |                        |                                 |           |   |  |   |                               |
| 145.26<br>(108.32)  | 9670<br>(43.01)                | 5.64<br>(9.07)         | 1744                            | 0.5       | 0.517<br>(0.315)                          | 13.53<br>(2.67)                                | 0.033<br>(0.020)                            | 206<br>(97)                   |
| <b>75% of Pull at Reduced Engine Speed—7.5 mph(12.0 km/h)</b> |                                |                        |                                 |           |   |  |   |                               |
| 216.71<br>(161.60)  | 14511<br>(64.55)               | 5.60<br>(9.01)         | 1250                            | 1.3       | 0.434<br>(0.264)                          | 16.14<br>(3.18)                                | 0.045<br>(0.027)                            | 206<br>(96)                   |
| <b>50% of Pull at Reduced Engine Speed—8.0 mph(13.0 km/h)</b> |                                |                        |                                 |           |   |  |   |                               |
| 145.36<br>(108.39)  | 9676<br>(43.04)                | 5.63<br>(9.06)         | 1165                            | 0.5       | 0.445<br>(0.271)                          | 15.72<br>(3.10)                                | 0.050<br>(0.031)                            | 206<br>(97)                   |

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

**Dates of tests:** October 11 to 24, 2018

**Manufacturer:** AGCO Corporation, 4205 River Green Parkway, Duluth Ga 30096

**CONSUMABLE Fluids, OIL and TIME: Fuel** No. 2 Diesel **Specific gravity converted to 60°/60°F (15°/15°C)** 0.8404 **Fuel weight** 6.998 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 15W-40 **API service classification** CJ-4 **Transmission and hydraulic lubricant** AGCO Permatran 821 XL fluid **Total time engine was operated:** 21.5 hours

**ENGINE: Make** AGCO **Power Diesel Type** seven cylinder vertical with two turbochargers, water to air intercooler, air to air intercooler and D.E.F. (diesel exhaust fluid) technology **Serial No.** \*D78124\* **Crankshaft** lengthwise **Rated engine speed** 1700 **Bore and stroke** 4.370" x 5.709" (111.0 mm x 145.0 mm) **Compression ratio** 16.7 to 1 **Displacement** 599 cu in (9822 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) and SCR (selective catalyst reduction) with a vertical muffler **Cooling medium temperature control** 2 thermostats and variable speed fan

**ENGINE OPERATING PARAMETERS: Fuel rate:** 128.8 - 141.5 lb/h (58.4 - 64.2 kg/h) **High idle:** 1765 - 1815 rpm **Turbo boost:** nominal 34.1 - 37.0 psi (235 - 255 kPa) as measured 35.7 psi (246 kPa)

**CHASSIS: Type** Tracklayer-rubber tracked **Serial No.** \*AGCC0740JNND1021\* **Track width** 88.0" (2235 mm) to 119.5" (3035 mm) **Length of track on ground** 102.4" (2600 mm) **Hydraulic control system** direct engine drive **Transmission** CVT. Infinitely variable hydrostatic using variable displacement pump and motors **Nominal travel speeds mph (km/h)** forward - 0-25.0 mph (0-40 km/h), reverse - 0-8.7 mph (0-14 km/h) **Clutch** a foot pedal controls the hydrostatic oil flow **Brakes** wet multiple disc hydraulically actuated by foot pedal **Steering** electro-hydraulic differential steering controlled by steering wheel **Power take-off** 1000 rpm at 1614 or 1255 engine rpm **Unladen tractor mass** 35890 lb (16279 kg)

## DRAWBAR PERFORMANCE

### MANUAL MODE - 1700 ENGINE RPM DRAWBAR POWER AT SELECTED TRAVEL SPEED SETTINGS

| 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) |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|-----------------------|--|-------------------------------------|--------------------|-------------------------------|
| 2.5 mph (4.0 km/h)  |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 195.53<br>(145.81)  | 33777<br>(150.25)              | 2.18<br>(3.50)         | 1729                            | 13.8      | 0.526<br>(0.320)                          | 13.30<br>(2.62)       | 0.033<br>(0.020)                               | 206<br>(96)                         | 50<br>(10)         | 28.97<br>(98.10)              |
| 3.1 mph (5.0 km/h)  |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 240.45<br>(179.30)  | 32364<br>(143.96)              | 2.79<br>(4.49)         | 1714                            | 11.3      | 0.496<br>(0.302)                          | 14.10<br>(2.78)       | 0.031<br>(0.019)                               | 206<br>(96)                         | 54<br>(12)         | 28.96<br>(98.07)              |
| 3.7 mph (6.0 km/h)  |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 270.33<br>(201.59)  | 28805<br>(128.13)              | 3.52<br>(5.66)         | 1701                            | 7.1       | 0.473<br>(0.288)                          | 14.79<br>(2.91)       | 0.030<br>(0.018)                               | 205<br>(96)                         | 55<br>(13)         | 28.96<br>(98.07)              |
| 4.2 mph (6.8 km/h)  |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 276.57<br>(206.23)  | 25369<br>(112.84)              | 4.09<br>(6.58)         | 1700                            | 4.9       | 0.465<br>(0.283)                          | 15.06<br>(2.97)       | 0.029<br>(0.018)                               | 206<br>(97)                         | 57<br>(14)         | 28.96<br>(98.07)              |
| 4.7 mph (7.5 km/h)  |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 283.16<br>(211.15)  | 23319<br>(103.73)              | 4.56<br>(7.33)         | 1700                            | 4.0       | 0.462<br>(0.281)                          | 15.14<br>(2.98)       | 0.031<br>(0.019)                               | 206<br>(97)                         | 42<br>(6)          | 29.13<br>(98.63)              |
| 5.1 mph (8.2 km/h)  |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 285.10<br>(212.60)  | 21373<br>(95.07)               | 5.01<br>(8.05)         | 1700                            | 3.1       | 0.458<br>(0.279)                          | 15.27<br>(3.01)       | 0.031<br>(0.019)                               | 206<br>(97)                         | 42<br>(6)          | 29.12<br>(98.61)              |
| 5.6 mph (9.0 km/h)  |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 285.72<br>(213.06)  | 19372<br>(86.17)               | 5.53<br>(8.90)         | 1700                            | 2.4       | 0.454<br>(0.276)                          | 15.42<br>(3.04)       | 0.031<br>(0.019)                               | 206<br>(97)                         | 42<br>(6)          | 29.10<br>(98.54)              |
| 6.2 mph (10.0 km/h) |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 285.74<br>(213.07)  | 17298<br>(76.95)               | 6.20<br>(9.97)         | 1700                            | 1.8       | 0.453<br>(0.276)                          | 15.45<br>(3.04)       | 0.030<br>(0.018)                               | 205<br>(96)                         | 43<br>(6)          | 29.10<br>(98.54)              |
| 6.8 mph (11.0 km/h) |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 286.71<br>(213.80)  | 15782<br>(70.20)               | 6.82<br>(10.97)        | 1700                            | 1.4       | 0.453<br>(0.275)                          | 15.46<br>(3.04)       | 0.031<br>(0.019)                               | 208<br>(98)                         | 43<br>(6)          | 29.09<br>(98.51)              |
| 7.5 mph (12.0 km/h) |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 285.85<br>(213.15)  | 14383<br>(63.98)               | 7.46<br>(12.00)        | 1700                            | 1.1       | 0.452<br>(0.275)                          | 15.49<br>(3.05)       | 0.032<br>(0.019)                               | 208<br>(98)                         | 44<br>(6)          | 29.09<br>(98.51)              |
| 8.1 mph (13.0 km/h) |                                |                        |                                 |           |   |                       |  |                                     |                    |                               |
| 284.43<br>(212.10)  | 13179<br>(58.62)               | 8.10<br>(13.03)        | 1700                            | 0.9       | 0.453<br>(0.276)                          | 15.44<br>(3.04)       | 0.033<br>(0.020)                               | 211<br>(99)                         | 44<br>(7)          | 29.09<br>(98.49)              |

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

**NOTE 1:** To facilitate drawbar testing the tractor was operated in manual cruise mode.

**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. **2206**, Nebraska Summary 1155, December 18, 2018.

Roger M. Hoy  
Director

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

#### TRACTOR SOUND LEVEL WITH CAB

**dB(A)**

|  |      |
|--|------|
| At no load at 4.6 mph (7.5 km/h) engine speed 1780 rpm | 67.4 |
| At no load at 4.6 mph (7.5 km/h) engine speed 1320 rpm | 63.5 |
| Bystander  | 84.2 |

Horizontal distance of drawbar hitch point behind rear wheel axis - 40.3" (1023 mm)

#### TRACKS AND WEIGHT

#### Tested Without Ballast

|                             |                     |
|-----------------------------|---------------------|
| Track width                 | 25.0 in (635 mm)    |
| Height of Drawbar           | 20.5 in (520 mm)    |
| Static Weight with operator | 36065 lb (16359 kg) |

**DRAWBAR PERFORMANCE**  
**MANUAL MODE - 1600 ENGINE RPM**  
**DRAWBAR POWER AT SELECTED TRAVEL SPEED SETTINGS**

| 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)<br>cool-<br>ing<br>med |            | 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) |                                     | bulb       |                               |
| 2.5 mph (4.0 km/h)  |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 196.70<br>(146.68)  | 34043<br>(151.43)              | 2.17<br>(3.49)         | 1728                            | 13.9      | 0.528<br>(0.321)      | 13.25<br>(2.61)       | 0.033<br>(0.020)      | 205<br>(96)                         | 51<br>(10) | 28.97<br>(98.09)              |
| 3.1 mph (5.0 km/h)  |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 240.84<br>(179.59)  | 32360<br>(143.94)              | 2.80<br>(4.50)         | 1714                            | 11.3      | 0.499<br>(0.304)      | 14.01<br>(2.76)       | 0.031<br>(0.019)      | 206<br>(96)                         | 53<br>(12) | 28.97<br>(98.09)              |
| 3.7 mph (6.0 km/h)  |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 271.19<br>(202.22)  | 29210<br>(129.93)              | 3.49<br>(5.61)         | 1663                            | 7.5       | 0.475<br>(0.289)      | 14.74<br>(2.90)       | 0.031<br>(0.019)      | 207<br>(97)                         | 56<br>(13) | 28.96<br>(98.07)              |
| 4.2 mph (6.8 km/h)  |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 281.03<br>(209.56)  | 26488<br>(117.82)              | 3.98<br>(6.41)         | 1599                            | 5.4       | 0.456<br>(0.277)      | 15.34<br>(3.02)       | 0.029<br>(0.018)      | 206<br>(96)                         | 59<br>(15) | 28.96<br>(98.07)              |
| 4.7 mph (7.5 km/h)  |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 286.67<br>(213.77)  | 23940<br>(106.49)              | 4.49<br>(7.23)         | 1600                            | 4.3       | 0.456<br>(0.278)      | 15.33<br>(3.02)       | 0.032<br>(0.019)      | 207<br>(97)                         | 42<br>(6)  | 29.12<br>(98.61)              |
| 5.1 mph (8.2 km/h)  |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 288.97<br>(215.48)  | 21859<br>(97.23)               | 4.96<br>(7.97)         | 1600                            | 3.3       | 0.451<br>(0.274)      | 15.51<br>(3.06)       | 0.031<br>(0.019)      | 206<br>(97)                         | 42<br>(6)  | 29.11<br>(98.58)              |
| 5.6 mph (9.0 km/h)  |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 290.99<br>(216.99)  | 19894<br>(88.49)               | 5.49<br>(8.83)         | 1600                            | 2.6       | 0.446<br>(0.271)      | 15.68<br>(3.09)       | 0.031<br>(0.019)      | 206<br>(97)                         | 43<br>(6)  | 29.10<br>(98.54)              |
| 6.2 mph (10.0 km/h) |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 293.03<br>(218.51)  | 17975<br>(79.95)               | 6.11<br>(9.83)         | 1600                            | 1.9       | 0.440<br>(0.268)      | 15.89<br>(3.13)       | 0.031<br>(0.019)      | 206<br>(97)                         | 43<br>(6)  | 29.10<br>(98.54)              |
| 6.8 mph (11.0 km/h) |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 292.26<br>(217.93)  | 16199<br>(72.06)               | 6.77<br>(10.89)        | 1600                            | 1.5       | 0.444<br>(0.270)      | 15.76<br>(3.10)       | 0.032<br>(0.019)      | 209<br>(98)                         | 43<br>(6)  | 29.09<br>(98.51)              |
| 7.5 mph (12.0 km/h) |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 290.59<br>(216.69)  | 14739<br>(65.56)               | 7.40<br>(11.90)        | 1600                            | 1.2       | 0.445<br>(0.271)      | 15.73<br>(3.10)       | 0.032<br>(0.019)      | 209<br>(98)                         | 44<br>(7)  | 29.09<br>(98.49)              |
| 8.1 mph (13.0 km/h) |                                |                        |                                 |           |                       |                       |                       |                                     |            |                               |
| 291.71<br>(217.53)  | 13641<br>(60.68)               | 8.02<br>(12.91)        | 1599                            | 1.0       | 0.443<br>(0.270)      | 15.78<br>(3.11)       | 0.033<br>(0.020)      | 210<br>(99)                         | 45<br>(7)  | 29.08<br>(98.48)              |

## Shiftable PTO Performance

### Economy mode

1000 PTO rpm @ 1255 engine rpm

| Power<br>HP<br>(kW) | Crank<br>shaft<br>speed<br>rpm | Diesel<br>Consumption |                       | D.E.F.<br>Consumption |                 |
|---------------------|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------|
|                     |                                | Gal/hr<br>(l/h)       | lb/hp.hr<br>(kg/kW.h) | Hp.hr/gal<br>(kW.h/l) | Gal/hr<br>(l/h) |
| 285.63<br>(213.00)  | 1255                           | 14.78<br>(55.94)      | 0.362<br>(0.220)      | 19.33<br>(3.81)       | 1.28<br>(4.83)  |
| 213.93<br>(159.53)  | 1254                           | 11.40<br>(43.16)      | 0.373<br>(0.227)      | 18.76<br>(3.70)       | 0.78<br>(2.95)  |
| 142.32<br>(106.13)  | 1251                           | 8.08<br>(30.59)       | 0.397<br>(0.242)      | 17.61<br>(3.47)       | 0.47<br>(1.79)  |
| 71.46<br>(53.29)    | 1257                           | 4.84<br>(18.31)       | 0.474<br>(0.288)      | 14.77<br>(2.91)       | 0.21<br>(0.79)  |
| 2.01<br>(1.50)      | 1256                           | 1.91<br>(7.22)        | 6.630<br>(4.033)      | 1.06<br>(0.21)        | 0.07<br>(0.27)  |

### Normal mode

1000 PTO rpm @ 1614 engine rpm

| Power<br>HP<br>(kW) | Crank<br>shaft<br>speed<br>rpm | Diesel<br>Consumption |                       | D.E.F.<br>Consumption |                 |
|---------------------|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------|
|                     |                                | Gal/hr<br>(l/h)       | lb/hp.hr<br>(kg/kW.h) | Hp.hr/gal<br>(kW.h/l) | Gal/hr<br>(l/h) |
| 285.59<br>(212.96)  | 1611                           | 15.21<br>(57.59)      | 0.373<br>(0.227)      | 18.77<br>(3.70)       | 0.76<br>(2.87)  |
| 213.87<br>(159.48)  | 1616                           | 11.87<br>(44.92)      | 0.388<br>(0.236)      | 18.02<br>(3.55)       | 0.60<br>(2.26)  |
| 142.30<br>(106.11)  | 1614                           | 8.68<br>(32.86)       | 0.427<br>(0.260)      | 16.39<br>(3.23)       | 0.39<br>(1.46)  |
| 71.51<br>(53.33)    | 1612                           | 5.58<br>(21.13)       | 0.546<br>(0.332)      | 12.81<br>(2.52)       | 0.24<br>(0.90)  |
| 2.01<br>(1.50)      | 1613                           | 2.76<br>(10.45)       | 9.605<br>(5.842)      | 0.73<br>(0.14)        | 0.13<br>(0.51)  |

## HYDRAULIC PERFORMANCE

CATEGORY: III

Quick Attach: yes

OECD Static test

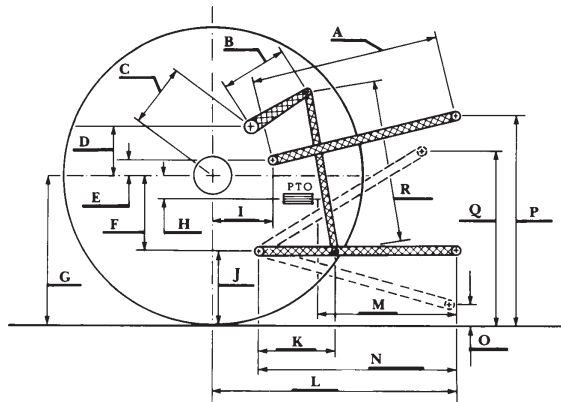
Maximum force exerted through whole range: 21134 lbs (94.0 kN)

|  | <b>Pump 1</b>           | <b>Pump 2</b>          |
|--|-------------------------|------------------------|
|  | 3 outlet sets combined  |                        |
| i) Sustained pressure at compensator cutoff:                       | 2991 psi (206 bar)      | 2959 psi (204 bar)     |
| ii) Pump delivery rate at minimum pressure and rated engine speed: | 60.0 GPM (226.9 l/min)  | 60.3 GPM (228.4 l/min) |
| Combined flow:   | 120.3 GPM (455.3 l/min) |                        |
| iii) Pump delivery rate at maximum                                 |                         |                        |
| hydraulic power:   | 58.3 GPM (220.7 l/min)  | 59.0 GPM (223.5 l/min) |
| Delivery pressure:   | 2746 psi (189 bar)      | 2691 psi (186 bar)     |
| Power:   | 93.4 HP (69.6 kW)       | 92.7 HP (69.1 kW)      |
|  | single outlet set       |                        |
| i) Sustained pressure at compensator cutoff:                       | 3010 psi (208 bar)      | 2960 psi (204 bar)     |
| ii) Pump delivery rate at minimum pressure and rated engine speed: | 37.7 GPM (142.8 l/min)  | 37.4 GPM (141.5 l/min) |
| iii) Pump delivery rate at maximum                                 |                         |                        |
| hydraulic power:   | 36.0 GPM (136.1 l/min)  | 36.3 GPM (137.3 l/min) |
| Delivery pressure:   | 2476 psi (171 bar)      | 2420 psi (167 bar)     |
| Power:   | 51.9 HP (38.7 kW)       | 51.2 HP (38.2 kW)      |

### HITCH DIMENSIONS AS TESTED—NO LOAD

|     | inch | mm   |
|-----|------|------|
| A   | 30.5 | 775  |
| B   | 22.6 | 575  |
| C   | 22.0 | 559  |
| D   | 21.7 | 550  |
| E   | 16.1 | 409  |
| F   | 11.4 | 290  |
| G   | 34.4 | 875  |
| H   | 1.4  | 35   |
| I   | 16.7 | 424  |
| J   | 23.0 | 585  |
| K   | 25.8 | 655  |
| L   | 53.0 | 1347 |
| *L' | 59.2 | 1503 |
| M   | 31.7 | 806  |
| N   | 42.4 | 1076 |
| O   | 9.0  | 230  |
| P   | 50.0 | 1270 |
| Q   | 43.5 | 1105 |
| R   | 47.6 | 1210 |

\*L' to Quick Attach ends



### RECOMMENDED CITATION FORMAT:

NTTL.(2018). Nebraska OECD Tractor test 2206 for Challenger MT740 Diesel.

Lincoln, NE:Nebraska Tractor Test Laboratory. Retrieved from <http://tractortestlab.unl.edu>



**CHALLENGER MT740 DIESEL**  
 Institute of Agriculture and Natural Resources  
 University of Nebraska–Lincoln