

# SUMMARY OF OECD TEST 2476 — NEBRASKA SUMMARY 724 NEW HOLLAND T4040 DIESEL 16 SPEED

## POWER TAKE-OFF PERFORMANCE

| Power<br>HP<br>(kW)                                 | Crank<br>shaft<br>speed<br>rpm | Gal/hr<br>(l/h) | lb/lp.hr<br>(kg/kW.h) | Hp.hr/gal<br>(kW.h/l) | Mean Atmospheric<br>Conditions |
|---|--------------------------------|-----------------|-----------------------|-----------------------|--------------------------------|
| <b>MAXIMUM POWER AND FUEL CONSUMPTION</b>           |                                |                 |                       |                       |                                |
| <b>Rated Engine Speed (PTO speed—564 rpm)</b>       |                                |                 |                       |                       |                                |
| 75.4<br>(56.2)                                      | 2304                           | 4.71<br>(17.83) | 0.437<br>(0.266)      | 16.00<br>(3.15)       |                                |
| <b>Standard Power Take-off speed (539 rpm)</b>      |                                |                 |                       |                       |                                |
| 74.3<br>(55.4)                                      | 2202                           | 4.50<br>(17.04) | 0.424<br>(0.258)      | 16.50<br>(3.25)       |                                |
| <b>VARYING POWER AND FUEL CONSUMPTION</b>           |                                |                 |                       |                       |                                |
| 75.4<br>(56.2)                                      | 2304                           | 4.71<br>(17.83) | 0.437<br>(0.266)      | 16.00<br>(3.15)       | Air temperature                |
| 68.0<br>(50.7)                                      | 2444                           | 4.58<br>(17.33) | 0.471<br>(0.286)      | 14.85<br>(2.93)       | 75°F (24°C)                    |
| 51.4<br>(38.3)                                      | 2464                           | 3.86<br>(14.61) | 0.525<br>(0.319)      | 13.31<br>(2.62)       | Relative humidity              |
| 34.6<br>(25.8)                                      | 2487                           | 3.20<br>(12.10) | 0.647<br>(0.393)      | 10.81<br>(2.13)       | 60%                            |
| 17.4<br>(12.9)                                      | 2501                           | 2.48<br>(9.38)  | 0.998<br>(0.607)      | 7.00<br>(1.38)        | Barometer                      |
| --  | 2532                           | 2.04<br>(7.73)  | --                    | --                    | 30.0" Hg (101.5 kPa)           |
| Maximum torque -271.3 lb.-ft. (367.8 Nm) at 882 rpm |                                |                 |                       |                       |                                |
| Maximum torque rise -59.6%                          |                                |                 |                       |                       |                                |
| Torque rise at 1840 engine rpm -19%                 |                                |                 |                       |                       |                                |

**Location of tests:** Alma Mater Studiorum, University  
Di Bologna, Via Gandolfi, 19-40057, Cadriano,  
Bologna, Italy

**Dates of tests:** July to September, 2008

**Manufacturer:** CNH Italia SpA, Viale delle Nazioni  
55, Modena, Italy

**FUEL and OIL:** Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F (15°/15°C)** 0.840  
**Fuel weight** 6.99 lbs/gal (0.838 kg/l) **Oil** SAE 15W40  
**API service classification** CH-4 **Transmission and hydraulic lubricant** Akcela Nexplore fluid  
**Front axle lubricant** Akcela Nexplore fluid

**ENGINE: Make** Iveco Diesel **Type** four cylinder vertical with turbocharger and air to air intercooler  
**Serial No.** 0002189 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 4.094" x 5.197" (104.0 mm x 132.0 mm) **Compression ratio** 17.5 to 1 **Displacement** 274 cu in (4485 ml) **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **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 **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat

**CHASSIS: Type** front wheel assist **Serial No.** Z7JA01023 **Tread width** rear 48.5" (1232 mm) to 76.7" (1949 mm) front 48.7" (1236 mm) to 76.6" (1945 mm) **Wheel base** 86.0" (2185 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph(km/h)** first 0.49(0.79) second 0.73(1.18) third 1.08(1.73) fourth 1.64(2.64) fifth 2.06(3.32) sixth 2.52(4.06) seventh 3.07(4.94) eighth 3.76(6.05) ninth 4.52(7.27) tenth 5.52(8.89) eleventh 6.90(11.10) twelfth 7.28(11.72) thirteenth 8.44(13.59) fourteenth 10.86(17.47) fifteenth 15.96(25.68) sixteenth 24.38(39.23) reverse 0.46(0.74), 0.69(1.11), 1.01(1.62), 1.54(2.48), 1.94(3.12), 2.37(3.81), 2.88(4.64), 3.53(5.68), 4.24(6.83), 5.19(8.36), 6.48(10.43), 6.84(11.01), 7.93(12.76), 10.20(16.41), 14.99(24.12), 22.90(36.85) **Clutch** dual dry disc operated by foot pedal **Brakes** wet disc hydraulically operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2206 engine rpm or 1000 rpm at 2260 engine rpm **Unladen tractor mass** 8115 lb (3680 kg)

**DRAWBAR PERFORMANCE**  
**(Unballasted - Front Drive Engaged)**  
**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) | Fuel Consumption<br>Hp.hr/gal<br>(kW.h/l) | Temp.°F (°C)<br>cool-<br>ing<br>med | Air<br>dry<br>bulb | Barom.<br>inch<br>Hg<br>(kPa) |
|---|--------------------------------|------------------------|---------------------------------|-----------|---|---|-------------------------------------|--------------------|-------------------------------|
| <b>Maximum Power—10th(3MH)Gear</b>                        |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 64.0<br>(47.7)  | 4655<br>(20.71)                | 5.15<br>(8.29)         | 2299                            | 7.1       | 0.496<br>(0.302)                          | 14.10<br>(2.78)                           | 203<br>(95)                         | 81<br>(27)         | 29.9<br>(101.3)               |
| <b>75% of Pull at Maximum Power—10th(3MH) Gear</b>        |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 51.5<br>(38.4)  | 3495<br>(15.54)                | 5.53<br>(8.90)         | 2425                            | 5.2       | 0.526<br>(0.320)                          | 13.30<br>(2.62)                           | 203<br>(95)                         | 79<br>(26)         | 29.9<br>(101.3)               |
| <b>50% of Pull at Maximum Power—10th(3MH)Gear</b>         |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 35.5<br>(26.5)  | 2325<br>(10.34)                | 5.73<br>(9.23)         | 2470                            | 3.6       | 0.652<br>(0.396)                          | 10.73<br>(2.11)                           | 205<br>(96)                         | 81<br>(27)         | 29.9<br>(101.3)               |
| <b>75% of Pull at Reduced Engine Speed—11th(4ML) Gear</b> |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 51.6<br>(38.5)  | 3500<br>(15.56)                | 5.53<br>(8.90)         | 1942                            | 5.3       | 0.520<br>(0.317)                          | 13.44<br>(2.65)                           | 203<br>(95)                         | 81<br>(27)         | 29.9<br>(101.3)               |
| <b>50% of Pull at Reduced Engine Speed—11th(4ML) Gear</b> |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 35.5<br>(26.5)  | 2325<br>(10.35)                | 5.73<br>(9.23)         | 1973                            | 3.6       | 0.647<br>(0.394)                          | 10.80<br>(2.13)                           | 205<br>(96)                         | 79<br>(26)         | 29.9<br>(101.3)               |
| <b>MAXIMUM POWER IN SELECTED GEARS</b>                    |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 6th(1MH) Gear   |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 44.7<br>(33.3)  | 7285<br>(32.39)                | 2.30<br>(3.70)         | 2464                            | 15.0      | 0.558<br>(0.339)                          | 12.54<br>(2.47)                           | 203<br>(95)                         | 81<br>(27)         | 29.9<br>(101.3)               |
| 7th(2ML) Gear   |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 49.8<br>(37.1)  | 6475<br>(28.80)                | 2.88<br>(4.64)         | 2455                            | 12.2      | 0.542<br>(0.330)                          | 12.89<br>(2.54)                           | 205<br>(96)                         | 81<br>(27)         | 29.9<br>(101.3)               |
| 8th(2MH) Gear   |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 55.4<br>(41.3)  | 5860<br>(26.07)                | 3.54<br>(5.70)         | 2413                            | 10.6      | 0.545<br>(0.331)                          | 12.84<br>(2.53)                           | 205<br>(96)                         | 79<br>(26)         | 29.9<br>(101.3)               |
| 9th(3ML) Gear   |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 60.8<br>(45.3)  | 5355<br>(23.82)                | 4.26<br>(6.85)         | 2375                            | 9.1       | 0.518<br>(0.315)                          | 13.50<br>(2.66)                           | 203<br>(95)                         | 81<br>(27)         | 29.9<br>(101.3)               |
| 10th(3MH) Gear  |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 64.0<br>(47.7)  | 4655<br>(20.71)                | 5.15<br>(8.29)         | 2299                            | 7.1       | 0.496<br>(0.302)                          | 14.11<br>(2.78)                           | 203<br>(95)                         | 81<br>(27)         | 29.9<br>(101.3)               |
| 11th(4ML) Gear  |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 64.6<br>(48.2)  | 3700<br>(16.45)                | 6.55<br>(10.54)        | 2297                            | 5.4       | 0.504<br>(0.306)                          | 13.88<br>(2.73)                           | 205<br>(96)                         | 79<br>(26)         | 29.9<br>(101.3)               |
| 12th(1H) Gear   |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 64.0<br>(47.7)  | 3460<br>(15.40)                | 6.93<br>(11.15)        | 2298                            | 5.0       | 0.506<br>(0.308)                          | 13.81<br>(2.72)                           | 203<br>(95)                         | 81<br>(27)         | 29.9<br>(101.3)               |
| 13th(4MH) Gear  |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 62.3<br>(46.4)  | 2885<br>(12.83)                | 8.10<br>(13.03)        | 2300                            | 4.3       | 0.510<br>(0.310)                          | 13.71<br>(2.70)                           | 205<br>(96)                         | 79<br>(26)         | 29.9<br>(101.3)               |
| 14th(2H) Gear   |                                |                        |                                 |           |   |   |                                     |                    |                               |
| 60.7<br>(45.3)  | 2170<br>(9.65)                 | 10.49<br>(16.89)       | 2300                            | 3.4       | 0.523<br>(0.318)                          | 13.36<br>(2.63)                           | 205<br>(96)                         | 81<br>(27)         | 29.9<br>(101.3)               |

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

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD test procedures. The performance results on this summary were taken from OECD tests conducted under the OCED Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2476**, Nebraska summary 724, March 19, 2010.

Roger M. Hoy  
Director

M.F. Kocher  
V.I. Adamchuk  
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Board of Tractor Test Engineers

**TIRES AND WEIGHT**

**Rear tires**—No., size, ply & psi (kPa)  
**Front tires**—No., size, ply & psi (kPa)  
**Height of drawbar**  
**Static weight with operator**—Rear  
 — Front  
 — Total

**Tested without ballast**

Two 16.9R30; \*\*; 23 (160)  
 Two 11.2R24; \*\*\*; 23 (160)  
 19.3 in (490 mm)  
 5160 lb (2340 kg)  
 3120 lb (1415 kg)  
 8280 lb (3755 kg)

| TRACTOR SOUND LEVEL WITH CAB | FWA<br>dB(A) | 2WD<br>dB(A) |
|------------------------------|--------------|--------------|
| At no load in 9th (3ML) gear | 78.9         | 78.9         |
| Bystander                    | --           | --           |

### HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

|   |                       |                       |
|---|-----------------------|-----------------------|
| Maximum force exerted through whole range:    | 2925 lbs (13.02 kN)   |                       |
|   | <b>Standard Pump</b>  | <b>Optional pump</b>  |
| i) Sustained pressure with relief valve open: | 2880 psi (199 bar)    | 2800 psi (193 bar)    |
| ii) Pump delivery rate at minimum pressure:   | 16.9 GPM (63.8 l/min) | 13.7 GPM (52.0 l/min) |
| iii) Pump delivery rate at maximum            |                       |                       |
| hydraulic power:                              | 15.0 GPM (56.8 l/min) | 12.3 GPM (46.6 l/min) |
| Delivery pressure:                            | 2395 psi (165 bar)    | 2480 psi (171 bar)    |
| Power:  | 20.9 hp (15.6 kW)     | 17.8 hp (13.2 kW)     |

### HITCH DIMENSIONS AS TESTED—NO LOAD

|   | SAE TEST |      | OECD TEST |      |
|---|----------|------|-----------|------|
|   | inch     | mm   | inch      | mm   |
| A | 27.2     | 690  | 27.2      | 690  |
| B | 10.0     | 255  | 10.0      | 255  |
| C | 12.3     | 312  | 12.3      | 312  |
| D | 10.9     | 276  | 10.9      | 276  |
| E | 14.2     | 361  | 12.1      | 308  |
| F | 7.5      | 189  | 7.5       | 189  |
| G | 27.6     | 700  | 27.6      | 700  |
| H | 1.4      | 35   | 1.4       | 35   |
| I | 13.4     | 340  | 13.6      | 345  |
| J | 20.1     | 511  | 20.1      | 511  |
| K | 20.6     | 523  | 20.6      | 523  |
| L | 40.7     | 1035 | 40.7      | 1035 |
| M | 21.7     | 550  | 21.7      | 550  |
| N | 34.6     | 880  | 34.6      | 880  |
| O | 17.6     | 448  | 14.5      | 369  |
| P | 39.1     | 994  | 44.1      | 1121 |
| Q | 38.7     | 983  | 40.2      | 1020 |
| R | 22.4     | 570  | 22.5      | 571  |

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

|                                      |                |
|--------------------------------------|----------------|
| Observed maximum pressure psi. (bar) | 2975 (205)     |
| Location:                            | remote outlets |
| Hydraulic oil temperature: °F (°C)   | 113 (45)       |
| Location:                            | hydraulic sump |
| Category:                            | II             |
| Quick attach:                        | none           |

System pressure 2675 psi (185 Bar)

|   |            |            |            |            |            |            |
|---|------------|------------|------------|------------|------------|------------|
| Hitch point distance to ground level in. (mm) | 17.6 (448) | 22.0 (558) | 26.2 (665) | 30.2 (766) | 34.4 (875) | 38.7 (983) |
| Lift force on frame lb                        | 4925       | 5105       | 4970       | 4675       | 4180       | 4115       |
| " " " " " " (kN)                              | (21.9)     | (22.7)     | (22.1)     | (20.8)     | (18.6)     | (18.3)     |

