

# SUMMARY OF OECD TEST 2428/1-NEBRASKA SUMMARY 664

## CASE IH MAXXUM 115 VALUE 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/hp.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—1037 rpm)</b>  |                                |                 |                       |                       |                                |
| 111.3<br>(83.0)                                 | 2197                           | 6.77<br>(25.61) | 0.426<br>(0.259)      | 16.45<br>(3.24)       |                                |
| <b>Standard Power Take-off Speed (1000 rpm)</b> |                                |                 |                       |                       |                                |
| 111.2<br>(82.9)                                 | 2119                           | 6.64<br>(25.15) | 0.418<br>(0.255)      | 16.75<br>(3.30)       |                                |
| <b>Maximum Power - (1 hour)</b>                 |                                |                 |                       |                       |                                |
| 111.4<br>(83.1)                                 | 2098                           | 6.63<br>(25.11) | 0.417<br>(0.254)      | 16.80<br>(3.31)       |                                |
| <b>VARYING POWER AND FUEL CONSUMPTION</b>       |                                |                 |                       |                       |                                |
| 111.3<br>(83.0)                                 | 2197                           | 6.77<br>(25.61) | 0.426<br>(0.259)      | 16.45<br>(3.24)       | Air temperature                |
| 100.8<br>(75.2)                                 | 2348                           | 6.53<br>(24.73) | 0.454<br>(0.276)      | 15.43<br>(3.04)       | 68°F (19°C)                    |
| 76.2<br>(56.8)                                  | 2361                           | 5.43<br>(20.56) | 0.500<br>(0.304)      | 14.02<br>(2.76)       | Relative humidity              |
| 51.2<br>(38.2)                                  | 2380                           | 4.15<br>(15.71) | 0.568<br>(0.345)      | 12.34<br>(2.43)       | 56%                            |
| 25.9<br>(19.3)                                  | 2407                           | 2.95<br>(11.18) | 0.801<br>(0.487)      | 8.76<br>(1.72)        | Barometer                      |
| --  | 2430                           | 1.95<br>(7.40)  | --                    | --                    | 28.8" Hg (97.4 kPa)            |

Maximum Torque - 420.1 lb.-ft. (569.6 Nm) at 898 rpm  
 Maximum Torque Rise - 58.0%  
 Torque rise at 1800 engine rpm - 18%

#### 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) | 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—9th (8B) Gear</b>                         |                                |                        |                                 |           |   |                       |                                     |                    |                               |
| 93.3<br>(69.6)   | 5790<br>(25.76)                | 6.04<br>(9.73)         | 2200                            | 3.0       | 0.508<br>(0.309)                          | 13.81<br>(2.72)       | 185<br>(85)                         | 61<br>(16)         | 29.1<br>(98.7)                |
| <b>75% of Pull at Maximum Power—9th (8B) Gear</b>          |                                |                        |                                 |           |   |                       |                                     |                    |                               |
| 75.8<br>(56.5)   | 4365<br>(19.42)                | 6.51<br>(10.47)        | 2350                            | 2.3       | 0.588<br>(0.358)                          | 11.92<br>(2.35)       | 185<br>(85)                         | 61<br>(16)         | 29.1<br>(98.7)                |
| <b>50% of Pull at Maximum Power—9th (8B) Gear</b>          |                                |                        |                                 |           |   |                       |                                     |                    |                               |
| 51.8<br>(38.6)   | 2945<br>(13.09)                | 6.60<br>(10.62)        | 2368                            | 1.7       | 0.665<br>(0.405)                          | 10.54<br>(2.08)       | 185<br>(85)                         | 63<br>(17)         | 29.1<br>(98.7)                |
| <b>75% of Pull at Reduced Engine Speed—10th (10C) Gear</b> |                                |                        |                                 |           |   |                       |                                     |                    |                               |
| 75.6<br>(56.4)   | 4390<br>(19.54)                | 6.46<br>(10.40)        | 2095                            | 2.4       | 0.533<br>(0.324)                          | 13.15<br>(2.59)       | 185<br>(85)                         | 64<br>(18)         | 29.1<br>(98.7)                |
| <b>50% of Pull at Reduced Engine Speed—10th (10C) Gear</b> |                                |                        |                                 |           |   |                       |                                     |                    |                               |
| 51.8<br>(38.6)   | 2950<br>(13.13)                | 6.58<br>(10.58)        | 2115                            | 1.6       | 0.592<br>(0.360)                          | 11.83<br>(2.33)       | 181<br>(83)                         | 64<br>(18)         | 29.1<br>(98.7)                |

**Location of tests:** Istituto per le Macchine Agricole e Movimento Terra 73, Strada delle Cacce 10135 Torino, Italy

**Dates of tests:** October 2007 to January 2008.

**Manufacturer:** CNH Europe Holding S.A. 13, Rue Aldringen L-1118, Luxembourg

**FUEL and OIL:** Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.842 Fuel weight 7.01 lbs/gal (0.840 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 CNH Diesel Type six cylinder vertical with turbocharger and air to air intercooler Serial No. 431733 Crankshaft lengthwise Rated engine speed 2200 Bore and stroke 4.094" x 5.197" (104.0 mm x 132.0 mm) Compression ratio 17.5 to 1 Displacement 410 cu in (6728 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 Muffler underhood Exhaust vertical Cooling medium temperature control thermostat and variable speed fan

**CHASSIS:** Type front wheel assist Serial No. Z7BD02884 Tread width rear 56.3" (1430 mm) to 83.9" (2130 mm) front 52.2" (1325 mm) to 90.0" (2285 mm) Wheelbase 104.4" (2652 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio with partial (8) range operator controlled powershift Nominal travel speeds mph (km/h) first 1.41 (2.27) second 1.73 (2.78) third 2.11 (3.39) fourth 2.58 (4.15) fifth 3.31 (5.32) sixth 4.06 (6.53) seventh 4.94 (7.95) eighth 5.51 (8.86) ninth 6.06 (9.75) tenth 6.75 (10.87) eleventh 8.23 (13.24) twelfth 10.09 (16.24) thirteenth 12.94 (20.82) fourteenth 15.87 (25.54) fifteenth 19.32 (31.09) sixteenth 23.70 (38.14) reverse 1.39 (2.24), 1.71 (2.75), 2.08 (3.35), 2.55 (4.10), 3.27 (5.26), 4.01 (6.45), 4.88 (7.86), 5.44 (8.76), 5.99 (9.64), 6.67 (10.74), 8.13 (13.08), 9.97 (16.05), 12.78 (20.57), 15.68 (25.24), 19.20 (30.73), 23.43 (37.70) Clutch wet disc electro-hydraulically actuated by foot pedal Brakes wet disc hydraulically actuated by two foot pedals that can be locked together Steering hydrostatic Power take-off 540 rpm at 1970 engine rpm or 1000 rpm at 2120 engine rpm Unladen tractor mass 10900 lb (4945 kg)

**DRAWBAR PERFORMANCE**  
**(Unballasted - Front Drive Engaged)**  
**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) | 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) |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|--------------------------------------|-------------------------------------|--------------------|-------------------------------|
| 3rd(3A) Gear        |                                |                        |                                 |           |   |                                      |                                     |                    |                               |
| 54.3<br>(40.5)      | 10235<br>(45.53)               | 1.99<br>(3.20)         | 2342                            | 13.8      | 0.830<br>(0.505)                          | 8.44<br>(1.66)                       | 187<br>(86)                         | 63<br>(17)         | 29.2<br>(98.8)                |
| 4th(4A) Gear        |                                |                        |                                 |           |   |                                      |                                     |                    |                               |
| 65.6<br>(48.9)      | 10090<br>(44.88)               | 2.44<br>(3.92)         | 2336                            | 13.6      | 0.701<br>(0.426)                          | 10.00<br>(1.97)                      | 185<br>(85)                         | 57<br>(14)         | 29.1<br>(98.7)                |
| 5th(5B) Gear        |                                |                        |                                 |           |   |                                      |                                     |                    |                               |
| 83.4<br>(62.2)      | 10015<br>(44.55)               | 3.12<br>(5.03)         | 2329                            | 13.2      | 0.552<br>(0.336)                          | 12.69<br>(2.50)                      | 185<br>(85)                         | 61<br>(16)         | 29.1<br>(98.7)                |
| 6th(6B) Gear        |                                |                        |                                 |           |   |                                      |                                     |                    |                               |
| 96.4<br>(71.9)      | 9860<br>(43.86)                | 3.67<br>(5.90)         | 2073                            | 6.8       | 0.479<br>(0.292)                          | 14.62<br>(2.88)                      | 181<br>(83)                         | 59<br>(15)         | 29.1<br>(98.7)                |
| 7th(7B) Gear        |                                |                        |                                 |           |   |                                      |                                     |                    |                               |
| 94.1<br>(70.2)      | 7600<br>(33.81)                | 4.64<br>(7.47)         | 2094                            | 4.1       | 0.493<br>(0.300)                          | 14.21<br>(2.80)                      | 185<br>(85)                         | 63<br>(17)         | 29.1<br>(98.7)                |
| 8th(9C) Gear        |                                |                        |                                 |           |   |                                      |                                     |                    |                               |
| 97.0<br>(72.3)      | 6915<br>(30.75)                | 5.26<br>(8.47)         | 2120                            | 3.6       | 0.479<br>(0.292)                          | 14.62<br>(2.88)                      | 183<br>(84)                         | 61<br>(16)         | 29.1<br>(98.7)                |
| 9th(8B) Gear        |                                |                        |                                 |           |   |                                      |                                     |                    |                               |
| 94.8<br>(70.7)      | 6190<br>(27.53)                | 5.74<br>(9.25)         | 2093                            | 3.1       | 0.490<br>(0.298)                          | 14.31<br>(2.82)                      | 185<br>(85)                         | 59<br>(15)         | 29.1<br>(98.7)                |
| 10th(10C) Gear      |                                |                        |                                 |           |   |                                      |                                     |                    |                               |
| 96.0<br>(71.6)      | 5565<br>(24.75)                | 6.47<br>(10.41)        | 2106                            | 2.8       | 0.485<br>(0.295)                          | 14.47<br>(2.85)                      | 185<br>(85)                         | 59<br>(15)         | 29.1<br>(98.7)                |
| 11th(11C) Gear      |                                |                        |                                 |           |   |                                      |                                     |                    |                               |
| 92.0<br>(68.6)      | 4365<br>(19.42)                | 7.90<br>(12.72)        | 2099                            | 2.1       | 0.505<br>(0.307)                          | 13.87<br>(2.73)                      | 181<br>(83)                         | 61<br>(16)         | 29.1<br>(98.7)                |
| 12th(12C) Gear      |                                |                        |                                 |           |   |                                      |                                     |                    |                               |
| 90.3<br>(67.3)      | 3465<br>(15.42)                | 9.77<br>(15.72)        | 2102                            | 1.5       | 0.515<br>(0.313)                          | 13.60<br>(2.68)                      | 185<br>(85)                         | 59<br>(15)         | 29.1<br>(98.7)                |

**NOTE:** The data on this summary was obtained from OECD report 2428 conducted on the New Holland T6030 Delta Diesel.

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

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's claim of 8813 lbs (3997 kg) three point lift capacity. The manufacture's three point lift capacity claim of 7509 lbs (3406 kg) was not verified. The performance figures on this summary were taken from a test conducted under the OECD Code II test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2428/1**, Nebraska Summary 664, December 10, 2009.

Roger M. Hoy  
 Director

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

| <b>TRACTOR SOUND LEVEL WITHOUT CAB</b> | <b>Front Wheel Drive</b>    |                          |
|--|-----------------------------|--------------------------|
|  | <b>Disengaged<br/>dB(A)</b> | <b>Engaged<br/>dB(A)</b> |
| At no load in 7th (7B) gear            | 85.5                        | 85.6                     |
| Bystander                              | --                          | --                       |

**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 600/65R38; \*\*,12 (80)  
 Two 480/65R28; \*\*,12 (80)  
 22.0 in (560 mm)  
 6745 lb (3060 kg)  
 4320 lb (1960 kg)  
 11065 lb (5020 kg)

## HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

lift assist cylinders

Maximum force exerted through whole range: 6450 lbs (28.7 kN) (2 x 50 mm)

i) Opening pressure of relief valve: NA

Sustained pressure of the open relief valve: 2610 psi (180 bar)

ii) Pump delivery rate at minimum pressure: 17.1 GPM (64.8 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 15.2 GPM (57.4 l/min)

Delivery pressure: 2320 psi (160 bar)

Power: 20.5 HP (15.3 kW)

## THREE POINT HITCH PERFORMANCE

|                                      |                |
|--------------------------------------|----------------|
| Observed Maximum Pressure psi. (bar) | 2610 (180)     |
| Location:                            | lift cylinder  |
| Hydraulic oil temperature: °F (°C)   | 150 (66)       |
| Location:                            | hydraulic sump |
| Category:                            | II             |
| Quick attach:                        | None           |

|   | OECD test |      | SAE test |      |
|---|-----------|------|----------|------|
|   | inch      | mm   | inch     | mm   |
| A | 27.6      | 702  | 28.1     | 715  |
| B | 10.0      | 255  | 10.0     | 255  |
| C | 15.6      | 395  | 15.6     | 395  |
| D | 14.6      | 370  | 14.6     | 370  |
| E | 7.9       | 200  | 9.8      | 250  |
| F | 9.3       | 235  | 9.3      | 235  |
| G | 32.3      | 820  | 32.3     | 820  |
| H | 1.0       | 25   | 1.0      | 25   |
| I | 16.9      | 430  | 15.6     | 395  |
| J | 23.0      | 585  | 23.0     | 585  |
| K | 19.9      | 505  | 23.0     | 585  |
| L | 44.0      | 1118 | 44.0     | 1118 |
| M | 22.2      | 563  | 22.2     | 563  |
| N | 37.4      | 950  | 37.4     | 950  |
| O | 7.9       | 200  | 7.9      | 200  |
| P | 47.0      | 1195 | 42.0     | 1068 |
| Q | 33.5      | 850  | 31.3     | 795  |
| R | 30.2      | 768  | 32.3     | 820  |

**SAE Static Test**—System pressure 2350 psi (162 Bar)  
lift assist cylinders - 2 x 50 mm

| Hitch point distance to ground level in. (mm) | 7.9 (200) | 14.2 (360) | 23.0 (585) | 27.4 (695) | 34.4 (875) |
|---|-----------|------------|------------|------------|------------|
| Lift force on frame lb                        | 10950     | 9620       | 9060       | 9330       | 7800       |
| " " " " " " (kN)                              | (48.7)    | (42.8)     | (40.3)     | (41.5)     | (34.7)     |

