

SUMMARY OF OECD TEST 2654–NEBRASKA SUMMARY 815

NEW HOLLAND T7.210 DIESEL

CONTINUOUSLY VARIABLE TRANSMISSION

POWER TAKE-OFF PERFORMANCE

| Power HP (kW) | Crank shaft speed rpm | Diesel Consumption | | D.E.F. Consumption | | Mean Atmospheric Conditions |
|---|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------|--------------------------------|
| | | Gal/hr (l/h) | lb/hp.hr (kg/kW.h) | Hp.hr/gal (kW.h/l) | Gal/hr (l/h) | |
| MAXIMUM POWER AND FUEL CONSUMPTION | | | | | | |
| Rated Engine Speed—(PTO speed—1111 rpm) | | | | | | |
| 148.6 (110.8) | 2100 | 8.49 (32.13) | 0.398 (0.242) | 17.51 (3.45) | 0.55 (2.07) | |
| Standard Power Take-off Speed (1000 rpm) | | | | | | |
| 153.8 (114.7) | 1890 | 8.49 (32.12) | 0.385 (0.234) | 18.12 (3.57) | 0.51 (1.92) | |
| Maximum Power (1 hour) | | | | | | |
| 154.6 (115.3) | 1800 | 8.41 (31.83) | 0.379 (0.231) | 18.38 (3.62) | 0.54 (2.06) | |

VARYING POWER AND FUEL CONSUMPTION

| | | | | | | |
|------------------|------|-----------------|------------------|-----------------|------------------|---------------------|
| 148.6 (110.8) | 2100 | 8.28 (32.13) | 0.398 (0.242) | 17.51 (3.45) | 0.55 (2.07) | Air temperature |
| 127.5 (95.1) | 2121 | 7.53 (28.50) | 0.412 (0.250) | 16.93 (3.33) | 0.46 (1.74) | 84°F (29°C) |
| 96.6 (72.0) | 2141 | 6.14 (23.22) | 0.443 (0.269) | 15.74 (3.10) | 0.29 (1.10) | Relative humidity |
| 65.2 (48.6) | 2158 | 4.85 (18.34) | 0.519 (0.316) | 13.45 (2.65) | 0.19 (0.71) | 47% |
| 32.5 (24.2) | 2175 | 3.30 (12.47) | 0.708 (0.430) | 9.85 (1.94) | 0.01 (0.02) | Barometer |
| -- | 2189 | 2.44 (9.25) | -- | -- | (0.00) (0.01) | 29.1" Hg (98.5 kPa) |

Maximum torque - 513.6 lb.-ft. (696.3 Nm) at 1400 rpm
 Maximum torque rise - 38.2%
 Torque rise at 1700 engine rpm - 28%
 Power increase at 1800 engine rpm - 4.1%

DRAWBAR PERFORMANCE (Unballasted - Front Drive Engaged) FUEL CONSUMPTION CHARACTERISTICS

| Power Hp (kW) | Drawbar pull lbs (kN) | Speed mph (km/h) | Crank- shaft speed rpm | Slip % | Fuel Consumption | | Temp. °F (°C) cool- ing med | Barom. inch Hg (kPa) |
|--|--------------------------------|------------------------|---------------------------------|-----------|-----------------------|-----------------------|--------------------------------------|-------------------------------|
| | | | | | lb/hp.hr (kg/kW.h) | Hp.hr/gal (kW.h/l) | | |
| Maximum Power—5.9 mph (9.5 km/h) | | | | | | | | |
| 119.2 (88.9) | 7735 (34.4) | 5.78 (9.30) | 2100 | 3.5 | 0.508 (0.309) | 13.71 (2.70) | 194 (90) | 90 (32) |
| 75% of Pull at Maximum Power—5.9 mph (9.5 km/h) | | | | | | | | |
| 93.5 (69.7) | 6000 (26.7) | 5.84 (9.40) | 2129 | 2.5 | 0.540 (0.328) | 12.90 (2.54) | 194 (90) | 90 (32) |
| 50% of Pull at Maximum Power—5.9 mph (9.5 km/h) | | | | | | | | |
| 60.5 (45.1) | 3845 (17.1) | 5.90 (9.50) | 2154 | 1.5 | 0.637 (0.399) | 10.61 (2.09) | 192 (89) | 90 (32) |
| 75% of Pull at Reduced Engine Speed—6.2 mph (10.0 km/h) | | | | | | | | |
| 92.1 (68.7) | 5980 (26.6) | 5.78 (9.30) | 1988 | 2.5 | 0.534 (0.325) | 13.05 (2.57) | 192 (89) | 90 (32) |
| 50% of Pull at Reduced Engine Speed—6.2 mph (10.0 km/h) | | | | | | | | |
| 59.9 (44.7) | 3845 (17.1) | 5.84 (9.40) | 1992 | 1.5 | 0.633 (0.385) | 11.01 (2.17) | 191 (88) | 90 (32) |

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

Dates of tests: August to September, 2011.

Manufacturer: CNH UK Limited Basildon, Essex SS14 3AD United Kingdom

CONSUMABLE Fluids and OIL: Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.836 Fuel weight 6.977 lbs/gal (0.835 kg/l) Diesel Exhaust Fluid (DEF) 30% aqueous urea solution DEF weight 9.071 lbs/gal (1.087 kg/l) Oil SAE 10W30 API service classification CG-4 Transmission and hydraulic lubricant NH410B fluid Front axle lubricant NH410B fluid

ENGINE: Make F.P.T. Diesel Type six cylinder vertical with turbocharger and air to air intercooler and D.E.F (diesel exhaust fluid) exhaust treatment Serial No. 000729133 Crankshaft lengthwise Rated engine speed 2100 Bore and stroke 4.094" x 5.197" (104.0 mm x 132.0 mm) Compression ratio 17.0 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 vertical Cooling medium temperature control thermostat and variable speed fan

CHASSIS: Type front wheel assist Serial No. ZABN09452 Tread width rear 56.3" (1430 mm) to 85.6" (2173 mm) front 52.2" (1325 mm) to 90.0" (2285 mm) Wheelbase 113.5" (2789 mm) Hydraulic control system direct engine drive Transmission Continuously variable transmission with compound planetary gears. Four mechanical ranges are electrohydraulically controlled. Nominal travel speeds mph (km/h) forward - first - 0 - 8.6 mph (0 - 13.8 km/h), second - 8.8-25.2 mph (13.8-40.5 km/h) reverse 0-13 mph (0-21 km/h) Clutch wet disc 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 2149 engine rpm or 1000 rpm at 1893 engine rpm Unladen tractor mass 15630 lb (7090 kg)

DRAWBAR PERFORMANCE

(Unballasted - Front Drive Engaged)

MAXIMUM POWER AT SELECTED SPEED SETTINGS

| Power Hp (kW) | Drawbar pull lbs (kN) | Speed mph (km/h) | Crank- shaft speed rpm | Slip % | Fuel lb/hp.hr (kg/kW.h) | Consumption Hp.hr/gal (kW.h/l) | Temp. ^o F(°C) cool- ing med | Air dry bulb | Barom. inch Hg (kPa) |
|----------------------|--------------------------------|------------------------|---------------------------------|-----------|-------------------------------|--------------------------------------|---|--------------------|-------------------------------|
| 3.1 mph (5.0 km/h) | | | | | | | | | |
| 102.3 (76.3) | 14030 (62.4) | 2.75 (4.40) | 2096 | 15.0 | 0.594 (0.362) | 11.73 (2.31) | 194 (90) | 81 (27) | 29.1 (98.5) |
| 4.0 mph (6.5 km/h) | | | | | | | | | |
| 123.4 (92.0) | 13060 (58.1) | 3.54 (5.70) | 1949 | 7.9 | 0.508 (0.309) | 13.71 (2.70) | 198 (92) | 77 (25) | 29.1 (98.5) |
| 4.3 mph (7.0 km/h) | | | | | | | | | |
| 125.4 (93.5) | 12610 (56.1) | 3.73 (6.00) | 1887 | 6.4 | 0.499 (0.304) | 13.96 (2.75) | 203 (95) | 73 (23) | 29.1 (98.5) |
| 5.0 mph (8.0 km/h) | | | | | | | | | |
| 131.3 (97.9) | 11825 (52.6) | 4.16 (6.70) | 1800 | 5.1 | 0.467 (0.284) | 14.92 (2.94) | 203 (95) | 72 (22) | 29.1 (98.5) |
| 5.9 mph (9.5 km/h) | | | | | | | | | |
| 123.0 (91.7) | 9395 (41.8) | 4.91 (7.90) | 1800 | 4.7 | 0.482 (0.293) | 14.47 (2.85) | 190 (88) | 90 (32) | 29.1 (98.5) |
| 6.8 mph (11.0 km/h) | | | | | | | | | |
| 123.7 (92.3) | 8115 (36.1) | 5.72 (9.20) | 1800 | 3.7 | 0.480 (0.292) | 14.52 (2.86) | 190 (88) | 90 (32) | 29.1 (98.5) |
| 7.8 mph (12.6 km/h) | | | | | | | | | |
| 120.8 (90.1) | 6880 (30.6) | 6.59 (10.60) | 1800 | 2.9 | 0.503 (0.306) | 13.86 (2.73) | 190 (88) | 90 (32) | 29.1 (98.5) |
| 9.3 mph (15.0 km/h) | | | | | | | | | |
| 99.2 (74.0) | 4675 (20.8) | 7.96 (12.80) | 1800 | 1.9 | 0.605 (0.368) | 11.52 (2.27) | 190 (88) | 88 (31) | 29.1 (98.5) |
| 10.6 mph (17.0 km/h) | | | | | | | | | |
| 103.7 (77.3) | 4315 (19.2) | 9.01 (14.50) | 1800 | 1.7 | 0.591 (0.359) | 11.80 (2.32) | 190 (88) | 88 (31) | 29.1 (98.5) |

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 claims of implement pump flow of 33.0 GPM (125 lpm) nor 3 point lift claim of 11821 lbs (5362 kg). 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 summary of data from OECD Report No. **2654**, Nebraska Summary 815, January 25, 2012.

Roger M. Hoy
Director

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

| TRACTOR SOUND LEVEL WITH CAB | Front Wheel Drive | |
|----------------------------------|---------------------|------------------|
| | Disengaged dB(A) | Engaged dB(A) |
| At no load at 4.7 mph (7.5 km/h) | 66.5 | 66.8 |
| 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 650/65R42; **,9 (80)
 Two 540/65R30; **,9 (80)
 21.6 in (550 mm)
 9645 lb (4375 kg)
 6150 lb (2790 kg)
 15795 lb (7165 kg)

This vehicle is equipped with an electronically controlled engine Power management system that monitors and boosts engine power output in certain circumstances. This is achieved by electronically changing the characteristics of the engine power-speed curve. The engine Power management function ("boosted" power level) becomes active in the higher transmission gears for road transport applications. The system is also activated when power transfer through the PTO and hydraulic pump exceeds a preset level (and forward speed exceeds 0.5 km/h), for mobile PTO driven implement applications. An override system is provided to enable PTO operations at the "boosted" power level while the vehicle is stationary for test purposes. The results of this PTO output test are presented below.

POWER TAKE-OFF PERFORMANCE

| Power HP (kW) | Crank shaft speed rpm | Diesel Consumption Gal/hr (l/h) | lb/hp.hr (kg/kW.h) | D.E.F. Consumption Hp.hr/gal (kW.h/l) | Gal/hr (l/h) | Mean Atmospheric Conditions |
|---|--------------------------------|--|-----------------------|--|-----------------|--------------------------------|
| MAXIMUM POWER AND FUEL CONSUMPTION | | | | | | |
| Rated Engine Speed—(PTO speed—1164 rpm) | | | | | | |
| 166.6 (124.2) | 2200 | 9.64 (36.50) | 0.403 (0.245) | 17.27 (3.40) | 0.61 (2.32) | |
| Standard Power Take-off Speed (1000 rpm) | | | | | | |
| 180.1 (134.3) | 1890 | 9.78 (37.02) | 0.378 (0.230) | 18.41 (3.63) | 0.60 (2.28) | |
| Maximum Power (1 hour) | | | | | | |
| 184.3 (137.4) | 1800 | 9.84 (37.23) | 0.372 (0.226) | 18.73 (3.69) | 0.64 (2.44) | |

VARYING POWER AND FUEL CONSUMPTION

| | | | | | | |
|------------------|------|-----------------|------------------|-----------------|----------------|---------------------|
| 166.6 (124.2) | 2200 | 9.64 (36.50) | 0.403 (0.245) | 17.27 (3.40) | 0.61 (2.32) | Air temperature |
| 144.2 (107.5) | 2240 | 8.69 (32.89) | 0.420 (0.256) | 16.59 (3.27) | 0.47 (1.79) | 81°F (27°C) |
| 109.0 (81.3) | 2260 | 7.16 (27.11) | 0.458 (0.278) | 15.23 (3.00) | 0.31 (1.18) | Relative humidity |
| 73.4 (54.7) | 2279 | 5.65 (21.39) | 0.537 (0.327) | 12.98 (2.56) | 0.18 (0.69) | 59% |
| 36.9 (27.5) | 2298 | 3.98 (15.08) | 0.752 (0.457) | 9.26 (1.82) | 0.09 (0.34) | Barometer |
| -- | 2315 | 2.66 (10.08) | -- | -- | (0.02) | 29.1" Hg (98.6 kPa) |
| -- | | | -- | -- | (0.06) | |

Maximum torque - 604.9 lb.-ft. (820.1 Nm) at 1500 rpm

Maximum torque rise - 52.1%

Torque rise at 1800 engine rpm - 35%

Power increase at 1800 engine rpm - 10.6%

HYDRAULIC PERFORMANCE

CATEGORY: III

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 9915 lbs (44.1 kN) Lift cylinders 2x100 mm

i) Sustained pressure of the open relief valve: 3000 psi (207 bar)
two outlet sets combined

ii) Pump delivery rate at minimum pressure: 32.7 GPM (123.7 l/min)

iii) Pump delivery rate at maximum hydraulic power: 31.7 GPM (120.0 l/min)

Delivery pressure: 2465 psi (170 bar)

Power: 45.6 HP (34.0 kW)

single outlet set

ii) Pump delivery rate at minimum pressure: 25.9 GPM (98.0 l/min)

iii) Pump delivery rate at maximum hydraulic power: 25.6 GPM (96.9 l/min)

Delivery pressure: 2395 psi (165 bar)

Power: 35.7 HP (26.6 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD

| | inch | mm |
|---|------|------|
| A | 29.5 | 750 |
| B | 12.2 | 310 |
| C | 15.7 | 398 |
| D | 14.3 | 364 |
| E | 12.6 | 320 |
| F | 9.8 | 250 |
| G | 36.4 | 925 |
| H | 0.6 | 16 |
| I | 16.1 | 410 |
| J | 26.6 | 675 |
| K | 17.3 | 440 |
| L | 47.0 | 1194 |
| M | 24.6 | 624 |
| N | 38.3 | 974 |
| O | 7.9 | 200 |
| P | 53.5 | 1360 |
| Q | 38.4 | 975 |
| R | 33.5 | 850 |

