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Nebraska Summary: S340 New Holland TM130

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SUMMARY OF OECD TEST 2087-NEBRASKA SUMMARY 430

NEW HOLLAND TM130 DIESEL

18 SPEED

POWER TAKE-OFF PERFORMANCE

| Power HP (kW) | Crank shaft speed rpm | Gal/hr (l/h) | lb/hp.hr (kg/kW.h) | Hp.hr/gal (kW.h/l) | Mean Atmospheric Conditions |
|---|--------------------------------|-----------------|-----------------------|-----------------------|--------------------------------|
| MAXIMUM POWER AND FUEL CONSUMPTION | | | | | |
| Rated Engine Speed—(PTO speed—1038 rpm) | | | | | |
| 113.3 (84.5) | 2200 | 7.22 (27.33) | 0.448 (0.272) | 15.68 (3.09) | |
| Standard Power Take-off Speed (1000 rpm) | | | | | |
| 112.8 (84.1) | 2121 | 7.02 (26.59) | 0.437 (0.266) | 16.04 (3.16) | |
| VARYING POWER AND FUEL CONSUMPTION | | | | | |
| 113.3 (84.5) | 2200 | 7.22 (27.33) | 0.448 (0.272) | 15.68 (3.09) | Air temperature |
| 102.7 (76.6) | 2347 | 7.09 (26.85) | 0.485 (0.295) | 14.47 (2.85) | 70°F (21°C) |
| 77.1 (57.5) | 2353 | 5.93 (22.46) | 0.540 (0.329) | 12.99 (2.56) | Relative humidity |
| 51.5 (38.4) | 2358 | 4.65 (17.60) | 0.635 (0.386) | 11.07 (2.18) | 24% |
| 25.9 (19.3) | 2360 | 3.39 (12.83) | 0.921 (0.560) | 7.62 (1.50) | Barometer |
| -- | 2384 | 2.33 (8.83) | -- | -- | 30.0" Hg (101.7 kPa) |

Maximum Torque - 348.0 lb.-ft. (471.9 Nm) at 1400 rpm
 Maximum Torque Rise - 28.7%
 Torque rise at 1800 engine rpm - 18%

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 lb/hp.hr (kg/kW.h) | Hp.hr/gal (kW.h/l) | Temp. °F (°C) cool- ing med | Air dry bulb | Barom. inch Hg (kPa) |
|--|--------------------------------|------------------------|---------------------------------|-----------|---|-----------------------|--------------------------------------|--------------------|-------------------------------|
| Maximum Power—8th (2B) Gear | | | | | | | | | |
| 95.1 (70.9) | 8725 (38.8) | 4.09 (6.58) | 2202 | 6.0 | 0.532 (0.323) | 13.21 (2.60) | 198 (92) | 46 (8) | 29.9 (101.1) |
| 75% of Pull at Maximum Power—8th (2B) Gear | | | | | | | | | |
| 77.2 (57.6) | 6535 (29.1) | 4.43 (7.14) | 2350 | 4.5 | 0.587 (0.357) | 11.97 (2.36) | 198 (92) | 50 (10) | 29.9 (101.1) |
| 50% of Pull at Maximum Power—8th (2B) Gear | | | | | | | | | |
| 52.4 (39.1) | 4360 (19.4) | 4.51 (7.25) | 2352 | 3.2 | 0.732 (0.445) | 9.59 (1.89) | 198 (92) | 50 (10) | 29.9 (101.1) |
| 75% of Pull at Reduced Engine Speed—9th (3B) Gear | | | | | | | | | |
| 77.1 (57.5) | 6530 (29.1) | 4.43 (7.13) | 1952 | 4.5 | 0.520 (0.317) | 13.49 (2.66) | 194 (90) | 50 (10) | 29.8 (101.0) |
| 50% of Pull at Reduced Engine Speed—9th (3B) Gear | | | | | | | | | |
| 52.3 (39.0) | 4360 (19.4) | 4.50 (7.24) | 1955 | 3.1 | 0.528 (0.321) | 13.30 (2.62) | 190 (88) | 50 (10) | 29.8 (101.0) |

Location of Test: Silsoe Research Institute, Wrest Park, Silsoe, MK45 4HS, United Kingdom

Dates of Test: December 2002 to March 2003.

Manufacturer: CNH U.K. Ltd., Basildon, Essex, SS14 3AD, England

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F (15°/15°C)** 0.843 **Fuel weight** 7.02 lbs/gal (0.8413 kg/l) **Oil SAE** 10W30 **API service classification** CG-4 **Transmission and hydraulic lubricant** New Holland 134D fluid **Front axle lubricant** New Holland 134D fluid

ENGINE: Make CNH Diesel **Type** six cylinder vertical with turbocharger and air to air intercooler **Serial No.** 959511 **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.40" x 5.00" (111.8 mm x 127.0 mm) **Compression ratio** 17.0 to 1 **Displacement** 456 cu in (7480 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.** 170149B **Tread width** rear 60.2" (1530 mm) to 87.8" (2230 mm) front 61.4" (1560 mm) to 89.0" (2260 mm) **Wheelbase** 107.2" (2723 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with partial (6) range operator controlled powershift **Nominal travel speeds mph (km/h)** first 1.53 (2.46) second 1.84 (2.96) third 2.21 (3.56) fourth 2.66 (4.28) fifth 3.19 (5.14) sixth 3.55 (5.72) seventh 3.85 (6.19) eighth 4.28 (6.88) ninth 5.13 (8.26) tenth 6.17 (9.93) eleventh 7.43 (11.95) twelfth 8.93 (14.37) thirteenth 10.08 (16.22) fourteenth 12.12 (19.50) fifteenth 14.56 (23.43) sixteenth 17.50 (28.17) seventeenth 21.06 (33.89) eighteenth 25.32 (40.75) reverse 2.98 (4.80), 3.59 (5.78), 4.31 (6.94), 5.18 (8.34), 6.24 (10.04), 7.50 (12.07) **Clutch** multiple wet disc electro-hydraulically operated by foot pedal **Brakes** wet disc hydraulically operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1969 engine rpm or 1000 rpm at 2120 engine rpm **Unladen tractor mass** 11915 lb (5405 kg)

DRAWBAR PERFORMANCE

(Unballasted - Front Drive Engaged) MAXIMUM POWER IN SELECTED GEARS

| Power Hp (kW) | Drawbar pull lbs (kN) | Speed mph (km/h) | Crank- shaft speed rpm | Slip % | Fuel Consumption 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) |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|--------------------------------------|---|--------------------|-------------------------------|
| 1st(1A) Gear | | | | | | | | | |
| 47.7 (35.6) | 12550 (55.8) | 1.43 (2.29) | 2352 | 14.4 | 0.770 (0.469) | 9.11 (1.80) | 194 (90) | 52 (11) | 29.9 (101.1) |
| 2nd(2A) Gear | | | | | | | | | |
| 56.9 (42.4) | 12385 (55.1) | 1.72 (2.77) | 2350 | 14.0 | 0.706 (0.430) | 9.94 (1.96) | 198 (92) | 52 (11) | 29.9 (101.1) |
| 3rd(3A) Gear | | | | | | | | | |
| 69.2 (51.6) | 12320 (54.8) | 2.11 (3.39) | 2351 | 12.4 | 0.629 (0.383) | 11.16 (2.20) | 196 (91) | 52 (11) | 29.9 (101.1) |
| 4th(4A) Gear | | | | | | | | | |
| 81.7 (60.9) | 12095 (53.8) | 2.53 (4.08) | 2327 | 11.5 | 0.617 (0.375) | 11.38 (2.24) | 190 (88) | 50 (10) | 29.8 (101.0) |
| 5th(5A) Gear | | | | | | | | | |
| 90.5 (67.5) | 11445 (50.9) | 2.97 (4.77) | 2211 | 9.4 | 0.553 (0.337) | 12.69 (2.50) | 198 (92) | 50 (10) | 29.8 (101.0) |
| 6th(1B) Gear | | | | | | | | | |
| 92.7 (69.1) | 10455 (46.5) | 3.32 (5.35) | 2200 | 8.0 | 0.542 (0.329) | 12.96 (2.55) | 194 (90) | 50 (10) | 29.9 (101.1) |
| 7th(6A) Gear | | | | | | | | | |
| 92.4 (68.9) | 9510 (42.3) | 3.64 (5.86) | 2199 | 7.0 | 0.545 (0.331) | 12.89 (2.54) | 198 (92) | 50 (10) | 29.9 (101.1) |
| 8th(2B) Gear | | | | | | | | | |
| 95.1 (70.9) | 8725 (38.8) | 4.09 (6.58) | 2202 | 6.0 | 0.532 (0.323) | 13.21 (2.60) | 198 (92) | 46 (8) | 29.9 (101.1) |
| 9th(3B) Gear | | | | | | | | | |
| 94.7 (70.6) | 7170 (31.9) | 4.95 (7.97) | 2192 | 4.8 | 0.537 (0.327) | 13.08 (2.58) | 199 (93) | 46 (8) | 29.9 (101.1) |
| 10th(4B) Gear | | | | | | | | | |
| 93.7 (69.9) | 5825 (25.9) | 6.03 (9.70) | 2200 | 4.0 | 0.542 (0.330) | 12.94 (2.55) | 199 (93) | 46 (8) | 29.9 (101.1) |
| 11th(5B) Gear | | | | | | | | | |
| 92.4 (68.9) | 4735 (21.1) | 7.32 (11.77) | 2203 | 3.3 | 0.549 (0.334) | 12.79 (2.52) | 199 (93) | 46 (8) | 29.9 (101.1) |
| 12th(6B) Gear | | | | | | | | | |
| 89.6 (66.8) | 3805 (16.9) | 8.83 (14.21) | 2200 | 2.7 | 0.567 (0.345) | 12.39 (2.44) | 199 (93) | 46 (8) | 29.9 (101.1) |
| 13th(1C) Gear | | | | | | | | | |
| 93.1 (69.4) | 3505 (15.6) | 9.96 (16.04) | 2196 | 2.7 | 0.545 (0.331) | 12.89 (2.54) | 198 (92) | 50 (10) | 29.9 (101.1) |

| TRACTOR SOUND LEVEL WITH CAB | Front Wheel Drive | |
|------------------------------|---------------------|------------------|
| | Disengaged dB(A) | Engaged dB(A) |
| At no load in 8th (2B) gear | 75.0 | 76.0 |
| 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 18.4R38; **,14 (95)

Two 14.9R28; **,14 (95)

20.1 in (510 mm)

7335 lb (3327 kg)

4745 lb (2153 kg)

12080 lb (5480 kg)

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 34% torque rise. The standard capacity 3 point lift claim of 9755 lbs (4425 kg) was not tested for verification. 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. **2087** Nebraska Summary 430, September 17, 2004.

Leonard L. Bashford
Director

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

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

| Power Hp (kW) | Drawbar pull lbs (kN) | Speed mph (km/h) | Crank- shaft speed rpm | Slip % | Fuel Consumption lb/hp.hr (kg/kW.h) | Fuel Consumption Hp.hr/gal (kW.h/l) | Temp. °F (°C) cool- ing med | Air dry bulb | Barom. inch Hg (kPa) |
|--|--------------------------------|------------------------|---------------------------------|-----------|---|---|--------------------------------------|--------------------|-------------------------------|
| Maximum Power—8th (2B) Gear | | | | | | | | | |
| 91.9 (68.5) | 8745 (38.9) | 3.94 (6.34) | 2198 | 8.3 | 0.547 (0.333) | 12.85 (2.53) | 201 (94) | 55 (13) | 29.9 (101.2) |
| 75% of Pull at Maximum Power—8th (2B) Gear | | | | | | | | | |
| 76.0 (56.7) | 6565 (29.2) | 4.34 (6.99) | 2351 | 5.4 | 0.601 (0.365) | 11.68 (2.30) | 199 (93) | 55 (13) | 29.9 (101.1) |
| 50% of Pull at Maximum Power—8th (2B) Gear | | | | | | | | | |
| 51.7 (38.5) | 4375 (19.5) | 4.43 (7.13) | 2351 | 3.6 | 0.721 (0.439) | 9.73 (1.92) | 197 (92) | 55 (13) | 29.9 (101.1) |
| 75% of Pull at Reduced Engine Speed—9th (3B) Gear | | | | | | | | | |
| 76.2 (56.8) | 6565 (29.2) | 4.35 (7.00) | 1959 | 5.4 | 0.507 (0.309) | 13.84 (2.73) | 197 (92) | 57 (14) | 29.9 (101.1) |
| 50% of Pull at Reduced Engine Speed—9th (3B) Gear | | | | | | | | | |
| 51.9 (38.7) | 4385 (19.5) | 4.44 (7.14) | 1961 | 3.6 | 0.593 (0.360) | 11.85 (2.33) | 196 (91) | 57 (14) | 29.9 (101.1) |
| MAXIMUM POWER IN SELECTED GEARS | | | | | | | | | |
| 1st(1A) Gear | | | | | | | | | |
| 36.6 (27.3) | 9780 (43.5) | 1.40 (2.26) | 2356 | 14.8 | 0.872 (0.530) | 8.05 (1.59) | 196 (91) | 57 (14) | 29.9 (101.1) |
| 2nd(2A) Gear | | | | | | | | | |
| 43.7 (32.6) | 9645 (42.9) | 1.70 (2.74) | 2353 | 14.0 | 0.806 (0.490) | 8.72 (1.72) | 198 (92) | 57 (14) | 29.9 (101.1) |
| 3rd(3A) Gear | | | | | | | | | |
| 52.7 (39.3) | 9445 (42.0) | 2.09 (3.36) | 2349 | 12.0 | 0.736 (0.448) | 9.54 (1.88) | 198 (92) | 57 (14) | 29.9 (101.1) |
| 4th(4A) Gear | | | | | | | | | |
| 63.7 (47.5) | 9395 (41.8) | 2.54 (4.09) | 2349 | 10.9 | 0.666 (0.405) | 10.55 (2.08) | 198 (92) | 57 (14) | 29.9 (101.1) |
| 5th(5A) Gear | | | | | | | | | |
| 76.2 (56.8) | 9330 (41.5) | 3.06 (4.92) | 2346 | 10.7 | 0.612 (0.372) | 11.47 (2.26) | 199 (93) | 57 (14) | 29.9 (101.1) |
| 6th(1B) Gear | | | | | | | | | |
| 83.4 (62.2) | 9215 (41.0) | 3.39 (5.46) | 2335 | 10.6 | 0.587 (0.357) | 11.97 (2.36) | 207 (97) | 57 (14) | 29.9 (101.1) |
| 7th(6A) Gear | | | | | | | | | |
| 88.0 (65.6) | 9085 (40.4) | 3.63 (5.85) | 2286 | 9.6 | 0.530 (0.323) | 13.24 (2.61) | 203 (95) | 57 (14) | 29.9 (101.1) |
| 8th(2B) Gear | | | | | | | | | |
| 91.9 (68.5) | 8745 (38.9) | 3.94 (6.34) | 2198 | 8.3 | 0.547 (0.333) | 12.85 (2.53) | 201 (94) | 55 (13) | 29.9 (101.2) |
| 9th(3B) Gear | | | | | | | | | |
| 92.5 (69.0) | 7125 (31.7) | 4.87 (7.83) | 2205 | 5.9 | 0.546 (0.332) | 12.85 (2.53) | 201 (94) | 55 (13) | 29.9 (101.1) |
| 10th(4B) Gear | | | | | | | | | |
| 91.9 (68.5) | 5825 (25.9) | 5.92 (9.52) | 2197 | 4.7 | 0.549 (0.334) | 12.79 (2.52) | 199 (93) | 55 (13) | 29.9 (101.1) |
| 11th(5B) Gear | | | | | | | | | |
| 91.1 (67.9) | 4755 (21.2) | 7.18 (11.55) | 2200 | 3.8 | 0.551 (0.335) | 12.74 (2.51) | 199 (93) | 55 (13) | 29.9 (101.1) |
| 12th(6B) Gear | | | | | | | | | |
| 88.5 (66.0) | 3825 (17.0) | 8.68 (13.96) | 2195 | 3.2 | 0.569 (0.346) | 12.33 (2.43) | 201 (94) | 55 (13) | 29.9 (101.1) |
| 13th(1C) Gear | | | | | | | | | |
| 92.0 (68.6) | 3510 (15.6) | 9.83 (15.81) | 2198 | 3.0 | 0.560 (0.341) | 12.54 (2.47) | 199 (93) | 53 (12) | 29.9 (101.1) |

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II

Quick Attach: None

Maximum Force Exerted

Through Whole Range: 7510 lbs (33.4 kN) (with boost cylinder)

- i) Opening pressure of relief valve: NA
- Sustained pressure of the open relief valve: 3020 psi (208 bar)
- ii) Pump delivery rate at minimum pressure: 31.6 GPM (119.5 l/min)
- iii) Pump delivery rate at maximum
 - hydraulic power: 28.3 GPM (107.1 l/min)
 - Delivery pressure: 2540 psi (175 bar)
 - Power: 41.9 HP (31.2 kW)

THREE POINT HITCH PERFORMANCE

| | |
|-------------------------------------|----------------|
| Observed Maximum Pressure psi.(bar) | 2900(200) |
| Location: | lift cylinder |
| Hydraulic oil temperature: °F(°C) | 150(65) |
| Location: | hydraulic sump |
| Category: | II |
| Quick attach: | none |

SAE Static Test—System pressure 2610 psi (180 Bar) (with boost cylinder)

| | | | | | |
|--|----------|-----------|-----------|-----------|-----------|
| Hitch point distance to ground level in.(mm) | 8.0(203) | 15.7(400) | 22.4(570) | 29.7(755) | 37.8(960) |
| Lift force on frame lb | 13735 | 14025 | 14140 | 13690 | 12230 |
| " " " " " " (kN) | (61.1) | (62.4) | (62.9) | (60.9) | (54.4) |

HITCH DIMENSIONS AS TESTED—NO LOAD

| | OECD test | | SAE test | |
|---|-----------|------|----------|------|
| | inch | mm | inch | mm |
| A | 29.7 | 754 | 29.9 | 760 |
| B | 9.1 | 230 | 9.1 | 230 |
| C | 15.6 | 395 | 15.6 | 395 |
| D | 14.3 | 363 | 14.3 | 363 |
| E | 8.2 | 208 | 10.8 | 275 |
| F | 9.8 | 250 | 9.8 | 250 |
| G | 32.3 | 820 | 32.3 | 820 |
| H | 0.7 | 17 | 0.7 | 17 |
| I | 17.9 | 455 | 16.9 | 430 |
| J | 22.5 | 570 | 22.5 | 570 |
| K | 17.1 | 435 | 19.8 | 504 |
| L | 47.0 | 1194 | 47.0 | 1194 |
| M | 23.3 | 592 | 23.3 | 592 |
| N | 38.3 | 974 | 38.3 | 974 |
| O | 7.6 | 194 | 8.0 | 203 |
| P | 46.5 | 1180 | 41.5 | 1053 |
| Q | 36.2 | 920 | 33.8 | 858 |
| R | 29.3 | 743 | 31.0 | 787 |

