

SUMMARY OF OECD TEST 2448—NEBRASKA SUMMARY 681

CASE IH MAXXUM 140 PRO DIESEL

16 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)					
127.1 (94.8)	2200	7.72 (29.21)	0.426 (0.259)	16.47 (3.24)	
Standard Power Take-off Speed (1000 rpm)					
134.6 (100.4)	2119	7.96 (30.12)	0.415 (0.252)	16.90 (3.33)	
Maximum Power-(1 hour)					
140.3 (104.6)	1998	8.10 (30.68)	0.405 (0.246)	17.31 (3.41)	
VARYING POWER AND FUEL CONSUMPTION					
127.1 (94.8)	2200	7.72 (29.21)	0.426 (0.259)	16.47 (3.24)	Air temperature
111.3 (83.0)	2267	7.03 (26.61)	0.442 (0.269)	15.84 (3.12)	66°F (19°C)
84.8 (63.2)	2299	5.77 (21.85)	0.477 (0.290)	14.68 (2.89)	Relative humidity
56.9 (42.4)	2320	4.46 (16.90)	0.550 (0.335)	12.74 (2.51)	27%
28.7 (21.4)	2346	3.12 (11.81)	0.760 (0.463)	9.22 (1.82)	Barometer
--	2375	2.05 (7.75)	--	--	29.1" Hg (98.5 kPa)
Maximum Torque -425.3 lb.-ft. (576.7 Nm) at 1401 rpm					
Maximum Torque Rise -40.1%					
Torque rise at 1800 engine rpm -31%					

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—9th(8 Low) Gear									
107.4 (80.1)	6670 (29.68)	6.04 (9.71)	2198	3.1	0.507 (0.308)	13.82 (2.72)	192 (89)	79 (26)	29.0 (98.1)
75% of Pull at Maximum Power—9th(8 Low) Gear									
84.2 (62.8)	5015 (22.31)	6.30 (10.14)	2275	2.2	0.566 (0.344)	12.38 (2.44)	190 (88)	79 (26)	29.0 (98.1)
50% of Pull at Maximum Power—9th(8 Low) Gear									
55.9 (41.7)	3260 (14.50)	6.43 (10.35)	2302	1.2	0.660 (0.401)	10.62 (2.09)	192 (89)	81 (27)	29.0 (98.1)
75% of Pull at Reduced Engine Speed—10th(2 High) Gear									
84.2 (62.8)	5015 (22.31)	6.30 (10.14)	2041	2.1	0.510 (0.310)	13.76 (2.71)	192 (89)	82 (28)	29.0 (98.1)
50% of Pull at Reduced Engine Speed—10th(2 High) Gear									
56.1 (41.8)	3270 (14.54)	6.43 (10.35)	2065	1.2	0.574 (0.349)	12.23 (2.41)	192 (89)	79 (26)	29.0 (98.1)

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

Dates of tests: January to May, 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 Nexplora fluid Front axle lubricant Akcela Nexplora fluid

ENGINE: Make CNH Diesel Type six cylinder vertical with turbocharger and air to air intercooler Serial No. 435986 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. Z7BE51074 Tread width rear 60.0" (1524 mm) to 96.0" (2438 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 2.57 (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), 9.94 (16.05), 12.78 (20.57), 15.68 (25.24), 19.09 (30.73), 23.43 (37.70) 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 1969 engine rpm or 1000 rpm at 2120 engine rpm Unladen tractor mass 12180 lb (5525 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 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(1Low) Gear									
42.5 (31.7)	11870 (52.80)	1.34 (2.16)	2322	11.3	0.701 (0.426)	10.00 (1.97)	192 (89)	81 (27)	29.0 (98.0)
2nd(2Low) Gear									
51.8 (38.6)	11730 (52.18)	1.65 (2.66)	2315	10.6	0.645 (0.392)	10.87 (2.14)	192 (89)	79 (26)	29.0 (98.0)
3rd(3Low) Gear									
61.8 (46.1)	11505 (51.17)	2.01 (3.24)	2302	10.5	0.634 (0.386)	11.06 (2.18)	192 (89)	81 (27)	29.0 (98.0)
4th(4Low) Gear									
75.0 (55.9)	11535 (51.30)	2.44 (3.92)	2284	10.7	0.583 (0.355)	12.02 (2.37)	192 (89)	84 (29)	29.0 (98.0)
5th(5Low) Gear									
95.1 (70.9)	11245 (50.02)	3.17 (5.10)	2258	8.8	0.528 (0.321)	13.26 (2.61)	192 (89)	82 (28)	29.0 (98.0)
6th(6Low) Gear									
111.7 (83.3)	10925 (48.60)	3.83 (6.17)	2179	7.3	0.486 (0.296)	14.42 (2.84)	190 (88)	82 (28)	29.0 (98.0)
7th(7Low) Gear									
116.2 (86.6)	10275 (45.70)	4.24 (6.82)	1965	5.9	0.487 (0.296)	14.39 (2.83)	190 (88)	84 (29)	29.0 (98.0)
8th(1 High) Gear									
118.7 (88.5)	8955 (39.84)	4.97 (8.00)	2026	4.1	0.475 (0.289)	14.77 (2.91)	190 (88)	84 (29)	29.0 (98.0)
9th(8Low) Gear									
119.8 (89.3)	8165 (36.33)	5.50 (8.85)	2024	3.8	0.468 (0.284)	14.99 (2.95)	189 (87)	82 (28)	29.0 (98.0)
10th(2High) Gear									
119.2 (88.9)	7250 (32.26)	6.16 (9.92)	2015	3.1	0.474 (0.288)	14.77 (2.91)	190 (88)	81 (27)	29.0 (98.0)
11th(3 High) Gear									
116.3 (86.7)	5815 (25.87)	7.50 (12.07)	1997	2.3	0.488 (0.297)	14.37 (2.83)	189 (87)	84 (29)	29.0 (98.0)
12th(4 High) Gear									
115.1 (85.8)	4705 (20.93)	9.17 (14.75)	1981	1.8	0.495 (0.301)	14.16 (2.79)	189 (87)	82 (28)	29.0 (98.0)

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 three point lift claim of 12185 lbs (5527 kg). 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. **2448**, Nebraska Summary 681, January 8, 2010.

Roger M. Hoy
Director

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

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Disengaged dB(A)	Engaged dB(A)
At no load in 7th (7Low) gear	67.3	68.4
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 650/65R38; **,12 (80)
 Two 540/65R28; **,12 (80)
 18.9 in (480 mm)
 7605 lb (3450 kg)
 4740 lb (2150 kg)
 12345 lb (5600 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 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	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—1039 rpm)					
154.2 (115.0)	2202	9.05 (34.25)	0.411 (0.250)	17.05 (3.36)	
Standard Power Take-off Speed (1000 rpm)					
159.8 (119.2)	2121	9.27 (35.10)	0.407 (0.247)	17.24 (3.40)	
Maximum Power - (1 hour)					
164.3 (122.5)	1996	9.40 (35.58)	0.401 (0.244)	17.47 (3.44)	

VARYING POWER AND FUEL CONSUMPTION

154.2 (115.0)	2202	9.05 (34.25)	0.411 (0.250)	17.05 (3.36)	Air temperature
133.4 (99.5)	2242	8.05 (30.48)	0.423 (0.257)	16.57 (3.26)	66°F (19°C)
101.9 (76.0)	2282	6.50 (24.62)	0.447 (0.272)	15.68 (3.09)	Relative humidity
68.8 (51.3)	2312	4.93 (18.68)	0.503 (0.306)	13.95 (2.75)	27%
34.9 (26.0)	2339	3.36 (12.73)	0.676 (0.411)	10.37 (2.04)	Barometer
--	2373	2.03 (7.68)	--	--	29.5" Hg (100.0 kPa)

Maximum Torque - 476.1 lb.-ft. (645.6 Nm) at 1602 rpm

Maximum Torque Rise - 29.4%

Torque rise at 1800 engine rpm - 24%

HYDRAULIC PERFORMANCE

CATEGORY: III

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 7735 lbs (34.4 kN)

i) Sustained pressure of the open relief valve: 2990 psi (206 bar)

ii) Pump delivery rate at minimum pressure: 27.5 GPM (104.0 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 26.3 GPM (99.7 l/min)

Delivery pressure: 2610 psi (180 bar)

Power: 40.1 HP (29.9 kW)

THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi.(bar) 2990(206)

Location: lift cylinder

Hydraulic oil temperature: °F(°C) 150(66)

Location: hydraulic sump

Category: III

Quick attach: None

SAE Static Test—System pressure 2715 psi (187 Bar)

Hitch point distance to ground level in. (mm)	7.9 (200)	15.7 (400)	23.0 (585)	31.5 (800)	39.4 (1000)
Lift force on frame lb	14655	13375	13060	12520	11355
" " " " " " (kN)	(65.2)	(59.5)	(58.1)	(55.7)	(50.5)

HITCH DIMENSIONS AS TESTED—NO LOAD

	OECD test		SAE test	
	inch	mm	inch	mm
A	30.3	770	31.0	788
B	12.2	310	12.2	310
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	1.2	30	1.2	30
I	16.9	430	15.6	395
J	23.0	585	23.0	585
K	19.9	505	23.0	585
L	46.4	1178	46.4	1178
M	24.5	623	24.5	623
N	39.8	1010	39.8	1010
O	7.9	200	7.9	200
P	50.0	1270	45.0	1144
Q	36.8	935	34.3	872
R	32.3	820	34.1	867

