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Nebraska Summary: S679 Case-IH Maxxum 125 Pro

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SUMMARY OF OECD TEST 2449-NEBRASKA SUMMARY 679

CASE IH MAXXUM 125 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—1037 rpm)					
110.0 (82.0)	2197	7.01 (26.54)	0.447 (0.272)	15.68 (3.09)	
Standard Power Take-off Speed (999 rpm)					
116.1 (86.6)	2117	7.17 (27.15)	0.433 (0.263)	16.19 (3.19)	
Maximum Power - (1 hour)					
122.6 (91.4)	1897	7.14 (27.01)	0.408 (0.248)	17.16 (3.38)	
VARYING POWER AND FUEL CONSUMPTION					
110.0 (82.0)	2197	7.01 (26.54)	0.447 (0.272)	15.68 (3.09)	Air temperature
96.2 (71.7)	2261	6.51 (24.63)	0.474 (0.288)	14.78 (2.91)	70°F (21°C)
73.1 (54.5)	2291	5.40 (20.46)	0.519 (0.316)	13.51 (2.66)	Relative humidity
49.2 (36.7)	2314	4.26 (16.12)	0.607 (0.369)	11.56 (2.28)	36%
24.9 (18.6)	2335	3.08 (11.67)	0.867 (0.527)	8.09 (1.59)	Barometer
--	2358	2.15 (8.14)	--	--	28.8" Hg (97.5 kPa)

Maximum Torque - 404.8 lb.-ft. (548.8 Nm) at 1299 rpm
 Maximum Torque Rise - 54.0%
 Torque rise at 1800 engine rpm - 34%

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—7th(7 Low) Gear									
90.9 (67.8)	6955 (30.94)	4.90 (7.89)	2191	2.4	0.539 (0.328)	12.99 (2.56)	190 (88)	73 (23)	28.8 (97.5)
75% of Pull at Maximum Power—7th(7 Low) Gear									
69.1 (51.5)	5075 (22.57)	5.10 (8.21)	2266	1.6	0.590 (0.359)	11.88 (2.34)	190 (88)	77 (25)	28.8 (97.5)
50% of Pull at Maximum Power—7th(7 Low) Gear									
46.9 (35.0)	3360 (14.95)	5.23 (8.42)	2295	1.0	0.732 (0.445)	9.58 (1.89)	190 (88)	75 (24)	28.8 (97.5)
75% of Pull at Reduced Engine Speed—8th (1 High) Gear									
69.3 (51.7)	5095 (22.66)	5.10 (8.21)	2026	1.5	0.546 (0.332)	12.84 (2.53)	190 (88)	77 (25)	28.8 (97.5)
50% of Pull at Reduced Engine Speed—8th (1 High) Gear									
46.9 (35.0)	3360 (14.95)	5.23 (8.42)	2048	0.9	0.602 (0.366)	11.63 (2.29)	190 (88)	73 (23)	28.8 (97.5)

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

Dates of tests: April 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 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.** 424250 **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.** Z7BE51046 **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 2.58 (4.15) fifth 3.31 (5.32) sixth 4.06 (6.53) seventh 4.94 (7.95) eighth 5.51 (8.86) ninth 6.05 (9.74) 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), 19.10 (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** 12270 lb (5565 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)
2nd(2Low) Gear									
49.9 (37.2)	11845 (52.70)	1.58 (2.54)	2293	13.8	0.687 (0.418)	10.20 (2.01)	190 (88)	81 (27)	28.9 (97.9)
3rd(3Low) Gear									
61.3 (45.7)	11620 (51.69)	1.98 (3.18)	2273	11.5	0.651 (0.396)	10.76 (2.12)	190 (88)	81 (27)	28.9 (97.9)
4th(4Low) Gear									
76.8 (57.3)	11600 (51.61)	2.48 (4.00)	2263	8.3	0.583 (0.355)	12.02 (2.37)	190 (88)	79 (26)	28.9 (97.9)
5th(5Low) Gear									
90.4 (67.4)	10915 (48.56)	3.11 (5.00)	2176	6.5	0.542 (0.329)	12.94 (2.55)	190 (88)	79 (26)	28.9 (97.9)
6th(6Low) Gear									
99.9 (74.5)	10265 (45.67)	3.65 (5.87)	2059	5.4	0.493 (0.300)	14.21 (2.80)	189 (87)	79 (26)	28.9 (97.9)
7th(7Low) Gear									
101.0 (75.3)	8800 (39.15)	4.30 (6.92)	1932	3.8	0.493 (0.300)	14.21 (2.80)	189 (87)	84 (29)	28.9 (97.9)
8th(1High) Gear									
102.3 (76.3)	8055 (35.82)	4.76 (7.67)	1919	3.2	0.484 (0.294)	14.48 (2.85)	189 (87)	86 (30)	28.9 (97.9)
9th(8Low) Gear									
103.0 (76.8)	7380 (32.82)	5.23 (8.42)	1899	2.8	0.487 (0.296)	14.39 (2.83)	189 (87)	82 (28)	28.9 (97.9)
10th(2High) Gear									
103.6 (77.3)	6660 (29.62)	5.84 (9.39)	1901	2.6	0.483 (0.294)	14.52 (2.86)	189 (87)	84 (29)	28.9 (97.9)
11th(3High) Gear									
100.4 (74.9)	5255 (23.38)	7.16 (11.53)	1902	1.8	0.495 (0.301)	14.16 (2.79)	189 (87)	81 (27)	28.9 (97.9)
12th(4High) Gear									
96.2 (71.7)	4055 (18.03)	8.90 (14.32)	1914	1.3	0.519 (0.316)	13.50 (2.66)	189 (87)	79 (26)	28.9 (97.9)

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 claims of 9620 lbs (4364 kg) (with 80 mm lift cylinders) nor 12185 lbs (5527 kg) (with 90 mm lift cylinders). 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. **2449**, Nebraska Summary 679, 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(7 Low) gear	69.1	70.0
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 600/65R38; **, 12 (80)
 Two 480/65R28; **, 12 (80)
 18.9 in (480 mm)
 7695 lb (3490 kg)
 4740 lb (2150 kg)
 12435 lb (5640 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—1038 rpm)					
132.9 (99.1)	2200	8.13 (30.79)	0.429 (0.261)	16.34 (3.22)	
Standard Power Take-off Speed (1000 rpm)					
139.6 (104.1)	2119	8.38 (31.74)	0.421 (0.256)	16.65 (3.28)	
Maximum Power - (1 hour)					
146.0 (108.9)	1996	8.50 (32.19)	0.408 (0.248)	17.17 (3.38)	

VARYING POWER AND FUEL CONSUMPTION

132.9 (99.1)	2200	8.13 (30.79)	0.429 (0.261)	16.34 (3.22)	Air temperature
115.1 (85.8)	2240	7.29 (27.58)	0.445 (0.270)	15.79 (3.11)	72°F(22°C)
87.6 (65.3)	2274	6.05 (22.89)	0.485 (0.295)	14.47 (2.85)	Relative humidity
59.2 (44.2)	2303	4.73 (17.92)	0.560 (0.341)	12.52 (2.47)	39%
29.9 (22.3)	2331	3.32 (12.55)	0.777 (0.472)	9.02 (1.78)	Barometer
--	2361	2.13 (8.07)	--	--	28.8" Hg (97.4 kPa)

Maximum Torque - 424.3 lb.-ft. (575.3 Nm) at 1598 rpm
 Maximum Torque Rise - 33.7%
 Torque rise at 1800 engine rpm - 29%

HYDRAULIC PERFORMANCE

CATEGORY: II, III

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 6925 lbs (30.8 kN)(2 x 80 mm) lift cylinders
7735 lbs (34.4 kN)(2 x 90 mm)

- i) Sustained pressure of the open relief valve: 3020 psi (208 bar)
- ii) Pump delivery rate at minimum pressure: 27.8 GPM (105.4 l/min)
- iii) Pump delivery rate at maximum
 - hydraulic power: 25.6 GPM (96.9 l/min)
 - Delivery pressure: 2610 psi (180 bar)
 - Power: 39.0 HP (29.1 kW)

THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi.(bar) 3020(208)
 Location: lift cylinder
 Hydraulic oil temperature: °F(°C) 150(66)
 Location: hydraulic sump
 Category: III
 Quick attach: None

SAE Static Test—System pressure 2700 psi (186 Bar)
Lift cylinders 2 x 80 mm

Hitch point distance to ground level in. (mm)	7.9 (200)	17.9 (455)	23.0 (585)	29.5 (750)	37.6 (955)
Lift force on frame lb	12115	10815	10655	10365	9420
" " " " " (kN)	(53.9)	(48.1)	(47.4)	(46.1)	(41.9)

SAE Static Test—System pressure 2715 psi (187 Bar)
Lift cylinders 2 x 90 mm

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

