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Nebraska Summary: S688 New Holland T6020 Plus

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SUMMARY OF OECD TEST 2488—NEBRASKA SUMMARY 688

NEW HOLLAND T6020 PLUS DIESEL

24 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)					
94.8 (70.7)	2200	5.94 (22.50)	0.439 (0.267)	15.95 (3.14)	
Standard Power Take-off Speed (1001 rpm)					
94.0 (70.1)	2121	5.85 (22.15)	0.436 (0.265)	16.07 (3.17)	
Maximum Power - (1 hour)					
95.9 (71.5)	1996	5.72 (21.67)	0.418 (0.254)	16.76 (3.30)	

VARYING POWER AND FUEL CONSUMPTION

94.8 (70.7)	2200	5.94 (22.50)	0.439 (0.267)	15.95 (3.14)	Air temperature
83.8 (62.5)	2293	5.43 (20.55)	0.454 (0.276)	15.43 (3.04)	72°F (22°C)
63.6 (47.5)	2331	4.47 (16.93)	0.493 (0.300)	14.22 (2.80)	Relative humidity
43.0 (32.1)	2367	3.41 (12.92)	0.557 (0.339)	12.61 (2.48)	35%
21.9 (16.4)	2416	2.36 (8.95)	0.755 (0.460)	9.28 (1.83)	Barometer
--	2450	1.55 (5.85)	--	--	29.0" Hg (98.2 kPa)

Maximum Torque - 351.7 lb.-ft. (476.2 Nm) at 1000 rpm

Maximum Torque Rise - 55.3%

Torque rise at 1800 engine rpm - 22%

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—12th (2 Med Hi) Gear									
82.7 (61.7)	6840 (30.42)	4.54 (7.30)	2204	2.3	0.504 (0.307)	13.91 (2.74)	187 (86)	52 (11)	28.8 (97.4)
75% of Pull at Maximum Power—12th (2 Med Hi) Gear									
65.3 (48.7)	5115 (22.75)	4.79 (7.71)	2311	1.5	0.570 (0.347)	12.28 (2.42)	189 (87)	52 (11)	28.8 (97.4)
50% of Pull at Maximum Power—12th (2 Med Hi) Gear									
45.0 (33.6)	3440 (15.30)	4.91 (7.90)	2351	0.8	0.636 (0.387)	11.00 (2.17)	189 (87)	52 (11)	28.8 (97.4)
75% of Pull at Reduced Engine Speed—13th (3 Med Lo) Gear									
66.0 (49.2)	5105 (22.72)	4.84 (7.79)	1999	1.5	0.519 (0.316)	13.50 (2.66)	187 (86)	53 (12)	28.8 (97.4)
50% of Pull at Reduced Engine Speed—13th (3 Med Lo) Gear									
45.5 (33.9)	3440 (15.31)	4.96 (7.98)	2037	0.9	0.573 (0.348)	12.24 (2.41)	185 (85)	52 (11)	28.8 (97.4)

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

Dates of tests: September 2007 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** four cylinder vertical with turbocharger and air to air intercooler **Serial No.** 431043 **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** 274 cu in (4485 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.** Z7BD51062 **Tread width** rear 60.0" (1524 mm) to 96.0" (2438 mm) front 52.2" (1325 mm) to 90.0" (2285 mm) **Wheelbase** 95.0" (2412 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with partial(2) range operator controlled powershifting **Nominal travel speeds mph (km/h)** first 1.02 (1.64) second 1.25 (2.01) third 1.52 (1.49) fourth 1.83 (2.94) fifth 2.13 (3.43) sixth 2.56 (4.12) seventh 2.61 (4.20) eighth 3.11 (5.00) ninth 3.13 (5.04) tenth 3.75 (6.04) eleventh 3.80 (6.11) twelfth 4.59 (7.39) thirteenth 5.36 (8.62) fourteenth 6.20 (9.98) fifteenth 6.56 (10.55) sixteenth 7.59 (12.21) seventeenth 7.80 (12.55) eighteenth 9.08 (14.62) nineteenth 9.54 (15.35) twentieth 11.11 (17.88) twenty-first 12.97 (20.88) twenty-second 15.87 (25.54) twenty-third 18.87 (30.38) twenty-fourth 23.09 (37.16) reverse 1.06 (1.70), 1.29 (2.08), 1.55 (2.49), 1.89 (3.04), 2.21 (3.55), 2.65 (4.26), 2.70 (4.34), 3.22 (5.17), 3.24 (5.21), 3.88 (6.24), 3.93 (6.32), 4.75 (7.64), 5.54 (8.92), 6.41 (10.32), 6.78 (10.91), 7.84 (12.62), 8.07 (12.98), 9.40 (15.12), 9.86 (15.87), 11.49 (18.49), 13.42 (21.59), 16.41 (26.41), 19.52 (31.41), 23.87 (38.42)

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)	Hp.hr/gal (kW.h/l)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
2nd(1 Low Hi) Gear									
33.9 (25.3)	10840 (48.22)	1.17 (1.89)	2362	12.8	0.705 (0.429)	9.95 (1.96)	189 (87)	54 (12)	28.6 (97.0)
3rd(2 Low Lo) Gear									
40.1 (29.9)	10395 (46.25)	1.45 (2.33)	2350	10.1	0.684 (0.416)	10.25 (2.02)	189 (87)	54 (12)	28.7 (97.1)
4th(2 Low Hi) Gear									
49.3 (36.8)	10520 (46.80)	1.76 (2.83)	2326	9.8	0.652 (0.397)	10.75 (2.12)	187 (86)	55 (13)	28.7 (97.1)
5th(3 Low Lo) Gear									
56.5 (42.1)	10265 (45.65)	2.06 (3.32)	2309	8.6	0.625 (0.380)	11.22 (2.21)	189 (87)	54 (12)	28.7 (97.1)
6th(1 Med Lo) Gear									
64.2 (47.9)	9905 (44.07)	2.43 (3.91)	2281	9.3	0.603 (0.367)	11.62 (2.29)	189 (87)	41 (5)	29.3 (99.2)
7th(3 Low Hi) Gear									
67.2 (50.1)	10120 (45.01)	2.49 (4.01)	2282	8.8	0.575 (0.350)	12.18 (2.40)	189 (87)	52 (11)	29.3 (99.2)
8th(4 Low Lo) Gear									
74.7 (55.7)	9520 (42.34)	2.94 (4.74)	2208	6.2	0.555 (0.337)	12.64 (2.49)	187 (86)	46 (8)	28.7 (97.2)
9th(1 Med Hi) Gear									
74.3 (55.4)	9310 (41.41)	2.99 (4.82)	2224	6.2	0.560 (0.341)	12.52 (2.47)	187 (86)	45 (7)	29.3 (99.2)
10th(2 Med Lo) Gear									
82.1 (61.2)	9385 (41.74)	3.28 (5.28)	2000	4.7	0.489 (0.297)	14.33 (2.82)	185 (85)	50 (10)	29.3 (99.2)
11th(4 Low Hi) Gear									
84.4 (62.9)	9550 (42.48)	3.31 (5.33)	1999	4.8	0.476 (0.290)	14.72 (2.90)	185 (85)	45 (7)	29.3 (99.2)
12th(2 Med Hi) Gear									
83.1 (62.0)	7675 (34.15)	4.06 (6.54)	2001	3.5	0.483 (0.294)	14.52 (2.86)	185 (85)	46 (8)	29.3 (99.2)
13th(3 Med Lo) Gear									
81.4 (60.7)	6395 (28.44)	4.77 (7.68)	1993	2.6	0.493 (0.300)	14.21 (2.80)	185 (85)	45 (7)	29.3 (99.1)
14th(1 High Lo) Gear									
83.0 (61.9)	5595 (24.88)	5.56 (8.95)	1999	2.2	0.484 (0.294)	14.48 (2.85)	185 (85)	50 (10)	29.3 (99.1)
15th(3 Med Hi) Gear									
82.2 (61.3)	5240 (23.31)	5.88 (9.46)	1997	2.1	0.488 (0.297)	14.37 (2.83)	185 (85)	48 (9)	29.3 (99.1)
16th(1 High Hi) Gear									
82.1 (61.2)	4495 (20.00)	6.85 (11.02)	2002	1.7	0.489 (0.297)	14.33 (2.82)	187 (86)	48 (9)	29.3 (99.1)
17th(4 Med Lo) Gear									
80.3 (59.9)	4270 (19.00)	7.05 (11.34)	2002	1.6	0.500 (0.304)	14.01 (2.76)	185 (85)	50 (10)	29.3 (99.1)
18th(2 High Lo) Gear									
78.3 (58.4)	3575 (15.90)	8.21 (13.22)	1997	1.4	0.513 (0.312)	13.65 (2.69)	185 (85)	46 (8)	29.3 (99.1)
19th(4 Med Hi) Gear									
78.2 (58.3)	3405 (15.15)	8.61 (13.86)	1994	1.3	0.513 (0.312)	13.65 (2.69)	185 (85)	48 (9)	29.3 (99.1)

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)
6900 lb (3130 kg)
4365 lb (1980 kg)
11265 lb (5110 kg)

Clutch dry 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 1970 engine rpm or 1000 rpm at 2120 engine rpm
Unladen tractor mass 11 100 lb (5035 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 three point lift capacity claim of 9285 lbs (4211 kg) with MDC (manual draft control) nor hydraulic flow of 26.5 GPM (100.3 L/min). The manufacturer's claim of 9620 lbs (4363 kg) with EDC (electronic draft control) was not verified. 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. **2488**, Nebraska Summary 688, January 14, 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 12th (2 Med Hi) gear	70.7	71.8
Bystander	--	--

HYDRAULIC PERFORMANCE

CATEGORY: II	
Quick Attach: None	
OECD Static test	lift assist cylinders
Maximum force exerted through whole range:	6250 lbs (27.8 kN) (2 x 50 mm)
i) Sustained pressure of the open relief valve:	3120 psi (215 bar)
ii) Pump delivery rate at minimum pressure:	20.8 GPM (78.7 l/min)
iii) Pump delivery rate at maximum	
hydraulic power:	17.3 GPM (65.3 l/min)
Delivery pressure:	2685 psi (185 bar)
Power:	27.0 HP (20.1 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD

	OECD test		SAE test	
	inch	mm	inch	mm
A	29.3	743	31.0	787
B	10.0	255	10.0	255
C	15.9	403	15.9	403
D	14.1	357	14.1	357
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	47.0	1195	42.0	1068
Q	36.5	928	33.8	859
R	29.8	758	32.0	812

THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi. (bar)	3120 (215)				
Location:	lift cylinder				
Hydraulic oil temperature: °F (°C)	150 (66)				
Location:	hydraulic sump				
Category:	II				
Quick attach:	None				
SAE Static Test—System pressure 2815 psi (194 Bar)					
lift assist cylinders - 2 x 50 mm					
Hitch point distance to ground level in. (mm)	7.9 (200)	16.5 (418)	23.0 (585)	30.3 (770)	38.2 (970)
Lift force on frame lb	13805	12500	11735	10475	8790
" " " " " " (kN)	(61.4)	(55.6)	(52.2)	(46.6)	(39.1)

