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Nebraska Summary: S689 New Holland T6030 Plus

Nebraska Tractor Test Lab

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SUMMARY OF OECD TEST 2443–NEBRASKA SUMMARY 689 NEW HOLLAND T6030 PLUS 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)					
107.8 (80.4)	2197	6.82 (25.82)	0.444 (0.270)	15.79 (3.11)	
Maximum Power - (1 hour)					
107.8 (80.4)	2197	6.82 (25.82)	0.444 (0.270)	15.79 (3.11)	
Standard Power Take-off Speed (1000 rpm)					
107.0 (79.8)	2119	6.67 (25.26)	0.437 (0.266)	16.04 (3.16)	
VARYING POWER AND FUEL CONSUMPTION					
107.8 (80.4)	2197	6.82 (25.82)	0.444 (0.270)	15.79 (3.11)	Air temperature
97.4 (72.7)	2346	6.54 (24.77)	0.471 (0.286)	14.89 (2.93)	66°F (19°C)
73.0 (54.4)	2354	5.56 (21.04)	0.534 (0.325)	13.13 (2.59)	Relative humidity
49.2 (36.7)	2363	4.27 (16.15)	0.608 (0.370)	11.52 (2.27)	56%
24.8 (18.5)	2388	3.05 (11.55)	0.861 (0.524)	8.13 (1.60)	Barometer
--	2414	2.09 (7.93)	--	--	29.4" Hg (99.6 kPa)
Maximum Torque - 421.5 lb.-ft. (571.5 Nm) at 905 rpm					
Maximum Torque Rise - 63.6%					
Torque rise at 1800 engine rpm - 19%					

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 (7B) Gear									
80.2 (59.8)	6540 (29.1)	4.60 (7.40)	2201	2.4	0.597 (0.363)	11.74 (2.31)	185 (85)	64 (18)	29.4 (99.4)
75% of Pull at Maximum Power—7th (7B) Gear									
64.9 (48.4)	4900 (21.8)	4.97 (8.00)	2348	1.6	0.680 (0.413)	10.31 (2.03)	183 (84)	64 (18)	29.4 (99.4)
50% of Pull at Maximum Power—7th (7B) Gear									
43.7 (32.6)	3260 (14.5)	5.03 (8.10)	2358	0.7	0.808 (0.492)	8.67 (1.71)	183 (84)	63 (17)	29.4 (99.4)
75% of Pull at Reduced Engine Speed—8th (9C) Gear									
65.3 (48.7)	4925 (21.9)	4.97 (8.00)	2103	1.6	0.597 (0.363)	11.74 (2.31)	183 (84)	64 (17)	29.4 (99.4)
50% of Pull at Reduced Engine Speed—8th (9C) Gear									
44.1 (32.9)	3280 (14.6)	5.04 (8.11)	2134	0.8	0.697 (0.424)	10.05 (1.98)	181 (83)	61 (16)	29.4 (99.4)

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

Dates of tests: October to November 2007.

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. 433383 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. Z7BD02907 Tread width rear 56.3" (1430 mm) to 83.9" (2130 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 6.06 (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), 9.97 (16.05), 12.78 (20.57), 15.68 (25.24), 19.20 (30.73), 23.43 (37.70) Clutch wet disc electro-hydraulically actuated by foot pedal Brakes wet disc hydraulically actuated by two foot pedals that can be pedaled together Steering hydrostatic Power take-off 540 rpm at 1970 engine rpm or 1000 rpm at 2120 engine rpm Unladen tractor mass 11520 lb (5225 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. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
3rd(3A) Gear									
51.8 (38.6)	10770 (47.9)	1.80 (2.90)	2352	14.9	0.770 (0.468)	9.11 (1.79)	183 (84)	61 (16)	29.4 (99.6)
4th(4A) Gear									
65.8 (49.1)	10455 (46.5)	2.36 (3.80)	2350	10.0	0.670 (0.408)	10.46 (2.06)	183 (84)	66 (19)	29.4 (99.6)
5th(5B) Gear									
78.3 (58.4)	10050 (44.7)	2.92 (4.70)	2196	7.2	0.602 (0.366)	11.63 (2.29)	183 (84)	59 (15)	29.4 (99.6)
6th(6B) Gear									
91.1 (67.9)	9305 (41.4)	3.67 (5.90)	2203	5.1	0.515 (0.314)	13.60 (2.68)	183 (84)	64 (18)	29.4 (99.6)
7th(7B) Gear									
84.9 (63.3)	6745 (30.0)	4.72 (7.60)	2197	3.2	0.554 (0.337)	12.64 (2.49)	181 (83)	64 (18)	29.4 (99.6)
8th(9C) Gear									
90.3 (67.3)	6565 (29.2)	5.16 (8.30)	2202	2.8	0.524 (0.319)	13.35 (2.63)	181 (83)	64 (18)	29.4 (99.6)
9th(8B) Gear									
84.9 (63.3)	5500 (24.5)	5.78 (9.30)	2199	2.2	0.559 (0.340)	12.54 (2.47)	183 (84)	61 (16)	29.4 (99.6)
10th(10C) Gear									
90.1 (67.2)	5285 (23.5)	6.40 (10.30)	2202	2.1	0.521 (0.317)	13.45 (2.65)	183 (84)	64 (18)	29.4 (99.6)
11th(11C) Gear									
84.8 (63.2)	4090 (18.2)	7.77 (12.50)	2203	1.5	0.564 (0.343)	12.44 (2.45)	181 (83)	63 (17)	29.4 (99.6)
12th(12C) Gear									
81.9 (61.1)	3190 (14.2)	9.63 (15.50)	2187	1.1	0.568 (0.346)	12.33 (2.43)	183 (84)	59 (15)	29.4 (99.6)

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 manufacturers three point lift capacity claim of 9620 lbs (4363 kg) with EDC (electronic draft control) nor cab sound level of 72.0 dB(A). The manufacturer's 3 point lift claim of 9285 lbs (4211 kg) with MDC (mechanical 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. **2443**, Nebraska Summary 689, 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 7th (7B) gear	73.8	73.9
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)
 22.4 in (570 mm)
 7165 lb (3250 kg)
 4520 lb (2050 kg)
 11685 lb (5300 kg)

HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 6945 lbs (30.9 kN) (2 x 80 mm) lift cylinders

i) Opening pressure of relief valve: NA

Sustained pressure of the open relief valve: 3005 psi (207 bar)

ii) Pump delivery rate at minimum pressure: 29.4 GPM (111.2 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 25.7 GPM (97.2 l/min)

Delivery pressure: 2610 psi (180 bar)

Power: 39.2 HP (29.2 kW)

THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi. (bar)	2975 (205)
Location:	lift cylinder
Hydraulic oil temperature: °F (°C)	140 (60)
Location:	hydraulic sump
Category:	II
Quick attach:	None

SAE Static Test—System pressure 2350 psi (186 Bar)
lift cylinders - 2 x 80 mm

Hitch point distance to ground level in. (mm)	7.9 (200)	15.2 (385)	23.0 (585)	30.9 (785)	39.4 (1002)
Lift force on frame lb	12275	10925	10680	10275	9015
" " " " " " (kN)	(54.6)	(48.6)	(47.5)	(45.7)	(40.1)

HITCH DIMENSIONS AS TESTED—NO LOAD

	OECD test		SAE test	
	inch	mm	inch	mm
A	28.0	710	28.6	727
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	1.0	25	1.0	25
I	16.9	430	15.6	395
J	23.0	585	23.0	585
K	19.9	505	23.0	585
L	44.0	1118	44.0	1118
M	22.2	563	22.2	563
N	37.4	950	37.4	950
O	7.9	200	7.9	200
P	47.0	1195	42.0	1068
Q	34.8	885	32.5	825
R	32.5	826	34.4	875

