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Nebraska Summary: S741 New Holland T5070

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SUMMARY OF OECD TESTS 2519 & 2524 — NEBRASKA SUMMARY 741

NEW HOLLAND T5070 DIESEL

12 SPEED

POWER TAKE-OFF PERFORMANCE-2WD

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—1017 rpm)					
98.6 (73.5)	2299	6.37 (24.10)	0.453 (0.275)	15.48 (3.05)	
Standard Power Take-off speed (1000 rpm)					
99.5 (74.2)	2261	6.31 (23.87)	0.444 (0.270)	15.78 (3.11)	
Maximum Power (1 hour)					
103.0 (76.8)	2001	5.95 (22.54)	0.405 (0.246)	17.31 (3.41)	

VARYING POWER AND FUEL CONSUMPTION

98.6 (73.5)	2299	6.37 (24.10)	0.453 (0.275)	15.48 (3.05)	Air temperature
88.4 (65.9)	2435	6.16 (23.33)	0.489 (0.298)	14.34 (2.82)	65°F (18°C)
67.3 (50.2)	2462	4.93 (18.67)	0.513 (0.312)	13.65 (2.69)	Relative humidity
45.2 (33.7)	2485	3.88 (14.67)	0.600 (0.365)	11.67 (2.30)	48%
22.3 (16.6)	2505	2.84 (10.75)	0.895 (0.544)	7.84 (1.54)	Barometer
--	2532	2.05 (7.75)	--	--	29.6" Hg (100.1 kPa)

Maximum torque -332.7 lb.-ft. (451.1 Nm) at 999 rpm
 Maximum torque rise -47.8%
 Torque rise at 1800 engine rpm -28%

POWER TAKE-OFF PERFORMANCE - FWA

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—1017 rpm)					
101.0 (75.3)	2299	6.78 (25.67)	0.471 (0.286)	14.89 (2.93)	
Standard Power Take-off speed (1000 rpm)					
100.7 (75.1)	2261	6.67 (25.23)	0.464 (0.282)	15.11 (2.98)	
Maximum Power (1 hour)					
103.0 (76.8)	2103	6.39 (24.20)	0.436 (0.265)	16.11 (3.17)	

VARYING POWER AND FUEL CONSUMPTION

101.0 (75.3)	2299	6.78 (25.67)	0.471 (0.286)	14.89 (2.93)	Air temperature
90.7 (67.6)	2424	6.50 (24.61)	0.503 (0.306)	13.95 (2.75)	68°F (20°C)
68.5 (51.1)	2449	5.41 (20.49)	0.553 (0.336)	12.67 (2.50)	Relative humidity
46.3 (34.5)	2474	4.04 (15.29)	0.611 (0.372)	11.47 (2.26)	56%
23.6 (17.6)	2519	3.00 (11.36)	0.891 (0.542)	7.87 (1.55)	Barometer
--	2546	2.13 (8.08)	--	--	29.1" Hg (98.4 kPa)

Maximum torque -347.4 lb.-ft. (471.0 Nm) at 999 rpm
 Maximum torque rise -50.6%
 Torque rise at 1800 engine rpm -25%

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

Dates of tests: December 2008 to July 2009

Manufacturer: CNH Italia SpA, Via Leone XIII, 160035, Jesi, Italy

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** four cylinder vertical with turbocharger and air to air intercooler **Serial No.** 571827 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 4.094" x 5.197" (104.0 mm x 132.0 mm) **Compression ratio** 17.0 to 1 **Displacement** 274 cu in (4485 ml) **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **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

CHASSIS: **Type** 2WD & front wheel assist **Serial No.** Z8JH07750 **Tread width** rear 56.3" (1430 mm) to 90.4" (2295 mm), front 2WD - 55.4" (1407 mm) to 85.6" (2175 mm), FWA-60.1" (1526 mm) to 70.3" (1786 mm) **Wheel base** 2WD - 92.2" (2342 mm), FWA - 92.5" (2350 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph(km/h)** first 1.16 (1.87) second 1.69 (2.72) third 2.44 (3.92) fourth 2.72 (4.37) fifth 3.49 (5.61) sixth 3.95 (6.35) seventh 5.69 (9.15) eighth 6.39 (10.28) ninth 8.15 (13.11) tenth 9.28 (14.94) eleventh 13.38 (21.54) twelfth 19.17 (30.85) reverse 1.14 (1.83), 1.65 (2.66), 2.39 (3.84), 2.66 (4.28), 3.42 (5.50), 3.87 (6.22), 5.57 (8.97), 6.26 (10.08), 7.98 (12.84), 9.10 (14.64), 13.12 (21.11), 18.79 (30.24) **Clutch** dual dry disc operated by foot pedal **Brakes** wet disc hydraulically operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2198 engine rpm or 1000 rpm at 2261 engine rpm **Unladen tractor mass** 2WD - 8135 lbs (3690 kg), FWA - 9315 lb (4225 kg)

T5070 - 2WD
DRAWBAR PERFORMANCE
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(3 II)Gear									
77.8 (58.0)	5390 (23.97)	5.41 (8.71)	2300	7.7	0.559 (0.340)	12.54 (2.47)	187 (86)	66 (19)	29.2 (98.8)
75% of Pull at Maximum Power—7th(3 II)Gear									
63.4 (47.3)	4045 (17.99)	5.88 (9.46)	2450	5.6	0.607 (0.369)	11.55 (2.28)	189 (87)	68 (20)	29.2 (98.8)
50% of Pull at Maximum Power—7th(3 II)Gear									
43.1 (32.2)	2690 (11.97)	6.01 (9.67)	2475	4.7	0.705 (0.429)	9.95 (1.96)	187 (86)	68 (20)	29.2 (98.8)
75% of Pull at Reduced Engine Speed—8th(1 III) Gear									
63.4 (47.3)	4050 (18.02)	5.87 (9.45)	2173	5.7	0.566 (0.344)	12.39 (2.44)	187 (86)	63 (17)	29.2 (98.8)
50% of Pull at Reduced Engine Speed—8th(1 III) Gear									
43.2 (32.2)	2710 (12.05)	5.98 (9.63)	2198	4.7	0.610 (0.371)	11.48 (2.26)	187 (86)	72 (22)	29.2 (98.8)

MAXIMUM POWER IN SELECTED GEARS

5th(4 I) Gear									
57.3 (42.7)	6360 (28.29)	3.38 (5.43)	2466	14.3	0.583 (0.354)	12.03 (2.37)	187 (86)	54 (12)	29.1 (98.4)
6th(2 II) Gear									
63.8 (47.6)	6240 (27.76)	3.83 (6.17)	2455	13.6	0.578 (0.351)	12.13 (2.39)	187 (86)	52 (11)	29.1 (98.4)
7th(3 II) Gear									
80.7 (60.2)	6010 (26.73)	5.04 (8.11)	2180	9.3	0.540 (0.329)	12.97 (2.56)	185 (85)	50 (10)	29.1 (98.4)
8th(1 III)Gear									
83.6 (62.4)	5395 (24.01)	5.81 (9.35)	2193	7.4	0.519 (0.315)	13.52 (2.66)	183 (84)	52 (11)	29.1 (98.4)
9th(4 II) Gear									
84.2 (62.8)	4430 (19.71)	7.13 (11.47)	2074	5.9	0.504 (0.307)	13.91 (2.74)	185 (85)	50 (10)	29.1 (98.4)
10th(2 III)Gear									
85.6 (63.8)	4085 (18.18)	7.85 (12.63)	1998	4.6	0.483 (0.294)	14.52 (2.86)	185 (85)	48 (9)	29.1 (98.4)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The manufacturer's optional three point lift claim of 6805 lbs (3086 kg) was not verified. The performance results on this summary were taken from OECD tests conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Reports No. **2519** and **2524**, Nebraska summary 741, October 5, 2010.

Roger M. Hoy
 Director

M.F. Kocher
 D.R. Keshwani
 J.A. Smith
 Board of Tractor Test Engineers

New Holland T5070 - 2WD

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 600/65R34; **; 12 (80)
 Two 10:00-16; 8; 45 (310)
 19.5 in (495 mm)
 5465 lb (2480 kg)
 2835 lb (1285 kg)
 8300 lb (3765 kg)

**T5070 - FRONT WHEEL ASSIST
DRAWBAR PERFORMANCE
FUEL CONSUMPTION CHARACTERISTICS**

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption		Temp. °F (°C)	Barom. inch Hg (kPa)	
					lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	cool- ing med	Air dry bulb	
Maximum Power—7th (3 II) Gear									
76.7 (57.2)	5105 (22.71)	5.63 (9.07)	2302	5.7	0.617 (0.376)	11.36 (2.24)	190 (88)	82 (28)	29.0 (98.2)
75% of Pull at Maximum Power—7th (3 II) Gear									
60.9 (45.4)	3815 (16.97)	5.99 (9.64)	2441	4.7	0.663 (0.403)	10.57 (2.08)	189 (87)	86 (30)	29.0 (98.2)
50% of Pull at Maximum Power—7th (3 II) Gear									
41.7 (31.1)	2540 (11.29)	6.16 (9.92)	2455	2.8	0.852 (0.518)	8.23 (1.62)	187 (86)	82 (28)	29.0 (98.2)
75% of Pull at Reduced Engine Speed—8th (1 III) Gear									
60.6 (45.2)	3795 (16.87)	5.99 (9.65)	2157	4.6	0.630 (0.383)	11.12 (2.19)	189 (87)	82 (28)	29.0 (98.2)
50% of Pull at Reduced Engine Speed—8th (1 III) Gear									
41.7 (31.1)	2550 (11.34)	6.13 (9.87)	2165	2.7	0.677 (0.412)	10.36 (2.04)	187 (86)	81 (27)	29.0 (98.2)

MAXIMUM POWER IN SELECTED GEARS

4th (1 II) Gear									
56.9 (42.4)	8205 (36.49)	2.60 (4.18)	2438	14.2	0.706 (0.430)	9.92 (1.96)	190 (88)	82 (28)	29.0 (98.2)
5th (4 I) Gear									
71.6 (53.4)	8120 (36.12)	3.31 (5.32)	2390	13.7	0.637 (0.388)	11.03 (2.17)	192 (89)	79 (26)	29.0 (98.2)
6th (2 II) Gear									
77.9 (58.1)	7585 (33.74)	3.85 (6.20)	2379	10.5	0.593 (0.361)	11.83 (2.33)	190 (88)	77 (25)	29.0 (98.2)
7th (3 II) Gear									
80.6 (60.1)	5690 (25.30)	5.31 (8.55)	2172	6.1	0.566 (0.344)	12.39 (2.44)	189 (87)	70 (21)	29.1 (98.4)
8th (1 III) Gear									
81.4 (60.7)	5225 (23.24)	5.84 (9.40)	2103	5.0	0.550 (0.335)	12.74 (2.51)	189 (87)	70 (21)	29.1 (98.4)
9th (4 II) Gear									
80.9 (60.3)	4060 (18.07)	7.47 (12.02)	2075	3.2	0.550 (0.335)	12.74 (2.51)	189 (87)	73 (23)	29.1 (98.4)
10th (2 III) Gear									
80.7 (60.2)	3580 (15.91)	8.46 (13.62)	2054	2.5	0.550 (0.335)	12.74 (2.51)	187 (86)	70 (21)	29.1 (98.4)

New Holland T5070 - Front Wheel Assist

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 600/65R34; **, 12 (80)
 Two 480/65R24; **, 12 (80)
 19.5 in (495 mm)
 5665 lb (2570 kg)
 3815 lb (1730 kg)
 9480 lb (4300 kg)

TRACTOR SOUND LEVEL WITH CAB	FWA dB(A)	2WD dB(A)
At no load in 6th (2 II) gear	79.2	79.2
Bystander	--	--

HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range:	4180 lbs (18.6 kN)	
		<u>Combined flow</u>
i) Sustained pressure with relief valve open:	2755 psi (190 bar)	2685 psi (185 bar)
ii) Pump delivery rate at minimum pressure:	17.2 GPM (65.0 l/min)	21.3 GPM (80.8 l/min)
iii) Pump delivery rate at maximum		
hydraulic power:	13.7 GPM (51.8 l/min)	19.7 GPM (74.7 GPM)
Delivery pressure:	2540 psi (175 bar)	2030 psi (140 bar)
Power:	20.3 hp (15.1 kW)	23.3 hp (17.4 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD

	SAE TEST		OECD TEST	
	inch	mm	inch	mm
A	26.1	664	26.5	674
B	10.0	255	10.0	255
C	13.9	352	13.9	352
D	11.7	296	11.7	296
E	13.3	337	10.1	257
F	8.1	205	8.1	205
G	30.5	775	30.5	775
H	0.6	16	0.6	16
I	15.7	400	15.7	400
J	22.4	570	22.4	570
K	20.7	526	17.7	450
L	42.1	1070	42.1	1070
M	21.6	548	21.6	548
N	37.0	940	37.0	940
O	9.6	245	7.9	200
P	41.5	1053	46.5	1180
Q	42.1	1069	36.2	920
R	25.2	640	24.4	620

THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed maximum pressure psi. (bar)	2900 (200)
Location:	remote outlets
Hydraulic oil temperature: °F (°C)	131 (55)
Location:	hydraulic sump
Category:	II
Quick attach:	none

System pressure 2610 psi (180 Bar)

Hitch point distance to ground level in. (mm)	9.7 (246)	16.5 (420)	22.4 (570)	28.3 (720)	36.2 (920)
Lift force on frame lb	9260	7935	7285	7170	6295
" " " " " " (kN)	(41.2)	(35.3)	(32.4)	(31.9)	(28.0)

