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2008

Nebraska Summary: S719 New Holland T4020

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SUMMARY OF OECD TEST 2466 — NEBRASKA SUMMARY 719

NEW HOLLAND T4020 DIESEL

12 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/lp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed (PTO speed—564 rpm)					
58.7 (43.8)	2302	3.59 (13.60)	0.427 (0.260)	16.34 (3.22)	
Standard Power Take-off speed (539 rpm)					
58.2 (43.4)	2202	3.57 (13.52)	0.429 (0.261)	16.29 (3.21)	
VARYING POWER AND FUEL CONSUMPTION					
58.7 (43.8)	2302	3.59 (13.60)	0.427 (0.260)	16.34 (3.22)	Air temperature
52.1 (38.9)	2404	3.37 (12.77)	0.453 (0.275)	15.45 (3.04)	73°F (23°C)
40.1 (29.9)	2464	2.81 (10.64)	0.490 (0.298)	14.26 (2.81)	Relative humidity
27.1 (20.2)	2506	2.32 (8.78)	0.599 (0.364)	11.67 (2.30)	58%
13.7 (10.2)	2538	1.85 (7.02)	0.944 (0.574)	7.41 (1.46)	Barometer
--	2569	1.44 (5.44)	--	--	30.1" Hg (101.9 kPa)
Maximum torque -202.6 lb.-ft. (274.7 Nm) at 990 rpm					
Maximum torque rise -51.2%					
Torque rise at 1850 engine rpm -15%					

Location of tests: Alma Mater Studiorum, University
Di Bologna, Via Gandolfi, 19-40057, Cadriano,
Bologna, Italy

Dates of tests: June to July, 2008

Manufacturer: CNH Italia SpA, Viale delle Nazioni
55, Modena, Italy

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F (15°/15°C)** 0.840
Fuel weight 6.99 lbs/gal (0.838 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 Iveco Diesel **Type** four cylinder vertical with turbocharger and air to air intercooler
Serial No. 0002983 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 3.898" x 4.094" (99.0 mm x 104.0 mm) **Compression ratio** 17.5 to 1
Displacement 195 cu in (3200 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 front wheel assist **Serial No.** Z7JA01027 **Tread width** rear 48.5" (1232 mm) to 76.7" (1949 mm) front 48.7" (1236 mm) to 76.6" (1945 mm) **Wheel base** 80.2" (2038 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph(km/h)** first 1.42 (2.28) second 2.11 (3.39) third 2.52 (4.06) fourth 3.10 (4.99) fifth 3.76 (6.05) sixth 4.74 (7.63) seventh 5.52 (8.89) eighth 7.28 (11.72) ninth 8.44 (13.59) tenth 10.86 (17.47) eleventh 15.96 (25.68) twelfth 24.38 (39.23) reverse 1.33 (2.14), 1.98 (3.19), 2.37 (3.81), 2.91 (4.69), 3.53 (5.68), 4.46 (7.17), 5.19 (8.36), 6.84 (11.01), 7.93 (12.76), 10.20 (16.41), 14.99 (24.12), 22.90 (36.85) **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 2206 engine rpm or 1000 rpm at 2260 engine rpm **Unladen tractor mass** 7035 lb (3190 kg)

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 (kPa)	Barom. inch Hg (kPa)
Maximum Power—7th(3M)Gear									
50.8 (37.9)	3620 (16.11)	5.26 (8.46)	2299	5.5	0.483 (0.294)	14.47 (2.85)	203 (95)	77 (25)	29.9 (101.4)
75% of Pull at Maximum Power—7th(3M) Gear									
40.8 (30.4)	2720 (12.10)	5.62 (9.04)	2427	4.2	0.499 (0.304)	14.01 (2.76)	205 (96)	77 (25)	29.9 (101.4)
50% of Pull at Maximum Power—7th(3M)Gear									
27.9 (20.8)	1805 (8.04)	5.79 (9.31)	2482	3.1	0.612 (0.372)	11.42 (2.25)	207 (97)	77 (25)	29.9 (101.4)
75% of Pull at Reduced Engine Speed—8th(1H) Gear									
40.8 (30.4)	2720 (12.10)	5.62 (9.04)	1837	4.1	0.487 (0.296)	14.37 (2.83)	205 (96)	79 (26)	29.9 (101.4)
50% of Pull at Reduced Engine Speed—8th(1H) Gear									
27.9 (20.8)	1805 (8.04)	5.79 (9.31)	1873	3.0	0.599 (0.364)	11.67 (2.30)	205 (96)	77 (25)	29.9 (101.4)
MAXIMUM POWER IN SELECTED GEARS									
3rd(1M) Gear									
38.4 (28.6)	6275 (27.91)	2.29 (3.69)	2451	15.0	0.501 (0.305)	13.96 (2.75)	203 (95)	75 (24)	29.9 (101.4)
4th(3L) Gear									
44.3 (33.0)	5820 (25.89)	2.85 (4.59)	2412	12.9	0.487 (0.296)	14.37 (2.83)	205 (96)	77 (25)	29.9 (101.4)
5th(2M)Gear									
47.4 (35.3)	5005 (22.26)	3.55 (5.71)	2397	9.8	0.483 (0.294)	14.47 (2.85)	205 (96)	77 (25)	29.9 (101.4)
6th(4L)Gear									
50.1 (37.4)	4220 (18.78)	4.45 (7.16)	2303	6.8	0.487 (0.296)	14.37 (2.83)	203 (95)	75 (24)	29.9 (101.4)
7th(3M) Gear									
50.8 (37.9)	3620 (16.11)	5.26 (8.46)	2299	5.5	0.483 (0.294)	14.47 (2.85)	203 (95)	77 (25)	29.9 (101.4)
8th(1H)Gear									
51.1 (38.1)	2725 (12.12)	7.03 (11.31)	2297	3.9	0.482 (0.293)	14.52 (2.86)	205 (96)	77 (25)	29.9 (101.4)
9th(4M) Gear									
48.6 (36.3)	2230 (9.92)	8.18 (13.16)	2300	3.3	0.505 (0.307)	13.86 (2.73)	205 (96)	75 (24)	29.9 (101.4)
10th(2H) Gear									
47.7 (35.6)	1685 (7.49)	10.62 (17.09)	2298	2.8	0.511 (0.311)	13.70 (2.70)	203 (95)	75 (24)	29.9 (101.4)

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 performance results on this summary were taken from OECD tests conducted under the OCED Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2466**, Nebraska Summary 719, March 19, 2010.

Roger M. Hoy
Director

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

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 16.9R30; **; 23 (160)

Two 11.2R24; ***; 23 (160)

19.3 in (490 mm)

4410 lb (2000 kg)

2790 lb (1265 kg)

7200 lb (3265 kg)

TRACTOR SOUND LEVEL WITHOUT CAB	FWA dB(A)	2WD dB(A)
At no load in 6th (4L) gear	84.6	84.6
Bystander	--	--

HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range:	2915 lbs (12.97 kN)	
	Standard Pump	High flow pump
i) Sustained pressure with relief valve open:	2800 psi (193 bar)	2880 psi (199 bar)
ii) Pump delivery rate at minimum pressure:	13.1 GPM (49.5 l/min)	16.9 GPM (64.0 l/min)
iii) Pump delivery rate at maximum hydraulic power:	11.7 GPM (44.4 l/min)	15.0 GPM (56.7 l/min)
Delivery pressure:	2465 psi (170 bar)	2420 psi (167 bar)
Power:	16.8 hp (12.6 kW)	21.2 hp (15.7 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD

	SAE TEST		OECD TEST	
	inch	mm	inch	mm
A	27.2	690	27.4	697
B	10.0	255	10.0	255
C	12.3	312	12.3	312
D	10.9	276	10.9	276
E	14.2	361	12.1	308
F	7.5	189	7.5	189
G	27.6	700	27.6	700
H	1.4	35	1.4	35
I	13.4	340	13.6	345
J	20.1	511	20.1	511
K	20.6	523	20.6	523
L	40.7	1035	40.7	1035
M	21.7	550	21.7	550
N	34.6	880	34.6	880
O	17.6	448	14.4	367
P	39.1	994	44.1	1121
Q	38.7	983	40.2	1020
R	22.4	570	22.5	572

THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed maximum pressure psi. (bar)	2975 (205)
Location:	remote outlets
Hydraulic oil temperature: °F (°C)	113 (45)
Location:	hydraulic sump
Category:	II
Quick attach:	none

System pressure 2675 psi (185 Bar)

Hitch point distance to ground level in. (mm)	17.6 (448)	22.0 (558)	26.2 (665)	30.2 (766)	34.4 (875)	38.7 (983)
Lift force on frame lb	4925	5105	4970	4675	4180	4115
" " " " " (kN)	(21.9)	(22.7)	(22.1)	(20.8)	(18.6)	(18.3)

