

# SUMMARY OF OECD TEST 3009-NEBRASKA SUMMARY 1139

## NEW HOLLAND T4.120 DIESEL

### 12 SPEED

#### POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Diesel Consumption		D.E.F. Consumption		Mean Atmospheric Conditions
		Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Gal/hr (l/h)	

#### MAXIMUM POWER AND FUEL CONSUMPTION

Rated Engine Speed—(PTO speed—635 rpm)						
100.3 (74.8)	2302	5.91 (22.37)	0.413 (0.251)	16.97 (3.34)	0.23 (0.88)	
Standard Power Take-off Speed (540 rpm)						
106.1 (79.1)	1958	5.74 (21.73)	0.378 (0.230)	18.48 (3.64)	0.13 (0.49)	
Maximum Power (1 hour)						
106.1 (79.1)	1958	5.74 (21.73)	0.378 (0.230)	18.48 (3.64)	0.13 (0.49)	

#### VARYING POWER AND FUEL CONSUMPTION

100.3 (74.8)	2302	5.91 (22.37)	0.413 (0.251)	16.97 (3.34)	0.23 (0.88)	Air temperature
86.2 (64.3)	2327	5.25 (19.89)	0.427 (0.259)	16.41 (3.23)	0.20 (0.74)	79°F (26°C)
65.3 (48.7)	2353	4.38 (16.58)	0.469 (0.285)	14.92 (2.94)	0.17 (0.63)	Relative humidity
44.0 (32.8)	2378	3.35 (12.69)	0.533 (0.324)	13.15 (2.59)	0.12 (0.45)	66%
22.2 (16.6)	2400	2.30 (8.71)	0.724 (0.440)	9.67 (1.90)	0.10 (0.36)	Barometer
---	2414	1.44 (5.44)	---	---	0.05 (0.19)	29.9" Hg (101.2 kPa)

Maximum torque - 330 lb.-ft. (448 Nm) at 1552 rpm

Maximum torque rise - 44.4%

Torque rise at 1850 engine rpm - 29%

Power increase at 1958 engine rpm - 5.7%

#### 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)	D.E.F. Consumption lb/hp.hr (kg/kW.h)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)	
Power at Rated Engine Speed—8th (4M) Gear										
76.0 (56.7)	4690 (20.86)	6.08 (9.78)	2303	6.9	0.528 (0.321)	13.25 (2.61)	0.026 (0.016)	201 (94)	72 (22)	29.9 (101.4)
75% of Pull at Rated Engine Speed—8th (4M) Gear										
59.7 (44.5)	3520 (15.65)	6.37 (10.25)	2354	4.6	0.500 (0.304)	13.97 (2.75)	0.021 (0.013)	201 (94)	72 (22)	29.9 (101.4)
50% of Pull at Rated Engine Speed—8th (4M) Gear										
40.6 (30.3)	2345 (10.43)	6.50 (10.46)	2369	3.3	0.641 (0.390)	10.91 (2.15)	0.026 (0.016)	203 (95)	73 (23)	29.9 (101.4)
75% of Pull at Reduced Engine Speed—9th (1H) Gear										
59.7 (44.5)	3520 (15.65)	6.37 (10.25)	1893	4.6	0.553 (0.337)	12.64 (2.49)	0.023 (0.014)	201 (94)	72 (22)	29.9 (101.4)
50% of Pull at Reduced Engine Speed—9th (1H) Gear										
40.6 (30.3)	2345 (10.43)	6.50 (10.46)	1905	3.3	0.591 (0.360)	11.83 (2.33)	0.026 (0.016)	203 (95)	72 (22)	29.9 (101.4)

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

**Dates of tests:** May, 2016

**Manufacturer:** CNH Industrial Italia S.p.A, viale delle, Nazioni 55, 41122 - Modena, Italy

**CONSUMABLE Fluids, OIL and TIME: 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) **Diesel Exhaust Fluid (DEF)** 32% aqueous urea solution **DEF weight** 9.071 lbs/gal (1.087 kg/l) **Oil SAE 10W30 API service classification CJ-4 Transmission and hydraulic lubricant** Akcela Nexlore fluid **Front axle lubricant** Akcela Nexlore fluid

**ENGINE: Make** F.P.T Industrial Diesel **Type** Four cylinder vertical with turbocharger, air to air intercooler and D.E.F. (diesel exhaust fluid) exhaust treatment **Serial No.** 285701 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 3.898" x 4.331" (99.0 mm x 110.0 mm) **Compression ratio** 17.0 to 1 **Displacement** 207 cu in (3387 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 **Exhaust** DOC (diesel oxidation catalyst) and SCR (selective catalyst reduction) integrated within a vertical muffler **Cooling medium temperature control** one thermostat and variable speed fan

**CHASSIS: Type** front wheel assist **Serial No.** ZFLE 00903 **Tread width** rear 52.6" (1337mm) to 76.3" (1937 mm) front 48.6" (1235 mm) to 76.7" (1947 mm) **Wheelbase** 90.0" (2285 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 0.60 (0.97) second 0.92 (1.48) third 1.35 (2.17) fourth 1.87 (3.01) fifth 2.08 (3.34) sixth 3.18 (5.11) seventh 4.65 (7.48) eighth 6.45 (10.38) ninth 7.99 (12.86) tenth 12.22 (19.67) eleventh 17.90 (28.80) twelfth 24.84 (39.97) reverse 0.60 (0.97), 0.92 (1.48), 1.34 (2.16), 1.86 (3.00), 2.07 (3.33), 3.16 (5.09), 4.64 (7.46), 6.43 (10.35), 7.97 (12.82), 12.19 (19.61), 17.85 (28.72), 24.77 (39.86) **Clutch** single dry disc operated by foot pedal **Brakes** single wet disc operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1957 engine rpm or 1000 rpm at 2125 engine rpm **Unladen tractor mass** 8245 lb (3740 kg)

**DRAWBAR PERFORMANCE AT 1960 ENGINE RPM  
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)	D.E.F Consumption lb/hp.hr (kg/kW.h)	Temp.°F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
7th (3M) Gear										
73.6 (54.9)	6910 (30.73)	4.00 (6.43)	2301	15.0	0.560 (0.341)	12.49 (2.46)	0.028 (0.017)	198 (92)	72 (22)	29.9 (101.4)
8th (4M) Gear										
82.2 (61.3)	6340 (28.21)	4.86 (7.82)	1955	12.0	0.505 (0.307)	13.86 (2.73)	0.026 (0.016)	198 (92)	72 (22)	29.9 (101.4)
9th (1H) Gear										
88.0 (65.6)	5220 (23.21)	6.32 (10.18)	1952	7.9	0.473 (0.288)	14.77 (2.91)	0.023 (0.014)	198 (92)	72 (22)	29.9 (101.4)
10th (2H) Gear										
87.3 (65.1)	3255 (14.48)	10.06 (16.19)	1957	4.3	0.470 (0.286)	14.87 (2.93)	0.023 (0.014)	196 (91)	70 (21)	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 manufacturer's 3 point lift capacity claim of 7351 lbs (3334 kg), with optional lift cylinders, was not verified. The performance results on this summary were taken from tests conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **3009**, Nebraska Summary 1139, December 14, 2017.

Roger M. Hoy  
Director

M.F. Kocher  
J.D. Luck  
S.K. Pitla  
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 7th (3M) gear	77.3	77.3
Bystander		---

Horizontal distance of drawbar hitch point behind rear wheel axis - 34.8 in (885 mm)

**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 460/85R34; \*\*; 23 (160)  
 Two 380/85R24; \*\*; 23 (160)  
 18.1 in (460 mm)  
 5050 lb (2290 kg)  
 3360 lb (1525 kg)  
 8410 lb (3815 kg)

## HYDRAULIC PERFORMANCE

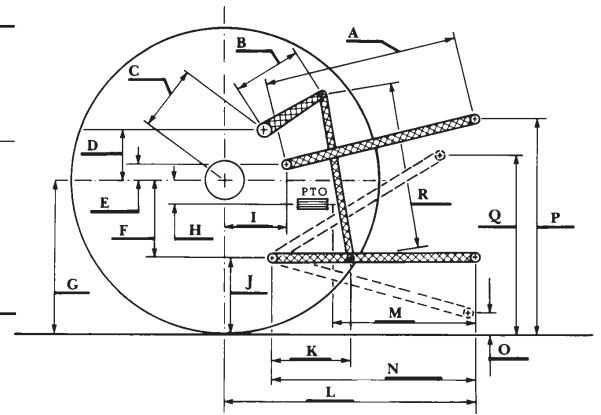
CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 5760 lbs (25.6 kN)

- |   |                       |
|---|-----------------------|
| i) Sustained pressure with relief valve open: | 2990 psi (206 bar)    |
| ii) Pump delivery rate at minimum pressure:   | 17.1 GPM (65.0 l/min) |
| iii) Pump delivery rate at maximum            |                       |
| hydraulic power:                              | 15.8 GPM (59.8 l/min) |
| Delivery pressure:                            | 2670 psi (184 bar)    |
| Power:  | 24.6 hp (18.4 kW)     |



**HITCH DIMENSIONS AS TESTED—NO LOAD**

	inch	mm
A	28.7	730
B	10.0	255
C	13.8	351
D	12.7	323
E	11.8	300
F	7.4	189
G	30.5	775
H	0.6	16
I	13.0	330
J	23.1	586
K	19.7	500
L	42.1	1070
M	23.2	590
N	36.0	915
O	16.3	415
P	47.1	1196
Q	40.9	1038
R	24.2	615

### RECOMMENDED CITATION FORMAT:

NTTL.(2017). OECD tractor test 3009 for New Holland T4.120 Diesel.

Lincoln, NE:Nebraska Tractor Test Laboratory. Retrieved from <http://tractortestlab.unl.edu>