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## Tests 1948 & 1949: New Holland TN 65 Diesel

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# SUMMARY OF OECD TESTS 1948 and 1949—NEBRASKA SUMMARY 358

## NEW HOLLAND TN 65 DIESEL

### 8 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
<b>MAXIMUM POWER AND FUEL CONSUMPTION</b>					
<b>Rated Engine Speed (PTO speed 565 rpm)</b>					
52.7 (39.3)	2300	3.45 (13.07)	0.459 (0.279)	15.28 (3.01)	
<b>Standard Power Take-off speed (541 rpm)</b>					
51.8 (38.6)	2203	3.24 (12.26)	0.438 (0.267)	15.99 (3.15)	
<b>VARYING POWER AND FUEL CONSUMPTION</b>					
52.7 (39.3)	2300	3.45 (13.07)	0.459 (0.279)	15.28 (3.01)	Air temperature
46.6 (34.8)	2394	3.00 (11.36)	0.451 (0.275)	15.52 (3.05)	75°F (24°C)
35.1 (26.2)	2427	2.27 (8.57)	0.452 (0.275)	15.48 (3.05)	Relative humidity
23.4 (17.5)	2435	1.73 (6.56)	0.519 (0.315)	13.52 (2.66)	70%
11.5 (8.6)	2451	1.24 (4.71)	0.755 (0.459)	9.29 (1.83)	Barometer
-- --	2484	0.82 (3.11)	-- --	-- --	29.3" Hg (99.3 kPa)

Maximum Torque -146.6 lb.-ft. (199.2 Nm) at 1201 rpm  
 Maximum Torque Rise -22.0%  
 Torque rise at 1800 engine rpm -20%

#### DRAWBAR PERFORMANCE

##### BALLASTED - 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)
<b>75% of Pull at Maximum Power Five Hours 4th (4S) Gear</b>									
34.3 (25.6)	2650 (11.8)	4.85 (7.81)	2406	2.9	0.559 (0.340)	12.54 (2.47)	176 (80)	45 (7)	29.1 (98.7)
<b>MAXIMUM POWER IN SELECTED GEARS</b>									
<b>2nd (2S) Gear</b>									
36.9 (27.5)	7155 (31.8)	1.93 (3.11)	2400	15.1	0.573 (0.349)	12.23 (2.41)	178 (81)	54 (12)	29.2 (98.9)
<b>3rd (3S) Gear</b>									
46.0 (34.3)	5735 (25.5)	3.01 (4.85)	2300	6.6	0.534 (0.325)	13.13 (2.59)	176 (80)	52 (11)	29.2 (98.9)
<b>4th (4S) Gear</b>									
43.5 (32.4)	3535 (15.7)	4.61 (7.42)	2300	3.9	0.566 (0.344)	12.39 (2.44)	176 (80)	50 (10)	29.2 (98.9)
<b>5th (1F) Gear</b>									
44.3 (33.1)	2975 (13.2)	5.59 (8.99)	2300	3.1	0.552 (0.336)	12.69 (2.50)	178 (81)	48 (9)	29.2 (98.9)
<b>6th (2F) Gear</b>									
42.2 (31.5)	1875 (8.3)	8.44 (13.59)	2300	1.9	0.580 (0.353)	12.08 (2.38)	178 (81)	46 (8)	29.2 (98.9)

**Location of Test:** Istituto Per La Meccanizzazione Agricola (IMA) Strada delle Cacce, 73-10135 Torino, Italy

**Dates of Test:** November - December, 2000

**Manufacturer:** New Holland Italia S.p.A., Viale delle Nazioni, 55-41100, Modena, 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** SE/CD **Oil consumption for 10 hours** 0.02 lb (7.5 gm) **Transmission and hydraulic lubricant** SAE 80W90 GL-4 **Front axle lubricant** SAE 80W90 GL-4

**ENGINE: Make** New Holland Diesel **Type** three cylinder vertical **Serial No.** 671534 **Crankshaft** lengthwise **Rated Engine speed** 2300 **Bore and stroke** 4.094" x 4.528" (104.0 mm x 115.0 mm) **Compression ratio** 18 to 1 **Displacement** 179 cu in (2930 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 **Fuel filter** one paper element **Muffler** vertical **Cooling medium temperature control** thermostat

**CHASSIS: Type** 2WD and front wheel assist **Serial No.** 001208391 **Tread width** rear 48.1" (1220 mm) to 75.9" (1920 mm) front: 2WD - 53.4" (1357 mm) to 77.0" (1957 mm), FWA - 54.4" (1382 mm) to 71.3" (1812 mm) **Wheel base** 2WD - 81.5" (2070 mm) FWA - 78.9" (2005 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 1.47 (2.37) second 2.19 (3.53) third 3.23 (5.19) fourth 4.78 (7.69) fifth 5.77 (9.28) sixth 8.59 (13.83) seventh 12.63 (20.33) eighth 18.72 (30.12) reverse 1.42 (2.29), 2.13 (3.42), 3.13 (5.03), 4.63 (7.45), 5.59 (8.99), 8.33 (13.40), 12.24 (19.69), 18.12 (29.17) **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 2125 engine rpm **Unladen tractor mass** 2WD - 4805 lb (2180 kg), FWA - 5620 lb (2550 kg)

**DRAWBAR PERFORMANCE**  
**BALLASTED - 2WD**  
**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)	Temp. °F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)	
<b>75% of Pull at Maximum Power Five Hours 4th (4S) Gear</b>									
33.9 (25.3)	2635 (11.7)	4.82 (7.76)	2400	3.0	0.562 (0.342)	12.48 (2.46)	175 (79)	39 (4)	29.0 (98.1)
<b>MAXIMUM POWER IN SELECTED GEARS</b>									
3rd (3S) Gear									
45.0 (33.6)	6125 (27.2)	2.75 (4.43)	2340	15.1	0.476 (0.289)	14.74 (2.90)	176 (80)	45 (7)	28.9 (97.9)
4th (4S) Gear									
42.6 (31.8)	3510 (15.6)	4.55 (7.33)	2300	4.9	0.564 (0.343)	12.43 (2.45)	178 (81)	41 (5)	28.9 (97.9)
5th (1F) Gear									
42.6 (31.8)	2885 (12.8)	5.54 (8.91)	2300	4.0	0.575 (0.350)	12.18 (2.40)	176 (80)	39 (4)	28.9 (97.9)
6th (2F) Gear									
42.2 (31.5)	1875 (8.3)	8.44 (13.59)	2300	2.1	0.578 (0.352)	12.12 (2.39)	176 (80)	37 (3)	28.9 (97.9)

**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 Code I Test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Reports No. **1948** and **1949**, Nebraska Summary 358, November 8, 2001.

Brent T. Sampson  
Test Engineer

L.L. Bashford  
M.F. Kocher  
V.I. Adamchuk  
Board of Tractor Test Engineers

**TN 65-2WD**

<b>TIRES, BALLAST AND WEIGHT</b>		<b>With Ballast</b>	<b>Without Ballast</b>
<b>Rear Tires</b>	-No., size, ply & psi (kPa)	Two 480/70R30; **,14 (98)	Two 480/70R30; **,14 (98)
<b>Ballast</b>	-Liquid (total)	None	None
	-Cast Iron (total)	440 lb (200 kg)	None
<b>Front Tires</b>	-No., size, ply & psi (kPa)	Two 7.50-16;8;54 (370)	Two 7.50-16;8;54 (370)
<b>Ballast</b>	-Liquid (total)	None	None
	-Cast Iron (total)	685 lb (310 kg)	None
<b>Height of Drawbar</b>		27.4 in (695 mm)	27.6 in (700 mm)
<b>Static Weight with Operator</b>	-Rear	3560 lb (1615 kg)	3120 lb (1415 kg)
	-Front	2535 lb (1150 kg)	1850 lb (840 kg)
	-Total	6095 lb (2765 kg)	4970 lb (2255 kg)

**TN 65-FWA**

<b>TIRES, BALLAST AND WEIGHT</b>		<b>With Ballast</b>	<b>Without Ballast</b>
<b>Rear Tires</b>	-No., size, ply & psi (kPa)	Two 480/70R30; **,14 (98)	Two 480/70R30; **,14 (98)
<b>Ballast</b>	-Liquid (total)	None	None
	-Cast Iron (total)	440 lb (200 kg)	None
<b>Front Tires</b>	-No., size, ply & psi (kPa)	Two 320/70R24; **,14 (98)	Two 320/70R24; **,14 (98)
<b>Ballast</b>	-Liquid (total)	None	None
	-Cast Iron (total)	685 lb (310 kg)	None
<b>Height of Drawbar</b>		17.9 in (455 mm)	18.1 in (460 mm)
<b>Static Weight with Operator</b>	-Rear	3990 lb (1810 kg)	3550 lb (1610 kg)
	-Front	2920 lb (1325 kg)	2235 lb (1015 kg)
	-Total	6910 lb (3135 kg)	5785 lb (2625 kg)

TRACTOR SOUND LEVEL WITHOUT CAB	FWA dB(A)	2WD dB(A)
At no load in 4th(4S) gear	94.7	94.7
Bystander in 8th(4F) gear	86.7	83.8

#### CENTER OF GRAVITY - 2WD

Horizontal distance forward from centerline of rear wheels	30.5 in (775 mm)
Vertical distance above roadway	30.7 in (780 mm)
Horizontal distance from center of rear wheel tread	0.2 in (5 mm) to the left

#### CENTER OF GRAVITY - FWA

Horizontal distance forward from centerline of rear wheels	30.7 in (780 mm)
Vertical distance above roadway	29.5 in (750 mm)
Horizontal distance from center of rear wheel tread	0.2 in (5 mm) to the left

#### TURNING ON A CONCRETE SURFACE (2WD)

Turning radius with brake applied right 122" (3.10 m) left 124" (3.15 m)	
without brake right 142" (3.60 m) left 146" (3.70 m)	
Turning space radius with brake applied right 126" (3.20 m) left 128" (3.25 m)	
without brake right 140" (3.55 m) left 146" (3.70 m)	

#### TURNING ON A CONCRETE SURFACE (FWA)

Turning radius with brake applied right 140" (3.55 m) left 140" (3.55 m)	
without brake right 163" (4.15 m) left 163" (4.15 m)	
Turning space radius with brake applied right 146" (3.70 m) left 146" (3.70 m)	
without brake right 169" (4.30 m) left 169" (4.30 m)	

### THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II

Quick Attach: None

Maximum Force Exerted Through Whole Range:

4045 lbs (18.0 kN) (at the frame)  
4405 lbs (19.6 kN) (at lower link ends)

i) Opening pressure of relief valve:	NA	<u>High Flow Option</u>
Sustained pressure with relief valve open:	3020 psi (208 bar)	3020 psi (208 bar)
ii) Pump delivery rate at minimum pressure:	12.8 GPM (48.1 l/min)	17.1 GPM (64.9 l/min)
iii) Pump delivery rate at maximum hydraulic power:	11.3 GPM (42.8 l/min)	14.5 GPM (55.0 l/min)
Delivery pressure:	2540 psi (175 bar)	2410 psi (166 bar)
Power:	16.7 HP (12.5 kW)	20.4 HP (15.2 kW)

### HITCH DIMENSIONS AS TESTED NO LOAD

