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Tests 2248 & 2272: New Holland TL 90A Diesel

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SUMMARY OF OECD TESTS 2248 and 2272—NEBRASKA SUMMARY 525 NEW HOLLAND TL 90A DIESEL 12 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—1050 rpm)					
82.9 (61.8)	2500	5.29 (20.01)	0.447 (0.272)	15.68 (3.09)	
Maximum Power (2 hours)					
83.5 (62.3)	2400	5.22 (19.76)	0.438 (0.267)	15.99 (3.15)	
Standard Power Take-off speed (1008 rpm)					
83.5 (62.3)	2400	5.22 (19.76)	0.438 (0.267)	15.99 (3.15)	
VARYING POWER AND FUEL CONSUMPTION					
82.9 (61.8)	2500	5.29 (20.01)	0.447 (0.272)	15.68 (3.09)	Air temperature
73.8 (55.1)	2619	5.17 (19.58)	0.491 (0.299)	14.28 (2.81)	68°F (20°C)
53.9 (40.2)	2643	4.43 (16.77)	0.575 (0.350)	12.18 (2.40)	Relative humidity
38.6 (28.8)	2657	3.71 (14.06)	0.675 (0.411)	10.38 (2.04)	45%
18.7 (13.9)	2662	2.76 (10.43)	1.034 (0.629)	6.78 (1.34)	Barometer
--	2683	1.93 (7.31)	--	--	29.4" Hg (99.6 kPa)
--		--	--	--	
Maximum Torque -254.0 lb.-ft. (344.4 Nm) at 1445 rpm					
Maximum Torque Rise -45.9%					
Torque rise at 2000 engine rpm -24%					

Location of tests: Istituto Per La Macchine Agricole
E Movimento Terra, Strada delle Cacce, 73-10135
Torino, Italy

Dates of test: October to December, 2004

Manufacturer: New Holland Italia S.p.A., Viale delle Nazioni, 55-41100, Modena, Italy and New Holland UK Limited, Cranes Farm Road Basildon, Essex, United Kingdom

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 **Oil consumption for 10 hours** 0.03 lb (12 gm) **Transmission and hydraulic lubricant** Ambra Multi G **Front axle lubricant** Ambra Multi G

ENGINE: Make CNH Diesel **Type** four cylinder vertical with turbocharger **Serial No.** 0013381 **Crankshaft** lengthwise **Rated Engine speed** 2500 **Bore and stroke** 4.094" x 5.197" (104 mm x 132 mm) **Compression ratio** 17.5 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** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: **Type** 2WD and front wheel assist **Serial No.** HJS008032 **Tread width** rear 64.3" (1632 mm) to 83.9" (2132 mm) front: 2WD - 55.4" (1407 mm) to 85.6" (2175 mm), FWA - 56.1" (1425 mm) to 84.0" (2133 mm) **Wheel base** 2WD - 92.2" (2342 mm) FWA - 91.1" (2314 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 1.37 (2.20) second 1.98 (3.19) third 2.86 (4.61) fourth 3.19 (5.14) fifth 4.10 (6.60) sixth 4.64 (7.46) seventh 6.69 (10.76) eighth 7.51 (12.09) ninth 9.58 (15.41) tenth 10.92 (17.57) eleventh 15.74 (25.33) twelfth 22.55 (36.29) reverse 1.37 (2.20), 1.98 (3.19), 2.86 (4.61), 3.19 (5.14), 4.10 (6.60), 4.64 (7.46), 6.69 (10.76), 7.51 (12.09), 9.58 (15.41), 10.92 (17.57), 15.74 (25.33), 22.55 (36.29) **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 2199 engine rpm or 1000 rpm at 238 engine rpm **Unladen tractor mass** 2WD - 8485 lb (3850 kg), FWA - 8665 lb (3930 kg)

**DRAWBAR PERFORMANCE(40 km/h trans.)
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		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	
75% of Pull at Maximum Power—Five Hours 6th (2 Med) Gear									
50.8 (37.9)	4090 (18.2)	4.66 (7.50)	2591	2.4	0.715 (0.435)	9.80 (1.93)	183 (84)	45 (9)	29.1 (98.6)
MAXIMUM POWER IN SELECTED GEARS									
1st (1 Lo) Gear									
33.7 (25.1)	10140 (45.1)	1.24 (2.00)	2613	15.0	1.083 (0.659)	6.47 (1.28)	181 (83)	46 (8)	29.2 (98.9)
2nd (2 Lo) Gear									
46.1 (34.4)	9935 (44.2)	1.74 (2.80)	2598	14.8	0.789 (0.480)	8.88 (1.75)	183 (84)	45 (7)	29.2 (98.9)
3rd (3 Lo) Gear									
61.8 (46.1)	9105 (40.5)	2.55 (4.10)	2417	8.5	0.595 (0.362)	11.78 (2.32)	183 (84)	45 (7)	29.2 (98.9)
4th (1 Med) Gear									
61.6 (45.9)	8070 (35.9)	2.86 (4.60)	2402	6.7	0.598 (0.364)	11.73 (2.31)	183 (84)	45 (7)	29.2 (98.9)
5th (4 Lo) Gear									
61.7 (46.0)	6205 (27.6)	3.73 (6.00)	2405	4.7	0.597 (0.363)	11.74 (2.31)	181 (83)	45 (7)	29.2 (98.9)
6th (2 Med) Gear									
62.5 (46.6)	5460 (24.3)	4.29 (6.90)	2403	3.8	0.590 (0.359)	11.88 (2.34)	181 (83)	45 (7)	29.2 (98.9)
7th (3 Med) Gear									
59.0 (44.0)	3530 (15.7)	6.27 (10.10)	2411	2.4	0.623 (0.379)	11.26 (2.22)	181 (83)	45 (7)	29.2 (98.9)
8th (1 Hi) Gear									
59.0 (44.0)	3125 (13.9)	7.08 (11.40)	2403	2.1	0.623 (0.379)	11.24 (2.21)	184 (84)	45 (7)	29.2 (98.9)
9th (4 Med) Gear									
54.0 (40.3)	2250 (10.0)	9.01 (14.50)	2393	1.5	0.677 (0.412)	10.36 (2.04)	184 (84)	45 (7)	29.2 (98.9)
10th (2 Hi) Gear									
51.0 (38.0)	1845 (8.2)	10.37 (16.68)	2402	1.3	0.722 (0.439)	9.71 (1.91)	184 (84)	43 (6)	29.2 (98.9)

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. **2248** and **2272**, Nebraska Summary 525, May 26, 2006.

Leonard L. Bashford
Director

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

FWA - 40 km/h transmission

TIRES, BALLAST AND WEIGHT		With Ballast	Without Ballast
Rear Tires	-No., size, ply & psi (kPa)	Two 540/65R34; **,15 (100)	Two 540/65R34; **,15 (100)
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	660 lb (300 kg)	None
Front Tires	-No., size, ply & psi (kPa)	Two 440/65R24; **,17 (120)	Two 440/65R24; **,17 (120)
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	1170 lb (530 kg)	None
Height of Drawbar		18.1 in (460 mm)	18.3 in (465 mm)
Static Weight with Operator	- Rear	5745 lb (2605 kg)	5325 lb (2415 kg)
	- Front	4915 lb (2230 kg)	3505 lb (1590 kg)
	- Total	10660 lb (4835 kg)	8830 lb (4005 kg)

DRAWBAR PERFORMANCE(30 km/h trans.)
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)	Fuel Consumption Hp.hr/gal (kW.h/l)	Temp.°F cool- ing med	Temp.°C Air dry bulb	Barom. inch Hg (kPa)
75% of Pull at Maximum Power—Five Hours 8th (1Hi) Gear									
52.6 (39.2)	3305 (14.7)	5.96 (9.60)	2620	3.2	0.686 (0.417)	10.21 (2.01)	192 (89)	48 (9)	29.5 (99.8)
MAXIMUM POWER IN SELECTED GEARS									
6th (2 Med) Gear									
56.9 (42.4)	6725 (29.9)	3.17 (5.10)	2609	15.1	0.640 (0.390)	10.94 (2.16)	192 (89)	50 (10)	29.5 (99.9)
7th (3 Med) Gear									
62.1 (46.3)	4995 (22.2)	4.66 (7.50)	2405	6.2	0.590 (0.359)	11.87 (2.34)	190 (88)	52 (11)	29.5 (99.9)
8th (1 Hi) Gear									
62.4 (46.5)	4430 (19.7)	5.28 (8.50)	2391	4.6	0.583 (0.355)	12.02 (2.37)	192 (89)	50 (10)	29.5 (99.9)
9th (4 Med) Gear									
61.0 (45.5)	3345 (14.9)	6.84 (11.00)	2387	2.9	0.595 (0.362)	11.78 (2.32)	194 (90)	50 (10)	29.5 (99.9)
10th (2 Hi) Gear									
60.6 (45.2)	2880 (12.8)	7.89 (12.70)	2396	2.3	0.605 (0.368)	11.58 (2.28)	192 (89)	50 (10)	29.5 (99.9)

2WD - 30km/h transmission

TIRES, BALLAST AND WEIGHT		With Ballast	Without Ballast
Rear Tires	-No., size, ply & psi (kPa)	Two 540/65R34; **,15(100)	Two 540/65R34; **,15(100)
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	660 lb (300 kg)	None
Front Tires	-No., size, ply & psi (kPa)	Two 10.00-16; 8;35 (240)	Two 10.00-16; 8;35 (240)
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	1170 lb (530 kg)	None
Height of Drawbar		18.1 in (460 mm)	18.3 in (465 mm)
Static Weight with Operator	-Rear	6215 lb (2820 kg)	5830 lb (2645 kg)
	-Front	4265 lb (1935 kg)	2820 lb (1280 kg)
	-Total	10480 lb (4755 kg)	8650 lb (3925 kg)

TRACTOR SOUND LEVEL WITH CAB	FWA dB(A)	2WD dB(A)
At no load in 6th (2 Med) gear	82.1	82.1
Bystander in 12th (4 Hi) gear	86.9	86.0

CENTER OF GRAVITY - 2WD

Horizontal distance forward from centerline of rear wheels	30.1" (764 mm)
Vertical distance above roadway	37.2" (945 mm)
Horizontal distance from center of rear wheel tread	0.1" (3 mm) to the right

CENTER OF GRAVITY - FWA

Horizontal distance forward from centerline of rear wheels	36.2" (919 mm)
Vertical distance above roadway	34.5" (876 mm)
Horizontal distance from center of rear wheel tread	0.3" (6 mm) to the left

TURNING ON A CONCRETE SURFACE (2WD)

Turning radius—without brake right 155" (3.95 m) left 155" (3.95 m)
Turning space radius—without brake right 161" (4.10 m) left 161" (4.10 m)

TURNING ON A CONCRETE SURFACE (FWA)

Turning radius—without brake right 228" (5.80 m) left 224" (5.70 m)
Turning space radius—without brake right 236" (6.00 m) left 232" (5.90 m)

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II

Quick Attach: None

Maximum force exerted through whole range:	5955 lbs (26.5 kN)
i) Opening pressure of relief valve:	NA
Sustained pressure with relief valve open:	2830 psi (195 bar)
ii) Pump delivery rate at minimum pressure:	16.5 GPM (62.5 l/min)
iii) Pump delivery rate at maximum	
hydraulic power:	14.5 GPM (54.8 l/min)
Delivery pressure:	2480 psi (171 bar)
Power:	20.9 HP (15.6 kW)

	inch	mm
A	27.8	705
B	10.0	255
C	13.9	352
D	11.7	296
E	10.1	257
F	8.1	205
G	29.3	745
H	0.4	9
I	15.7	400
J	21.2	540
K	17.7	450
L	42.1	1070
M	21.6	548
N	37.0	940
O	6.9	175
P	45.3	1150
Q	33.9	860
R	25.2	640

HITCH DIMENSIONS AS TESTED—NO LOAD

