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January 2005

Nebraska Summary 574: New Holland TN95DA Diesel 12-Speed

Nebraska Tractor Test Lab

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SUMMARY OF OECD TEST 2346 — NEBRASKA SUMMARY 574

NEW HOLLAND TN95DA 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—563 rpm)					
83.4 (62.2)	2293	5.20 (19.68)	0.436 (0.265)	16.04 (3.16)	
Maximum Power (2 hours)					
83.7 (62.4)	2248	5.14 (19.44)	0.429 (0.261)	16.29 (3.21)	
Standard Power Take-off speed (540 rpm)					
83.1 (62.0)	2199	5.05 (19.13)	0.425 (0.259)	16.45 (3.24)	
VARYING POWER AND FUEL CONSUMPTION					
83.4 (62.2)	2293	5.20 (19.68)	0.436 (0.265)	16.04 (3.16)	Air temperature
74.4 (55.5)	2408	5.01 (18.95)	0.470 (0.286)	14.87 (2.93)	66°F (19°C)
56.2 (41.9)	2429	4.11 (15.54)	0.511 (0.311)	13.69 (2.70)	Relative humidity
37.8 (28.2)	2441	3.40 (12.89)	0.629 (0.383)	11.12 (2.19)	68%
19.2 (14.3)	2461	2.62 (9.90)	0.954 (0.580)	7.33 (1.44)	Barometer
--	2494	1.81 (6.84)	--	--	30.0" Hg (101.7 kPa)
--			--	--	
Maximum torque -271.3 lb.-ft. (367.9 Nm) at 1399 rpm					
Maximum torque rise -42.0%					
Torque rise at 1800 engine rpm -25%					

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

Dates of tests: September to October, 2005

Manufacturer: New Holland Italia S.p.A. Via Leona
Xll-Zona Industriale Zipa 60035 Jesi-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 CI-4 **Oil consumption for 10 hours** 0.04 lb (16 gm) **Transmission and hydraulic lubricant** Ambra Multi G 10W30 **Front axle lubricant** Ambra Multi G

ENGINE: Make CNH Diesel **Type** four cylinder vertical with turbocharger **Serial No.** 873941
Crankshaft lengthwise **Rated engine speed** 2300
Bore and stroke 4.094" x 5.197" (104.0 mm x 132.0 mm) **Compression ratio** 17.5 to 1 **Displacement** 273 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 and variable speed fan

CHASSIS: **Type** front wheel assist **Serial No.** HJE028170 **Tread width** rear 48.5" (1232 mm) to 76.7" (1949 mm) front: 48.7" (1236 mm) to 76.6" (1945 mm) **Wheel base** 86.0" (2185 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 0.49 (0.79) second 0.73 (1.18) third 1.08 (1.73) fourth 1.59 (2.56) fifth 2.52 (4.06) sixth 3.76 (6.05) seventh 5.52 (8.89) eighth 7.28 (11.72) ninth 8.19 (13.18) tenth 10.85 (17.47) eleventh 15.96 (25.68) twelfth 23.64 (38.04) reverse 0.47 (0.76), 0.71 (1.14), 1.04 (1.68), 1.54 (2.48), 2.44 (3.93), 3.64 (5.86), 5.36 (8.62), 7.05 (11.35), 7.94 (12.77), 10.51 (16.92), 15.46 (24.88), 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 2196 engine rpm or 1000 rpm at 2260 engine rpm **Unladen tractor mass** 6835 lb (3100 kg)

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)
75% of Pull at Maximum Power—Five Hours 8th (1 Hi) Gear									
64.0 (47.7)	3285 (14.62)	7.30 (11.75)	2387	4.3	0.450 (0.274)	15.53 (3.06)	187 (86)	46 (8)	30.0 (101.6)
MAXIMUM POWER IN SELECTED GEARS									
6th (2M Hi) Gear									
62.0 (46.2)	6820 (30.33)	3.41 (5.49)	2425	15.0	0.497 (0.302)	14.07 (2.77)	181 (83)	48 (9)	29.9 (101.3)
7th (3M Hi) Gear									
70.5 (52.6)	4960 (22.07)	5.33 (8.58)	2388	7.9	0.492 (0.299)	14.21 (2.80)	181 (83)	46 (8)	29.9 (101.3)
8th (1 Hi) Gear									
74.0 (55.2)	4075 (18.13)	6.81 (10.95)	2252	5.3	0.480 (0.292)	14.57 (2.87)	183 (84)	46 (8)	29.9 (101.3)
9th (4 M Hi) Gear									
71.6 (53.4)	3470 (15.43)	7.74 (12.46)	2261	4.4	0.497 (0.302)	14.07 (2.77)	187 (86)	50 (10)	30.2 (102.4)
10th (2 Hi) Gear									
70.4 (52.5)	2525 (11.24)	10.45 (16.81)	2268	3.2	0.507 (0.309)	13.79 (2.72)	181 (83)	45 (7)	29.9 (101.3)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's remote hydraulic flow claim of 15.0 GPM (56.9 lpm). 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 Report No. **2346**, Nebraska Summary 574, July 10, 2007.

Roger M. Hoy
Director

M.F. Kocher
R.E. Yoder
V.I. Adamchuk
Board of Tractor Test Engineers

TIRES, BALLAST AND WEIGHT		With Ballast	Without Ballast
Rear Tires	-No., size, ply & psi (kPa)	Two 16.9R30; **,20 (135)	Two 16.9R30; **,20 (135)
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	440 lb (200 kg)	None
Front Tires	-No., size, ply & psi (kPa)	Two 11.2R24; **,17 (120)	Two 11.2R24; **,17 (120)
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	640 lb (290 kg)	None
Height of Drawbar		20.1 in (510 mm)	20.1 in (510 mm)
Static Weight with Operator	- Rear	4610 lb (2090 kg)	4320 lb (1960 kg)
	- Front	3470 lb (1575 kg)	2680 lb (1215 kg)
	- Total	8080 lb (3665 kg)	7000 lb (3175 kg)

TRACTOR SOUND LEVEL WITH CAB**dB(A)**

At no load in 6th (3M Hi) gear	79.2
Bystander in 12th (4 Hi) gear	83.4

TRACTOR SOUND LEVEL WITHOUT CAB**dB(A)**

At no load in 6th (3M Hi) gear	86.1
Bystander in 12th (4 Hi) gear	83.9

CENTER OF GRAVITY - FWA

Horizontal distance forward from centerline of rear wheels	33.3" (846 mm)
Vertical distance above roadway	36.8" (935 mm)
Horizontal distance from center of rear wheel tread	0.3" (7 mm) to the left

TURNING ON A CONCRETE SURFACE (FWA)

Turning radius—without brake right	151" (3.83 m)	left	151" (3.84 m)
Turning space radius—without brake right	156" (3.97 m)	left	157" (3.98 m)

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II

Quick Attach: None

Maximum force exerted through whole range: 4170 lbs (18.56 kN)

i) Sustained pressure with relief valve open: 2900 psi (200 bar)

ii) Pump delivery rate at minimum pressure: 13.5 GPM (51.2 l/min)

iii) Pump delivery rate at maximum

hydraulic power: 11.6 GPM (43.9 l/min)

Delivery pressure: 2605 psi (180 bar)

Power: 17.6 hp (13.1 kW)

THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed maximum pressure psi. (bar) 2980 (205)

Location: remote outlets

Hydraulic oil temperature: °F (°C) 113 (45)

Location: hydraulic sump

Category: II

Quick attach: none

System pressure 2680 psi (185 Bar)

Hitch point distance to ground level in. (mm) 17.7 (449) 21.9 (555) 26.2 (665) 30.1 (764) 34.5 (877) 38.8 (985)

Lift force on frame lb 6135 6385 6160 5845 5505 5215

" " " " " " (kN) (27.3) (28.4) (27.4) (26.0) (24.5) (23.2)

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	17.7	449	15.0	380
P	40.2	1021	44.1	1121
Q	38.8	985	40.0	1016
R	22.4	570	22.5	572

