SUMMARY OF OECD TEST 2241–NEBRASKA SUMMARY 497
NEW HOLLAND TS100A 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—1038 rpm)					
86.9 *(64.8)*	2200	5.84 *(22.09)*	0.474 *(0.288)*	14.87 *(2.93)*	
Standard Power Take-off Speed (1001 rpm)					
87.2 *(65.0)*	2121	5.70 *(21.59)*	0.462 *(0.281)*	15.28 *(3.01)*	
Maximum Power (2 hours)					
87.7 *(65.4)*	1937	5.51 *(20.86)*	0.444 *(0.270)*	15.90 *(3.13)*	
VARYING POWER AND FUEL CONSUMPTION					
86.9 *(64.8)*	2200	5.84 *(22.09)*	0.474 *(0.288)*	14.87 *(2.93)*	Air temperature
79.4 *(59.2)*	2358	5.76 *(21.80)*	0.511 *(0.311)*	13.79 *(2.72)*	73°F *(23°C)*
59.4 *(44.3)*	2363	4.75 *(17.97)*	0.564 *(0.343)*	12.51 *(2.47)*	Relative humidity
40.0 *(29.8)*	2369	3.61 *(13.66)*	0.636 *(0.387)*	11.09 *(2.19)*	40%
19.9 *(14.9)*	2387	2.63 *(9.96)*	0.931 *(0.567)*	7.57 *(1.49)*	Barometer
-- --	2407	1.80 *(6.82)*	-- --	-- --	30.1" Hg *(102.0 kPa)*

Maximum Torque - 373.3 lb.-ft. *(438.3 Nm)* at 1252 rpm
Maximum Torque Rise - 55.8%
Torque rise at 1800 engine rpm - 23%

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 cool-ing med	*(°C)* Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power—6th (2II) Gear									
74.7 *(55.7)*	6200 *(27.6)*	4.52 *(7.27)*	2203	3.6	0.545 *(0.332)*	12.94 *(2.55)*	180 *(82)*	45 *(7)*	29.8 *(101.0)*
75% of Pull at Maximum Power—6th(2II) Gear									
60.7 *(45.3)*	4655 *(20.7)*	4.90 *(7.88)*	2373	3.0	0.629 *(0.382)*	11.22 *(2.21)*	180 *(82)*	46 *(8)*	29.8 *(101.0)*
50% of Pull at Maximum Power—6th(2II) Gear									
40.8 *(30.4)*	3105 *(13.8)*	4.92 *(7.92)*	2368	2.2	0.739 *(0.450)*	9.54 *(1.88)*	180 *(82)*	46 *(8)*	29.8 *(101.0)*
75% of Pull at Reduced Engine Speed—7th(3II) Gear									
60.9 *(45.4)*	4655 *(20.7)*	4.90 *(7.89)*	1665	2.9	0.530 *(0.322)*	13.31 *(2.62)*	174 *(79)*	50 *(10)*	29.9 *(101.1)*
50% of Pull at Reduced Engine Speed—7th(3II) Gear									
40.5 *(30.2)*	3095 *(13.8)*	4.91 *(7.91)*	1654	2.1	0.547 *(0.333)*	12.89 *(2.54)*	176 *(80)*	50 *(10)*	29.9 *(101.1)*

Location of tests: Silsoe Research Institute, Wrest Park, Silsoe, MK45 4HS, United Kingdom

Dates of tests: November 2004 to January 2005.

Manufacturer: CNH U.K. Ltd., Basildon, Essex, SS14 3AD, England

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.847 **Fuel weight** 7.04 lbs/gal *(0.8453 kg/l)* **Oil SAE** 10W30 **API service classification** CH-4 **Transmission and hydraulic lubricant** NH 410B fluid **Front axle lubricant** NH 410B fluid

ENGINE: Make CNH Diesel **Type** four cylinder vertical with turbocharger and air to air intercooler **Serial No.** 00087961 **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 4.094" x 5.196" *(104.0 mm x 132.0 mm)* **Compression ratio** 17.0 to 1 **Displacement** 274 cu in *(4485 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements and aspirator **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 front wheel assist **Serial No.** 221337 **Tread width** rear 68.1" *(1730 mm)* to 83.9" *(2130 mm)* front 64.2" *(1630 mm)* to 81.9" *(2080 mm)* **Wheelbase** 95.0" *(2412 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph *(km/h)*** first 1.25 *(2.01)* second 1.83 *(2.94)* third 2.61 *(4.20)* fourth 3.13 *(5.04)* fifth 3.80 *(6.11)* sixth 4.59 *(7.39)* seventh 6.56 *(10.55)* eighth 7.59 *(12.21)* ninth 9.54 *(15.35)* tenth 11.11 *(17.88)* eleventh 15.86 *(25.53)* twelfth 23.09 *(37.16)* reverse 1.28 *(2.06)*, 1.88 *(3.02)*, 2.68 *(4.31)*, 3.24 *(5.21)*, 3.90 *(6.27)*, 4.70 *(7.57)*, 6.72 *(10.82)*, 7.78 *(12.52)*, 9.78 *(15.74)*, 11.40 *(18.34)* 16.27 *(26.19)*, 23.68 *(38.11)* **Clutch** single dry disc hydraulically operated by foot pedal **Brakes** wet disc hydraulically operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1969 engine rpm or 1000 rpm at 2120 engine rpm **Unladen tractor mass** 11200 lb *(5080 kg)*

DRAWBAR PERFORMANCE

(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)*	Temp.°F*(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
				1st(1I) Gear					
38.2 *(28.5)*	12050 *(53.6)*	1.19 *(1.91)*	2368	13.0	0.764 *(0.464)*	9.24 *(1.82)*	180 *(82)*	48 *(9)*	29.9 *(101.1)*
				2nd(2I) Gear					
56.1 *(41.8)*	11940 *(53.1)*	1.76 *(2.83)*	2368	12.1	0.666 *(0.405)*	10.60 *(2.09)*	180 *(82)*	50 *(10)*	29.9 *(101.1)*
				3rd(3I) Gear					
71.6 *(53.4)*	11420 *(50.8)*	2.35 *(3.78)*	2141	9.1	0.563 *(0.342)*	12.54 *(2.47)*	178 *(81)*	50 *(10)*	29.9 *(101.1)*
				4th(1II) Gear					
74.7 *(55.7)*	10295 *(45.8)*	2.72 *(4.38)*	1999	6.1	0.527 *(0.321)*	13.39 *(2.64)*	176 *(80)*	48 *(9)*	29.9 *(101.1)*
				5th(4I) Gear					
76.2 *(56.8)*	9025 *(40.2)*	3.17 *(5.10)*	1898	5.1	0.501 *(0.305)*	14.06 *(2.77)*	180 *(82)*	50 *(10)*	29.9 *(101.1)*
				6th(2II) Gear					
75.9 *(56.6)*	7260 *(32.3)*	3.92 *(6.31)*	1921	3.9	0.515 *(0.313)*	13.71 *(2.70)*	176 *(80)*	45 *(7)*	29.9 *(101.1)*
				7th(3II) Gear					
74.0 *(55.2)*	4985 *(22.2)*	5.57 *(8.96)*	1891	3.1	0.522 *(0.318)*	13.50 *(2.66)*	176 *(80)*	48 *(9)*	29.9 *(101.1)*
				8th(1III) Gear					
73.4 *(54.7)*	4270 *(19.0)*	6.45 *(10.38)*	1887	2.7	0.526 *(0.320)*	13.40 *(2.64)*	176 *(80)*	48 *(9)*	29.9 *(101.1)*
				9th(4II) Gear					
71.1 *(53.0)*	3225 *(14.3)*	8.27 *(13.31)*	1916	2.2	0.545 *(0.332)*	12.94 *(2.55)*	176 *(80)*	46 *(8)*	29.9 *(101.1)*

TRACTOR SOUND LEVEL WITHOUT CAB	Front Wheel Drive Disengaged dB(A)	Engaged dB(A)
At no load in 6th (2II) gear	85.0	85.0
Bystander	--	--

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive Disengaged dB(A)	Engaged dB(A)
At no load in 6th (2II) gear	74.0	74.0
Bystander	--	--

TIRES AND WEIGHT	Tested Without Ballast
Rear tires - No.,size, ply & psi*(kPa)*	Two 600/65R38; **;10 *(70)*
Front tires - No.,size, ply & psi*(kPa)*	Two 480/65R28; **;10 *(70)*
Height of Drawbar	19.5 in *(495 mm)*
Static Weight with operator- Rear	6930 lb *(3144 kg)*
- Front	4435 lb *(2011 kg)*
- Total	11365 lb *(5155 kg)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE: All results reported were for a tractor equipped with a cab unless noted otherwise.

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 claims of 26.5 GPM *(100 lpm)* hydraulic flow with a variable displacement pump nor 3 point lift claims of 8250 lbs *(3742 kg)*, with one 50 mm boost cylinder optionally 9285 lbs *(4212 kg)*, with two 50 mm boost cylinders with mechanical lower links. The performance figures on this summary were taken from a test conducted under the OECD Code II test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2241** Nebraska Summary 497, December 15, 2005.

Leonard L. Bashford
Director

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

DRAWBAR PERFORMANCE

(Unballasted - Front Drive Disengaged)

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)*
Maximum Power—6th (2II) Gear									
75.6	6405	4.43	2202	3.5	0.547	12.89	178	41	30.2
(56.4)	*(28.5)*	*(7.13)*			*(0.333)*	*(2.54)*	*(81)*	*(5)*	*(102.2)*
75% of Pull at Maximum Power—6th(2II)Gear									
62.1	4815	4.84	2376	2.6	0.635	11.12	180	41	30.2
(46.3)	*(21.4)*	*(7.78)*			*(0.386)*	*(2.19)*	*(82)*	*(5)*	*(102.2)*
50% of Pull at Maximum Power—6th(2II) Gear									
41.3	3190	4.86	2372	1.9	0.720	9.80	180	41	30.2
(30.8)	*(14.2)*	*(7.82)*			*(0.438)*	*(1.93)*	*(82)*	*(5)*	*(102.2)*
75% of Pull at Reduced Engine Speed—7th(3II) Gear									
62.2	4820	4.84	1667	2.6	0.509	13.86	174	46	30.2
(46.4)	*(21.4)*	*(7.79)*			*(0.310)*	*(2.73)*	*(79)*	*(8)*	*(102.2)*
50% of Pull at Reduced Engine Speed—7th(3II) Gear									
41.3	3195	4.85	1660	1.9	0.541	13.05	174	46	30.2
(30.8)	*(14.2)*	*(7.81)*			*(0.329)*	*(2.57)*	*(79)*	*(8)*	*(102.2)*

MAXIMUM POWER IN SELECTED GEARS

1st(1I) Gear									
29.4	9420	1.17	2376	13.1	0.848	8.31	181	45	30.2
(21.9)	*(41.9)*	*(1.88)*			*(0.516)*	*(1.64)*	*(83)*	*(7)*	*(102.2)*
2nd(21)Gear									
42.5	9285	1.72	2367	12.8	0.731	9.65	181	45	30.2
(31.7)	*(41.3)*	*(2.76)*			*(0.444)*	*(1.90)*	*(83)*	*(7)*	*(102.2)*
3rd(31) Gear									
61.0	9050	2.53	2370	10.1	0.653	10.81	181	46	30.2
(45.5)	*(40.3)*	*(4.07)*			*(0.397)*	*(2.13)*	*(83)*	*(8)*	*(102.2)*
4th(1II) Gear									
70.3	8495	3.10	2335	6.8	0.584	12.08	180	48	30.2
(52.4)	*(37.8)*	*(4.99)*			*(0.355)*	*(2.38)*	*(82)*	*(9)*	*(102.2)*
5th(4I) Gear									
75.0	8025	3.50	2150	5.5	0.538	13.11	178	48	30.2
(55.9)	*(35.7)*	*(5.64)*			*(0.327)*	*(2.58)*	*(81)*	*(9)*	*(102.2)*
6th(2II)Gear									
77.0	7575	3.81	1912	4.5	0.505	13.96	176	45	30.2
(57.4)	*(33.7)*	*(6.13)*			*(0.307)*	*(2.75)*	*(80)*	*(7)*	*(102.2)*
7th(3II)Gear									
75.8	5160	5.51	1899	2.8	0.509	13.86	176	41	30.2
(56.5)	*(22.9)*	*(8.86)*			*(0.310)*	*(2.73)*	*(80)*	*(5)*	*(102.2)*
8th(1III)Gear									
75.8	4440	6.40	1901	2.4	0.505	13.96	178	41	30.2
(56.5)	*(19.7)*	*(10.30)*			*(0.307)*	*(2.75)*	*(81)*	*(5)*	*(102.2)*
9th(4II) Gear									
73.9	3410	8.12	1911	2.0	0.524	13.45	176	41	30.2
(55.1)	*(15.2)*	*(13.07)*			*(0.319)*	*(2.65)*	*(80)*	*(5)*	*(102.2)*

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II		
Quick Attach: No		
Maximum Force Exerted Through Whole Range:	5485 lbs *(24.4 kN)* 1 x 50 mm boost cylinder	
	7330 lbs *(32.6 kN)* 2 x 50 mm boost cylinders	
	7825 lbs *(34.8 kN)* 2 x 80 mm external cylinders	
i) Opening pressure of relief valve:	NA	NA
	fixed disp. pump	**variable disp. pump**
Sustained pressure at compensator cutoff:	2920 psi *(201 bar)*	3105 psi *(214 bar)*
ii) Pump delivery rate at minimum pressure:	22.0 GPM*(83.3 l/min)*	26.2 GPM*(99.0 l/min)*
iii)Pump delivery rate at maximum hydraulic power:	19.1 GPM*(72.2 l/min)*	25.0 GPM*(94.5 l/min)*
Delivery pressure:	2465 psi *(170 bar)*	2610 psi *(180 bar)*
Power:	27.5 HP *(20.5 kW)*	38.0 HP *(28.3 kW)*

THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi.*(bar)*	2920*(201)*
Location:	lift cylinder
Hydraulic oil temperature: °F *(°C)*	150*(65)*
Location:	hydraulic sump
Category:	II
Quick attach:	none

Mechanical lower link
SAE Static Test—System pressure 2625 psi *(181 Bar)* (one 50 mm boost cylinder)

Hitch point distance to ground level in. *(mm)*	7.9*(200)*	16.3*(415)*	23.0*(585)*	28.3*(720)*	34.8*(885)*
Lift force on frame lb	10160	9620	9530	8990	7735
" " " " " " *(kN)*	*(45.2)*	*(42.8)*	*(42.4)*	*(40.0)*	*(34.4)*

Mechanical lower link
SAE Static Test—System pressure 2625 psi *(181 Bar)* (two 50 mm boost cylinders)

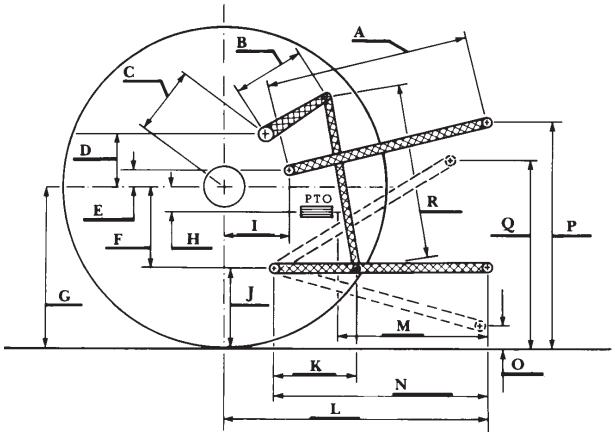
Hitch point distance to ground level in. *(mm)*	7.9*(200)*	16.3*(415)*	23.0*(585)*	28.5*(723)*	34.4*(875)*
Lift force on frame lb	13330	12565	11355	10185	8950
" " " " " " *(kN)*	*(59.3)*	*(55.9)*	*(50.5)*	*(45.3)*	*(39.8)*

Electronic draft control
SAE Static Test—System pressure 2815 psi *(194 Bar)* (two 80 mm external cylinders)

Hitch point distance to ground level in. *(mm)*	7.9*(200)*	15.7*(400)*	23.0*(585)*	30.3*(770)*	35.8*(910)*
Lift force on frame lb	12700	11575	11105	10520	9755
" " " " " " *(kN)*	*(56.5)*	*(51.5)*	*(49.4)*	*(46.8)*	*(43.4)*

HITCH DIMENSIONS AS TESTED—NO LOAD

	OECD test		SAE test	
	inch	*mm*	inch	*mm*
A	27.6	*700*	28.0	*710*
B	12.2	*310*	12.2	*310*
C	15.6	*395*	15.6	*395*
D	14.6	*370*	14.6	*370*
E	8.2	*208*	10.8	*275*
F	9.3	*235*	9.3	*235*
G	32.3	*820*	32.3	*820*
H	1.1	*28*	1.1	*28*
I	17.9	*455*	16.9	*430*
J	23.0	*585*	23.0	*585*
K	19.8	*505*	23.0	*585*
L	44.0	*1118*	44.0	*1118*
M	22.2	*563*	22.2	*563*
N	37.4	*950*	37.4	*950*
O	7.7	*196*	7.9	*200*
P	47.0	*1195*	42.0	*1068*
Q	32.3	*820*	32.3	*820*
R	30.1	*764*	32.1	*815*



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