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SUMMARY OF OECD TESTS 2164 and 2165—NEBRASKA SUMMARY 455
NEW HOLLAND TN70A DIESEL
16 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—566 rpm)					
59.5 *(44.4)*	2302	3.88 *(14.68)*	0.455 *(0.277)*	15.33 *(3.02)*	
Maximum Power (2 hours)					
60.7 *(45.3)*	2245	3.83 *(14.51)*	0.441 *(0.268)*	15.84 *(3.12)*	
Standard Power Take-off speed (539 rpm)					
60.3 *(45.0)*	2193	3.75 *(14.20)*	0.434 *(0.264)*	16.09 *(3.17)*	
VARYING POWER AND FUEL CONSUMPTION					
59.5 *(44.4)*	2302	3.88 *(14.68)*	0.455 *(0.277)*	15.33 *(3.02)*	Air temperature
52.0 *(38.8)*	2367	3.37 *(12.74)*	0.453 *(0.275)*	15.43 *(3.04)*	66°F *(19°C)*
40.0 *(29.8)*	2427	2.80 *(10.60)*	0.490 *(0.298)*	14.26 *(2.81)*	Relative humidity
27.1 *(20.2)*	2455	2.17 *(8.23)*	0.562 *(0.342)*	12.44 *(2.45)*	63%
13.5 *(10.1)*	2478	1.51 *(5.73)*	0.777 *(0.473)*	8.98 *(1.77)*	Barometer
-- --	2489	1.00 *(3.79)*	-- --	-- --	30.0" Hg *(101.6 kPa)*

Maximum Torque -191.7 lb.-ft. *(259.9 Nm)* at 1403 rpm
Maximum Torque Rise -41.2%
Torque rise at 1850 engine rpm -21%

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

Dates of tests: March - May, 2004

Manufacturer: CNH America LLC, 700 State St. Racine, WI. 53404 USA

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.839 **Fuel weight** 6.98 lbs/gal *(0.837 kg/l)* **Oil SAE** 15W40 **API service classification** CF-4/SG **Oil consumption for 10 hours** 0.04 lb *(16 gm)* **Transmission and hydraulic lubricant** Ambra Multi G 15W40 **Front axle lubricant** Ambra Multi G

ENGINE: Make Iveco Diesel **Type** three cylinder vertical with turbocharger **Serial No.** 871343 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 4.094" x 4.528" *(104.0 mm x 115.0 mm)* **Compression ratio** 18.0 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** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type 2WD and front wheel assist **Serial No.** HJE161051 **Tread width** rear 48.5" *(1232 mm)* to 76.7" *(1949 mm)* front: 2WD - 48.7" *(1236 mm)* to 76.6" *(1945 mm)*, FWA - 48.7" *(1236 mm)* to 76.6" *(1945 mm)* **Wheel base** 2WD - 81.5" *(2070 mm)* FWA - 81.3" *(2065 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds *(30 km/h transmission)* mph *(km/h)*** first 0.39 *(0.63)* second 0.58 *(0.93)* third 0.85 *(1.37)* fourth 1.26 *(2.03)* fifth 1.63 *(2.63)* sixth 2.00 *(3.22)* seventh 2.43 *(3.91)* eighth 2.98 *(4.79)* ninth 3.57 *(5.75)* tenth 4.37 *(7.04)* eleventh 5.30 *(8.53)* twelfth 5.77 *(9.28)* thirteenth 6.49 *(10.44)* fourteenth 8.60 *(13.84)* fifteenth 12.64 *(20.34)* sixteenth 18.72 *(30.13)* reverse 0.38 *(0.61)*, 0.56 *(0.90)*, 0.83 *(1.33)*, 1.22 *(1.97)*, 1.58 *(2.54)*, 1.93 *(3.11)*, 2.36 *(3.79)*, 2.88 *(4.64)*, 3.46 *(5.57)*, 4.24 *(6.82)*, 5.13 *(8.26)*, 5.59 *(8.99)*, 6.28 *(10.11)*, 8.33 *(13.40)*, 12.24 *(19.70)*, 18.14 *(29.19)* **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** 2WD - 5215 lb *(2365 kg)*, FWA - 5810 lb *(2635 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 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 10th (3M Hi) Gear									
41.2	2790	5.54	2371	4.0	0.555	12.59	196	77	30.0
(30.7)	*(12.40)*	*(8.91)*			*(0.337)*	*(2.48)*	*(91)*	*(25)*	*(101.5)*
MAXIMUM POWER IN SELECTED GEARS									
7th (2M Lo) Gear									
44.0	6055	2.73	2367	15.0	0.510	13.71	194	64	30.1
(32.8)	*(26.94)*	*(4.39)*			*(0.310)*	*(2.70)*	*(90)*	*(18)*	*(102.0)*
8th (2M Hi) Gear									
51.4	5890	3.27	2282	13.0	0.495	14.11	194	64	30.1
(38.3)	*(26.21)*	*(5.26)*			*(0.301)*	*(2.78)*	*(90)*	*(18)*	*(102.0)*
9th (3 M Lo) Gear									
50.8	4635	4.11	2246	7.9	0.500	13.96	192	66	30.1
(37.9)	*(20.62)*	*(6.61)*			*(0.304)*	*(2.75)*	*(89)*	*(19)*	*(102.0)*
10th (3M Hi) Gear									
50.9	3710	5.15	2241	5.7	0.504	13.87	196	63	30.1
(38.0)	*(16.50)*	*(8.29)*			*(0.306)*	*(2.73)*	*(91)*	*(17)*	*(102.0)*
11th (4M Lo) Gear									
51.6	3045	6.35	2247	4.3	0.514	13.59	192	63	30.1
(38.4)	*(13.55)*	*(10.22)*			*(0.313)*	*(2.68)*	*(89)*	*(17)*	*(102.0)*
12th (1 Hi) Gear									
51.6	2765	7.00	2265	4.0	0.506	13.81	192	61	30.1
(38.5)	*(12.31)*	*(11.27)*			*(0.308)*	*(2.72)*	*(89)*	*(16)*	*(102.0)*
13th (4 M Hi) Gear									
50.5	2395	7.90	2266	3.6	0.517	13.50	190	63	30.1
(37.7)	*(10.66)*	*(12.72)*			*(0.315)*	*(2.66)*	*(88)*	*(17)*	*(102.0)*
14th (2 Hi) Gear									
49.4	1760	10.54	2255	2.8	0.514	13.59	194	63	30.1
(36.9)	*(7.82)*	*(16.97)*			*(0.313)*	*(2.68)*	*(90)*	*(17)*	*(102.0)*

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 claim of 5258 lbs *(2385 kg)* 3 point lift capacity. 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. **2164** and **2165,** Nebraska Summary 455, August 29, 2005.

Leonard L. Bashford
Director

M.F. Kocher
V.I. Adamchuk
W.P. Campbell
Board of Tractor Test Engineers

TN70A-FWA(40 km/h transmission)

TIRES, BALLAST AND WEIGHT		With Ballast	Without Ballast
Rear Tires	-No., size, ply & psi *(kPa)*	Two 16.9R30; **;18 *(125)*	Two 16.9R30; **;18 *(125)*
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	440 lb *(200 kg)*	None
Front Tires	-No., size, ply & psi *(kPa)*	Two 11.2R24; **;17 *(115)*	Two 11.2R24; **;17 *(115)*
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	640 lb *(290 kg)*	None
Height of Drawbar		19.3 in *(490 mm)*	19.3 in *(490 mm)*
Static Weight with Operator	- Rear	3905 lb *(1770 kg)*	3650 lb *(1655 kg)*
	- Front	3150 lb *(1430 kg)*	2325 lb *(1055 kg)*
	- Total	7055 lb *(3200 kg)*	5975 lb *(2710 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)*	Hp.hr/gal *(kW.h/l)*	Temp.°F cool-ing med	(°C) Air dry bulb	Barom. inch Hg *(kPa)*
75% of Pull at Maximum Power—Five Hours 10th (3 M Hi) Gear									
37.5	3285	4.28	2389	7.1	0.560	12.48	181	50	30.0
(27.9)	*(14.62)*	*(6.88)*			*(0.341)*	*(2.46)*	*(83)*	*(10)*	*(101.5)*
MAXIMUM POWER IN SELECTED GEARS									
9th (3M Lo)Gear									
41.1	4885	3.16	2365	15.1	0.544	12.84	180	41	29.8
(30.6)	*(21.72)*	*(5.08)*			*(0.331)*	*(2.53)*	*(82)*	*(5)*	*(101.0)*
10th (3M Hi) Gear									
44.5	4370	3.82	2240	12.1	0.564	12.39	178	41	29.8
(33.1)	*(19.44)*	*(6.14)*			*(0.343)*	*(2.44)*	*(81)*	*(5)*	*(101.0)*
11th (4 M Lo) Gear									
47.3	3700	4.80	2251	8.4	0.534	13.09	176	43	29.8
(35.3)	*(16.46)*	*(7.72)*			*(0.325)*	*(2.58)*	*(80)*	*(6)*	*(101.0)*
12th (1 Hi) Gear									
48.9	3455	5.31	2256	7.4	0.515	13.55	176	41	29.8
(36.4)	*(15.36)*	*(8.54)*			*(0.313)*	*(2.67)*	*(80)*	*(5)*	*(101.0)*
13th(4M Hi) Gear									
49.1	3035	6.08	2266	6.1	0.514	13.59	178	43	29.8
(36.6)	*(13.49)*	*(9.78)*			*(0.313)*	*(2.68)*	*(81)*	*(6)*	*(101.0)*
14th(2 Hi) Gear									
47.0	2185	8.06	2233	4.3	0.526	13.29	178	43	29.8
(35.0)	*(9.73)*	*(12.97)*			*(0.320)*	*(2.62)*	*(81)*	*(6)*	*(101.0)*

TN70A-2WD (30 km/h transmission)

TIRES, BALLAST AND WEIGHT		With Ballast	Without Ballast
Rear Tires	-No., size, ply & psi *(kPa)*	Two 16.9R30;**;18 *(125)*	Two 16.9R30;**;18 *(125)*
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	440 lb *(200 kg)*	None
Front Tires	-No., size, ply & psi *(kPa)*	Two 7.50-16; 8; 36 *(250)*	Two 7.50-16; 8; 36 *(250)*
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	640 lb *(290 kg)*	None
Height of Drawbar		28.3 in *(720 mm)*	22.4 in *(570 mm)*
Static Weight with Operator	- Rear	4015 lb *(1820 kg)*	3750 lb *(1700 kg)*
	- Front	2445 lb *(1110 kg)*	1630 lb *(740 kg)*
	-Total	6460 lb *(2930 kg)*	5380 lb *(2440 kg)*

TRACTOR SOUND LEVEL WITHOUT CAB	FWA dB(A)	2WD dB(A)
At no load in 9th (3M Lo) gear	85.1	84.8
Bystander in 16th (4 Hi) gear	82.8	81.8

CENTER OF GRAVITY - 2WD

Horizontal distance forward from centerline of rear wheels	24.7" *(628 mm)*
Vertical distance above roadway	31.4" *(798 mm)*
Horizontal distance from center of rear wheel tread	0.5" *(13 mm)* to the left

CENTER OF GRAVITY - FWA

Horizontal distance forward from centerline of rear wheels	31.7" *(804 mm)*
Vertical distance above roadway	31.3" *(794 mm)*
Horizontal distance from center of rear wheel tread	0.3" *(7 mm)* to the left

TURNING ON A CONCRETE SURFACE (2WD)

Turning radius—without brake right 141" *(3.58 m)* left 139" *(3.53 m)*
Turning space radius—without brake right 145" *(3.68 m)* left 143" *(3.63 m)*

TURNING ON A CONCRETE SURFACE (FWA)

Turning radius—without brake right 142" *(3.61 m)* left 142" *(3.61 m)*
Turning space radius—without brake right 148" *(3.75 m)* left 148" *(3.75 m)*

HITCH DIMENSIONS AS TESTED—NO LOAD

	SAE TEST		OECD TEST	
	inch	*mm*	inch	*mm*
A	27.2	*690*	27.4	*695*
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	27.2	*690*	27.4	*695*
H	1.2	*30*	1.2	*30*
I	13.4	*340*	13.6	*345*
J	19.7	*501*	19.9	*506*
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	14.6	*370*	14.7	*374*
P	38.7	*984*	43.9	*1116*
Q	39.8	*1010*	39.9	*1014*
R	22.4	*570*	22.5	*572*

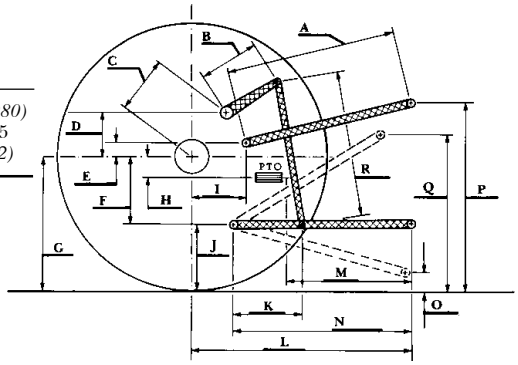
THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II
Quick Attach: None

			High flow option	
Maximum force exerted through whole range:	3915 lbs	*(17.4 kN)*		
i) Opening pressure of relief valve:	NA			
Sustained pressure with relief valve open:	3010 psi	*(208 bar)*	2975 psi	*(205 bar)*
ii) Pump delivery rate at minimum pressure:	13.9 GPM	*(52.6 l/min)*	17.1 GPM	*(64.9 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	9.8 GPM	*(37.1 l/min)*	15.5 GPM	*(58.9 l/min)*
Delivery pressure:	2860 psi	*(197 bar)*	2380 psi	*(164 bar)*
Power:	16.4 HP	*(12.2 kW)*	21.6 HP	*(16.1 kW)*

THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed maximum pressure psi. *(bar)*	3015 *(208)*
Location:	hydraulic pump
Hydraulic oil temperature: °F *(°C)*	114 *(45)*
Location:	hydraulic sump
Category:	II
Quick attach:	none

System pressure 2715 psi *(187 Bar)*

Hitch point distance to ground level in. *(mm)*	14.6 *(370)*	19.4 *(492)*	24.2 *(614)*	29.0 *(736)*	33.8 *(858)*	38.6 *(980)*
Lift force on frame lb	4815	5290	5275	4995	4675	4325
" " " " " " *(kN)*	*(21.4)*	*(23.5)*	*(23.5)*	*(22.2)*	*(20.8)*	*(19.2)*