Test 1907A: New Holland TJ330 and T9020 Diesel 16-Speed

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NEBRASKA OECD TRACTOR TEST 1907A - SUMMARY 580
NEW HOLLAND TJ 330 DIESEL
ALSO NEW HOLLAND T9020 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—1001 rpm)					
285.76 *(213.09)*	2000	16.99 *(64.30)*	0.416 *(0.253)*	16.82 *(3.31)*	
Maximum Power (1 Hour)					
323.31 *(241.09)*	1799	17.98 *(68.07)*	0.389 *(0.237)*	17.98 *(3.54)*	
VARYING POWER AND FUEL CONSUMPTION					
285.76 *(213.09)*	2000	16.99 *(64.30)*	0.416 *(0.253)*	16.82 *(3.31)*	Air temperature
247.57 *(184.61)*	2036	15.41 *(58.35)*	0.436 *(0.265)*	16.06 *(3.16)*	78°F *(26°C)*
188.01 *(140.20)*	2060	12.90 *(48.83)*	0.480 *(0.292)*	14.57 *(2.87)*	Relative humidity
126.00 *(93.96)*	2083	10.14 *(38.39)*	0.563 *(0.343)*	12.42 *(2.45)*	53%
63.87 *(47.63)*	2105	6.91 *(26.17)*	0.758 *(0.461)*	9.24 *(1.82)*	Barometer
1.32 *(0.98)*	2130	3.87 *(14.65)*	20.542 *(12.495)*	0.34 *(0.07)*	29.04" Hg *(98.34 kPa)*

Maximum torque - 1077 lb.-ft. *(1460 Nm)* at 1402 rpm
Maximum torque rise - 43.5%
Torque rise at 1603 engine rpm - 33%
Power increase at 1800 engine rpm - 13%

DRAWBAR PERFORMANCE
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 *(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power—5th Gear									
258.63 *(192.86)*	20077 *(89.30)*	4.83 *(7.77)*	1997	2.3	0.459 *(0.279)*	15.26 *(3.01)*	187 *(86)*	55 *(13)*	28.52 *(96.58)*
75% of Pull at Maximum Power—5th Gear									
200.41 *(149.44)*	15070 *(67.03)*	4.99 *(8.03)*	2047	1.6	0.497 *(0.302)*	14.09 *(2.78)*	186 *(86)*	65 *(18)*	28.54 *(96.65)*
50% of Pull at Maximum Power—5th Gear									
136.19 *(101.56)*	10052 *(44.71)*	5.08 *(8.18)*	2074	1.1	0.599 *(0.364)*	11.69 *(2.30)*	185 *(85)*	66 *(19)*	28.54 *(96.65)*
75% of Pull at Reduced Engine Speed—8th Gear									
200.36 *(149.41)*	15099 *(67.16)*	4.98 *(8.01)*	1544	1.7	0.437 *(0.266)*	16.03 *(3.16)*	185 *(85)*	64 *(18)*	28.54 *(96.65)*
50% of Pull at Reduced Engine Speed—8th Gear									
136.12 *(101.50)*	9993 *(44.45)*	5.11 *(8.22)*	1576	1.1	0.501 *(0.305)*	13.96 *(2.75)*	183 *(84)*	67 *(19)*	28.54 *(96.65)*

Location of tests: Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln Nebraska 68583-0832
Dates of tests: September 19 - October 22, 2007

Manufacturer: Case Corporation, 700 State Street Racine, Wi. 53404 USA.

FUEL, OIL and TIME: Fuel No. 2 Diesel **Specific gravity converted to 60°/60° F *(15°/15°C)*** 0.8407 **Fuel weight** 7.000 lbs/gal *(0.839 kg/l)* **Oil SAE** 15W40 **API service classification** CI-4 **Transmission and hydraulic lubricant** NH Ambra Hy-Tran Ultra fluid **Front and rear axle lubricant** NH Ambra Hy-Tran Ultra fluid **Total time engine was operated** 22.5 hours

ENGINE: Make CNH Engine Corporation Diesel **Type** six cylinder vertical with turbocharger and air to air aftercooler **Serial No.** 46734069 **Crankshaft** lengthwise **Rated engine speed** 2000 **Bore and stroke** 4.488" x 5.689" *(114.0 mm x 144.5 mm)* **Compression ratio** 16.6 to 1 **Displacement** 540 cu in *(8849 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 transmission and hydraulic oil **Fuel filter** one paper element **Fuel cooler** radiator for returned fuel **Muffler** vertical **Cooling medium temperature control** one thermostat and variable speed fan

ENGINE OPERATING PARAMETERS: Fuel rate: 113.6 - 120.6 lb/h *(51.6 - 54.7 kg/h)* **High idle:** 2125 - 2165 rpm **Turbo boost:** nominal 21.8 - 24.7 psi *(150 - 170 kPa)* as measured 23.1 psi *(159 kPa)*

CHASSIS: Type four wheel drive with duals **Serial No.** *Z7F105873* **Tread width** rear 65.4" *(1662 mm)* to 116.1" *(2950 mm)* front 65.4"*(1662 mm)* to 116.1" *(2950 mm)* **Wheelbase** 154.0" *(3911 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with full range operator controlled powershift **Nominal travel speeds mph *(km/h)*** first 2.50 *(4.02)* second 3.01 *(4.85)* third 3.64 *(5.85)* fourth 4.38 *(7.05)* fifth 5.03 *(8.09)* sixth 5.52 *(8.89)* seventh 6.06 *(9.75)* eighth 6.66 *(10.71)* ninth 7.31 *(11.77)* tenth 8.04 *(12.94)* eleventh 8.81 *(14.18)* twelfth 9.69 *(15.59)* thirteenth 11.12 *(17.89)* fourteenth 13.38 *(21.54)* fifteenth 16.17 *(26.03)* sixteenth 19.47 *(31.33)* reverse 3.79 *(6.10)*, 8.37 *(13.47)* **Clutch** multiple wet disc electro-hydraulically operated by foot pedal **Brakes** single wet disc hydraulically actuated by foot pedal **Steering** hydrostatic and articulated **Power take-off** 1000 rpm at 1998 engine rpm **Unladen tractor mass** 32120 lb *(14569 kg)*

DRAWBAR PERFORMANCE at 1800 rpm
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)*
					3rd Gear				
260.69 *(194.40)*	31197 *(138.77)*	3.13 *(5.04)*	1903	8.0	0.468 *(0.285)*	14.94 *(2.94)*	191 *(88)*	51 *(11)*	28.50 *(96.51)*
					4th Gear				
281.47 *(209.89)*	28718 *(127.74)*	3.68 *(5.92)*	1800	5.7	0.444 *(0.270)*	15.77 *(3.11)*	188 *(87)*	54 *(12)*	28.51 *(96.55)*
					5th Gear				
288.90 *(215.43)*	25196 *(112.08)*	4.30 *(6.92)*	1799	3.5	0.432 *(0.263)*	16.20 *(3.19)*	189 *(87)*	55 *(13)*	28.52 *(96.58)*
					6th Gear				
294.26 *(219.43)*	23230 *(103.33)*	4.75 *(7.64)*	1797	2.9	0.424 *(0.258)*	16.49 *(3.25)*	189 *(87)*	57 *(14)*	28.52 *(96.58)*
					7th Gear				
289.33 *(215.75)*	20743 *(92.27)*	5.23 *(8.42)*	1797	2.4	0.431 *(0.262)*	16.26 *(3.20)*	189 *(87)*	58 *(14)*	28.52 *(96.58)*
					8th Gear				
290.56 *(216.67)*	18925 *(84.18)*	5.76 *(9.27)*	1796	2.2	0.431 *(0.262)*	16.24 *(3.20)*	188 *(87)*	59 *(15)*	28.52 *(96.58)*
					9th Gear				
286.69 *(213.78)*	16913 *(75.23)*	6.36 *(10.23)*	1798	1.9	0.435 *(0.265)*	16.07 *(3.17)*	188 *(87)*	60 *(16)*	28.52 *(96.58)*
					10th Gear				
287.88 *(214.67)*	15399 *(68.50)*	7.01 *(11.28)*	1801	1.6	0.435 *(0.264)*	16.11 *(3.17)*	188 *(87)*	62 *(17)*	28.53 *(96.61)*
					11th Gear				
280.46 *(209.14)*	13664 *(60.78)*	7.70 *(12.39)*	1800	1.4	0.445 *(0.271)*	15.74 *(3.10)*	188 *(87)*	63 *(17)*	28.53 *(96.61)*
					12th Gear				
284.59 *(212.22)*	12650 *(56.27)*	8.44 *(13.58)*	1794	1.2	0.438 *(0.267)*	15.97 *(3.15)*	188 *(86)*	63 *(17)*	28.53 *(96.61)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE: The performance results on this report were obtained from tests carried out on the Case IH Steiger 330 Diesel.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. The drawbar pull in 3rd gear was limited to avoid excessive tractor bouncing. For the maximum power tests, the fuel temperature at the injection pump inlet was maintained at 100°F *(38°C)*. 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 and correct report of official Tractor Test No. **1907A**, Nebraska Summary 580, January 24, 2008.

Roger M. Hoy
Director

M.F. Kocher
R.E. Yoder
J.A. Smith
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH DELUXE CAB	dB(A)
At no load in 5th gear	71.4
Bystander in 16th gear	87.2

TIRES AND WEIGHT — **Tested without ballast**

Rear tires - No.,size, ply & psi*(kPa)*	Four 480/80R46;***;9 *(60)*
Front tires - No.,size, ply & psi*(kPa)*	Four 480/80R46;***;13 *(90)*
Height of Drawbar	20.5 in *(520 mm)*
Static Weight with operator- Rear	14110 lb *(6400 kg)*
- Front	18185 lb *(8249 kg)*
- Total	32295 lb *(14649 kg)*

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: IVN
Quick Attach: yes
Maximum force exerted through whole range: 15678 lbs *(69.7 kN)*

	Standard pump	High flow pump
i) Sustained pressure of the open relief valve:	3040 psi *(210 bar)*	3039 psi *(209 bar)*
ii) Pump delivery rate at minimum pressure and rated engine speed:	40.6 GPM *(153.7 l/min)*	56.9 GPM *(215.4 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	37.7 GPM *(142.7 l/min)*	54.2 GPM *(205.2 l/min)*
Delivery pressure:	2805 psi *(193 bar)*	2656 psi *(183 bar)*
Power:	61.7 HP *(46.0 kW)*	84.0 Hp *(62.6 kW)*

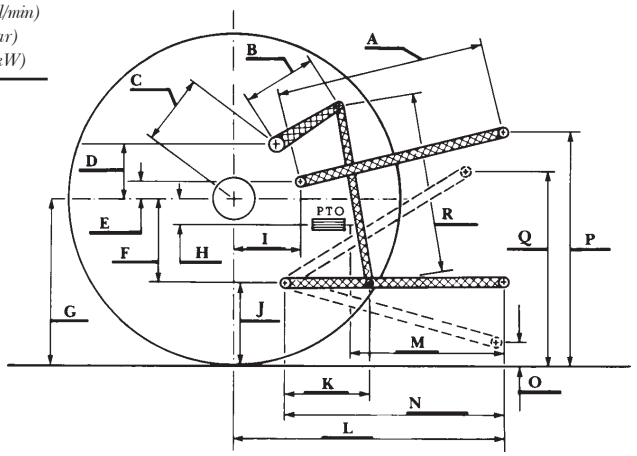
TwinFlow system

	Main pump	TwinFlow pump
i) Sustained pressure at compensator cutoff:	3026 psi *(208 bar)*	3041 psi *(210 bar)*
ii) Pump delivery rate at minimum pressure and rated engine speed:	56.6 GPM *(214.2 l/min)*	37.7 GPM *(142.6 l/min)*
Combined flow:	94.3 GPM *(356.8 l/min)*	
iii) Pump delivery rate at maximum hydraulic power:	55.4 GPM *(209.8 l/min)*	35.9 GPM *(135.9 l/min)*
Delivery pressure:	2430 psi *(167 bar)*	2861 psi *(197 bar)*
Power:	78.5 HP *(58.5 kW)*	59.9 Hp *(44.7 kW)*

HITCH DIMENSIONS AS TESTED - NO LOAD

	inch	*mm*
A	33.7	*855*
B	29.9	*760*
C	23.2	*590*
D	22.0	*558*
E	13.5	*342*
F	13.4	*340*
G	37.2	*945*
H	2.7	*68*
I	21.2	*538*
J	23.8	*605*
K	29.0	*736*
L	54.8	*1391*
*L'	62.0	*1575*
M	27.0	*687*
N	39.3	*997*
O	8.0	*203*
P	47.6	*1209*
Q	40.2	*1020*
R	39.5	*1004*

*L' to Quick Attach ends



New Holland TJ 330 Diesel

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