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Test 1896: Case IH CX 80/Case IH C80/McCormick C 80 & CX 80 & CX 85 Diesel

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SUMMARY OF OECD TEST 1896—NEBRASKA SUMMARY 327
CASE IH CX 80 DIESEL
ALSO CASE IH C80 DIESEL
ALSO McCORMICK C 80 & CX 80 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-1100 rpm)					
71.3 *(53.2)*	2200	4.70 *(17.79)*	0.464 *(0.282)*	15.18 *(2.99)*	
Standard Power Take-off Speed (1000 rpm)					
73.0 *(54.4)*	2000	4.46 *(16.89)*	0.431 *(0.262)*	16.35 *(3.22)*	
VARYING POWER AND FUEL CONSUMPTION					
71.3 *(53.2)*	2200	4.70 *(17.79)*	0.464 *(0.282)*	15.18 *(2.99)*	Air temperature
62.9 *(46.9)*	2280	4.47 *(16.93)*	0.501 *(0.305)*	14.05 *(2.77)*	70°F *(21°C)*
47.5 *(35.4)*	2300	3.83 *(14.50)*	0.568 *(0.345)*	12.39 *(2.44)*	Relative humidity
31.9 *(23.8)*	2314	3.15 *(11.91)*	0.693 *(0.422)*	10.15 *(2.00)*	33%
16.1 *(12.0)*	2334	2.40 *(9.10)*	1.048 *(0.638)*	6.71 *(1.32)*	Barometer
-- --	2349	1.56 *(5.89)*	-- --	-- --	29.5" Hg *(100.0 kPa)*

Maximum Torque - 225 lb.-ft. *(305 Nm)* at 1406 rpm
Maximum Torque Rise - 32.0%
Torque rise at 1800 engine rpm - 21%

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 *(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power 7th (1HiTA) Gear									
59.3 *(44.2)*	4635 *(20.62)*	4.80 *(7.72)*	2198	3.1	0.558 *(0.340)*	12.59 *(2.48)*	180 *(82)*	57 *(14)*	29.7 *(100.5)*
75% of Pull at Maximum Power 7th (1HiTA) Gear									
45.8 *(34.2)*	3455 *(15.36)*	4.97 *(8.00)*	2258	2.2	0.647 *(0.393)*	10.88 *(2.14)*	180 *(82)*	57 *(14)*	29.7 *(100.5)*
50% of Pull at Maximum Power 7th (1HiTA) Gear									
31.3 *(23.3)*	2325 *(10.35)*	5.05 *(8.12)*	2274	1.6	0.787 *(0.479)*	8.93 *(1.76)*	174 *(79)*	57 *(14)*	29.7 *(100.5)*
75% of Pull at Reduced Engine Speed 8th (4LoTA) Gear									
46.0 *(34.3)*	3450 *(15.35)*	5.00 *(8.05)*	2079	2.1	0.603 *(0.367)*	11.67 *(2.30)*	178 *(81)*	59 *(15)*	29.7 *(100.5)*
50% of Pull at Reduced Engine Speed 8th (4LoTA) Gear									
31.5 *(23.5)*	2325 *(10.34)*	5.08 *(8.18)*	2097	1.6	0.709 *(0.431)*	9.92 *(1.95)*	176 *(80)*	61 *(16)*	29.7 *(100.5)*

Location of Test: DLG Testing Station for Agricultural Machinery Max - Eyth - Weg 1, D-64823 Gros-Umstadt, Germany

Dates of Test: October, 1998

Manufacturer: Case United Kingdom Limited, Doncaster, DN2 4PG, England

FUEL and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60° F *(15°/15°C)*** 0.845 **Fuel weight** 7.03 lbs/gal *(0.843 kg/l)* **Oil SAE** 15W-40 **API service classification** CF-4 **Transmission and hydraulic lubricant** Case Hy-Tran Plus fluid **Front axle lubricant** SAE 85W-140 gear oil

ENGINE: Make Perkins Diesel **Type** four cylinder vertical with turbocharger **Serial No.** AQU875481D **Crankshaft** lengthwise **Rated engine speed** 2200 **Bore and stroke** 3.937" x 5.00" *(100.0 mm x 127.0 mm)* **Compression ratio** 17.25 to 1 **Displacement** 243 cu in *(3990 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 **Fuel cooler** radiator for pump return fuel **Muffler** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** JJE 100 2102 **Tread width** rear 55.9" *(1420 mm)* to 75.7" *(1922 mm)* front 53.7" *(1364 mm)* to 76.0" *(1930 mm)* **Wheel base** 92.8" *(2356 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio with partial (2) range operator controlled powershift **Nominal travel speeds mph *(km/h)*** first 1.32 *(2.12)* second 1.59 *(2.56)* third 2.32 *(3.73)* fourth 2.80 *(4.50)* fifth 3.44 *(5.53)* sixth 4.14 *(6.67)* seventh 4.94 *(7.95)* eighth 5.39 *(8.67)* ninth 5.96 *(9.59)* tenth 6.50 *(10.46)* eleventh 8.70 *(14.00)* twelfth 10.49 *(16.88)* thirteenth 12.89 *(20.75)* fourteenth 15.55 *(25.02)* fifteenth 20.21 *(32.52)* sixteenth 24.37 *(39.22)* reverse 1.44 *(2.31)*, 2.53 *(4.07)*, 3.75 *(6.04)*, 5.39 *(8.67)*, 5.88 *(9.46)*, 9.49 *(15.28)*, 14.06 *(22.63)*, 22.05 *(35.48)* **Clutch** multiple dry disc hydraulically 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 1994 engine rpm and 1000 rpm at 2000 engine rpm **Unladen tractor mass** 8135 lb *(3690 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)*
				2nd (1LoDD) Gear					
35.4 *(26.4)*	9530 *(42.40)*	1.39 *(2.24)*	2254	14.6	0.783 *(0.476)*	8.98 *(1.77)*	178 *(81)*	59 *(15)*	29.7 *(100.5)*
				3rd (2LoTA) Gear					
49.6 *(37.0)*	9270 *(41.23)*	2.01 *(3.23)*	2203	13.8	0.669 *(0.407)*	10.51 *(2.07)*	181 *(83)*	59 *(15)*	29.7 *(100.5)*
				4th (2LoDD) Gear					
55.5 *(41.4)*	8880 *(39.50)*	2.34 *(3.77)*	1995	8.1	0.568 *(0.345)*	12.39 *(2.44)*	181 *(83)*	59 *(15)*	29.7 *(100.5)*
				5th (3LoTA) Gear					
60.5 *(45.1)*	7630 *(33.94)*	2.97 *(4.79)*	2003	5.3	0.521 *(0.317)*	13.50 *(2.66)*	180 *(82)*	57 *(14)*	29.7 *(100.5)*
				6th (3LoDD) Gear					
59.9 *(44.7)*	6205 *(27.59)*	3.62 *(5.83)*	1996	4.0	0.525 *(0.319)*	13.40 *(2.64)*	180 *(82)*	57 *(14)*	29.7 *(100.5)*
				7th (1HiTA) Gear					
62.5 *(46.6)*	5375 *(23.92)*	4.36 *(7.01)*	1991	3.2	0.506 *(0.308)*	13.91 *(2.74)*	180 *(82)*	54 *(12)*	29.7 *(100.5)*
				8th (4LoTA) Gear					
59.9 *(44.7)*	4710 *(20.95)*	4.77 *(7.68)*	1993	2.8	0.525 *(0.320)*	13.39 *(2.64)*	180 *(82)*	54 *(12)*	29.7 *(100.5)*
				9th (1HiDD) Gear					
60.7 *(45.3)*	4335 *(19.28)*	5.26 *(8.46)*	1991	2.7	0.517 *(0.315)*	13.60 *(2.68)*	180 *(82)*	55 *(13)*	29.7 *(100.5)*
				10th (4LoDD) Gear					
57.7 *(43.0)*	3750 *(16.67)*	5.77 *(9.28)*	1998	2.5	0.547 *(0.333)*	12.84 *(2.53)*	180 *(82)*	55 *(13)*	29.7 *(100.5)*

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive Engaged dB(A)	Front Wheel Drive Disengaged dB(A)
Maximum Sound Level	78.0	78.0
At no load in 7th(1HiTA) Gear	75.5	74.0
Bystander		

TRACTOR SOUND LEVEL WITHOUT CAB	Front Wheel Drive Engaged dB(A)	Front Wheel Drive Disengaged dB(A)
At no load in 7th(1HiTA) Gear	86.0	86.0
Bystander		

TIRES AND WEIGHT		Tested Without Ballast
Rear Tires No., size, ply & psi *(kPa)*		Two 18.4R34;**; 12 *(80)*
Front Tires No., size, ply & psi *(kPa)*		Two 13.6R24;**; 12 *(80)*
Height of Drawbar		15.7 in *(400 mm)*
Static Weight with operator	Rear	4985 lb *(2260 kg)*
	Front	3315 lb *(1505 kg)*
	Total	8300 lb *(3765 kg)*

Note: The Case IH C 80 Diesel varies from the Case IH CX 80 Diesel by chassis design and transmission options.

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 claims of 37% torque rise, cab sound level of 73.0 dB(A), nor 3 point lift capacity of 3665 lbs., optionally - 5097 lbs. The performance results on this summary were taken from OECD tests conducted under the Code II Test Code procedure.

NOTE: Report reissued. Supplemental permit for McCormick C 80 & CX 80 Diesels, July 2002.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **1896**, Nebraska Summary 327, June 13, 2002.

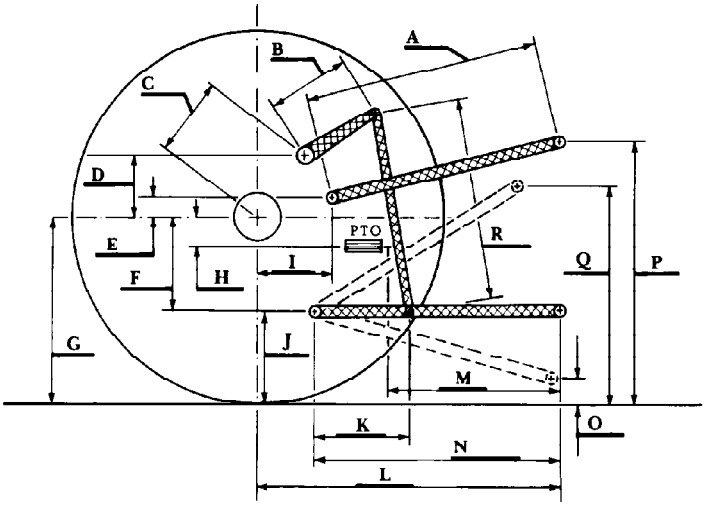
Brent T. Sampson
Test Engineer

L.L. Bashford
M.F. Kocher
V.I. Adamchuck
Board of Tractor Test Engineers

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II
Quick Attach: none

Maximum Force Exerted Through Whole Range:	2665 lbs	*(11.85 kN)*
	4000 lbs	*(17.80 kN)* (with boost cylinder)
i) Opening pressure of relief valve:	NA	
Sustained pressure of the open relief valve:	2610 psi	*(180 bar)*
ii) Pump delivery rate at minimum pressure:	16.5 GPM	*(62.6 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	13.9 GPM	*(52.4 l/min)*
Delivery pressure:	2305 psi	*(159 bar)*
Power:	18.6 HP	*(13.9 kW)*



HITCH DIMENSIONS AS TESTED NO LOAD

	inch	*mm*
A	28.2	*716*
B	11.7	*298*
C	11.6	*295*
D	11.3	*288*
E	7.9	*200*
F	6.7	*170*
G	30.3	*770*
H	4.8	*122*
I	11.8	*300*
J	23.6	*600*
K	21.7	*550*
L	38.4	*975*
M	21.3	*540*
N	32.0	*814*
O	7.9	*200*
P	47.6	*1210*
Q	33.9	*860*
R	29.5	*750*

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