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January 2005

Nebraska Summary 571: Case-IH JX1085C Diesel 16-Speed

Nebraska Tractor Test Lab

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SUMMARY OF OECD TESTS 2352 & 2353 — NEBRASKA SUMMARY 571

CASE IH JX1085C 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—563 rpm)					
71.7 (53.5)	2294	4.76 (18.00)	0.464 (0.282)	15.08 (2.97)	
Maximum Power (2 hours)					
72.0 (53.7)	2249	4.77 (18.04)	0.463 (0.282)	15.11 (2.98)	
Standard Power Take-off speed (539 rpm)					
71.7 (53.5)	2196	4.73 (17.90)	0.461 (0.280)	15.17 (2.99)	
VARYING POWER AND FUEL CONSUMPTION					
71.7 (53.5)	2294	4.76 (18.00)	0.464 (0.282)	15.08 (2.97)	Air temperature
63.7 (47.5)	2400	4.32 (16.35)	0.473 (0.288)	14.76 (2.91)	77°F (25°C)
48.3 (36.0)	2421	3.57 (13.53)	0.518 (0.315)	13.51 (2.66)	Relative humidity
32.3 (24.1)	2441	2.80 (10.61)	0.607 (0.369)	11.52 (2.27)	58%
16.5 (12.3)	2453	2.29 (8.69)	0.973 (0.592)	7.19 (1.42)	Barometer
--	2482	1.63 (6.16)	--	--	30.1" Hg (101.8 kPa)
--			--	--	
Maximum torque -218.1 lb.-ft. (295.7 Nm) at 1479 rpm					
Maximum torque rise -32.8%					
Torque rise at 1870 engine rpm -18%					

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** 0.03 lb (14 gm) **Transmission and hydraulic lubricant** Ambra Multi G 10W30 **Front axle lubricant** Ambra Multi G

ENGINE: Make CNH Diesel **Type** four cylinder vertical **Serial No.** 176995 **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** 274 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** 2WD and front wheel assist **Serial No.** HJH028170 **Tread width** rear 48.5" (1232 mm) to 76.7" (1949 mm) front: 56.7" (1439 mm) to 63.3" (1607 mm) **Wheel base** 2WD - 89.1" (2262 mm) FWA - 86.0" (2185 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** (30 km/h transmission) mph (km/h) first 0.39 (0.63) second 0.58 (0.94) third 0.86 (1.38) fourth 1.27 (2.04) fifth 1.65 (2.65) sixth 2.01 (3.24) seventh 2.45 (3.94) eighth 3.00 (4.83) ninth 3.60 (5.80) tenth 4.41 (7.10) eleventh 5.34 (8.59) twelfth 5.81 (9.35) thirteenth 6.53 (10.51) fourteenth 8.66 (13.94) fifteenth 12.73 (20.49) sixteenth 18.86 (30.35) reverse 0.38 (0.61), 0.57 (0.91), 0.83 (1.34), 1.23 (1.98), 1.59 (2.56), 1.95 (3.14), 2.37 (3.82), 2.91 (4.68), 3.49 (5.61), 4.27 (6.87), 5.17 (8.32), 5.63 (9.06), 6.33 (10.18), 8.39 (13.50), 12.33 (19.85), 18.27 (29.40) **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 - 6215 lb (2820 kg), FWA - 6745 lb (3060 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 10th (3M Hi) Gear									
54.5 (40.6)	3750 (16.68)	5.45 (8.77)	2379	5.7	0.489 (0.297)	14.31 (2.82)	190 (88)	75 (24)	30.0 (101.7)
MAXIMUM POWER IN SELECTED GEARS									
7th (2MLo) Gear									
50.2 (37.4)	6765 (30.09)	2.78 (4.47)	2409	14.9	0.565 (0.343)	12.39 (2.44)	190 (88)	72 (22)	30.3 (102.5)
8th (2MHi) Gear									
56.7 (42.3)	6185 (27.51)	3.44 (5.53)	2385	13.2	0.540 (0.329)	12.94 (2.55)	189 (87)	72 (22)	30.3 (102.5)
9th (3 MLo) Gear									
61.2 (45.6)	5460 (24.28)	4.20 (6.76)	2337	9.5	0.536 (0.326)	13.04 (2.57)	189 (87)	73 (23)	30.3 (102.5)
10th (3MHi) Gear									
62.4 (46.5)	4550 (20.23)	5.14 (8.28)	2261	6.6	0.525 (0.319)	13.31 (2.62)	190 (88)	72 (22)	30.3 (102.5)
11th (4M Lo) Gear									
62.1 (46.3)	3640 (16.18)	6.40 (10.30)	2286	5.1	0.530 (0.323)	13.19 (2.60)	189 (87)	72 (22)	30.3 (102.5)
12th (1 Hi) Gear									
61.3 (45.7)	3285 (14.61)	7.00 (11.27)	2285	4.4	0.536 (0.326)	13.05 (2.57)	187 (86)	70 (21)	30.3 (102.5)
13th (4 MHi) Gear									
61.5 (45.9)	2935 (13.06)	7.86 (12.64)	2273	4.0	0.534 (0.325)	13.10 (2.58)	190 (88)	70 (21)	30.3 (102.5)
14th (2 Hi) Gear									
60.3 (45.0)	2170 (9.65)	10.43 (16.78)	2251	3.3	0.536 (0.326)	13.05 (2.57)	187 (86)	68 (20)	30.3 (102.5)

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 Reports No. **2352** and **2353**, Nebraska Summary 571, July 10, 2007.

Roger M. Hoy
Director

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

JX 1085C-FWA (40km/h transmission)

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)	630 lb (285 kg)	None
Height of Drawbar		19.3 in (490 mm)	19.3 in (490 mm)
Static Weight with Operator	- Rear	4575 lb (2075 kg)	4290 lb (1945 kg)
	- Front	3405 lb (1545 kg)	2620 lb (1190 kg)
	- Total	7980 lb (3620 kg)	6910 lb (3135 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		Temp.°F (°C)		Barom. inch Hg (kPa)
					lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	cool- ing med	Air dry bulb	
75% of Pull at Maximum Power—Five Hours 11th (4 MLo) Gear									
53.0 (39.5)	3830 (17.03)	5.19 (8.35)	2383	7.0	0.494 (0.301)	14.14 (2.79)	185 (85)	70 (21)	30.1 (102.0)

MAXIMUM POWER IN SELECTED GEARS

10th(3MHi) Gear									
56.1 (41.8)	5270 (23.44)	3.99 (6.42)	2405	15.0	0.530 (0.322)	13.30 (2.60)	181 (83)	63 (17)	30.2 (102.4)
11th (4 MLo) Gear									
59.7 (44.5)	4725 (21.02)	4.74 (7.62)	2291	11.8	0.533 (0.324)	13.19 (2.59)	183 (84)	64 (18)	30.2 (102.4)
12th (1 Hi) Gear									
61.1 (45.6)	4380 (19.48)	5.23 (8.42)	2284	9.8	0.538 (0.327)	12.84 (2.56)	181 (83)	64 (18)	30.2 (102.4)
13th(4MHi) Gear									
60.9 (45.4)	3795 (16.88)	6.02 (9.68)	2288	7.5	0.539 (0.328)	12.98 (2.56)	181 (83)	66 (19)	30.2 (102.4)
14th(2 Hi) Gear									
59.7 (44.5)	2735 (12.16)	8.19 (13.18)	2280	4.6	0.540 (0.329)	13.10 (2.55)	183 (84)	64 (18)	30.2 (102.4)

JX 1085C-2WD(30 km/h transmission)

TIRES, BALLAST AND WEIGHT		With Ballast	Without Ballast
Rear Tires	-No., size, ply & psi (kPa)	Two 16.9R30;**,19 (130)	Two 16.9R30;**,19 (130)
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)	630 lb (285 kg)	None
Height of Drawbar		26.4 in (670 mm)	26.4 in (670 mm)
Static Weight with Operator	-Rear	4620 lb (2095 kg)	4335 lb (1965 kg)
	-Front	2830 lb (1285 kg)	2050 lb (930 kg)
	-Total	7450 lb (3380 kg)	6385 lb (2895 kg)

TRACTOR SOUND LEVEL WITH CAB	FWA dB(A)	2WD dB(A)
At no load in 9th (3M Lo) gear	78.3	77.9
Bystander in 16th (4 Hi) gear	82.4	82.1

CENTER OF GRAVITY - 2WD

Horizontal distance forward from centerline of rear wheels	28.9" (734 mm)
Vertical distance above roadway	37.7" (958 mm)
Horizontal distance from center of rear wheel tread	0.2" (4 mm) to the left

CENTER OF GRAVITY - FWA

Horizontal distance forward from centerline of rear wheels	33.0" (839 mm)
Vertical distance above roadway	36.7" (932 mm)
Horizontal distance from center of rear wheel tread	0.4" (10 mm) to the left

TURNING ON A CONCRETE SURFACE (2WD)

Turning radius—without brake right 144" (3.66 m) left 145" (3.68 m)
Turning space radius—without brake right 148" (3.76 m) left 149" (3.78 m)

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:	4055 lbs (18.04 kN)
i) Sustained pressure with relief valve open:	2880 psi (198 bar)
ii) Pump delivery rate at minimum pressure:	12.7 GPM (48.0 l/min)
iii) Pump delivery rate at maximum	
hydraulic power:	11.1 GPM (42.0 l/min)
Delivery pressure:	2640 psi (182 bar)
Power:	17.0 hp (12.7 kW)

THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed maximum pressure psi. (bar)	3000 (207)
Location:	remote outlets
Hydraulic oil temperature: °F (°C)	113 (45)
Location:	hydraulic sump
Category:	II
Quick attach:	none

System pressure 2700 psi (186 Bar)

Hitch point distance to ground level in. (mm)	17.6 (448)	21.9 (555)	26.1 (662)	30.3 (769)	34.5 (876)	38.7 (983)
Lift force on frame lb	6100	6360	6160	5840	5490	5200
" " " " " " (kN)	(27.1)	(28.3)	(27.4)	(26.0)	(24.4)	(23.1)

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	17.6	448	14.7	374
P	39.1	994	44.1	1121
Q	38.7	983	39.9	1014
R	22.4	570	22.6	575

