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Tests 2279 & 2318: Case IH JX 1090U Diesel

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SUMMARY OF OECD TESTS 2279 and 2318—NEBRASKA SUMMARY 530
CASE IH JX 1090U 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—1051 rpm)					
82.7 *(61.6)*	2502	5.28 *(19.98)*	0.447 *(0.272)*	15.68 *(3.09)*	
Maximum Power (2 hours)					
83.3 *(62.1)*	2398	5.20 *(19.70)*	0.438 *(0.266)*	16.00 *(3.15)*	
Standard Power Take-off speed (1007 rpm)					
83.3 *(62.1)*	2398	5.20 *(19.70)*	0.438 *(0.266)*	16.00 *(3.15)*	
VARYING POWER AND FUEL CONSUMPTION					
82.7 *(61.6)*	2502	5.28 *(19.98)*	0.447 *(0.272)*	15.68 *(3.09)*	Air temperature
73.2 *(54.6)*	2624	5.15 *(19.50)*	0.493 *(0.300)*	14.21 *(2.80)*	67°F *(20°C)*
55.1 *(41.1)*	2645	4.36 *(16.49)*	0.554 *(0.337)*	12.64 *(2.49)*	Relative humidity
36.9 *(27.5)*	2662	3.32 *(12.55)*	0.630 *(0.383)*	11.12 *(2.19)*	48%
18.5 *(13.8)*	2667	2.73 *(10.32)*	1.030 *(0.626)*	6.80 *(1.34)*	Barometer
-- --	2676	1.95 *(7.38)*	-- --	-- --	29.1" Hg *(98.4 kPa)*

Maximum Torque -252.8 lb.-ft. *(342.7 Nm)* at 1402 rpm
Maximum Torque Rise -45.7%
Torque rise at 2000 engine rpm -25%

Location of tests: Istituto Per La Macchine Agricole E Movimento Terra, Strada delle Cacce, 73-10135 Torino, Italy

Dates of tests: March to May, 2005
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)*** 0.842 **Fuel weight** 7.01 lbs/gal *(0.840 kg/l)* **Oil SAE** 15W40 **API service classification** CH-4 **Oil consumption for 10 hours** 0.03 lb *(15 gm)* **Transmission and hydraulic lubricant** Ambra Multi G **Front axle lubricant** Ambra Multi G

ENGINE: Make CNH Diesel **Type** four cylinder vertical with turbocharger **Serial No.** 00119206 **Crankshaft** lengthwise **Rated Engine speed** 2500 **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** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type 2WD and front wheel assist **Serial No.** HJT003754 **Tread width** rear 64.3" *(1632 mm)* to 83.9" *(2132 mm)* front: 2WD - 55.4" *(1407 mm)* to 85.6" *(2175 mm)*, FWA - 56.1" *(1425 mm)* to 84.0" *(2133 mm)* **Wheel base** 2WD - 92.2" *(2342 mm)* FWA - 91.1" *(2314 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph *(km/h)*** first 1.37 *(2.20)* second 1.98 *(3.19)* third 2.86 *(4.60)* fourth 3.19 *(5.13)* fifth 4.10 *(6.60)* sixth 4.64 *(7.46)* seventh 6.66 *(10.71)* eighth 7.51 *(12.08)* ninth 9.59 *(15.44)* tenth 10.91 *(17.56)* eleventh 15.74 *(25.32)* twelfth 22.54 *(36.27)* reverse 1.37 *(2.20)*, 1.98 *(3.19)*, 2.86 *(4.60)*, 3.19 *(5.13)*, 4.10 *(6.60)*, 4.64 *(7.46)*, 6.66 *(10.71)*, 7.51 *(12.08)*, 9.59 *(15.44)*, 10.91 *(17.56)*, 15.74 *(25.32)*, 22.54 *(36.27)* **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 2199 engine rpm or 1000 rpm at 2381 engine rpm **Unladen tractor mass** 2WD - 8500 lb *(3855 kg)*, FWA - 8730 lb *(3960 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 cool-ing med	(°C) Air dry bulb	Barom. inch Hg *(kPa)*
75% of Pull at Maximum Power—Five Hours 6th (2 Med) Gear									
51.4 *(38.3)*	4130 *(18.4)*	4.66 *(7.50)*	2588	2.7	0.704 *(0.428)*	9.96 *(1.96)*	194 *(90)*	66 *(19)*	29.2 *(98.9)*
MAXIMUM POWER IN SELECTED GEARS									
2nd (2 Lo) Gear									
46.7 *(34.8)*	10050 *(44.7)*	1.74 *(2.80)*	2590	15.0	0.776 *(0.472)*	9.03 *(1.78)*	190 *(88)*	73 *(23)*	29.2 *(98.8)*
3rd (3 Lo) Gear									
61.4 *(45.8)*	9260 *(41.2)*	2.49 *(4.00)*	2402	8.0	0.590 *(0.359)*	11.88 *(2.34)*	192 *(89)*	72 *(22)*	29.2 *(98.8)*
4th (1 Med) Gear									
61.4 *(45.8)*	8230 *(36.6)*	2.80 *(4.50)*	2387	7.0	0.593 *(0.361)*	11.83 *(2.33)*	194 *(90)*	72 *(22)*	29.2 *(98.8)*
5th (4 Lo) Gear									
62.0 *(46.2)*	6225 *(27.7)*	3.73 *(6.00)*	2398	5.0	0.588 *(0.357)*	11.93 *(2.35)*	190 *(88)*	70 *(21)*	29.2 *(98.8)*
6th (2 Med) Gear									
62.1 *(46.3)*	5505 *(24.5)*	4.23 *(6.80)*	2394	3.5	0.588 *(0.357)*	11.93 *(2.35)*	194 *(90)*	72 *(22)*	29.2 *(98.8)*
7th (3 Med) Gear									
60.2 *(44.9)*	3595 *(16.0)*	6.28 *(10.10)*	2398	3.0	0.606 *(0.369)*	11.57 *(2.28)*	196 *(91)*	73 *(23)*	29.2 *(98.8)*
8th (1 Hi) Gear									
58.9 *(43.9)*	3145 *(14.0)*	7.02 *(11.30)*	2397	2.5	0.619 *(0.377)*	11.32 *(2.23)*	194 *(90)*	72 *(22)*	29.2 *(98.8)*
9th (4 Med) Gear									
53.5 *(39.9)*	2225 *(9.9)*	9.01 *(14.50)*	2402	1.5	0.680 *(0.413)*	10.31 *(2.03)*	192 *(89)*	72 *(22)*	29.2 *(98.8)*
10th (2 Hi) Gear									
50.7 *(37.8)*	1845 *(8.2)*	10.32 *(16.60)*	2398	1.3	0.717 *(0.436)*	9.77 *(1.92)*	194 *(90)*	73 *(23)*	29.2 *(98.8)*

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 78.0 dB(A) cab sound level. The manufacturer's 3 point lift claim of 6445 lbs *(2923 kg)* with EDC(electronic draft control) was not verified. 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. **2279** and **2318,** Nebraska Summary 530, May 26, 2006.

Leonard L. Bashford
Director

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

FWA-(40 km/h trans)

TIRES, BALLAST AND WEIGHT		With Ballast	Without Ballast
Rear Tires	-No., size, ply & psi *(kPa)*	Two 540/65R34; **;15 *(100)*	Two 540/65R34; **;15 *(100)*
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	660 lb *(300 kg)*	None
Front Tires	-No., size, ply & psi *(kPa)*	Two 440/65R24; **;17 *(120)*	Two 440/65R24; **;17 *(120)*
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	1115 lb *(505 kg)*	None
Height of Drawbar		18.1 in *(460 mm)*	18.3 in *(465 mm)*
Static Weight with Operator	- Rear	5755 lb *(2610 kg)*	5370 lb *(2435 kg)*
	- Front	4915 lb *(2230 kg)*	3525 lb *(1600 kg)*
	- Total	10670 lb *(4840 kg)*	8895 lb *(4035 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 8th (1 Hi) Gear									
53.0 *(39.5)*	3265 *(14.5)*	6.09 *(9.80)*	2615	3.0	0.683 *(0.415)*	10.26 *(2.02)*	194 *(90)*	72 *(22)*	29.2 *(98.8)*
MAXIMUM POWER IN SELECTED GEARS									
6th (2 Med) Gear									
57.7 *(43.0)*	6695 *(29.8)*	3.23 *(5.20)*	2604	15.0	0.628 *(0.382)*	11.17 *(2.20)*	194 *(90)*	72 *(22)*	29.2 *(99.0)*
7th (3 Med)Gear									
62.2 *(46.4)*	4945 *(22.0)*	4.72 *(7.60)*	2398	6.0	0.585 *(0.356)*	11.98 *(2.36)*	192 *(89)*	70 *(21)*	29.2 *(99.0)*
8th (1 Hi) Gear									
63.2 *(47.1)*	4380 *(19.5)*	5.41 *(8.70)*	2405	4.3	0.579 *(0.352)*	12.10 *(2.38)*	194 *(90)*	70 *(21)*	29.2 *(99.0)*
9th (4 Med) Gear									
61.7 *(46.0)*	3325 *(14.8)*	6.96 *(11.20)*	2402	3.0	0.590 *(0.359)*	11.88 *(2.34)*	190 *(88)*	68 *(20)*	29.2 *(99.0)*
10th(2 Hi) Gear									
61.0 *(45.5)*	2830 *(12.6)*	8.08 *(13.00)*	2401	2.5	0.598 *(0.364)*	11.73 *(2.31)*	190 *(88)*	68 *(20)*	29.2 *(99.0)*

2WD-(30 km/h trans)

TIRES, BALLAST AND WEIGHT		With Ballast	Without Ballast
Rear Tires	-No., size, ply & psi *(kPa)*	Two 540/65R34;**;15 *(100)*	Two 540/65R34;**;15 *(100)*
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	660 lb *(300 kg)*	None
Front Tires	-No., size, ply & psi *(kPa)*	Two 10.00-16;8;35 *(240)*	Two 10.00-16; 8;35 *(240)*
Ballast	-Liquid (total)	None	None
	-Cast Iron (total)	1115 lb *(505 kg)*	None
Height of Drawbar		18.1 in *(460 mm)*	18.3 in *(465 mm)*
Static Weight with Operator	- Rear	6215 lb *(2820 kg)*	5830 lb *(2645 kg)*
	- Front	4225 lb *(1915 kg)*	2835 lb *(1285 kg)*
	-Total	10440 lb *(4735 kg)*	8665 lb *(3930 kg)*

TRACTOR SOUND LEVEL WITH CAB	FWA dB(A)	2WD dB(A)
At no load in 6th (2 Med) gear	79.2	79.0
Bystander in 12th (4 Hi) gear	86.4	86.6

CENTER OF GRAVITY - 2WD	
Horizontal distance forward from centerline of rear wheels	30.2" *(766 mm)*
Vertical distance above roadway	37.2" *(945 mm)*
Horizontal distance from center of rear wheel tread	0.1" *(3 mm)* to the left

CENTER OF GRAVITY - FWA	
Horizontal distance forward from centerline of rear wheels	36.1" *(918 mm)*
Vertical distance above roadway	34.5" *(876 mm)*
Horizontal distance from center of rear wheel tread	0.2" *(5 mm)* to the left

TURNING ON A CONCRETE SURFACE (2WD)

Turning radius—without brake right 157" *(4.00 m)* left 157" *(4.00 m)*
Turning space radius—without brake right 163" *(4.15 m)* left 163" *(4.15 m)*

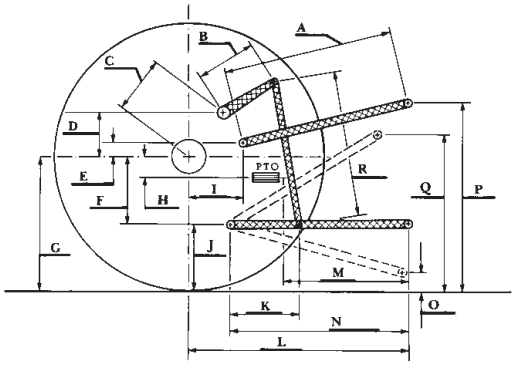
TURNING ON A CONCRETE SURFACE (FWA)

Turning radius—without brake right 228" *(5.80 m)* left 228" *(5.80 m)*
Turning space radius—without brake right 236" *(6.00 m)* left 236" *(6.00 m)*

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II
Quick Attach: None

Maximum force exerted through whole range:	5980 lbs	*(26.6 kN)*
i) Opening pressure of relief valve:	NA	
Sustained pressure with relief valve open:	2845 psi	*(196 bar)*
ii) Pump delivery rate at minimum pressure:	16.5 GPM	*(62.3 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	14.5 GPM	*(55.0 l/min)*
Delivery pressure:	2465 psi	*(170 bar)*
Power:	20.9 HP	*(15.6 kW)*

	inch	*mm*
A	27.8	*705*
B	10.0	*255*
C	13.9	*352*
D	11.7	*296*
E	10.1	*257*
F	8.1	*205*
G	29.3	*745*
H	0.4	*9*
I	15.7	*400*
J	21.2	*540*
K	17.7	*450*
L	42.1	*1070*
M	21.6	*548*
N	37.0	*940*
O	6.9	*175*
P	45.3	*1150*
Q	33.9	*860*
R	25.2	*640*

HITCH DIMENSIONS AS TESTED—NO LOAD