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SUMMARY OF OECD TESTS 2177 & 2178—NEBRASKA SUMMARY 462
CASE IH JX 85 DIESEL
12 SPEED
Chassis Serial numbers HFJ013287 and higher

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-614 rpm)					
78.4 *(58.5)*	2500	4.59 *(17.36)*	0.408 *(0.248)*	17.11 *(3.37)*	
Standard Power Take-off Speed (540 rpm)					
76.4 *(57.0)*	2200	4.32 *(16.35)*	0.393 *(0.239)*	17.71 *(3.49)*	
VARYING POWER AND FUEL CONSUMPTION					
78.4 *(58.5)*	2500	4.59 *(17.36)*	0.408 *(0.248)*	17.11 *(3.37)*	Air temperature
70.5 *(52.6)*	2639	4.42 *(16.73)*	0.437 *(0.266)*	15.94 *(3.14)*	81°F *(27°C)*
53.2 *(39.7)*	2659	3.72 *(14.08)*	0.487 *(0.296)*	14.31 *(2.82)*	Relative humidity
35.8 *(26.7)*	2681	2.76 *(10.43)*	0.536 *(0.326)*	12.99 *(2.56)*	45%
18.1 *(13.5)*	2708	2.18 *(8.25)*	0.841 *(0.511)*	8.29 *(1.63)*	Barometer
-- --	2750	1.27 *(4.81)*	-- --	-- --	27.0" Hg *(91.3 kPa)*

Maximum Torque - 239.8 lb.-ft. *(325.1 Nm)* at 1350 rpm
Maximum Torque Rise - 45.2%
Torque rise at 2000 engine rpm - 18%

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—8th (III-1) Gear									
60.9 *(45.4)*	4065 *(18.08)*	5.62 *(9.04)*	2500	6.2	0.524 *(0.318)*	13.20 *(2.60)*	171 *(77)*	73 *(23)*	27.2 *(91.7)*
75% of Pull at Maximum Power—8th (III-1) Gear									
49.1 *(36.6)*	3050 *(13.56)*	6.04 *(9.72)*	2640	4.5	0.597 *(0.363)*	11.57 *(2.28)*	171 *(77)*	73 *(23)*	27.2 *(91.7)*
50% of Pull at Maximum Power—8th (III-1) Gear									
33.8 *(25.2)*	2035 *(9.04)*	6.23 *(10.02)*	2670	2.7	0.667 *(0.406)*	10.36 *(2.04)*	171 *(77)*	73 *(23)*	27.2 *(91.7)*
75% of Pull at Reduced Engine Speed—9th (II-4) Gear									
48.7 *(36.3)*	3035 *(13.49)*	6.02 *(9.68)*	2061	4.4	0.516 *(0.314)*	13.40 *(2.64)*	171 *(77)*	73 *(23)*	27.2 *(91.7)*
50% of Pull at Reduced Engine Speed—9th (II-4) Gear									
33.7 *(25.1)*	2040 *(9.08)*	6.20 *(9.97)*	2085	2.7	0.579 *(0.352)*	11.93 *(2.35)*	171 *(77)*	73 *(23)*	27.2 *(91.7)*

Locations of tests: DAEMTC (The Directorate of Agricultural Equipment and Machinery Testing Centre) Ankara, Turkey and CNH America LLC Burr Ridge, Il. USA

Dates of Test: July - August, 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)*** 0.837 **Fuel weight** 6.97 lbs/gal *(0.835 kg/l)* **Oil SAE** 20W-50 **API service classification** DM/12 **Transmission and hydraulic lubricant** BP Terrac Tractan 8 fluid **Front axle lubricant** BP Terrac Tractan 8 fluid

ENGINE: Make Iveco Diesel **Type** four cylinder vertical with turbocharger **Serial No.** *639-997465* **Crankshaft** lengthwise **Rated engine speed** 2500 **Bore and stroke** 4.094" x 4.528" *(104.0 mm x 115.0 mm)* **Compression ratio** 18.0 to 1 **Displacement** 238 cu in *(3908 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** paper element **Oil filter** two cartridges **Fuel filter** one paper element **Muffler** underhood **Exhaust** vertical **Cooling medium temperature control** thermostat

CHASSIS: Type 2WD & front wheel assist **Serial No.** 2WD-HFD018109, FWA-J9C7AA **Tread width** rear 59.6" *(1515 mm)* to 79.3" *(2015 mm)* front 2WD-54.1" *(1375 mm)* to 69.9" *(1775 mm)* FWA-60.2" *(1530 mm)* to 77.0" *(1955 mm)* **Wheel base** 2WD-90.7" *(2305 mm)*, FWA-88.5" *(2249 mm)* **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph *(km/h)*** first 1.10 *(1.77)* second 1.70 *(2.73)* third 2.31 *(3.71)* fourth 2.57 *(4.14)* fifth 3.31 *(5.32)* sixth 3.96 *(6.38)* seventh 5.39 *(8.67)* eighth 6.05 *(9.74)* ninth 7.72 *(12.42)* tenth 9.33 *(15.01)* eleventh 12.69 *(20.42)* twelfth 18.18 *(29.25)* reverse 1.08 *(1.74)*, 1.67 *(2.68)*, 2.26 *(3.64)*, 2.52 *(4.06)*, 3.24 *(5.21)*, 3.88 *(6.25)*, 5.28 *(8.50)*, 5.93 *(9.55)*, 7.57 *(12.18)*, 9.15 *(14.72)*, 12.43 *(20.01)*, 17.82 *(28.67)* **Clutch** dual dry disc operated by foot pedal **Brakes** wet disc operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2200 engine rpm and 1000 rpm at 2382 engine rpm **Unladen tractor mass** 2WD - 6825 lb *(3095 kg)*, FWA - 7680 lb *(3483 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)*
				5th (I-4) Gear					
50.0 *(37.3)*	6520 *(29.01)*	2.88 *(4.63)*	2590	15.0	0.613 *(0.373)*	11.27 *(2.22)*	185 *(85)*	75 *(24)*	27.0 *(91.5)*
				6th (II-2) Gear					
55.0 *(41.0)*	5890 *(26.20)*	3.50 *(5.63)*	2500	10.7	0.565 *(0.344)*	12.23 *(2.41)*	185 *(85)*	75 *(24)*	27.0 *(91.5)*
				7th (II-3) Gear					
57.7 *(43.0)*	4330 *(19.27)*	5.00 *(8.04)*	2504	6.5	0.546 *(0.332)*	12.64 *(2.49)*	185 *(85)*	75 *(24)*	27.0 *(91.5)*
				8th (III-1) Gear					
60.9 *(45.4)*	4065 *(18.08)*	5.62 *(9.04)*	2500	6.2	0.524 *(0.318)*	13.20 *(2.60)*	185 *(85)*	75 *(24)*	27.0 *(91.5)*
				9th (II-4) Gear					
58.0 *(43.2)*	2965 *(13.20)*	7.33 *(11.79)*	2503	4.2	0.514 *(0.331)*	12.69 *(2.50)*	185 *(85)*	75 *(24)*	27.0 *(91.5)*
				10th (III-2) Gear					
56.7 *(42.3)*	2395 *(10.65)*	8.88 *(14.30)*	2500	3.7	0.548 *(0.333)*	12.61 *(2.48)*	185 *(85)*	75 *(24)*	27.0 *(91.5)*

REPAIRS AND ADJUSTMENTS: The fuel pump and fuel injectors were replaced.

NOTE 1: The PTO and drawbar results shown on this report are from tests conducted on the New Holland TD 90D.

NOTE 2: The performance data on this summary applies to tractor chassis serial numbers HFJ013287 and higher.

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 3 point lift capacity of 5950 lbs *(2700 kg)*. The performance results on this summary were taken from OECD tests conducted under the Code II Test Code procedure.

We, the undersigned, certify that this is a true summary of data from OECD Reports No. **2177** & **2178,** Nebraska Summary 462, April 1 2005.

Leonard L. Bashford
Director

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

TRACTOR SOUND LEVEL WITHOUT CAB	Front Wheel Drive Engaged dB(A)	Front Wheel Drive Disengaged dB(A)
At no load in 7th(II-3) Gear	88.4	88.2
Bystander	–	–

TIRES AND WEIGHT	Tested Without Ballast Front Wheel Assist	2WD
Rear tires - No.,size, ply & psi(*kPa)*	Two 18.4R30;**; 22(*150)*	Two 420/85R34;**;22(*150)*
Front tires - No.,size, ply & psi(*kPa)*	Two 12.4R24;**; 22(*150)*	Two 9.00-16; 8; 44 *(300)*
Height of Drawbar	15.2 in *(410 mm)*	14.8 in *(405 mm)*
Static Weight with operator- Rear	4570 lb (*2073 kg)*	4700 lb *(2131 kg)*
- Front	3290 lb (*1492 kg)*	2280 lb *(1034 kg)*
- Total	7860 lb (*3565 kg)*	6980 lb *(3165 kg)*

DRAWBAR PERFORMANCE

(Unballasted - 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 *(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
				Maximum Power—8th(III-1) Gear					
56.7	3800	5.59	2501	10.3	0.565	12.23	154	72	27.1
(42.3)	*(16.90)*	*(9.00)*			*(0.344)*	*(2.41)*	*(68)*	*(22)*	*(91.7)*
				75% of Pull at Maximum Power—8th(III-1)Gear					
46.4	2850	6.11	2637	7.1	0.636	10.86	154	72	27.1
(34.6)	*(12.68)*	*(9.83)*			*(0.387)*	*(2.14)*	*(68)*	*(22)*	*(91.7)*
				50% of Pull at Maximum Power—8th(III-1) Gear					
32.1	1900	6.33	2670	5.0	0.732	9.44	154	72	27.1
(23.9)	*(8.45)*	*(10.18)*			*(0.445)*	*(1.86)*	*(68)*	*(22)*	*(91.7)*
				75% of Pull at Reduced Engine Speed—9th(II-4) Gear					
46.4	2850	6.11	2069	7.1	0.518	13.35	154	72	27.1
(34.6)	*(12.68)*	*(9.84)*			*(0.315)*	*(2.63)*	*(68)*	*(22)*	*(91.7)*
				50% of Pull at Reduced Engine Speed—9th(II-4) Gear					
32.0	1895	6.33	2095	4.9	0.596	11.69	154	72	27.1
(23.9)	*(8.43)*	*(10.19)*			*(0.362)*	*(2.28)*	*(68)*	*(22)*	*(91.7)*
				MAXIMUM POWER IN SELECTED GEARS					
				6th(II-2) Gear					
44.3	4575	3.63	2617	15.0	0.669	10.34	162	75	27.0
(33.0)	*(20.34)*	*(5.84)*			*(0.407)*	*(2.04)*	*(72)*	*(24)*	*(91.5)*
				7th(II-3) Gear					
54.8	4165	4.93	2500	11.1	0.582	11.88	162	75	27.0
(40.9)	*(18.53)*	*(7.94)*			*(0.354)*	*(2.34)*	*(72)*	*(24)*	*(91.5)*
				8th(III-1) Gear					
56.7	3800	5.59	2501	10.3	0.565	12.23	162	75	27.0
(42.3)	*(16.90)*	*(9.00)*			*(0.344)*	*(2.41)*	*(72)*	*(24)*	*(91.5)*
				9th(II-4) Gear					
55.4	2825	7.36	2498	7.3	0.567	12.18	162	75	27.0
(41.3)	*(12.56)*	*(11.85)*			*(0.345)*	*(2.40)*	*(72)*	*(24)*	*(91.5)*
				10th(III-2) Gear					
54.3	2265	8.98	2500	6.5	0.571	12.10	162	75	27.0
(40.5)	*(10.08)*	*(14.45)*			*(0.347)*	*(2.38)*	*(72)*	*(24)*	*(91.5)*

THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: II
Quick Attach: none
Maximum Force Exerted Through Whole Range: 3620 lbs *(16.1 kN)*

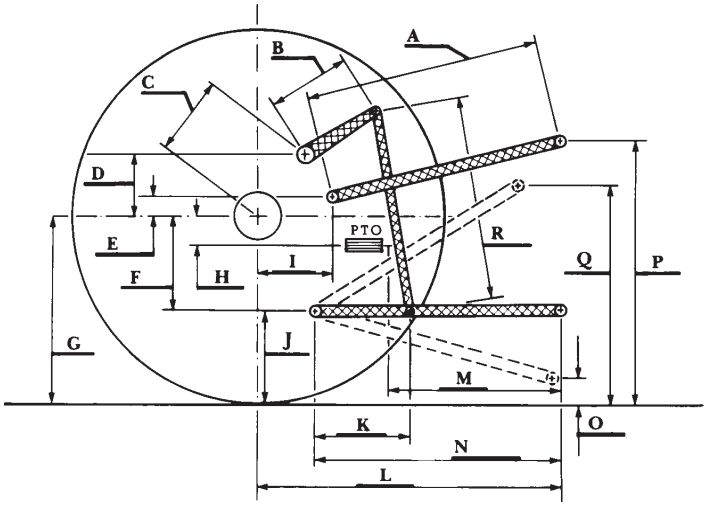
i) Opening pressure of relief valve:	NA	
Sustained pressure of the open relief valve:	2830 psi	*(195 bar)*
ii) Pump delivery rate at minimum pressure and rated engine speed:	15.6 GPM	*(59.0 l/min)*
iii) Pump delivery rate at maximum hydraulic power:	14.7 GPM	*(55.7 l/min)*
Delivery pressure:	2110 psi	*(145 bar)*
Power:	18.1 HP	*(13.5 kW)*

THREE POINT HITCH PERFORMANCE (SAE test)

Observed Maximum Pressure psi. *(bar)*	2580 *(178)*
Location:	hydraulic manifold
Hydraulic oil temperature: °F *(°C)*	149 *(65)*
Location:	hydraulic sump
Category:	II
Quick attach:	none

SAE Static Test—System pressure 2325 psi *(160 Bar)*

Hitch point distance to ground level in. *(mm)*	8.0 *(203)*	15.0 *(380)*	21.9 *(556)*	29.0 *(737)*	36.0 *(914)*
Lift force on frame lb	5652	5862	5487	5658	5002
" " " " " " *(kN)*	*(25.1)*	*(26.1)*	*(24.4)*	*(25.2)*	*(22.3)*



HITCH DIMENSIONS AS TESTED—NO LOAD

	OECD test		SAE test	
	inch	*mm*	inch	*mm*
A	32.9	*835*	31.6	*803*
B	10.0	*255*	10.0	*255*
C	11.6	*295*	11.6	*295*
D	11.6	*295*	11.6	*295*
E	7.9	*200*	9.4	*240*
F	7.9	*200*	7.9	*200*
G	28.4	*720*	27.4	*695*
H	0.2	*5*	0.2	*5*
I	6.9	*175*	6.9	*175*
J	20.5	*520*	19.5	*495*
K	18.1	*460*	21.1	*535*
L	40.4	*1025*	40.4	*1025*
M	28.1	*715*	28.1	*715*
N	38.2	*970*	38.2	*970*
O	7.9	*200*	8.0	*203*
P	45.3	*1130*	38.3	*973*
Q	37.0	*940*	33.6	*854*
R	23.8	*605*	25.7	*654*