

SUMMARY OF OECD TESTS 2456 & 2459 — NEBRASKA SUMMARY 716

CASE IH FARMALL 75C DIESEL

16 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/lp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION					
Rated Engine Speed (PTO speed—565 rpm)					
66.5 (49.6)	2307	4.33 (16.39)	0.456 (0.277)	15.35 (3.02)	
Standard Power Take-off speed (538 rpm)					
65.3 (48.7)	2196	4.31 (16.33)	0.462 (0.281)	15.14 (2.98)	
VARYING POWER AND FUEL CONSUMPTION					
66.5 (49.6)	2307	4.33 (16.39)	0.456 (0.277)	15.35 (3.02)	Air temperature
59.7 (44.5)	2435	4.01 (15.18)	0.470 (0.286)	14.87 (2.93)	73°F (23°C)
45.5 (33.9)	2481	3.39 (12.82)	0.522 (0.317)	13.40 (2.64)	Relative humidity
30.8 (23.0)	2506	2.61 (9.88)	0.593 (0.361)	11.78 (2.32)	55%
15.4 (11.5)	2552	1.99 (7.52)	0.900 (0.548)	7.76 (1.53)	Barometer
--	2578	1.46 (5.51)	--	--	30.0" Hg (101.6 kPa)
Maximum torque -237.0 lb.-ft. (321.3 Nm) at 996 rpm Maximum torque rise -56.7% Torque rise at 1850 engine rpm -14%					

Location of tests: Alma Mater Studiorum, University
Di Bologna, Via Gandolfi, 19-40057, Cadriano,
Bologna, Italy

Dates of tests: April to May, 2008

Manufacturer: CNH Italia SpA, Viale delle Nazioni
55, Modena, 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 CH-4 **Transmission and hydraulic lubricant** Akcela Nexplore fluid
Front axle lubricant Akcela Nexplore fluid

ENGINE: **Make** Iveco Diesel **Type** four cylinder vertical with turbocharger and air to air intercooler
Serial No. 0003170 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 3.898" x 4.094" (99.0 mm x 104.0 mm) **Compression ratio** 17.5 to 1
Displacement 195 cu in (3200 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

CHASSIS: **Type** front wheel assist **Serial No.** H7JB01028 **Tread width** rear 48.5" (1232 mm) to 76.7" (1949 mm) front 48.7" (1236 mm) to 76.6" (1945 mm) **Wheel base** 82.6" (2098 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph(km/h)** first 0.49(0.79) second 0.73(1.18) third 1.08(1.73) fourth 1.64(2.64) fifth 2.06(3.32) sixth 2.52(4.06) seventh 3.07(4.94) eighth 3.76(6.05) ninth 4.52(7.27) tenth 5.52(8.89) eleventh 6.90(11.10) twelfth 7.28(11.72) thirteenth 8.44(13.59) fourteenth 10.86(17.47) fifteenth 15.96(25.68) sixteenth 24.38(39.23) reverse 0.46(0.74), 0.69(1.11), 1.01(1.62), 1.54(2.48), 1.94(3.12), 2.37(3.81), 2.88(4.64), 3.53(5.68), 4.24(6.83), 5.19(8.36), 6.48(10.43), 6.84(11.01), 7.93(12.76), 10.20(16.41), 14.99(24.12), 22.90(36.85) **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 2206 engine rpm or 1000 rpm at 2260 engine rpm **Unladen tractor mass** w/rear roll bar- 7045 lbs (3195 kg), w/cab - 8025 lb (3640 kg)

**Famall 75C - with rear roll bar
(Unballasted - Front Drive Engaged)**

**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)	Hp.hr/gal (kW.h/l)	Temp. °F (°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)
Maximum Power—10th(3MH)Gear									
56.9 (42.4)	4080 (18.14)	5.23 (8.42)	2298	5.8	0.526 (0.320)	13.30 (2.62)	203 (95)	81 (27)	30.0 (101.7)
75% of Pull at Maximum Power—10th(3MH) Gear									
45.9 (34.3)	3060 (13.62)	5.63 (9.06)	2433	4.4	0.565 (0.344)	12.38 (2.44)	203 (95)	81 (27)	30.0 (101.7)
50% of Pull at Maximum Power—10th(3MH)Gear									
31.4 (23.4)	2035 (9.05)	5.78 (9.30)	2485	3.3	0.634 (0.386)	11.01 (2.17)	203 (95)	77 (25)	30.0 (101.7)
75% of Pull at Reduced Engine Speed—12th(1H) Gear									
46.0 (34.3)	3065 (13.64)	5.63 (9.06)	1844	4.2	0.558 (0.339)	12.54 (2.47)	201 (94)	79 (26)	30.0 (101.7)
50% of Pull at Reduced Engine Speed—12th(1H) Gear									
31.4 (23.4)	2035 (9.06)	5.78 (9.30)	1871	3.2	0.628 (0.382)	11.13 (2.19)	203 (95)	77 (25)	30.0 (101.7)

MAXIMUM POWER IN SELECTED GEARS

6th(1MH) Gear									
38.6 (28.8)	6275 (27.91)	2.31 (3.71)	2465	15.0	0.624 (0.380)	11.20 (2.21)	203 (95)	79 (26)	30.0 (101.7)
7th(2ML) Gear									
44.9 (33.5)	5990 (26.65)	2.81 (4.52)	2433	14.1	0.591 (0.360)	11.83 (2.33)	201 (94)	81 (27)	30.0 (101.7)
8th(2MH) Gear									
52.0 (38.8)	5570 (24.77)	3.50 (5.64)	2398	11.2	0.549 (0.334)	12.74 (2.51)	203 (95)	81 (27)	30.0 (101.7)
9th(3ML) Gear									
54.3 (40.5)	4915 (21.87)	4.14 (6.67)	2295	8.7	0.547 (0.333)	12.79 (2.52)	205 (96)	79 (26)	30.0 (101.7)
10th(3MH) Gear									
56.9 (42.4)	4080 (18.14)	5.23 (8.42)	2298	5.8	0.526 (0.320)	13.30 (2.62)	203 (95)	81 (27)	30.0 (101.7)
11th(4ML) Gear									
57.5 (42.9)	3275 (14.57)	6.58 (10.59)	2302	4.9	0.522 (0.317)	13.40 (2.64)	203 (95)	79 (26)	30.0 (101.7)
12th(1H) Gear									
57.1 (42.6)	3055 (13.58)	7.01 (11.29)	2304	4.2	0.526 (0.320)	13.30 (2.62)	205 (96)	81 (27)	30.0 (101.7)
13th(4MH) Gear									
55.3 (41.2)	2545 (11.31)	8.15 (13.12)	2301	3.7	0.542 (0.330)	12.89 (2.54)	203 (95)	79 (26)	30.0 (101.7)
14th(2H) Gear									
54.6 (40.7)	1925 (8.56)	10.64 (17.13)	2307	3.2	0.548 (0.333)	12.76 (2.51)	205 (96)	79 (26)	30.0 (101.7)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The manufacturer's claim of 16.9 gpm (64 l/min) remote hydraulic flow was not verified. The performance results on this summary were taken from OECD tests conducted under the OCED Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Reports No. **2456** and **2459**, Nebraska summary 716, March 19, 2010.

Roger M. Hoy
Director

M.F. Kocher
D.R. Keshwani
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Board of Tractor Test Engineers

TIRES AND WEIGHT

Rear tires—No., size, ply & psi (kPa)
Front tires—No., size, ply & psi (kPa)
Height of drawbar
Static weight with operator—Rear
— Front
— Total

Tested without ballast

Two 16.9R30; **; 23 (160)
Two 11.2R24; **; 23 (160)
19.3 in (490 mm)
4410 lb (2000 kg)
2800 lb (1270 kg)
7210 lb (3270 kg)

Famall 75C - with cab
(Unballasted - Front Drive Engaged)
DRAWBAR PERFORMANCE

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	
Maximum Power—10th(3MH)Gear									
56.9 (42.4)	4065 (18.09)	5.25 (8.44)	2305	5.6	0.529 (0.322)	13.23 (2.61)	194 (90)	70 (21)	29.9 (101.4)
75% of Pull at Maximum Power—10th(3MH) Gear									
46.2 (34.5)	3055 (13.60)	5.67 (9.12)	2436	3.7	0.565 (0.344)	12.38 (2.44)	194 (90)	72 (22)	29.9 (101.4)
50% of Pull at Maximum Power—10th(3MH)Gear									
31.6 (23.6)	2040 (9.07)	5.81 (9.35)	2479	2.7	0.661 (0.402)	10.57 (2.08)	196 (91)	73 (23)	29.9 (101.4)
75% of Pull at Reduced Engine Speed—11th(4ML) Gear									
46.3 (34.5)	3060 (13.62)	5.67 (9.13)	1957	3.6	0.542 (0.330)	12.89 (2.54)	196 (91)	70 (21)	29.9 (101.4)
50% of Pull at Reduced Engine Speed—11th(4ML) Gear									
31.5 (23.6)	2040 (9.08)	5.81 (9.35)	1972	2.4	0.624 (0.380)	11.20 (2.21)	194 (90)	70 (21)	29.9 (101.4)

MAXIMUM POWER IN SELECTED GEARS

6th(1MH) Gear									
43.3 (32.3)	7000 (31.13)	2.32 (3.73)	2464	14.6	0.545 (0.332)	12.83 (2.53)	194 (90)	73 (23)	29.9 (101.4)
7th(2ML) Gear									
49.4 (36.9)	6540 (29.09)	2.83 (4.56)	2423	13.0	0.553 (0.336)	12.65 (2.49)	194 (90)	70 (21)	29.9 (101.4)
8th(2MH) Gear									
52.3 (39.0)	5800 (25.79)	3.38 (5.44)	2299	10.3	0.571 (0.347)	12.25 (2.41)	196 (91)	72 (22)	29.9 (101.4)
9th(3ML) Gear									
55.7 (41.5)	4975 (22.12)	4.20 (6.76)	2301	7.4	0.538 (0.327)	12.99 (2.56)	196 (91)	70 (21)	29.9 (101.4)
10th(3MH) Gear									
56.9 (42.4)	4065 (18.09)	5.25 (8.44)	2305	5.6	0.529 (0.322)	13.23 (2.61)	194 (90)	70 (21)	29.9 (101.4)
11th(4ML) Gear									
57.9 (43.2)	3265 (14.53)	6.65 (10.70)	2300	4.2	0.517 (0.315)	13.50 (2.66)	194 (90)	73 (23)	29.9 (101.4)
12th(1H) Gear									
57.3 (42.7)	3055 (13.58)	7.04 (11.33)	2298	3.6	0.524 (0.319)	13.35 (2.63)	196 (91)	70 (21)	29.9 (101.4)
13th(4MH) Gear									
55.9 (41.7)	2540 (11.31)	8.25 (13.28)	2301	2.9	0.534 (0.325)	13.10 (2.58)	196 (91)	70 (21)	29.9 (101.4)
14th(2H) Gear									
56.2 (41.9)	1975 (8.78)	10.67 (17.17)	2304	2.5	0.534 (0.325)	13.10 (2.58)	196 (91)	70 (21)	29.9 (101.4)

TIRES AND WEIGHT

Rear tires—No., size, ply & psi (kPa)

Front tires—No., size, ply & psi (kPa)

Height of drawbar

Static weight with operator—Rear

— Front

— Total

Tested without ballast

Two 16.9R30; **; 23 (160)

Two 11.2R24; ***; 23 (160)

19.3 in (490 mm)

5080 lb (2305 kg)

3110 lb (1410 kg)

8190 lb (3715 kg)

TRACTOR SOUND LEVEL WITHOUT CAB	FWA dB(A)	2WD dB(A)
At no load in 9th (3ML) gear	82.9	82.9
Bystander	--	--

TRACTOR SOUND LEVEL WITH CAB	FWA dB(A)	2WD dB(A)
At no load in 9th (3ML) gear	77.9	77.9
Bystander	--	--

HYDRAULIC PERFORMANCE

CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range:	2950 lbs (13.12 kN)
i) Sustained pressure with relief valve open:	2815 psi (194 bar)
ii) Pump delivery rate at minimum pressure:	13.9 GPM (52.5 l/min)
iii) Pump delivery rate at maximum	
hydraulic power:	12.3 GPM (46.6 l/min)
Delivery pressure:	2480 psi (171 bar)
Power:	17.8 hp (13.3 kW)

HITCH DIMENSIONS AS TESTED—NO LOAD

	SAE TEST		OECD TEST	
	inch	mm	inch	mm
A	27.2	690	27.2	690
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	14.5	369
P	39.1	994	44.1	1121
Q	38.7	983	40.2	1020
R	22.4	570	22.5	571

THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed maximum pressure psi. (bar)	2975 (205)
Location:	remote outlets
Hydraulic oil temperature: °F (°C)	113 (45)
Location:	hydraulic sump
Category:	II
Quick attach:	none

System pressure 2675 psi (185 Bar)

Hitch point distance to ground level in. (mm)	17.6 (448)	22.0 (558)	26.2 (665)	30.2 (766)	34.4 (875)	38.7 (983)
Lift force on frame lb	4925	5105	4970	4675	4180	4115
" " " " " " (kN)	(21.9)	(22.7)	(22.1)	(20.8)	(18.6)	(18.3)

