

SUMMARY OF OECD TEST 3004-NEBRASKA SUMMARY 1133

CASE IH FARMALL 100C DIESEL

12 SPEED

POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Diesel Consumption		D.E.F. Consumption		Mean Atmospheric Conditions
		Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Gal/hr (l/h)	

MAXIMUM POWER AND FUEL CONSUMPTION

Rated Engine Speed—(PTO speed—632 rpm)						
79.3 (59.1)	2291	5.16 (19.55)	0.456 (0.277)	15.33 (3.02)	0.17 (0.65)	
Standard Power Take-off Speed (540 rpm)						
85.3 (63.6)	1958	4.86 (18.40)	0.398 (0.242)	17.56 (3.46)	0.11 (0.43)	
Maximum Power (1 hour)						
85.8 (64.0)	1889	4.81 (18.19)	0.391 (0.238)	17.87 (3.52)	0.11 (0.42)	

VARYING POWER AND FUEL CONSUMPTION

79.3 (59.1)	2291	5.16 (19.55)	0.456 (0.277)	15.33 (3.02)	0.17 (0.65)	Air temperature
68.1 (50.8)	2320	4.73 (17.90)	0.485 (0.295)	14.42 (2.84)	0.16 (0.59)	76°F (24°C)
51.6 (38.5)	2342	3.95 (14.96)	0.536 (0.326)	13.05 (2.57)	0.12 (0.47)	Relative humidity
34.7 (25.9)	2364	3.20 (12.10)	0.643 (0.391)	10.87 (2.14)	0.10 (0.37)	59%
17.5 (13.1)	2385	2.50 (9.45)	0.997 (0.606)	7.02 (1.38)	0.07 (0.26)	Barometer
---	2407	1.84 (6.95)	---	---	0.05 (0.20)	30.0" Hg (101.5 kPa)

Maximum torque - 283 lb.-ft. (384 Nm) at 1439 rpm
 Maximum torque rise - 55.9%
 Torque rise at 1889 engine rpm - 31%
 Power increase at 1889 engine rpm - 8.3%

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)	D.E.F. Consumption lb/hp.hr (kg/kW.h)	Temp. °F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)	
Power at Rated Engine Speed—8th (4M) Gear										
66.0 (49.2)	4015 (17.87)	6.16 (9.92)	2300	5.6	0.503 (0.306)	13.91 (2.74)	0.021 (0.013)	208 (98)	77 (25)	30.1 (101.8)
75% of Pull at Rated Engine Speed—8th (4M) Gear										
50.6 (37.7)	3015 (13.40)	6.29 (10.13)	2322	4.5	0.636 (0.387)	11.00 (2.17)	0.026 (0.016)	208 (98)	77 (25)	30.1 (101.8)
50% of Pull at Rated Engine Speed—8th (4M) Gear										
34.8 (25.9)	2010 (8.94)	6.49 (10.44)	2345	2.8	0.769 (0.468)	9.09 (1.79)	0.035 (0.021)	207 (97)	77 (25)	30.1 (101.8)
75% of Pull at Reduced Engine Speed—9th (1H) Gear										
50.6 (37.7)	3015 (13.40)	6.29 (10.13)	1861	4.3	0.584 (0.355)	11.98 (2.36)	0.025 (0.015)	208 (98)	77 (25)	30.1 (101.8)
50% of Pull at Reduced Engine Speed—9th (1H) Gear										
34.8 (25.9)	2010 (8.94)	6.49 (10.44)	1892	2.9	0.746 (0.454)	9.38 (1.85)	0.033 (0.020)	208 (98)	77 (25)	30.1 (101.8)

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

Dates of tests: April, 2016

Manufacturer: CNH Industrial Italia S.p.A, viale delle, Nazioni 55, 41122 - Modena, Italy

CONSUMABLE Fluids, OIL and TIME: 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) **Diesel Exhaust Fluid (DEF)** 32% aqueous urea solution **DEF weight** 9.071 lbs/gal (1.087 kg/l) **Oil SAE 10W30 API service classification CJ-4 Transmission and hydraulic lubricant** Akcela Nexplora fluid **Front axle lubricant** Akcela Nexplora fluid

ENGINE: Make F.P.T Industrial Diesel **Type** Four cylinder vertical with turbocharger, air to air intercooler and D.E.F. (diesel exhaust fluid) exhaust treatment **Serial No.** 284123 **Crankshaft** lengthwise **Rated engine speed** 2300 **Bore and stroke** 3.898" x 4.331" (99.0 mm x 110.0 mm) **Compression ratio** 17.0 to 1 **Displacement** 207 cu in (3387 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 **Exhaust** DOC (diesel oxidation catalyst) and SCR (selective catalyst reduction) integrated within a vertical muffler **Cooling medium temperature control** one thermostat and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** ZFLF 00452 **Tread width** rear 52.6" (1337mm) to 76.3" (1937 mm) front 48.6" (1235 mm) to 76.7" (1947 mm) **Wheelbase** 90.0" (2285 mm) **Hydraulic control system** direct engine drive **Transmission** selective gear fixed ratio **Nominal travel speeds mph (km/h)** first 0.60 (0.97) second 0.92 (1.48) third 1.35 (2.17) fourth 1.87 (3.01) fifth 2.08 (3.34) sixth 3.18 (5.11) seventh 4.65 (7.48) eighth 6.45 (10.38) ninth 7.99 (12.86) tenth 12.22 (19.67) eleventh 17.90 (28.80) twelfth 24.84 (39.97) reverse 0.60 (0.97), 0.92 (1.48), 1.34 (2.16), 1.86 (3.00), 2.07 (3.33), 3.16 (5.09), 4.64 (7.46), 6.43 (10.35), 7.97 (12.82), 12.19 (19.61), 17.85 (28.72), 24.77 (39.86) **Clutch** single dry disc operated by foot pedal **Brakes** single wet disc operated by two foot pedals which can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 1957 engine rpm or 1000 rpm at 2125 engine rpm **Unladen tractor mass** 8225 lb (3730 kg)

**DRAWBAR PERFORMANCE AT 1889 ENGINE RPM
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)	D.E.F Consumption Hp.hr/gal (kW.h/l)	Temp.°F(°C) cool- ing med	Air dry bulb	Barom. inch Hg (kPa)	
6th (2M) Gear										
50.7 (37.8)	6830 (30.39)	2.78 (4.48)	2339	15.0	0.569 (0.346)	12.28 (2.42)	0.025 (0.015)	208 (98)	79 (26)	30.1 (101.8)
7th (3M) Gear										
55.1 (41.1)	6010 (26.73)	3.44 (5.54)	1886	11.0	0.604 (0.368)	11.57 (2.28)	0.026 (0.016)	207 (97)	77 (25)	30.1 (101.8)
8th (4M) Gear										
70.5 (52.6)	5365 (23.86)	4.93 (7.93)	1888	8.4	0.475 (0.289)	14.72 (2.90)	0.021 (0.013)	207 (97)	77 (25)	30.1 (101.8)
9th (1H) Gear										
73.1 (54.5)	4405 (19.59)	6.22 (10.01)	1881	6.0	0.460 (0.280)	15.21 (3.00)	0.021 (0.013)	208 (98)	77 (25)	30.1 (101.8)
10th (2H) Gear										
72.8 (54.3)	2790 (12.42)	9.78 (15.73)	1884	3.7	0.460 (0.280)	15.21 (3.00)	0.021 (0.013)	207 (97)	77 (25)	30.1 (101.8)

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The manufacturer's 3 point lift capacity claim of 7351 lbs (3334 kg), with optional lift cylinders, was not verified. The performance results on this summary were taken from tests conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **3004**, Nebraska Summary 1133, December 14, 2017.

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Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front Wheel Drive	
	Engaged dB(A)	Disengaged dB(A)
At no load in 7th (3M) gear	77.5	77.5
Bystander		---

Horizontal distance of drawbar hitch point behind rear wheel axis - 34.8 in (885 mm)

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 460/85R34; **; 23(160)
Two 380/85R24; **; 23(160)
18.1 in (460 mm)
5040 lb (2285 kg)
3350 lb (1520 kg)
8390 lb (3805 kg)

HYDRAULIC PERFORMANCE

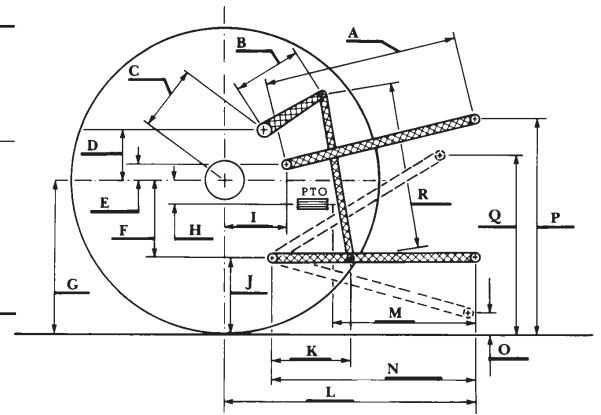
CATEGORY: II

Quick Attach: None

OECD Static test

Maximum force exerted through whole range: 5760 lbs (25.6 kN)

- | | |
|---|-----------------------|
| i) Sustained pressure with relief valve open: | 3000 psi (206 bar) |
| ii) Pump delivery rate at minimum pressure: | 17.1 GPM (65.0 l/min) |
| iii) Pump delivery rate at maximum | |
| hydraulic power: | 15.2 GPM (57.4 l/min) |
| Delivery pressure: | 2685 psi (185 bar) |
| Power: | 23.8 hp (17.7 kW) |



HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	mm
A	28.7	730
B	10.0	255
C	13.8	351
D	12.7	323
E	11.8	300
F	7.4	189
G	30.5	775
H	0.6	16
I	13.0	330
J	23.1	586
K	19.7	500
L	42.1	1070
M	23.2	590
N	36.0	915
O	16.3	415
P	47.1	1196
Q	40.9	1038
R	24.2	615

RECOMMENDED CITATION FORMAT:

NTTL.(2017). OECD tractor test 3004 for Case IH Farmall 100C Diesel.

Lincoln, NE:Nebraska Tractor Test Laboratory. Retrieved from <http://tractortestlab.unl.edu>