

 CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0100 New Off-Road Compression-Ignition Engines
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Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2003	3DZXL02.9012	2.2, 2.9	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Smoke Puff Limiter, Turbocharger			Pump, Compressor, Loader, Industrial Equipment	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

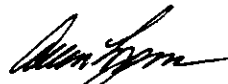
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	-	7.3	-	-	-	8	2	25

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 9TH day of December 2002.



Allen Lyons, Chief
Mobile Source Operations Division

Attachment 1 of 2

Manufacturer: DEUTZ AG
Engine Category: Nonroad CI
EPA Family Name: 3DZXL02.9012
Mfr. Family Name: BF3L1011FL
Process Code: New Submission

ENGINE MODEL SUMMARY FORM

U-R-013-0100

1. Engine code	2. Engine Model	3. BHP@ RPM	4. Fuel Rate @ Rated Power (mm ³ /stroke)	5. Fuel Rate (lbs./hr) Rated Power	6. Peak Torque @ RPM(NM)	7. Peak Torque (mm ³ /stroke)	8. Fuel Rate (lbs./hr) @ Peak Torque	9. Emission Control Device (SAE J1930)
C37	BF3L1011FL	50 2500	47.5	17.4	153 1800	50.0	13.5	EM D07, SP2, TC
C37/1	BF3L1011FL	50 2300	48.0	17.4	162 1800	53.0	14.3	EM
C38	BF3L1011FL	51 2650	50.0	17.8	154 1800	50.0	13.6	EM
C38/1	BF3L1011FL	51 2800	50.0	17.8	150 1800	49.0	13.3	EM
C39	BF3L1011FL	52 2500	49.0	18.3	163 1800	53.0	14.4	EM
C39.5	BF3L1011FL	53 2600	51.5	18.5	162 1800	53.0	14.3	EM
C40	BF3L1011FL	54 2650	51.5	18.8	162 1800	53.0	14.3	EM
C40/2	BF3L1011FL	54 2800	51.0	18.8	156 1800	50.0	13.8	EM
C42/1	BF3L1011FL	56 2800	52.5	19.7	164 1800	53.0	14.5	EM
C37.4	BF3M1011F	50 2300	50.5	17.5	169 1800	53.0	15.0	EM
C39.4	BF3M1011F	53 2300	52.5	18.5	177 1800	56.0	15.7	EM
C40/1	BF3M1011F	54 2500	51.0	18.8	172 1800	54.0	15.2	EM
C41.6	BF3M1011F	56 2650	51.5	19.5	172 1800	54.0	15.2	EM
C42	BF3M1011F	56 2500	53.0	19.7	179 1800	57.0	15.8	EM
C43.5	BF3M1011F	58 2800	52.5	20.4	174 1800	55.0	15.4	EM
C43.6	BF3M1011F	58 2650	53.5	20.4	179 1800	57.0	15.8	EM
C44.2	BF3M1011F	59 2700	54.0	20.7	179 1800	57.0	15.8	EM
C45.5	BF3M1011F	61 2800	54.5	21.3	182 1800	58	16.1	EM
C44.4	BF4M1011F	67 2000	50.5	23.5	220 1800	51	19.5	EM
C47	BF4M1011F	67 2000	53.0	23.5	232 1800	54.5	20.5	EM
C48.5	BF4M1011F	67 2300	48.5	23.5	222 1800	51.5	19.6	EM
C50.1	BF4M1011F	67 2300	51.5	23.5	230 1800	54	20.3	EM
C52.7	BF4M1011F	71 2300	53.5	24.7	238 1800	56.5	21.1	EM
C53.5	BF4M1011F	72 2500	51.0	25.1	235 1800	55.5	20.8	EM
C53.6	BF4M1011F	72 2350	53.5	25.1	239 1800	57	21.1	EM
C55.8	BF4M1011F	75 2650	52.0	26.2	240 1800	57	21.2	EM
C56.2	BF4M1011F	75 2500	54.0	26.4	244 1800	58.5	21.6	EM
C58	BF4M1011F	78 2750	53.0	27.2	245 1800	59	21.7	EM
C58.2	BF4M1011F	78 2800	53.0	27.3	245 1800	58.5	21.7	EM
C58.4	BF4M1011F	78 2650	54.5	27.4	249 1800	59.0	22.0	EM
C58/1	BF4M1011F	78 3000	52.0	27.2	245 1800	58.5	21.7	EM
C61	BF4M1011F	82 2800	55.0	28.6	255 1800	60	22.6	EM

2 of 2

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Mfr. Family Name: BF3L1011FL
Process Code: New Submission

ENGINE MODEL SUMMARY FORM

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1. Engine code	2. Engine Model	3. BHP @ RPM	4. Fuel Rate @ Rated Power (mm ³ /stroke)	5. Fuel Rate (lbs./hr) Rated Power	6. Peak Torque @ RPM(NM)	7. Peak Torque (mm ³ /stroke)	8. Fuel Rate (lbs./hr) @ Peak Torque	9. Emission Control Device (SAE J1930)
D45,6	BF4M1011F	61 1800	48.0	21.4	N/A N/A	N/A	N/A	EM DOF, SPL, TC
D48	BF4M1011F	64 1800	50.5	22.5	N/A N/A	N/A	N/A	EM L