 AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0103
		New Off-Road Compression-Ignition Engines

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	3DZXL02.7014	2.7	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Smoke Puff Limiter			Generator Set, Pump, 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	-	8.0	-	-	-	3	3	9

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 Log 2

Manufacturer: DEUTZ AG
 Engine Category: Nonroad CI
 EPA Family Name: 3DZXLO2.7014
 Mfr. Family Name: BF4L1011F
 Process Code: New Submission

ENGINE MODEL SUMMARY FORM

U-R-013-6103

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)
C43	BF4L1011F	58	2650	39.5	20.2	189	44.0	16.7	EM <i>DDF, TC, SPL</i>
C44/6	BF4L1011F	59	2500	42.0	20.6	189	44.0	16.7	EM
C46/5	BF4L1011F	62	2200	48.0	21.8	218	51.5	19.3	EM
C46/4	BF4L1011F	62	2300	46.0	21.6	207	48.5	18.3	EM
C48	BF4L1011F	64	2650	44.0	22.5	207	48.5	18.3	EM
C48.5/1	BF4L1011F	65	2300	48.5	22.7	218	51.5	19.3	EM
C49/1	BF4L1011F	66	2500	46.5	23.0	207	48.5	18.3	EM
C50.5	BF4L1011F	68	2350	49.0	23.7	218	51.5	19.3	EM
C51.5/2	BF4L1011F	69	2500	49.0	24.2	218	51.5	19.3	EM
C51.5/3	BF4L1011F	69	2550	49.0	24.2	218	51.5	19.3	EM
C51.5/4	BF4L1011F	69	2800	46.5	24.2	207	48.5	18.3	EM
C51.5/5	BF4L1011F	69	2650	47.0	24.2	207	48.5	18.3	EM
C51/1	BF4L1011F	68	2650	47.0	23.9	189	44.0	16.7	EM
C51/2	BF4L1011F	68	2500	48.5	23.9	218	51.5	19.3	EM
C53.5/1	BF4L1011F	72	2650	49.0	25.1	218	51.5	19.3	EM
C53/2	BF4L1011F	71	2800	47.5	24.9	207	48.5	18.3	EM
C53/3	BF4L1011F	71	3000	46.5	24.9	207	48.5	18.3	EM
C54/1	BF4L1011F	72	2700	47.5	25.3	207	48.5	18.3	EM
C55	BF4L1011F	74	2750	49.5	25.8	218	51.5	19.3	EM
C55.5/2	BF4L1011F	74	2800	49.5	26.0	218	51.5	19.3	EM
D36	BF4L1011F	48	1800	45.0	16.9	N/A	N/A	N/A	EM
D38	BF4L1011F	51	1800	48.0	17.8	N/A	N/A	N/A	EM
D40	BF4L1011F	54	1800	50.0	18.8	N/A	N/A	N/A	EM
D53	BF4L1011F	71	3000	46.5	24.9	N/A	N/A	N/A	EM
C42.3	BF4L1011FT	57	2200	44.0	19.8	199	46	17.6	EM
C42.5	BF4L1011FT	57	2300	43.0	19.9	194	44.5	17.2	EM
C42/1	BF4L1011FT	56	2300	42.5	19.7	194	44.5	17.2	EM
C43.5	BF4L1011FT	58	2300	43.5	20.4	189	44	16.7	EM
C43.5/1	BF4L1011FT	58	2500	41.5	20.4	189	43.5	16.7	EM
C44/3	BF4L1011FT	59	2600	41.0	20.6	189	43.5	16.7	EM
C44/4	BF4L1011FT	59	2500	42.0	20.6	189	43.5	16.7	EM
C44/5	BF4L1011FT	59	2300	44.0	20.6	199	46	17.6	EM

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ENGINE MODEL SUMMARY FORM

4-R-013-003

Manufacturer: DEUTZ AG
 Engine Category: Nonroad CI
 EPA Family Name: 3DZXLO2.7014
 Mfr. Family Name: BF4L1011F
 Process Code: New Submission

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)
C44/6	BF4L1011FT	59	3000	38.0	20.6	177	41	15.7	EM <i>DDI, TC, SV L</i>
C46/2	BF4L1011FT	62	2600	42.5	21.6	194	44.5	17.2	EM
C46/3	BF4L1011FT	62	2500	44.0	21.6	199	46.0	17.6	EM
C54	BF4M1011	72	2600	45.0	25.3	218	51.5	19.3	EM
C55,5/3	BF4M1011	74	2800	45.0	26.0	218	51.5	19.3	EM