

 <b>AIR RESOURCES BOARD</b>	<b>DEUTZ AG</b>	<b>EXECUTIVE ORDER U-R-013-0099</b>
		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	3DZXL03.8016	2.8, 3.8	Diesel	5000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Smoke Puff Limiter			Pump, Compressor, Generator Set, 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
19 ≤ kW < 37	Tier 1	STD	N/A	N/A	9.5	5.5	0.80	20	15	50
		CERT	-	-	9.1	3.5	0.57	11	9	16

**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 9<sup>TH</sup> day of December 2002.



Allen Lyons, Chief  
 Mobile Source Operations Division

*Attachment 1 of 1*

**ENGINE MODEL SUMMARY FORM**

*U-R-013-0099*

Manufacturer: DEUTZ AG  
 Engine Category: Nonroad CI  
 EPA Family Name: 3DZXLO3.8016  
 Mfr. Family Name: F3L912  
 Process Code: New Submission

1. Engine code	2. Engine Model	3. BHP@	RPM	4. Fuel Rate @ Rated Power (mm <sup>3</sup> /stroke)	5. Fuel Rate (lbs./hr) Rated Power	6. Peak Torque @ RPM(NM)	7. Peak Torque (mm <sup>3</sup> /stroke)	8. Fuel Rate (lbs./hr) @ Peak Torque	9. Emission Control Device (SAE J1930)
C30	F3L912	40	2000	49.5	14.1	164	57.0	12.1	EM
C32	F3L912	43	2150	50.5	15.0	164	57.0	12.1	EM
C32/1	F3L912	43	2000	52.5	15.0	172	57.0	12.7	EM
C34	F3L912	46	2000	56.5	15.9	180	57.0	13.3	EM
C35	F3L912	47	2300	54.0	16.4	164	57.0	12.1	EM
C35/1	F3L912	47	2150	55.5	16.4	172	57.0	12.7	EM
C36	F3L912	48	2300	56.0	16.9	172	57.0	12.7	EM
C36/1	F3L912	48	2150	57.5	16.9	180	57.0	13.3	EM
C36/2	F3L912	48	2500	54.0	16.9	164	57.0	12.1	EM
D25	F3L912	34	1500	52.0	11.7	N/A	N/A	N/A	EM
D27	F3L912	36	1500	56.0	12.7	N/A	N/A	N/A	EM
D28	F3L912	38	1800	47.0	13.1	N/A	N/A	N/A	EM
D29	F3L912	39	1800	49.0	13.6	N/A	N/A	N/A	EM
D30.5	F3L912	41	1800	51.0	14.3	N/A	N/A	N/A	EM
D31	F3L912	42	1800	52.5	14.5	N/A	N/A	N/A	EM
D32	F3L912	43	1800	56.0	15.0	N/A	N/A	N/A	EM
D33	F3L912	44	1800	60.0	15.5	N/A	N/A	N/A	EM
D35	F3L913	47	1800	60.0	16.4	N/A	N/A	N/A	EM
D29.5	F4L912	40	1800	37.0	13.8	N/A	N/A	N/A	EM
D36/1	F4L912	48	1800	44.5	16.9	N/A	N/A	N/A	EM

*EM BPT, SFL*