

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	3DZXL02.9013	2.9	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Smoke Puff Limiter			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	-	7.8	-	-	-	3	4	4

**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 1

Manufacturer: DEUTZ AG  
 Engine Category: Nonroad CI  
 EPA Family Name: 3DDZXL02:9013  
 Mfr. Family Name: F4L1011FL  
 Process Code: New Submission

ENGINE MODEL SUMMARY FORM

U-R-013-D101

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)
C39,1	F4L1011FL	52	2300	42.5	18.3	176	43.0	15.6	EM DDP, SPL
C40,2	F4L1011FL	54	2400	42.5	18.9	176	43.0	15.6	EM
C46,6	F4L1011FL	62	3000	44.5	21.9	176	43.0	15.6	EM
C36,5/1	F4M1011F	49	2300	39.0	17.1	167	40.5	14.8	EM
C37,9	F4M1011F	51	2300	39.0	17.8	167	40.0	14.8	EM
C39	F4M1011F	52	2250	42.5	18.3	176	43.0	15.6	EM
C39,8	F4M1011F	53	2300	43.0	18.7	176	43.0	15.6	EM
C40,2	F4M1011F	54	2500	39.5	18.9	167	40.0	14.8	EM
C41,3	F4M1011F	55	2600	40.0	19.4	167	40.0	14.8	EM
C42,1	F4M1011F	56	2500	42.5	19.7	176	43.0	15.6	EM
C43,3	F4M1011F	58	2600	42.5	20.3	176	43.0	15.6	EM
C43,6	F4M1011F	58	2800	41.5	20.4	167	40.0	14.8	EM
C44	F4M1011F	59	2650	42.5	20.6	176	43.0	15.6	EM
C45,2	F4M1011F	61	2750	43.0	21.2	176	43.0	15.6	EM
C45,8	F4M1011F	61	2800	43.0	21.5	176	43.0	15.6	EM
C46	F4M1011F	62	3000	42.0	21.6	167	40.0	14.8	EM
C47	F4M1011F	63	2900	44.0	22.0	176	43.0	15.6	EM
C48,1	F4M1011F	64	3000	44.5	22.6	176	43	15.6	EM