

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	3DZXLO5.7011	2.8, 3.8, 4.7, 5.7	Diesel	8000
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	STD	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	-	8.4	-	-	-	9	9	13

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 4

ENGINE MODEL SUMMARY FORM

U-R-013-0098

Manufacturer: DEUTZ AG
 Engine Category: Nonroad CI
 EPA Family Name: 3DZXLO5.7011
 Mfr. Family Name: F3L912
 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)
C38/11	F3L912	51	2350	54.0	17.9	172	47.0	12.7	EM DPF, SPL
C37	F3L912	50	2300	55.0	17.4	173	55.5	12.8	EM
C37/1	F3L912	50	2300	53.0	17.4	173	54.5	12.8	EM
C37/2	F3L912	50	2400	51.0	17.4	169	52.0	12.5	EM
C38	F3L912	51	2500	53.0	17.8	169	53.0	12.5	EM
C38.5	F3L912	52	2500	54.0	18.1	177	54.0	13.0	EM
C38.5/1	F3L912	52	2500	52.0	18.1	171	53.0	12.6	EM
C38/1	F3L912	51	2350	55.5	17.8	175	56.5	12.9	EM
C38/2	F3L912	51	2300	57.0	17.8	178	58.5	13.1	EM
C38/3	F3L912	51	2500	51.0	17.8	169	52.0	12.5	EM
C38/4	F3L912	51	2350	53.5	17.8	175	55.5	12.9	EM
C38/5	F3L912	51	2300	55.0	17.8	178	57.0	13.1	EM
C40	F3L912	54	2500	57.0	18.8	178	58.0	13.1	EM
C40/1	F3L912	54	2500	55.0	18.8	178	57.0	13.1	EM
C49/10	F4L912	66	2350	49.5	23.1	224	46.5	16.5	EM
C42	F4L912	56	2000	49.0	19.7	216	50.5	15.9	EM
C42/1	F4L912	56	2000	48.5	19.7	216	49.5	15.9	EM
C43	F4L912	58	2150	46.5	20.2	211	49.0	15.6	EM
C43/1	F4L912	58	2150	45.5	20.2	211	48.0	15.6	EM
C44/1	F4L912	59	2000	51.5	20.6	227	54.0	16.7	EM
C44/2	F4L912	59	2000	51.0	20.6	227	52.5	16.7	EM
C46	F4L912	62	2300	48.5	21.6	217	51.0	16.0	EM
C46/1	F4L912	62	2150	50.5	21.6	226	54.0	16.7	EM
C46/3	F4L912	62	2000	54.5	21.6	237	58.5	17.5	EM
C46/4	F4L912	62	2300	47.0	21.6	217	50.0	16.0	EM
C46/5	F4L912	62	2150	49.5	21.6	226	52.5	16.7	EM
C46/6	F4L912	62	2000	54.0	21.6	237	56.5	17.5	EM
C47	F4L912	63	2200	51.5	22.0	227	53.5	16.7	EM
C47/1	F4L912	63	2200	50.5	22.0	227	52.0	16.7	**EM
C48	F4L912	64	2500	47.5	22.5	216	50.0	15.9	EM
C48/1	F4L912	64	2250	51.5	22.5	229	54.0	16.9	EM
C48/2	F4L912	64	2250	50.5	22.5	229	52.5	16.9	EM

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ENGINE MODEL SUMMARY FORM

U-R-013-0098

Manufacturer: DEUTZ AG
 Engine Category: Nonroad CI
 EPA Family Name: 3DZXL05.7011
 Mr. Family Name: F3L912
 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 ² /stroke)	8. Fuel Rate (lbs./hr) @ Peak Torque	9. Emission Control Device (SAE J1930)	EM D02, S PL
C49/5	F4L912	66 2300	52.0	23.2	231 1500	54.5	17.0	EM	
C49/1	F4L912	66 2300	52.0	23.0	231 1500	54.5	17.0	EM	
C49/2	F4L912	66 2150	54.0	23.0	241 1500	59.0	17.8	EM	
C49/3	F4L912	66 2300	50.5	23.0	231 1500	53.0	17.0	EM	
C49/4	F4L912	66 2150	54.5	23.0	241 1500	57.5	17.8	EM	
C49/5	F4L912	66 2350	51.0	23.0	227 1500	53.5	16.7	EM	
C49/6	F4L912	66 2350	49.5	23.0	227 1500	52.0	16.7	EM	
C51	F4L912	68 2500	51.0	23.9	228 1500	53.5	16.8	EM	
C51/1	F4L912	68 2300	55.5	23.9	241 1500	59.0	17.8	EM	
C51/2	F4L912	68 2500	49.0	23.9	228 1500	52.0	16.8	EM	
C51/3	F4L912	68 2300	54.0	23.9	241 1500	57.5	17.8	EM	
C53/1	F4L912	71 2400	56.0	24.9	243 1500	58.0	17.9	EM	
C54	F4L912	72 2500	54.0	25.3	243 1500	59.5	17.9	EM	
C54/1	F4L912	72 2500	53.0	25.3	243 1500	56.5	17.9	EM	
D39	F4L912	52 1800	51.0	18.3	N/A N/A	N/A	N/A	EM	
D40	F4L912	54 1800	53.0	18.8	N/A N/A	N/A	N/A	EM	
D41	F4L912	55 1800	54.0	19.2	N/A N/A	N/A	N/A	EM	
D43	F4L912	58 1800	57.0	20.2	N/A N/A	N/A	N/A	EM	
C52	F5L912	70 2000	49.0	24.4	269 1500	50.0	19.8	EM	
C52/1	F5L912	70 2000	48.0	24.4	269 1500	49.0	19.8	EM	
C53	F5L912	71 1800	55.0	24.9	299 1500	58.5	22.0	EM	
C55	F5L912	74 2150	48.5	25.8	271 1500	50.0	20.0	EM	
C55/1	F5L912	74 2000	52.0	25.8	284 1500	54.0	20.9	EM	
C55/2	F5L912	74 2150	48.0	25.8	271 1500	49.0	20.0	EM	
C55/3	F5L912	74 2000	51.5	25.8	284 1500	53.0	20.9	EM	
C57	F5L912	76 2300	47.5	26.7	270 1500	49.5	19.9	EM	
C57/1	F5L912	76 2300	46.5	26.7	270 1500	48.5	19.9	EM	
C58	F5L912	78 2400	47.0	27.2	269 1500	49.0	19.8	EM	
C58/1	F5L912	78 2300	48.5	27.2	274 1500	50.5	20.2	EM	
C58/2	F5L912	78 2150	51.0	27.2	286 1500	54.0	21.1	EM	
C58/3	F5L912	78 2000	55.0	27.2	299 1500	58.5	22.0	EM	
C58/4	F5L912	78 2400	45.5	27.2	269 1500	48.0	19.8	EM	

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C58/5	F5L912	78	2300	48.0	27.2	274	49.5	20.2	EM	
C58/6	F5L912	78	2150	51.0	27.2	286	53.0	21.1	EM	
C58/7	F5L912	78	2000	55.0	27.2	299	56.0	22.0	EM	
C59	F5L912	79	2200	51.0	27.7	287	54.5	21.2	EM	
C59/1	F5L912	79	2200	51.0	27.7	287	52.5	21.2	EM	
C61	F5L912	82	2300	51.5	28.6	289	55.0	21.3	EM	
C61/1	F5L912	82	2300	51.0	28.6	289	53.5	21.3	EM	
C62	F5L912	83	2150	54.0	29.1	305	59.0	22.5	EM	
C62/1	F5L912	83	2150	54.0	29.1	305	57.5	22.5	EM	
C63	F5L912	84	2500	50.0	29.5	284	53.0	20.9	EM	
C63/1	F5L912	84	2500	49.5	29.5	284	52.0	20.9	EM	
C65	F5L912	87	2500	52.0	30.5	293	55.0	21.6	EM	
C65/2	F5L912	87	2300	54.0	30.5	306	59.0	22.6	EM	
C65/3	F5L912	87	2500	51.0	30.5	293	54.0	21.6	EM	
C65/4	F5L912	87	2300	55.0	30.5	306	58.0	22.6	EM	
C68	F5L912	91	2500	54.0	31.9	307	58.5	22.6	EM	
C68/1	F5L912	91	2500	54.0	31.9	307	58.5	22.6	EM	
C63/1	F6L912	84	2000	49.5	29.5	322	49.5	23.7	EM	
C63/2	F6L912	84	2000	48.5	29.5	322	49.0	23.7	EM	
C64	F6L912	86	1800	59.0	30.0	350	56.0	25.8	EM	
C64/1	F6L912	86	1800	55.5	30.0	350	54.0	25.8	EM	
C65/3	F6L912	87	2300	44.5	30.5	307	46.0	22.6	EM	
C65/4	F6L912	87	2300	45.0	30.5	307	45.0	22.6	EM	
C66	F6L912	88	2150	48.5	31.0	322	49.0	23.7	EM	
C66/1	F6L912	88	2000	52.5	31.0	337	53.0	24.8	EM	
C66/2	F6L912	88	2150	48.0	31.0	322	48.5	23.7	EM	
C66/3	F6L912	88	2000	51.5	31.0	337	52.0	24.8	EM	
C69	F6L912	92	2300	47.5	32.4	324	49.5	23.9	EM	
C69/1	F6L912	92	2300	47.0	32.4	324	48.5	23.9	EM	
C70	F6L912	94	2300	48.5	32.8	329	50.5	24.3	EM	
C70.5	F6L912	94	2400	48.0	33.1	329	50.5	24.3	EM	
C70/1	F6L912	94	2150	51.5	32.8	341	53.5	25.1	EM	

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C70/2	F6L912	94	2000	55.5	32.8	357	58.0	26.3	EM
C70/3	F6L912	94	2300	48.0	32.8	329	49.5	24.3	EM
C70/4	F6L912	94	2150	51.0	32.8	341	52.5	25.1	EM
C70/5	F6L912	94	2000	55.5	32.8	357	56.0	26.3	EM
C72	F6L912	96	2500	47.5	33.8	324	49.0	23.9	EM
C72/1	F6L912	96	2500	46.5	33.8	324	48.5	23.9	EM
D60	F6L912	80	1800	51.0	28.1	N/A	N/A	N/A	EM
D63	F6L912	84	1800	54.0	29.5	N/A	N/A	N/A	EM
D66	F6L912	88	1800	56.0	31.0	N/A	N/A	N/A	EM

SP1, 001