

 CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0093 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	3DZX06.1027	4.0, 6.1	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Smoke Puff Limiter, Turbocharger			Loader, Compressor, 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 (NO_x), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO_x), 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):

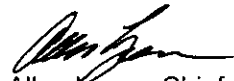
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NO _x	NMHC+NO _x	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	-	8.2	-	-	-	2	2	3

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: 3DZXL06.1027
Mfr. Family Name: BF4M2012
Process Code: New Submission

ENGINE MODEL SUMMARY FORM

4-8-013-0093

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)	PDI, TC, S/L
C60	BF4M2012	80 2000	68.0	28.1	333 1500	76.0	24.6	EM	
C62	BF4M2012	83 2100	67.0	29.1	333 1500	76.0	24.6	EM	
C63	BF4M2012	84 2000	71.0	29.5	352 1500	81.0	26.0	EM	
C64	BF4M2012	86 2200	66.0	30.0	333 1500	76.0	24.6	EM	
C66	BF4M2012	88 2300	66.0	31.0	333 1500	76.0	24.6	EM	
C66/1	BF4M2012	88 2100	71.0	31.0	352 1500	81.0	26.0	EM	
C67	BF4M2012	90 2000	75.0	31.4	371 1500	85.0	27.4	EM	
C68	BF4M2012	91 2400	66.0	31.9	333 1500	76.0	24.6	EM	
C68/1	BF4M2012	91 2200	70.0	31.9	352 1500	81.0	26.0	EM	
C69	BF4M2012	92 2100	74.0	32.4	371 1500	85.0	27.4	EM	
C70	BF4M2012	94 2500	67.0	32.8	333 1500	76.0	24.6	EM	
C70/1	BF4M2012	94 2300	70.0	32.8	352 1500	81.0	26.0	EM	
C70/2	BF4M2012	94 2000	80.0	32.8	389 1500	90.0	28.7	EM	
C72	BF4M2012	96 2400	70.0	33.8	352 1500	81.0	26.0	EM	
C72/1	BF4M2012	96 2200	74.0	33.8	371 1500	85.0	27.4	EM	
C73	BF4M2012	98 2100	78.0	34.2	389 1500	89.0	28.7	EM	
C74	BF4M2012	99 2500	70.0	34.7	352 1500	81.0	26.0	EM	
C74.9	BF4M2012	100 2500	71.0	35.1	389 1500	89.0	28.7	EM	
C74.9/1	BF4M2012	100 2500	71.0	35.1	371 1500	85.0	27.4	EM	
C74.9/2	BF4M2012	100 2400	73.0	35.1	389 1500	89.0	28.7	EM	
C74.9/3	BF4M2012	100 2400	73.0	35.1	371 1500	85.0	27.4	EM	
C74.9/4	BF4M2012	100 2300	75.0	35.1	389 1500	89.0	28.7	EM	
C74.9/5	BF4M2012	100 2200	77.0	35.1	389 1500	88.0	28.7	EM	
C74/1	BF4M2012	99 2300	74.0	34.7	371 1500	85.0	27.4	EM	
CE60	BF4M2012	80 2000	68.0	28.1	333 1500	76.0	24.6	EM	
CE62	BF4M2012	83 2100	68.0	29.1	333 1500	76.0	24.6	EM	
CE63	BF4M2012	84 2000	71.5	29.5	352 1500	80.0	26.0	EM	
CE64	BF4M2012	86 2200	68.0	30.0	333 1500	76.0	24.6	EM	
CE66	BF4M2012	88 2300	68.0	31.0	333 1500	76.0	24.6	EM	
CE66/1	BF4M2012	88 2100	72.0	31.0	352 1500	80.0	26.0	EM	
CE67	BF4M2012	90 2000	76.0	31.4	371 1500	85.0	27.4	EM	
CE68	BF4M2012	91 2400	69.0	31.9	333 1500	76.0	24.6	EM	

2-27-2

Manufacturer: DEUTZ AG
Engine Category: Nonroad CI
EPA Family Name: 3DZX106.1027
Mfr. Family Name: BF4M2012
Process Code: New Submission

ENGINE MODEL SUMMARY FORM

4-2-013-0093

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)
CE68/1	BF4M2012	91	2200	72.5	31.9	352	80.0	26.0	EM <i>DOF, TC, SP2</i>
CE69	BF4M2012	92	2100	75.5	32.4	371	85.0	27.4	EM
CE70	BF4M2012	94	2500	69.5	32.8	333	76.0	24.6	EM
CE70/1	BF4M2012	94	2300	72.5	32.8	352	80.0	26.0	EM
CE70/2	BF4M2012	94	2000	79.8	32.8	389	90.0	28.7	EM
CE72	BF4M2012	96	2400	73.0	33.8	352	80.0	26.0	EM
CE72/1	BF4M2012	96	2200	76.5	33.8	371	85.0	27.4	EM
CE73	BF4M2012	98	2100	79.8	34.2	389	90.0	28.7	EM
CE74	BF4M2012	99	2500	73.5	34.7	352	80.0	26.0	EM
CE74,9	BF4M2012	100	2500	74.5	35.1	390	90.0	28.8	EM
CE74,9/1	BF4M2012	100	2500	74.5	35.1	371	85.0	27.4	EM
CE74,9/2	BF4M2012	100	2400	76.0	35.1	389	90.0	28.7	EM
CE74,9/3	BF4M2012	100	2400	76.0	35.1	371	85.0	27.4	EM
CE74,9/4	BF4M2012	100	2300	78.0	35.1	389	90.0	28.7	EM
CE74,9/5	BF4M2012	100	2200	80.0	35.1	389	90.0	28.7	EM
CE74/1	BF4M2012	99	2300	77.0	34.7	371	85.0	27.4	EM
C64/1	D4DCAE1	86	2200	68.0	30.0	357	82.0	26.3	EM
C70/3	D4DCBE1	94	2200	73.0	32.8	389	89.0	28.7	EM
C74,5	D4DCCE1	100	2200	78.0	34.9	389	89.0	28.7	EM
C73/1	D4DEAE1	98	2100	78.0	34.2	386	88.0	28.5	EM
C66/1	TD420VE	88	2100	71.0	31.0	352	81.0	26.0	EM
C70/1	TD420VE	94	2300	70.0	32.8	352	81.0	26.0	EM
C73	TD420VE	98	2100	78.0	34.2	389	89.0	28.7	EM
C74	TD420VE	99	2500	70.0	34.7	352	81.0	26.0	EM
C74,9	TD420VE	100	2500	71.0	35.1	389	89.0	28.7	EM
C74,9/4	TD420VE	100	2300	75.0	35.1	389	89.0	28.7	EM
CE65	BF4M2012	87	2500	64.5	30.5	333	76.0	24.6	EM
CE67,5	BF4M2012	90	2300	70.3	31.7	357	82.4	26.3	EM
CE72,5	BF4M2012	97	2300	77.4	34.0	389	89.8	28.7	EM
CE64/1	BF4M2012	86	2300	65.8	30.0	357	82.4	26.3	EM
CE73/1	BF4M2012	98	2300	66.3	34.2	352	81.3	26.0	EM
CE74,5	BF4M2012	100	2100	78.0	34.9	389	89.0	28.7	EM