

 AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0106
		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	3DZX03.1026	3.1	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Smoke Puff Limiter			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):

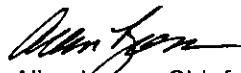
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	-	8.6	-	-	-	2	2	3

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: 3DZX103.1026
 Mfr. Family Name: BF3L2011
 Process Code: New Submission

ENGINE MODEL SUMMARY FORM

U-R-013-0106

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)
C38,9	BF3L2011	52 2300	52.0	18.2	174 1600	56.0	13.7	EM DDF, TQ, SPL
C39,6	BF3L2011	53 2500	49.5	18.6	171 1600	55.0	13.4	EM
C39,9	BF3L2011	53 2600	50.5	18.7	169 1600	55.5	13.3	EM
C41,7	BF3L2011	56 2500	53.5	19.6	175 1600	56.0	13.8	EM
C42,6	BF3L2011	57 2800	51.5	20.0	171 1600	55.5	13.4	EM
C42/1	BF3L2011	56 2600	52.5	19.7	174 1600	57.0	13.7	EM
C44,9	BF3L2011	60 2800	53.5	21.1	178 1600	58.0	14.0	EM
C40	BF3M2011	54 2300	52.0	18.8	183 1600	57.0	14.4	EM
C42	BF3M2011	56 2300	54.5	19.7	192 1600	62.0	15.1	EM
C42,8	BF3M2011	57 2500	52.0	20.1	185 1600	57.5	14.5	EM
C44,1	BF3M2011	59 2600	53.0	20.7	186 1600	58.0	14.6	EM
C45	BF3M2011	60 2500	56.0	21.1	194 1600	62.0	15.3	EM
C46	BF3M2011	62 2800	54.0	21.6	185 1600	59.0	14.5	EM
C46/1	BF3M2011	62 2600	55.0	21.6	194 1600	62.5	15.3	EM
C48,5	BF3M2011	65 2800	56.5	22.7	195 1600	61.0	15.3	EM
C47,5	BF4L2011	64 2300	47.0	22.3	219 1600	51.5	17.2	EM
C50	BF4L2011	67 2300	49.0	23.5	226 1600	53.0	17.8	EM
C50,8	BF4L2011	68 2500	47.0	23.8	221 1600	52	17.4	EM
C52,1	BF4L2011	70 2600	48.0	24.4	222 1600	52.5	17.5	EM
C53,5	BF4L2011	72 2500	51.0	25.1	227 1600	53	17.9	EM
C54,9	BF4L2011	74 2600	50.0	25.7	230 1600	54	18.1	EM
C55,1	BF4L2011	74 2800	49.0	25.8	224 1600	52.5	17.6	EM
C55,7	BF4L2011	75 2650	50.0	26.1	231 1600	54	18.2	EM
C58,1	BF4L2011	78 2800	51.0	27.2	232 1600	55	18.2	EM
D41,0	BF4L2011	55 1800	47.6	19.2	N/A	N/A	N/A	EM
D43,2	BF4L2011	58 1800	50.2	20.3	N/A	N/A	N/A	EM
D45,5	BF4L2011	61 1800	52.9	21.3	N/A	N/A	N/A	EM
C46/2	BF4M2011	62 2300	45.0	21.6	210 1600	49.0	16.5	EM
C53	BF4M2011	71 2300	51.0	24.9	242 1600	56.0	19.0	EM
C54	BF4M2011	72 2200	53.5	25.3	260 1600	61.0	20.4	EM
C56	BF4M2011	75 2300	53.5	26.3	260 1600	61.0	20.4	EM
C57	BF4M2011	76 2500	51.0	26.7	246 1600	56.5	19.3	EM

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ENGINE MODEL SUMMARY FORM

U-R-013-0106

Manufacturer: DEUTZ AG
 Engine Category: Nonroad CI
 EPA Family Name: 3DZXLO3.1026
 Mr. Family Name: BF3L2011
 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)
C57/1	BF4M2011	76	2350	50.0	26.7	261	61.0	20.5	EM
C58,5	BF4M2011	78	2600	52.0	27.4	247	57.0	19.4	EM
C60	BF4M2011	80	2500	55.0	28.1	261	61.0	20.5	EM
C61	BF4M2011	82	2600	54.0	28.6	264	61.5	20.8	EM
C62	BF4M2011	83	2800	53.0	29.1	250	57.5	19.7	EM
C65	BF4M2011	87	2800	55.5	30.5	266	62.0	20.9	EM
D42,8	BF4M2011	57	1800		20.1	N/A	N/A	N/A	EM
D45,5	BF4M2011	60	1800		21.1	N/A	N/A	N/A	EM
D47,3	BF4M2011	63	1800	55.0	22.2	N/A	N/A	N/A	EM
C43	BF3L2011	58	2600		20.2	174	57.0	13.7	EM

DDF, TC, SP

T