

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-45-9;

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)
2002	2DZX06.1027	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 (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
75≤kW<130	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 28TH day of February 2002.


 Allen Lyons, Chief
 New Vehicle/Engine Programs Branch

Manufacturer: DEUTZ AG
 Engine category: Nonroad CI
 EPA Engine Family: 2DZXLO6.1027

Engine Model and Part Number Summary Form

20#U-R-015-0063
 Attachment 182

Engine code	Engine Model	BHP	KW	Rated Power Engine Speed	Injection rate at rated power mm ³ /stroke	Peak torque ± 5%	Speed at peak torque ± 200 rpm	Injection rate at peak torque mm ³ /stroke	Fuel injection	Fuel injector	Injection timing (±0.5°)	Speed governor, optionally	Turbocharger
									description	description		description	description
C74.9	BF4M2012	100	74.9	2500	71.0	389	1500	89	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74.9/1	BF4M2012	100	74.9	2500	71.0	371	1500	85	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74	BF4M2012	99	74.0	2500	70.0	352	1500	81	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C70	BF4M2012	94	70.0	2500	67.0	333	1500	76	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C84	BF4M2012	113	84.0	2400	78.0	389	1500	89	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74.9/2	BF4M2012	100	74.9	2400	73.0	389	1500	89	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74.9/3	BF4M2012	100	74.9	2400	73.0	371	1500	85	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C72	BF4M2012	96	72.0	2400	70.0	352	1500	81	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C68	BF4M2012	91	68.0	2400	66.0	333	1500	76	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74.9/4	BF4M2012	100	74.9	2300	75.0	389	1500	89	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74/1	BF4M2012	99	74.0	2300	74.0	371	1500	85	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C70/1	BF4M2012	94	70.0	2300	70.0	352	1500	81	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C66	BF4M2012	88	66.0	2300	66.0	333	1500	76	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74.9/5	BF4M2012	100	74.9	2200	77.0	389	1500	88	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C72/1	BF4M2012	96	72.0	2200	74.0	371	1500	85	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C68/1	BF4M2012	91	68.0	2200	70.0	352	1500	81	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C64	BF4M2012	86	64.0	2200	66.0	333	1500	76	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C73	BF4M2012	98	73.0	2100	78.0	389	1500	89	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C69	BF4M2012	92	69.0	2100	74.0	371	1500	85	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C66/1	BF4M2012	88	66.0	2100	71.0	352	1500	81	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C62	BF4M2012	83	62.0	2100	67.0	333	1500	76	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C70/2	BF4M2012	94	70.0	2000	78.0	389	1500	89	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C67	BF4M2012	90	67.0	2000	75.0	371	1500	85	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C63	BF4M2012	84	63.0	2000	71.0	352	1500	81	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C60	BF4M2012	80	60.0	2000	68.0	333	1500	76	PFM1P100S1009	02112837KY	5	EMR	S100-009I
VOLVO TYPEN													
C73/1	D4DEAE1	98	73.0	2100	78.0	386	1500	88	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74.5	D4DCGE1	100	74.5	2200	78.0	389	1500	88	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C70/3	D4DCBE1	94	70.0	2200	73.0	389	1500		PFM1P100S1009	02112837KY	5	EMR	S100-009I
C64/1	D4DCAE1	86	64.0	2200	68.0	357	1500		PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74.9	TD420VE	100	74.9	2500	71.0	389	1500	89	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74	TD420VE	99	74.0	2500	70.0	352	1500	81	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C74.9/4	TD420VE	100	74.9	2300	75.0	389	1500	89	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C70/1	TD420VE	94	70.0	2300	70.0	352	1500	81	PFM1P100S1009	02112837KY	5	EMR	S100-009I
C73	TD420VE	98	73.0	2100	78.0	389	1500	89	PFM1P100S1009	02112837KY	5	EMR	S100-009I

Manufacturer: DEUTZ AG
 Engine category: Nonroad CI
 EPA Engine Family: 2DZXLO6.1027

Engine Model and Part Number Summary Form

2022
 E084-A-013-0063

Engine code	Engine Model	BHP	BKW	Rated Power Engine Speed	Injection rate at rated power	Peak torque ± 5%	Speed at peak torque ± 200 rpm	Injection rate at peak torque	Fuel injection pump	Fuel injector	Injection timing (±0.5°)	Speed governor, optionally	Turbocharger
		HP	KW	rpm	mm ³ /stroke	Nm	rpm	mm ³ /stroke	description	description	° btdc	description	description
C66/1	TD420VE	88	66.0	2100	71.0	352	1500	81	PFM1P100S1009	02112837KY	5	EMR	S100-0091