

 AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0301 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 systems 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)
2009	9DZXLO2.3090	2.290	Diesel	5000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Indirect Diesel Injection			Crane, Loaders, Tractor, Dozer, Pump, Compressor	

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
19 ≤ kW < 37	Tier 4 Interim	STD	N/A	N/A	7.5	5.5	0.30	20	15	50
		CERT	--	--	6.3	0.8	0.17	15	6	26

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 27 day of February 2009.



Annette Hebert, Chief
Mobile Source Operations Division

Deutz AG

Engine Model Summary Template

Nonroad CI

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Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate:		5.Fuel Rate:		6.Torque @ RPM (SEA Gross)		7.Fuel Rate:		9.Emission Control Device Per SAE J1930
				mm ³ /stroke @ peak HP (for diesel only)	mm ³ /stroke @ peak HP (for diesels only)	mm ³ /stroke @ peak HP (for diesels only)	mm ³ /stroke @ peak HP (for diesels only)	k torque	mm ³ /stroke @ peak torque (lbs/hr)/@peak torque	k torque	mm ³ /stroke @ peak torque (lbs/hr)/@peak torque	
9DZXL02.3090	C3O 36.6	D2009L04	49.0@3000	31.6	21.0	148@1600	37.5	13.3	13.3	13.3	13.3	IDI
9DZXL02.3090	C3O 36.8	D2009L04 ^{26.8} _{KW}	49.3@2800	32.7	20.3	148@1600	37.5	13.3	13.3	13.3	13.3	IDI
9DZXL02.3090	C3O 35.7	D2009L04	47.8@2600	32.5	18.7	148@1600	37.5	13.3	13.3	13.3	13.3	IDI
9DZXL02.3090	C3O 35	D2009L04	46.9@2500	32.5	18.0	148@1600	37.5	13.3	13.3	13.3	13.3	IDI
9DZXL02.3090	C3O 34.2	D2009L04	45.8@2400	32.6	17.3	148@1600	37.5	13.3	13.3	13.3	13.3	IDI
9DZXL02.3090	C3O 28	D2009L03	37.5@3000	31.5	15.7	104.4@1600	33.1	8.8	8.8	8.8	8.8	IDI
9DZXL02.3090	C3O 27	D2009L03	36.2@2800	31.6	14.7	104.4@1600	33.1	8.8	8.8	8.8	8.8	IDI
9DZXL02.3090	C3O 25.5	D2009L03	34.1@2600	31.5	13.6	104.4@1600	33.1	8.8	8.8	8.8	8.8	IDI
9DZXL02.3090	C3O 24.7	D2009L03	33.1@2500	31.5	13.1	104.4@1600	33.1	8.8	8.8	8.8	8.8	IDI
9DZXL02.3090	C3O 24	D2009L03 ²⁴ _{KW}	32.1@2400	31.5	12.5	104.4@1600	33.1	8.8	8.8	8.8	8.8	IDI