

 AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0287
		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	9DZXLO1.6050	1.17, 1.56	Diesel	5000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Indirect Diesel Injection			Crane, Loaders, Tractor, 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 (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
8 ≤ kW < 37	Tier 4 Interim	OPTIONAL STD	N/A	N/A	7.5	5.5	0.30	20	15	50
		CERT	--	--	5.6	0.7	0.20	4	3	6

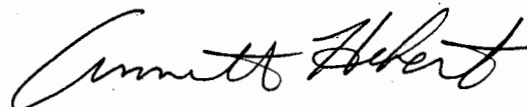
BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005.

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

Engine Model Summary Template

Deutz AG
Nonroad CI

Attachment

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Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (lbs/hr) (for diesel only)	5.Fuel Rate: mm/stroke @ peak HP (lbs/hr) (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@pea k torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
DZXL01.6050	C30I19.2	D2008L03	25.7@3000	21.2	10.5	52.5@2000	23.4	7.7	IDI
DZXL01.6050	C30I18.2	D2008L03	24.4@2800	20.9	9.7	52.5@2000	23.4	7.7	IDI
DZXL01.6050	C30I17.2	D2008L03	23@2600	20.9	9	52.5@2000	23.4	7.7	IDI
DZXL01.6050	C30I16.6	D2008L03	22.2@2500	21.0	8.7	52.5@2000	23.4	7.7	IDI
DZXL01.6050	C30I25.8	D2008L04	34.5@3000	21.5	14.3	70.3@2000	23.7	10.5	IDI
DZXL01.6050	C30I24.2	D2008L04	32.4@2800	20.9	13	70.3@2000	23.7	10.5	IDI
DZXL01.6050	C30I22.9	D2008L04	30.7@2600	21.4	12.3	70.3@2000	23.7	10.5	IDI
DZXL01.6050	C30I22	D2008L04	29.5@2500	21.4	11.8	70.3@2000	23.7	10.5	IDI
DZXL01.6050	C30I21.5	D2008L04	28.8@2400	21.4	11.4	70.3@2000	23.7	10.5	IDI
DZXL01.6050	C30I16	D2008L03	21.4@2400	21.1	8.4	52.5@2000	23.4	7.7	IDI
DZXL01.6050	C30I12.9	D2008L03	17.2@1800	26.0	7.7	49.3@1500	28.0	6.9	IDI
DZXL01.6050	C30I18.1	D2008L04	24.2@1800	24.1	7.2	68.0@1500	28.0	6.9	IDI