

 <b>AIR RESOURCES BOARD</b>	<b>DEUTZ AG</b>	<b>EXECUTIVE ORDER U-R-013-0410</b>
		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)
2012	CDZXL05.7011	5.702	Diesel	8000
<b>SPECIAL FEATURES &amp; EMISSION CONTROL SYSTEMS</b>			<b>TYPICAL EQUIPMENT APPLICATION</b>	
Common Rail Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Smoke Puff Limiter, Exhaust Gas Recirculation, Periodic Trap Oxidizer, Diesel Oxidation Catalyst			Loader, Dozer, and Other 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
75 ≤ kW < 130	Interim Tier 4 Alt NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.09	2.8	--	1.3	0.01	--	--	--

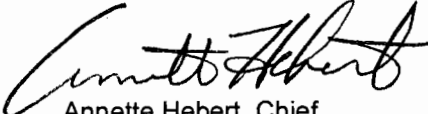
**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

**BE IT FURTHER RESOLVED:** The listed engine family is conditionally certified pending submission of additional test data to verify compliance with useful-life emission standards. The manufacturer has until January 31, 2012 to provide test data to confirm or correct the certification emissions levels on this conditional certification. Failure to resolve concerns by the specified date, shall be cause for the Executive Officer to rescind this conditional certification, in which case all engines covered under this conditional certification would be deemed uncertified and subject to civil penalties pursuant to Health and Safety Code Section 43154.

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 3 day of November 2011.

  
 Annette Hebert, Chief  
 Mobile Source Operations Division

Nonroad CI  
Deutz AG

**Engine Model Summary Template**

Attachment page 1 of 1

EC # U-R-013-0410

10/21/2011

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
CDZXL05.7011	C4FI115	D6H	154.2@1900	88	55.7	716@1400	107	49.9	DDI, TC, CAC, ECM, SPL, EGR, DPF, DCC
CDZXL05.7011	C4FI129	D6H	172.9@1800	102	61.1	849@1350	124	55.7	DDI, TC, CAC, ECM, SPL, EGR, DPF
CDZXL05.7011	C4FI129A	D6H	172.9@2000	96	63.9	758@1500	111	55.4	DDI, TC, CAC, ECM, SPL, EGR, DPF
CDZXL05.7011	C4FI129B	D6H	172.9@2200	95	69.6	747@1650	110	60.4	DDI, TC, CAC, ECM, SPL, EGR, DPF
CDZXL05.7011	C4FI98	D6H	131.4@2200	70	51.3	820@1400	116.5	54.3	DDI, TC, CAC, ECM, SPL, EGR, DPF
CDZXL05.7011	C4FI115A	D6H	154.2@2200	81.5	59.7	860@1400	123	57.3	DDI, TC, CAC, ECM, SPL, EGR, DPF
CDZXL05.7011	C4FI120	D6H	160.9@2200	84.5	61.9	880@1400	126	58.7	DDI, TC, CAC, ECM, SPL, EGR, DPF