California Environmental Protection Agency Air Resources Board

DEUTZ AG

EXECUTIVE ORDER U-R-013-0480 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-14-012:

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 LAMILY		FUEL TYPE	USEFUL LIFE (hours)		
2014	EDZXL05.7011	5.702	Diesel	8000		
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION			
Cooler	Rail Direct Injection, Turb , Electronic Control Mod tion, Periodic Trap Oxidi Catalyst	lule, Exhaust Gas	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 non-methane hydrocarbon (NMHC), 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	EMISSION STANDARD CATEGORY			EXHAUST (g/kW-hr)					OPACITY (%)		
POWER CLASS			NMHC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK	
75 ≤ kW ≤ 130	Interim Tier 4/ ALT NO _x	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A	
		CERT	0.13	2.8		0.4	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).

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

_ day of February 2014.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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Engine Model Summary Template

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Date: 1/22/2014

	5.Fuel Rate:				
4 Fuel Rate:	(lhs/hr) @ neak				

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	mm/stroke @ peak HP (for diesel only)	(IDS/NT) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@pe ak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
EDZXL05.7011	C4FI115	D6H	154.2@1900	88	55.7	716@1400	107	49.9	DDI,TC,CAC,ECM,EGR,DOC,PTOX
EDZXL05.7011	C4FI129	D6H	172.9@1800	102	61.1	849@1350	124	55.7	DDI,TC,CAC,ECM,EGR,DOC,PTOX
EDZXL05.7011	C4FI129A	D6H	172.9@2000	96	63.9	758@1500	111	55.4	DDI,TC,CAC,ECM,EGR,DOC,PTOX
EDZXL05.7011	C4FI129B	D6H	172.9@2200	95	69.6	747@1650	110	60.4	DDI,TC,CAC,ECM,EGR,DOC,PTOX
EDZXL05.7011	C4FI98	D6H	131.4@2200	70	51.3	820@1400	116.5	54.3	DDI,TC,CAC,ECM,EGR,DOC,PTOX
EDZXL05.7011	C4FI115A	D6H	154.2@2200	81.5	59.7	860@1400	123	57.3	DDI,TC,CAC,ECM,EGR,DOC,PTOX
EDZXL05.7011	C4FI120	D6H	160.9@2200	84.5	61.9	880@1400	126	58.7	DDI,TC,CAC,ECM,EGR,DOC,PTOX