

California Environmental Protection Agency <b>Air Resources Board</b>	DEUTZ AG	<b>EXECUTIVE ORDER U-R-013-0538</b> New Off-Road Compression-Ignition Engines
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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 FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2017	HDZXL06.1050	6.057	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Common Rail Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Continuous Trap Oxidizer, Selective Catalytic Reduction-Urea			Offroad Crane, Loader, Pump, Compressor, 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 POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.01	0.29	--	1.7	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 23<sup>rd</sup> day of March 2017.

  
 Annette Hebert, Chief  
 Emissions Compliance, Automotive Regulations and Science Division

Deutz AG  
Nonroad CI

**Engine Model Summary Template**

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EO# U-R-013-0538

Date: 3/9/2017

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@pe ak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
HDZXL06.1050	CFVI180	TCD6.1L6	241.3@2300	121.0	92.7	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI180A	TCD6.1L6	241.3@2200	123.5	90.5	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI180B	TCD6.1L6	241.3@2100	127.0	88.8	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI180C	TCD6.1L6	241.3@2000	133.0	88.6	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFV160E	TCD6.1L6	214.5@1900	120.5	76.3	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI160	TCD6.1L6	214.5@1800	126.5	75.8	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI160A	TCD6.1L6	214.5@2100	106.7	81.8	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI160B	TCD6.1L6	214.5@2300	110.0	80.6	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI160C	TCD6.1L6	214.5@2100	112.7	78.8	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI160D	TCD6.1L6	214.5@2000	116.5	77.6	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI150	TCD6.1L6	201.1@2300	100.0	76.6	645.3@1450	126.5	61.1	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI150A	TCD6.1L6	201.1@2200	102.5	75.1	645.3@1450	126.5	61.1	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI150B	TCD6.1L6	201.1@2100	105.3	73.7	645.3@1450	126.5	61.1	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI140	TCD6.1L6	187.7@2100	98.0	68.5	608.4@1450	119.3	57.6	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
HDZXL06.1050	CFVI140A	TCD6.1L6	187.7@2000	101.0	67.3	608.4@1450	119.3	57.6	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U