California Environmental Protection Agency Air Resources Board

DEUTZ AG

EXECUTIVE ORDER U-R-013-0542 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 FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2017	HDZXL06.1049	6.057	Diesel	8000		
	FEATURES & EMISSION (TYPICAL EQUIPMENT APPLICATION			
Cooler	Rail Direct Injection, Turb r, Electronic Control Mod lation, Continuous Trap (Catalytic Reduction	ule, Exhaust Gas Oxidizer, Selective	Tractor			

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		EXHAUST (g/kW-hr)					OPACITY (%)		
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final	Final STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.03	0.16		0.03	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 rd

day of March 2017.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

Deutz AG Nonroad CI

Engine Model Summary Template

Attachment

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5.Fuel Rate:

EO# U-R-013-0542

Date: 3/10/2017

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	(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
HDZXL06.1049	CFWT174U	TCD6.1L6	233.8@2100	124.3	87. 0 .	790.6@1500	162.9	81.4	DDI,TC,CAC,ECM,EGR,CTOX,SCR-U
HDZXL06.1049	CFWT162U	TCD6.1L6	218.1@2100	112.7	78.8	739.0@1500	146.4	73.1	DDI,TC,CAC,ECM,EGR,CTOX,SCR-U
HDZXL06.1049	CFWT148U	TCD6.1L6	198.7@2100	105.2	73.6	671.9@1500	133.1	66.5	DDI,TC,CAC,ECM,EGR,CTOX,SCR-U
HDZXL06.1049	CFWT133U	TCD6.1L6	178.3@2100	95.0	66.4	603.3@1500	119.1	59.5	DDI,TC,CAC,ECM,EGR,CTOX,SCR-U
HDZXL06.1049	CFWT159U	TCD6.1L6	213.4@2200	109.0	79.9	668.2@1500	131.0	65.4	DDI,TC,CAC,ECM,EGR,CTOX,SCR-U
HDZXL06.1049	CFWT141U	TCD6.1L6	189.7@2200	97.2	71.2	615.8@1500	120.5	60.2	DDI,TC,CAC,ECM,EGR,CTOX,SCR-U
HDZXL06.1049	CFWT157U	TCD6.1L6	217.9@2100	109.4	76.5	655.6@1500	128	63.9	DDI,TC,CAC,ECM,EGR,CTOX,SCR-U
HDZXL06.1049	CFWT144U	TCD6.1L6	193.7@2100	100.5	70.3	671.9@1500	105.3	52.6	DDI,TC,CAC,ECM,EGR,CTOX,SCR-U
HDZXL06.1049	CFWT134U	TCD6.1L6	178.3@2100	94.5	66.1	603.3@1500	118.5	59.5	DDI,TC,CAC,ECM,EGR,CTOX,SCR-U