



DEUTZ AG

EXECUTIVE ORDER U-R-013-0610
New Off-Road
Compression-Ignition Engines

Pursuant to the authority vested in California 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-19-095;

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)
2020	LDZXL06.1050	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			Off-Road Crane, Loader, Pump, Compressor, Material Handler	

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	0.02	--	--	--

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 24th day of December 2019.

Allen Lyons, Chief
Emissions Certification and Compliance Division

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EO# U-R-013-0610

Date: 11/14/2019

Engine Model Summary Template

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 J1830
LDZXL06.1050	CFV1180	TCD6.1L6	241.3@2300	121.0	92.7	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	CFV1180A	TCD6.1L6	241.3@2200	123.5	90.5	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	CFV1180B	TCD6.1L6	241.3@2100	127.0	88.8	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	CFV1180C	TCD6.1L6	241.3@2000	133.0	88.6	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	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
LDZXL06.1050	CFV1160	TCD6.1L6	214.5@1800	126.5	75.8	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	CFV1160A	TCD6.1L6	214.5@2100	106.7	81.8	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	CFV1160B	TCD6.1L6	214.5@2300	110.0	80.6	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	CFV1160C	TCD6.1L6	214.5@2100	112.7	78.8	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	CFV1160D	TCD6.1L6	214.5@2000	116.5	77.6	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	CFV1150	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
LDZXL08.1050	CFV1150A	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
LDZXL06.1050	CFV1150B	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
LDZXL06.1050	CFV1140	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
LDZXL06.1050	CFV1140A	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
LDZXL06.1050	CFV1180F	TCD6.1L6	241.3@2000	133.0	88.6	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V1180	TCD6.1L6	241.3@2300	121.0	92.7	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V1180A	TCD6.1L6	241.3@2200	123.5	90.5	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V1180B	TCD6.1L6	241.3@2100	127.0	88.8	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V1180C	TCD6.1L6	241.3@2000	133.0	88.6	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V1180F	TCD6.1L6	241.3@2000	133.0	88.6	737.5@1450	148	71.5	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V1160A	TCD6.1L6	214.5@2100	106.7	81.8	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V1160B	TCD6.1L6	214.5@2300	110.0	80.6	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V1160C	TCD6.1L6	214.5@2100	112.7	78.8	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V1160D	TCD6.1L6	214.5@2000	116.5	77.6	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V160E	TCD6.1L6	214.5@1900	120.5	76.3	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U
LDZXL06.1050	C5V1160	TCD6.1L6	214.5@1800	126.5	75.8	663.8@1450	130	62.8	DDI,TC,CAC,ECM,EGR,DOC,CTOX,SCR-U

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LDZXL06.1050	C5VI150	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
LDZXL06.1050	C5VI150A	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
LDZXL06.1050	C5VI150B	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
LDZXL06.1050	C5VI140	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
LDZXL06.1050	C5VI140A	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