

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)
2021	MDZXL06.1050	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	<b>STD</b>	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		<b>CERT</b>	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 on this 10th day of December 2020.



Allen Lyons, Chief  
 Emissions Certification and Compliance Division

**Attachment: Engine Models**

**EO #:** U-R-013-0637

**Family:** MDZXL06.1050

**Attachment Last Revised:** 10/19/2020

Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel Units	OBD	GHG	Special	Notes	
TCD6.116	CFVI180	N/A	I-6	6.057	Liters	241.3	horsepower	2300	121	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI180A	N/A	I-6	6.057	Liters	241.3	horsepower	2200	123.5	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI180B	N/A	I-6	6.057	Liters	241.3	horsepower	2100	127	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI180C	N/A	I-6	6.057	Liters	241.3	horsepower	2000	133	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI160E	N/A	I-6	6.057	Liters	214.5	horsepower	1900	120.5	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI160	N/A	I-6	6.057	Liters	214.5	horsepower	1800	126.5	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI160A	N/A	I-6	6.057	Liters	214.5	horsepower	2100	106.7	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI160B	N/A	I-6	6.057	Liters	214.5	horsepower	2300	110	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI160C	N/A	I-6	6.057	Liters	214.5	horsepower	2100	112.7	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI160D	N/A	I-6	6.057	Liters	214.5	horsepower	2000	116.5	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI150	N/A	I-6	6.057	Liters	201.1	horsepower	2300	100	mm3/stroke	645.3	N-m	1450	126.5	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI150A	N/A	I-6	6.057	Liters	201.1	horsepower	2200	102.5	mm3/stroke	645.3	N-m	1450	126.5	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI150B	N/A	I-6	6.057	Liters	201.1	horsepower	2100	105.3	mm3/stroke	645.3	N-m	1450	126.5	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI140	N/A	I-6	6.057	Liters	187.7	horsepower	2100	98	mm3/stroke	608.4	N-m	1450	119.3	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI140A	N/A	I-6	6.057	Liters	187.7	horsepower	2000	101	mm3/stroke	608.4	N-m	1450	119.3	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CFVI180F	N/A	I-6	6.057	Liters	241.3	horsepower	2000	133	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI180	N/A	I-6	6.057	Liters	241.3	horsepower	2300	121	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI180A	N/A	I-6	6.057	Liters	241.3	horsepower	2200	123.5	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI180B	N/A	I-6	6.057	Liters	241.3	horsepower	2100	127	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI180C	N/A	I-6	6.057	Liters	241.3	horsepower	2000	133	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI180F	N/A	I-6	6.057	Liters	241.3	horsepower	2000	133	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI160A	N/A	I-6	6.057	Liters	214.5	horsepower	2100	106.7	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI160B	N/A	I-6	6.057	Liters	214.5	horsepower	2300	110	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI160C	N/A	I-6	6.057	Liters	214.5	horsepower	2100	112.7	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI160D	N/A	I-6	6.057	Liters	214.5	horsepower	2000	116.5	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI160E	N/A	I-6	6.057	Liters	214.5	horsepower	1900	120.5	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI160	N/A	I-6	6.057	Liters	214.5	horsepower	1800	126.5	mm3/stroke	663.8	N-m	1450	130	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI150	N/A	I-6	6.057	Liters	201.1	horsepower	2300	100	mm3/stroke	645.3	N-m	1450	126.5	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI150A	N/A	I-6	6.057	Liters	201.1	horsepower	2200	102.5	mm3/stroke	645.3	N-m	1450	126.5	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI150B	N/A	I-6	6.057	Liters	201.1	horsepower	2100	105.3	mm3/stroke	645.3	N-m	1450	126.5	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI140	N/A	I-6	6.057	Liters	187.7	horsepower	2100	98	mm3/stroke	608.4	N-m	1450	119.3	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI140A	N/A	I-6	6.057	Liters	187.7	horsepower	2000	101	mm3/stroke	608.4	N-m	1450	119.3	mm3/stroke	N/A	N/A	N/A	N/A
TCD6.116	CSVI180ZU	N/A	I-6	6.057	Liters	241.3	horsepower	2000	133	mm3/stroke	737.5	N-m	1450	148	mm3/stroke	N/A	N/A	N/A	N/A