

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	MDZXL15.9058	15.874	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		TYPICAL EQUIPMENT APPLICATION		
Common Rail Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Diesel Oxidation Catalyst, Selective Catalytic Reduction-Urea (2)		Off-Road Crane, Dozer, Loader, Pump, 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	0.02	0.34	--	0.02	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 on this 29th day of November 2020.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-013-0644

Family: MDZXL15.9058

Attachment Last Revised: 11/16/2020

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	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
TCD16.0V8	CFYI520U		V8	15.874	Liters	697.3	horsepower	2100	293	mm3/stroke	2890	N-m	1400	315	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI520V		V8	15.874	Liters	697.3	horsepower	2000	298	mm3/stroke	2890	N-m	1400	312	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI520W		V8	15.874	Liters	697.3	horsepower	1900	305	mm3/stroke	2890	N-m	1400	312	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI505U		V8	15.874	Liters	677.2	horsepower	1800	308	mm3/stroke	2890	N-m	1400	312	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI480U		V8	15.874	Liters	643.7	horsepower	2100	260	mm3/stroke	2800	N-m	1400	300	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI480V		V8	15.874	Liters	643.7	horsepower	2000	270	mm3/stroke	2800	N-m	1400	300	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI480W		V8	15.874	Liters	643.7	horsepower	1900	279	mm3/stroke	2800	N-m	1400	300	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI480X		V8	15.874	Liters	643.7	horsepower	1800	289	mm3/stroke	2800	N-m	1400	300	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI440U		V8	15.874	Liters	590	horsepower	2100	236	mm3/stroke	2650	N-m	1400	285	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI440V		V8	15.874	Liters	590	horsepower	2000	246	mm3/stroke	2650	N-m	1400	285	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI440W		V8	15.874	Liters	590	horsepower	1900	256	mm3/stroke	2650	N-m	1400	285	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI440X		V8	15.874	Liters	590	horsepower	1800	266	mm3/stroke	2650	N-m	1400	285	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI400U		V8	15.874	Liters	536.4	horsepower	2100	214	mm3/stroke	2650	N-m	1400	285	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI400V		V8	15.874	Liters	536.4	horsepower	2000	224	mm3/stroke	2650	N-m	1400	285	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI400W		V8	15.874	Liters	536.4	horsepower	1900	234	mm3/stroke	2650	N-m	1400	285	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI400X		V8	15.874	Liters	536.4	horsepower	1800	238	mm3/stroke	2650	N-m	1400	272	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI350U		V8	15.874	Liters	469.4	horsepower	2100	190	mm3/stroke	2150	N-m	1400	226	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI350V		V8	15.874	Liters	469.4	horsepower	2000	195	mm3/stroke	2150	N-m	1400	226	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI350W		V8	15.874	Liters	469.4	horsepower	1900	199	mm3/stroke	2150	N-m	1400	226	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI350X		V8	15.874	Liters	469.4	horsepower	1800	210	mm3/stroke	2150	N-m	1400	226	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI370U		V8	15.874	Liters	496.2	horsepower	2100	203	mm3/stroke	1900	N-m	1400	201	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI390U		V8	15.874	Liters	523	horsepower	2100	280	mm3/stroke	2130	N-m	1400	296	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI390V		V8	15.874	Liters	523	horsepower	2000	290	mm3/stroke	2130	N-m	1400	296	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI390W		V8	15.874	Liters	523	horsepower	1900	300	mm3/stroke	2130	N-m	1400	296	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI370U		V8	15.874	Liters	496.2	horsepower	1800	290	mm3/stroke	2130	N-m	1400	296	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI360U		V8	15.874	Liters	482.8	horsepower	2100	258	mm3/stroke	2080	N-m	1400	286	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI360V		V8	15.874	Liters	482.8	horsepower	2000	260	mm3/stroke	2080	N-m	1400	286	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI360W		V8	15.874	Liters	482.8	horsepower	1900	276	mm3/stroke	2080	N-m	1400	286	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI350U		V8	15.874	Liters	469.4	horsepower	1800	274	mm3/stroke	2080	N-m	1400	286	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI330U		V8	15.874	Liters	442.5	horsepower	2100	231	mm3/stroke	2000	N-m	1400	276	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI330V		V8	15.874	Liters	442.5	horsepower	2000	238	mm3/stroke	2000	N-m	1400	276	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI330W		V8	15.874	Liters	442.5	horsepower	1900	248	mm3/stroke	2000	N-m	1400	276	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI330X		V8	15.874	Liters	442.5	horsepower	1800	258	mm3/stroke	2000	N-m	1400	276	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI300U		V8	15.874	Liters	402.3	horsepower	2100	205	mm3/stroke	2000	N-m	1400	276	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI300V		V8	15.874	Liters	402.3	horsepower	2000	212	mm3/stroke	2000	N-m	1400	276	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI300W		V8	15.874	Liters	402.3	horsepower	1900	221	mm3/stroke	2000	N-m	1400	276	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI300X		V8	15.874	Liters	402.3	horsepower	1800	231	mm3/stroke	2000	N-m	1400	276	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI273U		V8	15.874	Liters	366.1	horsepower	2100	179	mm3/stroke	1800	N-m	1400	246	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI273V		V8	15.874	Liters	366.1	horsepower	2000	196	mm3/stroke	1800	N-m	1400	246	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI273W		V8	15.874	Liters	366.1	horsepower	1900	210	mm3/stroke	1800	N-m	1400	246	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI273X		V8	15.874	Liters	366.1	horsepower	1800	200	mm3/stroke	1800	N-m	1400	246	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI240U		V8	15.874	Liters	321.8	horsepower	2100	169	mm3/stroke	1500	N-m	1400	206	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI240V		V8	15.874	Liters	321.8	horsepower	2000	176	mm3/stroke	1500	N-m	1400	206	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI240W		V8	15.874	Liters	321.8	horsepower	1900	186	mm3/stroke	1500	N-m	1400	206	mm3/stroke	N/A	N/A	N/A	N/A
TCD16.0V8	CFYI240X		V8	15.874	Liters	321.8	horsepower	1800	185	mm3/stroke	1500	N-m	1400	206	mm3/stroke	N/A	N/A	N/A	N/A