

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)
2022	NDZXL07.8051	7.755	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, Dozer, Pump, 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	0.27	--	0.2	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.**

This Executive Order hereby supersedes Executive Order U-R-013-0659 dated January 4, 2022.

Executed on this 27th day of April 2022.



Allen Lyons, Chief  
 Emissions Certification and Compliance Division

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
TCD7.8L6	CFVI250		I6	7.755	Liters	335.2	horsepower	2200	117.3	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI250A		I6	7.755	Liters	335.2	horsepower	2100	117.5	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI245		I6	7.755	Liters	328.5	horsepower	2000	111.3	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI240		I6	7.755	Liters	321.8	horsepower	1900	105.7	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI230		I6	7.755	Liters	308.4	horsepower	1800	103.7	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI240A		I6	7.755	Liters	321.8	horsepower	2200	112.1	lb/hr	1330	N-m	1450	88.9	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI230A		I6	7.755	Liters	308.4	horsepower	2000	103.9	lb/hr	1330	N-m	1450	88.9	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI210		I6	7.755	Liters	281.6	horsepower	1800	90.5	lb/hr	1330	N-m	1450	88.9	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI225		I6	7.755	Liters	301.7	horsepower	2200	105.5	lb/hr	1260	N-m	1450	84.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI225A		I6	7.755	Liters	301.7	horsepower	2100	102.8	lb/hr	1260	N-m	1450	84.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI220		I6	7.755	Liters	295.0	horsepower	2000	99.3	lb/hr	1260	N-m	1450	84.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI215		I6	7.755	Liters	288.3	horsepower	1900	96.8	lb/hr	1260	N-m	1450	84.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI190		I6	7.755	Liters	254.7	horsepower	1800	84.5	lb/hr	1260	N-m	1450	84.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI200		I6	7.755	Liters	268.2	horsepower	2200	94.5	lb/hr	1050	N-m	1450	70.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI190A		I6	7.755	Liters	254.7	horsepower	2000	86.6	lb/hr	1050	N-m	1450	70.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI180		I6	7.755	Liters	241.3	horsepower	1900	81.6	lb/hr	1050	N-m	1450	70.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI170		I6	7.755	Liters	227.9	horsepower	1800	75.5	lb/hr	1050	N-m	1450	70.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI180A		I6	7.755	Liters	241.3	horsepower	2200	85.7	lb/hr	1000	N-m	1450	68.1	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI175		I6	7.755	Liters	234.6	horsepower	2100	81.8	lb/hr	1000	N-m	1450	68.1	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI170A		I6	7.755	Liters	227.9	horsepower	2000	77.9	lb/hr	1000	N-m	1450	68.1	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI165		I6	7.755	Liters	221.2	horsepower	1900	76.6	lb/hr	1000	N-m	1450	68.1	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI160		I6	7.755	Liters	214.5	horsepower	1800	71.9	lb/hr	1000	N-m	1450	68.1	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI260		I6	7.755	Liters	348.6	horsepower	2200	123.1	lb/hr	1390	N-m	1450	94.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI170S		I6	7.755	Liters	227.9	horsepower	2300	84.3	lb/hr	1304	N-m	1450	89.4	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	CFVI230C		I6	7.755	Liters	308.4	horsepower	1800	103.7	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI250		I6	7.755	Liters	335.2	horsepower	2200	117.3	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI250A		I6	7.755	Liters	335.2	horsepower	2100	117.5	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI245		I6	7.755	Liters	328.5	horsepower	2000	111.3	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI240		I6	7.755	Liters	321.8	horsepower	1900	105.7	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI230		I6	7.755	Liters	308.4	horsepower	1800	103.7	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI240A		I6	7.755	Liters	321.8	horsepower	2200	112.1	lb/hr	1330	N-m	1450	88.9	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI230A		I6	7.755	Liters	308.4	horsepower	2000	103.9	lb/hr	1330	N-m	1450	88.9	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI210		I6	7.755	Liters	281.6	horsepower	1800	90.5	lb/hr	1330	N-m	1450	88.9	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI225		I6	7.755	Liters	301.7	horsepower	2200	105.5	lb/hr	1260	N-m	1450	84.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI225A		I6	7.755	Liters	301.7	horsepower	2100	102.8	lb/hr	1260	N-m	1450	84.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI220		I6	7.755	Liters	295.0	horsepower	2000	99.3	lb/hr	1260	N-m	1450	84.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI215		I6	7.755	Liters	288.3	horsepower	1900	96.8	lb/hr	1260	N-m	1450	84.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI190		I6	7.755	Liters	254.7	horsepower	1800	84.5	lb/hr	1260	N-m	1450	84.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI200		I6	7.755	Liters	268.2	horsepower	2200	94.5	lb/hr	1050	N-m	1450	70.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI190A		I6	7.755	Liters	254.7	horsepower	2000	86.6	lb/hr	1050	N-m	1450	70.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI180		I6	7.755	Liters	241.3	horsepower	1900	81.6	lb/hr	1050	N-m	1450	70.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI170		I6	7.755	Liters	227.9	horsepower	1800	75.5	lb/hr	1050	N-m	1450	70.6	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI180A		I6	7.755	Liters	241.3	horsepower	2200	85.7	lb/hr	1000	N-m	1450	68.1	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI175		I6	7.755	Liters	234.6	horsepower	2100	81.8	lb/hr	1000	N-m	1450	68.1	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI170A		I6	7.755	Liters	227.9	horsepower	2000	77.9	lb/hr	1000	N-m	1450	68.1	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI165		I6	7.755	Liters	221.2	horsepower	1900	76.6	lb/hr	1000	N-m	1450	68.1	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI160		I6	7.755	Liters	214.5	horsepower	1800	71.9	lb/hr	1000	N-m	1450	68.1	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI260		I6	7.755	Liters	348.6	horsepower	2200	123.1	lb/hr	1390	N-m	1450	94.7	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI170S		I6	7.755	Liters	227.9	horsepower	2300	84.3	lb/hr	1304	N-m	1450	89.4	lb/hr	N/A	N/A	N/A	N/A
TCD7.8L6	C5VI230C		I6	7.755	Liters	308.4	horsepower	1800	103.7	lb/hr	1400	N-m	1450	95.7	lb/hr	N/A	N/A	N/A	N/A