

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	NDZXL04.1056	4.038	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, Tractor, Dozer, 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 (NO<sub>x</sub>), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO<sub>x</sub>), 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	NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 4 Final	<b>STD</b>	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		<b>CERT</b>	0.03	0.35	--	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).

**BE IT FURTHER RESOLVED:** That the listed engine family is conditionally certified pending submission of additional test data to verify compliance with useful-life emission standards. The manufacturer must submit the necessary data by March 31, 2022 to confirm or correct the certification emissions levels on this conditional certification. Failure to submit the necessary data or resolve concerns by the specified date, shall be cause for the Executive Officer to rescind this conditional certification, in which case all engines covered under this conditional certification and introduced into commerce in the State of California shall be deemed uncertified pursuant to Health and Safety Code Section 43153 and subject to civil penalties pursuant to Health and Safety Code Section 43154.

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 4<sup>th</sup> day of January 2022.



Allen Lyons, Chief  
Emissions Certification and Compliance Division

**Attachment: Engine Models**

**EO #:** U-R-013-0654

**Family:** NDZXL04.1056

**Attachment Last Revised:** 12/28/2021

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
TCD4.1L4	CFV115A		I4	4.038	Liters	154.2	horsepower	2300	59.4	lb/hr	609	N-m	1600	48.7	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV115B		I4	4.038	Liters	154.2	horsepower	2200	58.1	lb/hr	609	N-m	1600	48.7	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV115C		I4	4.038	Liters	154.2	horsepower	2100	57.3	lb/hr	609	N-m	1600	48.7	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV115D		I4	4.038	Liters	154.2	horsepower	2000	55.5	lb/hr	609	N-m	1600	48.7	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV105A		I4	4.038	Liters	140.8	horsepower	2300	54.6	lb/hr	550	N-m	1600	43.2	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV105B		I4	4.038	Liters	140.8	horsepower	2200	53.2	lb/hr	550	N-m	1600	43.2	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV105D		I4	4.038	Liters	140.8	horsepower	2100	52.7	lb/hr	550	N-m	1600	43.2	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV105C		I4	4.038	Liters	140.8	horsepower	2000	51.1	lb/hr	550	N-m	1600	43.2	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV195A		I4	4.038	Liters	127.3	horsepower	2200	48.1	lb/hr	530	N-m	1600	42.1	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV195B		I4	4.038	Liters	127.3	horsepower	2100	47.1	lb/hr	530	N-m	1600	42.1	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV195C		I4	4.038	Liters	127.3	horsepower	2000	46.2	lb/hr	530	N-m	1600	42.1	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV190		I4	4.038	Liters	120.6	horsepower	2300	46.5	lb/hr	500	N-m	1600	39.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV190A		I4	4.038	Liters	120.6	horsepower	2200	45.4	lb/hr	500	N-m	1600	39.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV185L		I4	4.038	Liters	113.9	horsepower	2200	43.9	lb/hr	500	N-m	1600	39.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV180S		I4	4.038	Liters	107.2	horsepower	2400	43.7	lb/hr	440	N-m	1600	35.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV180A		I4	4.038	Liters	107.2	horsepower	2300	42.4	lb/hr	440	N-m	1600	35.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV180B		I4	4.038	Liters	107.2	horsepower	2200	41.3	lb/hr	440	N-m	1600	35.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV180C		I4	4.038	Liters	107.2	horsepower	2100	40.1	lb/hr	440	N-m	1600	35.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFV180D		I4	4.038	Liters	107.2	horsepower	2000	39.1	lb/hr	440	N-m	1600	35.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT91U		I4	4.038	Liters	122.0	horsepower	2100	46.4	lb/hr	564	N-m	1500	41.9	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT98U		I4	4.038	Liters	131.4	horsepower	2100	50.1	lb/hr	604	N-m	1500	45.3	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT110U		I4	4.038	Liters	146.8	horsepower	2100	55.9	lb/hr	663	N-m	1500	50.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT120U		I4	4.038	Liters	160.9	horsepower	2100	61.4	lb/hr	699	N-m	1500	54.3	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT121U		I4	4.038	Liters	160.9	horsepower	2100	61.4	lb/hr	699	N-m	1500	53.9	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT109U		I4	4.038	Liters	147.2	horsepower	2100	55.9	lb/hr	639	N-m	1500	47.9	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT111U		I4	4.038	Liters	146.8	horsepower	2100	55.9	lb/hr	663	N-m	1500	50.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT96U		I4	4.038	Liters	129.8	horsepower	2100	48.7	lb/hr	564	N-m	1500	41.9	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT89U		I4	4.038	Liters	120.0	horsepower	2100	46.1	lb/hr	522	N-m	1500	34.6	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT119U		I4	4.038	Liters	160.9	horsepower	2100	61.4	lb/hr	699	N-m	1500	53.9	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT108U		I4	4.038	Liters	146.8	horsepower	2100	55.9	lb/hr	663	N-m	1500	50.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT98UB		I4	4.038	Liters	131.4	horsepower	2100	50.1	lb/hr	604	N-m	1500	45.3	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	CFVT91UB		I4	4.038	Liters	122.0	horsepower	2100	46.4	lb/hr	564	N-m	1500	41.9	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V115A		I4	4.038	Liters	154.2	horsepower	2300	59.4	lb/hr	609	N-m	1600	48.7	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V115B		I4	4.038	Liters	154.2	horsepower	2200	58.1	lb/hr	609	N-m	1600	48.7	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V115C		I4	4.038	Liters	154.2	horsepower	2100	57.3	lb/hr	609	N-m	1600	48.7	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V115D		I4	4.038	Liters	154.2	horsepower	2000	55.5	lb/hr	609	N-m	1600	48.7	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V105A		I4	4.038	Liters	140.8	horsepower	2300	54.6	lb/hr	550	N-m	1600	43.2	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V105B		I4	4.038	Liters	140.8	horsepower	2200	53.2	lb/hr	550	N-m	1600	43.2	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V105D		I4	4.038	Liters	140.8	horsepower	2100	52.7	lb/hr	550	N-m	1600	43.2	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V105C		I4	4.038	Liters	140.8	horsepower	2000	51.1	lb/hr	550	N-m	1600	43.2	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V195A		I4	4.038	Liters	127.3	horsepower	2200	48.1	lb/hr	530	N-m	1600	42.1	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V195B		I4	4.038	Liters	127.3	horsepower	2100	47.1	lb/hr	530	N-m	1600	42.1	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V195C		I4	4.038	Liters	127.3	horsepower	2000	46.2	lb/hr	530	N-m	1600	42.1	lb/hr	N/A	N/A	N/A	N/A

TCD4.1L4	C5V190		I4	4.038	Liters	120.6	horsepower	2300	46.5	lb/hr	500	N-m	1600	39.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V190A		I4	4.038	Liters	120.6	horsepower	2200	45.4	lb/hr	500	N-m	1600	39.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V185L		I4	4.038	Liters	113.9	horsepower	2200	43.9	lb/hr	500	N-m	1600	39.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V180S		I4	4.038	Liters	107.2	horsepower	2400	43.7	lb/hr	440	N-m	1600	35.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V180A		I4	4.038	Liters	107.2	horsepower	2300	42.4	lb/hr	440	N-m	1600	35.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V180B		I4	4.038	Liters	107.2	horsepower	2200	41.3	lb/hr	440	N-m	1600	35.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V180C		I4	4.038	Liters	107.2	horsepower	2100	40.1	lb/hr	440	N-m	1600	35.5	lb/hr	N/A	N/A	N/A	N/A
TCD4.1L4	C5V180D		I4	4.038	Liters	107.2	horsepower	2000	39.1	lb/hr	440	N-m	1600	35.5	lb/hr	N/A	N/A	N/A	N/A