

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)
2023	PKBXL03.8C5D	3.77	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		TYPICAL EQUIPMENT APPLICATION		
Electronic Direct Injection, Turbocharger, Exhaust Gas Recirculation, Charge Air Cooler, Electronic Control Module, Periodic Trap Oxidizer, Diesel Oxidation Catalyst, Selective Catalytic Reduction – Urea, Ammonia Oxidation Catalyst		Loader, Tractor, Carrier, Forklift, Roller, Skid Steer Loader		

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_x), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO_x), 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 _x	NMHC+NO _x	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.01	0.07	--	0.3	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).

BE IT FURTHER RESOLVED: That for the listed engine models which include engines from different power categories in the same engine family, the manufacturer is complying with the more stringent set of standards from the 56 ≤ kW < 130 power categories in conformance with the incorporated Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part 1-D" adopted October 20, 2005 and last amended October 25, 2012.

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 19th day of May 2022.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-025-1036

Family: PKBXL03.8C5D

Attachment Last Revised:

4/21/2022

Model	Code	Trim	Config	Displacement -		Peak Power -		Peak Power -	Peak Power -	Peak Power -	Peak Torque -	Peak Torque -	Peak Torque -	Peak Torque -	OBD	GHG	Special	Notes	
				Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Fuel Units	Peak Torque	Units	Speed (rpm)	Fuel					Fuel Units
C3.8-CR-TI-DV	C3.8-CR-TI-DV03		I4	3.770	Liters	81.8	kilowatt	2400	75.3	mm3/stroke	379.3	N-m	1500	84.2	mm3/stroke	N/A	N/A	N/A	N/A
C3.8-CR-TI-DV	C3.8-CR-TI-DV12		I4	3.770	Liters	72.1	kilowatt	2400	66.8	mm3/stroke	330.0	N-m	1500	73.8	mm3/stroke	N/A	N/A	N/A	N/A
C3.8-CR-TI-DW	C3.8-CR-TI-DW04		I4	3.770	Liters	81.8	kilowatt	2400	75.6	mm3/stroke	379.3	N-m	1500	84.9	mm3/stroke	N/A	N/A	N/A	N/A
C3.8-CR-TI-DW	C3.8-CR-TI-DW13		I4	3.770	Liters	72.1	kilowatt	2400	67.1	mm3/stroke	330.0	N-m	1500	74.3	mm3/stroke	N/A	N/A	N/A	N/A
D3.8J-CR-TI-DV	D3.8J-CR-TI-DV02		I4	3.770	Liters	85.1	kilowatt	2600	73.6	mm3/stroke	379.3	N-m	1500	84.2	mm3/stroke	N/A	N/A	N/A	N/A
D3.8J-CR-TI-DV	D3.8J-CR-TI-DV04		I4	3.770	Liters	79.5	kilowatt	2200	78.8	mm3/stroke	379.3	N-m	1500	84.2	mm3/stroke	N/A	N/A	N/A	N/A
D3.8J-CR-TI-DW	D3.8J-CR-TI-DW03		I4	3.770	Liters	85.1	kilowatt	2600	74.1	mm3/stroke	379.3	N-m	1500	84.9	mm3/stroke	N/A	N/A	N/A	N/A
D3.8J-CR-TI-DW	D3.8J-CR-TI-DW05		I4	3.770	Liters	79.5	kilowatt	2200	79.2	mm3/stroke	379.3	N-m	1500	84.9	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV02		I4	3.770	Liters	85.1	kilowatt	2600	73.6	mm3/stroke	379.3	N-m	1500	84.2	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV03		I4	3.770	Liters	81.8	kilowatt	2400	75.3	mm3/stroke	379.3	N-m	1500	84.2	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV04		I4	3.770	Liters	79.5	kilowatt	2200	78.8	mm3/stroke	379.3	N-m	1500	84.2	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV05		I4	3.770	Liters	85.1	kilowatt	2600	74.1	mm3/stroke	379.3	N-m	1500	84.5	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV06		I4	3.770	Liters	77.9	kilowatt	2600	68.0	mm3/stroke	346.1	N-m	1500	77.1	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV07		I4	3.770	Liters	84.4	kilowatt	2600	73.5	mm3/stroke	363.7	N-m	1500	81.0	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV08		I4	3.770	Liters	80.7	kilowatt	2600	70.5	mm3/stroke	351.7	N-m	1500	78.4	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV09		I4	3.770	Liters	78.8	kilowatt	2400	73.2	mm3/stroke	362.6	N-m	1500	80.8	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV10		I4	3.770	Liters	70.9	kilowatt	2600	62.5	mm3/stroke	313.7	N-m	1500	70.8	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV11		I4	3.770	Liters	69.0	kilowatt	2400	64.5	mm3/stroke	330.6	N-m	1500	74.4	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV12		I4	3.770	Liters	72.1	kilowatt	2400	66.8	mm3/stroke	330.0	N-m	1500	73.8	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV13		I4	3.770	Liters	70.8	kilowatt	2400	65.8	mm3/stroke	347.0	N-m	1500	77.1	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV14		I4	3.770	Liters	82.2	kilowatt	2600	71.5	mm3/stroke	355.3	N-m	1500	79.2	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV15		I4	3.770	Liters	72.4	kilowatt	2600	63.7	mm3/stroke	319.1	N-m	1500	72.0	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV16		I4	3.770	Liters	95.0	kilowatt	2400	88.4	mm3/stroke	440.0	N-m	1800	97.1	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DV	V3800-CR-TI-DV17		I4	3.770	Liters	92.0	kilowatt	2200	91.8	mm3/stroke	440	N-m	1800	97.1	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW00		I4	3.770	Liters	97.0	kilowatt	2400	91.0	mm3/stroke	450	N-m	1800	100.5	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW03		I4	3.770	Liters	85.1	kilowatt	2600	74.1	mm3/stroke	379.3	N-m	1500	84.9	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW04		I4	3.770	Liters	81.8	kilowatt	2400	75.6	mm3/stroke	379.3	N-m	1500	84.9	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW05		I4	3.770	Liters	79.5	kilowatt	2200	79.2	mm3/stroke	379.3	N-m	1500	84.9	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW06		I4	3.770	Liters	85.1	kilowatt	2600	74.4	mm3/stroke	379.3	N-m	1500	85.2	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW07		I4	3.770	Liters	77.9	kilowatt	2600	68.4	mm3/stroke	346.1	N-m	1500	77.7	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW08		I4	3.770	Liters	84.4	kilowatt	2600	73.9	mm3/stroke	363.7	N-m	1500	81.7	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW09		I4	3.770	Liters	80.7	kilowatt	2600	70.9	mm3/stroke	351.7	N-m	1500	79	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW10		I4	3.770	Liters	78.8	kilowatt	2400	73.6	mm3/stroke	362.6	N-m	1500	81.5	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW11		I4	3.770	Liters	70.9	kilowatt	2600	62.8	mm3/stroke	313.7	N-m	1500	71.4	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW12		I4	3.770	Liters	69	kilowatt	2400	64.8	mm3/stroke	330.6	N-m	1500	74.9	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW13		I4	3.770	Liters	72.1	kilowatt	2400	67.1	mm3/stroke	330	N-m	1500	74.3	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW14		I4	3.770	Liters	70.8	kilowatt	2400	66.1	mm3/stroke	347	N-m	1500	77.7	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW15		I4	3.770	Liters	82.2	kilowatt	2600	71.5	mm3/stroke	355.3	N-m	1500	79.2	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW16		I4	3.770	Liters	72.4	kilowatt	2600	63.7	mm3/stroke	319.1	N-m	1500	72	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW17		I4	3.770	Liters	95.0	kilowatt	2400	88.7	mm3/stroke	440	N-m	1800	97.6	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW18		I4	3.770	Liters	92.0	kilowatt	2200	91.8	mm3/stroke	440	N-m	1800	97.6	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW19		I4	3.770	Liters	81.8	kilowatt	2400	76.1	mm3/stroke	379.3	N-m	1500	85.2	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW20		I4	3.770	Liters	76.4	kilowatt	2400	71.5	mm3/stroke	346.1	N-m	1500	77.7	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW21		I4	3.770	Liters	73.9	kilowatt	2600	66.9	mm3/stroke	327.7	N-m	1500	74.1	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW22		I4	3.770	Liters	66.6	kilowatt	2600	61.0	mm3/stroke	293.5	N-m	1500	67.1	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW23		I4	3.770	Liters	94.2	kilowatt	2400	87.9	mm3/stroke	435	N-m	1800	96.5	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW26		I4	3.770	Liters	69.9	kilowatt	2600	61.9	mm3/stroke	309	N-m	1500	70.3	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW27		I4	3.770	Liters	64.3	kilowatt	2600	57.7	mm3/stroke	283	N-m	1500	64.6	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW30		I4	3.770	Liters	84.6	kilowatt	2600	74.0	mm3/stroke	379.3	N-m	1500	85.2	mm3/stroke	N/A	N/A	N/A	N/A
V3800-CR-TI-DW	V3800-CR-TI-DW31		I4	3.770	Liters	73.5	kilowatt	2600	66.4	mm3/stroke	329.4	N-m	1500	74.5	mm3/stroke	N/A	N/A	N/A	N/A