

## **AB VOLVO PENTA**

## **EXECUTIVE ORDER U-R-014-0197-1**

New Off-Road Compression-Ignition Engines Page 1 of 1

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	PVPXL05.1CJB	5.13	Diesel 8000					
SP	PECIAL FEATURES & EMIS	SION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION					
Turbocha Diesel C	arger, Charge Air Coole Oxidation Catalyst, Peri	Electronic Control Module, er, Exhaust Gas Recirculation, odic Trap Oxidizer, Selective mmonia Oxidation Catalyst	Crane, Loader, Tractor, Dozer, Pump, Compressor					

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	EMISSION			l	EXHAUST (g/kw-l		OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK	
75 ≤ 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	0.35		0.01	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  $130 \le kW \le 560$  power category 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.

This Executive Order hereby supersedes Executive Order U-R-014-0197 dated September 19, 2022.

Executed on this //th day of April 2023.

Robin U. Lang Robin U. Lang, Chief

Emissions Certification and Compliance Division

Attachment 1 of 1: Engine Models EO #: U-R-014-0197-1				Family	Family: PVPXL05.1CJB Attachment Revised: 3/14/2023														
					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power -		Peak Torque -	Peak Torque -	Peak Torque -	Peak Torque -				
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Fuel Units	Peak Torque	Units	Speed (rpm)	Fuel	Fuel Units	OBD	GHG	Special	Notes
TAD580 VE	I		14	5.1	Liters	143	horsepower	2300	51	lb/hr	720	N-m	1380	45	lb/hr	N/A	N/A	None	None
TAD581 VE	П		14	5.1	Liters	174	horsepower	2300	62	lb/hr	820	N-m	1380	52	lb/hr	N/A	N/A	None	None
TAD582 VE	III		14	5.1	Liters	218	horsepower	2300	75	lb/hr	925	N-m	1380	58	lb/hr	N/A	N/A	None	None
TAD583 VE	IV		14	5.1	Liters	238	horsepower	2300	81	lb/hr	975	N-m	1380	61	lb/hr	N/A	N/A	None	None