AB VOLVO PENTA

EXECUTIVE ORDER U-R-014-0152 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the 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-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control system 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)		
2016	GVPXL16.1CJA	16.1	Diesel			
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION			
Exhau	c Direct Injection, Turbo Cooler, Electronic Contr st Gas Recirculation, Sn Selective Catalytic Redu	rol Module, noke Puff Limiter,	Crane, Loader, Pump, Compressor			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), 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	EMISSION		EXHAUST (g/kW-hr)					OPACITY (%)		
CLASS	STANDARD CATEGORY		имнс	NOx	NMHC+NOx	со	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	0.01	0.17	-	0.1	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.

Executed at El Monte, California on this

day of November 2015.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Template

Attachment 1/1

U-R-014-0152 10-23-2015

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross) mm/s	4.Fuel Rate: stroke @ peak HP for diesel only)	5.Fuel Ra (lbs/hr) @ pe (for diesels	ate: eak HP ^{6.} Torque @ RPM only) (SEA Gross) only)	7.Fuel Rate: mm/stroke@pea torque	k 8.Fu (lbs/hr)@	uel Rate: 9.Emission Control Depeak torque Device Per SAE J1930
GVPXL16.1CJA	I	TAD1670 VE	543@1900	291	186	2757 Nm@1260	366	155	DDI,EM, ECM, CAC, TC, SPL, SCR-U, EGR
GVPXL16.1CJA	11	TAD1671 VE	603@1900	321	205	2897 Nm@1260	386	164	DDI,EM, ECM, CAC, TC, SPL, SCR-U, EGR
GVPXL16.1CJA	111	TAD1672 VE	690@1800	386	234	3213 Nm@1260	430	182	DDI,EM, ECM, CAC, TC, SPL, SCR-U, EGR