EXECUTIVE ORDER U-R-013-0324 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-02-003;

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)			
2010	ADZXL02.7096	2.332	Diesel	8000			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION				
Med Charg	hanical Direct Injection, je Air Cooler, Exhaust G	Turbocharger, as Recirculation	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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)			OPACITY (%)				
			нс	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Interim	STD	N/A	N/A	4.7	5.0	0.30	20	15	50
		CERT			4.6	1.2	0.21	3	2	5

**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 February 2010.

Annette Hebert, Chief

Mobile Source Operations Division

## **Engine Model Summary Template**

Attachment

E0# U-R-013-0324 2/3/2010

4.Fuel Rate:

5.Fuel Rate:

7.Fuel Rate: mm/stroke@pea

8.Fuel Rate: (lbs/hr)@peak

9.Emission Control Device Per SAE J1930

Engine Family 1.Engine Code 2.Engine Model

(SAE Gross)

3.BHP@RPM mm/stroke @ peak HP (lbs/hr) @ peak HP (for diesel only) (for diesels only)

6.Torque @ RPM (SEA Gross)

k torque

torque

ADZXL02.7096

C3UI45 TCD2011L03 60.3@2300

64.5

24.7

149@1600

65.5

17.4

DDI, TC, CAC,EGR