Cummins Inc.

EXECUTIVE ORDER U-R-002-0220 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 engine 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)		
2004	4CEXL015.ABA	15.0	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module			Generator Set			

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 STANDARD	<del>-</del>	EXHAUST (g/kw-hr)				OPACITY (%)			
CLASS	CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
kW > 560	Tier 1 ST	STD	1.3	9.2	N/A	11.4	0.54	N/A	N/A	N/A
		CERT	0.1	8.6		1.0	0.11	1477	19/7	IN/A

**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 August 2003.

Raphal Scanwood for Allen Lyons, Chief

Mobile Source Operations Division

## Engine Model Summary Form ਜੈਸੋਸੈਟਸਮਞਨਾ ਇਹੁ (਼ਦੇ ।

Manufacturer: Cummins Inc.

Engine category: Nonroad Cl
EPA Engine Family. 4CEXL015.ABA

Mfr Family Name: B103

Process Code: New Submission

8.Fuel Rate: 9.Emission Control (Ibs/hr)@peak torque Device Per SAE J1930	DXZ, TO EC LAC TO EC 1
8.Fuel Rate: (tbs/hr)@peak torque	N/A N/A N/A
7.Fuel Rate: mm/stroka@peak torque (#	N/A N/A N/A
6.Torque @ RPM (SEA Gross)	N/A N/A N/A
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	260.5 260.6 260
4.Fuel Rate: mm/stroke @ peak HP (for dlesel only)	435 435 428
3.BHP@RPM (SAE Gross)	775 @ 1800 775 @ 1800 755 @ 1800
2.Engine Model	05x15-G 05x15-G 05x15-G
1.Engine Code	2483FR10333 2867.FR10333 2900.FR10349