

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)		
2008	8CEXL015.AAA	15.0	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module			Loader, Tractor, and Other Industrial Equipment			

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, 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	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS			нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
225 <u>< kW < 560</u>	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		FEL	N/A	N/A	6.2	N/A	N/A	N/A	N/A	N/A
		CERT			5.8	0.4	0.07	15	1	42

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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 December 2007.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Form

12-10-200-21-17

Cummins Inc. Manufacturer:

Engine category:

Nonroad CI 8CEXL015.AAA EPA Engine Family:

<u>S</u>

Mfr Family Name: A103

New Submission Process Code:

4. Fuel Rate: 7. Fuel Rate: 7. Fuel Rate: 9. Emission Control 3. BHP@RPM mm/stroke @ peak HP (lbs/hr) @ peak HP 6. Torque @ RPM mm/stroke @ peak HP (lbs/hr) @ peak HP 6. Torque @ RPM mm/stroke @ peak HP (lbs/hr) @ peak HP 6. Torque @ RPM mm/stroke @ peak broke @ SEE J1930 2825:FR10318 @ SEE Gross) (for diesel only) (for diesels only) (sEA Gross) torque @ RPM mm/stroke @ peak HP (lbs/hr) @ peak torque Device Per SAE J1930 2825:FR10318 @ SEE Gross) (for diesel only) (for diesels only) (sEA Gross) torque @ RPM mm/stroke @ peak HP (lbs/hr) @ peak torque Device Per SAE J1930 2825:FR10318 @ SEE Gross) (for diesel only) (for diesels only) (sEA Gross) (ol 930	9,	
4.Fuel Rate: 5.Fuel Rate: 7.Fuel Rate: 3.BHP@RPM mm/stroke@peak B.Fuel Rate: 3.BHP@RPM mm/stroke@peak B.Fuel Rate: (SAE Gross) (for diesel only) (for diesels only) (SEA Gross) torque (Ibs/hr)@peak torque (SAE Gross) (for diesel only) (for diesels only) (SEA Gross) torque (Ibs/hr)@peak torque (SAE Gross) (500 @1400 417 197 197 197 197	9.Emission Control Device Per SAE J193	"DDI,ECM,TC "DDI,ECM,TC	
4.Fuel Rate: 5.Fuel Rate: 7.Fuel Rate: 3.BHP@RPM mm/stroke@peak HP (lbs/hr) @ peak HP 6.Torque @ RPM mm/stroke@peak (SAE Gross) (for diesel only) (for diesels only) (SEA Gross) torque (GAE Gross) (for diesel only) (SEA Gross) (A17 635 @ 2100 309 219 2050 @ 1400 417	8.Fuel Rate: s/hr)@peak torque	197	
4. Fuel Rate: 3. BHP@RPM mm/stroke@peak HP (SAE Gross) (for diesel only) 600 @ 1800 (\$228	7.Fuel Rate: mm/stroke@peak torque (lb	A 1 1 2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2	
4. Fuel Rate: 3. BHP@RPM mm/stroke@peak HP (SAE Gross) (for diesel only) 600 @ 1800 (\$228	6.Torque @ RPM (SEA Gross)	2050@1400 2050@1400	
3.BHP@RPM (SAE Gross) .600@1800 635@2100	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	199 115	1
3.BHP@RPM 1.Engine Code 2.Engine Model (SAE Gross) 2825:FR10318	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	€328 309	
1.Engine Code 2.Engine Model 2825:FR10318 @SX15-C 2825:FR10491 QSX15-C	3.BHP@RPM (SAE Gross)	600@1800 635@2100	
1.Engine Code 2825:FR10318 2825:FR10491	2.Engine Model	0SX(5-G) QSX(5-C)	
	1.Engine Code	2825:FR10318 2825:FR10491	