

CUMMINS INC.

EXECUTIVE ORDER U-R-002-0469 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)
2009 /	9CEXL023.AAA	23.2	Diesel	8000
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLIC	
Direct Dies	el Injection, Turbocharge Engine Control Mo	er, Charge Air Cooler, dule	Generator Set and Other Industria	al 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		EXHAUST (g/kw-hr)				OPACITY (%)			
POWER CLASS	STANDARD CATEGORY		НС	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
kW > 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
		FEL	N/A	N/A	9.5	N/A	N/A	N/A	N/A	N/A
		CERT			7.7	1.1	0.13	16	4	31

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 November 2008.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Template

Engine Family	1.Engine Code	Engine Family 1.Engine Code 2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: 5.Fuel Rate: 3.BHP@RPM mm/stroke@peak HP (lbs/hr)@peak HP 6.Torque@RPM (SAE Gross) (for diesels only) (SEA Gross)	5.Fuel Rate: (bs/hr) @ peak HP (for diesels only)	6.Torque @ RPM · (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: lbs/hr)@peak torque	8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torqueDevice Per SAE J1930	
9CEXL023.AAA	CPL8353FR50003	QSK23-C	950@2100	469	330	2897@1400	528	248	TC.EM.ECM,DFI ,CAC	ĄĆ
9CEXL023.AAA	CPL8353FR50001	QSK23-C	760@2100	363	256	2404@1300	454	198	TC,EM,ECM,DFI	
9CEXL023.AAA	CPL8353FR50019	· QSK23-C	900@2100	442	310	2700@1400	501	235	TC,EM,ECM,DFI	The Line Line conducts from the grade of the conduction of the grade of the gra
9CEXL023 AAA	CPL8353FR50021	QSK23-C	860@2100	423	296	2600@1400	484	226	TC,EM,ECM,DFI	100 to the control of
9CEXL023.AAA	CPL8353FR50023	QSK23-C	800@2100	404	283	2440@1400	469	219	TC,EM,ECM,DFI	Mark Of Canada Park () or displaying () or display to 4000p
9CEXL023.AAA	CPL8353FR50033	QSK23-C	760@1650	468	257	2564@1350	494	223	TC, EM, ECM, DFI	