

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;

Pursuant to the July 1, 1999 Settlement Agreement (SA) between ARB and the Manufacturer, and any modifications thereof to the Settlement Agreement;

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)
2005	5CEXL0505AAE	8.3	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module			Crane, Loader, Tractor, Dozer, Pump and 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):

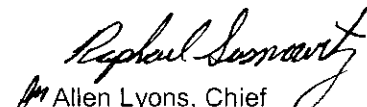
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
225 ≤ kW < 450	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	--	--	4.0	1.7	0.17	4	1	11

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 29th day of December 2004.


 Allen Lyons, Chief
 Mobile Source Operations Division

Engine Model Summary Form

ATTACHMENT Pg 1 of 1

U-R-002-02A4

Manufacturer: **Cummins Inc.**
 Engine category: **Nonroad CI**
 EPA Engine Family: **5CEXL0505AAE**
 Mfr Family Name: **L413**
 Process Code: **Running Change**

1. Engine Code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lbs/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	9. Emission Control Device Per SAE J1930
8539;FR91358	QSC	305@2200	159	118.2	1020@1500	208	105.2	ECM, TC, CAC
8630;FR91506	QSC	305@2200	159	118.2	1020@1500	208	105.2	ECM, TC, CAC
8639;FR91516	QSC	240@2200	129	95.9	800@1500	171	86.5	ECM, TC, CAC
8627;FR91695	QSC	275@2200	146	108.1	896@1500	196	98.9	ECM, TC, CAC
8538;FR91698	QSC	245@2200	130	96.5	857@1500	183	92.5	ECM, TC, CAC
8538;FR91357	QSC	240@2200	129	95.9	800@1500	171	86.5	ECM, TC, CAC