California Environmental Protection Agency AIR RESOURCES BOARD	CUMMINS ENGINE COMPANY	EXECUTIVE ORDER U-R-002-0078-2 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-45-9;

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)
2001	1CEXL0505ABB	8.3	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler	Crane, Loader, Tractor, Dozer, Pump, Compressor, Generator

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 POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ KW < 225	Tier 1	STD	1.3	9.2	N/A	11.4	0.54	20	15	50
		FEL	--	7.9	--	--	--	--	--	--
		CERT	0.4	7.2	--	0.7	0.25	7	2	16

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.

This Executive Order hereby cancels and replaces Executive Order U-R-002-0078-1 dated October 1, 2001.

Executed at El Monte, California on this 24th day of October 2001.

R. B. Summerfield, Chief
Mobile Source Operations Division

ATTACHMENT 1

Engine Model Summary Form

U-R-002-00 B

Manufacturer: **Cummins Engine Company**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **1CEXL0505ABB**

Mfr Family Name: **B413**

Process Code: ~~**New Submission**~~ FEL 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
2062;FR9878	C8.3-C	240@2200	123	91.0	750@1500	142	71.8	DOC, TC, CAC
2062;FR90617	C8.3-C	240@2200	123	91.0	750@1500	142	71.8	TC
2062;FR90162	C8.3-C	240@2200	123	91.0	750@1500	142	71.8	TC
2062;FR90541	C8.3-C	240@2200	123	91.0	750@1500	142	71.8	TC
2062;FR90387	C8.3-C	240@2200	123	91.0	750@1500	142	71.8	TC
2062;FR90503	C8.3-C	240@2200	123	91.0	750@1500	142	71.8	TC
2062ER90048	C8.3-C	230@2200	118	87.3	730@1500	140	71.0	TC
2062;FR9889	C8.3-C	230@2200	118	87.3	730@1500	140	71.0	TC
2062;FR9886	C8.3-C	230@2200	118	87.3	730@1500	140	71.0	TC
2062;FR90049	C8.3-C	230@2200	118	87.3	730@1500	140	71.0	TC
2007;FR9875	C8.3-C	215@2200	110	81.8	668@1500	127	64.1	TC
2007;FR90264	C8.3-C	215@2200	110	81.8	668@1500	127	64.1	TC
2007;FR90163	C8.3-C	215@2200	109	80.6	616@1500	118	59.5	TC
2055;FR90050	C8.3-C	230@2000	125	84.4	720@1500	138	70.0	TC
2056;FR90112	C8.3-C	215@1900	120	76.7	645@1500	123	62.0	TC
2951;FR90803	C8.3-C	207 @ 1900	117	75.0	714 @ 1400	142	67.0	TC
2951;FR90804	C8.3-C	200 @ 1900	112	72.0	699 @ 1400	136	64.0	TC
2062;FR91000	C8.3-C	235@2000	129	87.2	727@1500	145	73.3	TC