EXECUTIVE ORDER U-R-002-0164 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)		
2003	2003 3CEXL0239AAA 3.9		Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
	Direct Diesel Injec	tion	Crane, Loader, Tractor, Dozer, Pump, Compressor			

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-l	ST (g/kw-hr)		OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 <u>&lt;</u> KW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		FEL	N/A	8.6	N/A	N/A	N/A	N/A	N/A	N/A
		CERT		7.8				<del>- 17///-</del> -	IN/A	IN/A

**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 2002.

Allen Jons, Chief

Mobile Source Operations Division

## Engine Model Summary Form חדואאואיכולדר פֿן ניסילי נ

Manufacturer: Cummins Inc.

Engine category: Nonroad Over 50 Hp

EPA Engine Family: 3CEXL0239AAA

Mir Family Name: A381

Process Code: New Submission

U-R-002-0164-

8100;FH91032	2567;FR90517 2568:FR90517	2361;FR90734	2145;FR90394	2486;FR90418	2361;FR90344	1.Engine Code 2361:FR90124
83.9-C	B3.9-C	B3.9-C	B3.9-C	. : : B3.9-C	B3.0-C	2.Engine Model
74@2500	60@2200	80@2500	57@1750	75@2200	80@2500	3.BI ເກອງ son
59	18	61 5		61	0	4.Fael Hate: nanVstroke @ peak HP (for diesel only)
30.0	23,9	34.1	010	30 g	24.	5.Fuel Rate: (fbe/hr) (#) peak HP (for diesels only)
194@1200 201@1200	171@1200	201@120U 201@1200	101010W	701(0)1700	201@1200	6.Torque @ RPM (SEA Gross)
62	54	56	.03	67	67	7.Fuel Rate: min/stroke@peak torque
16.5	14.5	15.2	17.5	18.1	18.7	8.Fuel Rate: 9.Emission Control (fbs/hr)@peak torque Device Per SAE J1930
DDI, EM T	DDI, EM	DDI, EM	4		DDI, EM 🗽 🛧	9.Emission Control Device Per SAE J1930