

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	1CEXL0239ABA	3.9	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler			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-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ KW < 130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		FEL	--	8.8	--	--	0.27	--	--	--
		CERT	--	8.2	--	--	--	13	2	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.

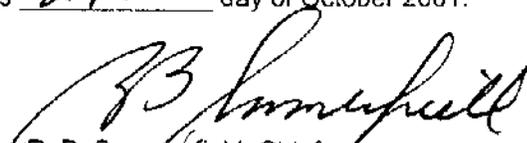
BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

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.

This Executive Order hereby cancels and replaces Executive Order U-R-002-0084-1 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

Engine Model Summary Form

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U-R-002-0084-2

Manufacturer: Cummins Engine Company
 Engine category: Nonroad Over 50 Hp
 EPA Engine Family: 1CEXL0239ABA
 Mfr Family Name: A382
 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
2302;FR90029	B3.9-C	110@2500	81	45.3	278@1500	84	28.3	DDI, TC, CAC
2302;FR90348	B3.9-C	110@2500	81	45.3	278@1500	84	28.3	TC
1967;FR90514	B3.9-C	108@2250	81	41.8	293@1500	87	29.3	TC
1967;FR90128	B3.9-C	105@2400	77	41.7	280@1500	85	28.7	TC
1967;FR90132	B3.9-C	100@2200	79	39.3	298@1500	94	31.8	TC
1967;FR90332	B3.9-C	100@2200	79	39.3	298@1500	94	31.8	TC
1967;FR90131	B3.9-C	95@2200	73	35.9	283@1500	83	28.1	TC
1967;FR90129	B3.9-C	90@2500	66	37.1	254@1500	76	25.5	TC
1967;FR90412	B3.9-C	90@2500	66	36.5	254@1500	76	25.5	TC
1967;FR90845	B3.9-C	100@2200	79	39.3	298@1500	94	31.8	TC
1967;FR90953	B3.9-C	99@2200	76	37.6	295@1500	89	30.1	TC
1967;FR90954	B3.9-C	99@2200	76	37.6	295@1500	89	30.1	TC
2881;FR90284	B3.9-C	105@2100	85	39.9	293@1500	92	30.9	TC
1965;FR90134	B3.9-C	92@2100	72	34.2	293@1500	88	29.7	TC
1965;FR90130	B3.9-C	90@2200	70	34.4	269@1500	79	26.7	TC
1965;FR90144	B3.9-C	85@2200	69	34.1	254@1500	76	25.7	TC
1965;FR90846	B3.9-C	85@2200	69	34.1	245@1500	76	25.7	TC
2478;FR90126	B3.9-C	80@2200	64	31.5	229@1500	57	19.3	TC
2359;FR90127	B3.9-C	85@2500	60	33.9	239@1500	71	23.9	TC
2148;FR90390	B3.9-C	91@2300	68	35.2	246@1300	75	22.0	TC
2148;FR90720	B3.9-C	86@2200	65	32.2	246@1300	74	21.6	TC
2148;FR90646	B3.9-C	90@2200	70	34.8	246@1300	77	22.6	TC
2456;FR90391	B3.9-C	86@1900	74	31.5	246@1300	78	22.9	TC
2457;FR90392	B3.9-C	75@2350	56	29.7	218@1400	66	20.7	TC
2457;FR90395	B3.9-C	79@2500	57	32.1	218@1400	66	20.7	TC
2144;FR90309	B3.9-C	93@2350	70	36.8	253@1600	75.3	27.1	TC
2808;FR90502	B3.9-C	110 @ 2500	88	29.5	293 @ 1500	81	45.3	TC

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2608;FR90	B3.9-C	110@2500	79	3	293@1500	87	29.2	I, TC, CAC
2681;FR9053	B3.9-C	91 @ 2400	68	36.5	260 @ 1600	77	27.8	TC
2623;FR90618	B3.9-C	89 @ 2200	72	35.5	268 @ 1450	82	24.5	TC
2623;FR90540	B3.9-C	95 @ 2000	77	34.6	291 @ 1400	91	28.5	TC
2857;FR90733	B3.9-C	110@2500	81	45.4	278@1500	84	28.4	TC
1966;FR90368	B3.9-C	100@2200	79	39	298@1500	89	30.0	TC
1966;FR90369	B3.9-C	95@2200	73	35.9	283@1500	83	28.1	TC
1966;FR90917	B3.9-C	100@2100	83	39.3	298@1500	89	29.9	TC