

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)
2002	2CEXL0359AAA	5.9	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger			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 (NO_x), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO_x), 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	NO _x	NMHC+NO _x	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	N/A	9.0	N/A	N/A	N/A	N/A	N/A	N/A
		CERT	--	5.7	--	--	--	3	2	5

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 6th day of December 2001.


 R. B. Summerfield, Chief
 Mobile Source Operations Division

Engine Model Summary Form

ATTACHMENT B 1 of 2

U-R-002-0131

Manufacturer: Cummins Inc.
 Engine category: Nonroad Over 50 Hp
 EPA Engine Family: 2CEXL0359AAA
 Mfr Family Name: A402
 Process Code: Running Change

1.Engine Code	2.Engine Model	3.HIP@RPM (SAE Gross)	4.Fuel Rate: mmf/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesel only)	6.Torque @ RPM (SIA Gross)	7.Fuel Rate: mmf/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
1948;FR90285	B5.9-C	155@2100	83	59.1	440@1600	89	47.8	DDI, TC
1948;FR90026	B5.9-C	165@2500	80	67.7	440@1600	89	47.8	TC
1948;FR90058	B5.9-C	152@2500	74	62.6	414@1600	83	44.6	TC
1948;FR90377	B5.9-C	152@2500	74	62.6	414@1600	83	44.6	TC
1948;FR90305	B5.9-C	151@2400	76	61.7	414@1600	84	45.2	TC
1948;FR90059	B5.9-C	148@2200	76	56.2	440@1600	89	47.9	TC
1948;FR90342	B5.9-C	148@2200	76	56.2	440@1600	89	47.9	TC
1948;FR90692	B5.9-C	156@2200	78	58.1	449@1600	82	44.3	TC
1948;FR90799	B5.9-C	152 @ 2500	73	61.7	414 @ 1600	84	45.2	TC
2071;FR90139	B5.9-C	145@2100	75	53.2	440@1600	84	45.5	TC
2071;FR90060	B5.9-C	140@2000	76	51.2	416@1600	82	44.2	TC
2071;FR90194	B5.9-C	137@2000	74	50.1	440@1600	87	46.9	TC
2071;FR90299	B5.9-C	135@2200	70	52.1	419@1600	83	44.7	TC
2071;FR90061	B5.9-C	135@2200	70	52.1	419@1600	83	44.7	TC
2071;FR90286	B5.9-C	135@2200	69	50.8	419@1500	83	42	TC
2071;FR90138	B5.9-C	135@2100	70	49.5	419@1500	82	41.6	TC
2071;FR90322	B5.9-C	135@2100	69	48.5	419@1500	81	40.8	TC
2071;FR90063	B5.9-C	130@2200	67	50	388@1600	78	42.2	TC
2071;FR90137	B5.9-C	126@2100	66	46.9	388@1600	76	40.9	TC
2071;FR90064	B5.9-C	120@2200	61	45.4	372@1600	73	39.1	TC
2071;FR90298	B5.9-C	120@2200	61	45.4	372@1600	73	39.1	TC
2071;FR90103	B5.9-C	118@2400	58	46.6	312@1600	63	33.2	TC
2071;FR90066	B5.9-C	110@2200	57	42.6	341@1600	67	36.2	TC
2071;FR90297	B5.9-C	110@2200	57	42.6	341@1600	67	36.2	TC
2071;FR90296	B5.9-C	101@2200	53	39.6	313@1500	60	30.6	TC
2071;FR90324	B5.9-C	145@2100	75	53.3	440@1600	85	45.6	TC
2071;FR90560	B5.9-C	143@2200	71	53	444@1500	87	44	TC

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2071;FR90;	B5.9-C	120@2200	62	372@1600	73	39.1	TC
2071;FR90203	B5.9-C	97@2200	51	267@1700	53	30.3	TC
2071;FR90627	B5.9-C	135@2400	64	364@1600	75	40.2	TC
2071;FR90628	B5.9-C	130@2500	64	368@1600	73	39.4	TC
2071;FR90773	B5.9-C	139@2400	69	373@1600	73	39.6	TC
2071;FR90704	B5.9-C	135@2100	69	419@1500	81	40.8	TC
2071;FR90774	B5.9-C	128@2400	62	362@1500	69	35.1	TC
2071;FR90813	B5.9-C	120@2200	62	376@1600	75	40.6	TC
1902;FR90005	B5.9-C	110@2400	55	340@1300	69	30.4	TC
2146;FR90424	B5.9-C	136@2000	74	412@1350	84	38.1	TC
2146;FR90445	B5.9-C	135@2400	68	366@1600	72	38.8	TC
2508;FR90500	B5.9-C	126@2250	62	308@1600	56	33.3	TC
2550;FR90443	B5.9-C	146@2200	75	424@1350	87	39.4	TC
2604;FR90555	B5.9-C	111@2400	53	309@1600	60	32.3	TC
2604;FR90556	B5.9-C	145@2500	68	391@1600	77	41.4	TC
8085;FR90993	B5.9-C	115@2400	58	340@1300	67	29.4	TC
2071;FR90967	B5.9-C	99@2200	53	313@1500	60	30.6	TC
2071;FR91026	B5.9-C	99@2000	53	325@1400	62	29.2	TC