

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-2-63  
Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

CUMMINS ENGINE COMPANY, INC.

Pursuant to the authority vested in the Air Resources Board at Sections 43000.5, 43013, and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9; and

IT IS ORDERED AND RESOLVED: That the following diesel engines and exhaust emission control systems produced by the manufacturer are certified as described below for use in heavy-duty off-road equipment:

Model Year: 2000

Typical Equipment Usage: Crane, Loader, Tractor, Dozer, Pump, and Compressor

Engine Power Ratings Range: 175 – 750 horsepower, inclusive

Fuel Type: Diesel

<u>Engine Family</u>	<u>Displacement</u>		<u>Exhaust Emission Control Systems and Special Features</u>
	<u>Liters</u>	<u>Cubic Inches</u>	
YCEXL0855AAB (B093)	14.0	855	Turbocharger Charge Air Cooler Engine Control Module

The engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The exhaust emission certification standards and certification values in grams per brake horsepower-hour (g/bhp-hr) for total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM), and the opacity-of-smoke certification standards and certification values in percent (%) during acceleration (Accel), lugging (Lug), and the peak-values from either mode (Peak) for this engine family are as follows (Title 13, California Code of Regulations, Section 2423):

	<u>Exhaust Emissions (g/bhp-hr)</u>				<u>Smoke Opacity (%)</u>		
	<u>THC</u>	<u>CO</u>	<u>Nox</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
Standard	1.0	8.5	6.9	0.4	20	15	50
Certification	0.2	0.7	6.6	0.1	19	3	28

BE IT FURTHER RESOLVED: That the listed engine models comply with "Exhaust Emission Standards and Test Procedures—Heavy-Duty Off-Road Diesel-Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with "Emission Control Labels—1996 and Later Heavy-Duty Off-Road Diesel-Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2425 *et seq.*).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 30<sup>th</sup> day of December 1999.



*R.* R. B. Summerfield, Chief  
Mobile Source Operations Division

# Engine Model Summary Form

Manufacturer: Cummins Engine Company

Engine category: Nonroad Over 50 Hp

EPA Engine Family: YCEXL0855AAB

Mfr Family Name: B093

Process Code: New Submission

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
2261:FR 1873	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2261:FR10218	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2261:FR10085	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2261:FR10148	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2261:FR10077	N14-C	525@2100	252	252	1650@1300	304	133	"TC,EC"
2261:FR10078	N14-C	525@2100	252	178	1650@1300	304	252	"TC,EC"
2261:FR10083	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2261:FR10084	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2261:FR10086	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2261:FR10087	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2261:FR10088	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2261:FR10237	N14-C	525@1800	289	176	1650@1300	304	133	"TC,EC"
2261:FR10147	N14-C	500 @2100	250	171	1650@1300	304	133	"TC,EC"
2261:FR10322	N14-C	450@2100	219	155	1350@1400	250	118	"TC,EC"
2261:FR10215	N14-C	440@1800	242	178	1500@1300	281	123	"TC,EC"
2403:FR10158	N14-C	480@2100	236	167	1500@1300	276	121	"TC,EC"
2403:FR10157	N14-C	425@2100	209	148	1400@1400	263	124	"TC,EC"
2403:FR10242	N14-C	425@2100	209	148	1400@1400	263	124	"TC,EC"
2403:FR10156	N14-C	360@2100	181	128	1215@1400	231	109	"TC,EC"
2403:FR10241	N14-C	360@2100	181	128	1215@1400	231	109	"TC,EC"
2659:FR10303	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2659:FR10324	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"
2659:FR10304	N14-C	525@2100	252	178	1650@1300	304	133	"TC,EC"