

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-66  
Relating to Certification of New Heavy-Duty Motor Vehicle Engines

CUMMINS ENGINE COMPANY, INC.

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 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-45-3;

IT IS ORDERED AND RESOLVED: That the following Cummins Engine Company, Inc. 1991 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems and Special Features</u>
MCE0505FAA2 (413B)	8.3	(505)	Smoke Puff Limiter Charge Air Cooler Turbocharger
MCE0359FAA9 (403A)	5.9	(359)	Smoke Puff Limiter Charge Air Cooler Turbocharger
MCE0359FABX (403B)	5.9	(359)	Smoke Puff Limiter Charge Air Cooler Turbocharger
MCE0611FZA2 (343D)	10	(611)	Powertrain Control Module Charge Air Cooler Turbocharger
MCE0855FZA6 (093M)	14	(855)	Powertrain Control Module Charge Air Cooler Turbocharger

Engine models and codes are listed on attachments.

The following are the certification emission standards for these engine families:

<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>	<u>Particulates gm/bhp-hr</u>
1.3 /	15.5 /	5.0 /	0.25

The following are the certification emission values for these engine families:

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>	<u>Particulates gm/bhp-hr</u>
MCE0505FAA2 (413B)	0.3	1.3	4.3	0.24
MCE0359FAA9 (403A)	0.3	1.1	4.9	0.25
MCE0359FABX (403B)	0.2 ✓	1.5	4.3	0.24
MCE0611FZA2 (343D)	0.2	3.7	4.6	0.24
MCE0855FZA6 (093M)	0.3	2.0	4.6	0.25

0.24

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036.)

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

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 13<sup>th</sup> day of December, 1990.

R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINESMHDDPage 1Manufacturer Cummins Engine Company, Inc. Engine Family (403B) MCE0359FABXLiter (CID) 5.9 (359) Eng. Type I-6Emission Control Sys. & Special Features SPL (TC, CAC)  
(Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Particulate Trap Mfr. Part Number
B5.9-230 (0987)	Robert Bosch 3913440	Robert Bosch 3919091	230 @ 2500	104.0	NA
B5.9-210 (1422)	Robert Bosch 3918321	Robert Bosch 3919091	210 @ 2500	96.0	NA
B5.9-190 (1261)	Robert Bosch 3919090	Robert Bosch 3919092	190 @ 2500	89.0	NA

Revisions:  
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1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINES

HH100

Manufacturer Cummins Engine Company, Inc. Engine Family (093M) MCE0855FZA6  
 Liter (CID) 14 ( 855 ) Eng. Type I-6  
 Emission Control Sys. & Special Features PCME (TC, CAC)  
 (Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Particulate Trap Mfr. Part Number
N14-460E (1384)	Cummins	Cummins 3070739	460@1700	273	NA
N14-430E (1385)	Cummins	Cummins 3070739	430@1700	255	NA
N14-430E (1386)	Cummins	Cummins 3070739	430@1700	253	NA
N14-370E (1390)	Cummins	Cummins 3070739	370@1600	235	NA
N14-370E (1389)	Cummins	Cummins 3070739	370@1600	226	NA
(1)N14-370E (1445)	Cummins	Cummins 3070739	370@1600	226	NA

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1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINES

HHDD

Manufacturer Cummins Engine Company, Inc. Engine Family (343D) MCE0611FZA2

Liter (CID) 10 (611) Eng. Type I-6

Emission Control Sys. & Special Features PCME (TC, CAC)  
(Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Particulate Trap Mfr. Part Number
L10-330E (1348)	Cummins	Cummins 3071534	330@1600	198	NA
L10-310E (1367)	Cummins	Cummins 3071534	310@1600	189	NA

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1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINESPage 1Manufacturer Cummins Engine Company, Inc. Engine Family (413B) MCE0505FAA2Liter (CID) 8.3 (505) Eng. Type I-6Emission Control Sys. & Special Features SPL (TC, CAC)  
(Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Particulate Trap Mfr. Part Number
C8.3-300 (1406)	Robert Bosch 3916626	Robert Bosch 3920140	300@2200	151.0	NA
C8.3-275 (1262)	Robert Bosch 3916627 3916628 3916629 3917089	Robert Bosch 3919058	275@2000 275@1800	148.0 163.0	NA NA
C8.3-250 (1262)	Same	Same	250@2400 250@2200	125.0 127.0	NA NA
C8.3-210 (1263)	Robert Bosch 3917088	Robert Bosch 3919058	210@2400	102.0	NA

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1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINESPage 1Manufacturer Cummins Engine Company, Inc. Engine Family (403A) MCE0359FAA9Liter (CID) 5.9 (359) Eng. Type I-6Emission Control Sys. & Special Features SPL (TC, CAC)  
(Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Particulate Trap Mfr. Part Number
B5.9-160 (1351)	Robert Bosch 3913442(12V) 3918964(24V) 3918991(12V) 3918992(24V) 3919712(12V) 3919713(24V) 3919714(12V) 3919715(24V)	Robert Bosch 3918965	160@2500	74.0	NA

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