

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2, and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

**IT IS ORDERED AND RESOLVED:** The following on-road motor vehicles with a manufacturer's GVWR over 14000 pounds are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

ENGINE DESCRIPTION								
MANUFACTURER	EXECUTIVE ORDER	MODEL YEAR	ENGINE FAMILY	ENGINE SIZES (L)	FUEL TYPE <sup>1</sup>	STANDARDS & TEST PROCEDURE	INTENDED SERVICE CLASS <sup>2</sup>	ECS & SPECIAL FEATURES <sup>3</sup>
					Gasoline			
GENERAL MOTORS LLC	A-006-1799-1	2012	CGMXE06.0584	6.0	Gasoline	Otto	HDO	2TWC, 2HO2S(2), SFI
Gasoline, LPG or Alcohol Vehicles Only			VEHICLE DESCRIPTION					
EVAPORATIVE FAMILY		FUEL TANK CAPACITY (gallons)	VEHICLE MODEL YEAR	VEHICLE MAKE & MODELS	ENGINE (L)	ENGINE MODELS / CODES (rated power, in hp)		
UL (K)								
CGMXF0300998	150	33, 57	2012	GMC Savana Special Cutaway 4500	6.0	L96 / 40 (323); LC8 / 45 (323)		
CGMXF0300998	150	33, 57	2012	Chevrolet Express Commercial Cutaway 4500	6.0	L96 / 40 (323); LC8 / 45 (323)		
*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*

<sup>1</sup> =not applicable; GVWR=gross vehicle weight rating; 13 CCR xyz=Title 13, California Code of Regulations, Section xyz; 40 CFR 86.abc=Title 40, Code of Federal Regulations, Section 86.abc; L=liter; K=1000 miles; hp=horsepower; kw=kilowatt;  
<sup>2</sup> CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85=85% ethanol fuel; MF=multi fuel a.k.a. BF=bi fuel; DF=dual fuel; FF=flexible fuel;  
<sup>3</sup> L/M/H HDD=light/medium/heavy heavy-duty diesel; UB=urban bus; HDO=heavy duty Otto;  
ECS=emission control system; TWC/OC=three-way/oxidizing catalyst; WU (prefix) =warm-up catalyst; DPF=diesel particulate filter; HO2S/O2S=heated/oxygen sensor; HAFS/AFS=heated/air-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SFI/MFI=sequential/multi port fuel injection; DGI=direct gasoline injection; GCARB=gaseous carburetor; IDI/DDI=indirect/direct diesel injection; TC/SC=turbo/super charger; CAC=charge air cooler; EGR=exhaust gas recirculation; PAIR/AIR=pulsed/secondary air injection; SPL=smoke puff limiter; ECM/PCM=engine/powertrain control module; EM=engine modification; 2 (prefix)=parallel; (2) (suffix)=in series; (2004may26)

Following are: 1) the FTP exhaust emission standards or family emission limit(s) as applicable under 13 CCR 1956.1 (urban bus) or 13 CCR 1956.8 (other than urban bus); 2) the EURO and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, in g/bhp-hr, for this engine family. "Diesel" CO, EURO and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [ ] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.1 or 13 CCR 1956.8 are in parentheses.)

	NMHC		NOx		NMHC+NOx		CO		PM		HCHO	
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
STD	0.14	*	*	*	*	*	14.4	*	0.01	*	0.01	*
FEL	*	*	0.42	*	*	*	*	*	*	*	*	*
CERT	0.06	*	0.19	*	*	*	2.2	*	0.005	*	0.001	*
NTE	*	*	*	*	*	*	*	*	*	*	*	*

<sup>4</sup> g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle; NTE=Not-to-Exceed emission limit; STD=standard or emission test cap; FEL=family emission limit; CERT=certification level; NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide; PM=particulate matter; HCHO=formaldehyde;

**BE IT FURTHER RESOLVED:** Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

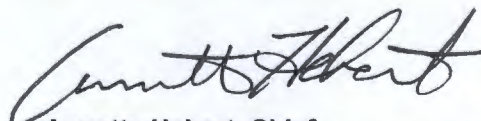
**BE IT FURTHER RESOLVED:** For the listed vehicle models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1976(b)(1)(F) {evaporative emission standards}, 13 CCR 2035 et seq. (emission control warranty), and 13 CCR 2235 [fill pipes and openings of motor vehicle fuel tanks]. (The braces { } are for gasoline, LPG or alcohol fueled vehicles only. The brackets [ ] are for gasoline or alcohol fueled vehicles only.)

Vehicles 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 Executive Order.

This Executive Order hereby supersedes Executive Order A-006-1800 dated March 18, 2011.

Executed at El Monte, California on this 18 day of May 2011.

  
Annette Hebert, Chief  
Mobile Source Operations Division

# Engine Model Summary Template

Template

A-006-1800-1

Engine Family	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
CGMXE06.0584	40	L96	323@4600*	NA	NA	373@4400*	NA	NA	2TWC, SFI, 2HO2S (2)
CGMXE06.0584	45	LC8	323@4600*	NA	NA	373@4400*	NA	NA	2TWC, SFI, 2HO2S (2)
CGMXE06.0584	50	L96	308@4400*	NA	NA	367@4400*	NA	NA	2TWC, SFI, 2HO2S (2)
CGMXE06.0584	55	LC8	308@4400*	NA	NA	367@4400*	NA	NA	2TWC, SFI, 2HO2S (2)
CGMXE06.0584	60	L96	300@4400*	NA	NA	360@4400*	NA	NA	2TWC, SFI, 2HO2S (2)
CGMXE06.0584	65	LC8	300@4400*	NA	NA	360@4400*	NA	NA	2TWC, SFI, 2HO2S (2)
CGMXE06.0584	80	L96	293@4300*	NA	NA	368@4000*	NA	NA	2TWC, SFI, 2HO2S (2)
CGMXE06.0584	85	LC8	293@4300*	NA	NA	368@4000*	NA	NA	2TWC, SFI, 2HO2S (2)

Reviewed: *[Signature]*  
5/17/2011

Z-evans 5/17/2011

R/C: Change in HD engine Eo. GM requested a new HDV Eo to reflect this. I confirmed that the engine codes and makes/models are accurate.

\* HCHO standard correction