



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 engine and emission control systems produced by the manufacturer are certified as described below for use in on-road motor vehicles with a manufacturer's GVWR over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	ENGINE SIZES (L)	FUEL TYPE ¹		STANDARDS & TEST PROCEDURE	INTENDED SERVICE CLASS ²	ECS & SPECIAL FEATURES ³	DIAGNOSTIC ⁶
2008	8CPXH0763E1B	12.5	Diesel		Diesel	HHDD	DDI, TC(2), CAC, ECM, EGR-C, PTOX	EMD
PRIMARY ENGINE'S IDLE EMISSIONS CONTROL ⁵		ADDITIONAL IDLE EMISSIONS CONTROL ⁵						
ESS or 30g		N/A						
ENGINE (L)	ENGINE MODELS / CODES (rated power, in hp)							
12.5	See attachment for engine models and ratings (clean idle engines indicated by "-30g" suffix in engine code)							
[*] =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; hp=horsepower; kw=kilowatt; hr=hour; ¹ 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; ² L/MH HDD=light/medium/heavy heavy-duty diesel; UB=urban bus; HDO=heavy duty Otto; ³ ECS=emission control system; TWC/OC=three-way/oxidizing catalyst; NAC=NOx adsorption catalyst; SCR-U / SCR-N=selective catalytic reduction - urea / - ammonia; WU (prefix) =warm-up catalyst; DPF=diesel particulate filter; PTOX=periodic trap oxidizer; 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 / EGR-C=exhaust gas recirculation / cooled EGR; 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; ⁵ ESS=engine shutdown system (per 13 CCR 1956.8(a)(6)(A)(1); 30g=30 g/hr NOx (per 13 CCR 1956.8(a)(6)(C); APS =internal combustion auxiliary power system; ALT=alternative method (per 13 CCR 1956.8(a)(6)(D); Exempt=exempted per 13 CCR 1956.8(a)(6)(B) or for CNG/LNG fuel systems; N/A=not applicable (e.g., Otto engines and vehicles); EMD=engine manufacturer diagnostic system (13 CCR 1971); OBD=on-board diagnostic system (13 CCR 1971.1);								

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.8; 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, 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 1956.8 are in parentheses.).

in g/bhp-hr	NMHC		NOx		NMHC+NOx		CO		PM		HCHO	
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
STD	0.14	0.14	*	*	*	*	15.5	15.5	0.01	0.01	*	*
FEL	*	*	1.16	1.16	1.3	1.3	*	*	*	*	*	*
CERT	0.04	0.06	1.04	1.07	1.1	1.1	1.6	0.1	0.003	0.005	*	*
NTE	0.21		1.74		2.0		19.4		0.02		*	

⁴ g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle, including RMCSET=ram mode cycle supplemental emissions testing; NTE=Not-to-Exceed; 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: Except in vehicle applications exempted per 13 CCR 1956.8(a)(6)(B), engines in this engine family certified under 13 CCR 1956.8(a)(6)(C) [30 g/hr NOx] and section 35.B.4 of the incorporated "California Exhaust Emissions Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" (HDDE Test Procedures) adopted Dec. 12, 2002, as last amended Sep. 1, 2006, shall be provided with an approved "Certified Clean Idle" label that shall be affixed to the vehicle into which the engine is installed;



BE IT FURTHER RESOLVED: The listed engine models have been certified to the split engine family standards under 13 CCR 1956.8(b) [diesel engines] or 13 CCR 1956.8(d) [Otto engines] and the incorporated 40 CFR 86.007-15(m)(9).

BE IT FURTHER RESOLVED: For the listed engine models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels) and 13 CCR 2035 et seq. (emission control warranty).

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 Executive Order.

Executed at El Monte, California on this 18 day of July 2008.

Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Template

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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
8CPXH0763E1B	CERT ENG	C13	485@1800	293	177.6	1750@1200	343	138.3	DDI, EM, DI, TC,
8CPXH0763E1B	1	C13	485@1800	291	176.1	1650@1200	302	122.1	TC, EM, DI, TC,
8CPXH0763E1B	2	C13	485@1800	287	173.5	1650@1200	314	126.6	CAC, EM, DI, TC,
8CPXH0763E1B	3	C13	395@1800	238	144.1	1450@1200	268	108.4	ECM, EM, DI, TC,
8CPXH0763E1B	4	C13	395@1800	246	149.2	1450@1200	276	111.2	EGR-C, EM, DI, TC,
8CPXH0763E1B	5	C13	445@1800	270	163.2	1650@1200	301	121.6	PTOX, EM, DI, TC,
8CPXH0763E1B	6	C13	445@1800	270	163.4	1650@1200	328	130.3	EM, DI, TC,
8CPXH0763E1B	7	C13	425@1800	259	156.6	1550@1200	286	115.6	EM, DI, TC,
8CPXH0763E1B	8	C13	425@1800	260	157.5	1550@1200	299	120.6	EM, DI, TC,
8CPXH0763E1B	9	C13	445@1800	271	163.9	1550@1200	286	115.3	EM, DI, TC,
8CPXH0763E1B	10	C13	445@1800	271	164.0	1550@1200	298	120.2	EM, DI, TC,
8CPXH0763E1B	11	C13	425@1800	272	164.7	1550@1200	303	122.5	EM, DI, TC,
8CPXH0763E1B	12	C13	425@1800	272	164.7	1550@1200	303	122.5	EM, DI, TC,
8CPXH0763E1B	13	C13	485@1800	296	179.3	1550@1200	286	115.6	EM, DI, TC,
8CPXH0763E1B	14	C13	485@1800	293	177.3	1550@1200	298	120.4	EM, DI, TC,
8CPXH0763E1B	15	C13	425@1800	259	156.7	1450@1200	265	107.1	EM, DI, TC,
8CPXH0763E1B	16	C13	425@1800	261	158.2	1450@1200	278	112.2	EM, DI, TC,
8CPXH0763E1B	17	C13	365@1800	237	143.3	1450@1200	279	112.8	EM, DI, TC,
8CPXH0763E1B	18	C13	365@1800	237	143.3	1450@1200	279	112.8	EM, DI, TC,
8CPXH0763E1B	19	C13	365@1800	236	143.2	1350@1200	260	105.1	EM, DI, TC,
8CPXH0763E1B	20	C13	365@1800	236	143.2	1350@1200	260	105.1	EM, DI, TC,
8CPXH0763E1B	21	C13	420@1800	266	161.0	1550@1220	304	122.6	EM, DI, TC,
8CPXH0763E1B	22	C13	420@1800	266	161.0	1550@1200	304	122.6	EM, DI, TC,
8CPXH0763E1B	23	C13	385@1800	248	150.5	1350@1200	263	106.2	EM, DI, TC,
8CPXH0763E1B	24	C13	385@1800	248	150.5	1350@1200	263	106.2	EM, DI, TC,
8CPXH0763E1B	25	C13	385@1800	246	148.7	1450@1200	277	111.7	EM, DI, TC,
8CPXH0763E1B	26	C13	385@1800	246	148.7	1450@1200	277	111.7	EM, DI, TC,
8CPXH0763E1B	27	C13	425@1800	259	156.6	1550@1200	286	115.6	EM, DI, TC,

DDI, EM, DI, TC,
TC, EM, DI, TC,
CAC, EM, DI, TC,
ECM, EM, DI, TC,
EGR-C, EM, DI, TC,
PTOX, EM, DI, TC,

ATTACHMENT

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Engine Model Summary Template

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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 11930
8CPXH0763E1B	28	C13	425@1800	260	157.5	1550@1200	299	120.6	DDI EM, DI, TC,
8CPXH0763E1B	29	C13	425@1800	261	158.2	1450@1200	278	112.2	TC(2) EM, DI, TC,
8CPXH0763E1B	30	C13	425@1800	259	156.6	1650@1200	301	121.6	CAC EM, DI, TC,
8CPXH0763E1B	31	C13	425@1800	260	157.5	1650@1200	319	128.7	ECM EM, DI, TC,
8CPXH0763E1B	32	C13	425@1800	261	158.2	1450@1200	278	112.2	EGR-C EM, DI, TC,
8CPXH0763E1B	33	C13	445@1800	269	162.9	1750@1200	332	134.2	PTox EM, DI, TC,
8CPXH0763E1B	34	C13	445@1800	271	163.9	1750@1200	340	137.3	EM, DI, TC,
8CPXH0763E1B	35	C13	445@1800	271	164.0	1550@1200	298	120.2	EM, DI, TC,
8CPXH0763E1B	36	C13	445@1800	269	162.9	1750@1200	332	134.2	EM, DI, TC,
8CPXH0763E1B	37	C13	445@1800	271	164.0	1550@1200	298	120.2	EM, DI, TC,
8CPXH0763E1B	38	C13	485@1800	293	177.2	1750@1200	332	134.2	EM, DI, TC,
8CPXH0763E1B	39	C13	485@1800	292	176.6	1750@1200	338	136.5	EM, DI, TC,
8CPXH0763E1B	40	C13	485@1800	292	176.6	1550@1200	298	120.4	EM, DI, TC,
8CPXH0763E1B	41	C13	485@1800	292	176.6	1650@1200	314	126.6	EM, DI, TC,
8CPXH0763E1B	42	C13	485@1800	292	176.6	1650@1200	314	126.6	EM, DI, TC,
8CPXH0763E1B	43	C13	365@1800	215	130.0	1450@1200	301	121.4	EM, DI, TC,
8CPXH0763E1B	44	C13	395@1800	242	146.7	1450@1200	268	108.0	EM, DI, TC,
8CPXH0763E1B	45	C13	395@1800	249	150.5	1450@1200	282	113.6	EM, DI, TC,
8CPXH0763E1B	46	C13	425@1800	259	156.8	1450@1200	268	108.0	EM, DI, TC,
8CPXH0763E1B	47	C13	425@1800	266	161.2	1450@1200	282	113.6	EM, DI, TC,
8CPXH0763E1B	48	C13	425@1800	259	156.8	1550@1200	289	116.6	EM, DI, TC,
8CPXH0763E1B	49	C13	425@1800	266	161.2	1550@1200	303	122.2	EM, DI, TC,
8CPXH0763E1B	50	C13	425@1800	266	161.2	1450@1200	282	113.6	EM, DI, TC,
8CPXH0763E1B	51	C13	425@1800	259	156.8	1650@1200	311	125.7	EM, DI, TC,
8CPXH0763E1B	52	C13	425@1800	266	161.2	1650@1200	323	130.3	EM, DI, TC,
8CPXH0763E1B	53	C13	425@1800	266	161.2	1450@1200	282	113.6	EM, DI, TC,
8CPXH0763E1B	54	C13	425@1800	259	156.8	1550@1200	289	116.6	EM, DI, TC,
8CPXH0763E1B	55	C13	425@1800	266	161.2	1550@1200	303	122.2	EM, DI, TC,

Engine Model Summary Template

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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
8CPXH0763E1B	56	C13	445@1800	272	164.9	1650@1200	311	125.7	DDI EM, DI, TC,
8CPXH0763E1B	57	C13	445@1800	270	163.6	1650@1200	323	130.3	Tc(2) EM, DI, TC,
8CPXH0763E1B	1-30g	C13	485@1800	291	176.1	1650@1200	302	122.1	CAC ECM EM, DI, TC,
8CPXH0763E1B	2-30g	C13	485@1800	287	173.5	1650@1200	314	126.6	EGR EM, DI, TC,
8CPXH0763E1B	3-30g	C13	395@1800	238	144.1	1450@1200	268	108.4	PTOX EM, DI, TC,
8CPXH0763E1B	4-30g	C13	395@1800	246	149.2	1450@1200	276	111.2	EM, DI, TC,
8CPXH0763E1B	5-30g	C13	445@1800	270	163.2	1650@1200	301	121.6	EM, DI, TC,
8CPXH0763E1B	6-30g	C13	445@1800	270	163.4	1650@1200	328	130.3	EM, DI, TC,
8CPXH0763E1B	7-30g	C13	425@1800	259	156.6	1550@1200	286	115.6	EM, DI, TC,
8CPXH0763E1B	8-30g	C13	425@1800	260	157.5	1550@1200	299	120.6	EM, DI, TC,
8CPXH0763E1B	9-30g	C13	445@1800	271	163.9	1550@1200	286	115.3	EM, DI, TC,
8CPXH0763E1B	10-30g	C13	445@1800	271	164.0	1550@1200	298	120.2	EM, DI, TC,
8CPXH0763E1B	11-30g	C13	425@1800	272	164.7	1550@1200	303	122.5	EM, DI, TC,
8CPXH0763E1B	12-30g	C13	425@1800	272	164.7	1550@1200	303	122.5	EM, DI, TC,
8CPXH0763E1B	13-30g	C13	485@1800	296	179.3	1550@1200	286	115.6	EM, DI, TC,
8CPXH0763E1B	14-30g	C13	485@1800	293	177.3	1550@1200	298	120.4	EM, DI, TC,
8CPXH0763E1B	15-30g	C13	425@1800	259	156.7	1450@1200	265	107.1	EM, DI, TC,
8CPXH0763E1B	16-30g	C13	425@1800	261	158.2	1450@1200	278	112.2	EM, DI, TC,
8CPXH0763E1B	17-30g	C13	365@1800	237	143.3	1450@1200	279	112.8	EM, DI, TC,
8CPXH0763E1B	18-30g	C13	365@1800	237	143.3	1450@1200	279	112.8	EM, DI, TC,
8CPXH0763E1B	19-30g	C13	365@1800	236	143.2	1350@1200	260	105.1	EM, DI, TC,
8CPXH0763E1B	20-30g	C13	365@1800	236	143.2	1350@1200	260	105.1	EM, DI, TC,
8CPXH0763E1B	21-30g	C13	420@1800	266	161.0	1550@1220	304	122.6	EM, DI, TC,
8CPXH0763E1B	22-30g	C13	420@1800	266	161.0	1550@1200	304	122.6	EM, DI, TC,
8CPXH0763E1B	23-30g	C13	385@1800	248	150.5	1350@1200	263	106.2	EM, DI, TC,
8CPXH0763E1B	24-30g	C13	385@1800	248	150.5	1350@1200	263	106.2	EM, DI, TC,
8CPXH0763E1B	25-30g	C13	385@1800	246	148.7	1450@1200	277	111.7	EM, DI, TC,

Engine Model Summary Template

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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
8CPXH0763E1B	26-30g	C13	385@1800	246	148.7	1450@1200	277	111.7	DPX EM, DI, TC,
8CPXH0763E1B	27-30g	C13	425@1800	259	156.6	1550@1200	286	115.6	TC(2) EM, DI, TC,
8CPXH0763E1B	28-30g	C13	425@1800	260	157.5	1550@1200	299	120.6	CAC EM, DI, TC,
8CPXH0763E1B	29-30g	C13	425@1800	261	158.2	1450@1200	278	112.2	ECM EM, DI, TC,
8CPXH0763E1B	30-30g	C13	425@1800	259	156.6	1650@1200	301	121.6	EGR-C EM, DI, TC,
8CPXH0763E1B	31-30g	C13	425@1800	260	157.5	1650@1200	319	128.7	DPX EM, DI, TC,
8CPXH0763E1B	32-30g	C13	425@1800	261	158.2	1450@1200	278	112.2	EM, DI, TC,
8CPXH0763E1B	33-30g	C13	445@1800	269	162.9	1750@1200	332	134.2	EM, DI, TC,
8CPXH0763E1B	34-30g	C13	445@1800	271	163.9	1750@1200	340	137.3	EM, DI, TC,
8CPXH0763E1B	35-30g	C13	445@1800	271	164.0	1550@1200	298	120.2	EM, DI, TC,
8CPXH0763E1B	36-30g	C13	445@1800	269	162.9	1750@1200	332	134.2	EM, DI, TC,
8CPXH0763E1B	37-30g	C13	445@1800	271	164.0	1550@1200	298	120.2	EM, DI, TC,
8CPXH0763E1B	38-30g	C13	485@1800	293	177.2	1750@1200	332	134.2	EM, DI, TC,
8CPXH0763E1B	39-30g	C13	485@1800	292	176.6	1750@1200	338	136.5	EM, DI, TC,
8CPXH0763E1B	40-30g	C13	485@1800	292	176.6	1550@1200	298	120.4	EM, DI, TC,
8CPXH0763E1B	41-30g	C13	485@1800	292	176.6	1650@1200	314	126.6	EM, DI, TC,
8CPXH0763E1B	42-30g	C13	485@1800	292	176.6	1650@1200	314	126.6	EM, DI, TC,
8CPXH0763E1B	43-30g	C13	365@1800	215	130.0	1450@1200	301	121.4	EM, DI, TC,
8CPXH0763E1B	44-30g	C13	395@1800	242	146.7	1450@1200	268	108.0	EM, DI, TC,
8CPXH0763E1B	45-30g	C13	395@1800	249	150.5	1450@1200	282	113.6	EM, DI, TC,
8CPXH0763E1B	46-30g	C13	425@1800	259	156.8	1450@1200	268	108.0	EM, DI, TC,
8CPXH0763E1B	47-30g	C13	425@1800	266	161.2	1450@1200	282	113.6	EM, DI, TC,
8CPXH0763E1B	48-30g	C13	425@1800	259	156.8	1550@1200	289	116.6	EM, DI, TC,
8CPXH0763E1B	49-30g	C13	425@1800	266	161.2	1550@1200	303	122.2	EM, DI, TC,
8CPXH0763E1B	50-30g	C13	425@1800	266	161.2	1450@1200	282	113.6	EM, DI, TC,
8CPXH0763E1B	51-30g	C13	425@1800	259	156.8	1650@1200	311	125.7	EM, DI, TC,
8CPXH0763E1B	52-30g	C13	425@1800	266	161.2	1650@1200	323	130.3	EM, DI, TC,
8CPXH0763E1B	53-30g	C13	425@1800	266	161.2	1450@1200	282	113.6	EM, DI, TC,

Engine Model Summary Template

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
8CPXH0763E1B	54-30g	C13	425@1800	259	156.8	1550@1200	289	116.6	TC(2) EM, DI, TC,
5CPXH0763E1B	55-30g	C13	425@1800	266	161.2	1550@1200	303	122.2	DDI, EM, DI, TC,
8CPXH0763E1B	56-30g	C13	445@1800	272	164.9	1650@1200	311	125.7	ECM EM, DI, TC,
8CPXH0763E1B	57-30g	C13	445@1800	270	163.6	1650@1200	323	130.3	CAC EM, DI, TC,

TC(2)
 DDI
 ECM
 CAC
 DUX
 GARC