



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)
2001	1DZXL15.9003	11.9, 15.87	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Smoke Puff Limiter			Pump, Compressor, Generator Set, Other Industrial Equipment	
ENGINE MODELS (rated power in kilowatts, kw)	See Attachment (1 page)			

The following are the exhaust certification standards (STD) 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
130≤KW<225	Tier 1	STD	1.3	9.2	N/A	11.4	0.54	20	15	50
		CERT	0.4	9.0	--	1.5	0.14	6	3	17

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 13th day of June 2001.

R. B. Summerfield, Chief
Mobile Source Operations Division

Engine type	Displacement	Engine code	Nominal power ±5%		Nominal speed ±50rpm	Mean effective pressure at nominal power		Injection rate at nominal power ±6mm ³		Peak torque ±5%		Speed at peak torque ± 100rpm		Mean effective pressure at peak torque		Injection rate at peak torque ±6mm ³		Low idle (+300 rpm, dep. on engine applic.)		High idle (+300 rpm, dep. on engine applic.)		Fuel injection pump	Fuel injection nozzle	Injection timing ±1°	Speed governor	Smoke limiter, part of speed governor - 10mm ³	Turbocharger
	cm ³		HP	KW	rpm	bar	mm ³ /stroke	Nm	rpm	bar	mm ³ /stroke	rpm	rpm	mm ³ /stroke	rpm	rpm									mm ³ /stroke	designation	
BF6M1015	11906	C223/3	299	223	2100	10.70	163	1370	1300	14.46	201	550	2180	PE6P120A320LS7904/7930	DLLA168P426	14	BOSCH TYPE	RQV300-1050PA1325	165-800	s3b-138h							
BF6M1015	11906	C214/3	287	214	2100	10.27	156	1316	1300	13.89	192	550	2180	PE6P120A320LS7904/7930	DLLA168P426	14	BOSCH TYPE	RQV300-1050PA1325	165-800	s3b-138h							
BF6M1015	11906	C223/5	299	223	2000	11.24	166	1387	1300	14.64	204	550	2180	PE6P120A320LS7904/7930	DLLA168P426	14	BOSCH TYPE	RQV300-1050PA1325	165-800	s3b-138h							
* BF6M1015	11906	C240/4	322	240	1900	12.73	185	1511	1300	15.95	224	550	1970	PE6P120A320LS7904/7930	DLLA168P426	14	BOSCH TYPE	RQV300-1000PAVB420033623	165-800	s3b-138h							
BF6M1015	11906	C223/4	299	223	1900	11.83	172	1404	1300	14.82	206	550	1970	PE6P120A320LS7904/7930	DLLA168P426	14	BOSCH TYPE	RQV300-950PAVB420033599	165-800	s3b-138h							
BF6M1015	11906	C214/4	287	214	1900	11.35	165	1347	1300	14.22	197	550	1970	PE6P120A320LS7904/7930	DLLA168P426	14	BOSCH TYPE	RQV300-950PAVB420033599	165-800	s3b-138h							
BF6M1015	11906	C220/1	295	220	1800	12.32	176	1426	1300	15.06	209	550	1870	PE6P120A320LS7904/7930	DLLA168P426	14	BOSCH TYPE	RQV300-950PAVB420033599	165-800	s3b-138h							
BF6M1015	11906	C211/1	283	211	1800	11.81	169	1368	1300	14.44	200	550	1870	PE6P120A320LS7904/7930	DLLA168P426	14	BOSCH TYPE	RQV300-900PAVB420033639	165-800	s3b-138h							
BF6M1015	11906	C209	280	209	1800	11.70	168	1354	1300	14.30	198	550	1870	PE6P120A320LS7904/7930	DLLA168P426	14	BOSCH TYPE	RQV300-900PAVB420033639	165-800	s3b-138h							
* BF6M1015	11906	C203/1	272	203	1800	11.37	163	1316	1300	13.89	190	550	1870	PE6P120A320LS7904/7930	DLLA168P426	14	BOSCH TYPE	RQV300-900PAVB420033639	165-800	s3b-138h							
* BF6M1015	11906	D250/1	335	250	1800	14.00	200	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	PE6P120A320LS7904-1/7930	DLLA168P426	12	BOSCH TYPE	RQV900PAV	n.a.	s3b-138g							
BF6M1015	11906	D211/1	283	211	1800	11.81	169	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	PE6P120A320LS7904-1/7930	DLLA168P426	12	BOSCH TYPE	RQV900PAV	n.a.	s3b-138g							

* Engine codes C240/4 and D250/1 (over 225 KW) -- engines used only for emission testing. Not included in list of certified models.