



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-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines 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)
2005	5DZXL15.9002	11.9, 15.9	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Smoke Puff Limiter, Turbocharger, Charge Air Cooler			Pump, Compressor, Generator Set, Industrial Equipment	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), 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	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
225 ≤ kW < 450	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
450 ≤ kW ≤ 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
		CERT	-	-	5.4	1.5	0.14	18	6	27

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 28TH day of October 2004.

Allen Lyons, Chief
Mobile Source Operations Division

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm ³ /stroke @ peak HP (for diesel only)	5.Fuel Rate: (bs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm ³ /stroke@peak torque	8.Fuel Rate: (lb/hr)@peak torque	9.Emission Control Device Per SAE J1930
5DZXL15.9002	CE228	BF6M1015C	305.7@1500	206	102.9	1166.8@1200	235	93.9	SPL DPE,TS,CAC
5DZXL15.9002	CE228/1	BF6M1015C	305.7@1800	182	109.1	1124@1200	238	95.1	SPL
5DZXL15.9002	CE240	BF6M1015C	321.8@2300	171	131	1028.8@1200	194	77.5	SPL
5DZXL15.9002	CE240/1	BF6M1015C	321.8@2100	175	122.4	1085.6@1200	210	83.9	SPL
5DZXL15.9002	CE240/2	BF6M1015C	321.8@1900	182	115.2	1112.2@1300	209	90.5	SPL
5DZXL15.9002	CE242	BF6M1015C	324.5@2050	179	122.3	1193.3@1200	230	91.9	SPL
5DZXL15.9002	CE248	BF6M1015C	332.5@1800	194	116.3	1222.8@1200	232	92.7	SPL
5DZXL15.9002	CE259	BF6M1015C	347.3@1800	204	122.3	1276.7@1200	243	97.1	SPL
5DZXL15.9002	CE261	BF6M1015C	350@2100	188	131.5	1269.3@1200	242	96.7	SPL
5DZXL15.9002	CE261/1	BF6M1015C	350@2050	189	129.1	1289.2@1200	248	99.1	SPL
5DZXL15.9002	CE261/3	BF6M1015C	350@1900	198	125.3	1306.2@1200	249	99.5	SPL
5DZXL15.9002	CE261/5	BF6M1015C	350@2300	185	141.8	1118.8@1200	213	85.1	SPL
5DZXL15.9002	CE261/6	BF6M1015C	350@2000	191	127.3	1287@1200	244	97.5	SPL
5DZXL15.9002	CE271	BF6M1015C	363.4@1800	214	128.3	1336.4@1200	253	101.1	SPL
5DZXL15.9002	CE273	BF6M1015C	366@2100	194	135.7	1327.6@1200	252	100.7	SPL
5DZXL15.9002	CE273/1	BF6M1015C	366@2000	203	135.3	1346@1200	258	103.1	SPL
5DZXL15.9002	CE273/2	BF6M1015C	366@1900	208	131.7	1365.9@1200	259	103.5	SPL
5DZXL15.9002	CE280	BF6M1015C	375.4@2050	204	139.3	1380.7@1200	264	105.5	SPL
5DZXL15.9002	CE285	BF6M1015C	382.1@1800	225	134.9	1405@1200	266	106.3	SPL
5DZXL15.9002	CE286	BF6M1015C	383.5@2100	206	144.1	1391@1200	267	106.7	SPL
5DZXL15.9002	CE286/1	BF6M1015C	383.5@2000	214	142.6	1410.2@1200	269	107.5	SPL
5DZXL15.9002	CE286/2	BF6M1015C	383.5@1900	220	139.3	1431.6@1200	272	108.7	SPL
5DZXL15.9002	CE298	BF6M1015C	399.6@1500	280	139.9	1479.5@1200	282	112.7	SPL
5DZXL15.9002	CE300	BF6M1015C	402.3@2100	220	153.9	1488.8@1200	278	111.1	SPL
5DZXL15.9002	CE300/1	BF6M1015C	402.3@2000	225	149.9	1479.5@1200	282	112.7	SPL
5DZXL15.9002	CE300/2	BF6M1015C	402.3@1900	231	146.2	1501.6@1200	286	114.3	SPL
5DZXL15.9002	D250	BF6M1015C	335.2@1500	228	113.9	FIXED	0	0	SPL
5DZXL15.9002	D271/1	BF6M1015C	363.4@1800	210	125.9	FIXED	0	0	SPL

Engine Model Summary Template



Engine Family	1 Engine Code	2 Engine Model	3 BHP@RPM (SAE Gross)	4 Fuel Rate: mm ³ /stroke @ peak HP (for diesel only)	5 Fuel Rate: (lb/hr) @ peak HP (for diesels only)	6 Torque @ RPM (SEA Gross)	7 Fuel Rate: mm ³ /stroke @ peak torque	8 Fuel Rate: (lb/hr) @ peak torque	9 Emission Control Device Per SAE J1930
						FIXED	0	0	SPL
5DZXL15.9002	D285	BF6M1015C	382.1@1500	261	130.4	FIXED	0	0	SPL
5DZXL15.9002	D310/1	BF6M1015C	415.7@1800	243	145.7	FIXED	0	0	SPL
5DZXL15.9002	D314	BF6M1015C	421@1500	292	145.9	FIXED	0	0	SPL
5DZXL15.9002	D321	BF6M1015C	430.4@1800	257	154.1	FIXED	0	0	SPL
5DZXL15.9002	D341/1	BF6M1015C	457.2@1800	273	163.7	FIXED	0	0	SPL
5DZXL15.9002	D345	BF6M1015C	462.6@1500	321	160.4	FIXED	0	0	SPL
5DZXL15.9002	CE261/4	BF6M1015CP	350@2100	189	132.2	1180.8@1300	227	98.3	SPL
5DZXL15.9002	CE272	BF6M1015CP	364.7@1800	219	131.3	1245@1200	241	96.3	SPL
5DZXL15.9002	CE273/5	BF6M1015CP	366@2100	200	139.9	1234.6@1300	240	103.9	SPL
5DZXL15.9002	CE285/1	BF6M1015CP	382.1@1800	228	136.7	1304.7@1200	256	102.3	SPL
5DZXL15.9002	CE286/4	BF6M1015CP	383.5@2100	210	146.9	1292.2@1300	251	108.7	SPL
5DZXL15.9002	CE287	BF6M1015CP	384.8@2100	210	146.9	1202.9@1300	231	100	SPL
5DZXL15.9002	CE287/1	BF6M1015CP	384.8@1900	224	141.8	1276.7@1200	246	98.3	SPL
5DZXL15.9002	CE300/5	BF6M1015CP	402.3@2100	219	153.2	1257.5@1300	242	104.8	SPL
5DZXL15.9002	CE300/6	BF6M1015CP	402.3@2100	219	153.2	1357.8@1300	261	113	SPL
5DZXL15.9002	CE300/7	BF6M1015CP	402.3@1900	237	150	1334.2@1200	259	103.5	SPL
5DZXL15.9002	CE300/8	BF6M1015CP	402.3@1800	241	144.5	1373.3@1200	272	108.7	SPL
5DZXL15.9002	CE313	BF6M1015CP	419.7@1800	255	152.9	1433@1200	280	111.9	SPL
5DZXL15.9002	CE314/1	BF6M1015CP	421@2100	231	161.6	1316.5@1300	254	110	SPL
5DZXL15.9002	CE314/3	BF6M1015CP	421@1900	246	155.7	1396.9@1200	270	107.9	SPL
5DZXL15.9002	CE330/2	BF6M1015CP	442.5@2100	248	173.5	1383.6@1300	268	116.1	SPL
5DZXL15.9002	CE330/4	BF6M1015CP	442.5@1900	264	167.1	1467.7@1200	283	113.1	SPL
5DZXL15.9002	D303	BF6M1015CP	406.3@1500	279	139.4	FIXED	0	0	SPL
5DZXL15.9002	D320/1	BF6M1015CP	429.1@1800	256	153.5	FIXED	0	0	SPL
5DZXL15.9002	D338	BF6M1015CP	453.2@1500	312	155.9	FIXED	0	0	SPL
5DZXL15.9002	D351/1	BF6M1015CP	470.6@1800	284	170.3	FIXED	0	0	SPL
5DZXL15.9002	D365	BF6M1015CP	489.4@1500	350	174.9	FIXED	0	0	SPL
5DZXL15.9002	D384/1	BF6M1015CP	514.9@1800	316	189.5	FIXED	0	0	SPL

SPL

Engine Model Summary Template

Engine Family	1 Engine Code	2 Engine Model	3 BHP@RPM (SAE Gross)	4 Fuel Rate: min/stroke @ peak HP (for diesel only)	5 Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6 Torque @ RPM (SEA Gross)	7 Fuel Rate: min/stroke @ peak torque	8 Fuel Rate: (lbs/hr) @ peak torque	9 Emission Control Device Per SAE J1930
5DZXL15.9002	CE290	BF8M1015C	388.8@1900	168	141.8	1376.2@1300	197	113.8	SPL DE, TL, CR
5DZXL15.9002	CE320	BF8M1015C	429.1@2000	177	157.3	1512@1300	216	124.7	SPL
5DZXL15.9002	CE330	BF8M1015C	442.5@1800	196	156.7	1627@1200	235	125.3	SPL
5DZXL15.9002	CE345	BF8M1015C	462.6@1800	203	162.3	1700.8@1200	248	132.2	SPL
5DZXL15.9002	CE348	BF8M1015C	466.6@2100	191	178.2	1692.7@1200	240	127.9	SPL
5DZXL15.9002	CE348/1	BF8M1015C	466.6@2000	193	171.5	1715.5@1200	245	130.6	SPL
5DZXL15.9002	CE348/2	BF8M1015C	466.6@1900	205	173.1	1741.3@1200	251	133.8	SPL
5DZXL15.9002	CE362	BF8M1015C	485.4@1800	215	171.9	1784.9@1200	260	138.6	SPL
5DZXL15.9002	CE364	BF8M1015C	488.1@2100	201	187.5	1770.1@1200	251	133.8	SPL
5DZXL15.9002	CE364/1	BF8M1015C	488.1@2000	201	178.6	1794.4@1200	258	137.5	SPL
5DZXL15.9002	CE364/2	BF8M1015C	488.1@1900	211	178.1	1821.7@1200	264	140.7	SPL
5DZXL15.9002	CE370	BF8M1015C	496.1@2000	202	179.5	1823.9@1200	266	141.8	SPL
5DZXL15.9002	CE370/1	BF8M1015C	496.1@2100	203	189.4	1798.9@1200	198	105.5	SPL
5DZXL15.9002	CE380	BF8M1015C	509.5@1800	228	182.3	1873.4@1200	271	144.5	SPL
5DZXL15.9002	CE381	BF8M1015C	510.9@2100	210	195.9	1852.7@1200	268	142.9	SPL
5DZXL15.9002	CE381/1	BF8M1015C	510.9@2000	211	187.5	1878.5@1200	269	143.4	SPL
5DZXL15.9002	CE381/2	BF8M1015C	510.9@1900	221	186.6	1906.5@1200	281	149.8	SPL
5DZXL15.9002	CE385	BF8M1015C	516.2@2100	212	197.8	1872.6@1200	270	143.9	SPL
5DZXL15.9002	CE400	BF8M1015C	536.4@2100	221	206.2	1947.1@1200	278	148.2	SPL
5DZXL15.9002	CE400/1	BF8M1015C	536.4@2000	226	200.8	1972.2@1200	280	149.3	SPL
5DZXL15.9002	CE400/2	BF8M1015C	536.4@1900	234	197.5	2001.7@1200	290	156.2	SPL
5DZXL15.9002	D333	BF8M1015C	446.5@1500	228	151.9	FIXED	0	0	SPL
5DZXL15.9002	D362/1	BF8M1015C	485.4@1800	216	172.7	FIXED	0	0	SPL
5DZXL15.9002	D380	BF8M1015C	509.5@1500	282	174.6	FIXED	0	0	SPL
5DZXL15.9002	D413/1	BF8M1015C	553.8@1800	253	202.3	FIXED	0	0	SPL
5DZXL15.9002	D418	BF8M1015C	560.5@1500	291	193.9	FIXED	0	0	SPL
5DZXL15.9002	D454/1	BF8M1015C	608.8@1800	277	221.5	FIXED	0	0	SPL
5DZXL15.9002	CE348/4	BF8M1015CP	466.6@2100	191	178.2	1576.1@1300	231	133.4	SPL

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Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: min/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lb/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: min/stroke@peak torque	8.Fuel Rate: (lb/hr)@peak torque	9.Emission Control Device Per SAE J1930
5DZXL15.9002	CE364/3	BF8M1015CP	488.1@1800	220	175.9	1666.1@1200	244	130.1	SPL DDI, T, OAC
5DZXL15.9002	CE364/4	BF8M1015CP	488.1@2100	202	188.5	1646.2@1300	244	140.9	SPL
5DZXL15.9002	CE381/3	BF8M1015CP	510.9@2100	210	195.9	1724.4@1300	256	147.9	SPL
5DZXL15.9002	CE382	BF8M1015CP	512.2@1800	231	164.7	1748.7@1200	259	138.1	SPL
5DZXL15.9002	CE383	BF8M1015CP	513.6@2100	211	196.9	1605.6@1300	235	135.7	SPL
5DZXL15.9002	CE383/1	BF8M1015CP	513.6@1900	228	192.5	1703.7@1200	250	133.3	SPL
5DZXL15.9002	CE400/5	BF8M1015CP	536.4@2100	221	206.2	1677.2@1300	247	142.7	SPL
5DZXL15.9002	CE400/6	BF8M1015CP	536.4@2100	221	206.2	1810.7@1300	264	152.5	SPL
5DZXL15.9002	CE400/7	BF8M1015CP	536.4@1900	240	202.6	1779@1200	262	139.7	SPL
5DZXL15.9002	CE400/8	BF8M1015CP	536.4@1800	244	195.1	1830.6@1200	275	146.6	SPL
5DZXL15.9002	CE418	BF8M1015CP	560.5@1800	258	206.3	1913.9@1200	283	150.9	SPL
5DZXL15.9002	CE419	BF8M1015CP	561.8@2100	232	216.5	1756.8@1300	258	149	SPL
5DZXL15.9002	CE419/1	BF8M1015CP	561.8@1900	248	209.4	1863.8@1200	273	145.5	SPL
5DZXL15.9002	CE440	BF8M1015CP	590@2100	248	231.4	1843.9@1300	272	157.1	SPL
5DZXL15.9002	CE440/1	BF8M1015CP	590@1900	267	225.4	1954.5@1200	289	154.1	SPL
5DZXL15.9002	CE440/2	BF8M1015CP	590@2150	251	239.8	1843.9@1300	272	157.1	SPL
5DZXL15.9002	CE470	BF8M1015CP	630.2@1900	277	233.9	1969.2@1300	291	168.1	SPL
5DZXL15.9002	CE470/1	BF8M1015CP	630.2@2100	269	251	1843.9@1300	272	157.1	SPL
5DZXL15.9002	D399	BF8M1015CP	535@1500	285	189.9	FIXED	0	0	SPL
5DZXL15.9002	D426/1	BF8M1015CP	571.2@1800	260	207.9	FIXED	0	0	SPL
5DZXL15.9002	D448	BF8M1015CP	600.7@1500	315	209.9	FIXED	0	0	SPL
5DZXL15.9002	D473/1	BF8M1015CP	634.2@1800	288	230.3	FIXED	0	0	SPL
5DZXL15.9002	D490	BF8M1015CP	657@1500	352	234.6	FIXED	0	0	SPL
5DZXL15.9002	D517/1	BF8M1015CP	693.2@1800	320	255.9	FIXED	0	0	SPL
5DZXL15.9002	CE330/5	BF6M1015CP	442.5@2100	252	176.3	1347.5@1300	265	114.8	SPL
5DZXL15.9002	CE335	BF8M1015C	449.2@2300	193	197.2	1512@1300	221	127.6	SPL
5DZXL15.9002	CE400/3	BF8M1015C	241.3@1900	222	167.4	2001.7@600	290	78.1	SPL