



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	1DZXL07.1004	4.76, 7.150	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Smoke Puff Limiter			Compressor, Generator Set, Other Industrial Equipment	
ENGINE MODELS (rated power in kilowatts, kw)	See Attachment (7 pages)			

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):

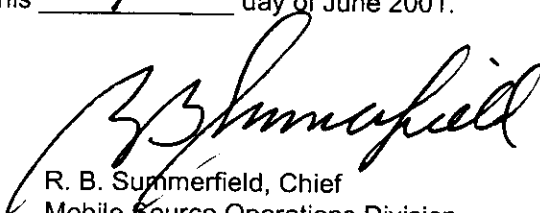
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NO _x	NMHC+NO _x	CO	PM	ACCEL	LUG	PEAK
130 ≤ KW < 225	Tier 1	STD	1.3	9.2	N/A	11.4	0.54	20	15	50
37 ≤ KW < 130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	0.4	8.2	--	0.9	0.12	10	2	26

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 4th day of June 2001.


R. B. Summerfield, Chief
Mobile Source Operations Division

Engine type	Displacement	Engine code	Nominal Power ± 5%	Nominal Power ± 5%	Nominal speed ± 50 rpm	Mean effective pressure	Injection rate at nom. speed, ±4mm³	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Mean effective pressure at peak torque	Injection rate at peak torque ±4mm³	Torque at 1000 rpm	Mean effective pressure at 1000 rpm	Injection rate at 1000 rpm	Low idle (+300 rpm, dep. on engine applic.)	High idle (+300 rpm, dep. on engine applic.)	Fuel injection pump	Fuel injection nozzle	Camshaft	Injection timing (±1°)	Speed governor	Speed governor, optional	Smoke limiter, part of speed governor, -5mm³	Turbocharger
	cm³		HP	kW	rpm	bar	mm³/stroke	Nm	rpm	bar	mm³/stroke	Nm	bar	mm³/stroke	rpm	rpm	part numb.	part numb.	part numb.	°btdc	draw. numb.	draw. numb.	mm³/stroke-rpm	part numb.
BF6M1013FC	7146	C190/3	255	190	2400	13.29	120	967	1500	17.01	139	750	13.19		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	c191	256	191	2350	13.65	123.0	1010	1750	17.76					800	2450	PFM1P100S2	DLA158P69	04251113KZ	8	EMR		103-800	S2B155L
BF6M1013FC	7146	c169	226	169	2350	12.08	110.0	893	1750	15.71					800	2450	PFM1P100S2	DLA158P69	04251113KZ	8	EMR		103-800	S2B155L
BF6M1013FC *	7146	C235	315	235	2300	17.16	145	1050	1700	18.47	145	660	11.61		700	2400	02111930KZ	02112389KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C200	268	200	2300	14.60	127	1050	1500	18.47	145	750	13.19		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C200/1	268	200	2300	14.60	133	1050	1400	18.47	144	850	14.95		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C223	299	223	2300	16.28	138	1000	1700	17.59	138	660	11.61		700	2400	02111930KZ	02112389KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C220	295	220	2300	16.06	136	1050	1875	18.47	145				900	2400	02111930KZ	02112389KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C215	288	215	2300	15.70	136	1039	1875	18.28	145				900	2400	02111930KZ	02112389KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C190	255	190	2300	13.87	121	1008	1500	17.73	145	750	13.19		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C190/1	255	190	2300	13.87	126	1008	1400	17.73	139	850	14.95		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C212	284	212	2300	15.48	131	952	1700	16.75	133	660	11.61		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C206	284	206	2300	15.48	128	952	1700	16.75	133	750	13.19		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C195/2	284	195	2300	15.48	121	954	1875	16.75	133				900	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C190/2	284	190	2300	15.48	121	943	1875	16.75	133				900	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C180	241	180	2300	13.14	115	967	1500	17.01	139	750	13.19		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C180/1	241	180	2300	13.14	119	967	1400	17.01	133	850	14.95		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C200/2	268	200	2300	14.60	125	903	1700	15.88	127	660	11.61		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C170	228	170	2300	12.41	109	925	1500	16.27	132	750	13.19		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C170/1	228	170	2300	12.41	112	925	1400	16.27	127	850	14.95		700	2400	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C203/1	272	203	2250	15.15	126	1050	1700	18.47	145	660	11.61		700	2350	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C198	265	198	2250	14.78	126	1040	1700	18.29	145	660	11.61		700	2350	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C180/4	241	180	2250	13.43	112	1000	1700	17.59	139	660	11.61		700	2350	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B155L
BF6M1013FC	7146	C176/3	236	176	2250	13.14	112	990	1700	17.41	139	660	11.61		700	2350	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B155L
BF6M1013FC	7146	C226	303	226	2200	17.25	143	1050	1700	18.47	145	660	11.61		700	2300	02111930KZ	02112389KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C223/1	299	223	2200	17.02	141	1050	1700	18.47	145	660	11.61		700	2300	02111930KZ	02112389KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C197/1	264	197	2200	15.04	132	1050	1400	18.47	144	850	14.95		700	2300	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C214	287	214	2200	16.33	136	1000	1700	17.59	138	660	11.61		700	2300	02111930KZ	02112389KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C188	252	188	2200	14.35	120	1008	1500	17.73	145	750	13.19		700	2300	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C188/1	252	188	2200	14.35	124	1008	1400	17.73	139	850	14.95		700	2300	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C203	272	203	2200	15.50	129	952	1700	16.75	133	660	11.61		700	2300	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C178	239	178	2200	13.59	114	967	1500	17.01	139	750	13.19		700	2300	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C178/1	239	178	2200	13.59	118	967	1400	17.01	133	850	14.95		700	2300	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C192	257	192	2200	14.66	123	903	1700	15.88	127	660	11.61		700	2300	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C169	226	169	2200	12.90	108	925	1500	16.27	132	750	13.19		700	2300	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C169	226	169	2200	12.90	111	925	1400	16.27	127	850	14.95		700	2300	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C216	289	216	2100	17.27	141	1050	1700	18.47	145	660	11.61		700	2200	02111930KZ	02112389KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C194/1	260	194	2100	15.51	129	1050	1400	18.47	144	850	14.95		700	2200	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C205	275	205	2100	16.39	135	1000	1700	17.59	138	660	11.61		700	2200	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C186	249	186	2100	14.87	121	1008	1500	17.73	145	750	13.19		700	2200	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L

Models

Attachment pg 2 of 7

List of emission rated components

EPA U-R-13-331

07.1004

Engine type	Displacement	Engine code	Nominal Power ± 5%	Nominal Power ± 5%	Nominal speed ± 50 rpm	Mean effective pressure	Injection rate at nom. speed, ±4mm³	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Mean effective pressure at peak torque	Injection rate at peak torque ±4mm³	Torque at 1000 rpm	Mean effective pressure at 1000 rpm	Injection rate at 1000 rpm	Low idle (+300 rpm, dep. on engine applic.)	High idle (+300 rpm, dep. on engine applic.)	Fuel injection pump	Fuel injection nozzle	Camshaft	Injection timing (±1°)	Speed governor	Speed governor, optional	Smoke limiter, part of speed governor, -5mm³	Turbocharger
	cm³		HP	kW	rpm	bar	mm³/stroke	Nm	rpm	bar	mm³/stroke	Nm	bar	mm³/stroke	rpm	rpm	part numb.	part numb.	part numb.	°btcd	draw. numb.	draw. numb.	mm³/stroke -rpm	part numb.
BF6M1013FC	7146	C186/3	249	186	2100	14.87	122	1008	1400	17.73	139	850	14.95		700	2200	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C195/1	261	195	2100	15.59	129	952	1700	16.75	133	660	11.61		700	2200	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C176	236	176	2100	14.07	115	967	1500	17.01	139	750	13.19		700	2200	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C176/1	236	176	2100	14.07	116	967	1400	17.01	133	850	14.95		700	2200	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C184	247	184	2100	14.71	122	903	1700	15.88	127	660	11.61		700	2200	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C167	224	167	2100	13.35	109	925	1500	16.27	132	750	13.19		700	2200	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C167/1	224	167	2100	13.35	110	925	1400	16.27	127	850	14.95		700	2200	02111930KZ	02112387KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C206/1	276	206	2000	17.30	141	1050	1700	18.47	144	660	11.61		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C191/2	256	191	2000	16.04	127	1050	1400	18.47	143	850	14.95		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C200/3	268	200	2000	16.79	136	1000	1700	17.59	138	660	11.61		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C183	245	183	2000	15.37	122	1008	1500	17.73	143	750	13.19		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C183/1	245	183	2000	15.37	122	1008	1400	17.73	138	850	14.95		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C186/2	249	186	2000	15.62	126	952	1700	16.75	132	660	11.61		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C174	233	174	2000	14.61	116	967	1500	17.01	136	750	13.19		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C174/1	233	174	2000	14.61	116	967	1400	17.01	132	850	14.95		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C176/2	236	176	2000	14.78	120	903	1700	15.88	127	660	11.61		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	90-800	S2B193L
BF6M1013FC	7146	C165	221	165	2000	13.85	109	925	1500	16.27	129	750	13.19		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	95-800	S2B155L
BF6M1013FC	7146	C165/1	221	165	2000	13.85	110	925	1400	16.27	128	850	14.95		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	C172/1	230	172	1700	16.99	138	1008	1400	17.73	138	850	14.95		700	2080	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	103-800	S2BG139H
BF6M1013FC	7146	D197	264	197	1800	18.38	147	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	n.a.	S2B155L
BF6M1013FC	7146	D170/1	228	170	1800	15.86	132	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	n.a.	S2B155L
BF6M1013FC	7146	D173	232	173	1800	16.14	134	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	02111930KZ	02112385KZ	04255482KZ	8	02111252UA	EMR	n.a.	S2B155L
BF4M1013FC	4764	D122	163	122	1800	17.07	140	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	02111930KZ	02112385KZ	04255480KZ	8	02111252UA	EMR	n.a.	S2A162B
BF6M1013ECP	7146	C186/1	249	186	2600	12.01	110	907	1500	15.95	133				700	2710	02111335KZ	02111700KZ	04251111KZ	8	02111252UA		95-800	S2B155L
BF6M1013ECP	7146	C195	261	195	2500	13.10	118	907	1500	15.95	133				700	2600	02111335KZ	02111700KZ	04251111KZ	8	02111252UA		95-800	S2B155L
BF6M1013ECP	7146	C195/1	261	195	2300	14.24	127	954	1400	16.78	134				700	2400	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		102-800	S2BG139H
BF6M1013ECP	7146	C195/2	261	195	2300	14.24	125	907	1400	15.95	133				700	2400	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013ECP	7146	C186	249	186	2300	13.58	120	897	1400	15.78	132				700	2400	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013ECP	7146	C176	236	176	2300	12.85	113	850	1400	14.95	125				700	2400	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013ECP	7146	C188	252	188	2200	14.35	126	954	1400	16.78	134				700	2300	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		102-800	S2BG139H
BF6M1013ECP	7146	C188/1	252	188	2200	14.35	125	907	1400	15.95	133				700	2300	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013ECP	7146	C179	240	179	2200	13.66	119	897	1400	15.78	132				700	2300	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013ECP	7146	C170	228	170	2200	12.98	113	850	1400	14.95	125				700	2300	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013ECP	7146	C162/2	217	162	2200	12.37	108	850	1400	14.95	122				700	2300	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013ECP	7146	C182	244	182	2100	14.55	125	955	1400	16.80	134				700	2180	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		97-800	S2B147K
BF6M1013ECP	7146	C182/1	244	182	2100	14.55	125	907	1400	15.95	133				700	2180	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2BG139H
BF6M1013ECP	7146	C173	232	173	2100	13.83	119	897	1400	15.78	132				700	2180	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L

Models

Attachment

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List of emission related components

ED# U-R-13-33

1. AL07.1004

Engine type	Displacement	Engine code	Nominal Power ± 5%	Nominal Power ± 5%	Nominal speed ± 50 rpm	Mean effective pressure	Injection rate at nom. speed, ±4mm³	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Mean effective pressure at peak torque	Injection rate at peak torque ±4mm³	Torque at 1000 rpm	Mean effective pressure at 1000 rpm	Injection rate at 1000 rpm	Low idle (+300 rpm, dep. on engine applic.)	High idle (+300 rpm, dep. on engine applic.)	Fuel injection pump	Fuel injection nozzle	Camshaft	Injection timing (±1°)	Speed governor	Speed governor, optional	Smoke limiter, part of speed governor, -5mm³	Turbocharger
	cm³		HP	kW	rpm	bar	mm³/stroke	Nm	rpm	bar	mm³/stroke	Nm	bar	mm³/stroke	rpm	rpm	part numb.	part numb.	part numb.	°btdc	draw. numb.	draw. numb.	mm³/stroke-rpm	part numb.
BF6M1013ECP	7146	C165	221	165	2100	13.19	113	850	1400	14.95	122				700	2180	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		97-800	S2B147K
BF6M1013ECP	7146	C166	222	166	2000	13.94	118	897	1400	15.78	129				700	2080	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		99-800	S2B147K
BF6M1013ECP	7146	C158	212	158	2000	13.27	112	850	1400	14.95	122				700	2080	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		97-800	S2B147K
BF6M1013ECP	7146	C161/3	216	161	1900	14.23	119	897	1400	15.78	132				700	1980	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		97-800	S2B148K
BF6M1013CP	7146	C190	255	190	2500	12.76	118	899	1500	15.81	133				700	2600	02111335KZ	02111700KZ	04251111KZ	8	02111252UA		95-800	S2B155L
BF6M1013CP	7146	C190/4	255	190	2400	13.29	124	890	1500	15.66	132				700	2500	02111335KZ	02111700KZ	04251111KZ	8	02111252UA		95-800	S2B155L
BF6M1013CP	7146	C177	237	177	2400	12.38	115	843	1500	14.83	125				700	2500	02111335KZ	02111700KZ	04251111KZ	8	02111252UA		95-800	S2B155L
BF6M1013CP	7146	C190/1	255	190	2300	13.87	127	946	1400	16.64	134				700	2400	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		102-800	S2BG139H
BF6M1013CP	7146	C190/2	255	190	2300	13.87	125	899	1400	15.81	133				700	2400	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013CP	7146	C190/3	255	190	2300	13.87	129	946	1400	16.64	134				700	2400	02111930KZ	02111456KZ	04251113KZ	5	02111252UA		102-800	S2BG139H
BF6M1013CP	7146	C181	243	181	2300	13.22	120	890	1400	15.66	132				700	2400	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013CP	7146	C171	229	171	2300	12.48	113	843	1400	14.83	125				700	2400	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013CP	7146	C161/2	216	161	2300	11.75	106	800	1400	14.07	118				700	2400	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013CP	7146	C184	247	184	2200	14.04	126	946	1400	16.64	134				700	2300	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		102-800	S2BG139H
BF6M1013CP	7146	C184/1	247	184	2200	14.04	125	899	1400	15.81	133				700	2300	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013CP	7146	C175	235	175	2200	13.36	119	890	1400	15.66	132				700	2300	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013CP	7146	C166/1	222	166	2200	12.67	113	843	1400	14.83	122				700	2300	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		97-800	S2B147K
BF6M1013CP	7146	C178	239	178	2100	14.23	125	946	1400	16.64	134				700	2180	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		95-800	S2BG139H
BF6M1013CP	7146	C178/1	239	178	2100	14.23	125	899	1400	15.81	133				700	2180	02111335KZ	02111700KZ	04251110KZ	8	02111252UA		95-800	S2B155L
BF6M1013CP	7146	C169	226	169	2100	13.51	119	890	1400	15.66	129				700	2180	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		97-800	S2B147K
BF6M1013CP	7146	C161	216	161	2100	12.87	113	843	1400	14.83	122				700	2180	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		97-800	S2B147K
BF6M1013CP	7146	C189/2	226	169	2000	14.19	122	890	1400	15.66	129				700	2180	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		97-800	S2B147K
BF6M1013CP	7146	C163	218	163	2000	13.69	118	890	1400	15.66	129				700	2080	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		97-800	S2B147K
BF6M1013CP	7146	C160/1	214	160	2000	13.43	116	890	1400	15.66	129				700	2080	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		97-800	S2B147K
BF6M1013CP	7146	C155	208	155	2000	13.01	112	843	1400	14.83	122				700	2080	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		97-800	S2B147K
BF6M1013CP	7146	C147	197	147	1800	13.71	115	843	1400	14.83	121				700	1880	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		97-800	S2B148K
BF6M1013EC	7146	c147G	188	140	2350	10.00	92.5	756	1750	13.30	115				800	2450	02111335KZ	02111698KZ	04251110KZ	9	02111846/02111841		97-800	S2B147K
BF6M1013EC	7146	C174	233	174	2300	12.70	112	854	1400	15.02	122				700	2400	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		102-800	S2B147K
BF6M1013EC	7146	C165/1	221	165	2300	12.05	107	811	1400	14.27	116				700	2400	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		99-800	S2B147K
BF6M1013EC	7146	C157	210	157	2300	11.46	102	769	1400	13.53	110				700	2400	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		97-800	S2B147K
BF6M1013EC	7146	C148	205	148	2300	10.81	94	727	1400	13.41	103				700	2400	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		95-800	S2B147K
BF6M1013EC	7146	C169/1	226	169	2200	12.90	112	854	1400	15.02	122				700	2300	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		102-800	S2B147K
BF6M1013EC	7146	C162/1	217	162	2200	12.37	108	854	1400	15.02	122				700	2300	02111335KZ	02111698KZ	04251110KZ	9	EMR		102-800	S2B147K
BF6M1013EC	7146	C160	214	160	2200	12.21	106	811	1400	14.27	116				700	2300	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		99-800	S2B147K
BF6M1013EC	7146	C152	204	152	2200	11.60	101	769	1400	13.53	110				700	2300	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		102-800	S2B147K
BF6M1013EC	7146	C162	217	162	2100	12.95	110	854	1400	15.02	122				700	2180	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		99-800	S2B147K
BF6M1013EC	7146	C154	206	154	2100	12.31	105	811	1400	14.27	116				700	2180	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		97-800	S2B147K
BF6M1013EC	7146	C146	196	146	2100	11.67	100	769	1400	13.53	110				700	2180	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		97-800	S2B147K
BF6M1013EC	7146	C150	201	150	2000	12.59	106	811	1400	14.27	116				700	2080	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		99-800	S2B147K
BF6M1013EC	7146	C149	200	149	2000	12.51	106	811	1400	14.27	116				700	2080	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		99-800	S2B147K

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Engine type	Displacement	Engine code	Nominal Power $\pm 5\%$	Nominal Power $\pm 5\%$	Nominal speed ± 50 rpm	Mean effective pressure	Injection rate at nom. speed, $\pm 4\text{mm}^3/\text{stroke}$	Peak torque $\pm 5\%$	Speed at peak torque ± 100 rpm	Mean effective pressure at peak torque	Injection rate at peak torque $\pm 4\text{mm}^3/\text{stroke}$	Torque at 1000 rpm	Mean effective pressure at 1000 rpm	Injection rate at 1000 rpm	Low idle (+300 rpm, dep. on engine applic.)	High idle (+300 rpm, dep. on engine applic.)	Fuel injection pump	Fuel injection nozzle	Camshaft	Injection timing ($\pm 1^\circ$)	Speed governor	Speed governor, optional	Smoke limiter, part of speed governor, $\pm 5\text{mm}^3/\text{stroke}$	Turbocharger
	cm^3		HP	kW	rpm	bar	$\text{mm}^3/\text{stroke}$	Nm	rpm	bar	$\text{mm}^3/\text{stroke}$	Nm	bar	$\text{mm}^3/\text{stroke}$	rpm	rpm	part numb.	part numb.	part numb.	$^\circ\text{btdc}$	draw. numb.	draw. numb.	$\text{mm}^3/\text{stroke}$ -rpm	part numb.
BF6M1013EC	7146	C142	190	142	2000	11.92	101	769	1400	13.53	110				700	2080	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		97-800	S2B147K
BF6M1013C	7146	C170/1	228	170	2300	12.41	112	847	1400	14.90	122				700	2400	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		102-800	S2B147K
BF6M1013C	7146	C170/2	228	170	2300	12.41	114	847	1400	14.90	126				700	2400	02111930KZ	02111454KZ	04251113KZ	5	02111252UA		95-800	S2B155L
BF6M1013C	7146	C161/1	216	161	2300	11.75	107	804	1400	14.14	116				700	2400	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		99-800	S2B147K
BF6M1013C	7146	C153	205	153	2300	11.17	102	762	1400	13.40	110				700	2400	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		97-800	S2B147K
BF6M1013C	7146	C144	205	144	2300	10.51	94	720	1400	13.41	110				700	2400	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		95-800	S2B147K
BF6M1013C	7146	C165/2	221	165	2200	12.59	112	847	1400	14.90	122				700	2300	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		102-800	S2B147K
BF6M1013C	7146	C156	209	156	2200	11.91	106	804	1400	14.14	116				700	2300	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		99-800	S2B147K
BF6M1013C	7146	C148	198	148	2200	11.30	101	728	1400	12.81	110				700	2300	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		97-800	S2B147K
BF6M1013C	7146	C159	213	159	2100	12.71	110	847	1400	14.90	122				700	2180	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		102-800	S2B147K
BF6M1013C	7146	C151	202	151	2100	12.07	105	804	1400	14.14	116				700	2180	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		99-800	S2B147K
BF6M1013C	7146	C143	192	143	2100	11.43	100	762	1400	13.40	110				700	2180	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		97-800	S2B147K
BF6M1013C	7146	C146/1	196	146	2000	12.26	106	804	1400	14.14	116				700	2080	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		99-800	S2B147K
BF6M1013C	7146	C139	186	139	2000	11.67	101	762	1400	13.40	110				700	2080	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		97-800	S2B147K
BF6M1013C	7146	C120	161	120	1500	13.43	101	762	1400	13.40	99				700	1600	02111335KZ	02111698KZ	04251110KZ	7	02111252UA		97-800	S2B148K
BF4M1013EC	4764	C118	158	118	2500	11.89	108	578	1400	15.25	125				700	2600	02111335KZ	02111698KZ	04251115KZ	9	02111252UA		102-800	S2A162E
BF4M1013EC	4764	C115/3	154	115	2500	11.59	105	549	1400	14.49	120				700	2600	02111335KZ	02111698KZ	04251115KZ	9	02111252UA		99-800	S2A162E
BF4M1013EC	4764	C114/2	153	114	2400	11.96	105	549	1400	14.49	120				700	2600	02111335KZ	02111698KZ	04251115KZ	9	02111252UA		99-800	S2A162E
BF4M1013EC	4764	C118/1	158	118	2300	12.92	111	578	1400	15.25	126				700	2400	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		102-800	S2A153E
BF4M1013EC	4764	C118/2	158	118	2300	12.92	114	578	1400	15.25	127				700	2400	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		102-800	S2A153E
BF4M1013EC	4764	C115	154	115	2300	12.59	108	549	1400	14.49	120				700	2400	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		99-800	S2A153E
BF4M1013EC	4764	C115/5	154	115	2300	12.59	111	549	1400	14.49	121				700	2400	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		99-800	S2A153E
BF4M1013EC	4764	C107	143	107	2300	11.72	100	521	1400	13.75	114				700	2400	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		97-800	S2A153E
BF4M1013EC	4764	C107/1	143	107	2300	11.72	103	521	1400	13.75	115				700	2400	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		97-800	S2A153E
BF4M1013EC	4764	C114	153	114	2200	13.05	112	578	1400	15.25	126				700	2300	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		102-800	S2A153E
BF4M1013EC	4764	C114/1	153	114	2200	13.05	115	578	1400	15.25	127				700	2300	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		102-800	S2A153E
BF4M1013EC	4764	C111	149	111	2200	12.71	109	549	1400	14.49	120				700	2300	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		99-800	S2A153E
BF4M1013EC	4764	C111/3	149	111	2200	12.71	112	549	1400	14.49	121				700	2300	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		99-800	S2A153E
BF4M1013EC	4764	C104	139	104	2200	11.91	102	521	1400	13.75	114				700	2300	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		97-800	S2A153E
BF4M1013EC	4764	C104/5	139	104	2200	11.91	105	521	1400	13.75	115				700	2300	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		97-800	S2A153E
BF4M1013EC	4764	C110	147	110	2100	13.19	111	578	1400	15.25	126				700	2180	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		102-800	S2A153E
BF4M1013EC	4764	C110/1	147	110	2100	13.19	113	578	1400	15.25	127				700	2180	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		102-800	S2A153E
BF4M1013EC	4764	C106	142	106	2100	12.71	108	549	1400	14.49	120				700	2180	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		99-800	S2A153E
BF4M1013EC	4764	C106/1	142	106	2100	12.71	110	549	1400	14.49	121				700	2180	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		99-800	S2A153E
BF4M1013EC	4764	C101	135	101	2100	12.11	102	521	1400	13.75	114				700	2180	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		97-800	S2A153E
BF4M1013EC	4764	C101/5	135	101	2100	12.11	104	521	1400	13.75	115				700	2180	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		97-800	S2A153E
BF4M1013EC	4764	C103	138	103	2000	12.97	110	549	1400	14.49	120				700	2080	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		99-800	S2A153E
BF4M1013EC	4764	C103/1	138	103	2000	12.97	112	549	1400	14.49	121				700	2080	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		99-800	S2A153E
BF4M1013EC	4764	C98	131	98	2000	12.34	104	521	1400	13.75	114				700	2080	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		97-800	S2A153E
BF4M1013EC	4764	C98/1	131	98	2000	12.34	106	521	1400	13.75	115				700	2080	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		97-800	S2A153E

Engine type	Displacement	Engine code	Nominal Power $\pm 5\%$	Nominal Power $\pm 5\%$	Nominal speed ± 50 rpm	Mean effective pressure	Injection rate at nom. speed, $\pm 4\text{mm}^3$	Peak torque $\pm 5\%$	Speed at peak torque ± 100 rpm	Mean effective pressure at peak torque	Injection rate at peak torque $\pm 4\text{mm}^3$	Torque at 1000 rpm	Mean effective pressure at 1000 rpm	Injection rate at 1000 rpm	Low idle (± 300 rpm, dep. on engine applic.)	High idle (± 300 rpm, dep. on engine applic.)	Fuel injection pump	Fuel injection nozzle	Camshaft	Injection timing ($\pm 1^\circ$)	Speed governor	Speed governor, optional	Smoke limiter, part of speed governor, $\pm 5\text{mm}^3$	Turbocharger
	cm ³		HP	kW	rpm	bar	mm ³ /stroke	Nm	rpm	bar	mm ³ /stroke	Nm	bar	mm ³ /stroke	rpm	rpm	part numb.	part numb.	part numb.	°btdc	draw. numb.	draw. numb.	mm ³ /stroke-rpm	part numb.
BF4M1013EC	4764	C94	126	94	2000	11.84	99	506	1400	13.35	110				700	2080	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		97-800	S2A153E
BF4M1013EC	4764	C84	113	84	2000	10.58	89	452	1400	11.93	98				700	2080	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		97-800	S2A153E
BF4M1013EC	4764	C96/2	129	96	1800	13.43	112	548	1400	14.46	120	478	12.61		700	2080	02111335KZ	02126998KZ	04251114KZ	7	02111252UA		97-800	S2A157C
BF4M1013EC	4764	C94/1	126	94	1800	13.15	110	548	1400	14.46	120	478	12.61		700	2080	02111335KZ	02126998KZ	04251114KZ	7	02111252UA		97-800	S2A157C
BF4M1013EC	4764	C86	115	86	1800	12.03	100	521	1400	13.75	114	428	11.29		700	2080	02111335KZ	02126998KZ	04251114KZ	7	02111252UA		97-800	S2A157C
BF4M1013EC	4764	C80	107	80	1800	11.20	95	460	1400	12.14	101	428	11.29		700	2080	02111335KZ	02126998KZ	04251114KZ	7	02111252UA		97-800	S2A157C
BF4M1013C	4764	C115/1	154	115	2500	11.59	108	578	1400	15.25	125				700	2600	02111335KZ	02111698KZ	04251115KZ	9	02111252UA		102-800	S2A162E
BF4M1013C	4764	C115/2	154	115	2300	12.59	111	578	1400	15.25	126				700	2400	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		102-800	S2A153E
BF4M1013C	4764	C115/4	154	115	2300	12.59	114	578	1400	15.25	127				700	2400	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		102-800	S2A153E
BF4M1013C	4764	C112	150	112	2300	12.27	108	549	1400	14.49	120				700	2400	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		99-800	S2A153E
BF4M1013C	4764	C112/1	150	112	2300	12.27	111	549	1400	14.49	121				700	2400	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		99-800	S2A153E
BF4M1013C	4764	C104/1	139	104	2300	11.39	100	521	1400	13.75	114				700	2400	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		99-800	S2A153E
BF4M1013C	4764	C104/3	139	104	2300	11.39	103	521	1400	13.75	115				700	2400	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		97-800	S2A153E
BF4M1013C	4764	C111/1	149	111	2200	12.71	112	578	1400	15.25	126				700	2300	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		102-800	S2A153E
BF4M1013C	4764	C111/2	149	111	2200	12.71	115	578	1400	15.25	127				700	2300	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		102-800	S2A153E
BF4M1013C	4764	C108	145	108	2200	12.37	109	549	1400	14.49	120				700	2300	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		99-800	S2A153E
BF4M1013C	4764	C108/2	145	108	2200	12.37	112	549	1400	14.49	121				700	2300	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		99-800	S2A153E
BF4M1013C	4764	C101/1	135	101	2200	11.56	102	521	1400	13.75	114				700	2300	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		97-800	S2A153E
BF4M1013C	4764	C101/3	135	101	2200	11.56	105	521	1400	13.75	115				700	2300	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		97-800	S2A153E
BF4M1013C	4764	C108/1	145	108	2100	12.95	111	578	1400	15.25	126				700	2180	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		102-800	S2A153E
BF4M1013C	4764	C108/3	145	108	2100	12.95	113	578	1400	15.25	127				700	2180	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		102-800	S2A153E
BF4M1013C	4764	C104/2	139	104	2100	12.47	108	549	1400	14.49	120				700	2180	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		99-800	S2A153E
BF4M1013C	4764	C104/4	139	104	2100	12.47	110	549	1400	14.49	121				700	2180	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		99-800	S2A153E
BF4M1013C	4764	C99	133	99	2100	11.87	102	521	1400	13.75	114				700	2180	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		97-800	S2A153E
BF4M1013C	4764	C99/1	133	99	2100	11.87	104	521	1400	13.75	115				700	2180	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		97-800	S2A153E
BF4M1013C	4764	C101/2	135	101	2000	12.72	110	549	1400	14.49	120				700	2080	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		99-800	S2A153E
BF4M1013C	4764	C101/4	135	101	2000	12.72	112	549	1400	14.49	121				700	2080	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		99-800	S2A153E
BF4M1013C	4764	C96	129	96	2000	12.09	104	521	1400	13.75	114				700	2080	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		97-800	S2A153E
BF4M1013C	4764	C96/1	129	96	2000	12.09	106	521	1400	13.75	115				700	2080	02111335KZ	02111698KZ	04251236KZ	6	02111252UA		97-800	S2A153E
BF6M1013ECP	7146	D195	261	195	2400	13.64	121	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111542KZ	04251110KZ	8	02111252UA		n.a.	S2B155L
BF6M1013ECP	7146	D190	255	190	2400	13.29	118	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111542KZ	04251110KZ	8	02111252UA		n.a.	S2B155L
BF6M1013ECP	7146	D173	232	173	2400	12.10	108	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111542KZ	04251110KZ	8	02111252UA		n.a.	S2B155L
BF6M1013ECP	7146	D182	244	182	2000	15.28	130	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B147K
BF6M1013ECP	7146	D165	221	165	2000	13.85	118	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B147K
BF6M1013ECP	7146	D174	233	174	1846	15.83	133	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B148K
BF6M1013ECP	7146	D158	212	158	1846	14.37	121	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B148K
BF6M1013CP	7146	D190/1	255	190	2400	13.29	121	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111542KZ	04251110KZ	8	02111252UA		n.a.	S2B155L
BF6M1013CP	7146	D185	248	185	2400	12.94	118	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111542KZ	04251110KZ	8	02111252UA		n.a.	S2B155L
BF6M1013CP	7146	D167	224	167	2400	11.68	108	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111542KZ	04251110KZ	8	02111252UA		n.a.	S2B155L
BF6M1013CP	7146	D179	240	179	2000	15.03	130	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B147K

Models P08 6 of 7 Attachment

List of emission rated components

ED# 4-R-13-33

1. L07.1004

Engine type	Displacement	Engine code	Nominal Power $\pm 5\%$	Nominal Power $\pm 5\%$	Nominal speed ± 50 rpm	Mean effective pressure	Injection rate at nom. speed, $\pm 4\text{mm}^3$	Peak torque $\pm 5\%$	Speed at peak torque ± 100 rpm	Mean effective pressure at peak torque	Injection rate at peak torque $\pm 4\text{mm}^3$	Torque at 1000 rpm	Mean effective pressure at 1000 rpm	Injection rate at 1000 rpm	Low idle (+300 rpm, dep. on engine applic.)	High idle (+300 rpm, dep. on engine applic.)	Fuel injection pump	Fuel injection nozzle	Camshaft	Injection timing ($\pm 1^\circ$)	Speed governor	Speed governor, optional	Smoke limiter, part of speed governor, -5mm ³	Turbocharger
	cm ³		HP	kW	rpm	bar	mm ³ /stroke	Nm	rpm	bar	mm ³ /stroke	Nm	bar	mm ³ /stroke	rpm	rpm	part numb.	part numb.	part numb.	*btcd	draw. numb.	draw. numb.	mm ³ /stroke	part numb.
BF6M1013CP	7146	D162	217	162	2000	13.60	118	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B147K
BF6M1013CP	7146	D172	230	172	1846	15.65	133	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B148K
BF6M1013CP	7146	D156	209	156	1846	14.19	121	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B148K
BF6M1013CP	7146	D160/2	214	160	1800	14.93	128	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B148K
BF6M1013CP	7146	D145	194	145	1800	13.53	114	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B148K
BF6M1013EC	7146	D170	228	170	2400	11.89	106	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111540KZ	04251110KZ	9	02111252UA		n.a.	S2B155L
BF6M1013EC	7146	D155	208	155	2400	10.85	97	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111540KZ	04251110KZ	9	02111252UA		n.a.	S2B155L
BF6M1013EC	7146	D163/1	218	163	2000	13.69	116	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		n.a.	S2B147K
BF6M1013EC	7146	D148	198	148	2000	12.43	106	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		n.a.	S2B147K
BF6M1013EC	7146	D156/1	209	156	1846	14.19	119	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B148K
BF6M1013EC	7146	D142	190	142	1846	12.92	109	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B148K
BF6M1013EC	7146	D163	218	163	1800	15.21	128	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	7	02111252UA		n.a.	S2B148K
BF6M1013EC	7146	D163/2	218	163	1800	15.21	128	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	7	02111252UA		n.a.	S2B148K
BF6M1013EC	7146	D155/1	208	155	1800	14.46	121	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	7	EMR		n.a.	S2B148K
BF6M1013EC	7146	D148/1	198	148	1800	13.81	116	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	7	02111252UA		n.a.	S2B148K
BF6M1013C	7146	D165/1	221	165	2400	11.54	106	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	7	02111252UA		n.a.	S2B148K
BF6M1013C	7146	D150	201	150	2400	10.50	97	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111540KZ	04251110KZ	9	02111252UA		n.a.	S2B155L
BF6M1013C	7146	D160/1	214	160	2000	13.43	116	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		n.a.	S2B155L
BF6M1013C	7146	D146	196	146	2000	12.26	106	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		n.a.	S2B147K
BF6M1013C	7146	D154	206	154	1846	14.01	119	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	9	02111252UA		n.a.	S2B147K
BF6M1013C	7146	D140	188	140	1846	12.74	109	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B148K
BF6M1013C	7146	D160	214	160	1800	14.93	128	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	8	02111252UA		n.a.	S2B148K
BF6M1013C	7146	D152	204	152	1800	14.18	121	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	7	02111252UA		n.a.	S2B148K
BF6M1013C	7146	D130	174	130	1800	12.13	102	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	7	02111252UA		n.a.	S2B148K
BF4M1013EC	4764	D113	151	113	2400	11.86	107	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	7	02111252UA		n.a.	S2B148K
BF4M1013EC	4764	D103	138	103	2400	10.81	97	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A162E
BF4M1013EC	4764	D108	145	108	2000	13.60	117	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A162E
BF4M1013EC	4764	D98	131	98	2000	12.34	106	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A153E
BF4M1013EC	4764	D104	139	104	1846	14.19	121	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A153E
BF4M1013EC	4764	D95	127	95	1846	12.96	110	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A157C
BF4M1013EC	4764	D110	147	110	1800	15.39	131	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A157C
BF4M1013EC	4764	D110/2	147	110	1800	15.39	131	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	5	02111252UA		n.a.	S2A157C
BF4M1013EC	4764	D105	141	105	1800	14.69	125	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	5	EMR		n.a.	S2A157C
BF4M1013EC	4764	D100/1	134	100	1800	13.99	119	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	5	02111252UA		n.a.	S2A157C
BF4M1013C	4764	D110/1	147	110	2400	11.54	107	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	5	02111252UA		n.a.	S2A157C
BF4M1013C	4764	D100	134	100	2400	10.50	97	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A162E
BF4M1013C	4764	D106	142	106	2000	13.35	117	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A162E
BF4M1013C	4764	D96	129	96	2000	12.09	106	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A153E
BF4M1013C	4764	D103/1	138	103	1846	14.05	121	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A153E
BF4M1013C	4764	D93	125	93	1846	12.69	110	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	9	02111252UA		n.a.	S2A157C

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Engine type	Displacement	Engine code	Nominal Power $\pm 5\%$	Nominal Power $\pm 5\%$	Nominal speed ± 50 rpm	Mean effective pressure	Injection rate at nom. speed, $\pm 4 \text{ mm}^3$	Peak torque $\pm 5\%$	Speed at peak torque ± 100 rpm	Mean effective pressure at peak torque	Injection rate at peak torque $\pm 4 \text{ mm}^3$	Torque at 1000 rpm	Mean effective pressure at 1000 rpm	Injection rate at 1000 rpm	Low idle ($+300$ rpm, dep. on engine applic.)	High idle ($+300$ rpm, dep. on engine applic.)	Fuel injection pump	Fuel injection nozzle	Camshaft	Injection timing ($\pm 1^\circ$)	Speed governor	Speed governor, optional	Smoke limiter, part of speed governor, - 5mm ³	Turbocharger
	cm ³		HP	kW	rpm	bar	mm ³ /stroke	Nm	rpm	bar	mm ³ /stroke	Nm	bar	mm ³ /stroke	rpm	rpm	part numb.	part numb.	part numb.	*bt/dc	draw. numb.	draw. numb.	mm ³ /stroke -rpm	part numb.
BF4M1013C	4764	D97	130	97	1800	13.57	131	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	5	02111252UA		n.a.	S2A157C
BF4M1013C	4764	D92	123	92	1800	12.87	125	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	5	02111252UA		n.a.	S2A157C
VOLVO PENTA																								
TAD520GE	4764	D110/3	147	110	1800	15.39	131	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251114KZ	5	02111252UA		n.a.	S2A157C
TAD720GE	7146	D163/3	218	163	1800	15.21	128	n.a.	n.a.	n.a.	n.a.				n.a.	n.a.	02111335KZ	02111698KZ	04251110KZ	7	02111252UA		n.a.	S2B148K
* Not offered for U.S. Sale																								