

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 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)
2002	2DZXLO4.8006	3.2, 4.8	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Smoke Puff Limiter, Turbocharger, Charge Air Cooler			Pump, Generator Set	

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):

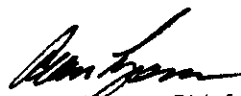
RATED POWER CLASS	EMISSION STANDARD CATEGORY	STD	EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37≤kW<75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
75≤kW<130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	-	8.4	-	-	-	3	3	5

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 February 2002.



Allen Lyons, Chief
 New Vehicle/Engine Programs Branch

Manufacturer: DEUTZ AG
 Engine category: Nonroad CI
 EPA Engine Family: 2DZX104.8006

Engine Model and Part Number Summary Form

DP#4-R-013-0061
 Attachment 1065

Engine code	Engine Model	BHP	BkW	Rated Power Engine Speed	Injection rate at rated power ±6mm ³	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Injection rate at peak torque ±4mm ³	Fuel injection pump	Fuel injector	Injection timing (±1°)	Smoke limiter, part of speed governor, - 5mm ³	Turbocharger
		HP	KW	rpm	mm ³ /stroke	Nm	rpm	mm ³ /stroke	part number	description	°bdc	mm ³ /stroke	description
C123	BF6M1012C	165	123	2500	75	566	1500	82	02111636KZ	02111710KZ	10	66-800	S2A149C
C118	BF6M1012C	158	118	2500	72	535	1500	78	02111636KZ	02111710KZ	10	66-800	S2A149C
C111	BF6M1012C	149	111	2500	68	508	1500	74	02111636KZ	02111710KZ	10	66-800	S2A149C
C104	BF6M1012C	139	104	2500	64	479	1500	70	02111636KZ	02111710KZ	10	66-800	S2A149C
C116	BF6M1012C	155	116	2300	75	566	1500	82	02111636KZ	02126844KZ	9	66-800	S2A149C
C112	BF6M1012C	150	112	2300	73	535	1500	78	02111636KZ	02126844KZ	9	66-800	S2A149C
C105	BF6M1012C	141	105	2300	68	508	1500	74	02111636KZ	02126844KZ	9	66-800	S2A149C
C99	BF6M1012C	133	99	2300	65	479	1500	70	02111636KZ	02126844KZ	9	66-800	S2A149C
C113	BF6M1012C	151	113	2200	74	566	1500	82	02111636KZ	02126844KZ	9	66-800	S2A149C
C108	BF6M1012C	145	108	2200	71	535	1500	78	02111636KZ	02126844KZ	9	66-800	S2A149C
C102	BF6M1012C	137	102	2200	67	508	1500	74	02111636KZ	02126844KZ	9	66-800	S2A149C
C96	BF6M1012C	129	96	2200	64	479	1500	70	02111636KZ	02126844KZ	9	66-800	S2A149C
C110	BF6M1012C	147	110	2100	74	566	1500	82	02111636KZ	02126844KZ	9	66-800	S2A149C
C104/1	BF6M1012C	139	104	2100	70	535	1500	78	02111636KZ	02126844KZ	9	66-800	S2A149C
C99/1	BF6M1012C	133	99	2100	67	508	1500	74	02111636KZ	02126844KZ	9	66-800	S2A149C
C94	BF6M1012C	126	94	2100	63	479	1500	70	02111636KZ	02126844KZ	9	66-800	S2A149C
C101	BF6M1012C	135	101	2000	72	535	1500	78	02111636KZ	02126846KZ	8	66-800	S2A157B
C96/1	BF6M1012C	129	96	2000	68	508	1500	74	02111636KZ	02126846KZ	8	66-800	S2A157B
C90	BF6M1012C	121	90	2000	67	479	1500	70	02111636KZ	02126846KZ	8	66-800	S2A157B
D119	BF6M1012C	159	119	2400	74	566	1500	82	02111636KZ	02111710KZ	10	n.a.	S2A149C
D108	BF6M1012C	145	108	2400	67	508	1500	74	02111636KZ	02111710KZ	10	n.a.	S2A149C
D111	BF6M1012C	149	111	2000	79	535	1500	82	02111636KZ	02126844KZ	8	n.a.	S2A157B
D100	BF6M1012C	134	100	2000	72	508	1500	78	02111636KZ	02126844KZ	8	n.a.	S2A157B
D105	BF6M1012C	141	105	1846	81	535	1500	82	02111636KZ	02126844KZ	8	n.a.	S2A157B
D95	BF6M1012C	127	95	1846	73	479	1500	74	02111636KZ	02126844KZ	8	n.a.	S2A157B
D97	BF6M1012C	130	97	1800	76	508	1500	78	02111636KZ	02126846KZ	9	n.a.	S2A157B
D92	BF6M1012C	123	92	1800	73	479	1500	74	02111636KZ	02126846KZ	9	n.a.	S2A157B
D88	BF6M1012C	118	88	1800	69	479	1500	74	02111636KZ	02126846KZ	9	n.a.	S2A157B
C82	BF4M1012C	110	82	2500	77	376	1500	82	02111636KZ	02111710KZ	10	66-800	S1BS010F
C78	BF4M1012C	105	78	2500	72	357	1500	78	02111636KZ	02111710KZ	10	66-800	S1BS010F
C74	BF4M1012C	99	74	2500	69	338	1500	74	02111636KZ	02111710KZ	10	66-800	S1BS010F

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Manufacturer: DEUTZ AG
 Engine category: Nonroad CI
 EPA Engine Family: 2DZX104.8006

Engine Model and Part Number Summary Form

Engine code	Engine Model	BHP	BkW	Rated Power Engine Speed	Injection rate at rated power ±6mm³/stroke	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Injection rate at peak torque ±4mm³/stroke	Fuel injection pump	Fuel injector	Injection timing (±1°)	Smoke limiter, part of speed governor, - 5mm³/stroke	Turbocharger
C70	BF4M1012C	94	70	2500	65	319	1500	70	02111636KZ	02111710KZ	10	66-800	S1BS010F
C78/1	BF4M1012C	105	78	2300	76	376	1500	82	02111636KZ	02126844KZ	9	66-800	S1BS010F
C74/1	BF4M1012C	99	74	2300	72	357	1500	78	02111636KZ	02126844KZ	9	66-800	S1BS010F
C69	BF4M1012C	92	69	2300	67	338	1500	74	02111636KZ	02126844KZ	9	66-800	S1BS010F
C66	BF4M1012C	88	66	2300	67	319	1500	74	02111636KZ	02126844KZ	9	66-800	S1BS010D
C65/3	BF4M1012C	87	65	2300	66	351	1600	78	02111636KZ	02111710KZ	9	66-800	S1BS010D
C60/1	BF4M1012C	80	60	2300	61	324	1600	74	02111636KZ	02111710KZ	9	66-800	S1BS010F
C75	BF4M1012C	101	75	2200	75	376	1500	82	02111636KZ	02126844KZ	9	66-800	S1BS010F
C72	BF4M1012C	96	72	2200	72	357	1500	78	02111636KZ	02126844KZ	9	66-800	S1BS010F
C72/2	BF4M1012C	96	72	2200	72	357	1500	78	02111636KZ	02126844KZ	7	66-800	S1BS010F
C68	BF4M1012C	91	68	2200	68	338	1500	74	02111636KZ	02126844KZ	9	66-800	S1BS010F
C64	BF4M1012C	86	64	2200	64	319	1500	70	02111636KZ	02126844KZ	9	66-800	S1BS010F
C73	BF4M1012C	98	73	2100	75	376	1500	82	02111636KZ	02126844KZ	9	66-800	S1BS010F
C69/1	BF4M1012C	92	69	2100	71	357	1500	78	02111636KZ	02126844KZ	9	66-800	S1BS010F
C66/1	BF4M1012C	88	66	2100	69	338	1500	74	02111636KZ	02126844KZ	9	66-800	S1BS010F
C63	BF4M1012C	84	63	2100	65	319	1500	70	02111636KZ	02126844KZ	8	66-800	S1BS010D
C71	BF4M1012C	95	71	2000	75	376	1500	82	02111636KZ	02126844KZ	8	66-800	S1BS010D
C67	BF4M1012C	90	67	2000	74	357	1500	78	02111636KZ	02126844KZ	8	66-800	S1BS010D
C64/1	BF4M1012C	86	64	2000	71	338	1500	74	02111636KZ	02126844KZ	8	66-800	S1BS010D
C60	BF4M1012C	80	60	2000	66	319	1500	70	02111636KZ	02126844KZ	8	66-800	S1BS010D
D79	BF4M1012C	106	79	2400	75	n.a.	n.a.	n.a.	02111636KZ	02111710KZ	10	n.a.	S1BS010F
D72	BF4M1012C	96	72	2400	68	n.a.	n.a.	n.a.	02111636KZ	02111710KZ	10	n.a.	S1BS010F
D73	BF4M1012C	98	73	2000	79	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S1BS010D
D66	BF4M1012C	88	66	2000	73	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S1BS010D
D70	BF4M1012C	94	70	1846	81	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S1BS010D
D64	BF4M1012C	86	64	1846	74	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S1BS010D
D65	BF4M1012C	87	65	1800	77	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	9	n.a.	S1BS010D
D62	BF4M1012C	83	62	1800	74	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	9	n.a.	S1BS010D
D59	BF4M1012C	79	59	1800	72	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	9	n.a.	S1BS010D
C125	BF6M1012EC	168	125	2500	78	569	1500	82	02111636KZ	02111710KZ	10	66-800	S2A149C
C120	BF6M1012EC	161	120	2500	72	538	1500	78	02111636KZ	02111710KZ	10	66-800	S2A149C

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Engine Model and Part Number Summary Form

Manufacturer: DEUTZ AG
 Engine category: Nonroad CI
 EPA Engine Family: 2DZX104.8006

Engine code	Engine Model	BHP	BkW	Rated Power Engine Speed	Injection rate at rated power ±6mm ³	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Injection rate at peak torque ±4mm ³	Fuel injection pump	Fuel injector	Injection timing (±1°)	Smoke limiter, part of speed governor, -5mm ³	Turbocharger
		HP	kW	rpm	mm ³ /stroke	Nm	rpm	mm ³ /stroke	part number	description	°bdc	mm ³ /-rpm stroke	description
C113/1	BF6M1012EC	151	113	2500	68	511	1500	74	02111636KZ	02111710KZ	10	66-800	S2A149C
C106	BF6M1012EC	142	106	2500	64	482	1500	70	02111636KZ	02111710KZ	10	66-800	S2A149C
C118/1	BF6M1012EC	158	118	2300	75	569	1500	82	02111636KZ	02126844KZ	9	66-800	S2A149C
C114	BF6M1012EC	153	114	2300	73	538	1500	78	02111636KZ	02126844KZ	9	66-800	S2A149C
C107	BF6M1012EC	143	107	2300	68	511	1500	74	02111636KZ	02126844KZ	9	66-800	S2A149C
C101/1	BF6M1012EC	135	101	2300	65	482	1500	70	02111636KZ	02126844KZ	9	66-800	S2A149C
C115	BF6M1012EC	154	115	2200	74	569	1500	82	02111636KZ	02126844KZ	9	66-800	S2A149C
C110/1	BF6M1012EC	147	110	2200	71	538	1500	78	02111636KZ	02126844KZ	9	66-800	S2A149C
C104/2	BF6M1012EC	139	104	2200	67	511	1500	74	02111636KZ	02126844KZ	9	66-800	S2A149C
C98	BF6M1012EC	131	98	2200	64	482	1500	70	02111636KZ	02126844KZ	9	66-800	S2A149C
C111/1	BF6M1012EC	149	111	2100	74	569	1500	82	02111636KZ	02126844KZ	9	66-800	S2A149C
C105/1	BF6M1012EC	141	105	2100	70	538	1500	78	02111636KZ	02126844KZ	9	66-800	S2A149C
C100	BF6M1012EC	134	100	2100	67	511	1500	74	02111636KZ	02126844KZ	9	66-800	S2A149C
C95	BF6M1012EC	127	95	2100	63	482	1500	70	02111636KZ	02126844KZ	8	66-800	S2A157B
C102/1	BF6M1012EC	137	102	2000	72	538	1500	78	02111636KZ	02126846KZ	8	66-800	S2A157B
C97	BF6M1012EC	130	97	2000	68	511	1500	74	02111636KZ	02126846KZ	8	66-800	S2A157B
C91	BF6M1012EC	122	91	2000	67	482	1500	70	02111636KZ	02126846KZ	8	66-800	S2A149C
D122	BF6M1012EC	163	122	2400	74	n.a.	n.a.	n.a.	02111636KZ	02111710KZ	10	n.a.	S2A149C
D111/1	BF6M1012EC	149	111	2400	67	n.a.	n.a.	n.a.	02111636KZ	02111710KZ	10	n.a.	S2A157B
D112	BF6M1012EC	150	112	2000	79	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S2A157B
D102	BF6M1012EC	137	102	2000	72	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S2A157B
D106	BF6M1012EC	142	106	1846	81	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S2A157B
D96	BF6M1012EC	129	96	1846	73	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S2A157B
D98	BF6M1012EC	131	98	1800	76	n.a.	n.a.	n.a.	02111636KZ	02126846KZ	9	n.a.	S2A157B
D93	BF6M1012EC	125	93	1800	73	n.a.	n.a.	n.a.	02111636KZ	02126846KZ	9	n.a.	S2A157B
D89	BF6M1012EC	119	89	1800	70	n.a.	n.a.	n.a.	02111636KZ	02126846KZ	9	n.a.	S2A157B
C84	BF4M1012EC	113	84	2500	77	378	1500	82	02111636KZ	02111710KZ	10	66-800	S1BS010F
C80/1	BF4M1012EC	107	80	2500	72	359	1500	78	02111246KZ	02116844KZ	13	66-800	S1BS010F
C80	BF4M1012EC	107	80	2500	72	359	1500	78	02111636KZ	02111710KZ	10	66-800	S1BS010F
C76	BF4M1012EC	102	76	2500	69	340	1500	74	02111636KZ	02111710KZ	10	66-800	S1BS010F
C72/1	BF4M1012EC	96	72	2500	65	321	1600	70	02111636KZ	02111710KZ	10	66-800	S1BS010F

Manufacturer: DEUTZ AG
 Engine category: Nonroad CI
 EPA Engine Family: 2DZXL04.8006

Engine Model and Part Number Summary Form

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Engine code	Engine Model	BHP	BKW	Rated Power Engine Speed	Injection rate at rated power ±6mm³	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Injection rate at peak torque ±4mm³	Fuel injection pump	Fuel injector	Injection timing (±1°)	Smoke limiter, part of speed governor, - 5mm³	Turbocharger
		HP	KW	rpm	mm³/ stroke	Nm	rpm	mm³/ stroke	part number	description	°bdc	mm³/ stroke	description
C79	BF4M1012EC	106	79	2300	76	378	1500	82	02111636KZ	02126844KZ	9	66-800	S1BS010F
C75/1	BF4M1012EC	101	75	2300	72	359	1500	78	02111636KZ	02126844KZ	9	66-800	S1BS010F
C74/3	BF4M1012EC	99	74	2300	71	359	1500	78	02111636KZ	02126844KZ	9	66-800	S1BS010F
C70/1	BF4M1012EC	94	70	2300	67	340	1500	74	02111636KZ	02126844KZ	9	66-800	S1BS010F
C67/1	BF4M1012EC	90	67	2300	65	321	1500	70	02111636KZ	02126844KZ	9	66-800	S1BS010F
C65/3	BF4M1012EC	87	65	2300	65	340	1500	74	02111636KZ	02126844KZ	9	65-800	S1BS010D
C60/1	BF4M1012EC	80	60	2300	62	321	1500	70	02111636KZ	02126844KZ	9	65-800	S1BS010F
C76/1	BF4M1012EC	102	76	2200	75	378	1500	82	02111636KZ	02126844KZ	9	66-800	S1BS010F
C73/1	BF4M1012EC	98	73	2200	72	359	1500	78	02111636KZ	02126844KZ	9	66-800	S1BS010F
C69/2	BF4M1012EC	92	69	2200	68	340	1500	74	02111636KZ	02126844KZ	9	66-800	S1BS010F
C65	BF4M1012EC	87	65	2200	64	321	1500	70	02111636KZ	02126844KZ	9	66-800	S1BS010F
C74/2	BF4M1012EC	99	74	2100	75	378	1500	82	02111636KZ	02126844KZ	9	66-800	S1BS010F
C70/2	BF4M1012EC	94	70	2100	71	359	1500	78	02111636KZ	02126844KZ	9	66-800	S1BS010F
C67/2	BF4M1012EC	90	67	2100	69	340	1500	74	02111636KZ	02126844KZ	9	66-800	S1BS010F
C64/2	BF4M1012EC	86	64	2100	65	321	1500	70	02111636KZ	02126844KZ	9	66-800	S1BS010F
C68/1	BF4M1012EC	91	68	2000	74	359	1500	78	02111636KZ	02126846KZ	8	66-800	S1BS010D
C65/1	BF4M1012EC	87	65	2000	71	340	1500	74	02111636KZ	02126846KZ	8	66-800	S1BS010D
C61	BF4M1012EC	82	61	2000	66	321	1500	70	02111636KZ	02126846KZ	8	66-800	S1BS010D
C65/2	BF4M1012EC	87	65	1900	73	359	1500	78	02111636KZ	02126846KZ	8	66-800	S1BS010D
D81	BF4M1012EC	109	81	2400	75	n.a.	n.a.	n.a.	02111636KZ	02111710KZ	10	n.a.	S1BS010F
D74	BF4M1012EC	99	74	2400	68	n.a.	n.a.	n.a.	02111636KZ	02111710KZ	10	n.a.	S1BS010F
D74/1	BF4M1012EC	99	74	2000	79	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S1BS010D
D74/1	BF4M1012EC	99	74	2000	73	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S1BS010D
D67/1	BF4M1012EC	90	67	2000	73	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S1BS010D
D71	BF4M1012EC	95	71	1846	81	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	8	n.a.	S1BS010D
D65/1	BF4M1012EC	87	65	1846	74	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	7	n.a.	S1B012D
D74/2	BF4M1012EC	99	74	1800	87	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	7	n.a.	S1B012D
D70/1	BF4M1012EC	94	70	1800	81	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	7	n.a.	S1B012D
D67	BF4M1012EC	90	67	1800	80	n.a.	n.a.	n.a.	02111636KZ	02126844KZ	7	n.a.	S1BS010D
D66/1	BF4M1012EC	88	66	1800	77	n.a.	n.a.	n.a.	02111636KZ	02126846KZ	7	n.a.	S1BS010D
D63	BF4M1012EC	84	63	1800	74	n.a.	n.a.	n.a.	02111636KZ	02126846KZ	7	n.a.	S1BS010D

Manufacturer: DEUTZ AG
 Engine category: Nonroad CI
 EPA Engine Family: 2DZX104.8006

Engine Model and Part Number Summary Form

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Engine code	Engine Model	BHP	BKW	Rated Power Engine Speed	Injection rate at rated power	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Injection rate at peak torque	Fuel injection pump	Fuel injector description	Injection timing (±1°)	Smoke limiter, part of speed governor, - 5mm ³ - rpm	Turbocharger description
D60	BFAM1012EC	80 HP	60 KW	1800 rpm	mm ³ /stroke 72	Nm n. a.	rpm n. a.	mm ³ /stroke n. a.	part number 02111636KZ	02126846KZ	°bdc 7	mm ³ /stroke n. a.	S1BS010D