

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 systems 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)
2007	7DZXL06.1038	6.057, 4.038	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Smoke Puff Limiter			Pump	

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, 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
37 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	0.40	20	15	50
		FEL	-	-	7.5	-	-	-	-	-
		CERT	-	-	6.4	0.8	0.10	2	2	3

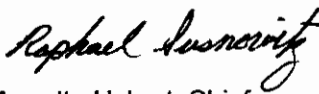
BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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 22nd day of December 2006.


 Annette Hebert, Chief
 Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: Deutz AG
Engine category: Nonroad CI
EPA Engine Family: 7DZDL06.1038
Mfr Family Name: BF4M2012, D4D, TAD420 VE
Process Code: New Submission

Attachment 1 of 3
 Eo#4-R-013-0201

1. Engine Code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm³/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lb/hr) @ peak HP (for diesels only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm³/stroke @ peak torque	8. Fuel Rate: (lb/hr) @ peak torque	9. Emission Control Device Per SAE J1880
CE60	BF4M2012	80,4@2000	68	30,2	245,6@1500	76	25,3	DDI, TC, SPL, EM
CE62	BF4M2012	83,1@2100	68	31,7	245,6@1500	76	25,3	DDI, TC, SPL, EM
CE63	BF4M2012	84,4@2000	71,5	31,7	259,6@1500	80	26,6	DDI, TC, SPL, EM
CE64	BF4M2012	85,8@2200	68	33,2	245,6@1500	76	25,3	DDI, TC, SPL, EM
CE66	BF4M2012	88,5@2300	68	34,7	245,6@1500	76	25,3	DDI, TC, SPL, EM
CE66/1	BF4M2012	88,5@2100	72	33,5	259,6@1500	80	26,6	DDI, TC, SPL, EM
CE67	BF4M2012	89,8@2000	76	33,7	273,6@1500	85	28,3	DDI, TC, SPL, EM
CE68	BF4M2012	91,1@2400	69	36,7	245,6@1500	76	25,3	DDI, TC, SPL, EM
CE68/1	BF4M2012	91,1@2200	72,5	35,4	259,6@1500	80	26,6	DDI, TC, SPL, EM
CE69	BF4M2012	92,5@2100	75,5	35,2	273,6@1500	85	28,3	DDI, TC, SPL, EM
CE70	BF4M2012	93,8@2500	69,5	38,6	245,6@1500	76	25,3	DDI, TC, SPL, EM
CE70/1	BF4M2012	93,8@2300	72,5	37	259,6@1500	80	26,6	DDI, TC, SPL, EM
CE70/2	BF4M2012	93,8@2000	79,8	35,4	287,6@1500	90	29,9	DDI, TC, SPL, EM
CE72	BF4M2012	96,5@2400	73	38,9	259,6@1500	80	26,6	DDI, TC, SPL, EM
CE72/1	BF4M2012	96,5@2200	76,5	37,3	273,6@1500	85	28,3	DDI, TC, SPL, EM
CE73	BF4M2012	97,8@2100	79,8	37,2	287,6@1500	90	29,9	DDI, TC, SPL, EM
CE74	BF4M2012	99,2@2500	73,5	40,8	259,6@1500	80	26,6	DDI, TC, SPL, EM
CE74,9	BF4M2012	100,4@2500	74,5	41,3	287,6@1500	90	29,9	DDI, TC, SPL, EM
CE74,9/1	BF4M2012	100,4@2500	74,5	41,3	273,6@1500	85	28,3	DDI, TC, SPL, EM
CE74,9/2	BF4M2012	100,4@2400	76	40,5	287,6@1500	90	29,9	DDI, TC, SPL, EM
CE74,9/3	BF4M2012	100,4@2400	76	40,5	273,6@1500	85	28,3	DDI, TC, SPL, EM
CE74,9/4	BF4M2012	100,4@2300	78	39,8	287,6@1500	90	29,9	DDI, TC, SPL, EM
CE74,9/5	BF4M2012	100,4@2200	80	39,1	287,6@1500	90	29,9	DDI, TC, SPL, EM
CE74/1	BF4M2012	99,2@2300	77	39,3	273,6@1500	85	28,3	DDI, TC, SPL, EM
CE65	BF4M2012	87,1@2500	64,5	35,8	245,6@1500	76	25,3	DDI, TC, SPL, EM
CE66/2	BF4M2012	88,5@1800	79,5	31,7	287,6@1500	90	29,9	DDI, TC, SPL, EM

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ETA 4-R-013-0201

EPA Engine Family: 7DZX06.1038

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: (bci/hr) @ peak HP (for diesel only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm ³ /stroke@peak torque	8. Fuel Rate: (bci/hr)@peak torque	9. Emission Control Device Per SAE J1800
CE64/1	BF4M2012	85,8@1800	77	30,7	273,6@1500	85	28,3	DDI, TC, SPL, EM
CE62/1	BF4M2012	83,1@1800	75	28,9	259,6@1500	80	26,6	DDI, TC, SPL, EM
CE60/1	BF4M2012	80,4@1800	72,5	26,9	245,6@1500	76	25,3	DDI, TC, SPL, EM
CE68/2	BF4M2012	91,1@1900	79,5	33,5	287,6@1500	90	28,9	DDI, TC, SPL, EM
CE68/3	BF4M2012	88,5@1900	77	32,5	273,6@1500	85	28,3	DDI, TC, SPL, EM
CE63/1	BF4M2012	84,4@1900	73,5	31	259,6@1500	80	26,6	DDI, TC, SPL, EM
CE60/2	BF4M2012	80,4@1900	70	29,5	245,6@1500	76	25,3	DDI, TC, SPL, EM
CE60/3	BF4M2012	80,4@2100	66,5	31	221,2@1500	69	22,9	DDI, TC, SPL, EM
CE60/4	BF4M2012	80,4@2200	65	31,7	221,2@1500	69	22,9	DDI, TC, SPL, EM
CE60/5	BF4M2012	80,4@2300	63	32,1	221,2@1500	69	22,9	DDI, TC, SPL, EM
CE74,9/1	BF6M2012	100,4@2300	51,5	39,4	295@1300	60	25,9	DDI, TC, SPL, EM
CE74,9/2	BF6M2012	100,4@2200	53,5	39,2	295@1300	60	25,9	DDI, TC, SPL, EM
CE74,9/3	BF6M2012	100,4@2200	53,5	39,2	317,1@1300	64,5	27,9	DDI, TC, SPL, EM
CE74,9/4	BF6M2012	100,4@2100	56,5	39,5	317,1@1300	64,5	27,9	DDI, TC, SPL, EM
CE74,9/5	BF6M2012	100,4@2000	59	39,3	346,6@1300	70,5	30,5	DDI, TC, SPL, EM
CE74,9/6	BF6M2012	100,4@1900	62	39,2	346,6@1300	70,5	30,5	DDI, TC, SPL, EM
CE74,9/7	BF6M2012	100,4@1800	65,5	39,2	368,7@1300	70,5	30,5	DDI, TC, SPL, EM
CE74,5	D4DFAE2	99,9@2200	80	39,1	287,6@1500	75	24,9	DDI, TC, SPL, EM
CE73	D4DEAE2	97,8@2100	79,8	37,2	287,6@1500	90	29,9	DDI, TC, SPL, EM
CE74,9	D4DLAE2	100,4@2200	80	39,1	287,6@1500	90	29,9	DDI, TC, SPL, EM
CE84	D4DCAE2	85,8@2200	68	33,2	287,6@1500	82	27,3	DDI, TC, SPL, EM
CE70	D4DCBE2	93,8@2200	80	39,1	287,6@1500	90	29,9	DDI, TC, SPL, EM
CE74,5	D4DCCBE2	99,9@2200	80	39,1	287,6@1500	80	29,9	DDI, TC, SPL, EM
CE74,9/2	D4DCDE2	100,4@2500	74,5	41,3	287,6@1500	90	29,9	DDI, TC, SPL, EM
CE62	D4DDAE2	83,1@2100	68	31,7	245,6@1500	76	25,3	DDI, TC, SPL, EM
CE69	D4DDBE2	92,5@2100	75,5	35,2	273,6@1500	85	28,3	DDI, TC, SPL, EM
CE59T	BF4M2012	86,8@2300	67,5	34,4	250,7@1500	78	25,9	DDI, TC, SPL, EM
CE61T	BF4M2012	87,8@2300	70	35,7	254,4@1500	81	26,9	DDI, TC, SPL, EM
CE56T	BF4M2012	81,1@2300	65	33,2	221,2@1500	71	23,6	DDI, TC, SPL, EM
CE66	TD420VE	88,5@2100	72	33,5	259,6@1500	80	26,6	DDI, TC, SPL, EM

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EO#U-R-013-0201

EPA Engine Family: 7DZX06.1038

1. Engine Code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lb/hr) @ peak HP (for diesel only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (lb/hr)@peak torque	9. Emission Control Devices Per SAE J1930
CE73	TD420VE	97,8@2100	79,8	37,2	287,6@1500	90	29,9	DDI, TC, SPL,EM
CE70	TD420VE	93,8@2300	72,5	37	259,6@1500	80	26,6	DDI, TC, SPL,EM
CE74,9	TD420VE	100,4@2300	78	39,8	287,6@1500	90	29,9	DDI, TC, SPL,EM
CE74	TD420VE	99,2@2500	73,5	40,8	259,6@1500	80	26,6	DDI, TC, SPL,EM
CE74,9/1	TD420VE	100,4@2500	74,5	41,3	287,6@1500	90	29,9	DDI, TC, SPL,EM
DE66	BF4M2012	88,5@1800	82,5	32,9	FIXED	0	0	DDI, TC, SPL,EM
DE70	BF4M2012	93,8@1800	88	35,1	FIXED	0	0	DDI, TC, SPL,EM
DE70/1	BF4M2012	93,8@1846	87	35,6	FIXED	0	0	DDI, TC, SPL,EM
DE74,9	BF4M2012	100,4@2000	87	38,8	FIXED	0	0	DDI, TC, SPL,EM
DE74,9/1	BF4M2012	100,4@2400	76	40,5	FIXED	0	0	DDI, TC, SPL,EM
CE71T	BF4M2012	94,5@2300	73	37,3	265,5@1500	81	26,9	DDI, TC, SPL,EM