

 AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0151
		New Off-Road Compression-Ignition Engines

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	5DZXL06.1038	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) 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
		CERT	-	-	6.6	0.7	0.10	2	1	3

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 20TH day of September 2004.



Allen Lyons, Chief
 Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: Deutz AG
Engine category: Nonroad CI
EPA Engine Family: 5DZXL06.1038
Mr Family Name: BF4/6M2012, D4D, TAD420 VE
Process Code: New Submission

Attachment 1 of 1
U-R-013-0157

1. Engine Code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (lbs/hr)@peak torque	9. Emission Control Device Per SAE J1930
CE60	BF4M2012	80,4@2000	68	30,2	245,6@1500	76	25,3	SPL
CE62	BF4M2012	83,1@2100	68	31,7	245,6@1500	76	25,3	SPL
CE63	BF4M2012	84,4@2000	71,5	31,7	259,6@1500	80	26,6	SPL
CE64	BF4M2012	85,8@2200	68	33,2	245,6@1500	76	25,3	SPL
CE66	BF4M2012	88,5@2300	68	34,7	245,6@1500	76	25,3	SPL
CE66/1	BF4M2012	88,5@2100	72	33,5	259,6@1500	80	26,6	SPL
CE67	BF4M2012	89,8@2000	76	33,7	273,6@1500	85	28,3	SPL
CE68	BF4M2012	91,1@2400	69	36,7	245,6@1500	76	25,3	SPL
CE68/1	BF4M2012	91,1@2200	72,5	35,4	259,6@1500	80	26,6	SPL
CE69	BF4M2012	92,5@2100	75,5	35,2	273,6@1500	85	28,3	SPL
CE70	BF4M2012	93,8@2500	69,5	38,6	245,6@1500	76	25,3	SPL
CE70/1	BF4M2012	93,8@2300	72,5	37	259,6@1500	80	26,6	SPL
CE70/2	BF4M2012	93,8@2000	79,8	35,4	287,6@1500	90	29,9	SPL
CE72	BF4M2012	96,5@2400	73	38,9	259,6@1500	80	26,6	SPL
CE72/1	BF4M2012	96,5@2200	76,5	37,3	273,6@1500	85	28,3	SPL
CE73	BF4M2012	97,8@2100	79,8	37,2	287,6@1500	90	29,9	SPL
CE74	BF4M2012	99,2@2500	73,5	40,8	259,6@1500	80	26,6	SPL
CE74,9	BF4M2012	100,4@2500	74,5	41,3	287,6@1500	90	29,9	SPL
CE74,9/1	BF4M2012	100,4@2500	74,5	41,3	273,6@1500	85	28,3	SPL
CE74,9/2	BF4M2012	100,4@2400	76	40,5	287,6@1500	90	29,9	SPL
CE74,9/3	BF4M2012	100,4@2400	76	40,5	273,6@1500	85	28,3	SPL
CE74,9/4	BF4M2012	100,4@2300	78	39,8	287,6@1500	90	29,9	SPL
CE74,9/5	BF4M2012	100,4@2200	80	39,1	287,6@1500	90	29,9	SPL
CE74/1	BF4M2012	99,2@2300	77	39,3	273,6@1500	85	28,3	SPL
CE65	BF4M2012	87,1@2500	64,5	35,8	245,6@1500	76	25,3	SPL
CE66/2	BF4M2012	88,5@1800	79,5	31,7	287,6@1500	90	29,9	SPL