California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0076 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-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	2DZXL03.1026	3.1	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Smoke Puff LImiter	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
37≤kW<75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	-	8.6	-	-	-	2	2	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 28TH day of February 2002.

Allen Lyons, Chief
New Vehicles/Engines Programs Branch

EOHU-R-013-0076
Attachment 1 of 1

Manufacturer: DEUTZ AG
Engine category: Nonroad CI
EPA Engine Family: 2DZXL03.1026

Engine Model and Part Number Summary Form

Engine code	Engine Model	BHP	BkW	Rated Power Engine Speed	Injection rate at rated power ±6mm³	Peak torque ± 5%	Speed at peak torque ± 200 rpm	Injection rate at peak torque ±4mm³	Fuel injection pump	Fuel injector	Injection timing (±0,5°)	Speed governor, optionally	Smoke limiter, part of speed governor, - 5mm³	Turbocharger
		HP	kW	rpm	mm³/ stroke	Nm	rpm	mm³/ stroke	description	description	°btdc	description	mm³/ stroke - rpm	description
C65	BF4M2011	87	65.00	2800	55.5	266	1600	62	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C62	BF4M2011	83	62.00	2800	53.0	250	1600	57.5	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C61	BF4M2011	82	61.00	2600	54.0	264	1600	61.5	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C58,5	BF4M2011	78	58.50	2600	52.0	247	1600	57	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C60	BF4M2011	80	60.00	2500	55.0	261	1600	61	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C57	BF4M2011	76	57.00	2500	51.0	246	1600	56.5	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C57/1	BF4M2011	76	57.00	2350	50.0	261	1600	61	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C56	BF4M2011	75	56.00	2300	53.5	260	1600	61	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C53	BF4M2011	71	53.00	2300	51.0	242	1600	56	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C46/2	BF4M2011	62	46.00	2300	45.0	210	1600	49	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C54	BF4M2011	72	54.00	2200	53.5	260	1600	61	04280448KZ	04178016KZ	6	n. a.	51-1000	04272467KZ
C48,5	BF3M2011	65	48.50	2800	56.5	195	1600	61	04280448KZ	04178016KZ	6	n. a.	49-1000	04280664KZ
C46	BF3M2011	62	46.00	2800	54.0	185	1600	59	04280448KZ	04178016KZ	6	n. a.	49-1000	04280664KZ
C46/1	BF3M2011	62	46.00	2600	55.0	194	1600	62	04280448KZ	04178016KZ	6	n. a.	49-1000	04280664KZ
C44,1	BF3M2011	59	44.10	2600	53.0	186	1600	58	04280448KZ	04178016KZ	6	n. a.	49-1000	04280664KZ
C45	BF3M2011	60	45.00	2500	55.0	194	1600	62	04280448KZ	04178016KZ	6	n. a.	49-1000	04280664KZ
C42,8	BF3M2011	57	42.80	2500	52.0	185	1600	57.5	04280448KZ	04178016KZ	6	n. a.	49-1000	04280664KZ
C42	BF3M2011	56	42.00	2300	54.5	192	1600	62	04280448KZ	04178016KZ	6	n. a.	49-1000	04280664KZ
C40	BF3M2011	54	40.00	2300	52.0	183	1600	57	04280448KZ	04178016KZ	6	n. a.	49-1000	04280664KZ
C58,1	BF4L2011	78	58.10	2800	51.0	232	1600	55	04280448KZ	04178016KZ	6	n. a.	49-1000	04272467KZ
C55,1	BF4L2011	74	55.10	2800	49.0	224	1600	52.5	04280448KZ	04178016KZ	6	n. a.	49-1000	04272467KZ
C55,7	BF4L2011	75	55.70	2650	50.0	231	1600	54	04280448KZ	04178016KZ	6	n. a.	49-1000	04272467KZ
C54,9	BF4L2011	74	54.90	2600	50.0	230	1600	54	04280448KZ	04178016KZ	6	n. a.	49-1000	04272467KZ
C52,1	BF4L2011	70	52.10	2600	48.0	222	1600	52.5	04280448KZ	04178016KZ	6	n. a.	49-1000	04272467KZ
C53,5	BF4L2011	72	53.50	2500	51.0	227	1600	53	04280448KZ	04178016KZ	6	n. a.	49-1000	04272467KZ
C50,8	BF4L2011	68	50.80	2500	47.0	221	1600	52	04280448KZ	04178016KZ	6	n. a.	49-1000	04272467KZ
C50	BF4L2011	67	50.00	2300	49.0	226	1600	53	04280448KZ	04178016KZ	6	n. a.	49-1000	04272467KZ
C47,5	BF4L2011	64	47.50	2300	47.0	219	1600	51.5	04280448KZ	04178016KZ	6	n. a.	49-1000	04272467KZ
C44,9	BF3L2011	60	44.90	2800	53.5	178	1600	58	04280448KZ	04178016KZ	6	n. a.	47-1000	04280664KZ
C42,6	BF3L2011	57	42.60	2800	51.5	171	1600	55.5	04280448KZ	04178016KZ	6	n. a.	47-1000	04280664KZ
C42/1	BF3L2011	56	42.00	2600	52.5	174	1600	57	04280448KZ	04178016KZ	6	n. a.	47-1000	04280664KZ
C39,9	BF3L2011	53	39.90	2600	50.5	169	1600	55.5	04280448KZ	04178016KZ	6	n. a.	47-1000	04280664KZ
C41,7	BF3L2011	56	41.70	2500	53.5	175	1600	56	04280448KZ	04178016KZ	6	n. a.	47-1000	04280664KZ
C39,6	BF3L2011	53	39.60	2500	49.5	171	1600	55	04280448KZ	04178016KZ	6	n. a.	47-1000	04280664KZ
C38,9	BF3L2011	52	38.90	2300	52.0	174	1600	56	04280448KZ	04178016KZ	6	n. a.	47-1000	04280664KZ