California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0067 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	2DZXL06.1010	3.1, 4.1, 6.1	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Smoke Puff Limiter	Pump, 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
75≤kW<130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	-	9.2	-	-	-	8	6	12

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

EO #U-R-013-0067
Attachment 1 & 2

Manufacturer: DEUTZ AG
Engine category: Nonroad CI
EPA Engine Family: 2DZXL06.1010

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 ± 100 rpm	Injection rate at peak torque ±4mm³	Fuel injection pump	Fuel injector	Injection timing (-1°)
		HP	kW	rpm	mm³/ stroke	Nm	rpm	mm³/ stroke	description	description	°btdc
C44	F3L913	59	44.0	2500	61.5	201	1500	65.5	PES3A95D410/3RS2939	DLLA147P875	14
C42	F3L913	56	42.0	2500	55.5	191	1500	60	PES3A95D410/3RS2939	DLLA147P875	14
C44/1	F3L913	59	44.0	2400	62	201	1500	65.5	PES3A95D410/3RS2905	DLLA147P875	14
44/11	F3L913	60	44.0	2400	62.0	201	1500		PES3A95D410/3RS2905	DLLA147P875	14
C41	F3L913	55	41.0	2300	59	190	1500	59.5	PES3A95D410/3RS2939	DLLA147P875	13
C39	F3L913	52	39.0	2300	55	180	1500	56.5	PES3A95D410/3RS2939	DLLA147P875	13
C39/1	F3L913	52	39.0	2150	58	187	1500	58	PES3A95D410/3RS2939	DLLA147P875	13
C37	F3L913	50	37.0	2150	55	177	1500	55	PES3A95D410/3RS2939	DLLA147P875	13
C37/1	F3L913	50	37.0	2000	61	184	1500	59	PES3A95D410/3RS2939	DLLA147P875	12
C59	F4L913	79	59.0	2500	62.5	278	1500	69	PES4A95D410/3RS2934	DLLA147P875	14
C59/1	F4L913	79	59.0	2400	63	278	1500	68.5	PES4A95D410/3RS2789	DLLA147P875	14
C55/1	F4L913	74	55.0	2400	59.5	260	1500	63	PES4A95D410/3RS2789	DLLA147P875	14
C57	F4L913	76	57.0	2500	60.5	268	1500	65	PES4A95D410/3RS2789	DLLA147P875	14
C56	F4L913	75	56.0	2500	58.5	264	1500	64	PES4A95D410/3RS2934	DLLA147P875	14
C56/1	F4L913	75	56.0	2350	61	268	1500	65.5	PES4A95D410/3RS2789	DLLA147P875	14
56/11	F4L913	76	56.0	2350	60.0	265	1500		PES4A95D410/3RS2789	DLLA147P875	14
C56,5	F4L913	76	56.5	2300	64	271	1500	66.5	PES4A95D410/3RS2789	DLLA147P875	14
C56/2	F4L913	75	56.0	2300	62	270	1500	66	PES4A95D410/3RS2934	DLLA147P875	13
C55	F4L913	74	55.0	2300	61	266	1500	65	PES4A95D410/3RS2934	DLLA147P875	13
C53	F4L913	71	53.0	2300	58	257	1500	60	PES4A95D410/3RS2934	DLLA147P875	13
C51,5	F4L913	69	51.5	2300	56	250	1500	58	PES4A95D410/3RS2789	DLLA147P875	14
C53/1	F4L913	71	53.0	2150	62	265	1500	64	PES4A95D410/3RS2934	DLLA147P875	13
C50/1	F4L913	67	50.0	2150	57	253	1500	59	PES4A95D410/3RS2934	DLLA147P875	13
C50/2	F4L913	67	50.0	2000	63.5	262	1500	64	PES4A95D410/3RS2934	DLLA147P875	12
C48/1	F4L913	64	48.0	2000	60	252	1500	60	PES4A95D410/3RS2934	DLLA147P875	12
C45	F4L913	60	45.0	1900	59	252	1500	60	PES4A95D410/3RS2934	DLLA147P875	12
C46	F4L913	62	46.0	1800	64	262	1500	64	PES4A95D410/3RS2934	DLLA147P875	12
C43	F4L913	58	43.0	1800	59	252	1500	60	PES4A95D410/3RS2934	DLLA147P875	12
D47.5	F4L913	64	47.5	1800	67	n. a.	n. a.	n. a.	PES4A95D410/3RS2933	DLLA147P854	11

EDAU-R-013-0067
2 of 2

Manufacturer: DEUTZ AG
Engine category: Nonroad CI
EPA Engine Family: 2DZXL06.1010

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 ± 100 rpm	Injection rate at peak torque ±4mm³	Fuel injection pump	Fuel injector	Injection timing (-1°)
		HP	kW	rpm	mm³/ stroke	Nm	rpm	mm³/ stroke	description	description	°btdc
D46,5	F4L913	62	46.5	1800	65	n. a.	n. a.	n. a.	PES4A95D410/3RS2933	DLLA147P854	11
D44	F4L913	59	44.0	1800	61	n. a.	n. a.	n. a.	PES4A95D410/3RS2933	DLLA147P854	11
D42	F4L913	56	42.0	1800	57	n. a.	n. a.	n. a.	PES4A95D410/3RS2933	DLLA147P854	11
C89	F 6L913	119	89.0	2500	61.5	411	1500	66.5	PES6A95D410/3RS2938	DLLA147P875	16
C85	F 6L913	114	85.0	2500	58	392	1500	62	PES6A95D410/3RS2938	DLLA147P875	16
C85/1	F 6L913	114	85.0	2400	60	399	1500	63.5	PES6A95D410/3RS2938	DLLA147P875	16
C84	F 6L913	113	84.0	2300	60.5	403	1500	64.5	PES6A95D410/3RS2938	DLLA147P875	15
C79	F 6L913	106	79.0	2300	56	380	1500	59	PES6A95D410/3RS2938	DLLA147P875	15
C78	F 6L913	105	78.0	2300	56	380	1500	59	PES6A95D410/3RS2938	DLLA147P875	15
C76/2	F 6L913	102	76.0	2300	54	380	1500	59	PES6A95D410/3RS2938	DLLA147P875	15
C79/1	F 6L913	106	79.0	2150	59	394	1500	62	PES6A95D410/3RS2938	DLLA147P875	15
C76	F 6L913	102	76.0	2150	56	379	1500	59	PES6A95D410/3RS2938	DLLA147P875	15
C76/1	F 6L913	102	76.0	2000	60	394	1500	62	PES6A95D410/3RS2938	DLLA147P875	14
C74	F 6L913	99	74.0	2000	58	374	1500	57.5	PES6A95D410/3RS2938	DLLA147P875	14
C72	F 6L913	96	72.0	2000	56	374	1500	57.5	PES6A95D410/3RS2938	DLLA147P875	14
C69	F 6L913	92	69.0	1800	59	370	1500	57.5	PES6A95D410/3RS2938	DLLA147P875	14
D70,5	F 6L913	94	70.5	1800	60	n. a.	n. a.	n. a.	PES6A95D410/3RS2937	DLLA147P854	13
D67	F 6L913	90	67.0	1800	56	n. a.	n. a.	n. a.	PES6A95D410/3RS2937	DLLA147P854	13
D64	F 6L913	86	64.0	1800	54	n. a.	n. a.	n. a.	PES6A95D410/3RS2937	DLLA147P854	13