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	2DZXL05.7011	2.8, 3.8, 4.7, 5.7	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Smoke Puff Limiter	Pump, Compressor, Generator Set, 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	-	8.4	-	-	-	9	9	13

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

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Attachment 1 of 5

Manufacturer: DEUTZ AG
Engine category: Nonroad CI
EPA Engine Family: 2DZXL05.7011

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
C40	F3L912	54	40.0	2500	57	178	1500	58	PES3A95D410/3RS2939	DLLA147P875	12
C40/1	F3L912	54	40.0	2500	55	178	1500	57	PES3A95D410/3RS2905	DLLA147P875	14
C38,5	F3L912	52	38.5	2500	54	177	1500	54	PES3A95D410/3RS2939	DLLA147P875	12
C38,5/1	F3L912	52	38.5	2500	52	171	1500	53	PES3A95D410/3RS2905	DLLA147P875	14
C38	F3L912	51	38.0	2500	53	169	1500	53	PES3A95D410/3RS2939	DLLA147P875	12
C38/3	F3L912	51	38.0	2500	51	169	1500	52	PES3A95D410/3RS2905	DLLA147P875	14
C37/2	F3L912	50	37.0	2400	51	169	1500	52	PES3A95D410/3RS2939	DLLA147P875	12
C38/1	F3L912	51	38.0	2350	55.5	175	1500	56.5	PES3A95D410/3RS2939	DLLA147P875	11
C38/4	F3L912	51	38.0	2350	53.5	175	1500	55.5	PES3A95D410/3RS2905	DLLA147P875	13
38/11	F3L912	51	38.0	2350	54.0	172	1500	53	PES3A95D410/3RS2905	DLLA147P875	13
C38/2	F3L912	51	38.0	2300	57	178	1500	57	PES3A95D410/3RS2939	DLLA147P875	11
C38/5	F3L912	51	38.0	2300	55	178	1500	57	PES3A95D410/3RS2905	DLLA147P875	13
C37	F3L912	50	37.0	2300	55	173	1500	55.5	PES3A95D410/3RS2939	DLLA147P875	11
C37/1	F3L912	50	37.0	2300	53	173	1500	54.5	PES3A95D410/3RS2905	DLLA147P875	13
C57	F4L912	76	57.0	2650	55.5	248	1500	57	PES4A95D410/3RS2789	DLLA147P875	15.5
C54	F4L912	72	54.0	2500	58	243	1500	58	PES4A95D410/3RS2934	DLLA147P875	13.5
C54/1	F4L912	72	54.0	2500	58	243	1500	56.5	PES4A95D410/3RS2789	DLLA147P875	14
C51	F4L912	68	51.0	2500	51	228	1500	53.5	PES4A95D410/3RS2934	DLLA147P875	12.5
C51/2	F4L912	68	51.0	2500	49	228	1500	52	PES4A95D410/3RS2789	DLLA147P875	14
C48	F4L912	64	48.0	2500	47.5	216	1500	50	PES4A95D410/3RS2934	DLLA147P875	12.5
C48/2	F4L912	64	48.0	2500	45.5	216	1500	49	PES4A95D410/3RS2789	DLLA147P875	14
C53/1	F4L912	71	53.0	2400	56	243	1500	58	PES4A95D410/3RS2934	DLLA147P875	13.5
C49/5	F4L912	66	49.0	2350	51	227	1500	53.5	PES4A95D410/3RS2934	DLLA147P875	11.5
C49/6	F4L912	66	49.0	2350	49.5	227	1500	52	PES4A95D410/3RS2789	DLLA147P875	13
49/10	F4L912	66	49.0	2350	49.5	224	1500	51	PES4A95D410/3RS2789	DLLA147P875	13
C51/1	F4L912	68	51.0	2300	55.5	241	1500	58	PES4A95D410/3RS2934	DLLA147P875	12.5
C51/3	F4L912	68	51.0	2300	54	241	1500	57.5	PES4A95D410/3RS2789	DLLA147P875	13
51/11	F4L912	68	51.0	2300	52.5	238	1500	56	PES4A95D410/3RS2789	DLLA147P875	13
C49,5	F4L912	66	49.5	2300	52	231	1500	54.5	PES4A95D410/3RS2934	DLLA147P875	12.5

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Manufacturer: DEUTZ AG
Engine category: Nonroad CI
EPA Engine Family: 2DZXL05.7011

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
C49/1	F4L912	66	49.0	2300	52	231	1500	54.5	PES4A95D410/3RS2934	DLLA147P875	11.5
C49/3	F4L912	66	49.0	2300	50.5	231	1500	53	PES4A95D410/3RS2789	DLLA147P875	13
C46	F4L912	62	46.0	2300	48.5	217	1500	51	PES4A95D410/3RS2934	DLLA147P875	11.5
C46/4	F4L912	62	46.0	2300	47	217	1500	50	PES4A95D410/3RS2789	DLLA147P875	13
C48/1	F4L912	64	48.0	2250	51.5	229	1500	54	PES4A95D410/3RS2934	DLLA147P875	11.5
C48/2	F4L912	64	48.0	2250	50.5	229	1500	52.5	PES4A95D410/3RS2789	DLLA147P875	13
C47	F4L912	63	47.0	2200	51.5	227	1500	53.5	PES4A95D410/3RS2934	DLLA147P875	11.5
C47/1	F4L912	63	47.0	2200	50.5	227	1500	52	PES4A95D410/3RS2789	DLLA147P875	13
C49/2	F4L912	66	49.0	2150	55	241	1500	58	PES4A95D410/3RS2934	DLLA147P875	12.5
C49/4	F4L912	66	49.0	2150	54.5	241	1500	57.5	PES4A95D410/3RS2789	DLLA147P875	13
C46/1	F4L912	62	46.0	2150	50.5	226	1500	54	PES4A95D410/3RS2934	DLLA147P875	11.5
C46/5	F4L912	62	46.0	2150	49.5	226	1500	52.5	PES4A95D410/3RS2789	DLLA147P875	13
C43	F4L912	58	43.0	2150	46.5	211	1500	49	PES4A95D410/3RS2934	DLLA147P875	11.5
C43/1	F4L912	58	43.0	2150	45.5	211	1500	48	PES4A95D410/3RS2789	DLLA147P875	13
C46/3	F4L912	62	46.0	2000	54.5	237	1500	58	PES4A95D410/3RS2934	DLLA147P875	11.5
C46/6	F4L912	62	46.0	2000	54	237	1500	56.5	PES4A95D410/3RS2789	DLLA147P875	12
C44/1	F4L912	59	44.0	2000	51.5	227	1500	54	PES4A95D410/3RS2934	DLLA147P875	10.5
C44/2	F4L912	59	44.0	2000	51	227	1500	52.5	PES4A95D410/3RS2789	DLLA147P875	12
C42	F4L912	56	42.0	2000	49	216	1500	50.5	PES4A95D410/3RS2934	DLLA147P875	10.5
C42/1	F4L912	56	42.0	2000	48.5	216	1500	49.5	PES4A95D410/3RS2789	DLLA147P875	12
D43	F4L912	58	43.0	1800	57	n. a.	n. a.	n. a.	PES4A95D410/3RS2932	DLLA147P854	10
D41	F4L912	55	41.0	1800	54	n. a.	n. a.	n. a.	PES4A95D410/3RS2932	DLLA147P854	10
D40	F4L912	54	40.0	1800	53	n. a.	n. a.	n. a.	PES4A95D410/3RS2934	DLLA147P875	10
D39	F4L912	52	39.0	1800	51	n. a.	n. a.	n. a.	PES4A95D410/3RS2932	DLLA147P854	10
C68	F5L912	91	68.0	2500	54	307	1500	58	PES5A95D410/3RS2936	DLLA147P875	13
C68/1	F5L912	91	68.0	2500	54	307	1500	58	PES5A95D410/3RS2906	DLLA147P875	16
C65	F5L912	87	65.0	2500	52	293	1500	55	PES5A95D410/3RS2936	DLLA147P875	13
C65/3	F5L912	87	65.0	2500	51	293	1500	54	PES5A95D410/3RS2906	DLLA147P875	16
C63	F5L912	84	63.0	2500	50	284	1500	53	PES5A95D410/3RS2936	DLLA147P875	13

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Manufacturer: DEUTZ AG
Engine category: Nonroad CI
EPA Engine Family: 2DZXL05.7011

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°)
		HP	kW	rpm	mm³/ stroke	Nm	rpm	mm³/ stroke	description	description	°btdc
C63/1	F5L912	84	63.0	2500	49.5	284	1500	52	PES5A95D410/3RS2906	DLLA147P875	16
C58	F5L912	78	58.0	2400	47	269	1500	49	PES5A95D410/3RS2936	DLLA147P875	12
C58/4	F5L912	78	58.0	2400	45.5	269	1500	48	PES5A95D410/3RS2906	DLLA147P875	16
C65/2	F5L912	87	65.0	2300	55	306	1500	58	PES5A95D410/3RS2936	DLLA147P875	12
C65/4	F5L912	87	65.0	2300	55	306	1500	58	PES5A95D410/3RS2906	DLLA147P875	15
C61	F5L912	82	61.0	2300	51.5	289	1500	55	PES5A95D410/3RS2936	DLLA147P875	12
C61/1	F5L912	82	61.0	2300	51	289	1500	53.5	PES5A95D410/3RS2906	DLLA147P875	15
C58/1	F5L912	78	58.0	2300	48.5	274	1500	50.5	PES5A95D410/3RS2936	DLLA147P875	12
C58/5	F5L912	78	58.0	2300	48	274	1500	49.5	PES5A95D410/3RS29066	DLLA147P875	15
C57	F5L912	76	57.0	2300	47.5	270	1500	49.5	PES5A95D410/3RS2936	DLLA147P875	12
C57/1	F5L912	76	57.0	2300	46.5	270	1500	48.5	PES5A95D410/3RS2906	DLLA147P875	15
C59	F5L912	79	59.0	2200	51	287	1500	54.5	PES5A95D410/3RS2936	DLLA147P875	12
C59/1	F5L912	79	59.0	2200	51	287	1500	52.5	PES5A95D410/3RS2906	DLLA147P875	15
C62	F5L912	83	62.0	2150	55	305	1500	57.5	PES5A95D410/3RS2936	DLLA147P875	12
C62/1	F5L912	83	62.0	2150	55	305	1500	57.5	PES5A95D410/3RS2906	DLLA147P875	15
C58/2	F5L912	78	58.0	2150	51	286	1500	54	PES5A95D410/3RS2936	DLLA147P875	12
C58/6	F5L912	78	58.0	2150	51	286	1500	53	PES5A95D410/3RS2906	DLLA147P875	15
C55	F5L912	74	55.0	2150	48.5	271	1500	50	PES5A95D410/3RS2936	DLLA147P875	12
C55/2	F5L912	74	55.0	2150	48	271	1500	49	PES5A95D410/3RS2906	DLLA147P875	15
C58/3	F5L912	78	58.0	2000	55	299	1500	58	PES5A95D410/3RS2936	DLLA147P875	11
C58/7	F5L912	78	58.0	2000	55	299	1500	56	PES5A95D410/3RS2906	DLLA147P875	14
C55/1	F5L912	74	55.0	2000	52	284	1500	54	PES5A95D410/3RS2936	DLLA147P875	11
C55/3	F5L912	74	55.0	2000	51.5	284	1500	53	PES5A95D410/3RS2906	DLLA147P875	14
C52	F5L912	70	52.0	2000	49	269	1500	50	PES5A95D410/3RS2936	DLLA147P875	11
C52/1	F5L912	70	52.0	2000	48	269	1500	49	PES5A95D410/3RS2906	DLLA147P875	14
C53	F5L912	71	53.0	1800	55	299	1500	58	PES5A95D410/3RS2936	DLLA147P875	10.5
C85	F6L912	115	86.0	2650	55	364	1500	58	PES6A95D410/3RS2907	DLLA147P875	18
C82	F6L912	110	82.0	2500	54.5	369	1500	58	PES6A95D410/3RS2938	DLLA147P875	13
C82/1	F6L912	110	82.0	2500	54	369	1500	58	PES6A95D410/3RS2907	DLLA147P875	16

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Manufacturer: DEUTZ AG
Engine category: Nonroad CI
EPA Engine Family: 2DZXL05.7011

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
C78	F6L912	105	78.0	2500	52	351	1500	55	PES6A95D410/3RS2938	DLLA147P875	13
C78/2	F6L912	105	78.0	2500	51	351	1500	54	PES6A95D410/3RS2907	DLLA147P875	16
C76	F6L912	102	76.0	2500	50.5	342	1500	53.5	PES6A95D410/3RS2938	DLLA147P875	13
C76/1	F6L912	102	76.0	2500	49.5	343	1500	52.5	PES6A95D410/3RS2907	DLLA147P875	16
C74	F6L912	99	74.0	2500	49	334	1500	51	PES6A95D410/3RS2938	DLLA147P875	13
C74/3	F6L912	99	74.0	2500	48	334	1500	51	PES6A95D410/3RS2907	DLLA147P875	16
C72	F6L912	96	72.0	2500	47.5	324	1500	49	PES6A95D410/3RS2938	DLLA147P875	13
C72/1	F6L912	96	72.0	2500	46.5	324	1500	48.5	PES6A95D410/3RS2907	DLLA147P875	16
C80	F6L912	107	80.0	2400	54.5	369	1500	58	PES6A95D410/3RS2938	DLLA147P875	13
C70,5	F6L912	94	70.5	2400	48	329	1500	50.5	PES6A95D410/3RS2938	DLLA147P875	13
C78/1	F6L912	105	78.0	2300	54.5	366	1500	58	PES6A95D410/3RS2938	DLLA147P875	12.5
C78/3	F6L912	105	78.0	2300	55	366	1500	58	PES6A95D410/3RS2907	DLLA147P875	15
C74/1	F6L912	99	74.0	2300	51.5	347	1500	55.5	PES6A95D410/3RS2938	DLLA147P875	12.5
C74/4	F6L912	99	74.0	2300	51.5	347	1500	53.5	PES6A95D410/3RS2907	DLLA147P875	15
C70	F6L912	94	70.0	2300	48.5	329	1500	50.5	PES6A95D410/3RS2938	DLLA147P875	12.5
C70/3	F6L912	94	70.0	2300	48	329	1500	49.5	PES6A95D410/3RS2907	DLLA147P875	15
C69	F6L912	92	69.0	2300	47.5	324	1500	49.5	PES6A95D410/3RS2938	DLLA147P875	12.5
C69/1	F6L912	92	69.0	2300	47	324	1500	48.5	PES6A95D410/3RS2907	DLLA147P875	15
C65/3	F6L912	87	65.0	2300	44.5	307	1500	46	PES6A95D410/3RS2938	DLLA147P875	12.5
C65/4	F6L912	87	65.0	2300	45	307	1500	45	PES6A95D410/3RS2907	DLLA147P875	15
C74/2	F6L912	99	74.0	2150	54.5	361	1500	58	PES6A95D410/3RS2938	DLLA147P875	12.5
C74/5	F6L912	99	74.0	2150	54.5	361	1500	56.5	PES6A95D410/3RS2907	DLLA147P875	15
C70/1	F6L912	94	70.0	2150	51.5	341	1500	53.5	PES6A95D410/3RS2938	DLLA147P875	12.5
C70/4	F6L912	94	70.0	2150	51	341	1500	52.5	PES6A95D410/3RS2907	DLLA147P875	15
C66	F6L912	88	66.0	2150	48.5	322	1500	49	PES6A95D410/3RS2938	DLLA147P875	12.5
C66/2	F6L912	88	66.0	2150	48	322	1500	48.5	PES6A95D410/3RS2907	DLLA147P875	15
C70/2	F6L912	94	70.0	2000	55.5	357	1500	58	PES6A95D410/3RS2938	DLLA147P875	11.5
C70/5	F6L912	94	70.0	2000	55.5	357	1500	56	PES6A95D410/3RS2907	DLLA147P875	14
C66/1	F6L912	88	66.0	2000	52.5	337	1500	53	PES6A95D410/3RS2938	DLLA147P875	11.5

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Manufacturer: DEUTZ AG
Engine category: Nonroad CI
EPA Engine Family: 2DZXL05.7011

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
C66/3	F6L912	88	66.0	2000	51.5	337	1500	52	PES6A95D410/3RS2907	DLLA147P875	14
C63/1	F6L912	84	63.0	2000	49.5	322	1500	49.5	PES6A95D410/3RS2938	DLLA147P875	11.5
C63/2	F6L912	84	63.0	2000	48.5	322	1500	49	PES6A95D410/3RS2907	DLLA147P875	14
C64	F6L912	86	64.0	1800	59	350	1500	56	PES6A95D410/3RS2938	DLLA147P875	11
C64/1	F6L912	86	64.0	1800	55.5	350	1500	54	PES6A95D410/3RS2907	DLLA147P875	14
D75,5	F6L912	101	75.5	2400	52	n. a.	n. a.	n. a.	PES6A95D410/3RS2907	DLLA147P875	13
D66	F6L912	88	66.0	1800	56	n. a.	n. a.	n. a.	PES6A95D410/3RS2937	DLLA147P854	13
D63	F6L912	84	63.0	1800	54	n. a.	n. a.	n. a.	PES6A95D410/3RS2937	DLLA147P854	13
D60	F6L912	80	60.0	1800	51	n. a.	n. a.	n. a.	PES6A95D410/3RS2937	DLLA147P854	13