California Environmental Protection Agency AIR RESOURCES BOARD	DEUTZ AG	EXECUTIVE ORDER U-R-013-0037 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 engine 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)
2001	1DZXL06.1009	4.09, 6.13	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Smoke Puff Limiter	Pump, Generator Set, Other Industrial Equipment

ENGINE MODELS (rated power in kilowatts, kw)	See Attachment (2 pages)

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<130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	--	9.0	--	--	--	12	8	22

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 31ST day of May 2001.

FOR

R. B. Summerfield, Chief
Mobile Source Operations Division

Models Attachment pg 1 of 2

List of emission re' components

CAFUR-13-37

ID 1009

Engine type	Displacement	Engine code	Nominal Power ± 5%	Nominal Power ± 5%	Nominal speed ± 50 rpm	Mean effective presuure	Injection rate at nom. speed, ±4mm³	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Mean effective pressure at peak torque	Injection rate at peak torque ±4mm³	Torque at 1000 rpm	Mean effective pressure at 1000 rpm	Injection rate at 1000 rpm	Low idle (+ 800rpm, dep. on engine applic.)	High idle (+300 rpm, dep. on engine applic.)	Fuel injection pump	Fuel injection nozzle	Camshaft	Injection timing (-1°)	Speed governor	Speed governor, optionally	Smoke limiter, part of speed governor, - 5 mm³	Turbocharger
	cm³		HP	kW	rpm	bar	mm³/ stroke	Nm	rpm	bar	mm³/ stroke	Nm	bar	mm³/ stroke	rpm	rpm	description	description	draw. numb.	°btdc	description	description	mm³/ stroke-rpm	part numb.
BF6L913	6128	C118	158	118	2500	9.24	77	539	1625	11.06	81				650	2600	PES6A95D410/3RS2907	DLLA147P854	02100079UA	15	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C118/1	158	118	2500	9.24	77	539	1625	11.06	81				650	2600	PES6A95D410/3RS2907	DLLA147P854	02100079UA	15	RSV325-1250A5C874L		n. a.	S2B018H
BF6L913	6128	C112	150	112	2500	8.77	75	511	1625	10.48	78				650	2600	PES6A95D410/3RS2907	DLLA147P854	02100079UA	15	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C110	147	110	2500	8.62	74	500	1625	10.26	77				650	2600	PES6A95D410/3RS2907	DLLA147P854	02100079UA	15	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C110/1	147	110	2500	8.62	74	500	1625	10.26	77				650	2600	PES6A95D410/3RS2907	DLLA147P854	02100079UA	15	RSV325-1250A5C874L		n. a.	S2B018H
BF6L913	6128	C109	146	109	2500	8.54	73	493	1625	10.11	76				650	2600	PES6A95D410/3RS2907	DLLA147P854	02100079UA	15	RSV325-1250A5C874L		n. a.	S2B018H
BF6L913	6128	C109/1	146	109	2500	8.54	73	493	1625	10.11	76				650	2600	PES6A95D410/3RS2907	DLLA147P854	02100079UA	15	RQV300-1250AB1131L		n. a.	S2B018H
BF6L913	6128	C109/3	146	109	2500	8.54	73	493	1625	10.11	76				650	2600	PES6A95D410/3RS2907	DLLA147P854	02100079UA	15	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C112/3	150	112	2300	9.53	77	520	1625	10.67	79				650	2400	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C104	139	104	2300	8.85	73	482	1625	9.89	75				650	2400	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C874L/860L		n. a.	S2B018H
BF6L913	6128	C104/4	139	104	2300	8.85	73	482	1625	9.89	75				650	2400	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C99	133	99	2300	8.43	70	455	1625	9.33	71				650	2400	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C874L		n. a.	S2B018H
BF6L913	6128	C96/2	129	96	2200	8.54	69	458	1625	9.39	72				650	2290	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C104/1	139	104	2150	9.47	76	508	1625	10.42	78				650	2190	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C106	142	106	2150	9.65	77	508	1625	10.42	78				650	2240	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C100	134	100	2150	9.11	73	478	1625	9.80	75				650	2240	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C874L		n. a.	S2B018H
BF6L913	6128	C100/1	134	100	2150	9.11	73	478	1625	9.80	75				650	2240	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C96	129	96	2150	8.74	70	458	1625	9.39	72				650	2240	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C101	135	101	2000	9.89	77	501	1625	10.28	77				650	2080	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C870L/873L		63 - 1000	S2B018H
BF6L913	6128	C96/1	129	96	2000	9.40	73	474	1625	9.72	74				650	2080	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C874L		n. a.	S2B018H
BF6L913	6128	C90	121	90	2000	8.81	68	442	1625	9.07	69				650	2080	PES6A95D410/3RS2907	DLLA147P854	02100079UA	14	RSV325-1250A5C874L		n. a.	S2B018H
BF6L913	6128	C92	123	92	1800	10.01	76	493	1625	10.11	76				650	1880	PES6A95D410/3RS2907	DLLA147P854	02100079UA	13	RSV325-1250A5C874L		n. a.	S2B018H
BF6L913	6128	D88/1	118	88	1800	9.57	74	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES6A95D410/3RS2907	DLLA147P854	02100079UA	13	RSV325...900A1C872L		n. a.	S2B018H
BF6L913	6128	D92	123	92	1800	10.01	78	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES6A95D410/3RS2907	DLLA147P854	02100079UA	13	RSV325...900A1C872L		n. a.	S2B018H
BF6L913	6128	D116	155	116	1800	12.62	103	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES6A95D410/3RS2907	DLLA147P854	02100079UA	13	RSV325...900A1C872L		n. a.	S2B018H
BF6L913	6128	D113	151	113	1800	12.29	100	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES6A95D410/3RS2907	DLLA147P854	02100079UA	13	RSV325...900A1C872L		n. a.	S2B018H
BF6L913	6128	D107	143	107	1800	11.64	94	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES6A95D410/3RS2907	DLLA147P854	02100079UA	13	RSV325...900A1C872L		n. a.	S2B018H
BF6L913	6128	D102	137	102	1800	11.10	89	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES6A95D410/3RS2907	DLLA147P854	02100079UA	13	RSV325...900A1C872L		n. a.	S2B018H
BF4L913	4086	C72/2	96	72	2600	8.13	70	320	1625	9.85	76				650	2710	PES4A95D410/3RS2789	DLLA147P854	02100079UA	14	RSV325-1250A5C877L		n. a.	S2A165B
BF4L913	4086	C78	105	78	2500	9.16	77	354	1625	10.89	81				650	2600	PES4A95D410/3RS2789	DLLA147P854	02100079UA	14	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C78/1	105	78	2500	9.16	77	354	1625	10.89	81				650	2600	PES4A95D410/3RS2789	DLLA147P854	02100079UA	14	RSV325-1250A5C877L		n. a.	S2A165B
BF4L913	4086	C74	99	74	2500	8.69	73	330	1625	10.15	78				650	2600	PES4A95D410/3RS2789	DLLA147P854	02100079UA	14	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C72	96	72	2500	8.46	70	320	1625	9.85	76				650	2600	PES4A95D410/3RS2789	DLLA147P854	02100079UA	14	RSV325-1250A5C877L		n. a.	S2A165B
BF4L913	4086	C72/1	96	72	2500	8.46	70	320	1625	9.85	76				650	2600	PES4A95D410/3RS2789	DLLA147P854	02100079UA	14	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C64/2	86	64	2500	7.52	68	315	1625	9.69	74				650	2600	PES4A95D410/3RS2789	DLLA147P854	02100079UA	14	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C76	102	76	2400	9.30	77	354	1625	10.89	81				650	2500	PES4A95D410/3RS2789	DLLA147P854	02100079UA	14	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C74/1	99	74	2300	9.45	77	345	1625	10.61	80				650	2400	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C69	92	69	2300	8.81	72	320	1625	9.85	76				650	2400	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C877L		n. a.	S2A165B
BF4L913	4086	C69/1	92	69	2300	8.81	72	320	1625	9.85	76				650	2400	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C66	88	66	2300	8.43	69	300	1625	9.23	70				650	2400	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C877L		n. a.	S2A165B
BF4L913	4086	C66/1	88	66	2300	8.43	69	300	1625	9.23	70				650	2400	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C68	91	68	2200	9.08	72	320	1625	9.85	76				650	2400	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C70	94	70	2150	9.56	76	340	1625	10.46	79				650	2240	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C67	90	67	2150	9.15	73	320	1625	9.85	76				650	2240	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C877L/860L		n. a.	S2A165B
BF4L913	4086	C64	86	64	2150	8.74	70	300	1625	9.23	70				650	2240	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C877L		n. a.	S2A165B
BF4L913	4086	C67/1	90	67	2000	9.84	77	340	1625	10.46	79				650	2080	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	C64/1	86	64	2000	9.40	73	320	1625	9.85	76				650	2080	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C877L		n. a.	S2A165B

Engine type	Displacement	Engine code	Nominal Power ± 5%	Nominal Power ± 5%	Nominal speed ± 50 rpm	Mean effective pressure	Injection rate at nom. speed, ±4mm³	Peak torque ± 5%	Speed at peak torque ± 100 rpm	Mean effective pressure at peak torque	Injection rate at peak torque ±4mm³	Torque at 1000 rpm	Mean effective pressure at 1000 rpm	Injection rate at 1000 rpm	Low idle (+ 800rpm, dep. on engine applic.)	High idle (+300 rpm, dep. on engine applic.)	Fuel injection pump	Fuel injection nozzle	Camshaft	Injection timing (-1°)	Speed governor	Speed governor, optionally	Smoke limiter, part of speed governor, - 5 mm³	Turbocharger
	cm³		HP	kW	rpm	bar	mm³/ stroke	Nm	rpm	bar	mm³/ stroke	Nm	bar	mm³/ stroke	rpm	rpm	description	description	draw. numb.	°btdc	description	description	mm³/ stroke-rpm	part numb.
BF4L913	4086	C60	80	60	2000	8.81	69	300	1625	9.23	70				650	2080	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C877L		n. a.	S2A165B
BF4L913	4086	C61	82	61	1800	9.95	78	330	1625	10.15	78				650	1870	PES4A95D410/3RS2789	DLLA147P854	02100079UA	12	RSV325-1250A5C877L		n. a.	S2A165B
BF4L913	4086	C61/1	82	61	1800	9.95	78	330	1625	10.15	78				650	1870	PES4A95D410/3RS2789	DLLA147P854	02100079UA	12	RSV325-1250A5C871L/879L		63 - 1000	S2A165B
BF4L913	4086	D70/1	94	70	2150	9.56	76	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	RSV325-1250A5C877L		n. a.	S2A165B
BF4L913	4086	D78	105	78	2500	9.16	77	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES4A95D410/3RS2789	DLLA147P854	02100079UA	14	RSV325-1250A5C877L		n. a.	S2A165B
BF4L913	4086	D63/1	84	63	2000	9.25	72	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES4A95D410/3RS2789	DLLA147P854	02100079UA	13	GAC		n. a.	S2A165B
BF4L913	4086	D70	94	70	1800	11.42	94	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES4A95D410/3RS2789	DLLA147P854	02100079UA	12	RSV325...900A1C878L		n. a.	S2A165B
BF4L913	4086	D66,5	89	67	1800	10.85	84	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES4A95D410/3RS2789	DLLA147P854	02100079UA	12	RSV325...900A1C878L		n. a.	S2A165B
BF4L913	4086	D63	84	63	1800	10.28	77	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES4A95D410/3RS2789	DLLA147P854	02100079UA	12	RSV325...900A1C878L		n. a.	S2A165B
BF4L913	4086	D58	78	58	1800	9.46	70	n. a.	n. a.	n. a.	n. a.				n. a.	n. a.	PES4A95D410/3RS2789	DLLA147P854	02100079UA	12	RSV325...900A1C878L		n. a.	S2A165B