

File

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-13-17

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

DEUTZ AG

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 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 Deutz AG 1999 model-year engine, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavy-duty off-road equipment:

Typical Equipment Usage: Generator, Pump and Other Industrial Equipment

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
XDZXL06.1008	6.13 (376)	Turbocharger Charge Air Cooler Smoke Puff Limiter

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM) certification exhaust emission standards, in grams per brake horsepower-hour (g/bhp-hr), and the opacity of smoke emission standards, in percent (%), during acceleration (Accel), lugging (Lug), and peak (Peak) modes, for this engine family are (Title 13, California Code of Regulations, Section 2423):

<u>Exhaust Emissions (g/bhp-hr)</u>				<u>Smoke Opacity (%)</u>		
<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx and PM exhaust emission certification values, in g/bhp-hr, and the opacity of smoke emission certification values, in percent (%), for this engine family are:

<u>Exhaust Emissions (g/bhp-hr)</u>				<u>Smoke Opacity (%)</u>		
<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
0.4	1.0	6.7	0.3	11	10	17

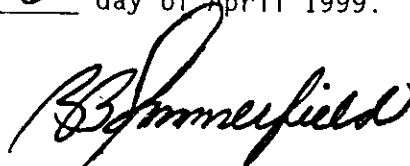
BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2425 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 6th day of April 1999.



R. B. Summerfield, Chief
Mobile Source Operations Division

List of emission related components

Engine type	Displacement	Engine code	HP	kW	Nominal speed ± 5%	Nominal Power ± 5%	Nominal speed ± 50 rpm	Mean effective pressure	Injection rate at nom. speed, ±4mm ³	Peak torque ± 5%	Mean effective pressure at peak torque	Injection rate at peak torque ±4mm ³	Speed at peak torque ± 100 rpm	Low idle (+ 800rpm, dep. on engine applic.)	High idle (+300 rpm, dep. on engine applic.)	Fuel injection pump	Fuel injection nozzle	Camsshaft	Injection timing (-1°)	Speed governor	Speed governor, optionally	Smoke limiter, part of speed governor, -5mm ³ /stroke	Turbocharger
	cm ³				rpm		rpm	bar	mm ³ /stroke	Nm	bar	mm ³ /stroke	rpm	rpm	rpm	description	description	draw numb.	*tdc	description	description	mm ³ /stroke	part numb.
BF6L913C	6128	C141	189	141	2500	11.04	92	13.74	101	670	13.74	101	1625	650	2600	PES6A95D410/3RS2909	DLA147P854	02100079UA	20	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C136	182	136	2500	10.65	89	13.25	97	646	13.25	97	1625	650	2600	PES6A95D410/3RS2909	DLA147P854	02100079UA	20	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C133	178	133	2500	10.42	87	13.25	97	646	13.25	97	1625	650	2600	PES6A95D410/3RS2909	DLA147P854	02100079UA	20	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C131	176	131	2500	10.26	86	12.78	94	622	12.78	94	1625	650	2600	PES6A95D410/3RS2909	DLA147P854	02100079UA	20	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C134	180	134	2300	11.41	91	13.31	98	649	13.31	98	1625	650	2400	PES6A95D410/3RS2909	DLA147P854	02100079UA	19	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C132	177	132	2300	11.24	89	13.11	96	639	13.11	96	1625	650	2400	PES6A95D410/3RS2909	DLA147P854	02100079UA	19	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C128	172	128	2300	10.90	86	12.70	93	619	12.70	93	1625	650	2400	PES6A95D410/3RS2909	DLA147P854	02100079UA	19	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C125	168	125	2300	10.64	83	12.27	90	598	12.27	90	1625	650	2400	PES6A95D410/3RS2909	DLA147P854	02100079UA	19	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C118/1	158	118	2300	10.05	81	12.00	88	585	12.00	88	1625	650	2400	PES6A95D410/3RS2909	DLA147P854	02100079UA	19	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C126	169	126	2150	11.48	89	12.70	93	619	12.70	93	1625	650	2240	PES6A95D410/3RS2909	DLA147P854	02100079UA	19	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C122	163	122	2150	11.11	86	12.35	91	602	12.35	91	1625	650	2240	PES6A95D410/3RS2909	DLA147P854	02100079UA	19	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C121	162	121	2150	11.02	85	12.27	90	598	12.27	90	1625	650	2240	PES6A95D410/3RS2909	DLA147P854	02100079UA	19	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C118	158	118	2150	10.75	82	12.00	88	585	12.00	88	1625	650	2240	PES6A95D410/3RS2909	DLA147P854	02100079UA	19	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C121/1	162	121	2000	11.85	89	12.70	93	619	12.70	93	1625	650	2080	PES6A95D410/3RS2909	DLA147P854	02100079UA	18	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C117/1	157	117	2000	11.45	86	12.35	91	602	12.35	91	1625	650	2080	PES6A95D410/3RS2909	DLA147P854	02100079UA	18	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C114	153	114	2000	11.16	84	12.04	88	587	12.04	88	1625	650	2080	PES6A95D410/3RS2909	DLA147P854	02100079UA	18	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C111	149	111	1800	12.07	89	12.35	91	602	12.35	91	1625	650	2080	PES6A95D410/3RS2909	DLA147P854	02100079UA	18	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C96	129	96	1800	10.44	80	10.87	85	530	10.87	85	1625	650	1880	PES6A95D410/3RS2909	DLA147P854	02100079UA	18	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	C95	127	95	1800	10.33	80	10.87	85	530	10.87	85	1625	650	1880	PES6A95D410/3RS2909	DLA147P854	02100079UA	18	RSV325-1250A5C872L/876L		64	S2B018H
BF6L913C	6128	D143.5	192	144	1800	15.61	126	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	PES6A95D410/3RS2876	DLA147P854	02100079UA	18	RSV 325-900A7C 720L		n.a.	S2B018H
BF6L913C	6128	D136.5	183	137	1800	14.85	110	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	PES6A95D410/3RS2876	DLA147P854	02100079UA	18	RSV 325-900A7C 720L		n.a.	S2B018H
BF6L913C	6128	D129	173	129	1800	14.03	104	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	PES6A95D410/3RS2876	DLA147P854	02100079UA	18	RSV 325-900A7C 720L		n.a.	S2B018H
BF4L913C	4086	C84	113	84	2300	10.73	90	12.31	90	400	12.31	90	1650	650	2600	PES4A95D410/3RS2789	DLA147P854	02100079UA	14	RSV325-1250A5C879L		64	S2A165B

(model) (code)(rpm) (4) (avg) (7)
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