

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-13-25
Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

DEUTZ AG

Pursuant to the authority vested in the Air Resources Board at Sections 43000.5, 43013, and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following diesel engines and exhaust emission control systems produced by the manufacturer are certified as described below for use in heavy-duty off-road equipment:

Model Year: 2000

Typical Equipment Usage: Pump, Generator Set

Engine Power Ratings Range: 175 – 750 horsepower, inclusive

Fuel Type: Diesel

<u>Engine Family</u>	<u>Displacement</u>		<u>Exhaust Emission Control Systems and Special Features</u>
	<u>Liters</u>	<u>Cubic Inches</u>	
YDZXL15.9003	11.9	727	Turbocharger
(BF6/8M 1015)	15.9	968	Smoke Puff Limiter

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

	<u>Exhaust Emissions (g/hp-h)</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>
Standard	1.0	8.5	6.9	0.4	20	15	50
Certification	0.3	1.1	6.7	0.1	6	2	17

BE IT FURTHER RESOLVED: That the listed engine models comply with "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 "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, Sections 2425 *et seq.*).

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

Executed at El Monte, California this 7th day of February 2000.



R. B. Summerfield, Chief
Mobile Source Operations Division

U-R - B-25

YDZXL15.9003

List of emission related components

Engine type	Displacement	Engine code	Nominal power ±5%	HP	Nominal power ±5%	Nominal speed ±50rpm	Mean effective pressure at nominal power	Injection rate at nominal power ±6mm ³	Peak torque ±5%	Speed at peak torque ± 100rpm	Mean effective pressure at peak torque	Injection rate at peak torque ±6mm ³
	cm ³					rpm	bar	mm ³ /stroke	Nim	rpm	bar	mm ³ /stroke
BF6M1015	11906	C240/3	322	240	2100	11.52	176	1475	1475	1300	15.57	218
BF6M1015	11906	C231/3	310	231	2100	11.09	169	1420	1420	1300	14.99	209
BF6M1015	11906	C223/3	299	223	2100	10.70	163	1370	1370	1300	14.46	201
BF6M1015	11906	C214/3	287	214	2100	10.27	156	1316	1316	1300	13.89	192
BF6M1015	11906	C223/5	299	223	2000	11.24	166	1387	1387	1300	14.64	204
BF6M1015	11906	C240/4	322	240	1900	12.73	185	1511	1511	1300	15.95	224
BF6M1015	11906	C231/4	310	231	1900	12.25	178	1454	1454	1300	15.35	214
BF6M1015	11906	C223/4	299	223	1900	11.83	172	1404	1404	1300	14.82	206
BF6M1015	11906	C214/4	287	214	1900	11.35	165	1347	1347	1300	14.22	197
BF6M1015	11906	C228/1	306	228	1800	12.77	182	1477	1477	1300	15.59	217
BF6M1015	11906	C220/1	295	220	1800	12.32	176	1426	1426	1300	15.06	209
BF6M1015	11906	C211/1	283	211	1800	11.81	169	1368	1368	1300	14.44	200
BF6M1015	11906	C209	280	209	1800	11.70	168	1354	1354	1300	14.30	198
BF6M1015	11906	C203/1	272	203	1800	11.37	163	1316	1316	1300	13.89	190
BF6M1015	11906	D240/1	322	240	2100	11.52	176	n.a.	n.a.	n.a.	n.a.	n.a.
BF6M1015	11906	D250/1	335	250	1800	14.00	200	n.a.	n.a.	n.a.	n.a.	n.a.
BF6M1015	11906	D228/1	306	228	1800	12.77	182	n.a.	n.a.	n.a.	n.a.	n.a.
BF6M1015	11906	D211/1	283	211	1800	11.81	169	n.a.	n.a.	n.a.	n.a.	n.a.
BF8M1015	15874	C280	389	290	2100	10.44	172	1850	1850	1300	14.65	215
BF8M1015	15874	C280	375	280	2100	10.08	166	1787	1787	1300	14.15	204
BF8M1015	15874	C270	362	270	2100	9.72	160	1722	1722	1300	13.64	196
BF8M1015	15874	C260	348	260	2100	9.36	154	1659	1659	1300	13.14	188
BF8M1015	15874	C290/1	389	290	1900	11.54	179	1870	1870	1300	14.81	218
BF8M1015	15874	C280/1	375	280	1900	11.14	173	1805	1805	1300	14.29	208
BF8M1015	15874	C270/1	362	270	1900	10.74	166	1740	1740	1300	13.78	199
BF8M1015	15874	C260/1	348	260	1900	10.34	159	1676	1676	1300	13.27	190
BF8M1015	15874	C276	370	276	1800	11.59	178	1791	1791	1300	14.18	205
BF8M1015	15874	C265	355	265	1800	11.13	170	1746	1746	1300	13.83	200
BF8M1015	15874	C255	342	255	1800	10.71	162	1655	1655	1300	13.11	187
BF8M1015	15874	C246	330	246	1800	10.33	154	1597	1597	1300	12.65	179
BF8M1015	15874	D255	342	255	1800	10.71	162	n.a.	n.a.	n.a.	n.a.	n.a.
BF8M1015	15874	D290	389	290	2100	10.44	172	n.a.	n.a.	n.a.	n.a.	n.a.
BF8M1015	15874	D	389	290	1800	12.18	290	n.a.	n.a.	n.a.	n.a.	n.a.