



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-02-003;

**IT IS ORDERED AND RESOLVED:** That the following compression-ignition engines and emission control systems 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)
2007	7MDDL31.8XRR	23.9, 31.8	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Engine Control Module, Turbocharger, Charge Air Cooler			Crane, Loader, Tractor, Pump, Compressor, Genset	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbons (HC), oxides of nitrogen (NO<sub>x</sub>), or non-methane hydrocarbons plus oxides of nitrogen (NMHC+NO<sub>x</sub>), 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	NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO	PM	ACCEL	LUG	PEAK
kW > 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
		CERT	--	--	6.1	1.6	0.16	8	3	10

**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 6<sup>th</sup> day of February 2007.

  
Annette Hebert, Chief  
Mobile Source Operations Division

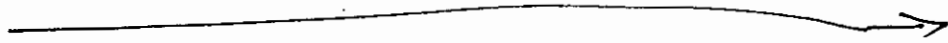
# Engine Model Summary Form

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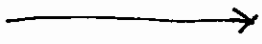
Manufacturer: **MTU Detroit Diesel, Inc.**  
 Engine category: **Nonroad CI**  
 EPA Engine Family: **7MDDL31.8XRR**  
 Mfr Family Name: **SERIES 2000 - TIER 2**  
 Process Code: **Running Change**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
5492	16V-2000 SCCC	1500 @ 2100	295	547	4429 @ 1500	331	440	EC TAW
5541	16V-2000 SCCC	1050 @ 2100	219	407	3290 @ 1350	242	289	EC TAW
5542	16V-2000 SCCC	1050 @ 1800	237	407	3290 @ 1350	242	289	EC TAW
5543	16V-2000 SCCC	1205 @ 1800	270	428	3905 @ 1500	288	383	EC TAW
5544	16V-2000 SCCC	1205 @ 2100	249	461	3905 @ 1500	288	383	EC TAW
5545	16V-2000 SCCC	1340 @ 2100	267	495	3905 @ 1500	288	383	EC TAW
5365	12V-2000 SCCC	760 @ 2100	207	288	2277 @ 1350	223	201	EC TAW
5568	12V-2000 SCCC	760 @ 2100	210	293	2452 @ 1350	249	224	EC TAW
5569	12V-2000 SCCC	850 @ 2100	232	324	2762 @ 1500	278	277	EC TAW
5570	12V-2000 SCCC	905 @ 2100	247	345	2946 @ 1500	296	295	EC TAW
5571	12V-2000 SCCC	1005 @ 2100	273	381	3014 @ 1500	302	301	EC TAW
5549 S	12V-2000 A/A	1120 @ 1800	330	374	NA	NA	NA	EC, TAA
5547 S	12V-2000 A/A	986 @ 1800	300	341	NA	NA	NA	EC, TAA
5548 P	12V-2000 A/A	1021 @ 1800	308	350	NA	NA	NA	EC, TAA
5546 P	12V-2000 A/A	896 @ 1800	280	314	NA	NA	NA	EC, TAA
5552 P	12V-2000 SCCC	1021 @ 1800	308	350	NA	NA	NA	EC TAW
5553 S	12V-2000 SCCC	1120 @ 1800	330	374	NA	NA	NA	EC TAW
5567 S	12V-2000 SCCC	1234 @ 1800	367	417	NA	NA	NA	EC TAW
5550 P	12V-2000 SCCC	896 @ 1800	280	313	NA	NA	NA	EC TAW
5551 S	12V-2000 SCCC	986 @ 1800	300	342	NA	NA	NA	EC TAW
5556 P/S	16V-2000 A/A	1354 @ 1800	306	467	NA	NA	NA	EC TAA
5557 S	16V-2000 A/A	1495 @ 1800	333	508	NA	NA	NA	EC TAA
5558 P	16V-2000 SCCC	1227 @ 1800	285	433	NA	NA	NA	EC TAW
5559 P/S	16V-2000 SCCC	1354 @ 1800	306	467	NA	NA	NA	EC TAW
5561 S	16V-2000 SCCC	1495 @ 1800	333	508	NA	NA	NA	EC TAW
p - prime								
s - standby								
7047	12V-2000 P12	805 @ 1800	241	290	3500 @ 1800	262	263	EC, TAW
7048	12V-2000 P92R	905 @ 1800	267	321	4010 @ 1800	294	295	EC, TAW
7049	12V-2000 P92	1057 @ 2100	280	393	4010 @ 2100	299	300	EC, TAW
7050	16V-2000 P12	1073 @ 1800	241	287	4770 @ 1800	261	332	EC, TAW
7051	16V-2000 P92R	1207 @ 1800	271	434	5350 @ 1800	294	392	EC, TAW
7052	16V-2000 P92	1408 @ 2100	280	524	5350 @ 1800	294	392	EC, TAW

DB, TG, CAC



7053	12V-2000	G45 3D	952@1800	295	333	NA	NA	NA	NA	EC, TAW	DDI, TC, CAC
7054	12V-2000	G45 3D	1086@1800	330	372	NA	NA	NA	NA	EC, TAW	
7055	12V-2000	G45 3D	1046@1800	320	364	NA	NA	NA	NA	EC, TAW	
7056	12V-2000	G85 3D	1193@1800	358	414	NA	NA	NA	NA	EC, TAW	
7057	16V-2000	G45 3B	1227@1800	278	419	NA	NA	NA	NA	EC, TAW	
7058	16V-2000	G85 3B	1354@1800	305	461	NA	NA	NA	NA	EC, TAW	
7059	16V-2000	G45 3D	1354@1800	305	461	NA	NA	NA	NA	EC, TAW	
7060	16V-2000	G85 3D	1495@1800	335	508	NA	NA	NA	NA	EC, TAW	
7061	18V-2000	G85 3B	1597@1800	315	535	NA	NA	NA	NA	EC, TAW	
7062	18V-2000	G85 3D	1757@1800	349	593	NA	NA	NA	NA	EC, TAW	



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# Engine Model Summary Form

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Manufacturer: **MTU Detroit Diesel, Inc.**  
 Engine category: **Nonroad CI**  
 EPA Engine Family: **7MDDL31.8XRR**  
 Mfr Family Name:  
 Process Code: **New Sub - continued**

1. Engine Code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (lbs/hr)@peak torque	9. Emission Control Device Per SAE J1930
7063	12V-2000 G45 3B	952@1800	295	333	NA	NA	NA	EC, TAA
7064	12V-2000 G85 3D	1086@1800	330	372	NA	NA	NA	EC, TAA
7065	12V-2000 G45 3B	1046@1800	320	364	NA	NA	NA	EC, TAA
7066	12V-2000 G85 3D	1193@1800	358	414	NA	NA	NA	EC, TAA
7067	16V-2000 G45 3B	1227@1800	278	419	NA	NA	NA	EC, TAA
7068	16V-2000 G85 3B	1354@1800	305	461	NA	NA	NA	EC, TAA
7069	16V-2000 G45 3D	1354@1800	305	461	NA	NA	NA	EC, TAA
7070	16V-2000 G85 3D	1495@1800	335	509	NA	NA	NA	EC, TAA
7071	18V-2000 G85 3B	1597@1800	315	535	NA	NA	NA	EC, TAA
7072	18V-2000 G85 3D	1757@1800	349	593	NA	NA	NA	EC, TAA

DDI, TG, CA