

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 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)
2011	BMVXL03.3AAH	3.3	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Mechanical Direct Injection, Turbocharger			Crane, Loader, Tractor, Dozer, Pump, Compressor, Generator and 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):

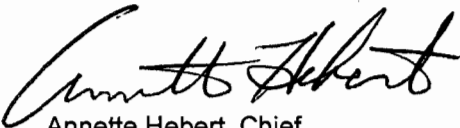
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ KW < 56	Tier 4 Interim	STD	N/A	N/A	4.7	5.0	0.30	20	15	50
		CERT	--	--	4.2	1.2	0.24	6	3	9

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 27 day of January 2011.


 Annette Hebert, Chief
 Mobile Source Operations Division

Family Information Form-Template

Manufacturer:
Engine category:
Cert contact:

U-R-035-0313

1.0

- | | | | |
|-----------------------------------|-----------------------|---|-------------|
| 1. Model Year: | 2011 | Applicable Regulations | |
| 2. Carry over: | Yes | <input type="radio"/> Part 89 | } Nor |
| If yes, list the previous family: | AMVXL03.3AAH | <input type="radio"/> Part 1039 | |
| 3. Process Code: | New Submission | <input type="radio"/> Part 60 only certified to requirements of Part 1039 | } Stat only |
| Date EPA Fee Paid: | | <input type="radio"/> Part 60 only certified to requirements of Part 89 | |
| 4. EPA Standard Engine Family: | BMVXL03.3AAH | <input type="radio"/> Part 60 and Part 1039 | } Sta Nor |
| 5. Mfr's Family Name: | S4S-DTDPB | <input checked="" type="radio"/> Part 60 and Part 89 | |

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|--------------------------------------|---------------|------------------------|
| 6. Engine Cycle: | Diesel | |
| 7. Displacement(s) (CID or Liters): | 3.3L | |
| 8. Engine Configuration: | L4 | 19. Plant Contact: |
| Use the following format: V-8 or I-6 | | Mr. Eiji Nutaba |

- | | | | |
|---------------------------------------|---|--|--|
| 9. Emission Control & Aftertreatment: | <input checked="" type="checkbox"/> Electronic control Engine Modification | <input type="checkbox"/> Lean NOx SCR | |
| Check all that apply | <input type="checkbox"/> 3WCatalyst | <input type="checkbox"/> DOC | |
| | <input type="checkbox"/> Smoke puff limiter | <input type="checkbox"/> None | |
| | <input type="checkbox"/> Passive DPF | <input type="checkbox"/> Other | |
| | <input type="checkbox"/> Active DPF | | |
| | <input type="checkbox"/> EGR | | |
| | <input type="checkbox"/> NOx adsorber | | |
20. Plant Location:
3000 Tana, Chuo-ku, Sagamihara-shi Kanagawa-ken 252-5293 Japan

- | | | | |
|---------------------------|------------------------------------|---|--|
| If Other Describe: | | 21. ABT Information: | Check all that apply |
| 10. Fuel Type: | Diesel | <input type="checkbox"/> In the split family program | <input type="checkbox"/> NMHC+NOx |
| 11. Fuel System Type: | Mechanical Direct Injection | <input type="checkbox"/> PM | <input type="checkbox"/> NA |
| 12. Method Of Aspiration: | Single Stage Turbo | <input type="checkbox"/> NOx | |

- | | | | |
|--------------------|--------------------|--|--|
| Turbocharger Type: | fixed turbo | 22. Family Emission Limits: | |
| Aftercooling: | None | <input type="checkbox"/> PM | |
| | | <input type="checkbox"/> NOx | |
| | | <input type="checkbox"/> NMHC + NOx | |
| | | Units: | |

- | | | | | |
|-------------------------------|-------------------------------|--|---|--|
| 13 Useful Life Period: | 10 years / 8,000 hours | 23. Nonroad Engine Equipment Types: | | |
| 14. Deterioration Factor Type | | <input checked="" type="checkbox"/> Crane | <input checked="" type="checkbox"/> Dozer | <input checked="" type="checkbox"/> Generator Set |
| A. Gaseous Exhaust: | Additive | <input checked="" type="checkbox"/> Loaders | <input checked="" type="checkbox"/> Pump | <input type="checkbox"/> NA |
| B. Smoke: | Additive | <input checked="" type="checkbox"/> Tractor | <input checked="" type="checkbox"/> Compressor | <input type="checkbox"/> Other... |

15. Intended Service Class **NR 4 (37-75) 37-56**

If CFF, Select which category:

16. Projected Sales : FED :
CA
TOTAL

17. Estimated Production Period: Start
End

18. Sales Area: Fed Cal 50 St

Aschael Rhen 11/11/2011
Ken Png 1/13/2011

24. Auxiliary Emission Control Devices:

AECD

Sensed

PARAMETER

Controlled

VMT

TONS/ENGINE

Reduces effectiveness of emission control?