

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 engines 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)
2002	2DWXL03.3BMA	3.3	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Smoke Puff Limiter, Charge Air Cooler			Compressor, Generator Set, 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	STD	EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ KW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	N/A	N/A	N/A
		CERT	--	7.9	--	--	--	--	--	--

**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 7<sup>TH</sup> day of March 2002.

  
 Allen Lyons, Chief  
 New Vehicle/Engine Programs Branch

# Engine Mod Summary Form

Manufacturer: Daewoo Heavy Industries & Machinery Ltd.  
 Engine category: Nonroad CI  
 EPA Engine Family: 2DWXL03.3BMA  
 Mfr Family Name: P034TI  
 Process Code: New Submission

*ETA U-R-019-0052*

*Attachment 1 of 1*

1.Engine Code	2.Engine Model	3.BHP@RPM (kw)	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
	P034TI MGA	60 81 @ 1800	75	29.8	236 @ 1800	75	29.8	DDI TC & CAC S7C
	P034TI MGA	55 74 @ 1800	68	27.0	216 @ 1800	68	27.0	TC & CAC
	P034TI MGA	57 68 @ 1800	64	25.4	199 @ 1800	64	25.4	TC & CAC
	P034TI MGA	48 64 @ 1500	73	24.2	225 @ 1500	73	24.2	TC & CAC
	P034TI MGA	42 56 @ 1500	64	21.2	197 @ 1500	64	21.2	TC & CAC
	P034TI MOA	60 81 @ 1800	75	29.8	236 @ 1800	75	29.8	TC & CAC
	P034TI MOA	55 74 @ 1800	68	27.0	216 @ 1800	68	27.0	TC & CAC
	P034TI MOA	57 68 @ 1800	64	25.4	199 @ 1800	64	25.4	TC & CAC
	P034TI MOA	48 54 @ 1500	73	24.2	225 @ 1500	73	24.2	TC & CAC
	P034TI MOA	42 56 @ 1500	64	21.2	197 @ 1500	64	21.2	TC & CAC

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