

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 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)
2003	3HZXL3.43C19	1.7, 2.6	Diesel	5000
<b>SPECIAL FEATURES &amp; EMISSION CONTROL SYSTEMS</b>			<b>TYPICAL EQUIPMENT APPLICATION</b>	
Direct Diesel Injection			Compressor, Generator Set	

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):

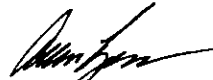
RATED POWER CLASS	EMISSION STANDARD CATEGORY	STD	EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
8 ≤ KW < 19	Tier 1	STD	N/A	N/A	9.5	6.6	0.80	N/A	N/A	N/A
19 ≤ KW < 37	Tier 1	STD	N/A	N/A	9.5	5.5	0.80	N/A	N/A	N/A
		CERT	--	--	9.1	5.4	0.73	--	--	--

**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 2<sup>ND</sup> day of December 2002.

  
 Allen Lyons, Chief  
 Mobile Source Operations Division

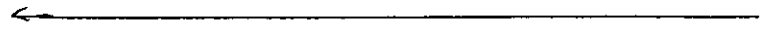
Model Year: 2003  
 Manufacturer: Motorenfabrik Hatz GmbH & Co. KG  
 Engine Family: 3HZXL3.43C19  
 Issued: 10/24/2002  
 Revised: E.O. Number: U-2-037-0025

**Small Off-Road Engine Model Summary Form**

Units for Table: hp

47. Worst Case?	48. Model Designation	49. Sales Code	50. Displ (cc)	51. Bore/Stroke	52. Ignition Timing	53. Max Power	54. Rated Speed (RPM)	55. Rated Torque (RPM)	56. Torque Speed (RPM)	57. Emiss Control Sys
	2M41	Calif. Only	1716	102 / 105	10+1 static	26.3	3000	62	3000	EM DDI
	2M41	Calif. Only	1716	102 / 105	10+1 static	23.7	3000	56	3000	EM
	2M41	Calif. Only	1716	102 / 105	10+1 static	25.4	2300	78	2300	EM
	2M41	Calif. Only	1716	102 / 105	10+1 static	22.9	2300	70	2300	EM
	2M41	Calif. Only	1716	102 / 105	10+1 static	20.2	1800	77	1800	EM
	2M41	Calif. Only	1716	102 / 105	10+1 static	18.2	1800	72	1800	EM
	2M41	Calif. Only	1716	102 / 105	10+1 static	16.4	1500	75	1500	EM
	2M41	Calif. Only	1716	102 / 105	10+1 static	14.8	1500	70	1500	EM
	2M41Z	Calif. Only	1716	102 / 105	10+1 static	25.6	3000	61	3000	EM
	2M41Z	Calif. Only	1716	102 / 105	10+1 static	23.0	3000	55	3000	EM
	2M41Z	Calif. Only	1716	102 / 105	10+1 static	24.8	2300	77	2300	EM
	2M41Z	Calif. Only	1716	102 / 105	10+1 static	22.3	2300	69	2300	EM
	2M41Z	Calif. Only	1716	102 / 105	10+1 static	19.8	1800	76	1800	EM
	2M41Z	Calif. Only	1716	102 / 105	10+1 static	17.8	1800	71	1800	EM
	2M41Z	Calif. Only	1716	102 / 105	10+1 static	16.1	1500	74	1500	EM
	2M41Z	Calif. Only	1716	102 / 105	10+1 static	14.5	1500	69	1500	EM
	2L41C	Calif. Only	1716	102 / 105	10+1 static	24.4	3000	58	3000	EM
	2L41C	Calif. Only	1716	102 / 105	10+1 static	22.0	3000	52	3000	EM
	2L41C	Calif. Only	1716	102 / 105	10+1 static	23.5	2300	73	2300	EM
	2L41C	Calif. Only	1716	102 / 105	10+1 static	21.2	2300	65	2300	EM

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Model Year:  
 Manufacturer:  
 Engine Family:

Issued:  
 Revised: 10/23/2002  
 E.O. Number: 4-K-034-0625

**Small Off-Road Engine Model Summary Form**

Units for Table:

Worst Case?	47. Model Designation	48. Sales Code	49. Displ (cc)	50. Bore/Stroke	51. Ignition Timing	52. Max Power	53. Rated Speed (RPM)	54. Rated Torque	55. Torque Speed (RPM)	56. Emiss Control Sys	DPK
	2L41C	Calif. Only	1716	102 / 105	10+1 static	18.7	1800	74	1800	EM	
	2L41C	Calif. Only	1716	102 / 105	10+1 static	16.8	1800	66	1800	EM	
	2L41C	Calif. Only	1716	102 / 105	10+1 static	15.0	1500	72	1500	EM	
	2L41C	Calif. Only	1716	102 / 105	10+1 static	13.5	1500	64	1500	EM	
	3M41	Calif. Only	2574	102 / 105	10+1 static	35.8	3000	84	3000	EM	
	3M41	Calif. Only	2574	102 / 105	10+1 static	35.0	2300	107	2300	EM	
	3M41	Calif. Only	2574	102 / 105	10+1 static	31.1	1800	118	1800	EM	
	3M41	Calif. Only	2574	102 / 105	10+1 static	28.0	1800	110	1800	EM	
	3M41	Calif. Only	2574	102 / 105	10+1 static	25.0	1500	115	1500	EM	
	3M41	Calif. Only	2574	102 / 105	10+1 static	22.5	1500	106	1500	EM	
	3M41Z	Calif. Only	2574	102 / 105	10+1 static	35.0	3000	83	3000	EM	
	3M41Z	Calif. Only	2574	102 / 105	10+1 static	34.3	2300	106	2300	EM	
	3M41Z	Calif. Only	2574	102 / 105	10+1 static	30.7	1800	117	1800	EM	
	3M41Z	Calif. Only	2574	102 / 105	10+1 static	27.6	1800	109	1800	EM	
	3M41Z	Calif. Only	2574	102 / 105	10+1 static	24.7	1500	114	1500	EM	
	3M41Z	Calif. Only	2574	102 / 105	10+1 static	22.2	1500	105	1500	EM	
	3L41C	Calif. Only	2574	102 / 105	10+1 static	36.7	3000	87	3000	EM	
	3L41C	Calif. Only	2574	102 / 105	10+1 static	33.0	3000	78	3000	EM	
	3L41C	Calif. Only	2574	102 / 105	10+1 static	35.9	2300	110	2300	EM	
	3L41C	Calif. Only	2574	102 / 105	10+1 static	32.2	2300	99	2300	EM	

Model Year:  
 Manufacturer:  
 Engine Family:

Issued:  
 Revised: 10/23/2002  
 E.O. Number: 41-R-034-0025

**Small Off-Road Engine Model Summary Form**

Units for Table:

Worst Case?	47. Model Designation	48. Sales Code	49. Displ (cc)	50. Bore/Stroke	51. Ignition Timing	52. Max Power	53. Rated Speed (RPM)	54. Rated Torque	55. Torque Speed (RPM)	56. Emiss Control Sys
	3L41C	Calif. Only	2574	102 / 105	10+1 static	28.0	1800	112	1800	EM PPI
	3L41C	Calif. Only	2574	102 / 105	10+1 static	25.2	1800	99	1800	EM
	3L41C	Calif. Only	2574	102 / 105	10+1 static	22.9	1500	109	1500	EM
	3L41C	Calif. Only	2574	102 / 105	10+1 static	20.6	1500	92	1500	EM