

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-14-012;

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)
2017	HY9XL09.3DAA	9.3	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Exhaust Gas Recirculation, Engine Control Module, Diesel Oxidation Catalyst, Smoke Puff Limiter, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst			Crane, Loader, Tractor, Pump, Dozer, Compressor, Generator	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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):

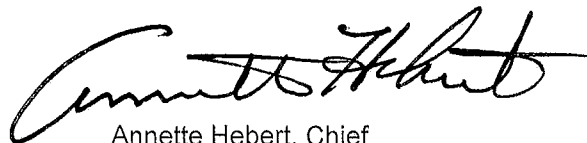
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ KW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.02	0.39	--	0.2	0.02	--	--	--

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 10 day of February 2017.



Annette Hebert, Chief
 Emissions Compliance, Automotive Regulations and Science Division

ATTACHMENT 1 OF 1

Engine ModelsEZ

u-R-024-0029

1/26/2017

Engine Family	1.Engine Code	2.Engine Model	3.Dis- placement	4.Power KW @RPM	5.Fuel Rate: mm/stroke @ peak HP	6.Fuel Rate: (lbs/hr) @ peak HP	7.Torque Nm @ RPM	8.Fuel Rate: mm/stroke@ peak torque	9.Fuel Rate: (lbs/hr)@ peak torque	10.Emission Control Device
HY9XL09.3DAA	DC09 084A	2133492	9.3	202 @2100	162	95	1552 @ 1200	266	90	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
HY9XL09.3DAA	DC09 085A	2133493	9.3	232 @2100	185	109	1711 @ 1200	294	99	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
HY9XL09.3DAA	DC09 085A	2133494	9.3	243 @2100	193	114	1751 @ 1200	285	96	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
HY9XL09.3DAA	DC09 085A	2133495	9.3	257 @2100	205	121	1800 @ 1300	297	108	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
HY9XL09.3DAA	DC09 085A	2488302	9.3	232 @1800	176	104	1830 @ 1200	259	87	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
HY9XL09.3DAA	DC09 086A	2133496	9.3	276 @2100	219	129	1873 @ 1300	308	112	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
HY9XL09.3DAA	DC09 086A	2133497	9.3	294 @2100	233	138	1876 @ 1400	312	123	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
HY9XL09.3DAA	DC09 087A	2245949	9.3	202 @1800	178	90	1275 @ 1200	216	73	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
HY9XL09.3DAA	DC09 089A	2245951	9.3	202 @1800	178	90	1275 @ 1200	216	73	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
HY9XL09.3DAA	DC09 089A	2245952	9.3	237 @1800	209	105	1321 @ 1350	219	83	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX
HY9XL09.3DAA	DC09 092A	2265830	9.3	202 @1800	178	90	1275 @ 1200	216	73	DDI, ECM, TC, CAC, EGR, SPL, DOC, SCR, AMOX