



Ironman Off-Road Technology

Off-Road Products		CLEAIRE PHOENIX®	CLEAIRE LONESTAR®	DCL MINE-X®
Filter Type		Active diesel particulate filter with diesel burner regeneration	Passive diesel particulate filter with NOx reduction	Passive
CARB Verification	Engine PM Limit	0.20g/bhp-hr PM and lower	0.12 g/bhp-hr PM and lower	0.01 g/bhp-hr up to 0.2 g/bhp
	Engine Model Years	1996-2009	1996-2009	1996-2011
	Engine Disp. & HP	Up to 12 liters	150-350 Horsepower	15 liters / 100-1000 Horsepower
CARB Exclusions		Consult with Ironman	Consult with Ironman	No EGR, No OE diesel particulate filter; 4-stroke, Max displacement is 15 L
Typical Applications		Light duty cycle: construction equipment, fork lifts, cranes, yard goats, agricultural equipment, tracked equipment and others	Loaders, graders, excavators, scrapers, cranes and other construction equipment	Tier 1 or higher diesel engines, such as construction, earthmoving vehicles, mining vehicles and stationary engines
PM Reduction		Greater than 85% (Level 3+)	Greater than 85% (Level 3+)	Greater than 85% (Level 3+)
Nox Reduction		None	At least 40%	None
Fuel Compatibility		ULSD	• ULSD • Up to B20	• ULSD • Up to B20
Exhaust Temperature		None	260°C for at least 70% time	300°C for at least 30% time
Regeneration Type		Active (diesel burner)	Passive	Passive
Regeneration Time		2 hrs	n/a	n/a
Engine Run Time Between Regenerations		Consult with Ironman	n/a	n/a
Approximate Size		42" (L) X 12" (W) Consult with Ironman	49" (L) X 14" (W) Consult with Ironman	Consult with Ironman
Shipping Weight		130 lbs.	135 lbs.	Consult with Ironman
Eligible for Local, State and Federal Funding Programs		Yes	Yes	n/a