



Every™ Hour. Valuable.

CENTINEL™ And ELIMINATOR™
For Marine Applications.

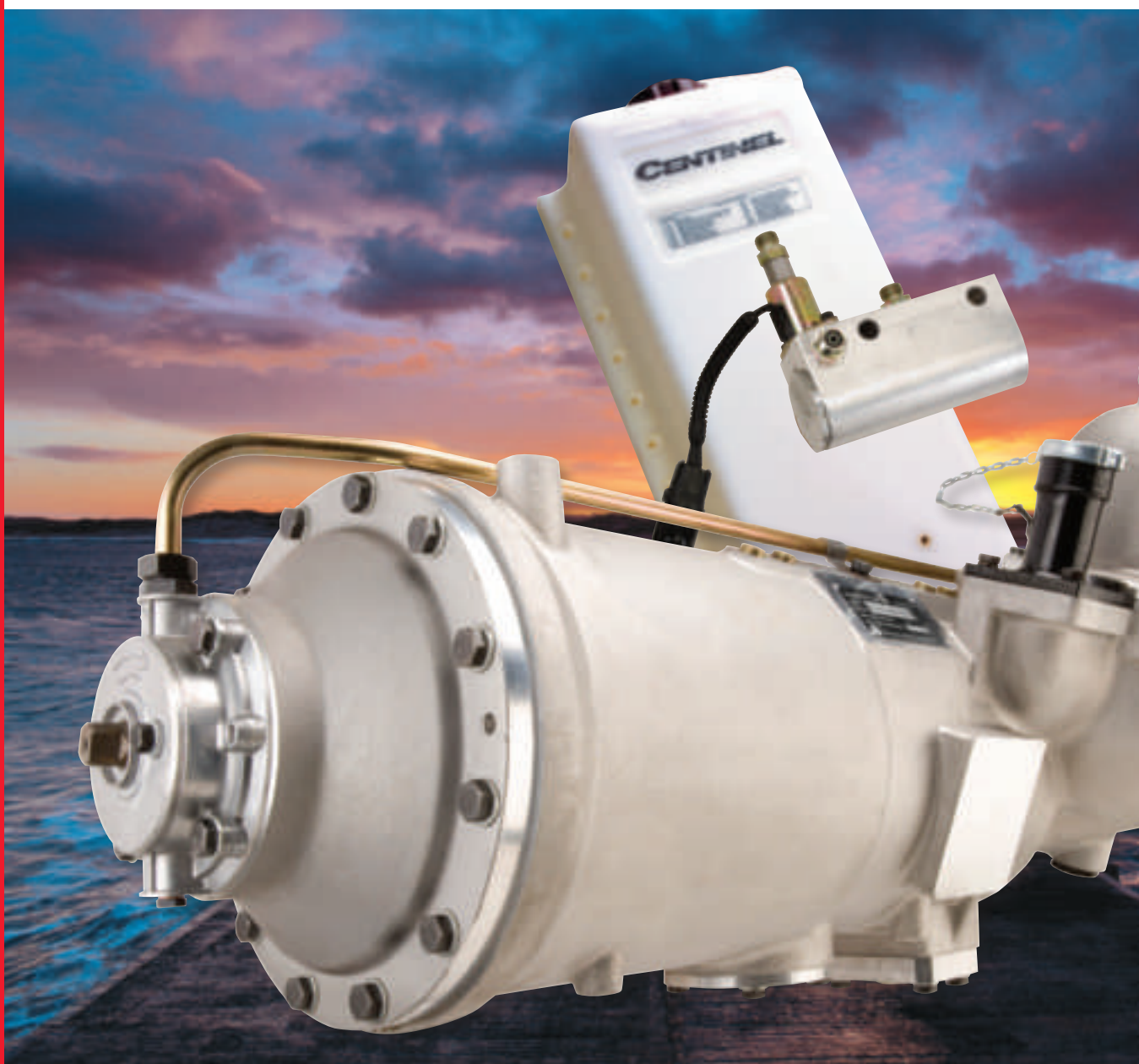


Chart A New Course In Uptime.

We understand the value of keeping tugs, trawlers, crewboats and other vessels working every hour possible. That is why we offer two excellent products to help stretch oil change intervals while improving the overall protective quality of the engine oil. CENTINEL™ and ELIMINATOR™ are available for use on any Cummins high-horsepower engine from the QSK19 to the QSK60, new or used, independent of Tier-level emissions regulations.

For higher productivity, superior engine protection, less maintenance and fewer problems with hazmat waste disposal, we have the products you need for every marine application.



CENTINEL.

CENTINEL allows equipment to work up to 4,000 hours between service events. Depending on the duty cycle, that could eliminate 15-20 oil changes from current maintenance schedules.

The CENTINEL Advanced Engine Oil Management System automates oil changes. While the equipment is running, CENTINEL monitors the engine's duty cycle. At precise intervals, it bleeds off a small amount of used oil and sends it to the fuel tank, where it blends with diesel fuel and is burned during combustion.

At the same time, this system automatically replaces the used oil with the exact same quantity of new, fresh oil from a reserve tank (or tanks) mounted to the equipment.

This constant infusion of new oil replaces vital additives that wear out over time, so the engine gets better protection with reduced wear. Equipment has higher availability and reduced maintenance.



ELIMINATOR.

Getting rid of the need for disposal and replacement of used oil filters can reduce lube system maintenance costs by as much as 90%.

ELIMINATOR is a combination full-flow and centrifugal system that incorporates a permanent stainless steel core that eliminates the need for disposable oil filters.

It consists of a two-stage filter media system. The first filter screens for particles as small as 20 microns, while a centrifugal separator constantly spins, depositing the heaviest particles on a replaceable liner.

Because ELIMINATOR uses the oil pressure in the lubricating system to spin the centrifugal separator, there is no additional load on the engine, with no drain on power or fuel economy.



Fast Paybacks. Big Savings.

As you can see from the following charts, it does not take long to recoup your investment in Cummins ELIMINATOR.

The bigger the engine and the more hours it runs every year – the faster the payback period. In some cases, it will be one year or less. After that, you just save money. Every vessel. Every hour you run.

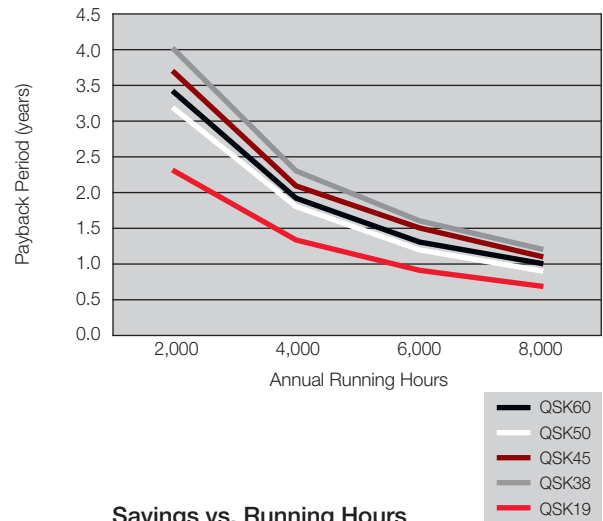
Annual Savings and Payback Period with ELIMINATOR.

	\$/hr. Downtime Cost	Annual Running Hours	Annual Savings	Payback Period Years
QSK60	450	2,000	\$3,391	3.4
	450	4,000	\$6,099	1.9
	450	6,000	\$8,806	1.3
	450	8,000	\$11,513	1.0
QSK50	350	2,000	\$3,254	3.2
	350	4,000	\$5,878	1.8
	350	6,000	\$8,502	1.2
	350	8,000	\$11,126	0.9
QSK45	350	2,000	\$3,110	3.7
	350	4,000	\$5,524	2.1
	350	6,000	\$7,938	1.5
	350	8,000	\$10,352	1.1
QSK38	200	2,000	\$2,596	4.0
	200	4,000	\$4,562	2.3
	200	6,000	\$6,528	1.6
	200	8,000	\$8,494	1.2
QSK19	150	2,000	\$1,195	2.3
	150	4,000	\$2,222	1.3
	150	6,000	\$3,249	0.9
	150	8,000	\$4,276	0.7

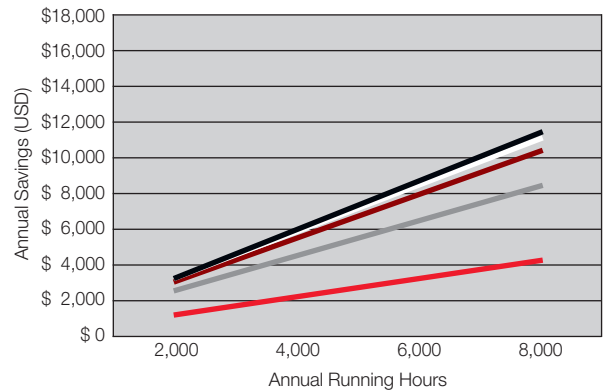
Notes:

Assumes the ELIMINATOR is installed at engine factory (OEM first fit).
Assumes downtime costs are tracked and considered.

Payback vs. Running Hours



Savings vs. Running Hours



Eliminate Maintenance. Save Money.

While CENTINEL and ELIMINATOR are available individually, productivity really increases when they work together. For instance: If a QSK60-powered vessel runs 8,000 hours per year and downtime costs \$450 per hour, the savings will exceed \$11,000 during the first year, with payback in 12 months or less.

Every Question. Answered.

To start saving today, see your local Cummins distributor or visit quickserve.cummins.com.



Cummins Inc.
Box 3005
Columbus, IN 47202-3005
U.S.A.

Phone: 1-800-DIESELS (1-800-343-7357)
Fax: 1-800-232-6393
Internet: quickservice.cummins.com

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