FIRE AND WATER

REGION:
Norway

SCOPE OF ENGINE USE:
Cat® C9, C15, C18 & C32

CAT® DEALER:
Zeppelin

WEBSITE:
fifisystems.com

FEATURED TOPIC:
Industrial Engines

HIGH PERFORMANCE UNDER PRESSURE

Norway-based Fire Fighting Systems AS specialise in large capacity firefighting systems. They rely on Cat® engines for high performance under pressure.

It's a paradox that some of the worst places in the world for a fire to break out are surrounded by water. From offshore oil platforms to cargo ships and bulk oil carriers, fire is the mariner's worst enemy. The heart of the blaze can be hard to access, with the potential to spread to a huge volume of flammable material and turn an emergency into a disaster.

A worldwide reputation. Since 2003, Fire Fighting Systems AS (FFS) has created firefighting systems to operate in these demanding environments. Based in Norway, with a manufacturing base in Åmål, Sweden and offices in Singapore and Shanghai, the company's systems today have a worldwide market. And though originally marine based, FFS's design and manufacturing technology is finding a growing market for land-based systems, typically at high-risk locations such as oil refineries and tank farms.

Leaders in marine fire fighting. Marine applications for the company's systems include tugboats, supply vessels and fireboats. The Hamburg Port Authority's latest fireboat, for example, features an FFS system with six monitors, or water cannons, capable of spraying 40,000 litres of water per minute in powerful jets for up to 180 metres distance and 110 metres high.

Espen Sveberg heads the company's marine sales and highlights why FFS is chosen by so many customers. "We design and engineer a complete system, from pumps to monitors, gearboxes and remote-control electronics," he explains. "Before, it used to be the shipbuilder's responsibility to source components and integrate them. We start with the customer's requirement and finish with the delivery of a complete, tested, working system."

FFS makes many components in-house, including control systems, their own design of spray nozzles, pumps, gearboxes and manifolds, as well as the high- performance fire monitors that deliver a high-pressure jet of water or foam. But one component they're happy to outsource is the powerful diesel workhorse at the heart of each system. For these, they rely on Cat® power.

Meeting precise requirements. "We use a range of different Caterpillar engines," notes Pål Holst-Roness, sales director of the land-based division. "Some of our systems are fixed installations in marine vessels. Others are portable firefighting systems built into containers and steel frames. Depending on the application, a system could use multiple C9, C15, C18 or C32 engines. We have very specific requirements for power outputs, weights and dimensions, and we find Cat engines meet our needs precisely."

High power, compact dimensions. A fire-fighting system doesn't need to run all day, 365 days a year, so the FFS team usually specifies D-rated Cat engines, capable of the high power outputs within set operating parameters. Holst-Roness cites the example of a portable fire-fighting system that FFS supplied to the Singapore Civil Defence Service. Using four D-rated C32 Cat engines, this system is capable of pumping water from over 2,500 metres away and delivering over 100,000 litres of water per minute to the heart of a blaze.

Global support. Sveberg and Holst-Roness agree that the support provided by their Cat dealership has been outstanding. "We have a long relationship with Zeppelin and get excellent support from them. We select the best engine for a specific task and verify with them that it will be suitable for the application. Because we often work to tight deadlines, we keep a spare C32 in the factory and they retain a further C32 on standby for us," notes Holst-Roness.

"Cat is well-recognised and welcome in places where we do business, with a strong worldwide service network," adds Sveberg. 'As we supply globally, that's important."

A bright future. FFS systems are already installed in around 4,400 vessels worldwide and the company has a full order book. "So far in 2021 we have 125 quotations out, excluding the Singapore office" says Sveberg.

Looking further ahead, the team can see the potential for autonomous fire-fighting vessels that can get closer to the heart of a blaze without risk to human crew. With its strong investment in R&D and an enduring collaboration with Cat engines, Fire Fighting Systems AS views the future with confidence. "We have the expertise, we have the products and we're always ready to explore new markets," says a smiling Holst-Roness.

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