Everllence

Four-stroke marine systems

Fishing vessels

Highly reliable and efficient solutions

Moving big things to zer

Everllence is the world's leading provider of large-bore engines, turbomachinery, and integrated power systems. 250 years of experience in advanced engineering has prepared us well for our biggest challenge yet: to provide the technical solutions that will drive the global economy into a new carbon-neutral era.

The industries we serve are crucial for the world economy. Most of them are also hard to decarbonize. By providing sustainable solutions for marine transport, power generation, and industrial engineering we boost business and help to bring the world to net zero.

We have a long tradition of tailoring propulsion packages to the operational profiles of fishing vessels. Our overall aim is to reach net zero emissions with the lowest possible OPEX in a robust solution that will stand up to the harshest conditions.

For the future of fishing

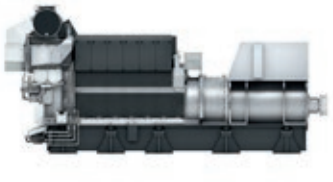
A tough tradition
Fishing has always been a dangerous job carried out in harsh conditions. But now there are additional challenges: the growing demand for fish has to be met with more sustainable and cost-competitive methods. This has led to international arrangements, strict fishing quotas, attempts to manage fisheries scientifically, and even grow fish in controlled offshore fish farming. A hard job has become more complex, demanding flexible new fishing methods and equipment.

Modern fishing vessels require modern, robust technologies that can withstand extreme weather and uninterrupted operation. Failure is not an option. Fishing vessels typically operate in environmentally sensitive areas, so net zero emission requirements will be important. The growth of fish farming also depends on clean yet efficient vessels.

Robust systems for complex conditions
Our engines and systems have always proven to be up to the job. We develop our new technologies for high dynamic performance and well-balanced operating behavior while keeping down operating expenses (OPEX), capital expenses (CAPEX) including fuel oil and lube oil consumption. We are answering the demand for operating on net zero emission with carbon neutral alternative fuels such as synthetic fuel and methanol. The result is not just forward looking, but efficient and reliable.

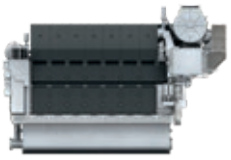
Four-stroke engines for fishing vessels

Trawlers		**08 – 11**
L27/38		2,040 – 3,285 kW
175D GenSet		1,440 – 3,800 kW
L32/44CR		3,600 – 6,000 kW
Pelagic trawlers		**12 – 15**
L21/31 Mk2 GenSet		1,000 – 1,980 kW
175D GenSet		1,440 – 3,800 kW
L32/44CR		3,600 – 6,000 kW
V32/44CR		7,200 – 12,000 kW
Tuna purse seiners		**16 – 19**
L27/38		2,040 – 3,285 kW
175D GenSet		1,440 – 3,800 kW
L32/44CR		3,600 – 6,000 kW
V32/44CR		7,200 – 12,000 kW
Live fish carriers		**20 – 23**
175D GenSet		1,440 – 3,800 kW
Fishery research vessels		**24– 27**
L21/31 Mk2 GenSet		1,000 – 1,980 kW
175D GenSet		1,440 – 3,800 kW
175D		1,740 – 4,400 kW



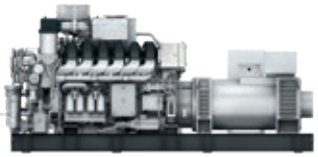
21/31 Mk2
GenSet

1,000 – 1,980 kW



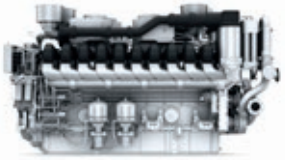
27/38
Propulsion

2,040 – 3,285 kW



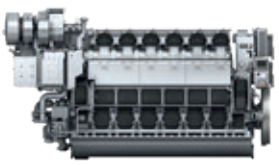
175D
GenSet

1,440 – 3,800 kW



175D
Propulsion

1,740 – 4,400 kW



32/44CR
Propulsion

3,600 – 6,000 kW
7,200 – 12,000 kW

Trawlers

Trawlers catch fish by towing large nets, usually along the seabed (bottom trawling). Vessel sizes range from the smaller fresh fish trawlers to large factory and freezer ships on which the caught fish are processed and frozen.

Pulling strong

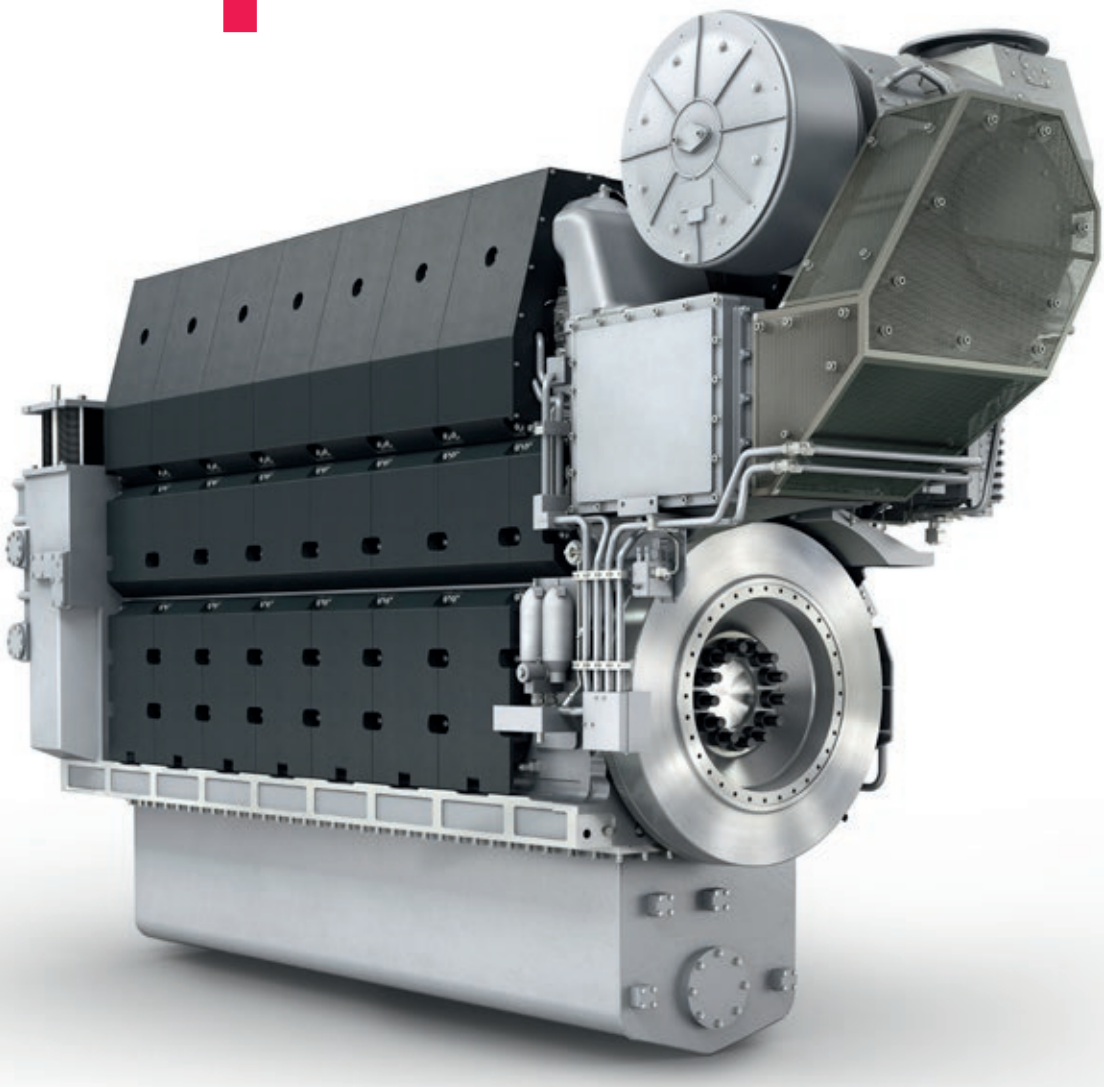
Towing and hauling power

Trawlers need strong engines to tow their nets, plus more power for their trawl hauling gear and refrigerating equipment. Deep-sea trawlers need even stronger engines to tow the trawls at the right depth and speed.

Operating for long periods without interruption (24/7), trawlers spend weeks or even months at sea until the holds are full. Our propulsion engines and generators are designed to be robust and compact while delivering high output flexibility without pause.

27/38

Reliable high-power output



Heavy-duty propulsion and maneuvering power are at the core of the L27/38's performance characteristics. This solid and reliable engine delivers good performance over the entire load range with quick acceleration and immediate load response.

The proven reliability of this engine ensures long periods between overhauls and no unscheduled maintenance and repair work. Additional economic benefits derive from its low fuel and lube oil consumption – while adhering to legal emission limits. Noise and vibration levels are also reduced, providing comfort for the crew.

Benefits

Reliability in operation
Solid and compact design

Long periods between overhauls
32,000 hours TBO

Low fuel and lube oil consumption
Thanks to efficient fuel injection

Convenient power take-off (PTO)
100 % PTO from either end of the engine plus optional 50 kW PTO

Environmental compliance

The L27/38 is compliant with the limits specified in Tier II of the emissions legislation introduced by the International Maritime Organization (IMO). It can comply fully with IMO Tier III in combination with the Everllence SCR.

Solid design of marine head and connection rod
Offers stiffness and high safety margins, ensuring an ideal housing so that the bearing is kept in a good, stable condition for a long time.

Clean engine design
The front-end box incorporates cooling water pumps, thermostatic valves, an oil pump, cooler and filter.

Jet assist
Supports rapid acceleration in partial-load operation. The charge air pressure is increased and the maneuvering characteristics are improved.

Further power solutions
175D GenSet
32/44CR

Pelagic trawlers

Pelagic, or midwater trawling, is the business of catching the fish (such as herring or mackerel) that live at various levels between the seabed and the surface. Pelagic trawlers use a wide range of advanced technologies to locate, catch and store fish in refrigerated seawater (RSW) or process and freeze the fish.

Oceanic multitaskers

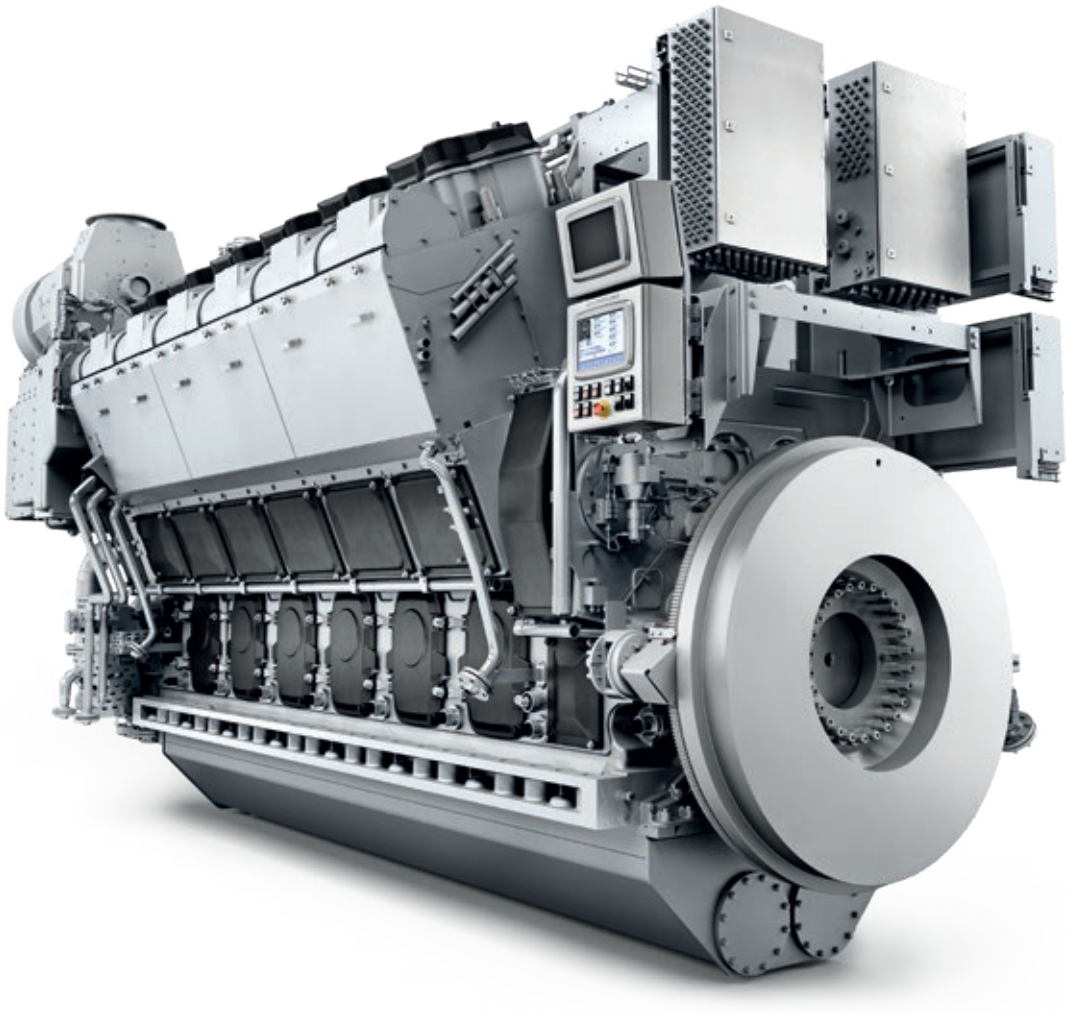
Complex power needs

Pelagic trawlers often operate over longer distances than bottom trawlers. They have to confront harsh weather conditions and comply with strict environmental regulations. Operating costs have to be kept low. And minimizing noise levels is important for crew comfort.

Vessels with such varied demands require highly reliable engines with a robust and compact design. They need power and operational flexibility for propulsion, for the winches, fish pumps and RSW systems as well as for processing and freezing.

32/44CR

Robust, adaptable operation



The load profile of the 32/44CR can be completely aligned with the trawler's operation. The result is superior performance over the entire load range. The Everllence $SaCoS_{one}$ management system can detect a load increase at an early stage and improve the response of the engine by activating a boost injection in the common rail control.

Low SFOC and OPEX, high reliability, ease of maintenance and low vibration emissions are just some of the additional advantages of the 32/44CR.

Benefits

Low fuel oil consumption
Thanks to flexible setting of injection timing, duration and pressure for each cylinder

Quick load acceptance
Best dynamic ship operation in class

Reliable IMO Tier III compliance
With any fuel type and best economy thanks to our Everllence SCR system

Energy-efficient propulsion packages

Maximal propulsion efficiency is essential for any fishing vessel. We tailor propulsion package performance to the ship's operational profiles and optimize the matching of engine, gearbox, PTO, propeller blades, nozzle, rudder, and propulsion control system.

Robust and compact design
Essential properties on working vessels to allow safe maneuverability in the roughest weather conditions.

Common rail technology
The independent setting of injection timing, duration and pressure at any load point ensures optimum performance of the engine, especially in off-design conditions.

Everllence ECOMAP load optimization
With the innovative Everllence ECOMAP feature, you have the flexibility to run the engine according to different SFOC / power characteristics, each of them having its optimum efficiency at different load points.

Further power solutions
21/31 GenSet
175D GenSet

Tuna purse seiners

Tuna is one of the world's favorite fish, making it a very important commercial catch. Millions of tons are consumed per year and about 60 percent are caught in purse seiners. Tuna purse seiners search for, catch and deliver tuna back to shore.

Looking for the big catch

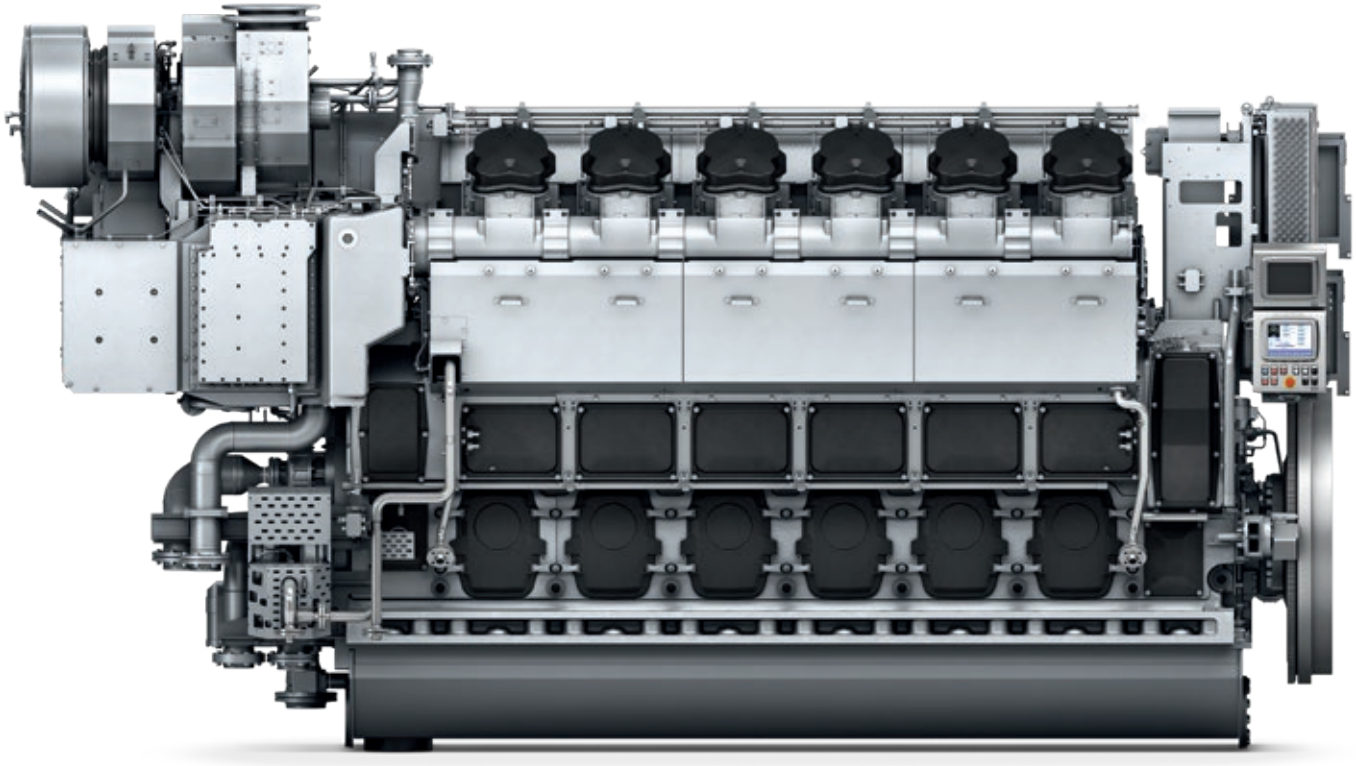
Streamlined for strength and speed

Tuna purse seiners have to cover long distances on their search for tuna, even with the help of advanced technologies. When the vessel is full, they have to return to the onshore factory at high speed. Optimizing operating and maintenance costs and reducing vessels' environmental impact are key challenges.

The engines face heavy-duty operation in both propulsion and auxiliary tasks, so they need reliable power availability, high output, flexibility and good partial-load performance. Keeping fuel costs low is essential.

32/44CR

Superior load capacity



The complex power demands of tuna purse seiners are perfectly met by the 32/44CR with its superior load performance over the entire load range. Everllence $SaCoS_{one}$ improves the load response significantly by activating boost injection in the common rail control. The optimized match for each load results in low SFOC / OPEX.

The engine's load profile can be completely aligned with the vessel's operational profile for excellent sea state capabilities.

Benefits

Low operating costs
Thanks to SFOC, thanks to the in-house development Everllence ECOMAP

Low life cycle costs
Its high reliability ensures long TBO (time between overhauls)

Long service life
With main overhauls only necessary every 32,000 hours, servicing downtime is kept to a minimum

Everllence HyProp ECO fuel-efficient hybrid propulsion

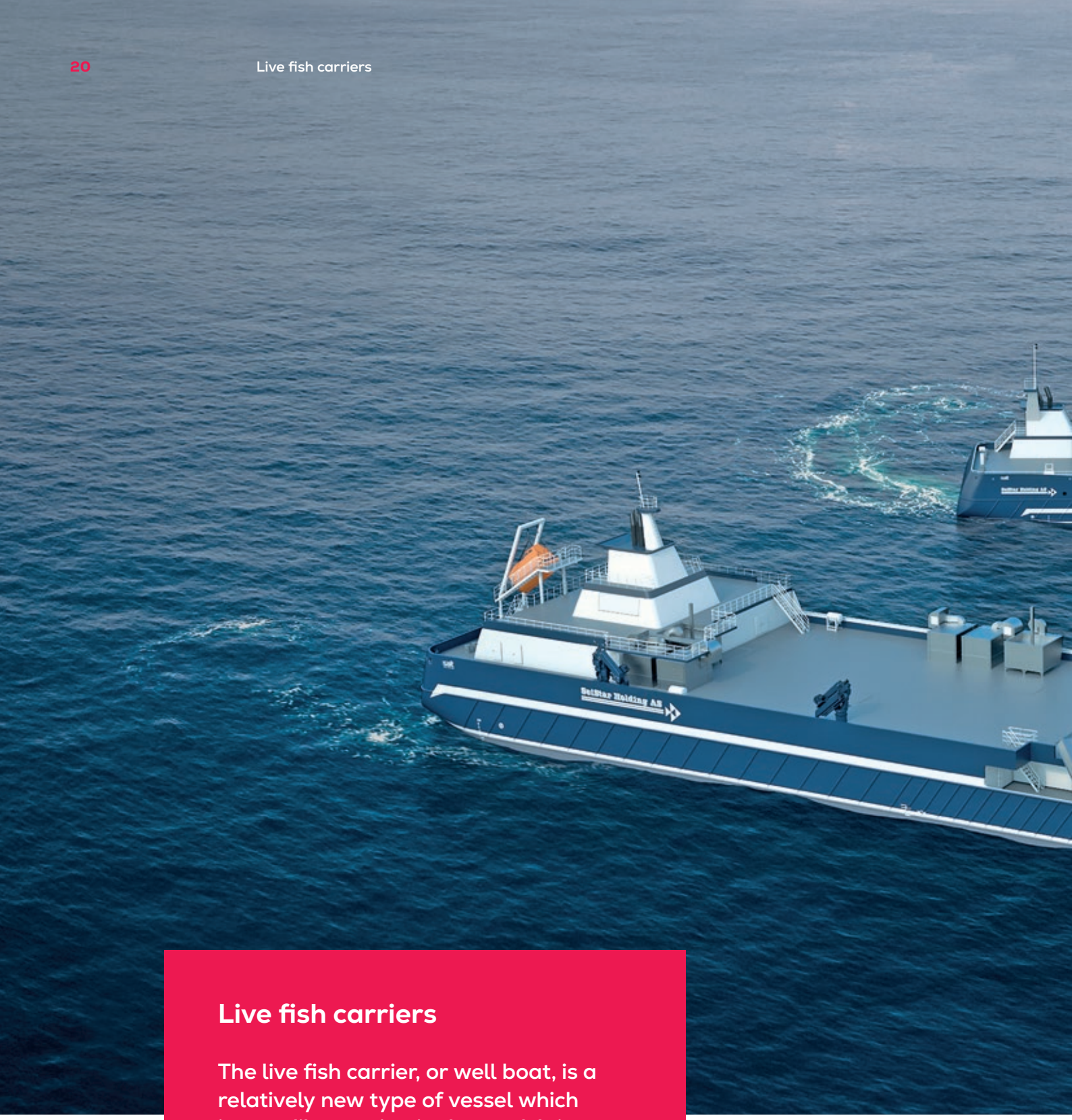
A hybrid diesel and electric propulsion system is ideal for vessels with flexible operational profiles and running hours with both high and low power demands. Everllence HyProp ECO allows several operating modes, reducing fuel oil consumption and emissions. Used in combination with complete propulsion packages from Everllence, efficiency can be raised even further.

Boost injection
Significantly improves load response by activating a boost injection in the common rail control at a very early stage when a load increase is detected. Speed drops are avoided, recovery times are short and there is no additional air consumption.

Everllence ECOMAP load optimization
With the innovative Everllence ECOMAP feature, you have the flexibility to run the engine according to different SFOC / power characteristics, each of them having its optimum efficiency at different load points.

High-efficiency turbocharger
The higher pressure ratio increases the efficiency of the engine and therefore compensates for the increase in SFOC normally associated with lower NO_X emissions.

Further power solutions
27/38
175D GenSet



Live fish carriers

The live fish carrier, or well boat, is a relatively new type of vessel which is steadily growing in demand. It is used to carry smolt (young fish) to the offshore farms and to carry live fish from the farms to the factories. The vessels have a multitude of important functions, including treating diseases and sorting by size and refrigeration. And the better they do it, the tastier the fish.

The art of aquafarming

© Courtesy of Salt Ship Design

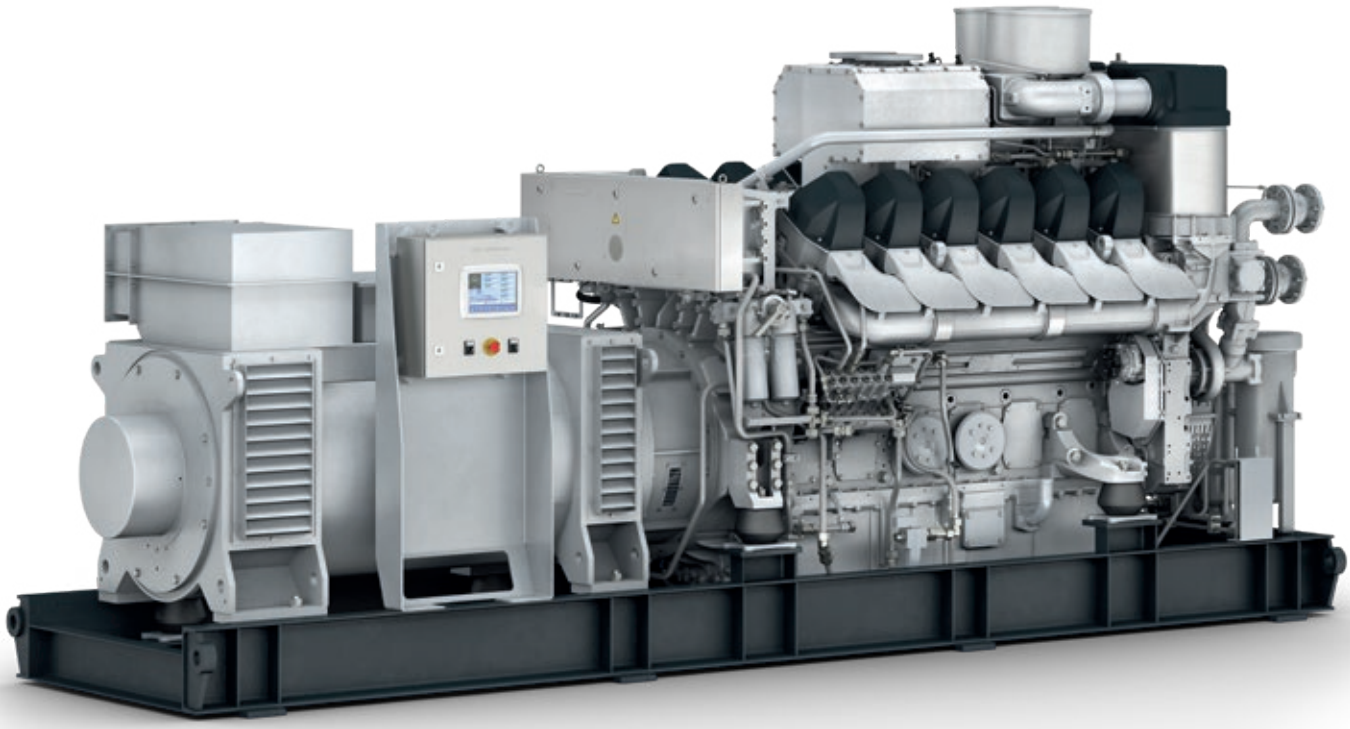
Gentle factories

The aquaculture industry requires efficient vessels with specialized functions such as carrying equipment for gentle handling of fish. The focus is on fish welfare, hygiene and quality. Live fish carriers may cover large areas with many different farms. The work includes a lot of dynamic positioning. Operation should be silent, OPEX low and emission reduction.

A fish carrier's engines must be reliable, robust and compact, with low noise and vibration emissions. Suitable power must be combined with operational flexibility, low SFOC and good performance at low load and high load. Low maintenance and repair requirements are also a must.

175D GenSet

Clean, quiet, and efficient



The 175D GenSet is perfectly suited for near-coastal operation thanks to its IMO Tier III compliance. Its ease of installation and commissioning results in a low CAPEX, while its low SFOC, low SLOC and low maintenance and repair requirements also keep OPEX down. The long TBO allows vessels to operate without overhauls between contracts.

Benefits

Fast load acceptance
The engine ramps up from low-load to high-load operation within seconds

Optimized operational expenses
Optimized combustion ensures low SFOC and low SLOC throughout the entire load range. Long TBO, even at low load, enable low OPEX

Eco-friendly future
Engine with focus on low emissions, particularly NO_X and CO_2. The proprietary SCR closed-loop temperature control system remains active throughout the entire load range, ensuring low urea and NO_X emissions. The 175D is also ready to operate on biofuels such as hydrotreated vegetable oil (HVO) and is methanol-ready.

Robust technology

Designed for extreme robustness, first-rate reliability, and maximum efficiency, the 175D is available in many engine and genset options and as a modular add-on. Depending on the vessel requirements, it is also available in various power ranges, in fixed-speed and variable-speed variants, and as a hybrid power solution.

Highest pressure in common rail injection
The 175D uses the latest common rail injection system technology to provide the highest fuel pressure and, as a consequence, offer premium efficiency and outstanding power outputs. This is coupled with high levels of responsiveness, meaning safer maneuvering even in the harshest environments.

Fishery research vessels

Fishery research vessels are equipped with extensive and wide-ranging scientific equipment for analysis and measurements as well as different tools for trawl fishing, water sampling, and sampling from the seabed. They are capable of worldwide operation, are classified for ice navigation, and can carry out a wide range of investigations within arctic research, marine biology research, climate and environment research, geological research, and fishery research.

Listening to the sea

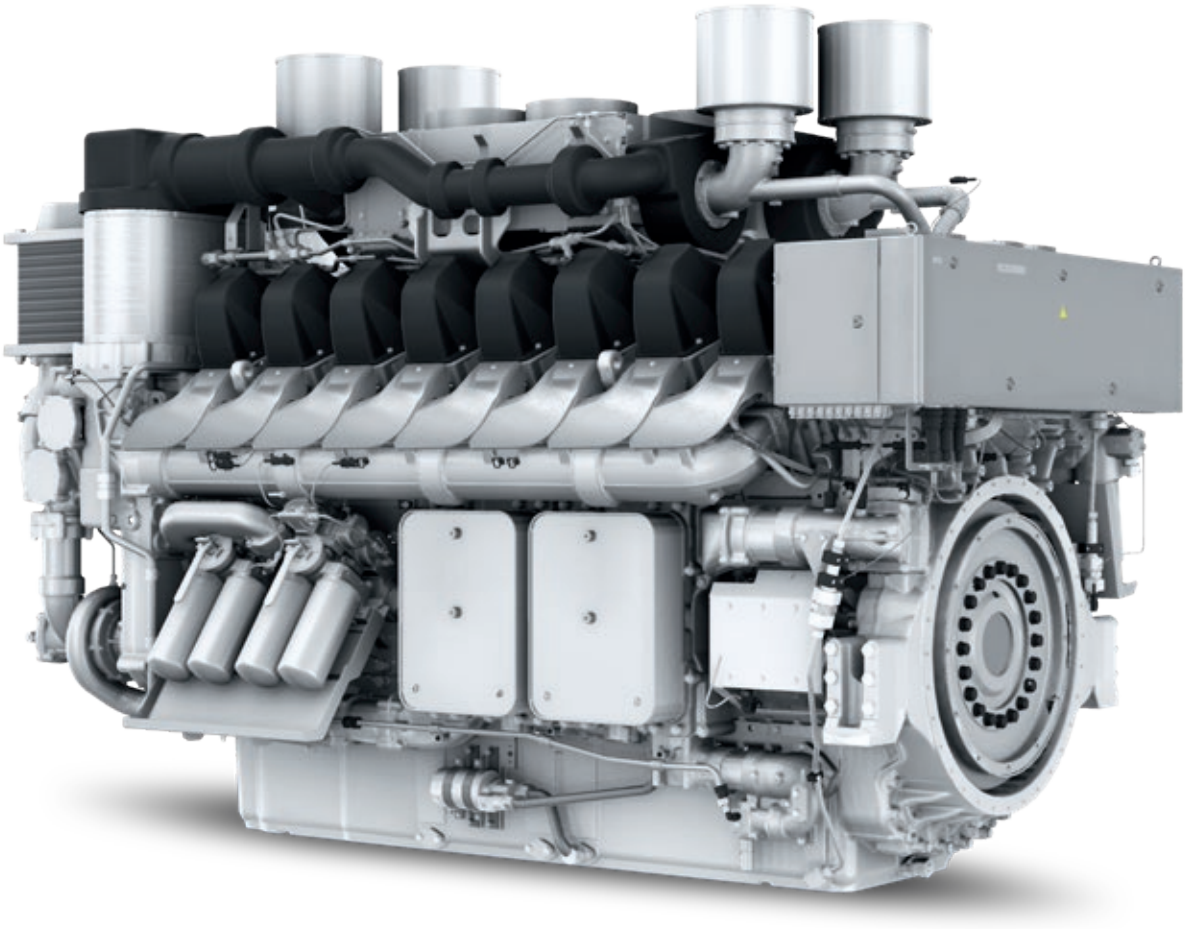
Silent operators

As acoustics are so important for underwater research, low-acoustic-signature operation is crucial for fishery research vessels. That requires quiet and compact propulsion systems that can deliver a high number of running hours, and last for a very long time.

Reliable, high-power generation with low fuel consumption is essential, while hybrid systems are an option. Power generation for onboard equipment must also be quiet and efficient.

175D

Made for quiet strength



Packing state-of-the-art technology into a minimum volume, the 175D is characterized by clear-cut design: Easy to commission, easy to operate, and easy to service. The powerful engine has a high power-to-weight ratio and is fully compliant with current environmental standards. Maintenance costs are kept low thanks to high engine availability and minimum servicing downtime.

Benefits

Economic operation
Long time between overhauls (TBO), combined with low total cost of ownership (TCO)

Best power-to-weight ratio in its class
Most powerful high-speed engine in the market with up to 2.9 kg/kW and max power of 4,400 kWm

Highly efficient power generation
Coupled with a permanent magnet generator, the 175D serves as a high-power and efficient genset with a very small footprint and light weight

Low acoustic signature

The low engine weight allows a wide selection of single and double resilient mountings (for gensets) to further reduce structure-borne noise and vibrations – key for meeting standards for the underwater noise of research vessels (ICES Cooperative Research Report 209).

Optimized for low-load application
The 175D is capable of extended low loads with high efficiency for silent operation during acoustic data collection.

Emission reduction
Ready to operate on synthetic fuel and green methanol.

Further power solutions
175D GenSet

Hybrid marine solutions

10–15 %

reduced fuel oil consumption

Flexible, efficient and clean

The fishing industry faces a major challenge in complying with strict environmental standards without sacrificing propulsion efficiency and ship performance. On vessels with flexible operational profiles and running hours with both high and low power demands, a hybrid propulsion system is often the best solution.

Everllence HyProp ECO

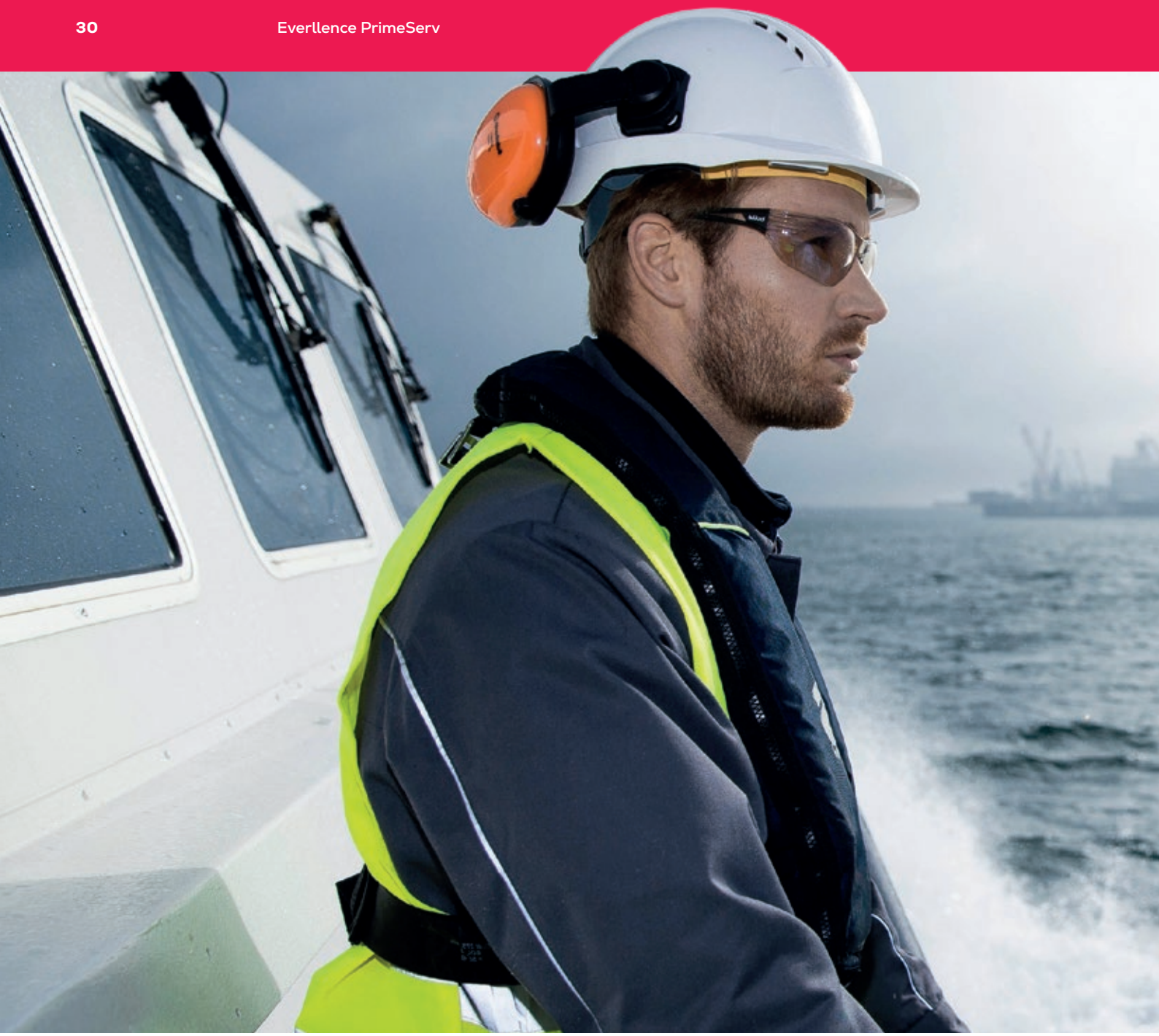
Everllence HyProp ECO propulsion combines the CP propeller, the diesel engine and the electric shaft machine (alternator / motor). The system overcomes the constraint on constant speed propulsion machinery by utilizing variable speed drive (VSD) technology at the shaft generator / motor. This means that the power take-off / power take-in (PTO / PTI) operates with variable propeller speed and optimal utilization of the diesel engine is thereby achieved, which is not possible in a conventional PTO / PTI installation with constant propeller speed.

Battery power

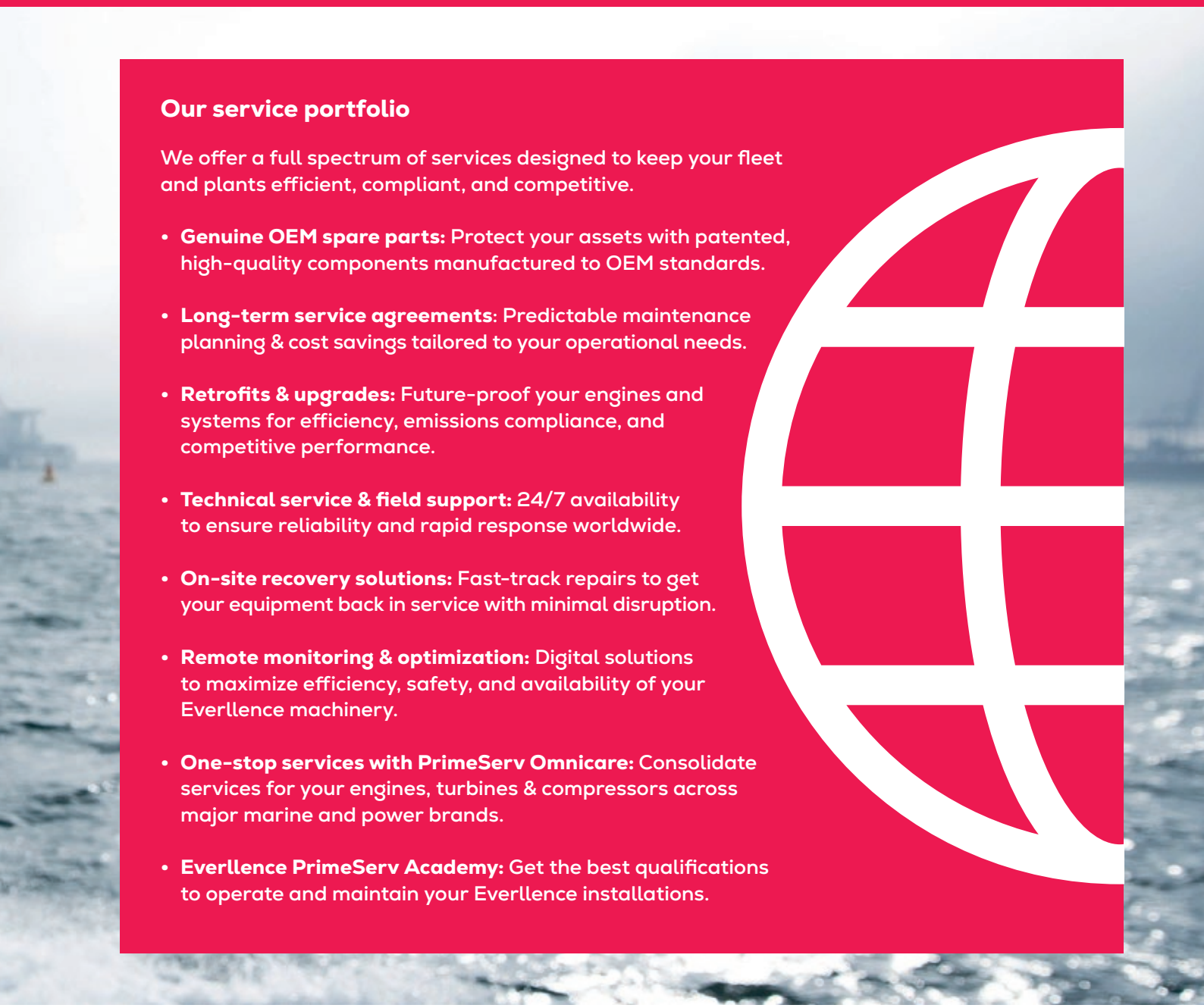
Everllence battery-hybrid systems use batteries as an additional, independent source of power for propulsion and hotel loads. Combining combustion engines and battery power onboard a vessel optimizes engine operation and loading, resulting in higher efficiency of the complete power train. A battery-hybrid propulsion solution reduces fuel consumption, exhaust emissions and noise. At the same time, it increases the reliability of the complete power train as well as its performance due to its faster system reaction times.

Benefits of hybrid propulsion

- Large variation of operating modes
- Flexible power demand with fast system responses and a high plant flexibility
- High plant efficiency
- Reduces fuel consumption, exhaust emissions and noise
- One-source solution
- Optimized package tailored to your vessel's needs to ensure the highest efficiency in all operating modes



From dock to deep sea and on any site – your trusted service partner



Our service portfolio

We offer a full spectrum of services designed to keep your fleet and plants efficient, compliant, and competitive.

- **Genuine OEM spare parts:** Protect your assets with patented, high-quality components manufactured to OEM standards.
- **Long-term service agreements**: Predictable maintenance planning & cost savings tailored to your operational needs.
- **Retrofits & upgrades:** Future-proof your engines and systems for efficiency, emissions compliance, and competitive performance.
- **Technical service & field support:** 24/7 availability to ensure reliability and rapid response worldwide.
- **On-site recovery solutions:** Fast-track repairs to get your equipment back in service with minimal disruption.
- **Remote monitoring & optimization:** Digital solutions to maximize efficiency, safety, and availability of your Everllence machinery.
- **One-stop services with PrimeServ Omnicare:** Consolidate services for your engines, turbines & compressors across major marine and power brands.
- **Everllence PrimeServ Academy:** Get the best qualifications to operate and maintain your Everllence installations.

Our global service network ensures fast response, expert support and maximum efficiency for your engines and systems – helping you stay ahead with reliability you can trust.

We offer comprehensive service solutions:

Sales & spare parts: Genuine OEM parts, expert consulting, and CRM-based support to optimize availability and performance.

Technical service & maintenance: Precision repairs, reconditioning and lifecycle optimization for long-term efficiency.

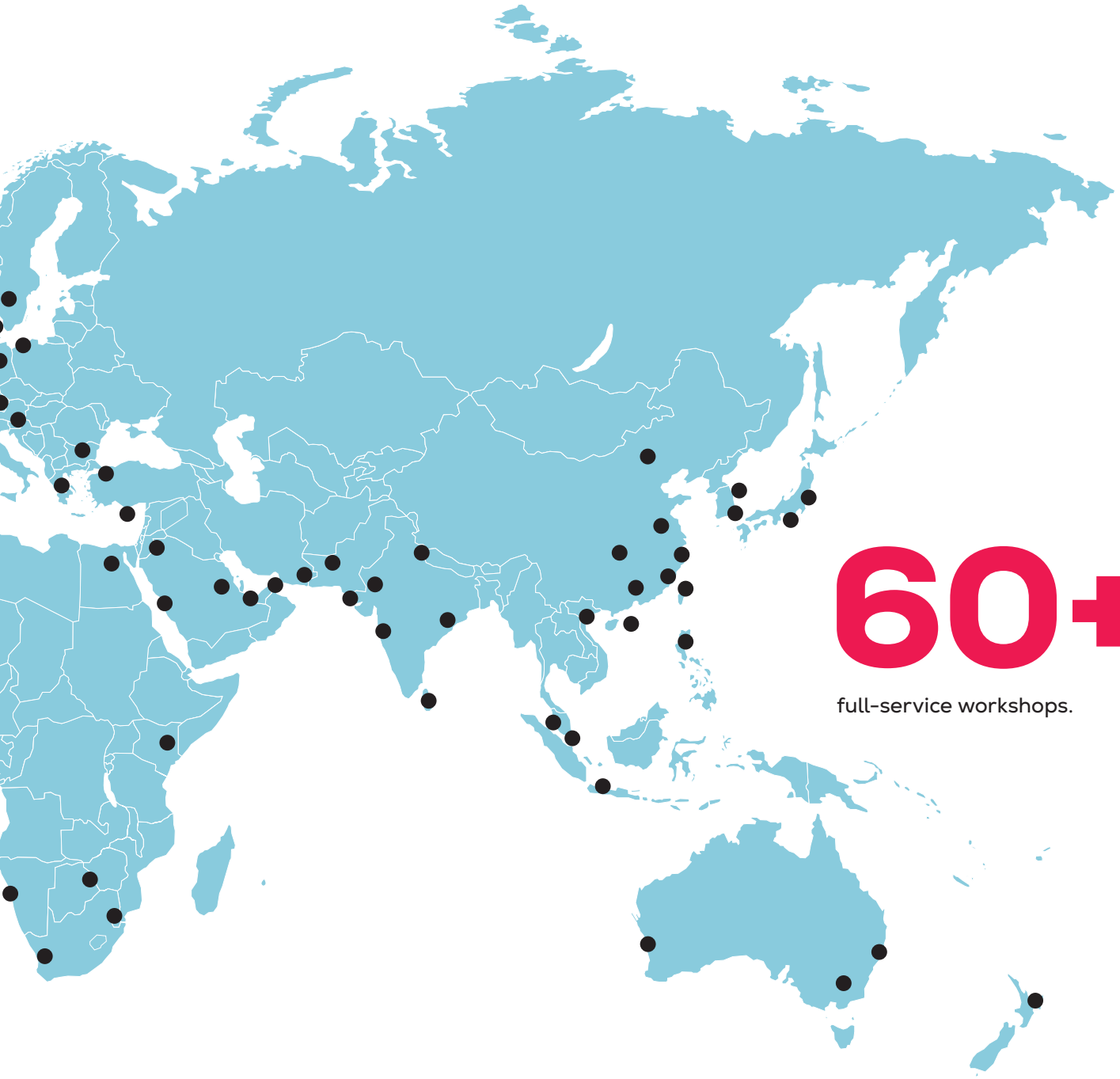
On-site recovery & field service: Emergency response and proactive service, wherever you need us.

100+

locations worldwide.

Our global service at a glance

Did you remember to order spare parts? No problem – we did. We also checked lube oil, engine condition, scheduled maintenance and installed updates. As your service partners, we keep your business running smoothly, securing efficiency and safety 24/7, around the world, on-site and online. We're here for what matters most: your peace of mind.



60+

full-service workshops.

Service is digital – service is smarter
Service has evolved, and so have we. Everllence PrimeServ doesn't just help you maintain your assets, we help you future-proof them. As you navigate the shift towards carbon-neutral operations, our digital service solutions ensure that your technology delivers on its promise.

Powered by expert insight, our real-time support and analytics based on remote monitoring keep your equipment performing at peak efficiency – year after year, without interruption. Because service isn't just about fixing problems – it's about preventing them.

Our location types:
- Sales offices – Spare parts sale & consultation.
- Workshops – Maintenance & repair.
- Flagship service centers – Full spectrum of all services, sales & reconditioning.

Find out more
www.everllence.com/services/service-locations

Making smart connections

Data & connectivity

Enhanced monitoring and machine analytics, and new standards in security and data privacy are set to lead the way to a better future for your business.

The digital power of Everllence

Digital fleet management, remote monitoring, and predictive maintenance are already essential to the marine business. At Everllence, we make data work at many levels, connecting engines, ships, services, supply chains, people, and ideas. Our main objective for all marine applications: Greater efficiency.

Making the most of digitization

Using cutting-edge digital technology allows us to improve performance and minimize down-times. Our remote connections enable live data analysis, ensuring quick, effective solutions. Our energy management system for battery-hybrid propulsion controls the generation, storage, and distribution of power onboard the ship, resulting in maximum efficiency. Multiple digitization initiatives are increasing our understanding of our customers and expanding our offering as well as improving our internal processes and your cost base.

Everllence

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MAN Energy Solutions SE has been renamed to Everllence SE and its products are being rebranded from “MAN” and/or “MAN Energy Solutions” to “Everllence”. As this is an ongoing process, any reference to “MAN” and/or “MAN Energy Solutions” is actually a reference to “Everllence”.

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