



**SCANIA** MARINE SOLUTION

# Engines for propulsion





## **POWER AT WORK**

Pilot boat powered by  
Scania marine engine,  
Great Britain



# A companion to count on.

There's always work that has to be done. No matter the weather. No matter the time of day. So whatever the task at hand, the heart of the vessel must do its job efficiently, safely and economically. A companion to count on.

At Scania, we took all this into consideration when developing the new line-up of marine engines based on our latest engine platform. Featuring compact dimensions, a wide range of power ratings and Scania's dedicated application support – all the way from the initial 3D-models to the final installation – our new engine platform provides a new level of simplicity and performance for demanding boat designers.

The end-result: cutting-edge solutions for propulsion that help operators and boat owners all over the world to push the limits of dependability, fuel efficiency and operating economy. Power at work, unlimited.



## Displacement vessels.

### **Masters of operating economy.**

Scania's solid record of outstanding fuel economy, proven reliability and high uptime vouches for unequalled operating economy for displacement vessels. Furthermore, the prompt engine response and uncompromising low-rev performance enhances acceleration and simplifies manoeuvring. So, if you really want to push the limits of endurance and productivity, go for nothing less than the Scania marine engine range.

### **More power. Less fuel.**

Pushing a displacement hull through the water is a tough job, especially when fighting upstream or against the wind. Therefore, every part of the propulsion system must be optimised in order to keep fuel consumption as low as possible. The Scania

marine engines are renowned for industry-leading fuel efficiency irrespective of emission standard, and a given choice for anyone who seeks to optimise fuel economy without compromising performance.

### **Always available.**

With outstanding product quality, durability and service life, engines from Scania are the perfect choice for work boats like barges, fishing boats, pushers and tugs. Delivering long service intervals, high parts availability and easy servicing for a single technician, they contribute to minimise downtime and lower the costs for service and maintenance. If you know one Scania engine, you know them all. And with a global network of Scania workshops, expert advice and Scania parts are never far away.

## Planing vessels.

### Encounter a lightweight champion.

It is no secret that saving weight is the straightest way to reduce fuel consumption and increase performance of any planing vessel. With unrivalled power-to-weight ratio and compact dimensions the new Scania marine engines create completely new possibilities for boat designers, and set new standards for demanding operators who seek to boost their operational efficiency and profitability.

### Powered for heavy duty work.

When powered by Scania, you can expect instant response, uncompromising torque at low revs and relentless performance at any speed.

Allowing high average load factors, the Scania engine is the natural choice for heavy duty operation in rough conditions. If you can't afford to lose time, you've got everything to gain with a Scania engine.

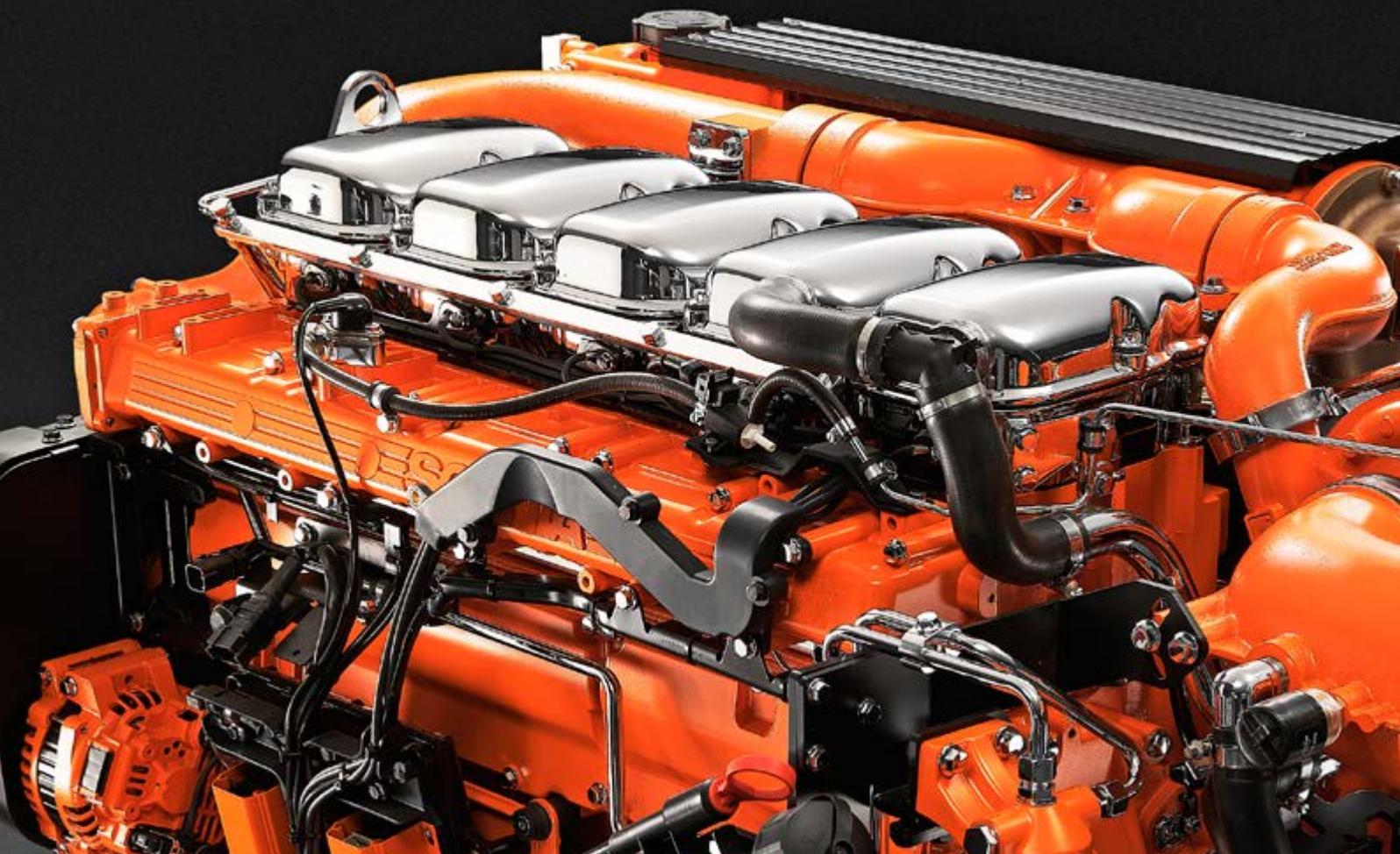
### Always ready for action.

Scania's outstanding track record of uptime and reliability evolves from proven technologies, state-of-the-art engineering and industry-leading product quality. Thanks to extreme durability and long service intervals, Scania's marine engines contribute to safe operation and low operating costs for demanding applications like patrol crafts, sea rescue vessels, pilot boats and wind farm support vessels.

### Absolutely adaptable.

Our engines feature a power curve, which allows full power over a wider RPM range. This makes it easy for boat designers to find the right match between engine, transmission and propeller. For the same reason repowering is facilitated and in many cases there is no need to replace the existing transmission and propeller.





### Modularity for simplicity.

The fact that every Scania engine model is built from identical basic components means unique flexibility and cost-efficiency when designing, building and servicing vessels. Furthermore, the modular system contributes to higher parts availability, minimum waste and simplified training of staff. If you know one Scania engine, you know them all.

### Controlling emissions and fuel economy.

At Scania, we embrace every effort to reduce the effects on the climate and the environment. This is why emission control goes hand in hand with reduced fuel consumption without compromising power output and torque. Whichever specification you choose, you can rest assured that every cubic millimetre of fuel is taken care of in the cleanest and most economical way possible. A vital part of the system is the Scania PDE fuel injection that makes continuous, precise adjustments to ensure optimal fuel delivery in all conditions. The result: optimised fuel economy and massive power output, coupled with extreme reliability and low emissions.

### Scania design features.

The Scania saver ring is a good example of our in-house developed technologies. Fitted inside the cylinder, it removes soot and other residue from the upper part of the piston. Another feature is the Scania centrifugal oil cleaner which is a proven and extremely dependable solution for making oil filtration more effective. Last but not least is the Scania oil, which is developed and tested for heavy duty operation. These are some examples of how Scania design features reduces wear and extends engine life, thus contributing to Scania's renowned dependability and operating economy.

A Scania engine is compact and impressively streamlined by default, which makes it ideal to build into any vessel. And since the engine "footprint" is practically identical compared to the earlier Scania engine generation, life is simplified both when designing new boats and when repowering. For every engine model – 9-, 13- or 16-litre – there is a complete line-up of power ratings to choose from.

## World wide services.

With more than 1,600 service workshops all over the world, the availability of Scania parts and professional services is outstanding. A great share of our authorised workshops is ready and reachable 365 days a year, thus ensuring maximum uptime and excellent operating economy.

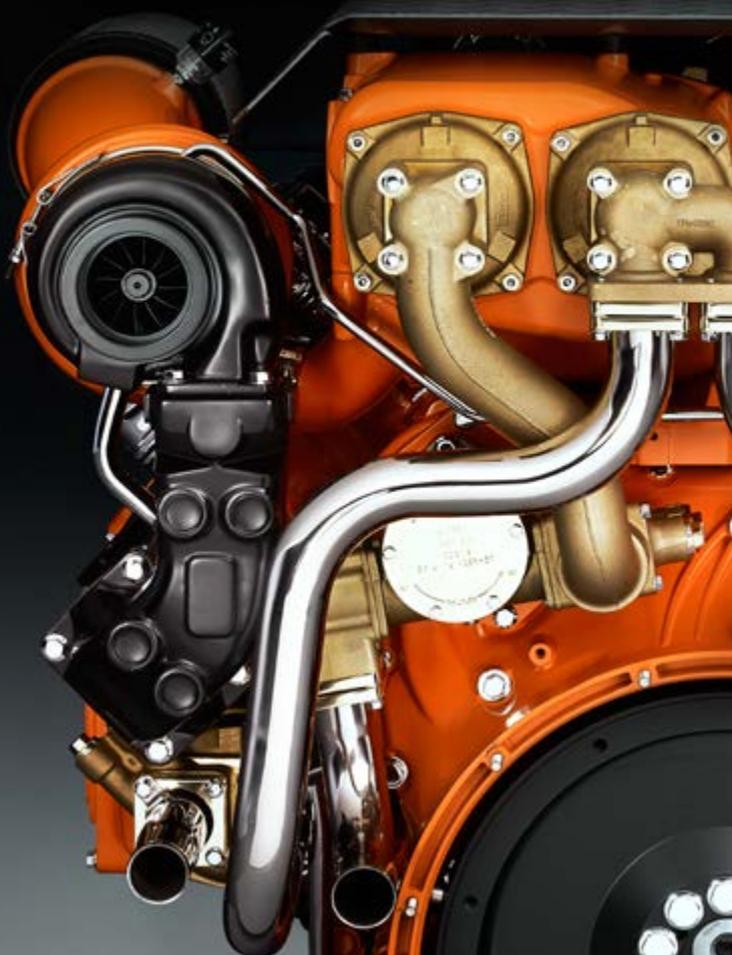
## 85,000 proofs of excellence – a year.

A significant share of the 85,000 engines that Scania manufactures each year are delivered to marine and industrial professionals all over the world. Built on Scania's global modular platform, and coming from the same assembly line, every single unit is the result of constant development of cutting-edge technologies and solutions for heavy duty applications on water and on land. Renowned for industry-leading quality and more than a century of engineering expertise, Scania is considered one of the world's leading engine manufacturers.



## The Scania marine solution.

The concept of a complete Scania marine solution is our answer to the rising demand for clever boat design and cost effective boat production, as well as secure, dependable and profitable on-water operations. The hardware part of the Scania marine solution involves a comprehensive range of type-approved engines and instrumentation, transmissions and other equipment. The other part of our offer is all about expertise and knowledge. When you choose Scania, tailored solutions and dedicated application support is always part of the deal.



## Fit to match any mission.

Pilot boat or SAR vessel? Fishing boat or river barge? Whatever your demands, there's a Scania marine engine ready to exceed your expectations. Available in a wide range of specifications with ratings up to 551 kW (750 hp) for continuous use and up to 736 kW (1,000 hp) for patrol craft, the Scania marine engine range delivers optimised performance for just about any mission.

## Trusted and type approved.

Scania's marine engines have demonstrated their dependability in the harshest environments and on the roughest waters. And subsequently, every Scania marine engine has earned type-approvals from eleven different classification associations. When choosing Scania, trust and commitment is not only a part of the deal, it is part of the brand.

### Engine range

| Engine type | Propulsion                      |       |                                   |       |   |       |  |       |
|-------------|---------------------------------|-------|-----------------------------------|-------|---|-------|--|-------|
|             | ICFN                            |       | IFN                               |       |   |       |  |       |
|             | Work boat<br>Continuous, Output |       | Work boat<br>Intermittent, Output |       | Patrol craft long<br>Intermittent, Output |       | Patrol craft short<br>Intermittent, Output |       |
|             | kW (hp)                         | r/min | kW (hp)                           | r/min | kW (hp)                                   | r/min | kW (hp)                                    | r/min |
| DI9M        | * 162 (220)                     | 1800  | –                                 | –     | –   | –     | –  | –     |
| DI9M        | * 184 (250)                     | 1800  | –                                 | –     | –   | –     | –  | –     |
| DI9M        | * 221 (300)                     | 1800  | –                                 | –     | –   | –     | –  | –     |
| DI9M        | * 257 (350)                     | 1800  | –                                 | –     | –   | –     | –  | –     |
| DI9M        | –                               | –     | * 221 (300)                       | 2100  | –   | –     | –  | –     |
| DI9M        | –                               | –     | * 257 (350)                       | 2100  | –   | –     | –  | –     |
| DI9M        | –                               | –     | * 294 (400)                       | 2100  | –   | –     | –  | –     |
| DI13M       | *** 162 (220)                   | 1800  | –                                 | –     | –   | –     | –  | –     |
| DI13M       | *** 249 (338)                   | 1800  | –                                 | –     | –   | –     | –  | –     |
| DI13M       | ** 294 (400)                    | 1800  | –                                 | –     | * 478 (650) <sup>1)</sup>                 | 2300  | –  | –     |
| DI13M       | ** 331 (450)                    | 1800  | ** 331 (450)                      | 2100  | * 515 (700) <sup>1)</sup>                 | 2300  | * 551 (750) <sup>1)</sup>                  | 2300  |
| DI13M       | ** 368 (500)                    | 1800  | ** 368 (500)                      | 2100  | –   | –     | –  | –     |
| DI13M       | * 405 (550) <sup>1)</sup>       | 1800  | ** 405 (550)                      | 2100  | –   | –     | –  | –     |
| DI13M       | –                               | –     | * 441 (600) <sup>1)</sup>         | 2300  | –   | –     | –  | –     |
| DI16M       | *** 221 (300)                   | 1800  | –                                 | –     | –   | –     | –  | –     |
| DI16M       | *** 257 (350)                   | 1800  | –                                 | –     | –   | –     | –  | –     |
| DI16M       | *** 294 (400)                   | 1800  | –                                 | –     | –   | –     | –  | –     |
| DI16M       | *** 331 (450)                   | 1800  | –                                 | –     | –   | –     | –  | –     |
| DI16M       | ** 405 (550)                    | 1800  | ** 478 (650)                      | 2100  | * 588 (800) <sup>1)</sup>                 | 2300  | * 662 (900) <sup>1)</sup>                  | 2300  |
| DI16M       | ** 460 (625)                    | 1800  | ** 515 (700)                      | 2100  | * 625 (850) <sup>1)</sup>                 | 2300  | * 736 (1000) <sup>1)2)</sup>               | 2300  |
| DI16M       | ** 515 (700)                    | 1800  | ** 552 (750)                      | 2100  | * 662 (900) <sup>1)2)</sup>               | 2300  | –  | –     |
| DI16M       | * 552 (750)                     | 1800  | * 588 (800)                       | 2100  | –   | –     | –  | –     |

### ICFN/IFN

- I = ISO standard (ISO 3046)
- C = Continuous power
- F = Fuel stop power
- N = Net power

- <sup>1)</sup> Only with heat exchanger.
- <sup>2)</sup> Only for water jet.

- DI9 = 9.3 litre inline 5-cylinder engine
- DI13 = 12.7 litre inline 6-cylinder engine
- DI16 = 16.4 litre V8 engine
- DI = Intercooler Air/Water

### Dimensions and weights (mm/kg)

| Engine type | With heat exchanger |      |      |            |
|-------------|---------------------|------|------|------------|
|             | L                   | W    | H    | Weight dry |
| DI9M        | 1419                | 975  | 1148 | 1150       |
| DI13M       | 1503                | 974  | 1070 | 1190       |
| DI16M       | 1551                | 1251 | 1214 | 1670       |
|             | For keel cooling    |      |      |            |
| DI9M        | 1419                | 977  | 1147 | 1100       |
| DI13M       | 1503                | 957  | 1071 | 1140       |
| DI16M       | 1533                | 1251 | 1214 | 1600       |

**ICFN continuous service:** Rated power available 1 h/1 h. Unlimited h/year service time at a total load factor of 100%.

**IFN intermittent service:** Intended for intermittent use where rated power is available 1 hour/3 hours period. Accumulated load factor must not exceed 80% of rated power. Unlimited h/year service time.

**Patrol craft long:** Intended for intermittent use where rated power is available 1 hour/6 hours period. Between full load operations engine rpm must be reduced at least 10% from max obtained rpm. Accumulated total service time max 2000 h/year.

**Patrol craft short:** Intended for intermittent use where rated power is available 1 hour/12 hours period. Between full loads operations the engine rpm must be reduced at least 10% from max obtained rpm. Accumulated total service time max 1200 h/year.

\* Complies with EU Stage IIIA and IMO Tier II

\*\* Complies with EU Stage IIIA, IMO Tier II and US Tier 3

\*\*\* Complies with IMO Tier II

Scania pursues an active policy of product development and improvement. For this reason the company reserves the right to change specifications without prior notice. Furthermore, due to national or EU legal requirements, some products and services may not be available in all local markets. For further information in these respects, please contact your local dealer or visit [www.scania.com](http://www.scania.com)

