



SCANIA AUSTRALIA **MARINE**

[THE NEWSLETTER FOR SCANIA ENGINE CUSTOMERS]



Premium power takes to the waves

MAY 2019

SCANIA



WELCOME

Scania Engines is returning to the Sanctuary Cove Boat Show in 2019 with our highly-popular 13-litre 6-cylinder engine, rated up to 925 hp for pleasure craft.

The frugal, low emission common rail engine can be specified to meet the most stringent global emissions standards if required, and has been specified by Maritimo customers for the new X60 model.

Like all Scania marine engines, which are available from a 300 hp 5-cylinder through to a 1200 hp 16-litre V8, the 6-cylinder unit majors on low operating costs.

Exceptional fuel consumption performance benefits range for operators while offering additional advantages such as a light weight, compact design and ease of servicing thanks to the Scania modular engine concept and individual cylinder heads. All Scania marine engines offer a 500-hour service interval.

Scania engines have been successfully integrated into repowering projects around Australia as well, providing a cost-effective replacement for older technology engines.

This year's display engine, the 13-litre 6-cylinder, is very versatile and can be configured from 600 hp to 925 hp depending on application. Our cost of ownership is definitely a big advantage for us, as recent owners will attest.

Scania is pursuing sustainability in all it does, and this includes its marine engines programme. Our engines can be ordered to be biodiesel compatible direct from the factory, should you wish to reduce your carbon footprint. We have already received many enquiries regarding this, showing that environmental issues are weighing on the minds of operators in and around Australia.

Scania Engines are in use all around Australia, from pleasure craft on the east coast to working boats in pilot, ferry and fishing capacities in the west, south and north.

As a result we have put a strong support network in place all around the country, and our highly-skilled team includes Jeremy Tennant based in Perth and Brett Sharp based in Sydney, and all of us will be on deck at SCIBS to talk to owners and builders alike.

In addition, this year we will be joined at Sanctuary Cove by Jamie Malmberg, our Area Manager for Engines, as well as by our colleagues from New Zealand, Ross Williamson and Chris Curry.





Photo courtesy Maritimo

RECORD YEAR FOR SCANIA ENGINES

Scania is a global supplier of marine and industrial engines, and in 2018 enjoyed a record year for engine deliveries, with 13,000 engines delivered.

That beat the previous all-time high of around 8000 engines, and even the projected tally for 2020 of 12,000 engines.

In fact, sales grew by 50% over the record sales in 2017. Sales volumes were positively impacted by a pre-buy in the market ahead of the introduction of Stage V emission regulations, but even taking that out of the picture, Scania engine sales grew by 30%. Sales grew in all three of Scania's engine segments: marine, industrial and gensets, to reach all-time highs in each.

It was the 8th consecutive year of growth

in the industrial segment, now the biggest segment for Scania Engines.

Sales volumes tripled in the USA, thanks to the long-awaited breakthrough in the industrial segment, with many new industrial OEM customers coming to Scania as a power source. And a large deal was signed with American manufacturer Oshkosh to supply power systems to the US Air Force.

Scania also received the first orders from MWM in Brazil to support genset production, and in Spain, Scania will support Atlas Copco's genset business with prototype orders for Stage V, and also the first orders for their Italian pump factory.

In China Scania has made a commercial breakthrough with the two biggest

construction OEMs, which will deliver substantial and sustained growth for many years to come.

Sany has placed prototype orders for excavators and dump trucks, and XCMG has placed their first orders for stone crushers.

In Australia, deliveries of Scania Engines also set new records with 105 engines handed over. In Q1 2019, orders are again outstripping the previous year by a considerable margin.

"In all our sectors, the word is out that Scania delivers on durability, reliability and fuel efficiency. And our focus on business sustainability and environmental messaging are reaching an audience that is more tuned in than ever before," said André Arm, Scania Australia's National Manager, Engines.

SCANIA SUPPORTS AUSTRALIAN-MADE CLEAN DIESEL TEST

Scania is assisting Southern Oil create a renewable diesel fuel from old tyres and plastic waste by providing a V8 test engine to be used over the next year to assess the performance of the new fuel.

The testing in Southern Oil's Gladstone laboratory will last at least one year, and will gauge the efficiency and suitability for the 100% renewable fuel which has been developed with Australian ingenuity and Queensland government support. At the launch of SynBio, Queensland Premier Annastacia Palaszczuk said renewable diesel is a much greener alternative to mineral diesel.

"Our government is committed to creating a sustainable, export-oriented biofutures industry in Queensland," Ms Palaszczuk said. "A state-based renewable fuels industry would underpin Queensland's domestic fuel security for decades."

Over the next 12-to-18 months, Southern Oil will be trialling renewable diesel in the Scania test engine to prove that it performs identically to petroleum-based diesel in terms of performance and wear-and-tear on the engine.



Scania Australia National Manager, Engines, André Arm said the company was proud to be a global leader in the shift towards a sustainable transport future.

"We have developed our heavy-duty



commercial vehicle, marine and industrial engines to be able to run on a variety of renewable or alternative fuels with no loss of performance or economy, while also reducing our emissions impact," André said.

"Scania is delighted to be a partner in the proving of this concept, as it will raise awareness of the availability of alternative fuels that can reduce noxious emissions and carbon dioxide.

"Scania has engines available that meet the latest and most stringent emissions regulations, and we are looking to the marine industry to get on board with this shift to a more sustainable future, too," André said.

Photos: Nathan Duff



Photo: Mark Bean

DRIVE DOWN YOUR OPERATING COSTS

Reducing operating costs is the holy grail of marine vessel operators across the globe, and this area is a particular strength for Scania.

The Scania marine engine range is designed and engineered to provide very economical running, even when generating as much as 1200 hp from its 16.4-litre V8. Yet fuel efficiency is only one part of the Scania marine story.

According to André Arm, National Manager, Engines, at Scania Australia, one of the biggest weapons in the Scania marine armoury is its ability to reduce the overall cost of ownership for boat operators.

“We understand that cost of ownership has a major impact on the profitability of any marine business, and Scania is at the forefront of helping our customers to reduce their running costs and maximise their efficiency, uptime and profitability,” he says.

“Scania has designed its 5- and 6-cylinder engines and its legendary V8s with affordable cost of ownership firmly in mind.

“Our modular engine system, with individual cylinder heads, easy access to key components, and a high degree of digital monitoring and communication to help operators understand exactly how well their Scania engine is running, help to avoid unnecessary downtime or repairs.

“Our components are designed for a very long working life, and as well as being competitively-priced compared with rival brands, our engines can go longer between services, while the working life of key components can be up to twice as long as other brands.

“Recently, I heard of a boat operator being charged five times as much as Scania would charge for the replacement of a set of key components. And these needed replacement after half the working life we would expect

of Scania parts.

“The Scania reliability and durability engineered into our components mean you’ll be out of the water for far less time, and when you do need servicing or parts replacement, the costs will be lower.

“We believe our focus on Total Operating Economy gives us the edge in the market. It does not matter what power rating or fuel quality you are running on, the Scania engines will out-last and out-perform rivals in terms of in-service efficiency and durability, plus returning lower ownership costs over the life of the engine,” he says.

Scania’s marine engine range starts with a 5-cylinder 9.0-litre in-line engine rated from 250 hp and extends up to 925 hp for the 13.0-litre in-line 6-cylinder. The Scania V8 range is rated as high as 1200 hp, and is suitable for everything from cray and pilot boats to luxury pleasure craft.

“During 2018, Scania rode a really big wave, delivering more marine engines than ever before, and with the orders we already have in the bank for 2019 we can see another year of strong performance on the

horizon,” André says.

“In addition to powering new builds we are also re-powering many existing vessels, where the operator is looking for fresh power that will run more efficiently, extending the working life of his most precious asset.

“We’re quoting currently on engines of all sizes for all sorts of applications, from automatic fish-feeding barges to the most luxurious pleasure craft, with everything from passenger ferries to pilot boats in between. In fact, there are Scania-powered pilot boats operating in many of Australia’s busiest ports, with more to be added to active service in 2019.

“We are also the leaders in marine engine emission controls, offering all of our engines with the latest and most stringent environmental compliance, ensuring we are able to offer operators a sustainable power solution.

“And with our network of authorised dealers and factory-owned branches all-around Australia, boat operators are never far from a Scania service agent,” he says.





CONNECTED SERVICES PUT YOU IN CONTROL

Scania's marine, power generation and industrial engines can now be equipped with online monitoring giving operators a far more comprehensive understanding of the costs associated with running their key business assets.

Scania's connected telematics solution is designed to deliver for maximum uptime and operational readiness.

"Scania's connected engines can help prevent long and unplanned downtime," says André Arm, Scania National Manager, Engines.

"We know that downtime can hurt companies financially, as well as inconveniencing their staff and their customers.

"This is especially the case when the asset powered by Scania is a highly specialised unit or part of a chain of operations."

With more than 360,000 networked vehicles world-wide, Scania has extensive experience in networked services. This allows the company to offer efficient processes and user-friendly tools that focus on adding value to the customer. With networked engines, downtime can be reduced through more proactive support.

Whenever an issue is detected, Scania can check the diagnostic fault codes and the engine data using the Scania Remote Diagnostic Tool. The technician can then advise the operator exactly what is required to remedy the situation.

If an on-site repair is required, the technician will ensure the correct tools and parts are in place to attend the engine.

If the problem is minor, the fault is stored in the system and will be flagged ahead of

the next scheduled service.

Minimising downtime is also about planning maintenance to fit the operation. Scania's connected telematics simplifies this process by providing data on engine runtime and a user-friendly planning tool, allowing for more efficient planning.

In addition, the networked engines provide information on their exact geographic position, operating state (on / off), speed based on GPS data, direction and motion patterns of equipment, vehicles or ships.

This allows machines to be tracked in real time. The data provided can be analysed and used to make informed decisions to increase productivity.

Geofence zones can also be set so the operator can monitor if, when and where machines are moved.

In addition, operators are able to monitor movements to accurately estimate arrival times and much more. The networked engines also provide data on fuel consumption and actual emissions of particulates, carbon monoxide, carbon dioxide, nitrogen oxides and hydrocarbons.

This gives users the opportunity to cut costs and learn more about the environmental footprint of their business. The structured environmental data also reduce the administrative burden and facilitate the required environmental reporting.

For OEMs integrating Scania Communicator as a telematics unit, Scania has access to data on operating and operating times of the machines as well as information on location, fuel consumption and environmental impact.

"For Scania engine operators in Australia



the new Connected Services will provide a host of information that will enable them to even further reduce the cost of ownership," André Arm said.

"In Australia, Scania already has more than 4700 connected vehicles in operation, generating large amounts of data, and operators who utilise this data are able to adjust their operations to ensure they are working to the highest possible levels of efficiency.

"For farmers using Scania irrigation engines, or cray fishermen or industrial powergen users, the benefits of the Scania connected services solution will be a better result for their bottom line," he said.

For more information about how Scania's Connected Services can assist your business to enjoy greater uptime and lower running costs, visit www.scania.com.au or call us on (03) 9217 3300

SCANIA'S MARINE ENGINE RANGE

Scania has been manufacturing its own engines for more than 100 years and builds more than 90,000 engines each year for truck, bus, marine, industrial and power generation applications.

In 2018, Scania sold more than 13,000 engines for marine, industrial and powergen customers, a significant high watermark. For marine customers there are options of keel cooling or heat exchangers, and solutions for patrol craft short and long as well as continuous or intermittence utilisation.

Scania has developed class-leading engine technologies to deliver maximum productivity – using Scania XPI fuel injection, Scania Engine Management System and the service-friendly cyclone oil filter.

Low fuel consumption, excellent power-to-weight ratio, long service life and low maintenance costs mean operators can expect outstanding operating economy from any of the engines in the Scania range.

Scania is a world-leading provider of engine technologies, offering a comprehensive engine range and tailored services for the world's most demanding OEMs and their customers.

Scania's marine engine platform is a complete range of 9.0-litre 5-cylinder, 13-litre 6-cylinder and 16-litre V8 benchmark engines for both propulsion and auxiliary applications.

The 9.0-litre engine is available with outputs from 220 hp (162 kW) to 400 hp (294 kW), while the 13.0-litre 6-cylinder is available with 400 hp (294 kW) to 925

Engineered to the highest standards to deliver optimum uptime and outstanding operating economy.



hp (680 kW). For the heaviest duties, the 16.4-litre V8 engine is available with 550 hp (405 kW) to 1200 hp (883 kW).

From propelling fast patrol craft to pushing heavy river barges upstream, there's a Scania marine solution for almost any on-water task.

A reliable engine is the most important safety factor while working at sea, whether the job is patrolling the Barents Sea, fishing in the South Pacific or shipping cargo to the far reaches of Australasia.

Scania marine engines are dependable, reliable and powerful – exactly what's needed for demanding duties. Their compact size and favourable power-to-weight ratio ensures easy installation and maintenance even in engine rooms with limited space.

Scania's marine solutions provide flexibility in terms of ratings, equipment, transmissions and instrumentation. Scania's engines for auxiliary and power generation

have been designed and developed to handle the special circumstances at sea. This means easy access to service points, robust engineering, and electronics that monitor and regulate the system for maximum performance.

All marine engines are type approved by all major classification authorities.

There's a Scania marine engine for every job. Whichever you choose, you take on board solutions that are developed for heavy duty operations, delivering impressive power, immediate response and the feeling of absolute trust and reliability.

The latest additions to Scania's engine range for marine applications incorporates proven XPI fuel injection technology, allowing for unrivalled fuel efficiency.

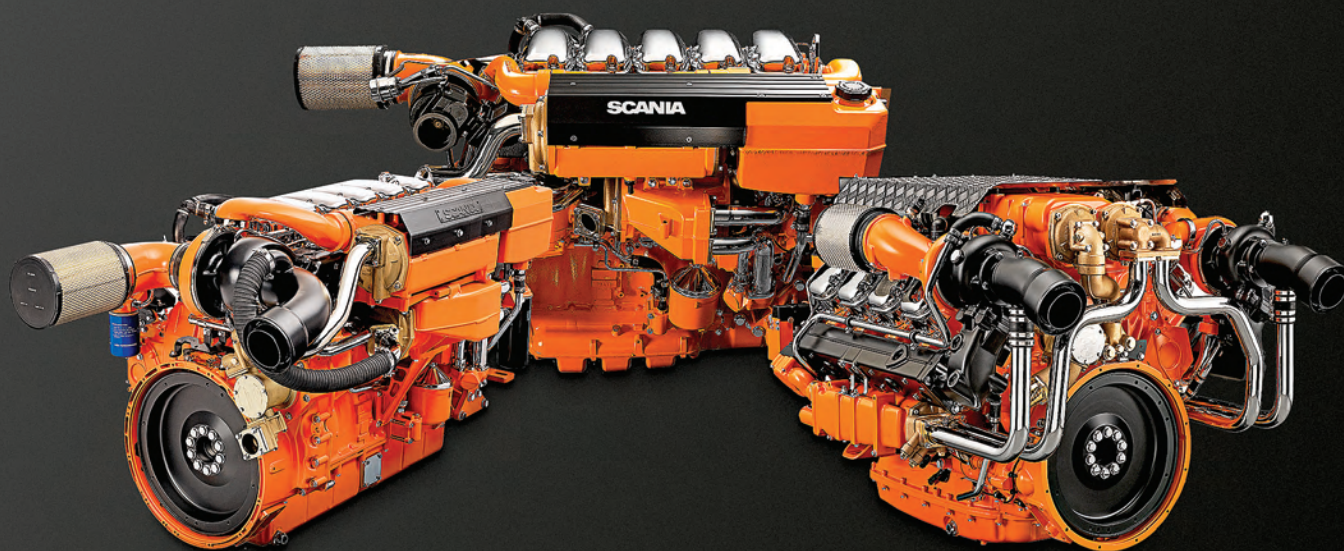
The new 13-litre and the 16-litre V8 are also the most powerful engines in the range, boasting outputs from 650 hp to 1,200 hp.

These powerful engines now feature the company's common-rail XPI fuel injection system, long used in Scania's engines for trucks and industrial applications.

The XPI system introduces more fuel into the cylinders in a shorter time, providing more power.

Scania's modular system in combination with the company's Engine Management System (EMS) allows for the same platform to be used in different applications. An engine solution can thus be tailored for completely different operating profiles without compromise.

The global network of more than 1,900 Scania-affiliated workshops delivers parts, service and business support in more than 100 countries.





Photos courtesy Maritimo

PREMIUM POWERING AHEAD

It's not just the two 925 hp Scania engines in the all new Maritimo X60 that will get your heart pumping.

Unveiled last year at the 30th Annual Sanctuary Cove International Boat Show in May 2018, the all new Maritimo X60 Sports Motor Yacht proved to be a stunning-looking vessel that has, predictably, met with international acclaim and significant interest from connoisseurs around the world.

"The response to this vessel internationally has been one of the best of any model we have introduced in our 15-year history," said Maritimo's lead designer, Tom Barry-Cotter.

Inherent in the X-Series bloodline is the company's race driven performance prowess. With a completely new efficient shaft-driven hull and driveline design, the X60 has been tested at speeds up to 34-knots powered by two new generation common rail injection 925 hp Scania 6-cylinder engines.

Hull efficiency within the cruising speed range was a major focus of the state-of-the-art hull and driveline design. The X60's class-leading range and economy returns a consumption rate of under 100-litres per hour, per engine at a 27-knot cruise. With

superior economy and greater fuel capacity than direct competitors, the X60's range capabilities are revolutionary within the sport motor yacht segment.

"Scania Australia is proud to be associated with such an innovative manufacturer who is leading pleasure craft boat building in Australia and globally," says André Arm, Scania's National Manager for Engines. "Scania's newly-released common rail engine range is the perfect fit for Maritimo's new X-series. We are delighted it has been chosen as the standard engine option for the X60, as it is the ideal specification for luxury pleasure craft use.

"Maritimo's customers seem to agree. Many of the initial X60 production run have been specified with Scania marine power for 2019," André says.





Scania is powering up a new autonomous fish-feeding barge moored in Storm Bay.

Scania is powering up a first-of-its-kind sea-going fully automated fish-feeding barge for Tasmanian-based Huon Aquaculture.

The salmon breeding company has been in business for 35 years and currently employs 630 staff across Australia. Its annual catch is around 25,000-tonnes, mainly headed for domestic consumption but it also exports to high value markets in Asia, such as Japan and China.

Huon Aquaculture was founded by Peter and Frances Bender and until recently was

privately held. A proportion of the business has been listed on the ASX.

The company is the second largest salmon farmer in Tasmania and the new barge is designed to feed fish over an extended period while moored at sea next to fish pens stocked with salmon.

The autonomous operation will reduce operating costs and will be monitored remotely by Huon Aquaculture staff based in Hobart.

The 39.2 m long barge is named Hogan, and it employs three Scania DI 13 75M 6-cylinder engines mated to Sandfirden

➤ The commissioning crew takes a breather: (l-r) Nigel Winter from Hayward's, Tom Lacey from Mobile Mechanix, and Scania's technical team of Scott Hadler, Zoey Dimasi and Brett Sharp.



Photos: Stuart Gibson

NO HANDS ON DECK

generators producing 330 kVA each, with a further lower output 5-cylinder engine serving as a back-up unit.

Hogan was commissioned as part of Huon Aquaculture's controlled growth strategy and expansion of its offshore farming programme. Huon is a global leader in largescale offshore farming and the new barge plays a vital role in this expansion.

"We now feed all our fish remotely from our office in Hobart using computer learning Ai software that we developed ourselves," says James Bender, Huon's Business Development Executive.

"The barge is designed to be run completely remotely and autonomously from our control room. This allows us to continue to feed fish even in rough weather where people may not be able to get onto the site.

"The barge is designed to withstand 12 m waves and all systems can be controlled and monitored from a safe environment remotely, meaning our fish get fed and our staff stay safe," James said.

Huon Aquaculture operates around 100 vessels of various types from feed barges to large work boats as well as smaller outboard

➤ Hogan takes to the water for the first time on a placid day in Tasmania.



vessels. The new barge is the first to be powered by Scania engines, and James said he is very keen to see how they perform in service.

“One of the key benefits we see is the ability to run the generators at a low level of loading without carboning up the motors and causing damage,” James said.

The barge has been designed and built by Haywards in Margate, just outside Hobart. Crisp Bros Haywards is a large-scale steel engineering, fabrication and construction company that build everything from sports stadia to hotels and road bridge girder, as well as a significant array of working boats and pleasure-craft.

Project Manager Nigel Winter said the vessel has been designed to be moored in Storm Bay on the eastern coast of Bruny Island south of Hobart.

“The vessel has been designed to cope with rough conditions,” Nigel said.

“It weighs 600-tonnes and has a capacity for 400-tonnes of feed stock and 24,000-litres of diesel.

“This is the largest vessel of this type that we have produced to date, and one of the Scania advantages was that we were able to use keel cooling. The engines have been designed for marine use from the start.

In the past, we have converted industrial engines for marine application.

“That the standard Scania engines were able to provide more than enough power for the job was a defining criteria for us. The engines were exactly the right size and output for the job,” Nigel said.

The engines will be serviced by Scania’s new agent in Tasmania, Tom Lacey of Mobile Mechanix, who was involved in the commissioning.

“What we liked about the Scania offer was it provided us with a one-stop solution for power generation,” Nigel said.

“We have a second barge under construction for the same client, and this will again be designed to cope with rougher water as the feeding pens move further away from shore. The task for us is to design more sea-capable barges,” Nigel said.

“Our customer Huon Aquaculture was very clear about what they wanted to achieve with this barge. It is very efficient and it even has the ability to harvest dead fish and store them which means they can be collected and shipped back to shore to be processed into fertilizer, giving Huon an additional income to off-set the cost of operating the barge.”

According to Brett Sharp, Scania Marine

Technical Sales Manager, efficiency was one of the driving forces behind the selection of Scania to power the generators.

“This engine and generator package comes ready to work, with the alternator already attached, thanks to the collaboration between Scania and Sandfirden,” Brett said.

“Scania engines are renowned for their low fuel consumption, which obviously has a major impact on running costs. But the Scania technology also assists in the powergen side too, as the engine can run at low load if need be for extended periods due to our patented cylinder saving technology. This saver technology is a ring fitted inside the cylinder liner that removes soot and other residue stuck between the upper piston ring and the piston top. It is particularly useful in engines operating at high average power levels. The saver ring in combination with Scania’s own blend of engine oil, extends engine life and service intervals, adding to uptime and lowering the cost of ownership.

“Another Scania advantage for marine operators is our standard spinner filtration system to maintain engine oil quality, a huge benefit that also extends service intervals, critical for a vessel moored at sea 24/7.

“Scania delivers total operating economy to its customers, low fuel use, low emissions, long service intervals and maximum uptime. In addition, as a direct subsidiary of the factory, we have access to technical assistance and expertise just a phone call away.

“This is what we mean by the Scania Advantage,” Brett said.





Photo: S tuart Gibson

GOING MOBILE

Scania has announced a new service agent, Mobile Mechanix, for its industrial and marine engines, based in Hobart, Tasmania.

Tom Lacey (pictured above) has been running Mobile Mechanix since 2010. The business has a staff of 5, including himself and two technicians.

"We have been in the marine industry a long time and have picked up a lot of work in the aquaculture area," he says.

"We were service agents for American engines, but we came on board with Scania

last year after another of our agencies that also works with Scania suggested that we should talk about representing the brand in the southern part of Tasmania.

"We were appointed as a dealer a short while later.

"We can appreciate the quality and the reliability of the Scania product, and the ease of working on the modular engines, and the performance of the engines is very impressive as well," Tom says.

"The fuel efficiency though is the icing on the cake for our customers.

"The Mobile Mechanix team is multi-

skilled. It's a requirement in Tasmania that you're good at most things, so we're good at marine and industrial engines, hydraulic and electrical systems and general industrial engineering.

"For Scania we are providing our customers with 24-hour coverage and emergency breakdown service, as well as servicing, commissioning and warranty work, plus engine and generator sales.

"There is a huge scope for growth for Scania in Tasmania over the next 12-24 months, both in marine and industrial applications," Tom says.

Scania marine engines are powering a new search and rescue vessel recently commissioned by the Victorian Water Police, based in Williamstown.

The 12 m long vessel has been built by Hart Marine in Victoria, and the choice of engines was determined by the boat builder in association with its client, VicPol.

Scania has had a long-running association with Victoria Police, having powered a search and rescue vessel based in Paynesville (VP09), near Lakes Entrance, which was delivered in 2014. The Victorian Water Police also operates a custom built and equipped Scania truck as part of its search and rescue squad assets.

The 12 m VP02 has a 4.8 m beam and 1.4

m draft and is powered by twin 6-cylinder in-line Scania engines generating 650 hp (480 kW) each.

The hull is based on a proven Hart Marine pilot boat structure, with several key changes authored by Victoria Police.

The result is a fast, agile and quiet vessel that will be able to traverse much of Victoria's coastline.

From Scania's perspective, the selection of these engines delivers strong performance and very low fuel consumption as well as low cost of ownership. The working life of the engines will be 20,000 hours and servicing will be carried out at 500-hour intervals by Scania's trained technicians.

"The customer was very aware of the need for maximum uptime on this vessel," said Scott Hadler, Scania Engines' National

Technical Support.

"Scania is very pleased to be supplying engines to the Victorian and Queensland police services for their water-based search and rescue operations. Our engines' reliability and durability as well as our service intervals, the modular engine construction and our service technician training, as well as our low running costs and commitment to maximum uptime are key features that appeal to authority purchasers around the world and the situation in Australia is no different," Scott said.

Converting engine power to thrust is managed by Hamilton HJ322 jet thrusters and thanks to the low draft, gives the vessel the ability to traverse very shallow waters, vital for search and rescue operations.



Top speed is an impressive 36 knots, with an easy cruise at 30 knots, and the vessel has a 300 nautical mile range from a 2200-litre fuel tank. The hull design adopts the well-known Hart Marine wave-piercing technology.

When inserting the Scania engines into the hull, the Hart Marine team were assisted by the compact nature of the engines. In addition, the Scania electronic control system was simple to integrate into the onboard control systems.

"We have hatches in the main deck for engine access and because engine serviceability is a must in commercial vessel we have standing room all the way around in our engine room," said Ben Switzer of Hart Marine.

VP02 carries a crew of 2 and has space for

six passengers. Crew sleeping quarters and a bathroom are included in the design, while there is plenty of space up top for mapping and recovery gear. Diving, towing and general recovery operations can be handled safely from the rear of the vessel, where there is space for the hydraulic crane arm to lift and position small water craft on the deck if necessary.

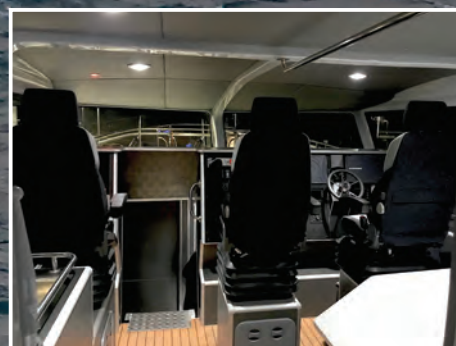
The Queensland Police Service vessels are very similar in concept but are longer, at 15 and 17 m, with different cabin mounting.

According to André Arm, Scania National Manager, Engines, the powering of the three police patrol craft with Scania engines is a significant recognition of the whole-of-life benefits from Scania.

"We are very aware of the fact that Police Services have unique and high-performance requirements, but also work to tight budgets. The selection of Scania engines for police work is a matter of pride for us, but the police services are driven by stringent total operating economy parameters.

"Scania engines are very frugal in operation, straightforward to maintain and deliver significant uptime over their working lives, and make an effective and efficient partner for these authorities," André said.

TO SEARCH AND PROTECT





Photos courtesy GMPS

V8 PILOT

Travelling the equivalent of 4.5 times around the globe in just 18 months, Gladstone's pilot boats are very busy.

The Port of Gladstone has taken delivery of two new pilot boats, 17.3 m Pantocarene-designed, Hart Marine built vessels, both powered by twin Scania V8 750 hp engines.

Gladstone Marine Pilot Services which operates the vessels has also repowered an older, 16.2 m Chivers pilot boat with a new set of V8 750 hp Scania engines. This vessel was originally designed for Port Phillip Sea Pilots. The repowering gives GMPS consistency of power units across most of its pilot boats for ease of maintenance.

GMPS Manager and Senior Marine Pilot, Captain Lincoln Tedman, says reliability, weight advantages, power, fuel efficiency, and factory back-up with a local service agent were the key contributors to the selection of Scania as the supplying partner.

"These V8 engines also had a continuous rating at the horsepower quoted unlike some other engine brands we considered."

The engines were installed by Rob Benn Holdings in Gladstone and the boats will have their Scania engines maintained by Scania independent authorised dealer Central Queensland Heavy Maintenance.

"To give you an indication as to why reliability and fuel efficiency is so

important, the first of the new Hart Marine vessels has travelled the equivalent of 4.5 times around the world at the equator in its first 18 months of service. This was all conducted at speeds up to 30 knots," Captain Tedman says.

"This was night/day, sunshine/rain, slight breeze to gale force winds along with corresponding seas. Not only do we need durable engines, we need engines that we can rely on as a pilot boat is often the last vessel operating before a cyclone will pass through and the port is closed.

"We have a 22 nautical mile transit from the Marina to the Pilot Boarding Ground. For a large portion of the year we experience south-easterly trade winds that exceed 25 knots. These vessels allow us to deliver pilots in a refreshed state rather than being fatigued from a rough ride to the Pilot Boarding Ground," he says.

"The new Hart Vessels in conjunction with the Scania engines have allowed us to lower the transit time to a vessel from 60 mins to 45 mins."

Delivering operator efficiency is one of the key aims of Scania across all its business divisions in Australia, in addition to providing high levels of operational uptime.

"It is my understanding that the Scania engines have delivered in terms of power, reliability and fuel efficiency," Captain Tedman says.

When the first vessel went in the water and sea trials were conducted, a small amount of finessing allowed the powertrain package to optimised to give approximately

2 knots more top speed via a refining of the propeller pitch.

"We run the engines at a cruise of 1650 rpm which results in a service speed of 28-30 knots and a comfortable 45 min transfer. When the schedule changes we can run the engines at their max rpm of 1800 rpm, which gives around 30-32 knots," he says.

The repowered vessel, 'The Hawk' is performing better than ever.

"With its previous engines it was able to travel at 22 knots day-in, day-out, and up to 24-25 knots with the wind and tide behind her. Now with Scania power The Hawk will cruise at 26-28 knots.

"We have seen a genuine 5-6 knot increase in performance and the benefit of using slightly less fuel," Capt. Tedman says.

"We average 40,000-litres of fuel use per month for Pilot transfers, which equates to a substantial cost to the operation per year. Fuel efficiency is very important to us.

"Overall as a manager and a pilot that uses these vessels, I am pleased with the Scania experience," Captain Tedman says.

✶ Pilot Vessel Master Darren Walter in the engine room with the twin V8 Scania engines.





LAUNCHING DIESEL HYBRID POWER

SGV Group's new vessel, the MS Diamond, has recently begun navigating Lake Lucerne in Switzerland under hybrid power aided by a powertrain that's based on a Scania 13-litre six-cylinder diesel engine.

It's a sunny March morning on Lake Lucerne in Switzerland. Michel Scheurer, production director of Schifffahrtsgesellschaft Vierwaldstättersee AG (SGV), carefully steers the latest addition to the company fleet from the shipyard out into the lake. It's just a matter of weeks before the company's new ship, the MS Diamond, is due to be put into service. But anticipation is already visible on Scheurer's face.

"We are going to be navigating with hybrid power for the first time on Lake Lucerne," Scheurer says. "We see this technology as the way forward for the future."

With its 19 ships – five old-style paddle steamers and 14 salon ships (a total capacity of 11,000 passengers) – SGV is the largest shipping company in Switzerland. It serves 32 landing docks around the lake. The new

ship was designed and built by Shiptec AG, a subsidiary company of SGV based in Lucerne.

"Our service offering is unique," says Martin Einsiedler, director of ship design and engineering and a member of the executive board of Shiptec AG.

He explains that the powertrain is based on a 405 kW Scania 13-litre inline six-cylinder diesel engine and is supported by an electric motor.

"We basically use the diesel engine when navigating," says Einsiedler.

"When we need additional power or torque for short periods, for example when landing, braking or for an emergency stop, the electric motor is used as well. However, when the ship is cruising normally, the electric motor acts as a generator, supplying energy to the ship and the backup batteries. These backup batteries in turn supply the electrical boost for the diesel engines and the on-board electricity supply when the ship is not moving."

For Einsiedler, the Scania engine fits perfectly with this design concept.

"Thanks to the compact design and the hybrid powertrain, we were able to place the motor in the stern of the ship, which significantly increases travelling comfort," he explains.

Einsiedler's enthusiasm for Scania extends beyond technical considerations.

"Particularly with engineering, the relationship between the shipbuilder and the engine supplier is very important," he says.


"During the entire development phase we were in very close communication with the people who were our direct contacts at Scania, and we always got the information we needed. That's not something you can always count on, and it makes work a lot easier."

"The customer always has the final say," he continues. "The shipping companies are offered different technical variants. They then decide which engine is to be installed. Naturally, we only recommend engines that convince us totally."

In this case, the customer SGV is convinced as well.

"I don't know any other engines that, at equivalent power, can generate such high torque as the Scania products, and that is precisely what is all important for shipping," Scheurer says. "And thanks to the new powertrain design, we can budget for a reduction in fuel consumption of around 20 percent."

The new ship is expected to operate 2,000 to 3,000 hours annually, so these savings will make quite a difference.



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