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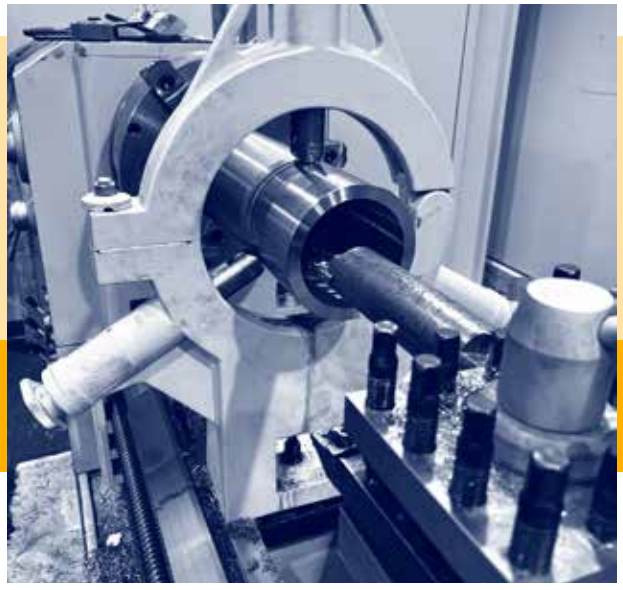

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SAAM's Tsimshian Warrior, a high-performance RAstar 3200-W escort tug, powers her way forward. Photo provided by Robert Allan Ltd.

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Electrification is the Future

After successfully leading in the design of the first electric cable ferry in Canada, 3GA Marine Ltd. is at the helm of another such green energy project. The Electric Boom Tug has been designed for Seaforth Environmental Services out of Vancouver, and was delivered in November 2025.

12M ELECTRIC TUG

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MESSAGE FROM THE EDITOR

Welcome to the spring edition of *BC Tugboat* magazine. The past year has highlighted just how essential British Columbia's tugboat sector is to the province's economy and coastal communities. From record cargo volumes to increasingly complex vessel traffic, the demands placed on operators, crews, and supporting industries continue to grow. Tugboats may be the muscle in the water, but they also remain the backbone of our marine supply chain — guiding, assisting, and safeguarding operations in some of the most challenging conditions on the coast.

But with growth comes pressure. Labour shortages, environmental expectations, and the need for continued investment in training and technology are now immediate priorities. The industry's response, from expanded Indigenous training partnerships to fleet modernization, shows a sector that is adapting under that pressure.

This issue explores those shifts and the people behind them. Our goal is to highlight the innovation keeping vessels and business moving through our coastal waters.


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Testing the future at sea: B.C.'s marine sector becomes an innovation lab

Ravi Kahlon, Minister of Jobs and Economic Growth.

As part of British Columbia's evolving "Look West" strategy, the province is positioning its marine sector as a proving ground for innovation, linking local technology companies with real-world industry challenges to drive economic growth, sustainability, and national defence capacity.

"B.C.'s marine sector has deep roots in our province, and by partnering with our cutting-edge tech companies, we can help strengthen Canada's defence capabilities while creating more good, family-supporting jobs for British Columbians," says Ravi Kahlon, Minister of Jobs and Economic Growth. "By focusing on innovation and local collaboration, we're ensuring that work to support national defence also drives real benefits for people and businesses here at home. This is our Look West plan in action."

At the centre of this push is a new marine and coastal "testbed" launched through Innovate BC's Integrated Marketplace program. The initiative is designed to give companies a real-world environment to test, deploy, and scale new technologies while helping industry partners adopt solutions with reduced financial risk.

The testbed targets some of the marine sector's most pressing challenges: decarbonization, efficiency, competitiveness, and worker safety. In practice, that means supporting innovations in areas such as vessel optimization, ocean monitoring, coastal resilience, supply chain logistics, electrification, and marine robotics.

It also reflects a broader strategic objective. Some of the technologies being developed are considered "dual-use," meaning they have both commercial and defence applications. That dual relevance is key to B.C.'s goal of capturing a larger share of federal defence spending – 35 per cent of vessel-related contracts over the next decade.

"British Columbia is a leader in marine technology innovation, and home to the largest maritime sector in Canada, putting us in a strong position to help local companies succeed and scale," says Peter Cowan, president and CEO of Innovate BC. "Through this new testbed, we're creating real-world opportunities for made-in-B.C. solutions to be tested, adopted and deployed with key industry partners."

Three initial projects illustrate how that vision is being applied on the ground.

One focuses on improving vessel efficiency and reducing environmental impact. KOTUG Canada, based in Metchosin, is partnering with the SC'IANEW First Nation and Offshore Designs to deploy an underwater robotic hull-cleaning system. Backed by $290,000 in provincial funding, the project aims to reduce fuel consumption and underwater noise—both significant issues in coastal operations.

Biofouling, the accumulation of marine growth on vessel hulls, can significantly increase drag and fuel use. By automating cleaning below the waterline, the project not only improves efficiency but also reduces the need for more invasive maintenance practices. KOTUG is also working with Rokir Analysis to collect performance data.

"KOTUG Canada has partnered with the SC'IANEW First Nation… with the mandate to protect the ocean, waterways and food sources of all coastal First Nations communities," says Rufus Percival, operations manager of KOTUG Canada. "Through the Integrated Marketplace, KOTUG Canada is reducing vessel fuel consumption and underwater noise radiation while enabling local vendors to further innovate their services."

A second project applies artificial intelligence to fisheries management. The Lax Kw'alaams First Nation is working with Ocean Aid and Salmon Vision to modernize traditional fish-trap monitoring using AI-powered imaging and data analysis. The province has invested more than $360,000 in the initiative.

The system, described as a "digital weir, automates salmon counting and monitoring, reducing manual labour, improving crew safety, and enabling more precise, selective harvesting. It represents a hybrid model that blends Indigenous knowledge with modern technology.

"This 'digital weir' ensures cultural survival through precise, non-invasive salmon management amidst climate uncertainty," says Katherine Pollock, senior biologist with Lax Kw'alaams Business Development LP. "By modernizing

traditional stewardship, we are transforming B.C.'s fisheries… to a data-led future that honours our heritage and protects the Skeena for all."

The third project centres on electrification at the dock. Vancouver-based VoltSafe is deploying a smart shore-power system at the Royal Vancouver Yacht Club's Jericho marina, supported by $387,000 in funding. The technology aims to improve electrical safety while addressing capacity constraints common in marina environments.

If successful, the system could reduce greenhouse gas emissions by allowing more vessels to connect to shore power instead of running onboard engines while docked.

"Programs like the Integrated Marketplace are critical to accelerating real-world deployment," says VoltSafe CEO Trevor Burgess. "This initiative enables us to validate next-generation electrification technologies in active coastal environments… It's a powerful model for advancing safety, sustainability and economic growth across B.C.'s marine sector."

Beyond these pilot projects, the Integrated Marketplace is already showing signs of delivering broader economic returns. Companies that complete successful trials gain not only technical validation but also reference customers, often a key hurdle in scaling new technologies.

Vancouver-based A&K Robotics, for example, leveraged a previous project with Vancouver International Airport to deploy its mobility pods internationally at Madrid-Barajas Airport. Meanwhile, Victoria's MarineLabs has secured contracts along the U.S. Gulf Coast after validating its ocean monitoring systems with the Prince Rupert Port Authority.

The Integrated Marketplace itself was launched in 2023 through a partnership between the provincial government and Pacific Economic Development Canada (PacifiCan). Its mandate is straightforward: help B.C. companies bridge the gap between innovation and commercialization while lowering the risk for industry partners willing to test new solutions.

That mandate aligns closely with the broader goals of the Look West strategy, which aims to build a more self-reliant and diversified provincial economy. Alongside marine innovation, the strategy prioritizes sectors such as aerospace, clean technology, artificial intelligence, life sciences, and critical minerals, while also focusing on accelerating major projects and expanding into new markets.

In the marine sector, at least, the approach is clear: tie innovation directly to deployment, ensure local companies can prove their technologies in real conditions, and use those successes to compete globally.

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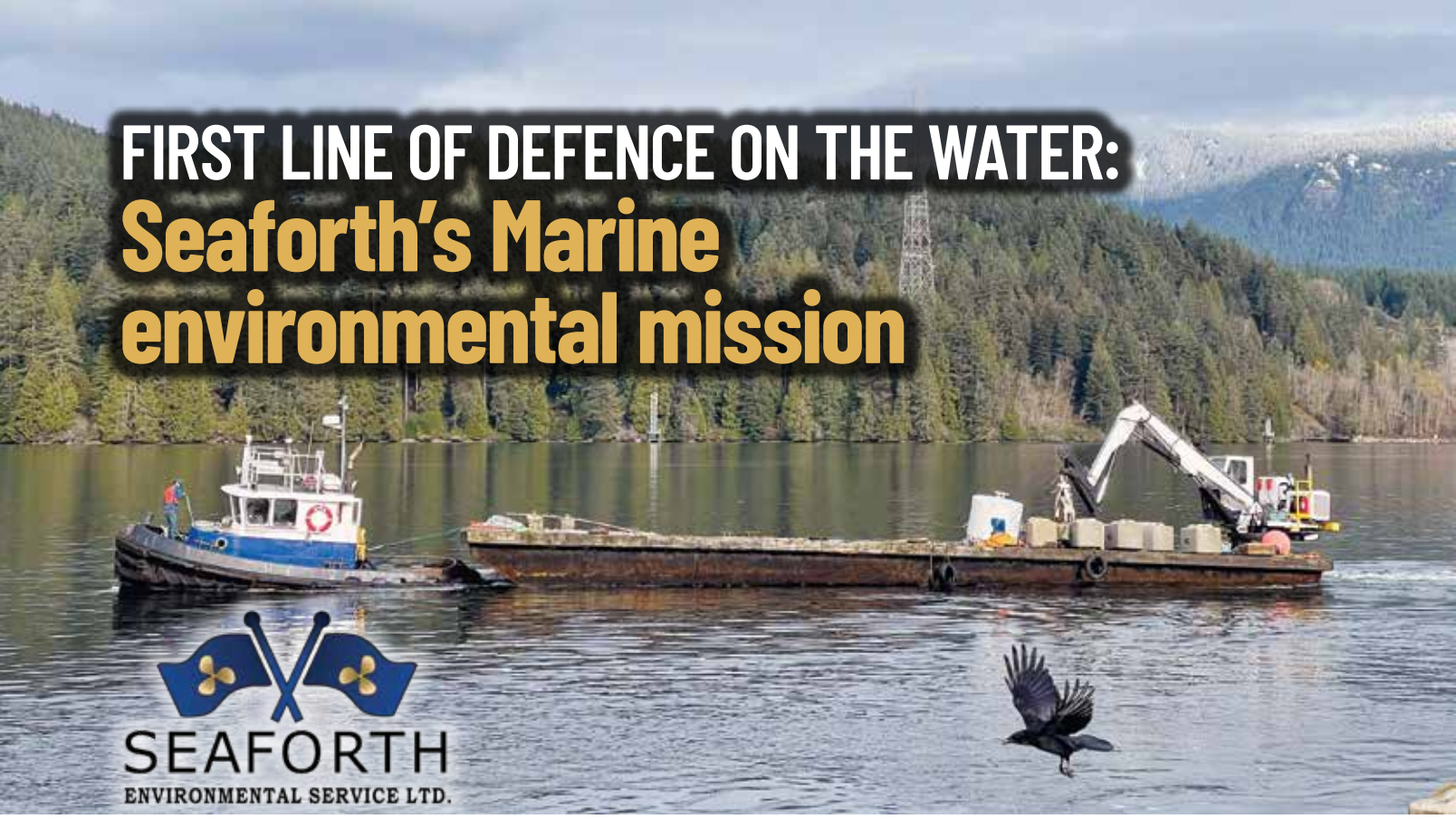
FIRST LINE OF DEFENCE ON THE WATER: Seaforth's Marine environmental mission



Seaforth Environmental Service Ltd. operates at the frontline of marine environmental protection in Vancouver Harbour, where industrial activity, vessel traffic, and sensitive ecosystems intersect daily. At the core of our operations is a primary focus: containing oil and other pollutants in the rare occurrence of a spill.

Our primary line of work, pollution containment booming, is a critical safeguard for the harbour. Whether deployed proactively during high-risk marine operations or rapidly in response to spills, our containment systems are engineered for reliability and durability in dynamic coastal conditions. From oil and fuel transfers to ship maintenance and construction projects, Seaforth crews are trusted to install, monitor, deploy, and manage boom systems that isolate contaminants and protect surrounding waters.

What sets Seaforth apart is not just what we do, but how we do it. Environmental stewardship is embedded in our operational model, exemplified by the recent addition of a zero-emission, electric-propulsion tugboat to our fleet. This vessel represents a significant step forward in reducing the carbon footprint of harbour operations while maintaining the performance and reliability required for demanding marine work. It allows us to carry out containment, towing, and support activities with minimal environmental impact—aligning our practices with the very outcomes we strive to protect.

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Working in Vancouver Harbour requires more than capability—it requires accountability. Seaforth Environmental Service Ltd. understands the importance of protecting one of the region's most vital and visible waterways.

comprehensive suite of marine services that support both environmental protection and waterfront development. Our landing craft services enable efficient transport of equipment and materials to challenging or remote shoreline locations, while our water taxi operations provide safe, reliable personnel transfer across the harbour.

We are a trusted provider of high-quality, durable turbidity (silt) curtains, and provide installation, deployment, and maintenance support throughout every stage of a project. This service is critical for maintaining water quality and protecting marine habitats during development activities. Complementing this, our teams carry out on-water construction, dock building, and structural repairs, delivering durable infrastructure solutions tailored to the coastal environment.

Seaforth's expertise extends further into anchoring systems and small-scale tug and barge operations, supporting a wide range of marine projects—from environmental remediation and water sampling to diver support operations for large commercial vessels, including cruise ships and tankers. Each service is backed by a commitment to safety, operational excellence, and environmental responsibility.

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DMT Marine Equipment 25 years of building more than deck equipment

From a six-person office to a team of over 500 professionals and 3,500 vessels equipped.

Twenty-five years ago, DMT began its journey in a small office apartment, with just six people and a clear focus: delivering high-quality machinery design.

It was a modest beginning, but one driven by ambition and a strong belief that quality should never be left to chance.

As projects grew in complexity and expectations increased, an early realization shaped the company's future: true quality requires full control. This led to a defining step, the transition from design-only services to in-house production. What started as a small engineering team was becoming something more.

From local beginnings to international reach

DMT's growth has been steady, shaped by key milestones that expanded both its footprint and its capabilities.

In 2004, the company took an early step towards internationalization with the opening of a new office in Turkey. As demand grew, the need for production control became increasingly important, leading to the opening of the first production hall in Europe in 2011. From that moment, every stage of an order, from the first engineering concept to final testing, happened under one roof, with one team accountable for the result.

The following years brought continuous development:

- In 2014, a modern office facility was opened, bringing together a growing team of engineers.
- In 2015, a second production facility in Europe further strengthened manufacturing capacity.
- In 2016, major investments in CNC machining capabilities enhanced precision and efficiency.

At the same time, DMT expanded beyond Europe. By 2017, new service partnerships were established in North America,

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followed by the first deliveries to the US market in 2018.

Each step reflected a consistent direction: greater capability, closer proximity to clients, and stronger control over quality.

Strengthening technical know-how and expertise

Growth continued with further investments in infrastructure and technology.

In 2020, another modern production facility was opened, supporting increased demand and more complex projects. This expansion continued globally, with the opening of a new production facility in China in 2024, marking an important step in strengthening DMT's presence in Asia.

Looking ahead, 2026 will bring the fourth production hall in Europe, further reinforcing the company's production capacity and long-term commitment to growth.

Throughout all these years, DMT has consistently invested in:

- Technical capabilities,
- Production efficiency, and
- Team expansion.

Because scaling a business is not only about facilities, it is also about building the expertise to support them.

From engineering to global impact

Today, the results of this journey are visible worldwide.

More than 3,500 vessels are equipped with DMT winches, operating in diverse and often demanding environments. Each installation reflects not just a delivered product, but a solution designed to perform under real conditions.

Building on this experience, DMT delivers complete deck equipment solutions for all marine sectors, integrating electric, hydraulic, and pneumatic control systems. Each project is managed end-to-end, from the initial engineering phase to production and final testing ensuring full control over quality and performance.

With two core production hubs and an expanding global footprint, DMT delivers European quality, reliable equipment, and tailored engineering solutions for vessel operators around the world.

Where partnership becomes real

In the marine industry, performance is not measured at delivery, but in operation.

Commissioning is often complex, timelines are tight, and conditions are unpredictable. This is where DMT has built its reputation, not only as a manufacturer, but as a reliable partner.

From the first design concept to final testing and beyond, the company remains closely involved. Its approach combines:

- Custom-engineered solutions,
- Precision across all production stages,
- Rigorous testing, and
- Proactive, ongoing support throughout the entire lifecycle of the equipment.

Supported by an international network of service partners, DMT ensures that assistance is always available, wherever its clients operate.

Because real partnership means being there when it matters most.

Built on people

In 2026, DMT is an international team of over 500 professionals, bringing together engineering expertise, production know-how, and a shared commitment to quality.

Over time, the company has built not only facilities, but a team capable of embracing complex challenges and delivering consistent results.

This combination of technical strength and human commitment is what defines DMT today.

"For me, engineering has always been about people as much as technology," says Piet ter Schure, CEO of DMT Marine Equipment. "What we build today is only the foundation for what we will achieve together in the years to come"

Looking ahead

The capabilities developed over the past 25 years are opening new perspectives.

With strong engineering foundations and advanced production capacity, DMT is now positioned to expand its portfolio and deliver custom-engineered solutions to a wider range of industries.

As the company continues to grow, its role as a key supplier in the marine industry will become even more visible, while its expertise will allow it to go beyond.

A milestone built on trust

Twenty-five years represent more than time. They reflect:

- Trust earned,
- Partnerships built, and
- Consistent delivery under real-world conditions.

From six people in a small office to a global company present on thousands of vessels, DMT's journey has been defined by commitment, precision, and reliability.

And as the company looks ahead, one principle remains unchanged: to build solutions that perform and partnerships that last.

Tymac's battery-electric launch moves from concept to construction

By Daniel McIntyre, P.Eng., Vice President, 3GA Marine Ltd.

British Columbia's commercial marine industry is moving into a practical new phase of electrification. The question is no longer whether battery-electric vessels can work. The focus is now where they work best, how they fit real operating schedules, and how shore-side energy systems can support demanding duty cycles.

That shift is underway with Tymac Launch Service Ltd.'s new battery-electric launch vessel, designed by 3GA Marine Ltd., with hull fabrication now underway at Bracewell Boatworks Ltd.

The vessel remains consistent with the concept released in April 2025: an 11.9-metre aluminum launch with 12-person capacity, twin 310 kW-class electric propulsion, waterjet propulsion, 736 kWh+ of onboard energy storage, and an approximate 30-knot service speed. The vessel is being developed for harbour service, where speed, reliability, turnaround time, and operating cost matter.

A key development during construction has been the continued advancement of battery technology. 3GA Marine has been monitoring battery systems as the build progresses, and newer battery technology has now been selected that provides the opportunity to increase onboard energy capacity to approximately 930 kWh before final battery procurement and installation.

This increase from the original 736 kWh+ baseline improves endurance and operating flexibility without changing the core vessel concept. It also demonstrates the value of maintaining design flexibility during construction. In a rapidly advancing market, locking in major equipment too early can

leave performance on the table. By evaluating battery technology before final installation, the project team has increased capability while staying aligned with the original intent.

The Tymac vessel is being designed as a working commercial launch, not a demonstration vessel. Based on the intended operating profile, it is expected to complete approximately 95 per cent of the jobs performed by comparable diesel vessels, excluding occasional long-distance assignments outside the normal daily duty cycle.

For a typical job, the vessel is expected to use approximately 30 per cent of its available onboard energy. In practice, the vessel can return to dock, plug in during passenger loading or job turnover, and recover meaningful energy during short stops of less than 10 minutes. Marine electrification succeeds when the vessel and charging strategy match the duty cycle.

The propulsion system has been selected with simplicity in mind. The vessel uses a compact, high-speed, permanent-magnet electric motor platform with high-power density and high efficiency, integrated with marine-grade power conversion, cooling, and control systems. The objective is diesel-equivalent performance while keeping the propulsion arrangement straightforward for crews and maintainers.

"For this vessel, simplicity was a major design driver," says Daniel McIntyre, Vice President of 3GA Marine Ltd. "The technology is advanced, but the vessel still has to be straightforward for crews to operate and maintain."

The project has also been supported by BC Hydro from the early feasibility stage. BC Hydro-funded energy studies helped assess the limitations, opportunities, and operating considerations for transitioning parts of Tymac's fleet from internal combustion engines to battery-electric vessels and shore-side stored energy systems.

That study work was important because vessel electrification cannot be evaluated by looking at the vessel alone. A proper fleet transition study needs to consider duty cycle, route profile, grid capacity, charging windows, energy cost, vessel utilization, shore-side infrastructure, and practical limitations.

In parallel with vessel construction, 3GA Marine is supporting development of a shore-side battery electric storage system for Tymac with capacity of just over 2 MWh. The concept is straightforward: charge the shore-side battery system during lower-demand periods, then use that stored energy to support fast charging when the vessel returns to dock. This reduces peak demand impacts while providing high-power charging capability.

This is where the project becomes more than a new electric vessel. It becomes an integrated energy system. The vessel, dock, grid connection, shore-side battery storage, and operating schedule all need to work together.

The commercial case remains one of the strongest drivers. Depending on utilization, diesel price, and electricity rates, the battery-electric launch is projected to reduce fuel costs by approximately 80 per cent, with potential annual fuel savings in the range of $450,000 to $500,000. Maintenance costs are also expected to be lower by eliminating diesel engines and related systems, including fuel, exhaust, oil, and engine cooling systems.

The environmental benefit is direct. The vessel will produce zero direct operating emissions, reduce harbour noise, and improve passenger and crew experience through lower vibration and quieter operation.

3GA Marine is also applying the same approach to a new 17-metre, 40-passenger all-electric ferry under design for local service. That vessel builds on the same core philosophy: practical range, efficient propulsion, simplified onboard systems, and shore-side charging infrastructure matched to the real duty cycle.

For other vessel owners considering the transition from diesel propulsion to BC Hydro electric energy, 3GA Marine can support fleet assessments, duty-cycle analysis, feasibility studies, concept design, vessel integration, and shore-side charging strategies. Owners interested in understanding which vessels in their fleet may be suitable for electrification can contact Daniel McIntyre, P.Eng., Vice President of 3GA Marine Ltd., to review operating profiles and identify practical opportunities for fuel savings, emissions reduction, and fleet modernization.

The Atlantic Raven in drydock at the Esquimalt Graving Dock.

Taking care of the Atlantic Raven:
A story of problem-solving and teamwork

By Kathi Springer

Point Hope Maritime (Point Hope) recently had the privilege of responding to a docking request from Atlantic Towing Limited. They were looking for prompt service support for the Atlantic Raven, one of two offshore support vessels in B.C. on charter to the Canadian Coast Guard to provide emergency response and towing services.

The Atlantic Raven had experienced an engine failure that necessitated a complex scope of work to facilitate an engine rebuild. This was Point Hope Maritime's first opportunity to provide services to Atlantic Towing and Point Hope's team was keen to demonstrate the quality of their services, expertise and problem-solving capabilities, and their dedication to the needs of their clients.

Atlantic Towing wanted the work completed as quickly as possible. As part of the engine rebuild, the engine's crankshaft needed to be replaced. Early discussions with Atlantic Towing suggested that the only installation route for the new crankshaft likely required cutting a hole in the side shell of the vessel and a hole through an adjacent fuel tank. This approach was going to be costly and technically challenging, requiring complex welding procedures below the waterline.

The reconditioned crankshaft being returned to the engine room.

Once in drydock, Point Hope's team was better able to assess the circumstance, and in collaboration with Atlantic Towing's team of engineers, discussions evolved to the possibility of bringing the new crankshaft into the vessel without having to cut a hole in the vessel's hull. Instead, a complex rigging route with minimal clearance through the engine room and workshop was proposed. If deemed possible and safe, this approach would be less costly and reduce the Atlantic Raven's stay in drydock.

Within a matter of hours, Point Hope's team returned with 3-D scans of the complete transport route and verified there was indeed another way to rig the crankshaft to fit into the vessel without requiring a side shell cutout. Everyone got to work immediately.

Reconditioning the spare crankshaft at United Engineering.

United Engineering's team (Point Hope Maritime's sister company located on site), had already removed the damaged crankshaft in pieces prior to the docking period. United Engineering's skilled machinists had reconditioned a spare crankshaft to virtually new condition and transported it to the Atlantic Raven at the Esquimalt Graving Dock. The careful plan to re-install the reconditioned crankshaft was successfully executed by Point Hope's team and the focus shifted to rebuilding the damaged engine. Teams from Point Hope Maritime and United Engineering worked seamlessly with Atlantic Towing's representatives under tight timelines and completed this impressive project without delay.

"We have been incredibly impressed by the professionalism of the team at Point Hope" says Paul Kearley, Senior Marine Engineer, Atlantic Towing Limited. "Not only were they able to squeeze us into their full docking schedule, but their solution and their expertise also saved us time and money. The integration of machining services from their sister company, United Engineering and the precision quality of the overall work on the crank shaft was exceptional."

With a Bollard Pull of 162 metric tonnes, the Atlantic Raven is one of the most powerful and versatile vessels on our coast. Her home port is Victoria, but she and her sister ship, the Atlantic Eagle (Bollard Pull of 158 metric tonnes) are most often deployed up and down Canada's west coast and offshore waters.

Each vessel is highly valued for their world-class emergency response capabilities including emergency towing, fire fighting, and oil pollution response. The Atlantic Raven has a crew of twelve specialized Atlantic Towing mariners on board responsible for the operations of the vessel and supporting the crew of Canadian Coast Guard. Depending on the deployment, up to twelve additional Coast Guard seafarers may be on board in what is referred to as a joint crew model performing specialized job duties such as search and rescue.

While it is critical to always respect the power of the sea, both the Atlantic Raven and Atlantic Eagle are well known and trusted for their all-weather capabilities. Having spent time working in the Grand Banks on the east coast, a region known for some of the worst sea conditions on earth, and in the wild waters off Baffin Island in Canada's arctic, the Atlantic Raven and the Atlantic Eagle are the ideal marine assets for the Canadian Coast Guard's diverse and often critical offshore operations.

Atlantic Towing has more than twenty vessels in its fleet with vessels that service the demands of both ports and offshore operations across the world.

The Atlantic Raven has a length of 75 metres and a beam of 18 metres and was built in 1999 by the Orskov shipyard in Denmark. It is powered by four Bergen medium-speed diesel engines, delivering over 14,000 horsepower.

Closing the gap: Training the next wave of marine trades workers

Chief Cindy Daniels (right), Cowichan Tribes and President of CSETS shaking hands with Tony Winter, Vice President & General Manager, Victoria Shipyards (left). Photo courtesy of Seaspan.

A new partnership on Vancouver Island is taking aim at a familiar problem across B.C.'s marine sector: not enough skilled tradespeople and not enough young workers entering the pipeline.

In late April, Seaspan announced a multi-year investment of up to $3 million to support the Coast Salish Employment and Training Society (CSETS) in building trades training programs for Indigenous youth. The initiative, based in Esquimalt, is geared toward shipbuilding and ship repair, two areas where labour demand continues to outpace supply.

For the tug and barge sector, the connection is direct. Seaspan Marine, the largest operator on the West Coast, depends on a steady flow of tradespeople to keep vessels operational. That includes welders, electricians, and marine mechanics, roles that are increasingly difficult to fill as experienced workers retire and project workloads grow.

The new training streams are practical and entry-focused: skills upgrading, a trades sampler program, entry-level ship repair training, and pathways into apprenticeships. The goal is to give participants a clear on-ramp into marine trades rather than a one-off training experience.

CSETS, which serves 19 First Nations and three Friendship Centres across southern Vancouver Island, will deliver the programs and provide support throughout. That includes help covering costs, along with mentorship and cultural components designed to keep participants engaged through completion, an area where many training programs fall short.

Seaspan has been building out its workforce development efforts for several years, tied in part to its role under Canada's National Shipbuilding Strategy. The company is currently responsible for constructing a series of vessels for the Royal Canadian Navy and the Canadian Coast Guard, while continuing repair

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and maintenance work at Victoria Shipyards.

That sustained workload is part of what's driving labour pressure across the coast. Shipyards are busy, maintenance cycles are tightening, and operators are trying to avoid downtime tied to crew or repair delays. For tug companies in particular, even small gaps in skilled labour can ripple into scheduling and service reliability.

The partnership also reflects a broader shift in how companies are approaching recruitment. Rather than competing over the same limited labour pool, there's a growing push to build new pipelines, particularly in communities that have been underrepresented in the industry.

Seaspan has already expanded its work with Indigenous partners in other areas of its business, including its involvement in HaiSea Marine, which supports LNG shipping on B.C.'s North Coast.

For the tug sector, solving labour shortages will depend on long-term training and local access to careers, not just short-term hiring. Programs like this won't fix the gap overnight, but they start to address where the next generation of tradespeople is coming from and how they will enter the industry.

Record cargo at Port of Vancouver drives demands on marine services

PORT of vancouver | Vancouver Fraser Port Authority

A record-setting year at the Port of Vancouver is doing more than boosting trade figures – it is reshaping vessel traffic, increasing operational complexity, and reinforcing the critical role of marine services along Canada's West Coast.

In 2025, the port handled 170.4 million tonnes of cargo, an eight per cent increase over 2024 and the highest volume in its history. This surge reflects strong global demand for Canadian commodities and the port's expanding role as a gateway to more than 170 international markets.

For the tugboat sector, the implications are straightforward: more cargo means more ship calls and increasingly diverse types of vessels requiring assistance.

Bulk cargo surge

The bulk sector continues to dominate activity, accounting for 98 per cent of exports and growing 11 per cent to a record 130.7 million tonnes in 2025.

Grain exports reached a new high of 30.3 million tonnes, driven by strong wheat demand, with shipments reaching 35 countries across the Indo-Pacific, Europe, and beyond. These volumes translate directly into consistent bulk carrier movements, forming the backbone of harbour towage demand.

Energy exports are playing an increasingly prominent role. Crude oil shipments doubled to 24.4 million tonnes, enabled by expanded pipeline capacity and growing demand from Asian markets such as China and South Korea. The rise in tanker traffic, particularly large outbound vessels, has significant implications for escort tug requirements and navigational support in constrained waterways.

Fertilizer exports also surged, with potash volumes increasing 28 per cent to a record 10.5 million tonnes, alongside steady gains

in sulphur shipments. These commodities contribute to steady, predictable vessel calls, reinforcing baseline demand for ship-assist operations.

While some commodities, including coal and canola seed, declined—with canola seed down 23 per cent following trade disruptions—the overall bulk picture remained strong, driven by diversification across export markets.

Container growth and vessel size pressures

Containerized cargo also hit record levels in 2025, with 3.8 million TEUs moving through the port's four container terminals, a nine per cent increase year-over-year.

This growth reflects strong domestic demand and continued recovery in export volumes. Containers carried everything from Canadian agricultural and forestry products to imported machinery and consumer goods.

For marine operators, however, the more important trend is not only volume, but it includes vessel scale. Larger container ships require greater precision in berthing and often higher bollard pull capacity, placing increased demands on tug fleets operating in and around the harbour.

Auto and multi-sector traffic

The port's auto sector also reached a new high, handling nearly 480,000 vehicles in 2025. With almost all Asian-manufactured vehicle imports entering Canada through Vancouver, these specialized vessel calls add further layers to harbour traffic coordination.

At the same time, cruise traffic remained significant, with 300 ship calls and 1.2 million passenger visits, even as volumes eased from the previous year's peak. While not core to cargo operations, cruise movements still factor into overall vessel traffic management within shared waterways.

Overseas trade

A defining feature of 2025 was the continued shift toward international markets beyond the United States. International cargo volumes rose 11 per cent to 147 million tonnes, with more than three-quarters tied to Indo-Pacific trade.

China, Japan, and South Korea accounted for the largest shares of that trade.

This shift has direct operational implications. Longer-haul international shipping typically involves larger vessels, deeper drafts, and tighter scheduling windows, all of which increase reliance on tug services for safe and efficient port movements.

Infrastructure expansion

The record year comes as the port advances major infrastructure projects aimed at accommodating future growth.

The proposed Roberts Bank Terminal 2 project is expected to unlock up to $100 billion in additional annual trade capacity, significantly expanding container throughput.

Planned dredging near Second Narrows in Burrard Inlet is also intended to improve shipping efficiency and enable vessels — particularly tankers — to load more fully.

Meanwhile, a dedicated short-sea shipping facility is set to launch in 2026, linking the Lower Mainland with Vancouver Island. For coastal operators, this development could create new demand for barge movements, feeder services, and harbour towage.

Energy transition

The port is also moving toward lower-emission operations. LNG bunkering was introduced in 2025, with dozens of vessels already refuelling using the alternative fuel.

This marks an early step toward broader adoption of cleaner fuels such as ammonia and methanol, with potential long-term implications for tug design, fueling infrastructure, and operational practices.

A record year with real impacts

On top of being a milestone, the Port of Vancouver's 2025 performance is a reflection of evolving trade patterns that are reshaping marine operations on Canada's West Coast.

Higher cargo volumes, expanding export markets, and increasing vessel size are driving sustained demand for tug services and marine coordination. At the same time, infrastructure expansion and energy transition initiatives point to even greater complexity ahead.

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