

# BrandSafway Contributes to Canada's National Shipbuilding Strategy

With Marine Insulation Services at Seaspan Shipyards



^ To provide better communication and supervision, BrandSafway has on-site offices at the Seaspan Shipyard.

› Modern ship construction resembles a giant Lego project, with a bit of jigsaw puzzle and Rubik's Cube thrown in for good measure. Instead of laying a keel and building the vessel as a whole, shipyards fabricate individual blocks, assemble the blocks into grand blocks, join the grand blocks into bow-, mid- and stern-rings, and then finally connect all the sections to create a ship.

“Building a ship is complicated,” said Shane Sampson, project manager – insulation, for a BrandSafway company in Canada. “Success requires good planning, tracking activities and costs, and outstanding communication. We establish trust with customers by using our tracking system and our field reports. We can tell them exactly how many linear meters of piping and elbows we

have insulated and how many square meters of hull insulation we have installed. We can make decisions and projections based on facts, not conjecture.”

### National Strategy

Since 2017, Sampson and his team have been onsite at the Seaspan Shipyards in North Vancouver, British Columbia, to provide marine insulation services for three ships called Offshore Fisheries Science Vessels (OFSV), which are 63.4 meters long and displace 3,212 metric tons. OFSV1 launched on December 8, 2017, and OFSV2 and OFSV3 are well underway.

For a maritime nation like Canada, shipbuilding is a strategic industry. In 2010, the government launched a National Shipbuilding Strategy (NSS) to restore its shipyards, rebuild its marine industry and create



A completed block demonstrates the need to coordinate workflow between insulation installers and the mechanical, electrical and welding trades

Area Manager Jacob Burnikell, SOC 80, Seaspan Shipyards and Project Manager Shane Sampson for a BrandSafway company in Canada.



sustainable jobs. As a result of the contract awarded to Seaspan Shipyards by the Government of Canada to build non-combat vessels for the Royal Canadian Navy and Coast Guard, Seaspan has been able to make significant, planned investments in its people, processes and facilities. The NSS strategy can be summed up with one phrase: Built for Canada by Canadians.

“We are extremely pleased to play a role in providing Canadian content value for Seaspan,” said Scott Robson, branch manager for a BrandSafway company in Canada. “Depending on work volume, we can have up to 35 people from the British Columbia Regional Carpenters Association installing insulation in North Vancouver. Further, our insulation suppliers include Canadian companies like Roxul, the largest manufacturer of stone wool insulation products in North America, as well as Johns Manville, a household name in insulation.”

Robson also noted that working with Seaspan Shipyards has helped BrandSafway realize a greater potential for its marine insulation business, a market segment targeted for growth.

“The long-term and predictable nature of the National Shipbuilding Strategy has helped us make our business more competitive for future opportunities in Canada and around the world,” said Robson. “We’ve demonstrated our value as an insulation service provider on the three OFSV vessels and hope to have the same opportunity on future vessels.”

In addition to its work on the OFSV class of vessels, Seaspan recently started construction on Canada’s new Joint Support Ships (JSS). At over 173 meters in length and with a design displacement of nearly 20,000 tons, JSS will be among the largest ships built on Canada’s west coast once complete. Through its NSS-related work, Seaspan is proud to have engaged approximately 500 Canadian firms and generated \$600 million in committed contracts.

### **It's Complicated**

Besides the power, propulsion, electrical and water systems on any vessel their size, the OFSV are also packed with scientific instruments and seawater systems. Unlike a house where installers can just roll out attic insulation and wrap pipes after the carpenters and plumbers complete their job, marine insulation requires activity before, during and after other trades work on their crafts.



**Seaspan's gantry crane reorients a block from upside down to right-side up.**

**“Our supervisors work really well with area managers and tradecraft managers to set and drive priorities.”**

“Communication is so important in a shipyard, because the sequence of work is essential for smooth workflow,” said Jacob Burnikell, area manager, SOC (Stage of Construction) 80, Seaspan Shipyards. “Our supervisors work really well with area managers and tradecraft managers to set and drive priorities.”

Hull insulation work begins in SOC 40 where BrandSafway workers mark the location for the metal pins used to secure insulation. Each pin, made from 12 gauge diameter and varying in length depending on insulation thickness, will be stud welded to the hull using a portable, inverter-based welding system.

“Pin length selection, location and even spacing are essential,” said Rohan Momerelle, area foreman for a BrandSafway company in Canada. “We focus on accuracy here because any error will be carried forward. Good looking hull insulation starts with good planning.”

At the next stage, SOC 50, BrandSafway workers tackle “in-the-way-of” challenges. Before pipes, electrical trays, cabling, mechanical systems, ladders and other items, which would be “in-the-way-of” securing

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# BRAND SAFWAY™

## Value Proof

|                   |  |
|-------------------|--|
| Start date:       | 2017   |
| Completion:       | Ongoing  |
| Location:         | North Vancouver, B.C., Canada.                         |
| Branch :          | Vancouver, B.C.  |
| Scope of work:    | Install hull and pipe insulation throughout the vessel |
| Product/Services: | Skilled labor, insulation, Safway Tracking System      |
| Safety record:    | No lost time incidents.                                |

insulation to the hull, can be put in place, workers need to install the insulation. Although insulation can be put in afterward (with much greater effort) and can be removed and re-installed, this detracts from efficiency. To further increase complexity, block sections are oriented upside down at this stage of construction, e.g., the workers are actually walking on the “ceiling.”

**“Our work not only has to pass Seaspan’s QC inspection, it has to pass Canadian Coast Guard inspection.”**

To increase installation efficiency, especially in areas with numerous odd shapes and sizes, BrandSafway created a pre-outfitting assembly shop next to its in-yard headquarters. Here, workers use a band saw to pre-cut insulation, increasing cutting speed and ease compared to cutting it on-location with a knife.

As insulation work continues in SOC 70 and 80, new challenges arise. “We have rain, snow, dirt and dust to combat or the insulation won’t look good,” said Sampson. “Further, welding spatter

from joining blocks or installing pipe, hangers and brackets could burn right through the insulation. We communicated with the other trades about the importance of using welding blankets and barriers to protect the insulation.”

Attention to detail matters in any skilled trade, but especially so with marine insulation. “Every task has a specification to follow,” said Momerelle. “Everything has to be done to code on a ship. Our work not only has to pass Seaspan’s QC inspection, it has to pass Canadian Coast Guard inspection. Fortunately, we’re more than up for the challenge.”

