

OUT WITH THE OLD, IN WITH THE NEW

Ontario-based EMS-Tech continues to strengthen its position on the west coast of Canada as another, highly efficient, stacker reclaimer was successfully commissioned in October 2020 for Neptune Bulk Terminals.

Upon successful execution of the design engineering, fabrication, and assembly work, the 962-tonne stacker-reclaimer and 154-tonne tripper made the 165km journey (roughly 90 nautical miles) from the Point Hope Shipyard in Victoria Harbour to the Neptune Bulk Terminal's facility in Vancouver Harbour where commissioning was completed. It joins its sibling stacker-reclaimer, designed, supplied, and commissioned by EMS-Tech in 2010-2012.

The project arose as Neptune's older stacker-reclaimer was approaching its end-of-life, with almost 50 years of operation time. As a result of this, Neptune engaged EMS-Tech to design, fabricate, assemble, and commission a new stacker-reclaimer rated for 7,000t/hr stacking and reclaiming, this being more than double the capacity of the machine it would replace. Given Neptune's desires to increase overall capacity, the concept of the C-Frame style stacker-reclaimer with a 45m boom designed to handle various grades of coal and featuring by-pass capabilities was born.

CHALLENGES AND OPPORTUNITIES

With a small and seasoned team, the project was completed successfully; however, it was not without its challenges. Having provided service and support to Neptune over the last several years, EMS-Tech understood the terminal's spatial limitations and got to work creating a custom-designed machine that would maximize the stacker-reclaimer's production while making best use of the space available at the terminal. Additionally, there was limited facility space for assembly with the requirement to keep production flowing. This resulted in the decision to have the machines fabricated and assembled offsite and then transported to the terminal.



Another fully assembled EMS-Tech Stacker-Reclaimer, delivered in 2013, served as inspiration for the move on the West coast of Canada... EMS-Tech looks forward to the next big move!

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With a proven track record of assembling and pre-commissioning large mobile equipment offsite, EMS-Tech confidently coordinated efforts with fabricator United Engineering (formerly Ramsay Steel) of Vancouver Island. All major fabricated sections were built at United's facility in Sidney, B.C. and barged to the Point Hope Shipyard in Victoria for assembly. The stacker-reclaimer and



Fully assembled Stacker-Reclaimer being delivered on 'Dynamic Beast' from Victoria to Vancouver

tripper were assembled in two large pieces, including all mechanical, hydraulic, and electrical components.

Once the machines were assembled, the challenge that remained, aside from navigating ongoing Covid-19 restrictions, was to transport the collective 1,116-tonne equipment to its new home at Neptune Bulk Terminals. Neptune contracted Dynamic Global, who EMS-Tech has worked with on many projects, to move and transport the equipment. This required intensive strategic planning and involved EMS-Tech's engineering expertise to ensure proper securing and a successful transport. On August 3, 2020, the tripper was lifted onto The Dynamic Beast barge and on August 10, 2020, the stacker-reclaimer was rolled on board. After a few days of securing everything to the barge, with the captivated audience of downtown Victoria and local media watching, The Dynamic Beast smoothly made its way out and around the southern point of Vancouver Island and up the coast to the Vancouver Harbour. On August 21, 2020, the tripper and stacker-reclaimer was rolled off the barge onto Neptune's site for wet commissioning.

BULK MATERIAL EQUIPMENT THAT WORKS

Despite the ongoing challenges related to Covid-19 and the requirement of transporting the almost fully assembled equipment, EMS-Tech and its subcontractors met the required delivery date set by Neptune early in the negotiation stages. Over the course of the last five months, Neptune has successfully reclaimed approximately 320,000 tonnes and stacked approximately 220,000 tonnes of coal. EMS-Tech is thrilled with the success of the project and the impact it has had on Neptune's operations.

EMS-Tech Inc. continues to develop custom bulk material handling equipment for clients around the world that is catered to their needs and exceeds expectations ■



EMS-Tech Stacker-Reclaimer in operation, stacking coal, at Neptune Bulk Terminals. Image by: Tim Cyr