



Keel-Laying

by Colin Darlington

The laying of the keel of a ship is one of the significant dates in that ship's life.¹ The date in effect marks the birth of the ship. It has been years since there was a keel laid for a ship of the Royal Canadian Navy (RCN). The keel for what became Her Majesty's Canadian Ship (HMCS) *Summerside* was laid 28 March 1998. Now, on 9 June 2016, the keel was laid for what will become HMCS *Harry DeWolf*, first of the patrol ships of the Arctic and Offshore Patrol Ship (AOPS) project.² This event was the first of a number of traditional naval ceremonies in the coming years as the RCN obtains ships under the National Shipbuilding Strategy.

The keel of a ship is the "primary fore-and-aft part of a ship's frame. It runs along the bottom connecting the stem and the stern."³ In a wooden or older steel ship, the keel extends the whole length of the vessel. Attached to it are the stem (the foremost steel part forming the bow), sternpost (the upright structural member at the stern) and the ribs of the vessel. This definition reflects how ships were customarily built. Nowadays a ship may be built of modules, or blocks, fabricated separately with fittings and equipment inside, then brought together to form the hull and superstructure of the ship. In the case of the patrol vessels, each is composed of three 'mega-blocks' made up from a total of 62 smaller blocks. It can be the lowering of part or whole of the a large block onto a cradle on the building ways⁴ that is the 'keel laying' for a modern naval vessel.



Lowering of bow block, future
HMCS *Montréal*

A keel laying is a significant date because it customarily marks the start of full production of a ship. For a civil ship, the date locks in applicable construction standards. Naval construction is allowed more flexibility, and aspects of the building can be changed after a keel-laying. Much activity, such as design, ordering of material, and initial fabrication, takes place prior to laying of the keel, so in many respects that date is one of convenience for a warship. And the laying of a keel is no guarantee that the ship will be launched and completed. Ships can and have been cancelled, or converted into another type of ship, before being launched. For ship fans, the date of a keel laying is of interest, for the duration between it and the date of launching of a ship is an indication of government support to the project, of the complexity of the engineering and logistics involved, and of the efficiency of the shipbuilder.

A keel-laying ceremony is an informal affair arranged, for the most part, by the ship's builder. Traditionally, after gathering and a short address, a section of keel is lowered into place onto a cradle on the ways. The sponsor of the ship⁵ or senior naval representative then declares the keel "well and truly laid."⁶ Mementoes (e.g., silver plates, silver hammers) may be presented – these become part of the official artifacts of the ship. A keel-laying ceremony traditionally invites good luck in the construction of the ship and throughout her life. Chaplains of various faiths say a few words of blessing that the ship may



Carl Risser, a journeyman ironworker who has been employed with Irving Shipbuilding for more than 46 years lays a 'three dollar coin' on the keel of Irving hull 103, 8 June 2016. Mr Risser is part of a long line of Halifax shipbuilders and the second of three generations of Risser to work at the Halifax Shipyard – both his father and his sons have worked and work there as well. He is well respected by all at the shipyard.

be protected, and older customs may take place. Elders of other nations may attend. In some navies, one custom has the senior naval representative laying a silver dollar under the keel before it is laid. In other navies, a coin may be laid by the sponsor or the youngest or oldest tradesperson of the shipyard. In the US Navy, the sponsor may be invited to weld her initials onto a metal plate which is placed in the ship. A silver hammer may be used to drive a silver nail into the keel. Whatever the customs, the intent is to keep the ceremony short, simple and in accordance with the traditions of the sea.⁷



The coin used 9 June 2016 was one of a set from the Canadian Mint. Coins do not have to have a specific relationship with the ship's name; authorities and, in this case, the DeWolf family, approved the selection of a coin depicting a wolf's head. The set was of four denominations. The three dollar coin was presented by Rear-Admiral John Newton, Commander Maritime Forces Atlantic, to Carl Risser of Irving Shipbuilding, to be placed on the keel. Mr Risser was then presented with the two dollar coin. The four dollar coin will be presented to the sponsor. The five dollar coin will remain onboard, held by the Commanding Officer as an artifact of the ship.

During a keel-laying a ship is referred to by her builder's hull number in preference to her name, as the ceremony at which the ship is named occurs later with the launching of the ship.⁸ And it has not been unknown for a ship's name to be changed whilst she is still under construction. The shipbuilder's number for a ship is the sequential number of hulls built by that company. What will become HMCS *Harry DeWolf* is Irving Shipbuilding hull number 103. Typically, a plaque with the builder's name and number is affixed to the back bulkhead of the ship's bridge.



Hull number plaque
Naval Museum of Halifax

The keel-laying of Irving hull 103, to become HMCS *Harry DeWolf*, was a welcome event, a sign of rebuilding the RCN. In the interest of a robust shipbuilding industry and a strong Navy, it is hoped that Canada will maintain a continuous program of building ships, beyond current projects, and that there will be many many more laying of keels for HMC Ships in accordance with the customs and traditions of the Navy and the sea.

Notes:

1. For a Canadian warship, significant dates also include launching and naming, acceptance into service and commissioning (with nowadays a commissioning ceremony usually later), and paying off (being taken out of service).
2. The RCN at some point in a shipbuilding project determines the type designation of the vessels being built. Canada is signatory to a North Atlantic Treaty Organization Standardization Agreement which lists ship type designations to be used by allies. 'Arctic and Offshore Patrol Ship' is a project title, not a ship type.
3. A-CR-CCP-602/PF-001, Royal Canadian Sea Cadets – Instructional Guides, 2007-06-18
4. Ways are platforms, sloping down the shore, on each side of a ship under construction. A frame called a cradle is constructed around the hull of the ship while she is on the launching way. On launching, the vessel in the cradle slides down the ways into the water.
5. A ship's sponsor is traditionally a female who is typically selected for her relationship to the ship's namesake or role. It is said that the sponsor's spirit and presence guides the ship throughout her service life. (US Secretary of the Navy Instruction 5031.1C, 29 September 2009)
6. See: Keel for future HMCS Harry DeWolf "Well and truly laid" <http://www.navy-marine.forces.gc.ca/en/news-operations/news-view.page?doc=keel-for-future-hmcs-harry-dewolf-well-and-truly-laid/ip9iif84>
7. For more on customs and traditions, see "Customs and Traditions of the Canadian Navy," Graeme Arbuckle, 1984; "Customs and Traditions of the Canadian Armed Forces," E.C. Russell, 1980; and the RCN "Manual of Ceremony for HMC Ships, Submarines and Naval Reserve Divisions."
8. The shipbuilder's hull number is not the same as the number painted on the hull of a naval vessel. The RCN assigns a number, traditionally called a pennant or pendant number, and often nowadays called a hull number, to each vessel. In the RCN, a ship's type is indicated by the hundreds series block of her number. Patrol ships are in the 400 block; though not announced it is anticipated that the Harry DeWolf-class will number from 430 onwards.
9. This note is an update of ones dated 3 March 2016 and 11 June 2016.

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Recommended citation: Colin Darlington, Keel-Laying, Royal United Services Institute of Nova Scotia, July 8, 2016