



Fisheries and Oceans
Canada

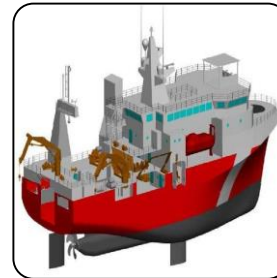
Pêches et Océans
Canada

Canadian
Coast Guard

Garde côtière
canadienne



Safety First, Service Always



Medium Icebreaker Project Overview

Canadian Marine Advisory Committee

April 2019

Overview



- Introduction
- CCGS *Captain Molly Kool*
- Naming and Dedication to Service
- Conversion
- Mission
- In Service
- Next Steps

Introduction



- In August 2018, the Government of Canada announced that it would acquire three vessels with icebreaking capabilities from Viking Supply Ships through an agreement with Davie Shipyard.
- These vessels will conduct icebreaking duties and will also be used to backfill for other vessels while they are undergoing maintenance, refit and vessel life extensions.



CCGS *Captain Molly Kool*



Main dimensions:

Length o.a	→ 83,70 m
Length between perp.	75,20 m
Beam	18,00 m
Depth to main deck	8,50 m
Draft, scantling	7,20 m
Draft, design	6,00 m
DWT	3 000 mt on 7,2 m
GT	4 000
NT	1 200

Deck capacities:

Deck area	603 m ² (40,2 x 15,00)
Deck load	1 350 mt (VCG 1,0 m)
Deck strength	≥5–10 mt/m
Cargo rail height	3 000 mm
Bulwark height	1 200/1 500 mm

Machinery:

2 x MAK 8M32 in line (father) 3840 kW
2 x MAK 6M32 in line (son) 2880 kW
Total of 18 300 HP (13 440 kW)

Main propellers:

Two KaMeWa 4 blades in nozzle, dia 4 m, 145 rpm

Rudders:

Two spade rudders, 2 x 45 deg, split or synchronized

Bow thrusters:

One Brunvoll tunnel 1200 BHP
One Brunvoll nozzle rotatable/retractable 1200 BHP

Stern Thrusters:

One Brunvoll tunnel 1200 BHP

CCGS *Captain Molly Kool*



CCGS Captain Molly Kool

up to
25
days
of **continuous** operation

longer than
school buses **6**

19 CREW

taller than a
7
storey
building

breaks up to
1
meter
of ice at a speed of
3 knots (5.5 km/h)

CAPTAIN MOLLY KOOL

The infographic features a central illustration of the red and white icebreaker ship 'Captain Molly Kool' navigating through a field of white ice floes. The ship's name is printed on its side. Surrounding the ship are various statistical callouts: 'up to 25 days of continuous operation' with a large '25'; 'longer than school buses 6' with a line of six school buses; '19 CREW' with a row of 19 human icons; 'taller than a 7 storey building' with a 7-story building icon; and 'breaks up to 1 meter of ice at a speed of 3 knots (5.5 km/h)' with a vertical double-headed arrow. The background is a light blue sky with a sun and clouds.

Naming and Dedication to Service



- Captain Molly Kool was a Canadian trailblazing mariner from Alma, NB.
- A dedication to service ceremony is being planned for May, 2019, in concert with a larger ceremony celebrating women in the seafaring industry.



Conversion



- The first vessel to enter into service, the CCGS *Captain Molly Kool* underwent a preliminary conversion upon arrival in Canada, and joined the icebreaking fleet in December, 2018. Additional work to further customize it will be undertaken when the second vessel enters into service.
- Preliminary conversion included:
 - Repainting to meet Fleet Identity Program
 - Compliance with Canadian Regulations

Mission



- These vessels will deliver Coast Guard's essential icebreaking program and will be fully capable icebreakers in both southern winter and Arctic summer seasons.
- They will also support a variety of other Coast Guard programs, such as Search and Rescue and Environmental Response.

In Service



- The CCGS *Captain Molly Kool* has been operating in the Gulf of Saint Lawrence since January, 2019.
- The vessel and crew have already performed many essential icebreaking duties and numerous escorts.



This document, and more, is available for download from Martin's Marine Engineering Page - www.dieselduck.net

Next Steps



- The second and third ships are undergoing their conversions and are scheduled to be in service in Fall 2019 and Summer 2020.
- Once the second vessel is completed, the CCGS *Captain Molly Kool* will return to the shipyard for its full conversion.





Questions?