

The Great Lakes - St. Lawrence Seaway System *Le réseau Grands Lacs - Voie maritime du Saint-Laurent*

2009 - Notice to Shipping #10

MAISONNEUVE REGION MONTREAL / LAKE ONTARIO SECTION

Update on Lock of the Future Testing

Further to Maisonneuve Region Notice to Shipping N° 7, issued on April 20th 2009, this notice is to advise of the progress on the on-going testing initiatives.

Hands-free mooring in lock 7 in Niagara:

Commissioning of two of the four hands-free mooring units was completed during the week of June 9th, 2009 at which time testing of vessels of up to 160 metres in OAL resumed. The installation of these units will also permit the testing and calibration of new scanners to detect the location of wear bars on the ships hull. Delivery of the two new additional mooring pad units is scheduled for the end of July.

Vessel ability to stop without the use of mooring lines in locks 1, 2, 3 and 4, in Maisonneuve Region:

The Seaway has gathered a significant amount of critical information thanks to the cooperation of the industry. As such, the Seaway has decided to suspend testing of the vessels' ability to Stop and Hold at lock 2 in the Welland Canal. Testing will continue at locks 1, 2, 3 and 4 in Maisonneuve Region, and on or about June 22, 2009, phase II of this testing will be launched at these locks and locks 1, 3 and 7 in Niagara Region.

Phase II testing will see all upbound vessels stopping at the final mooring position and maintaining position as close to the tie-up side wall as possible, all without the use of mooring lines. Once the test is complete, the vessel will be secured as per standard procedure. The downbound vessels will also be asked to stop and maintain position as close to the tie-up side wall as possible; however, the hand-lines for N° 2 and N° 4 mooring lines will be taken and ready to deploy. Mooring line N° 2 will be placed, as per normal procedure, on the bollard for all downbound vessels with an OAL greater than 222.5 metres. The ship arrestor will be raised only after mooring line N° 2 has been placed on the appropriate bollard and the vessel has come to a complete stop. The vessel will then be asked to advance to the final mooring position using its engines. Once the test is complete, the remaining mooring lines will be secured.

Lateral Hydraulic Assist:

Work is on-going to re-introduce lateral hydraulic assist for upbound vessels with a target date of June 29th, 2009 to begin testing for upbound vessels at lock 7 in Niagara Region. Similar work is on-going at the Maisonneuve Region where testing will start at certain deep locks before the end of June.

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"Lateral Hydraulic Assist" is designed to assist vessels in the upbound direction to keep to the mooring side of the lock chamber. The "Lateral Hydraulic Assist" is activated when the stem of the upbound vessel passes the extreme lower end of the lock wall. Once the operation is initiated, the valve at the lower end of the lock moves to the fully closed position and the upper end tie-up side valve partially opens.

This valve opening permits the water to pass under the vessel, and deflect off the opposite wall, then return in a lateral motion to create a force on the side of the vessel. This force keeps the vessel to the mooring side of the lock.

Masters / Pilots involved in testing are asked to provide any comments/ concerns with respect to the tests directly to the lock crew who will record them on the appropriate form.

Self spotting:

Vessel Self-Spotting systems are presently installed at lock 7 in the Welland Canal and at locks 1 & 2 in the Maisonneuve Region. Data from these units is being collected and reviewed on a daily basis. Variable message display boards display to a vessel considered eligible to use the Self-Spotting system the distance between the stem of the vessel and the stop position, once the vessel is less than 30 metres from its stop position. These display boards are on for evaluation purposes only; therefore, spotting instructions from the lock personnel are to be respected. Work is presently underway to install 4 more Vessel Self-Spotting systems, 2 in each region.

Maisonneuve Region June 17, 2009