

The minimum width of St. Lawrence Seaway channels is 180 feet between bridge abutments and 225 feet when provided with two embankments, to 800 feet in improved channels. The controlling depth in canals and channels is 27 feet.

The Lower Beauharnois Lock by-passing the Beauharnois Power-House lifts the ship 38 to 42 feet so that it may pass through a short canal to the Upper Beauharnois Lock, where it is again lifted 36 to 40 feet to the level of Lake St. Francis; after some 13 miles in the Beauharnois Canal, the ship enters Lake St. Francis. It sails westward for some 30 miles by dredged channels to the head of the lake.

All locks and channels to this point have been built by Canada's St. Lawrence Seaway Authority.

d) *United States locks:*

The ship canal leaves Lake St. Francis at the southwest corner and before long crosses the international boundary just opposite St. Régis, Quebec. From here to the first lock on the United States side is only five miles. Entering the Bertrand H. Snell Lock, the ship is lifted 45 to 49 feet into the Wiley-Dondero Canal (ten miles long) and is then lifted another 38 to 42 feet by the Dwight D. Eisenhower Lock into Lake St. Lawrence, the power-pool on which HEPCO and PASNY draw for the water used in the turbines at the Barnhart Island-Cornwall Power-House Dam, a mile to the north. The ship canal through Lake St. Lawrence passes where rapids once tossed the water into an angry foam.

e) *Iroquois Lock:*

At the western end of Lake St. Lawrence, the Seaway Authority of Canada has built a lock to allow ships to by-pass the Iroquois Control Dam. The lift here is only about one foot. Once in the waters of the St. Lawrence west of Iroquois, the ship channel meanders through the Thousand Islands past Prescott and Brockville, on to Kingston or Cape Vincent on Lake Ontario, and thence by the open waters of the Lake to the port of Toronto, industrial Hamilton and Port Weller.

f) *Welland Canal:*

From Port Weller on Lake Ontario to Port Colborne on Lake Erie is 27 miles. Through a series of eight locks (three of them twin locks in flight allowing passage of ships in both directions simultaneously), ships are raised through 326 feet to the level of Lake Erie.

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