

EASTCLIFFE HALL

- by Robert D. Graham -

There is nothing on the surface of the St. Lawrence River near Crysler Shoal, a few miles from Morrisburg, Ontario, to mark the spot. However, a glance at the navigation chart reveals a wreck symbol, which is the final manifestation of the motorvessel EASTCLIFFE HALL. She was typical of the last generation of St. Lawrence canallers, but it is EASTCLIFFE HALL's calamitous fate that singles her out for a feature article in these pages.

With the 1950s came increasing certainty that the long-awaited St. Lawrence Seaway soon would be built, even if Canada had to do it alone. This imminence did not result in a moratorium on canaller construction, however; ship owners reasoned that, with modifications, new canallers could remain viable well after the advent of 27-foot navigation channels and locks that could accommodate ships 730 feet in length. Of the canal-sized dry-bulkers built between 1952 and 1958, the Hall Corporation built seven, Beaconsfield Steamships ("Redbarge") and N. M. Paterson & Sons three each, Quebec & Ontario Transportation and Canada Steamship Lines two each. Other operators added two more. The canaller era definitely did not end with a whimper.

The Hall, Paterson and C.S.L. newbuildings were very similar. Assumed today to reflect the technology of the 1950s, they were, in fact, closely modelled upon the JOSEPH MEDILL, built for Q & O by Swan, Hunter & Wigham Richardson Ltd. on the Tyne in 1935. The MEDILL, it will be recalled, went missing in mid-Atlantic en route to Canada on her delivery voyage, a misfortune that did not deter her owners from building a virtually exact replacement. The success of the splendid (albeit homely) FRANQUELIN (I) more than justified their faith in the design of the two canallers.

Increasing cargo capacity within constrained dimensions and draught could only be achieved through the reducing of non-freight space, but accommodations resist downsizing. The logical solution lay in smaller machinery spaces, best achieved by the use of diesel propulsion equipment. This eliminated the need for boilers and other space-intensive, steam-related ancillaries which had been fairly standard up until that time.

But the diesel engine alone did not provide all the answers. Even disregarding the ill-designed, 1911-built TOILER (20), (b) MAPLEHEATH, whose two primitive oil engines proved unequal to the St. Lawrence River currents and were replaced in 1913 with traditional steam power, there was the experience of C.S.L.'s GRAINMOTOR, which was heralded at her 1929 debut as the first of a generation of single-diesel canallers. GRAINMOTOR's problem was that she had no dead slow. Controllable-pitch propeller technology lay decades away and her reduction gearing was inadequate. The internal combustion engine stalls if throttled back too far. GRAINMOTOR's canal "contretemps" were numerous, for her master had either good rudder response but too much speed, or suitably slow speed for canalling but no rudder response at all.

The answer (found in JOSEPH MEDILL and FRANQUELIN) was to install two diesel engines, bedded abreast, each swinging its own propeller. The problem of the resultantly "full" stern lines was mitigated by the increased manoeuvrability, although siting the propellers outboard of the ship's centreline also increased their vulnerability to damage whilst canalling.

The virtues of this new design far outweighed any drawbacks; more power, excellent economy, and good dead slow steering through running one engine at dead slow ahead and the other at slow astern, made FRANQUELIN a very successful ship which operated long past the end of the canaller area.

The first postwar expression of this design philosophy was FRANKCLIFFE HALL (I), completed by Canadian Vickers Shipyards Ltd. at Montreal in 1952. This updated version of FRANQUELIN - even her name seemed to acknowledge the