

## Carl-Gustav Pettersson (1876 – 1953)

Not many naval architects have made their name synonymous with a particular type of boat, but Carl-Gustav Pettersson is one of that select group.

The name 'Pettersson boat' conjurs up a picture of a varnished mahogany motor boat with a distinctive raised foredeck. In the course of a long career C G Pettersson, or 'CG' as he was usually known, did design many boats of this type, but his design talents spread much wider.

He was born in 1876 on an island in the east Swedish archipelago to a farming family. As eldest son he would, in the normal course of events, have taken over the farm on Ramsø that the family had moved to when he was nine. But CG had other ideas, and his interest in boats and engineering prevailed. He took up a three year apprenticeship with the pioneer engine designer and boatbuilder Julius Frodé, and after that set up with his brother a small boatyard on the island. There followed a spell as boat designer for AB Reversator, a company based on a special solution to the problem that plagued the makers of early internal combustion marine engines; how best to obtain a reverse gear. Here he established himself as someone who could get a good speed out of very little power. CG also undertook design commissions elsewhere, including the motorsailer *Lilice* and in 1909 a tandem wing seaplane with both buoyant floats and hydrofoils. One significant design from this early period was *Penta*, commissioned as a test boat for the engines of that name. Here the elements of the classic 'Pettersson boat' were starting to be apparent. It also marked the beginning of a long cooperation with Penta, both as a user and specifier of the engines, and as designer of several later demonstration boats for the company.

Pettersson took a major step in 1910, when he moved to Liljeholmen outside Stockholm and started his own design and consultancy firm. This turned out to be both his work and his hobby for the rest of his life. When he died in 1953 he had designed more than 1100 different vessels of many types, and produced proposal drawings for a host of others. He was not bluffing when in an early advertisement he listed his specialities as motor boats (fast racers and pleasure craft), passenger boats and cargo vessels, fishing boats and motor tugs. In addition to hull designs he offered internal arrangements, proposal sketches, conversion drawings, supervision of newbuildings and surveys. Often he would draw fittings, special equipment and internal panelling in detail, frequently on the same sheet as the lines and GA.

During World War I the demand for pleasure boats dropped away, and CG compensated by designing workboats and small freighters. But in 1915 he designed for a Danish banker what was to be the largest vessel to come from his board; the 30m steel motor yacht *Lilian*. It was also a very advanced design; one of the first large diesel-engined yachts, with an extensive electrical system and internal



telephones. *Lilian* survives as a tribute to Pettersson's skill, restored over many years from a wreck to a comfortable home and seagoing condition by its owners, and unusual in still having its original Polar engines.

In the course of the years the characteristic Pettersson style of easily driven motor boat evolved. CG was happy afloat, and long tours helped to promote his designs. In 1925 he successfully completed a 'circumnavigation' of Scandinavia in his own *Wiking X*, with human companions and a pet monkey. *Wiking X* was, and is, a 9m x 2.17m wooden double ender with a cabin under the raised foredeck and a large cockpit, the aft part of which can be enclosed by a bulkhead/windscreen and canopy to make a second cabin. The seaworthy and efficient hull needed only 8-12hp from its A2 Penta petrol engine. They sailed in all weathers round the Swedish and Norwegian coasts as far north as Narvik, where the boat was put on a railway wagon, transported to Umeå on the Baltic, relaunched, then sailed down to Stockholm and acclaim. Fifty five years later Gunnar Fritz-Crone restored *Wiking X* and repeated the voyage successfully, though this time with a diesel engine, human companions and a toy monkey.

*Wiking X* and many others were sharp sterned, but CG frequently used transom sterns, often strongly raked or V-shaped. Motor boats of all shapes and sizes to his designs were built for discerning owners by the best yards in Sweden from high quality materials. Typically the skin was carvel mahogany, and Pettersson was keen on a combination of bent timber frames interspersed with galvanised angle steel frames.

From time to time CG tackled commercial vessels. Examples include two 20m long vessels for the Stockholm Brewery designed to deliver beer around the archipelago. His pilot boat designs achieved a good reputation with the pilots, to such an extent that after Pettersson's death a new 11.5m vessel was built to his old hull lines. It is sometimes said that CG didn't touch sailing boats, but this is not the case. The motor sailer has been mentioned, and during WW II fuel was scarce and several people came to him for sailing yachts, but it is fair to assume that his heart really lay with motor boats of moderate power and speed in the 7-15 m size bracket.

During his lifetime, C G Pettersson's reputation stood highest in Scandinavia, and he did not really follow the post war focus on planing craft. But in more recent years he has become better appreciated in other parts of Europe. Boats of his design have achieved classic status, many surviving examples have been extensively and expensively restored, and they will probably provide enjoyment far into the future. There are several restoration specialists who can tackle the structural and electrolytic decay problems of wood/steel composite structures. To a large extent the Motor Yacht Society in Stockholm has become the spiritual home of the Pettersson boat. With a growing interest internationally in traditional motor cruisers and launches, new boats are being built on Pettersson lines, and the style is influencing some of today's designers.

We are fortunate also that a large archive of CG's drawings has been preserved and is now in Sjöhistoriska Museet in Stockholm. For further reading two books (in Swedish) stand out:

Richard White

Further Reading:

CG Pettersson - Båtkonstruktor og Äventyrar  
CG Pettersson – Legendarisk Båtkonstruktor  
Both by Gunnar & Åse Fritz-Crone  
The second book lists the known CGP drawings.