## Kinghorn's Ships

In Victorian times, Kinghorn's rocky shores became the unlikely home of a shipbuilding yard. This was established in 1864, by John Key who owned an engineering works at Heggies Wynd in Kirkcaldy where he built steam engines, many of which were for ships. The railways, which had been spreading across the country were transforming industry and especially ship building. Only railways could transport the iron ore, coal and limestone needed to make iron iron plates and girders in large quantities and then take the finished iron products to the shipyards. Wood had been ideal for vessels of up to 200ft in length but timber was getting expensive and there was a fire hazard with steam engines in wooden ships.

In the early Victorian era steam engines were `cutting edge technology' and engine builders were constantly developing better engines and boilers, John Key seems to have been successful in making engines with high power output and low fuel consumption especially for ships. Steam ships did not need the stability of sailing ships which heeled with the wind and so could be longer and narrower than sailing ships. Long, narrow steam ships could also travel faster and were more reliable than sail which made them ideal for transporting people. John Key therefore decided to set up a new business building iron framed ships with the raw materials being brought in by rail rather than by sea as all the harbours were already crowded with houses and sheds. He eventually spotted the possibilities of a site on the Abden Estate in a field cut off by the railway at Kinghorn. When completed, the new Abden shipyard at Kinghorn even had its own branch line into the yard and special trains brought not only the iron and other materials but also additional workers from Kirkcaldy.

The yard was situated immediately to the North East of Kinghorn Parish Church, a site now occupied by the present caravan park. All the shipyard buildings have now been swept away but the remains of the three slipways can still be seen on the shoreline. The Easter Braes coastal path runs along the Northwest edge of the site behind the remains of the wall of the large building which can be seen in the old photograph.





The three slips had to be aligned East/West aimed directly across the threatening black ridges of rocks (as can be seen by the shadows of the remains of the slipways on Google Earth)! This angle was necessary to accommodate the large ships which were built here, even though that meant that they had to be launched at high tide with steam up so that they could sail away. On John Key's death in 1876, the yard passed to his sons but and was later taken over by John Scott in 1886 and modernised. A large crane was constructed using girders salvaged from the Tay rail bridge which had collapsed in 1879 (and will be remembered for a very long time, http://www.mcgonagall-online.org.uk/gems/the-tay-bridge-disaster).

Despite building some impressive vessels, the yard closed in 1900 but was re-opened in 1901 (again by John Scott) before again closing in 1911. After one last revival in 1919, it closed for the last time in 1922 probably because a modern shipyard had been opened at Burntisland in 1918 where much bigger ships could be built and so after almost a century very little now remains to remind us of the many ships were built here during the 58 years that the yard existed.

Despite the Victorian population of Kinghorn being far smaller than at present, many ocean going ships, both sail and steam powered were built here. For example, the 340ft long Mentmore launched in 1882, was designed to carry up to 1,200 3<sup>rd</sup> class passengers (equal to almost the whole population of Kinghorn which had 1439 inhabitants in 1881)! By comparison, it is worth noting that Isambard Kingdom Brunel's `Great Britain' which at 322ft had been the longest ship in the world when launched 40 years earlier at Bristol (where it is still preserved) carried only 360 passengers (later increased to 730) and Scott's `Discovery' (172ft long) at Dundee is only about half the size of the Mentmore.

It is therefore interesting to collect together and to tell a few tales about some of these Kinghorn built ships and their subsequent adventures both locally and all around the world.

The first ship launched in **1864** was the **SOUTH AUSTRALIAN** of 800 GRT (an outdated measure of its carrying capacity) It was powered by a 160HP engine and able to carry 60 first class and 160 second class passengers.



This was followed two years later in **1866** by the **DANE** built for the Union Steamship Company.

Dane was 788 gross registered tons GRT,227ft long and a speed of 9 knots. She operated the Cape Town to Mauritius service but as this was discontinued in 1868, she was put up for sale and was bought in 1870 by Fonte Bella in the Azores and renamed Atlantico. Her Career ended in 1878 when she sank off the Azores.

Both the above ships were of `composite construction' i.e. iron frame but wooden hull planking, but the **RIVER TAY** launched in **1868**, the first all iron hulled steam powered whaling ship built for the arctic trade. Weighing 608 tons she was 145ft long with a 30ft beam, (just a little smaller than Scott's Discovery). She had six watertight compartments and a reinforced hull to withstand the pressure of the ice and due to increased range and speed was able to make two arctic voyages in one season, but over hunting soon made the arctic trade uneconomic, especially as whale oil was rapidly being replaced by `Paraffin Young's' shale oil (the red chip bings at Broxburn and the Binn village being the reminders of that process).

In **1869 S.S. ABDEN** was launched, (she later became the Temperly Line's `SS SCOTLAND'). She was 304ft long x 38ft beam, 2,146 GRT, 400 HP, 14 kts, and sailed transatlantic every year until 1888. (See Appendix 1 for more on this ship).

**1869 Travancore** 216ft x 26ft was built for P & O. She carried 105 first class and 50  $2^{nd}$  class passengers

In **1872**, the mail steamer `**AFRICAN**' was launched; she was 315ft long x 34ft beam and had a service speed of 12 knots for the Southampton – Cape Town run. (There is an interesting account of her arrival in Cape Town in appendix 2).



In 1881 African was transferred to the South African coastal service and 1885 was sold to F Stumore & Co of London without a change of name even though another vessel with the same name was about to be launched (this practice was soon banned).

The odd looking rig was quite practical in that the fore and aft sails could be used to steady the ship in heavy weather and assist the engine (saving coal) when going to windward whilst the square sails on the foremast would be helpful when the wind was abaft the beam. But in 1887 whilst carrying a cargo of coal from Cardiff to Jeddah, she ran ashore in the Red Sea and became a total wreck.

In **1873 KAFIR** was built for the South and East African coastal routes. She was 250ft long with a 29ft beam, 982 GRT and a service speed of 10 knots. She was wrecked at the entrance to Simonstown near Cape point in 1878.

Also in **1873 CLIO** an iron single screw steamship was built for the Bristol General Steam Navigation Company. She was 230ft long x 28ft beam with a 120HP engine plus fore and aft sails



Clio

**1876 TUDOR**, was an iron single screw, schooner rigged, steamship 227ft long 29ft beam with a 110 HP compound engine with 27 and 51 inch diameter cylinders was built in 1876 for J Bacon of Liverpool.

1876, PERU was a 183ft long 710 GRT iron hulled barque. See Appendix 2 for her fascinating story.

**1876 JOHN STIRLING** was launched. She was a passenger ferry for the North British Railway which before the Forth rail bridge was constructed had to ship passengers from Burntisland to Granton. She was 190ft long x 27ft beam 427 GRT powered by a 250HP 2 cylinder simple steam engine. She was rather a wet ship in heavy weather, so a large covered forecastle was soon added which provided useful accommodation for livestock and horses on the crossing.

**1877 JOHN BEAUMONT** 125ft x 24ft 165 GRT 35HP and 45HP Designed by the North British Railway's engineer for the Queensferry ferry duty, she was originally fitted with a propeller at each end but was found to be quite unmanageable and was later converted to paddle steamer.



**1879 WILLIAM MUIR** 174ft x 24ft 364 GRT 225HP Built for the Burntisland to Granton Ferry duty.

The P.S. William Muir approaching Burntisland with Inchkeith in the background.



The P.S. William Muir after conversion to a single funnel.

She was the first of the Abden shipyard ships to be built of steel rather than wrought iron. She was a popular cruiser and was still plying the Forth when in 1917, she was requisitioned for service as a minesweeper at Sheerness. She returned in 1919 to operate the Burntisland to Granton ferry until she was replaced in 1937 after 58 years service and 800,000 miles (equivalent to 32 times round the world).

**1882 MENTMORE / ASSIDUITA** 3296 GRT, length 339.6ft x beam 40.2ft one funnel two masts, iron hull, single screw, speed 10 knots. Accommodation for 1,200-3rd class passengers. Built by for the Johnston Line. In 1896 she was purchased by the Zino Line of Italy, renamed ASSIDUITA and started her first Genoa - River Plate voyage on 20th Jan.1896. On 16th Nov.1900 she caught fire in the North Atlantic and was abandoned, the crew being rescued by the British steamer LANARKSHIRE.

**1884 NEWCASTLE** 1252 GRT, length 261ft x 33ft built for the Newcastle and Hunter River co Sydney Australia



1886 EDINBURGH CASTLE 160ft x 20ft 85 HP was built specifically for cruising the Forth and had electric lights and a 70ft dining saloon. She was also fitted with a telescopic funnel and hinged mast to enable her to pass under bridges and reach Stirling. She maintained a speed of 15 kts on her trials between the west point of Inchkeith and the Oxcars light. She became a hospital ship in the 14/18 war before being blown up in the White Sea, Russia in 1919. Cruises were very popular and covered the whole of the Forth from the Bass Rock to Stirling (which of course was the first road bridge until the swing bridge at Kincardine was opened in 1936). To Edinburgh folk, Kinghorn was a very popular seaside resort which could only be reached after an adventurous trip by boat and train.

1899 P.S. TANTALLON CASTLE 210ft x 25ft 333 GRT 100HP compound steam engine giving 16.5Kts carrying 787 passengers.



Tantallon Castle of 1899



Tantallon Castle at the May Isle

Her greater length than the Edinburgh Castle with the paddles set well aft meant she was fast and looked good. But the extra 50ft of fine bow meant that she was slow to respond to her helm and a bigger rudder did not solve the problem (unlike a screw steamer, the rudder is not in the propwash) and as a result in 1899 she collided with another steamer which had right of way.

**1899 P.S. STIRLING CASTLE** 170ft x 24ft 271 GRT 141HP compound engine. She was a smaller version of the Tantallon Castle but to give the maximum versatility, she had a telescopic funnel, a hinged mast and the paddles could be disconnected mechanically by means of a cotter pin on the crankshaft which meant she could then turn in her own length with the HP cylinder driving one paddle and the LP cylinder the other. But disconnecting and reconnecting could only be done with the paddles turning slowly (and it sounds a bit fraught even then).



In 1886 the yard had been taken over by John Scott who ran it until it closed due to financial difficulties in 1909. It was re-opened by John Fletcher in 1919 who planned to build three ships initially using prefabricated `kits' of parts made in works elsewhere. This system was developed as a wartime measure to counter the large number of ships being sunk by German U Boats. But unfortunately the deliveries of the kit parts were haphazard and only one vessel was eventually completed which became the last ship built at Kinghorn.

**1920 S.S. KINGHORN** 596HP triple expansion engine 6597 tons gross. She was also largest (and last) ship built at Kinghorn. She hit the submerged rocks as she was launched fortunately without incurring serious damage. But this underlined the fact that as engines were getting more powerful ships could be both bigger and faster, but the confined space at Kinghorn limited its possibilities. Burntisland shipyard had also just opened and so when financial difficulties forced Abden shipyard to close in 1922, it was for the last time.



A grand total of 140 ships had been built and launched here over the preceding 58 years. The high reputation of the Abden shipyard brought in orders from as far away as Australia. Ships built at Kinghorn continued to transport people and goods across the world's seas and oceans throughout (and until well after) the Victorian era. So Kinghorn played a significant role in helping to build the world we know today.