# CAMMELL LAIRD Past, Present and Future

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#### Introduction

Cammell Laird of Birkenhead on the River Mersey was one of the best known and admired British shipbuilding companies during the nineteenth and twentieth centuries before it closed it's doors for what the workforce and local community were convinced was the last time in 1993. In 1967 the workforce had totalled more than 12,000 but this dwindled to only a few hundred at the time of closure. There has been much speculation as to why this once great yard was closed down including that of

- Government conspiracy
- Commercial asset stripping exercise
- Union problems etc.

However the official reason was that of an 'Over capacity in warship building' resulting from the end of the Cold War. Irrespective of the reason for closure, the result would have been the same, in creating high unemployment in an area already savaged by recession along with doom, gloom and despondency for the workforce, business associates of the yard and the local community. As a 'final nail in the coffin', the Government decided that the yard should retain its 'Warship Builder' tag. This made it impossible for the company to attract EC shipbuilding intervention funding necessary to support commercial shipbuilding and this situation prevailed for 7 years under EEC legislation until the restriction was finally lifted in January 2000.

Cammell Laird was effectively dead in the water and the asset stripping commenced immediately. Large chunks of land, facilities and equipment were sold off and a plethora of light industrial units sprouting up on land that had once been used to build some of the greatest ships of modern times. That was until John STAFFORD, a local entrepreneur and now Chief Executive of the new Cammell Laird, got involved with some business associates and a group of former employees. John effectively stopped the asset stripping at Birkenhead and persuaded VSEL to sell him and his newly formed company, 'Coastline Industries' a significant part of the shipyard facilities and equipment. Coastline Industries was the result of a merger between several smaller companies (Schooner Marine, Watson Norwest and Consultancy Services Northern) who were involved in ship repair activities elsewhere on the River Mersey. That was back in 1994 and what has taken place since is a most remarkable 'phoenix' story. With the drive and determination of 'Empire Building Pioneers' John STAFFORD and his colleagues transformed the doom and gloom at Birkenhead into an unqualified success. Probably the most significant acquisition in the early days of Coastline Industries, was the purchase of the rights to use the name 'Cammell Laird', for this was like a 'World Class Stamp of Approval', instantly recognized by the international shipping industry.

#### The Early Years

Prior to explaining the transformation of the company since 1994, it is worth looking at the early years for few shipbuilders in the World can boast the number of pioneering achievements that have been notched up since William LAIRD established his shipbuilding company on the banks of the river Mersey in 1824.

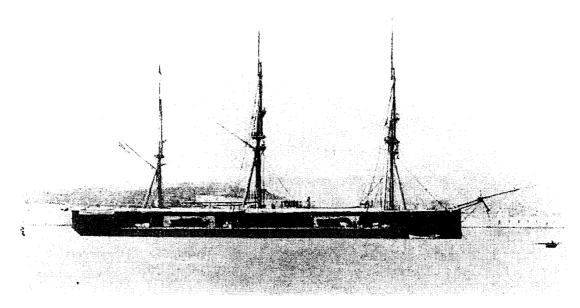
It was in 1810 that William LAIRD came to Liverpool for the first time and looked across the River Mersey, which he regarded as the waters of opportunity. He was then thirty years old and was known in the area as a trader of ship's equipment. He was married to Agnes, daughter of Gregor MCGREGOR, a well-known sea captain and direct descendant of the Scottish folk hero, 'Rob Roy MCGREGOR'. His first involvement with shipbuilding was around 1815, when he was associated with a boiler works at Victoria Quay in Wallasey Pool, which became the site of his first shipyard. About the same time he was known to be a Director of several shipping companies, an agent for James Watt steam engines, owner of a sugar-house and more importantly, a land owner in Birkenhead.

William LAIRD had six children including the explorer, MacGregor LAIRD, who set up his own shipyard on the Liverpool banks of the Mersey. In 1824, William set up Birkenhead Ironworks at Wallasey Pool on land purchased from Mr F.R. Price the local 'Lord of the Manor'. In 1828, his son John recognized the potential of using iron in shipbuilding and proved his theory by building an iron lighter called 'A' *Wye*. Two further lighters were built 'B' and 'C' of which, one was named *Dundally* while the other name is unknown. Although the first use of iron in shipbuilding was claimed by a fellow Scotsman, Robert WILSON, who built the passenger boat *Vulcan* for the Forth and Clyde Canal Company in 1818, it was undoubtedly the LAIRD family who were the principal pioneers in the use of iron in lieu of wood in shipbuilding. Testimony to this is that the first iron ships used in India, China, South America, United States and Egypt were all built by the Laird family.

The first 'numbered' ship on Laird's build register was Lady Landsdowne built in 1829, which sank in Ireland at Killaloe on Logh Derg. The last ship to be built at Laird's yard at Wallasey Pool was a barge launched on 31 December 1856. Several notable ships were built at Wallasey and not the least of these was the famous frigate, No 51 *Birkenhead* for the British Admiralty. Due to an increase in business and rising reputation John Laird, established a second yard in Liverpool This yard, which was purchased from Thomas VERNON later around 1852. became the Herculaneum Dock. Sixty-two vessels were launched at the Liverpool yard, the first of which was No 102 Bahiana on 31 January 1854 and the last on 1 January 1857. One notable vessel built at this yard was No 161 Cupid an iron mortar boat which was 60 foot long x 20 foot beam x 6 foot deep and weighed 102 tons. The contract for this vessel stipulated that it had to be built in 3 weeks or less and almost exactly 3 weeks after contract acceptance Cupid sailed for Portsmouth. I t was launched on 13 November 1855 and departed for Portsmouth on 14 November 1855. This was no mean achievement, even by today's standards, considering that it was an iron and riveted construction.

John LAIRD transferred all of his shipbuilding activities from Wallasey Pool and Liverpool to Monks Ferry in the Tranmere Pool area (present site) in 1857 and the first vessel No 199 *Pintado* was launched on the 11 April of that year. The name of Birkenhead Iron Works was retained until John LAIRD (senior) retired in 1861, when his son's William, John (junior) and Henry took over the business. Many famous ships were built at the new yard in the early days. Notable vessels included No 203 Day Spring for Niger Exploration, No 225 MA Robert for David LIVINGSTONE the explorer and No 231 *Deerhound* which was used in the rescue of the Alabama survivors. A feature of the new yard was its ability to build marine engines and boilers and engine No 1 was installed in the vessel Day Spring. In 1861, John LAIRD became the first Member-of-Parliament for the newly established Parliamentary Borough of Birkenhead. In that year, the company was known as 'William and John Laird' and in 1863 this changed to Laird Brothers. Another of the famous ships built by Lairds was the warship No 321 Huascar (launched in 1865) which was an iron clad turret ship built for Peru. She was subsequently stolen by rebels who hoped to overthrow the Peruvian government and following attacks on British shipping, she was chased by HMS Shah who fired the first self-propelled torpedo in anger but this was too slow and missed. The rebels escaped and surrendered to Peruvian Government forces. A few years later the Huascar was captured in the South American Civil War and was taken by the Chilean Navy to the Port of Talcahuano where she was restored and remains to this day as a war trophy.

#### 356



 $Fig.1 - HMS \ Captain.$  Her poor design led to the death of approximately 500 men.

Another of Laird built ship, HMS *Captain* (FIG.1) had a very different and much shorter life for she was sunk only a year after build with the loss of nearly 500 men. *Captain* was designed by CAPTAIN Cowper COLES to carry his invention of a swivelling gun turret and was ordered by the Admiralty to satisfy public demand. The ship was designed to have a low freeboard but because of an error in calculating her weight, the draught when fully loaded was 2 foot greater than planned. Laird's calculated the safe maximum angle of heel and found it to be very low and recommended to the Admiralty that major modifications should be carried out to rectify this but they were not prepared to pay for this and it remained unmodified. In 1870, *Captain* joined the Mediterranean fleet and on the 7 of September, during a storm, she was struck by a squall, which capsized and sank her.

Birkenhead flourished as a result of Laird's shipbuilding and the population increased steadily year-on-year. In 1831, the population of Birkenhead was 2,569 and ten years later it was 8,223. By 1861 it was 36,000 and by 1875 this had doubled to more than 70,000. By 1991 the population had grown to 1,376,800 albeit that many surrounding towns and villages, were by this time brought under the umbrella of the borough. It is no exaggeration to say that Birkenhead was established by the LAIRD family who gifted it some of it's greatest treasures such as the borough hospital – a model institution of it's kind – when it was built in 1862 and Birkenhead School of Arts which was opened in 1871. John LAIRD (senior) is regarded as the founder of Birkenhead and was its first Member of Parliament following its enfranchisement in 1861. The Laird influence continued over the years as John's sons became involved with the town council and during their sequential rein as Mayor, many very significant developments were achieved however the LAIRD family, were not without problems.

Undoubtedly the most infamous of Laird built ships during the nineteenth century was the *Alabama* which caused a national scandal at the time. She was built in 1862 for the Confederates during the American Civil War and during her short career, until she was sunk in 1868, she was responsible for destroying over 60 vessels. In fact, the Unionists who also required a naval ship to be built,

propositioned Lairds before the Confederates but they did not agree contract terms. When Lairds built the *Alabama* for the Confederates they were in breach of a Neutrality Agreement and this led to massive compensation claims in excess of £3m against the British Government. It is felt that the *Alabama* scandal prevented John Laird (Senior) from receiving a Knighthood, however this did not appear to effect Government orders, which continued to flow long after his death.

In 1877 John (junior) became the first Mayor of Birkenhead and this office was monopolized by him and his brother William for more than 10 years. During this period, the town of Birkenhead went through a remarkable transformation and took on a new elegance with the building of the Town Hall, which was opened in 1887. The Town Hall was erected on Hamilton Square, which had been commissioned by the LAIRD Family in 1842 and designed by Gillespie GRAHAM, the famous Scottish Architect. The LAIRD family commissioned another famous local landmark, Birkenhead Park, which was used as the model for the Central Park in New York. The park has recently benefited from a £12m British Heritage lottery grant to help return it to its former glory, such is its importance to the nation.

Laird Brothers built a wide variety of ships including some of the fastest cross channel vessels. In 1893 the yacht *Valiant* was built for the American millionaire W.K. VANDERBILT. The average size of ships kept increasing over the years and this lead to the lengthening of No 5 dock so that battleships such as HMS *Royal Oak* (FIG.2) and *Mars* (FIG.3) could be built.

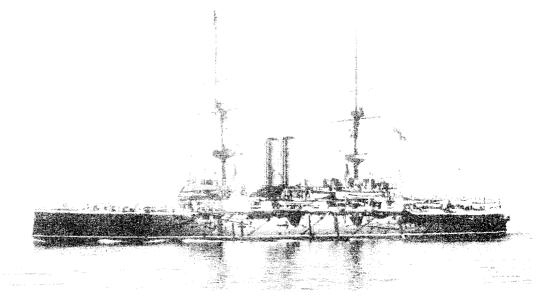


FIG.2 – HMS ROYAL OAK - ONE OF SIR WILLIAM WHITE' EARLIER BATTLESHIP DESIGNS IT WAS DEVELOPED AND IMPROVED OVER LATER CLASSES

358

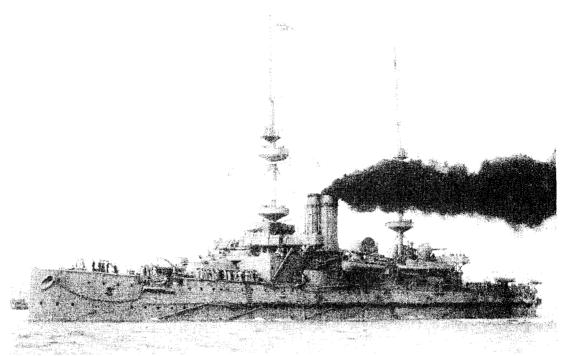


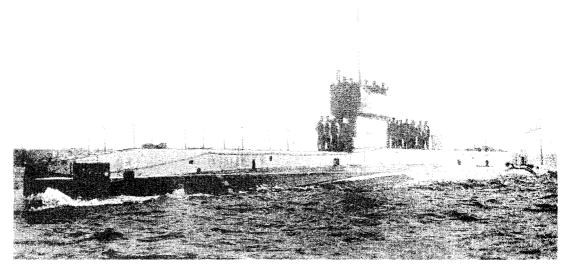
FIG.3 – HMS MARS HAD A BETTER ARMOUR DISPOSITION AND THE THEN NEW 12 INCH GUN

The 1890's saw the death of the three brothers, Henry in 1893, John in 1898 and William in 1899 at which point the company was passed over to their sons, J. MACGREGOR (son of John), Roy M. LAIRD (son of Henry) and J.W.P. LAIRD (son of William). Around 1900 a development project was launched to expand the yard on the South side and a new company was formed called 'The Tranmere Bay Development Company'. A merger with the firm Charles Cammell, a Sheffield steel manufacturer took place in 1903 and this led to the establishment of the World famous name of 'Cammell Laird'.

From its earliest days, Cammell Laird established a global reputation for technical excellence and innovative developments in shipbuilding. The amalgamation with Charles CAMMELL brought with it a new vitality and it was not long before the company owned an ordnance factory, coal mines, iron ore mines and a file factory in Russia in addition to the shipbuilding yard at Birkenhead and steel mill in Sheffield. The last LAIRD to be chairman of the company was J. MACGREGOR LAIRD from 1905 until 1908 when he was forced to resign due to 'malpractice and irregularities' found by the Admiralty at Grimethorpe Steelworks. The company was taken off the list of Admiralty Contractors and was only reinstated after a change of Chairman and Directors at Grimethorpe. The Admiralty was in no rush to place orders with the company over the years that followed this scandal. However in 1912, a battleship, a cruiser and a floating dock were launched as well as 37 non-naval vessels. The start of the First World War saw production turned over almost exclusively to naval contracts with some ships being built for foreign navies taken over by the Royal Navy.

#### 360

Cammell Laird set up an experimental submarine department around 1913 and their first submarine E41 (E class) (FIG.4) was launched in 1915, with three sister vessels of the same class following within a year. Interestingly, in a photograph taken around 1908, there is a small submarine in the corner of one of the workshops at Birkenhead but little or nothing is known about this.



 $Fig.4-One \ \text{of the earlier} \ E \ \text{Class submarines from which} \ E41 \ \text{followed}. \\ Arguably \ \text{the best submarine design in 1914}$ 

Chronology of major events in the company's history culminating in the closure of the old company in 1993: -

- 1829 Pioneers in the use of iron for shipbuilding with the building of *Wye* a 90 ft lighter for the Irish Inland Steam Navigation Co.
- 1832 Build of the first ocean going iron ship the *Alburkah* which, was sailed by McGregor Laird on his first West African Expedition.
- 1837 Build of the first passenger ferry and the fastest and largest iron ship of her day, the *Rainbow*, which was specially fitted to convey the carriages of gentlemen passengers.
- 1838 Build of Laird's first propeller driven ship the Robert F. Stockten.
- 1845 Build of the frigate, *Birkenhead* for the Admiralty.
- 1857 John LAIRD transferred shipbuilding activities from Liverpool and Wallasey Pool to a new site at Monks Ferry and Tranmere Pool in Birkenhead.
- 1858 Build of *MA Robert* for the famous explorer, Dr David LIVINGSTONE. This was the first vessel built of what was then a new material in shipbuilding called steel.
- 1862 Build of the *Alabama* the infamous raider used by the Confederates in the American Civil Wars.

- 1865 Laird Brothers commenced a long and distinguished career in building capital warships for the Admiralty with the build of the battleship *Agincourt*. Between 1865 and 1900 Lairds built 27 Battleships and Destroyers at Birkenhead for the Royal Navy.
- 1903 Amalgamation with Charles CAMMELL (Steel Mill Owner) to form Cammell Laird & Co Ltd.
- 1915 Build of Laird's first experimental submarine *E41*.
- 1920 Build of the very first all-welded ship *Fullgar*, heralding what is perhaps the greatest single technological advancement in shipbuilding during the 20th century. At the same time Laird's patented a special protective mask used by their welders.
- 1925 Build of the battleship HMS *Rodney*.
- 1934 Cammell Laird builds it's 1,000th ship.
- 1937 Build of one the first all-purpose designed aircraft carriers, HMS *Ark Royal* (both the *Ark Royal* and the *Rodney* were involved in sinking the *Bismark*).
- 1938 Launch of the largest ocean going liner of her day the SS *Mauretania* for Cunard White Star Line.
- 1939 1945 During the Second World War Cammell Laird built 106 fighting ships and submarines. An average of one every 20 days.
- 1955 Completion of the second HMS Ark Royal aircraft carrier
- 1960 Launch of the first gas turbine powered guided missile destroyer HMS *Devonshire* for the Royal Navy
- 1967 Cammell Laird's workforce was over 12,000
- 1968 Build of HMS *Renown*, SSBN Submarine
- 1969 Build of HMS *Revenge*, SSBN Submarine
- 1970 HM Government take 50% share of company under British Shipbuilders.
- 1971 Build of SSN Submarine HMS *Conquerer* (Responsible for the sinking of the *General Belgrano* during the Falkland conflict.)
- 1972 The Government announced its intention to provide finance for a substantial programme of modernization of the shipyard. The centre-piece of this programme was a covered construction hall completed in 1978, which was reputed to be the largest of its type in Europe.
- 1972 The Camel logo, which had been used since 1903, was dropped in favour of a new monogram using the letters C. L. in red on a white background coinciding with a change of name to 'Cammell Laird Shipbuilders Ltd.'
- 1976 Completion of HMS *Birmingham* the first of three Type 42 destroyers for the Royal Navy.
- 1978 Completion of the new Construction Hall
- 1985 The Company was amalgamated with VSEL.(Vickers Shipbuilding & Engineering Ltd)

362

- 1986 VSEL and Cammell Laird jointly purchased both companies from British Shipbuilders to form VSEL Consortium Ltd.
- 1992 The workforce drops to 2,000 with three conventional submarines under construction HMS Unseen, Ursula and Unicorn. After only a matter of months in service these submarines along with their sister vessel HMS Upholder, which was built by Vickers at Barrow in Furness were placed in mothballs after the Royal Navy decided to pursue an 'All Nuclear Submarine Policy'. These Submarines are currently being transferred to the Royal Canadian Navy and HMS Unseen returned to Cammell Laird in July/August 2000 for repairs to her tail shaft.
- 1993 After more than 170 years of shipbuilding on the River Mersey, Cammell Laird shipyard closed.

#### Around 300 warships and other naval vessels were built for the Admiralty and Royal Navy on Merseyside. Of this number a fifth were submarines including SSK, SSN and SSBN class vessels.'

## The Reincarnation of a Shipbuilding Giant

The development of the new Cammell Laird group of companies since it was formed in 1994 has been meteoric and today it is the largest ship repair company in the United Kingdom. It is also one of the fastest growing marine service companies in the World, boasting 14 shipyards world wide in the following locations:

Location	No of Shipyards	Speciality
Merseyside	3	Ship Building, Conversion & Ship repair
Tyneside	2	Ship Building, Conversion & Ship repair
Teesside	1	Conversion & Ship repair
Wearside	3	Ship Building, Conversion & Ship repair
Gosport	1	Yacht Builder & Refurbishment Specialist
Gibraltar	1	Ship Building, Conversion & Ship repair
Marseilles	1	Conversion & Ship repair
Newport Oregon	1	Conversion & Ship repair
Varna (Bulgaria)	1	Ship Building

Included in the Cammell Laird portfolio are:

- 25 dry docks.
- 2 floating docks.
- 10 km of berthage.
- 200,000 sq m of covered workshops.

The company now employs around 6,000 workers including 500 apprentices. As a visionary, John STAFFORD, recognized the need to replace lost skills on Merseyside and the other yards acquired since going public. A partnership was formed with the local council in Birkenhead and a new training centre of engineering excellence was built to facilitate the needs of apprenticeship craft

training. This was opened by the DUKE OF KENT in 1999 and is now providing training for the 350 apprentices who work for the Group on Merseyside. There are many innovative features involved in the training centre, including a dry dock, which is currently being refurbished and is due to open in November of this year for the use of the apprentices in repairing classic vessels and sailing ships of special interest. There is also a strong emphasis in the use of new technology in the centre and all apprentices have to undertake computer and CNC technology training as part of their programme. Excellent workshop facilities and machine tools allow the training of the five main craft skills of fabrication, electrical/electronics, mechanical engineering, pipe work and outfitting/joinery. As the company becomes more involved in prestigious cruise ship contracts it is important that appropriate skills are available to undertake tasks beyond traditional ship repair and conversion projects. Two such skills are aluminium welding and high-class carpentry and both of these are taught in the training centre. Camper Nicholson the 'World Class' yacht builder recently acquired by Cammell Laird are now acting as a consultant to the training centre in developing carpentry skills and the effect of this is extremely positive. All apprentices are guaranteed a job within the Cammell Laird Group on completion of their training providing they make the grade. Using the Merseyside Training Centre as a model, a further centre is being established in the Newcastle area to service the needs of the Cammell Laird shipyards in that region. The recruitment of university graduates is also a policy of Cammell Laird and upwards of 60 graduates have been taken on over the last few years in engineering/electrical design and Naval Architecture.

# Chronology of events since forming the new Cammell Laird

- 1993 During the same year that the yard closed, three small companies operating under the banner of Coastline Industries started leasing facilities within the Birkenhead yard for ship repair and conversion purposes.
- 1994 Coastline Industries purchased the north part of the yard which included the wet basin, No 5, 6 and 7 docks and associated workshops and offices. (The workshops were derelict and in need of substantial repairs whereas No's 6 & 7 docks had not been used since 1983 and the dock gates were considered to be inoperable.)
- 1994-1997 During this period, Coastline Industries invested heavily in the re-cladding of buildings, the purchase of plant and refurbishment of the yard's infrastructure. **The most important purchase made during this period was the name of Cammell Laird along with the Camel Logo.**
- 1997 The new Cammell Laird was floated on the London stock exchange. Initially valued at £1, shares have increased progressively in value and stand at over £10 today.

# **Company Development Since 1997**

- Construction of new dock gates and the reactivation of No 6 & 7 docks at Birkenhead.
- Re-cladding of buildings, demolition and rebuild of dilapidated buildings, refurbishment of existing offices and workshops and the purchase of new plant at Birkenhead.

- Purchase of engine shop, joiner's shop and technical offices from GEC (BAe Systems) in a recent Birkenhead expansion.
- Construction of a new £1.5m cruise ship furniture and cabin manufacturing facility at Birkenhead for the Costa Classica cruise ship project and future market requirements.
- Establishment of Cammell Laird Technical Services as a separate company within the Group which now employs over 200 naval architects and design engineers at offices in Birkenhead, Tyneside, Oslo, Gibraltar, London and Houston.
- Establishment of Holding Company new prestigious Headquarters at Princes Parade in Liverpool
- Acquisition of DG Electrical one of UK's largest marine electrical contracting companies
- Acquisition of M&R Hydraulics (Merseyside based hydraulic contracting company)
- Acquisition of ALB Holdings which included Tyne Shiprepair (Hebburn Dock), Tees Shiprepair, Sunderland Shiprepair and Wear Engineering (Covered dock facility at Pallion)
- Acquisition of Tyne Dock Engineering at South Shields.
- Acquisition of Hawthorn Leslie yard adjacent to Hebburn Yard in Newcastle where a new dry dock and covered build facility is being constructed. **Hebburn is the largest dock in the Northeast** whereas No 5 dock at Birkenhead is the largest dock in the Northwest UK.
- 30 year lease of Gibraltar Dry docks where a dock has recently been covered to allow expansion of Camper Nicholson's luxury yacht business.
- Acquisition of Camper Nicholson, one of the foremost luxury yacht builders in the world. Currently their facilities at Gosport are being expanded plus new facilities have been opened up in Gibraltar.
- Acquisition of Wright and Beyer and Joshua Waddington at Wallasey on the river Mersey.
- Acquisition of Warbeck Engineering and lease of Clarence Docks in Liverpool
- Establishment of Oceanic Investments which owns and operates ships including the Ex *Edinburgh Castle* luxury cruise ship and several offshore vessels which are on charter. Oceanics has also purchased several vessels, which they are offering to the market with conversion plans such as the dry-cargo vessel *Sun Pegasus*, which is currently berthed at Birkenhead and will soon be converted into a cable laying ship.
- Lease of Marseilles dry docks in France, which includes the third largest, dry dock in the world.
- Establishment of the Laird Foundation Training Centre in partnership with Wirral Council. Currently there are 350 apprentices on Merseyside and 40 university graduates undergoing training in all aspects of ship repair, conversion and shipbuilding techniques.
- Establishment of a new Training Centre in Tyneside where there are 150 apprentices and 20 graduates.
- Acquisition of a substantial shareholding in Newport Shipyard in Oregon, USA.

- Acquisition negotiations are almost complete on the take over of Varda Shipyard in Bulgaria.
- Acquisition negotiations are currently taking place concerning further shipyards out-with the UK

Although the original Cammell Laird earned it's fame as a ship builder this has not been the basis for the development of the new company. The prime reason for this was; when the Birkenhead yard was closed down in 1993 this was under a Government 'Warship Build Capacity Reduction Exercise', which also saw the closure of Swan Hunter and other shipbuilding yards at about the same time. Because Cammell Laird was designated as a Warship Builder it was not possible for any company using the Birkenhead facility to obtain 'EEC Intervention Funding' which would have been necessary to compete in the commercial shipbuilding market. The tag of warship builder remained until January of this year when the Government finally lifted it. For this reason, the new Cammell Laird followed a policy of pursuing ship repair and conversion contracts and it is the latter sector where much of the company's success has been earned. Over the last 4 years, many large conversion contracts have been undertaken at Birkenhead. Not the least of these was the \$150m conversion of the Class 1, Deepwater Drill ship Deepwater Navigator (FIG.5), the Pipe Layer Seaway Condor, Seismic Survey vessels Simon Labrador and Austral Horizon and many other projects.

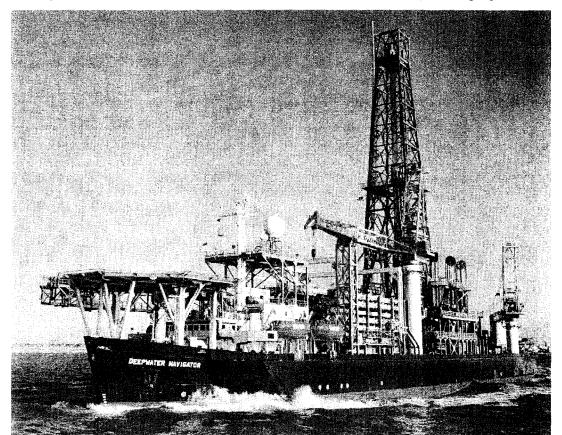


FIG.5 - DS DEEPWATER NAVIGATOR LEAVING THE RIVER MERSEY ON HER WAY TO BRAZIL

Also during this period the company has undertaken refits on numerous commercial and military vessels such as cruise ships, ferries, cargo vessels, RFAs, Semi Submersibles (*Iolair*) (FIG.6), Jack-up Rigs (*Irish Sea Pioneer*), Seismic Survey vessels, Pipe and Cable Laying vessels and others. Similar projects have also been carried out at the Groups other shipyards and large numbers of men are regularly transferred between shipyards to cope with transient labour demands.

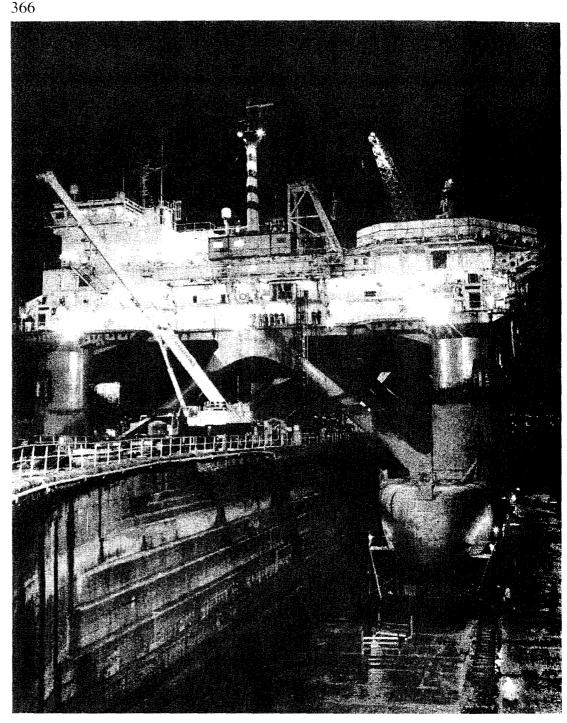


FIG.6 – SS IOLAIR SHOWN STRADDLED BETWEEN NO 6 & 7 DOCKS AT BIRKENHEAD

Turning to present-day activities, Birkenhead is currently undertaking the largest cruise ship conversion contract in the world in a package of work worth in the order of £110M. This involves the lengthening by 45m of the Italian cruise ship *Costa Classica* and her sister ship *Costa Romantica*. This contract was signed in September 1999 and the construction of the new mid section for *Classica* is nearing completion. When outfitting is complete, the new mid section will be launched into the river Mersey ready for insertion into the ship which is due to arrive at the yard on the 23 November 2000. The vessel is currently 220m long and is being extended to 265.4m which will facilitate an addition of 500 cabins, dining rooms, galleys, shops, swimming pool, casino, bars, fitness studio and other public spaces. Six new diesel generators are being installed along with a new power distribution system and a new azimuthing podded drive stern thruster unit

and bow thruster to give the vessel more power, speed and manoeuvrability. To facilitate this, there is a substantial amount of engineering work required in order to merge new systems with existing. There is also a very significant package of repair and modification work to be carried out to the existing vessel particularly in the revamping of public spaces, cabins and leisure facilities. The ship, when she arrives, will be dry docked in No 5 dock and will be sectioned 20 frames forward of amidships. Thereafter, the stern and forward sections will be floated up utilizing buoyancy aids and the forward section will be temporarily removed from dock to make way for the new mid body unit. After insertion of the new mid body the forward section will be returned to dock and all three sections will be docked down and joined together using hydraulic skidding equipment and laser alignment techniques. From arrival at Birkenhead *Costa Classica* will be in hand for just 17 weeks before sailing away.

HMS Unseen one of the four SSK UPHOLDER class submarines and the first to be built by Cammell Laird recently departed from Birkenhead following a 60 day maintenance period (FIG.7). HMS Unseen is the first of the four submarines to be transferred to the Royal Canadian Navy under a Government to Government arrangement and is being re-named HMCS Victoria. This project was undertaken in partnership with BAe Systems and was the first time that the companies have had the opportunity to work together since the closure of the old company. This was a unique project in many ways but not the least because the Submarine arrived under the guidance of the Royal Navy and departed under the control of the Royal Canadian Navy.



 $FIG.7-HMS\ UNSEEN\ LEAVING\ FOR\ SEA\ TRIALS\ PRIOR\ TO\ THE\ OFFICIAL\ HAND\ OVER\ TO\ THE\ ROYAL\ CANADIAN\ NAVY\ AS\ HMCS\ VICTORIA$ 

The future for Cammell Laird as a Group looks healthy. In addition to an acquisition strategy, the company has recently won its first new build contracts in the Northeast. This involves the build of two passenger ferries for the Norwegian

## 368

market. Tendering is also underway for the build of cruise ships and several naval vessels and it is expected that before the year is out, Cammell Laird will announce the re-commencement of shipbuilding at Birkenhead. Cammell Laird currently has a capitalisation value in excess of  $\pm 300M$  with a Group turnover last year of  $\pm 138M$  of which Birkenhead contributed  $\pm 61M$ .

Although Cammell Laird has now spread it's wings and is operating on a global scale, the shipyard at Birkenhead is very much the flagship yard within the Group. The aim is to expand and develop all shipyards within the group, return to shipbuilding on an international scale while continuing to undertake complex conversion and traditional ship repair contracts.

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