**Highlights:**

- Radical changes to vessel's structure on chartered units.
- Creating an extra public deck by removing 128 cabins.
- Improved manoeuvrability: automatic mooring system, extra thruster.
- Reblading propeller for lower fuel consumption.
- New terminal with same interior design as on ferries.

Experiencing the new Stena Superfasts

The new Stena Superfast ferry service between Cairnryan and Belfast will be of great importance to the Scottish and Northern Irish economies, providing the latter with an improved 'sea-bridge' via the UK to mainland Europe.

By **BRUCE PETER**

The route is one of the most important in Stena's portfolio, justifying the GBP 200 mill investment in ports and ships. The first stage involved the construction of the new GBP 37 mill VT4 terminal in Belfast but the remaining parts of the jigsaw took a little longer to fall into place. However, when planning and environmental permission was granted for a brand new port on the Scottish side, the whole renewal process gathered speed. This has now reached a successful conclusion last November when the STENA SUPERFAST VII and VIII entered service, with six daily departures in each direction.

Stena Line first began to consider how they might transform their important Northern Irish Sea route in the mid-1990s. Due to shallow water off Stranraer, ferries with a draft of no more than 4.5 metres could

operate and so the former Sealink vessels STENA CALEDONIA (ex ST DAVID) and STENA NAVIGATOR (ex CHAMPS ELYSEES), both dating from the early-1980s, were employed, even although these veterans had restricted freight capacities. In addition, the HSS provided peak passenger and vehicle capacity. As a consequence, Stena's rivals, P&O, operating a shorter route between Cairnryan and Larne, were able to consolidate their lead in the freight market with a share climbing to just over 70% following their investment in two fast ropaxes, the EUROPEAN HIGHLANDER for their Cairnryan - Larne route.

After a number of false starts, including the aborted joint expansion of P&O's Cairnryan facilities, Stena's eventual radical solution was to build

a brand new ferry port at Old House Point, just north of P&O's Cairnryan facility, where the water is deeper than at Stranraer, and to acquire two modern ropaxes to operate a transformed service. While the first choice was obviously the STENA TRADER and TRANSPORTER displaced from the Hook - Killingholme route, an alternative had to be found when the pair were long-term chartered to Marine Atlantic. Rather surprisingly, they opted to bareboat charter the SUPERFAST VII and SUPERFAST VIII from Tallink - ten-year-old vessels intended for lengthy overnight routes rather than short 2 hour 15 minute 'hops' across the narrowest part of the Irish Sea.

Despite a huge workload resulting from extensive conversions to its Germany - Sweden and Poland - Sweden vessels as well as the two ropaxes for Marine Atlantic charter, Stena were undaunted when faced with yet more transformations in such a short period of time. 'Stenability' - no empty slogan, again reinforced the can-do spirit of the Stena team working closely with their naval architects Knud E. Hansen A/S, hatched an ingenious plan.

Unusually for chartered vessels, this involved radical changes to part of the vessels structure. New steel pillars were



"The Pod Lounge is perhaps the most inventive and engagingly designed space seen on a ferry for a very long time"

► inserted between the upper vehicle deck (deck 5) and deck 7 as well as a few partial structural bulkheads connecting deck 7 and 8 in the passenger accommodation. Meanwhile, Deck 8 was entirely cleared of 128 cabins to make a second deck of public rooms above the existing Deck 7 spaces. So convincingly has this been achieved that, if one had no prior knowledge of the ships, one would assume that they had been designed from the outset with public spaces throughout both decks.

Figura, again

The new interiors were designed by Stena's very talented Gothenburg architects, Figura. These were manufactured and installed by the Newry-based ship and retail turnkey outfitters MJM while the STENA SUPERFAST VII and STENA SUPERFAST VIII were undergoing conversion at the Remontowa shipyard in Gdansk, Poland. Figura's Richard Nilsson and MJM's Jonathan Guest and their respective teams have much to be proud of as the ferries' complex conversions were carried out to an exceptional standard in 'superfast' time. To begin aft on Deck 7, one first encounters the Taste restaurant. Here, rather than the usual red and white, Figura have used a very fresh bright green and white scheme with groups of white Verner Panton chairs adding a glamorous touch. This particular incarnation of the Taste concept is, however, a fast food cafeteria with an open-plan servery at its aft end, fed by a galley in the port stern quarter. With its shiny white counters and fresh 'healthy looking' details, the space is very attractive. Surprisingly, the range and type of food served is typical fastfood fare – fried fish and chips, curry and rice, burgers and pizza. The Swedish meatballs, toast Skagen and other offerings on the STENA NAVIGATOR have gone – allegedly because they did not sell in sufficient quantities. All food in Taste is served in disposable cardboard boxes with plastic cutlery.

Moving forward, one comes to the shop, which is in slick and shiny black and white, much like a Heathrow Terminal 5 Duty Free, which now seems to be the generic style of retail in transport environments. Facing the bow, one finds the 55 Degrees Lounge – the one space onboard little changed from the Tallink era. A raised area of new seating has been

added on the centre-line and the lounge is otherwise decorated with red and blue signal flags imposed over an existing rather bland scheme by Katzourakis.

It is on Deck 8 – the former cabin deck – that one finds the most impressive public rooms. At the aft end of this deck, there is an extensive area reserved for truck drivers. There is a 110 seat restaurant, served from a buffet arranged across the ship's beam amidships. To starboard, there is additional seating and a sumptuous reclining seat lounge with 27 extremely comfortable seats. Separate shower and toilets facilities for men and women reflects the growing number of lady drivers. Stena know that to attract more freight from P&O, they must treat truckers very well indeed.

Ahead of this is a new and very wonderful Figura concept for Stena – the Pod Lounge – an interactive space in which adults can relax on comfortable chairs with sea views around the perimeter while children play on various inter-active games in the middle. Rather than the usual ugly type of gaming environment for teens, in which machines appear to have been installed as an afterthought, the Pod Lounge is one of the ships' coups de theatre with a striking three-dimensional ceiling, composed of layers of white discs, and all the games are integrated into the room's decor. At one end, there are Internet consoles for quick surfing. The floor in the room's centre has a fun dancing area with various projections which respond to the moves made by passengers walking across – for example, an underwater scene in which each step one makes causes ripples, or a virtual football game in which one can kick around a virtual ball. At one end, behind a partition, there are arcade games and, at the other, a small cinema showing children's films plus a series of Wii consoles. Overall, the Pod Lounge is perhaps the most inventive and engagingly designed space seen on a ferry for a very long time and the first shipboard interior to integrate digital media fully into a suitably modish overall design.

Continuing towards the bow, there is the smart combined Living Room and Barista coffee shop, decorated mainly in brown and dark grey tones and, as with the Pod Lounge, filled with a variety of stylish yet very comfortable seating. Both Pod and Living room have benefited from the insertion of several large windows

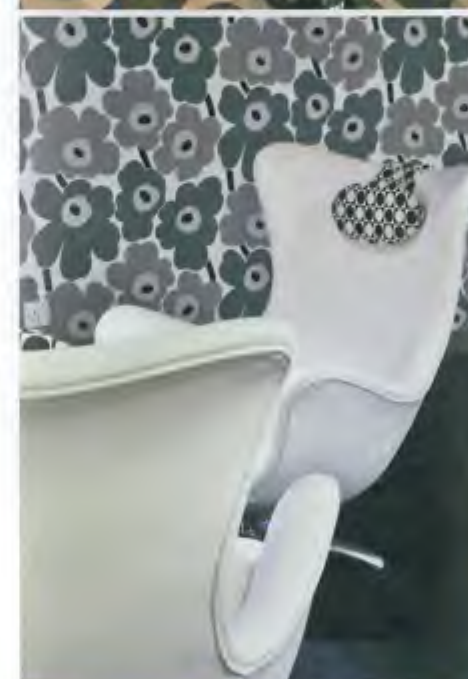
where previously there was only cabin fenestration.

At the bow is the ships' piece de resistance – the Stena Plus Lounge. As this feature has proven very popular on Stena's existing vessels, it has been enlarged in size on the SUPERFASTS. Figura's design ingeniously retains a feeling of exclusive intimacy by splitting the space into a series of smaller areas. A self-service drink and snack buffet is in the centre, much as one would find in an airport business lounge. Ahead, a bulkhead decorated in grey Marimekko 'Unikka' wallpaper with a couple of TV screens, splits the lounge into two sections. Facing this are groups of furry grey wool-covered chaises longues and white leather swivel chairs on pedestals with Verner Panton fabric headrests. On either beam, the seating consists of more traditional lounge chairs in dark red and blue and, facing the bow, there is a further seating area with brown leather chairs facing newly-installed large windows to give panoramic vistas ahead. The Stena Plus Lounge is also filled with a very great many intriguing small-scale details – such as orange and white 'plus' shaped wall and ceiling lights, decorative table-top inlays, vitrines displaying Scandinavian designer goods, built-in newspaper and magazine racks, special business chairs for using laptop computers and, in one corner, an internet work station. Altogether, it consists of a range of extremely beautiful and highly detailed spaces and, apart from Figura's fine design, the outfitting work by MJM also deserves high praise – especially when one considers that the fit-out on each ship was achieved in little more than a fortnight.

So far as sun deck provision is concerned, there are long external promenades but, unlike on STENA NAVIGATOR, attractive outdoor seating areas have yet to materialise and so it is necessary to stand when on deck.

Transforming Superfasts into shuttle ferries

From a technical point of view, adapting the vessel from a long overnight vessel to an intensively used shuttle ferry was no small matter. Frequent manoeuvring and port stops are perhaps the greatest challenge because the Superfast hullform was conceived with prolonged high speed voy-



ages in mind. In order to achieve the shortest possible port turnaround times, double level linkspans would be required in both Belfast and Old House Point but Stena, having the benefit of starting with a clean sheet of paper, also specified an automatic mooring system.

The new linkspan was ordered from TTS and constructed in Croatia. With a weight of 750t, the linkspan has been designed to fit a variety of vessels. The Superfasts' double stern ramps are easily accommodated, permitting three lanes of trucks to drive off simultaneously. The lower deck bridge is 8.5m wide. The upper deck bridge is narrower with a hydraulic flap which lands on the aft end of the upperdeck (deck 5).

The TTS automatic mooring system relies on three recessed bollards on the ships starboard shell at maindeck level each of which are "captured" by a hydraulically activated eye which forms part of a carriage which moves up and down depending on the state of the tide and the vessel's draft. Activated from the bridge, no shore personnel are required, speeding up the turn round time considerably.

The Superfast twins were originally destined for Baltic routes requiring both the hull and propulsion train to be strengthened to ice class 1A standards. This required a heavy propeller hub as well as thick blades designed for a high

service speed of 28.5kts. Having already experienced the great economic benefits of re-blading the propellers on several vessels in their fleet including the STENA NORDICA, Stena decided to make the same conversion on the Superfast class, designing the propeller blades for a lower economic speed.

Of course, one of the reasons for the replacement tonnage was the pressure to reduce overall fuel consumption on the route. The HSS with their high power gas turbines, were notoriously thirsty but, after all, they were designed when bunkers were a fraction of the cost that they are today. The vessels are equipped with a quartet of Wärtsilä-Sulzer 16ZAV-40S main engines with a maximum output of 11,500kW each. They are coupled to KaMeWa 5.2m diameter propellers via Schelde twin input single output gearboxes.

Originally, the vessels were equipped with a pair of 925kW thrusters forward and one 1,350kW thruster aft. More recently, a third thruster was retrofitted forward to give the vessels better reliability in harsh weather conditions. Stena has not deemed it necessary to upgrade the vessels crabbing capability any more as the new Old House Point port is quite sheltered. In Belfast, the vessels 203.3m overall length has required some small modifications to the berth but as the crew get used to handling such a long vessel compared with their 130m

predecessors, manoeuvring time will be reduced.

Higher trucks in Irish Sea

One of Stena's primary aims with the new concept is to improve its freight offering after losing market share to P&O. The problem with many of the potential candidate vessels were their lack of headroom in the vehicle decks or their inability to load both decks simultaneously at the bow and stern. Freight traffic to Northern Ireland conforms to the UK's domestic limits rather than EU limits. One of the biggest differences is that 4.85m high trucks are permitted. Over the years, domestic distribution and logistics has taken advantage of this extra height, evolving a unique range of high cubic capacity trailers. The UK's major supermarkets such as ASDA, Sainsbury's and Tesco now all use double deck trailers which form part of a very efficient nationwide logistics system, also including Northern Ireland. As a result, a significant proportion of trailers need the extra height. P&O's EUROPEAN HIGHLANDER and CAUSEWAY have 5.2m high ro-ro decks but the Superfast vessels were built with 4.8m high decks which are ample for the Adriatic and Baltic routes for which they were designed.

Stena are no strangers to increasing the

Scottish First Minister, Alex Salmond, Minister Danny Kennedy and Stena Line Chairman Dan Sten Olsson.



A seamless 'Stena style' in the new Cairnryan terminal.



The Opening of Cairnryan Port

On the morning of 25th November, the STENA SUPERFAST VII crossed with invited guests from Belfast to Cairnryan, where there was a festive atmosphere and numerous VIPs were arriving on a Stena red carpet, matching the design of the terminal building. Incidentally, the new GBP80 million Cairnryan port represents a great transformation from the cramped and grotty Sealink-era facility at Stranraer. Hobart Heron architects of Holywood, County Down designed the terminal and Figura advised on the interior design to enable a seamless 'Stena style' to be maintained throughout the crossing experience.

Scotland's First Minister, Alex Salmond MSP made a detailed and witty speech in which he described the Governments investments in new road infrastructure to match Stena's investment in ships and port facilities. Salmond described Stena as a 'magnificent company', referring to their history, positivist and long-sighted business ethos and involvements in various sectors of interest in Scotland, such as deep-water oil exploration. Dan Sten Olsson responded, telling guests in his speech that his first ferry experience in Scotland had been in 1971, when British Rail chartered the Stena roro DALRIADA for the Stranraer-Larne route. He also pointed out that, while Stena ferries are planned for careers of around 15 years, new port facilities, such as Cairnryan, are built with a service life of at least fifty years in mind. Notwithstanding the present difficult economic circumstances, Stena believe that, in future, Northern Ireland and Scotland will experience strong growth and so the company has been planning for the long term.

A selection of suppliers STENA SUPERFAST VII/STENA SUPERFAST VIII:

A Gallery Art Management (Franzén)	Art
Alvedoof	Doors
Figura	Interior architect
Georg Eknes	Airseats
Gislaved Folle	Decorative wall finishes
Interior Design Collection	Chairs
Lautex	Ceiling
Marioff Corp	Sprinklers
MJM	Turnkey outfitting - Advert page 2
Muraspec	Wall coverings
Nordic Flooring	Flooring
Remontowa	Shipyard
Wilhelmsen Technical	
Solution Sweden	HVAC

height on vehicle decks. Many years ago, the STENA SAGA was cut longitudinally and the whole superstructure raised by means of hydraulic jacks. However, this is a radical and costly solution which would impact the stability in a negative way. Instead, it was decided to cut away part of the transverse web beams to gain an extra 25cm of deck height. The resulting 5.05m free height is just sufficient to accommodate the super-cube trailers. Of course, losing strength in one part

of the structure had to be compensated elsewhere. A line of pillars has therefore been welded in place on both sides of the upper vehicle deck.

The slim pillars are spaced every 4.8m separating the outside lane which still keeps the 4.8m clearance from the two inner lanes which are taller. The pillar location changes further aft in way of the hoistable internal ramp. While the majority of freight traffic will be parked on the maindeck, high vehicles will be directed to the upperdeck along with passenger cars. While the pillars are a necessary evil, manoeuvring space for trucks is tight. In general, freight traffic on the routes tends to travel in the evenings and night while passengers with their cars dominate the day sailings so the dual use of the upperdeck will not usually slow down loading or unloading operations. The two cardecks beneath the maindeck will very rarely, if ever, be used.

While no chartered vessel could "fit the bill" precisely, the Superfasts are just about the closest one could get. Especially in the passenger accommodation, Stena have achieved a standard that exceeds all others on the Irish Sea. Poland's Remontowa Shipyard deserve the highest praise as both ships were transformed simultaneously. Working to a strict schedule, the Stena project team, yard, outfitters and designers have again achieved a most satisfactory outcome.



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"Failure is not an option"

Carus founder and CEO Anders Rundberg quotes the famous words of the crew of Apollo XIII, when he explains the philosophy of Carus.

Providing functionality, flexibility, stability and customer service is key to our business. Failure is not an option due to the impact it would have on our customers' operations. This simple statement sums up what Carus is all about.

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