

Spotlight on... Transportation

Whilst many of us have been enjoying summer holidays, the transportation team have been busy working away to ensure the safe departure, transport and arrival of Prince of Wales blocks from their build yards to the assembly yard here at Rosyth. Kris Shields, Project Manager, Bobby Thompson, Assistant Project Manager, and Graham Boag, Mechanical Engineering Graduate tell us a bit about what is involved in the transportation process, and the many areas of the programme that contribute to this area of expertise.

What factors do you need to take into consideration when transporting blocks?

BT: There are many factors that need to be taken into consideration such as working closely with other teams; sub-contractors, build yards, receiving yards.

GB: Another factor is weather, for Ship 01 the blocks were transported in winter but with Ship 02 it is happening in summer. This may seem straight forward but due to the high pressure systems in summer this leads to low tides which can make the moving of blocks a difficult task.

What are the challenges involved in transporting such large sections?

BT: It is probably co-ordinating all of the factors above.

KS: Timing is a major challenge as well, as blocks need to be moved at specific times and arrive within a time frame. Managing the man power is also challenging, we are a team of three people with four blocks across five locations within a compressed time frame.

GB: Understanding the different processes at each build yard is challenging as you need to adhere to their processes and work together for a successful outcome.

What have been the biggest differences between the transportation of Ship 01 and Ship 02?

BT: The main difference for me is the comfort that this has been done before. It doesn't make it any easier or mean there is any complacency, but it does mean that we have learnt from past experience and built this into our plans.

KS: Some people think that as it's been done before we are doing a direct copy which isn't true. Some of the blocks are now in different yards with different requirements; we are moving the blocks at a different time of year with very different teams. These are subtle differences but it makes the whole process more complicated than it may seem.

GB: The blocks for Ship 02 are also more heavily outfitted meaning that we have to adapt and adjust the requirements accordingly.

BT: What is also different is that we have never had four block moves in such quick succession, this brings with it new challenges that need to be dealt with.

KS: Yes, the number of block moves put additional pressures on all of the transportation team including Sandmo, Marine Warranty Surveyors, Engineering, MOD and subcontractors.

Does it get easier with each block you transport?

BT: I was heavily involved with Ship 01 deliveries and it certainly does help as you do rely on experience.

GB: Some factors do; you start to understand the processes at each yard and build relationships to understand who can help in certain situations. The paperwork has also evolved making it a slicker process.

KS: It's a smoother process but each block comes with its own challenges. You can only learn so much from documentation so it is really about relationship building.

BT: After the assembly process for Ship 01 was completed, the teams got together to do a lessons learnt, from this we captured the good and bad from the paperwork and documentation side of things to ensure we embedded these changes going forward.

What has been the most memorable block move?

KS: For me it would be the first move I was involved in which was the Mast Cap for Prince of Wales. I also didn't mind spending a few days in Holland in the preparation for transportation!

GB: It would have to be LB03 leaving Govan. That was my first block move for Prince of Wales and seeing a block weighing more than 8000 tonnes being loaded out and onto the barge was such an impressive sight.

BT: There has been so many block moves that I don't think I could pick one over the rest. They have all been impressive for different reasons.

LB03 Ship 02 arrives in Rosyth

A huge section of HMS Prince of Wales has arrived in Rosyth. The 8,000 tonne hull section, known as Lower Block 03, completed the 600 mile journey around the north coast of Scotland on Saturday night.



HMS Prince of Wales

Tyne

CB03

- At the weekend CB03 rings were split and weighed by successfully by ALE on behalf of A&P. The units are now in position ready for load out. The early split of the rings prior to the barge arriving allows for the weather protection to be applied and the first of the transportation attachments added.
- A process of walking each ring will now begin to check everything is protected for the journey to Rosyth before access is removed completely.
- All compartment and system ITRs have been completed with the last CHOI's put into CMS 30/07/14. 161 NCs have been put on the system and being reviewed prior to handover and the BoM has been aligned through a series of meetings with Babcock.
- The push now will be close up the block which will be done Ring by Ring and then update the Handover documentation.
- Sail away planned for 22/08/14.



Merseyside

CB04

- A ring 2 deck consolidated at berth and welding now complete
- A ring flight deck units 2, 3 and 4 now lifted, turned and placed on berth
- B ring unit 1, 3 and 4 2 deck scheduled for lift and turn next week
- C ring 2 deck and flight deck plates have now been laid onto grillages and welding continues
- Manufacture of C ring girders continues
- Transportation grillages for C ring now complete

CB02



- CHOI Inspections have now commenced within CB02 G Ring and F Ring 4 Deck against onsite CHOI programme with a total 6 CHOI inspections completed this week
- First CHOI to compartment 3GC5 completed, signed and submitted to CMS (**image above**)
- Protectapeel and studding for weatherisation to all interfaces for CB02 rings G and F continues
- PO1 inspections complete to 35 compartments within F ring 4 and 3 deck
- Paint complete to 15 compartments with prep and paint continuing to an additional 17 compartments.

Portsmouth

CB02

- Ring C – Final Care and Protection Audit carried out on 30/07/2014. Successful final week resulting in completion of all pipe testing, cable reeves, terminations and all CHOI's completed as planned.
- Load out operation to commence Saturday 2nd August.

LB02

- All internal CHOI's complete.
- Final DQAFF audit completion successfully with minor observations.
- Tank closure programme is progressing well, including preservation.
- Watertight integrity readiness progressing well.

Govan LB04

This week on LB04 we have had two first aid treatments involving MSC's. The additional focus on health and safety continues with a pre care and protection audit taking place in the week with minor pick-ups raised which seen the overall standards on the block greatly improved. The steel work team are approx. 65% through the ring butt join up with a planned completion date in week 1433, thus allowing the dry surveys to be achieved. One of the main focuses on the block is still hot work inspections. With a revised PO1 programme it is essential to achieve the new dates for our EIS milestone and also to open vital PO2 scope to progress the build. Another major focus is pipe testing with 9,500 pipe spools to be tested by October.

CHOI inspections continue well with a further six compartments signed off last week and 12 inspected this week and still to be washed up and a further signed off. Both electrical cable install and terminations continue well and are currently sitting ahead of plan. HVAC is also ahead of plan with a further 110m installed within the week meaning we are circa 70m away from our milestone of having 3200m installed (50%) by august.

Rosyth PWLS Manufacturing

Work continues on Sponsons 3, 4, 5, 9 and 6 fwd and aft with the installation of PO2 pipework and equipment. Unit 17 is being prepared to be lifted to Sponsons 9. Sponsons 01 fwd and aft, 8 aft and CB06A are in progress with the cradles being erected for SP07 and SP02 aft within the syncrolift bays.

Units for Sponsons 01 Lower, 02, 07, 08 aft, CB05B are all in the process of being manufactured in the heavy fabrication bays.

The pictures below show the Pipework that has been installed on SP03, 05 and 06 fwd.



Integrated Platform Management Familiarisation Facility Rosyth

A computer based training and familiarisation facility has been installed in Lowden Building, Rosyth by the Power and Propulsion Sub-Alliance. The equipment was provided and set-up by L-3 Marine Systems supported by Thales, Babcock and RN personnel.

The facility will allow the future operators of the platform to gain hands on experience with the use of the Integrated Platform Management System (IPMS) in advance of it being fully commissioned on the ship. In addition, the facility will support the development of operating procedures, crew training activities and in particular use of the Damage Surveillance and Control (DSAC) system. The system consists of twelve workstations and a large screen "Smartboard" each hosting a full version of the IPMS software. It is intended to progressively update the system with future IPMS software releases including the Platform On-Board Training (POBT) module which will allow full simulation of most of the platform machinery systems and allow the facility to be used for more comprehensive shore based crew training.



Jim Bennett, ACA Power and Propulsion Director, said: *"the IPMS Familiarisation Facility provides an excellent platform for the Royal Navy operators to gain in-depth understanding of the platform management system. It is an important first step in establishing a comprehensive crew training programme for this critical QEC system".*

QEC Programme Milestone

Another milestone was achieved this week with the first two blocks of PWLS - CB02a&b successfully loaded in and open for condition inspection at Rosyth.