

ULTIBALLAST

Proven performance

HMS Queen Elizabeth & HMS Prince of Wales

The Challenge

To produce and install 800 tonnes Ultiballast for the Royal Navy Flag Ship - the aircraft carriers - HMS Queen Elizabeth, and HMS Prince of Wales. It was critical that the ballasting program for the vessels was met, and that installation be flexible to accommodate and not delay or compromise other operations and the testing and commissioning critical paths.

Key areas of risk were a long duration road works with significant diversions and program slippage on the overall build of the ships caused by adverse weather conditions. Installation methodology needed to be revised to accelerate the installation program to meet the clients' critical path commissioning period.

Our Solution

To remove the risk of delivery delays a mobile production plant was transported to Scotland and assembled close to Rosyth Naval Dockyard. The mobile production plant was erected, tested, and commissioned in one week, with tests and trials on machinery and electrical systems completed, quality assurance trials were undertaken to ensure the design specification was met. Three hundred and seventy-five tonnes of ballast were produced, delivered and pumped through an array of pipework set up by our installation team onboard HMS Queen Elizabeth with the vessel dry in dry dock.

Working closely with Aircraft Carrier Alliance ship build teams it was identified that the second installation could be completed after HMS Queen Elizabeth had

launched out and was floating alongside for fit-out completion. We also identified from the learnings of the Queen Elizabeth installation that the full quantity of 400 tonnes could be installed in the carrier HMS Prince of Wales in one visit.

Results and benefits

Having a flexible can-do attitude and detailed understanding and knowledge of our product, processes, and procedures we successfully produced, delivered, and installed eight hundred tonnes of Ultiballast safely, early on the program, to specification, and within the agreed outturn cost for the aircraft carriers HMS Queen Elizabeth and HMS Prince of Wales. Our collaborative approach provided the client with significant cost and program savings for the project.