



CASE STUDY

CONTROL CONSOLE FOR WORLD'S FIRST SELF-PROPELLED AIR CUSHION BARGE



BACKGROUND

There are no bounds to what James Aiken is asked to produce. If it's made of metal - any shape, any size, and any thickness is our maxim. But the job we've just completed for an overseas client took us into uncharted waters - not the unit we were commissioned to produce but rather where it was installed: on an air cushioned barge no less.

James Aiken was appointed to design and fabricate the control console for the world's first self-propelled air cushioned barge.

Air cushioned barges are to be used in countries where low water depths make it impossible for boats to operate. The 55 x 24m vessel is the world's first self-propelled air cushion barge, capable of carrying up to a 150-ton payload over tundra, swamps, ice and water.

CHALLENGE

James Aiken was asked to design and construct a navigation console that provided the maximum level of awareness and ergonomics for operators to work in a safe environment. This was to be reflected in the layout and positioning of equipment, media and cabling. Weight was another important factor as the hover barge required a substantial but lightweight console. Furthermore, the console needed to be designed, manufactured and fitted within four weeks.





SOLUTION

A modular design led to a console made from aluminium where precision cutting to strict tolerances allowed easy installation and access to all controls, media and cables. The fabrication process included panels cut to size, punching and drilling for M&E services, lapping, finishing, polishing and machining. The unit was assembled and checked before being stripped down for the paint shop, where it was powder-coated before being despatched for onsite installation by James Aiken experts in readiness for trials before being despatched overseas.



JAMES AIKEN ENGINEERING SOLUTIONS IS A LEADING SUB-CONTRACTOR OF FABRICATED METAL AND PRECISION MACHINED COMPONENTS WITH EXTENSIVE FABRICATION AND MACHINE SHOP FACILITIES UNDER ONE ROOF.



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