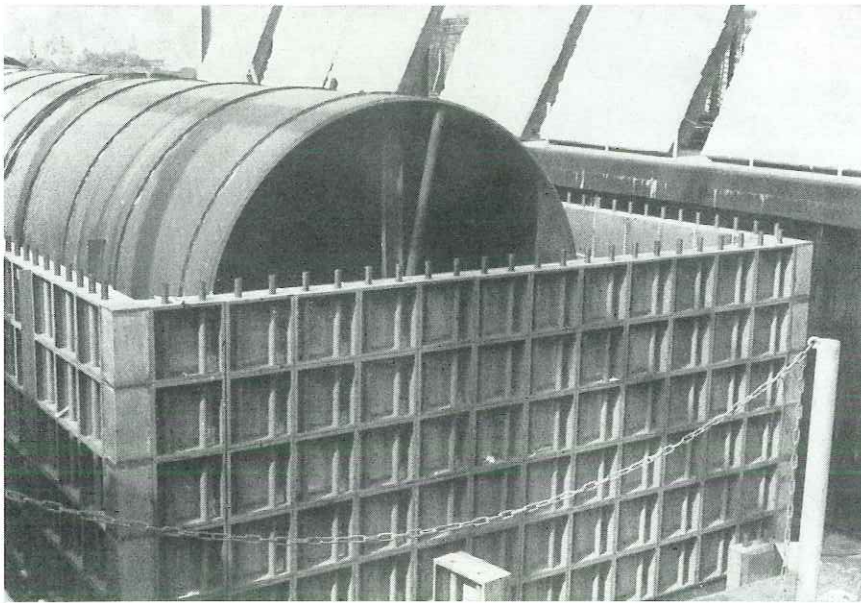


HEAT TREATMENT AFLOAT

FURNACE BUILT AROUND THE JOB

Big structures are not easily moved around when finally constructed and any subsequent services need to be taken to the job wherever it may be. Equipment or construction units intended for off-shore oil drilling rigs will eventually have to be towed by sea to its destination so Ron Bullock decided that building a furnace on a pontoon would save time and effort. There was the added advantage that once installed on a pontoon it could be towed to other jobs for heat treatment work to be carried out.

THE FIRST FLOATING FURNACE



This furnace measuring 7.2 metres wide \times 7.2 metres high and 25.8 metres long inside was constructed alongside the dock in sections with stainless steel encased insulation blocks. It was fired by natural gas using 8 – 625,000 K. cal/hour high velocity burners. Readings of gas consumption over the first three heat treatments indicated a thermal efficiency in excess of 40% for loads varying from 100 tons to 250 tons.

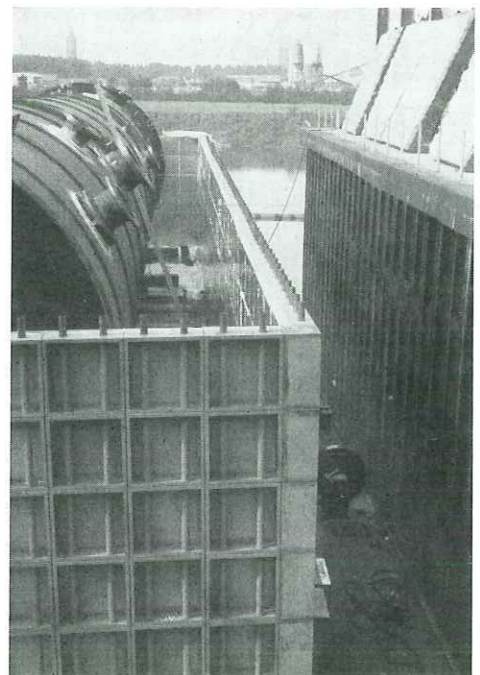
The furnace is clearly shown to be tailor made to fit the job.

PONTOON CARRIES GIANT FURNACE

The load is clearly seen in the floating pontoon as it awaits the lowering of the top that enables heat treatment to be carried out. In its original size the furnace can accommodate up to 300 tons to a maximum temperature of 750°C. The flexibility of the block construction system is proved by the ability for the furnace to be increased in size in all three dimensions and for it to be re-located on a larger pontoon if required.

By this method the heat treatment was not only carried out satisfactorily but with a considerable saving in time. Once heat treated the unit can be quickly transported to the oil rig by the sea on which it is already floating.

Pontoon furnace moored alongside dock for easy access.



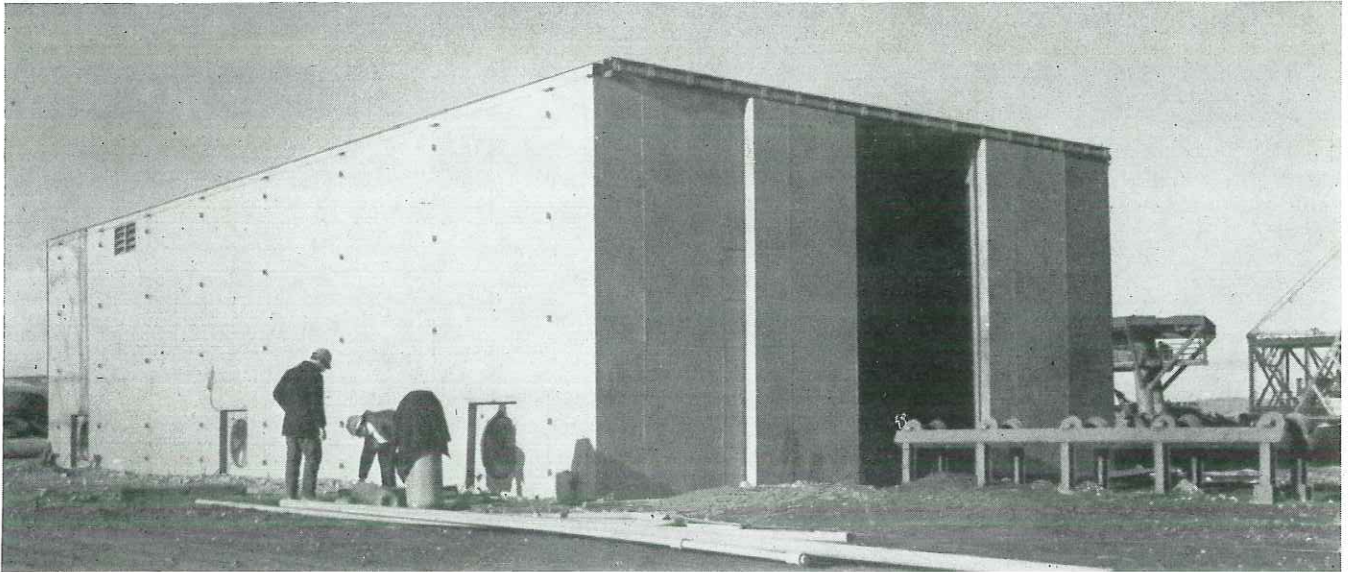
OIL DEPENDS ON BULLOCK

OTHER SERVICES

NON-FURNACE APPLICATIONS

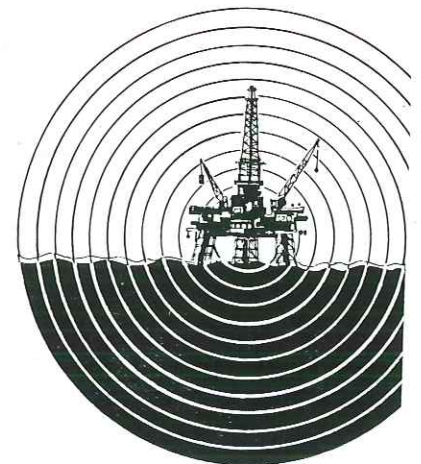
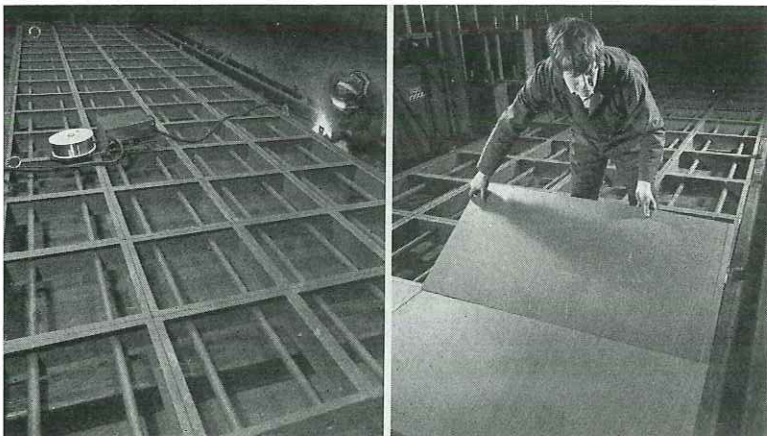
The flexibility of large, unit-built structures demonstrated by the large heat treatment furnaces can be used in other ways to cope with the problems of dealing with large structures on exposed and isolated sites. This was the case when McDermott required shot blasting and paint spraying facilities at their Ardersier site in the north of Scotland. The sections of the hall were constructed in the West Midlands, transported to the site and erected on the spot. This type of building can be quickly erected when protection against severe weather conditions is required for on-shore or off-shore oil rigs.

Finished shot-blasting and paint spraying hall erected on site at Ardersier.



Bottom Left: Welder applies finishing touch to a roof section of the shot-blasting hall during its construction stage.

Bottom Right: Steel cladding being fitted to the sections before they are taken by road to the site.



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