

## Case Study: Tank Farm Relocation from West Yorkshire to South Wales

### Brief

To dismantle the gantry between the 8 vessels and re-engineer to fit the proposed location in South Wales. Remove the 8 cladded bulk storage vessels from the bund and transport to South Wales as abnormal loads. Once on site rebuild the gantry and secure to the floor. Position the eight vessels in their new places.



The tank farm pictured before work started. As you can see there are only 7 vessels here, the other one was located close by on the same site.



One consideration was the feet being encased in concrete which had to be broken out before the gantry could be dismantled. Because the gantry had been in place for so long nobody knew the exact depth of the foundations.



Preparing the gantry for dismantling.

As a company we undertake as much of the work as possible without using subcontractors. This in turn gives us greater control over the standard of work and our customers then have just one contact within our company keeping communications open during the operation.

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Lifting the second half of the walkway down so it can be transported elsewhere on site for re-engineering.



Left and below: Moving the heavy lifting equipment into position ready to start lifting the vessels out.



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Right and below:  
Lifting out the first vessel.  
Again our investment in  
plant and equipment  
designed to our  
specifications gives us  
greater control throughout  
the project.



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Left: Tandem lifting the vessel into a horizontal position to allow transport by road to the new site.

Below: The only access for articulated vehicles was over a narrow bridge with a 40t weight limit. This meant that although our Lorry mounted crane vehicles could carry the vessel it was too heavy to traverse the bridge safely and so we transferred the vessels onto a smaller, lighter vehicle to move the vessels to the on site storage area prior to transporting to Cardiff.



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Above: Rear view of the vehicle transporting the vessel.



Below and Left – Our vehicle slowly crosses the bridge

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Left - Four of the vessels lined up on the Cardiff off site storage area. The rest of the vessels were transported to site once the crane was in position as there was not sufficient on site storage in Cardiff to allow all the vessels to be stored there at once.

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Above: Installing the newly engineered walkway onto the legs. The weather has decided to take a turn for the worse.....again!



Left: Bringing the first vessel onto site.

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Below: This shows the gradient of the hill that the site is built on.



Left: Lifting the vessel upright again before final positioning. Again this shows the gradient of the site as the front of the crane was nearly 2m off the floor by the time it was level for lifting.



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Right: Using our Hiab vehicle to tandem lift the vessel was preferential as we had limited space to set up two mobile cranes and position the delivery vehicles as we had scheduled delivery times to adhere to so we did not interrupt production.



Above: Adding the finishing touches to the gantry after all the vessels have been positioned.

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Left: Under the watchful eye of the client



Left: One of slinger/banksman guiding a vessel into position so as not to damage the aluminium lagging.

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Right: Final positioning of the gantry after the first three vessels were installed



Above: The finished project