COATING WET SURFACES

The Single Buoy Mooring (SBM) is an import/export medium for crude oil. Moored one or two kilometres from the shore, SBMs allow tankers to collect or deliver crude oil without entering ports by mooring and connecting to pipes which transfer the material via a sub-sea link. The approximate weight of the SBM shown is 234 tons. It has a turntable with the ability to turn 360 degrees in order to facilitate berthing and is fitted with a crane.

Surface preparation was completed using a water-jetting system that incorporated garnet blast media to provide profile, as well as assist in removal of the heavy surface contamination. The cleaned SBM substrate could immediately be coated because of Alocit's unique ability to be used on wet surfaces.

A 3-coat system was used in two different areas. Above the splash zone, Alocit 28.14 primer was used followed by Alocit 28.15 gray as a color-coded second coat, with a final coat of polyurethane for color and U.V. protection. Total DFT :15 mils.

In the splash zone and subsea areas the same primer and second coat were used, but the final coat was Alocit 28.15 black, giving a total DFT of 20 mils. Total area: 21,000 square feet.

As well as the main SBM structure being coated, the internal surfaces of the cofferdams, which give buoyancy to the SBM, were coated. After power-tool preparation, one coat of Alocit 28.15 white was used at a DFT of 8 mils for corrosion protection, to seal the existing coal-tar finish and for safety - giving a lighter environment for inspections.

Below: The underside of the buoy, covered in marine growth, was typical of the general condition of the SBM.

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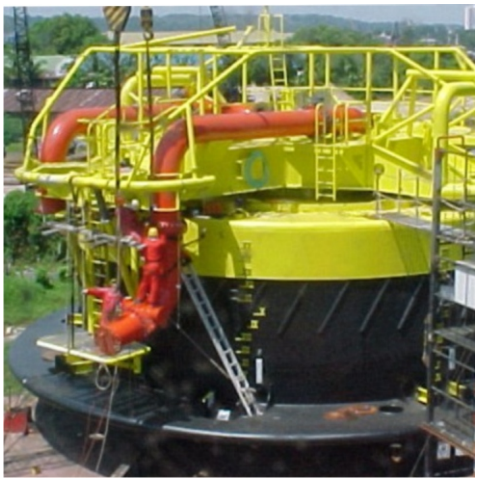
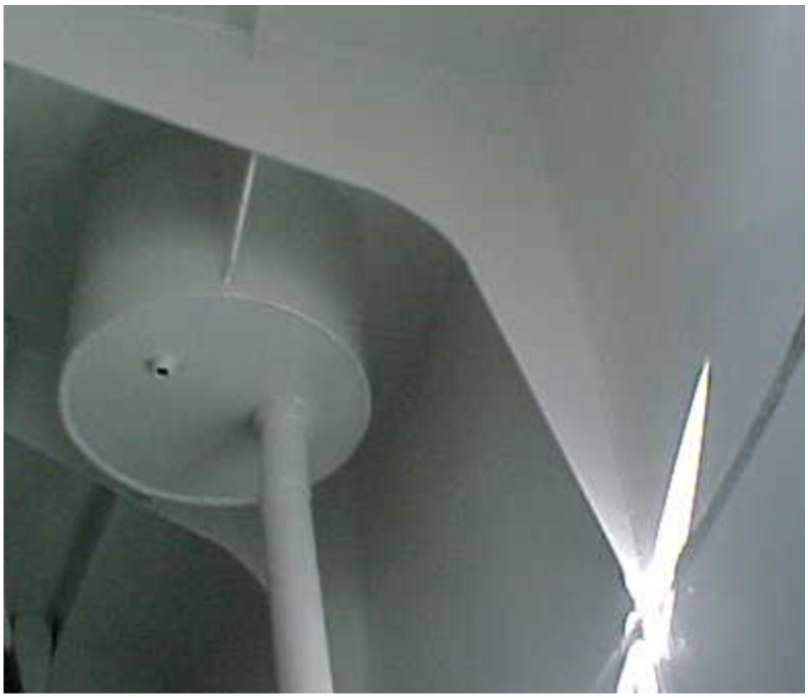
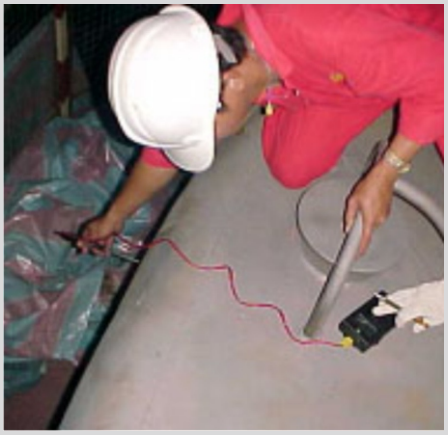


Before and after: left, the main buoy during preparation before coating. Above, after the coating works are complete.

Above: Water-jetting is a fast and clean surface preparation method. Using blast media with the water gave profile, the ability to use Alocit immediately after cleaning while still wet achieved significant cost savings.



Above: Inside the coffer dams after coating
Above left: Buoy bottom after water-jetting
Left: Stripe coating cofferdam with 28.15



SURFACE PREPARATION	Pull-off Strength - PSI
Hydro-blasting with Garnet	1200
Hydro-blasting with Sand	900
Hydro-blasting with Garnet/Sand mix	750

INSPECTION/TESTING

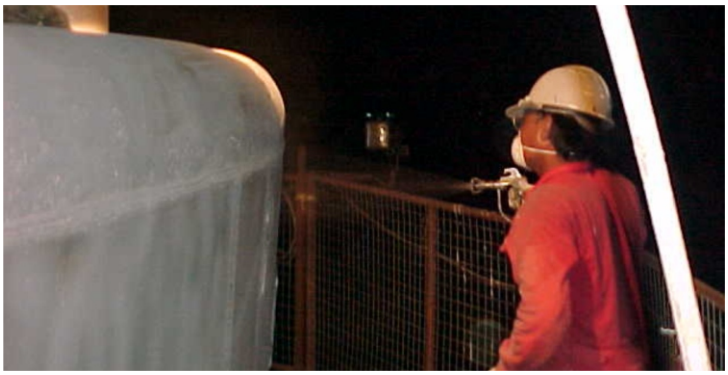
Top left to right: Surface profile check, surface temperature check prior coating, final coat DFT on buoy body.

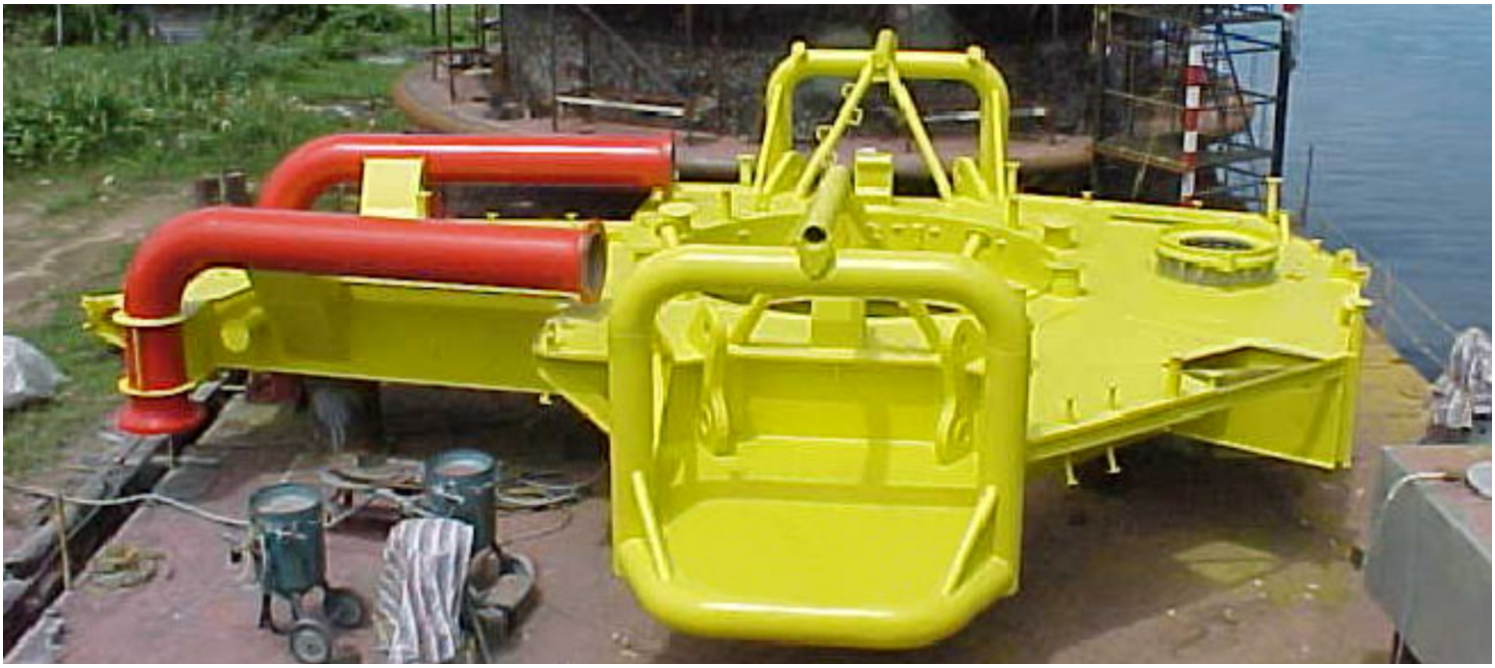
Left: Final coat DFT on buoy fender

Middle top: 2nd coat 28.15 grey DFT on buoy

Middle bottom: Final coat DFT on well.

All testing carried out during work by client's inspectors





As well as providing a high performance, long-lasting anti-corrosion system, the use of Alocit on the SBM meant that significant time and cost savings could be achieved.

Engineers from the commissioning oil company estimated up to 50% savings were achieved in some areas because it could be applied immediately after water blasting without affecting adhesion, even though the surfaces were very wet.

For more information on Alocit coatings please contact us at the address below - or visit the Group website for technical and application data.

Top left: stripe coating on the turntable

Top right: spraying 1st coat of 28.14 on the buoy at night

Above: the fully completed turntable after application.

Left: the coated and assembled SBM.

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