



## PLATECOIL® Heating Banks Prove Economical Solution For Oil Spill Recovery Vessel Fleet

Major marine oil spill recovery company replaces old heating coil design with Tranter PLATECOIL® technology, reducing material and installation cost.

High heat transfer rates are a critical factor in the design and operation of tank and cargo hold heating applications. It is the high heat transfer rate of PLATECOIL® Prime Surface Heat Exchanger banks that increases efficiencies and reduces operational cost when compared to conventional heating coil design. In addition the overall material and installation cost are drastically reduced over conventional pipe coil products. This was the experience of Marine Spill Response Corporation (MSRC), a not-for-profit, U.S. Coast Guard-classified Oil Spill Removal Organization (OSRO) formed to offer oil spill response services and mitigate damage to the environment.

### Separating oil and water

MSRC operates a fleet of Responder-class Oil Spill Response Vessels (OSRVs) that receive recovered material to their holds, where it is heated as needed to accelerate gravity separation of oil and water phases. Following separation, or knockout, the OSRV crew shuts down heating unless the weathered oil is very viscous, in which the heating is continued until the ship reaches port to maintain a pumpable viscosity.



*Delivered panels were clamped in rack stands and their inlet/outlet flanges connected to media distribution and return headers.*

At the vessel's last drydocking, PLATECOIL Bulk Cargo Heating Banks

were installed replacing existing pipe coil tank heaters. The existing coated mild steel pipe coils had corroded in the presence of recovered seawater. Tranter engineered and factory-prefabricated the replacement banks from PLATECOIL Style 40D panels in Type 304 stainless steel. There are 4 banks per hull, and each bank has 17–23 plates to heat the 4,000-barrel-capacity holds. The OSRVs are equipped with hydronic boilers using synthetic heat transfer fluid as a heating medium.

## Material and labor savings

PLATECOIL bank material cost savings are a result of their efficiency—a 22-in. x 143-in. or 36-in. x 95-in. Style 40D PLATECOIL panel equals 100 ft of 2-in. Sch 40 pipe. The savings are particularly attractive when higher alloys are involved to combat corrosion.

Because of limited access to the hold, the PLATECOIL panels were factory-prefabricated with inlet/outlet flanges and transported as separate pieces. Once moved into the hold, the panels were connected to flanged headers and secured within notched support frames using tie rods. Thus, the shipyard labor was reduced from a major welding installation to a bolt-in installation, reducing the overall capital cost of the project.

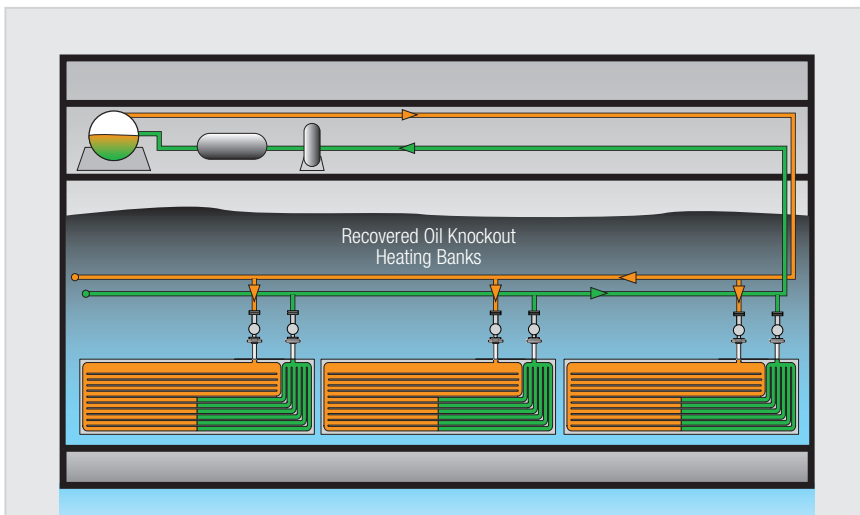
In many hold heating installations where standard vessel manways are present, the PLATECOIL panels can be factory-prefabricated into a rigid, integral unit comprising manifold connections and support structures with integral feet. These complete assembled units can pass through standard manways to the cargo hold, where they are easily lowered into position and connected to the heating media distribution and return piping.

PLATECOIL heating banks conform to ASME, U.S. Coast Guard, DNV, ABS and Lloyds Register codes.

Read more about [Tranter marine applications...](#)

### PLATECOIL Responder-Class Banks At A Glance

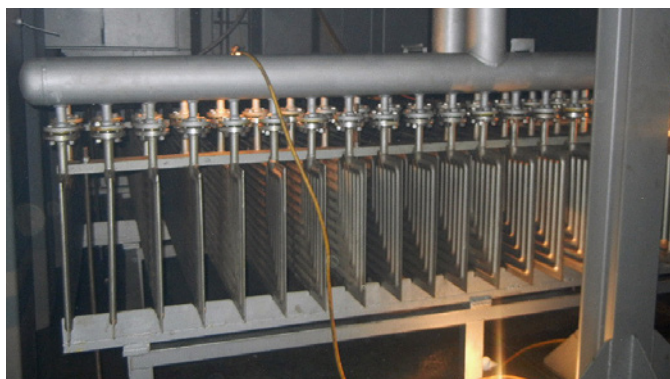
Materials	Type 304 and 316 stainless steel
Temperature	300–400°F
Heating media	Synthetic heating fluid
Panel style	Style 40D
Configuration	4 banks per hull, 17–23 plates per bank



*PLATECOIL heating banks accelerate the separation of water from recovered oil in the holds of Oil Spill Response Vessels (OSRVs).*

## COST-EFFICIENT HOLD HEATING SYSTEMS

*The PLATECOIL heating banks met MRSC's objective of obtaining the most cost-efficient, corrosion-resistant hold heating system available.*



*The high heat transfer rate of PLATECOIL Prime Surface Heat Exchangers results in materials savings in Type 304 stainless steel, plus lower cost field installation than linear pipe coil heating elements.*



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