



PYPLOK® FOR HEATING COILS IN SHIP TANKS

Steam Heating coils form an important component of marine cargo application, this is due to the various high viscosity cargo handled by the ships like crude oil, edible oils etc. At ambient temperature these liquids are difficult to handle due to their high viscosity. Many of these liquids are

difficult to handle at ambient temperatures due to their high viscosity. Steam Heated Coils increase the temperature of these high viscosity fluids and decrease their viscosity so that they can be easily handled.

The piping for the steam coils have to be reliable as any leakage can cause the discharge of steam to the cargo and may contaminate it. Also repairing the leak by conventional methods like welding is a big concern as it involves hot work (hence cargo has to be emptied). Hence a safe and reliable connection is needed for heating coils.

Pyelok® is an ideal pipe/tube fitting for such applications because it is a reliable and a safe connection.

Pyelok® being permanent fitting is tamper proof and very reliable (has references of service life spanning 25 years and still in operation)

Specialized Pyelok® fittings are manufactured for Heating Coil Systems where the Primary seal is EPDM to hold steam and the environmental/backup seal is Viton



Pyelok® is a 360 degree radially crimped mechanically actuated fitting. It involves no welding at all. It is available in Carbon Steel, Stainless Steel, Duplex, Super Duplex and Cu-Ni. It is a high pressure fitting. For more information please visit <http://chaseresource.com/pyelok.html>

Pyelok® is easy to install and requires no skilled labour.

Notable reference for Pyplok® in steam heating coils can be the Repair of Oil Tanker Montesperanza in Navantia Repair Yard in Spain



The main purpose of the job was to repair the leaks in the heating coil piping in COT and SLOP Tanks.

The reason for the leaks were due to defective welds of socket weld fittings during building the ship.

The system specifics being as below:-

Tube Material – **Al-Brass**

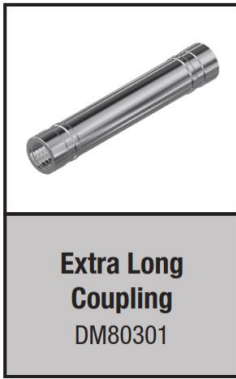
Tube Size – **44.5 mm x 2 mm**

Working Temperature – **Max 168 Deg C**

Working Pressure – **7 bar**

The customers requirement were as follows :-

1. To be able to repair the ships piping with NO Hot Work
2. Avoiding the need of any fire watch
3. To reduce on-site time and labour
4. Work to be done with the involvement of the ships crew
5. To achieve a safe, reliable and permanent leak free connection



PYPLOK DP04M301B44EV FITTING



Pyplok® Cu-Ni 70/30 Extra Long Couplings (DM80301) were proposed with Custom made EPDM-Viton Seal Coupling for Heating Coils.

The work was carried out by the following steps:-



Leaking Joints before repair. They were wrapped with temporary repair band.



Removing Wrapped band by mechanical means



Tube and Leaking Fitting Exposed



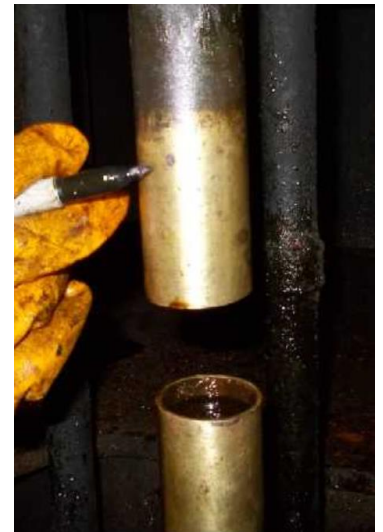
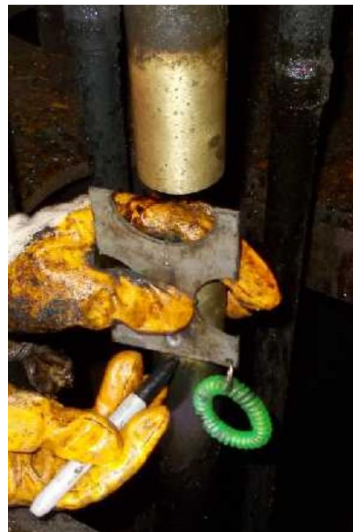
Cutting of Tube using Pneumatic Reciprocating Saw



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Cutting of Tube using Pneumatic Reciprocating Saw



Insertion and Inspection Marks are defined



Crimping using Pyplok Power Unit Model 55 by means of pneumatic operated power pack XA11G



Crimping Diameter and Insertion Depth Verification



Rest of the fittings are removed and leaks repaired



Pyplok® Tooling complies with all relevant provisions of the EC-Directives 2006/42/EC (Machinery) and 2014/68/EU (Pressure Equipment)



Crimping and inspection in any position



Job Carried out by crew after short training by Tube-Mac®



View of the completed Pyplok®