



GOOD CATCH from **The American Club**

Who Needs a Hot Work Permit?

Description

A vessel was underway when the Third Engineer on watch smelled diesel fuel while making a round in the engine room. He discovered that a fuel pipe was leaking under a bracket that secured the fuel pipe to a support stanchion. It appeared that the bracket had vibrated against the pipe and had worn a small hole in the fuel pipe. Diesel fuel was dripping at a steady rate.

The Third Engineer decided to make a temporary repair himself. His plan was to use an angle grinder to cut off the bracket, then apply a soft patch to stop the leak. He did not notify the Chief Engineer and he did not obtain a Hot Work Permit. When interviewed from his hospital bed, he said that the Hot Work Permit process takes so long that he felt he could have completed the work faster than he could have gotten a signed Hot Work Permit.

While setting up his tools and accessing the leak, diesel fuel soaked the left pant leg of his coveralls and had formed a small puddle on the deckplate under the leak. When he started cutting the bracket with the angle grinder, the sparks from the angle grinder caught both his pant leg and the puddle on fire.

The Third Engineer was able to exit the engine room but was seriously injured. While some of the crew administered first aid to the Third Engineer, the rest of the crew responded to the fire appropriately. They used the remote fuel shutoff valves to secure the fuel supply and then were able to extinguish the fire using the installed CO₂ system.

Actual Damages

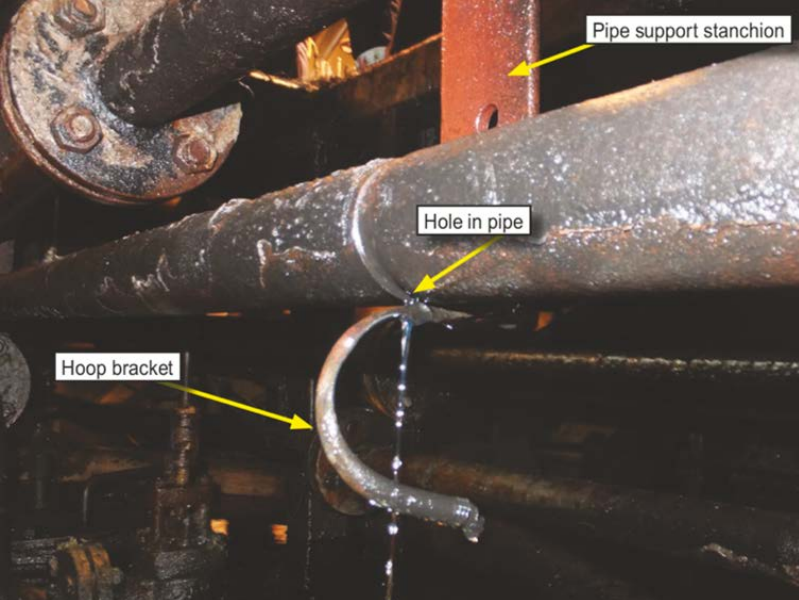
The Third Engineer had severe burns on both legs and was hospitalized for several weeks. He underwent several surgeries and will be scarred for life. He was unable to work for over a year.

The damage to the engine room was limited to the immediate vicinity of where the fire started. Several piping systems and electrical cable runs had to be replaced. The vessel was out of service for approximately 30 days and repairs cost over \$250,000.

Potential Risks

The Third Engineer was fortunate to survive the incident. Had he not been able to exit the engine room, he could have asphyxiated from the smoke in the time it would have taken for a rescue team to enter the engine room and find him.

The damage to the vessel could have been much more extensive were it not for the quick professional response by the crew. Had the fire gotten out of control, the repair costs could have been several times higher.



Prevention

- ★ The Hot Work Permit process exists for the safety of the crew and the vessel. It is not optional and should always be used whenever any hot work is anticipated.
- ★ Grinding is hot work as is every other activity that produces sparks or generates heat.
- ★ Fuel leaks should be treated as potentially serious problems. Fuel leak repair decisions should always involve the Chief Engineer.

When you identify a hazard before something goes wrong...

it's a Good Catch.

When you stop an operation before something bad happens...

it's a Good Catch.

When you recognize that spark-producing work requires a

Hot Work Permit and get one... **that's a Good Catch, too!**



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