

# GOOD CATCH from The American Club

## Fire Started from Cutting Torch Work

## **Description**

Crew members on a general cargo vessel in port were using an oxy-acetylene torch to remove various sea fasteners, brackets, and cargo securing points from the tween deck pontoons in a cargo hold. This was necessary for the removal of the cargo and to prepare the cargo hold and pontoons for the next cargo.

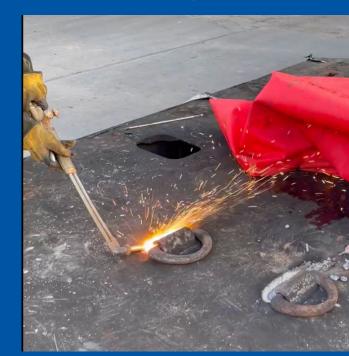
A safety brief was held prior to the start of the work. A hot work permit was obtained and reviewed by the crew involved in the work. The hot work permit required fire blankets to be used and a fire watch. Fire blankets were placed around the work and were moved as the cutting operation progressed. The fire watch was equipped with a water hose and a portable fire extinguisher.

As crew members were moving the fire blankets to the next work location, flames and smoke were seen from the cargo located on the tank top directly under the tween deck pontoons. The officer on watch was notified and sounded the general alarm. The crew members quickly evacuated the cargo hold. The crew was able to extinguish the fire, however, a large portion of the cargo was damaged.

The investigation determined that sparks and molten slag from the hot work had fallen through the gaps between the tween deck pontoons. The molten slag had also burned

through the fire blanket and had fallen through the gap at several locations. The sparks and molten slag had landed on and ignited the plastic covering and protecting the cargo. Some of the cargo was damaged from the fire and other cargo was damaged by the smoke. Damage was limited to that one cargo hold.

A review of the approved hot work permit indicated that while it specified the use of fire blankets in general terms, it did not specify a minimum required distance from the hot work or additional protective covering for cargo that may be exposed. More importantly, the permit did not address the specific risk from the hot work to the cargo located on the tank top under the tween deck pontoons.



### **Actual Damage**

The damage to the cargo exceeded \$350,000 including damage from the fire directly, from the smoke, and from the water used to extinguish the fire. Damage to the ship exceeded \$100,000 and included damage to the cargo hold bulkhead, the access ladders, the lighting system, and the cargo hold paint.



# Potential Injuries and Damage

The crew was fortunate the fire was discovered early, and they were able to quickly exit the cargo hold. The fire spread rapidly and produced a large volume of smoke that could have caused smoke inhalation injuries.

While the fire did not damage all of the cargo in that hold, the damage would have been worse had the crew's response been slower. Additionally, had the response not been as quick, the damage to the ship would have been more extensive.

## **Prevention**

- ★ Hot work permits should be very specific to the exact risks associated with the specific hot work, specific location, specific time, and specific hazards.
- **★** Fire watches are critically important during hot work to prevent fires. To be effective, the fire watch has to be vigilant to fires in all of the adjacent areas.
- ★ Screens, shielding and fire blankets should be effectively placed to contain sparks and molten slag produced by hot work.
- ★ Hot work permits should specifically address risks to all nearby cargo or any other flammable materials that may be exposed including the need for additional protective covers.

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

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

it's a Good Catch. it's a Good Catch.

When you recognize that sparks and molten slag from hot work might travel farther than expected and ensure that doesn't happen...

## that's a Good Catch, too!



The American Club would like to specially thank <u>Independent Maritime Consulting, LLC</u> for their contribution to this document.



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