

Cutting torch hose separates from flame arrestor

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An incident has come to IMCA's attention in which an Oxy-Acetylene cutting torch hose separated from the flame arrestor, resulting in a flashback.

What happened?

The incident occurred during welding modification of stabbing guides inside a pile driving hammer. While cutting a steel plate with a torch, the pipefitter experienced a flashback of flames as the connection of the hose suddenly came loose. Immediately the fire watch used the standby fire extinguisher and put out the flames. The men stopped the job and called for the supervisor. The pipefitter was unharmed and no property damage occurred.

The investigation revealed the following:

- Immediate cause: was identified as inadequate repair using unsuitable techniques and methods. The inside diameter of the hose was larger than the one suited for this type/size of nipple so tape was used to make up the difference. The clamp could not tighten against the barb on the nipple and when the tape warmed up the hose and clamp slipped off over the barbed end.
- Root Cause: was use of miss-matched materials that were inadequate for the task. The correct size hoses with clamps were ordered but were unavailable at the time. An improvised repair was made using tape to secure a tight fit.

Our member took the following corrective actions:

- Inspect all torch hoses and remove all with this type of improvised connection.
- Crew trained and provided awareness in proper materials and procedure.
- A 'safety stand down' was conducted on-board to reiterate the importance of pre-job inspection and carrying out the job using the safest methods and materials.

Safety incidents involving pressurised gas fittings, oxy-acetylene cutting equipment and gas cutting in general are quite commonplace.

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