

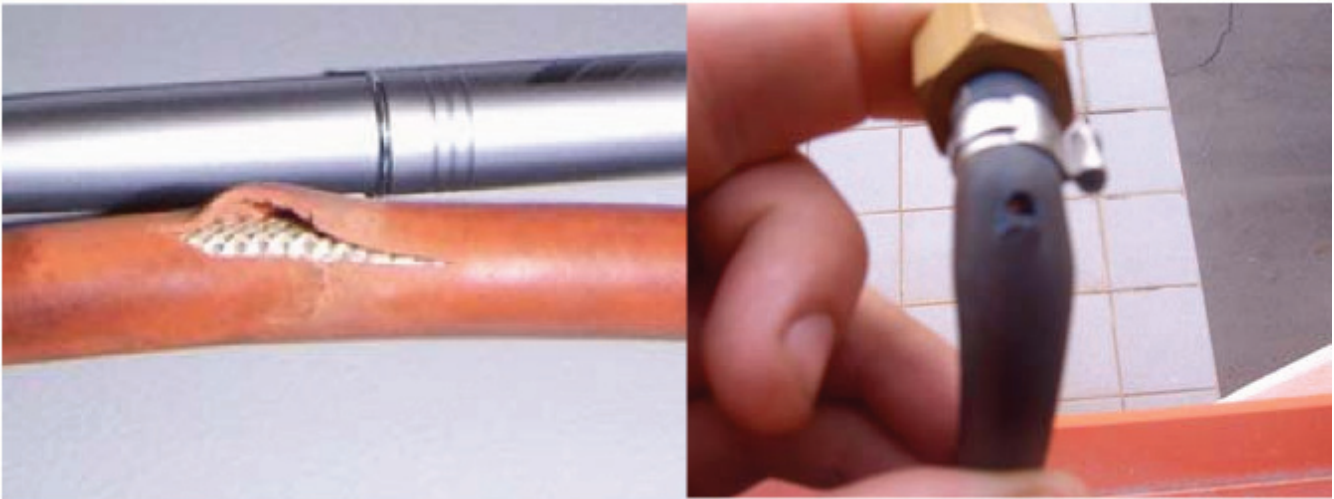
What is Wicking?

“Wicking” is when the inner tube of the hose is pierced allowing the gas or fluid to then run through and around the braiding until it finds a weak spot in the outer tube and bubbles up or blows out. Although wicking can occur in all manner of hoses it is more common on softer compounded hoses like small bore rubber hoses used for Oxygen and Acetylene, Propane etc.

Cause

Piercing the inner layer is normally caused by one or more of the following reasons but not limited to these alone:

1. Incorrect fitment of the hose tail fitting.
2. Over crimping of the fitting.
3. The use of reusable fittings as they by design cut deep into the inner tube, these are also highly prone to poor installation techniques.
4. Pulling or working the hose end at tight angles forcing the hose barb into and through the inner layer.
5. Incorrect ferule section for the hose barb, if the hose barb is longer than the ferule then it is easy to bend the hose pushing the barb into and through the inner tube.
6. Not so common, but plain and simple poor manufacture of the hose during extrusion.



The problem with wicking is that once it happens you can not just cut the hose back it will continue to happen as the adhesion between the inner and outer tubes has been compromised. This in itself allows the inner tube to rupture more easily as it is no longer supported properly.

Prevention

1. Correct fitment of the hose tails and proper selection of barb to ferule configurations.
2. The installation and use of hose end protectors.
3. Instruct and explain to the operators the resultant problems of pulling the hose by the torch / nozzle and over stressing by excessive bending and rotation of the hose.

