

# Tiger Torch

## WHAT'S AT STAKE?

Tiger torches are invaluable for welders and fitters but there are hazards, if not used properly. Their misuse makes these valuable tools not valuable!!!

## WHAT'S THE DANGER?

Treat Tiger Torch with respect and caution by following these recommendations:

1. The propane cylinder contains gaseous and liquid propane. If the torch is moved rapidly, tilted too far to the side or upside down, the liquid can enter the valve and cause the flame to flare or extinguish. To prevent this, adjust the torch to a  $\frac{1}{4}$ " long inner flame and let the torch warm-up for 5 minutes prior to such movement, and then slowly re-adjust as necessary once the torch is in the desired operating position.
2. Make sure torch is cool before tightening or removing accessories. Check all joints and couplings periodically to insure against loose connections. With valve open, without lighting, test all connections with soapy water. If bubbles appear, gas is leaking and torch must be repaired. NEVER USE A FLAME TO CHECK FOR LEAKS. Make this test in a well-ventilated and spark-free area, and where there are no open flames
3. Never attempt to light the torch with a setting that would result in a main flame less than one quarter inch ( $\frac{1}{4}$ ) long. An excessively short flame will cause lighting difficulties, will result in inefficient heating and may damage the ignition mechanism.
4. Cold weather operation:
5. In cold weather, the size of the flame will be smaller. To produce a larger flame, pre-warm the cylinder to room

temperature prior to use

6. There is a greater possibility that the flame will extinguish when the torch is turned upside down in cold weather.
7. NOTE: As a safety feature, the burner may snap if the torch is dropped, in which case the burner must be replaced.

## HOW TO PROTECT YOURSELF

First do a pre-use inspection on the cylinder, the regulator, the hose and the torch itself. Check for any damage, such as dents in the cylinder or holes in the hose. Check the tag on the cylinder to ensure an inspection has been done in the last ten years. If there's no tag, inform a supervisor and tag it out. Check to ensure there is a pressure release valve. The cylinders should always be used and stored in the upright position. Don't lay them on their side or roll them. They should also always be stored outside. Use a proper wrench to tighten the regulator in to steer clear of leaks. If you smell propane while using it you probably have a leak. Turn off the tank and torch and disconnect then reconnect properly. Always be careful to turn off the torch and the tank. When lighting the torch, always hold away from any personnel and use a striker. Never use a cigarette lighter or matches. Only use tiger torches for the proper applications, they are not meant to heat your toes or to melt ice off another propane tank. When you are finished, always disconnect the tiger torch, never store a cylinder still connected to the regulator and torch.

## More Protection

- When a torch is used, a proper fire extinguisher must be present.
- Torches are not to be used for heating of work areas or thawing of lines and equipment, etc., when not in use.
- Ensure that the propane bottles are properly shut off.
- Fuel lines are to have regulators.
- Propane bottles shall be secured in an upright position
- Ensure you are conversant with the operation of equipment

before use.

- When a torch is used, an adequate fire extinguisher should be present.
- Eye protection must be worn when heating edges where loose aggregate is present, because the rocks can explode due to the extreme heat that is applied to them.
- Ensure fuel lines are in good working conditions. Inspect the hoses and valves to ensure there are no leaks. If you suspect that there is a leak, do not use a match to test. Instead, use soap and water and look for bubbles.
- Ensure proper cylinders are secured and regulators in place
- When not used for pre-heating operation, shut torch off. Do not leave the tiger torch on, unattended.
- Torches are not to be used for heating or thawing of lines where known hydrocarbons are present.
- Ensure that the propane bottles are properly shut off.
- Ensure that you turn the propane off at the tank and not just the tiger torch head. This will ensure that no propane will leak out of the tank if there is a leak in the propane line linking the tank to the torch.

## **Supervisor Responsibility**

Supervisors are responsible to facilitate and/or provide proper instruction to their workers in protection requirements and training.

## **FINAL WORD**

Tiger torches are a day-to-day tool in the trades. But you need to remember that they are still compressed gas with flames shooting out the end and have obvious hazards that come with them, so use cautiously.