

NWCG Equipment Technology Committee

National Fire Equipment System

Cache Memorandum: 21-02

04/26/2021



To: NFES: National Interagency Support Caches (NISC)

From: David Haston, Chair – NWCG Equipment Technology Committee

Subject: Drip Torch Lock Rings Detaching

Issue: Lock rings may unexpectedly detach from the drip torch.

Background: The National Technology and Development Program (NTDP) inspected two torches with reported lock ring problems, one being the torch involved in the recent Clear Creek Rx Drip Torch Leg Burn incident (Rapid Lesson Sharing, <https://www.wildfirelessons.net/viewdocument/clear-creek-rx-drip-torch-leg-burn>). Both lock rings would appear to close tightly but would only engage about one turn (less than 360 degrees). Occasionally, with additional pressure, the lock ring would spin freely and come off (see Drip Torch Collar Popping Off, <https://www.youtube.com/watch?v=9PERxsnPWKA>). NTDP found that some mismatched lock rings, whether by different manufacturers or from wear, have a slightly larger thread diameter. These mismatched or worn lock rings can seem to secure tightly but could easily jar loose.

Action: Inspect National Interagency Support Cache (NISC) inventory and ensure lock ring meets the proper thread engagement:

- Ensure that at least 1-1/2 full turns (540 degrees) of the lock ring are possible once the threads engage when tightening the ring. Less than a full 1-1/2 turn may indicate inadequate thread engagement and could lead to a possible detachment. If the lock ring becomes tight with less than one full (360 degrees) turn assume that the components are mismatched and remove from service.



- The *NWCG Standards for Fire Equipment Storage and Refurbishing*, PMS 448, <https://www.nwcg.gov/publications/448>, will be updated with inspection criteria.

Additional Information:

1. Ensure all drip torch components are from original equipment manufacturer.
2. Do not interchange parts between different torch manufacturers. Small differences in spout length, gasket sealing depth, cover thickness, and lock ring seating can affect the seal quality of the components.

NWCG standards are interagency by design; however, the decision to adopt and utilize them is made independently by the individual member agencies and communicated through their respective directives systems.

3. Replace components with known compatible replacement parts from the original equipment manufacturer. Manufacturers provide part number information with new drip torches and on their websites.

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