



TO :

FROM : National Wildfire Coordinating Group

REPLY TO : NWCG@nifc.gov

DATE : 07/22/2010

SUBJECT : SAFETY ADVISORY : CACHE MEMORANDUM NO.10-3 - Non Compliant Fuel Bottles



Cache Memorandum No. 10-3 - Non Compliant Fuel Bottles.pdf



National Interagency Fire Center

3833 South Development Avenue
Boise, Idaho 83705



9216 NFES (LLFA240000)

July 20, 2010



NATIONAL FIRE EQUIPMENT SYSTEM CACHE MEMORANDUM NO. 10-3

To: NFES: National Interagency Support Caches
From: Tory Henderson, Chair, Equipment Technology Committee – NWCG
Subject: Non Compliant Fuel Bottles (NFES 001535, 1 Liter Fuel Container)



Recommended Action

It is recommended that all owners of fuel bottles (NFES 001535, 1 liter fuel container, also known as a “Sigg bottle”) inspect their inventory and remove from service all versions constructed with a crimped threaded insert and utilize only one piece construction type fuel bottles.



Background

Investigations into reports of fuel bottle failures resulted in the release of safety warnings on the dangers of overfilling fuel bottles in 2002 and 2005 through the NWCG’s Safety Alert system (see <http://safenet.nifc.gov/notice.nsf>). While all commercially available fuel bottles are safe when used in accordance with manufacturers’ directions, when overfilled with a liquid fuel the internal pressure of fuel bottles will increase significantly when exposed to even moderate temperatures and can result in a variety of fuel bottle failures. Testing performed by the Missoula Technology and Development Center (MTDC) found that fuel bottles of two piece construction (with a separate threaded insert crimped into the bottle) could experience failures at low pressures (under 400 psi) when overfilled. These failures resulted in the loss of most or all contents from vertical splits on the sides of the bottles or the ejection of crimped threaded inserts. One piece construction type fuel bottles, such as those manufactured by Mountain Safety Research Corporation (MSR), were able to withstand significantly higher pressures before failure. The MSR fuel bottle typically responded to excessive pressure through displacement of the cap “O” ring seal, which conveniently acts as a safety relief valve to release excessive pressure with only minimal escape of the bottle’s contents. As a result of MTDC’s findings, General Services Administration (GSA) product specifications for fuel bottles were changed to require vendors provide only one piece construction type fuel bottles.

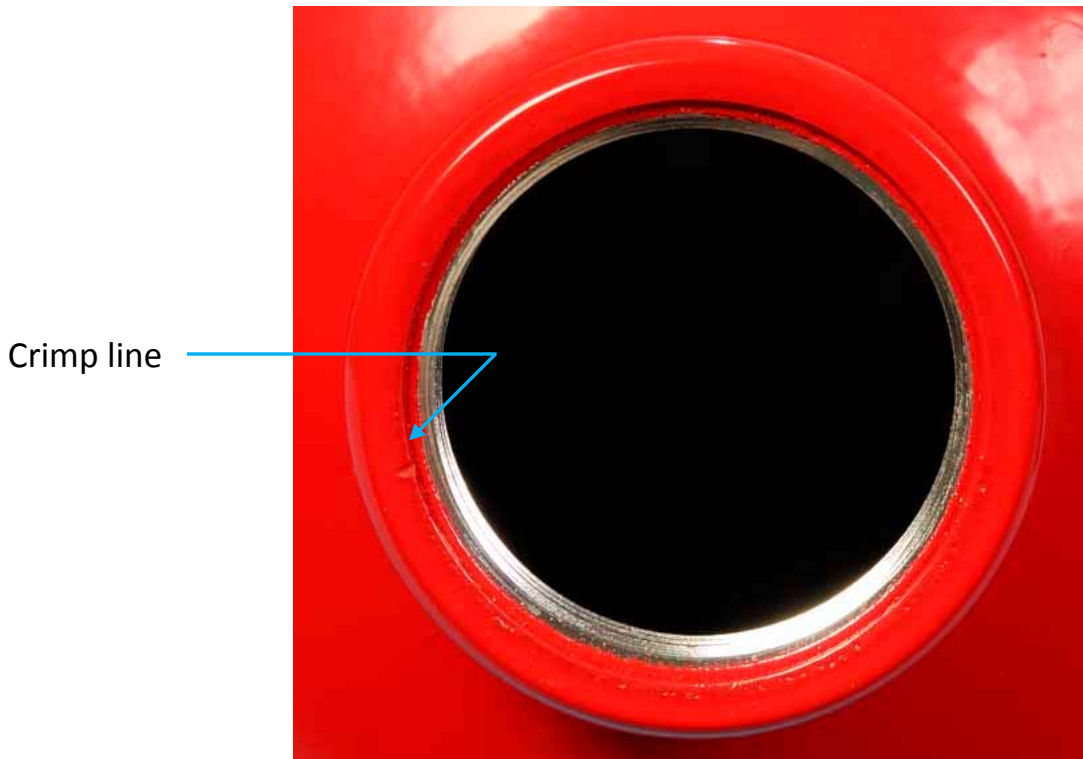


GSA recently discovered that fuel bottles they acquired under the brand name of “Brunton” since February 1, 2008 were the two piece type with crimped threaded insert rather than the one piece type fuel bottle specified. GSA has since issued a Safety Notice (see attachment 1), has contacted purchasers advising the removal of these fuel bottles from service, and provided credit and replacement information. GSA recently acquired and has available for sale specification compliant – one piece construction fuel bottles manufactured by MSR.

How to Determine if Your Aluminum Fuel Bottle is Compliant

All “Brunton” brand fuel bottles acquired through GSA are of two piece construction and should be removed from service. Limited sampling of fuel bottles from Stansport, Primus, and Optimus indicate they also are fabricated using noncompliant two piece construction, but individual inspection is recommended for final determination. (Only the “Brunton” fuel bottles as identified by GSA can be replaced and credit provided). All fuel bottles examined made by MSR meet one piece construction specification requirements and are acceptable.

To check if your fuel bottle is compliant remove the threaded cap and look at the mouth of the bottle. If no crimp is visible the bottle is compliant. If a crimp is visible the bottle is not compliant and should be replaced.



The mouth of a non-compliant two piece bottle showing the threaded insert crimped in place.



The mouth of a compliant fuel bottle. Note the lack of a crimp line.



A new style MSR bottle with a childproof cap.
These bottles comply with GSA requirements



An older MSR bottle that also complies with GSA requirements

For technical questions contact Shawn Steber at (406) 829-6785, or e-mail at: ShawnSteber/WO/USDAFS@FSNOTES. For general questions about this information, contact Tory Henderson at NIFC (208) 387-5348, or e-mail at: ToryHenderson/WO/USDAFS@FSNOTES.

/s/ Tory Henderson

cc:
State Fire Management Officers - BLM
Regional Directors Fire and Aviation Management - USFS
Technology Development Centers - San Dimas, Missoula
Agency Directors – NIFC
Logistics Center – NICC
Bill Hicks – GSA





U.S. General Services Administration

JULY 2, 2010

Subject: Safety Notice: Fuel Bottle NSN 7240-01-351-2133

Dear GSA Customer:

Our records indicate that your agency/location has purchased fuel bottles from GSA Global Supply™. We have discovered that recent product shipments did not comply with the product specification, so I am writing to ask that you stop using any fuel bottles purchased from GSA since February 1, 2008.

The fuel bottle in question is marked with the brand name Brunton. It was required to feature one-piece construction; however, all shipments from the contractor have been two-piece construction and rendered noncompliant. It is possible that the noncompliant versions could pose safety problems due to pressure build-up from over-filling and/or changes in temperature. This might result in a leak or a major failure of the bottle's integrity. Customers could have received noncompliant Brunton fuel bottles from GSA beginning in February 2008.

Our customer service colleagues are prepared to issue credits for the fuel bottles you have purchased from GSA in this time period. Please call them at 800-525-8027 (option 2) to clarify any questions you have regarding the amount or timing of such credits.

We are expediting procurement of replacement fuel bottles and anticipate new stock will be available by late July. Check for updates on this topic online at www.gsa.gov/fireprogram as information becomes available.

In the meantime, please take any necessary steps to ensure that Brunton fuel bottles purchased since February 2008 are taken out of service immediately. We appreciate your business and apologize for any inconvenience this may cause, but our primary concern is for your safety.

If you have any questions or concerns, please contact me at (817) 574-2533 or bill.hicks@gsa.gov.

Sincerely,

A handwritten signature in black ink that reads "Bill Hicks".

Bill Hicks
Fire, Disaster, and Mandatory Source Coordinator

10-00527

Attachment 1