



Risk Management Committee

Safety Warning FINAL

Date: 08/01/2014

Subject: Stihl Chainsaw Fuel/Oil Caps

Issue: Recently, a wildland firefighter was seriously burned while operating a saw in hot ash when fuel spilled from a Stihl chainsaw onto the saw chaps, which then ignited. At least one other report of fuel and oil leakage has been received. The exact cause(s) of the failures are unknown at this time, and wildland fire equipment experts are working with the manufacturer to identify the issue. In the meantime, the hazard posed by potential fuel leakage is sufficient to warrant this safety alert.

Some Stihl chainsaw fuel/oil caps can be improperly closed or otherwise fail to seal properly. It has been identified that fuel/oil caps can appear to be closed correctly, but upon closer inspection are found to be improperly seated (threads not in complete alignment) resulting in caps leaking and/or becoming dislodged.

Required Action: All chainsaw operators should:

- Immediately inspect fuel/oil caps to ensure that they are undamaged, in good condition, and seat properly when closed.
- If damaged fuel/oil caps are found, discontinue use of the chainsaw until the fuel/oil cap is replaced.
- Ensure a thorough check occurs on cap closures prior to and periodically during chainsaw use to ensure the caps are properly seated. See attached excerpt from *the Stihl MS 362 Instruction Manual* describing proper fuel cap installation procedures.
- Report upward through your local safety channels should you experience a chainsaw related fuel/oil leakage issue.

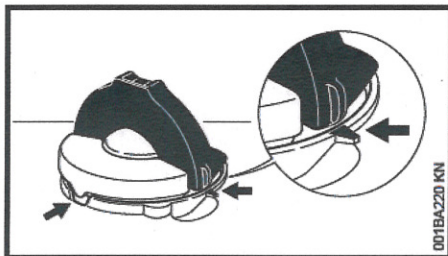
Follow-up Actions: If the ongoing research reveals additional information on causes of fuel/oil cap failures, a subsequent safety alert will be issued.

Discussion/Background: A wildland firefighter was recently seriously burned as a result of fuel spilling from the chainsaw onto the saw chaps, which then ignited while working with a Stihl chainsaw in hot ash.

Additional Information: Rocky Ridge Fire 24- and 72-hour Reports:
<http://www.wildfirelessons.net/communities/resources/viewincident/?DocumentKey=4cc9ad76-8e32-4c2a-ac1a-2aa77a114c45>

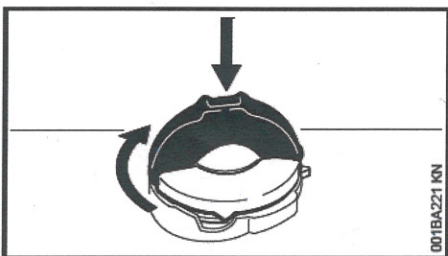
Attachment: *Stihl MS 362 fuel cap installation procedures*

Closing

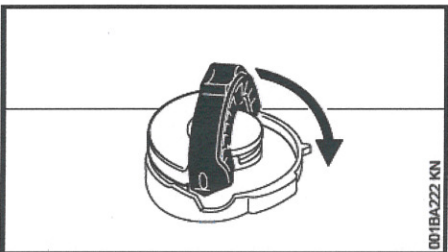


With grip in an upright position:

- Insert the cap – positioning marks on the cap and the fuel tank opening must line up.
- The cap should drop fully into the opening in this position.

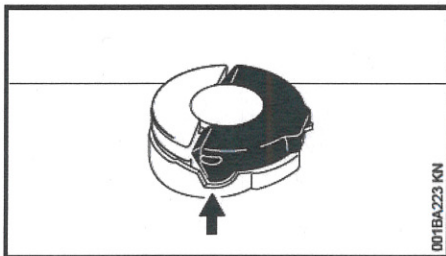


- While pressing the cap down, twist it firmly clockwise as far as it will go (approx. 1/4 turn).

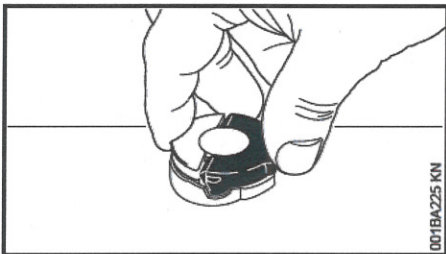


- Fold down the grip.

Checking for proper closure



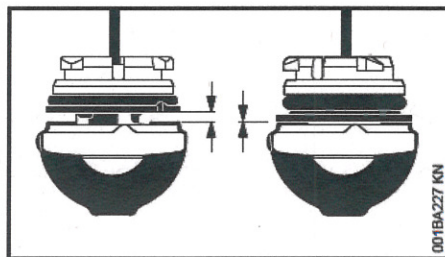
- The lug on the grip must engage entirely in the recess (arrow), and the grip must lie completely flush with the top of the cap.



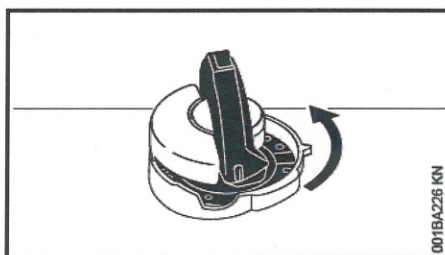
- Grip the cap and check for tightness.
- If the cap can be moved, it is not properly installed.

Misalignment of the cap parts

- If the cap does not drop fully into the opening when the positioning marks line up and/or if the cap does not tighten properly when twisted, the base of the cap may be rotated out of position vis-à-vis the top.
- Such misalignment can result from handling, cleaning or an improper attempt at tightening.



- Left: Base of improperly aligned cap (with open space)
- Right: Base of cap correctly positioned for installation



- To correct a misalignment, turn the cap (with the grip up) until it drops fully into the tank opening.
- Twist the cap counterclockwise as far as it will go (approx. 1/4 turn) – this will twist the base of the cap into the correct position.
- Twist the cap clockwise, closing it normally – see the sections "Closing" and "Checking for proper closure."
- If your cap still does not tighten properly, it may be damaged or broken; immediately stop use of the unit and take it to your authorized STIHL dealer for repair.