Carter® Ground Fueling
Safety Bulletin / Product News

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Product Improvement

Applicable To All Eaton Model 64250 Commercial Nozzles

Eaton's Carter brand Model 64250 refueling nozzle was released to production in December 2004. Since its release, Carter has gathered input from the end-users of this nozzle and, following analysis of that input, a decision has been made to incorporate many of their suggested improvements as follows:

Interlock Ring

The Model 64250 nozzle incorporates an internal interlock feature, which prevents the nozzle from opening unless it is connected to an aircraft adapter. It also prevents the nozzle from being disconnected from the aircraft adapter unless the nozzle is properly closed. This feature is accomplished by the interaction of an interlock ring and the poppet shaft link. There have been reports of a few instances of broken interlock rings, which we believe were caused by trying to remove the nozzle from the aircraft adapter before the operating handle was completely closed. The interlock ring (part number 221658) was originally manufactured from an aluminum die casting in accordance with ASTM B669. On Model 64250s with serial numbers 900 and higher, the interlock ring is made of a stainless steel investment casting per AMS5355, which substantially increases its strength. As a precaution, we recommend that all aluminum interlock rings be inspected for damage. If any damage is found the nozzle should be removed from service immediately. All aluminum interlock rings should be changed to the stronger stainless steel ring as soon as possible. To facilitate this change, we are offering no-charge replacements for all aluminum interlock rings. Please provide your local Eaton Carter brand ground fueling equipment distributor with the serial number of your nozzle in order to receive a replacement interlock ring. On Model 64250s with serial numbers 900 or higher, the interlock ring does not need to be replaced. This improvement does extend the life of the interlock ring; however, it does add some weight to the nozzle.

Locking Lug Retainer Assembly

The original locking lug retainer assembly (part number 221655) was machined from 303 stainless steel. To offset the weight gain noted in the previous paragraph, the new locking lug retainer assembly is machined from 7075-T6 high strength aluminum. This high strength aluminum has yield strength in excess of the previously used stainless steel and yet provides a net weight reduction to the nozzle of 0.75 lb. U.S., (even considering the increased weight of the stainless steel interlock ring).

During the redesign process, the "lead in" ramps to accommodate for the aircraft adapter lugs were increased to provide easier connection to the aircraft.

Additionally, the total thickness of this ring has also been reduced, taking .060 inch off the front of the nozzle. Even though this nozzle met all the interface clearance dimensions of MS24484, several aircraft manufacturers have decided to either use "oval" head screws to mount the fueling adapter to the aircraft or to use one of the screws to support a wire mounting clip. In both cases these items interfere in the nozzle's allowable space, making it difficult or impossible to easily connect the nozzle to the aircraft adapter. This change does not impact the strength or the functionality of the nozzle; however, it does make the original poppet adjustment gauge (part number 64250ST1) no longer usable once the nozzle has been modified with the new components discussed above. The redesigned the gauge 64250ST1, Rev. B, will accommodate both nozzle versions. Nozzles prior to serial number 900 that have not been upgraded can still use the original 64250ST1. For nozzles serial number 900 or higher, Rev. B of the 642500ST1 gauge must be used.

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Interface Leakage Drains

The original Model 64250 did not incorporate drain holes external to the nose seal to provide drainage for the interface leakage common during disconnection. The original design study showed that there was more than sufficient volume in the locking lug retainer assembly to contain this small amount of fluid and it was deemed better to contain it than to have it run down the outside of the nozzle. However, there has been at least one reported case in which an individual removed the nozzle quickly and tipped it back towards himself, spilling the fluid on himself. This situation has been remedied by adding two (2) 1/8 inch diameter drain holes on all nozzles manufactured after 07/14/09. Eaton does not recommend that you drill the two 1/8 inch drain holes; however, several of Eaton's Carter brand equipment authorized distributors have this capability. Alternatively, the housing (housing only) can be returned to the manufacturer (using our RGA process) and we will complete the process at the factory and return the modified housing to you.

Affected Serial Numbers

- New interlock ring, (221658) — serial numbers 900 and higher
- New locking lug retainer assembly (221655) — serial numbers 900 and higher
- Interface leakage drains — serial numbers 1045 and higher

Replacement Parts

Parts to make the changes are available as follows.

To replace the interlock ring (221658):

- A "no-charge" kit, p/n KD64250-11, is available which includes the interlock ring, thrust washers, a cotter pin, and soft goods necessary to complete the upgrade. The serial number of the nozzle must be provided to receive this no-charge kit.

To replace the locking lug retainer assembly (47518):

In as much as the changes outlined above are product improvements to reduce weight and to extend the service life of the nozzle, the following kit is available to purchase:

- KD64250-12 includes the locking lug retainer assembly and bumper necessary to complete the upgrade.

However, if the nozzle serial number is 900 or lower and you would like to upgrade the interlock ring and the locking lug retainer assembly, we have put together a special kit, p/n KD64250-10NC, that provides for a no-charge interlock ring:

- KD64250-10NC includes an interlock ring, nose seal and everything outlined in the -12 Kit. The serial number of the nozzle must be provided to receive this -10NC Kit.

The KD64250-10 kit will remain available for future overhauls and repairs at normal price. To make this upgrade more cost effective we will offer these upgrade kits at special pricing from now until July 1, 2010. They can be ordered through your local Eaton Carter brand refueling equipment distributors.

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Eaton
Aerospace Group
9650 Jeronimo Road
Irvine, California 92618
Phone: (949) 452 9500
Fax: (949) 452 9555
www.eaton.com/aerospace

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