Service Information Letter

Document 159-053-00

Date: April 17, 2023

Subject: CMM update to cam inspection requirements and acceptable cam surface cleaning process at overhaul.

Dear Valued Customer:

Onboard Systems has received reports from the field and has received cargo hooks for overhaul which have exhibited rework performed to or damage sustained by cam surfaces critical to maintain release authority within the acceptable Acceptance Test Procedure (ATP) range. Due to the importance of maintaining this cam surface, and in the interest of establishing a consistent maintenance process throughout the wide network of organizations performing overhauls of Onboard Systems cargo hooks, Onboard Systems has updated the Component Maintenance Manual (CMM) with new cam inspection requirements and a specified surface cleaning process at overhaul. Our records indicate that your company may have purchased equipment that may be affected under one of the following cargo hook part numbers:

Affected Part Numbers	Description	CMM
528-020-XX	TALON MC Keeperless Cargo Hook	122-004-00

Please review this information and determine if the equipment is still in your possession. If this equipment is no longer in your possession, please forward this notice to the current owner or your customer, as applicable.

It is critical that the cam surface shown in Figure 9.3.1 (next page) be maintained according to the criteria specified in the CMM in order to ensure that the cargo hook both retains a load and opens within the acceptable ATP tolerances. Damage to this surface may result in a higher force required to open the hook, while rework of this surface (material removal), may result in a lower threshold for opening the hook. Since both of these scenarios could result in hook release performance outside of acceptable ATP tolerances, Onboard has updated the cargo hook CMM to include a visual inspection for damage (including wear, dents, corrosion, gouges, or nicks), a cleaning process to be used for these surfaces, and a circularity tolerance of 0.001” for these surfaces (see Figure 9.3.3). Onboard Systems recommends the use of a coordinate measuring machine or articulating inspection arm to record this measurement. Any cams exhibiting visual damage or measuring outside of the circularity tolerance should be replaced at overhaul. As such, Onboard is adding the cam to our standard overhaul kits. There is no change to the design, weight, fit, form, or function of the cam related to the revision of this maintenance procedure.

You may notice a change to overhaul kit and overhaul factory service prices associated with the updated cam inspection requirements, as well as the inclusion of the cam in our standard overhaul kits.

The following pictures illustrate the updated CMM content associated with cam inspection requirements and surface cleaning process:

Figure 9.3, Cam Assembly (4) Inspection Criteria

WARNING

Thoroughly inspect surfaces inside lines for signs of visible wear, dents, corrosion, gouges or nicks. Continued use of a damaged cam *may cause inadvertent load release.*

WARNING

Repair (including filing, deburring and buffing) is prohibited on all surfaces shown inside lines. Alterations of these surfaces may cause inadvertent load release.

Figure 9.3.1

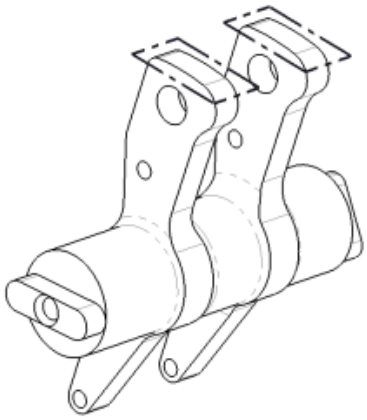

Figure 9.3.2

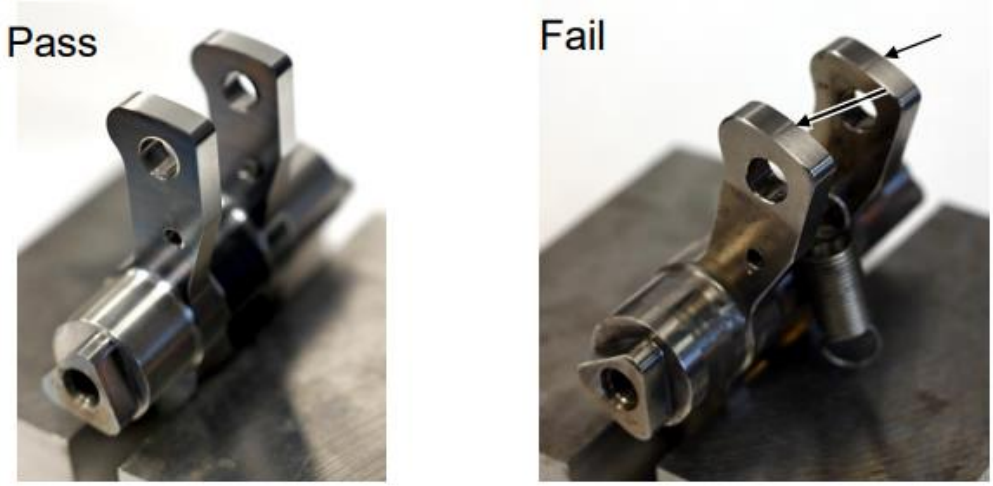

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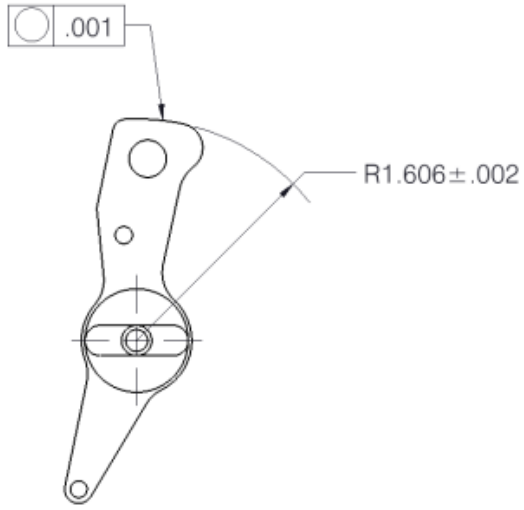
Figure 9.3.3



Inspection Criteria and Limits

Inside lines, see figure 9.3.1, gently clean surface by hand using Scotch-Brite (MFR: 3M, MFR P/N: 7447).

Visually inspect surface. No dents, corrosion, gouges, or nicks may remain after cleaning, see figure 9.3.2.

If the cam passes visual inspection, dimensionally inspect per figure 9.3.3.

The information contained in this service letter has already been incorporated in the most recent revisions of the cargo hook CMMs for cargo hook part numbers listed in the table on page 1. Revisions for these manuals are available for download from our company website on the respective cargo hook product page under the "manuals" section, or from the document search page link here:

https://www.onboardsystems.com/document/

Onboard Systems is dedicated to supporting helicopter external load operators. We welcome any feedback and comments you may have. If you have any questions or require additional information, please feel free to contact us.

Best regards,

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