



Interagency Aviation Safety Alert



No. IA 09-03

June 5, 2009

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Subject: Sky Genie Inspection

Area of Concern: Rappel Operations

Distribution: Rappel Bases

Discussion: On May 6, 2009, an Emergency Tie Off (ETO) procedure was being demonstrated by a spotter during rappel training. Before the ETO was demonstrated, an inspection of the Sky Genie was conducted and a 5/8 inch crack on the cover was discovered. The crack was located at the bottom, on the front of the cover (figures 1,2 & 3). The Sky Genie has never been used for operational rappels, only for tower training. It was placed into service just two days prior to the crack being found. The manufactured date was 09/07 and purchased the previous fall.

The crack was reported to the MTDC rappel equipment specialist and a [SAFECOM 09-0210](#) was submitted. The Sky Genie was sent to MTDC for additional inspection.

The Sky Genie was inspected at MTDC, and the size and location of the crack was confirmed. In addition to the crack, this Sky Genie cover was found to have several other anomalies. All anomalies were confined to the cover; the cast aluminum Sky Genie shaft appeared normal.

It was necessary to remove a portion of the wildland fire Sky Genie decal to expose the outer surface of the cracked area of the cover for inspection.



Fig.1 Location of crack



Fig 2. Bottom view of cover



Fig 3. Crack close up — Bottom view

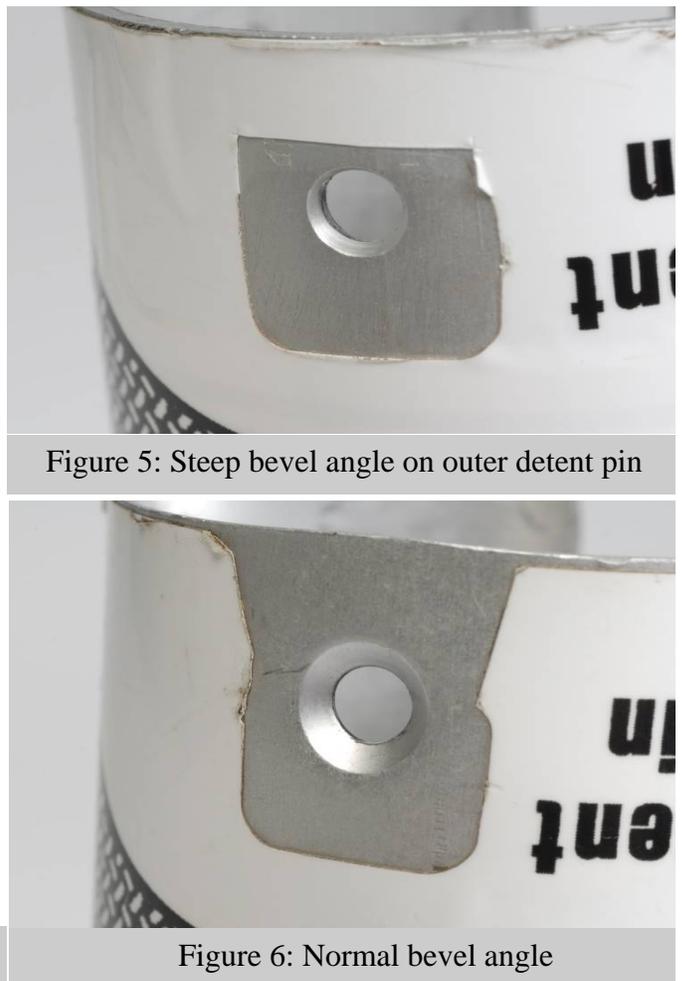
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As mentioned earlier, when comparing the cover with another, several anomalies became apparent. The cover of this Sky Genie fits more tightly around the Sky Genie shaft than most covers. The circumference of the cover is visibly less than standard, and the width of the slot that runs the length of the cover is 2 mm narrower than standard

(Figure 4).

The outer face of the detent pin hole of this Sky Genie cover (Figure 5) has been beveled at a much steeper angle than other Sky Genie covers (figure 6). Combined with the tight-fitting cover, the lack of beveling makes it difficult to depress the detent pin enough to remove the cover.

This cover was not finished to the same standard as most Sky Genies. There is less beveling and no finish buffing on the upper and lower ends of the cover. Additionally, there is no finish buffing on the inside of the flares, thumbscrew hole, detent pin hole, and center slot, which means that burrs and sharp edges are present in these areas (see Figures 7 and 8 on page 3).



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Finally, the two flared areas at the bottom of this Sky Genie cover are flared less than on the standard covers (Figure 9).

Recommendations: Discussions with the manufacturer are ongoing at this time, to evaluate whether this is a one time quality control issue or if there are indications of the failure to continue. In the meantime, please inspect all Sky Genies and, if found defective, immediately pull from service and report your findings to Tim Lynch, MTDC at 406-329-3958. And don't forget to submit a SAFECOM. Any questions regarding the inspections can be directed to Tim Lynch at 406-329-3958 or Vince Welbaum at 208-387-5634.

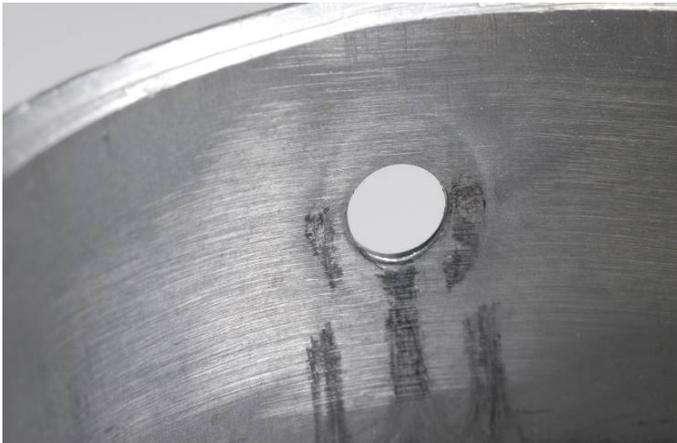


Figure 7. Normal cover shows marks from finish buffing in inside of flares, holes and edges



Figure 8. No finish buffing on inside of cover with crack

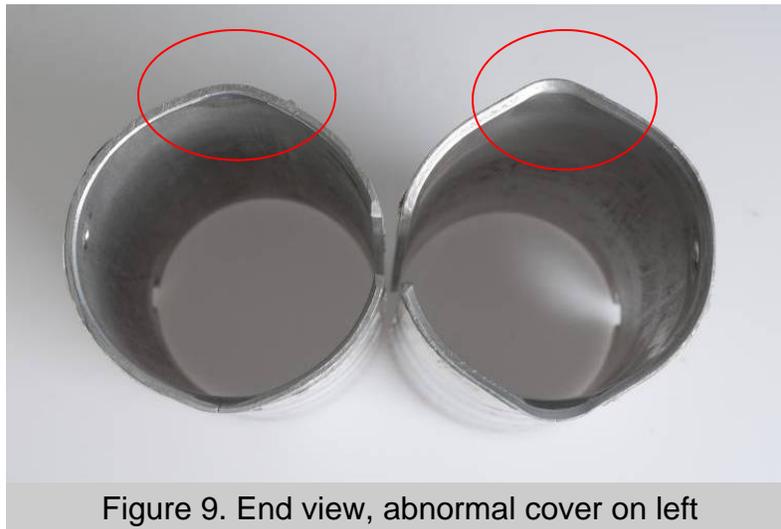


Figure 9. End view, abnormal cover on left

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