

CIL
CRITICAL ITEMS LIST

ASSEMBLY NAME/PART NUMBER: CABLE CUTTER ASSY/10139-10056-02
 Reference: CIL_CC
 Prepared By: C. Harrison
 Superseding Dates: 11/88
 Approved By: N. Wilkey
 Date: 1/89 Rev: A

NAME P/N QUANTITY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
Cable Cutter 10139-10056 1-02, Item 3.7 1000	2/10	5.2FMSB Failure of re- lease mechanism. CAUSE: Defective material or epoxy. Broken or damaged detent, detent pin, retainer ring, release pin, release button or housing. Binding.	END ITEM: Cutting jaws unable to close. EYE INTERFACE: Cable must be cut using back- up Cable Cutter. MISBIBIM: Additional ties required to complete task. CREW/VEHICLE: Possible loss of crew/vehicle with loss of back-up cable cutter.	A. DESIGN: The Cable Cutter release detent is fabricated from forging steel and is chromium plated per QQ-C-370, Class 2B. The detent pin and release pin are fabricated from 15-3 PH stainless steel heat treated to H1030 condition and passivated per QQ-P-35 specifications. The release button is fabricated from 4041-T651 aluminum and anodized per MIL-A-8625, Type II, Class I. High strength materials and heat treated conditions preclude wear and breakage. The stainless steel retaining ring is procured to MS specifications. It is secured in place using 2-part Hysol epoxy EA 939, which is cured, applied and cured in strict accordance with manufacturer's instructions. Shelf life of epoxy is carefully monitored to eliminate unacceptable deterioration. The Cable Cutter Housing is machined from Type 304 stainless steel and passivated per QQ-P-35. The Cable Cutter is stored in a foam cushion in the Payload Bay P88 to protect it from the possibility of damage due to impact. B. TEST: Component Acceptance Test None

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ASSEMBLY NAME/PART NUMBER: CABLE CUTTER ASSY/10159-10056-02
 Reference: CIL_EC
 Prepared By: C. Hartman
 Approved By: H. Ushay
 Superseding Dates: 11/88
 Date: 1/89 Rev: B

NAME P/N	QUANTITY	CRIT	FAILURE MODE & CAUSE	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
Cable Cutter 10159-10056 1-02, Item S.2 1000		2/10	S.2FM025 Failure of release mechanism.		<p>PBA test - The following tests are conducted at the Cable Cutter Assembly level in accordance with ILC Document 10107-70697:</p> <p>I. Functional test to verify proper operation of release mechanism.</p> <p>Certification test - The Cable Cutter was certified for worst case PBA Stowage temperature range of -200 degrees F to +250 degrees F. It was functionally tested to demonstrate ability to cut wire bundles at -200 degrees F to +250 degrees F and exhibited no evidence of damage, binding or jamming.</p> <p>C. INSPECTION: Components and material manufactured to ILC requirements at an approved supplier are documented from procurement through shipping by the supplier. ILC incoming receiving inspection verifies that the materials received are as identified in the procurement documents, that no damage has occurred during shipment and that supplier certification has been received which provides traceability information.</p>

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ASSEMBLY NAME/PART NUMBER: CABLE CUTTER BSGY/10159-10036-02
 Reference: CIL CC
 Prepared By: C. Hartman
 Approved By: M. Milroy
 Superseding Date: 11/88
 Date: 1/84 Rev: A

NAME P/N QUANTITY	CNLT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
Cable Cutter 10159-10036 1-82, Item 3.2 1000	2/10	3.2FNQFS Failure of release mechanism.		<p>The following NIP's are performed during the Cable Cutter manufacturing process to assure the failure causes are precluded from the fabricated item</p> <ol style="list-style-type: none"> 1. Inspection of all components for damage or material degradation. 2. The issuance of epoxy adhesive is controlled by inspection. 3. Verification that epoxy adhesive shelf life is within specification. 4. Verification of epoxy adhesive is properly sized and cured per manufacturer's instruction. <p>During PDR, the following inspection points are performed at the Cable Cutter Assembly level in accordance with ILC Document 10107-70697:</p> <ol style="list-style-type: none"> 1. Verify conformance to drawing. 2. Inspection for damage or material degradation. 3. Verify successful completion of functional test. 4. Verify cleanliness to VC level. <p>0. FAILURE HISTORY: None</p>

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ASSEMBLY NAME/PART NUMBER: CABLE CUTTER ASBY/10159-10056-02
 Reference: CIL_CE
 Prepared By: C. Hartson Approved By: N. Mithay
 Superseding Date: 11/08 Date: 1/09 Rev: A

NAME P/N QUANTITY	CRIT	FAILURE MODE & CAUSE	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
Cable Cutter 10159-10056 1-02, Item 9.2 1000	7/1R	5.2FN035 Failure of release mechanism.		<p>E. GROUND TURNAROUND: During ground turnaround, in accordance with SLC Document 16107-70712, the Cable Cutter is inspected for damage and proper operation and classed to VC level.</p> <p>F. OPERATIONAL USE:</p> <ol style="list-style-type: none"> Crew Readiness PRE/POST EVA - N/A EVA - Cut cables using back-up Cable Cutter straps in PBA or attempt to manually disconnect. Training Crew briefing. Operational Considerations Task may require additional time.

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