

CRITICAL ITEMS LIST

ASSEMBLY NAME/PAK NUMBER: LATCH FOR PAYLOAD BAY
 Reference: 11148EIL
 Prepared by: C. Hartman
 Superimposing Date: 8/88

Approved by: M. Pelkey
 Date 1/89 Rev: A

NAME P/N QUANTITY	CRIT	FAILURE MODE & CAUSIS	FAILURE EFFECT	RAIIONAL FOR ACCEPTANCE
Latch Pin Eaddy 14188-1044 02 Item 5.1 Box	1/1	<p>5. ITEM: Loss of Fether Cord, Spit Ring, Swivel or Trough Hood.</p> <p>CRUSIS: Defective or damaged cord or adhesive. Defective swivel, swivel ring, or spit ring. Tornail</p>	<p>END ITEM: Latch Pin Assembly separates from Eaddy. Loss of one Latch Pin - and Hex Pin.</p> <p>SPC INTERFACE: Unable to secure one Payload Latch.</p> <p>MISSION: Complete EVA with exception of one Latch Pin installation. Unable to secure one latch.</p> <p>CREW/VEHICLE: Vehicle damaged by loose latch during reentry. Loss of crew and vehicle.</p>	<p>A. DESIGN: The leather cord is made of kevlar 15 cords, 5 ply which has a breaking strength of 300 ± 10 lbs. The cord is attached to the swivel ring using a surgeon's knot. To preclude loosening, the knot is completely coated with 2-part clear Epoxy which is mixed, applied and cured in strict accordance with manufacturer's instructions. Shell life of Epoxy is carefully monitored to eliminate unacceptable deterioration.</p> <p>The leather swivel is an old-the-shell stainless steel ball bearing swivel designed to carry a carriage load of 200 lbs.</p> <p>The Latch Pin Eaddy is stowed in a foam cushion in the Payload Bay PSA to protect it from the possibility of damage from impact.</p> <p>B. TEST: Component Acceptance test - During assembly process of the A ft. retracting tether, the tether cord is functionally tested for five cycles.</p>

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CIL
CRITICAL ITEMS LIST

ASSEMBLY NAME/PART NUMBER: LATCH PIN CADDY/159 20292 48
 Reference: (FLAC)IL
 Prepared By: L. Hartman Approved By: M. Mithrey
 Superseding Date: D/00 Date: 1/89 Rev: A

NAME P/N	QTY	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
Latch Pin Caddy 159PI-10044-02 Item S.1 Doc	171	S.1FR08 Loss of Latch Cord, Split Ring, Swivel or French Hook.		<p>PDA Test - The following tests are conducted at the Latch Pin Caddy assembly level in accordance with ILC Document 14107-20690:</p> <ol style="list-style-type: none"> 1. Latch cord is extended and retracted to verify proper operation. 2. Functional test of French hook. <p>Certification Test - During Certification testing the latch Cord exhibited an average tensile strength of 98.5 lbs (Ref. ILC Document 14107-201221). During Design Verification testing for Latch Caddy latch gear the cord withstood 20,000 cycles with only moderate fraying and no breakage.</p> <p>C. INSPECTIONS: 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 retained which provides traceability information.</p>

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CEL
CRITICAL ITEMS LIST

ASSEMBLY NAME/PART NUMBER: LATCH PIN ERDDP/10159 26292 01
 Reference: LICARCEL
 Prepared by: C. Hartman
 Superceding Date: N/A
 Approved By: H. Wilkey
 Date: 1/89 Rev: A

NAME P/N QUANTITY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
Latch Pin Caddy (1000)-10040 02 Item 3.1 One	1/1	3.12N/A Loss of Lather Card, Split Ring, Swivel or French Hook.		<p>The following NIP's are performed during the Latch Pin Caddy manufacturing process to assure the failure causes are precluded from the fabricated item:</p> <ol style="list-style-type: none"> 1. The issuance of Epoxy adhesive is controlled by inspection. 2. Verification that Epoxy adhesive shell life is within specification. 3. Verification that Epoxy adhesive is properly mixed and cured per manufacturer's instructions. 4. Verification of proper operation of swivel. 5. Inspection of components for damage or material degradation. 6. Verification of proper installation of French Hooks. 7. Inspection of Kevlar Card for damage or fraying. <p>During PDA, the following inspection points are performed at the Latch Pin Caddy Assembly level in accordance with LIC Document 10107-70698:</p> <ol style="list-style-type: none"> 1. Visual inspection for damage or material degradation following functional test. 2. Verification of conformance to drawing. 3. Verify successful completion of functional test. <p>8. FAILURE HISTORY: None</p>

FBI
CRITICAL ITEMS LIST

ASSEMBLY NAME/PART NUMBER: LATCH PIN CADDY/10119 20297-01
 Reference: LICARCEL
 Prepared By: E. Hartman Approved By: R. Withey
 Superseding Dates: 8/88 Date: 1/89 Rev: A

NAME P/N QUANTITY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RAISONNE FOR ACCEPTABLE
Latch Pin Caddy 10119-10000 02 Item 5.4 One	(2)	S. 1490-B Loss of Latch Cord, Split Wdg. Switch or Franch Root.		<p>E. GROUND TURNAROUND: During ground turnaround, in accordance with ILC Document 10107-70113, the 4 ft. retracting tether is disconnected and the tether cord is replaced and retested.</p> <p>F. OPERATIONAL USES</p> <p>1. Crew Response PRE/PDS1 EVA - N/A EVA - If possible, attach Latch Pin to wrist tether to prevent loss. If Latch Pin is lost, attempt to remove unpinned latch from Payload Bay rails and transport to crew compartment for recovery storage.</p> <p>2. Training Crew trained in generic EVA Ops.</p> <p>3. Operational Considerations Minimal impact. Tool usefulness unaffected. Tool may require additional time.</p>