**SHORT-POD® APU (Auxiliary Power Unit) Upgrade Kit**

**OVERVIEW**

Kellstrom Defense Aerospace, Inc. (Kellstrom Defense) is the Original Equipment Manufacturer (OEM) for the SHORT-POD® APU (Auxiliary Power Unit) Upgrade Kit, used to modernize pre-1974 production C-130B through early C-130-H aircraft by replacing the original gas turbine compressor/air turbine motor/ATM generator with the SHORT-POD® APU.

Kellstrom Defense's proprietary design and continuous improvement of this distinctive upgrade kit has enabled us to deliver more than 78 SHORT-POD® APU Upgrade Kits to fifteen international and domestic customers.

**BACKGROUND**

The original GTC85 on C-130 B-H aircraft delivered prior to 1974 has a very low Mean Time Between Unscheduled Repairs (MTBUR), as well as a marginal capability to produce sufficient pneumatic power to reliably start the T56 engines. As the GTC85-71A wears through normal use, it’s pneumatic power production degrades and ultimately reaches a point where it no longer can start the engines independent of ground power carts. Additionally, the GTC85-71A is unable to power either one of the aircraft Environmental Control Systems during normal operations. Finally, the obsolete GTC85-71A is operable on the ground only, which means that it’s power production is not available in flight, even in emergencies.

**KIT INCLUDES**

- SHORT-POD® APU
- Control panel
- Improved cowling
- Hardware
- Technical/IPC/Flight manual updates
- Engineering support for installation
- Ground and flight crew training

**SOLUTION**

The SHORT-POD® APU Upgrade Kit is a Lockheed Martin approved solution that provides C-130 operators with increased reliability and reduced maintenance costs by replacing the out-of-production gas turbine compressor/air turbine motor/ATM generator with the SHORT-POD® APU.
WHY UPGRADE

- Approved, licensed & hologramed by Lockheed Martin Global Sustainment Services
- Improved ground ECS cooling capacity
- Increased operational capability & mission readiness reduce maintenance downtime
- Increased bleed air availability, which reduces the possibility of hot or stalled starts
- APU direct drive generator (same as engine driven) increased available electrical power while decreasing electrical power fluctuations
- APU high output air provides quicker engine starts, reducing starter and turbine wear and tear
- Certified for in-flight operation of up to 18,000 ft.
- 50% less expensive than the long pod installation

UPGRADE BENEFITS

- Improved reliability
- Greater MTBUR
- Lower cost of ownership
- Greater mission autonomy due to secure engine starts
- ECS operation on the ground without main engines or GCS support
- No major aircraft modification needed
- 25 days installation time

PERFORMANCE COMPARISON

<table>
<thead>
<tr>
<th></th>
<th>GTC</th>
<th>SHORT-POD® APU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>GTC85-71A</td>
<td>GTCP85-180L</td>
</tr>
<tr>
<td>Generator</td>
<td>20/30 KVA</td>
<td>40 KVA</td>
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<tr>
<td>Bleed Air</td>
<td>90 PPM</td>
<td>150 PPM</td>
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<tr>
<td>Kit Weight</td>
<td>&lt;500 lbs</td>
<td>&lt;500 lbs</td>
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<tr>
<td>MTBUR</td>
<td>450 Hours</td>
<td>3,350 Hours</td>
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<tr>
<td>Powers</td>
<td>Essential AC Bus and all DC Busses</td>
<td>Essential and Main AC Busses and all DC Busses</td>
</tr>
</tbody>
</table>

SHORT-POD® APU IN-HOUSE MRO SERVICES

APU Repair & Overhaul

APU Component Repair & Overhaul

- Starter
- Exciter
- Fuel Control
- Oil Pump

Honeywell

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