



Design • Certificate • Engineer • Solve
EASA Part 21J Approved Design Organisation

Structural Repair Solutions

Innovative, repeatable repair solutions designed to your specifications...

Inter-Tec offers the practical knowledge and experience of providing over 800 value-driven nacelle repair solutions to our global MRO customer base.

Inter-Tec's mission is to support you to achieve your key priorities in the operation, maintenance, and management of your nacelle system to realise the maximum life of your products.

Changes in fleet plans and operational requirements will certainly result in demands in the management of parts availability and usage, ranging from the lack of visibility of repair requirements to the rising financial implications of materials, parts, and labour activities. The challenge is recovery of the component to a serviceable condition. The need for spare part availability and Standardisation of repair process ensures quick turnaround of components and minimises inventory holding of spare parts. This is managed fully in-house, offering real advantage to the MRO's.

Inter-Tec offers this niche DOA service, at a competitive price, allowing the design and implementation of repairs which sit outside the scope of the OEM SRM to be readily accomplished. These packages are designed to address your challenges for reduction to OEM aftermarket support costs and timescales. Labour and material cost management is delivered through standardisation of repair processes and materials, including the approval to fabricate alternative parts, and in the utilisation of less materials in the cleaning, preparation, and embodiment of repair details. This ensures that the customer demand, requiring that units are always readily available, is met, and the risk of component scrappage is reduced.

Inter-Tec's EASA DOA approved repairs introduce a deeper level of analysis of wear conditions and component criticality, addressing the root cause of damage and allowing for a repair solution which not only restores the part, but ensures maximum reliability and maintainability. Key considerations in repair design including the logistics of replacement part and material procurement, internal manufacturing capabilities, labour intensity and the accuracy and repeatability of processes aligned to the SRM are defined to your specification, reducing material usage, implementation times and labour time to accomplish.

Our global customer base includes:

Triumph Aviation South Asia (Thailand)

Turbine Aero

Chevron Technical Services

FL Technics

Loganair

Spirit Aerosystems Belfast

Vallair

Aeropair

Repair scopes based on detailed damage profiling, tailored to your organisation's capability...

Nacelle products include:

- IAE V2500
- CFM56
- Trent 700
- PW4000 Series
- GE90

Nacelle elements include:

- Intake Cowls
- Fan Cowl Doors
- Thrust Reversers
- Exhaust Assemblies
- Pylons

Repair categories include:

- Composite
- Metallic
- Reverse engineering and replacement part fabrication
- Alternative materials approval
- Alternative repair process approval
- Weld repairs
- Conversion of time limited repairs to permanent repairs

Key Benefits

- Extending the limits of SRM manual repairs reducing the commercial impact and risk of replacement costs for scrappage.
- Detailed analysis of failure and damage conditions and component criticality, extending the life of components and reducing the risk of repetitive damage at known damage areas.
- Standardisation across product repair materials and processes reducing the spread of capital investment in tooling, material waste and enabling repeatability and performance improvement.
- Dedicated, responsive and adaptive engineering support with expert understanding of component design, disassembly and accessibility limitations employed in the design of practical repair methods.

Customers are saying...

In a recently commissioned independent survey our customers commented that:

“Projects are on-time and on-budget”

“They help us to overcome issues and find solutions”

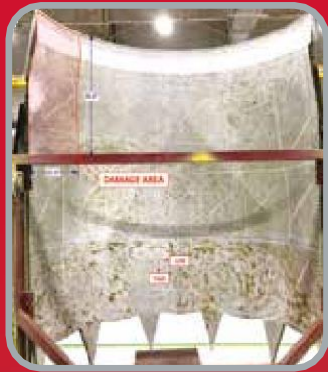
“Their speed of response is fantastic”

“They had all the knowledge we needed”

“Their proposal was the best”

Examples of our repair solutions...

Translating Sleeve Inner Barrel - Inner Perforated Skin Repair - Latch Housing Location



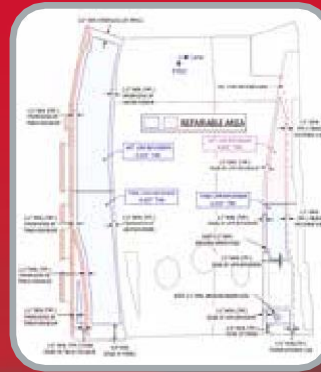
View looking on inner surface of V2500-A5 translating sleeve assembly inner bond panel inner surface - LH (RH OPP)

Overview

This repair covers the approval to the V2500 thrust reverser sleeve assemblies which have been found to exhibit disbond and corrosion on the lower aft edge of the perforated skin, located near the latch/keeper housing.

The repair removes the damaged skin and introduces a metallic repair patch, in exceedance of V2500 SRM limits with modifications to the repair process which improve maintainability and longevity of the repair.

C-Duct Fixed Structure - Outer Side - Upper & Lower Bifurcation Panels

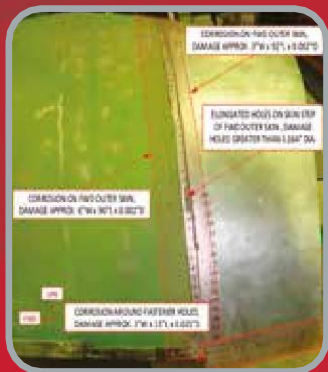


Overview

This repair covers the approval to the V2500 thrust reverser C-Duct Inner Bond Panel.

The repair involves removing the damage which exceeds SRM limits and installing a metallic repair patch in accordance with SRM principles, allowing for utilisation of existing SRM processes and materials out-with the scope of SRM damage limitations.

Translating Sleeve Inner Barrel - Outer Solid Skin - Forward/Aft at Split Line



Overview

This repair covers the approval to the V2500 thrust reverser sleeve assembly forward and aft outer solid skins at the split line of the inner and outer barrel.

The repair removes the damaged sections of forward and aft outer skins and introduces a metallic repair patch, substantiated against the principles of the V2500 SRM with modifications to the repair process which ensure operational and environmental performance is maintained.

Translating Sleeve Outer Barrel - Aft Section Elongated Holes



Overview

This repair covers the approval to the V2500 thrust reverser sleeve assembly outer barrel panel assembly.

The repair removes the damaged composite plies and introduces a composite lay-up repair utilising materials and processes substantiated by comparison against approved SRM repair materials and processes, allowing for material optimisation and application of known processes within the MRO.

Generic Repairs Service Offering...

Inter-Tec offers a generic repair service as a one-time cost option, covering repeatability which cannot be introduced under a serialised repair approval under DOA or DER.

This innovative leap in certification approach allows Inter-Tec to produce repair documentation that is pre-approved for customer use, each time a damage profile which meets the criteria for approval is identified.

The principle of the generic repair allows for the definition and control of repair embodiment, through damage limit profiling, similar where possible to OEM SRM damage definition principles. This method guarantees that the effectivity and scope of the generic repair can be fully defined and understood by the maintenance authority, without the constraints of further engagement with Inter-Tec, removing the need for ongoing external liaison and associated costs.

Part21J approved generic repairs allow for reactive cost profiling and technical decision making, including the key components of damage critical assessment, to be retained within the MRO.

The primary objective of the generic repair is to ensure that an acceptable damage profile is defined, certified, and approved. Inter-Tec will review the range of specific damage profiles, agree, and approve the variables in damage profile. Inter-Tec will lead the design of a suitable repair solution to meet operational, structural and process certification requirements.

Benefits

- A one-time cost repair solution
- Unlimited use within a clearly defined damage profile
- Visibility of damage cost implication and reparability without the need for external interface and commercial management.



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