

Structure inspections – Self adhesive decals

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Structure inspections – Self adhesive decals

Issue

- Increasing intent, and use, of paint patches, decals (also sometimes called stickers), vinyl wraps (also sometimes called “foils”) for:
 - repair (typically cosmetic)
 - decorative



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Main Risk

- The use of self adhesive decals, vinyl wraps etc., as an alternative to painting, may challenge the effective accomplishment of both visual and eddy current inspections and other regulatory requirements.
 - Weight & balance
 - damage tolerance (damage initiation and damage modes)
 - lightning performance
 - material compatibility
 - potential partial separation (flutter)
 - part departing aircraft debris threats (system ingestion, jamming)
 - maintaining access (do not cover access panels!)
 - colour/temperature issues
 - potential to damage baseline structure upon application and removal

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Where we are

→ Authorities:

→ Some authorities request operators and maintenance organizations to address the impact on structural inspection tasks when using such decals and ensure that the aircraft maintenance programme requires their removal at the appropriate time.

→ Manufacturers:

→ Some manufacturers are requiring the removal of decals prior to the inspections in the MRBR/MPD and AMM. However, there is no guidance, nor standards to be referred to.

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Where to go

- How to address the potential impact on effectiveness of the maintenance inspections?
 - More extensive TCH/SCH guidance in manuals (e.g. AMM, SRM)?
 - Considerations to be done as part of the MRB process?
 - Standards Development Body standards? (SAE Commercial Aircraft Composite Repair Committee (CACRC)?)

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EASA Proposal

- As an interim solution, EASA proposes a standard statement to be included in the MRBR:
 - *"Operators and maintenance organisations are reminded that the use of paint patches, self adhesive decals, vinyl wraps (for cosmetic repairs, decoration etc) may challenge original substantiated TCH/STCH inspections (visual, NDI) and other certification requirements. Operators and maintenance organisations need to address the impact on structural inspection tasks when using paint patches, self adhesive decals, vinyl wraps and ensure that the aircraft maintenance programme requires their removal at the appropriate time."*

Thank you!

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