

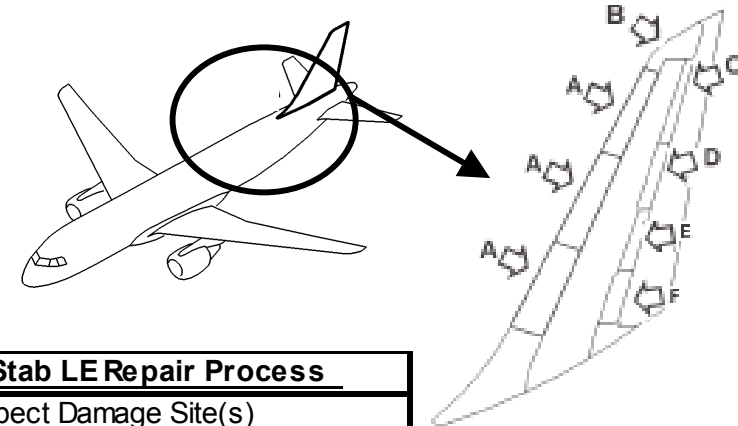
A320F Vertical Stabilizer - Leading Edge

Vertical Stabilizer Leading Edge (LE)

The Vertical Stabilizer assembly includes leading edge fairings / spar / rudder / tail plane panels and usually includes a fuselage dorsal fairing immediately forward of the Vertical Stabilizer.

LE fairings are secondary structures; sandwich cores with solid edge band laminates.

- OEM supplied composite materials in LE fairings are:
 - Skin plies - 250°F/121.11°C cure, 120 style glass fabric prepreg, 37% resin (F180-120-37) or 55% resin (F180-120-55)
 - Hexagonal Nomex honeycomb core (HRH 10-1/8-3.0)
 - Over expanded Nomex honeycomb core (HRH10/OX-3/16-3.0)
 - Foam adhesive (AF 3024-05)



Acetek's Repair Service

Typical Damage:

- Impact : delaminations, cracks, holes
- Moisture Ingress
- Lightning Strike
- Stress/Strain/Fatigue

Inspection Techniques:

- Tap Test and Visual – Standard
- Thermal Graphic
- Through Transmission Ultrasonic (TTU)

Repairable Scenario:

- Assess damage repair requirements vs BER Limits.
- Maximum repairable damage size is 34.88² inches (SRM 55-32), with a minimum of 3.94 inches between damage sites (SRM 55-30).
- As long as damage is within the SRM repairable limits, a core splice and glass fabric wet lay-up repair is allowed.

Allowable Repair Materials:

- 1/8", 3.0lb hexagonal Nomex honeycomb core (HRH 10-1/8-3.0)
- Epoxy resin Hysol EA934 (cures in 5 days at room temp or 1 hr at 200°F/93°C)
- 181 style dry glass fabric
- Laminating resin LY/HY 560 (cures in 5 days at room temp or 1 hr at 158°F/70 °C)
- Paint – per customer scheme (SRM 51-75-12 Typical)

V-Stab LE Repair Process

Inspect Damage Site(s)

Remove Paint

Prepare Repair Disposition (Eng.)

Remove Damaged Materials

Clean & Dry Structure (standard)

Inspect - In Process

Taper/Step-Sand Repair Zone

Fabricate Core Plug

Install Core Plug - Cure Cycle

Inspect - In Process

Close Out Core - Cure Cycle

Inspect - In Process

Prepare Skin Ply Repair Materials Kit

Apply Lay-up Plies - Cure Cycle

Sand and Seal Repair Zone(s)

Review Structure Configuration

Inspect - Final