



OUTLINE OF DYNAMIC SEAT MODIFICATION PROCESS

Revised: September 13, 2002

The following is an outline of the process to be used when modifying a dynamically certified TSO seat or divan. The process is based on the requirements for dynamic seat certification and is based on FAA approved guidance material such as Advisory Circular AC21-25A. (All references below to seats apply to divans and jump seats as well as passenger seats.)

- Required Documentation:
 - Seat Manufactures Maintenance Instructions
 - Aircraft Manufactures Maintenance Instructions
 - Original Burn Test Records For the Existing Seats

- Incoming inspection and removal:
 - Inspect seats for damage and prepare a work order in accordance with appropriate quality assurance procedure.
 - Obtain Burn Test Reports for aircraft from client.
 - Compare burn certification report references to existing seat part numbers and cushion part numbers with seats on aircraft.
 - Measure finished upholstery dimensions and prepare drawing for outline of finished seats and their locations in the aircraft.
 - Inspect seat to drawing to ensure accuracy of documentation and record in an inspection report in accordance with quality assurance procedure.
 - Attach serviceability tag to identify seat as per appropriate QA procedure and remove from aircraft in accordance with the aircraft maintenance instructions.
 - Perform a SRP measurement for each seat part number variance in accordance with SRP measurement process in SAE AS8049A and record on appropriate forms.
 - Send SRP measurement records to engineering for inclusion in the certification data package.
 - Measure incoming weights for each seat and record incoming weight in appropriate form and submit result to engineering for inclusion in the certification data package.
 - Route to upholstery shop for repair.

- Repair Process:
 - Send new dress cover material and original burn certification documentation for new fire block tests in accordance with 14CFR 25.853 appendix F. Ensure that new burn test records reference seat cushion part numbers, seat assembly numbers, and serial numbers.
 - Dismantle seat in accordance with seat manufacturer's maintenance instructions.
 - Identify individual components with appropriate serviceability tag using seat part number and serial number on every part removed as per the appropriate quality assurance procedure.
 - Carefully remove the dress covers to ensure that a flat pattern drawing can be prepared for each type and size of dress cover to be replaced fabricated.
 - Identify the dress covers and cushions with a serviceable tag using the set part number and serial number as per the appropriate quality assurance procedure.
 - Carefully cut all dress cover stitching and flatten out patterns for each part of the dress cover.
 - Measure and prepare a drawing for each dress cover flat pattern and reference the existing seat part numbers and serial numbers. Identify the location of the original dress cover labels on the drawing.



- Inspect flat patterns to drawings to ensure accuracy of documentation and record in an inspection report in accordance with appropriate quality assurance procedure.
- Submit new burn test records, SRP measurements, and drawings to DER for final review and 8110-3 approval.
- Prepare new dress cover new from new dress cover material using flat patterns from old dress cover.
- Inspect new dress cover flat patterns to the FAA approved drawings and record in an inspection report in accordance with appropriate quality assurance procedure.
- Assemble the dress covers using appropriate thread and stitching processes.
- Attach new dress cover modification label in specified location on the drawing.
- Reassemble dress cover with appropriate cushion assembly and reassemble the seat in accordance with the seat manufacturer's maintenance instructions paying careful attention to ensure that the components and cushions are installed on the correct seat serial number.
- Adjust seat functions in accordance with the seat manufacturer's maintenance instructions.
- Final Inspection and Return to service
 - Inspect seat finished dimensions to FAA approved drawings and record in an inspection report in accordance with appropriate quality assurance procedure.
 - Perform SRP measurements as per AS8049A for each seat type to ensure that SRP dimensions are maintained within FAA accepted tolerances and record on appropriate form. Submit results to engineering for inclusion in the final certification data package.
 - Weight completed seat assembly weight including all stowage allowances and emergency equipment in each seat and record in appropriate form. Ensure total weight does not exceed maximum weight allowable on original TSO tag. Submit completed for to engineering for inclusion in certification package.
 - Install new modification label identifying new seat cushion part numbers and modified seat assembly part number adjacent to existing label.
 - Scratch out reference to TSO number on existing label to permanently remove TSO identification.
 - Reinstall seats on aircraft in locations shown on the FAA approved drawing in accordance with the aircraft maintenance instructions.
 - Inspect final installation and function in accordance with seat and aircraft maintenance instructions and record in an inspection report in accordance with appropriate quality assurance procedure.
 - Prepare a FAA Form 337 referencing the FAA 8110-3 approval in order to return aircraft to service. The original FAA Form 337 will be inserted in the aircraft record with a copy forwarded to the local FAA-district office and one copy retained with the copy of the aircraft work order.