

- Subject : Approved repair methods according to EU Commission regulation 1702/2003, part 21, subpart M
- Effectivity : All DG and LS sailplanes and powered sailplanes which are under EASA responsibility.
- Accomplishment : None, only in case of major repair
- Reason : This TN serves to avoid separate approvals for common repairs.  
In the sense of EU Commission regulation 1702/2003 part 21 A.433 repairs may be regarded as approved by the manufacturer if the instructions below are followed.
- Instructions : For repairs on sailplanes and powered sailplanes the following documents (latest issues) are accepted as instructions for continued airworthiness and repairs in the sense of EU Commission regulation 1702/2003 part 21, subpart M:
1. Drawings and instructions by the manufacturer
  2. Repair and maintenance manuals for the sailplane or powered sailplane.
  3. "Grundlagen der Luftfahrzeugtechnik in Theorie und Praxis", Band II publisher TÜV Rheinland GmbH, ISBN Nr.: 3-88585-001-X
  4. "Grundlagen der Luftfahrzeugtechnik in Theorie und Praxis", Band V: Segelflugzeuge und Motorsegler, publisher TÜV Rheinland GmbH, ISBN Nr.:3-8249-0351-2
  5. R.C. Stafford-Allen "Standard Repairs to Gliders" publisher British Gliding Association
  6. "Kleine Fiberglas-Flugzeug-Flickfibel", publisher Ursula Hänle
  7. Seminardruck "Faserverbundwerkstoffe im Segelflugzeugbau", Fortbildungsseminar des DAeC an der Fachhochschule Rosenheim, publisher DAeC
  8. "Aircraft Inspection and Repair" FAA AC 43.13-1A or new issue FAA AC 43.13-1B.
- Note: National legal regulations for maintenance, repairs and inspections must be regarded.
- Material : Materials and drawings: see instructions
- Weight and balance : A weight and balance must be executed after each major repair.
- Remarks : Repair of wing spar caps from GFRP or CFRP is only permitted with special instructions by the manufacturer using the original composite materials supplied by the manufacturer.  
It is not permitted to repair heavily damaged composite components like a cockpit damaged during a crash landing. Such components must be exchanged against original parts supplied by the manufacturer.  
Composite parts which can only be produced in special moulds or metal fittings necessary for the repair have to be purchased from the manufacturer.  
According to national regulations the repair must be supervised by a licensed inspector. This inspector must decide if the documents are sufficient to carry out the repair,.  
All instructions are to be executed by the manufacturer or by a licensed workshop.  
All instructions are to be inspected and entered in the aircraft logs by a licensed inspector.

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**Technical Note**  
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