

Log of Revisions

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Urethane Adhesives (for e. g. Canopy Glass)

Manufacturer: 3M™
Aerospace and Aircraft Maintenance
Department
3M Center, Building 225-3S-06,
St. Paul, MN 55144-1000, USA
www.3M.com/aerospace

Supplier: Wesco Aircraft Germany GmbH
Buschhoehe 10,
28357 Bremen, Germany

Adhesive Sys.: Scotch Weld® 3549 B/A

Ratio of comp.: 100 parts base / 109 parts accelerator
(by weight),
100 / 100 (by volume)

Manufacturer: Henkel AG & Co. KGaA
Henkelstraße 67
40589 Düsseldorf, Germany

Supplier: Sahlberg GmbH
Friedrich-Schüle-Straße 20
85622 Feldkirchen/München, Germany

Adhesive Sys: Loctite® UK 8160 / Loctite® UK 5400

Ratio of comp.: 5 parts base / 1 parts accelerator (by
weight),
4.2 / 1 (by volume)

51-60-00

CONTROL SURFACE BALANCING

51-60-01

Weighing and Determination of Control Surface Moments

All weighing of control surfaces is performed with surface removed from aircraft. Weighing and determination of control surfaces moments is necessary after repairs or painting. Weigh the control surfaces including the mass balances in disassembled condition. The aileron weight includes the spade. Copy page 18, enter the values (W, m, r) there and check whether the surface weights or moments are within the given tolerances. If they are not, contact the manufacturer for advice.

For the determination of control surface moments use balancing mandrels as shown in the Figure 2 and follow the steps in the procedure described below:

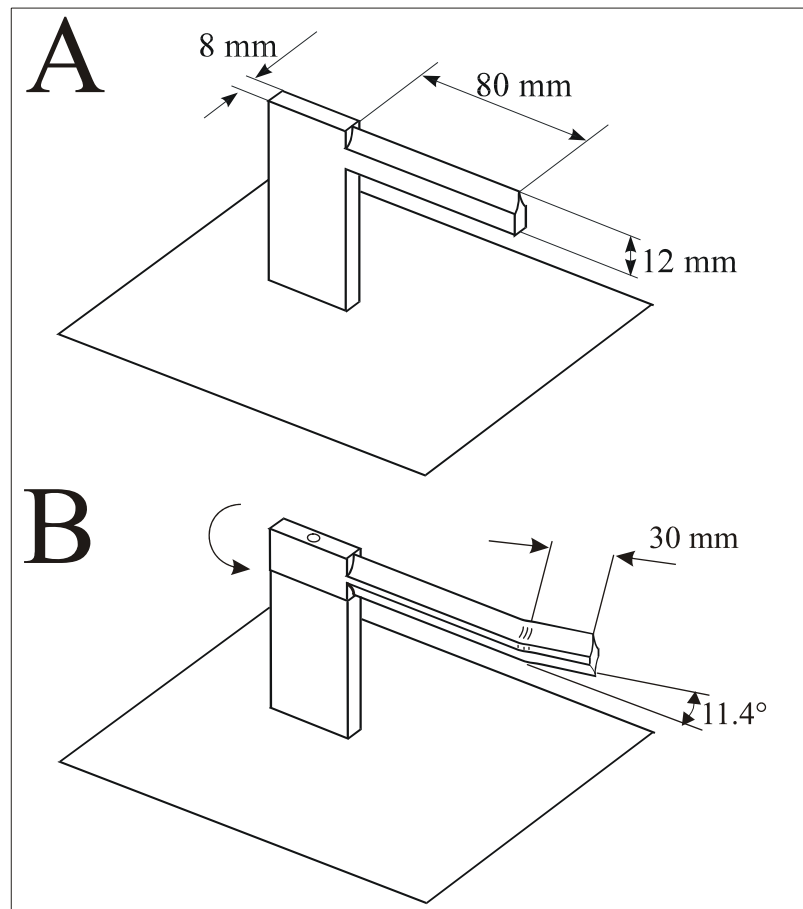


Figure 2 Balancing Mandrels

Balancing Mandrels

Prepare mandrels as shown on detail A in Figure 2 for balancing the rudder and the elevator.

Prepare mandrels shaped as shown on detail B for balancing the ailerons. Make the upper part of the mandrel rotatable for the use of either the Rh or LH aileron.

Procedure

- 1 Remove the control surface (refer to chapter 27).
- 2 Reinstall the bolts in two brackets.
- 3 Put the control surfaces on the balancing mandrels (use a wire for the trim tab). Refer to Figure 3.
- 4 Ensure weighing point and hinge center axis are exactly on the same horizontal plane.
- 5 Weigh by means of a conventional spring balance (kg/g-indication) at the given weighing points and enter the weight (m) in Figure 4. If negative values are to be expected place the spring balance in opposite direction (from the weighing point downwards).
- 6 Measure distance of hinge center line to weighing point (r) and enter the value in Figure 4.
- 7 Calculate the control surface moment (M) in Figure 4.

IMPORTANT

If values exceed the given tolerances in Figure 4 contact the manufacturer before beginning any changes of control surfaces.

- 8 Reinstall the control surfaces.

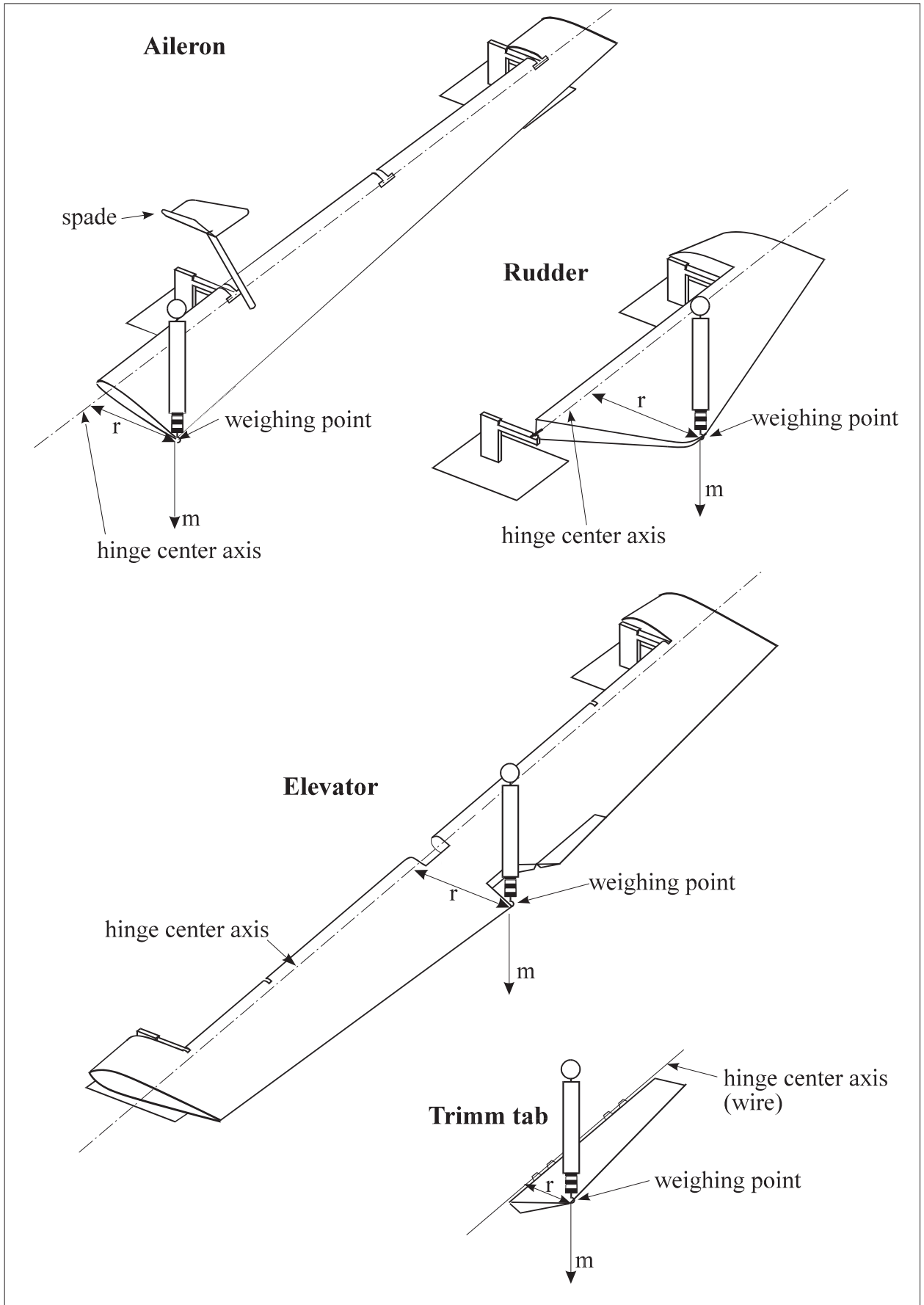


Figure 3

Determination of Control Surface Moments

Permissible Weights and Moments

**Aileron (one control surface)
 incl. mass balance, without spades**

Mass: 4.6 - 5.3 kg
 Moment: 135 - 169 Ncm

incl. mass balance, with spades

Mass: 5.1 - 5.8 kg
 Moment: 83 - 120 Ncm

**Elevator incl. trim tab
 incl. mass balance**

Mass: 7.5 - 8.6 kg
 Moment: 150 - 190 Ncm

**Trim Tab
 no mass balance**

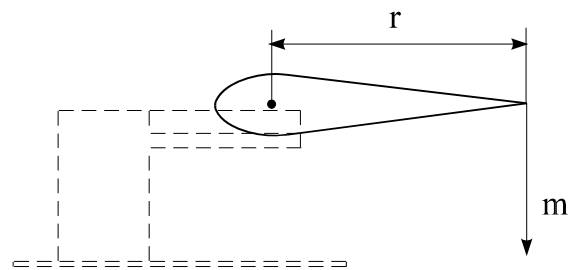
Mass: 0.13 - 0.16 kg
 Moment: 4.0 - 5.5 Ncm

**Rudder
 incl. mass balance**

Mass: 5.0 - 5.6 kg
 Moment: 390 - 450 Ncm

Weights

- Aileron LH: (W) kg
- Aileron RH: (W) kg
- Rudder: (W) kg
- Elevator: (W) kg
- Trim Tab: (W) kg



$$M \text{ (Ncm)} = m \text{ (kg)} \cdot g \text{ (m/s}^2\text{)} \cdot r \text{ (cm)}$$

Moments

- Aileron LH: (m:) kg · 9.81^{m/s²} · (r:) cm = (M:) Ncm
- Aileron RH: (m:) kg · 9.81^{m/s²} · (r:) cm = (M:) Ncm
- Rudder: (m:) kg · 9.81^{m/s²} · (r:) cm = (M:) Ncm
- Elevator: (m:) kg · 9.81^{m/s²} · (r:) cm = (M:) Ncm
- Trim Tab: (m:) kg · 9.81^{m/s²} · (r:) cm = (M:) Ncm

Figure 4

Control Surface Weights and Moments

51-70-00

REPAIRS

51-70-01

Repair of Reinforced Glass and Carbon Fibre Components

IMPORTANT

Repair of composite parts has to be carried out only by qualified and authorized personnel.

If the aircraft is damaged, proceed as follows. First conduct a careful visual inspection of the surface and the damaged area. Frequently, the damage extends to further components, sometimes a fracture will continue invisible beneath the surface.

Perform the repair work with utmost care. The external shell of the wing and empannage is stressed; a failure of this bonded structure can lead to an aircraft crash. In order to eliminate dangerous stress concentrations, avoid changes in cross-sectional areas.

IMPORTANT

The resin-hardener mixture ratio must be precisely maintained (+0.5%). Clean cups and tools must be used. The weight ratio of glass fabric to resin mixture should be approximately 50:50.

Immediately prior to applying the wet laminate, sand and vacuum clean the repair area, so that no dirt and dust is involved which could prevent a secure adhesion.



WARNING

Sanding carbon and glass fibre laminates gives off a fine dust that may cause skin and/or respiratory irritation unless suitable skin and respiration protection is used.



WARNING

Carbon-tetrachloride or Acetone used for cleaning repair areas are flammable liquids and should be used with proper ventilation and safety equipment.

IMPORTANT

As with plywood grain, the direction of the various fibres (longitudinal or diagonal) is of great importance for the stability.

The number of layers required to restore the stability in the damaged area can be taken from the layer sequence/place-ment plan.(Refer to the respective Chapters)

It is necessary to know the number and direction of layers in the damaged area, in order to be able to replace them with the original number. In all cases, the thickness of the laminate has to be measured with a vernier calliper for the exact determination of the laminate thickness.

One technique to learn about the number of layers is to burn a small piece taken from the damaged area. The resin will burn off, leaving the glass and/or carbon fabric to be in-spected for the number of layers and the type of fabric.

Creating a scarfed overlap takes time. Sand away as much of the old material, that the new fabric patches do not project beyond the contour.

In order to shorten the curing time, a heater can be used to increase the ambient temperature.

NOTICE

Too high temperature will cause large air bubbles in the laminate. Local overtemperature can be prevented by using a foil tent which leads the hot air stream.

The curing cycle must be maintained as stated. Use a ther-mometer to monitor the temperature.

IMPORTANT

After repair of control surfaces, check for proper bal-ance (refer to chapter 27, Flight Controls).

It is recommended to prepare test specimens at the same time as the actual repair is accomplished. These can then be subject to a material test to establish the quality of the laminate in the repaired part. To make this determination valid, the specimens must be assembled with the same style of fabric and resin mixture. Subsequently the specimens must be subject to the curing pressure, temperature and time identical with those in the actual repair.

51-70-02

Repair of Sandwich Material

Two types of core materials are used for sandwich on the EXTRA 300/SC:

- PVC hard foam
- Honeycomb

both with glass or carbon fibre shells

The following section describes the repair of both types of sandwich. Different processing techniques for these materials, if necessary, are also described.

a) Minor surface damage

Around a visible crack, the laminate may be separated from the core material. Determine the extent of this area by coin tapping. Remove the separated laminate carefully using a sanding disk, sanding block or a sharp knife. Prepare a scarfed overlap of the laminate around the damaged area. Overlap length per fabric layer min. 20 mm;

IMPORTANT

Ratio (laminate thickness : overlay length) min. 1: 50 (refer to Figure 5).

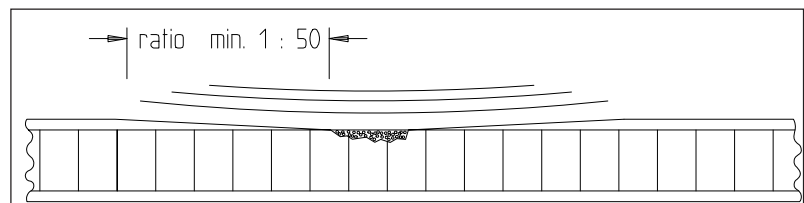


Figure 5 Minor surface damage

After preparing the scarfed overlap, clean the repair area thoroughly as follows:

- Remove the sanding dust with a pneumatic vacuum cleaner
- Clean the scarfed overlaps with carbon-tetrachloride or acetone in case of dirt or grease was introduced during the preparation.

Damaged core material has to be refilled with a mixture of resin and microballoons (weight ratio 100:15). Apply resin mixture

to the repair area and lay on fabric in accordance to the layer sequence plans. Ensure to use correct style and direction of fabric.

IMPORTANT

Repair area must be clean of dirt, dust and grease!

Lay out the required number and size of fabric pieces on a piece of colored plastic foil and soak (wet) them with resin mixture, subsequently position them on the repair area.

IMPORTANT

Remove the plastic foil after each positioning process.

For a repair of honeycomb sandwich parts you have to observe the following: The repair area has to be cured under condition of vacuum bagging.

For vacuum bagging, proceed as follows:

- Apply peel nylon fabric on the last repair fabric layer
- Perforate a clean, thin plastic foil with a thick needle (max.spacing of holes: 20mm x 20mm) - mainly in the area of the honeycomb - and lay it on the repair area.
- Lay a jute cloth (weave) or equivalent bleeder cloth on this perforated plastic foil.
- Lay an air tight plastic foil upon the jute weave and seal their edges to the surrounding surface using an adhesive tape.
- Apply suction with a vacuum pump (pressure approx. 0.7 bar/ 10 psi)
- Apply the thermal curing cycle.(Refer to Figure 3)
- Following the curing cycle remove vacuum bagging material and peel nylon fabric.

After the pre-curing period at room temperature, the repaired area has to be cured according the temperature cycle as shown on Figure 6.

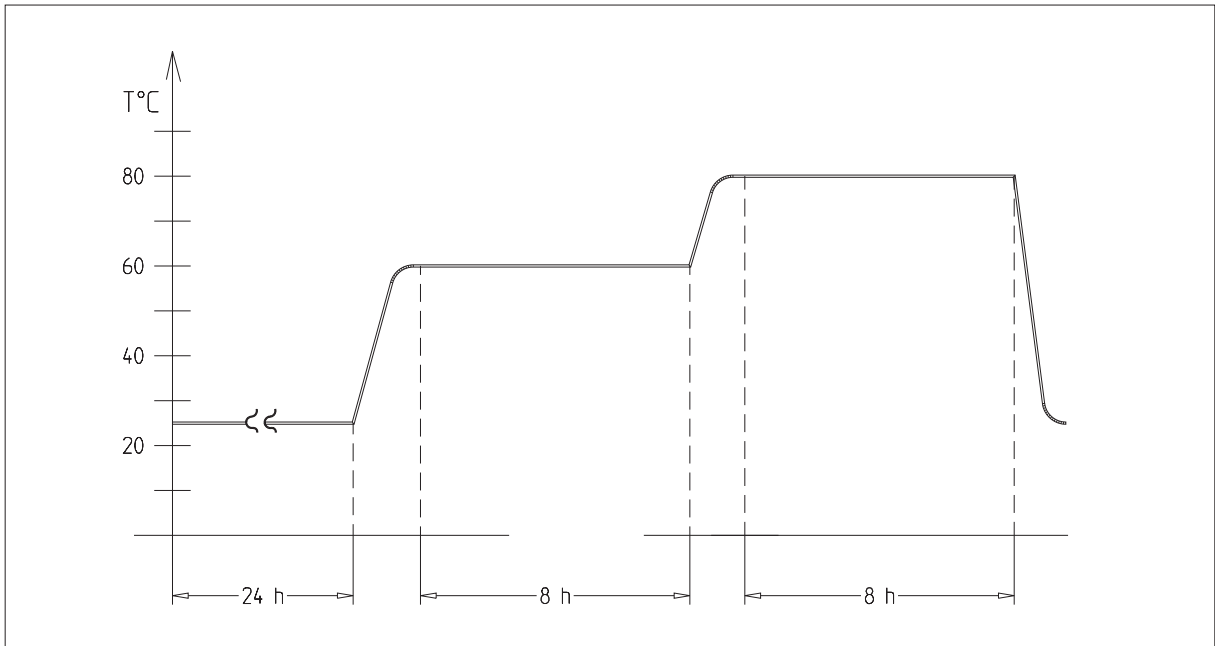


Figure 6

Curing Cycle Resin L20/SL

After the curing process is completed, the repair area can be sand level to the surrounding area.

NOTICE

Sand only the edge thickness of repair laminate (refer to Figure 7)!

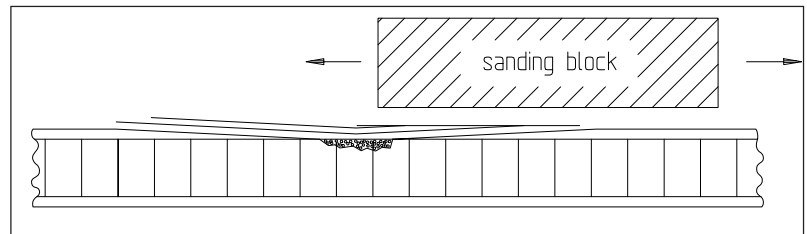


Figure 7

Level Sanding of Surrounding Area

NOTE

For painting of the repair area refer to Chapter 51-70-06.

b) Damage of complete sandwich

If the inner laminate is also damaged, first remove the upper laminate within the area, where no secure bond connection to the core material is suspected. Trim out the complete damaged portion of core material to a circular or elliptical shape.

The damaged area of the inner laminate has to be taken out as well. Make sure not to increase the disbond area by preparing the hole. Preferably use a hand held milling machine. In case of cutting with a saw, the pulsation stress may peel of the inner laminate (secondary damage). If the extent of the disbonded area on the inner laminate exceeds the prepared cut out, increase the cut out of material and upper laminate.

Prepare a scarfed overlap of laminate around the circular cut out. Overlap length of inner laminate should not be less than 20 mm.

IMPORTANT

Overlap length of the upper laminate should not be less than 1/50; (ratio: laminate thickness / overlap length).

Prepare a replacement block of core material (foam or honeycomb) with equivalent diameter and thickness. Cut it to fit snugly in the trimmed hole. In case of foam core, coat one side with a mixture of resin and microballoons (ratio 100:15). Apply prelaminated fabric layers required for the inner laminate on this side of the core filler block. Ensure correct style and direction of fabric. After precuring the laminate at elevated room temperature (30°C), scarf the overlap and sand the upper overlapping core material down, up to the surrounding core material.

Subsequently clean the repair area thoroughly as follows:

- Remove the sanding dust with a pneumatic vacuum cleaner
- Clean the scarfed overlaps with carbon-tetrachloride or acetone in case of dirt or grease was introduced during the preparation.



WARNING

Carbon-tetrachloride or Acetone used for cleaning repair areas are flammable liquids and should be used with proper ventilation and safety equipment.

IMPORTANT

Repair area must be free of dirt and grease.

Wet all surfaces of the backing plate and the scarfed area with resin mixture. Lay on prelaminated fabric layer in accordance to the layer sequence plan. Ensure correct style and direction of fabric.

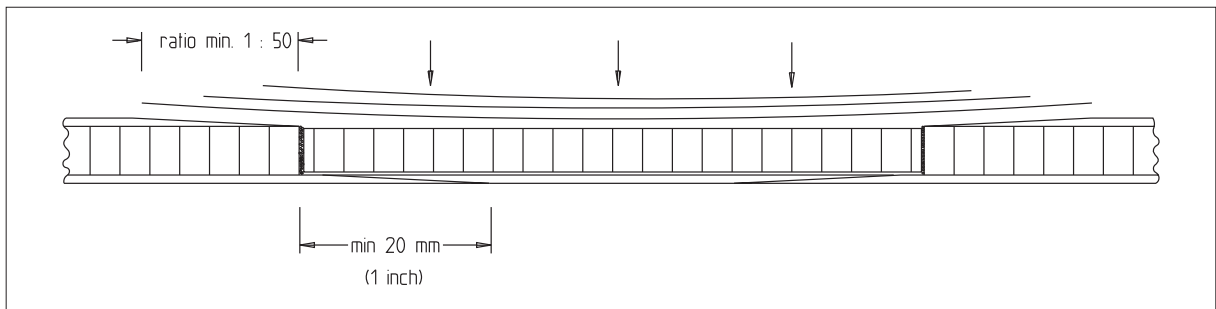


Figure 8

Damage of Complete Sandwich

Lay out the required number and size of fabric pieces on a piece of plastic foil and wet them with resin mixture. Subsequently position them on the repair area.

IMPORTANT

Remove the plastic foil after each positioning process.

The repair area has to be cured under condition of vacuum bagging. Proceed as follows:

- Apply peel nylon fabric on the last repair fabric layer
- Perforate a clean, thin plastic foil with a thick needle (max. spacing of holes: 20mm x 20mm) - mainly in the area of the honeycomb - and lay it on the repair area.
- Lay a jute cloth or equivalent bleeder cloth on this perforated plastic foil
- Lay a second plastic foil upon the jute weave and seal their edges to the surrounding surface using an adhesive tape.
- Apply suction with a vacuum pump (pressure approx. 0.7bar / 10psi)
- Apply the thermal curing cycle
- Following the curing cycle carefully remove vacuum bagging material and peel nylon fabric.

NOTE

After the pre-curing period at room temperature, the repaired area has to be cured according the temperature cycle as shown on Figure 6.

After the curing process is completed, the repair area can be sand level to the surrounding area.

IMPORTANT

Sand only the edge thickness of repair laminate!

For painting of the repair area proceed like mentioned in Chapter 51-70-06.

51-70-03

Repair of Laminates

a) Minor damage

Scarf the edges of the minor damage area with sandpaper. Minimum length of scarf per fabric layer approx. 20 mm; ratio (**laminat thickness : scarf length**) **approx. 1: 50**.

Following the scarf procedure, clean the repair area thoroughly:

- Remove the sanding dust with a pneumatic vacuum cleaner
- Clean the scarfed overlaps with carbon-tetrachloride or acetone in case of dirt or grease was introduced during the preparation.

NOTICE

Repair area must be free of dirt, dust and grease.

Wet the prepared scarfed areas with resin mixture. Lay on prelaminated fabric layer in accordance to the layer sequence plan. Ensure correct style and direction of fabric. Apply peel nylon fabric on the last repair fabric layer.

NOTE

Lay out the required number and size of fabric pieces on a piece of colored plastic foil and wet them with resin mixture. Subsequently position them on the repair area.

IMPORTANT

Remove the plastic foil after each positioning process.

After the curing process is completed, remove the peel nylon fabric. The repair area can be sand level with the surrounding area.

NOTICE

Sand only the edge thickness of repair laminate!

Refinish the surface according chapter 51-70-05 Painting.

If the extent of the damaged area exceed 10 cm (4 inches) a large damage repair is required.

Carefully trim out the damaged portion to a circular or oval shape.

Prelaminate a backing plate from two layers of glass fibre fabric and resin mixture, which must be approx. 20 mm larger than the damaged area. Apply peel nylon fabric as external layer. Sandwich the resin wetted layers between two sheets of plastic foil.

Work the excess resin out and allow the plate to cure at elevated room temperature for 8 hours on a flat surface or a plasticfoil-covered surface of the proper curvature near the damaged area, or the same location on a comparable undamaged part.

Following the curing cycle remove plastic foil and peel nylon fabric. Bond the backing plate to the inside using a mixture of resin and cotton flocks, and adapt to the contour. Cure the bonding at elevated room temperature for 8 hours.

Subsequently scarf the edges of the damaged portion with sandpaper. Minimum length of scarf per fabric layer approx. 20 mm;

IMPORTANT

Ratio (laminat thickness : scarf length) approx. 1: 50.

Following the scarf procedure, clean the repair area thoroughly:

- Remove the sanding dust with a pneumatic vacuum cleaner
- Clean the scarfed overlaps with carbon-tetrachloride or acetone in case of dirt or grease was introduced during the preparation of the overlap.

IMPORTANT

Repair area must be free of dirt, dust and grease.

Wet all surfaces of the backing plate and the scarfed area with resin mixture. Lay on prelaminated fabric layer in accordance to the layer sequence plan. Ensure correct style and direction of fabric.

NOTE

Lay out the required number and size of fabric pieces on a piece of colored plastic foil and wet them with resin mixture. Subsequently position them on the repair area.

IMPORTANT

Remove the plastic foil after each positioning process.

The repair area has to be cured under condition of vacuum bagging. Proceed as follows:

- Apply peel nylon fabric on the last repair fabric layer
- Perforate a clean, thin plastic foil with a thick needle (max. spacing of holes: 20mm x 20mm) - mainly in the area of the honeycomb - and lay it on the repair area.

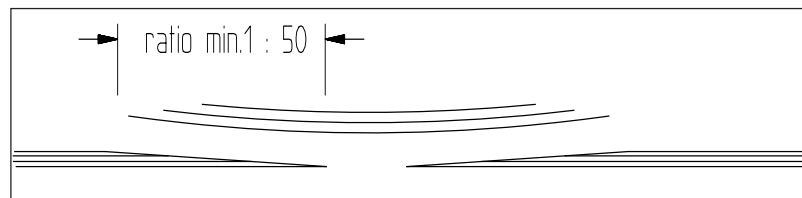


Figure 9 Repair of minor damage

b) Large damage

If the extent of the damaged area exceed 10 cm (4 inches) a large damage repair is required.

Carefully trimm out the damaged portion to a circular or oval shape.

Prelaminate a backing plate from two layers of glass fibre fabric and resin mixture, which must be approx. 20 mm larger than the damaged area. Apply peel nylon fabric as external layer. Sandwich the resin wetted layers between two sheets of plastic foil. Work the excess resin out and allow the plate to cure at elevated room temperature for 8 hours on a flat surface or a plasticfoil-covered surface of the proper curvature near the damaged area, or the same location on a comparable undamaged part.

Following the curing cycle remove plastic foil and peel nylon fabric. Bond the backing plate to the inside using a mixture of resin and cotton flocks, and adapt to the contour. Cure the bonding at elevated room temperature for 8 hours.

Subsequently scarf the edges of the damaged portion with sandpaper. Minimum length of scarf per fabric layer approx. 20 mm;

IMPORTANT

ratio (laminate thickness : scarf length) approx. 1: 50.

Following the scarf procedure, clean the repair area thoroughly:

- Remove the sanding dust with a pneumatic vacuum cleaner
- Clean the scarfed overlaps with carbon-tetrachloride or acetone in case of dirt or grease was introduced during the preparation of the overlap.

IMPORTANT

Repair area must be free of dirt, dust and grease.

Wet all surfaces of the backing plate and the scarfed area with resin mixture. Lay on prelaminated fabric layer in accordance to the layer sequence plan. Ensure correct style and direction of fabric.

NOTE

Lay out the required number and size of fabric pieces on a piece of colored plastic foil and wet them with resin mixture. Subsequently position them on the repair area.

IMPORTANT

Remove the plastic foil after each positioning process.

The repair area has to be cured under condition of vacuum bagging. Proceed as follows:

- Apply peel nylon fabric on the last repair fabric layer.

- Perforate a clean, thin plastic foil with a coarse needle (max. spacing of holes: 20mm x 20mm) - mainly in the area of the honeycomb - and lay it on to the repair area.
- Lay a jute cloth or equivalent bleeder cloth on this perforated plastic foil.
- Lay an air tight plastic foil upon the jute weave and seal their edges to the surrounding surface using an adhesive tape.
- Apply suction with a vacuum pump (pressure difference approx. 0.7bar / 10psi)
- Curing cycle
- Following the curing cycle carefully remove vacuum bagging material and peel nylon fabric.

After the pre-curing period at room temperature, the repaired area has to be cured according the temperature cycle as shown on Figure 3.

After the curing process is completed, the repair area can be sand level to the surrounding area.

NOTICE

Sand only the edge thickness of repair laminate!

Refinish the surface according chapter: 51-70-07 Painting.

51-70-04

Repair of Spars

The spars consists of carbon roving caps, glass or carbon fibre webs and PVC foam cores.

IMPORTANT

The spars are highly stressed; a failure of this bonded structure can result in loss of the aircraft! In all cases, the repair of a spar must be considered as a large-scale repair with a Damage Class 1 (Refer to Chapter 51-10-01 Damage Classification"). EXTRA-FLUGZEUG-PRODUKTIONS- UND VERTRIEBS- GmbH has to be contacted prior to repair!

51-70-05

Structural Repair of Steel Components

Restoration of a damaged fuselage to its original design strength, shape and alignment involves careful evaluation of the damage, followed by exacting workmanship in performing the repairs.

IMPORTANT

Should structural repairs practicable on the aircraft be necessary, refer to "Acceptable Methods, Techniques, and Practices - Aircraft Inspection and Repair FAA AC 43.13-1B" and "Acceptable Methods, Techniques, and Practices – Aircraft Alterations FAA AC 43.13-2B".

IMPORTANT

Alterations or repair of the airplane must be accomplished by *licensed* personnel. Consult EXTRA-FLUGZEUGPRODUKTIONS- UND VERTRIEBS-GmbH in case of doubt about a repair not specifically mentioned there.

NOTE

If welding work must be performed, use only the TIG procedure (Tungsten Inert Gas). Use steel welding wire 1.7734.2 for welding additive.

51-70-06

Repair of Fabric

IMPORTANT

Alterations or repair of the airplane must be accomplished by *licensed* personnel. Consult EXTRA-FLUGZEUGPRODUKTIONS- UND VERTRIEBS-GmbH in case of doubt about a repair not specifically mentioned there.

IMPORTANT

Refer to FAA Advisory Circular 43.13-1B for fabric covered aircraft and the latest revision of the CECONITE PROCEDURE MANUAL 101 when repair of fabric is necessary.

51-70-07

Painting of Composite Parts



WARNING

Coating materials may cause sensitization by inhalation and skin contact. Hardeners and coating materials ready for use can have an irritant and sensitizing effect upon the skin and respiratory tracts and cause allergic reactions.



WARNING

Provide for a continuous supply of fresh air during and also after the application, do not inhale the vapours and wear a breathing mask during the spray application of these materials. Persons suffering from an allergy or being prone to diseases of the respiratory tracts must not get in contact with coating materials.
Refer to the manufacturer technical information sheet!!

After curing cycle the surface of repaired area can be sanded with sandpaper (80 grade). Indentations are filled with white polyester filler. Subsequently achieve a surface as uniformly rough as possible using a finer dry sandpaper (150 or 320 grade). Prior to paint application, the surface of the repair area must be cleaned thoroughly of all sanding dust, separation compounds and other foreign materials. Subsequently apply Glassodur Rapid Filler with a spray gun.

NOTE

The Rapid Filler must be completely dry before the covering paint can be applied.

For the final sanding, use 400 grade wet sandpaper to achieve a smooth clean surface. Allow surface to dry. Paint application of Glassodur-Pur-Acryl-Lack AD/AE 21 two component acryl paint is performed with a spray gun.

Paint can be mixed with small quantities of reducer. After completion of the painting, polish the repair area.

51-70-08

Aluminium and Steel Components Refinishing

Complete procedure necessary to remove existing paint from aluminium and steel components and then to repaint them as described in the following paragraphs.

Degreasing



WARNING

Cleaning solvents can be toxic and volatile. Use only in well ventilated areas. Avoid physical contact with solvent and do not inhale vapors. Keep solvent containers covered when not in use.

NOTICE

Before stripping parts, remove all fittings, O-rings, nuts, bolts, washers, pistons, bearing cups, etc.

- 1 Clean all metal parts by immersing in a clean degreasing solution. An alkaline based solution is recommended for aluminium and magnesium parts.
- 2 Hardened dirt or grease may be removed with soft bristle brush, or by soaking in cleaning solution.
- 3 Where necessary clean bearing cones carefully in a separate container of clean solvent.

NOTICE

Do not spin bearing cones with compressed air.

- 4 After cleaning, thoroughly dry all metal parts with filtered, dry compressed air.
- 5 It is recommended that all O-rings, backup rings, and wipers be replaced at each overhaul. However, if necessary, O-rings may be reused, but should be put back into position from which removed.
- 6 Wipe down O-rings, backup rings, wipers, or other rubber parts with a clean dry cloth. Lubricate with a suitable O-ring lubricant prior to installation.

Paint Removal

Disassemble components to the level required for repainting, then proceed as follows.



WARNING

Stripping solvents can be toxic and volatile. Use only in well ventilated areas. Avoid physical contact with solvent and do not inhale vapors. Keep solvent containers covered when not in use.

NOTICE

Before stripping parts, remove all fittings, O-rings, nuts, bolts, washers, pistons, bearing cups, etc. Parts must be totally immersed in solvent, to maximize cleaning.

- 1 Degrease part per degreasing paragraph.
- 2 Totally immerse part in paint removing solvent. Portions not totally covered by solvent will begin to corrode.

NOTE

Stripping agents are commercially available for removing topcoat and primer. Follow manufacturer's recommendations for use and disposal of stripping solutions.

- 3 Remove part from solvent and rinse thoroughly with water heated to 160° to 180°F (71° to 82° C). Flush solvent from all cavities and threaded holes where entrapment might occur
- 4 Thoroughly dry part with filtered, dry compressed air.

- 5 Where applicable refer to inspections procedures given in the respective chapters for specific parts to locate possible defects.

NOTE

Refinishing should be completed as soon as possible; unprotected parts will begin to corrode.

Repainting

Paint all surfaces except those which are subjected to friction (bearing surfaces, anchor bolt bores, etc.). Proceed as follows:

- 1 Parts to be repainted should be cleaned and stripped per instruction in degreasing and paint removal paragraphs.
- 2 Aluminium parts should have a protective barrier between the topcoat and base metal. It is recommended they be treated with solutions listed in Chapter 51-30.
- 3 Apply solution liberally and evenly. Allow it to set from 1 to 5 minutes. The solution must completely wet the surface and overlap onto the adjoining anodize.
- 4 Remove excess coating by flushing with clean water.
- 5 Paint parts with one coat of wash primer. Allow to dry thoroughly.
- 6 Paint parts with one coat of lacquer listed in Chapter 51-30. Allow to dry thoroughly before reassembly.

a) Re-bonding of loose bushings in empennage spars

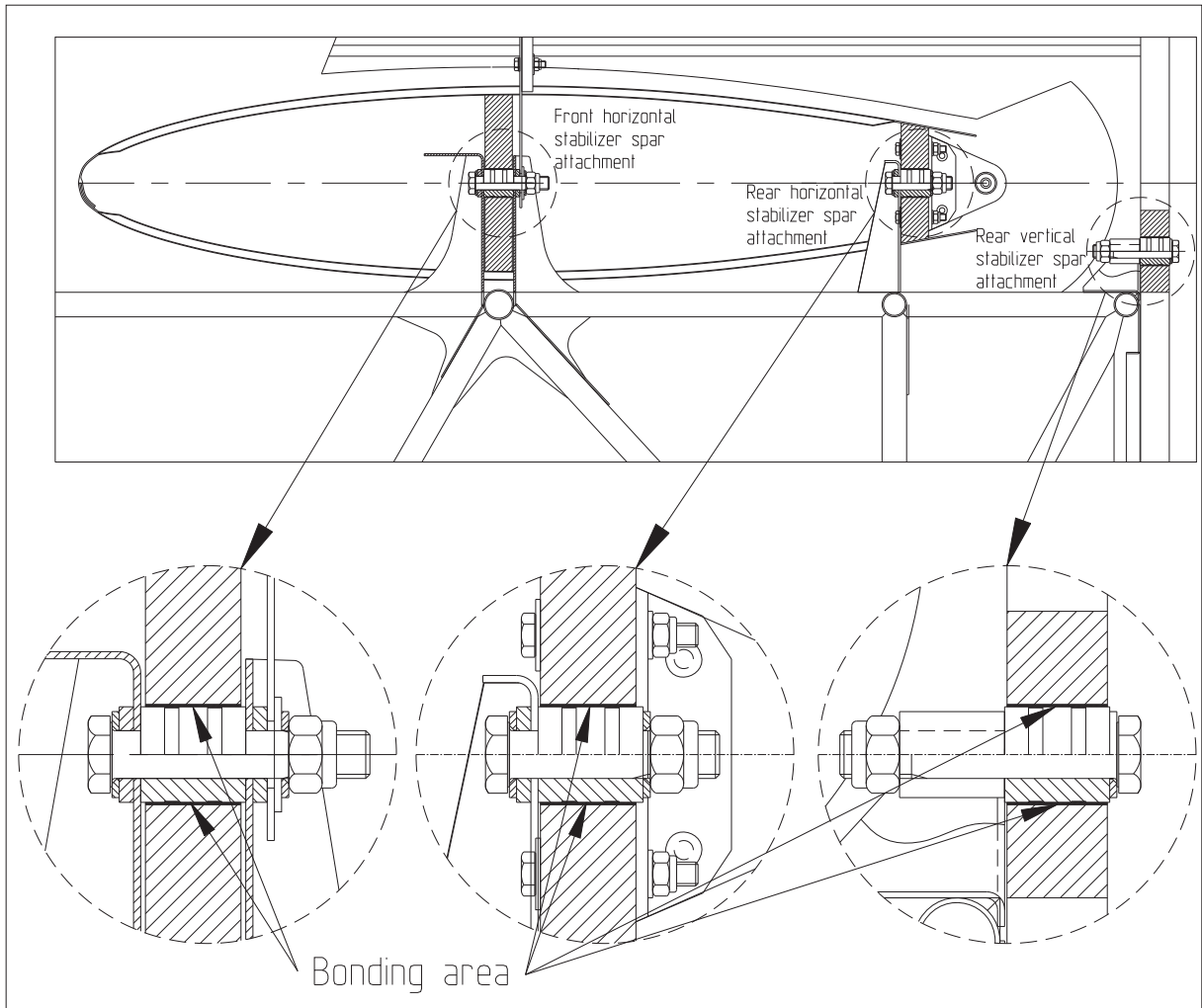


Figure 10

Empennage attachment bushings

Re-bonding of main attachment bushings positioned in the web of the front and rear spar in the horizontal tail as well as in the main spar of the vertical stabilizer is only permissible if the hole in the related spar web is not elongated or has impermissible irregular wear which is evidence of bearing stress exceedance.

In case the bushing fits the hole in the spar web tightly, use epoxy-resin Epikote Resin L20 with Epikure Curing Agent 960 (ref. Chapter 51-30-01). If the gap between bushing and hole in the spar web exceeds 0.5mm (0.02") use a mixture of epoxy resin compound L20/960 and cotton flocks. The weight ratio should be 100 parts L20/960 with 7 up to 15 parts cotton flocks (so called "HB7" and "HB15").

For re-bonding of bushings the related stabilizer has to be removed from the fuselage first. To prevent misalignment, reinstallation is needed at the end of the re-bonding process of the bushings.

- 1 Remove stabilizer from the fuselage. Refer to the applicable Chapter of this Manual.
- 2 Carefully remove the loose bushing from the spar. If a tool is needed, handle with care to prevent damage of adjacent composite structure.
- 3 Visually check the hole in the spar web. In case an elongated hole, a crushed plywood insert or a fuzzy or delaminated surrounding fiber plies are identified, an oversized bushing might be needed. Contact Extra Flugzeugproduktions- und Vertriebs GmbH for advice and repair instructions.
- 4 Remove any residual resin debris existing on the outer bonding surface of the bushing. Protect the inner surface of bushing and sandblast or use 80-grit sandpaper to rough the outer surface which will be bonded later on (no remaining shiny areas are allowed). Existing grooves on the outer surface (if any) must be free of residual resin.
- 5 Solvent clean the bushing thoroughly with isopropyl alcohol, carbon-tetrachloride or acetone.



WARNING

Solvents used for cleaning re-bond areas are flammable liquids and should be used with proper ventilation and safety equipment.

- 6 Take 120-grit sandpaper and sand the surface area of the hole in the spar web where the bushing will be placed later on smooth. Any bulk material (deposits) within the hole must be removed.

NOTICE

Bonding area must be free of dirt, dust and grease.

- 7 Remove sanding dust with a pneumatic vacuum cleaner and solvent clean the surface area of the hole in the spar web with isopropyl alcohol, carbon-tetrachloride or acetone in case dirt or grease was introduced during the preparation.
- 8 Prepare a sufficient amount of epoxy resin compound L20/960. The weight ratio is: 100 parts L20 with 34 parts 960

- (ref. Chapter 51-30-01). Record quantities of parts to be mixed, ambient air temperature and humidity.
- 9 Apply a sufficient amount of epoxy resin compound L20/960 to the surface area of the hole in the spar web. Remaining small cavities within the area should be filled with "HB20".
 - 10 Apply a sufficient amount of epoxy resin compound L20/960 to the outer surface area of the bushing.
 - 11 Insert the bushing to the hole. Protruding length of bushing out of the front and rear spar web should be equal. Slightly rotate the bushing clockwise or counterclockwise while it is inserted into the hole of the spar web. A continuous movement is required to minimize entrapped air. Avoid partly removing and reapplying, as this will cause air to become entrapped in the bonding gap.
 - 12 Verify epoxy resin compound at entire bond line is continuous and free of gaps.
 - 13 Remove excessive resin compound with cloth damped with isopropyl alcohol.
 - 14 Apply mold-release agent to the related surfaces of the stabilizer mounting brackets of the fuselage and related mounting bolts.
 - 15 Position the stabilizer to the fuselage mounting brackets by related mounting bolts. The related mounting bolts should be installed easily and hold the stabilizer in place for the following cure process (without nuts).
 - 16 Do not apply any pressure on the stabilizer prior to complete cure cycle. Disturbing the stabilizer may create bonding voids.
 - 17 Apply curing procedure (specified time and temperature): At elevated room temperature 25°C (77°F) for 10h followed by 60°C (140°F) for at least 15h (refer to 51-70-02).
 - 18 Reinstall the stabilizer. Refer to the applicable Chapter of this Manual.

b) Re-bonding of loose main wing spar flange bushings

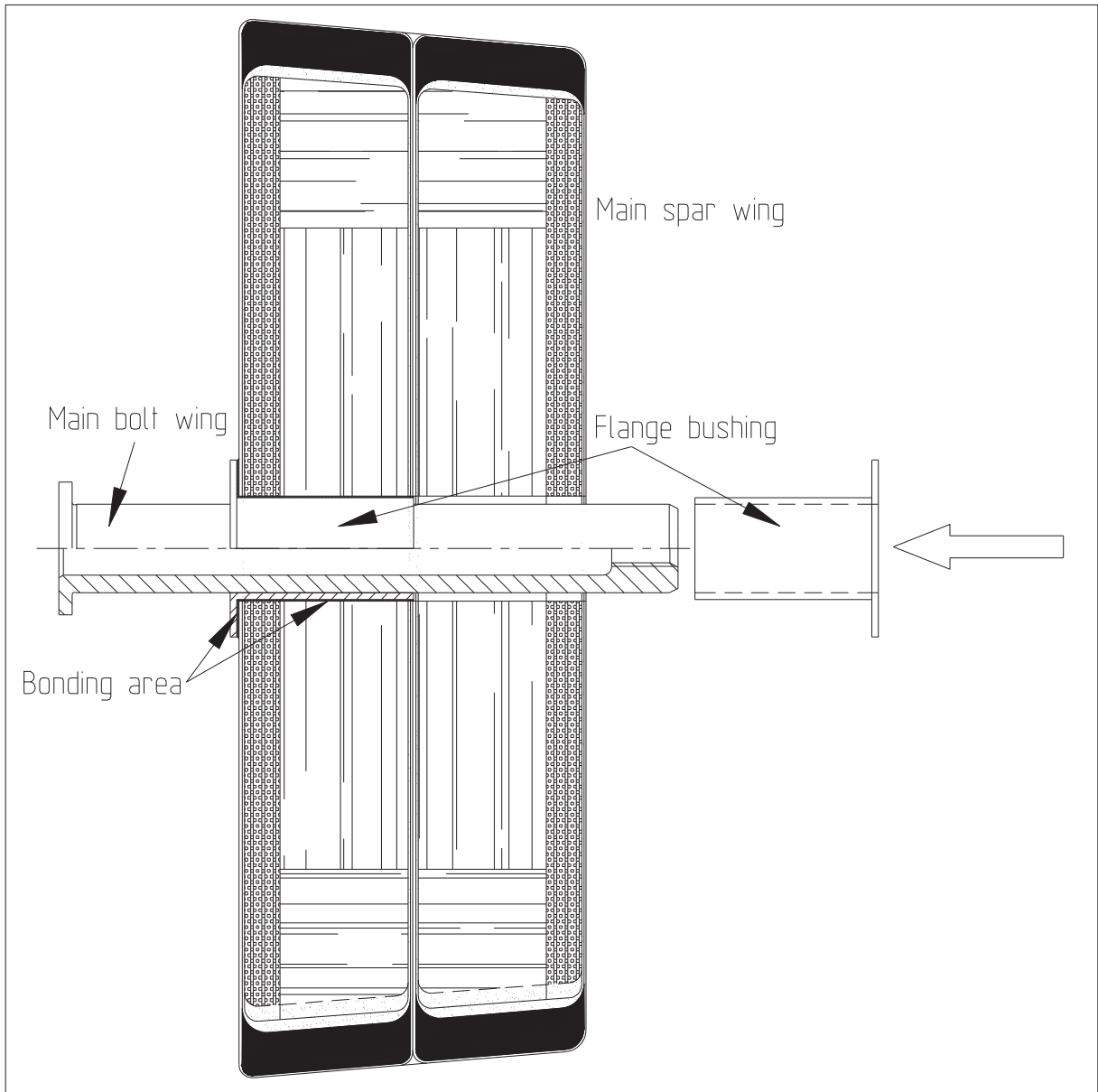


Figure 11

Wing main spar attachment flange bushings

Main attachment bushings positioned in the web of the main wing spar exists of a front and a rear flange bushing. The front and rear flange bushing will be re-bonded one after another. There is a defined bond gap between the flange bushings and the hole in the main spar web.

Re-bonding of main attachment flange bushings positioned in the web of the main wing spar is only permissible if the hole in the related spar web is not elongated or has impermissible irregular wear which is evidence of bearing stress exceedance. In case an elongated hole, a crushed plywood insert or a fuzzy or delaminated surrounding fiber plies are

identified, oversized flange bushing are needed. Contact Extra Flugzeugproduktions- und Vertriebs GmbH for advice and repair instructions.

Use a mixture of epoxy-resin Epikote Resin L20 with Epikure Curing Agent 960 (for mixing ratio ref. Chapter 51-30-01) and cotton flocks. The weight ratio should be 100 parts L20/960 with 7 up to 15 parts cotton flocks (so called "HB7" and "HB15").

For re-bonding of flange bushings the wing has to be removed from the fuselage first.

- 1 Remove wing from the fuselage. Refer to the applicable Chapter of this Manual.
- 2 Carefully remove the front or rear loose flange bushing from the main spar at a time. If a tool is needed, handle with care to prevent damage of adjacent composite structure. The remaining flange bushing will be used to align the removed flange bushing during the re-bonding process.
- 3 Visually check the exposed surface area of the hole in the spar web for any damage.
- 4 Remove any residual resin debris existing on the bonding surface of the flange bushing. Protect the inner surface of bushing and sandblast or use 80-grit sandpaper to rough the outer surface which will be bonded later on (no remaining shiny areas are allowed).
- 5 Solvent clean the bushing thoroughly with isopropyl alcohol, carbon-tetrachloride or acetone.



WARNING

Solvents used for cleaning re-bond areas are flammable liquids and should be used with proper ventilation and safety equipment.

- 6 Take 80-grit sandpaper and sand the exposed surface area of the hole in the spar web where the bushing will be placed later on smooth. Any remaining material from the initial bond within the hole must be removed. Use 120-grit sandpaper to rough the ring surface area of the main spar web where the flange of the bushing will be bonded to later on.

NOTICE

Bonding area must be free of dirt, dust and grease.

- 7 Remove sanding dust with a pneumatic vacuum cleaner and solvent clean the surface area of the hole in the spar web with isopropyl alcohol, carbon-tetrachloride or acetone in case dirt or grease was introduced during the preparation.
- 8 Prepare a sufficient amount of epoxy resin compound L20/960. The weight ratio is: 100 parts L20 with 34 parts 960 (ref. Chapter 51-30-01). Record quantities of parts to be mixed, ambient air temperature and humidity.
- 9 Apply a sufficient amount of epoxy resin compound L20/960 to the exposed surface area of the hole and the ring surface area of the main spar web. Additionally apply "HB15" compound.
- 10 Apply a sufficient amount of epoxy resin compound L20/960 to the outer surface area of the flange bushing which will be bonded to the spar. Additionally apply "HB15" compound.
- 11 Apply mold-release agent to the surface of the related wing main bolt. Insert the bolt to the flange bushing which is still fixed in the main spar (opposite side) to provide a guidance for the flange bushing to be bonded to the spar.
- 12 Insert the flange bushing to the hole. Slide on the main bolt and slightly rotate the bushing clockwise or counterclockwise while it is moved into the hole of the spar web. A continuous movement is required to minimize entrapped air. Avoid partly removing and reapplying, as this will cause air to become entrapped in the bonding gap.
- 13 Verify epoxy resin compound at the edge of the flange bushing is continuous and free of gaps.
- 14 Remove excessive resin compound at the flange with cloth damped with isopropyl alcohol.
- 15 Do not apply any pressure on the flange bushing prior to complete curing cycle. Disturbing the flange bushing may create bonding voids.
- 16 Apply curing procedure (specified time and temperature):
At elevated room temperature 25°C (77°F) for 10h.
- 17 Remove the main bolt from the flange bushing.
- 18 Proceed with final curing at 60°C (140°F) for at least 15h (refer to 51-70-02).

- 19 Repeat the procedure in case the flange bushing on the opposite side has to be re-bonded as well.
- 20 Reinstall the wing. Refer to the applicable Chapter of this Manual.

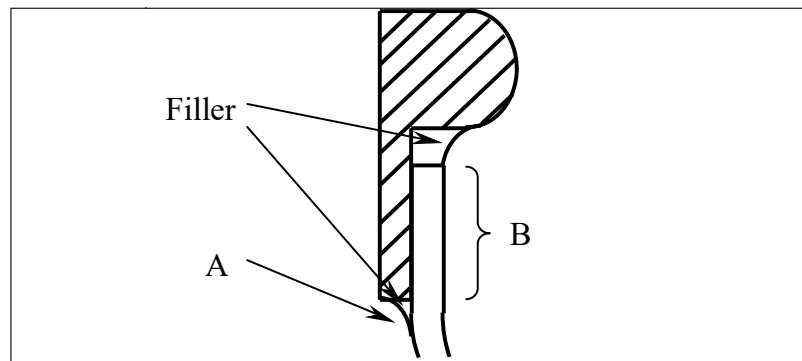


Figure 12 Canopy adhesive remainders

- 12 Remove the fine tape.
- 13 Prepare urethane adhesive (refer to Chapter 51-30-04 *Urethane Adhesives*):
Thoroughly mix approx. 300 g (approx. 10.6 oz.) adhesive (consider specified weight ratio and work life).
Mix approximately 15 seconds after a uniform color is obtained.
- 14 Put adhesive on the bonding area. For maximum bonding strength, apply product to both canopy glass and canopy frame.
- 15 Place canopy glass in canopy frame. Observe correct position using position markings.
- 16 Apply pressure on canopy glass using tightener to hold it in place.
- 17 Remove adhesive remainders with wooden spatula.
- 18 Curing time for fixed position (time to handling strength):
min. 8h @ 24°C (75°F) or 15h @ 20°C (68°F)
(Time to reach full cure: 7 days @ 24°C (75°F))
- 19 The next day: Remove tightener and remove canopy from form.
- 20 Sand down (using Scotch Brite Handpad Fine) a small area around the outside edge between canopy frame and canopy glass (area A in Figure 12).
- 21 Apply primer (EP801-1552, curing time: 24h) before applying filler (Glasurit 839-53) and refinish the area.

NOTICE

Make sure, the filler does not get in contact with untreated canopy glass.

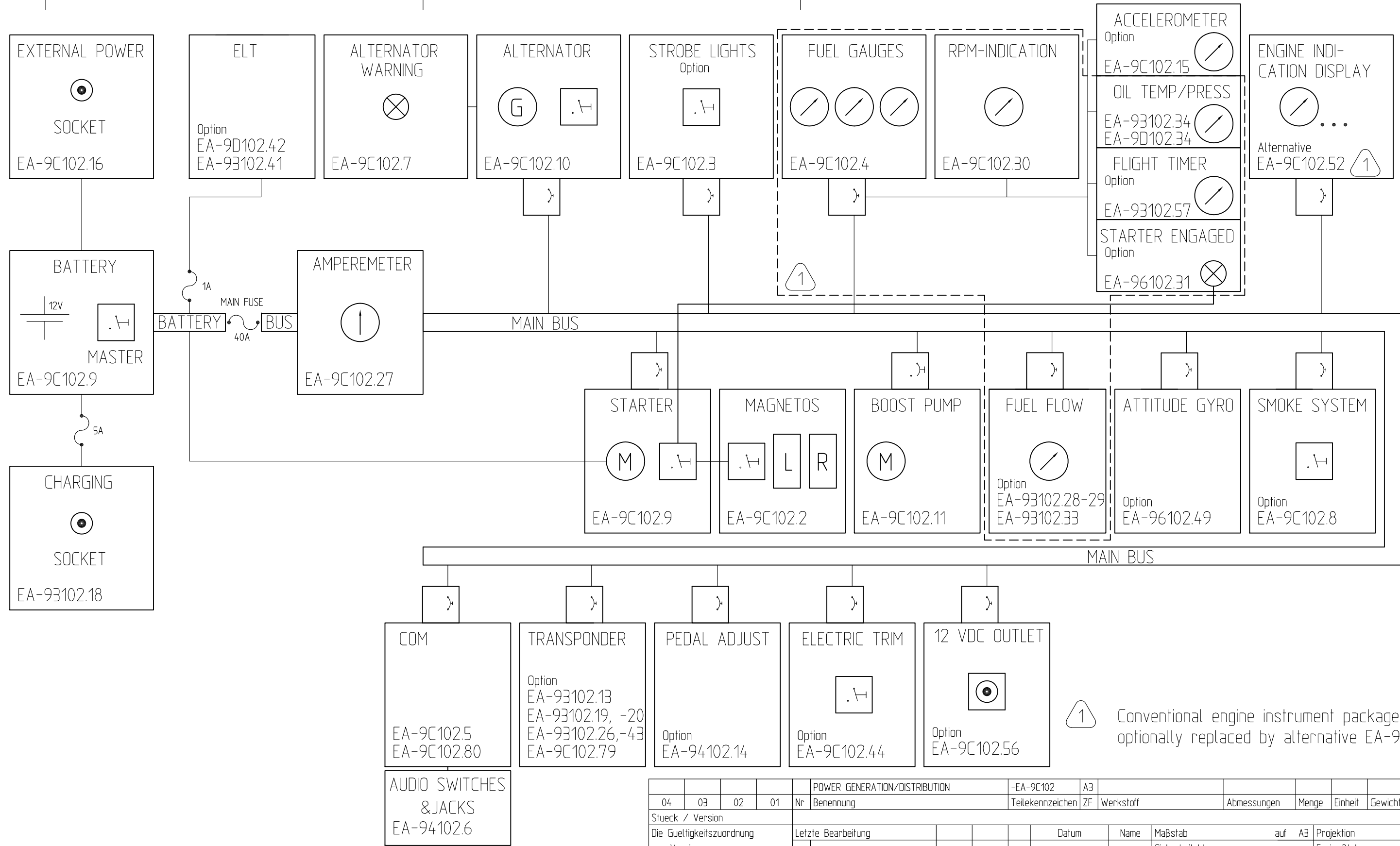
NOTE

Drawings and corresponding equipment are generally introduced with serial number SC001 or from the serial number given behind the drawing. Check the individual installation.

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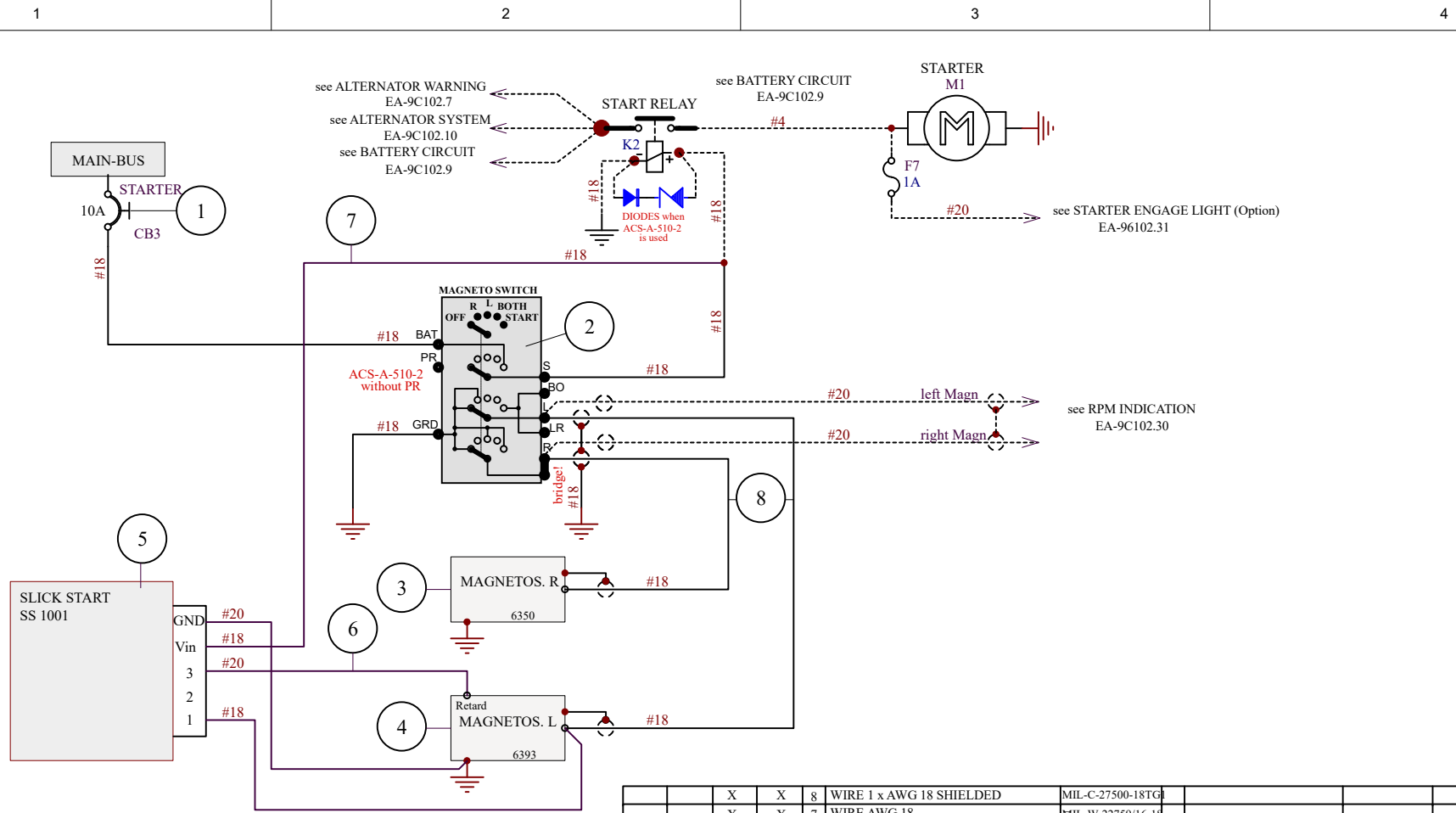
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EA-9C102.78	AvMap EKP V Cradle
EA-9C102.79	TT-2X XPDR
EA-9C102.80	TY91 COM R/T



POWER GENERATION / DISTRIBUTION

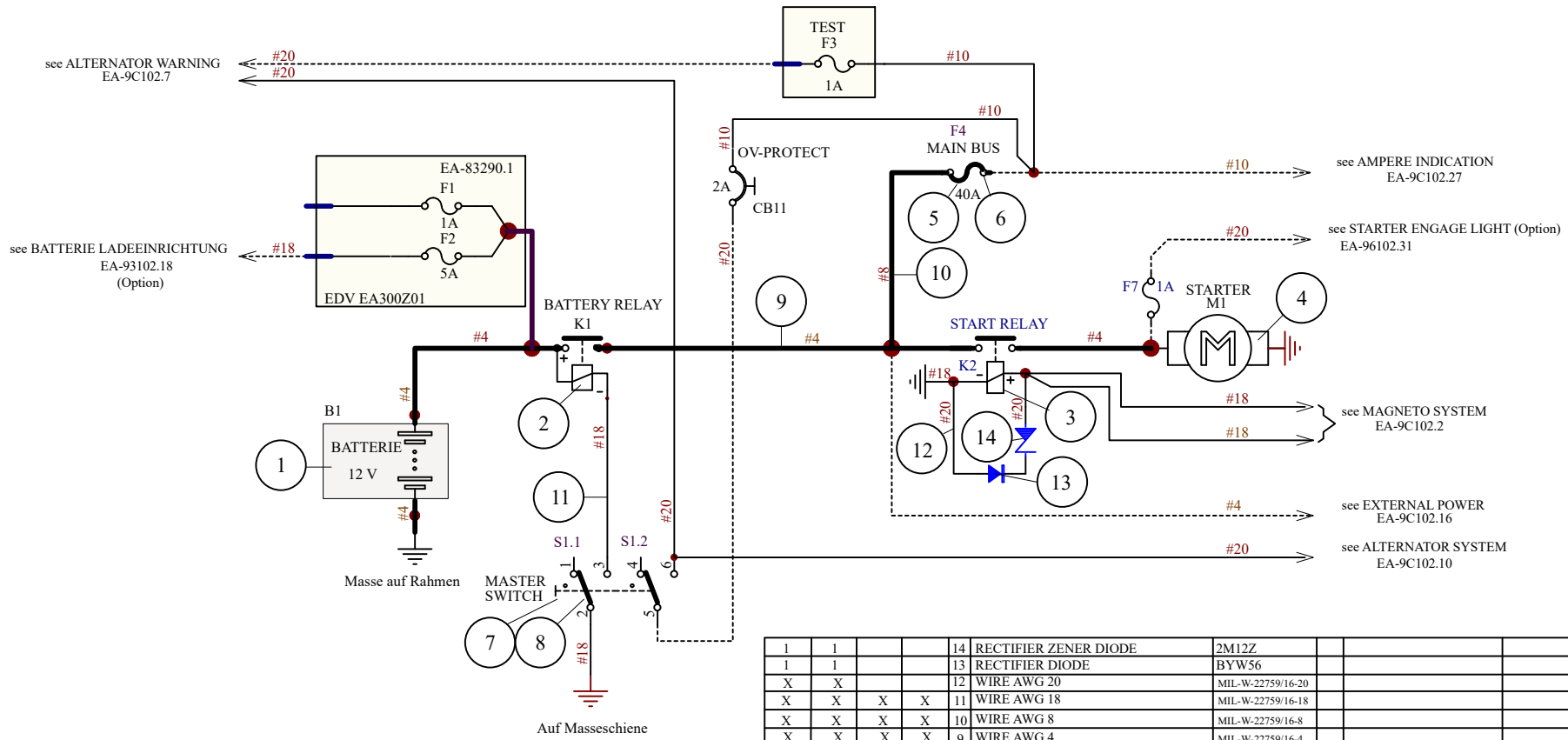
AUDIO SWITCHES & JACKS
EA-94102.6

				POWER GENERATION/DISTRIBUTION				-EA-9C102	A3					
04	03	02	01	Nr	Benennung	Teilekennzeichen	ZF	Werkstoff	Abmessungen	Menge	Einheit	Gewicht	MaWi-Nr.	
Stueck / Version														
Die Gueltigkeitszuordnung von Version zu Flugzeugbaureihe ist der Bauakte bzw. dem jeweiligen Fertigungsauftrag zu entnehmen.				G	ÄM-300-19-02 & -03	25.06.21	MW	 Schwarze Heide 21 46569 Hünxe, Germany	EXTRA 300/SC POWER GEN/DISTRIBUTION		EA-9C102			G
Zuordnung links/rechts wird mit "/>" in allen Feldern angegeben				F	ÄM-300-15-04	27.07.16	MW							
				E	ÄM-300-14-05	14.03.14	MW							
04				D	ÄM-300-13-10	02.09.13	MW							
03				C	ÄM-300-11-26	05.09.11	MW							
02				B	ÄM-300-09-28	12.02.10	MW							
01 Basisflugzeug				A	ÄM-300-09-13	05.06.09	HW						Blatt 1 von 1	
Ver. Bezeichnung				Ausg.	Änderungsmittelung Nr.	Datum	Name							



04	03	02	01	Nr	Benennung	Teilekennzeichen	ZF	Werkstoff	Abmessungen	Menge	Einheit	Gewicht	MaWi-Nr.
	X	X	8		WIRE 1 x AWG 18 SHIELDED	MIL-C-27500-18TG					mtr		02199
	X	X	7		WIRE AWG 18	MIL-W-22759/16-18					mtr		00776
	X	X	6		WIRE AWG 20	MIL-W-22759/16-20					mtr		00775
	1	1	5		SLICK START	SS 1001							32598
	1	1	4		MAGNETO LEFT	6393							32860
	1	1	3		MAGNETO RIGHT	6350							02377
	1		2		MAGNETO SWITCH	A-510-2		Fa.ASC					35595
		1	2		MAGNETO SWITCH	10-357200-1							00185
	1	1	1		CIRCUIT BREAKER 10A	7277-2-10							31505

Die Gültigkeitszuordnung von Version zu Flugzeugbaureihe ist der Bauakte bzw. dem jeweiligen Fertigungsauftrag zu entnehmen. Zuordnung links / rechts wird mit */* in allen Feldern angegeben.	Letzte Bearbeitung:												
04													
03													
02	with MAG. SWITCH A-510-2	B	ÄM 300-21-05	26.07.21	HW								
01	with MAG. SWITCH 10-357200-1	A	ab SC006	11.07.2008	HW								
Ver.	Bezeichnung	Nr.	Änderung/Mod. Nr.	Datum	Name			EA 300/SC MAGNETO SYSTEM		EA-9C102.2		B	
EDV-Kennung: EA3C0907b						Schwarze Heide 21 46569 Hünxe, Germany		Maßstab auf Projektion SI.-Klasse Freimaßtoleranz Oberflächenschutz Oberfläche		Blatt 1 von 1 Schutzvermerk nach DIN 34 beachten.			



1	1			14	RECTIFIER ZENER DIODE	2M12Z										35842
1	1			13	RECTIFIER DIODE	BYW56										FE4292
X	X			12	WIRE AWG 20	MIL-W-22759/16-20							mtr			00775
X	X	X	X	11	WIRE AWG 18	MIL-W-22759/16-18						2,5	mtr			00776
X	X	X	X	10	WIRE AWG 8	MIL-W-22759/16-8						0,4	mtr			FE00776
X	X	X	X	9	WIRE AWG 4	MIL-W-22759/16-4						2,0	mtr			200005
1	1	1	1	8	CAP RED	11-00815										31763
1	1	1	1	7	SWITCH DPST	MS35059-22										01601
1	1	1	1	6	FUSE 40A	02.00300										31664
1	1	1	1	5	FUSEHOLDER	03.00360										31239
1	1	1	1	4	STARTER	149-12LN										33865
1	1	1	1	3	POWER SOLENOID INT	70-111-225-5										32978
1	1	1	1	2	POWER SOLENOID CONT	111-226										00136
1				1	BATTERIE 12V 11Ah	RG-12LSA					Fa. CONCORDE					33697
1				1	BATTERIE 12V 24Ah	RG-25XC					Fa. CONCORDE					03617
04	03	02	01	Nr	Benennung	Teilekennzeichen	ZF	Werkstoff		Abmessungen	Menge	Einheit	Gewicht	MaWi-Nr.		

Die Gültigkeitszuordnung von Version zu Flugzeugbaureihe ist der Bauakte bzw. dem jeweiligen Fertigungsauftrag zu entnehmen.

Zuordnung links / rechts wird mit */* in allen Feldern angegeben.

04	by MAG. SWITCH A-510-2	D	ÄM-300-14-17	16.05.15	HW
03	by MAG. SWITCH A-510-2	C	ÄM-300-11-17	22.06.11	HW
02	by MAG. SWITCH 10-357200-1	B	ÄM-300-08-11	19.12.08	HW
01	by MAG. SWITCH 10-357200-1	A	ab SC006	11.07.08	HW

Ver. Bezeichnung Nr.: Änderung/Mod. Nr.: Datum Name

Letzte Bearbeitung:		Datum		Name	
Bearb.:		05.05.08		HW	
Gepr.:					
Gepr.:					

EA 300/SC
BATTERY CIRCUIT

EA-9C102.9

A4 Blatt 1 von 1

Schutzvermerk nach DIN 34 beachten.

EDV-Kennung: **EA3C0909e**

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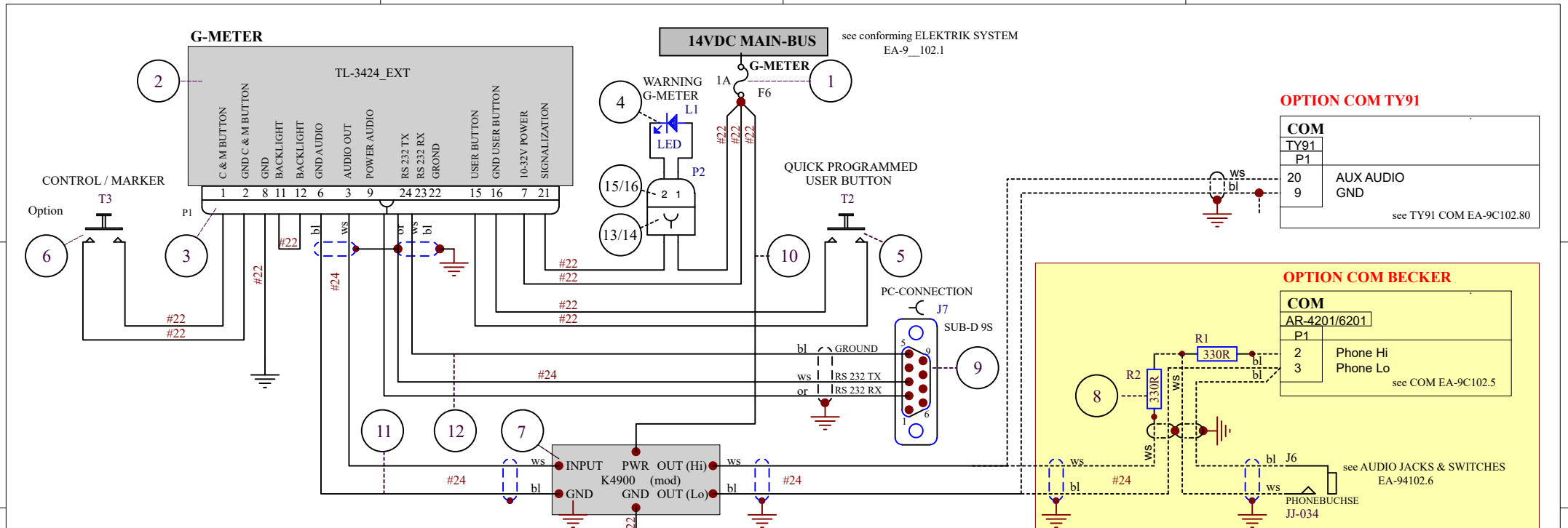
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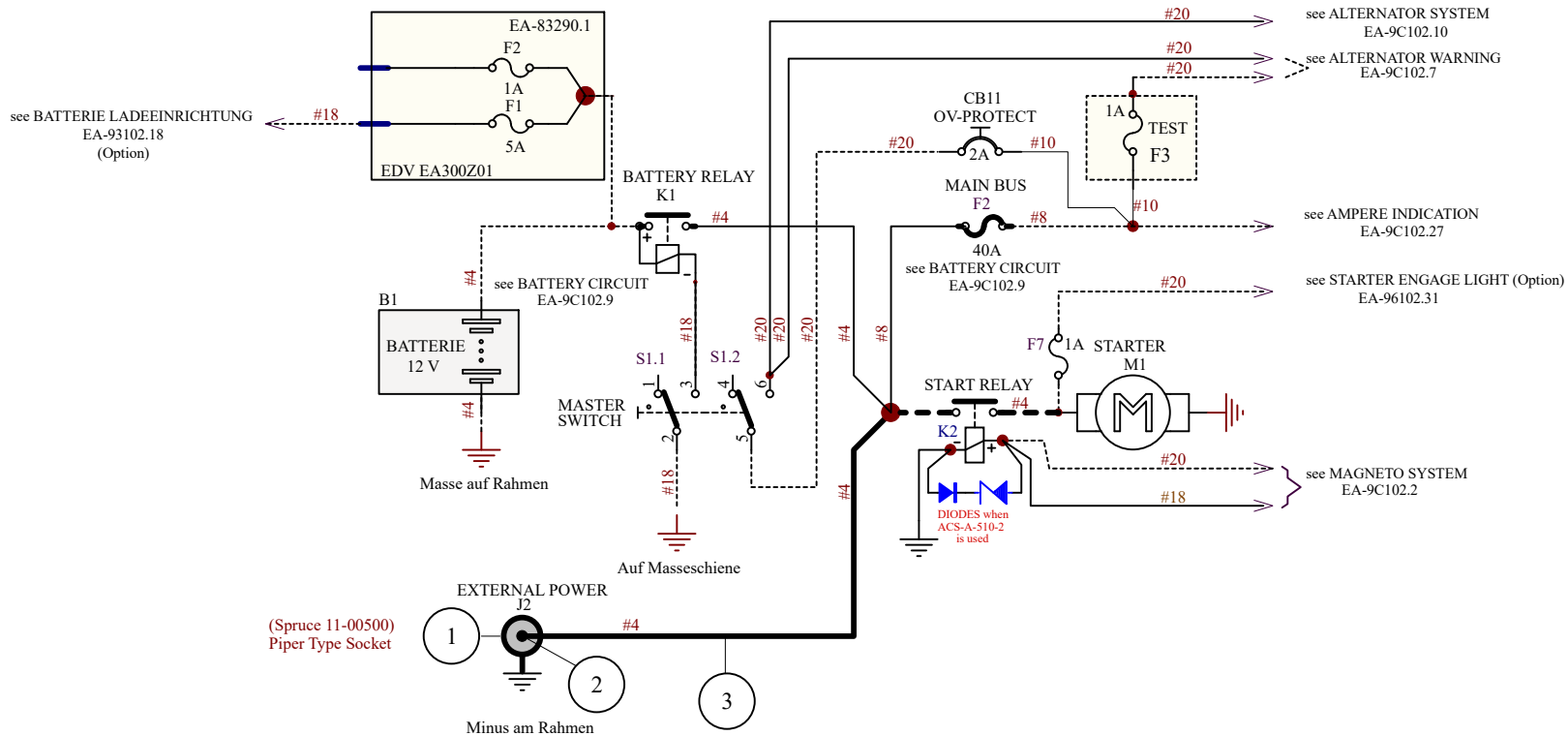
3

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2	2	16	PIN MOLEX	43030-0007									FE4079
1	1	15	PIN GEHÄUSE 2 POLIG	43020-0200									FE4082
1	1	14	BUCHSEN GEHÄUSE 2 POLIG	43025-0200									FE4081
2	2	13	BUCHSE Molex	43031-0007									FE4080
X	X	12	WIRE 3xAWG24	MIL-C-27500-24TG3									
X	X	11	WIRE 2xAWG24	MIL-C-27500-24TG2									FE4006
1	1	10	WIRE AWG22	MIL-W-22759/16-22									01694
1	1	9	CONNECTOR SUBD 9S										
	1	8	RESISTOR 330R 0,25W										
1	1	7	AMPLIFIER	K4900 (mod)									
1	1	6	PUSH BUTTON										
1	1	5	PUSH BUTTON										
1	1	4	LED WARNING	RS 285-6633									
1	1	3	CONNECTOR SUBD 25S										
1	1	2	G-METER INDICATOR	TL-3424 EXT									
1	1	1	FUSE 1A										
03	02	01	Nr	Benennung	Teilekennzeichen	ZF	Werkstoff	Abmessungen	Menge	Einheit	Gewicht	MaWi-Nr.	

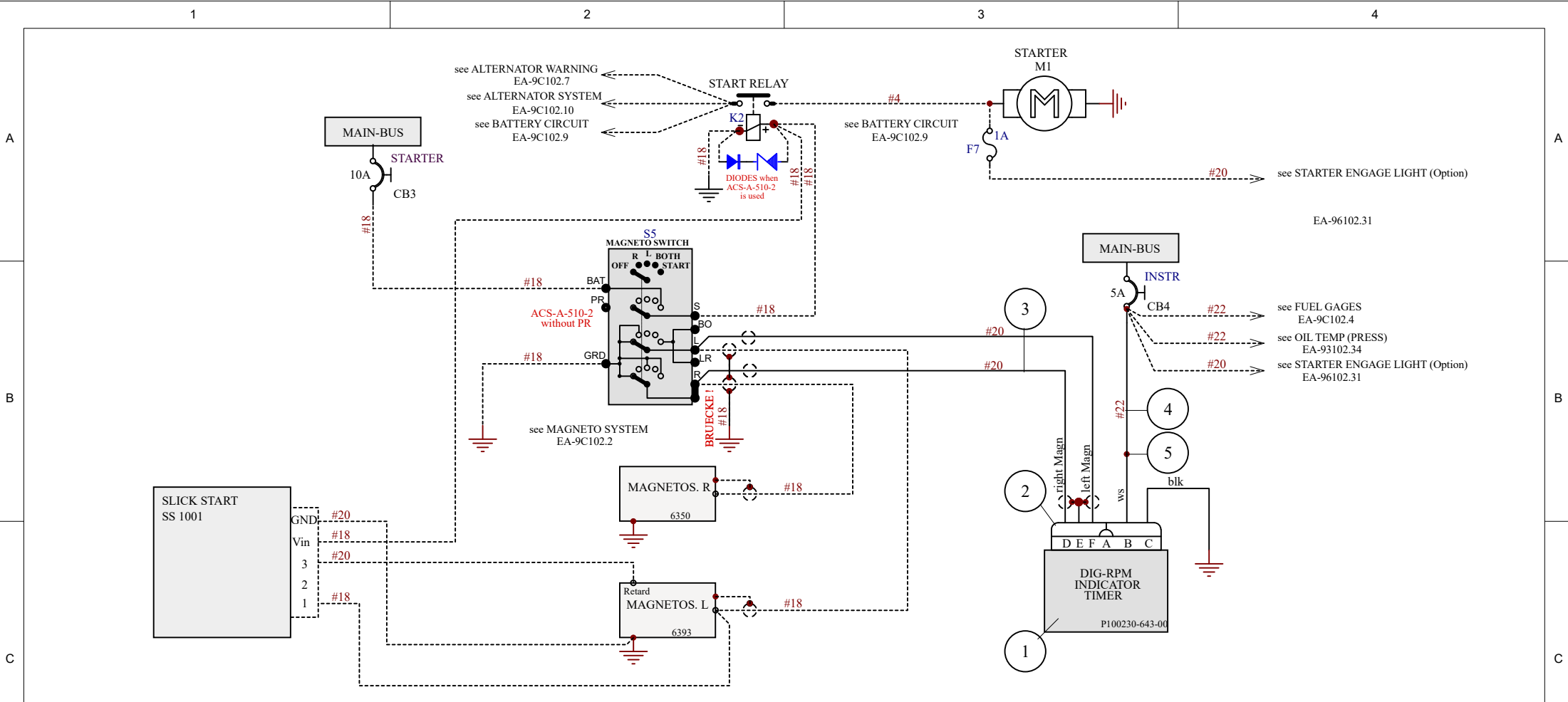
Die Gültigkeitszuordnung von Version zu Flugzeugbaureihe ist der Bauakte bzw. dem jeweiligen Fertigungsauftrag zu entnehmen.				Letzte Bearbeitung:				Datum Name				Maßstab auf Projektion			
Zuordnung links / rechts wird mit */* in allen Feldern angegeben.								Bearb.: 05.05.08 HW				SI.-Klasse Freimaßtoleranz			
04								Gepr.:				Oberflächenschutz Oberfläche			
03												EA 300/SC			
02 COM TY91				B AM-300-19-03 27.06.21 HW				Schwarze Heide 21 46569 Hünxe, Germany				ACCELEROMETER			
01 COM BECKER				A AM-300-15-07 03.12.16 HW								EA-9C102.15 B			
Ver. Bezeichnung				Nr.: Änderung/Mod. Nr.: Datum Name								Blatt 1 von 1			
				EDV-Kennung: EA3C0916B								Schützvermerk nach DIN 34 beachten.			



(Spruce 11-00500)
Piper Type Socket

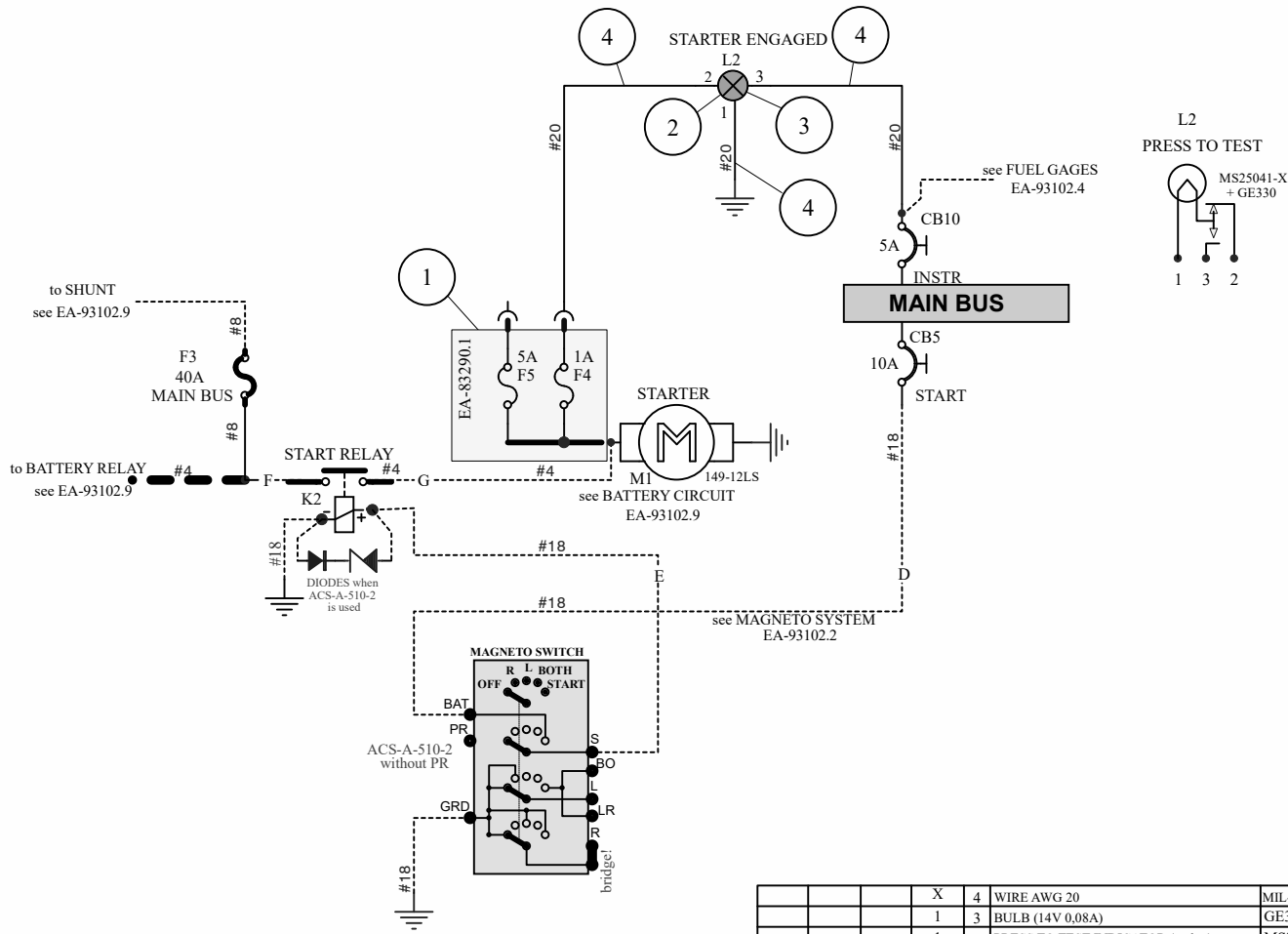
			X	3	WIRE AWG 4	22759-16-4			2,57	mtr	200005		
			1	2	PLASTI GRIP	130008			1	Stueck	02198		
			1	1	CONNECTOR	11-00500			1	Stueck	01609		
04	03	02	01	Nr	Benennung	Teilekennzeichen	ZF	Werkstoff	Abmessungen	Menge	Einheit	Gewicht	MaWi-Nr.

Die Gültigkeitszuordnung von Version zu Flugzeugbaureihe ist der Bauakte bzw. dem jeweiligen Fertigungsauftrag zu entnehmen. Zuordnung links / rechts wird mit */* in allen Feldern angegeben.	Letzte Bearbeitung:													
									Datum	Name	Maßstab	auf	Projektion	
									Bearb.:	05.05.08	HW	Si.-Klasse	Freimaßtoleranz	
									Gepr.:			Oberflächenschutz	Oberfläche	
											EA 300/SC			
											EXTERNAL POWER			
											EA-9C102.16	C		
											A4	Blatt 1 von 1		
Ver.-Bezeichnung		Nr.:		Änderung/Mod. Nr.:		Datum		Name		 Schwarze Heide 21 46569 Hünxte, Germany			Schutzvermerk nach DIN 34 beachten.	
EDV-Kennung: EA3C0921c														



				1	5	VERBINDER ROT	320559-0											01422
				X	4	KABEL AWG 20	MIL-W-22759/16-20			3	mtr							00775
				X	3	KABEL AWG 20 GESCHIRMT	MIL-W-27500-20GT14			5	mtr							FE4002
					1	2	STECKER	MS-3106E14S-6S										02489
					1	1	DIGITAL RPM INDICATOR	P100-230-643-00										02489
04	03	02	01	Nr	Benennung	Teilekennzeichen	ZF	Werkstoff		Abmessungen	Menge	Einheit	Gewicht	MaWi-Nr.				

Die Gültigkeitszuordnung von Version zu Flugzeugbaureihe ist der Bauakte bzw. dem jeweiligen Fertigungsauftrag zu entnehmen. Zuordnung links / rechts wird mit */* in allen Feldern angegeben.	Letzte Bearbeitung:				Datum	Name	Maßstab	auf	Projektion
					Bearb.:	05.05.08	HW	SI.-Klasse	Freimaßtoleranz
					Gepr.:			Oberflächenschutz	Oberfläche
					Gepr.:			EA 300/SC	
								RPM INDICATION	
								EA-9C102.30	B
								A4	Blatt 1 von 1
Ver. Bezeichnung	Nr.:	Änderung/Mod. Nr.:	Datum	Name	Schwarze Heide 21 46569 Hünxe, Germany				
EDV-Kennung:	EA3C0939b								



			X	4	WIRE AWG 20	MIL-W-22759/16-20			3,5	mtr		00775	
			1	3	BULB (14V 0,08A)	GE330						01569	
			1	2	PRESS TO TEST INDICATOR (amber)	MS25041-4					14	31732	
			1	1	PCB FUSE 1A	83290.001-VB						83290.001VB	
04	03	02	01	Nr	Benennung	Teilekennzeichen	ZF	Werkstoff	Abmessungen	Menge	Einheit	Gewicht	MaWi-Nr.

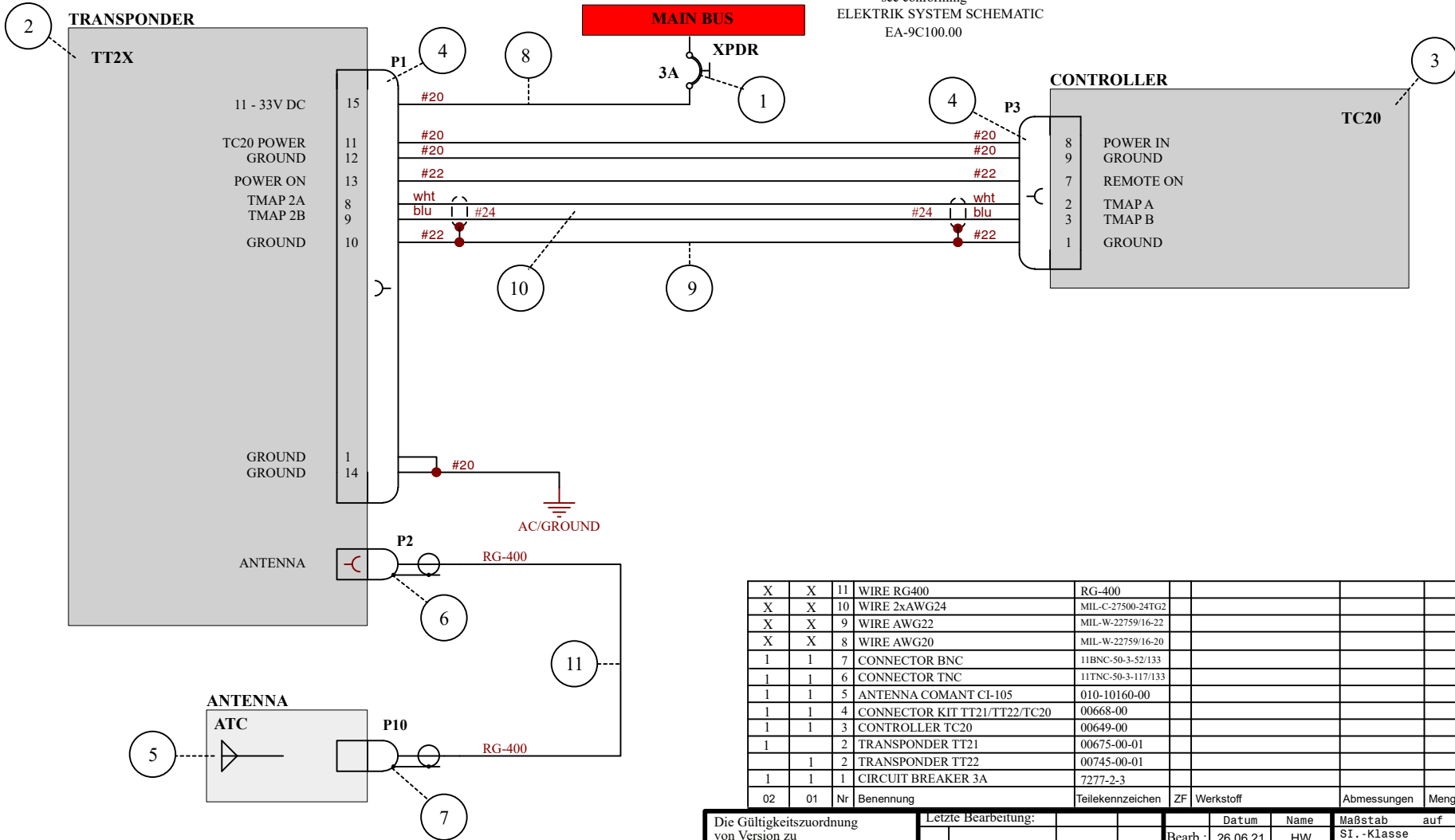
Die Gültigkeitszuordnung von Version zu Flugzeugbaureihe ist der Bauakte bzw. dem jeweiligen Fertigungsauftrag zu entnehmen. Zuordnung links / rechts wird mit */* in allen Feldern angegeben.	Letzte Bearbeitung:				Datum	Name	Maßstab	auf	Projektion	
					Bearb.:	30.01.06	HW	SI.-Klasse	Freimaßtoleranz	
					Gepr.:			Oberflächenschutz	Oberfläche	
					Gepr.:			EA 300/L		
					XTRA		STARTER ENGAGED LIGHT			
							EA-96102.31		A	
					Schwarze Heide 21 46569 Hünxe, Germany		A4		Blatt 1 von 1	
							Schutzvermerk nach DIN 34 beachten.			
Ver. Bezeichnung: EA3L0940a										

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see conforming
ELEKTRIK SYSTEM SCHEMATIC
EA-9C100.00

X	X	11	WIRE RG400	RG-400					mtr		FE4111
X	X	10	WIRE 2xAWG24	MIL-C-27500-24TG2					mtr		FE4006
X	X	9	WIRE AWG22	MIL-W-22759/16-22					mtr		01694
X	X	8	WIRE AWG20	MIL-W-22759/16-20					mtr		00775
1	1	7	CONNECTOR BNC	11BNC-50-3-52/133							30705
1	1	6	CONNECTOR TNC	11TNC-50-3-117/133							31633
1	1	5	ANTENNA COMANT CI-105	010-10160-00							30336
1	1	4	CONNECTOR KIT TT21/TT22/TC20	00668-00							35258
1	1	3	CONTROLLER TC20	00649-00							35260
1		2	TRANSPONDER TT21	00675-00-01							35254
	1	2	TRANSPONDER TT22	00745-00-01							35257
1	1	1	CIRCUIT BREAKER 3A	7277-2-3							31507
02	01	Nr	Benennung	Teilekennzeichen	ZF	Werkstoff	Abmessungen	Menge	Einheit	Gewicht	MaWi-Nr.

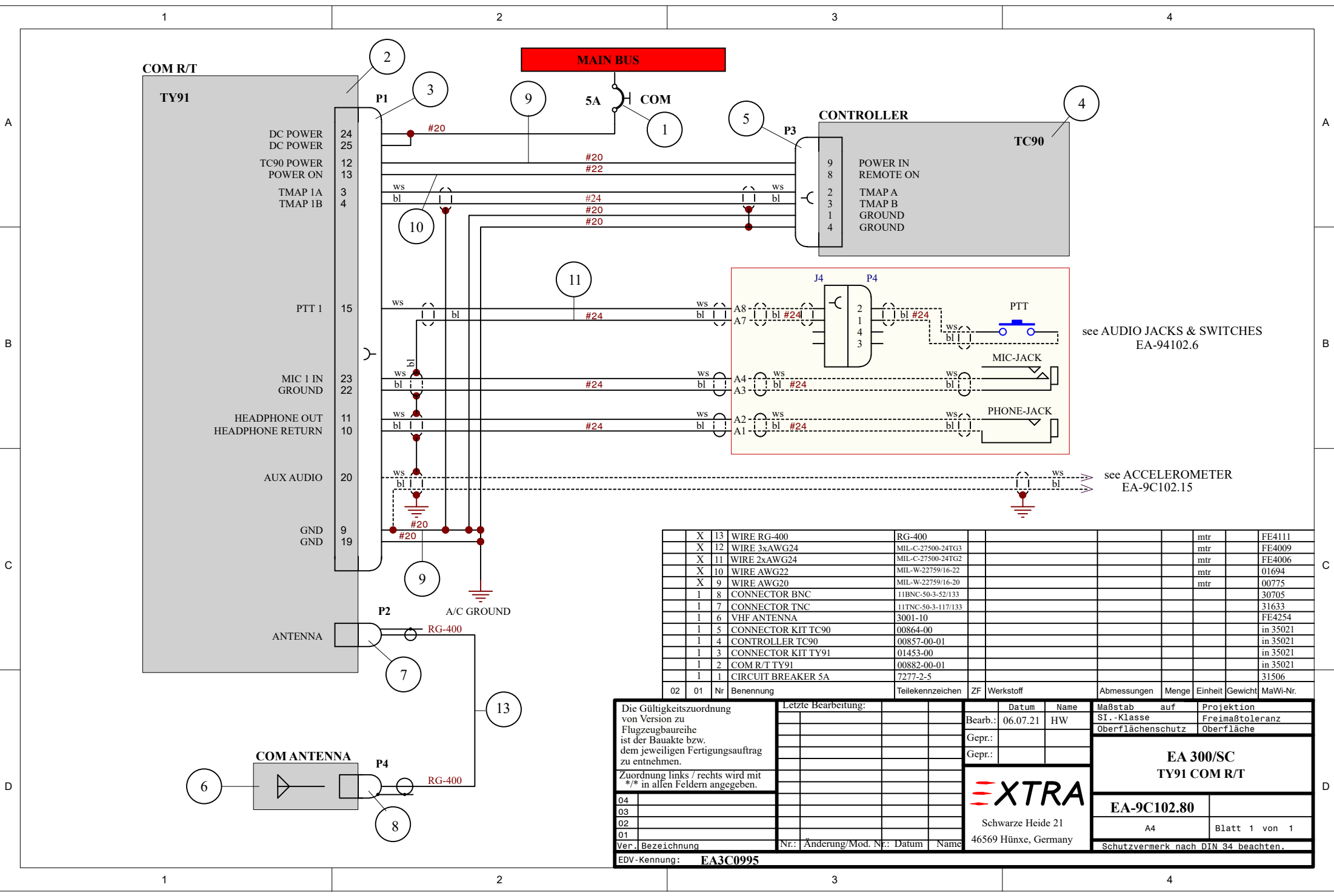
Die Gültigkeitszuordnung von Version zu Flugzeugbaureihe ist der Bauakte bzw. dem jeweiligen Fertigungsauftrag zu entnehmen. Zuordnung links / rechts wird mit */* in allen Feldern angegeben.	Letzte Bearbeitung:		Datum		Name		Maßstab		auf		Projektion			
			Bearb.: 26.06.21		HW		SI.-Klasse		Freimaßtoleranz		Oberflächenschutz		Oberfläche	
			Gepr.:						EA 300/SC TT-2X XPDR					
			Gepr.:								EA-9C102.79			
04				Schwarze Heide 21		A4		Blatt 1 von 1						
03				46569 Hünxe, Germany										
02	TRANSPONDER TT21													
01	TRANSPONDER TT22													
Ver.	Bezeichnung	Nr.:	Änderung/Mod. Nr.:	Datum	Name	Schutzvermerk nach DIN 34 beachten.								
EDV-Kennung: EA3CXXX														

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X	13	WIRE RG-400	RG-400					mtr		FE4111	
X	12	WIRE 3xAWG24	MIL-C-27500-24TG3					mtr		FE4009	
X	11	WIRE 2xAWG24	MIL-C-27500-24TG2					mtr		FE4006	
X	10	WIRE AWG22	MIL-W-22759/16-22					mtr		01694	
X	9	WIRE AWG20	MIL-W-22759/16-20					mtr		00775	
1	8	CONNECTOR BNC	11BNC-50-3-52/133							30705	
1	7	CONNECTOR TNC	11TNC-50-3-117/133							31633	
1	6	VHF ANTENNA	3001-10							FE4254	
1	5	CONNECTOR KIT TC90	00864-00							in 35021	
1	4	CONTROLLER TC90	00857-00-01							in 35021	
1	3	CONNECTOR KIT TY91	01453-00							in 35021	
1	2	COM R/T TY91	00882-00-01							in 35021	
1	1	CIRCUIT BREAKER 5A	7277-2-5							31506	
02	01	Nr	Benennung	Teilekennzeichen	ZF	Werkstoff	Abmessungen	Menge	Einheit	Gewicht	MaWi-Nr.

Die Gültigkeitszuordnung von Version zu Flugzeugbaureihe ist der Bauakte bzw. dem jeweiligen Fertigungsauftrag zu entnehmen.

Zuordnung links / rechts wird mit */* in allen Feldern angegeben.

04	
03	
02	
01	

Ver. Bezeichnung Nr.: Änderung/Mod. Nr.: Datum Name

EDV-Kennung: **EA3C0995**

Letzte Bearbeitung:

Bearb.:	06.07.21	HW
Gepr.:		
Gepr.:		

XTRA

Schwarze Heide 21
46569 Hünxne, Germany

Maßstab	auf	Projektion
SI.-Klasse		Freimaßtoleranz
Oberflächenschutz Oberfläche		
EA 300/SC TY91 COM R/T		
EA-9C102.80		
A4		Blatt 1 von 1
Schutzvermerk nach DIN 34 beachten.		