

RALLY ASSEMBLY MANUAL

FUSELAGE START UP OPERATIONS

Before starting fuselage assembly, position the fuselage perfectly lined-up to ground with firewall at 90°. Use a stable structure to maintain the fuselage in correct position. Then you can install the engine mount firewall fittings on fuselage firewall internal side.

After this it is advised to position and fasten the forward support, the main landing and the fuselage struts to fuselage frame. This will help you to find correct positions and to avoid positioning mistakes during gluing operations. When the main landing gear box has been positioned and fastened it is suggested to install the elevator controls. After these start-up operations you are ready to glue the forward support, the main landing gear box and all fuselage parts as described in each chapter.

IMPORTANT: check every time correct alignment of parts to install before gluing.

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POSITION AND CLAMP TO FUSELAGE:

1-FORWARD SUPPORT 01-020-00

2-MAIN LANDING GEAR BOX 01-050-00

3-FUSELAGE STRUTS (LH-RH) 01-131-00 – 01-132-00

4-BAGGAGE BULKHEAD 01-230-00

4-FORWARD FLOOR 01-330-01

5-REAR FLOOR 01-330-02

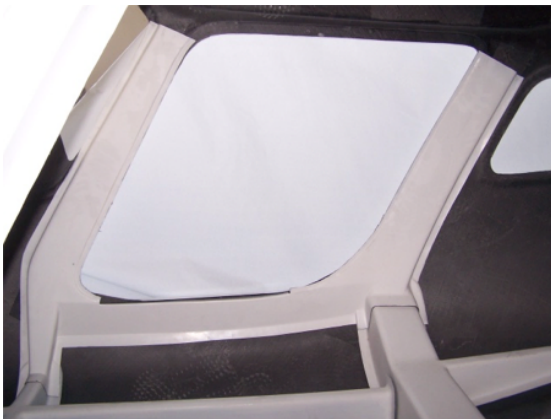
1-



2-



3-



4-



5-



6-

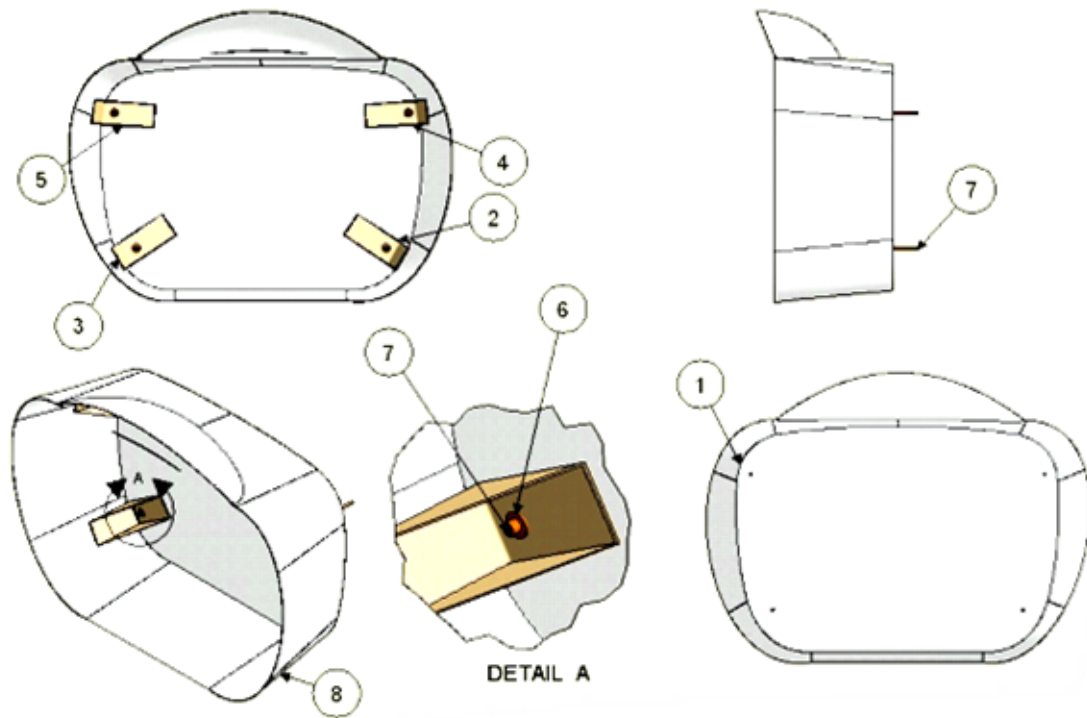


Remove parts and install engine mount firewall connections.

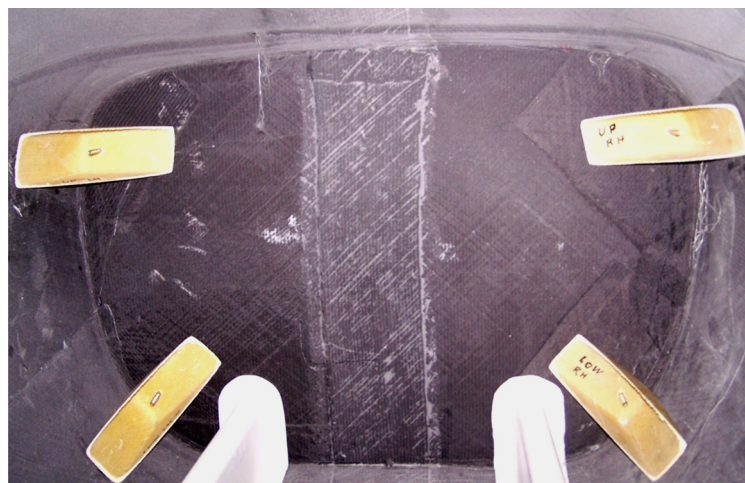
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ENGINE MOUNT FIREWALL CONNECTIONS

Drill from external the firewall where marked. Position the four engine mount firewall connections to fuselage internal firewall and drill them. Insert M8 bolts (07-010-00/H Engine mount hardware kit) to fit the engine mount firewall connections to fuselage, gluing with structural adhesive the engine mount firewall connections as shown below.



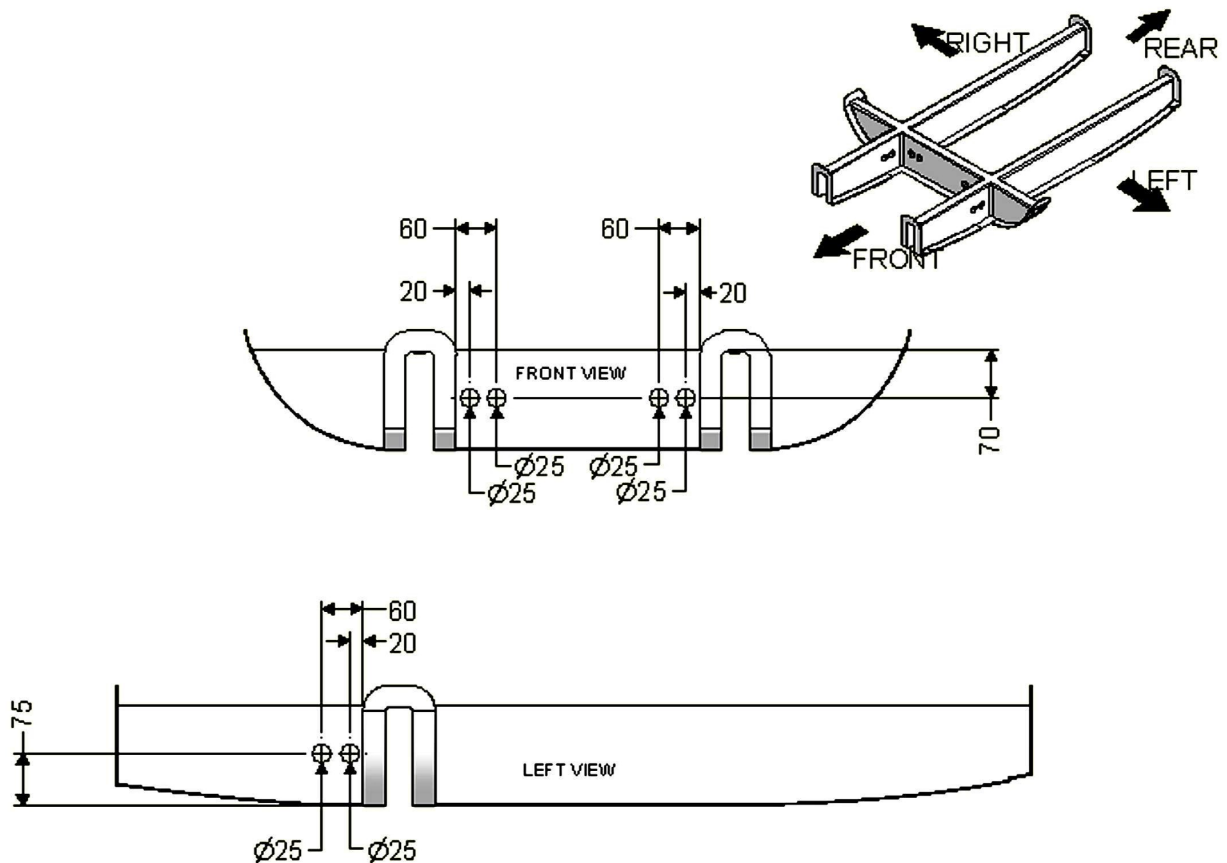
① Firewall ② 01-020-10 ③ 01-010-10 ④ 01-020-20 ⑤ 01-010-20



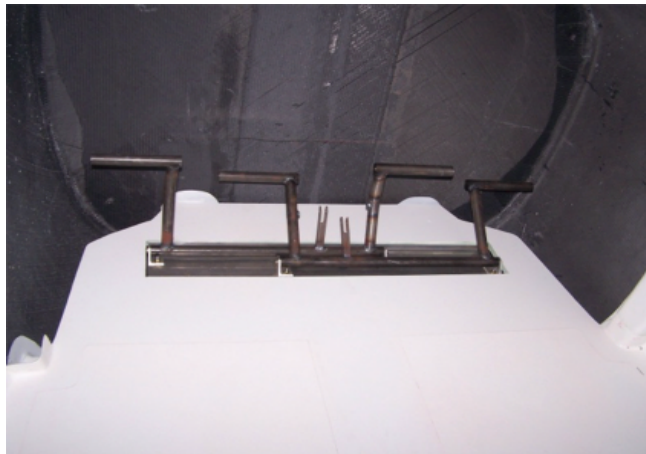
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FORWARD SUPPORT

Prepare forward support 01-020-00 drilling holes to pass electric system cables (01-020-00/H Forward support Hardware kit).

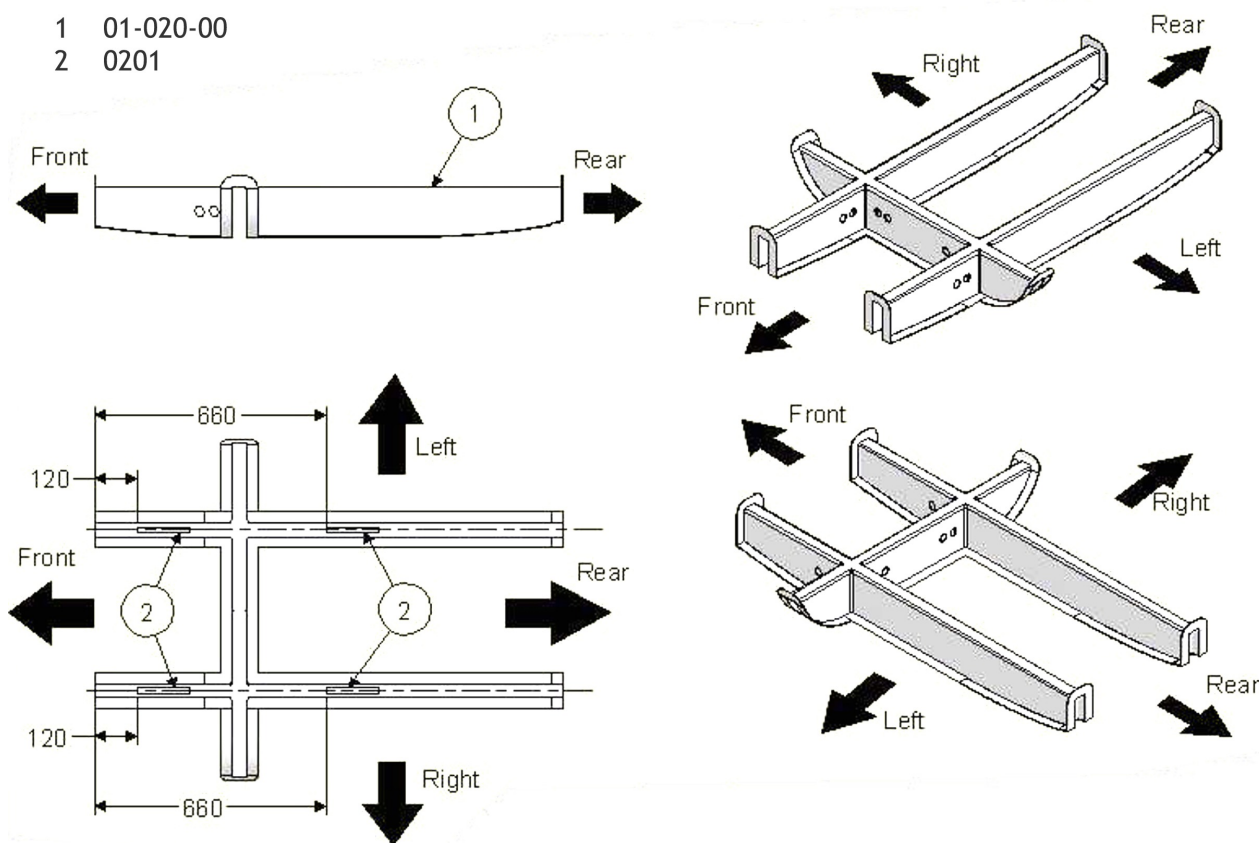


Position and fasten forward support, main landing gear box 01-050-00 and fuselage struts 01-131-00 (left one) and 01-032-00 (right one) to fuselage. Now position forward floor 01-330-01 section on forward support. Position pedal system and control stick on rear floor dedicated housing.



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Glue with structural adhesive forward support internal reinforcements 0201 in correspondence of pedal system and control stick position, as shown in next page. Clean and sand internal reinforcements before gluing.



Drill forward support and internal reinforcements through pedal system and control stick dedicated holes and rivet anchor nuts to internal reinforcements where drilled using solid rivets 2.5 to fit pedal system and control stick.

Tip: Once distances have been marked remove forward support from fuselage and install internal reinforcements and anchor nuts.

Fasten forward support to fuselage.

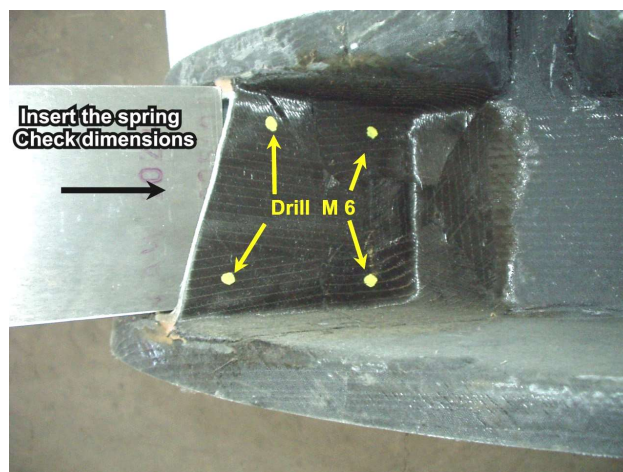
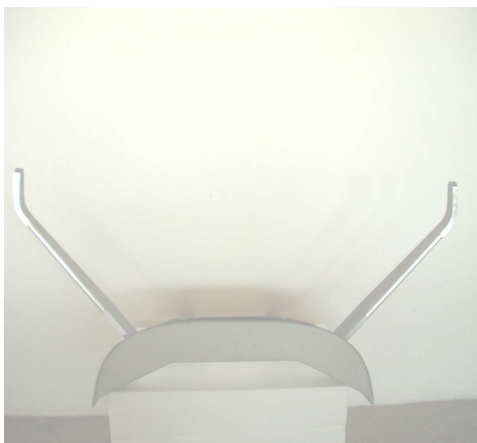
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MAIN LANDING GEAR BOX

Prepare fuselage cutting main landing gear housings (where marked). Position Main landing gear box 01-050-00 upside down. Check fuselage attitude relative to ground ($\pm 3^\circ$). To do this it's advised to install engine mount with nose gear. Then fix main landing gear box with left and right springs located inside dedicated housing.

Fasten Main Landing Gear box to fuselage bottom with clecos parallel to fuselage firewall. Remove main landing gear box from fuselage.

Position main landing gear springs inside dedicated housing as shown, mark position and drill four M6 holes for spring fitting (leave 25mm from edges).



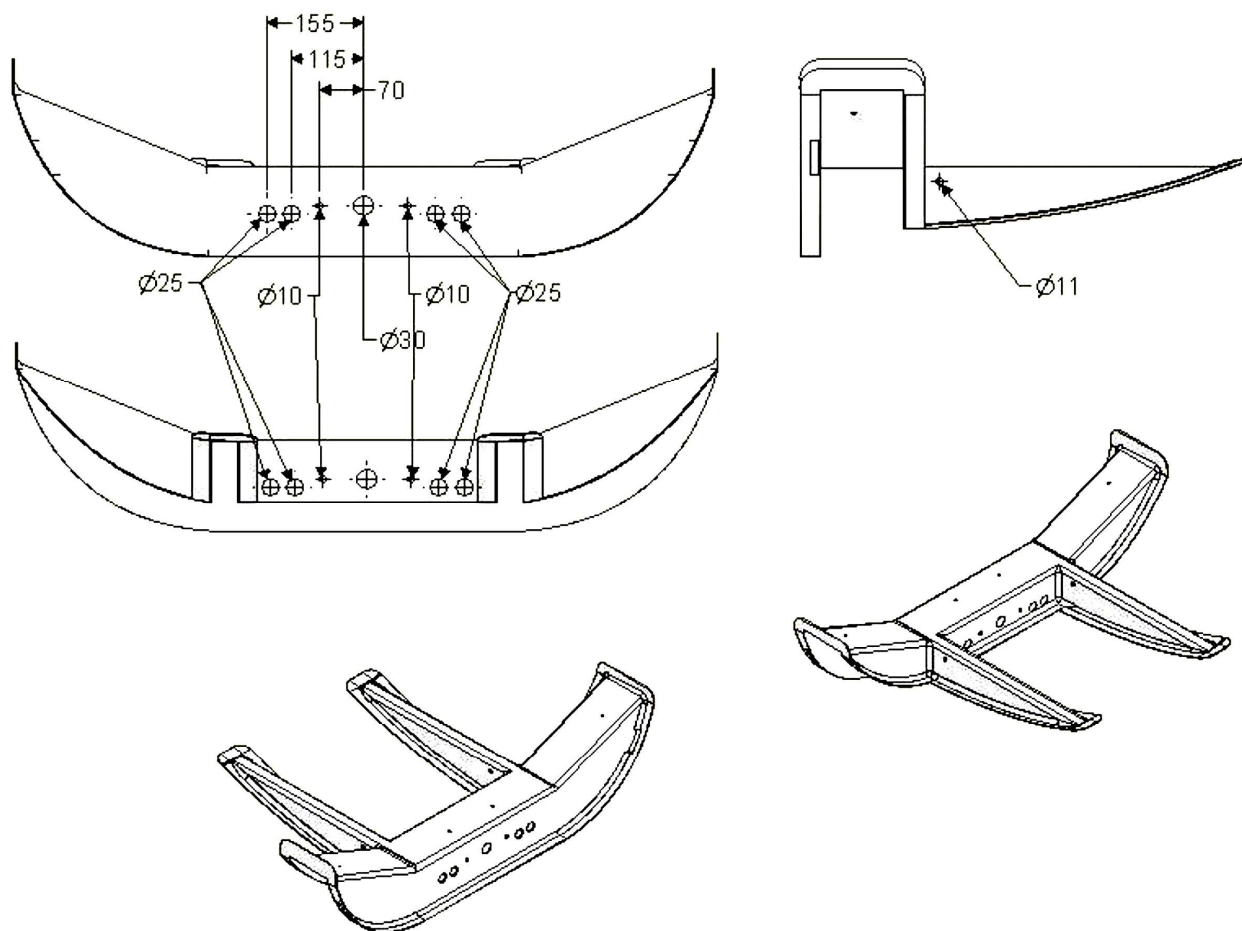
Tip: the aircraft lengthwise attitude to ground must be $\pm 3^\circ$ and the sideways 0° .

Leave at least 5mm from housing bottom.

Remove the springs.

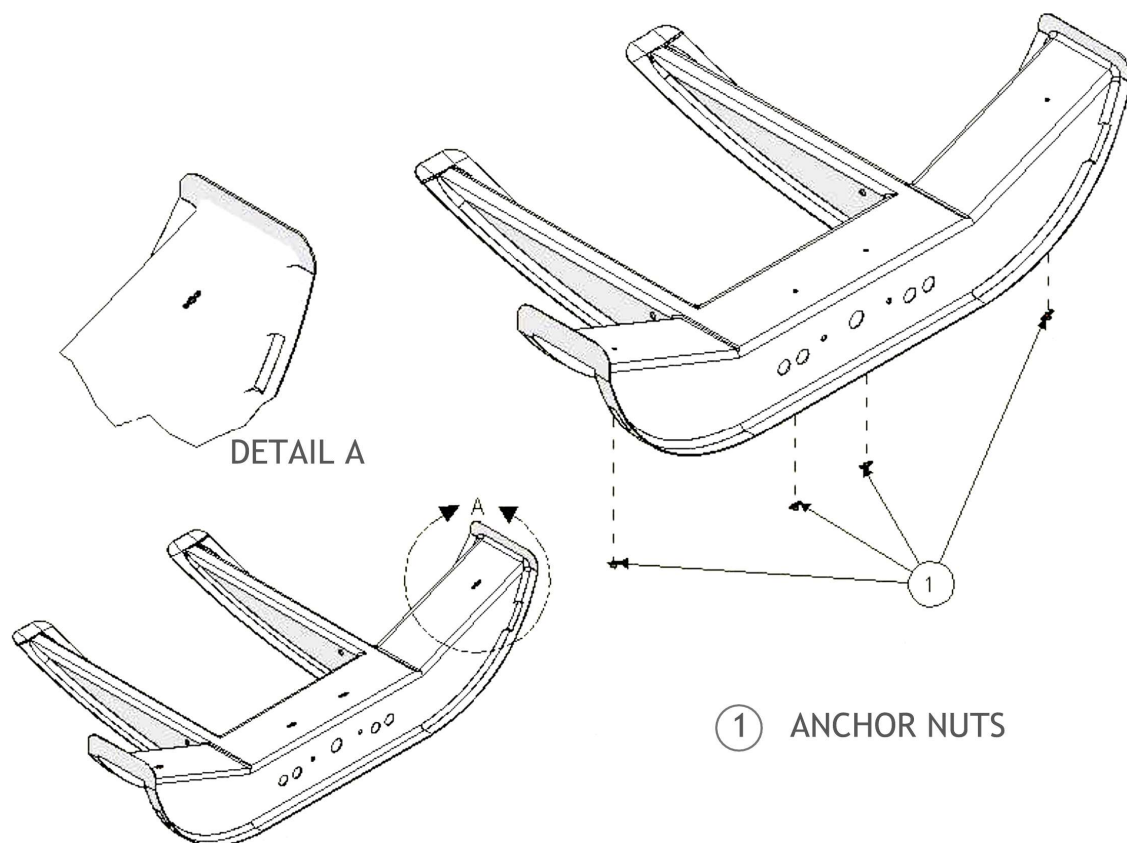
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Drill ailerons controls and rudder cables bushes holes where marked as shown below.

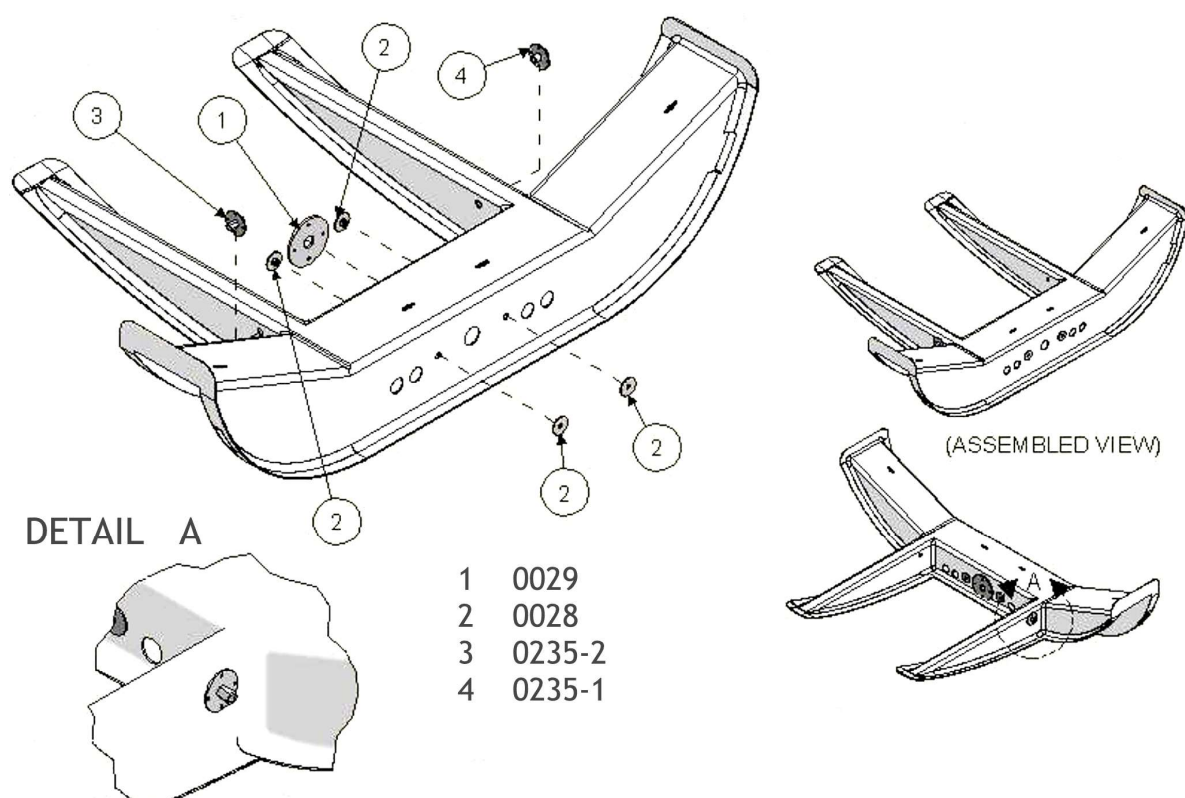


Install anchor nuts to main landing gear box top where marked (01-050-00/H Main Landing gear box Hardware kit).

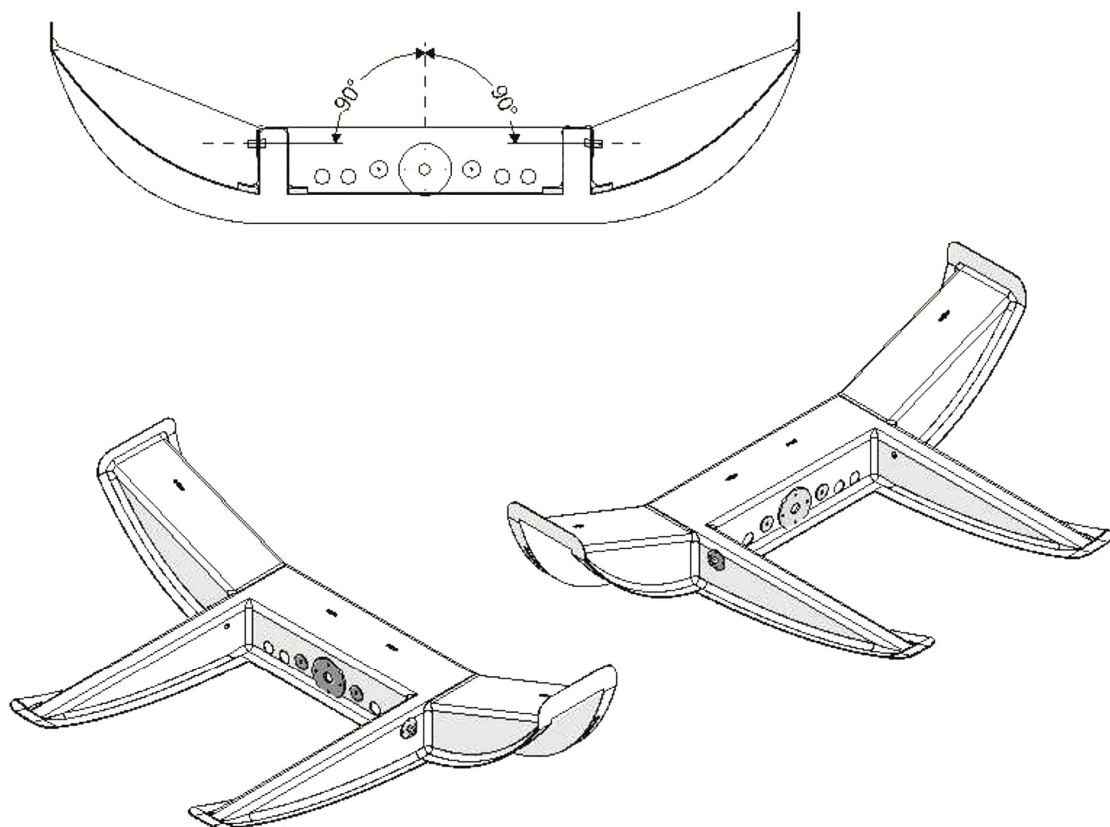
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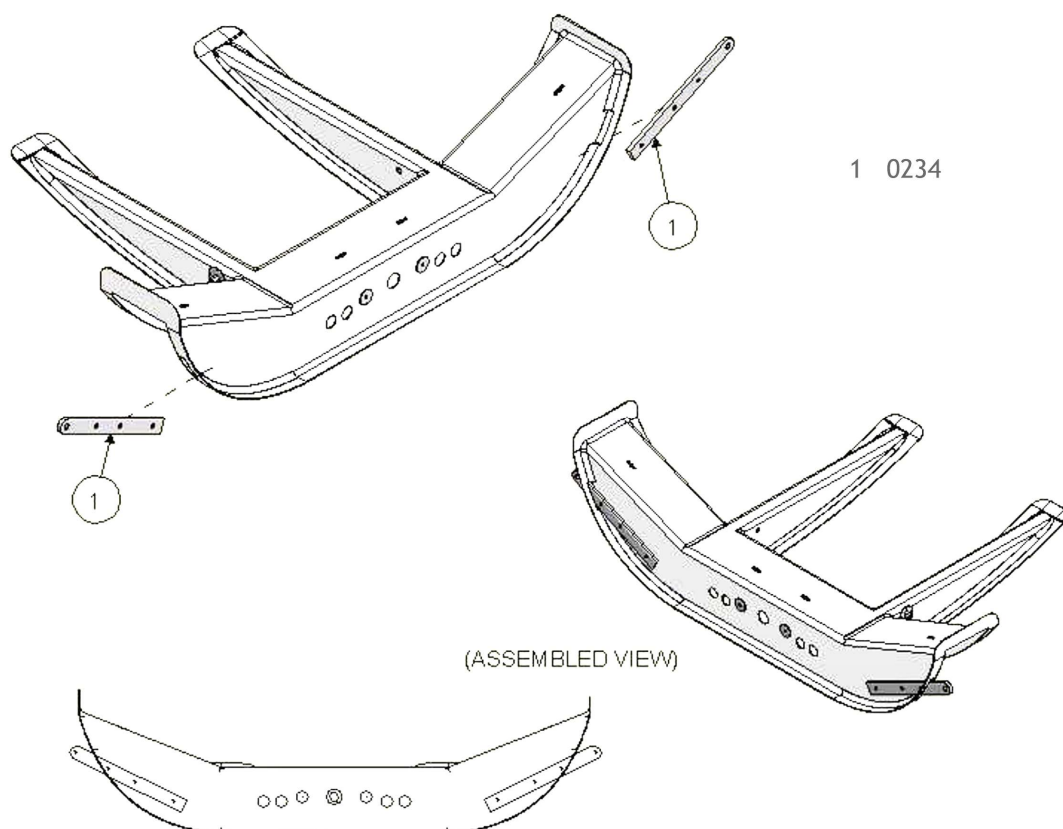
Glue turnbuckles 0235-1 and 0235-2 to main landing gear box external sections; rivet rudder cable bushes 0028 and ailerons control bush 0029 to main landing gear box forward and rear sections.



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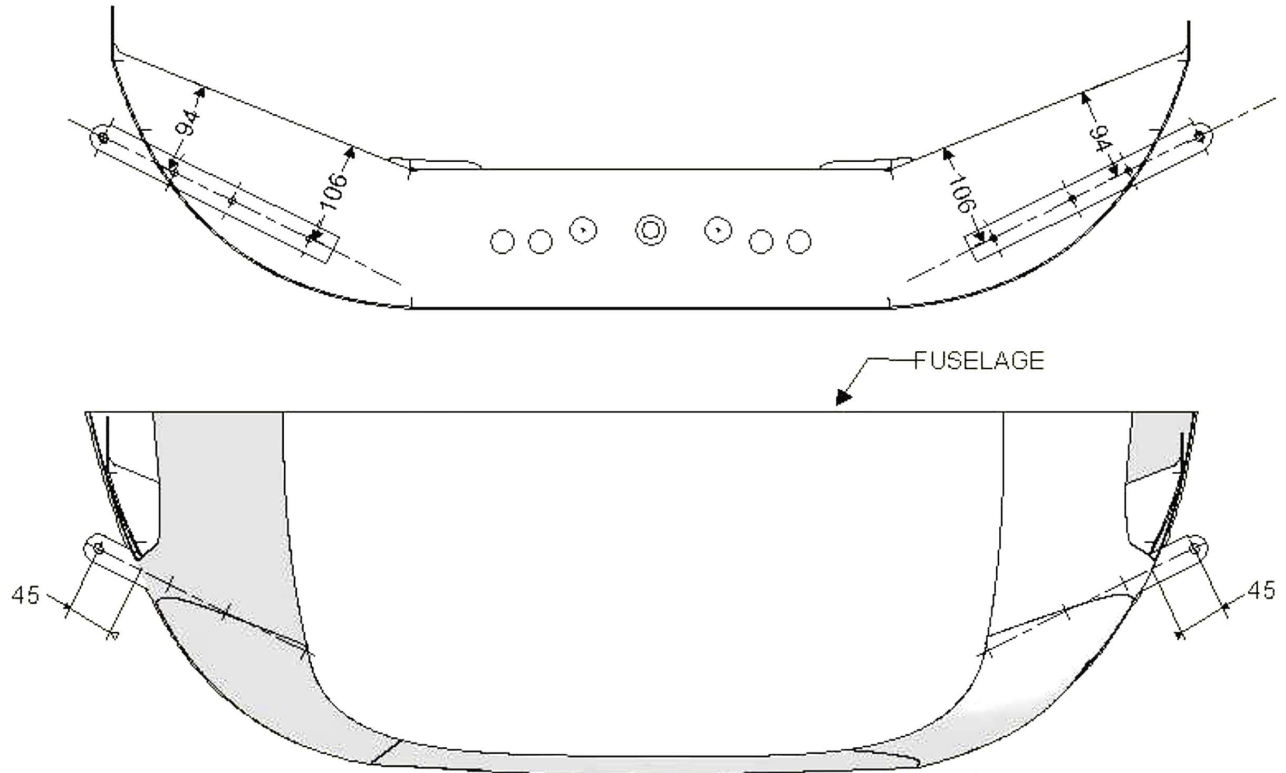


Position wing strut connecting brackets 0234 on main landing gear box front side through dedicated holes as shown below.



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Align brackets as shown below, considering bracket hole axis (the 10mm external hole centre must go 45mm out from fuselage). Drill and glue with structural adhesive brackets to main landing gear box with M6 bolts.



Remove brackets and glue with structural adhesive main landing gear box to forward support and fuselage as shown below. Clean and sand before gluing.



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Bolt with M6 bolts and glue with structural adhesive brackets as shown below. Clean and sand before gluing.



Tip: make a round corner with glue in excess

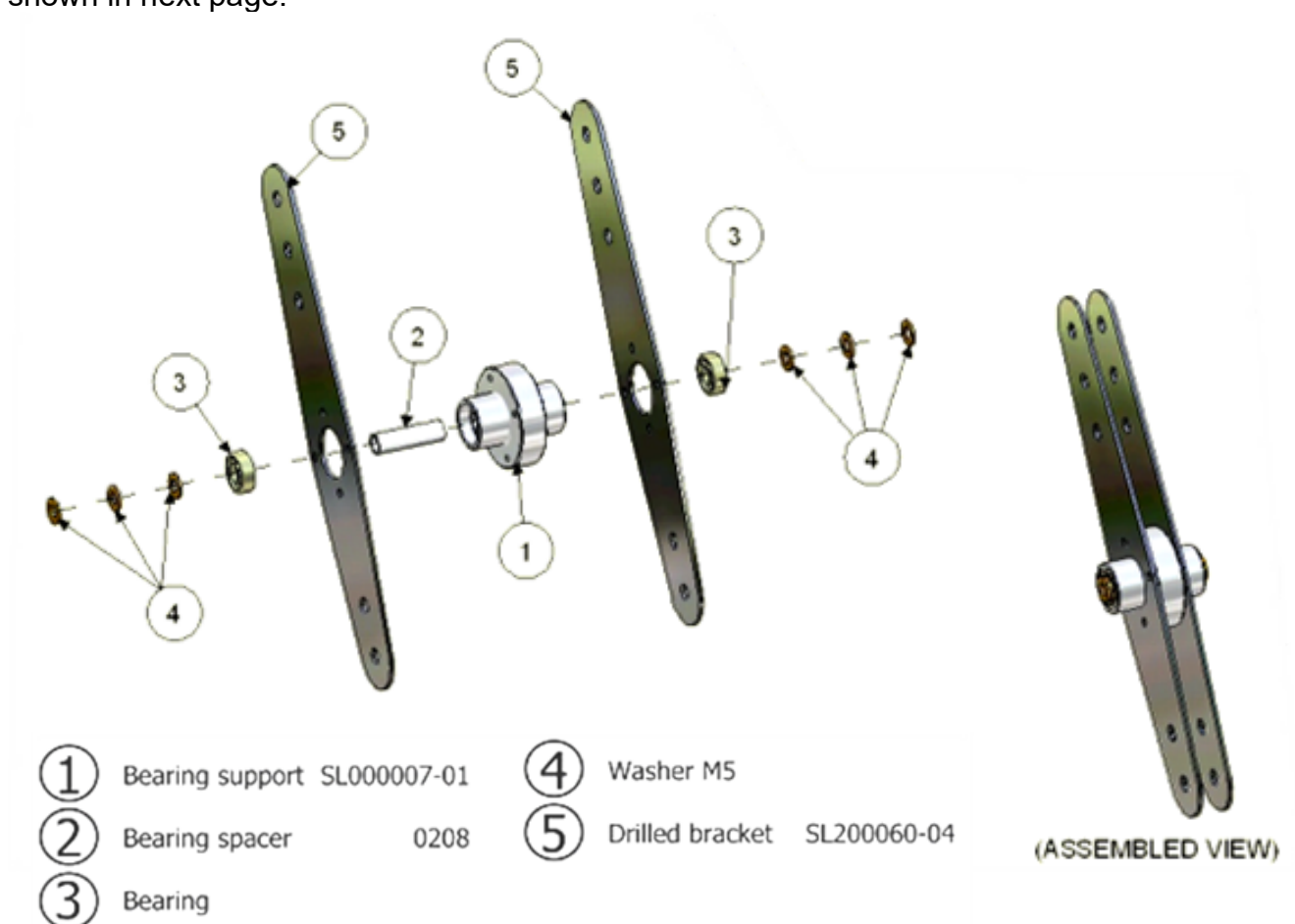
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ELEVATOR CONTROLS

REAR ELEVATOR CONTROL

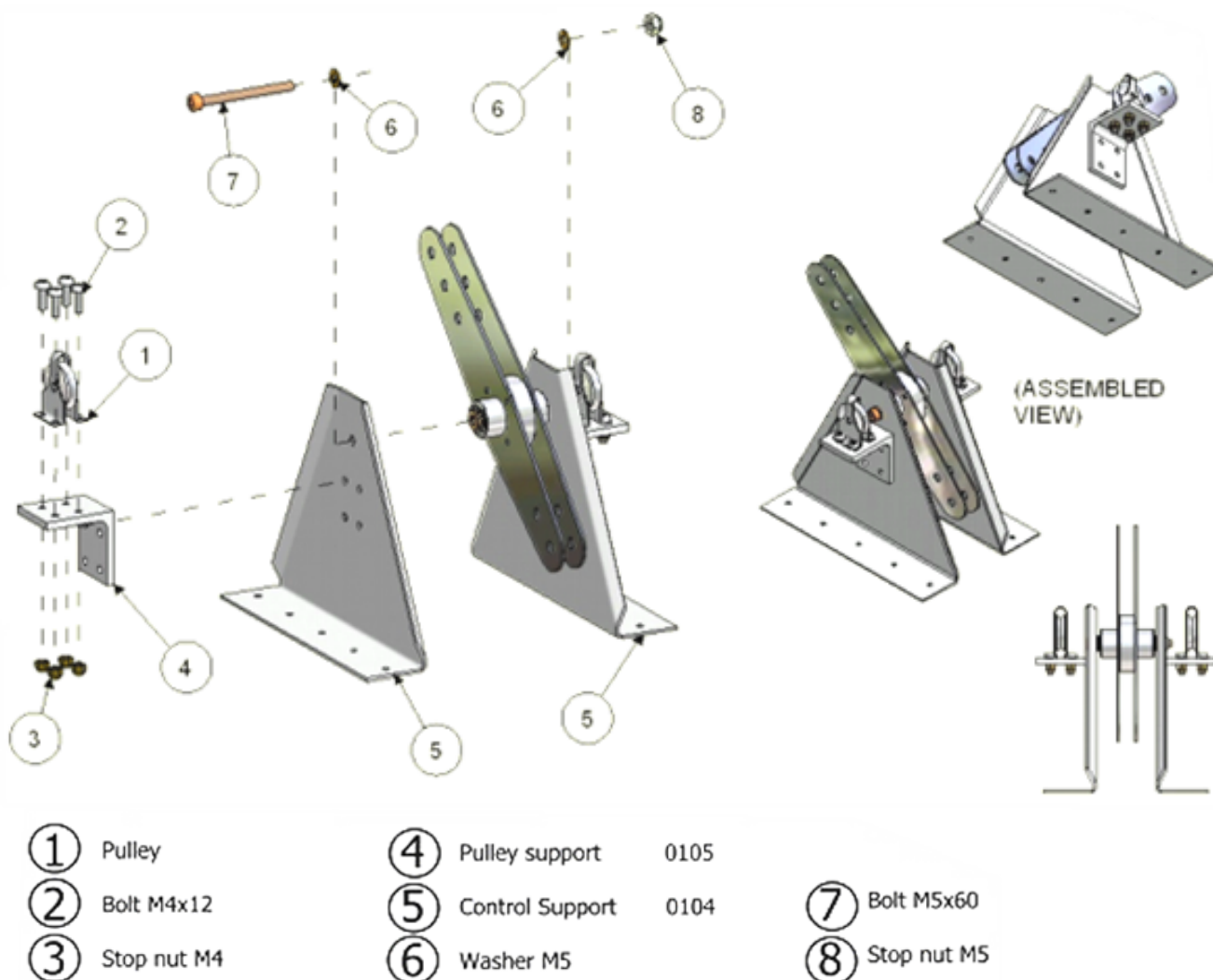
Take 01-110-01/H and 01-110-02/H Hardware kits and start to assemble elevator controls.

Start with 01-110-02 control, the rear one. Assemble the two brackets SL200060-04 with the bearing, the bearing spacer 0208 and the bearing support SL000000-07 using solid rivets 3. Take the two plates 0104 and assemble with the brackets using M5 bolt as shown in next page.

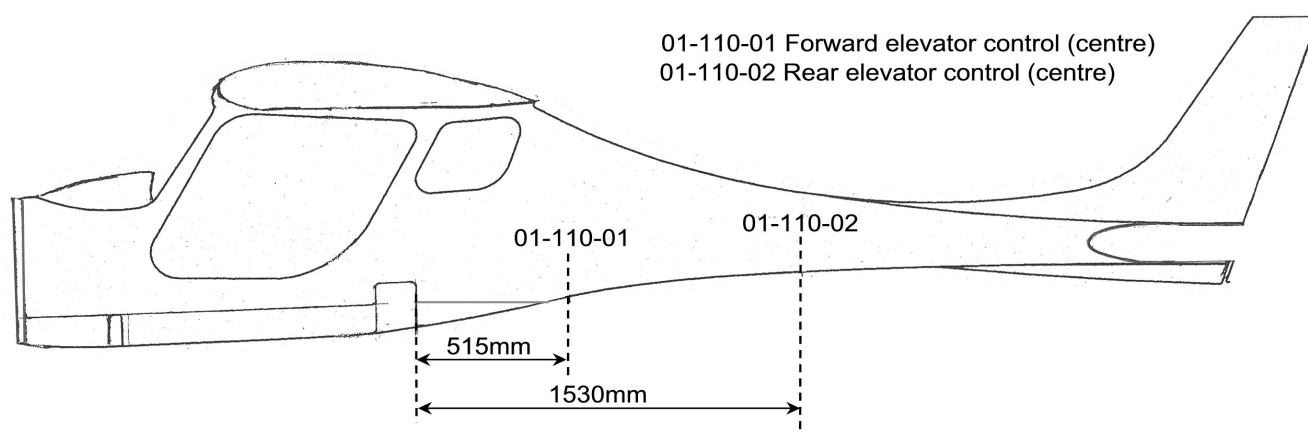


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Rivet with cherry rivets 4 pulley support angles 0105 to control supports 0104 as shown below. Rivet pulleys to angles with cherry rivets 3.

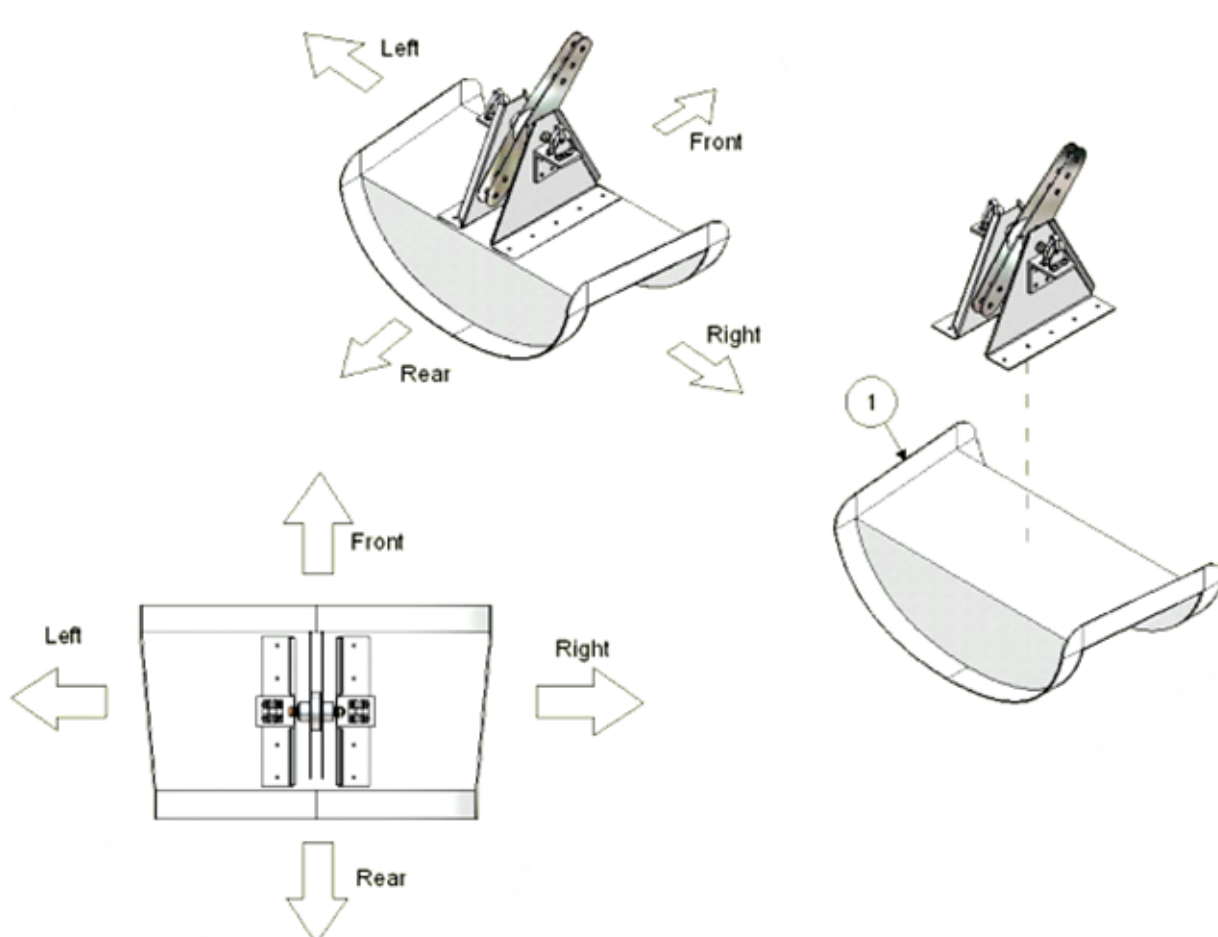


ELEVATOR CONTROLS CENTRE DISTANCE FROM MAIN LANDING GEAR BOX



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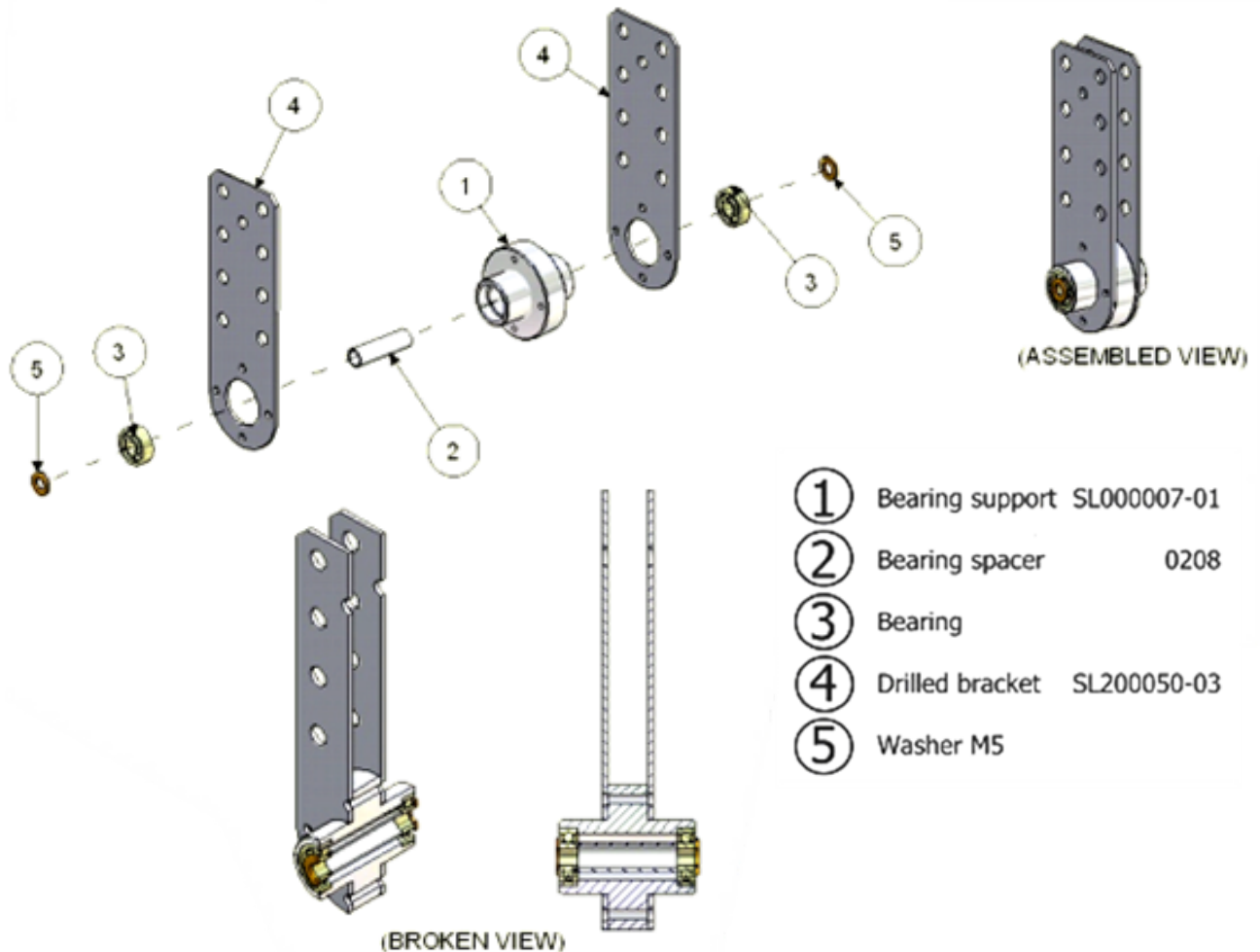
Rivet control to control support 01-110-00 with cherry rivets 4 and glue with structural adhesive control support 01-110-00 to fuselage bottom fitting fuselage profile. Clean and sand before gluing.



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FORWARD ELEVATOR CONTROL

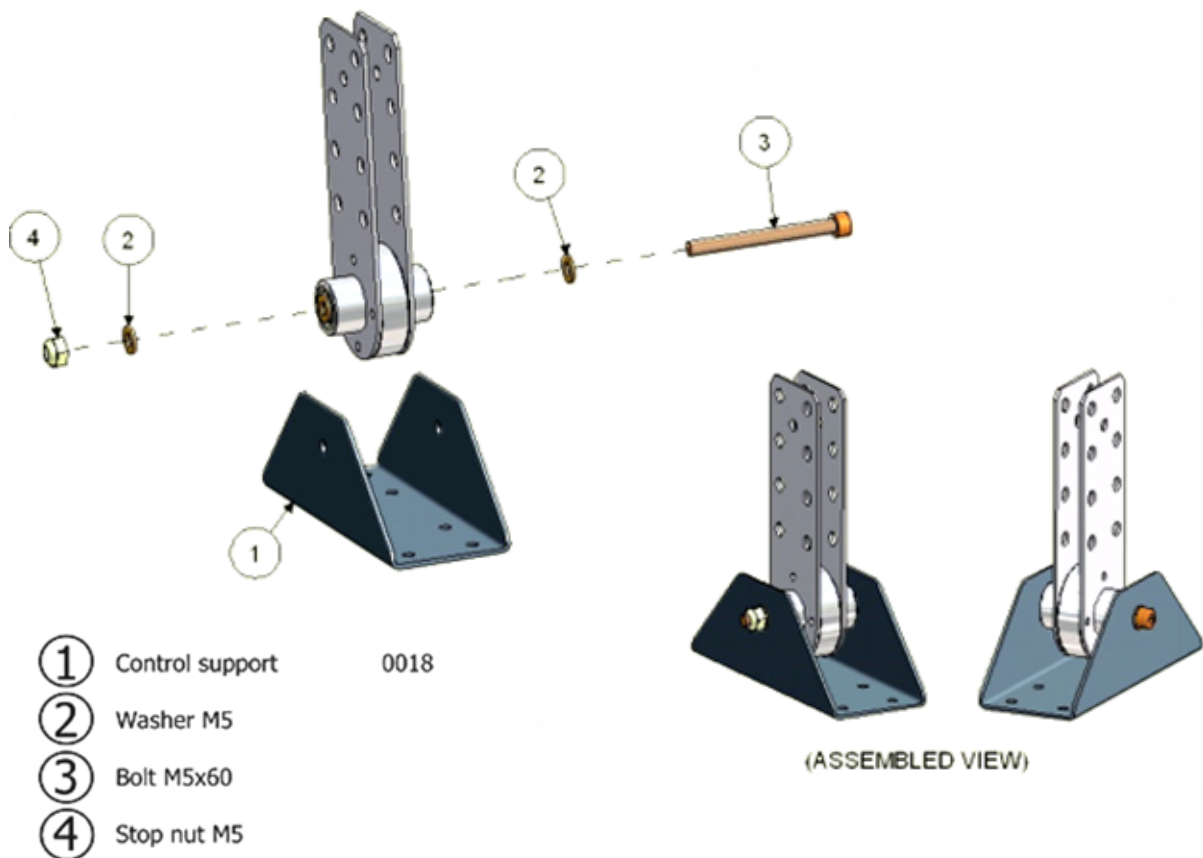
Take 01-110-01/H-hardware kit; assemble brackets SL200050-03 with bearing, bearing spacer 0208 and bearing support SL000000-07, as for rear control using solid rivets 3.



Position and rivet with cherry rivets 4 control support 0108 to fuselage as shown previously (Elevator controls centre distance from main landing gear box).

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Screw control assembled to control support 0108 using M5 as shown below.



Glue and rivet elevator forward control to fuselage.

ELEVATOR CONTROLS CENTRE DISTANCE FROM MAIN LANDING GEAR BOX

