

Wingtip Wheel Installation Recommendations

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For application in Australia, refer also to GFA document AIRW-D026 "Guidance on Skids and Wheels on Sailplanes and Powered Sailplanes" and to the www.gliderwheels.net document "GFA AIRW-D026 Compliance Guide".

Equipment needed: Marine Sikaflex 291 (white) with gun, 180 grit wet-and-dry paper, 240 grit sand paper, double sided tape, white spirits.

1. Remove the old skid.

It may peel off if bonded with weaker materials like double sided tape or contact adhesive. Stronger glue may need cutting through, parallel to the wing surface, sanding and removal of the residue.

2. Marking

Mark the centreline of the wheel on the wing using pencil and mark the front and rear extend of the wheel housing.

Place the wheel housing on the wing and draw around it.



3. Shaping

Shape the wheel housing by placing wetted 180 grit wet-and-dry paper on the wing and rubbing the housing over it, parallel to the wing spar.

Ensure that rubbing is not taken so far as to allow the wheel to touch the wing.



4. Roughen the wing surface

Using 240 grit paper within the pencil marking, sand the wing area under the housing to ensure a good bond. Re-apply the pencil markings if needed.

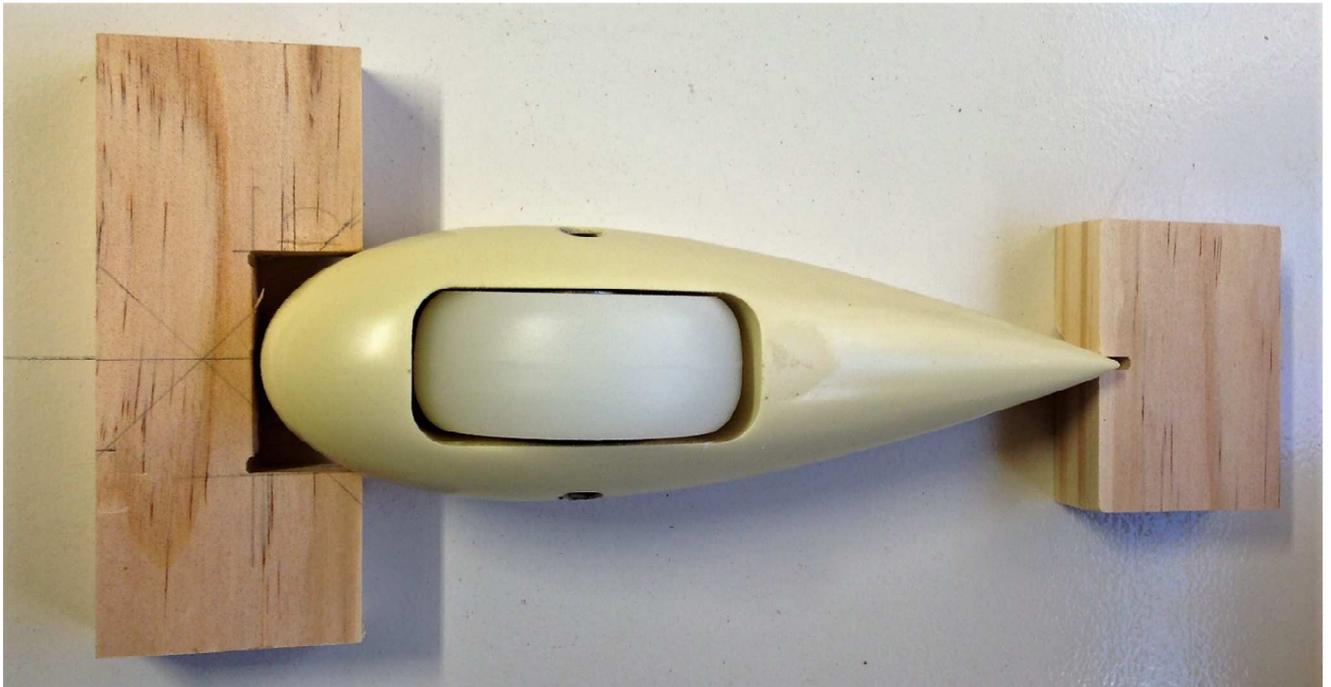
5. Mark the housing center

On the front of the wheel housing, place a centreline mark extending about 5mm up the housing. This will provide a visual guide when positioning on the wing.

6. Fix the Guides

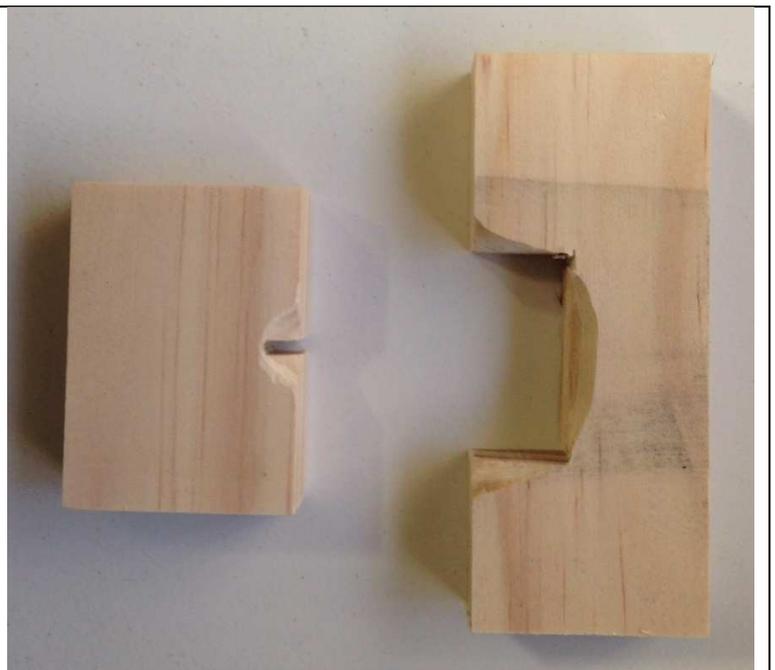
Position the wheel housing on the wing and use double-sided tape to fix the locating guides to the wing.

Locating guides fixed into position:



Locating guides viewed from the underside:

Chamfers provide clearance for the Sikaflex.



7. Apply Sikaflex

Wear “rubber gloves” and degrease the bonding surfaces with “Sepatone wax and grease remover” (or similar). Squeeze the Marine Sikaflex (white) onto the wheel housing, providing sufficient to ensure that it squeezes out all round when the housing is pressed onto the wing. Also apply some in the middle of the front area and rear area. White spirits can be used to clean off any mess.

8. Fix to the wing

Slowly lower the housing onto the wing using the guides to provide accurate placement.

Squeeze down until the Sikaflex is squeezed out all around. Remove the leading and trailing edge guides, being careful not to move the housing.



9. Cure the Sikaflex

Leave to cure for about 12 hours.

10. Trim excess Sikaflex

Trim the excess Sikaflex by carefully cutting around the housing and then against the wing as the Sikaflex is peeled off.

Residue can be mechanically removed with a plastic chisel or fingernail.

White Spirits and a rag can be used to finish off.

