

# Product Welding Procedure

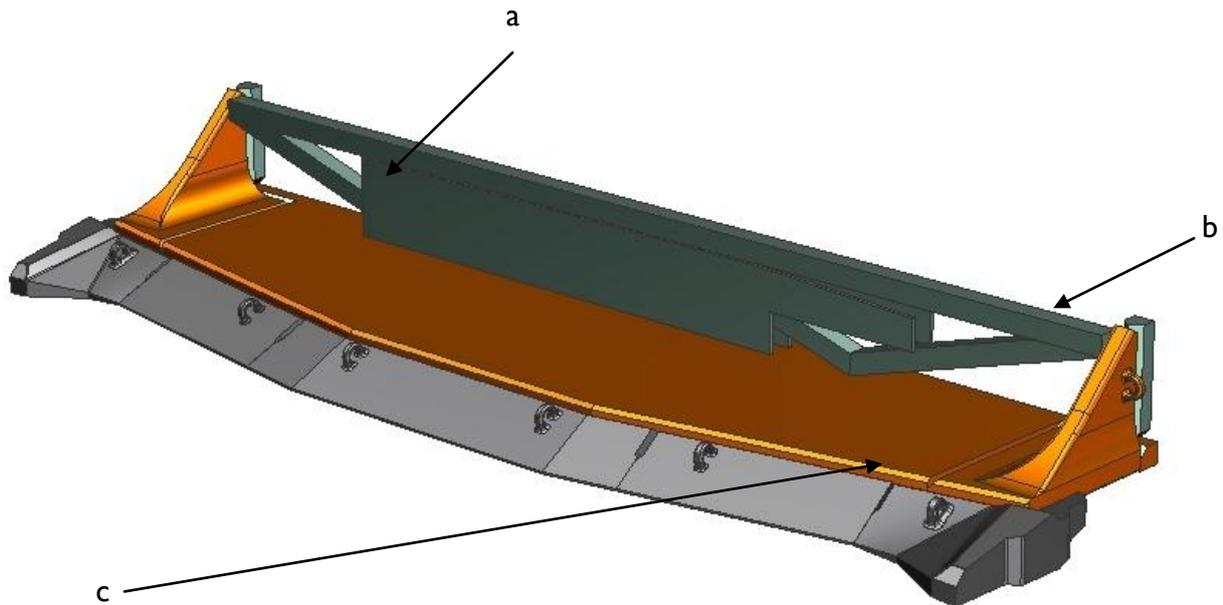
<b>Title:</b>	Assembly Procedure for Pre Fabricated Lip.		
<b>Applicable Parts:</b>	Lip gauges, bucket, lip		
<b>Prepared By:</b>	Justyna Czekaj	<b>Revised By:</b>	Justyna Czekaj
<b>Date:</b>	17 April, 2012	<b>Date:</b>	30 January, 2013

The purpose of this procedure is to demonstrate the correct procedure for Fabricating Lips into designated Bucket. Please follow the procedure step by step to ensure correct lip angle required for operation is adhered too.

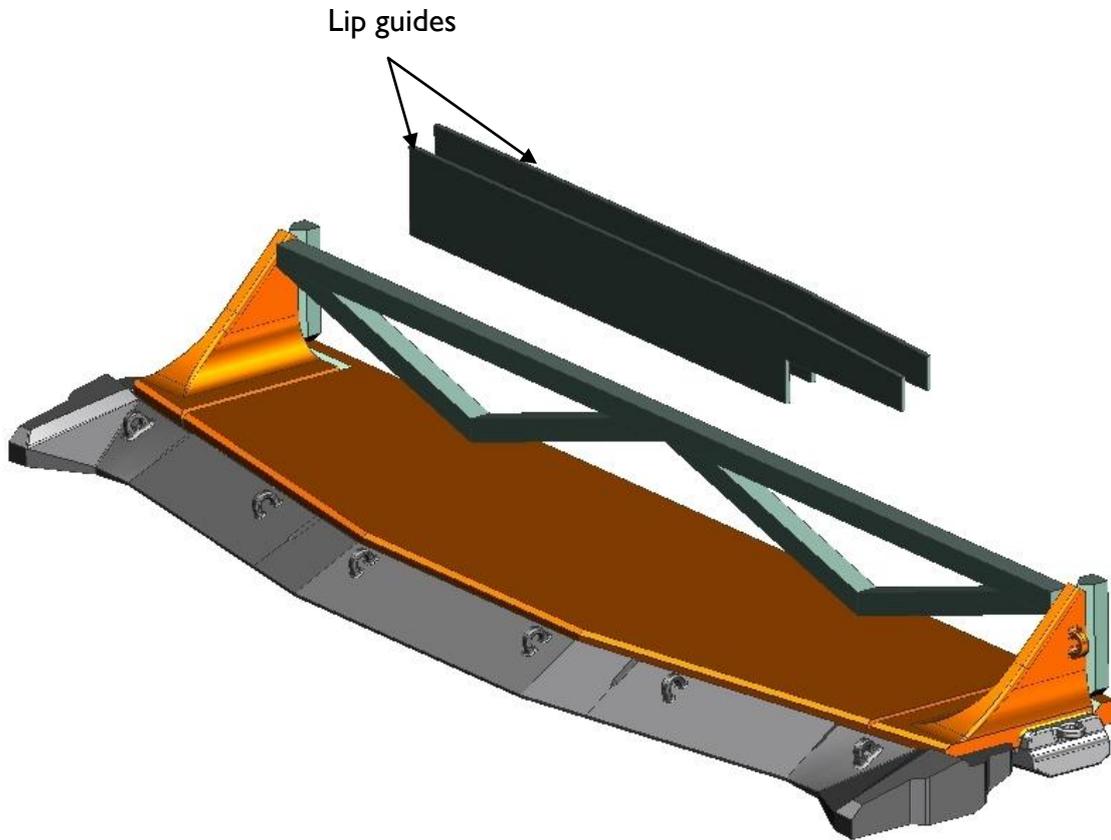
**Required documentation:**

- PWP0001
- PWP0011

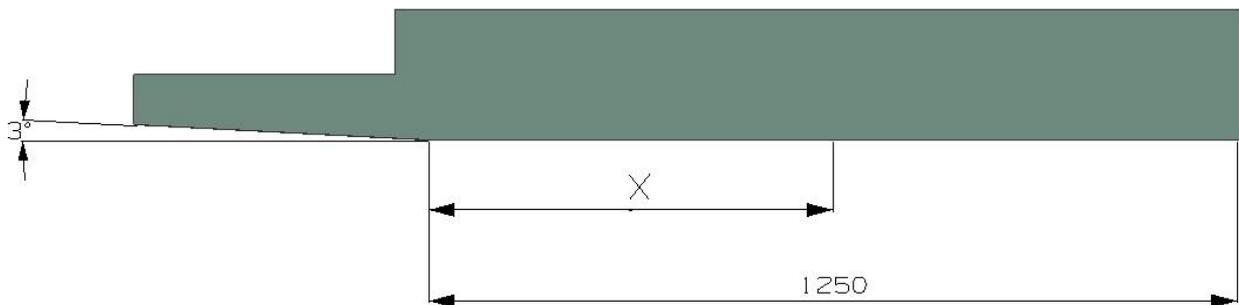
1. Parts include on transported lip
  - a. Lip guide 3° (welded to front &back of strong back)
  - b. Strong back
  - c. Lip



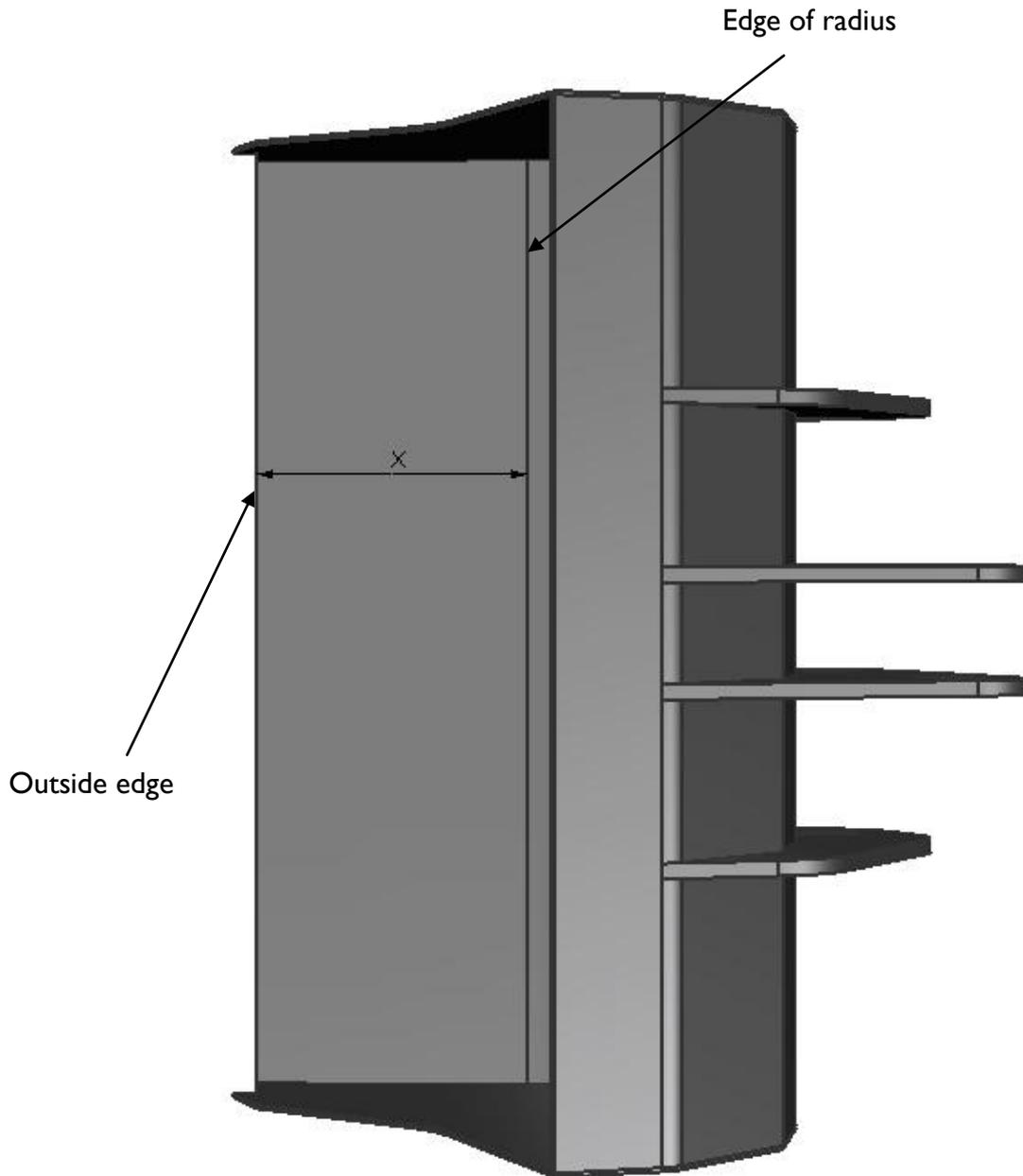
2. Lip guides should be removed from the strong back by carefully grinding tack welds. Please make sure the strong back stays on the lip until the welding of the lip into the bucket is completed. *(Point 10)*



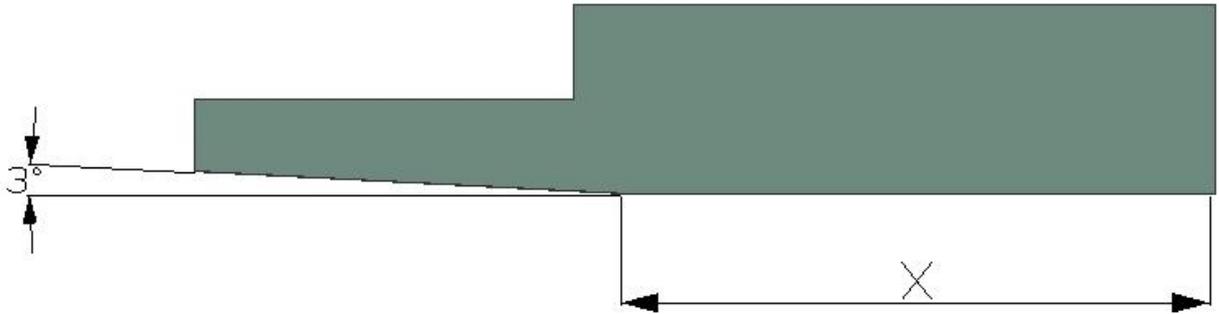
3. The lip guide is shown in the picture below. Before welding guides onto lip, please ensure the guides fit the bucket. Please follow *(Points 4. & 5.)* on how this is completed.  
*(X dimension is from 3° transition to measured distance shown in point 4).*



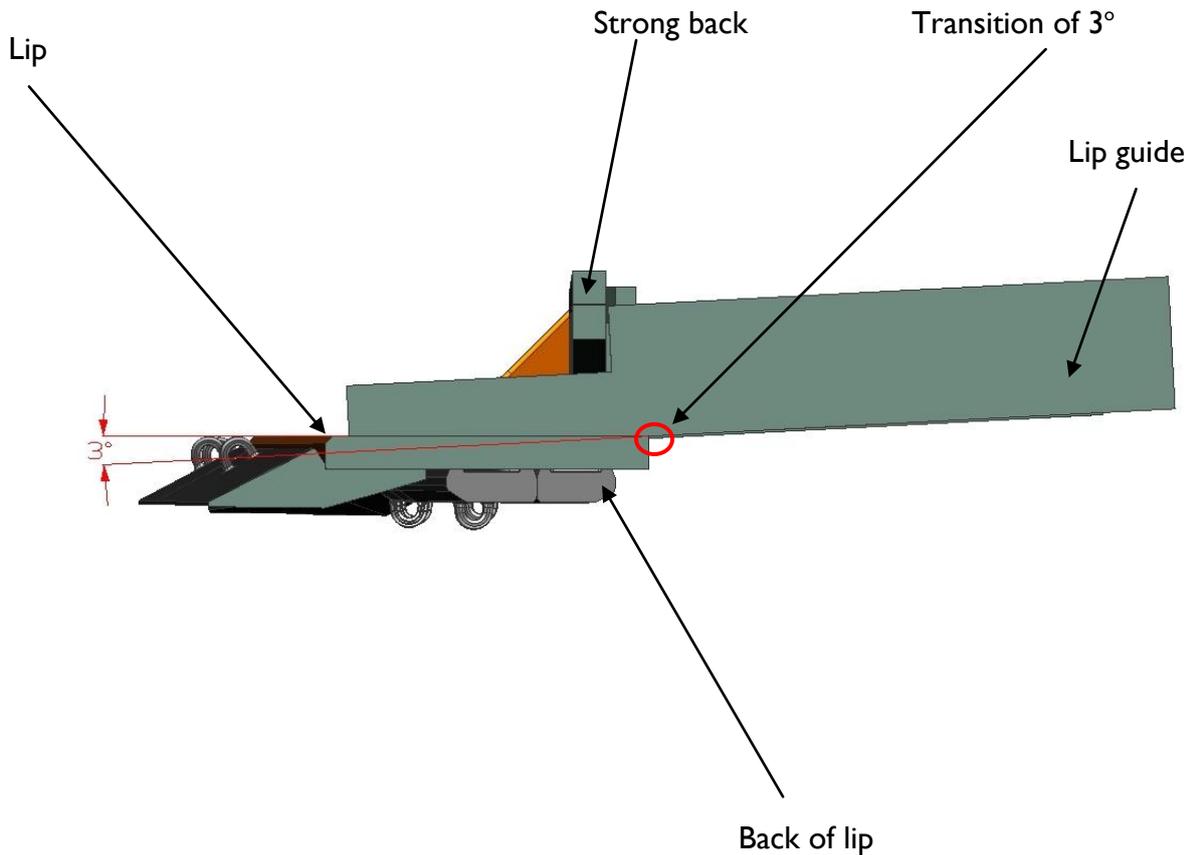
4. The fabricator should measure the outside edge of bucket to the inside radius edge as shown in the picture below (*X distance*).



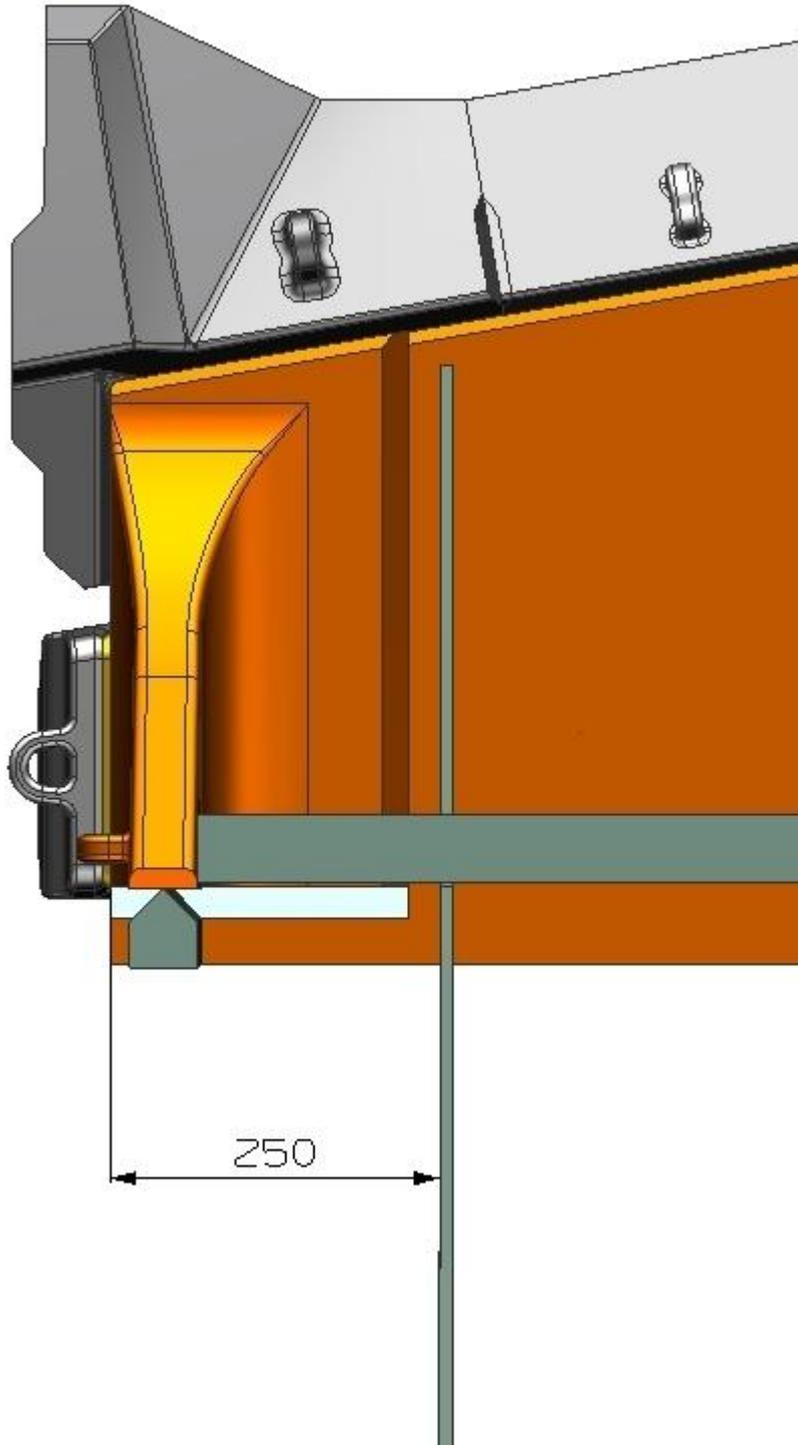
5. Cut the guides accordingly, (X) distance which was measured on the bucket in (Point 4).



6. Once lip guides have been cut (Point 4&5). Weld lip guides onto the lip. Ensure the 3° transition is flush with the back edge of the lip as shown.



7. The guides sit 250mm from outside of lip to guide, as shown in picture.



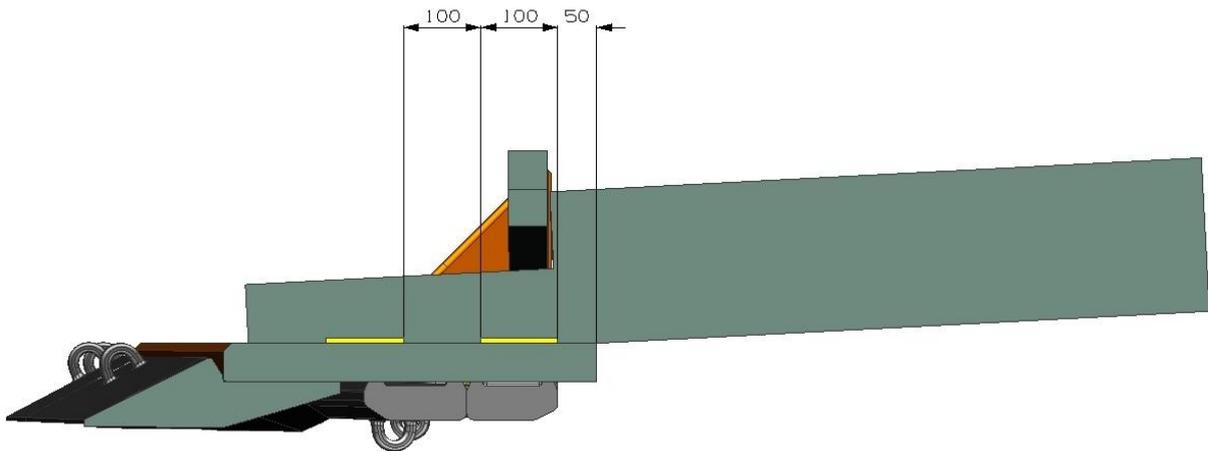
8. Tack weld & stitch guides into place on the lip, make sure the distance between first stitch weld and back of lip is 50mm. Ensure stitches are offset to the opposite side of guides as shown in 8(b) picture. Make sure bucket and lip are weld prep.

**Preheat the lip and casting before tack welding to 150°C-250°C.**

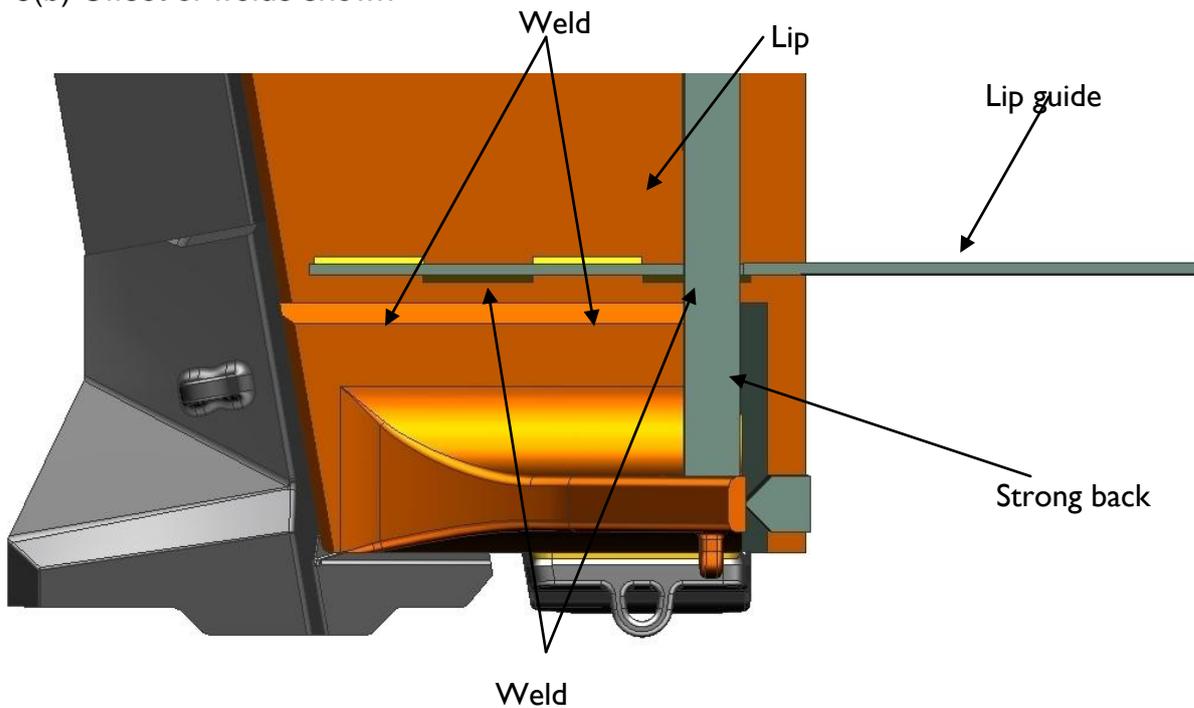
**Heat should be applied to the Half Arrow segments from underneath the lip.**

**Ensure to preheat to 150°C (302°F) measured at least 75mm (3") either side of the weld joint or the area being welded.**

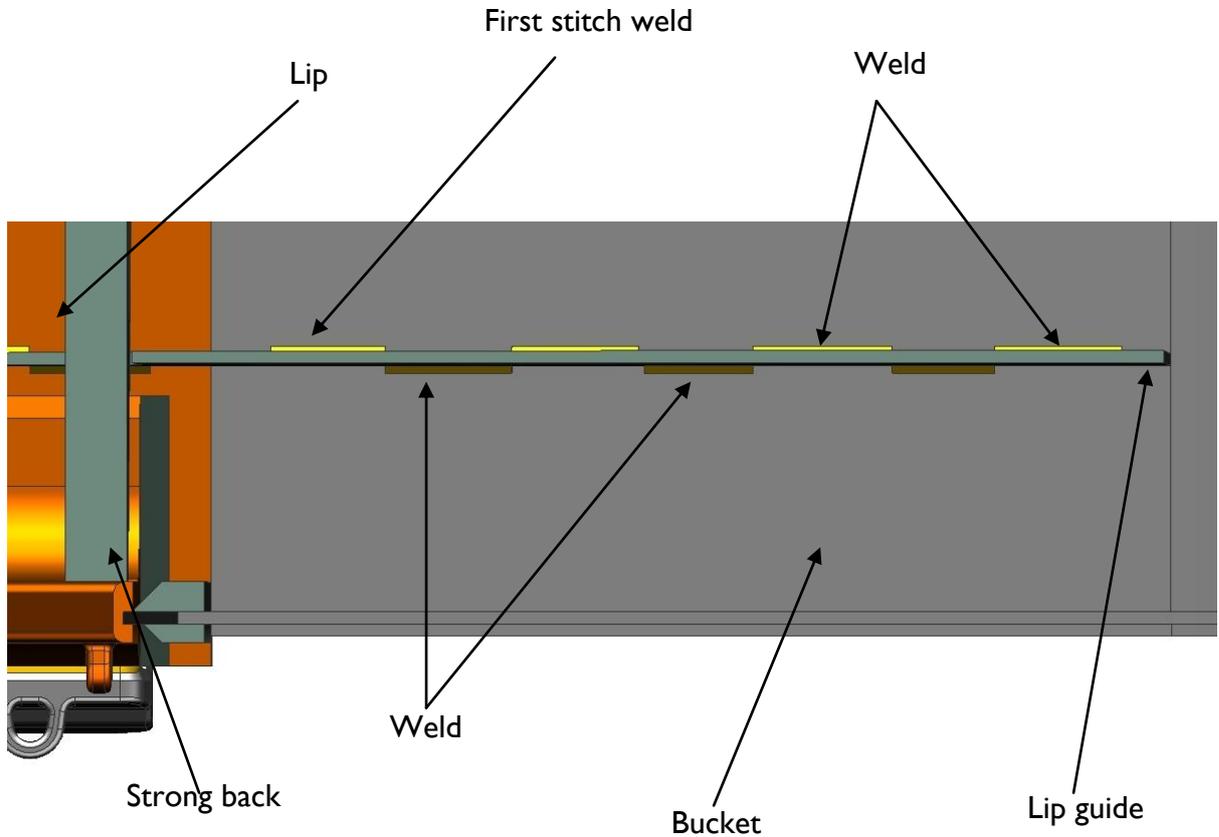
8(a)



8(b) Offset of welds shown

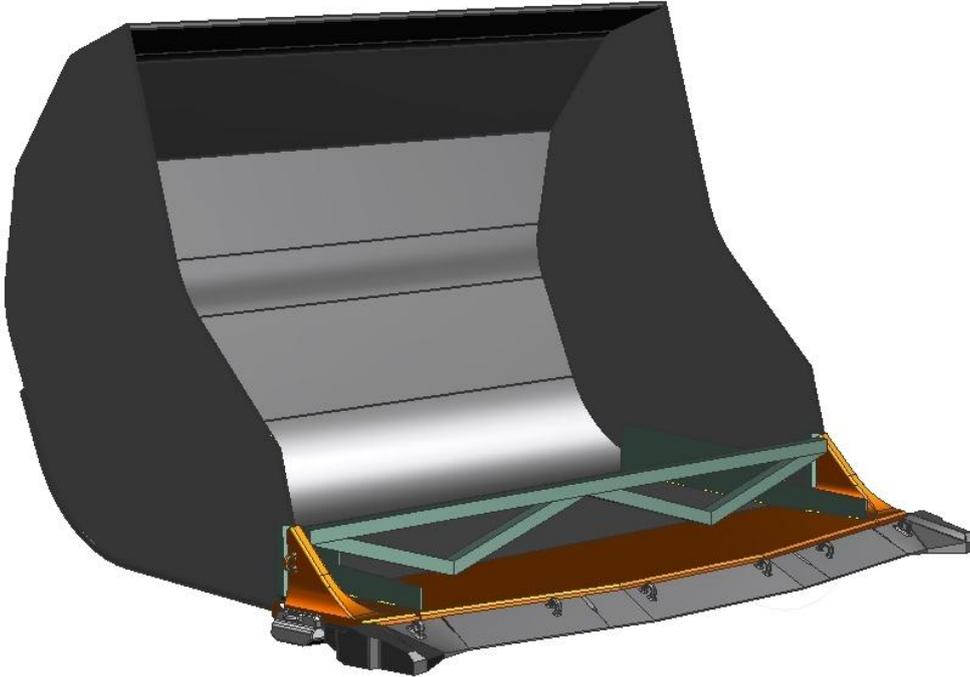


9. Once guides have been fitted in place, tack & stitch lip guides on the bucket as shown on the picture below, make sure the distance between first stitch weld and start of the bucket is 50mm.



10. As discussed in point 3 the strong back and guides should stay on the bucket during welding of root run picture 10(a). Once bucket and lip is welded correctly, only then should the guides & strong back be taken off the assembly. Please follow welding procedure PWP0001 for welding requirements.

10(a) Before welding lip into bucket.



10(b) After welding lip into bucket remove strong back and guides.

