

Fig 3

Diagram showing correct weld preparation for TIG welding two cast copper alloy sections. Each sections edges are ground to a 30° bevel to create a 60° included weld prep when united. Registration marks are aligned (a) and the sections tacked together before being fully welded. If the cast has been severely distorted, a section may have to be cut along it's length to allow movement (b). This allows the cast to be realigned correctly, and the temporary relief cut is made good with weld.

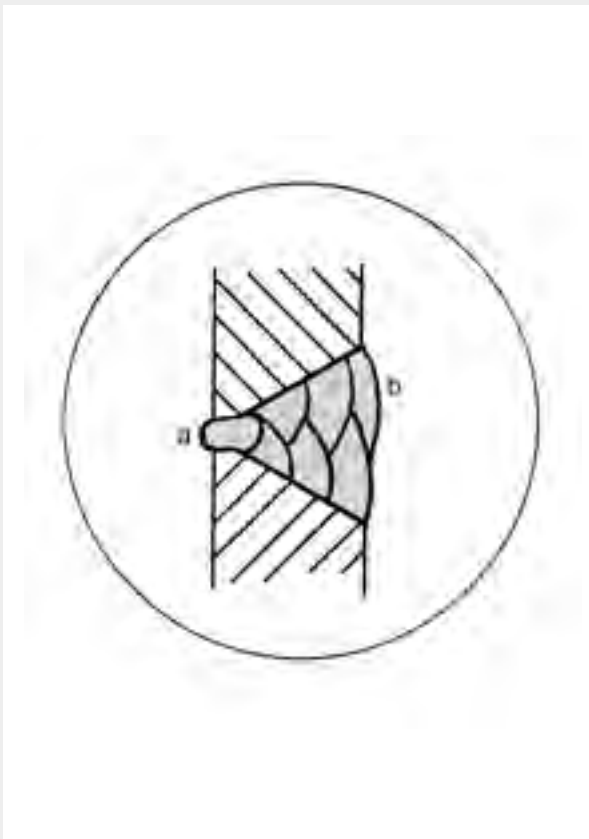


Fig 4

Detail of a built up 60° butt weld joint. The back of the joint (left side) is known as the root face, this portion of the cast's edge is left un-bevelled to create a 'Y' shaped preparation. A root weld pass is deposited along the length of the root face, this pushes through to the back of the joint to create a full penetration 'underbead'. The remainder of the weld preparation is then filled with additional runs up to a capping run (b). It is important for welds in art casts to be substantial because the capping run is normally ground back during chasing.