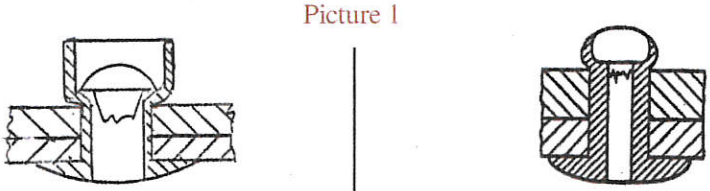
Blind rivet failures can be caused by many reasons that can cause delay in production schedules. These blind rivet failures can be avoided by the proper blind rivet set-up conditions and operator training. Below are the blind rivet failures and solutions.

Blind Rivet Failures & Solutions

by Anthony Di Maio

1. RIVET BODY LENGTH IS TOO LONG

Picture 1



TOO LONG | CORRECT LENGTH

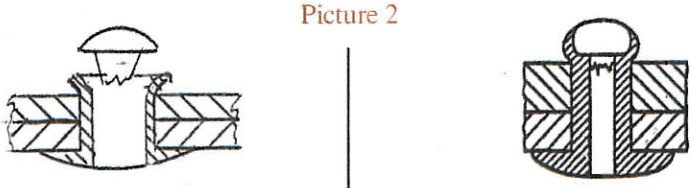
Blind rivet manufacturers list the minimum and maximum work thickness range that the blind rivet is to be used.

The drawing (picture 1) illustrates the failure of the set blind rivet when the length of the rivet body is too long for the work thickness. Example:- using a size 48 blind rivet that has a minimum work thickness of .376 (9.5mm) to a maximum work thickness of .500 (12.7mm) and use this blind rivet in a work thickness of .187 (4.7mm). In the .187 (4.7mm) work thickness the mandrel head is not trapped in the upset side of the rivet body and the mandrel head can become loose and fall out of the set rivet body. You also will not achieve a high clamp load fastening the work pieces together. Note the correct blind rivet length the mandrel head is locked in the upset side of the set blind rivet and the rivet body has compressed and fastened the work pieces together. The "correct length" drawing shows what a properly set blind rivet should look like.

Solution: Always use the work thickness listed by the blind rivet manufacturer.

2. RIVET BODY LENGTH IS TOO SHORT

Picture 2



TOO SHORT | CORRECT LENGTH

The drawing (picture 2) illustrates the failure of the set blind rivet when the rivet body is too short for the work thickness. Example:- Using a blind rivet that has a maximum work thickness of .500 (12.7mm) and you use this blind rivet in a work thickness of .562 (14.2 mm). There is not enough rivet body to lock the mandrel head and also not enough rivet body to clamp and fasten the work pieces together. This is a blind rivet failure.

Solution: Use the blind rivet with the work thickness listed by the manufacturer.