

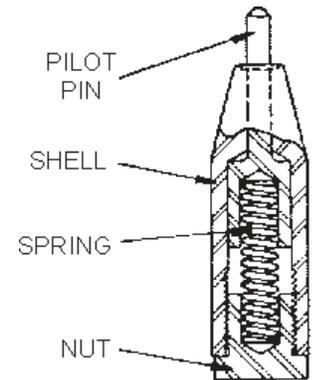
## Spring Pilot Anvil Instructions

The Stephens Rivet Spring Pilot Anvil is a precision tool designed to curl semi-tubular rivets. Each anvil is manufactured to extremely close tolerances and is carefully adjusted and checked before shipping.

The following information will help you understand the importance of proper anvil adjustment and the problems caused by worn or damaged anvils.

### PILOT PIN HEIGHT

The pilot pin height setting is a critical factor affecting the quality of the rivet curl. As part of the manufacturing process each new anvil is adjusted with precision optical measuring equipment. When the pilot pin is held in the full down position under an amount of pressure which simulates operating conditions, the distance between the edge of the pilot pin and the cup (dimension "B" in the diagram) must be as shown on the table at right.



### INCORRECTLY SET OR WORN PILOT PIN

An incorrect pilot pin height adjustment or a worn or damaged pilot pin will result in a poor riveting job. The diagrams illustrate possible results. Note that for best results the edge of the anvil pin must be sharp. Do not grind or round this edge. Pin life is definitely affected by the way in which the anvil is treated. Although it is impossible to protect the pilot pin from every form of abuse, try to avoid the following conditions —

- Rough handling of parts to be riveted while they are on the pilot pin.
- Continuous dragging of parts across the top of the pilot pin.
- Using the pin to forcibly align holes in parts which do not quite line up naturally.
- Hanging unbalanced parts on the anvil pin prior to riveting.

**NOTE:** Anvil wear is accelerated in an abrasive environment. Parts to be riveted should be as free of abrasive dust particles as possible.

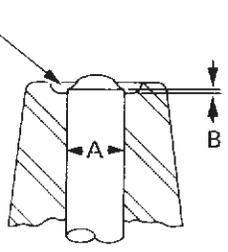
**PIN SET CORRECTLY**

Head is tight against work

Full and even curl

Edge of pin must be sharp. Do not grind or disturb

A	B
1/16	.002/.003
3/32	.002/.004
1/8	.003/.006
9/64	.004/.007
5/32	.004/.008
3/16	.005/.010
1/4	.005/.010



### REPAIRING WORN ANVILS

It is possible to repair and renew your used anvils if they are not too badly worn or damaged. Stephens Rivet's anvil repair service can return your repairable anvils to like new condition.

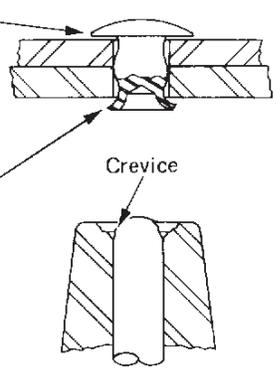
Because of the critical nature of the fit between the pin and the barrel and the difficulty of accurately setting the anvil pin height, we strongly recommend that you return your worn anvils to Stephens Rivet for repair rather than attempting to do it yourself.

**NOTE:** Certain special applications require anvils which vary from the type described in these instructions.

**PIN SET TOO LOW OR WORN PIN**

Rivet head will not pull down against work

Burr is formed by crevice in anvil, by setting pin too low, or by a worn pin and cup, resulting in an incomplete curl. Foreign matter will be forced in crevice and cause pin to lodge in barrel.



**PIN SET TOO HIGH**

Curl will be flattened and extend beyond anvil cup

Too much distance between edge of pin and cup

