

## ABSTRACT

A headed multi-lobed blank, method of manufacturing a self-tapping screw from the blank, and resulting multi-lobed self-tapping screw for joining thin workpieces provides desirable thread-forming characteristics at the conical tip and body portions, and improved resistance to vibrational loosening near the head. The resulting screw, obtained from the blank and method, incorporates a threaded tapered root portion between the screw head and body portion having a cross section that varies from nearly circular in the area adjacent to the underside of the head to a maximum out-of-round (or lobular) cross section at the intersection of the tapered root portion and the screw body. This shape, to combine with a thread profile outer diameter that remains largely constant from the body portion through the tapered root portion, and a multiple coil (lead thread) shape, ensure more secure holding of the screw in a thin anchor material – with the anchor material extruded axially forward and backward around the root portion.

Selected Drawing: Fig. 9