I just replaced my battery box on my GT6 restoration project. Triumph originally attached the box using spot welds and thought I would pass on how I duplicated them.

Being an aviation mechanic, I’m aware of a few special tools that really help. Within the industry they are called Cleco fasteners. I have seen them in the Eastwood catalog (www.eastwoodco.com, Item-no 19075). What they do is hold the two pieces of sheetmetal together and in place while a permanent fastener is installed.

STEP 1

The way they work, you drill a small hole, 1/8 inch, through both pieces. The Cleco extends through the two pieces and when released by the pliers (Eastwood Item-no 19074) the Cleco fastener pulls the material tight. After fitting the two pieces disassemble the parts and go to Step 2.

STEP 2

Mark a few locations on the top piece of metal about one to 1-1/2 inches apart and drill another hole (only through the top metal) about 3/16 of an inch in diameter. These 3/16 inch holes will be your spot welds. Take the MIG wire and place it in the center of the 3/16 inch hole contacting the bottom piece of metal, ensuring that the wire does not touch the top piece. I found it helpful to brace the hand operating the MIG torch. Pull the trigger and watch the 3/16 inch hole fill with the molten metal. When the hole is filled, stop welding. Check the back of the bottom metal to ensure good penetration. When you remove the Cleco fasteners there will be the 1/8 inch hole left.

STEP 3

Use the same method to fill the small holes by sticking the MIG wire through the hole touching the metal on the bottom of the repair and pull the trigger, watch the hole fill with molten metal. Don’t worry about any extra fill metal, it can be ground off.

I only use .025 wire and never flux core. For the flux core to work properly it has to get hotter and is more likely to burn through. Also when welding thin metal, only weld in small short welds.

I try to keep my welds to one inch or less and piece them together. Using flux core wire leaves a deposit on the weld that must be removed, MIG welding does not leave any deposits.

If I am welding in a floor or any large panel, I try to weld like applying torque, a little here then I move over and weld a little over there and work my way around the panel from four or more tack welds. It allows the work area to cool to prevent burn through and will prevent the panel from warping to the point that it will not fit properly.