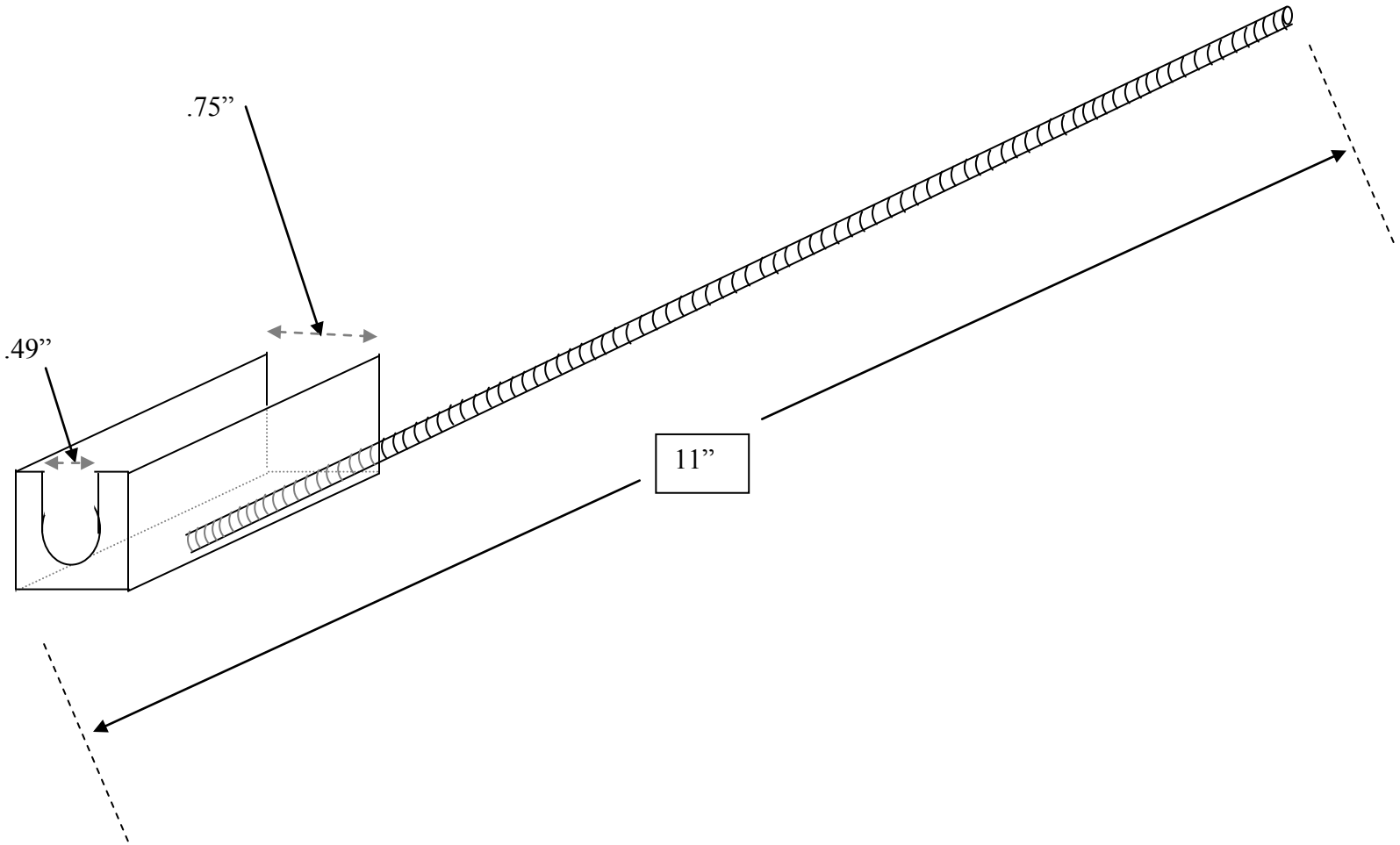
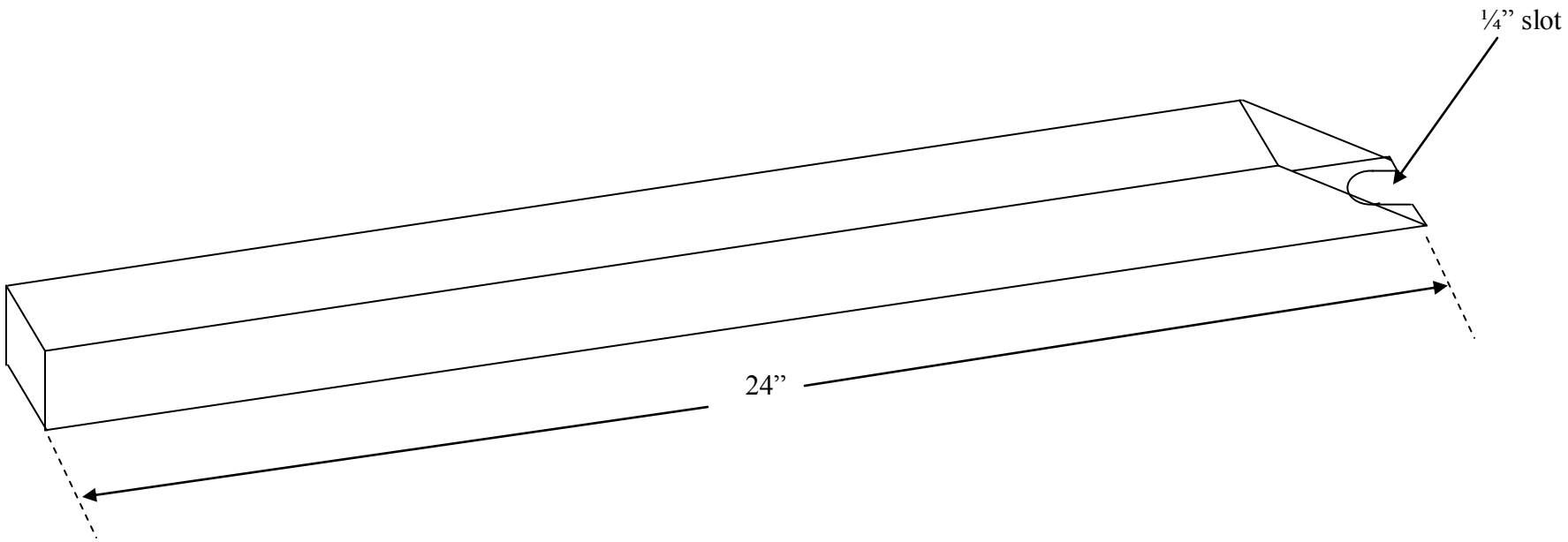
Nose Gear Air Strut Compression Tool



Lever Bar



Materials
1. 3" or 4" of Square Steel Channel. 1" outside dimensions and 3/4" inside dimensions.
2. One piece of mild steel,1/8" thick by 1"x1".
3. About 8" of 1/4" all thread plus one quarter inch nut.
4. Lever arm about 24" long. It could be sq. steel or Al tubing or pipe but should have a flat surface where it will press against the nose gear trunion.
5. A 1" square piece of adhesive backed foam cushion.

Fabrication
1. Weld the scrap of mild steel onto one end of the channel and slot it to the open side of the channel to slightly under 1/2" diameter. This structure becomes the cage.
2. Weld the all thread on the underside of the channel to the outside surface so it is aligned with and centered on the long axis of the cage. The free end of the all thread should make the device about the same length as the strut.
3. Slot one end of the lever arm to 1/4 inch so that it will slip over the all thread. If you also cut this end of the lever to 45 degrees, (applies to sq. tubing) you'll have good visibility when you are setting up the tool onto the nose gear.
4. Apply the piece of foam cushion to the back side of the lever just beyond the slot you made so that you will not mar the paint of the nose gear trunion.

Implementation
1. Put the nut onto the end of the all thread
2. Install the strut at its upper forward end in the normal orientation.
3. Trial fit the device on the air strut and adjust the nut so that it rests even with the end of the strut.
4. Slip the cage over the lower end of the strut from the bottom with the ball stud attachment protruding out the end of the cage through the slot. The all thread end should be extending an inch at most forward of the nose gear trunion and should emerge directly over the top of the trunion. Adjust the nut again so that it is either slightly aft of the forward face of the trunion or even with it.
5. Slide the slot in the lever arm behind the nut and use your right hand to compress the strut while your left hand guides the other end onto the ball stud. Insert the wire retainer clip provided with the air strut and remove the air strut tool.   Job complete.