



# SAFETY WIRE INSTALLATION

## Procedure:

The upper diagram on the right shows the correct way to install safety wire. It is wrapped in such a way that attempting to loosen one bolt would result in trying to tighten the other bolt. Following are step-by-step instructions.

- Using standard (0.032 inch diameter) stainless steel safety wire, begin by sliding the wire through two of the holes that are 180° apart (see upper diagram). The twists should be six per inch minimum, with a maximum of 12 twists per inch. Also, only safety wire bolts in pairs as shown in the bottom diagram. **Do not** string along.

- Note:** Safety wire (also known as lock wire) is used to prevent a fastening device from coming loose. **It is not a substitute for a secure fastener.**

- Safety wire must always tend to tighten the bolt. For a bolt or screw that is tightened by turning it in a clockwise direction, the installed safety wire must tend to pull in a clockwise direction. Select the bolt head holes that would best produce this tightening effect.

- Safety wire must be tight when installed.

- Safety wire must be the proper size.

- Safety wire must **never** be over stressed. Care must be taken when twisting safety wire together or pulling it tight, not to tighten it so much that it will break under even a light load. Making sharp bends or kinks in the wire must be avoided because they produce stress points in the wire and could cause it to break.

- Always** use safety wire pliers to twist the safety wire.

- Safety wire ends must be secured. When installation is complete, the remaining ends are twisted together to form a pigtail (see upper diagram). It is standard procedure to wrap the pigtail around the part being safety wired and tucked down out of the way.

- Torque values must never be changed to obtain an ideal safety wire position!

- Never reuse safety wire.** If you make a mistake, throw that piece away and try again. Safety wire is cheap.

