Clark-Reliance Mica-Protected Flat Glass Gages

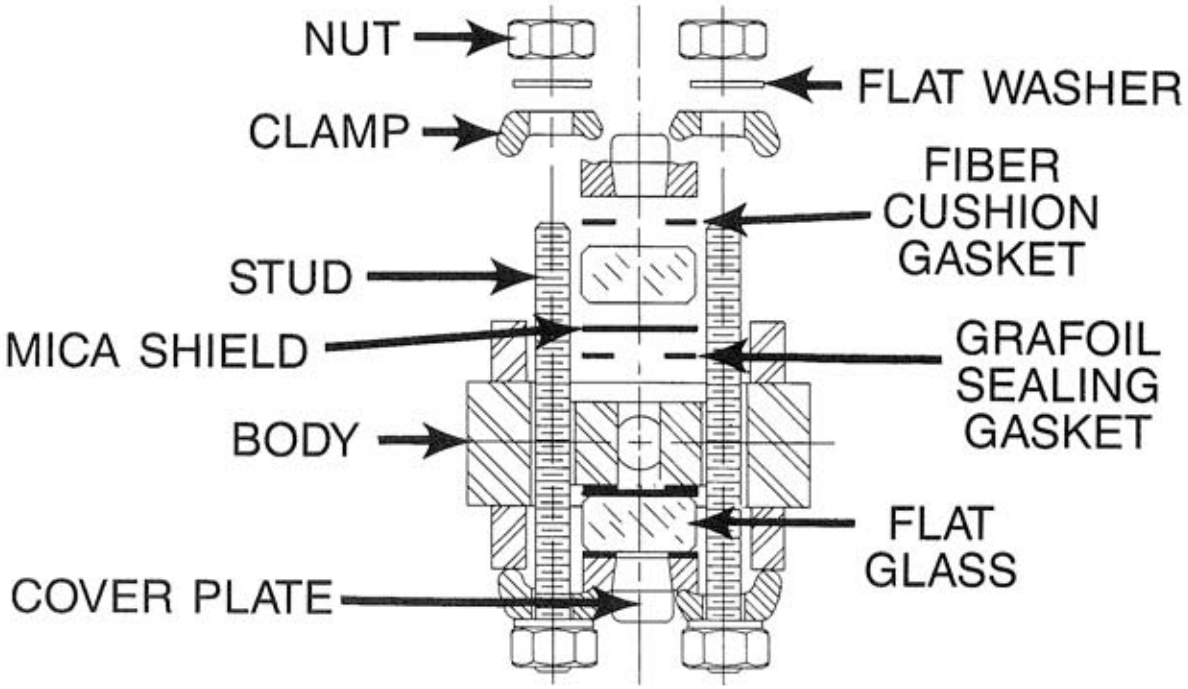

Figure 26
FG Type Flat Glass Gage

After the gage is placed in service and becomes thoroughly heated, expansion of metal parts causes bolting pressure to ease somewhat. Close water gage valves and go over nuts and tighten them to correct torque value. For cleaning and/or replacing the flat glasses and mica protectors, remove gage from gage valves and follow this procedure:

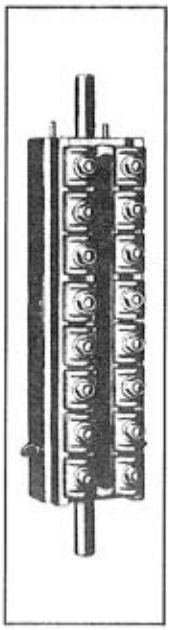

Figure 27

1. The gasket seat surface should be thoroughly cleaned after old glass, mica and gaskets have been removed. Surface should be smooth and free from scratches. Any irregularities in the surface can cause the glass to shatter as clamps are being tightened.

2. Note that the end studs are threaded into the body of the gage for the purpose of holding the glass, mica protector, gaskets and cover plate during assembly. All other studs are free in the body.

3. Place centrally on one side of the gage body; the gasket, mica protector, glass, cushion gasket and cover plate. Now place clamps, washers and nuts on comer studs and pull up lightly.

4. Turn gage over and repeat procedure on the other side.

5. Now install the balance of the studs, clamps, washers and nuts, nuts to be turned down finger tight. Then starting from the center pair of nuts, using a wrench on each end of stud (torque wrench preferred as one wrench) tighten in alternate pairs toward either end. Each nut should be tightened only about 1/3rd torque value at a time. Go over the nuts enough times to draw them all up to as follows:

Series 900 – 45 Foot Lbs. (61 Newton-Meters) of Torque
Series 1500 – 70 Foot Lbs. (95 Newton-Meters) of Torque

6. Mount the gage in the water gage valves in the usual way. Bring up to operating temperature slowly by opening blow down valve and cracking steam connection valve slightly, injecting a small amount of steam to heat the gage. Close steam valve and torque nuts to correct value. Close blow down valve and open steam and water valves.

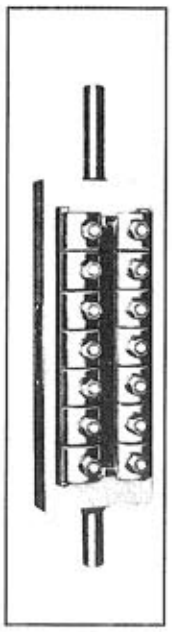

Figure 28