
FastLUBE Technical Bulletin

- Subject:** Pipe & Tube Swaging/Upsetting
- Bulletin #:** #01-01
- Lesson Learned:** Use of specialized anti-gall lubricant can substantially reduce friction that causes galling during the swaging/upsetting process. This is true with all materials and especially stainless steel.
- Application:** Specialized anti-gall lubricant can be applied where there is galling or seizing of the mandrel in the tube during the upsetting process.
- Project:** A major pipe and tube swaging/upsetting facility in Houston, Texas
- Experience:** Utilized FastLUBE AG Swaging Compound to keep the mandrel from seizing in the tube during the swaging/upsetting process.
- Details:** During the upsetting process the mandrel has a tendency to gall. This causes it to seize in the tube making it difficult and sometimes impossible to remove. The project experimented with most of the standard lubricants (i.e. Die Plate, Slip Plate #3, MP50, anti-seize) with low success. Fastorq A/G was used to swage 7-5/8" 13 chrome casing with a wall thickness of .812 with a titanium nitrate coated mandrel.
- Prior to each swaging operation the FastLUBE AG Swaging Compound was applied at approximately 1/16" thickness to inside of tube (approximately 12" deep) and to the entire surface of the mandrel. Full coverage was critical for proper operation. After several tests it was determined that the swaging process worked best in two steps. Step 1 swaged the tube approximately 1/2 of the required depth, mandrel was removed from tube, mandrel and tube were re-lubricated and the 2nd swaging process swaged tube to full depth. Galling and seizing were reduced to zero.
- Costs & Benefits:** FastLUBE AG Swaging Compound will reduce rework and equipment failure associated with the mandrel seizing in the tube.
- Implementation:** FastLUBE AG Swaging Compound should be specified on the shop work order as the lubricating compound to be used. This will eliminate the need to rely on the equipment operator to identify the need.

