

Date: 04/23/03

Subject: Follow up on Maintenance procedures for Rotary Actuators.

Unit/Part Affected: Rotary Actuators CM4400 and CM44100.

Purpose: Following the issue of a 'Major or High Potential Loss Announcement' from a Canadian mine, Cubex would like to issue the following Safety Advisory concerning proper maintenance and operational procedures for the rotary actuator and feed assembly used on underground Megamatic drills.

Brief Description of Incident: The mast of a 6200 ITH drill was being used to raise the front of a drill in order to place timber blocking under it. While the drill was being lowered onto the blocking, the entire mast assembly came away from the rotary actuator.

Cubex recommends the following procedures for maintaining the rotary actuator bolts:

NOTE: *All of the following torque values are for dry threads.*

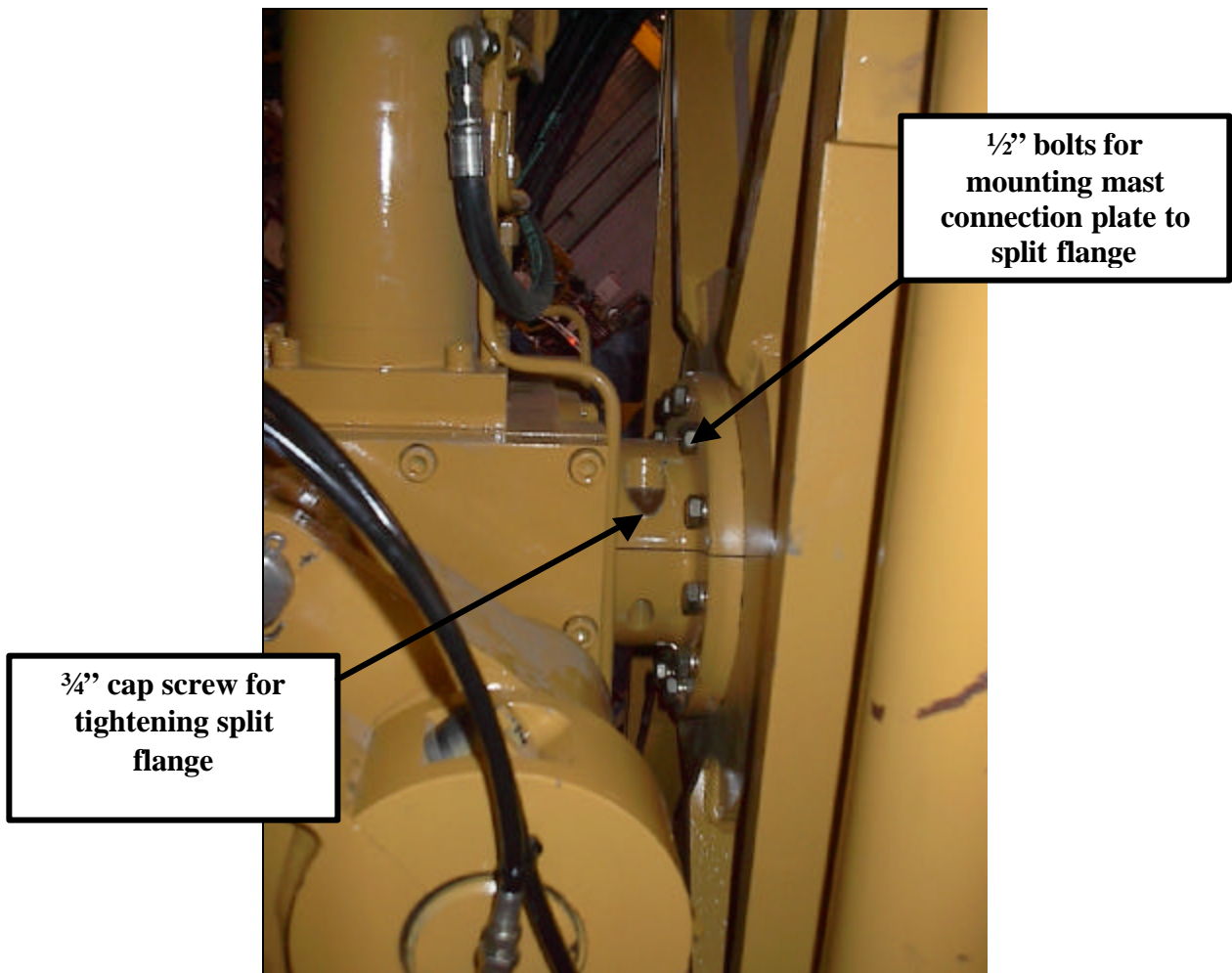
- The 1" flange retaining cap screw Part Number CM44028 should be checked for tightness at 250 hrs. At 1000hrs the capscrew should be inspected and re-torqued to specifications (910 ft-lbs or 1230 n-m of dry torque). This can be done through the inspection hole provided in the mast connection plate. **See Figure A.** When re-installing the capscrew use Loctite 243 on threads.

Figure A



- The $\frac{3}{4}$ -16 UNF cap screw for tightening the split flange should be checked for tightness at 250 hrs. At 1000hrs the capscrew should be inspected and re-torqued to specifications (420 ft-lbs or 570 n-m of dry torque). When re-installing the capscrew use Loctite 243 on threads. **See Figure B**
- The eight $\frac{1}{2}$ -13 UNC grade 8 bolts that hold the rotary actuator mounting flange to the mast connection plate should be checked for tightness at 250 hrs. At 1000hrs the bolts should be inspected and re-torqued to specifications (105 ft-lbs or 142 n-m of dry torque). When re-installing bolts use Loctite 243 on threads. **See Figure B**

Figure B



- Inspect the split flange every 250hrs for excessive play and uneven wear.
- Cubex does not recommend using the mast/feed to lift the front of the drill, as damage and failure of the rotary actuator could occur.