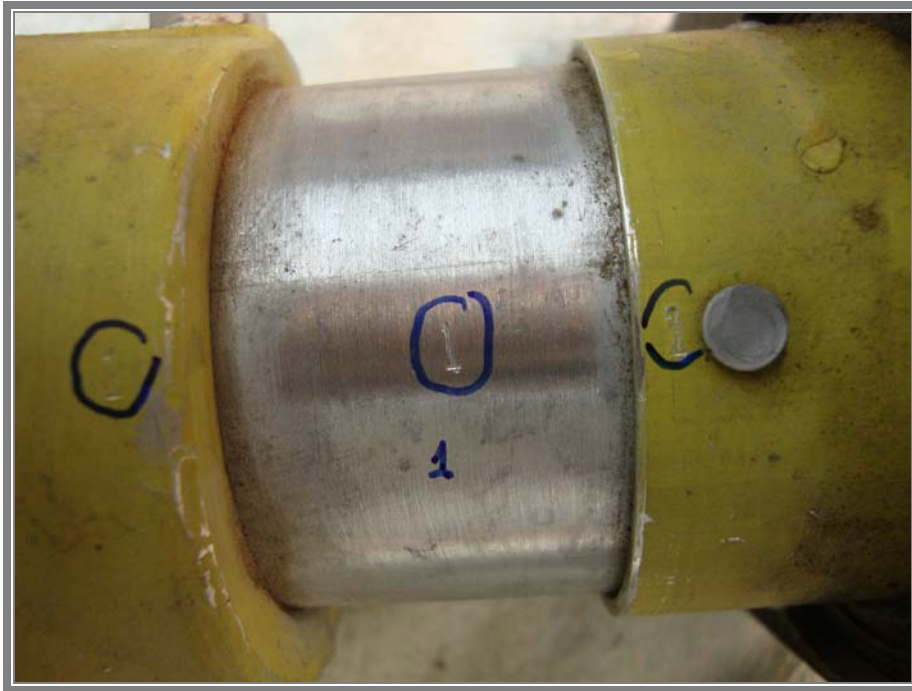


# COMANCHE GEAR



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**MARK COMPONENTS BEFORE DISASSEMBLY; USE CR3213-5-5 RIVETS TO REINSTALL THE COLLAR.**



**NOTE ORIENTATION OF THE BEARING BLOCKS; THIS HOLE IS FOR THE TRIM.**

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MEASURE THE LIMIT STOP SETTINGS BEFORE DISASSEMBLY [400 SHOWN HERE]; THIS MAKES A GOOD PLACE TO START THE LIMIT ADJUSTMENT PROCEDURE. NEW STAINLESS STEEL STOP SCREWS AND LOCKNUTS ARE SUPPLIED; SEE THE PHOTOS ON THE NEXT PAGE.

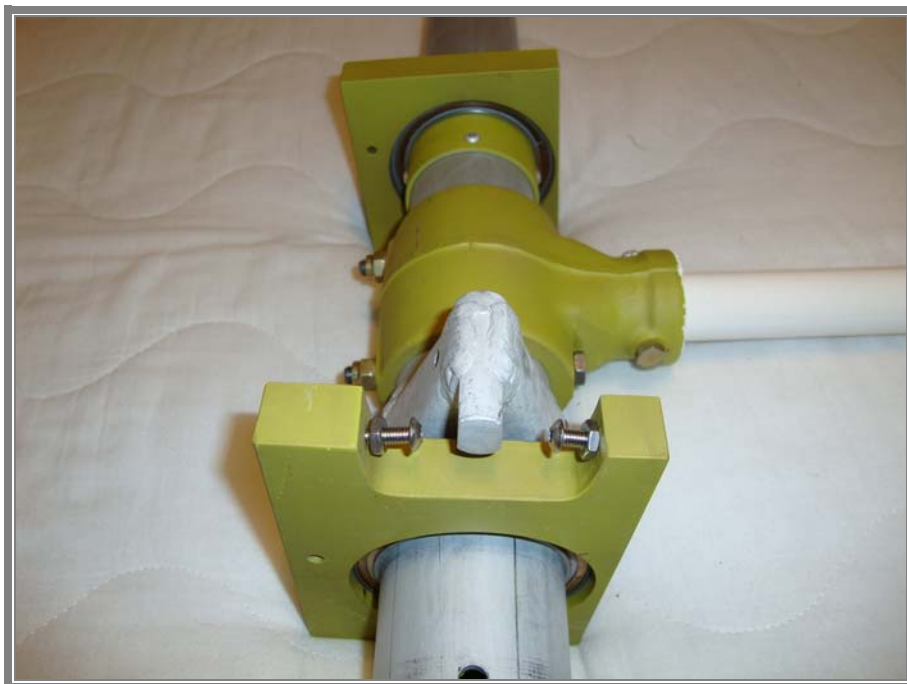
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**A "BEFORE" PHOTOGRAPH.**



**AN "AFTER" PHOTOGRAPH.**

**DO NOT PAINT THE TORQUE TUBE; DOING SO WOULD MAKE SUBSEQUENT DISASSEMBLY DIFFICULT SHOULD THAT BE REQUIRED PER AD OR OTHER.**

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PIPER SERVICE BULLETIN NUMBER 1160 SPECIFIES TWO CORROSION INHIBITOR PRODUCTS FOR "ALL OTHER REWORKED ITEMS", WHATEVER THAT MEANS. IT DOES NOT SPECIFY A PRODUCT FOR THE TORQUE TUBE OTHER THAN "2 SWAB COATS OF EPOXY PRIMER" TO THE INTERIOR. AFTER THE EPOXY PRIMER I SUGGEST APPLYING ONE OF THOSE SPECIFIED OR CORROSIONX® [RED CAN FOR STEEL COMPONENTS, BLUE CAN FOR ALUMINUM] HEAVILY TO THE INSIDE OF THE TORQUE TUBE BEFORE INSTALLATION AND LIGHTLY TO THE OUTSIDE OF THE TORQUE TUBE BEFORE FURTHER ASSEMBLY [OF THE STABILATORS].

SB-1160 FURTHER STATES IN PART 2, 1; "... REPAIR PER CHAPTER 6 OF FAA DOCUMENT AC43 13-1B ...". SECTION 6 IS CORROSION REMOVAL [6-116] AND PLATING [6-164].



## CORROSIONX®

**CorrosionX** is the most useful and versatile product of its kind. As one customer stated, *"It's a complete service facility in a can."* And, it's economical. Users estimate that a single 16-oz. can of CorrosionX will outperform and outlast 8 - 10 cans of the popular household "lubricant/penetrant," making it far more economical to use. A supervisor in a maintenance facility for a major oil company called it an "inventory reducer" because they use it for so many different applications.

**STOPS AND PREVENTS CORROSION AND RUST**  
Use CorrosionX where you want corrosion control without a messy wax coating. A light spray of CorrosionX on power heads, generator sets and engines two or three times a year will keep them looking like new -- *even in saltwater conditions*.

**A MULTI-FUNCTIONAL PRODUCT**  
In addition to its corrosion fighting properties, CorrosionX is also a super lubricant and penetrant. It lubricates under heavy loads and high temperatures. Use it on sheaves, hinges, locks, cables/wire ropes, windlasses or other rotating devices. *It is ideal for fishing reels and guns.* And, CorrosionX penetrates like nothing you've ever used. Corroded or rusted nuts, bolts or fittings can usually be removed within a few minutes.

I WOULD ALSO SUGGEST FURTHER DISASSEMBLY TO CHECK FOR CRACKING OF THE HORN [FUTURE AD] AND WRITE THE LOG BOOK ENTRY IN HOPES THIS WORK, IF PERFORMED PRIOR TO THE AD, WILL GYA. I ALSO PERFORM THE UNAPPROVED PROCEDURE OF CHAMFER AND POLISH THE BORES' INTERSECTION, PLUS DYE PENETRATE OR EDDY CURRENT INSPECT, GLASS BEAD BLAST, CLEAN, ALODINE® AND EPOXY PRIME THE ALUMINUM COMPONENTS. I USE AN EXTERNAL STAMPED MARK [A CIRCLED "M"] TO INDICATE THE PROCEDURE; SEE THE PHOTOS ELSEWHERE.

THE ALUMINUM COMPONENTS OF THE TORQUE TUBE ASSEMBLY AS WELL AS THE INSIDE OF THE TORQUE TUBE HAVE BEEN PAINTED USING SHERWIN WILLIAMS® AEROSPACE COATING EPOXY PRIMER MIL-P-23377F AFTER PROPER PREPARATION AS MENTIONED ABOVE. THE EXTERIOR OF THE BALANCE TUBE AND WEIGHT HAVE BEEN LIKEWISE PAINTED USING THE MIL-P AND SHERWIN WILLIAMS® ACRY GLO® WHITE. YOU'LL NOTICE THERE IS MINIMAL PAINT FILM THICKNESS ON THE BEARING BLOCKS; AN IMPORTANT DETAIL. PAINT-FILM THICKNESS CAN BE A SOURCE OF FRETTING CORROSION WHERE THE BLOCKS ATTACH TO THE AFT BULKHEAD. IF YOU CHOOSE TO REFINISH THE BULKHEAD PLEASE BE AWARE OF THIS DETAIL; USE ONLY A THIN COAT OF EPOXY PRIMER. REFERENCE AC 43.13.1B, SEE SECTION 6-22, FRETTING CORROSION.

FOR ANOTHER INTERESTING READ, GO TO AC 43.13.1B, SEE SECTION 6-20. THEREIN IS DESCRIBED ONE SUGGESTED [PARTIAL] FAILURE MECHANISM FOR THE CRACKING ISSUE, STRESS CORROSION CRACKING.

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**NOTE SHARP EDGE AT BORES' INTERSECTION.**



**CHAMFERED AND POLISHED BORES' INTERSECTION; ALODINE® TREATED.**

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**THE CIRCLED "M" IS MY IDENTIFICATION MARK FOR PROCESSES MENTIONED.**



**THE VISIBLE PENETRANT TEST PROCESS.**