

COMANCHE GEAR



10340 REGENT CIRCLE ∞ NAPLES, FL 34109
PHONE & FAX 239/593-6944 ∞ CELL 239/404-7524

LANDING GEAR CONDUIT LUBRICATION

PIPER DOESN'T MENTION LUBRICATING THE LANDING GEAR PUSH-PULL CONDUITS. ALSO I SUSPECT THE PIPER ENGINEERS WRITING THE SERVICE MANUALS WEREN'T THINKING ABOUT 50 YEARS HENCE. ADDITIONALLY I HAVE TALKED AT LENGTH ABOUT THE 400 COMANCHE FLAP CONDUITS WITH AN ENGINEER INSIDE THE COMPANY THAT BOUGHT THE ORIGINAL MANUFACTURER OF THESE CONDUITS; THEY SAY RE-LUBRICATION IS NOT POSSIBLE. NOTE - THOSE DISCUSSIONS WERE ABOUT THE 400 COMANCHE FLAP CONDUITS WHICH ARE FUNCTIONALLY IDENTICAL TO THE LANDING GEAR CONDUITS, ONLY SMALLER.

THERE HAS BEEN SOME ADVICE AFLOAT ABOUT LUBRICATING THESE CABLES AND I CAN SEE A PROCESS MIGHT BE POSSIBLE, HOWEVER I STICK TO MY ADVICE, JUST REPLACE THEM. HERE'S THE REPLACEMENT ESTIMATE BREAK-DOWN: YOU'LL PAY \$800 FOR THE WEBCO CABLES AND \$200 FOR THE ROD END BEARINGS. TO INSTALL THEM [SEE CAVEAT] I CURRENTLY CHARGE \$1000 LABOR PLUS \$50 FOR ALL THE NEW HARDWARE AND STUFF THAT NEEDS TO BE REPLACED OR CORRECTED FROM PREVIOUS INCORRECT WORK. CAVEAT - INTERIOR REMOVAL PORTION OF THE WORK PREVIOUSLY PERFORMED BECAUSE MY OLD BACK AND SHOULDERS JUST WON'T DO THAT PART. SPEND THE \$2140 [INCLUDING REPLACING THE RUSTED CONDUIT MOUNTING BRACKETS] AND GET NEW CONDUITS INSTALLED INCLUDING ALL THE SUBSEQUENT ADJUSTMENTS PROPERLY PERFORMED AND THE COMPLETE RETRACTION SYSTEM EXAMINED. WHEN WAS THE LAST TIME THAT WAS LOOKED AT; THE INFAMOUS "1000-HOUR" GEAR AD DOESN'T GUARANTEE CORRECTNESS HERE? REMEMBER THOSE CONDUITS ARE 50 YEARS OLD AND HAVE NEVER BEEN LUBRICATED SINCE MANUFACTURE; THEY'RE WORN IN THE BEND AREA AND ONE CAN NOT TELL TO WHAT EXTENT THEY ARE WORN.

FOR THE SAKE OF DISCUSSION IF I WERE RUNNING A CLEANING AND RE-LUBRICATING PROGRAM FOR THESE CONDUITS IT WOULD BE WITH THE CABLES REMOVED AND GO SOMETHING LIKE THIS. NOTE - IF THIS WERE ATTEMPTED WITH THE CONDUITS INSTALLED IN THE AIRPLANE A HUGE MESS WOULD NEED TO BE CLEANED UP BECAUSE THE SOLVENT AND LUBRICANT WILL PERMEATE THE OUTER CASING OF THE CONDUIT. THINK OF ALL THAT MESS INSIDE YOUR AIRFRAME. NOT A REALLY BIG DEAL BUT ALSO THINK FLAMMABLE!

- 1) CLEAN THE EXTERIOR OF THE CONDUITS IN A LARGE SOLVENT FLUSHING TANK.
- 2) CONTINUING IN THE LARGE SOLVENT TANK, FIXTURE SUCH THAT FRESH SOLVENT CAN BE PRESSURE-FEED THROUGH THE CONDUIT ASSEMBLY.
- 3) LIKewise WITH DRY COMPRESSED AIR FOR AN EXTENDED PERIOD SO THE SOLVENT IS COMPLETELY GONE.
- 4) PRESSURE FEED A LUBRICANT [WHICH LUBRICANT IS THE QUESTION] THROUGH THE ASSEMBLY.
- 5) CLEAN THE EXCESS LUBRICANT FROM THE OUTER PORTION OF THE CONDUIT.
- 6) REMOVE THE CORROSION FROM THE SLIDING SLEEVES; PRIME AND PAINT THOSE AREAS. WHAT TO DO IF THE EXPOSED THREADS ARE RUSTED; THERE IS A FIELD-PROCESS TO RENEW CADMIUM PLATING - SEE SB-1160 FOR THAT SPEC?
- 7) REINSTALL THE CONDUITS AND DO ALL THE PRESCRIBED ADJUSTMENTS PER THE SERVICE MANUALS.
- 8) QUESTION YOURSELF WHY YOU JUST WENT THROUGH ALL THAT EFFORT AND DIDN'T JUST REPLACE THEM WITH WEBCO'S NEW TEFLON® LINED CONDUITS.

I'M CONFIDENT SOME WILL DO THIS AND SOME HAVE DONE THIS ALREADY. THE QUESTION THAT CANNOT BE ANSWERED IS, HOW WORN ARE THE CONDUITS INTERNALLY? HAVE I TALKED YOU OUT OF TRYING TO SAVE A 50 YEAR OLD PART YET? YOU'LL NOTICE THAT I AM QUITE POLITE AND DIDN'T ONCE MENTION THE WORD "CHEAP"; FOR WHICH SOME OF US COMANCHE DRIVERS ARE NOTORIOUS.