

COMANCHE GEAR



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BUNGEE ROLLER NOTES

THE BUNGEE ROLLERS BY DESIGN ARE SUPPOSED TO ROTATE DURING LANDING GEAR OPERATION. THIS APPLIES TO BOTH ROLLERS BUT SPECIFICALLY ADDRESSED HERE IS THE ONE LOCATED AT THE BUNGEE ARMS. THE BUSHING P/N 14175-50 IS CAPTURED AS ILLUSTRATED BELOW. ALSO NOTE THE LOCATION OF THE 2 WASHERS, THE 5/16" WASHER IS AGAINST THE ROLLER, AND THE 1/4" WASHER IS NEXT TO THE ARM; NO WASHER IS LOCATED UNDER THE HEAD OF THE BOLT. THIS CONFIGURATION BY DESIGN ALLOWS THE ROLLERS TO ROTATE.

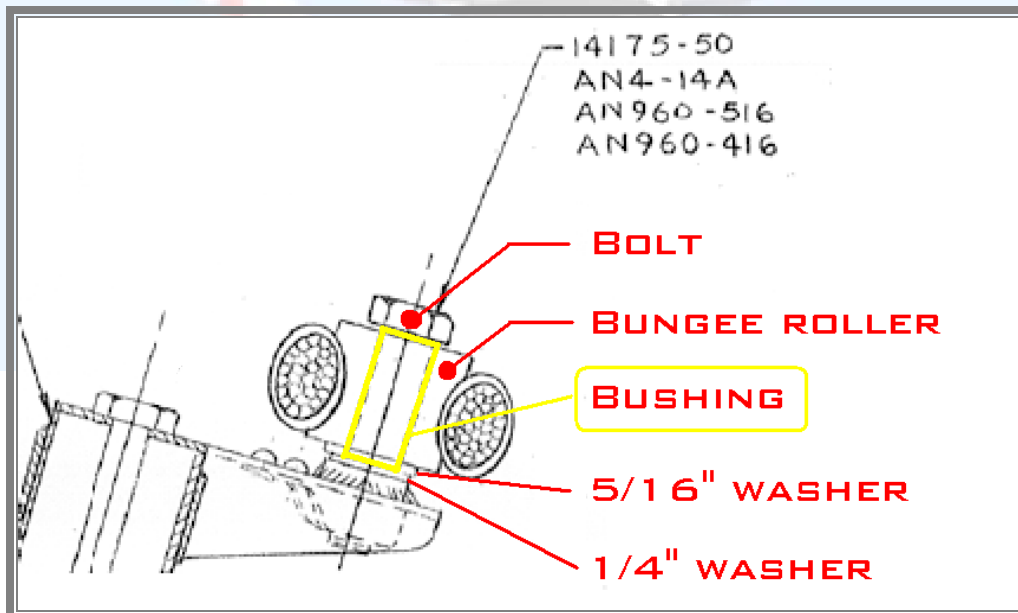
HERE'S THE PROBLEM; MOST INSTALLATIONS AFTER 45 YEARS OF SERVICE HAVE BEEN OVER-TIGHTENED THUS COMPRESSING THE THIN-WALL BUSHING WHICH THEN PREVENTS MOVEMENT OF THESE ROLLERS. AT YOUR NEXT BUNGEE CHANGE CHECK FOR THIS SEIZED CONDITION.

HERE'S THE SOLUTION IF YOU CHOOSE TO PURSUE. SINCE THIS BUSHING IS NLA YOU CAN MAKE YOUR OWN [OWNER PRODUCED] USING 5/16" O.D. x 1/4" I.D. 4130 SEAMLESS TUBING [AIRCRAFT SPRUCE]. THE O.D. OF THIS TUBING NEEDS TO BE TURNED IN A LATHE TO PROPERLY FIT THE I.D. OF THE ROLLER. THE LENGTH OF THIS BUSHING SHOULD BE EQUAL TO THE BUNGEE ROLLER'S LENGTH, PLUS THE THICKNESS OF A 5/16" THICK WASHER, PLUS 0.010" TO 0.015" TO ALLOW FOR FREEDOM OF MOVEMENT. YOU'LL HAVE TO CAREFULLY DRIVE THE DAMAGED BUSHINGS OUT OF YOUR BUNGEE ROLLERS.

AN INSTALLATION HINT; USE A LITTLE LUBRIPLATE® ON THE BUSHING [THIS LUBRICATION APPLIES TO THE CLEVIS PIN/ROLLER COMBINATION AT THE OUTBOARD END TOO], ASSEMBLE AS IN THE ILLUSTRATION BELOW, TIGHTEN THE AN4 BOLT ONLY UNTIL YOU FEEL BUSHING CAPTURE, PLUS A LITTLE MORE TORQUE. DO NOT OVER-TIGHTEN THIS BOLT!!

THE ROLLERS DO NOT NEED TO BE REMOVED DURING BUNGEE INSTALLATION IF YOU ARE USING THE BOBERT AVIATION BUNGEE TOOL. I HAVE A COUPLE OF THE ICS TOOLS FROM THE LOAN PROGRAM THAT ALSO DO NOT REQUIRE REMOVAL OF THE BUNGEE ROLLER.

THERE YOU HAVE IT, ANOTHER LITTLE PROBLEM-SOLVER FROM THE GEAR MEISTER MATT.



BUNGEE ROLLER AND ATTACH HARDWARE DETAIL; FROM A TYPICAL PIPER COMANCHE LANDING GEAR ASSEMBLY DRAWING.