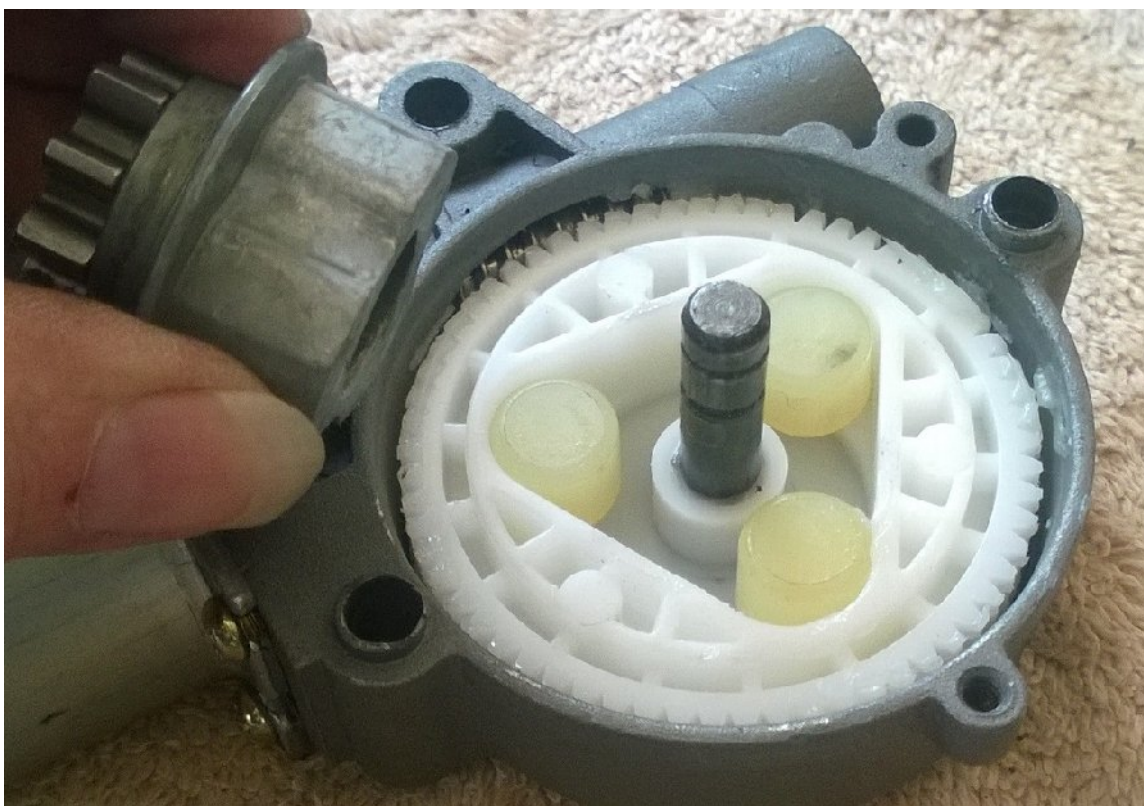




2010 43QGP Allegro Bus

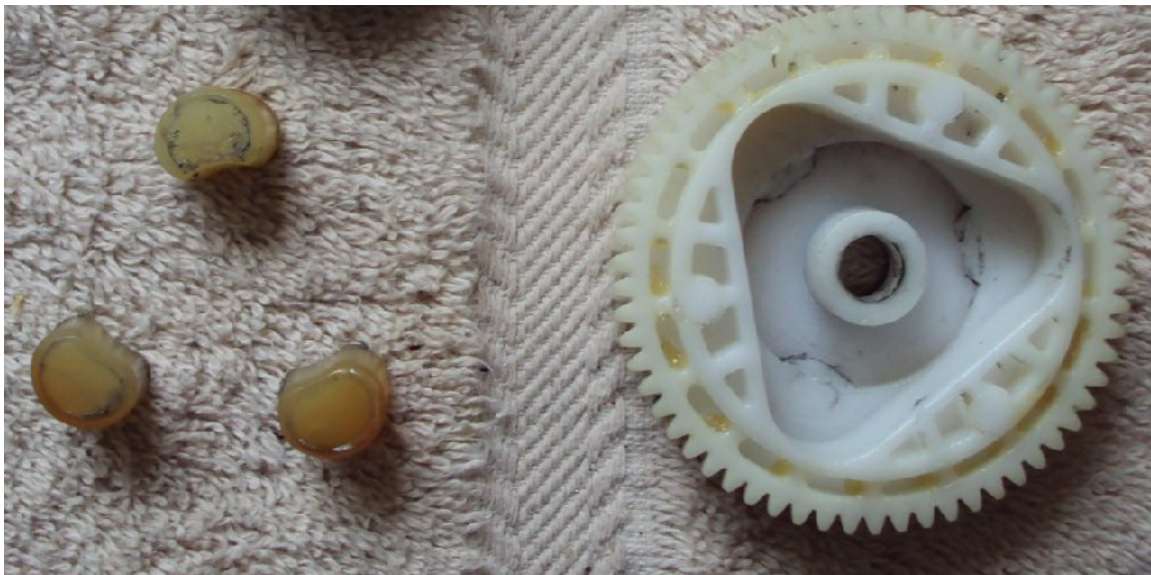
8/23/2015

31D – FYI - COACH-STEP RV STEPS. This file is a continuation of the problems found with the Lippert Component Company's "Coach Step" RV steps. A problem found quite often is the “Stutter Sound“ or in some cases also known as the “Machine Gun Sound” when the steps are retracted or extended and do not lock in either position, rather they just ratchet or stutter. Below is a partially disassembled new step motor, the gear box cover and the “C” clip on the nine tooth gear were removed to expose the internal gearing.

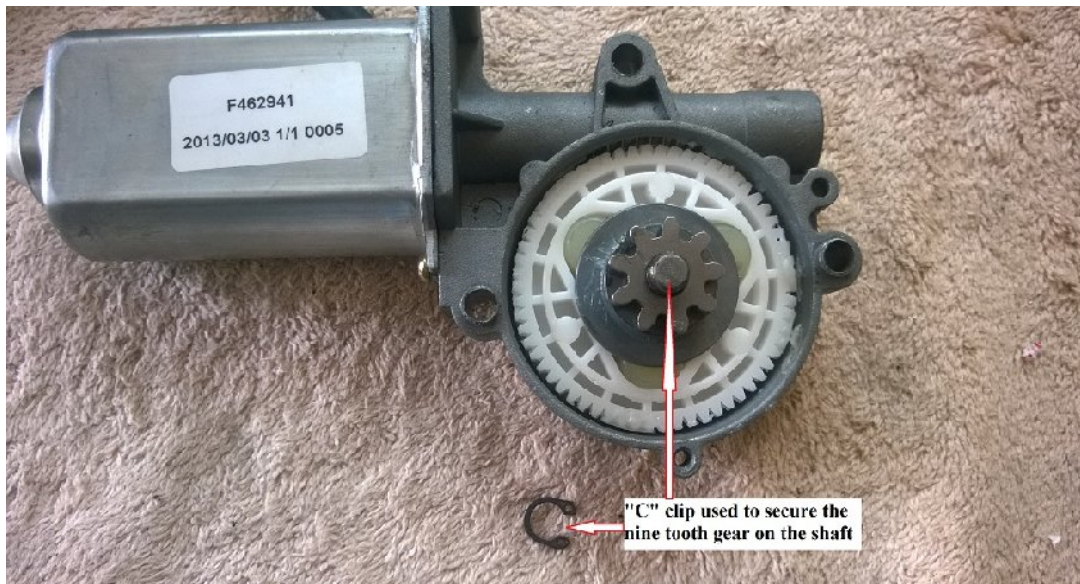


The slightly yellow round nylon “PLUGS” as I’ll call them for lack of a better term are part of the gear train. The gear shown in my hand slips over the shaft and aligns with the three plugs. In this motor the plugs are the **DESIGNED** weak link in the motor. These plugs are designed to be sacrificed before other damage occurs to the motor. So the next time you go to extend or retract your coach steps and you hear the Stutter Sound or the Machine Gun sound think about getting your step motor replaced or repaired

SOON because that sound is the ONLY warning you will get before the steps STOP partially extending or retracting. If you have an old step motor you MAY be able to cannibalize parts from the old step motor to repair the mounted step motor before the steps lock partially extended or retracted when you want them to be the opposite of what they are. You can also purchase a repair kit with three nylon plugs, the kit is manufactured by Dorman # 74410, at most automotive parts houses for about \$ 8.00 plus tax. Stepping onto a **PARTIALLY EXTENDED** or **RETRACTED STEP** is **EXTREMELY DANGEROUS**. The drive train of the step mechanism was not designed to bear the load of a person's weight while the steps are partially extended or retracted they will and have broken when stepped on. Below is a photo of an old step motor with its distorted nylon plugs.



Looking at the two photos it is easy to see a large difference in the SHAPE of the plugs in the two photos. Look at the distorted side of the old step motor PLUGS compared to the new step motors PLUGS. What occurs **EACH** time the step changes from extended to retracted OR retracted to extended the side of the aluminum three tooth gear in my hand squeezes the three plugs until the step controller senses a spike in current, when that spike is sensed the controller turns OFF the voltage to the step motor. Each and every time the steps change from open to closed or closed to open this squeezing process takes place UNTIL the nylon plugs become so distorted the three tooth gear slips past the plugs and you hear the Stutter or Machine Gun sound, that sound is your warning the coaches steps are going to **STOP** operating as they were designed.



As seen above the motors cover can be removed from the gearbox however to remove the nine tooth to three tooth gear (seen in my hand) requires the removal of the "C" clip from the shaft.

Over the years there have been times when the steps acted up leaving me to wonder what the exact problem was. In an effort to eliminate the step motor as the cause the pigtail harness shown below was built. With a pigtail like this the step motor can be disconnected from the step controller, the pigtail can be connected to the step motor wiring harness, the alligator clips on the pigtail can be connected to the generators positive and negative 12 volt connections on the back side of the generator. This test will quickly show if the step motor is the problem or if the problem is located elsewhere.

