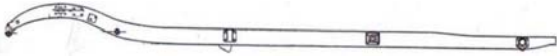


From the Frame Up, LLC



Tech Tips:

CH305 - TABC Front Axle Tapered Roller Bearing Conversion Kit

Background: The TABC front axle hubs are now 65+ years old with continuous signs of wear on the various components. Hubs, spacers, bearings, axle stubs are often found to vary from original specifications to the point of safety concerns or imminent failure. Replacement of the front ball bearing setup with a roller bearing setup is recommended to help strengthen the axle stubs, reduce breakage, and increase the margin for safety.

Kit components: The conversion kit is for both front wheels and includes replacement front axle tapered roller bearings (inner and outer), new hub seals, special shims, cotter (split) pins and special formula Loctite 461. The following information is provided for the various components and tips on installation.

Assembly:

- Remove, clean, and inspect existing front hub and axle stub components.
- Recommend to have the axle stubs inspected for cracks. (magnaflux)
- Install the bearing races into the hubs.
 - Use special formula Loctite 461 between bearing outer race and hub to ensure that the race does not spin or float.
 - Loctite 461 is good for gap tolerance of .006" (diameter). This means the race may not have to be a pressed fit.
 - Ensure that the race is seated against the hub shoulder.
 - Replace hubs that are out of tolerance.
- Grease the roller bearings and pre-grease the receiving races.
- Place inner tapered roller bearing into its receiving race in the inside of hub.
- Install hub seal on back side of hub
- Place CH301 front axle inner spacer on axle stub (not included, reuse existing part).
- Slide hub onto the axle with existing installed parts.
- Slide CH310 Tube Spacer onto the axle stub inside the hub. Small diameter end will be to the outside of the car / axle stub.
 - Note: This spacer tube must be installed. Replace if missing.
 - Note: This spacer tube can vary in length due to a number of factors. The spacer tube is approximately 1.25" long.
 - The use of shims in next step will correct for variances.

- Place a selected thickness set of shims on the axle stub.
 - CH308 Shim set includes an assortment of thicknesses of .001, .002, .003, .005, & 1.0 mm
 - This step will be repeated by trial and error to finalize setup.
 - *Note: This same fitment of shims is also appropriate for the stock ball bearing setup for TABCs.*
- Install greased outer roller bearing on the stub
- Install cupped washer with holes. Concave side of washer is to outside of car / axle stub. (Will appear as a cup when viewed installed.)
- Tighten the slotted hex nut to 75-85 ft-lbs torque. (This is for original 5/8 BSF nuts. If you have replaced the stubs and use 3/4 " nuts then torque to @120 ft-lbs.)
 - Spin the wheel. It should spin freely.
 - There should be no end play or bearing float once the install is finalized.
 - A slight (not excessive) amount of drag, once finalized, is considered acceptable.
 - If the above tolerances are not met, adjust the thickness of shim set and retry.
- Install cotter pin
- Install wheel and knock-off.
- Complete

Summary: The above conversion will strengthen and preserve the front axle stubs and will give you added years of safe driving. Please provide any comment to:

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Safety Fast!

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