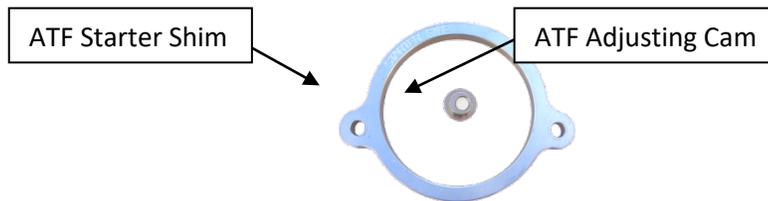




ATF Small Block Ford Starter Shim and Adjusting Cam Installation Instructions



-CAUTION-

Always use care when working on, around or underneath a vehicle. Wear eye protection, support the vehicle safely, etc. **Please be sure to read all of these instructions before beginning.** If you are not able to complete any of the steps listed, ATF recommends bringing your vehicle to a qualified mechanic for installation.

Parts Check List

- ATF Starter Shim
- ATF Starter Adjusting Cam

Tools and Items Needed For This Installation

- Basic Hand Tools: Sockets, Ratchets and Wrenches
- Electrical Tape
- Drill
- 9/16" Drill Bit
- Small piece of paper (approx 1" x 2")
- Grease (axle, bearing or general purpose grease will work)

WARRANTY

This product is warranted for 12 months from the date of purchase against defects in material and workmanship. This warranty does not cover damage caused by negligence, misuse or alteration. Under no circumstances will ATF be responsible for special, incidental or consequential damages or costs arising from or in conjunction with the installation or use of any product of the manufacturer.

Step 1.) Disconnect the positive battery cable.

Step 2.) Remove the starter.

Step 3.) Disconnect the large power wire from the starter and cover the end with electrical tape.

Note: Leave the small power wire connected. The small wire powers the bendix which moves the starter gear out toward the ring gear. (See Figures 1-3)

Step 4.) Drill the BOTTOM starter bolt hole to 9/16" using your 9/16" drill bit.

Note: Some factory starters do not have a lot of material around the bolt hole. Drill carefully and be sure that you are drilling straight through the hole. Clean any metal shavings off of the starter before continuing.

Step 5.) Put a small dab of grease on the starter gear then wrap the piece of paper around it. (See Figure 4 and Figure 5)

Step 6.) While supporting the ATF starter shim to keep it in place, install the starter using the top bolt only. Do not tighten the top bolt completely at this time. Snug the top bolt just enough to allow you to pivot the starter away from the flywheel.

Note: Make sure the ATF starter shim is in position before installing the starter. Also be sure that your piece of paper stays on the starter gear as you're installing the starter. The paper serves as a thin "shim" that allows you to properly space the starter gear to the flywheel's ring gear. The goal is to establish a small air gap between the starter gear and the ring gear. This keeps the starter from "over engaging" the ring gear which can cause damage the starter and the ring gear.

Step 7.) Apply 12 volts to the small wire on the starter. The ignition switch can be used to operate the starter's Bendix which moves the starter gear towards the ring gear. Be sure that the large wire is removed before attempting! Rotate/pivot the starter towards the ring gear until the starter and the ring gear are "holding" your piece of paper. Hold the starter in this position and continue to the next step. (See Figure 8)

Note: Use care when engaging the Bendix and do not keep 12 volts applied for more than a minute (or so) at a time. The starter and/or wiring may get warm while it's powered up.

Step 8.) Position and then insert the ATF Adjusting Cam into the bottom bolt hole of the starter so that the starter will remain in place as described in Step 6. Insert the bottom starter bolt through the ATF Adjusting Cam. When you tighten the bottom bolt, the ATF Adjusting Cam will seat into the 9/16" hole

in the starter. Remove 12 volts from the small wire on the starter. The bendix will then move the starter gear back towards the starter. Remove your piece of paper. Wipe off any excess grease. (See Figure 6 and Figure 7)

Step 9.) Snug the starter bolts down. (Do not over tighten the bolts). Reapply 12 volts to the small wire on the starter and check the starter gear to ring gear engagement.

Note: If needed, repeat Steps 7 – 9 and reposition the ATF Adjusting Cam as necessary.

Step 10.) After you have the starter gear and ring gear set, double check that the top and bottom starter bolts are snug. Finally, reconnect the large power wire to the starter and reconnect the positive battery cable.

ATF is committed to providing the highest quality parts and customer service!

If you have any questions or comments feel free to contact us toll free Monday – Friday, 8am – 6pm Eastern Time: 954-916-1155. Visit us on the web: <http://www.ATFSPEED.com>

Figure 1.

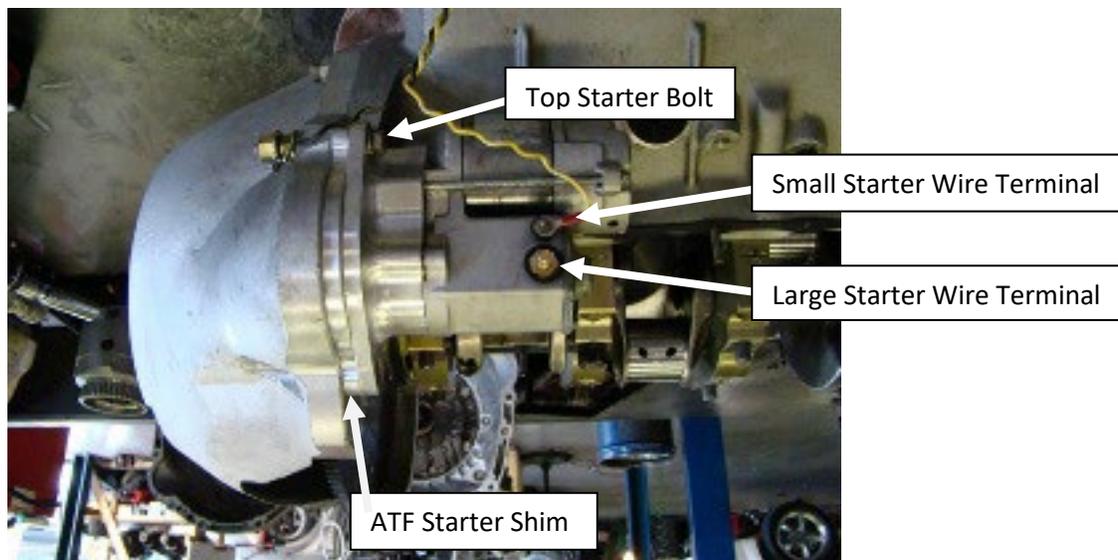


Figure 2.

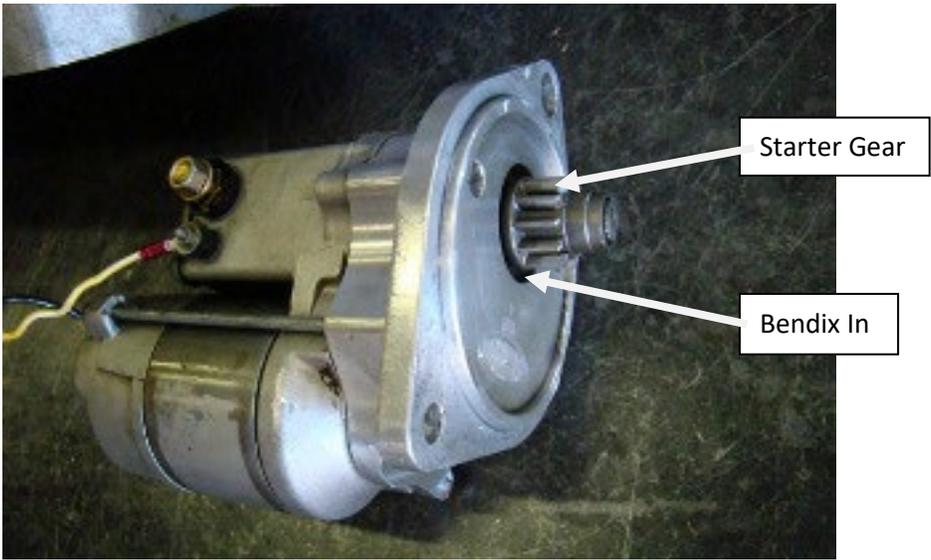


Figure 3.



Figure 4.

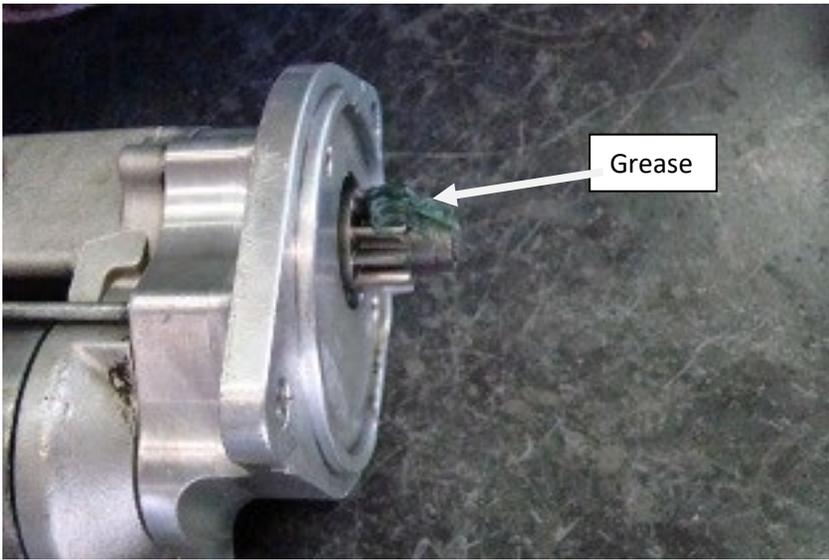


Figure 5.

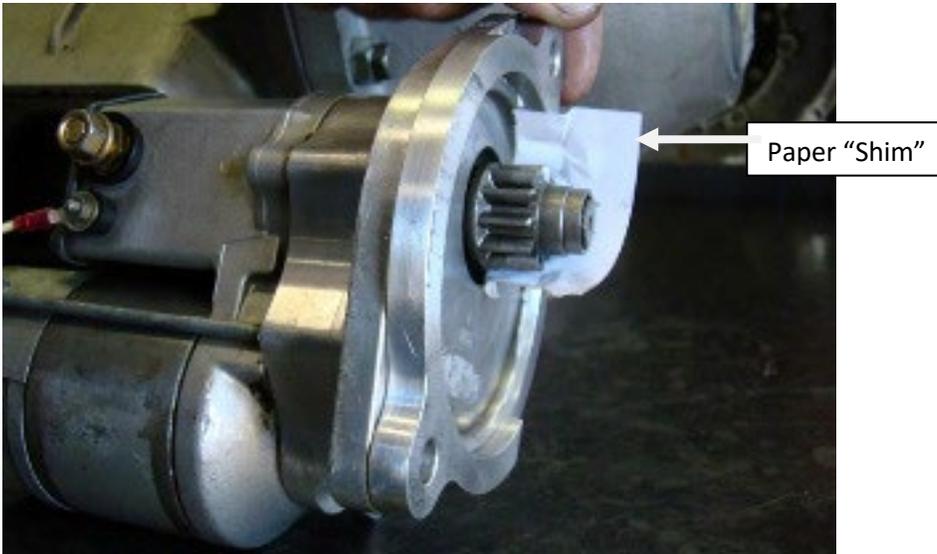


Figure 6.



Figure 7.

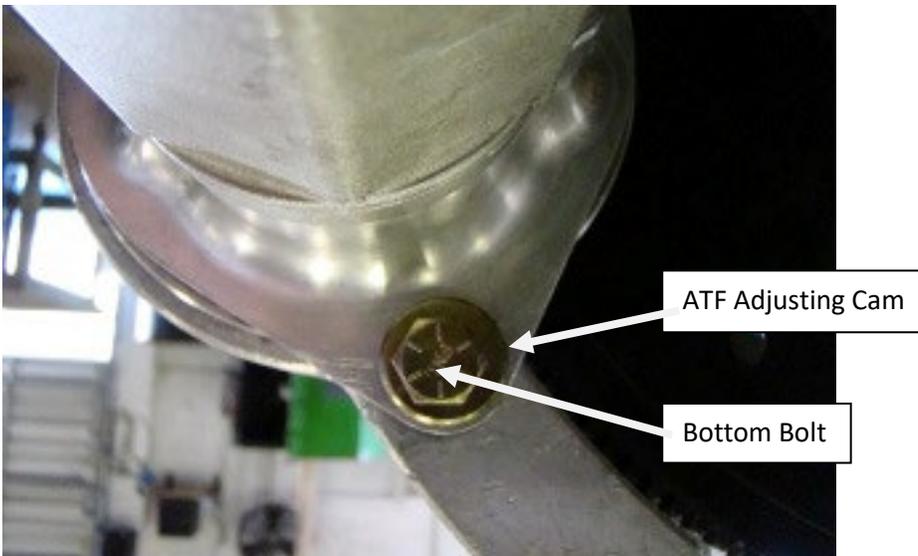


Figure 8.

