

LSX Concepts - LSA / ZL1 Gilmer Drive
Part Number # LSX-GILMER
www.lsxconcepts.com

Parts List

Qty Desc.

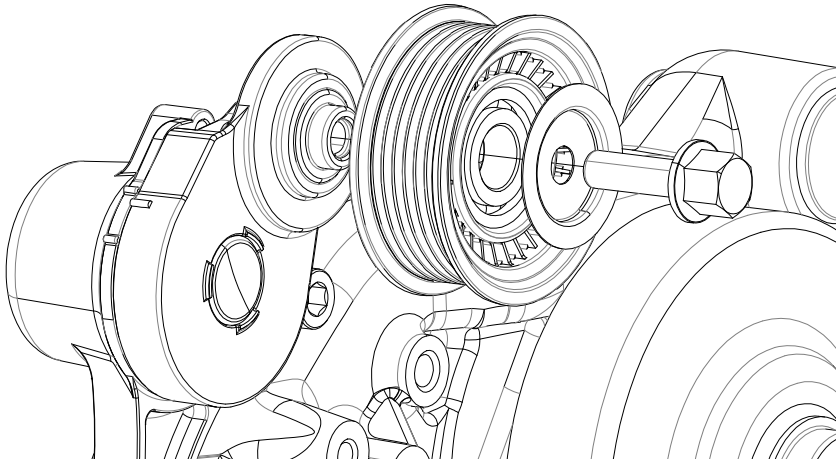
- | | |
|----|---|
| 1 | Upper Gilmer Pulley (27 Tooth - 28 Tooth - 29 Tooth - 30 Tooth) |
| 1 | Lower Gilmer Pulley (78 Tooth - 86 Tooth - 94 Tooth) |
| 1 | 2.5" Smooth Idler Pulley |
| 1 | 8MM HTD Timing Belt (1160MM - 1200MM - 1224MM) |
| 1 | Rear Idler Plate |
| 1 | Front Idler Plate |
| 2 | Idler Pulley Spacers |
| 1 | Water Pump Off set Standoff Bracket |
| 1 | 8MM Threaded Water Pump Standoff |
| 1 | Short Water Pump Boss Aluminum Spacer Threaded Idler Plate Spacers with |
| 3 | Studs (8MM) 10MM T-Nut with Stud |
| 1 | 10MM Nylon Lock Nut for T-Nut Stud (1 spare) 10MM Black Oxide Flange head |
| 2 | Nut (for mock-up) |
| 1 | |
| 10 | M4X16MM Socket Head Allen Bolts |
| 2 | M4X20MM Socket Head Allen Bolts |
| 1 | 8MMx40MM Flat Head Allen Bolt |
| 3 | 8MMx50MM Flat Head Allen Bolts |
| 1 | Water Pump Main Idler Plate Bracket |
| 2 | 8MMx90MM Socket Head Allen Bolts with Washers |
| 6 | 8MM Nylon Lock Nuts (3 spare) |
| 3 | 8MMx20MM Button Head Allen Bolts |
| 2 | 8MMx20MM Flat Head Allen Bolts |
| 1 | Large Dia. Stainless Steel Washer |
| 3 | 3/8-16 12pt. ARP Crank Pulley Bolts with Washers |

Tool/Supplies List

Loctite Threadlocker Blue 242
Ft. Lbs Torque Wrench
In. Lbs Torque Wrench
Metric Allen Socket Set / Allen Wrenches
12pt Metric Socket Set

Pre Install Requirements

On engines not running High Mount A/C, We do recommend using the LSA 6 rib tensioner GM Part Number 12628025 for the main accessories with a 68MM Pulley (LSX Part Number 419604) to provide adequate clearance from the 6 rib belt tensioner to the gilmer drive rear plate



Compatible LSA Tensioner with pre installed 68MM Pulley

Scan QR Code



Installation Requirements:

The following items are required to install the LSX Concepts LSA Gilmer Drive Kit

- **Lingenfelter CTS-V Camaro ZL1 LSA LS9 10 bolt Supercharger Pulley Hub**
The Upper pulley is designed to bolt directly to a “Lingenfelter CTS-V Camaro ZL1 LSA LS9 10 bolt Supercharger Pulley Hub”. if your supercharger is already upgraded with the blower hub you will not need to make any additional changes to install the upper Gilmer pulley. (Lingenfelter Part Number #L250150309)
- **ATI LSA/ZL1 Super Damper**
you will need an after market Damper that will accept a bolt on supercharger pulley to the front of the damper using corvette spacing (ATI Part Number #918854, #917266 10% UD, or #917278) NOTE: 3 counterbored holes on the damper shell may need modification to allow the 3/8 bolt to pass through the outer shell to the main hub

1: If you supercharger does not have the Lingenfelter 10 Bolt Supercharger Pulley Hub Kit installed. Please take it to a trusted local machine shop to have it installed as per Lingenfelter’s instructions.

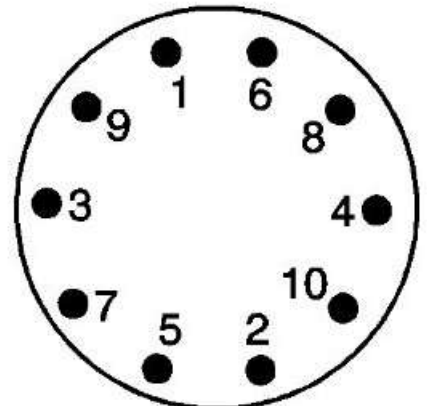
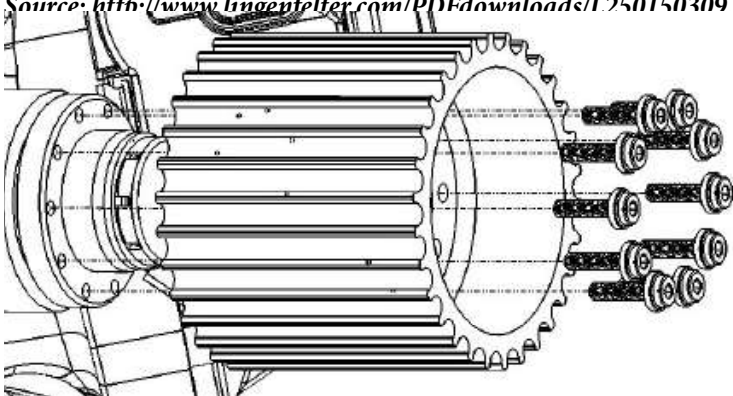
2: Discard the 10 M4X12MM socket head allen bolts included with the Ligenfelter Pulley Hub. The bolts are to short to be used with the LSX Gilmer Drive pulley.

3: Install the upper pulley with the short side having the lettering away from the hub and align the pulley onto your supercharger hub using the **M4x20MM Socket Head Bolts** provided in the LSX Concepts Kit. Pull the pulley onto the Ligenfelter hub about 1/4 inch. Now remove the **M4x20MM Socket Head Bolts**.

4: Install the ten **M4X16 Socket Head Bolts** and sequentially tighten the bolts to fully draw the pulley on to the hub.

5: Remove the bolts and apply a small amount of 242 Blue Loctite and, using a 3 mm Allen wrench or socket, secure the pulley to the hub with these screws. Use the pattern to the right and torque the bolts to 2.3 Nm (20.7 lb-in).

Source: <http://www.lingenfelter.com/PDFdownloads/L250150309.pdf>



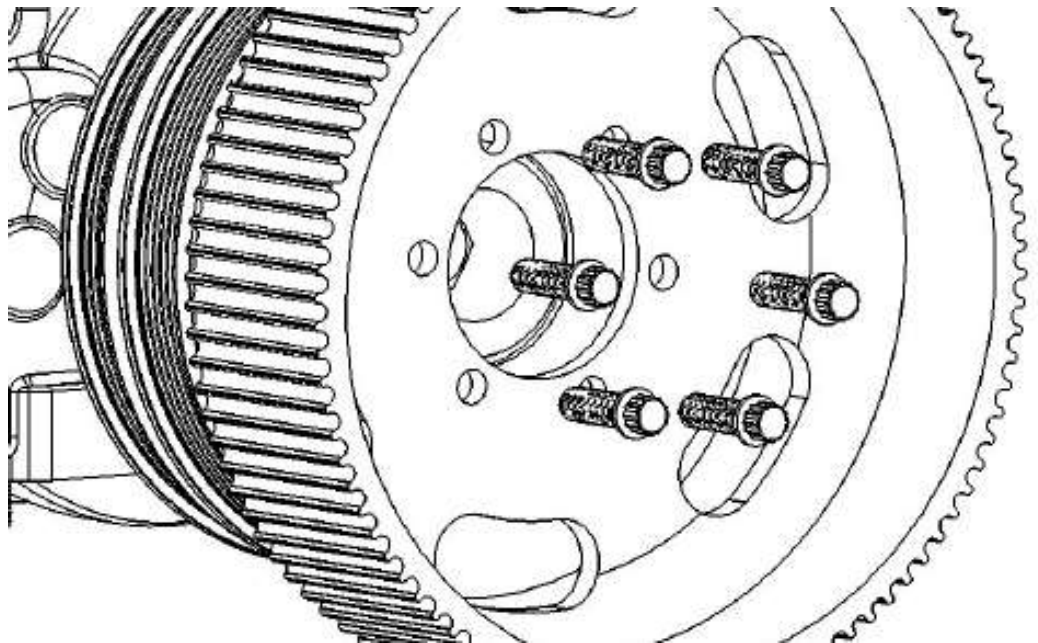
6: The lower Gilmer drive pulley is designed to use six 3/8-16 12 point stainless steel bolts with washers. Three bolts are included with the ATI crank pulley and three are included with the LSX Gilmer Drive Kit. If your crank pulley kit from ATI does not include the three 3/8-16 12 point bolts with washers, you will need to purchase 3 additional bolts from ATI to attach the lower crank pulley. (a minimum of three bolts is required, however we do recommend 6 bolts be used)

Note: Three of the countbored holes that line up with the holes on the dampner shell may need to be drilled out to allow the 3/8 threaded bolt to thread into the main hub assembly. please inspect you dampner before installing the shell onto the hub. On Engines running low mount A/C you may only use three bolts to hold the crank pulley on since 3 countersunk 5/16 bolts are required to hold on the rear A/C pulley on the ATI dampner and they occupy the same sapce as the additional 3 bolts

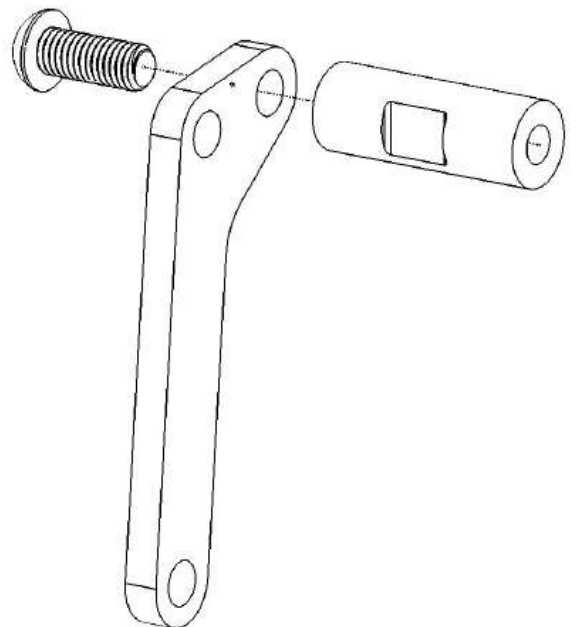
if you have any questions fell free to give us a call.

8: Use 242 Blue Loctite on all 3/8 bolts and torque bolts to 28-30 ft/lbs

Source: <http://www.atiracing.com/instructions/LS1-LS7-Damper.pdf>

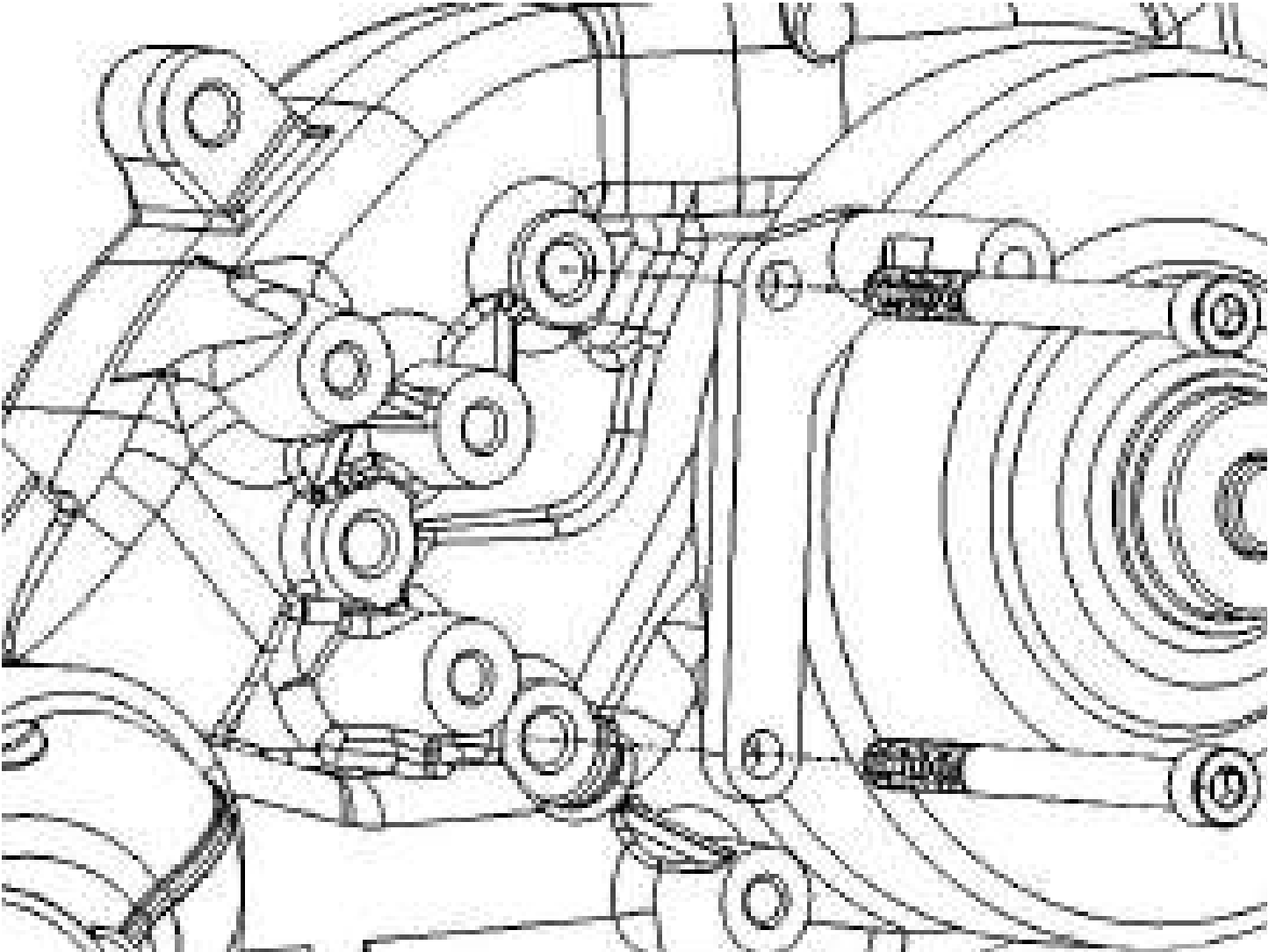


9: Assemble the *Water Pump Standoff Bracket* using one **8MMx20MM Button Head Allen Bolt** and the **8MM Threaded Water Pump Standoff**. apply a small amount of 242 Blue Loctite to the bolt before assembly and torque to 12 ft. lbs

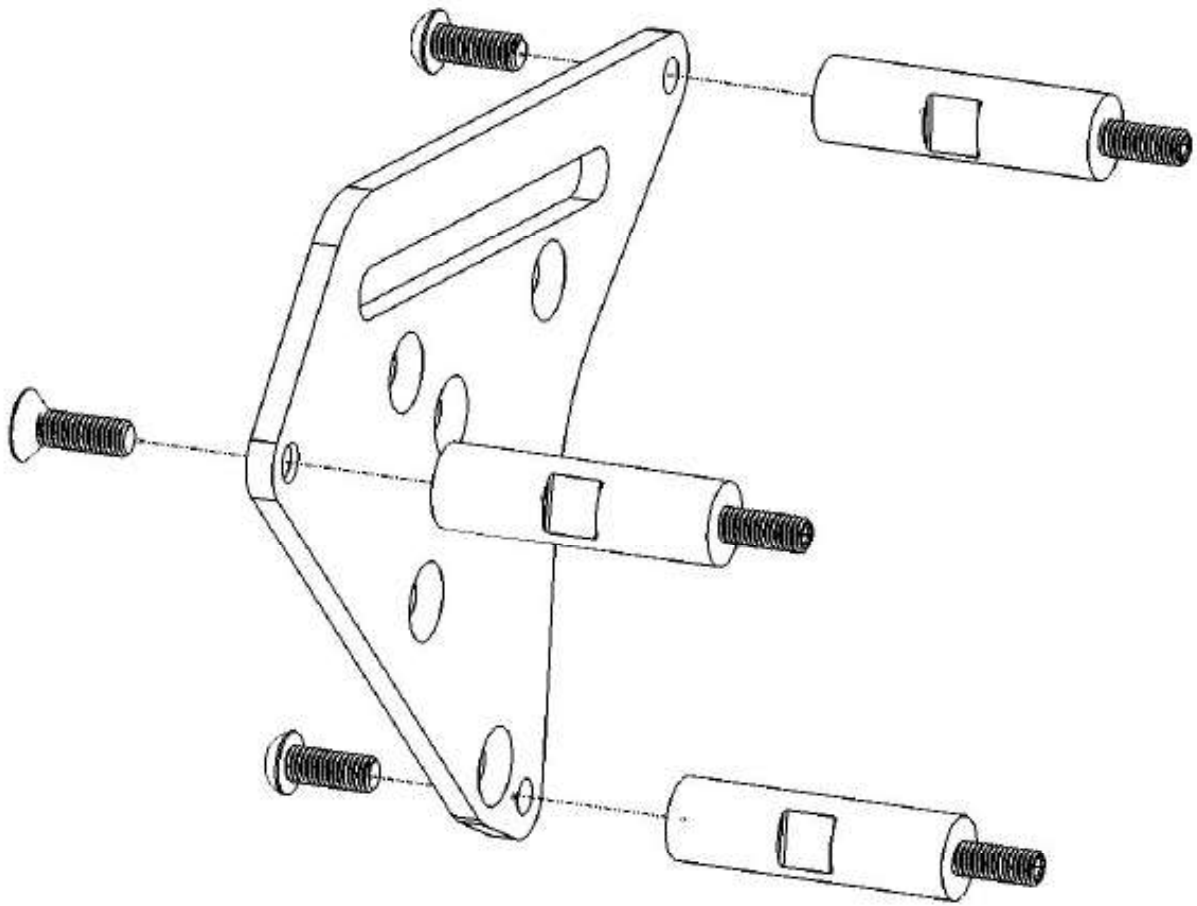


10: Remove the two inner water pump bolts on the passenger side as show in the image below.

11: Install the ***Water Pump Standoff Bracket*** using the two ***8MMx90MM Socket Head Allen Bolts with Washers*** and torque to (22 ft lbs).



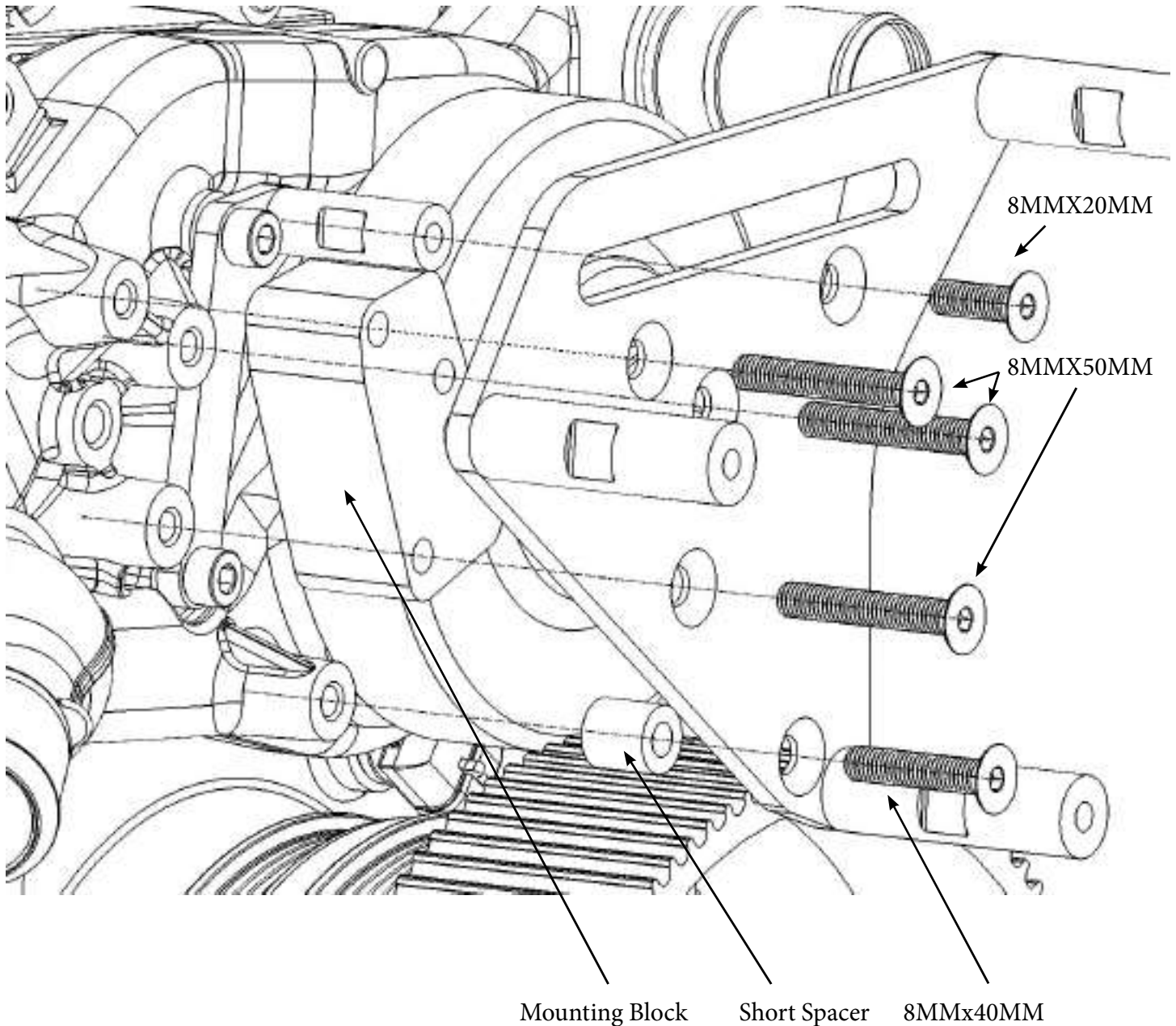
12: Assemble the *Rear Idler Plate* by attaching the three *Threaded Idler Plate Spacers with Studs* with two *8MMX20MM Button Head Allen Bolts* and one *8MMx20MM Flat Head Allen Bolt* as shown. Apply a small amount of blue Loctite to the bolts before assembly and torque to 12 ft. lbs



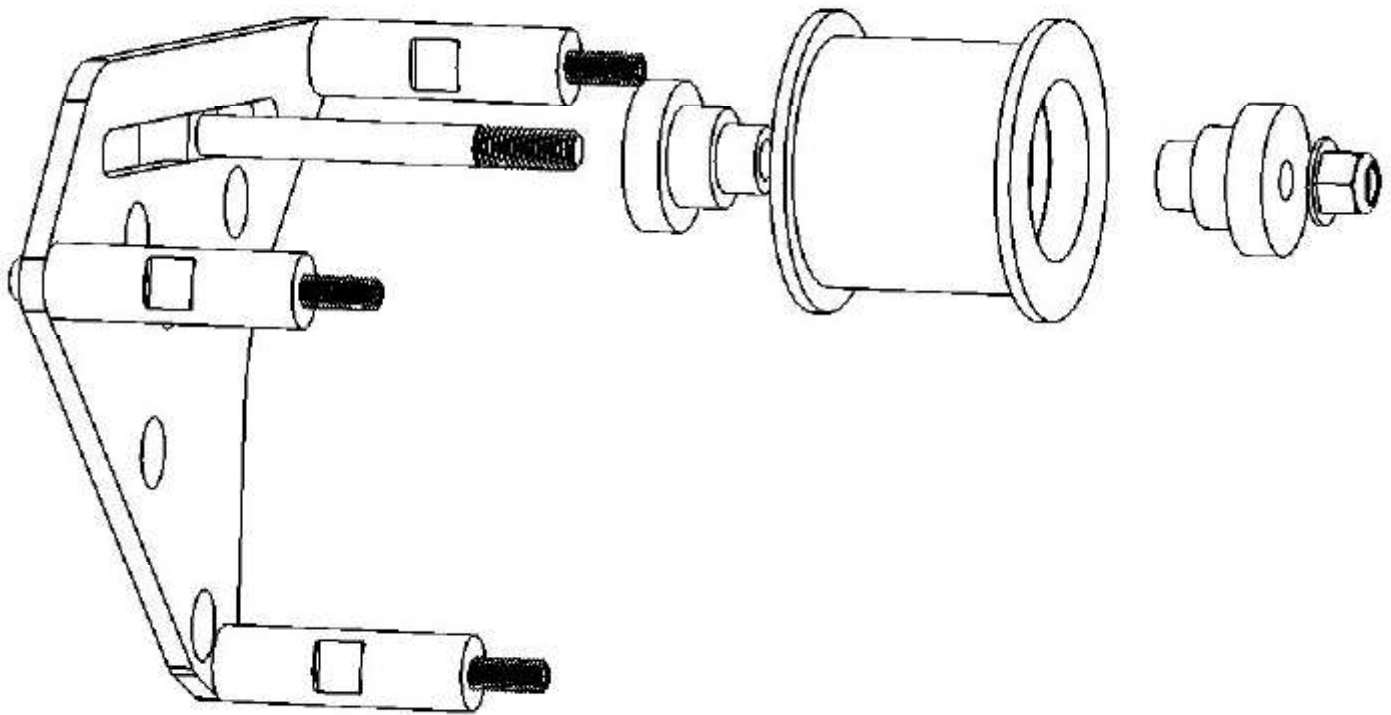
13: Attach the *Rear Idler Plate* to the water pump using the following parts

- ***Mounting Block***
- ***Short Spacer*** (.690)
- **3 - 8MMX50MM Flat Head Allen Bolts**
- **1 - 8MMX40MM Flat Head Allen Bolt**
- **1 - 8MMX20MM Flat Head Allen Bolt**

Apply a small amount of blue Loctite to the bolts before assembly and torque to 15 ft. lbs

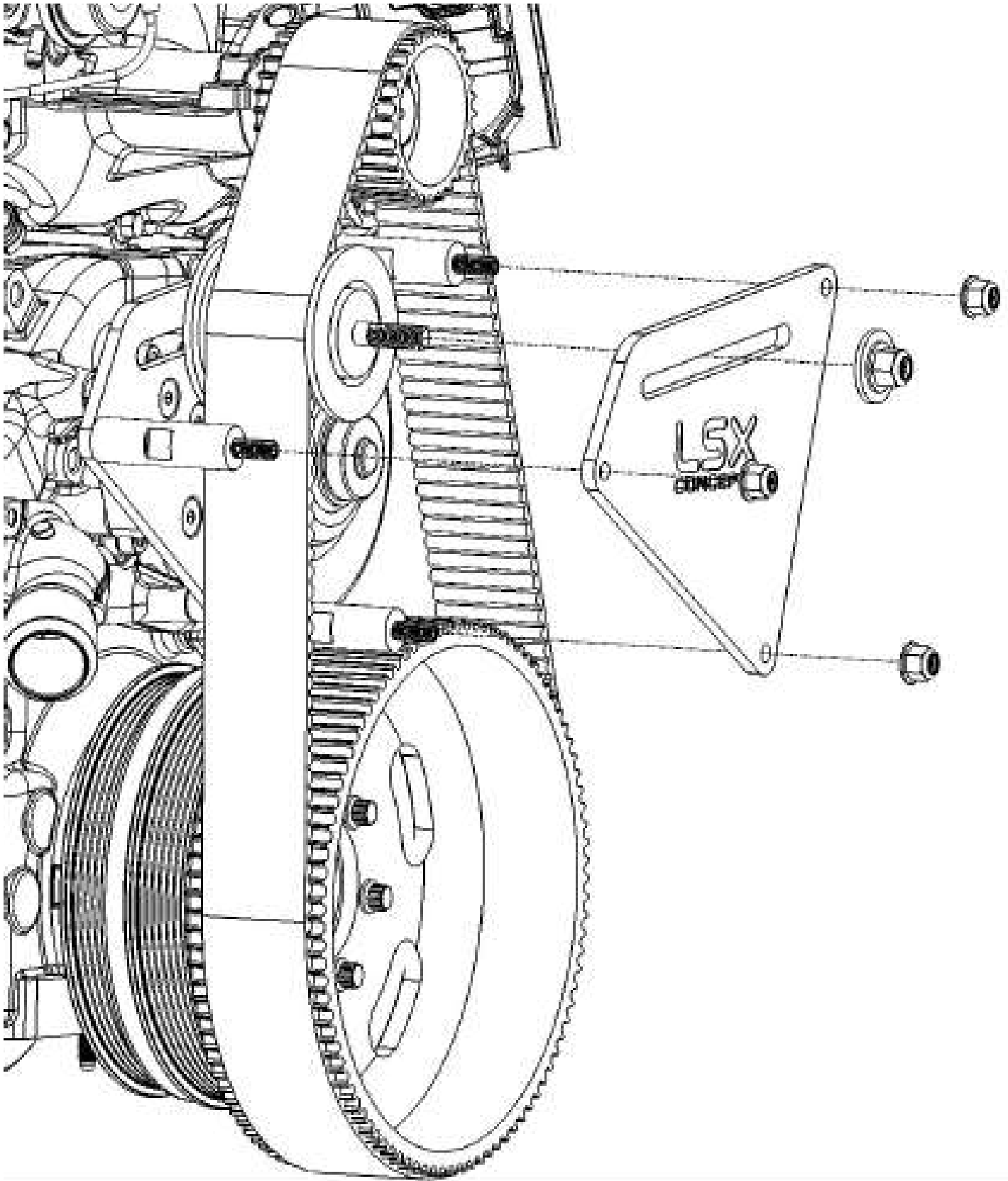


14: Slide the **10MM T-Nut with Stud** in from the back side of the **Rear Idler Plate** into the slot and slide on the **2.5" Smooth Idler Pulley** with the **Idler Pulley Spacers**. you can hold the idler pulley on using the black **10MM Flange Nut** included in the kit (no nylon insert) to hold the idler pulley in place



15: Install the belt with the **2.5" Smooth Idler Pulley** to the inside of the belt

16: Install the **Front Idler Plate** using three **8MM Nylon Lock Nuts** and one **10MM Lock Nut with Steel Washer**, hand tighten the 8MM and 10MM nuts



Gilmer Belt Adjustment and Break In

1: Grab the belt halfway between the upper and lower gilmer pulley on the driver's side of the engine and move it in and out. When the belt is properly tensioned on a cold engine, you should be able to move this belt approximately one inch ($1/2''$ in, $1/2''$ out). When warm, you should be able to move the belt $1/4$ to $1/2$ inch. Do not allow the belt to be overly tight.

2: Tighten the idler pulley nut to 45 ft lbs.

Note: Expansion occurs as the engine gets to operating temperature and the belt will get tighter. If it gets too tight, it can snap off the crank snout or the blower snout.