



Compensaver

Oiler Tray & Thrust washer Installation Instructions

Fits 42200064A Screaming Eagle Compensator

BEFORE YOU CALL FOR HELP; READ THESE INSTRUCTIONS COMPLETELY, UNDERSTAND THE INSTALL PROCESS CLEARLY, THIS DOCUMENT WILL ANSWER YOUR QUESTIONS

Compensaver is NOT compatible with the Baker compensator.

Models

This kit fits models that are fitted with or can be fitted with Harley Part # 42200064A Screaming Eagle Compensator. See your Harley Davidson dealer for complete listing of models that are included.

Additional Parts Required

- 1) We highly recommend the Compensaver Oil Delivery Tray and composite thrust washer be installed with only new or very low mile SE Compensator # 42200064A. A used compensator with wear between the cam and spokes and possible presence of red fretting has been damaged and the working tolerances have changed. This Oil delivery Tray WILL NOT REVERSE THIS PRIOR DAMAGE and the service life of the compensator can be substantially shortened.
- 2) A new primary cover gasket is needed for proper installation of this kit.
- 3) ***We strongly recommend using the current version stock Harley auto chain adjuster.*** This has proven to be reliable and provides the smoothest and quietest operation. (Figure 10)

Tools and Supplies Required

If installing a new compensator, a primary drive locking tool will be needed.

'07-later touring models, Harley Davidson part # 94102-09.

'06-later Dyna and '07-later Softail models, Harley Davidson part #14900002

WARNING!!

The rider's safety depends upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities and/or you do not have the correct tools, have a qualified motorcycle mechanic perform the installation. **Improper installation of this kit could result in serious injury or death.**

NOTE

This instruction sheet references service manual information. A service manual for your year and model motorcycle is required for this installation. Refer to the service manual for removal of the primary cover and chain tensioner. If installing a new or already in service part #42200064A compensator along with the Compensaver Oil Delivery Tray and composite thrust washer, FOLLOW THE SERVICE MANUAL PROCEDURES EXACTLY AND COMPLETELY. ***See Figure 11 for important spring measurement to insure quietest possible operation. THE RETROFIT OIL SCOOP IS NECESSARY AND MUST BE INSTALLED part # 627-00063 for Touring 627-00064 for Softail & Dyna , UNLESS YOU ARE UTILIZING A COVER WITH THE SCOOP CAST INTO IT. It is highly recommended the compensator bolt be replace at every removal and replacement. A new bolt is included with every new compensator. If installing a compensator that has already been in service install with a new bolt #10500031.***

Installing the composite thrust washer

Discard the axial roller thrust bearing. Do not use any of the 3 parts consisting of the caged rollers and 2 steel washers. (Figure 9)

Reassemble using **ONLY the composite thrust washer.** Follow the service manual instructions and torque as directed by the factory. (Figure 8 & 9)



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Installation of the Compensaver

oil Delivery Tray

Install the Oil Delivery Tray after the compensator assembly is installed but before installing the chain tensioner. The oil tray must be installed while the primary drive chain is loosened.

Remove the 2 stock flange head 5/16" bolts from the inner primary located to the rear of the compensator and discard. (Figure 2)

Place the 2 O-rings (5/16" ID x 1/16") into the recesses on the back of the oil tray at the 2 bolt holes. (Figure 3) While holding the oil tray in place and against the inner primary (this keeps the o-rings in place), **insert the 5/16 x 3" bolt into the bottom hole**. To keep from misaligning and damaging the o-ring, when the bolt contacts the o-ring screw it clock-wise into the o-ring until the bolt slips into the hole in the primary. Then repeat the process with the **upper 5/16 X 2 3/4" bolt**. Tighten to factory specifications of 25-27 ft-lbs (**do not over tighten as this will result in damage to the threads in the engine case**) (threadlocker is advised). (Figure 1) It is not necessary to tighten in any particular sequence for this application.

WARNING; "CORRECT" IS THE LONGER BOLT IN THE BOTTOM HOLE AND THE SHORTER BOLT IN THE TOP HOLE. FAILURE TO FOLLOW THIS WILL RESULT IN DAMAGE TO THE ENGINE CASE THREADS WHEN YOU TORQUE THE SHORTER BOLT WHEN IN THE WRONG HOLE.

Adjusting The Primary Cover To Clear The Oil Tray

The easiest way is to place grease on the outer edge of the oil tray. Then hold the cover in place and rock around. The grease will transfer to the ribs inside the cover.

Then with a sander, grinder, drimmel, drill with a barrel sander or other suitable means remove the area of the ribs where the oil tray is contacting the cover. Repeat this until the cover comes flush with the primary without a gasket. The gasket insures proper clearances inside. Thoroughly clean all debris from the cover and install as instructed by the service manual.

(Figures 4, 5 & 6)

Return To Service

Carefully read and follow all instructions and warnings as defined by the service manual and installation sheets before returning to service. Insure that primary oil is added to the proper level.

Servicing your Compensaver

Your Compensaver Oil Delivery Tray does require servicing every 35,000 to 40,000 miles. Regular visual inspections of all the components in the Primary Drive is advised and offers the opportunity to service your Compensaver Oil Delivery Tray at the same time.

Follow service manual instructions for removing and installing the primary cover.

With the primary cover removed, flush with solvent. Clean, as best you can, the debris that has accumulated on the magnet in the bottom of the oil tray. This is a very powerful magnet so it is impossible to remove everything. A strong blast of compressed air will remove the most debris. **Wear eye protection**

With a pointed instrument scrap all the compacted debris that has accumulated in the intake groove. Flush thoroughly. Failure to keep the intake clear of obstructions will result in thrust area failure which would lead to a complete compensator assembly failure. The oil holes MUST BE KEPT CLEAR to insure proper lubrication of vital load surfaces.

Following the service manual instructions reinstall the cover using a NEW COVER GASKET. Fill to the proper level with primary oil.



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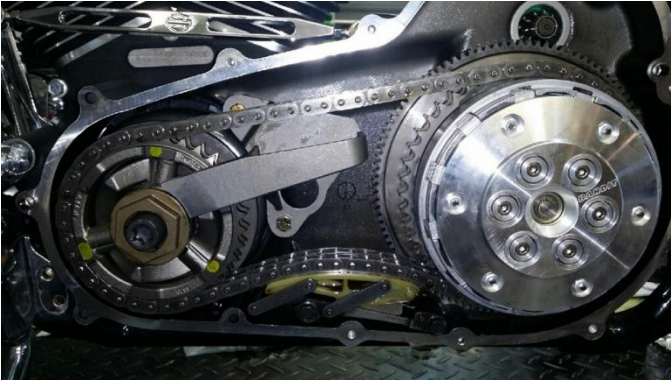


Figure 1; Properly installed CompenSaver Oil Tray



Figure 4; touring model rib removal for oil tray

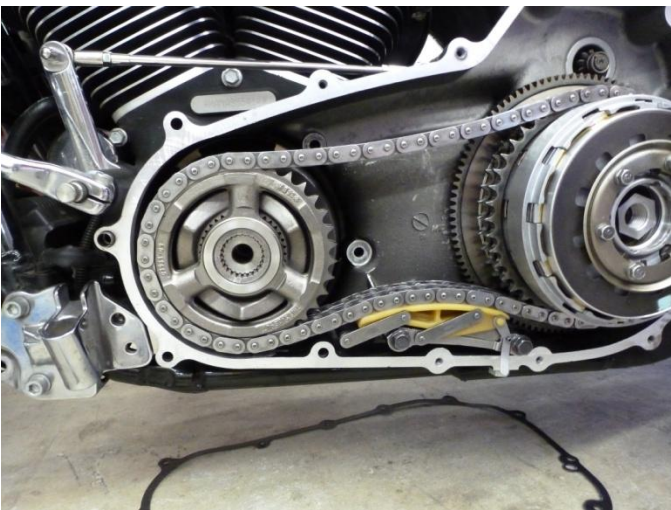


Figure 2; Remove the 2, 5/16" bolts from the inner primary to the rear of the sprocket



Figure 5; Softtail model rib removal for oil tray



Figure 3: Placement of O-Rings



Figure 6; Clearancing with a angle grinder



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Figure 7; **installing the SE oil scoop is necessary on retrofit applications** where the scoop is not cast into the cover



Figure 8; Composite thrust washer installed



Figure 9; Composite washer to be installed. **The 3 part axial roller thrust bearing to be discarded.**



Figure 10; Harley Auto chain adjuster 07+models years 39929-06B is the latest version

Note the top example, you can tell latest version because the bottom ratcheting plate that bolts to the inner primary is thicker than the first two revisions that were prone to bending and breaking.



Figure 11; Important preload check prior to install. The complete new compensator will need to be inspected and as it is assembled sit with the large hex facing down on the table. The depth from the top spring to the spline adapter/shaft extension is what needs to be measured. The spec. is .286"-.326". If it is less than .286" then there are spacers that can be used to add more preloaded. These spacers are .031" each and up to two can be used. The spacer PN is 1030021. ***Failure to check this could result in added noise to the compensator.***