ATI PERFORMANCE PRODUCTS

Installation Instructions

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ATI Super Damper – Jr Flywheel
Part #s: 917163 - 917164 - 917165

Congratulations on the purchase of your new ATI Super Damper designed for Junior Dragster and other Briggs & Stratton based flathead engines. The benefits of a properly tuned and functioning crankshaft harmonic balancer have been proven over and over for more than 75 years, and ATI has finally provided that benefit for the Briggs & Stratton platform.

Your new ATI Super Damper bolts have come with blue 242 Loctite installed and torqued to 18 ft lbs, and is set at zero degrees.

Timing Adjustments

Timing changes are done in + or – 2 deg increments using the supplied 1/8th inch dowel pin. Simply loosen the bolts, adjust till the hole in the shell lines up with the hole in the hub, insert your dowel pin, reapply blue Loctite and torque the bolts in a non-circular pattern to 18 ft lbs. 1-degree increment changes are made with the smaller lines that are lasered on the hub and the shell. They are hard to see, so please be careful.

NOTE – The timing marks on the OD of your damper shell are for reference when you make a timing pointer and have not moved the timing from 0 degrees. When you adjust the timing, your marks will obviously move!

Installation

Step 1. Remove your Flywheel

Remove your current non-damped flywheel by removing the main bolt that is also used to start your engine. Sometimes some heat is needed to help loosen the Loctite if it has been used on the starter nut. **Be sure to only put heat directly where the thread is on the nut.** If your current flywheel has adjustable timing, please take note. You may or may not need a puller device to get your flywheel off. This device threads into 2 holes in the current flywheel and allows you to use turn a center stud or bolt to press against the end of the crankshaft, pulling on the flywheel so it breaks free of the taper lock.

Step 2. Prepare for Installation

You MUST run a woodruff key with the ATI Super Damper – Jr Flywheel. Be sure the taper, keyway and the rest of the crank is in good clean order, with no nicks, or burrs. Use a permanent marker to make a line on the taper area that you can see

Step 3. Install the Super Damper

Push the ATI damper in with some force and rotate it left and right on the taper so that it will remove or smudge the line you made. You want to see that at least 80% of the line on the taper has been smeared or removed. If it has, then you are ready to install. If it has not, the you need to get some lapping compound and repeat the process to help the ID of the ATI Super Damper conform to the ID of the crank taper.

Once the step above is done, be sure both parts are clean, and carefully install your keyway, and put your finger behind the damper while you slide it on and make sure the keyway stays in place.

Your starter nut can now get reinstalled with blue Loctite and torqued to your engine builders' specs. 55-65 ft lbs seems to be the consensus but its pretty hard to hold the flywheel and most people use a 1/2 " impact and give it 2-3 impacts.

You are ready to get back to racing!