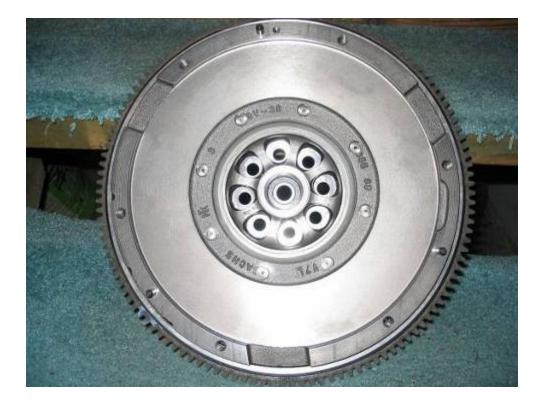
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For those viewing this file and procedures feel free to comment or note any errors as we can modify as needed.

## **PHASE 1 – Removing the friction place from the dual mass flywheel:**



This is the dual mass flywheel (Subaru 12345AA010), front side, showing friction plate to be removed by drilling and punching out the 8 rivets in the area with writings/markings. The rivets each have an indentation where the rivet shank was pulled.



Back side of flywheel. The pulled side of the rivet is hidden by the small caps. In the picture above note that a few rivets and caps have been punched out (on the bottom).



The flywheel profile. The side with the pins is the front side (this is the friction plate – my hand is on it).



I used a drill press to ensure that the holes to be drilled were as dead-on as possible.



I used the following bits -1/8 and 5/16 inch cobalt split point for stainless and heavy steel. The bits cut through the material almost like it was butter (no cutting oil used). The drill press uses a slow revolution/speed, and I used light pressure - just enough to shave material.



Using the existing rivet dimple I drilled first with a 1/8 in bit, no more than 15/32 inch deep. I marked this depth on the bit using tape. The black thing on the left is my vacuum nozzle. The picture above shows the 1/8 inch now drilled. The tape was bugged a little bit from shavings working their way up the bit.



After drilling the 1/8 inch hole next is using the 5/16 inch bit (or a 9/32). This size bit will leave only a slight rim of the rivet head left, which will spin off prior to drilling 15/64 (half the total depth of 15/32 to be drilled). You may feel if brake loose else just back off the drilling and see. Back off the bit and remove the "ring" if it is lodged on your bit (it may not be a "ring", of course, if you did not drill dead center). Then continue drilling the remainder of the 15/32 (or slightly less). In the picture above you can see the other rivets are removed already.



Place the flywheel on two boards such that the rivet can escape the back side when punched out. This was performed using a ¼ in pin punch (which I happened to purchase at Home Depot – Lowes didn't have it at my store). The picture above shows all other holes with the rivets already removed. Center the punch and use a solid/heavy hammer, keeping the punch as straight as possible. The rivet should punch out with just a few light to medium blows.



When you punch the last rivet the friction place will probably jar loose too. This picture shows it now removed (holding it). The flywheel holes are now ready to be tapped.



This is what the back side looks like where the rivet was punched through. You will note there is grease therein. This area houses the flywheel's greased planetary gears. Ideally some means to plug any gap after completing the flywheel installation should be included to keep debris out (to be determined).

The end of phase 1, removing the friction plate...

Next step would be to tap holes with 5/16-24.

The dual mass flywheel with friction plate off is approximately 2  $\frac{1}{2}$  lbs heavier than the solid flywheel that I removed.