LEXUS IS300 Automatic Rear Differential Fluid Replacement DIY

DISCLAIMER: The procedures, methods and products written up here was for my circumstances only and were performed on a 2001 Automatic. I make no promises that your results will be the same nor do I claim that this is the best way to do it. USE AT YOUR OWN RISK!

WARNING: Automotive fluids are not good for you. I have no reason do doubt the statement that used fluids are carcinogenic. Use latex gloves when handling used automotive fluid, and wash hands soon after you are complete with the task.

WARNING on working under a raised vehicle: This procedure requires that the vehicle be raised. Do not depend on the jack alone. Use jack stands and place them under the lift points as described in the owner's manual.

Time Required: 1 hour

Parts Needed:

Differential Drain/Fill Crush Wash Part Number: 12157-10010. $0.84 each
Qty Needed: 2

Differential Fluid used, Mobil 1 Synthetic 75/90 GL-5 rated. $9.85 each
Qty Needed: 1.3 qts (2 bottles)
(Don't cheap out here. This fluid will be in your car for 30k at least (my change interval). Some wait until 60k has passed to replace the differential fluid. That is a long time, and it is better to put in quality fluids and know that you are protected)

For people who have LSD, plan on purchasing a bottle of GM limited slip additive. Add this first, then add the differential fliuid until the diff is full. Thanks to Alexus_300 for this info.

Tools Needed:

-1/2" breaker bar
-10" 3/8" extension
-10mm allen key 3/8" socket
-torque wrench capable of up to 50 ft lbs
-12-14" length 3/8" clear tubing or a spill stop fluid tube (pictured)

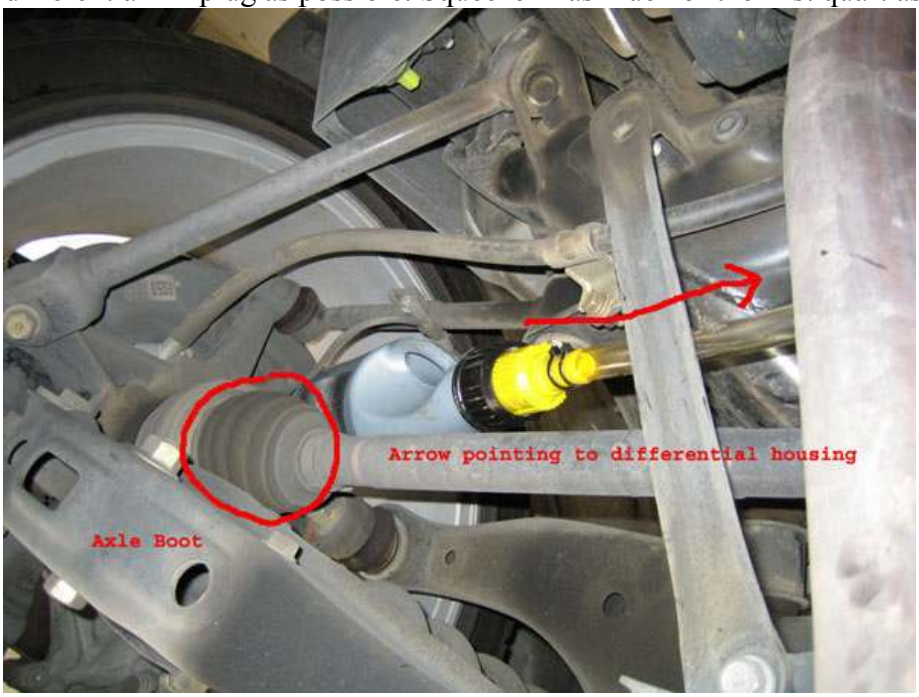
Begin by driving the car 5-7 minutes to warm the differential fluid. If the car is already hot, skip this step. Warm diff fluid will drain faster and more completely. Be aware that you are also working very close to the exhaust piping. If the car is fully warm, so too will be the exhaust.

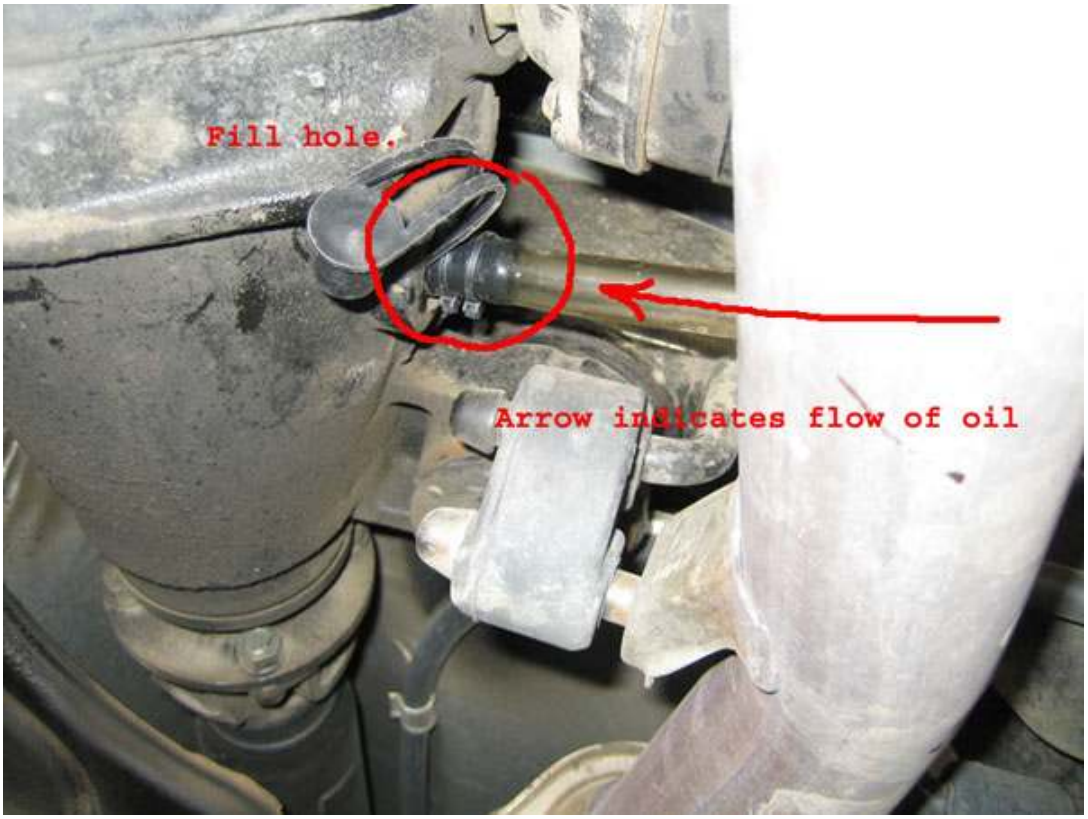
Step 1. Jack up the car. The car should be level when jacked up.
Step 2. Remove the *FILL* plug first. If you for some reason you drain the diff and cannot get the fill plug removed, you will have to flat bed your car to the dealer. Better to be safe and make sure you can undo the fill plug first. Use the 10mm allen head socket and the ½" breaker bar. This bolt will be tight. Make double sure that the allen is square and firmly in the hole before applying force.
Step 3. After you remove the fill plug, remove the drain plug using the same 10mm allen and the breaker bar.

Step 4. Allow fluid to drain. Go and have a beer and by the time you return it should be ready.
Step 5. Clean the drain plug. The plug is magnetic and is designed to capture and hold the fine metal shavings associated with normal wear. The plug should have black-like goo on it. If you see large metal shavings or chunks, call your dealer and ask them what they recommend.


Step 6. Replace the crush washer on both the drain and fill plugs. Reinstall the drain plug and tighten to 39 ft lbs.
Step 7. Use either the spill stop tube or the clear tubing, attach the tube to the top of the oil container. Make sure it is tight, as you will have to squeeze the fluid into the differential. You don't want any leaks as you will be under the tube while you are squeezing.

Step 8. Position the oil canister inside the passenger side wheel as far above the differential fill plug as possible. Squeeze in as much of the first quart as possible.





Step 9. When complete, you will likely have extra fluid left in the bottle. Transfer it to the full bottle and repeat the process. You should be able to get almost ½ of the 2nd bottle into the differential before fluid starts to drip out. Once fluid begins to drip, stop filling, remove the tube, and replace the fill plug (using a new crush washer)
Step 10. You will need a 10" extension to get far enough away to use a torque wrench. Torque this bolt also to 39 ft lbs.
Step 11. Double check that you have torqued both fill and drain plugs. You are done.

Optional tasks:
- Since you are under your car, you should check all 4 of your axle boots. Any leaks or tears in these boots could mean a costly repair. However if caught early, you can just replace the boot, repack it with grease, and be fine.