

Installation instructions

For set # 19.1105

2005-2009 Subaru Legacy/Outback Rear Differential bushing set



1131 VIA CALLEJON, SAN CLEMENTE, CA 92673

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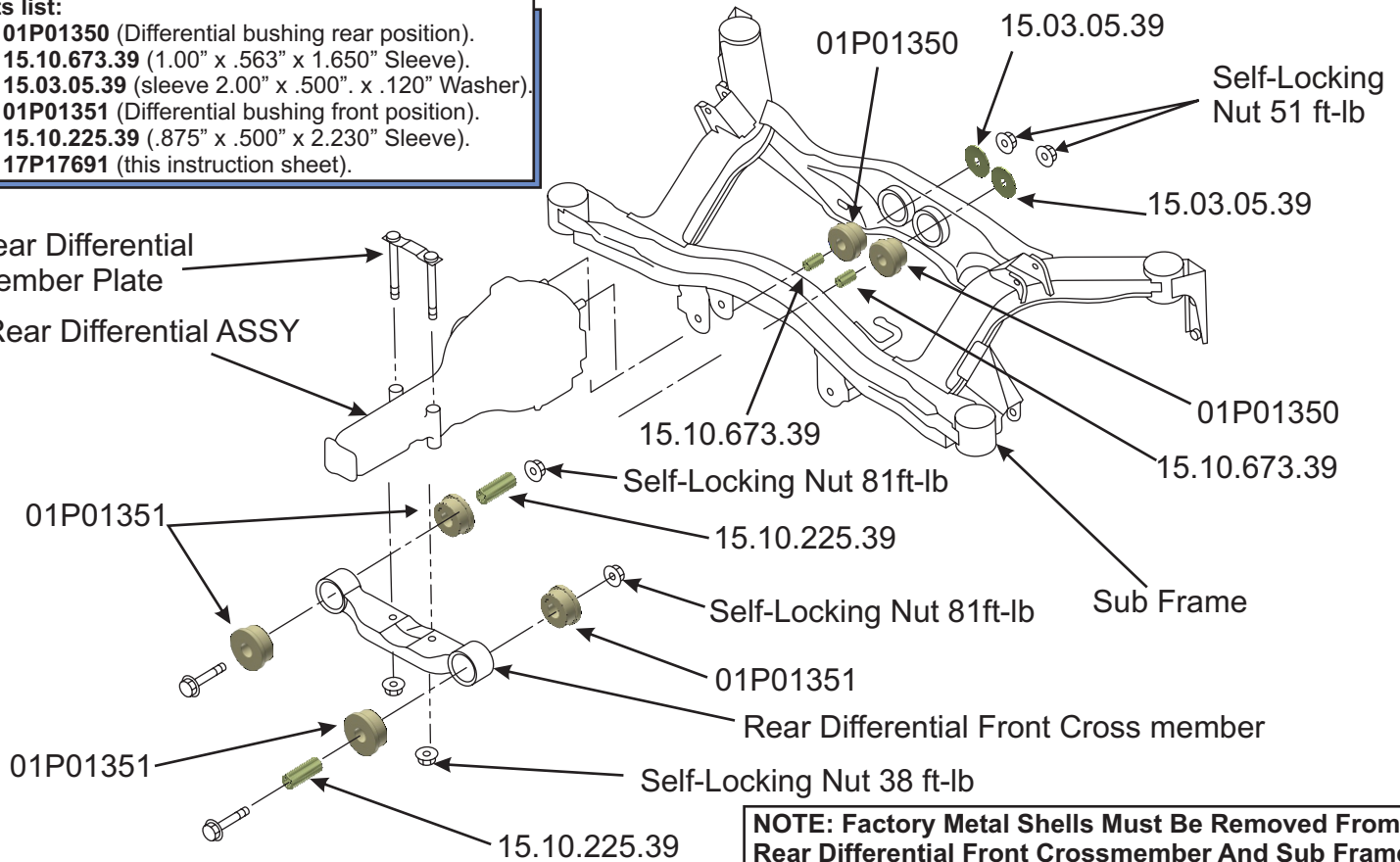
It is recommended that if you are unfamiliar with this type of work that you refer to a qualified service center specializing in this type of work. It is also recommended that if you choose to do this work yourself that a factory service manual be obtained for the proper procedures for different model options, NOTES, CAUTION and WARNINGS pertaining to removal, replacement and proper torque specifications for your vehicle. This instruction set is intended as a guideline for the safe installation of Energy Suspension's polyurethane bushings, once you have removed the factory components from your vehicle. Wheel alignment is almost always disturbed when suspension components are removed or replaced. It is recommended that you have the alignment checked on your vehicle at a qualified alignment shop. Energy Suspension recommends that you read over all the installation instructions and check all P/N's and quantities in the parts list before you start. Call customer service at 949-361-3935 if the parts in your kit do not match this parts list. Prior to installation, make sure that your vehicle is in excellent mechanical condition and that there are no suspension or steering related problems. This part has been designed to work only with a vehicle that is in good state of repair. No matter how carefully we design our parts, this is one area we have no control over and cannot be held responsible.

Parts list:

- 2 - 01P01350 (Differential bushing rear position).
- 2 - 15.10.673.39 (1.00" x .563" x 1.650" Sleeve).
- 2 - 15.03.05.39 (sleeve 2.00" x .500" x .120" Washer).
- 4 - 01P01351 (Differential bushing front position).
- 2 - 15.10.225.39 (.875" x .500" x 2.230" Sleeve).
- 1 - 17P17691 (this instruction sheet).

Rear Differential
Member Plate

Rear Differential ASSY



Removal: Disconnect the ground cable from battery. Loosen the rear wheel lug nuts. Lift the vehicle up and support with jacks stands at the specified points. Put the gear shift lever to neutral. Release the parking brake. Remove the rear wheels and set aside. Remove the rear exhaust pipe and muffler. Remove the heat shield cover. Make matching marks on the flange yoke and flange yoke of the rear differential before removal. (Fig. 1) Remove the bolts which hold drive shaft to rear differential. Remove the two bolts which hold center bearing to vehicle body. (Fig.2) Remove the drive shaft from transmission. Use a container to catch ATF or oil flowing from drive shaft and transmission. (Fig. 3) Support the rear differential with transmission jack. (Fig. 4) Remove the rear differential front cross member. (Fig. 5) Loosen the self-locking nuts which hold the rear differential to rear sub frame cross member. (Fig. 6) After removing the nuts, lower the transmission jack and remove the differential from under the vehicle. (Fig. 7) At the same time, pull out the axle shafts from rear differential while lowering the transmission jack. (Fig. 8) Secure the rear drive shaft to lateral link using wire or zipties. (Fig. 9) NOTE: The O.E. differential bushings are bonded rubber with an inner metal sleeve and outer metal shell that is pressed into the front crossmember and sub frame. The outer metal shell must be removed from the front crossmember and sub frame. To remove the O.E. rubber bushings Use a hydraulic press to press out the bushing with outer metal shell from the front differential cross member. (Fig. 10) Install new bushings 01P01351 and 15.10.225.39 sleeves into crossmember at both ends. (Fig. 11) Bushing removal for the rear position in sub frame can be done using a hammer and chisel to knock the outer metal shell out or drill out the rubber to make room for a hack saw blade or sawsall blade to cut the outer metal shell length-wise to relieve the tension of the press fit. A third technique for removal is to use threaded rod, tubing, thick flat washers, small flat washers and nuts. (Fig. 12) The cutaway view shows the layout before tighten the nuts to remove O.E. bushing. (Fig. 13) Install rear position differential bushing from the inside of sub frame with P/N facing to the rear. (Fig. 14 & 15) Installation is in reverse order. torque all hardware to factory specifications. check fluid level in the transmission and differential. After driving 100-200 miles recheck all hardware for proper torque and tighten if needed.

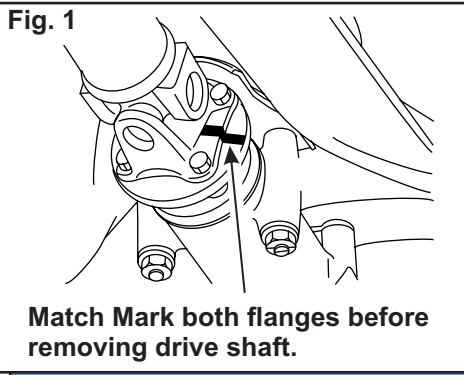


Fig. 1
Match Mark both flanges before removing drive shaft.

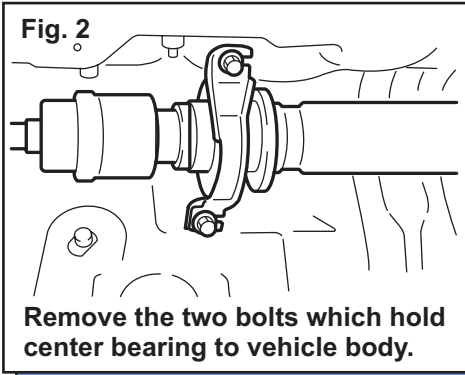


Fig. 2
Remove the two bolts which hold center bearing to vehicle body.

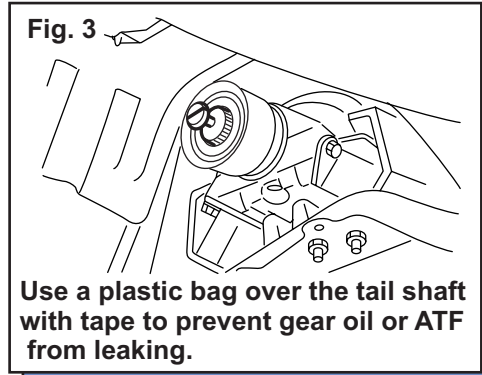


Fig. 3
Use a plastic bag over the tail shaft with tape to prevent gear oil or ATF from leaking.

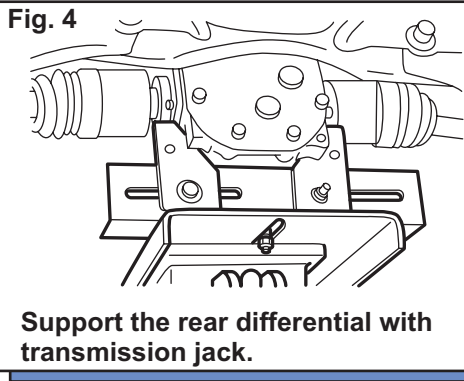


Fig. 4
Support the rear differential with transmission jack.

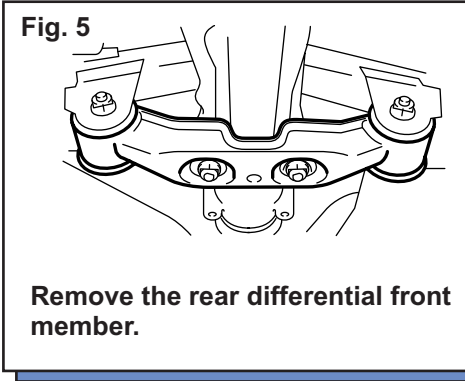


Fig. 5
Remove the rear differential front member.

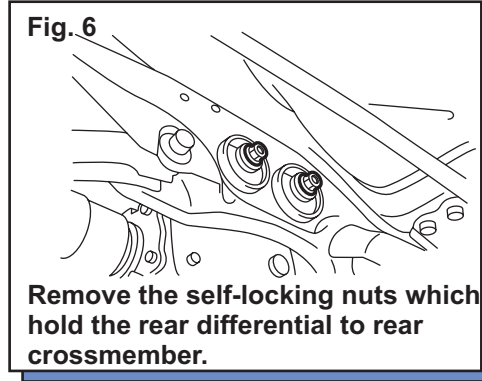


Fig. 6
Remove the self-locking nuts which hold the rear differential to rear crossmember.

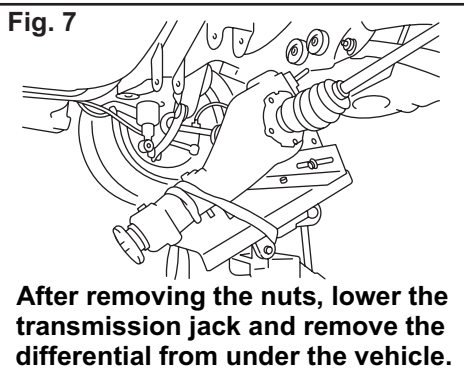


Fig. 7
After removing the nuts, lower the transmission jack and remove the differential from under the vehicle.

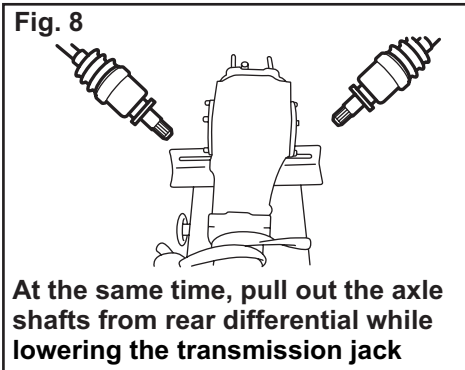


Fig. 8
At the same time, pull out the axle shafts from rear differential while lowering the transmission jack

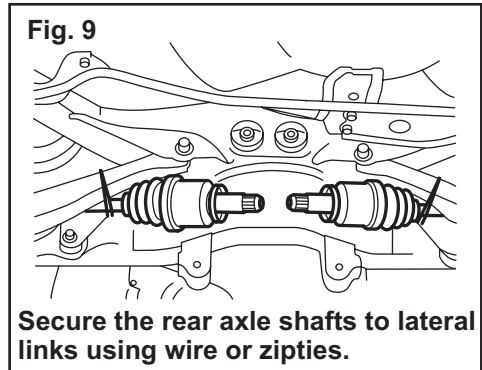


Fig. 9
Secure the rear axle shafts to lateral links using wire or zipties.

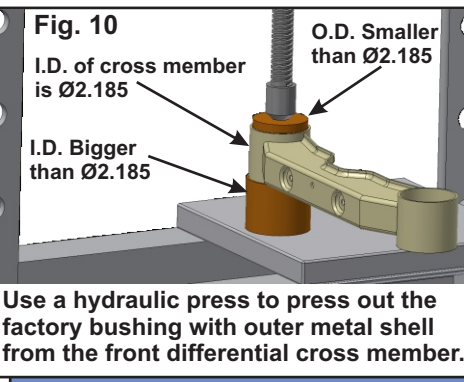


Fig. 10
I.D. of cross member is $\varnothing 2.185$
O.D. Smaller than $\varnothing 2.185$
I.D. Bigger than $\varnothing 2.185$
Use a hydraulic press to press out the factory bushing with outer metal shell from the front differential cross member.

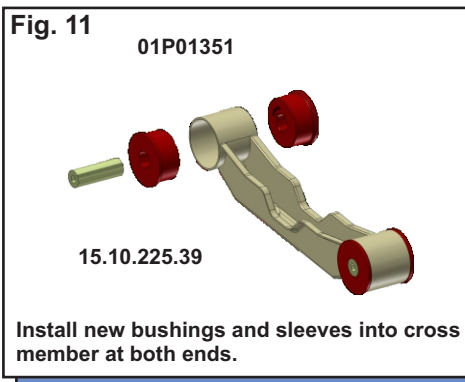


Fig. 11
01P01351
15.10.225.39
Install new bushings and sleeves into cross member at both ends.

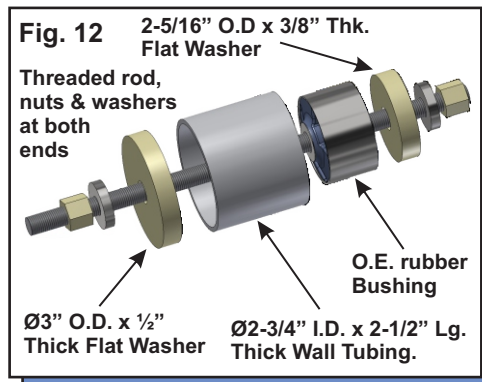


Fig. 12
2-5/16" O.D x 3/8" Thk. Flat Washer
Threaded rod, nuts & washers at both ends
O.E. rubber Bushing
 $\varnothing 3$ " O.D. x 1/2" Thick Flat Washer
 $\varnothing 2-3/4$ " I.D. x 2-1/2" Lg. Thick Wall Tubing.

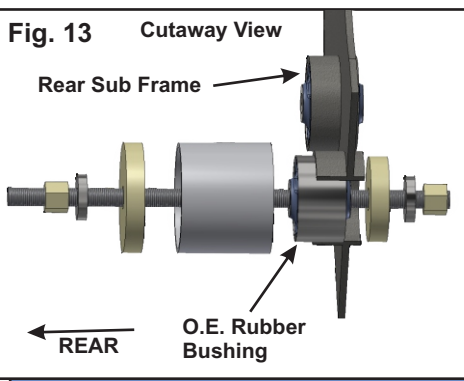


Fig. 13 Cutaway View
Rear Sub Frame
O.E. Rubber Bushing
REAR

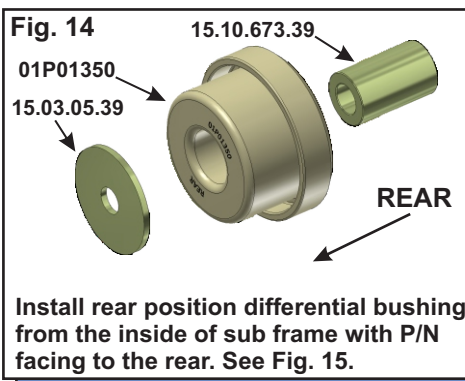


Fig. 14
15.10.673.39
01P01350
15.03.05.39
REAR
Install rear position differential bushing from the inside of sub frame with P/N facing to the rear. See Fig. 15.

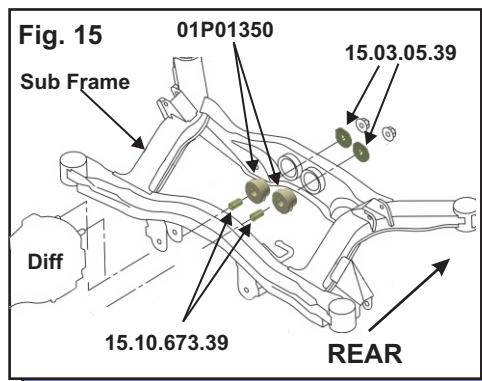


Fig. 15
01P01350
15.03.05.39
Sub Frame
Diff
15.10.673.39
REAR