

- ATTENTION:**
- GENERAL MANAGER
 - PARTS MANAGER
 - CLAIMS PERSONNEL
 - SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.

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QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2010-19MY Legacy and Outback
 2014-19MY Forester
 2012-19MY Impreza
 2013-19MY Crosstrek (Exc. 19MY PHEV)
 2015-19MY WRX
 2019-20MY Ascent

NUMBER: 16-103-16R

DATE: 12/14/16

REVISED: 10/27/21

SUBJECT: Transmission Fluid Seepage

INTRODUCTION:

This bulletin has been developed in response to a small number of customer concerns regarding fluid seepage found coming from the CVT assembly. Investigation has identified likely sources of the seepage to be the sealant used on the CVT's oil pump chain cover and the input shaft oil seal. The repair involves chain cover removal, a thorough cleaning and inspection of the sealing surfaces followed by re-sealing the cover and replacement of the input shaft oil seal with the new, redesigned type.

PRODUCTION CHANGE INFORMATION:

The available starting VINS for incorporation of the new input shaft oil seal are supplied to the right. This bulletin will be revised with the VINs for the remaining applicable models as they become available.

Model	Starting VIN
Legacy	L3002280
Outback	L3100230
Ascent	L3407153

PART INFORMATION:

Description	Part Number
THREE BOND 1215	SOA868V9600
RING SEAL	31377AA510
RING SEAL	806916060
RING SEAL	31377AA550
OIL SEAL	806747030

SERVICE PROCEDURE / INFORMATION:

As a first step, during inspection of the customer's concern, confirm the fluid found to be seeping is CVT fluid (CVTF) and not engine oil. The photos below are examples of where CVTF seepage may be evident.

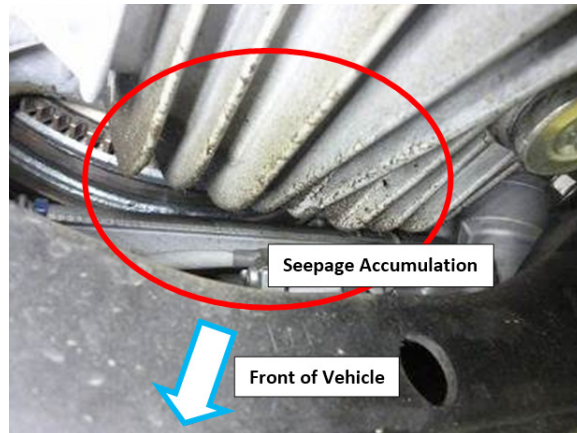
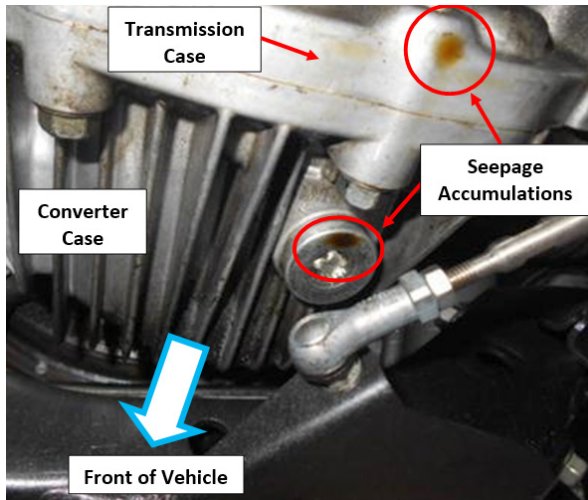
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CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

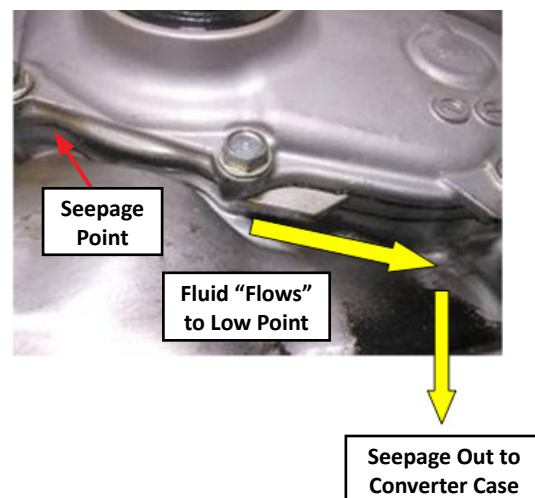
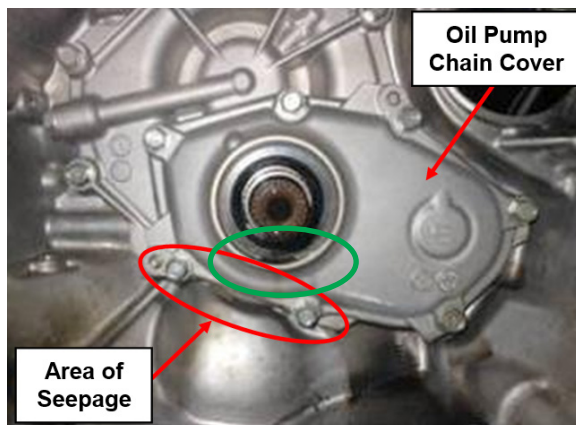
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ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.



- Once the inspection has confirmed the seepage is CVTF, remove the CVT assembly following the procedure outlined in the applicable Service Manual.
- **CAREFULLY** remove the torque converter from the CVT and inspect the area of the oil pump chain cover as indicated in the photo below for any accumulation of CVTF and road dirt which may also have collected in the area.

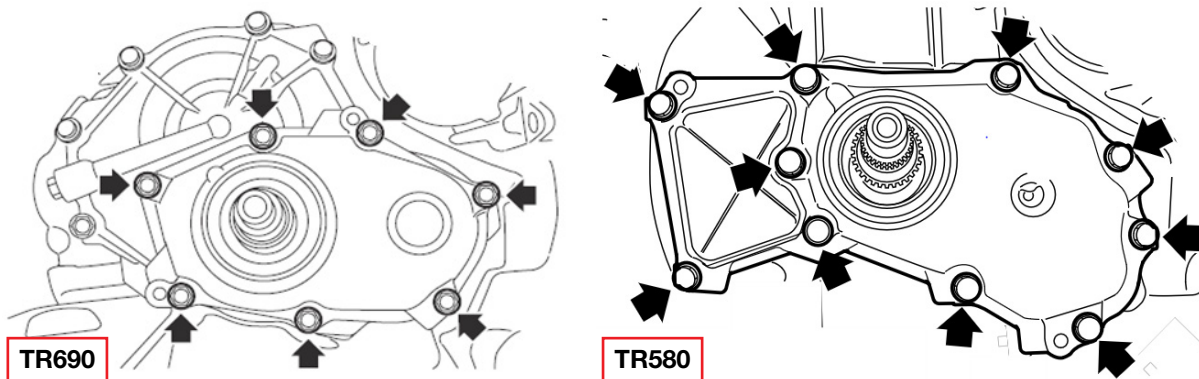
NOTE: A small amount of fresh CVT fluid may appear near the 6:00 position of the seal area during removal of the torque converter (GREEN circle).



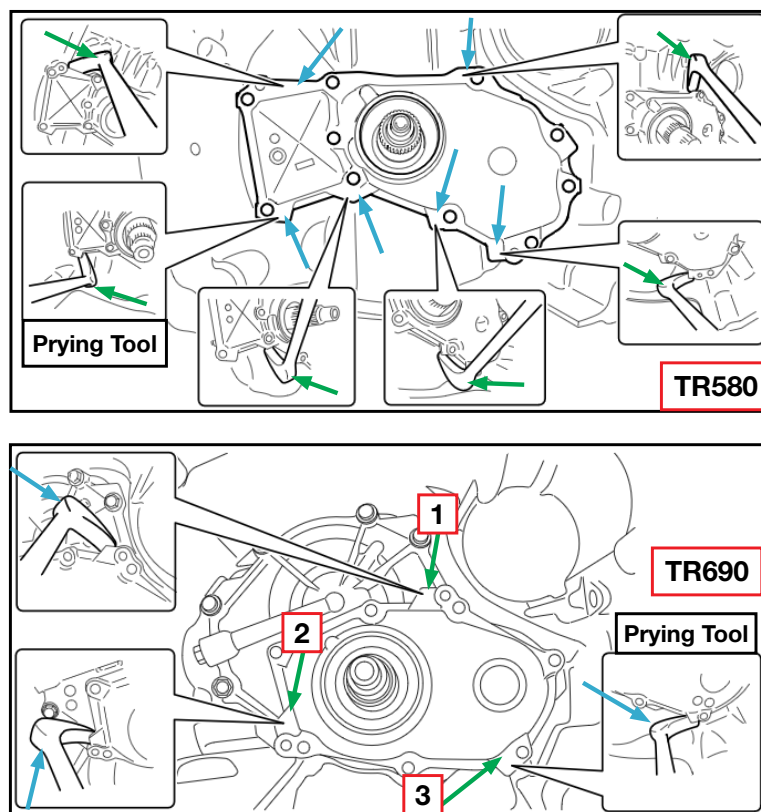
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Oil Pump Chain Cover Re-Sealing (TR690) & (TR580):

- Remove the 7- (TR690) or 10- (TR580) 12mm hex bolts securing the oil pump chain cover.



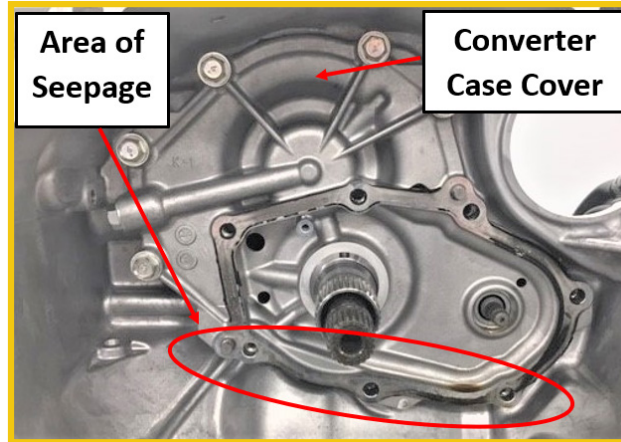
- Using a prying tool, **CAREFULLY** pry (GREEN arrows IN THE ORDER SHOWN for **TR690** model) the cover loose from the housing. Pry **ONLY** on the specific areas or “tabs” of the pump cover indicated by the BLUE arrows. When the cover starts to come loose, continue to pry **ONLY** on the tabs and not the machined sealing surface of the cover.



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TR690 ONLY

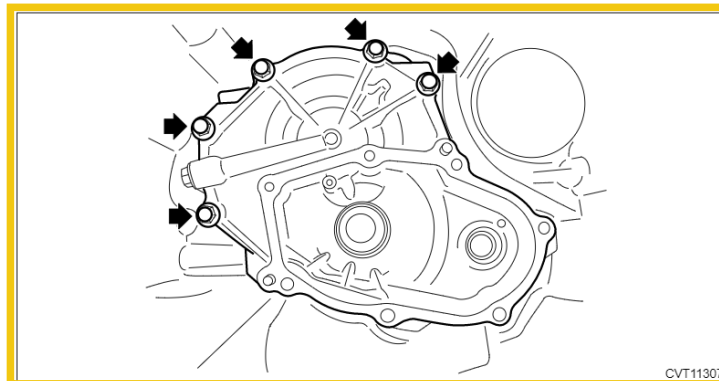
Check the mating surface of the converter case cover for CVT fluid seepage.



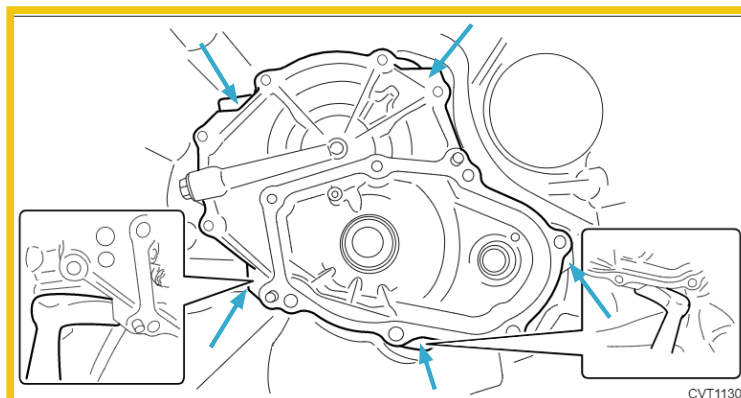
- If CVT fluid is found leaking in this area, remove and re-seal the converter case cover. Refer to the “**Converter Case Cover Re-Sealing**” section of this bulletin. If NO CVT fluid is found leaking in this area, continue with the procedures for re-sealing the oil pump chain cover.

Converter Case Cover Re-Sealing (TR690 ONLY):

- Remove the 5 – 12mm hex bolts securing the converter case in a crossing pattern.

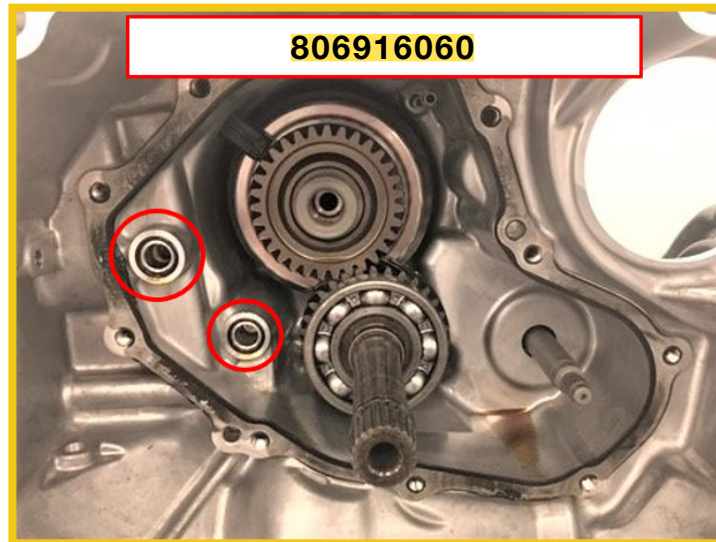


- Using a prying tool, **CAREFULLY** pry the cover loose. Pry **ONLY** on the specific areas or “tabs” of the converter case cover. Once the cover is loose, continue to pry only on the tabs and not the machined sealing surfaces.

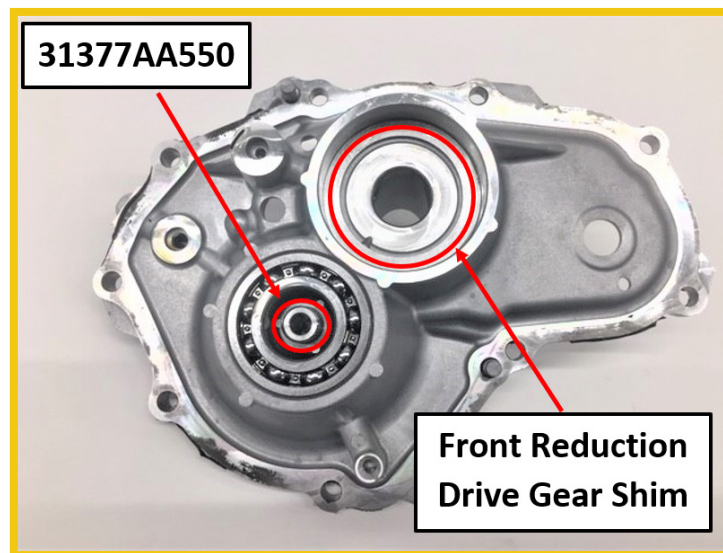


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- Remove and replace the two **one-time use** o-rings (806916060).



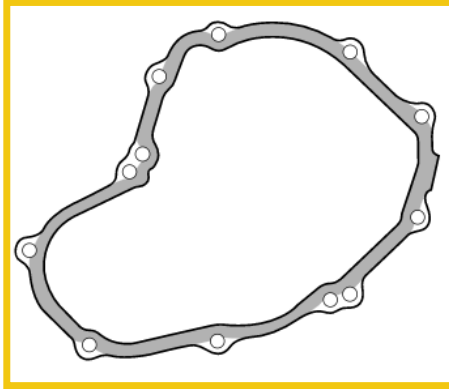
- IMPORTANT:** Always confirm the front reduction drive gear shim stays with the converter case cover when removing and prior to re-installation.



- CAREFULLY** remove all residual sealant completely from the cover and mating surface of the housing. **DO NOT** use any abrasive or gasket removal / cleaning discs. Use the adhesive side of a piece of duct tape (or equivalent) to pick up any loose pieces of sealant material which may be found in the cavity around the stator support. **DO NOT** use compressed air.
- Inspect both of the machined sealing surfaces closely for irregularities. If necessary, replace the cover following the applicable Service Manual Procedures.
- Remove and replace the **one-time use** o-ring (31377AA550).

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- **CAREFULLY** apply the new sealant bead to the converter case cover along the edge of the chamfer as shown

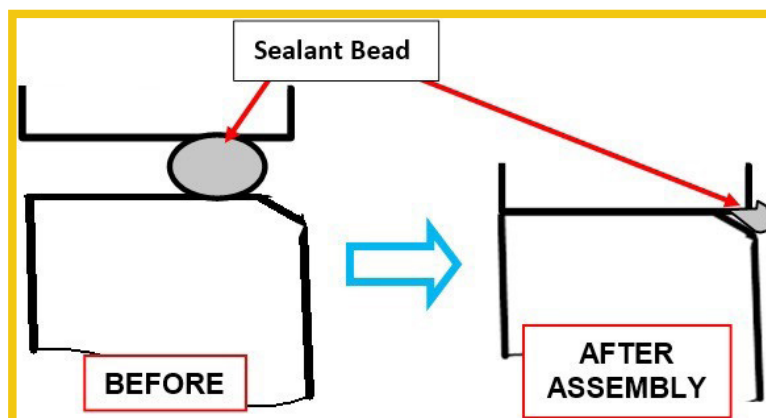


NOTE: As shown above, a properly applied, small bead of sealant will fill in the chamfered portion after the cover is installed. Do not use an excessive amount of sealant.

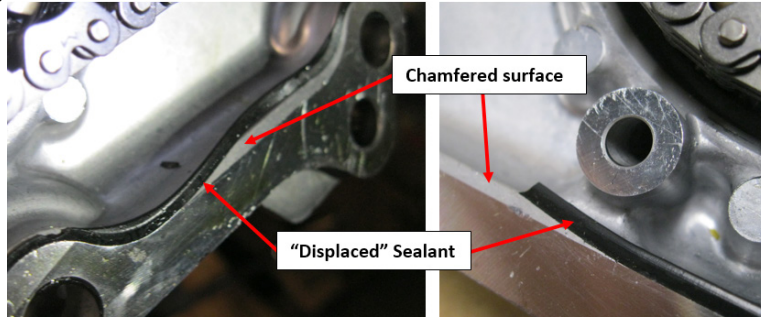
- Install the converter case case cover. Install the 5 – 12mm hex bolts and torque to **24Nm (17.7 ft.lbs)** in a crossing pattern.

Oil Pump Chain Cover Re-Sealing (TR690) & (TR580) Continued:

- **CAREFULLY** remove all residual sealant completely from the cover and mating surface of the housing. DO NOT use any abrasive or gasket removal / cleaning discs. Use the adhesive side of a piece of duct tape (or equivalent) to pick up any loose pieces of sealant material which may be found in the cavity around the stator support. DO NOT use compressed air.



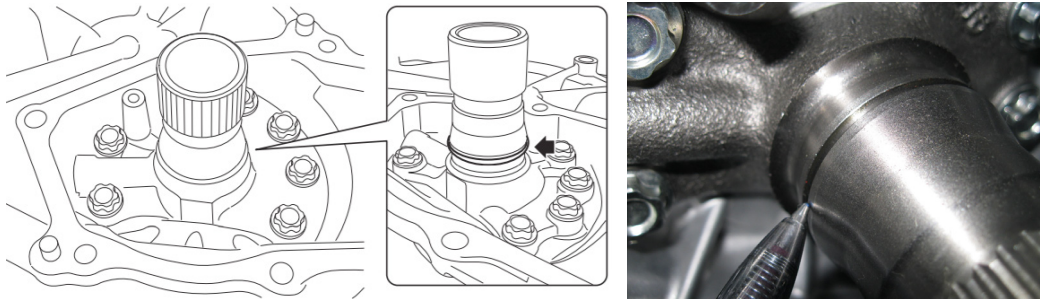
- Take note of how the sealant on the removed cover forms an additional “seal” when it becomes displaced into the chamfer around the inside edge of the case’s machined surface at assembly.



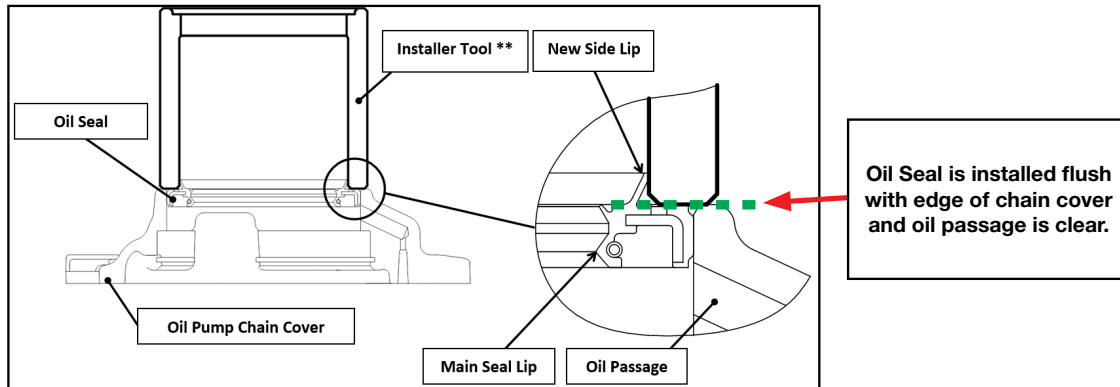
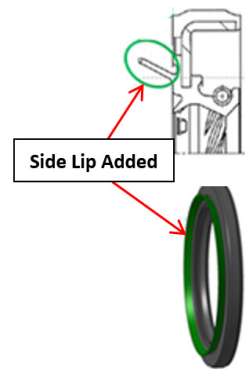
- Inspect both of the machined sealing surfaces closely for irregularities. If necessary, replace the cover following the applicable Service Manual procedures.

NOTE: Should the cover need to be replaced, always confirm the new part has the new-style input shaft seal with the additional side lip as described below before installation.

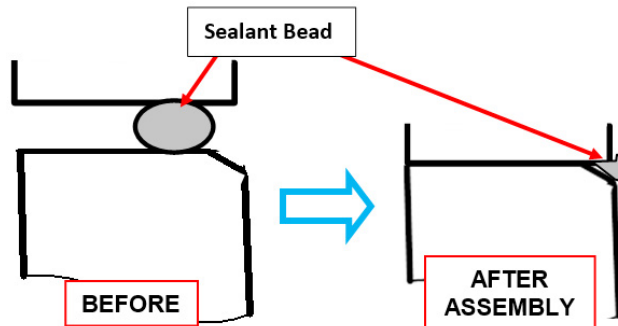
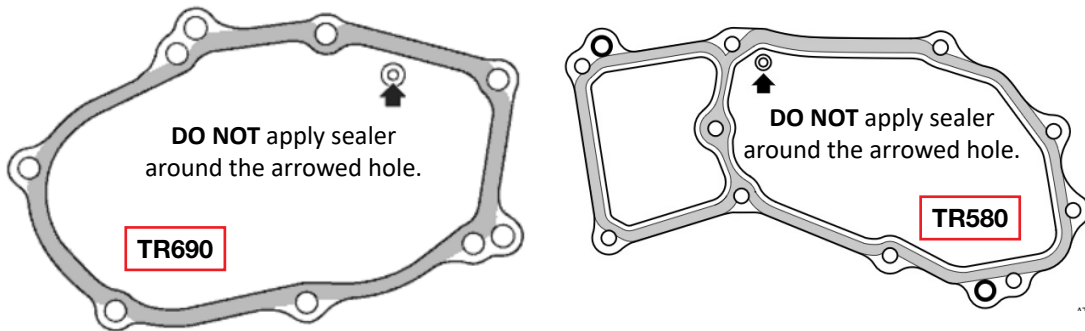
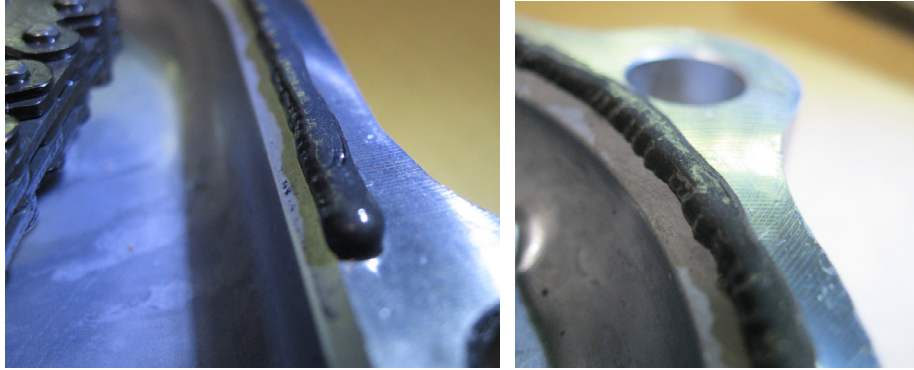
- **IMPORTANT:** Before reassembly, always replace the **ONE TIME USE** plastic sealing ring on the center support and thoroughly lubricate it with CVT fluid.



- The re-designed input shaft oil seal has a new side lip added to supplement the existing main seal lip. The purpose of the additional side lip is to direct the flow of dust and water around the seal and away from the sealing surfaces.
- Apply CVT fluid to the main seal lip **only** before installation.
- When installing this new seal, it is **STRONGLY** recommended to use the proper installer tool ****OPTIONAL Special Tool 927890000** as shown in the illustration below. Otherwise, If the seal were to be installed too deep into the bore of the chain cover (beyond flush with the chain cover edge as shown below), the oil passage may become restricted or blocked.

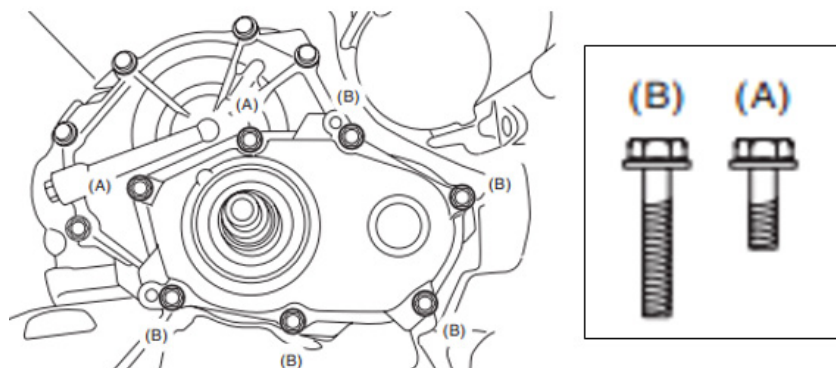


- Once both surfaces and the area surrounding the cover are completely clean, dry and the new input seal is properly installed, CAREFULLY apply the new sealant bead to the cover along the edge of the chamfer as shown below.



NOTE: As shown above, a properly applied, small bead of sealant will fill in the chamfered portion after the cover is installed. Do not use an excessive amount of sealant.

- On the TR690, there are 2 different length bolts for the pump cover. Make sure the proper length bolts (**A** and **B**) are in their respective holes as shown below. Torque to **24 Nm (17.7 ft. lbs)** in a crossing pattern.



- For the TR580 (all 10 cover bolts are the same length), apply the sealer, (EXCEPT for the arrowed hole), reinstall the cover and torque the bolts to **21 Nm (15.5 ft. lbs.)** in a crossing pattern.
- **CAREFULLY** reinstall the torque converter and the CVT assembly in reverse order of removal following the service procedure in the applicable Service Manual.
- Road test to confirm the repair and proper vehicle operation.

WARRANTY / CLAIM INFORMATION:

For vehicles within the Basic New Car Limited or Powertrain Limited Warranty period or covered by an active Subaru Added Security Powertrain, Classic or Gold plan, this repair may be submitted using the following claim information:

Labor Description	Labor Operation #	Applicability	Labor Time	Fail Code
CVT R&R and RESEAL of OIL PUMP CHAIN COVER Includes: CVT assembly R&R, chain cover R&R, cleaning, center support seal ring, input shaft oil seal replacement and reseal	B303-135	2010-19MY Legacy / Outback 2.5 and 3.6L	4.2	MTZ-34
		2014-19MY Forester 2.5L	3.9	
		2014-18MY Forester 2.0L DIT	4.5	
		2012-16MY Impreza	3.9	
		2017-19MY Impreza	5.2	
		2013-17MY Crosstrek	3.9	
		2018-19MY Crosstrek	5.2	
		2019MY Ascent	4.1	
2015-19MY WRX	4.0			
CHAIN COVER REPLACE (ONLY if determined necessary after cleaning and inspection)	C303-136	All	0.1	
Case Cover Reseal or Replace	C303-137	2014-18MY Forester 2.0L DIT	0.2	
		2019-20MY Ascent		
		15-19MY Legacy / Outback 3.6L		
		2015-19MY WRX		

IMPORTANT REMINDERS:

- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.