ATTENTION:

GENERAL MANAGER ❑
PARTS MANAGER ❑
CLAIMS PERSONNEL ❑
SERVICE MANAGER ❑

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

SUBARU

QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2011-2014MY Forester Models with FB Engine

SUBJECT: Oil Seepage Diagnosis and Repair Procedures

NUMBER: 02-131-12R
DATE: 07/18/12
REVISED: 03/10/15

INTRODUCTION

The purpose of this Bulletin is to provide procedures for the diagnosis and repair of oil seepage which may be coming from the timing chain cover, front camshaft cap, camshaft carrier and / or upper oil pan.

There are five areas that should be closely inspected if an oil leak is reported by the customer:

1. The 6mm tapped hole casting boss area in the left-hand camshaft cap
2. The sealing surfaces between either the left or right-hand camshaft cap and camshaft carrier
3. The sealing surfaces between the cylinder head and camshaft carrier
4. The sealing surface between the upper oil pan and the engine block
5. The sealing surfaces of the front timing chain cover

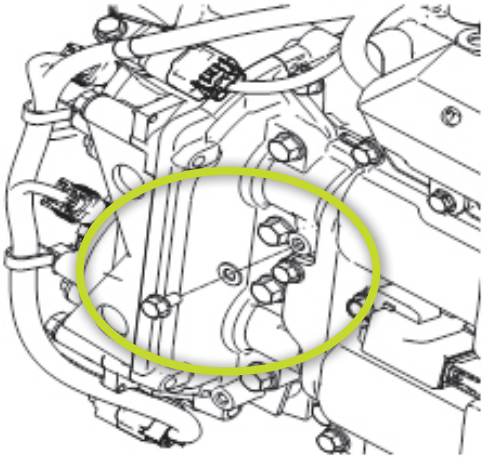
Note: Refer to the April 2011 issue of TIPS for more information on Fluid Leak Detection.

If oil seepage is verified coming from the 6mm threaded hole in the left-hand camshaft cap, install the specified bolt and flat washer.

Bolt: Part# 800206180

Washer: Part# 031106000

Tightening Torque: 6.4 +/- 0.5 Nm
(57 +/- 4 inch-pounds)



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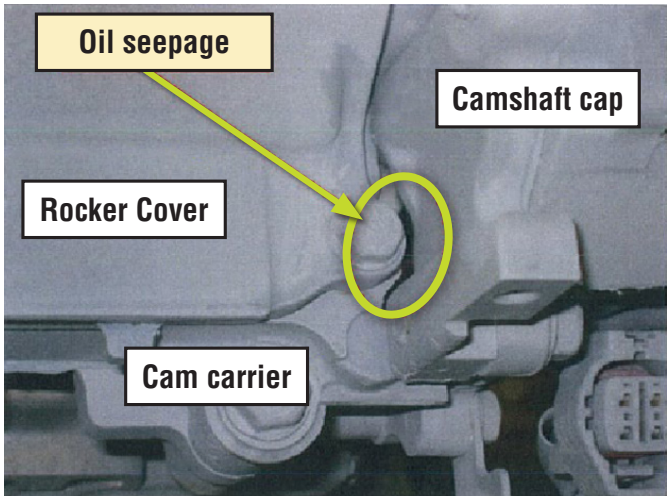
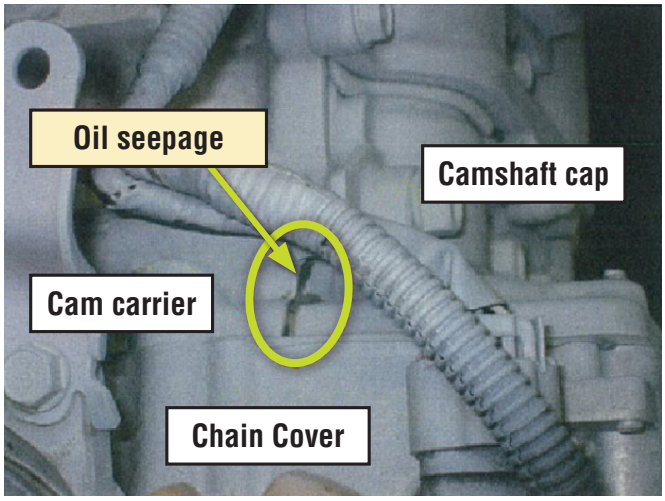
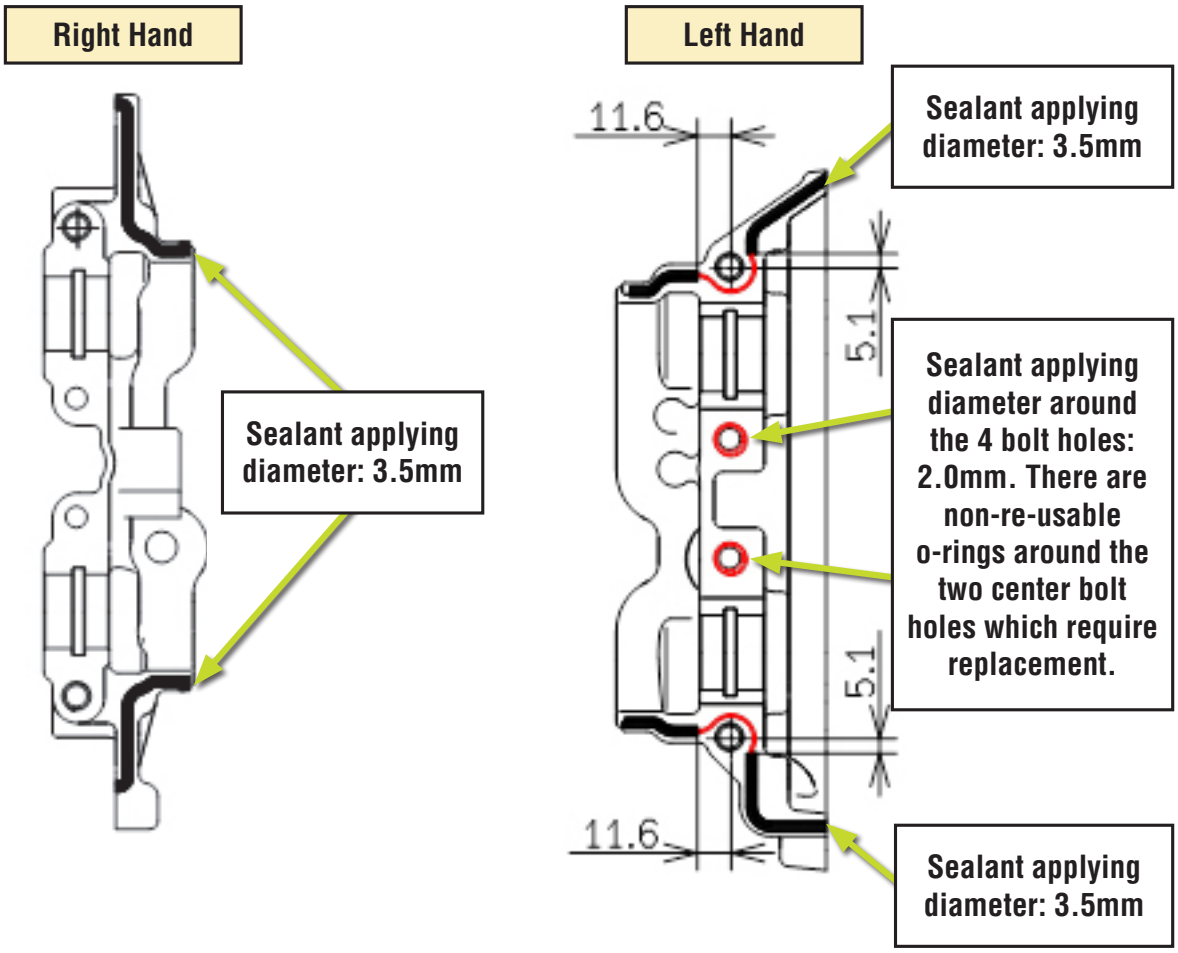
If oil seepage is verified coming from the front camshaft cap or cam carrier as shown in the photos below, remove the cam cap and clean both surfaces thoroughly before applying sealer. **Note:** The 2 o-rings between the camshaft cap and the cam carrier will need to be replaced as they are not re-usable.





Apply Liquid Gasket, ThreeBond 1280B, (Part No. SOA5499100) or equivalent* as shown below:



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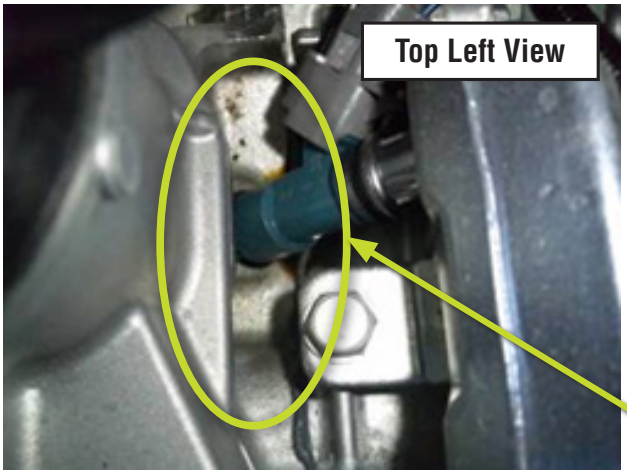
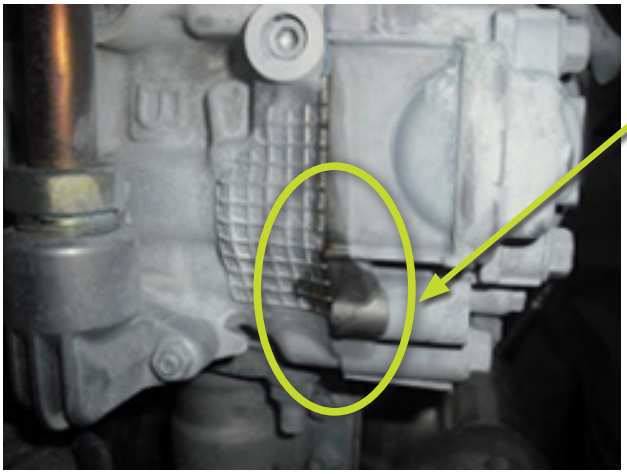
If oil seepage is verified coming from between the cam carrier and the cylinder head as shown in the photos below, remove the cam carrier. Clean the machined sealing surfaces thoroughly and then re-seal using Liquid Gasket ThreeBond 1280B, (Part No. SOA5499100) or equivalent*. As shown in the photos below, the o-rings between the cam carrier and the cylinder head will need to be replaced as they are not re-usable. This would also be a good time to clean the Active Valve Control System (AVCS) filter screens which are contained in the cam carriers. **NOTE:** The filter screens are one-time use and must be replaced if they need to be removed. The replacement filter part# is 14451AA050.





Cam carrier seepage seen from top left and lower right side of engine

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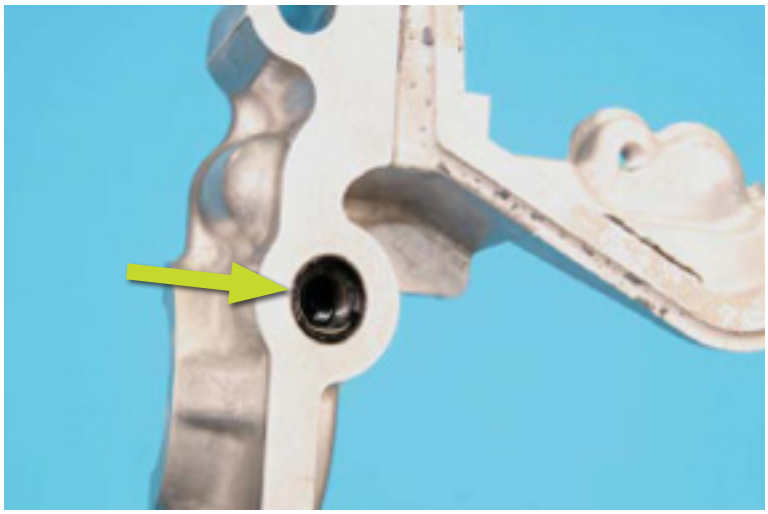
Cam carrier o-rings requiring replacement



AVCS filter screen in cam carrier

If you find engine oil seepage between the cylinder block and upper oil pan, remove the upper oil pan, clean the machined sealing surfaces thoroughly and then re-seal using Liquid Gasket ThreeBond 1280B, (Part No. SOA5499100) or equivalent*. **Note:** The o-rings between the upper oil pan and the cylinder block along with those between the upper and lower oil pan will need to be replaced as they are not re-usable.

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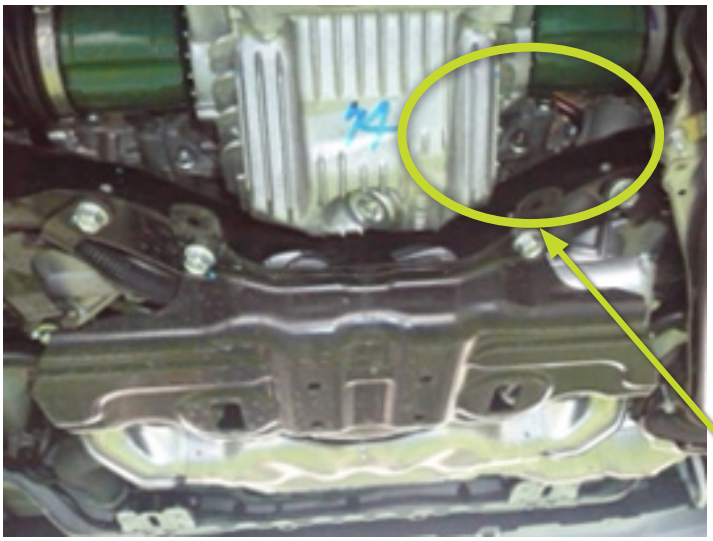

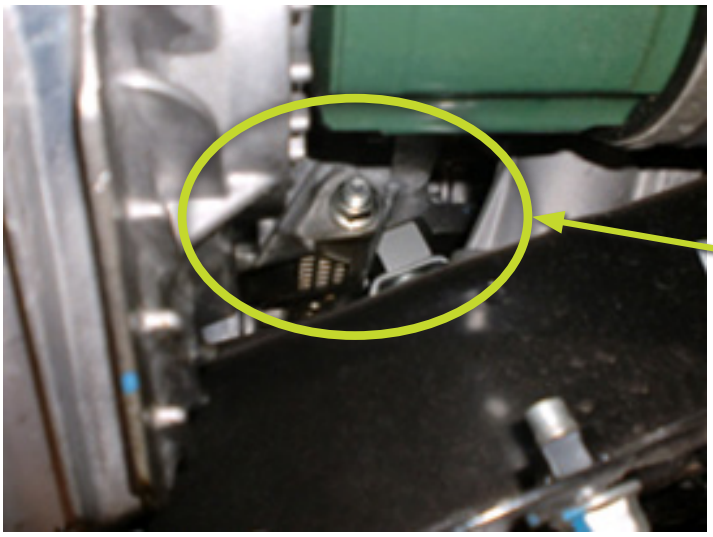

As viewed from the rear, oil seepage from the upper pan to engine block sealing area may be present in these areas.

Photo shows seepage from upper oil pan to engine block sealing surfaces.

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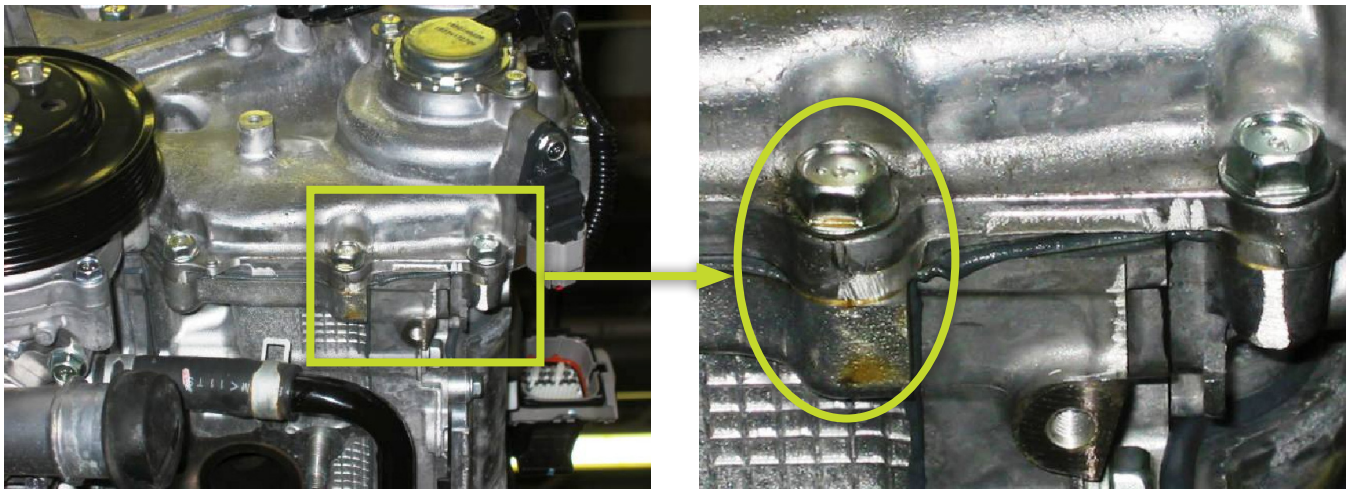
Front Timing Chain Cover resealing procedures:

Note: Only reseal the front chain cover AFTER confirming there is no oil seepage coming from the cam retainer cap (area 1) as previously described.



1. If there are no oil droplets found on the engine under-cover or the lower radiator hose, thoroughly clean the chain cover sealing area along with the surrounding cylinder head and crankcase areas. Re-check for oil seepage again at the next service interval.
2. If the front chain cover is leaking and needs to be resealed, follow the repair procedure in the applicable Service Manual. Thoroughly clean and inspect the sealing surfaces then re-seal using Liquid Gasket ThreeBond 1280B, (Part No. SOA5499100) or equivalent*.

*See Service Bulletin 01-167-08 for recommended and alternative sealing materials.

COUNTERMEASURES

VEHICLE	INSPECTION AREA	COUNTERMEASURE	STARTING VIN#	STARTING ENGINE #
Forester	1	Elimination of 6mm tapped hole in boss of camshaft cap	C*447908	0266216
	2	Enhanced cleaning procedure for sealing surface of camshaft cap	C*411592	0156924
	3 and 4	Additional sealer added	C*468399	0345502
	5	Enhanced cleaning procedure for sealing surface of chain cover	C*468399	0345489

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WARRANTY/CLAIM INFORMATION

For vehicles within the Basic New Car Limited and / or Powertrain Warranty period, this repair may be claimed using the following information:

AREA NUMBER	LABOR DESCRIPTION	LABOR OPERATION #	TRANMISSION TYPE				FAIL CODE
			5MT	4AT	6MT	CVT	
1	OIL SEEPAGE REPAIR, L/H CAM CAP THREADED BOSS	B243-611	0.3				AFR-34
	ENGINE OIL &/or COOLANT LEAK TESTING & DIAGNOSIS	C245-001	0.4				
2	H4 ENGINE R&R FOR CAMSHAFT SERVICING	B293-100	2.7	3.9	3.5	3.9	AFV-34
	LH CAM CAP RESEAL	C293-102	4.5				
	RH CAM CAP RESEAL	C293-101	4.6				
	BOTH CAM CAPS RESEAL	C293-104	5.9				
	ENGINE OIL &/or COOLANT LEAK TESTING & DIAGNOSIS	C245-001	0.4				
3	H4 ENGINE R&R FOR CAMSHAFT SERVICING	B293-100	2.7	3.9	3.5	3.9	AFV-34
	LH CAM CARRIER RESEAL &/or O-RING R&R	C293-002	3.6				
	RH CAM CARRIER RESEAL &/or O-RING R&R	C293-001	3.7				
	BOTH CAM CARRIERS RESEAL &/or O-RING R&R	C293-004	4.5				
	ENGINE OIL &/or COOLANT LEAK TESTING & DIAGNOSIS	C245-001	0.4				
4	H4 ENGINE R&R FOR SHORTBLOCK & ENGINE SERVICING	B293-300	2.7	3.9	3.5	3.9	AFV-34
	OIL EXTENSION HOUSING, O-RINGS &/or SEALER R&R	C295-023	2.4				
	ENGINE OIL &/or COOLANT LEAK TESTING & DIAGNOSIS	C245-001	0.4				

AREA NUMBER	LABOR DESCRIPTION	LABOR OPERATION #	TRANMISSION TYPE				FAIL CODE
			5MT	4AT	6MT	CVT	
5	FRONT CHAIN COVER, SEALER &/or O-RINGS R&R	B245-201	3.6				AFV-34
	ENGINE OIL &/or COOLANT LEAK TESTING & DIAGNOSIS	C245-001	0.4				

NOTE: Liquid gasket ThreeBond 1280B can be claimed using part number SOA635065, quantity one (1) per repair order. This part number is non-orderable and used for claim purposes only.

REMINDER: 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 refer to STIS for the latest service information before performing any repairs.