

ATTENTION:

GENERAL MANAGER
 PARTS MANAGER
 CLAIMS PERSONNEL
 SERVICE MANAGER

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



QUALITY DRIVEN® SERVICE

SERVICE BULLETIN

APPLICABILITY: 2012-13MY Impreza 2.0L
 2013MY XV Crosstrek

NUMBER: 02-146-13

DATE: 10/07/13

SUBJECT: Revised Valve Train Parts to Reduce a Warm Engine
 Tapping or Sewing Machine type Sound from the
 Left Cylinder Head

INTRODUCTION

This bulletin announces the availability of revised valve train components developed to reduce a tapping sound which may be heard coming from the left-hand (B2) side of the engine when the engine is warm. This bulletin does **not** address any cold engine or start-up sounds. The changes consist of:

- Design change to the valve rockers
- Camshaft profile change
- Increased intake valve stem length (1.65mm longer Intake, 2.4mm longer Exhaust)

In addition, the insulator pad has been eliminated from the B2 intake manifold protector.

PART INFORMATION

PART NAME		NEW	OLD
INTAKE VALVE	Part Number	13201AA670	13201AA640
	Change	Valve stem length: 104.95mm	Valve stem length: 103.3mm
	Identification	I31	I22
EXHAUST VALVE	Part Number	13202AA750	13202AA670
	Change	Valve stem length: 96.5mm	Valve stem length: 94.1mm
	Identification	E3	E2
VALVE ROCKER	Part Number	13249AA250	13249AA240
	Change	Change to roller portion	-
	Identification	Circular groove added on pivot side	No groove

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

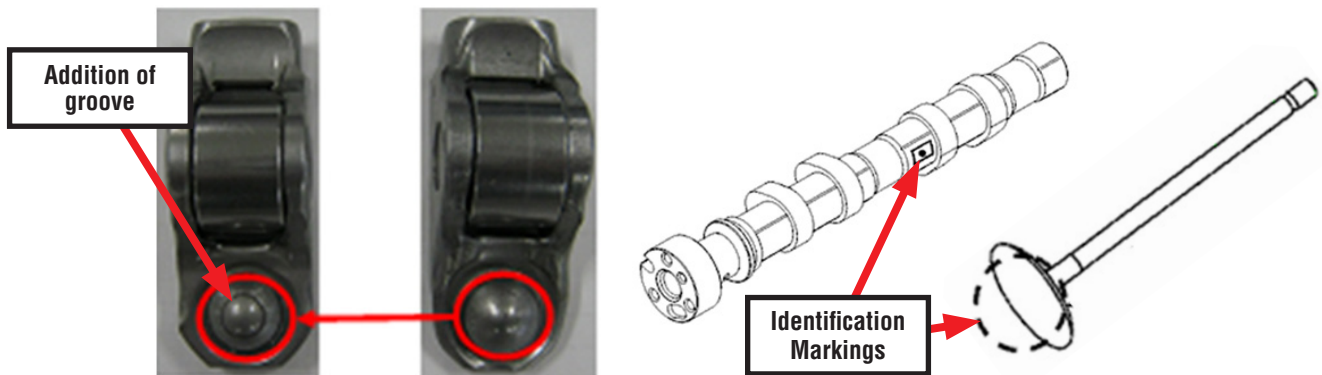
Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, 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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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.

PART NAME		NEW	OLD
PIVOT, ROCKER ARM	Part Number	13296AA090	13296AA051
	Change	Not specified	-
	SPECIAL NOTE: These revised Pivots have been installed during production starting with VIN: D*005801 Impreza (4-Door) D*209069 Impreza and XV Crosstrek (5-Door)		
CAMSHAFT INTAKE, LEFT	Part Number	13037AA940	13037AA860
	Change	Cam profile change	-
	Identification	38B340 or 38B390	38B260 or 38B310
CAMSHAFT EXHAUST, LEFT	Part Number	13052AA940	13052AA860
	Change	Cam profile change	-
	Identification	53B340 or 53B390	53B260 or 53B310

The illustrations below show additional information about the changes to the valve rockers, camshafts and valves to help readily distinguish them from the previous version parts.



SERVICE PROCEDURE / INFORMATION

If you receive a customer concern of a tapping sound from the B2 cylinder head, confirm it is isolated to the B2 valve train area before proceeding with any repairs. Once verified, order and replace all 4 intake and all 4 exhaust valves, all 8 rockers, both the intake and the exhaust camshaft and all 8 rocker arm pivots (Replace the rocker arm pivots only if the VIN is prior to the listed VIN breakpoint shown in the Parts Information area of this bulletin) as a set using the part numbers shown in this bulletin (in addition to the necessary gaskets and seals). Refer to the service procedures outlined in the applicable Service Manual for installation.

NOTE: When resetting the valve clearances, the intake should be set to 0.13mm +0.02 / - 0.03 and the exhaust should be set to 0.22mm +/- 0.02. These are revised specifications and not reflected in the Service Manual.

IMPORTANT: Do not mix old and new parts together or mix parts between the left and right cylinder head as it will become impossible to obtain valve clearances that are within specification.

TIP: An egg carton makes a perfect organizer tray. Make sure to mark it as necessary (front, intake, exhaust) to eliminate any mixing of parts.

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WARRANTY / CLAIM INFORMATION

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

LABOR DESCRIPTION	LABOR OPERATION #	FAIL CODE	TRANSMISSION	LABOR TIME
Engine R&R for Cylinder Head Servicing	B293-110	ABH-48	5MT	2.7
			CVT	3.0
L/H Cylinder Head &/or Gasket R&R	C293-112		-	4.9
Valves- Replace	C293-123			1.6
Valve Train Noise Diagnosis	C243-001			0.3