

# Service Alert

Mazda North American Operations  
Irvine, CA 92618-2922



<b>Subject:</b> <b>VALVE TAPPING OR KNOCKING NOISE HEARD FROM CYLINDER HEAD</b>	<b>Service Alert No.:</b> SA-012/19
	<b>Last Issued:</b> 11/22/2019

## BULLETIN NOTES

This service alert supersedes the previously issued service alert listed below. The changes are noted in Red text.

Previous Service Alert:	Date(s) Issued:
SA-012/19	08/06/19 and 04/01/19

## APPLICABLE MODEL(S)/VINS

2018-2019 CX-5 vehicles (2.5L with cylinder deactivation)  
2018-2019 Mazda6 vehicles (2.5L with cylinder deactivation)

## DESCRIPTION

A valve tapping or knocking noise may be heard from the top end after the engine cools down (the vehicle is parked overnight) or after it has been idling for an extended time. The tapping noise will decrease as the vehicle is being driven or if the rpm is held above 2500 -3000 RPM. **This may be caused by the valve Hydraulic Lifters (HLA) bleeding down as the engine cools or when the engine has been idling for an extended period of time, creating excessive valve lash clearance.**

Click here for an example of the noise.

## REPAIR PROCEDURE

1. Verify customer concern and that the tapping sound is coming from the cylinder head.

**NOTE:** If the symptom cannot be reproduced, allowing the vehicle to sit overnight and inspect in the morning.

**Can the Tapping or Knocking sound be reproduced?**

- **Yes:** Go to step 2.
- **No:** Interview the customer when they experienced the condition and try to reproduce the conditions. If unable to reproduce the tapping sound, this SA does not apply

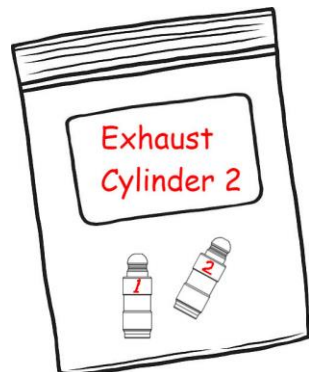
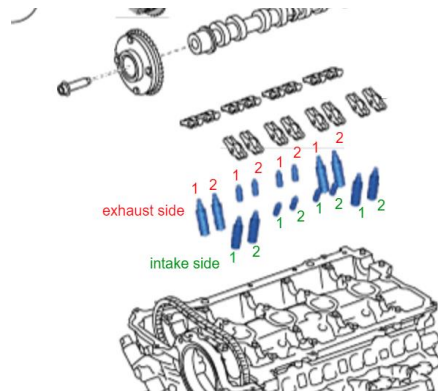
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2. Remove the valve cover and rotate the engine until the rocker arm is on the base circle of the cam, then perform a HLA inspection (HYDRAULIC LASH ADJUSTER (HLA) INSPECTION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)])

- If any HLA fails the inspection, replace the appropriate HLA (HYDRAULIC LASH ADJUSTER (HLA) REMOVAL INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION))). Package each set (2) of HLA in a plastic bag and identify on the bag the location it was removed from. Example: #2 exhaust.
- If the HLAs pass the inspection, re-assemble and proceed to step 3.

3. Using a listening device or stethoscope, start the engine and listen to each cylinder's intake and exhaust side to determine the location of tapping sound. It may only last for a short time.

- If the tapping can be isolated, replace the appropriate HLA's ( HYDRAULIC LASH ADJUSTER (HLA) REMOVAL INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION))). Package each set (2) of HLA in a plastic bag and identify on the bag the location it was removed from. Example: #2 exhaust.
- If the tapping can not be isolated, replace all the HLA's (HYDRAULIC LASH ADJUSTER (HLA) REMOVALINSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION))). Package each set (2) of HLA's in a plastic bag and identify on the bag the location it was removed from. Example: #2 exhaust.



- Parts will be collected through normal warranty part collection

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## WARRANTY INFORMATION

Normal Warranty applies

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