Countries:	CANADA, MEXICO, UNITED STATES	**Document ID:**	IK1201518
Availability:	ISIS, IsSIR	**Revision:**	2
Major System:	ENGINE	**Created:**	6/9/2025
Current Language:	English	**Last Modified:**	6/26/2026
Other Languages:	NONE	**Author:**	Greg Scheff
Viewed:	402		

Less Info

Hide Details Coding Information

Copy Link	Copy Relative Link	Bookmark	Add to Favorites	Print	Provide Feedback	Helpful	Not Helpful
		View My Bookmarks				5	0

Title: Belt Noise or Edge Fraying in HV / HX Vehicles Equipped with S13

Applies To: S13 Engines in HV and HX Chassis

CHANGE LOG

Please refer to the change log text box below for recent changes to this article:

06/17/2025 - Initial Article Release
06/24/2026 - Revised to include HV chassis

DESCRIPTION

Some low mileage S13 engines in HV and HX chassis may experience complaints of excess fan belt noise or chirping, and or belt edge fraying. This document will guide the user through troubleshooting and Installation of the required parts needed to correct the issue.

NOTE: HX with engine serial number (ESN) 6008637 and BELOW will require the instalation of a new front engine lifting bracket and dual idler pulley bracket to correct these complaints. All other chassis will need to follow the diagnostic steps linked below to pinpoint the cause.

SERVICE PARTS INFORMATION

Description	Part Number	Quantity Required	Notes
Dual Idler Bracket Assembly	7104252C92	1	HX with ESN 6008637 and Below Only
Single Idler Pulley	7100271C1	2	As Needed - all
Front Engine Lifting Bracket	7109329C1	1	HX with ESN 6008637 and Below - As needed all others

Damper Bolt Kit	2523696C91	1	HX with ESN 6008637 and Below Only

SPECIAL TOOL(s) or SOFTWARE

Tool Description	Tool Number	Comments	Source
DAYCO Belt Diagnostic Kit	93874	Recommended for highest accuracy	Amazon, local auto parts stores etc.

DIAGNOSTIC STEP(s)

1. For HX chassis with ESN 6008638 and Up, and ALL HV chassis with S13 engines follow the diagnostic steps outlined HERE

2. For HX chassis with ESN 6008637 and BELOW, continue following the repair steps called out below to replace the lifting bracket and idler pulley bracket assy.

- NOTE: The component removal and installation instructions below can be used for reference on all chassis if needed

REPAIR STEP(s)

WARNING! To prevent property damage, personal injury, and / or death, park vehicle on a hard, flat surface, turn the engine off, set the parking brake, and install wheel chocks to prevent the vehicle from moving in either direction.

WARNING! To prevent property damage, personal injury, and / or death, if the vehicle must be raised, do not work under the vehicle supported only by jacks. Jacks can slip or fall over.

WARNING! To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.

WARNING! To prevent property damage, personal injury, and / or death, keep flames or sparks away from vehicle and do not smoke while servicing the vehicle's batteries. Batteries expel explosive gases.

WARNING! To prevent property damage, personal injury, and / or death, remove the ground cable from the negative terminal of the battery box before disconnecting any electrical components. Always connect the ground cable last.

FRONT ENGINE LIFTING BRACKET

REMOVAL PROCEDURE:

1. Remove the fan belt using a 1/2" drive breaker bar to articulate the tensioner and slide the fan belt forward off the pulleys

2. Remove the M8 x 30 exhaust gas crossover pipe support bracket bolt (**Figure #1 Item 1**). **NOTE**: the pipe itself will stay in place.

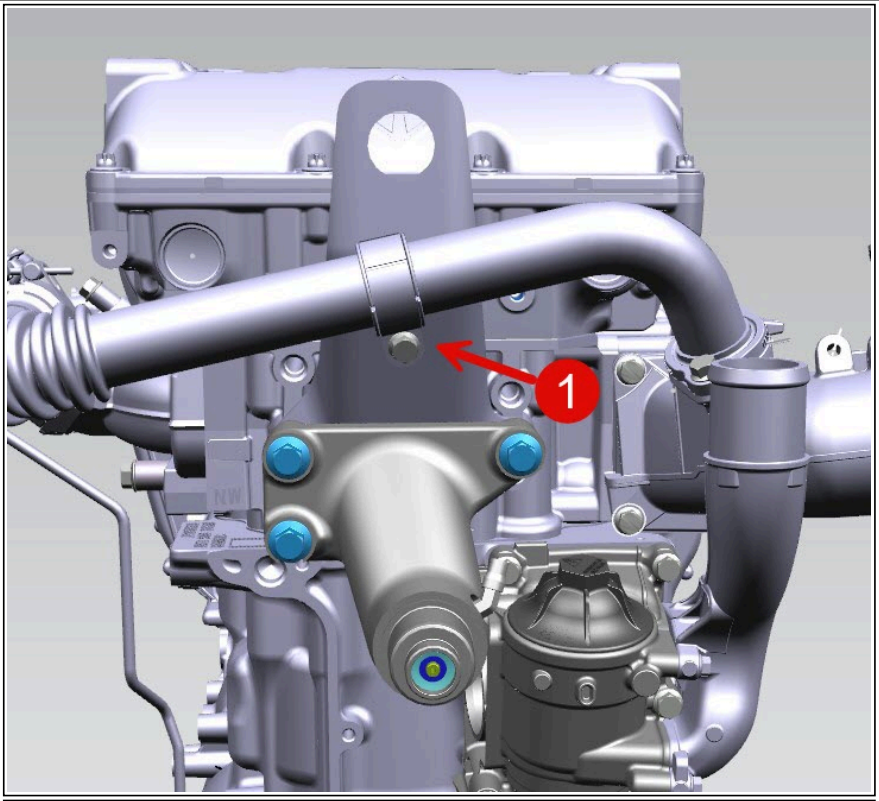

Figure #1: Exhaust Gas Crossover Pipe

Item 1: M8 x 30 Bolt

NOTE:

For the next step it is recommended to use two people

3. Carefully loosen and remove the three M12 x 80 fan drive bracket mounting bolts (**Figure #2 Item 1**). **USE CAUTION** to make certain the fan does not contact the radiator and is adequately supported

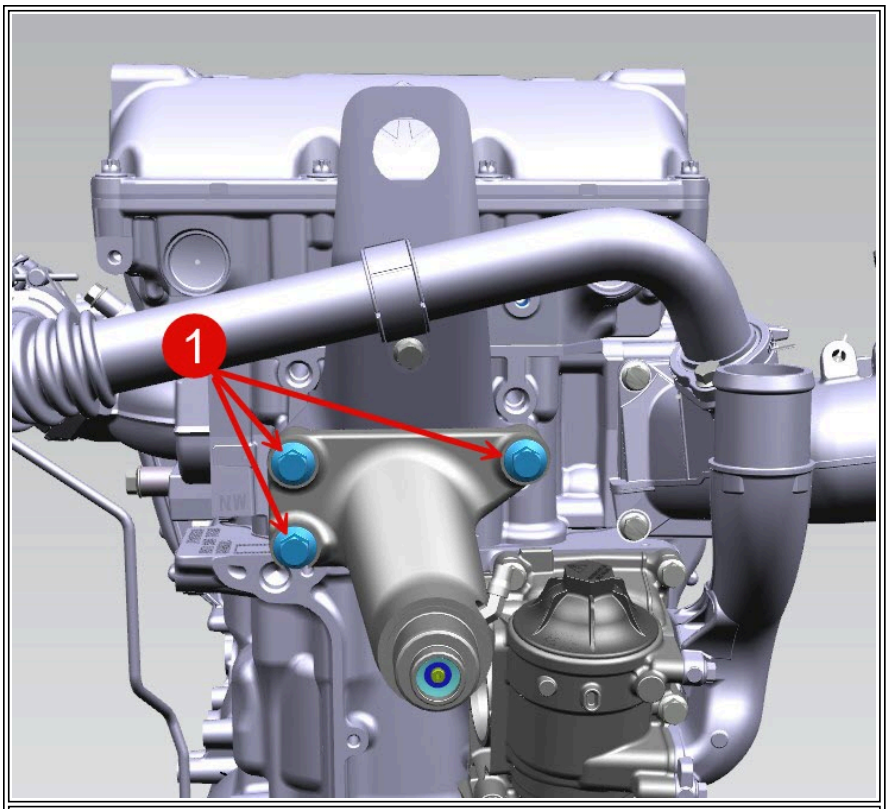

Figure #2: Fan Drive Bracket Mounting Bolts

Item 1: M12 x 80 Bolts

4. Remove the fourth M12 x 35 lifting bracket mounting bolt (**Figure #3 Item 1**) then remove the lifting bracket from the engine.

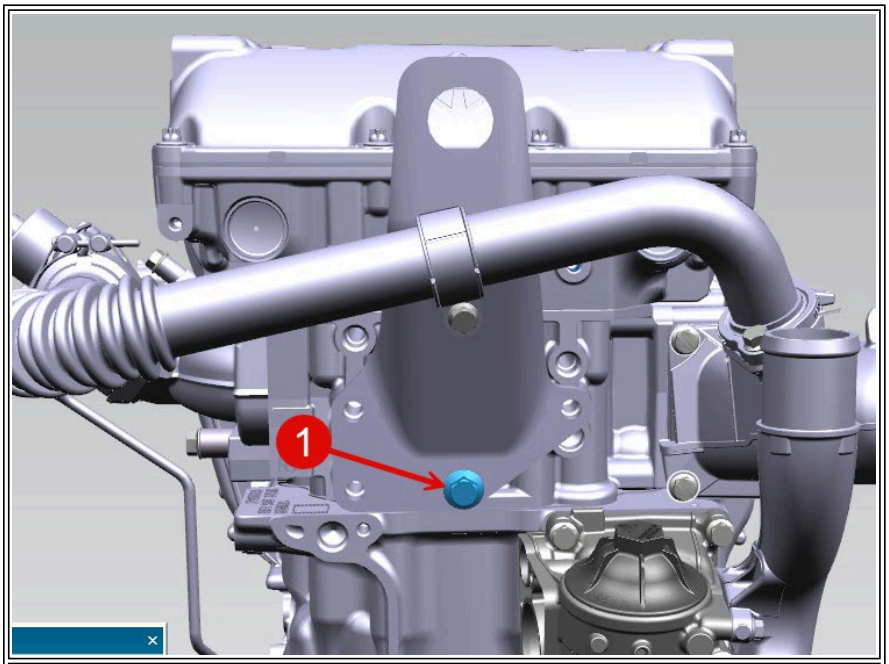

Figure #3: Bottom lifting eye mounting bolt behind fan drive bracket

Item 1: M12 x 35 bolt

INSTALLATION PROCEDURE:

5. Position the new 7109329C1 lifting bracket in place and install the lower M12 x 35 bolt (**Figure #3 Item 1**).

6. Temporarily install the three longer M12 x 80 bolts (**Figure #2 Item 1**) as guides, then torque ONLY the bottom M12 x 35 bolt to 120 Nm +/- 12 Nm

7. Remove the three M12 x 80 bolts from step 6 and set aside

8. Re-install the fan drive assembly using the three M12 x 80 bolts (**Figure #2 Item 1**). Torque all three bolts to 120 Nm +/- 12 Nm, leave the fan belt off

9. Install the M8 x 30 Exhaust Gas Crossover Pipe support bolt (**Figure #1 Item 1**) and torque to 25 Nm.

DUAL IDLER BRACKET REPLACEMENT

REMOVAL PROCEDURE:

10. Remove the accessory drive belt using a 1/2" drive breaker bar to articulate the tensioner and slide the belt forward off the pulleys

11. Remove the four accessory drive pulley bolts (**Figure #4 Item 1**) and remove the pulley

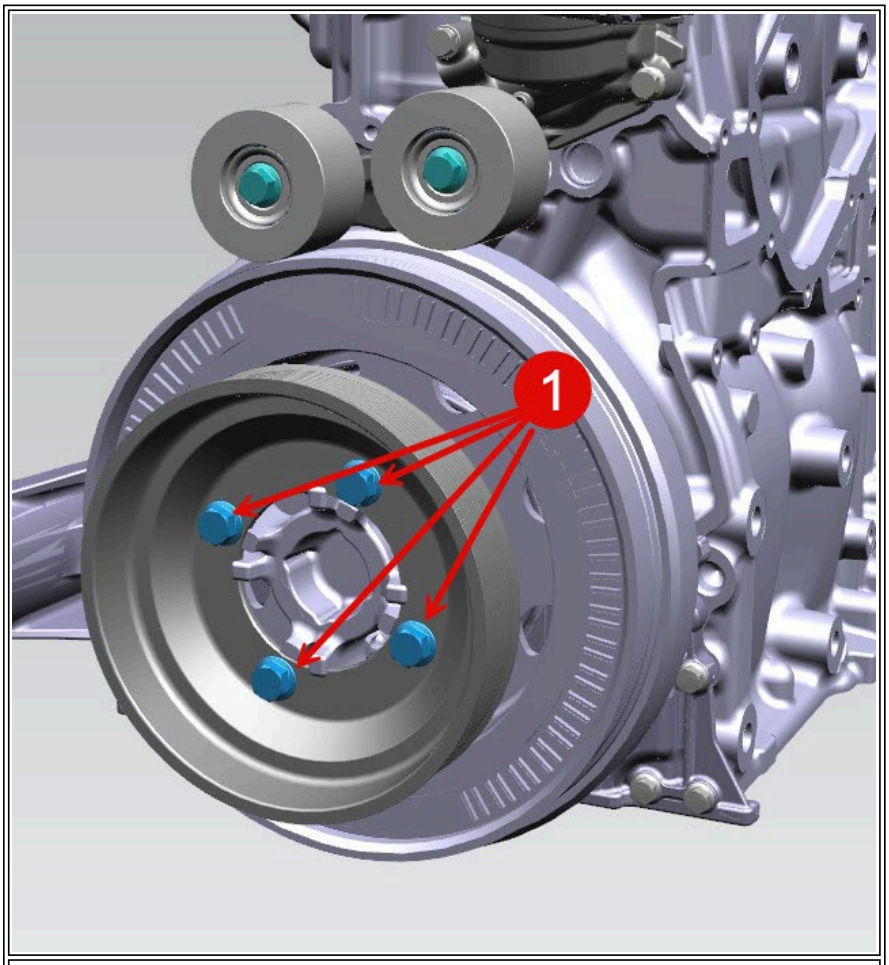

Figure #4: Accy Drive Pulley Bolts

Item 1: M12 x 1.25 x 40 bolts

12. Remove the 8 Torx bolts (**Figure #5**) securing the damper to the crankshaft using a Torx E-18 female socket

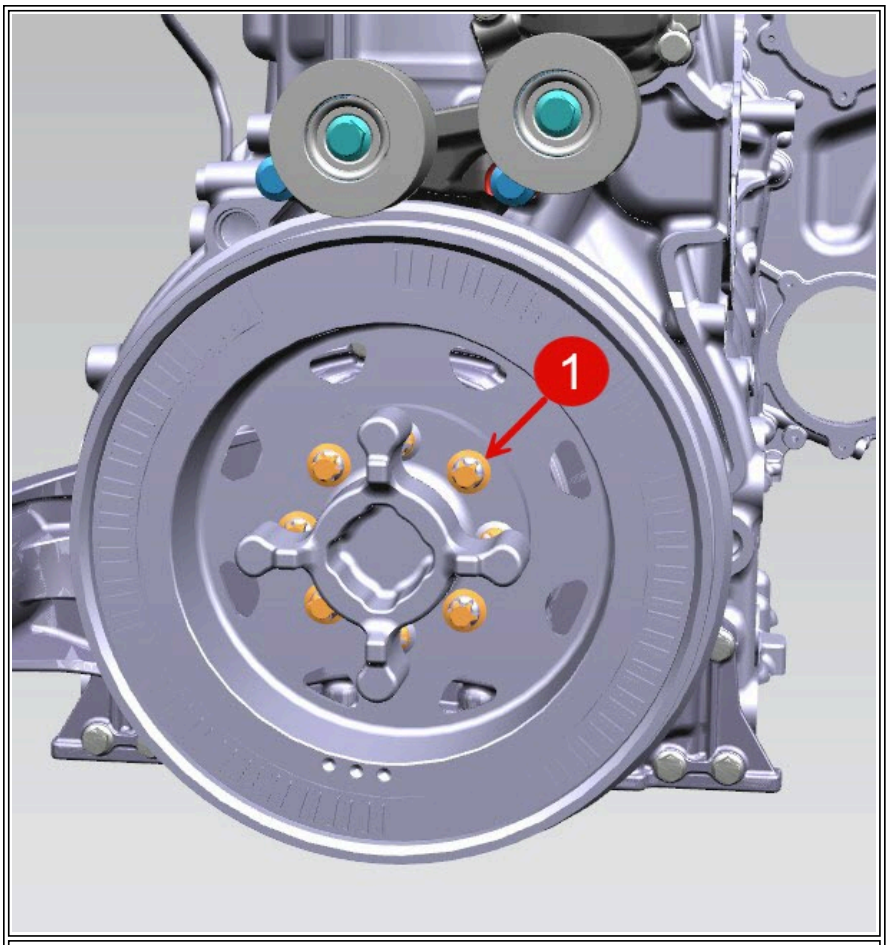

Figure #5: M14 Damper Mounting Bolts (8)

13. Remove the three M12 x 35 dual idler bracket mounting bolts (**Figure #6 Item 1)** then remove the bracket assembly and discard

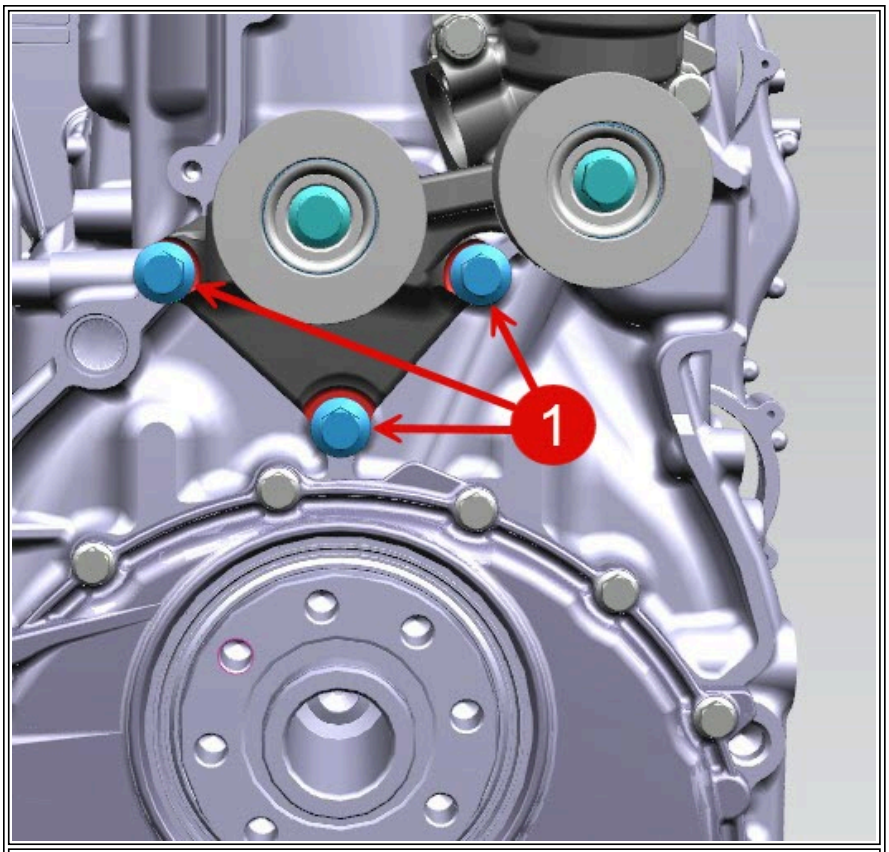

Figure #6: Dual Idler Bracket Mounting Bolts

Item 1: M12 x 35 Bolts

INSTALLATION PROCEDURE:

14. Install the new 7104252C92 dual idler bracket assembly with the three M12 x 35 bolts (**Figure #6 Item 1**) and torque to 120 Nm +/- 12 Nm

15. Re-install the vibration damper (**Figure #7 Item 2**) onto the crankshaft snout (**Figure #7 Item 1**) aligning the bolt holes to the crankshaft flange.

16. Set the pulley adapter (**Figure #7 Item 3**) onto the face of the vibration damper and align the holes without spinning the damper.

17. Install 8 new M14 damper bolts (**Figure #7 Item 4**) from the 2523696C91 bolt kit through the pulley adapter, vibration damper, then into the crankshaft and torque to 60 +/- 5 Nm then turn 90° +/- 5°

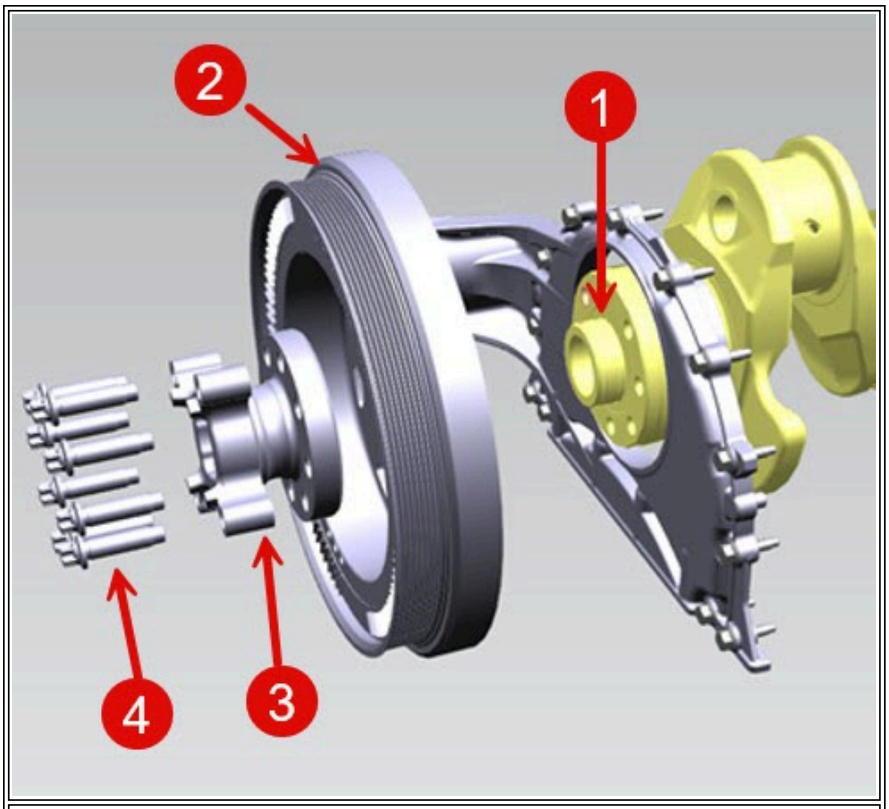

Figure #7: Vibration Damper Assembly

Item 1: Crankshaft Snout
Item 2: Vibration Damper
Item 3: Pulley Adapter
Item 4: M14 Damper Bolts

18. Install the accessory drive pulley onto the adapter with the four M12 x 1.25 x 40 bolts (**Figure #4 Item 1**), and torque to 92 Nm

19. Re-install the accessory drive belt, and also the fan drive belt. Run the engine and check for any belt noise or operational issue.

WARRANTY INFORMATION

Warranty Claim Coding:
Refer to the Warranty Coding Manual for Group and Noun Codes.

Standard Repair Time(s):
Refer to the SRT Manual for Repair Times

OTHER RESOURCES

Master Service Information Site