

# **Technical Service Bulletin**

GROUP	NUMBER
STEERING	18-ST-003
DATE	MODEL(S)
AUGUST, 2018	Sonata (YF, LF) Sonata Hybrid (YF HEV, LF HEV) Santa Fe (NC) Azera (HG)

SUBJECT:

STEERING RACK SUPPORT YOKE NOISE

**Description:** On some Sonata (YF, LF), Sonata Hybrid (YF HEV, LF HEV), Santa Fe (NC), and Azera (HG) vehicles, a yoke noise may develop in the steering rack. This bulletin provides information on how to diagnose the yoke noise and replace the rack support yoke assembly.









### **Applicable Vehicles:**

- 2011 to 2018 model year Sonata (YF and LF)
- 2011 to 2018 model year Sonata Hybrid (YF HEV and LF HEV)
- 2012 to 2017 model year Azera (HG)
- 2013 to 2018 model year Santa Fe (NC)

### **Part Information:**

Part Name	Model(s)	Part Number	Photo		
YOKE KIT	All applicable vehicles for this TSB	56570- 2W000FFF	Shell Alvania Jassa Grease  Shell Alvania O854 Grease		
UNIVERSAL JOINT BOLT	Sonata (YF and LF), Sonata Hybrid (YF HEV and LF HEV), and Azera (HG)	56415-2H000			
	Santa Fe (NC)	56415-1M000			

### **Tool Information:**

Name	Photo	Part Number		
Yoke Lock Nut Tool		57718-2W009FFF		

# **Warranty Information:**

Model	Op. Code	Operation	Op. Time	Causal Part*	Nature	Cause
Santa Fe (NC)	56570F02	YOKE REPLACEMENT	2.0 M/H	56500*	Q55	ZZ5
Sonata (YF) & Sonata Hybrid (YF HEV)	56570F03		1.7 M/H			
Sonata (LF) & Sonata Hybrid (LF HEV)	56570F03		1.7 M/H			
Azera (HG)	56570F04		1.8 M/H			

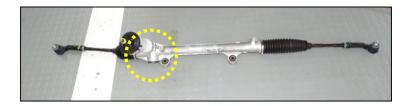
<sup>\*</sup>Refer to applicable parts catalog for full causal part numbers

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#### **Service Procedure:**

### \* NOTE

If a rattle type noise is heard when driving and turning the steering wheel that is coming from the steering rack yoke support area, use the following service procedures to replace the rack support yoke assembly.



1. Secure the steering wheel in the straight ahead position to prevent damage to the clock spring.

## \* NOTE

Do **NOT** allow the steering wheel to spin freely to prevent damage to the clock spring.

Use a steering wheel holding device such as the one used during alignment adjustments to prevent the steering wheel from turning during this service procedure.



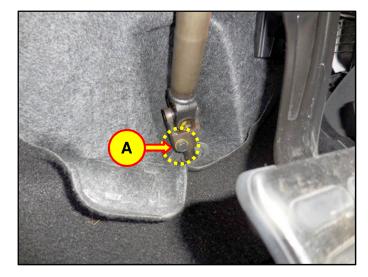
2. Remove the steering gear box assembly from the vehicle. Refer to the applicable shop manual service procedures.



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# **▲** CAUTION

Must use a new universal joint bolt (A), P/N 56415-2H000, during reassembly.



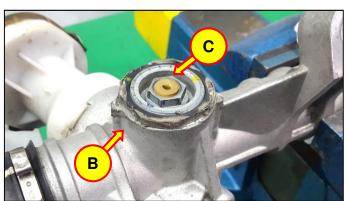
3. Secure the steering rack in a vice with the yoke plug facing up.

Remove any foreign substance or adhesive around the rack housing (B) and yoke plug (C) of the removed gear box.

# \* NOTE

Protect the steering rack from damage when securing in the vice.

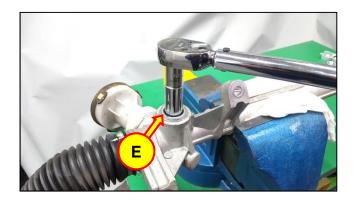
4. Remove the lock nut using the yoke lock nut tool (D) and discard the nut.



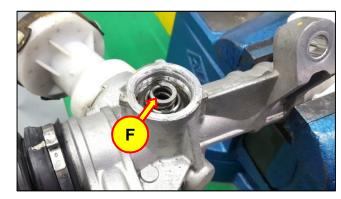


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5. Loosen and remove the yoke plug (E) and discard.



6. Remove the yoke spring (F). Do <u>not</u> discard the yoke spring. The spring will be reused during reassembly.



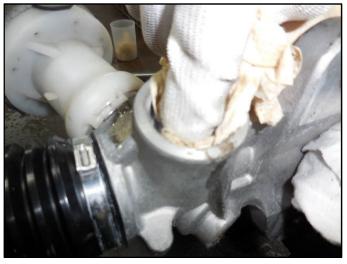
7. Clean the threads and interior of the yoke plug housing with a clean rag and isopropyl alcohol.

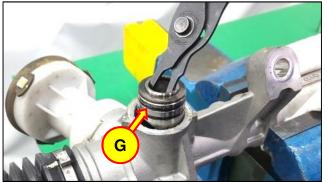
## \* NOTE

Only use the isopropyl alcohol to clean the threads and yoke plug housing.

Threads should not be contaminated with grease.

8. Remove the support yoke (G) and discard.





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9. Clean out the remaining debris with an air gun.



Wear protective goggles when performing this step.



10. Check that the new support yoke o-rings are properly seated.

Apply 3g of grease (1 full tube) on the center of the yoke liner. Be sure the grease does not push out onto the housing threads when installing the support yoke.

Apply a thin layer of grease on the outer diameter (O-rings) of the support yoke.

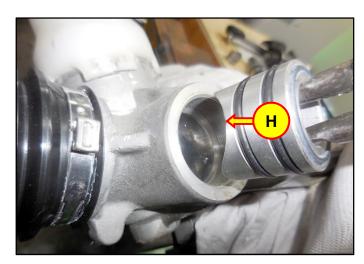
Apply a thin layer of grease where the yoke spring sits in the support yoke.

11. Install the new support yoke.



Ensure that the curve (H) of the support yoke is aligned as shown in the photo to the right.





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12. Reinstall the yoke spring.



13. Hand tighten the new yoke plug.



14. Tighten the yoke plug to the torque specification.

**Tightening torque:** 50 N.m (5.0 kgf.m, 36.8 lb-ft)

## \* NOTE

Torque to spec within 1 minute after hand tightening the yoke plug.

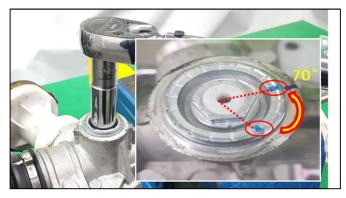


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15. Create one mark on the housing (I), which is aligned with the pre-existing mark on the yoke plug (J), as shown.



16. Rotate the yoke plug <u>counter-clockwise</u> until the blue yoke plug mark is aligned with the steering rack housing mark created in step 15.



17. Hand tighten the lock nut until it contacts the surface of the rack housing.



18. While holding the yoke plug with a socket, tighten the lock nut using a torque wrench.

# Tightening torque:

55 N.m (5.6 kgf.m, 40.5 lb-ft)



19. Reinstall all removed parts in reverse order of removal.

20. Perform a front toe wheel alignment.

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