

# **Technical Service Bulletin**

	GROUP	NUMBER	
	STEERING	17-ST-001	
٥,	DATE	MODEL(S)	
	FEBRUARY 2017	SEE BELOW	

SUBJECT:

MOTOR DRIVEN POWER STEERING (MDPS)
COUPLING REPLACEMENT

This TSB supersedes TSB 14-ST-002-1 to update applicable vehicle models, production date ranges, provide updated service procedures, and OP Codes.

**Description:** The MDPS (motor driven power steering) assembly contains a flexible rubber coupling which may wear over time resulting in a slight "clicking" or "thud" type noise when turning the steering wheel. This bulletin describes the service procedure to replace the coupling. Refer to the warranty and service parts information outlined in this bulletin whenever MDPS coupling replacement is required.

#### \* NOTE

Wear of the coupling does not affect the ability to steer or control the vehicle and is not a safety issue.



#### **Applicable Vehicles\*:**

Model: Production Range:

2013~2015 Elantra GT (GD) From Dec. 05, 2011 ~ Dec. 14, 2014

2013~2014 Elantra Coupe (JK) AL

2013~2016 Santa Fe (NC) From Dec. 11, 2012 ~ Aug. 31, 2015 2012~2014 Azera (HG) From Dec. 27, 2011 ~ Jun. 01, 2014 2012~2015 Veloster (FS) From Apr. 04, 2011 ~ Dec. 14, 2014

#### **Parts Information:**

PART NAME	PART NUMBER	IMAGE	
Flexible Coupling	56315-2K000-FFF	Note: There are 2 versions of this part number:  1. "HNBR" marking on polyurethane part 2. "4P" marking on revised rubber part Both parts are improved with increased durability, and can be used for procedures in this TSB.	1

#### **Warranty Information:**

Models	Op Code	Operation	Op Time	Causal Part #	Nature Code	Cause Code
Veloster (FS) Elantra GT (GD) Santa Fe (NC) Elantra Coupe (JK) Azera (HG)	56300F25	MDPS Flexible Coupling Replacement	0.8 M/H	56315-2K000- FFF	D61	ZZ4

Service Procedure for Veloster (FS), Elantra Coupe (JK), Elantra GT (GD), Santa Fe (NC), and Azera (HG):



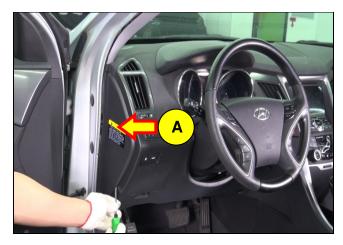
- Take care to not damage any wiring or introduce foreign matter when disassembling the MDPS assembly.
- Ensure all connectors are securely plugged in when reassembling.
- Do not lift the vehicle off the ground when removing the MDPS assembly. Keep the tires
  on the ground during removal and installation of the MDPS assembly.

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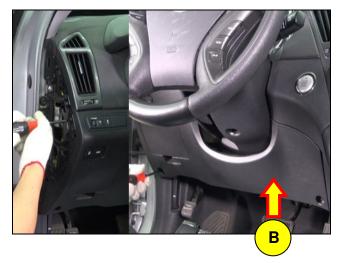
1. Remove the front door side weather strip.



2. Use a plastic trim tool to remove the crash pad side cover (A).

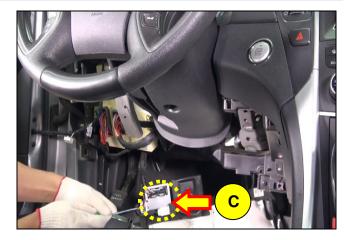


3. Loosen the crash pad lower panel mounting screws, and then remove the lower panel (B).



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4. Disconnect the connectors (C).



5. Remove the steering column upper and lower shroud.

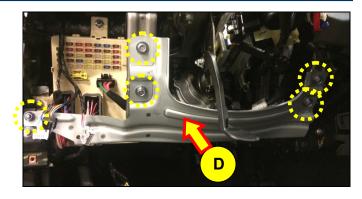


5a. On some models, it is required to turn the steering wheel left/right 90 degrees to access the shroud mounting screws.



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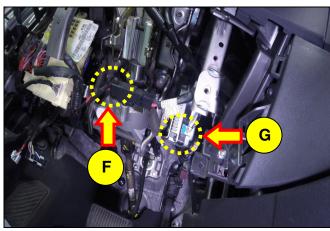
6. Remove the lower dash plate (D).



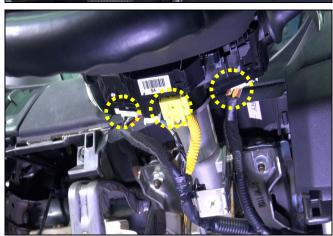
7. Remove the left side lower HVAC duct (E).



8. Disconnect the connector (F) and diagnosis connector (G).



9. Disconnect all the connectors that are connected to the steering column.

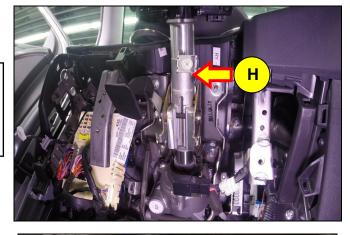


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10. Remove the steering column (H) by loosening the mounting bolts and nuts.

### \* NOTE

Tightening torque: 9.4~13.0 lb-ft (12.7~17.7 Nm, 1.3~1.8 kgf.m)



10a. Some models have a hook that must be disengaged to allow the MDPS assembly to be released.



10b. Some wire harness anchors must be disengaged to allow MDPS assembly to be released.



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11. With the steering intermediate shaft attached, carefully lay the MDPS assembly on the vehicle floor.

Orient the MDPS assembly so that the MDPS motor is accessible.

Remove the MDPS motor by loosening the bolts.



Tightening torque: 5.8~8.7 lb-ft (7.84~11.76 Nm, 0.8~1.2 kgf.m)



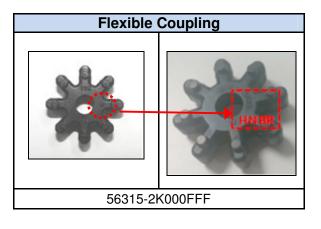
12. Remove the flexible coupler.

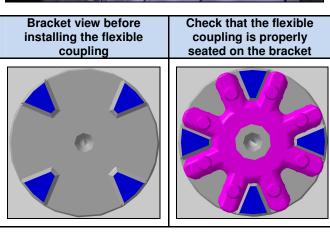
### \* NOTE

Clean out the coupling seating areas using a compressed air gun. Then remove any residual debris with a brush or clean rags.



13. Install new flex coupler.





# \* NOTES

- Before installing new part, verify that it has the "4P" or the "HNBR" marking.
- Visually check that the coupler is seated properly before reassembling the motor.

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- 14. Reinstall the removed parts in reverse order.
- 15. Verify operation of all steering wheel buttons, dash buttons, and multi-function switch.
- 16. Conduct the ASP (Absolute Steering Position) calibration procedure according to the applicable service manual.
- 17. Check and clear any DTCs (Diagnostic Trouble Codes) using the GDS and confirm proper operation of the vehicle.

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