 <b>HYUNDAI</b> <b>Technical Service Bulletin</b>	<b>GROUP</b> <b>Engine</b>	<b>NUMBER</b> <b>21-EM-012H</b>
	<b>DATE</b> <b>DECEMBER 2021</b>	<b>MODEL(S)</b> <b>Sonata (DN8a)</b> <b>Santa Fe (TMa)</b> <b>Santa Cruz (NXT)</b>
<b>SUBJECT: OIL CONTAMINATION OF AIR CLEANER AND INTAKE SYSTEM</b>		

**Description:** Certain vehicles listed below equipped with 2.5T turbo engines may have a misassembled check valve for the PCV (Positive Crankcase Ventilation) system, resulting in engine oil entering the intake and contaminating the air cleaner. This bulletin describes the procedure to clean the air intake system and replace the PCV check valve and air cleaner.



**Applicable Vehicles:**

Certain 2021-22MY Sonata (DN8a) 2.5T produced from 10/13/2020 and 9/7/2021.  
 Certain 2021-22MY Santa Fe (TMa) 2.5T produced from 11/19/2020 and 9/7/2021.  
 Certain 2022MY Santa Cruz (NXT) 2.5T produced from 6/2/2021 to 9/7/2021.

**Parts Information:**

PART NAME	PART NUMBER
FILTER-AIR CLEANER	28113-L1000
NIPPLE-CHECK VALVE	22416-2S000

**Warranty Information:**

Model	Op Code	Operation	Op Time	Causal Part	Nature Code	Cause Code
Sonata (DN8a)	22416F00	PCV Vent Valve R&R + Induction System Cleaning	1.0 M/H	22416-2S000	B25	ZZ1
Santa Fe (TMa)						
Santa Cruz (NXT)						

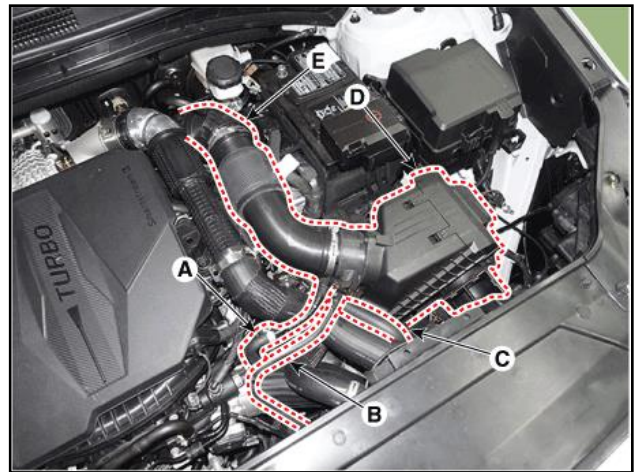
**NOTE:** Normal Warranty Applies.

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

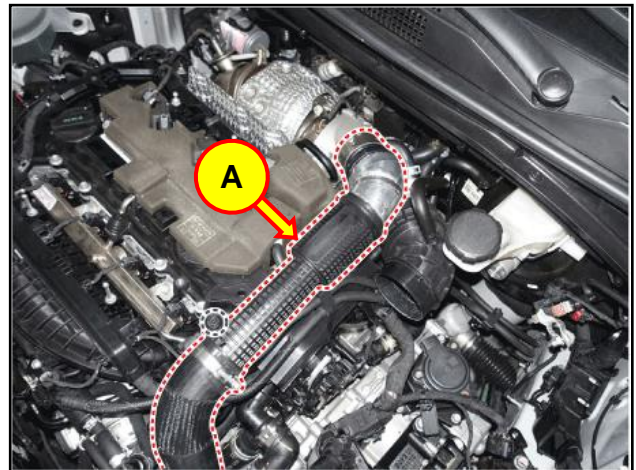
**Service Procedure:**

1. Remove the air intake hose, air cleaner assembly, and air duct, outlined in the figure.

- Inspect the air cleaner element for any signs of engine oil contamination (such as the picture shown in the previous page).

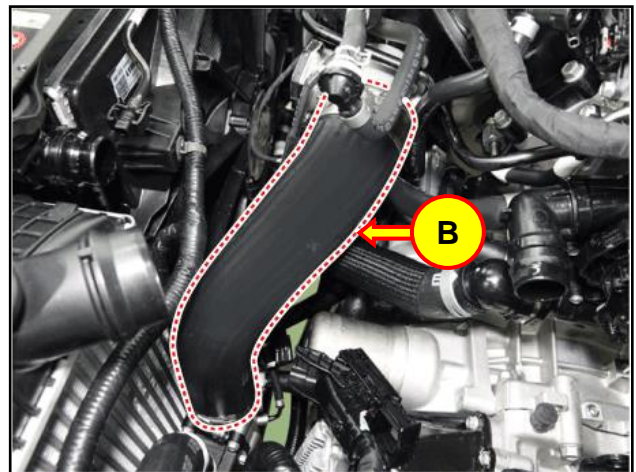


2. Remove the intercooler inlet hose (A).



3. Remove the intercooler outlet hose (B).

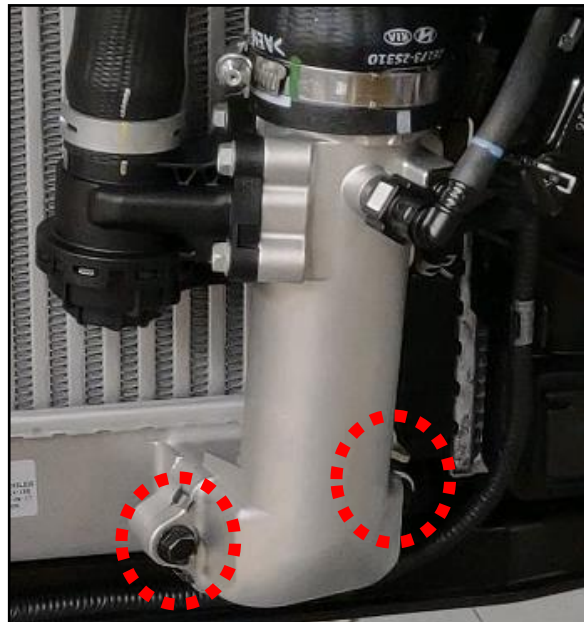
**NOTE:** Remove the undercover to access the lower clamp and to prepare for the steps in the following pages.



4. Remove the intercooler purge pipe bolts.  
Set the purge pipe aside.

**Tightening torque:**

15.9 lb-ft (21.6 Nm)



5. Using brake cleaner (or equivalent parts cleaner), spray into the intercooler top end tank, and then wipe all the drained oil and parts cleaner out of the bottom end tank of the intercooler.

**NOTICE**

Apply compressed air into the top end tank to blow out to clear any residual oil and part cleaner trapped in the intercooler inner core. Be sure to retain and reuse the bottom end tank gasket (as shown).



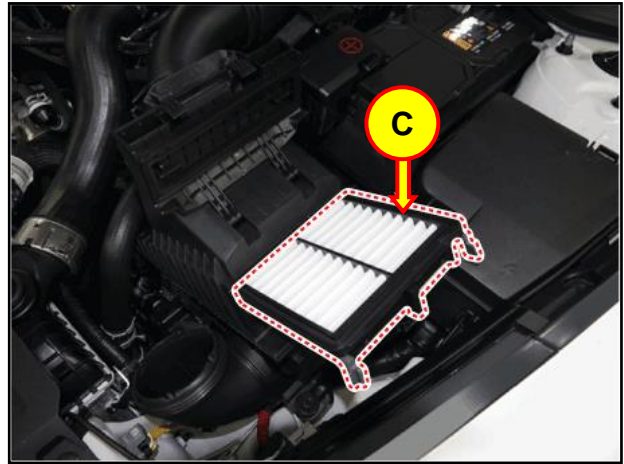
6. Clean remaining residual oil out of the following components using brake cleaner (or equivalent parts cleaner).
  - Turbocharger inlet elbow (pictured)
  - Air Cleaner assembly
  - Air Intake Hose
  - Intercooler inlet / Outlet Hoses
  - Throttle Body Inlet Area

**NOTICE**

Use compressed air if necessary to blow out and clear any residual oil and part cleaner.



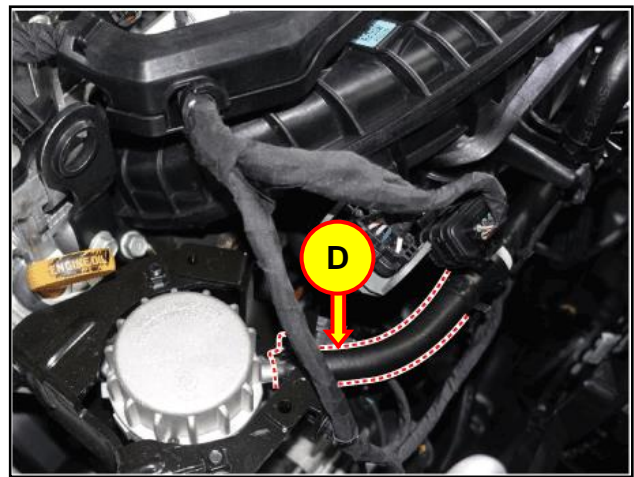
7. Replace the air cleaner element (C) with a new one.



8. Install the above parts in the reverse order of disassembly.
9. Remove the hose (D) going to the vacuum pump to gain working access to the PCV valve bolt and hose.

**⚠ CAUTION**

Be mindful of hot engine components when performing the remaining procedures.



10. Remove the hose clamp that secures the soft line from the PCV Check Valve to the hard line under the Intake Manifold. Disconnect the soft line from the hard line.



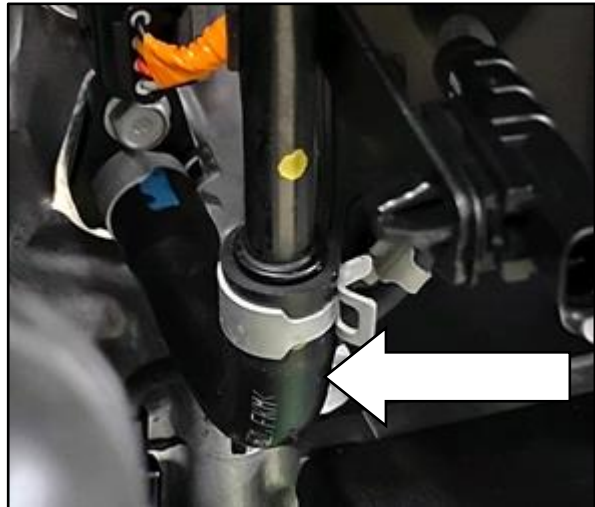
11. Remove the 10mm mounting bolt, then remove the PCV Check Valve.

**Tightening Torque:**

7.25 lb-ft (9.8 Nm)



12. Remove the hose from the PCV Check Valve and reuse the soft line during reassembly.



13. Reattach the hose from the previous step to the new PCV Check Valve.



14. Reassemble parts in reverse order of removal.
15. The service procedure is complete.