	GROUP ENG	MODEL 2021-2022MY Sorento (MQ4a) w/2.5L T-GDI
	NUMBER	DATE
	235	January 2021
TECHNICAL SE	RVICE BULLE	TIN

# AIR INTAKE SYSTEM CLEANING, PCV VALVE & AIR FILTER SUBJECT: REPLACEMENT DUE TO OIL CONTAMINATION

This bulletin provides information regarding the air intake system which may become contaminated with oil due to a faulty Positive Crankcase Ventilation (PCV) check valve on some 2021-2022MY Sorento (MQ4a) vehicles equipped with Theta III 2.5L T-GDI engine, produced from September 10, 2020 through October 2, 2021, which may allow engine oil to enter the air intake system and contaminate the engine air filter with oil. Follow the procedure outlined in this publication to clean the air intake system and replace the air filter and PCV check valve.



Positive Crankcase Ventilation (PCV) Check Valve

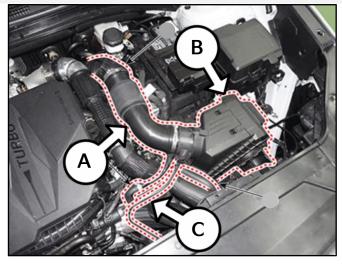
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SUBJECT:

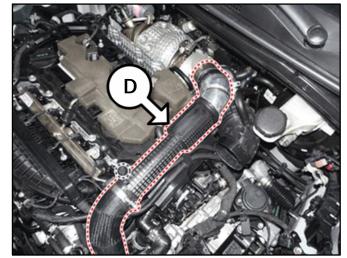
## AIR INTAKE SYSTEM CLEANING, PCV VALVE & AIR FILTER REPLACEMENT DUE TO OIL CONTAMINATION

## Air Intake System Cleaning/Air Filter Replacement Procedure:

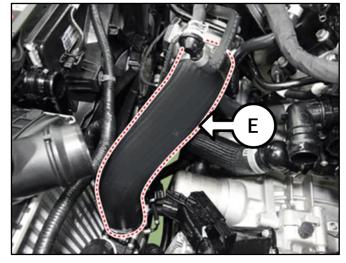
 Remove the air intake hose (A), air cleaner assembly (B), and air duct (C) shown outlined to the right by referring to the "Engine Mechanical System → Intake and Exhaust System → Air Cleaner → Repair procedures" chapter in the applicable Shop Manual on KGIS.



 Remove the intercooler inlet hose (D) by referring to the "Engine Mechanical System → Intake and Exhaust System → Intercooler → Repair procedures" chapter in the applicable Shop Manual on KGIS.



 Remove the intercooler outlet hose (E) by referring to the "Engine Mechanical System → Intake and Exhaust System → Intercooler → Repair procedures" chapter in the applicable Shop Manual on KGIS.

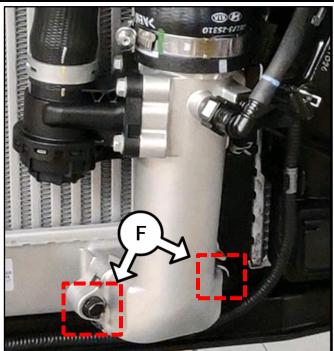


# AIR INTAKE SYSTEM CLEANING, PCV VALVE & AIR FILTER REPLACEMENT DUE TO OIL CONTAMINATION

4. Remove the intercooler purge pipe bolts (F) then set the purge pipe aside.



Tightening torque for Purge Pipe Bolts: 15.9 lb.ft (21.6 N.m)



- 5a. Spray brake cleaner (or equivalent parts cleaner) into the intercooler top end tank.
- 5b. Then wipe all the drained oil and parts cleaner out of the bottom end tank of the intercooler.

#### **NOTICE**

Blow compressed air into the top end tank to clear out any residual oil and cleaner trapped in the intercooler inner core.

# IMPORTANT

Be sure to retain and reuse the bottom end tank gasket (G).



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## AIR INTAKE SYSTEM CLEANING, PCV VALVE & AIR FILTER REPLACEMENT DUE TO OIL CONTAMINATION

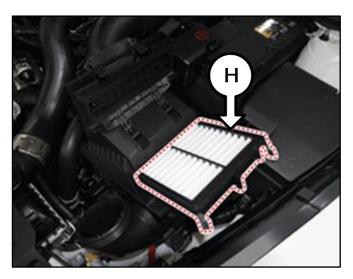
- 6. Clean remaining residual oil out of the following components using brake cleaner (or equivalent parts cleaner).
  - Turbocharger inlet elbow (Pictured)
  - Air Cleaner assembly
  - Air Intake Hose
  - Intercooler inlet hose

## 

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

- Replace the air cleaner element (H) with a new one by referring to the "Engine Mechanical System → Intake and Exhaust System → Air Cleaner → Repair procedures" chapter in the applicable Shop Manual on KGIS.
- 8. Install all removed parts in reverse order of disassembly.
- 9. Proceed to the 'PCV Check Valve Replacement Procedure'.





## PCV Check Valve Replacement Procedure:

1. Remove the hose (A) going to the vacuum pump to gain working access to the PCV check valve bolt and hose.

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Be careful NOT to touch hot engine components when performing the remaining procedures.

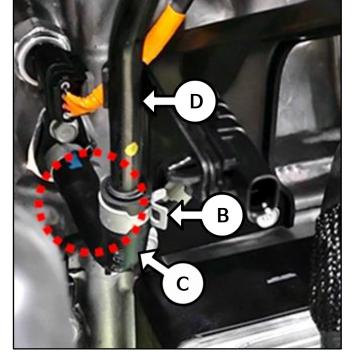


#### SUBJECT:

## AIR INTAKE SYSTEM CLEANING, PCV VALVE & AIR FILTER REPLACEMENT DUE TO OIL CONTAMINATION

- 2a. Remove the hose clamp (B) that secures the soft line (C) from the PCV check valve to the hard line (D) under the intake manifold.
- 2b. Disconnect the soft line from the hard line.

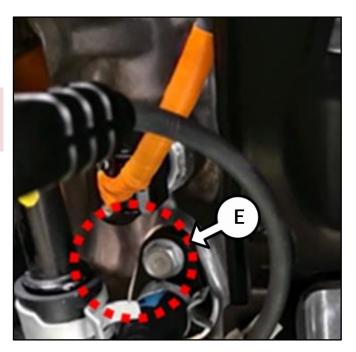
Note: The soft line will be reused.



3. Remove the 10mm mounting bolt (E), then remove the PCV check valve.



Tightening torque for Mounting Bolt: 87 Ib.in (9.8 N.m)

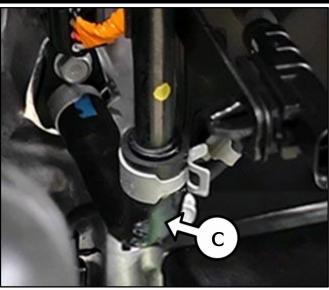


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4. Remove the hose from the PCV check valve and reuse the soft line (C) during reassembly.



5. Reattach the hose from the previous step to the new PCV check valve.



- 6. Reassemble all parts in reverse order of disassembly.
- 7. Confirm proper operation of the vehicle.

# AIR INTAKE SYSTEM CLEANING, PCV VALVE & AIR FILTER REPLACEMENT DUE TO OIL CONTAMINATION

#### AFFECTED VEHICLE RANGE:

Model	Production Date Range		
Sorento (MQ4a)	September 10, 2020 to October 2, 2021		

## **REQUIRED PART:**

Part Name	Part Number	Figure	Qty.
Air Cleaner Filter	28113 L1000AS*		1
Check Valve Nipple (PCV Check Valve)	22416 2SOOO		1

\*<u>Note</u>: Please utilize dealer stock part (28113 L1000) before ordering the supersession part number (28113 L1000AS). Both parts are interchangeable.

# WARRANTY INFORMATION:

N Code: E76 C Code: ZZ7

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
w	22416 2SOOO	1	PCV Check Valve Replacement + Air Intake System Cleaning	22416F01	1.0 M/H	28113 L1000AS	1

<u>Note</u>: Dealers must retain the original parts (Air Cleaner Filter and Check Valve Nipple) for return, if requested. If the requested parts are <u>not</u> returned, the claim will be charged back.