

OF INFORMATION ACT (FOIA), 5 U.S.C.552(B)(6)

From: [REDACTED]
 To: [EVOQ \(NHTSA\)](#); [REDACTED]
 Cc: [NHTSA ODI CRD](#); [REDACTED]
 Subject: ODI-11461478
 Date: Friday, April 22, 2022 11:56:35 AM
 Attachments: [REDACTED]

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[REDACTED]

Subject: Fwd:
 To: nhtsa.webmaster@dot.gov

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PLEASE SEE ATTACHED DOCUMENTS. THANKS.

[REDACTED]

----- Forwarded message -----

From: [REDACTED]
 Date: Tue, Apr 5, 2022 at 5:21 PM
 Subject: Fwd:
 To: [REDACTED] >

...

----- Forwarded message -----

From: [REDACTED]
 Date: Mon, Mar 28, 2022, 10:51
 Subject:
 To: [REDACTED]

additional info

On Friday, March 25, 2022, 07:07:14 PM EDT, [REDACTED] wrote:

[REDACTED] [NHTSA Recall-198-3pg.pdf](#) 382.7KB
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]

[REDACTED]
ASRC Federal Holding Company

[REDACTED]
7000 Muirkirk Meadows Drive, Beltsville, MD 20705

[REDACTED] | Purpose Driven. Enduring Commitment.

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[SEARCH BY VIN](#)

Recall information from this VIN lookup tool is provided by the manufacturer conducting the recall. NHTSA does not record VIN information or results provided through this tool.

[COMPLAINTS](#) **[RECALLS](#)** [INVESTIGATIONS](#) [MANUFACTURER COMMUNICATIONS](#)

1 Recalls

for 2015 HYUNDAI VELOSTER

FILTER RECALLS BY AFFECTED COMPONENTS

All (1) [ENGINE \(1\)](#)

December 1, 2020

NHTSA CAMPAIGN NUMBER: 20V746000

Engine Damage May Cause Stall or Fire

A damaged engine can increase the risk of fire or it can cause an engine stall, increasing the risk of a crash.

NHTSA Campaign Number: 20V746000

Manufacturer Hyundai Motor America

Components ENGINE

Potential Number of Units Affected 128,948

Summary

Hyundai Motor America (Hyundai) is recalling certain 2015-2016 Veloster, 2012 Santa Fe, 2011-2013 Sonata Hybrid, and 2016 Sonata Hybrid vehicles. The connecting rod bearings inside the engine may wear prematurely, which over time can result in engine damage.

Remedy

Hyundai will notify owners, and dealers will inspect the engine. If bearing damage is found, the engine will be replaced. Dealers will also install a software update containing a new Knock Sensor Detection System (KSDS). Repairs will be performed free of charge. The recall began March 31, 2021. Owners may contact Hyundai customer service at 1-855-371-9460. Hyundai's number for this recall is 198.

Notes

Owners may also contact the National Highway Traffic Safety Administration Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to www.safercar.gov.

[7 Affected Products](#) ▾

[14 Associated Documents](#) ▾

[1 Associated Investigation](#) ▾

Request Research (Services fees apply)



Vehicle Identification Number (VIN)

Every vehicle has a unique VIN. Enter a VIN to learn if a specific vehicle needs to be repaired as part of a recall.

KMHTC6ADXFU [REDACTED]

17/17 🔍

Looking for more information on this vehicle?

NHTSA offers more safety information based on a vehicle's year, make and model. Check safety ratings, recommended technologies and other safety issues.

[Learn More](#) →

2015

Hyundai VELOSTER



©EVXIMAGES

VIN: KMHTC6ADXFU [REDACTED]

Recall data refreshed on Mar 25,2022.

1 Unrepaired Recalls
associated with this VIN

Dec 01, 2020**Manufacturer Recall Number** 198**NHTSA Recall Number** 20V746000**Recall Status** Recall Incomplete**Summary**

HYUNDAI MOTOR AMERICA (HYUNDAI) IS RECALLING CERTAIN 2015-2016 VELOSTER, 2012 SANTA FE, 2011-2013 SONATA HYBRID, AND 2016 SONATA HYBRID VEHICLES. THE CONNECTING ROD BEARINGS INSIDE THE ENGINE MAY WEAR PREMATURELY, WHICH OVER TIME CAN RESULT IN ENGINE DAMAGE.

Safety Risk

IF THE VEHICLE IS CONTINUALLY OPERATED WITH A WORN CONNECTING ROD BEARING, THE ENGINE COULD BECOME DAMAGED AND EVENTUALLY STALL THE VEHICLE DURING OPERATION. IN LIMITED INSTANCES, A DAMAGED CONNECTING ROD COULD PUNCTURE THE ENGINE BLOCK AND CAUSE ENGINE OIL TO LEAK, WHICH, IN THE PRESENCE OF HOT SURFACES IN THE ENGINE COMPARTMENT, COULD INCREASE THE RISK OF A FIRE.

Remedy

HYUNDAI WILL NOTIFY OWNERS, AND DEALERS WILL INSPECT THE ENGINE. IF BEARING DAMAGE IS FOUND, THE ENGINE WILL BE REPLACED. DEALERS WILL ALSO INSTALL A SOFTWARE UPDATE CONTAINING A NEW KNOCK SENSOR DETECTION SYSTEM (KSDS) IF AVAILABLE. THE REMEDY PROCEDURE WILL BE PERFORMED AT NO CHARGE. HYUNDAI WILL PROVIDE REIMBURSEMENT TO OWNERS FOR REPAIRS ACCORDING TO THE PLAN SUBMITTED TO FEDERAL AUTHORITIES ON MAY, 2018.

Manufacturer's Notes

OWNERS MAY ALSO CONTACT THE NAT'L HIGHWAY SAFETY ADMIN VEHICLE SAFETY HOTLINE AT 1-888-327-4236 (TTY 1-800-424-9153), OR GO TO SAFERCAR.GOV.

If the manufacturer has failed or is unable to remedy this safety recall for your vehicle in a timely manner, please contact the NHTSA Vehicle Safety Hotline at: 1-888-327-4236 or TTY: 1-800-424-9153 or file an online complaint with NHTSA.

Where's my VIN?

Look on the lower left of your car's windshield for your 17-character Vehicle Identification Number. Your VIN is also located on your car's registration card, and it may be shown on your insurance card.



HYUNDAI

Technical Service Bulletin

GROUP ENGINE	NUMBER 21-EM-004H
DATE MARCH 2021	MODEL(S) APPLICABLE VEHICLES BELOW




SUBJECT: BEARING CLEARANCE TEST SERVICE PROCEDURE

Description: This bulletin provides the service procedure for engine connecting rod bearing clearance testing. Perform the procedure outlined in this bulletin to fulfill the Bearing Clearance Test inspection requirements to determine next required steps.



Applicable Vehicles:

- Certain models as indicated per separate TSB.
- This TSB fulfills its Inspection Procedure requirements for the engine Bearing Clearance Test.

SST Information

Part Name	Part Number / Figure	Note
BEARING CLEARANCE TESTER SET (BEARING TOOL)	  <p>(1) TEST HOSE (2) MAIN HOSE (3) POWER SUPPLY CABLE</p> <p>One BEARING CLEARANCE TESTER SET provided to dealers. (Additional units can be ordered.)</p>	<p>Confirm the following pressures meet requirements. The correct ranges for AP/VC air pressures are also indicated with red/blue decals on the gauges:</p> <p>Shop air supply: 50 psi minimum</p> <p>AP: 0.1 ~ 0.11MPa VC: -73 ~ -83Kpa (Refer to TSB 20-GI-009H or later for calibration procedure)</p> 
	KQ231-2T110QQH	BEARING CLEARANCE TESTER SET (BEARING TOOL) (includes A - F)
	KQ231-2T100QQH	(A) BODY

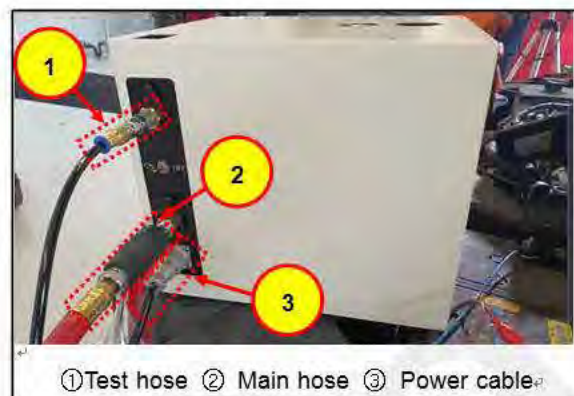
Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

	<p>KQ231-2T101QQH</p> 	<p>(B) SPARK PLUG ROD (M12 for GD and Theta II MPI Hybrid engines)</p> <p>← Upper body portion is smooth with no grooves.</p>
	<p>KQ231-2T107QQH</p> 	<p>(B) SPARK PLUG ROD (M14 for MPI engines)</p> <p>← 2 machined identification grooves on upper body.</p>
	<p>KQ231-2T102QQH</p>	<p>(C) CRANK ROTATOR TOOL</p>
	<p>KQ231-2T103QQH</p>	<p>(D) CLEARANCE GAUGE</p>
	<p>KQ231-2T104QQH</p>	<p>(E) POWER SUPPLY CABLE</p>
	<p>KQ231-2T105QQH</p>	<p>(F) TEST HOSE (AIR HOSE FOR CLEARANCE GAUGE)</p>

Service Procedure: Bearing Clearance Test

1. Connect the main hose (shop air supply) and test hose to the bearing tool (with other end of the test hose disconnected). (The power to the bearing tool main unit is not necessary at this time.)

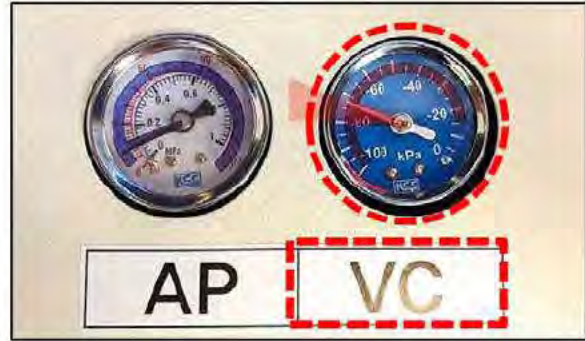
Confirm the shop air pressure and AP/VC pressures on the bearing tool meet requirements. The correct ranges for AP/VC air pressures are also indicated with red/blue decals on the gauges. Using STUI in the GDS, take and submit a picture of the gauges with the pressure levels clearly visible and the VIN in the background of the photo (RO or last 6 digits written on paper) for records.



Shop air supply: 50 psi minimum

AP/VC air pressure calibration check:

- a) Connect the main air compressor hose.
- b) Connect the test hose. (The other end of the test hose should be left disconnected from the spark plug rod.)
- c) Confirm that the AP/VC toggle switch at top is in the middle position.
- d) Inspect the AP/VC gauge indicators and compare to the specification range:
 - **AP:** 0.1 ~ 0.11MPa
 - **VC:** -73 ~ -83Kpa

**NOTICE**

Do not continue if any of the above readings are out of specification range.

- Adjust shop air to consistently provide at least 50 PSI of air pressure or greater.
- Do not use a portable air compressor to perform the bearing clearance testing.
- Be sure to check that the shop air water separator is functioning correctly.
- If any of the AP/VC air pressure indications are out of the specified range, recalibration of the Bearing Clearance Tester is required.
 - Refer to latest instructions outlined in the Engine Bearing Clearance Tester Calibration Procedure TSB 20-GI-009H or later for calibration procedure.

NOTICE

For Bearing Clearance Tester software related issues, contact GITA at: 888-437-0308
For Bearing Clearance Tester hardware related issues, contact Techline at: 800-325-6604

2. Remove the engine cover and the 4 ignition coils.

Tightening Torque (ignition coils):
9.8 - 11.8 N·m
(1.0 - 1.2 kgf·m, 7.2 - 8.7 lb·ft)



3. Remove the 4 spark plugs.

Tightening Torque:
14.7 - 24.5 N·m
(1.5 - 2.5 kgf·m, 10.9 - 18.0 lb·ft)



4. Insert the appropriate (use **M12 for GDI and Theta MPI Hybrid engines** or **M14 for all other MPI engines**) spark plug rod SST (A) into Cylinder #1 spark plug hole and turn until hand tight. Insert the clearance gauge SST into the spark plug rod and tighten using the thumb screw.



NOTICE

DO NOT connect the test air hose to the clearance gauge at this time.

5. Connect the GDS to the vehicle and turn the ignition 'ON'.

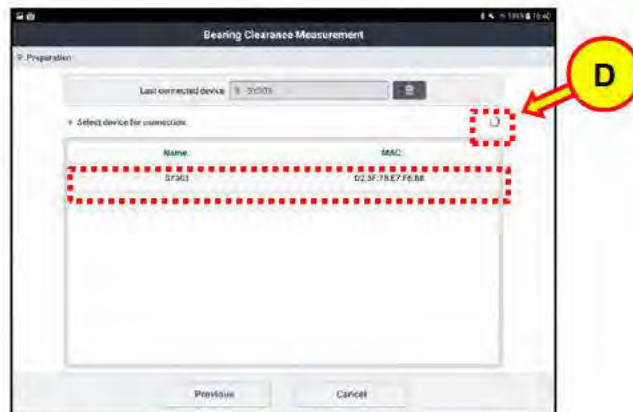
6. Swipe up on the 'More' tab at the bottom of the GDS home screen. Select the 'Special Inspection' function.

7. Enter the vehicle info into the GDS as prompted then select 'Next'.



8. Connect the GDS to the clearance gauge SST (gauge) via Bluetooth:

- Press the “Set’ button (B) on the gauge to turn it on.
- Press the “Set” (B) and “Mode” (C) buttons at the same time for about 4 sec until the “reset” message is displayed.
- Select the gauge in the list of devices on the GDS. Select the ‘Refresh’ icon (D) if the gauge doesn’t appear automatically.



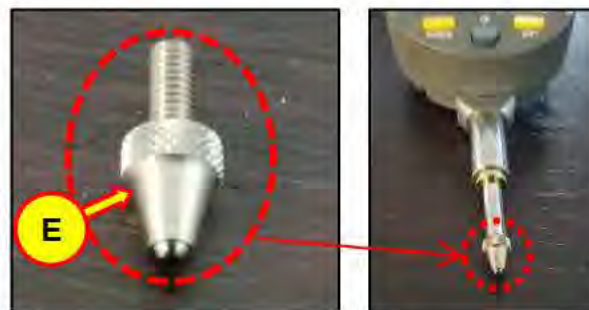
NOTICE

If more than one device appears in the list of devices, there is another device in range. Move away from the other device to pair the gauge.

- Check that the ball point tip (E) of the clearance gauge SST is securely installed to the tool as shown. **Do not continue if ball point tip (E) is loose or missing.**

NOTICE

If loose, apply Blue Loctite (or equivalent) to the tip thread and retighten securely to the gauge plunger.



9. Turn the ignition ‘OFF’ and remove the VCI.

10. Follow the instructions on the GDS to start the test and select ‘Next’.

NOTICE

- For the following steps, the Crank Rotator Tool or a long handled wrench should be used for moving the crankshaft slowly and precisely.
- Ensure the test hose is disconnected from the clearance gauge when finding TDC piston depth.

Please take note of the following crank/piston position definitions.

- ❖ BTDC (Before Top Dead Center)
- ❖ TDC (Top Dead Center) ← Find TDC during the compression stroke.
- ❖ ATDC (After Top Dead Center)

In the following steps, the TDC point for testing must be at MAX (piston height) value minus 0.03mm as the crank has moved slightly into ATDC (from its TDC dwell point).

- If TDC is difficult to find, refer to **Shop Manual Section Location:** Engine Mechanical System > Timing System > Timing Chain

11. To find TDC compression (TDC), rotate the crankshaft with the crank rotator SST at least one cycle (1/2 turn). (If the SST does not fit the specific vehicle type, remove the front passenger wheel and wheel liner or underbody tray as needed to rotate the crankshaft using standard shop tools.)

IMPORTANT

- For the step below, the engine must be rotated **SLOWLY** using the crank rotator SST.
 - Abrupt or erratic movements may cause improper TDC setup and test errors.
- Do **NOT** stop rotating the engine before reaching **MAX TDC**, especially during the initial rotation towards TDC where the value may be at 0mm and change all the sudden.
 - Be sure to find TDC correctly by slowly and slightly nudging the engine a little more to verify no change in value to confirm that the piston is at **MAX TDC**.

- ❖ Monitor the piston height value on GDS screen or the clearance gauge SST while rotating the engine clockwise using the Crank Rotator Tool.
 - Rotate the engine **SLOWLY** as the value increases towards a MAX value. (BTDC → TDC)
 - When the value changes direction (increasing/BTDC → TDC → decreasing/ATDC), stop rotating the crank when the piston height is at MAX value minus 0.03mm.



NOTICE

The testing point is slightly towards ATDC from TDC when the piston has moved down 0.03mm from its highest position.

12. Select 'Next' when TDC is found.
- ❖ Ideal set point for testing from TDC is found when the maximum value minus 0.03mm is reached on the clearance gauge SST (F).
 - ❖ The value is also displayed on the GDS.

13. Once the set point for bearing testing is found, select 'Start' in the GDS screen and proceed directly to the next step below.

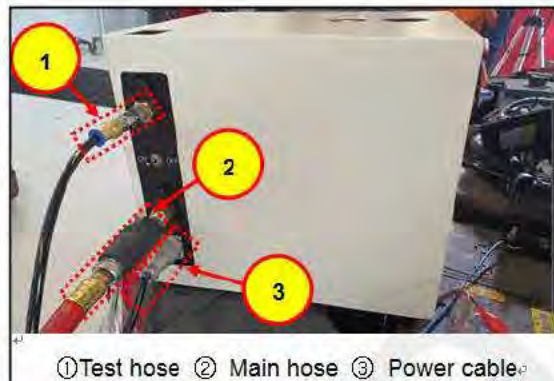
- Do not turn the crank rotator SST until instructed to do so.

NOTICE

The value at TDC varies depending on the specific vehicle and engine type.



14. Connect the test hose (1) to the spark plug rod SST and to the bearing tool SST.



15. Connect the SST power cables to a fully charged 12V battery or to an external AC/DC power supply.

- Turn the bearing tool SST power switch 'ON'.



NOTICE

***** Bearing Tool SST Power Check *****

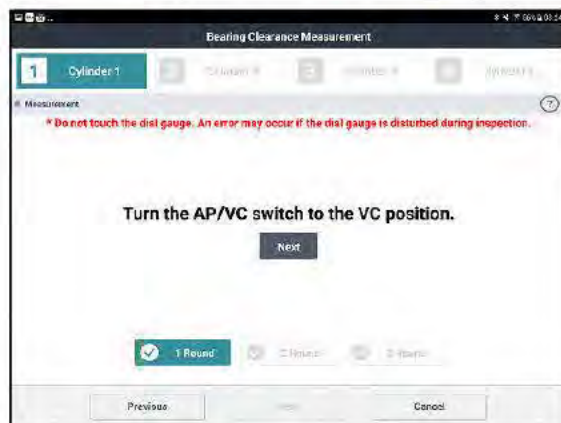
- a) Supply 12 volts (or an alternate external AC/DC 13.8 volt power supply with at least ~2 amp output) to the power cable (3) connected to the bearing tool SST.
- b) Turn power switch to ON.
- c) Toggle AP/VC transfer switch between AP <> VC.
 - ❖ The solenoids should “click” while switching between AP/VC when the unit is ON.
 - ❖ If the solenoids are not switching, then check the power cable or the power supply.

16. Locate the AP/VC switch on the bearing tool SST and switch it to the AP Position.

17. Follow the instructions on the GDS to test each cylinder. Cylinder #1 is checked first.

- The cylinders will be checked per the engine firing order: #1→#3→#4→#2.

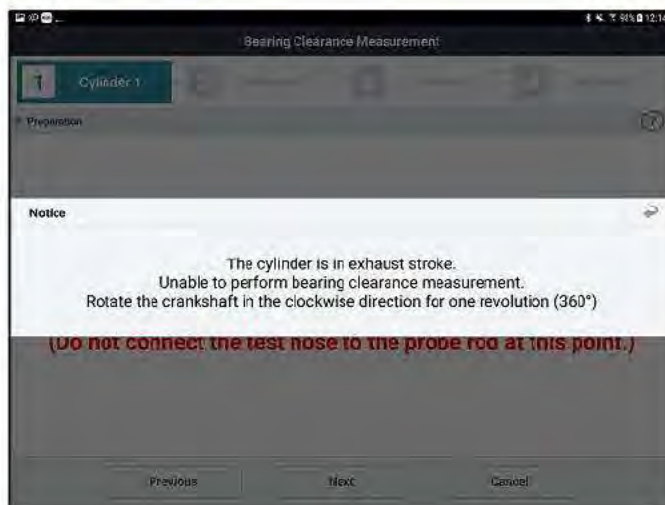
18. On the bearing tool SST, change the AP/VC switch to the VC position when instructed by the GDS.



NOTICE

If the bearing measurement value does not change when the AP/VC is switched or the “Unable to measure” message appears on the GDS, rotate the crankshaft further as the exhaust valves could be open. Set the crankshaft to TDC again (Step 11).

Ensure the test hose is disconnected from the clearance gauge SST when finding TDC.

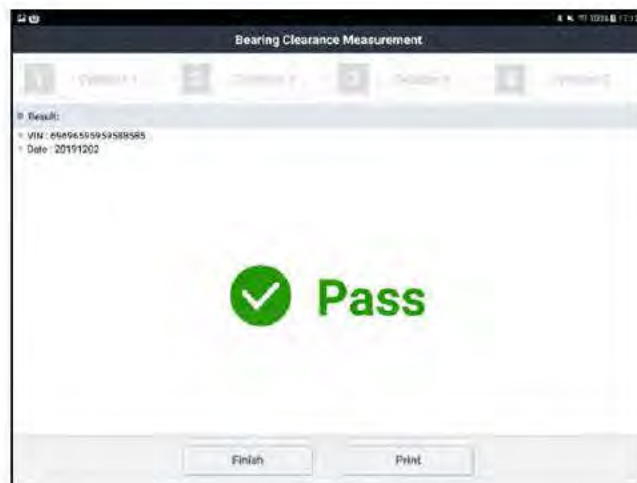


19. Continue following the instructions on the GDS to complete the bearing inspection. Check the engine oil level and select the level in the GDS.



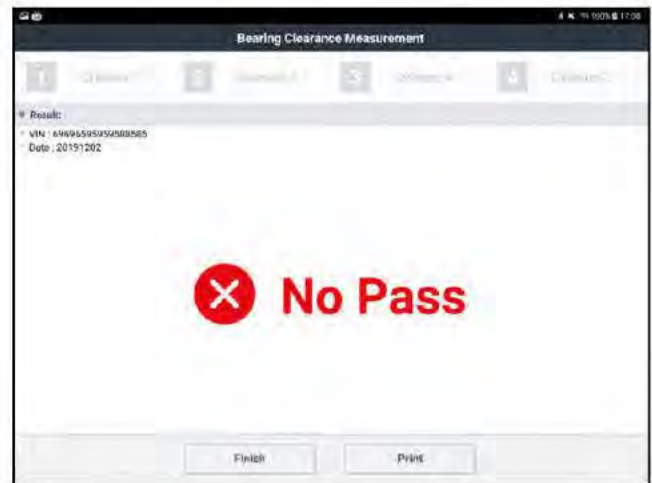
20. If the test result is “PASS”:

- Save a screenshot of the results screen.
- Reinstall all components in the reverse order of removal.
- Check for DTCs and perform the appropriate diagnostic service. Ensure no warning lights are present to complete the procedure.



If the test result is “NO PASS”:

- a) Save a screenshot of the results screen.
- b) Submit PA for engine replacement approval.
- c) Follow remainder of the separate reference TSB to complete the service procedure.
- d) Check for DTCs and perform the appropriate diagnostic service. Ensure no warning lights are present to complete the procedure.

**NOTICE**

PA Approval is required whenever an engine replacement is required. Submit PA and refer to the applicable Dealer Best Practices guide for the latest requirements for engine approval.



HYUNDAI

Technical Service Bulletin

GROUP RECALL	NUMBER 21-01-022H
DATE MARCH 2021	MODEL(S) APPLICABLE VEHICLES BELOW

SUBJECT: ENGINE INSPECTION (RECALL CAMPAIGN 198)

★ IMPORTANT

*** Retail Vehicles ***

Dealers must perform this Recall Campaign whenever an affected vehicle is in the shop for any maintenance or repair.

Description: Certain vehicles listed below may exhibit an abnormal knocking noise from the engine. Follow the procedure to inspect the vehicle to determine the applicable repair procedure based on the inspection results.

Applicable Vehicles:

Certain 2012 MY Santa Fe (CM) vehicles with Theta II 2.4L MPI engines
 Certain 2011-2013 MY Sonata HEV (YFE) vehicles with Theta II 2.4L MPI Hybrid engines
 Certain 2016 MY Sonata HEV (LFE) vehicles with Nu 2.0L GDI Hybrid engines
 Certain 2015-2016 MY Veloster (FS) vehicles with Gamma 1.6L GDI engines

Warranty Information:

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL P/N	NATURE CODE	CAUSE CODE
Santa Fe (CM)	11D020R0	ENGINE INSPECTION	0.6 M/H	21101-2G404FFF	E74	ZZ7
	11D020R1	UNABLE TO PERFORM ENGINE INSPECTION	0.1 M/H	21101-2G404FFF	E74	ZZ7
Sonata HEV (YFE)	11D020R2	ENGINE INSPECTION	0.6 M/H	77RT2-2GF00	E74	ZZ7
	11D020R3	UNABLE TO PERFORM ENGINE INSPECTION	0.1 M/H	77RT2-2GF00	E74	ZZ7

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

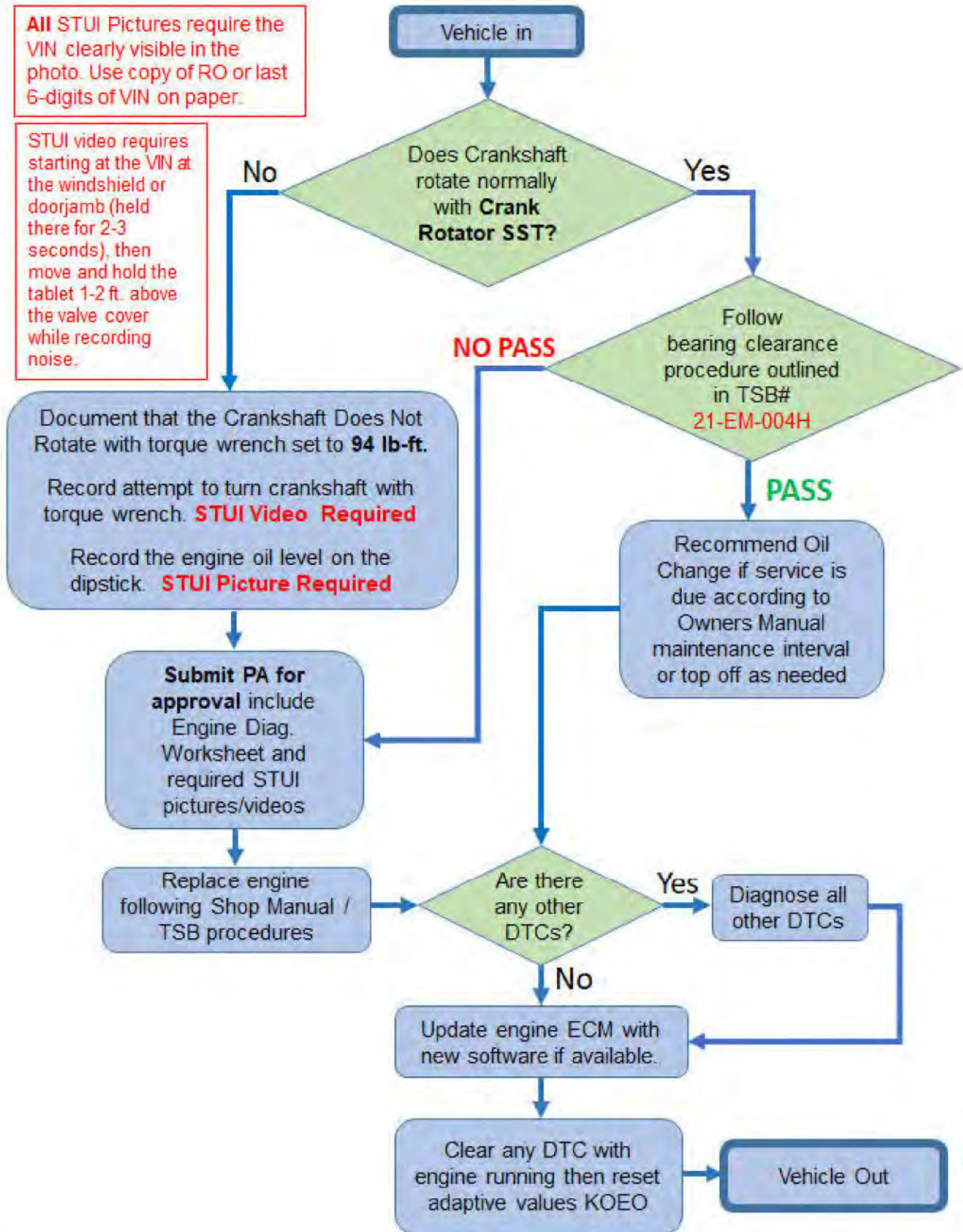
Sonata HEV (LFE)	11D020R4	ENGINE INSPECTION	0.6 M/H	2D312-2EU02A	E74	ZZ7
	11D020R5	UNABLE TO PERFORM ENGINE INSPECTION	0.1 M/H	2D312-2EU02A	E74	ZZ7
Veloster (FS)	11D020R6	ENGINE INSPECTION	0.6 M/H	21101-2BK04FFF	E74	ZZ7
	11D020R7	UNABLE TO PERFORM ENGINE INSPECTION	0.1 M/H	21101-2BK04FFF	E74	ZZ7

NOTE 1: Use appropriate op code for 'UNABLE TO PERFORM ENGINE INSPECTION' if the engine cannot be rotated to perform the Bearing Clearance Test.

NOTE 2: Submit claim on Campaign Claim Entry Screen

NOTE 3: If a part is found in need of replacement while performing this Recall and the affected part is still under warranty, submit a separate claim using the Same Repair Order. If the affected part is out of warranty, submit a Prior Approval Request for goodwill consideration prior to performing the work.

Service Procedure Flowchart:



Service Procedure:**Engine Inspection - (Engine Rotation Check)**

1. Rotate the crankshaft with the crank rotator SST.
 - If the crankshaft cannot be turned with a moderate force, then measure the force required to turn the crankshaft with a torque wrench.
 - If the SST or shop tools do not fit the specific vehicle type, remove the front passenger wheel and wheel liner or underbody tray as needed to rotate the crankshaft.

❖ **If the crankshaft rotates normally:**

- Perform Bearing Inspection per TSB 21-EM-004H "BEARING CLEARANCE TEST SERVICE PROCEDURE".

❖ **If the force required for rotating the crankshaft is greater than 94 lb-ft., documentation through STUI video is required.**

- Bearing Clearance Test is not possible.
- **Take a STUI picture of the engine oil level on the dipstick** with the VIN clearly visible in the photo using a copy of the RO or last 6-digits of VIN on paper.
- Use appropriate Op Code for "UNABLE TO PERFORM ENGINE INSPECTION" and then submit PA for engine replacement.
 - Use appropriate Op Code for the engine replacement operation.

NOTICE

If other engine accessory components are seized, remove the engine accessory belt prior to completing the engine rotation check.

Engine Inspection - (Bearing Clearance Test)

2. Refer to TSB # 21-EM-004H to complete the Service Procedure for Bearing Clearance Test.

❖ **If the test result is "PASS":**

- Follow the remaining steps of the inspection TSB.
- Use appropriate Op Code for "ENGINE INSPECTION" to complete the inspection procedure.

❖ **If the test result is "NO PASS":**

- Follow the remaining steps of the inspection TSB.
- Use appropriate Op Code for "ENGINE INSPECTION" to complete the inspection procedure and then submit PA for engine replacement.
 - Use appropriate Op Code for the engine replacement operation.

NOTICE

PA Approval is required for engine replacement. Submit PA and refer to the Dealer Best Practices guide for the latest requirements for engine approval.

- 1) If engine does not rotate normally, a STUI video including the following is required:
 - VIN Plate (at windshield or on door jamb)
 - Attempt to rotate the crankshaft
- 2) Save the crankshaft rotation torque value
- 3) A picture of the lower end damage is required if present
- 4) Use STUI feature on the GDS to take and submit pictures and videos.

***** IF ENGINE REPLACEMENT IS REQUIRED AND APPROVED BY PA *****

Follow the published Service Information from the applicable **Shop Manual** to remove and replace the Engine Assembly.

Shop Manual Section Location: Engine Mechanical > Engine And Transaxle Assembly > Engine And Transaxle Assembly > **Repair Procedures**

- a) Be sure to connect the (2) oil coolant hoses between the oil cooler and the water temperature control assembly (if equipped).
 - Fill the cooling system with 50/50 ~ 70/30 (Water/Anti-Freeze) coolant mixture.
- b) Fill the engine crankcase:
 - Add engine oil amount specified for the engine for the **initial dry fill** of the crankcase.
 - With the fuel system disabled temporarily, crank the engine for several seconds to prime the lubrication system prior to starting the engine.
 - **Recommended Oil Specifications:**
 - 5W-30 Full Synthetic type with API SN/SN+/SP, ILSAC GF4/GF5 or higher service grade
- c) Start the engine to warm it up and begin the cooling system air bleeding process.
 - Check for any leaks during this time.
 - After the engine has warmed up to normal operating temperature, turn the engine off, wait a few minutes, and then **adjust the engine oil level up the “F” mark as shown.**
- d) Check for additional TSB to update the Engine ECM if new software is available.
- e) When all fluids have been fully filled and all work quality checks are completed:
 - Set the customer's audio station presets.
 - Relearn the Steering Angle Sensor using the GDS.
 - **Clear any DTC's (if present) with engine ON.**
 - Certain DTC's may reset if it's not cleared with the engine running.
 - Perform the appropriate diagnostic service for any DTC's.
 - Ensure no warning lights are present.
 - **Reset the engine adaptive values** using the GDS.
 - Perform a short road test to confirm normal vehicle drivability.

**NOTICE**

- **Clear any DTC's (if present) with engine ON. Certain DTC's may reset if not cleared with the engine running.**
- **Reset engine adaptive values.**

Part 573 Safety Recall Report

20V-746

Manufacturer Name : Hyundai Motor America**Submission Date :** DEC 01, 2020**NHTSA Recall No. :** 20V-746**Manufacturer Recall No. :** 198**Manufacturer Information :**

Manufacturer Name : Hyundai Motor America

Address : 10550 Talbert Avenue

Fountain Valley CA 92708

Company phone : 800-633-5151

Population :

Number of potentially involved : 128,948

Estimated percentage with defect : 1 %

Vehicle Information :

Vehicle 1 : 2015-2016 Hyundai Veloster

Vehicle Type : LIGHT VEHICLES

Body Style : HATCHBACK

Power Train : GAS

Descriptive Information : Certain model year 2015-2016 Hyundai Veloster vehicles equipped with 1.6-liter "Gamma" GDI engines and produced by May 26, 2014 through July 13, 2016 by Hyundai Motor Company in the Republic of Korea. The involved vehicles were determined jointly by Hyundai and NHTSA's Office of Defects Investigation ("ODI") during a review of Hyundai's response(s) to investigations PE19-003.

Production Dates : MAY 26, 2014 - JUL 13, 2016

VIN Range 1 : Begin :

NR

End : NR

 Not sequential

Vehicle 2 : 2012-2012 Hyundai Santa Fe

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : GAS

Descriptive Information : Certain model year 2012 Hyundai Santa Fe vehicles equipped with 2.4-liter "Theta II" MPI engines and produced from January 10, 2012 through July 3, 2012 by Hyundai Motor Manufacturing Alabama and Kia Motor Company in the Republic of Korea. The involved vehicles were determined jointly by Hyundai and NHTSA's Office of Defects Investigation ("ODI") during a review of Hyundai's response(s) to investigations PE19-003.

Production Dates : JAN 10, 2012 - JUL 03, 2012

VIN Range 1 : Begin :

NR

End : NR

 Not sequential

Vehicle 3 : 2011-2013 Hyundai Sonata

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : HYBRID ELECTRIC

Descriptive Information : Certain model year 2011-2013 Hyundai Sonata Hybrid vehicles equipped with 2.4-liter "Theta II" MPI HEV engines and produced from June 2, 2010 through December 17, 2013 by Hyundai Motor Company in the Republic of Korea. The involved vehicles were determined jointly by Hyundai and NHTSA's Office of Defects Investigation ("ODI") during a review of Hyundai's response(s) to investigations PE19-003.

Production Dates : JUN 02, 2010 - DEC 17, 2013

VIN Range 1 : Begin : NR End : NR Not sequential

Vehicle 4 : 2016-2016 Hyundai Sonata

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : HYBRID ELECTRIC

Descriptive Information : Certain model year 2016 Hyundai Sonata Hybrid vehicles equipped with 2.0-liter "Nu" GDI HEV engines and produced by February 25, 2015 through April 25, 2016 by Hyundai Motor Company in the Republic of Korea. The involved vehicles were determined jointly by Hyundai and NHTSA's Office of Defects Investigation ("ODI") during a review of Hyundai's response(s) to investigations PE19-003.

Production Dates : FEB 25, 2015 - APR 25, 2016

VIN Range 1 : Begin : NR End : NR Not sequential

Description of Defect :

Description of the Defect : An engine compartment fire can occur while driving for many reasons and depending on the severity of the fire, the identification of the cause can be untraceable. The engines in the subject vehicles may have been produced with conditions that can cause premature wear of the connecting rod bearings. A worn connecting rod bearing could result in abnormal knocking noise from the engine and/or illumination of the oil pressure warning light. If the vehicle is continually operated with a worn connecting rod bearing, the engine could become damaged and eventually stall the vehicle during operation. In limited instances, a damaged connecting rod could puncture the engine block and cause engine oil to leak, which, in the presence of hot surfaces in the engine compartment, could increase the risk of a fire.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A vehicle stall at highway speeds can increase the risk of a crash. If engine oil leaks onto certain engine components running at high operating temperature it could ignite and start an engine compartment fire.

Description of the Cause : A broken connecting rod can puncture the engine block.

Identification of Any Warning that can Occur : Abnormal (knocking) noise from engine;
Reduced motive power and/or hesitation;
Illumination of the "Check Engine" warning lamp;
Illumination of engine oil pressure warning lamp;
Burning smell;
Visible oil leaks;
Smoke;

Involved Components :

Component Name 1 : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : Hyundai Motor Company

Address : NR

NR

Country : NR

Chronology :

Please see Attachment A for the requested chronology of events.

Description of Remedy :

Description of Remedy Program : Hyundai Motor America plans to notify owners of affected vehicles to return their vehicles to their Hyundai dealers for an engine inspection test to determine the presence of any bearing damage. If the bearing is damaged, the engine will be replaced with a new one.

As an added level of protection, all affected vehicles will receive an enhanced engine control software update containing a new Knock Sensor Detection System ("KSDS") program. The KSDS continuously monitors engine vibrations for unusual patterns potentially indicating an abnormal condition with the engine, such as a damaged connecting rod bearing, that could lead to an engine failure.

The remedy procedure will be performed at no charge. Hyundai will provide reimbursement to owners for repairs according to the plan submitted on May 16, 2018.

How Remedy Component Differs from Recalled Component : NR

Identify How/When Recall Condition was Corrected in Production : NR

Recall Schedule :

Description of Recall Schedule : Dealers and owners will be notified beginning in late January 2021.

Planned Dealer Notification Date : JAN 22, 2021 - JAN 22, 2021

Planned Owner Notification Date : JAN 22, 2021 - JAN 22, 2021

* NR - Not Reported

RECALL 198 ATTACHMENT A

CHRONOLOGY OF EVENTS LEADING UP TO DEFECT DECISION

- March 2019

NHTSA opened Preliminary Evaluation no. 19-003 “to assess the scope, frequency, and potential safety-related consequences of alleged defects relating to non-collision vehicle fires in the 2011-2014 Sonata Investigation and 2011-2014 Santa Fe.”
- April 2019

In connection with PE 19-003, NHTSA issued an Information Request to HMA that sought data and information regarding non-collision fire incidents within an expanded range of Hyundai vehicles, namely all HMA vehicles of all model years equipped with Theta II, Lambda II, Gamma and Nu engines, thereby bringing into scrutiny a wide range of Hyundai model and model year vehicles. Further, the Information Request sought information regarding non-collision fire incidents based on the definition of fire under 49 CFR § 579.4, which also includes “thermal events and fire-related phenomena such as smoke and melt,” thereby requiring HMA to search, collect, and produce a substantial volume of documents and data referring to potentially fire-related phenomena standing alone (such as “smoke” or “melt”) without any evidence of flame, burning, or combustion. HMA also understood that at about the same time, NHTSA was seeking to collecting similar information on the incidence of non-collision fires from other automakers in the United States market.
- August 2019

HMA completed its response to NHTSA’s Information Request. As was discussed with NHTSA shortly thereafter, HMA reasonably believed that while certain vehicles already subject to recall had an arguably higher incidence of non-collision fires that were already being addressed by ongoing vehicle recalls, in the absence of additional, comparative data, HMA’s data did not indicate elevated or unusual rates of non-collision related fires in Hyundai vehicles.
- April 2020 – June 2020

On April 30, 2020, HMA proactively shared information with the agency on the completion rate and effectiveness of the Knock Sensor Detection System (“KSDS”) software aimed at enhancing the detection of gradual engine damage/wear, in mitigating non-collision fires. HMA continued to provide recurring updates on the deployment and effectiveness of KSDS to NHTSA.
- July 2020 – November 2020

NHTSA shared with HMA its views on the data produced in relation to the aforementioned Information Request, as well as the data apparently shared by competitor automakers with the Agency. With NHTSA’s understanding and agreement, HMA updated and re-analyzed the occurrence of non-collision fire incidents in certain vehicles in discussion. Following additional discussion, the involved vehicles were determined by HMA in discussion with NHTSA’s Office of Defects Investigation (“ODI”). As to each of the involved vehicles, while the precise cause of non-collision fire can sometimes vary and due to the limitations of fire investigation there is often incomplete information, HMA and ODI agreed that the vehicles appeared to have experienced

RECALL 198 ATTACHMENT A

CHRONOLOGY OF EVENTS LEADING UP TO DEFECT DECISION

above average rates of hole-in-block engine fires that ordinarily result from a seized engine that causes a connecting rod to break, puncture the engine block, and thereby potentially allow engine oil to escape the block, come in contact with other hot surfaces in the engine compartment, and produce localized smoke and then fire in the engine compartment. Seized engines in this context most often result from manufacturing variances in terms of machined surface roughness, machining debris, and geometric fit among the crankshaft, connecting rod, and engine bearing components.

On November 23, 2020, HMA convened its North American Safety Decision Authority and decided to conduct a safety recall to address the above condition in affected vehicles in the U.S. market.



<p>Hyundai Forum - Hyundai Enthusiast Forums > VIN Decoder > VIN Decoder</p>		<p>Username <input type="text"/></p> <p>Password <input type="password"/> <input type="button" value="Log In"/></p> <p>By logging into your account, you agree to our Terms of Use and Privacy Policy, and to the use of cookies as described therein.</p> <p>Register Forgot Password?</p>					
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Hyundai VIN Decoder



2015 Hyundai Veloster 3dr Cpe Auto RE:FLEX w/Red Int
VIN: KMHTC6ADXFL [REDACTED]

Mechanical & Powertrain

Engine: 1.6L 16-Valve 4-Cylinder GDI -inc: DOHC, Dual Continuously Variable Valve Timing (D-CVVT), aluminum block and head, full engine cover and hood insulator

Front-Wheel Drive

4.81 Axle Ratio

36-Amp/Hr 410CCA Maintenance-Free Battery w/Run Down Protection

90 Amp Alternator

Gas-Pressurized Shock Absorbers

Front And Rear Anti-Roll Bars

Electric Power-Assist Speed-Sensing Steering

13.2 Gal. Fuel Tank

Quasi-Dual Stainless Steel Exhaust w/Chrome Tailpipe Finisher

Strut Front Suspension w/Coil Springs

Torsion Beam Rear Suspension w/Coil Springs

4-Wheel Disc Brakes w/4-Wheel ABS, Front Vented Discs, Brake Assist and Hill Hold Control

Safety

Side Impact Beams

Dual Stage Driver And Passenger Seat-Mounted Side Airbags

Rear Parking Sensors

Low Tire Pressure Warning

Dual Stage Driver And Passenger Front Airbags

Curtain 1st And 2nd Row Airbags

Airbag Occupancy Sensor

Rear Child Safety Locks

Outboard Front Lap And Shoulder Safety Belts -inc: Height Adjusters and Pretensioners

Back-Up Camera

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Interior

Front Bucket Seats -inc: 6-way adjustable driver's seat w/height adjustment, armrest storage box and front passenger slide/recline w/seatback pocket
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6-Way Driver Seat

4-Way Passenger Seat

60-40 Folding Bench Front Facing Fold Forward Seatback Rear Seat

Manual Tilt/Telescoping Steering Column

Leather Steering Wheel

Front Cupholder

Rear Cupholder

Remote Releases -Inc: Mechanical Fuel

Cruise Control w/Steering Wheel Controls

Manual Air Conditioning

Glove Box

Driver Foot Rest

Full Cloth Headliner

Interior Trim -inc: Piano Black Instrument Panel Insert, Piano Black Door Panel Insert, Piano Black Console Insert and Chrome/Metal-Look Interior Accents

Leatherette Door Trim Insert

Leather Gear Shifter Material

Day-Night Rearview Mirror

Driver And Passenger Visor Vanity Mirrors w/Driver And Passenger Illumination, Driver And Passenger Auxiliary Mirror

Full Floor Console w/Covered Storage, Mini Overhead Console w/Storage, Rear Console w/Storage and 2 12V DC Power Outlets

Front Map Lights

Fade-To-Off Interior Lighting

Carpet Floor Trim

Rigid Cargo Cover

Cargo Features -inc: Tire Mobility Kit

Cargo Space Lights

FOB Controls -inc: Cargo Access

Tracker System

Driver And Passenger Door Bins

Delayed Accessory Power

Outside Temp Gauge

Digital/Analog Appearance

Manual Adjustable Front Head Restraints and Manual Adjustable Rear Head Restraints

Perimeter Alarm

Engine Immobilizer

2 12V DC Power Outlets

Air Filtration

Exterior

Wheels: 18" Alloy w/PVD Chrome Finish

Tires: P215/40VR18 85 Kumho

Tire Mobility Kit

Clearcoat Paint w/Badging

Body-Colored Front Bumper

Body-Colored Rear Bumper w/Black Rub Strip/Fascia Accent

Black Side Windows Trim

Chrome Door Handles

Body-Colored Power Heated Side Mirrors w/Convex Spotter and Manual Folding

Fixed Rear Window w/Fixed Interval Wiper and Defroster

Light Tinted Glass

Variable Intermittent Wipers

Front Windshield -inc: Sun Visor Strip

Fully Galvanized Steel Panels

Lip Spoiler

Chrome Grille



Liftgate Rear Cargo Access

Auto Off Projector Beam Halogen Daytime Running Headlamps
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<p>Register FAQ Community Calendar Today's Posts Search Used Cars Vendor Directory</p>		

Hyundai VIN Decoder



2015 Hyundai Veloster 3dr Cpe Auto RE:FLEX w/Red Int
VIN: KMHTC6ADXFL [REDACTED]

[Like \(1\)](#) [Share](#) [Reset](#)

Tech Specs

- Vehicle Name**
Hyundai Veloster
- Body Style**
Hatchback
- Drivetrain**
Front Wheel Drive
- EPA Classification**
Compact Cars
- Passenger Capacity**
4 4.0 min 4.0 max
- Passenger Volume**
89.8 ft³ 89.8 min 89.8 max
- Base Curb Weight**
2657 lbs 2657.0 min 2657.0 max
- Fuel Economy Est-Combined**
30 MPG 30.0 min 30.0 max
- EPA Fuel Economy Est - City**
27 MPG 27.0 min 27.0 max
- EPA Fuel Economy Est - Hwy**
36 MPG 36.0 min 36.0 max
- Engine Type**
Regular Unleaded I-4
- Displacement**
1.6 L/97
- Fuel System**
Gasoline Direct Injection
- SAE Net Horsepower @ RPM**
132 @ 6300
- SAE Net Torque @ RPM**
120 @ 4850
- Trans Type**
6 6.0 min 6.0 max
- Trans Description Cont.**
Auto-Shift Manual w/OD

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First Gear Ratio (:1)

3.62 3.62 min 3.62 max

Second Gear Ratio (:1) [Enthusiast Forums](#) > [VIN Decoder](#)

1.96 1.96 min 1.96 max

Third Gear Ratio (:1)

1.30 1.3 min 1.3 max

Fourth Gear Ratio (:1)

0.94 0.94 min 0.94 max

Fifth Gear Ratio (:1)

0.94 0.94 min 0.94 max

Sixth Gear Ratio (:1)

0.74 0.74 min 0.74 max

Reverse Ratio (:1)

4.53 4.53 min 4.53 max

Final Drive Axle Ratio (:1)

4.81 4.81 min 4.81 max

Cold Cranking Amps @ 0° F (Primary)

410 410.0 min 410.0 max

Tons/yr of CO2 Emissions @ 15K mi/year

5.9 5.9 min 5.9 max

Maximum Alternator Capacity (amps)

90 90.0 min 90.0 max

Suspension Type - Front

Strut

Suspension Type - Rear

Torsion Beam

Suspension Type - Front (Cont.)

Strut

Suspension Type - Rear (Cont.)

Torsion Beam

Front Tire Size

P215/40VR18

Rear Tire Size

P215/40VR18

Front Wheel Size

18 X 7.5 in

Rear Wheel Size

18 X 7.5 in

Front Wheel Material

Aluminum

Rear Wheel Material

Aluminum

Steering Type

Rack-Pinion

Turning Diameter - Curb to Curb

34.1 ft 34.1 min 34.1 max

Brake Type

4-Wheel Disc

Brake ABS System

4-Wheel

Disc - Front (Yes or)

Yes

Disc - Rear (Yes or)

Yes

Front Brake Rotor Diam x Thickness

11 in 11.0 min 11.0 max

Rear Brake Rotor Diam x Thickness

10.3 in 10.3 min 10.3 max

Fuel Tank Capacity, Approx

13.2 gal 13.2 min 13.2 max

Front Head Room

39 in 39.0 min 39.0 max

Front Leg Room

43.9 in 43.9 min 43.9 max

Front Shoulder Room

55.6 in 55.6 min 55.6 max

Front Hip Room

53.2 in 53.2 min 53.2 max

Second Head Room

35.3 in 35.3 min 35.3 max

Second Leg Room

31.7 in 31.7 min 31.7 max

 HYUNDAI Technical Service Bulletin	GROUP ENGINE	NUMBER 21-EM-005H
	DATE MARCH, 2021	MODEL(S) APPLICABLE VEHICLES BELOW
SUBJECT: ENGINE WARRANTY EXTENSION (TXXM)		

Description: The Powertrain warranty coverage for certain engine repairs and/or replacement *where the engine damage, defect, or failure is related to connecting rod bearing wear*, has been extended to 15 years or 150,000 miles from the date of original retail delivery or date of first use, whichever occurs first, and is valid for original and subsequent owners.

Please refer to TSB # 21-01-025H (or latest revision) for applicable campaign part numbers and labor ops.

If labor ops for a model/model years below are not available in the above TSB, please follow the shop manual and submit under warranty/goodwill using LTS related labor ops.

Applicable Vehicles:

- Certain 2011-2012 Santa Fe (CM) equipped with 2.4L Theta II MPI Engines
- Certain 2011-2013 MY Sonata HEV (YFE) vehicles with Theta II 2.4L MPI Hybrid engines
- Certain 2016 MY Sonata HEV (LFE) vehicles with Nu 2.0L GDI Hybrid engines
- Certain 2012-2017 MY Veloster (FS) vehicles with Gamma 1.6L GDI engines

From: [REDACTED]
To: [EVOQ \(NHTSA\);](#) [REDACTED]
Cc: [NHTSA ODI CRD;](#) [REDACTED]
Subject: ODI-11461478
Date: Friday, April 22, 2022 5:24:50 PM
Attachments: [REDACTED]

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

[REDACTED]

Subject: complaint #11461478
To: nhtsa.webmaster@dot.gov

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Please see attached documents- supporting recall and also out of pocket expenses for rental car and tow truck services. This all could have been avoided if the dealership would have honored the recall. I have also paid out of pocket through a loan- 4,150 for a used engine to be put in. Thanks. The NHTSA.dot.gov did not work as a valid email.

[REDACTED]

[REDACTED]
ASRC Federal Holding Company

[REDACTED]
7000 Muirkirk Meadows Drive, Beltsville, MD 20705

[REDACTED] | Purpose Driven. Enduring Commitment.

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VIN

VEHICLE

CAR SEATS

TIRES

EQUIPMENT

Vehicle Identification Number (VIN)

Every vehicle has a unique VIN. Enter a VIN to learn if a specific vehicle needs to be repaired as part of a recall.

kmhtc6adxfu [REDACTED]

17/17

Looking for more information on this vehicle?

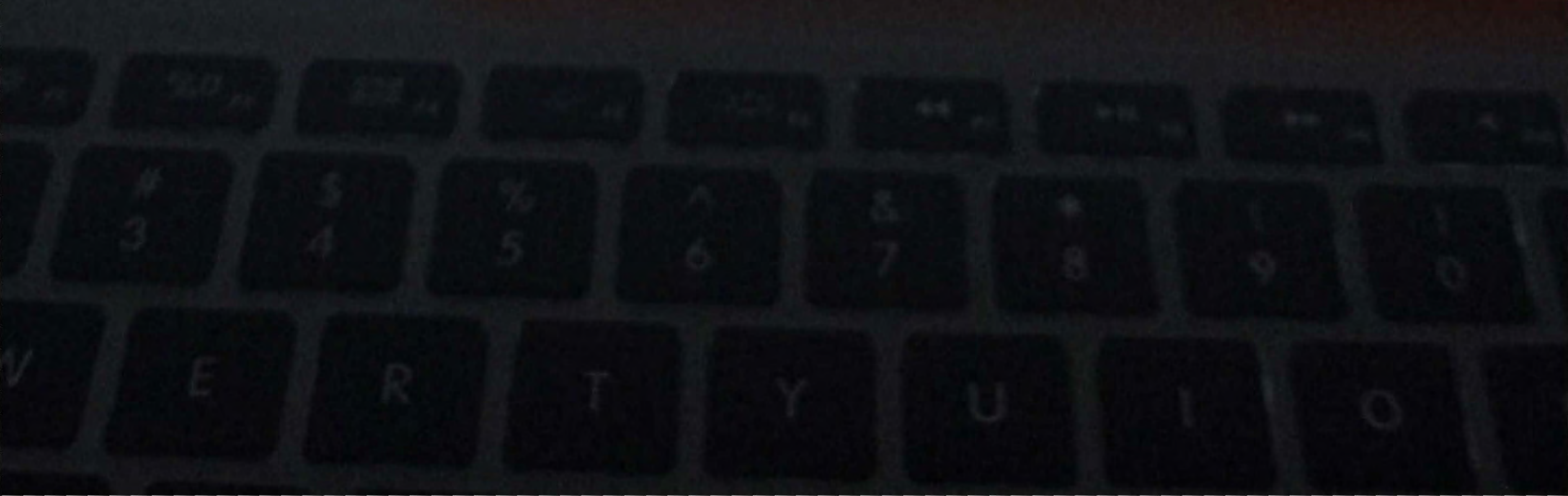
NHTSA offers more safety information based on a vehicle's year, make and model. Check safety ratings, recommended technical and other safety issues.

[Learn More](#) →

2015
Hyundai
VELOSTER

1 Unrepaired Recalls
associated with this VIN

Dec 01, 2020



To get future Google Chrome updates, you'll need OS X 10.11 or later. This computer is using OS

VIN

VEHICLE

Vehicle Id

Every vehicle has a unique VIN. Enter a V

kmhtc6adxfu

Looking for more information on this vehicle?

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computer is using OS X 10.10.

Dec 01,2020

Manufacturer Recall Number 198

NHTSA Recall Number 20V746000

Recall Status Recall Incomplete

Summary

HYUNDAI MOTOR AMERICA (HYUNDAI) IS RECALLING CERTAIN 2011-2013 VELOSTER, 2012 SANTA FE, 2011-2013 SONATA HYBRID, AND 2016 SONATA HYBRID VEHICLES. THE CONNECTING ROD BEARINGS INSIDE THE ENGINE MAY WEAR PREMATURELY, WHICH OVER TIME CAN RESULT IN ENGINE DAMAGE.

Safety Risk

IF THE VEHICLE IS CONTINUALLY OPERATED WITH A WORN CONNECTING ROD BEARING,THE ENGINE COULD BECOME DAMAGED AND EVENTUALLY STALL THE VEHICLE DURING OPERATION. IN LIMITED INSTANCES, A DAMAGED CONNECTING ROD COULD PUNCTURE THEENGINE BLOCK AND CAUSE ENGINE OIL TO LEAK, WHICH, IN THE PRESENCE OF HOT SURFACES IN THE ENGINE COMPARTMENT, COULD INCREASE THE RISK OF A FIRE.

Remedy

HYUNDAI WILL NOTIFY OWNERS, AND DEALERS WILL INSPECT THE ENGINE. IF BEARING DAMAGE IS FOUND, THE ENGINE WILL BE REPLACED. DEALERS WILL ALSO INSTALL A SOFTWARE UPDATE CONTAINING A NEW KNOCK SENSOR DETECTION SYSTEM (KSDS) IF AVAILABLE. THE REMEDIATION PROCEDURE WILL BE PERFORMED AT NO CHARGE. HYUNDAI WILL

MacBook Air

[SEARCH BY VIN](#)

Recall information from this VIN lookup tool is provided by the manufacturer conducting the recall. NHTSA does not record VIN information or results provided through this tool.

[COMPLAINTS](#) **[RECALLS](#)** [INVESTIGATIONS](#) [MANUFACTURER COMMUNICATIONS](#)

1 Recalls

for 2015 HYUNDAI VELOSTER

FILTER RECALLS BY AFFECTED COMPONENTS

All (1) [ENGINE \(1\)](#)

December 1, 2020

NHTSA CAMPAIGN NUMBER: 20V746000

Engine Damage May Cause Stall or Fire

A damaged engine can increase the risk of a fire or it can cause an engine stall, increasing the risk of a crash.

NHTSA Campaign Number: 20V746000

Manufacturer Hyundai Motor America

Components ENGINE

Potential Number of Units Affected 128,948

Summary

Hyundai Motor America (Hyundai) is recalling certain 2015-2016 Veloster, 2012 Santa Fe, 2011-2013 Sonata Hybrid, and 2016 Sonata Hybrid vehicles. The connecting rod bearings inside the engine may wear prematurely, which over time can result in engine damage.

Remedy

Hyundai will notify owners, and dealers will inspect the engine. If bearing damage is found, the engine will be replaced. Dealers will also install a software update containing a new Knock Sensor Detection System (KSDS). Repairs will be performed free of charge. The recall began March 31, 2021. Owners may contact Hyundai customer service at 1-855-371-9460. Hyundai's number for this recall is 198.

Notes

Owners may also contact the National Highway Traffic Safety Administration Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to www.safercar.gov.

[7 Affected Products](#) ▾

[14 Associated Documents](#) ▾

[1 Associated Investigation](#) ▾

Request Research (Services fees apply)

Vehicle Identification Number (VIN)

Every vehicle has a unique VIN. Enter a VIN to learn if a specific vehicle needs to be repaired as part of a recall.

KMHTC6ADXFU [REDACTED]

17/17 🔍

Looking for more information on this vehicle?

NHTSA offers more safety information based on a vehicle's year, make and model. Check safety ratings, recommended technologies and other safety issues.

[Learn More](#) →

2015

Hyundai VELOSTER



©EV2XIMAGES

VIN: KMHTC6ADXFU [REDACTED]

Recall data refreshed on Mar 25, 2022.

1 Unrepaired Recalls
associated with this VIN

Dec 01, 2020**Manufacturer Recall Number** 198**NHTSA Recall Number** 20V746000**Recall Status** Recall Incomplete**Summary**

HYUNDAI MOTOR AMERICA (HYUNDAI) IS RECALLING CERTAIN 2015-2016 VELOSTER, 2012 SANTA FE, 2011-2013 SONATA HYBRID, AND 2016 SONATA HYBRID VEHICLES. THE CONNECTING ROD BEARINGS INSIDE THE ENGINE MAY WEAR PREMATURELY, WHICH OVER TIME CAN RESULT IN ENGINE DAMAGE.

Safety Risk

IF THE VEHICLE IS CONTINUALLY OPERATED WITH A WORN CONNECTING ROD BEARING, THE ENGINE COULD BECOME DAMAGED AND EVENTUALLY STALL THE VEHICLE DURING OPERATION. IN LIMITED INSTANCES, A DAMAGED CONNECTING ROD COULD PUNCTURE THE ENGINE BLOCK AND CAUSE ENGINE OIL TO LEAK, WHICH, IN THE PRESENCE OF HOT SURFACES IN THE ENGINE COMPARTMENT, COULD INCREASE THE RISK OF A FIRE.

Remedy

HYUNDAI WILL NOTIFY OWNERS, AND DEALERS WILL INSPECT THE ENGINE. IF BEARING DAMAGE IS FOUND, THE ENGINE WILL BE REPLACED. DEALERS WILL ALSO INSTALL A SOFTWARE UPDATE CONTAINING A NEW KNOCK SENSOR DETECTION SYSTEM (KSDS) IF AVAILABLE. THE REMEDY PROCEDURE WILL BE PERFORMED AT NO CHARGE. HYUNDAI WILL PROVIDE REIMBURSEMENT TO OWNERS FOR REPAIRS ACCORDING TO THE PLAN SUBMITTED TO FEDERAL AUTHORITIES ON MAY, 2018.

Manufacturer's Notes

OWNERS MAY ALSO CONTACT THE NAT'L HIGHWAY SAFETY ADMIN VEHICLE SAFETY HOTLINE AT 1-888-327-4236 (TTY 1-800-424-9153), OR GO TO SAFERCAR.GOV.

If the manufacturer has failed or is unable to remedy this safety recall for your vehicle in a timely manner, please contact the NHTSA Vehicle Safety Hotline at: 1-888-327-4236 or TTY: 1-800-424-9153 or file an online complaint with NHTSA.

Where's my VIN?

Look on the lower left of your car's windshield for your 17-character Vehicle Identification Number. Your VIN is also located on your car's registration card, and it may be shown on your insurance card.



HYUNDAI

Technical Service Bulletin

GROUP ENGINE	NUMBER 21-EM-004H
DATE MARCH 2021	MODEL(S) APPLICABLE VEHICLES BELOW




SUBJECT: BEARING CLEARANCE TEST SERVICE PROCEDURE

Description: This bulletin provides the service procedure for engine connecting rod bearing clearance testing. Perform the procedure outlined in this bulletin to fulfill the Bearing Clearance Test inspection requirements to determine next required steps.



Applicable Vehicles:

- Certain models as indicated per separate TSB.
- This TSB fulfills its Inspection Procedure requirements for the engine Bearing Clearance Test.

SST Information

Part Name	Part Number / Figure	Note
BEARING CLEARANCE TESTER SET (BEARING TOOL)	  <p>(1) TEST HOSE (2) MAIN HOSE (3) POWER SUPPLY CABLE</p> <p>One BEARING CLEARANCE TESTER SET provided to dealers. (Additional units can be ordered.)</p>	<p>Confirm the following pressures meet requirements. The correct ranges for AP/VC air pressures are also indicated with red/blue decals on the gauges:</p> <p>Shop air supply: 50 psi minimum</p> <p>AP: 0.1 ~ 0.11MPa VC: -73 ~ -83Kpa (Refer to TSB 20-GI-009H or later for calibration procedure)</p> 
	KQ231-2T110QQH	BEARING CLEARANCE TESTER SET (BEARING TOOL) (includes A - F)
	KQ231-2T100QQH	(A) BODY

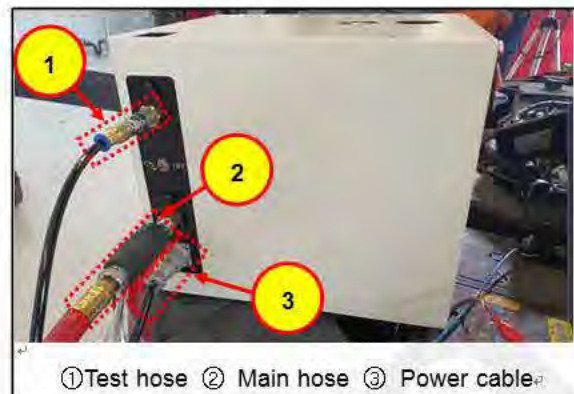
Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

	<p>KQ231-2T101QQH</p> 	<p>(B) SPARK PLUG ROD (M12 for GD and Theta II MPI Hybrid engines)</p> <p>← Upper body portion is smooth with no grooves.</p>
	<p>KQ231-2T107QQH</p> 	<p>(B) SPARK PLUG ROD (M14 for MPI engines)</p> <p>← 2 machined identification grooves on upper body.</p>
	<p>KQ231-2T102QQH</p>	<p>(C) CRANK ROTATOR TOOL</p>
	<p>KQ231-2T103QQH</p>	<p>(D) CLEARANCE GAUGE</p>
	<p>KQ231-2T104QQH</p>	<p>(E) POWER SUPPLY CABLE</p>
	<p>KQ231-2T105QQH</p>	<p>(F) TEST HOSE (AIR HOSE FOR CLEARANCE GAUGE)</p>

Service Procedure: Bearing Clearance Test

1. Connect the main hose (shop air supply) and test hose to the bearing tool (with other end of the test hose disconnected). (The power to the bearing tool main unit is not necessary at this time.)

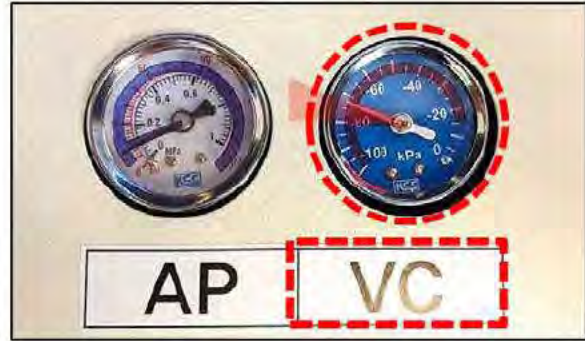
Confirm the shop air pressure and AP/VC pressures on the bearing tool meet requirements. The correct ranges for AP/VC air pressures are also indicated with red/blue decals on the gauges. Using STUI in the GDS, take and submit a picture of the gauges with the pressure levels clearly visible and the VIN in the background of the photo (RO or last 6 digits written on paper) for records.



Shop air supply: 50 psi minimum

AP/VC air pressure calibration check:

- a) Connect the main air compressor hose.
- b) Connect the test hose. (The other end of the test hose should be left disconnected from the spark plug rod.)
- c) Confirm that the AP/VC toggle switch at top is in the middle position.
- d) Inspect the AP/VC gauge indicators and compare to the specification range:
 - **AP:** 0.1 ~ 0.11MPa
 - **VC:** -73 ~ -83Kpa

**NOTICE**

Do not continue if any of the above readings are out of specification range.

- Adjust shop air to consistently provide at least 50 PSI of air pressure or greater.
- Do not use a portable air compressor to perform the bearing clearance testing.
- Be sure to check that the shop air water separator is functioning correctly.
- If any of the AP/VC air pressure indications are out of the specified range, recalibration of the Bearing Clearance Tester is required.
 - Refer to latest instructions outlined in the Engine Bearing Clearance Tester Calibration Procedure TSB 20-GI-009H or later for calibration procedure.

NOTICE

For Bearing Clearance Tester software related issues, contact GITA at: 888-437-0308
For Bearing Clearance Tester hardware related issues, contact Techline at: 800-325-6604

2. Remove the engine cover and the 4 ignition coils.

Tightening Torque (ignition coils):
9.8 - 11.8 N·m
(1.0 - 1.2 kgf·m, 7.2 - 8.7 lb·ft)



3. Remove the 4 spark plugs.

Tightening Torque:
14.7 - 24.5 N·m
(1.5 - 2.5 kgf·m, 10.9 - 18.0 lb·ft)



4. Insert the appropriate (use **M12 for GDI and Theta MPI Hybrid engines or M14 for all other MPI engines**) spark plug rod SST (A) into Cylinder #1 spark plug hole and turn until hand tight. Insert the clearance gauge SST into the spark plug rod and tighten using the thumb screw.



NOTICE

DO NOT connect the test air hose to the clearance gauge at this time.

5. Connect the GDS to the vehicle and turn the ignition 'ON'.

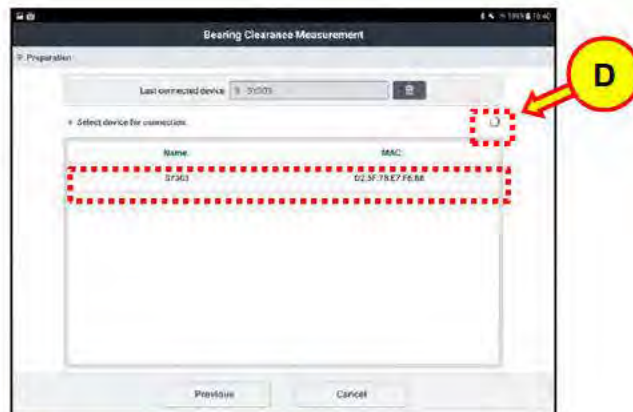
6. Swipe up on the 'More' tab at the bottom of the GDS home screen. Select the 'Special Inspection' function.

7. Enter the vehicle info into the GDS as prompted then select 'Next'.



8. Connect the GDS to the clearance gauge SST (gauge) via Bluetooth:

- Press the “Set” button (B) on the gauge to turn it on.
- Press the “Set” (B) and “Mode” (C) buttons at the same time for about 4 sec until the “reset” message is displayed.
- Select the gauge in the list of devices on the GDS. Select the ‘Refresh’ icon (D) if the gauge doesn’t appear automatically.



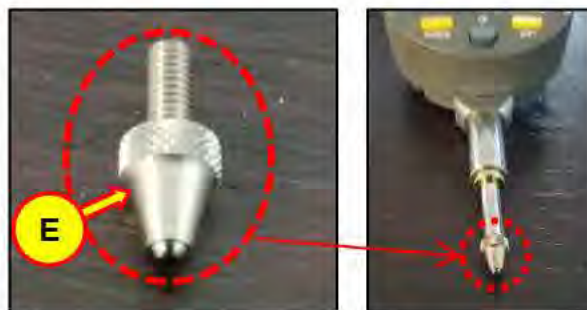
NOTICE

If more than one device appears in the list of devices, there is another device in range. Move away from the other device to pair the gauge.

- Check that the ball point tip (E) of the clearance gauge SST is securely installed to the tool as shown. **Do not continue if ball point tip (E) is loose or missing.**

NOTICE

If loose, apply Blue Loctite (or equivalent) to the tip thread and retighten securely to the gauge plunger.



9. Turn the ignition ‘OFF’ and remove the VCI.

10. Follow the instructions on the GDS to start the test and select ‘Next’.

NOTICE

- For the following steps, the Crank Rotator Tool or a long handled wrench should be used for moving the crankshaft slowly and precisely.
- Ensure the test hose is disconnected from the clearance gauge when finding TDC piston depth.

Please take note of the following crank/piston position definitions.

- ❖ BTDC (Before Top Dead Center)
- ❖ TDC (Top Dead Center) ← Find TDC during the compression stroke.
- ❖ ATDC (After Top Dead Center)

In the following steps, the TDC point for testing must be at MAX (piston height) value minus 0.03mm as the crank has moved slightly into ATDC (from its TDC dwell point).

- If TDC is difficult to find, refer to **Shop Manual Section Location:** Engine Mechanical System > Timing System > Timing Chain

11. To find TDC compression (TDC), rotate the crankshaft with the crank rotator SST at least one cycle (1/2 turn). (If the SST does not fit the specific vehicle type, remove the front passenger wheel and wheel liner or underbody tray as needed to rotate the crankshaft using standard shop tools.)

IMPORTANT

- For the step below, the engine must be rotated **SLOWLY** using the crank rotator SST.
 - Abrupt or erratic movements may cause improper TDC setup and test errors.
- Do **NOT** stop rotating the engine before reaching **MAX TDC**, especially during the initial rotation towards TDC where the value may be at 0mm and change all the sudden.
 - Be sure to find TDC correctly by slowly and slightly nudging the engine a little more to verify no change in value to confirm that the piston is at **MAX TDC**.

- ❖ Monitor the piston height value on GDS screen or the clearance gauge SST while rotating the engine clockwise using the Crank Rotator Tool.
 - Rotate the engine **SLOWLY** as the value increases towards a MAX value. (BTDC → TDC)
 - When the value changes direction (increasing/BTDC → TDC → decreasing/ATDC), stop rotating the crank when the piston height is at MAX value minus 0.03mm.



NOTICE

The testing point is slightly towards ATDC from TDC when the piston has moved down 0.03mm from its highest position.

12. Select 'Next' when TDC is found.
- ❖ Ideal set point for testing from TDC is found when the maximum value minus 0.03mm is reached on the clearance gauge SST (F).
 - ❖ The value is also displayed on the GDS.

13. Once the set point for bearing testing is found, select 'Start' in the GDS screen and proceed directly to the next step below.

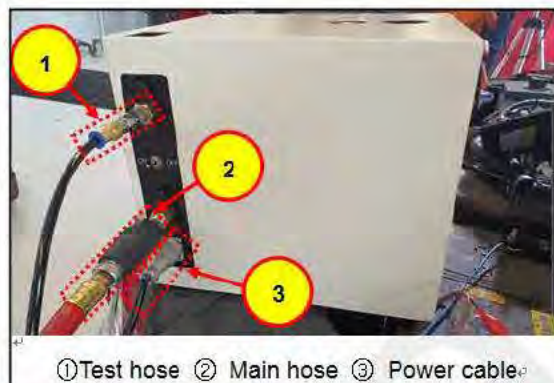
- Do not turn the crank rotator SST until instructed to do so.

NOTICE

The value at TDC varies depending on the specific vehicle and engine type.



14. Connect the test hose (1) to the spark plug rod SST and to the bearing tool SST.



15. Connect the SST power cables to a fully charged 12V battery or to an external AC/DC power supply.

- Turn the bearing tool SST power switch 'ON'.



NOTICE

***** Bearing Tool SST Power Check *****

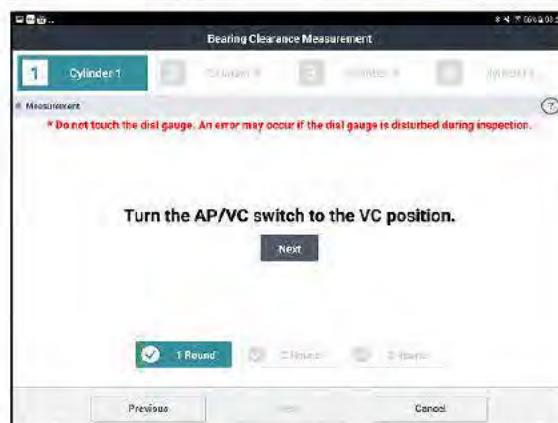
- a) Supply 12 volts (or an alternate external AC/DC 13.8 volt power supply with at least ~2 amp output) to the power cable (3) connected to the bearing tool SST.
- b) Turn power switch to ON.
- c) Toggle AP/VC transfer switch between AP <> VC.
 - ❖ The solenoids should “click” while switching between AP/VC when the unit is ON.
 - ❖ If the solenoids are not switching, then check the power cable or the power supply.

16. Locate the AP/VC switch on the bearing tool SST and switch it to the AP Position.

17. Follow the instructions on the GDS to test each cylinder. Cylinder #1 is checked first.

- The cylinders will be checked per the engine firing order: #1→#3→#4→#2.

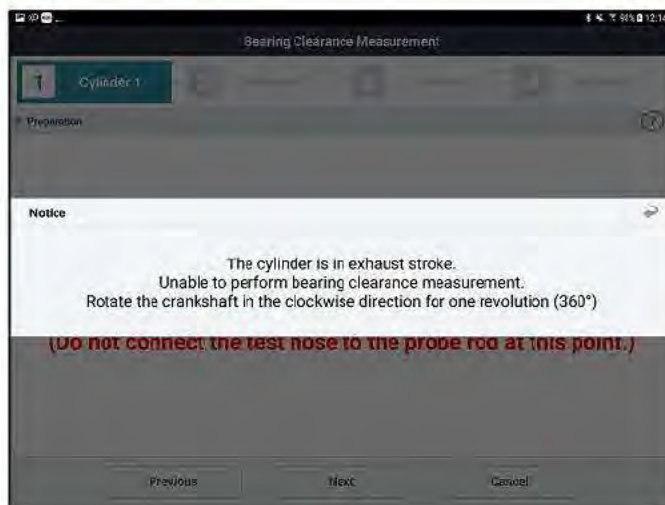
18. On the bearing tool SST, change the AP/VC switch to the VC position when instructed by the GDS.



NOTICE

If the bearing measurement value does not change when the AP/VC is switched or the “Unable to measure” message appears on the GDS, rotate the crankshaft further as the exhaust valves could be open. Set the crankshaft to TDC again (Step 11).

Ensure the test hose is disconnected from the clearance gauge SST when finding TDC.



19. Continue following the instructions on the GDS to complete the bearing inspection. Check the engine oil level and select the level in the GDS.



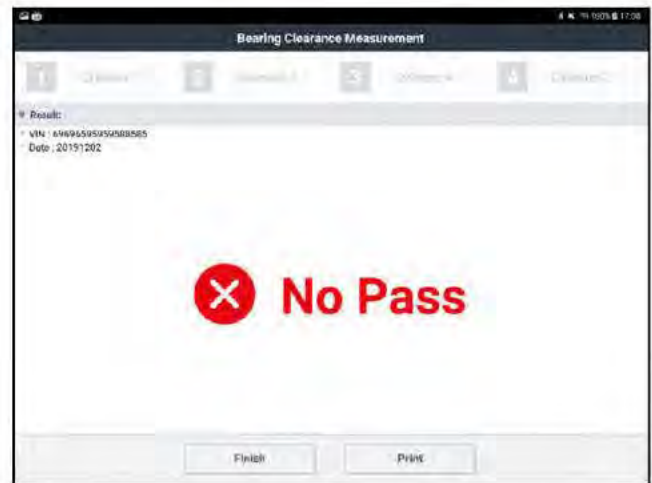
20. If the test result is “PASS”:

- Save a screenshot of the results screen.
- Reinstall all components in the reverse order of removal.
- Check for DTCs and perform the appropriate diagnostic service. Ensure no warning lights are present to complete the procedure.



If the test result is “NO PASS”:

- a) Save a screenshot of the results screen.
- b) Submit PA for engine replacement approval.
- c) Follow remainder of the separate reference TSB to complete the service procedure.
- d) Check for DTCs and perform the appropriate diagnostic service. Ensure no warning lights are present to complete the procedure.

**NOTICE**

PA Approval is required whenever an engine replacement is required. Submit PA and refer to the applicable Dealer Best Practices guide for the latest requirements for engine approval.



HYUNDAI

Technical Service Bulletin

GROUP RECALL	NUMBER 21-01-022H
DATE MARCH 2021	MODEL(S) APPLICABLE VEHICLES BELOW

SUBJECT: ENGINE INSPECTION (RECALL CAMPAIGN 198)

★ IMPORTANT

*** Retail Vehicles ***

Dealers must perform this Recall Campaign whenever an affected vehicle is in the shop for any maintenance or repair.

Description: Certain vehicles listed below may exhibit an abnormal knocking noise from the engine. Follow the procedure to inspect the vehicle to determine the applicable repair procedure based on the inspection results.

Applicable Vehicles:

Certain 2012 MY Santa Fe (CM) vehicles with Theta II 2.4L MPI engines
 Certain 2011-2013 MY Sonata HEV (YFE) vehicles with Theta II 2.4L MPI Hybrid engines
 Certain 2016 MY Sonata HEV (LFE) vehicles with Nu 2.0L GDI Hybrid engines
 Certain 2015-2016 MY Veloster (FS) vehicles with Gamma 1.6L GDI engines

Warranty Information:

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL P/N	NATURE CODE	CAUSE CODE
Santa Fe (CM)	11D020R0	ENGINE INSPECTION	0.6 M/H	21101-2G404FFF	E74	ZZ7
	11D020R1	UNABLE TO PERFORM ENGINE INSPECTION	0.1 M/H	21101-2G404FFF	E74	ZZ7
Sonata HEV (YFE)	11D020R2	ENGINE INSPECTION	0.6 M/H	77RT2-2GF00	E74	ZZ7
	11D020R3	UNABLE TO PERFORM ENGINE INSPECTION	0.1 M/H	77RT2-2GF00	E74	ZZ7

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

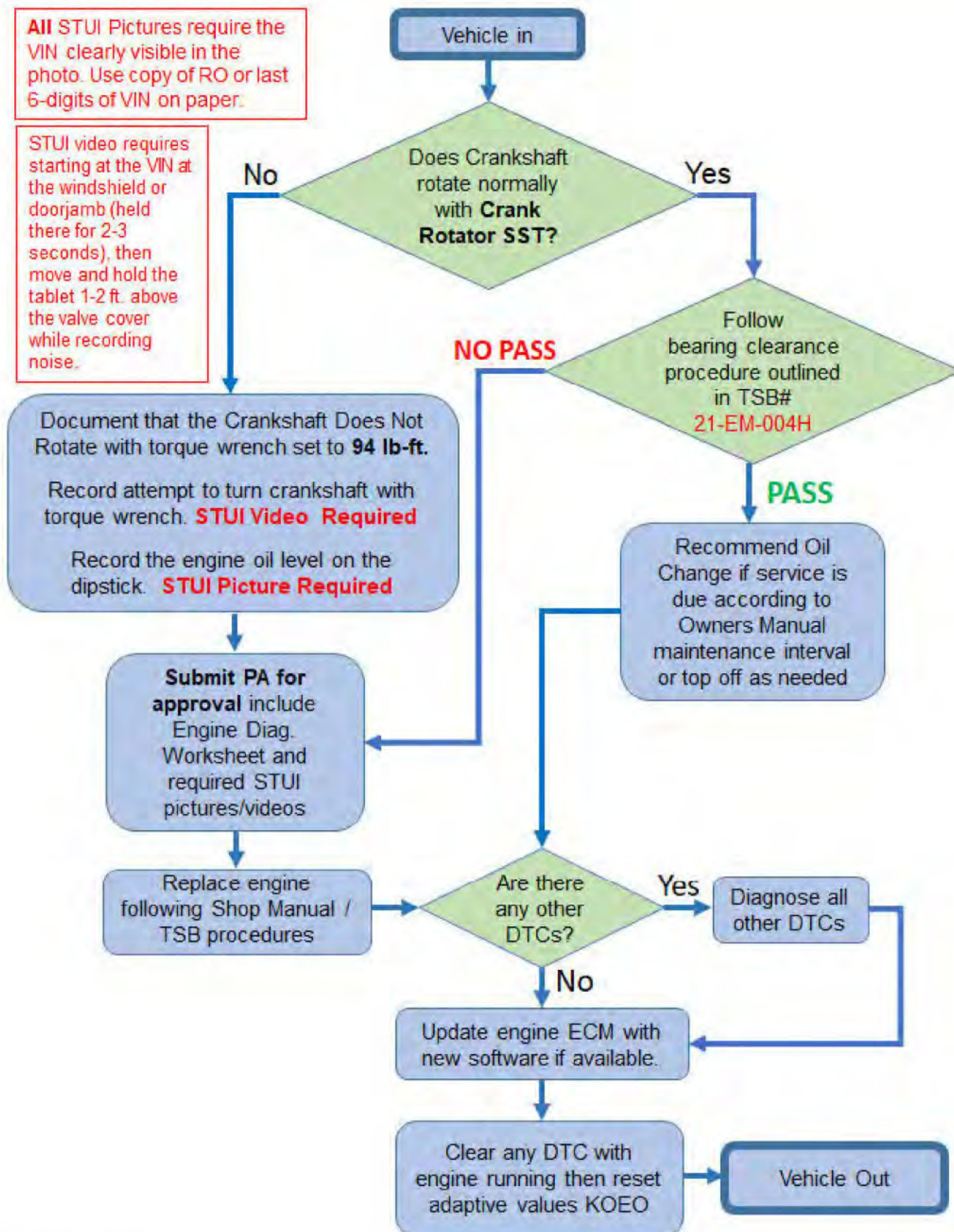
Sonata HEV (LFE)	11D020R4	ENGINE INSPECTION	0.6 M/H	2D312-2EU02A	E74	ZZ7
	11D020R5	UNABLE TO PERFORM ENGINE INSPECTION	0.1 M/H	2D312-2EU02A	E74	ZZ7
Veloster (FS)	11D020R6	ENGINE INSPECTION	0.6 M/H	21101-2BK04FFF	E74	ZZ7
	11D020R7	UNABLE TO PERFORM ENGINE INSPECTION	0.1 M/H	21101-2BK04FFF	E74	ZZ7

NOTE 1: Use appropriate op code for 'UNABLE TO PERFORM ENGINE INSPECTION' if the engine cannot be rotated to perform the Bearing Clearance Test.

NOTE 2: Submit claim on Campaign Claim Entry Screen

NOTE 3: If a part is found in need of replacement while performing this Recall and the affected part is still under warranty, submit a separate claim using the Same Repair Order. If the affected part is out of warranty, submit a Prior Approval Request for goodwill consideration prior to performing the work.

Service Procedure Flowchart:



Service Procedure:**Engine Inspection - (Engine Rotation Check)**

1. Rotate the crankshaft with the crank rotator SST.
 - If the crankshaft cannot be turned with a moderate force, then measure the force required to turn the crankshaft with a torque wrench.
 - If the SST or shop tools do not fit the specific vehicle type, remove the front passenger wheel and wheel liner or underbody tray as needed to rotate the crankshaft.

❖ **If the crankshaft rotates normally:**

- Perform Bearing Inspection per TSB 21-EM-004H "BEARING CLEARANCE TEST SERVICE PROCEDURE".

❖ **If the force required for rotating the crankshaft is greater than 94 lb-ft., documentation through STUI video is required.**

- Bearing Clearance Test is not possible.
- **Take a STUI picture of the engine oil level on the dipstick** with the VIN clearly visible in the photo using a copy of the RO or last 6-digits of VIN on paper.
- Use appropriate Op Code for "UNABLE TO PERFORM ENGINE INSPECTION" and then submit PA for engine replacement.
 - Use appropriate Op Code for the engine replacement operation.

NOTICE

If other engine accessory components are seized, remove the engine accessory belt prior to completing the engine rotation check.

Engine Inspection - (Bearing Clearance Test)

2. Refer to TSB # 21-EM-004H to complete the Service Procedure for Bearing Clearance Test.

❖ **If the test result is "PASS":**

- Follow the remaining steps of the inspection TSB.
- Use appropriate Op Code for "ENGINE INSPECTION" to complete the inspection procedure.

❖ **If the test result is "NO PASS":**

- Follow the remaining steps of the inspection TSB.
- Use appropriate Op Code for "ENGINE INSPECTION" to complete the inspection procedure and then submit PA for engine replacement.
 - Use appropriate Op Code for the engine replacement operation.

NOTICE

PA Approval is required for engine replacement. Submit PA and refer to the Dealer Best Practices guide for the latest requirements for engine approval.

- 1) **If engine does not rotate normally, a STUI video including the following is required:**
 - **VIN Plate (at windshield or on door jamb)**
 - **Attempt to rotate the crankshaft**
- 2) **Save the crankshaft rotation torque value**
- 3) **A picture of the lower end damage is required if present**
- 4) **Use STUI feature on the GDS to take and submit pictures and videos.**

***** IF ENGINE REPLACEMENT IS REQUIRED AND APPROVED BY PA *****

Follow the published Service Information from the applicable **Shop Manual** to remove and replace the Engine Assembly.

Shop Manual Section Location: Engine Mechanical > Engine And Transaxle Assembly > Engine And Transaxle Assembly > **Repair Procedures**

- a) Be sure to connect the (2) oil coolant hoses between the oil cooler and the water temperature control assembly (if equipped).
 - Fill the cooling system with 50/50 ~ 70/30 (Water/Anti-Freeze) coolant mixture.
- b) Fill the engine crankcase:
 - Add engine oil amount specified for the engine for the **initial dry fill** of the crankcase.
 - With the fuel system disabled temporarily, crank the engine for several seconds to prime the lubrication system prior to starting the engine.
 - **Recommended Oil Specifications:**
 - 5W-30 Full Synthetic type with API SN/SN+/SP, ILSAC GF4/GF5 or higher service grade
- c) Start the engine to warm it up and begin the cooling system air bleeding process.
 - Check for any leaks during this time.
 - After the engine has warmed up to normal operating temperature, turn the engine off, wait a few minutes, and then **adjust the engine oil level up the “F” mark as shown.**
- d) Check for additional TSB to update the Engine ECM if new software is available.
- e) When all fluids have been fully filled and all work quality checks are completed:
 - Set the customer's audio station presets.
 - Relearn the Steering Angle Sensor using the GDS.
 - **Clear any DTC's (if present) with engine ON.**
 - Certain DTC's may reset if it's not cleared with the engine running.
 - Perform the appropriate diagnostic service for any DTC's.
 - Ensure no warning lights are present.
 - **Reset the engine adaptive values** using the GDS.
 - Perform a short road test to confirm normal vehicle drivability.

**NOTICE**

- **Clear any DTC's (if present) with engine ON. Certain DTC's may reset if not cleared with the engine running.**
- **Reset engine adaptive values.**

Part 573 Safety Recall Report

20V-746

Manufacturer Name : Hyundai Motor America**Submission Date :** DEC 01, 2020**NHTSA Recall No. :** 20V-746**Manufacturer Recall No. :** 198**Manufacturer Information :**

Manufacturer Name : Hyundai Motor America

Address : 10550 Talbert Avenue

Fountain Valley CA 92708

Company phone : 800-633-5151

Population :

Number of potentially involved : 128,948

Estimated percentage with defect : 1 %

Vehicle Information :

Vehicle 1 : 2015-2016 Hyundai Veloster

Vehicle Type : LIGHT VEHICLES

Body Style : HATCHBACK

Power Train : GAS

Descriptive Information : Certain model year 2015-2016 Hyundai Veloster vehicles equipped with 1.6-liter "Gamma" GDI engines and produced by May 26, 2014 through July 13, 2016 by Hyundai Motor Company in the Republic of Korea. The involved vehicles were determined jointly by Hyundai and NHTSA's Office of Defects Investigation ("ODI") during a review of Hyundai's response(s) to investigations PE19-003.

Production Dates : MAY 26, 2014 - JUL 13, 2016

VIN Range 1 : Begin :

NR

End : NR

 Not sequential

Vehicle 2 : 2012-2012 Hyundai Santa Fe

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : GAS

Descriptive Information : Certain model year 2012 Hyundai Santa Fe vehicles equipped with 2.4-liter "Theta II" MPI engines and produced from January 10, 2012 through July 3, 2012 by Hyundai Motor Manufacturing Alabama and Kia Motor Company in the Republic of Korea. The involved vehicles were determined jointly by Hyundai and NHTSA's Office of Defects Investigation ("ODI") during a review of Hyundai's response(s) to investigations PE19-003.

Production Dates : JAN 10, 2012 - JUL 03, 2012

VIN Range 1 : Begin :

NR

End : NR

 Not sequential

Vehicle 3 : 2011-2013 Hyundai Sonata

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : HYBRID ELECTRIC

Descriptive Information : Certain model year 2011-2013 Hyundai Sonata Hybrid vehicles equipped with 2.4-liter "Theta II" MPI HEV engines and produced from June 2, 2010 through December 17, 2013 by Hyundai Motor Company in the Republic of Korea. The involved vehicles were determined jointly by Hyundai and NHTSA's Office of Defects Investigation ("ODI") during a review of Hyundai's response(s) to investigations PE19-003.

Production Dates : JUN 02, 2010 - DEC 17, 2013

VIN Range 1 : Begin : NR End : NR Not sequential

Vehicle 4 : 2016-2016 Hyundai Sonata

Vehicle Type : LIGHT VEHICLES

Body Style : 4-DOOR

Power Train : HYBRID ELECTRIC

Descriptive Information : Certain model year 2016 Hyundai Sonata Hybrid vehicles equipped with 2.0-liter "Nu" GDI HEV engines and produced by February 25, 2015 through April 25, 2016 by Hyundai Motor Company in the Republic of Korea. The involved vehicles were determined jointly by Hyundai and NHTSA's Office of Defects Investigation ("ODI") during a review of Hyundai's response(s) to investigations PE19-003.

Production Dates : FEB 25, 2015 - APR 25, 2016

VIN Range 1 : Begin : NR End : NR Not sequential

Description of Defect :

Description of the Defect : An engine compartment fire can occur while driving for many reasons and depending on the severity of the fire, the identification of the cause can be untraceable. The engines in the subject vehicles may have been produced with conditions that can cause premature wear of the connecting rod bearings. A worn connecting rod bearing could result in abnormal knocking noise from the engine and/or illumination of the oil pressure warning light. If the vehicle is continually operated with a worn connecting rod bearing, the engine could become damaged and eventually stall the vehicle during operation. In limited instances, a damaged connecting rod could puncture the engine block and cause engine oil to leak, which, in the presence of hot surfaces in the engine compartment, could increase the risk of a fire.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A vehicle stall at highway speeds can increase the risk of a crash. If engine oil leaks onto certain engine components running at high operating temperature it could ignite and start an engine compartment fire.

Description of the Cause : A broken connecting rod can puncture the engine block.

Identification of Any Warning that can Occur : Abnormal (knocking) noise from engine;
Reduced motive power and/or hesitation;
Illumination of the "Check Engine" warning lamp;
Illumination of engine oil pressure warning lamp;
Burning smell;
Visible oil leaks;
Smoke;

Involved Components :

Component Name 1 : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : Hyundai Motor Company

Address : NR

NR

Country : NR

Chronology :

Please see Attachment A for the requested chronology of events.

Description of Remedy :

Description of Remedy Program : Hyundai Motor America plans to notify owners of affected vehicles to return their vehicles to their Hyundai dealers for an engine inspection test to determine the presence of any bearing damage. If the bearing is damaged, the engine will be replaced with a new one.

As an added level of protection, all affected vehicles will receive an enhanced engine control software update containing a new Knock Sensor Detection System ("KSDS") program. The KSDS continuously monitors engine vibrations for unusual patterns potentially indicating an abnormal condition with the engine, such as a damaged connecting rod bearing, that could lead to an engine failure.

The remedy procedure will be performed at no charge. Hyundai will provide reimbursement to owners for repairs according to the plan submitted on May 16, 2018.

How Remedy Component Differs from Recalled Component : NR

Identify How/When Recall Condition was Corrected in Production : NR

Recall Schedule :

Description of Recall Schedule : Dealers and owners will be notified beginning in late January 2021.

Planned Dealer Notification Date : JAN 22, 2021 - JAN 22, 2021

Planned Owner Notification Date : JAN 22, 2021 - JAN 22, 2021

* NR - Not Reported

RECALL 198 ATTACHMENT A

CHRONOLOGY OF EVENTS LEADING UP TO DEFECT DECISION

- March 2019

NHTSA opened Preliminary Evaluation no. 19-003 “to assess the scope, frequency, and potential safety-related consequences of alleged defects relating to non-collision vehicle fires in the 2011-2014 Sonata Investigation and 2011-2014 Santa Fe.”
- April 2019

In connection with PE 19-003, NHTSA issued an Information Request to HMA that sought data and information regarding non-collision fire incidents within an expanded range of Hyundai vehicles, namely all HMA vehicles of all model years equipped with Theta II, Lambda II, Gamma and Nu engines, thereby bringing into scrutiny a wide range of Hyundai model and model year vehicles. Further, the Information Request sought information regarding non-collision fire incidents based on the definition of fire under 49 CFR § 579.4, which also includes “thermal events and fire-related phenomena such as smoke and melt,” thereby requiring HMA to search, collect, and produce a substantial volume of documents and data referring to potentially fire-related phenomena standing alone (such as “smoke” or “melt”) without any evidence of flame, burning, or combustion. HMA also understood that at about the same time, NHTSA was seeking to collecting similar information on the incidence of non-collision fires from other automakers in the United States market.
- August 2019

HMA completed its response to NHTSA’s Information Request. As was discussed with NHTSA shortly thereafter, HMA reasonably believed that while certain vehicles already subject to recall had an arguably higher incidence of non-collision fires that were already being addressed by ongoing vehicle recalls, in the absence of additional, comparative data, HMA’s data did not indicate elevated or unusual rates of non-collision related fires in Hyundai vehicles.
- April 2020 – June 2020

On April 30, 2020, HMA proactively shared information with the agency on the completion rate and effectiveness of the Knock Sensor Detection System (“KSDS”) software aimed at enhancing the detection of gradual engine damage/wear, in mitigating non-collision fires. HMA continued to provide recurring updates on the deployment and effectiveness of KSDS to NHTSA.
- July 2020 – November 2020

NHTSA shared with HMA its views on the data produced in relation to the aforementioned Information Request, as well as the data apparently shared by competitor automakers with the Agency. With NHTSA’s understanding and agreement, HMA updated and re-analyzed the occurrence of non-collision fire incidents in certain vehicles in discussion. Following additional discussion, the involved vehicles were determined by HMA in discussion with NHTSA’s Office of Defects Investigation (“ODI”). As to each of the involved vehicles, while the precise cause of non-collision fire can sometimes vary and due to the limitations of fire investigation there is often incomplete information, HMA and ODI agreed that the vehicles appeared to have experienced

RECALL 198 ATTACHMENT A

CHRONOLOGY OF EVENTS LEADING UP TO DEFECT DECISION

above average rates of hole-in-block engine fires that ordinarily result from a seized engine that causes a connecting rod to break, puncture the engine block, and thereby potentially allow engine oil to escape the block, come in contact with other hot surfaces in the engine compartment, and produce localized smoke and then fire in the engine compartment. Seized engines in this context most often result from manufacturing variances in terms of machined surface roughness, machining debris, and geometric fit among the crankshaft, connecting rod, and engine bearing components.

On November 23, 2020, HMA convened its North American Safety Decision Authority and decided to conduct a safety recall to address the above condition in affected vehicles in the U.S. market.



<p>Hyundai Forum - Hyundai Enthusiast Forums > VIN Decoder > VIN Decoder</p>		<p>Username <input type="text"/></p> <p>Password <input type="password"/> <input type="button" value="Log In"/></p> <p>By logging into your account, you agree to our Terms of Use and Privacy Policy, and to the use of cookies as described therein.</p> <p>Register Forgot Password?</p>					
Register	FAQ	Community	Calendar	Today's Posts	Search	Used Cars	Vendor Directory

Hyundai VIN Decoder



2015 Hyundai Veloster 3dr Cpe Auto RE:FLEX w/Red Int
VIN: KMHTC6ADXFU [REDACTED]

View | Search | Reset

Mechanical & Powertrain

Engine: 1.6L 16-Valve 4-Cylinder GDI -inc: DOHC, Dual Continuously Variable Valve Timing (D-CVVT), aluminum block and head, full engine cover and hood insulator

Front-Wheel Drive

4.81 Axle Ratio

36-Amp/Hr 410CCA Maintenance-Free Battery w/Run Down Protection

90 Amp Alternator

Gas-Pressurized Shock Absorbers

Front And Rear Anti-Roll Bars

Electric Power-Assist Speed-Sensing Steering

13.2 Gal, Fuel Tank

Quasi-Dual Stainless Steel Exhaust w/Chrome Tailpipe Finisher

Strut Front Suspension w/Coil Springs

Torsion Beam Rear Suspension w/Coil Springs

4-Wheel Disc Brakes w/4-Wheel ABS, Front Vented Discs, Brake Assist and Hill Hold Control

Safety

Side Impact Beams

Dual Stage Driver And Passenger Seat-Mounted Side Airbags

Rear Parking Sensors

Low Tire Pressure Warning

Dual Stage Driver And Passenger Front Airbags

Curtain 1st And 2nd Row Airbags

Airbag Occupancy Sensor

Rear Child Safety Locks

Outboard Front Lap And Shoulder Safety Belts -inc: Height Adjusters and Pretensioners

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New Car Test Drive 2015

See the latest CAR REVIEWS today

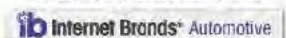
New Car Test Drive 2015

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Interior

Front Bucket Seats -inc: 6-way adjustable driver's seat w/height adjustment, armrest storage box and front passenger slide/recline w/seatback pocket
[Hyundai Forum - Hyundai Enthusiast Forums > VIN Decoder](#)

6-Way Driver Seat

4-Way Passenger Seat

60-40 Folding Bench Front Facing Fold Forward Seatback Rear Seat

Manual Tilt/Telescoping Steering Column

Leather Steering Wheel

Front Cupholder

Rear Cupholder

Remote Releases -Inc: Mechanical Fuel

Cruise Control w/Steering Wheel Controls

Manual Air Conditioning

Glove Box

Driver Foot Rest

Full Cloth Headliner

Interior Trim -inc: Piano Black Instrument Panel Insert, Piano Black Door Panel Insert, Piano Black Console Insert and Chrome/Metal-Look Interior Accents

Leatherette Door Trim Insert

Leather Gear Shifter Material

Day-Night Rearview Mirror

Driver And Passenger Visor Vanity Mirrors w/Driver And Passenger Illumination, Driver And Passenger Auxiliary Mirror

Full Floor Console w/Covered Storage, Mini Overhead Console w/Storage, Rear Console w/Storage and 2 12V DC Power Outlets

Front Map Lights

Fade-To-Off Interior Lighting

Carpet Floor Trim

Rigid Cargo Cover

Cargo Features -inc: Tire Mobility Kit

Cargo Space Lights

FOB Controls -inc: Cargo Access

Tracker System

Driver And Passenger Door Bins

Delayed Accessory Power

Outside Temp Gauge

Digital/Analog Appearance

Manual Adjustable Front Head Restraints and Manual Adjustable Rear Head Restraints

Perimeter Alarm

Engine Immobilizer

2 12V DC Power Outlets

Air Filtration

Exterior

Wheels: 18" Alloy w/PVD Chrome Finish

Tires: P215/40VR18 85 Kumho

Tire Mobility Kit

Clearcoat Paint w/Badging

Body-Colored Front Bumper

Body-Colored Rear Bumper w/Black Rub Strip/Fascia Accent

Black Side Windows Trim

Chrome Door Handles

Body-Colored Power Heated Side Mirrors w/Convex Spotter and Manual Folding

Fixed Rear Window w/Fixed Interval Wiper and Defroster

Light Tinted Glass

Variable Intermittent Wipers

Front Windshield -inc: Sun Visor Strip

Fully Galvanized Steel Panels

Lip Spoiler

Chrome Grille



Liftgate Rear Cargo Access

Auto Off Projector Beam Halogen Daytime Running Headlamps
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Hyundai VIN Decoder



2015 Hyundai Veloster 3dr Cpe Auto RE:FLEX w/Red Int
VIN: KMHTC6ADXFL [REDACTED]

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Tech Specs

- Vehicle Name**
Hyundai Veloster
- Body Style**
Hatchback
- Drivetrain**
Front Wheel Drive
- EPA Classification**
Compact Cars
- Passenger Capacity**
4 4.0 min 4.0 max
- Passenger Volume**
89.8 ft³ 89.8 min 89.8 max
- Base Curb Weight**
2657 lbs 2657.0 min 2657.0 max
- Fuel Economy Est-Combined**
30 MPG 30.0 min 30.0 max
- EPA Fuel Economy Est - City**
27 MPG 27.0 min 27.0 max
- EPA Fuel Economy Est - Hwy**
36 MPG 36.0 min 36.0 max
- Engine Type**
Regular Unleaded I-4
- Displacement**
1.6 L/97
- Fuel System**
Gasoline Direct Injection
- SAE Net Horsepower @ RPM**
132 @ 6300
- SAE Net Torque @ RPM**
120 @ 4850
- Trans Type**
6 6.0 min 6.0 max
- Trans Description Cont.**
Auto-Shift Manual w/OD

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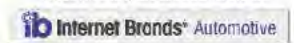
NewCar *Test Drive*

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First Gear Ratio (:1)

3.62 3.62 min 3.62 max

Second Gear Ratio (:1) [Enthusiast Forums](#) > [VIN Decoder](#)

1.96 1.96 min 1.96 max

Third Gear Ratio (:1)

1.30 1.3 min 1.3 max

Fourth Gear Ratio (:1)

0.94 0.94 min 0.94 max

Fifth Gear Ratio (:1)

0.94 0.94 min 0.94 max

Sixth Gear Ratio (:1)

0.74 0.74 min 0.74 max

Reverse Ratio (:1)

4.53 4.53 min 4.53 max

Final Drive Axle Ratio (:1)

4.81 4.81 min 4.81 max

Cold Cranking Amps @ 0° F (Primary)

410 410.0 min 410.0 max

Tons/yr of CO2 Emissions @ 15K mi/year

5.9 5.9 min 5.9 max

Maximum Alternator Capacity (amps)

90 90.0 min 90.0 max

Suspension Type - Front

Strut

Suspension Type - Rear

Torsion Beam

Suspension Type - Front (Cont.)

Strut

Suspension Type - Rear (Cont.)

Torsion Beam

Front Tire Size

P215/40VR18

Rear Tire Size

P215/40VR18

Front Wheel Size

18 X 7.5 in

Rear Wheel Size

18 X 7.5 in

Front Wheel Material

Aluminum

Rear Wheel Material

Aluminum

Steering Type

Rack-Pinion

Turning Diameter - Curb to Curb

34.1 ft 34.1 min 34.1 max

Brake Type

4-Wheel Disc

Brake ABS System

4-Wheel

Disc - Front (Yes or)

Yes

Disc - Rear (Yes or)

Yes

Front Brake Rotor Diam x Thickness

11 in 11.0 min 11.0 max

Rear Brake Rotor Diam x Thickness

10.3 in 10.3 min 10.3 max

Fuel Tank Capacity, Approx

13.2 gal 13.2 min 13.2 max

Front Head Room

39 in 39.0 min 39.0 max

Front Leg Room

43.9 in 43.9 min 43.9 max

Front Shoulder Room

55.6 in 55.6 min 55.6 max

Front Hip Room

53.2 in 53.2 min 53.2 max

Second Head Room

35.3 in 35.3 min 35.3 max

Second Leg Room

31.7 in 31.7 min 31.7 max

Second Shoulder Room

54.0 in 54.0 min 54.0 max

Byonair Report Hyundai Enthusiast Forums > VIN Decoder

52.6 in 52.6 min 52.6 max

Wheelbase

104.3 in 104.3 min 104.3 max

Length, Overall

166.1 in 166.1 min 166.1 max

Width, Max w/o mirrors

70.5 in 70.5 min 70.5 max

Height, Overall

55.1 in 55.1 min 55.1 max

Track Width, Front

61.3 in 61.3 min 61.3 max

Track Width, Rear

61.8 in 61.8 min 61.8 max

Min Ground Clearance

5.6 in 5.6 min 5.6 max

Cargo Volume with Rear Seat Up

15.5 ft³ 15.5 min 15.5 max

Cargo Volume with Rear Seat Down

34.7 ft³ 34.7 min 34.7 max

Model Group

Veloster

Vehicle Segment

Small Sporty

Vehicle Type

Hatchback

Engine Displacement Units

1.6, 1.6 1.6 min 1.6 max

Engine Camshaft

DOHC, DOHC

Engine Block Type

aluminum, aluminum

Engine Cylinder Count

4, 4 4.0 min 4.0 max

Engine Valve Count

4, 4 4.0 min 4.0 max

Country of Origin

South Korea Hyundai - Passenger Cars (Mpv & Rv) Buses & Trucks (Including Vans)

« Colors



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 HYUNDAI Technical Service Bulletin	GROUP ENGINE	NUMBER 21-EM-005H
	DATE MARCH, 2021	MODEL(S) APPLICABLE VEHICLES BELOW
SUBJECT: ENGINE WARRANTY EXTENSION (TXXM)		

Description: The Powertrain warranty coverage for certain engine repairs and/or replacement *where the engine damage, defect, or failure is related to connecting rod bearing wear*, has been extended to 15 years or 150,000 miles from the date of original retail delivery or date of first use, whichever occurs first, and is valid for original and subsequent owners.

Please refer to TSB # 21-01-025H (or latest revision) for applicable campaign part numbers and labor ops.

If labor ops for a model/model years below are not available in the above TSB, please follow the shop manual and submit under warranty/goodwill using LTS related labor ops.

Applicable Vehicles:

- Certain 2011-2012 Santa Fe (CM) equipped with 2.4L Theta II MPI Engines
- Certain 2011-2013 MY Sonata HEV (YFE) vehicles with Theta II 2.4L MPI Hybrid engines
- Certain 2016 MY Sonata HEV (LFE) vehicles with Nu 2.0L GDI Hybrid engines
- Certain 2012-2017 MY Veloster (FS) vehicles with Gamma 1.6L GDI engines

Customer Information

[REDACTED]
[REDACTED]
Palm Bay, FL [REDACTED]
[REDACTED]
Cust No: [REDACTED]
DL#: [REDACTED]
FL 12/12/2026

- NO ADDITIONAL DRIVERS -

ONLY AUTHORIZED RENTERS MAY DRIVE THE CAR.

CUSTOMER DECLINES LDW AND IS RESPONSIBLE FOR LOSS OR DAMAGE PER TERMS OF THE RENTAL AGREEMENT.

BY YOUR INITIALS YOU ACKNOWLEDGE YOU HAVE ACCEPTED OR DECLINED THE BELOW OPTIONAL ITEMS. X _____

Optional Items

- I have DECLINED CDW _____
- I have DECLINED _____
- I have DECLINED _____
- I have DECLINED Prepaid Fuel _____

Rental Expiry Information

RA Out: 03/22/2022 15.50 THRIFTY
RA Due: 04/18/2022 15.50 THRIFTY

Vehicle Information

Veh #: [REDACTED]
Lic #: [REDACTED]
2021 HYUNDAI VENUE SE
Fuel Out: 8/8 Odom Out: 14,232

VEHICLE NOT ALLOWED IN MEXICO

0

Miles Driven:

Deposit/Auth Information

VI 44XXXXXXXXXXXX [REDACTED] P 250.00
VI 44XXXXXXXXXXXX [REDACTED] P 8.00
VI 44XXXXXXXXXXXX [REDACTED] P 130.00
VI 44XXXXXXXXXXXX [REDACTED] P 129.00
VI 44XXXXXXXXXXXX [REDACTED] P

Rate Information

			Est. Charges
C1: OT Hourly	21.00	hour	.00
C1: Daily	30.00	day	.00
C1: Weekly	3 @ 210.00	week	630.00
C1: XDay	6 @ 30.00	day	180.00
Excess Miles	.29	/mi	
Net T&M			810.00
FL SURCHARGE	27 @ 2.01	day	54.27
VLF	27 @ 2.99	day	80.73
Sales Tax	7.000	%	66.15
Fuel (per Gallon)	9.99		
Subtotal of Other Charges			201.15
Estimated Charges			1,011.15
Deposit VI 44XX [REDACTED]			250.00
Deposit VI 44XX [REDACTED]			8.00

FOR UNPAID TOLLS, YOUR CREDIT CARD WILL BE CHARGED THE AMOUNT OF THE TOLL VIOLATION + \$9.99 ADMIN FEE PER VIOLATION (UP TO MAXIMUM OF \$90.00 ADMIN FEE). YOUR CREDIT CARD WILL BE CHARGED FOR ALL CITATIONS PLUS A \$50.00 ADMIN FEE PER CITATION IF NOT PAID BY ORIGINAL DUE DATE. X _____

ORIGINAL DUE DATE/TIME: 04/18/2022 15.50
Early Return Fee of \$15.00 will apply if you return PRIOR to the Due Date. Late Return Fee of \$10.99 per day will apply if you return AFTER Due Date and Time in addition to any other rental charges. X _____

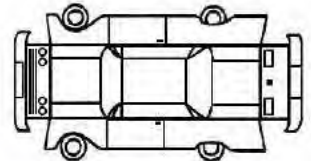
Vehicle cannot leave the State of Florida or a \$250.00 Fee may apply. X _____

Smoking and Pets are not allowed in Rental Vehicle. Cleaning fee upto \$250.00 may apply. Rental Vehicle is returned in reasonable condition. X _____

FLORIDA - NOTICE TO RENTERS

Renter's insurance primary: The valid and collectible liability insurance and personal injury protection insurance of any authorized rental or leasing driver is primary for the limits of liability and personal injury coverage required by ss.324.021(7) and 627.736 Florida Statutes.

Failure to return rental Vehicle: Failure to return rental property or equipment upon expiration of rental period and failure to pay all amounts due (including costs of damage to the property or equipment) are evidence of abandonment or refusal to redeliver the property, punishable in accordance with section 812.155. Florida Statutes.



VEH LIC FEE is comprised of a waste tire and battery fee, which reimburses the company for such fees imposed by and previously paid to the state of Florida, and vehicle license recoupment charge, which reimburses the company for the estimated average per day vehicle portion of its total annual cost of vehicle licensing, titling, registration, and internal labor and overhead associated with this process.

These terms supersede any conflicting terms stated elsewhere. _____

The Rental Agreement is between the undersigned and the company identified above (the "Company"). By signature below, the undersigned acknowledges and represents that they are legally authorized to operate the rental vehicle by valid driver's license, and that they have read and agree to the terms, conditions, and notices, both printed and written, including the Loss Damage Waiver information, that appears on this Rental Statement and on the separate rental jacket (the "Agreement"), which is incorporated herein. THE UNDERSIGNED AUTHORIZE THE COMPANY TO PROCESS A CHARGE TO THEIR CREDIT, DEBIT OR CHARGE CARD IN THE AMOUNT SPECIFIED ABOVE FOR THIS RENTAL UPON SIGNATURE BELOW AND FOR ALL ADDITIONAL CHARGES DUE UPON RETURN OF THE VEHICLE. ALL CHARGES ARE SUBJECT TO AUDIT. No additional drivers are permitted without Rental Company's approval.

X _____ RENTER X _____ ADDITIONAL DRIVER _____

Customer Information

[REDACTED]
[REDACTED]
Palm Bay, FL [REDACTED]
[REDACTED]
Cust No: [REDACTED]
DL#: [REDACTED]
FL 12/12/2026

Rental Expiry Information

RA Out: 03/22/2022 15.50 THRIFTY
RA Due: 04/13/2022 15.50 THRIFTY

Rate Information

			Est. Charges
C1: OT Hourly	21.00	hour	.00
C1: Daily	30.00	day	.00
C1: Weekly	3 @ 210.00	week	630.00
C1: XDay	1 @ 30.00	day	30.00
Excess Miles	.29	/mi	
Net T&M			660.00
FL SURCHARGE	22 @ 2.01	day	44.22
VLF	22 @ 2.99	day	65.78
Sales Tax	7.000	%	53.90
Fuel (per Gallon)	9.99		
Subtotal of Other Charges			163.90
Estimated Charges			823.90
Deposit VI 44XX [REDACTED]			250.00
Deposit VI 44XX [REDACTED]			8.00

Vehicle Information

Veh #: [REDACTED]
Lic #: [REDACTED]
2021 HYUNDAI VENUE SE
Fuel Out: 8/8 Odom Out: 14,232

VEHICLE NOT ALLOWED IN MEXICO

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Miles Driven:

Deposit/Auth Information

VI 44XXXXXXXXXX [REDACTED] P 250.00
VI 44XXXXXXXXXX [REDACTED] P 8.00
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VI 44XXXXXXXXXX [REDACTED] P 129.00
VI 44XXXXXXXXXX [REDACTED] P

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Early Return Fee of \$15.00 will apply if you return PRIOR to the Due Date. Late Return Fee of \$10.99 per day will apply if you return AFTER Due Date and Time in addition to any other rental charges. X _____

- NO ADDITIONAL DRIVERS -

ONLY AUTHORIZED RENTERS MAY DRIVE THE CAR.

CUSTOMER DECLINES LDW AND IS RESPONSIBLE FOR LOSS OR DAMAGE PER TERMS OF THE RENTAL AGREEMENT.

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Optional Items

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I have DECLINED _____
I have DECLINED Prepaid Fuel _____

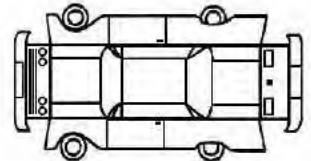
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Smoking and Pets are not allowed in Rental Vehicle. Cleaning fee upto \$250.00 may apply. Rental Vehicle is returned in reasonable condition. X _____

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VEH LIC FEE is comprised of a waste tire and battery fee, which reimburses the company for such fees imposed by and previously paid to the state of Florida, and vehicle license recoupment charge, which reimburses the company for the estimated average per day vehicle portion of its total annual cost of vehicle licensing, titling, registration, and internal labor and overhead associated with this process.

These terms supersede any conflicting terms stated elsewhere. _____

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X _____ RENTER X _____ ADDITIONAL DRIVER _____

<p align="center">Customer Information</p> <p>██████████ ██████████ Palm Bay, FL ██████ ██████████</p> <p>Cust No: ██████ DL#: ██████ FL 12/12/2026</p> <p>- NO ADDITIONAL DRIVERS -</p> <p>ONLY AUTHORIZED RENTERS MAY DRIVE THE CAR.</p> <p>CUSTOMER DECLINES LDW AND IS RESPONSIBLE FOR LOSS OR DAMAGE PER TERMS OF THE RENTAL AGREEMENT.</p> <p>BY YOUR INITIALS YOU ACKNOWLEDGE YOU HAVE ACCEPTED OR DECLINED THE BELOW OPTIONAL ITEMS. X _____</p>	<p align="center">Rental Expiry Information</p> <p>RA Out: 03/22/2022 15.50 THRIFTY RA Due: 04/15/2022 15.50 THRIFTY</p> <p align="center">Vehicle Information</p> <p>Veh.#: ██████ Lic.#: ██████ 2021 HYUNDAI VENUE SE Fuel Out: 8/8 Odom Out: 14,232</p> <p>VEHICLE NOT ALLOWED IN MEXICO</p> <p align="center">0</p> <p>Miles Driven: _____</p>	<p align="center">Rate Information</p> <table border="0" style="width: 100%;"> <tr> <td></td> <td></td> <td></td> <td align="right">Est. Charges</td> </tr> <tr> <td>C1: OT Hourly</td> <td>21.00</td> <td>hour</td> <td align="right">.00</td> </tr> <tr> <td>C1: Daily</td> <td>30.00</td> <td>day</td> <td align="right">.00</td> </tr> <tr> <td>C1: Weekly</td> <td>3 @ 210.00</td> <td>week</td> <td align="right">630.00</td> </tr> <tr> <td>C1: XDay</td> <td>3 @ 30.00</td> <td>day</td> <td align="right">90.00</td> </tr> <tr> <td>Excess Miles</td> <td>.29</td> <td>/mi</td> <td></td> </tr> <tr> <td>Net T&M</td> <td></td> <td></td> <td align="right">720.00</td> </tr> <tr> <td>FL SURCHARGE</td> <td>24 @ 2.01</td> <td>day</td> <td align="right">48.24</td> </tr> <tr> <td>VLF</td> <td>24 @ 2.99</td> <td>day</td> <td align="right">71.76</td> </tr> <tr> <td>Sales Tax</td> <td>7.000</td> <td>%</td> <td align="right">58.80</td> </tr> <tr> <td>Fuel (per Gallon)</td> <td>9.99</td> <td></td> <td></td> </tr> <tr> <td>Subtotal of Other Charges</td> <td></td> <td></td> <td align="right">178.80</td> </tr> <tr> <td>Estimated Charges</td> <td></td> <td></td> <td align="right">898.80</td> </tr> <tr> <td>Deposit VI 44XX ██████</td> <td></td> <td></td> <td align="right">250.00</td> </tr> <tr> <td>Deposit VI 44XX ██████</td> <td></td> <td></td> <td align="right">8.00</td> </tr> </table> <p align="center">Deposit/Auth Information</p> <table border="0" style="width: 100%;"> <tr> <td>VI 44XXXXXXXXXX ██████</td> <td>P</td> <td>250.00</td> <td rowspan="5"> <p>FOR UNPAID TOLLS, YOUR CREDIT CARD WILL BE CHARGED THE AMOUNT OF THE TOLL VIOLATION + \$9.99 ADMIN FEE PER VIOLATION (UP TO MAXIMUM OF \$90.00 ADMIN FEE). YOUR CREDIT CARD WILL BE CHARGED FOR ALL CITATIONS PLUS A \$50.00 ADMIN FEE PER CITATION IF NOT PAID BY ORIGINAL DUE DATE. X _____</p> <p>ORIGINAL DUE DATE/TIME: 04/15/2022 15.50</p> <p>Early Return Fee of \$15.00 will apply if you return PRIOR to the Due Date. Late Return Fee of \$10.99 per day will apply if you return AFTER Due Date and Time in addition to any other rental charges. X _____</p> </td> </tr> <tr> <td>VI 44XXXXXXXXXX ██████</td> <td>P</td> <td>8.00</td> </tr> <tr> <td>VI 44XXXXXXXXXX ██████</td> <td>P</td> <td>130.00</td> </tr> <tr> <td>VI 44XXXXXXXXXX ██████</td> <td>P</td> <td>129.00</td> </tr> <tr> <td>VI 44XXXXXXXXXX ██████</td> <td>P</td> <td></td> </tr> </table> <p align="center">Optional Items</p> <p>I have DECLINED CDW _____</p> <p>I have DECLINED _____</p> <p>I have DECLINED _____</p> <p>I have DECLINED Prepaid Fuel _____</p>				Est. Charges	C1: OT Hourly	21.00	hour	.00	C1: Daily	30.00	day	.00	C1: Weekly	3 @ 210.00	week	630.00	C1: XDay	3 @ 30.00	day	90.00	Excess Miles	.29	/mi		Net T&M			720.00	FL SURCHARGE	24 @ 2.01	day	48.24	VLF	24 @ 2.99	day	71.76	Sales Tax	7.000	%	58.80	Fuel (per Gallon)	9.99			Subtotal of Other Charges			178.80	Estimated Charges			898.80	Deposit VI 44XX ██████			250.00	Deposit VI 44XX ██████			8.00	VI 44XXXXXXXXXX ██████	P	250.00	<p>FOR UNPAID TOLLS, YOUR CREDIT CARD WILL BE CHARGED THE AMOUNT OF THE TOLL VIOLATION + \$9.99 ADMIN FEE PER VIOLATION (UP TO MAXIMUM OF \$90.00 ADMIN FEE). YOUR CREDIT CARD WILL BE CHARGED FOR ALL CITATIONS PLUS A \$50.00 ADMIN FEE PER CITATION IF NOT PAID BY ORIGINAL DUE DATE. X _____</p> <p>ORIGINAL DUE DATE/TIME: 04/15/2022 15.50</p> <p>Early Return Fee of \$15.00 will apply if you return PRIOR to the Due Date. Late Return Fee of \$10.99 per day will apply if you return AFTER Due Date and Time in addition to any other rental charges. X _____</p>	VI 44XXXXXXXXXX ██████	P	8.00	VI 44XXXXXXXXXX ██████	P	130.00	VI 44XXXXXXXXXX ██████	P	129.00	VI 44XXXXXXXXXX ██████	P	
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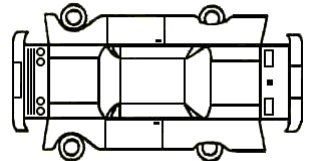
Vehicle cannot leave the State of Florida or a \$250.00 Fee may apply. X _____

Smoking and Pets are not allowed in Rental Vehicle. Cleaning fee upto \$250.00 may apply. Rental Vehicle is returned in reasonable condition. X _____

FLORIDA - NOTICE TO RENTERS

Renter's insurance primary: The valid and collectible liability insurance and personal injury protection insurance of any authorized rental or leasing driver is primary for the limits of liability and personal injury coverage required by ss.324.021(7) and 627.736 Florida Statutes.

Failure to return rental Vehicle: Failure to return rental property or equipment upon expiration of rental period and failure to pay all amounts due (including costs of damage to the property or equipment) are evidence of abandonment or refusal to redeliver the property, punishable in accordance with section 812.155. Florida Statutes.



VEH LIC FEE is comprised of a waste tire and battery fee, which reimburses the company for such fees imposed by and previously paid to the state of Florida, and vehicle license recoupment charge, which reimburses the company for the estimated average per day vehicle portion of its total annual cost of vehicle licensing, titling, registration, and internal labor and overhead associated with this process.

These terms supersede any conflicting terms stated elsewhere. _____

The Rental Agreement is between the undersigned and the company identified above (the "Company"). By signature below, the undersigned acknowledges and represents that they are legally authorized to operate the rental vehicle by valid driver's license, and that they have read and agree to the terms, conditions, and notices, both printed and written, including the Loss Damage Waiver information, that appears on this Rental Statement and on the separate rental jacket (the "Agreement"), which is incorporated herein. THE UNDERSIGNED AUTHORIZE THE COMPANY TO PROCESS A CHARGE TO THEIR CREDIT, DEBIT OR CHARGE CARD IN THE AMOUNT SPECIFIED ABOVE FOR THIS RENTAL UPON SIGNATURE BELOW AND FOR ALL ADDITIONAL CHARGES DUE UPON RETURN OF THE VEHICLE. ALL CHARGES ARE SUBJECT TO AUDIT. No additional drivers are permitted without Rental Company's approval.

X _____ RENTER X _____ ADDITIONAL DRIVER

Customer Information

██████████
 ██████████
 Palm Bay, FL ██████
 ██████████
 Cust No: ██████
 DL#: ██████████
 FL 12/12/2026

Rental Expiry Information

RA Out: 03/22/2022 15.50 THRIFTY
 RA Due: 04/03/2022 15.50 THRIFTY

Rate Information

			Est. Charges
C1: OT Hourly	21.00	hour	.00
C1: Daily	30.00	day	.00
C1: Weekly	1 @ 210.00	week	210.00
C1: XDay	5 @ 30.00	day	150.00
Excess Miles	.29	/mi	
Net T&M			360.00
FL SURCHARGE	12 @ 2.01	day	24.12
VLF	12 @ 2.99	day	35.88
Sales Tax	7.000	%	29.40
Fuel (per Gallon)	9.99		
Subtotal of Other Charges			89.40
Estimated Charges			449.40
Total Deposits/Payments			.00

Vehicle Information

Veh.#: ██████
 Lic.#: ██████
 2021 HYUNDAI VENUE SE
 Fuel Out: 8/8 Odom Out: 14,232

VEHICLE NOT ALLOWED IN MEXICO

0

Miles Driven:

- NO ADDITIONAL DRIVERS -
 ONLY AUTHORIZED RENTERS MAY DRIVE THE CAR.

CUSTOMER DECLINES LDW AND IS RESPONSIBLE FOR LOSS OR DAMAGE PER TERMS OF THE RENTAL AGREEMENT.
 BY YOUR INITIALS YOU ACKNOWLEDGE YOU HAVE ACCEPTED OR DECLINED THE BELOW OPTIONAL ITEMS. X _____

Optional Items

I have DECLINED CDW _____
 I have DECLINED _____
 I have DECLINED _____
 I have DECLINED Prepaid Fuel _____

Deposit/Auth Information

VI 44XXXXXXXXXX ██████ 250.00
 VI 44XXXXXXXXXX ██████ 8.00
 VI 44XXXXXXXXXX ██████ 130.00
 VI 44XXXXXXXXXX ██████ 129.00

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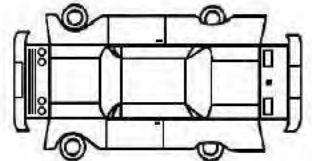
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X _____ RENTER X _____ ADDITIONAL DRIVER



the owner is entitled a refund of their money on the repairs to the vehicle. The vehicle owner must have documentation to obtain refunded funds on vehicle repairs. It is strongly recommended to keep all paperwork on all vehicle repairs.

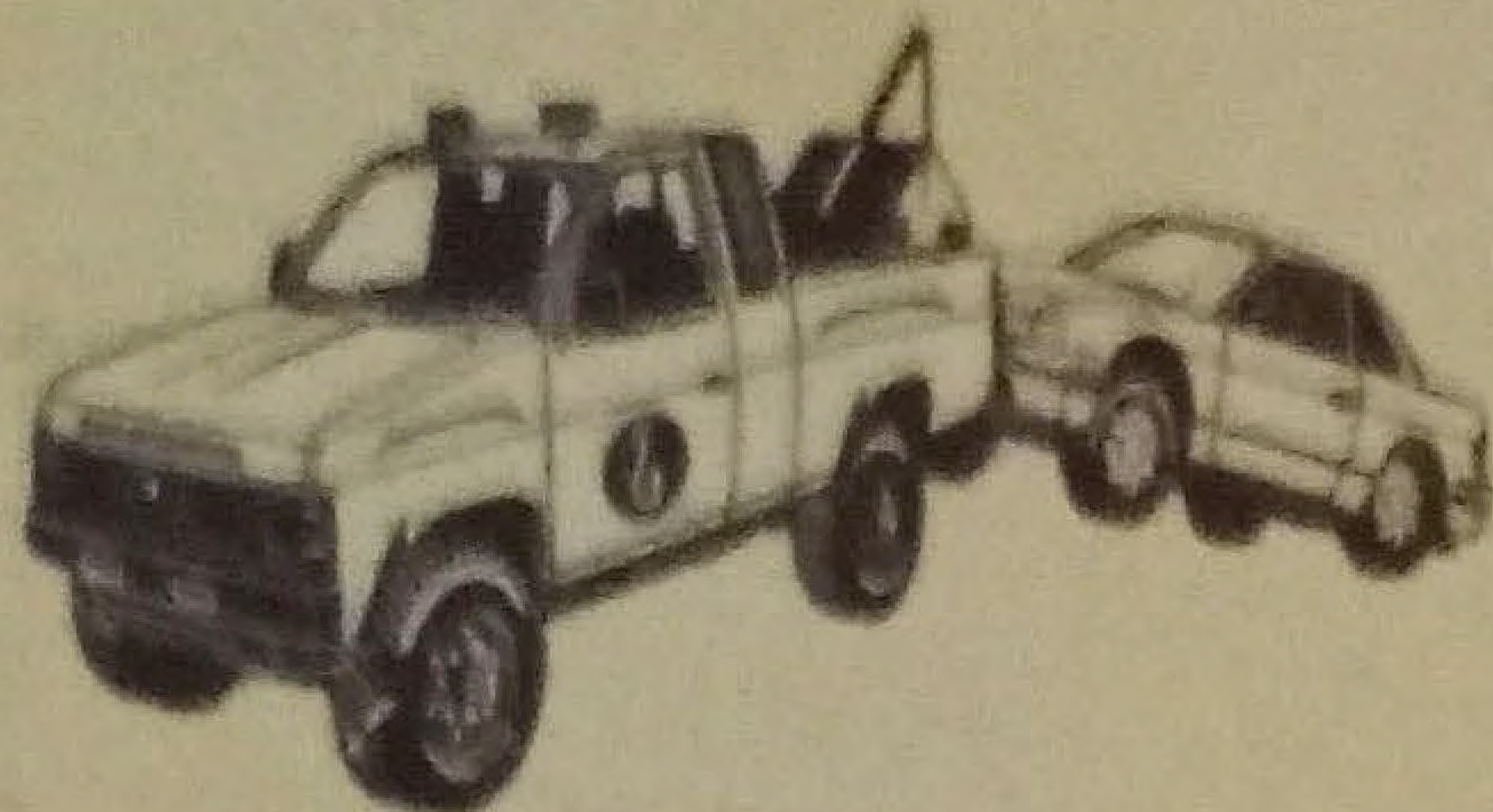
If the car dealership does not fix the recall issue and the owner has the documentation for the recall of the vehicle, the manufacturer should be alerted at once. The vehicle is to be repaired free of charge within a certain time frame.

The manufacturer of the vehicle is permitted time to find a solution to the problem on the vehicle. The vehicle owner has no legal standing with a recall if the manufacturer is complying with the issue but only needs time to find the solution to the problem. The automobile manufacturer may alert the owner of any action regarding the recall.

Seek a Lawyer

Safety is a top priority with automobile recalls. There should not be any issues impeding safety when driving. When vehicles have been recalled for defects, and then injuries occurred, it is best to contact a legal representative immediately. A knowledgeable lawyer needs to be contacted and informed of all issues that have occurred. Documentation should be provided to the legal expert, and if any witnesses are available, they may be contacted to describe their perspective. The manufacturer should be contacted to see if a solution can be determined.





JACK'S

WRECKER SERVICE, INC.

Office:
(321) 259-3115

TOW TICKET

Remit To:
1901 Avocado Ave.
Melbourne, FL 32935

NAME C.O.D.		DATE 4.18.22	
STREET		TIME	
CITY	STATE	ZIP	PHONE
YEAR & MAKE 5 Hyundai Vektor	MODEL	COLOR BK	LICENSE NO
V.I.N. KMHTC6ADXFU			
<input type="checkbox"/> CASH	REQUESTED BY		
<input type="checkbox"/> CHARGE	owner		
PIC	PALMBAY		
TA	TITUSVILLE		
REPAIR ORDER #		PURCHASE ORDER #	
UNIT # / PR #		STORAGE	
		NO. DAYS	AT PER DAY
COMMENTS: cc. 8557		ITEM #	DESCRIPTION
			PRICE
			Wrecker Fee
			Mileage
			Fuel Surcharge mi. @ per mi.
			Working Time hrs. @ per hr.
			Waiting Time hrs. @ per hr.
TIME FINISHED	TRUCK NO.		Extra Labor hrs. @ per hr.
TIME LOADED	DRIVER John		Remove Drive Line
TIME ARRIVED	MILEAGE ENDING		Administrative
TIME DISPATCHED	MILEAGE START		Storage
TOTAL TIME HRS	TOTAL MILES MI.		Removal Fee
I, the undersigned, do hereby certify that I am legally authorized and entitled to take possession of the vehicle described above and all personal therein.		SALES TAX 7% On Storage & Admin	
X		TOTAL AMOUNT	

35000

Monday, April 11, 2022



Welcome to SwipeSimple alerts. Msg&data rates may apply. 1 message per requested receipt or invoice. Reply HELP for help, STOP to cancel.

\$75.00 purchase from Jack's Wrecker Service. Full receipt:



10:48