

2022 CHEVROLET CORVETTE SERVICE MANUAL

- SEARCH

1. Engine/Propulsion

2. Engine Mechanical - 6.2L (LT2)

3. Repair Instructions

- 4.

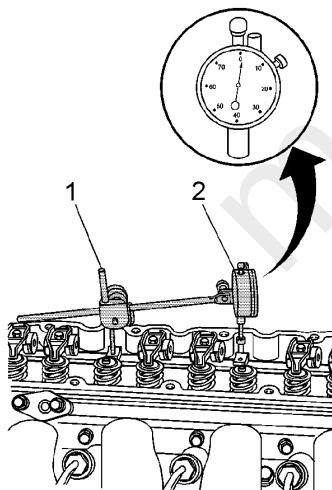
Camshaft Replacement

Special Tools

- GE-7872, Magnetic Base Dial Indicator Set
- EN-8520, Camshaft Lobe Lift Indicator

Equivalent regional tools: Special Tools

Measuring Camshaft Lobe Lift



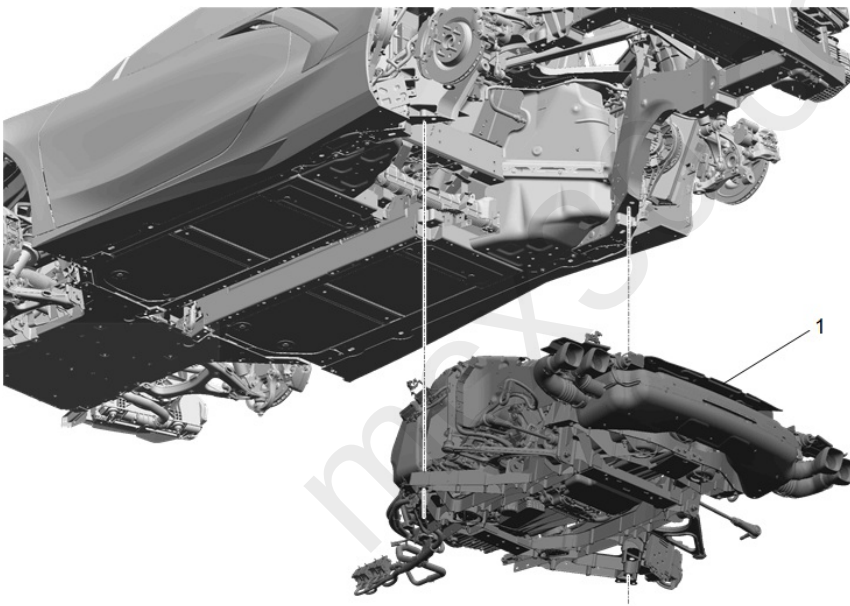
[Click here for full size](#)

2. Note:

Measuring camshaft lobe lift is a procedure used to determine if the camshaft lobes have worn. This test is to be performed prior to engine disassembly and with the camshaft and valve train components installed in the engine.

3. Using the *EN-8520* Camshaft Lobe Lift Indicator (2), measure camshaft lobe lift.
4. Remove the valve rocker arms and bolts.
5. Install the dial indicator mounting stud (1) into the valve rocker arm bolt hole.
6. Assemble the components of the *EN-8520* Camshaft Lobe Lift Indicator and position onto the stud.
7. Position the shaft of the dial indicator onto the end of the pushrod.
8. Rotate the face of the dial indicator to zero.
9. Slowly rotate the crankshaft clockwise, until the dial indicator obtains its highest and lowest readings.
10. Compare the total to specifications. The total lobe lift is the difference between the highest and lowest reading. Engine Mechanical Specifications

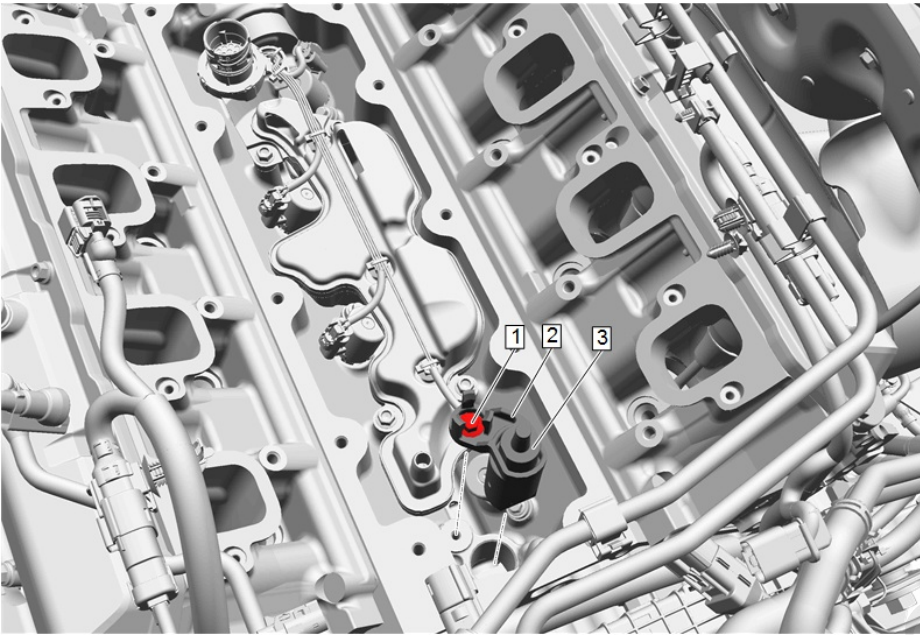
Removal Procedure



1.

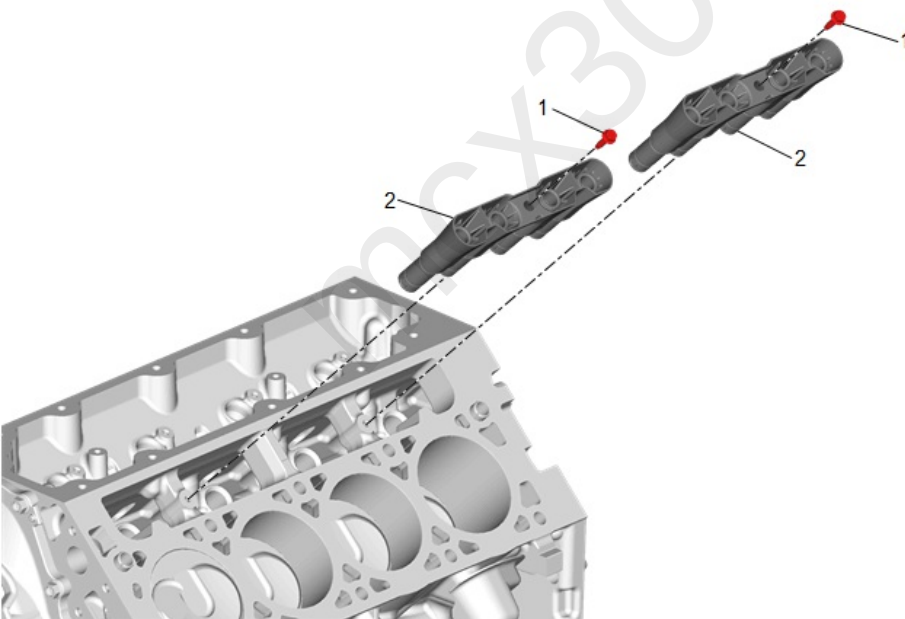
[Click here for full size](#)

2. Engine (1) >> Remove - Engine Replacement



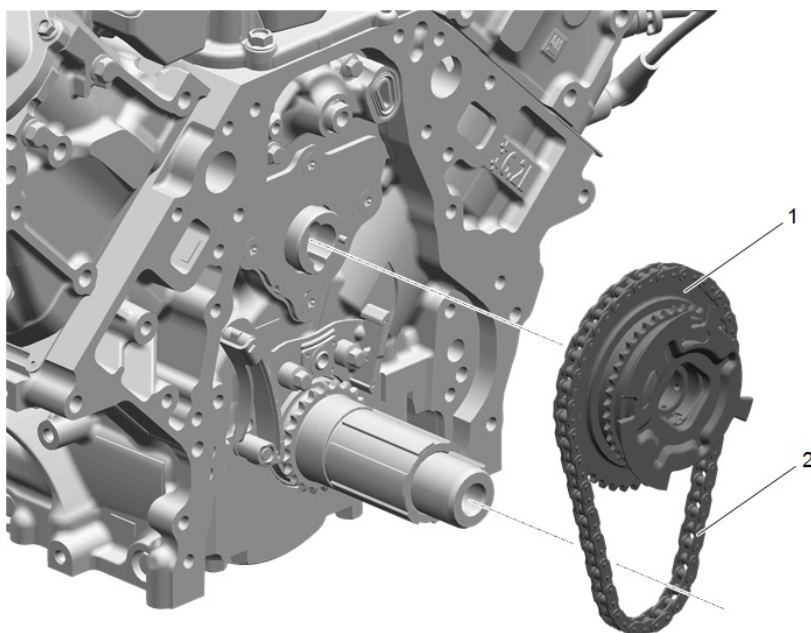
3.
[Click here for full size](#)

4. Valve Lifter Follower Guide (2) >> Remove - Valve Lifter Follower Guide Replacement



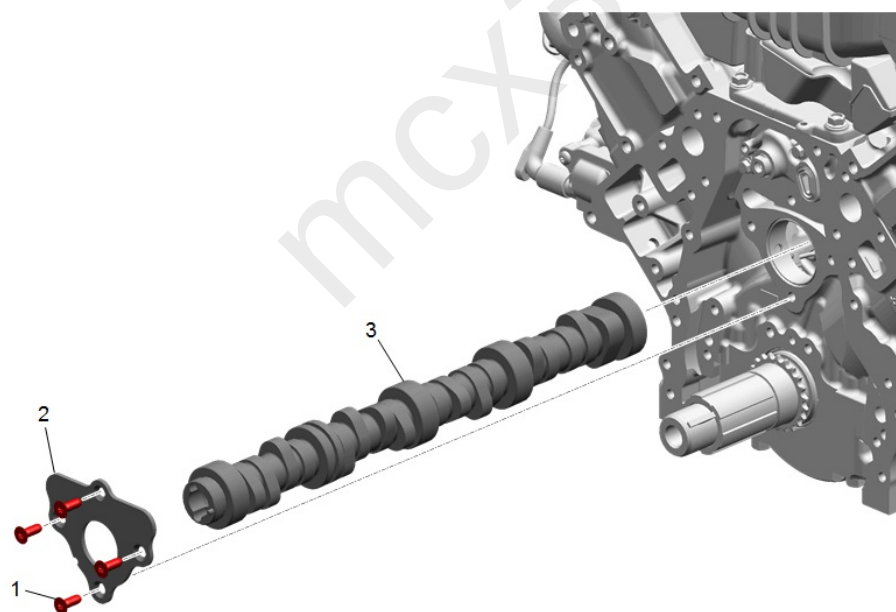
5.
[Click here for full size](#)

6. Valve Lifter (2) >> Remove - Valve Lifter Replacement



7.
[Click here for full size](#)

8. Timing Chain (2) & Camshaft Position Actuator (1) >> Remove - Camshaft Timing Chain Component Removal and Installation



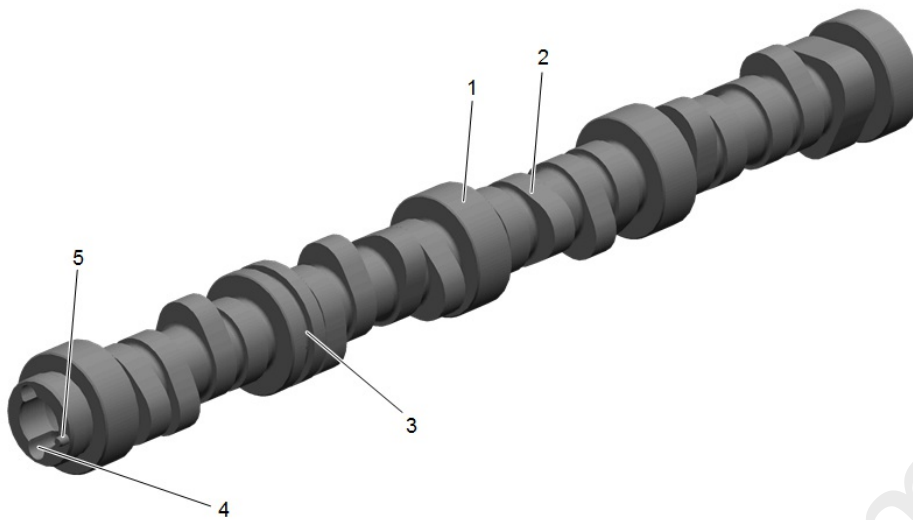
9.
[Click here for full size](#)

10. Camshaft Retainer Bolt (1) >> Remove [4x]

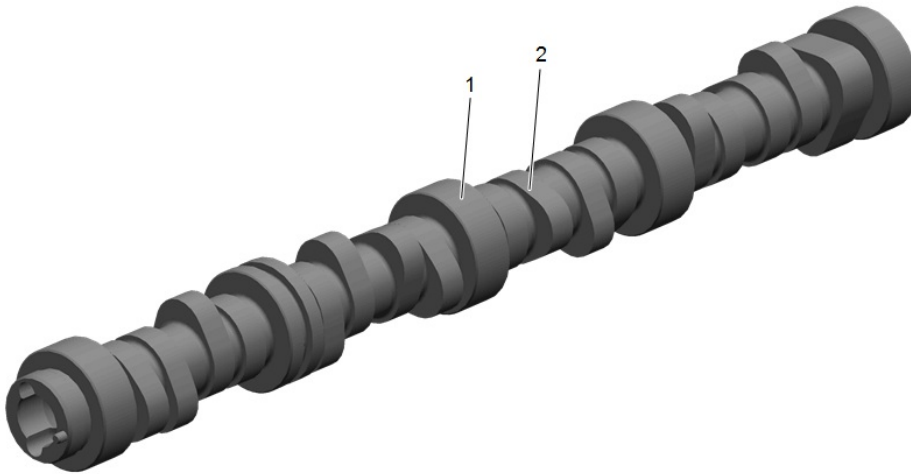
11. Camshaft Retainer (2) >> Remove

12. Camshaft (3) >> Remove

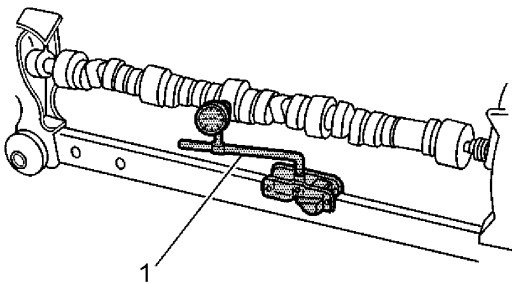
Cleaning and Inspection Procedure



1. [Click here for full size](#)
2. Clean the components in solvent.
3. Warning:
Refer to Safety Glasses and Compressed Air Warning
4. Dry the components with compressed air.
5. Inspect the camshaft bearing journals (1) for scoring or excessive wear.
6. Inspect the camshaft valve lifter lobes (2) for scoring or excessive wear.
7. Inspect the camshaft position (CMP) actuator oil passages (3) for restrictions.
8. Inspect the threaded bolt hole (4) in the front of the camshaft for damaged threads or debris.
9. Inspect the camshaft sprocket pin (5) for damage.
10. Inspect the camshaft retainer plate for wear or a damaged sealing gasket.
11. If the camshaft retainer plate sealing gasket is not cut or damaged, it may be used again.



12. [Click here for full size](#)
13. Using a micrometer, measure the camshaft journals (1) for wear and out-of-round. Engine Mechanical Specifications
- 14.
- If the camshaft bearing journals are out-of-round, replace the camshaft.
 - If the camshaft bearing journal diameter is not within specification, replace the camshaft.
15. Using a micrometer, measure the camshaft lobes (2) for wear. Engine Mechanical Specifications



16. [Click here for full size](#)
17. Measure the camshaft runout.
18.
 1. Mount the camshaft in wooden V-blocks or between centers on a fixture.
 2. Using the *GE-7872* Magnetic Base Dial Indicator Set (1), measure the runout of the intermediate camshaft bearing journals.
 3. If camshaft runout is not within specification, the camshaft is bent and should be replaced. Engine Mechanical Specifications

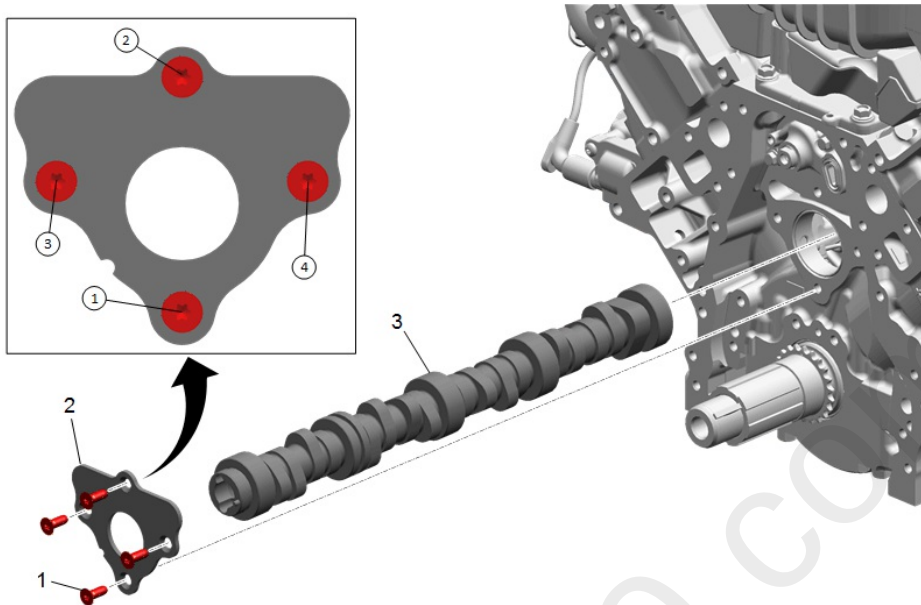
Installation Procedure

1. Note:

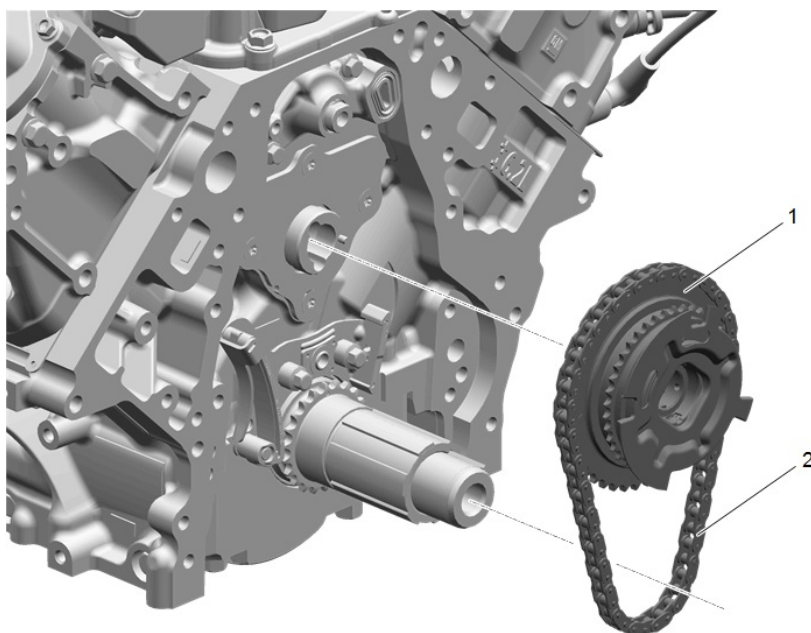
The threads of the camshaft retainer bolts and threaded holes of the engine block must be free of residue and debris prior to the application of threadlocker to ensure proper adhesion and fastener retention.

2. Prepare the camshaft retainer bolts and engine block threaded holes for assembly:
- 3.

- Thoroughly clean the residue from the bolt threads with denatured alcohol and allow to dry.
- Thoroughly clean the residue from the threaded holes of the engine block with denatured alcohol and allow to dry.
- Apply threadlocker to 2/3 of the threaded length of the camshaft retainer bolts. Adhesives, Fluids, Lubricants, and Sealers
- Ensure there are no gaps in the threadlocker along the filled area of the bolts.
- Allow the threadlocker to cure approximately 10 minutes before installation.

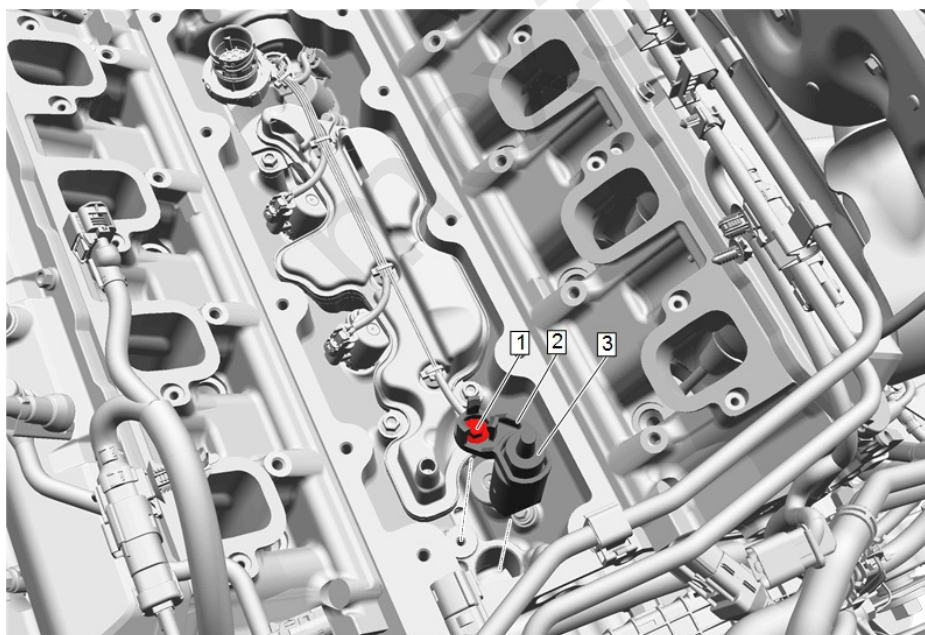


4. [Click here for full size](#)
5. Camshaft (3) >> Install
6. Camshaft Retainer (2) >> Install
7. Caution:
Refer to Fastener Caution.
8. Camshaft Retainer Bolt (1) >> Install and tighten in sequence [4x]15 N-m (11 lb ft)



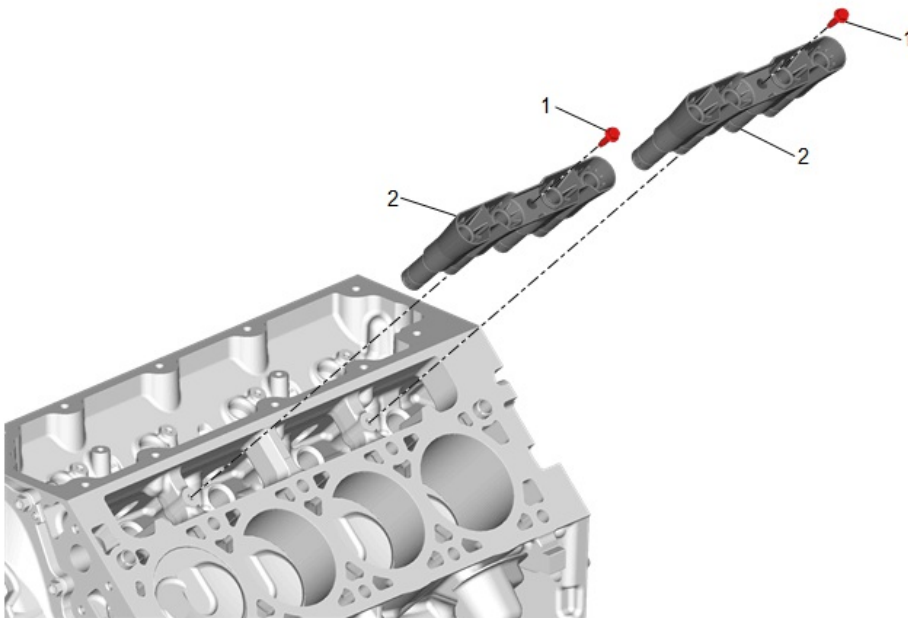
9.
[Click here for full size](#)

10. Timing Chain (2) & Camshaft Position Actuator (1) >> Install - Camshaft Timing Chain Component Removal and Installation



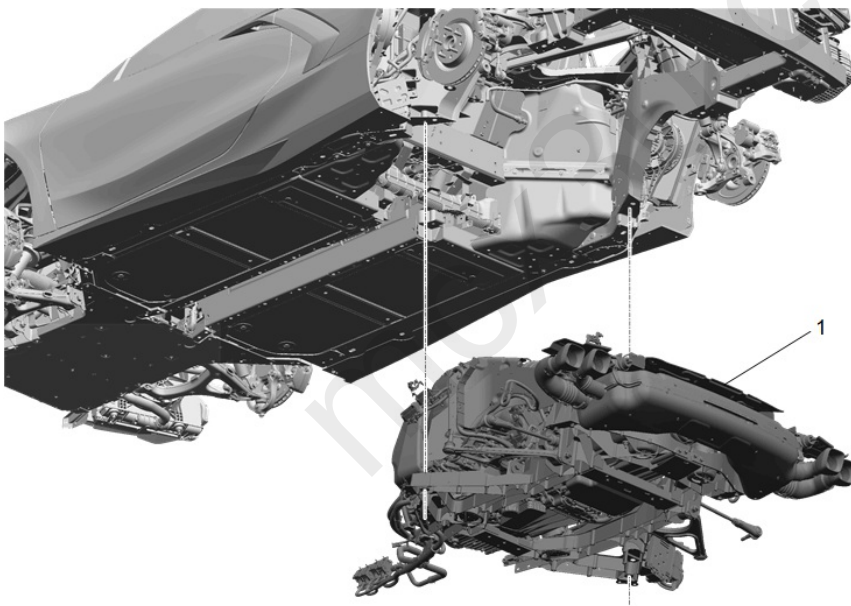
11.
[Click here for full size](#)

12. Valve Lifter Follower Guide (2) >> Install - Valve Lifter Follower Guide Replacement



13.
[Click here for full size](#)

14. Valve Lifter (2) >> Install - Valve Lifter Replacement



15.
[Click here for full size](#)

16. Engine (1) >> Install - Engine Replacement