

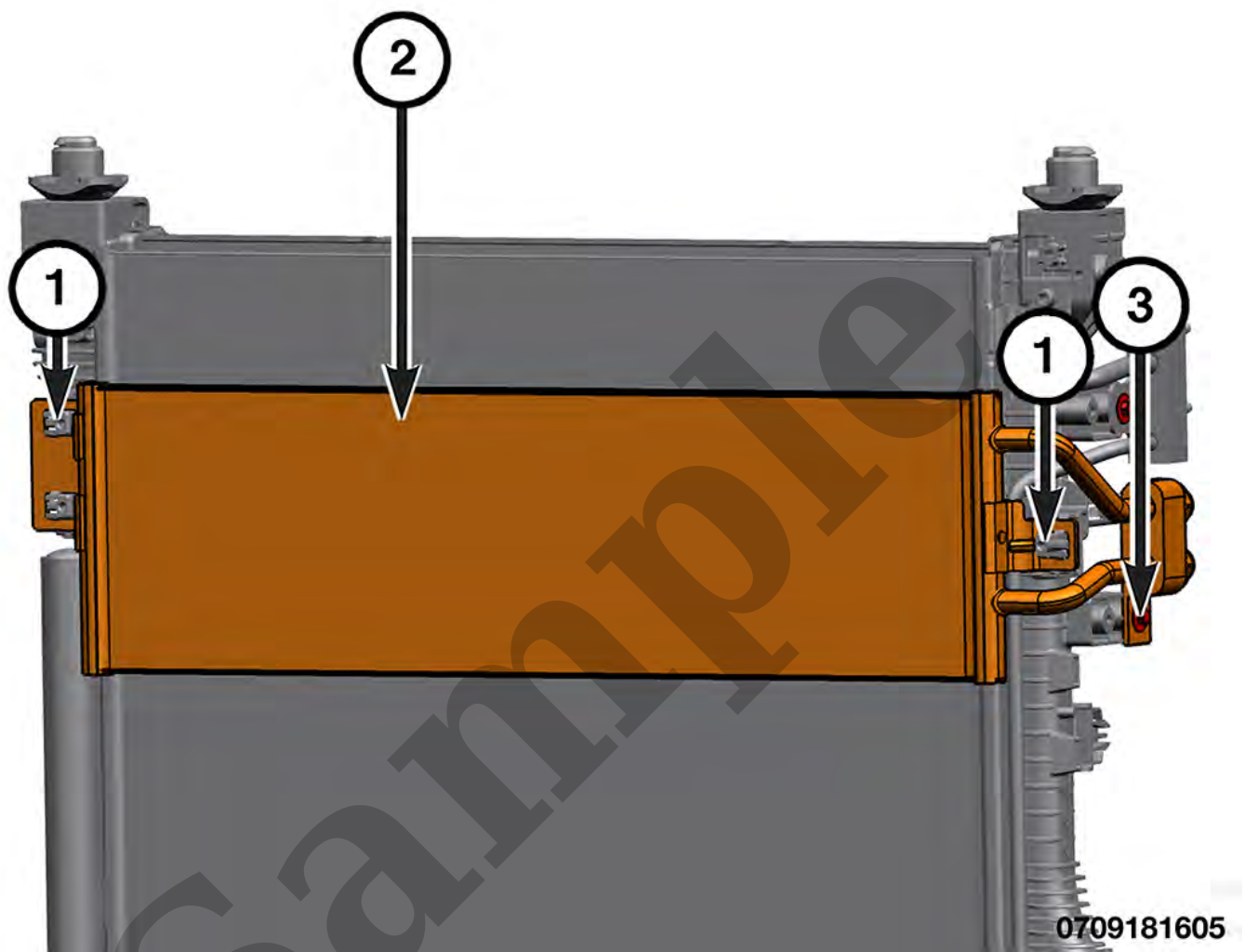
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FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2012 JEEP Wrangler Rubicon OEM Service and Repair Workshop Manual

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12. Carefully remove the radiator from the vehicle.



1 - Transmission Cooler Lock Tabs

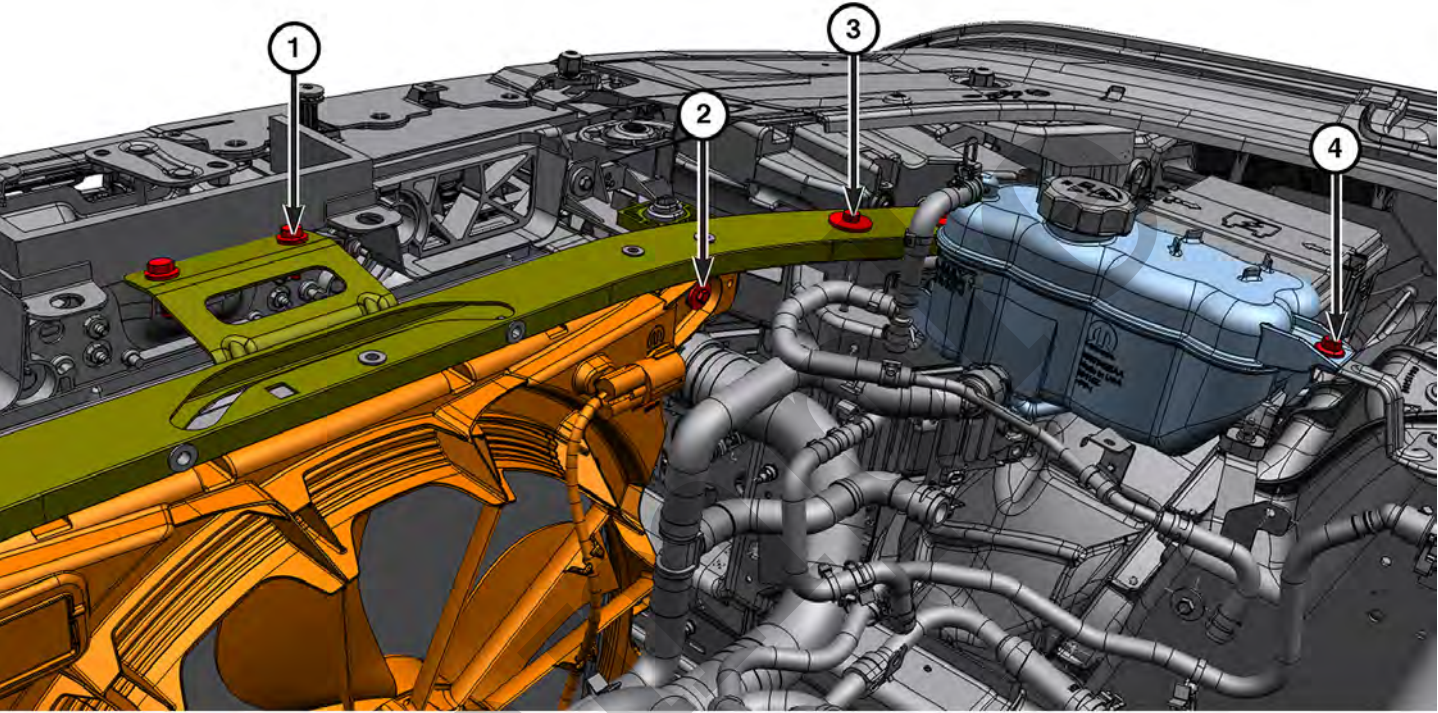
2 - Transmission Cooler

3 - Transmission Cooler Manifold Bolt

13. Remove the transmission cooler manifold bolt securing the transmission cooler manifold to radiator.

14. Release the lock tabs and remove the transmission cooler from the radiator.

4	Coolant Tube Nut	25 N·m (18 Ft. Lbs.)	-
5	Coolant Tube Stud Bolt	28 N·m (21 Ft. Lbs.)	-
6	Water Pump Bolts - Long	28 N·m (21 Ft. Lbs.)	-



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CALLOUT	DESCRIPTION	SPECIFICATION	COMMENTS
1	Radiator Crossmember Bracket Bolts	12 N·m (9 Ft. Lbs.)	-
2	Electric Cooling Fan Bolts	7 N·m (62 In. Lbs.)	-
3	Radiator to Crossmember Bolts	12 N·m (9 Ft. Lbs.)	-
4	PTRN BRKT TO HOT BOTTLE BRKT (Pressurized Coolant Bottle Nuts)	8 N·m (71 In. Lbs.)	-

YOUR CURRENT VEHICLE

Adding Additional Coolant

ADDING ADDITIONAL COOLANT

WARNING

ANTIFREEZE IS AN ETHYLENE GLYCOL BASE COOLANT AND IS HARMFUL IF SWALLOWED OR INHALED. IF SWALLOWED, DRINK TWO GLASSES OF WATER AND INDUCE VOMITING. IF INHALED, MOVE TO FRESH AIR AREA. SEEK MEDICAL ATTENTION IMMEDIATELY. DO NOT STORE IN OPEN OR UNMARKED CONTAINERS. WASH SKIN AND CLOTHING THOROUGHLY AFTER COMING IN CONTACT WITH ETHYLENE GLYCOL. KEEP OUT OF REACH OF CHILDREN. DISPOSE OF GLYCOL BASED COOLANT PROPERLY. CONTACT YOUR DEALER OR GOVERNMENT AGENCY FOR LOCATION OF COLLECTION CENTER IN YOUR AREA. DO NOT OPEN A COOLING SYSTEM WHEN THE ENGINE IS AT OPERATING TEMPERATURE OR HOT UNDER PRESSURE; PERSONAL INJURY CAN RESULT. AVOID RADIATOR COOLING FAN WHEN ENGINE COMPARTMENT RELATED SERVICE IS PERFORMED; PERSONAL INJURY CAN RESULT.

When additional coolant is needed, it should be added to the Pressurized Coolant Bottle or radiator filler neck. With the engine cold, add enough coolant to set the level between the add (MIN) and full (MAX) indicators on the bottle or top off the radiator filler neck with coolant.

Only use the type of coolant specified for this vehicle ([Refer to Vehicle Quick Reference/Capacities and Recommended Fluids/Specifications](#)).

The service area where this procedure is performed should have a minimum shop air requirement of 80 psi (5.5 bar) and should be equipped with an air dryer system.

NOTE

For best results, the radiator should be empty. The vehicle's heater control should be set to the heat position (ignition may need to be turned to the on position but do not start the engine).

1. Test the coolant concentration level and be sure the concentration level is correct ([Refer to Engine/Cooling Systems/Engine Cooling/Diagnosis and Testing](#))(Refer To List 1).
2. Refer to the Mopar Essential Tools and Service Equipment

Tool, UView Airlift™ Cooling System Refill



or equivalent and follow tool's operating manual for specific assembly steps.

On some remote pressurized tanks, it is recommended to stop filling when the proper level is reached.

17. Close the suction hose's ball valve and remove the suction hose from the adaptor cone/vacuum gauge assembly.
18. Remove the adaptor cone/vacuum gauge assembly from the radiator filler neck or reservoir tank.
19. With heater control unit in the HEAT position, operate engine with container cap in place.
20. After engine has reached normal operating temperature, shut engine off and allow it to cool. When engine is cooling down, coolant will be drawn into the radiator from the pressure container.
21. Add coolant to the recovery bottle/container as necessary. **Only add coolant to the container when the engine is cold. Coolant level in a warm engine will be higher due to thermal expansion.** Add necessary coolant to raise container level to the COLD MINIMUM mark after each cool down period.
22. Once the appropriate coolant level is achieved, attach the radiator cap or reservoir tank cap.

Refer To List:

List 1

- [09 - Engine, 2.0L / Cooling System / Engine Cooling / Diagnosis and Testing](#)
- [09 - Engine, 3.6L / Engine Cooling / Diagnosis and Testing](#)
- [09 - Engine, 5.7L / Engine Cooling / Diagnosis and Testing](#)

YOUR CURRENT VEHICLE

Thermostat

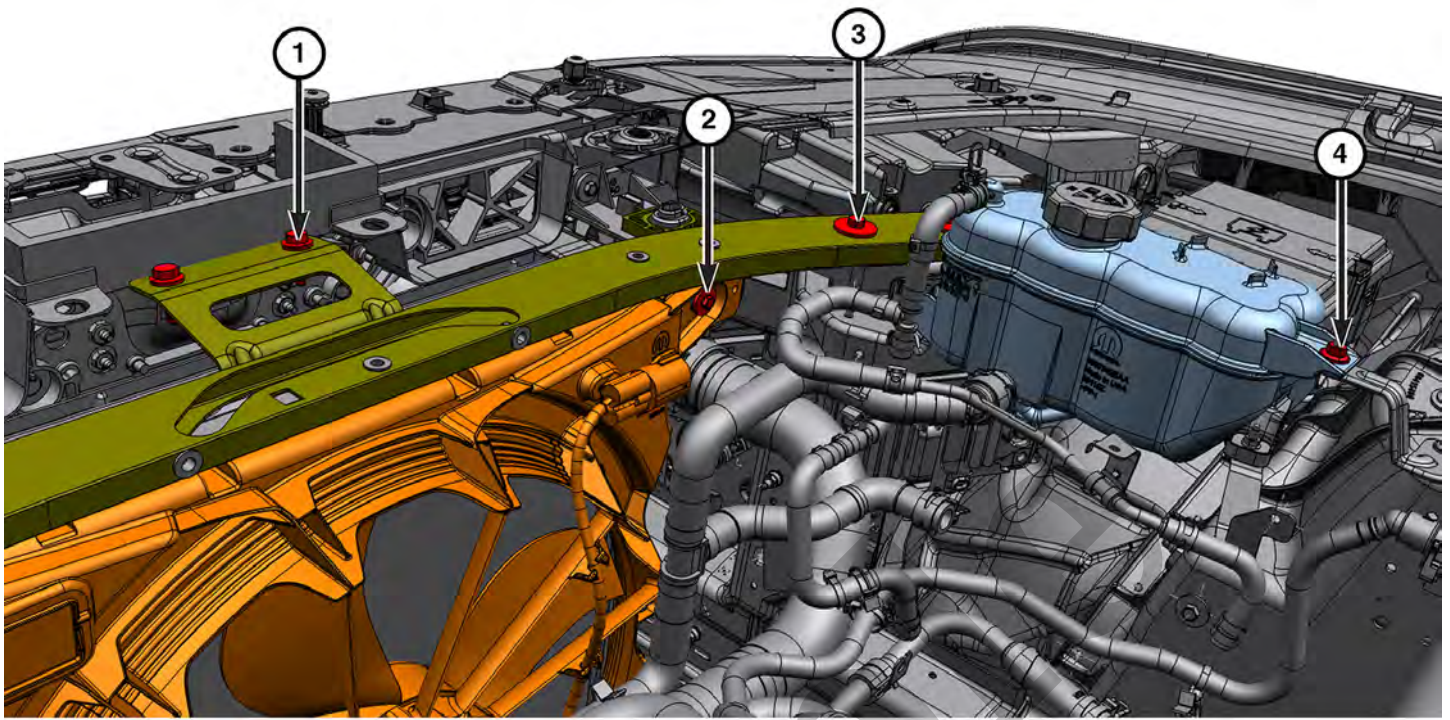
THERMOSTAT

REMOVAL

WARNING

Do not loosen the radiator draincock with the cooling system hot and pressurized. Serious burns from the coolant can occur.

1. Drain the cooling system ([Refer to Engine/Cooling Systems/Engine Cooling/Standard Procedure](#))(Refer To [List 1](#)).



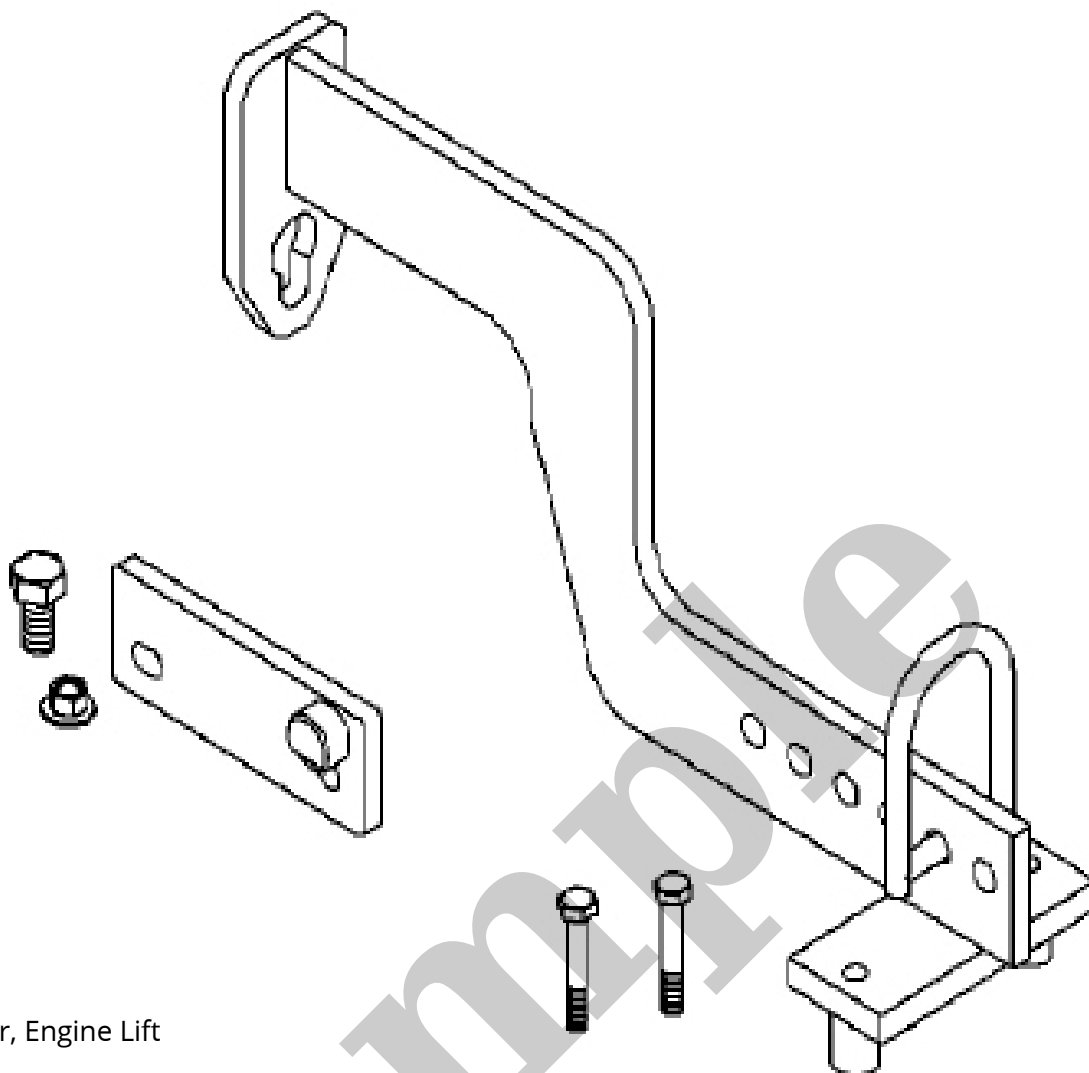
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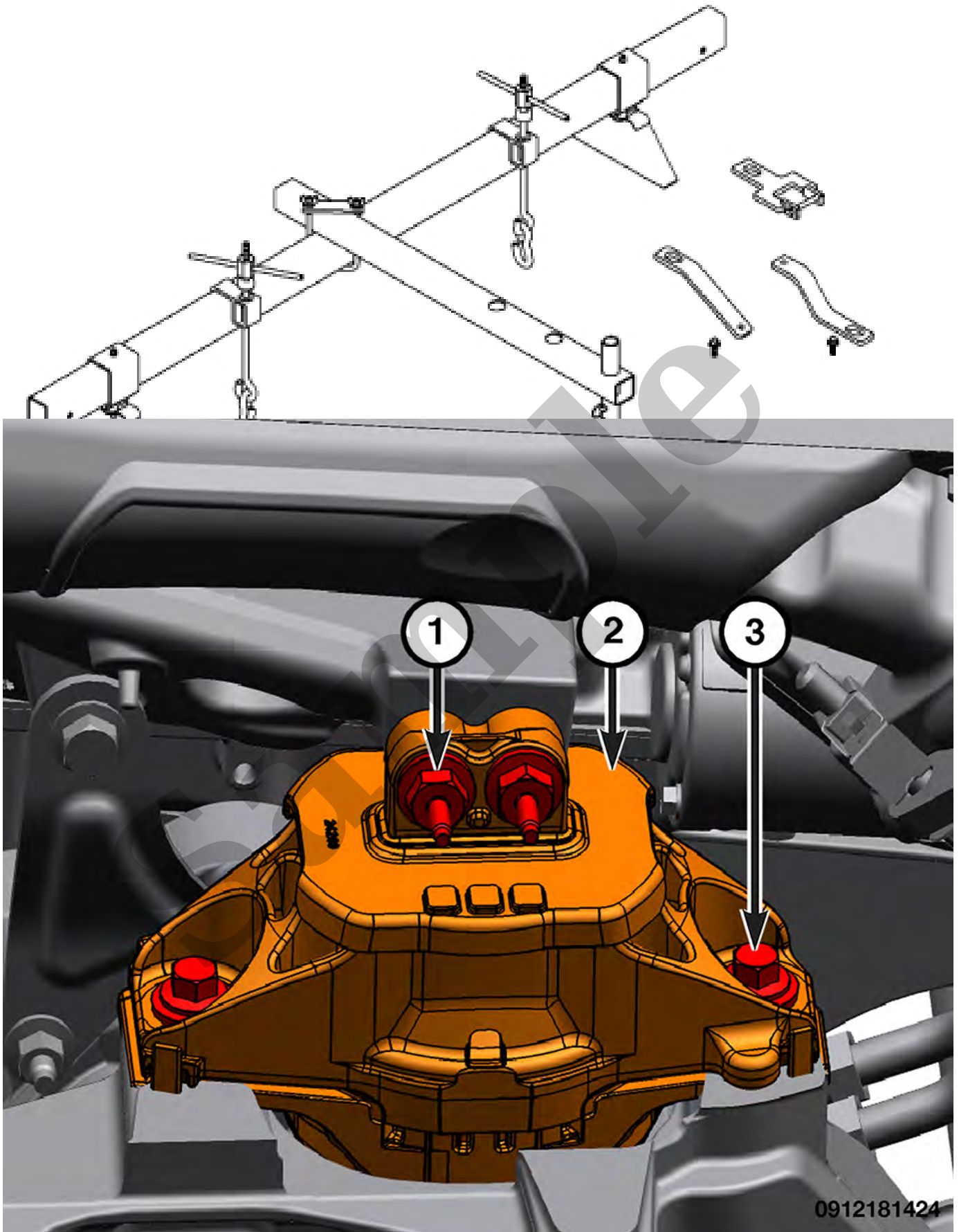
List 1

- [09 - Engine, 2.0L / Cooling System / Engine Cooling / Standard Procedure](#)
- [09 - Engine, 3.6L / Engine Cooling / Standard Procedure](#)



and the

Adapter, Engine Lift



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