SI B11 09 15
Engine

May 2017
Technical Service

Engine Replacement and Engine Repairs

This Service Information bulletin replaces SI B11 09 15 dated November 2016.

What's New:

• Procedure updated for bleeding

• The labor operation "number" for claims submission in the Warranty information section has been updated

New information provided by this revision is preceded by this symbol UPDATE!.

MODEL

All

INFORMATION

New and remanufactured replacement engine assemblies are **NOTpre-filled** with engine oil.

After replacing an engine with a new or remanufactured engine assembly, the engine oil level must be verified as outlined in the procedure below first, before starting the engine for the first time.

If the new or remanufactured replacement engine is started to determine electronically if the engine is filled with the appropriate amount of engine oil, damage to the replacement engine can occur immediately.

The engine may have some residual engine oil from assembly, but this is **not enough** engine oil to properly lubricate the engine to measure the engine oil level electronically when it is started for the first time.

Further, the electronic engine oil measurement is only operational when the engine is running at its full operating temperature. Checking the engine oil without the engine running at operating temperature will lead to an incorrect or incomplete measurement.

After replacing the engine or making engine repairs that require the replacement or removal of the engine bearings, VANOS gears, camshafts, bed plate resealing, engine oil pump, engine oil filter housing, cylinder head, engine oil cooler or anything that interrupts the engine oil supply circuit of the engine requires a short oil pump and oil supply circuit priming procedure.

PROCEDURE

The following procedure applies to all engines equipped with an electronic engine oil level sensor, with or without an engine oil dipstick.

UPDATE! **Replacement Engines:**

This procedure is used when the high pressure fuel system pressure is already depleted from complete engine replacement.

1. After installation of the replacement engine and before starting the engine for the first time, remove the engine oil drain plug. Drain any residual engine oil from the crankcase.
2. Reinstall and torque the engine oil drain plug (with a new seal ring) per the applicable repair instruction.
3. Remove the oil filter housing cover and verify the oil filter is present. Reinstall the oil filter housing cover and torque it to the proper specification noted in the applicable repair instruction.
4. Fill the engine with the proper type and amount of engine oil, as specified in the applicable repair instruction.
5. Connect a battery charger to the vehicle.
6. Remove the electric fuel pump fuse. Refer to the applicable wiring diagram using the VIN number of the vehicle in ISTA/D.
7. Crank the engine for 10 seconds.
8. After 10 seconds have elapsed, stop the starter, and allow the starter to cool for 20 seconds.
9. Repeat steps 7 and 8 two additional times.
10. Reinstall the electric fuel pump fuse and start the engine. Verify proper engine operation.
11. After the engine has reached operating temperature, check the engine oil electronically or with the dipstick, and top up the engine oil as needed.

Engine Repairs:

This procedure is used when the high pressure fuel system pressure is not depleted after minor engine repairs and the fuel injection system needs to be disabled by removing the fuel injector electrical connectors.

1. If the engine has been drained prior to the repair remove the engine oil drain plug again to remove any residual oil that may have settled in the engine oil pan during the repair if the engine oil pan was not removed entirely.
2. Reinstall and torque the engine oil drain plug (with a new seal ring) per the applicable repair instruction.
3. Remove the oil filter housing cover and verify the oil filter is present. Reinstall the oil filter housing cover and torque it to the proper specification noted in the applicable repair instruction.
4. Fill the engine with the proper type and amount of engine oil, as specified in the applicable repair instruction.
5. Connect a battery charger to the vehicle.
6. Remove all fuel injector electrical connectors to disable fuel injection.
7. Crank the engine for 10 seconds.
8. After 10 seconds have elapsed, stop the starter, and allow the starter to cool for 20 seconds.
9. Repeat steps 7 and 8 two additional times.
10. Reinstall the fuel injector electrical connectors, reassemble the vehicle and verify proper engine operation.
11. After the engine has reached operating temperature, check the engine oil electronically or with the dipstick, and top up the engine oil as needed.

WARRANTY INFORMATION

Claimable in conjunction with an applicable repair that is covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks or the BMW Certified Pre-Owned Program.

Defect Code:	**Refer to KSD2**	**Claim with the defect code that applies to the engine replacement or repair that necessitated this additional work procedure to be performed**

UPDATE! **Only after an engine replacement:**

Labor Operation:	**Labor Allowance:**	**Description:**
11 99 000	2 FRU	Work time to perform the engine oil pump and oil supply circuit priming procedure after engine replacement.

Or:

UPDATE! **Only after an applicable engine repairs:**

Labor Operation:	**Labor Allowance:**	**Description:**
11 99 000	2 FRU (all engines except N63, S63, N63TU, S63TU, N63R, S63R)	Work time to perform the engine oil pump and oil supply circuit priming procedure with disconnection of fuel injector electrical connectors.
Or		
11 99 000	6 FRU (all N63, S63, N63TU, S63TU, N63R, S63R engines)	Work time to perform the engine oil pump and oil supply circuit priming procedure with disconnection of fuel injector electrical connectors.

Work time labor operation code 11 99 000 is not considered a Main labor operation. Also, since the “work time” FRU allowance to be claimed is specified, a separate punch time is not required unless this labor operation is also being used to claim other repair-related tasks, then supporting punch times are required.