



SI M11 08 16
Engine

April 2016
Technical Service

This Service Information bulletin supersedes SI M11 08 16 **dated January 2016.**

SUBJECT

NEW B38, B46 and B48 Engines: Engine and Cylinder Head Replacement Procedures

MODEL

F56 (Cooper)

With B38 engine

F56 (Cooper S)

With B46 and B48 engines

SITUATION

The engine may run rough and exhibit an engine noise from the VANOS area after the cylinder head or the engine is replaced.

NEW PROCEDURE

Vehicles with the B38 engine produced prior to 7/2015:

1. **Do not start the engine** with newly installed cylinder head or start the newly installed engine.
2. Got to ISTA/P conversions and carry out the “Conversion of the cylinderhead/engine” retrofit.

Vehicles with the B46 and B48 engines produced prior to 11/2015:

1. **Do not start the engine** with newly installed cylinder head or start the newly installed engine.
2. Got to ISTA/P conversions and carry out the “Conversion of the cylinderhead/engine” retrofit.

If these steps are not carried out prior to starting the engine then engine damage can occur.

Engine Replacement (All Engines):

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 level electronically or with the dipstick, and top up the engine oil as needed.

Cylinder Head Repalcement (All Engines):

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 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 level electronically or with the dipstick, and top up the engine oil as needed

NEW WARRANTY INFORMATION

Conversion of the cylinderhead/engine” retrofit procedure

Covered under the terms of the MINI New Passenger Car Limited Warranty.

Covered under the terms of the MINI NEXT Certified Pre-Owned Limited Warranty when required to be performed in conjunction with the CPO covered repair.

Defect Code:	Refer to KSD2	Claim with the defect code that applies to the “initial work” that necessitated performing this additional “conversion” retrofit procedure
Labor Operation:	Labor Allowance:	Description:
00 00 556*	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults) (Plus work – Vehicle is already in the workshop)
And:		
61 21 528*	Refer to KSD2	Connect an approved battery charger/power supply (indicated in KSD2 as “Charging battery”)
And:		
61 00 730	Refer to KSD2	Programming / encoding (Performing retrofit for conversion of the cylinderhead/engine)

*Claim labor operations 00 00 556 and 61 21 528 only when they are not included in some other work procedures that are being performed on the vehicle during the same workshop visit.

Refer to KSD2 for the corresponding flat rate unit (FRU) allowances.

Vehicle Programming and Encoding

If a control module was working properly and it fails to program correctly or requires initialization, please claim this additional work with the applicable KSD2 labor operations under the defect code listed above.

The diagnosis and repair of vehicles “arriving” with failed control modules or stored faults which will cause them to fail during programming cannot be claimed under the defect code listed in this bulletin.

Other Repairs

If other eligible and covered work is performed “prior” to programming and coding the vehicle, claim this work with the applicable defect code and the labor operations listed in KSD2.

[Copyright ©2016 BMW of North America, Inc.]