

2012 BMW 550i Sedan (F10) V8-4.4L Turbo (N63)

Vehicle > Technical Service Bulletins

N63 AND S63 ENGINE: VALVE SEAL REPLACEMENT

SI B11 08 15
EngineNovember 2017
Technical Service

N63 and S63 Engine: Valve Seal Replacement

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

This Service Information bulletin replaces SI B11 08 15 dated June 2017

What's New:

- Diagnostic tips updated

MODEL

F01 and F02 (7 Series Sedan) Produced from 9/2008 to 6/2012	F04 (ActiveHybrid 7) Produced from 4/2010 to 6/2012	F07 (Gran Turismo) Produced from 9/2009 to 6/2012	F10 (5 Series Sedan) Produced from 3/2010 to 7/2013
F12 (6 Series Convertible) Produced from 3/2011 to 7/2012	F13 (6 Series Coupe) Produced from 7/2011 to 7/2012	E70 (X5) Produced from 3/2010 to 6/2013	E70 (X5M) Produced from 3/2010
E71 (X6) Produced from 7/2008 to 6/2014	E71 (X6M) Produced from 3/2010	E72 (ActiveHybrid X6) Produced from 9/2009 to 9/2011	

SITUATION

Refer to the following applicable SIBs before replacing the valve seals.

- B11 07 11 - Turbocharger Failure: Oil Supply and Return Line Blockage and Proper Repair
- B11 07 12 - N63 Engine: Oil Consumption and/or Rough Running Complaints
- B11 01 13 - N63 Engine: Engine Oil Consumption, Engine Oil Top-ups and Refill Capacity
- B11 03 13 - Engine Oil Consumption (all models)

If the valve seals are leaking, one of the following will help determine if the seals should be replaced.

- Smoke from the tailpipe when starting or aggressively accelerating and decelerating the engine in addition to excessive engine oil consumption
- Spark plugs fouled with engine oil and excessive engine oil consumption
- Excessive engine oil consumption



All Vehicles:On vehicles, **where an excessive oil consumption between services is the only complaint**, a complete oil consumption test as described in SI B11 03 13, must be performed first before replacing the valve seals.

On vehicles exhibiting **reproducible smoking from the tailpipe when hot**, additional engine diagnostic steps (e.g. engine compression test, leak-down tests; inspection of the crankcase ventilation lines and turbo intake/outlet tubes for excessive oil accumulation) should be performed and documented prior to replacement of the valve seals, in order to eliminate other possible causes. Refer to the SIBs listed above for important diagnostic tips.

Do not remove the intake manifolds to clean the intake valve carbon.

PROCEDURE

If one of these conditions is verified, replace the intake and exhaust valve stem seals using special tool P/N 83 30 2 408 268.

 <p>GRUSB1115-11</p> <p>Open In New Tab Zoom/Print</p>	<p>N63 Valve Seal Replacement Tool Kit P/N 83 30 2 408 268</p> <p>Refer to SI B04 15 15 for additional ordering information.</p> <p>Attached to this bulletin is a replacement parts order form.</p>
 <p>GRUSB1116-01</p> <p>Open In New Tab Zoom/Print</p>	<p>N63/S63 Valve Seal Replacement Tool Update Kit P/N 83 30 2 443 944</p> <p>Oil return plugs (1) Brush (2) Valve seal install tool (3)</p> <p>Refer to SI B04 15 15 for additional ordering information.</p>

The attached valve seal replacement procedure supersedes the current version of the ISTA/D valve seal replacement repair instructions. **Do not remove the engine from the vehicle.**

Replace the engine oil and engine oil filter when the valve seal replacement is completed.

If the engine oil service task shows Recommended, Due or qualifies to be performed based on the "60-day Bundling" procedure (see SI B01 06 13.), reset the engine oil service CBS data to 100%. The video procedure for replacing the valve stem seals can be viewed via the TIS Website using the following path:

1. Select "Service Reference" from the top menu bar.
2. Select "Service Videos."
3. Select "General Search."
4. Select "[11] Engine" and "Submit."

Select "V11 04 15 May 2015 – "N63 Valve Stem Seal Tool Procedure"

PARTS INFORMATION

The parts information below only applies to the intake and the exhaust valve seal replacement. Refer to the ETK and the applicable repair instructions for one-time use fasteners and/or component information regarding additional or replacement screws, gaskets, and seals that need to be installed and claimed.

Part Number	Description	Quantity
11 34 0 039 494	Valve seal repair kit	2
11 12 7 566 281	Timing chain tensioner cover gasket	2
11 12 7 566 288	Cylinder head cover profile gasket (cylinders 1-4)	1
11 12 7 566 289	Cylinder head cover profile gasket (cylinders 5-8)	1
11 12 7 566 290	High-pressure pump profile gasket	2
11 36 7 564 346	VANOS central screws	4
11 42 7 583 220	Engine oil filter	1
13 53 7 584 315	Injector gasket ring seal	8
13 53 7 564 751	Injector decoupling element	8

Bulk Materials - Sublet

Part Number	Description	Quantity
83 21 2 365 946	5W30 BMW Engine Oil 1 liter	Up to 9.6 liters (E72, F04 8.5)
82 14 1 467 704	Antifreeze	See Sublet (1 Gallon)
83 29 0 429 576	Hydraulic fluid CHF 11 S (F01, F02, F04, F07)	See Sublet (up to 1)

1 Gallon Antifreeze = 2 Gallons at a 50/50 mixture solution.

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks or the BMW Certified Pre-Owned Program.

Note: The above procedure replaces performing and claiming labor operation 11 34 560, together with the corresponding "pre-work procedure" labor operations identified in KSD2 as applicable.

N63 Engine:

Defect Code:	1134064800	
Labor Operation:	Labor Allowance:	Description:
11 31 019	Refer to KSD2	Removing and installing or replacing all camshafts (Main work)

Or:		
11 31 519	Refer to KSD2	Removing and installing or replacing all camshafts (Plus work)
And:		
11 34 570	Refer to KSD2	** Replacing the valves seals using the attached procedure and BMW Special Tool 83 30 2 408 268
And:		
11 99 000	3 FRU	Work time to change engine oil and filter (If not due, see below*) in conjunction with this repair

Or, for the:

S63 Engine:

Defect Code:	1134064800	
Labor Operation:	Labor Allowance:	Description:
11 31 019	Refer to KSD2	Removing and installing or replacing all camshafts
Or:		
11 31 519	Refer to KSD2	Removing and installing or replacing all camshafts (Plus work)
And:		
11 99 000	88 FRU	Work time for replacing the valves seals using the attached procedure and BMW Special Tool 83 30 2 408 268 (85 FRU) and changing the engine oil and filter (If no due, see below*) in conjunction with this repair (3 FRU)

N63 Engine:

** The labor operation was changed from 11 99 000 to 11 34 570 and the corresponding number of FRU's was changed from 54 units to 85 units.

All Engines:

If you are using a Main labor code for another repair, use the Plus code labor operation 11 31 519 instead.

UPDATE! Refer to KSD2/AIR for the corresponding flat rate unit (FRU) allowances.

S63 Engine:

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.

BMW Maintenance Program

*If the vehicle has a "active" maintenance program and the "Engine oil" Service task shows "Recommended or Due" in the Service status field or it "qualifies" to be performed based on the "60-day Bundling" procedure (See SI B01 06 13), then:

- Perform the "Engine oil" Service task, and
- "Reset" the CBS data, then

Submit and claim the engine oil and filter "part numbers" under the BMW Maintenance Program.