

This Oil Filter Adaptor Kit, part number RH10003 KIT-2, is specifically designed for converting Rolls Royce six cylinder engines to accept a Bentley Standard Screw-On Oil Filter, part number 07V121717A, as fitted to later V8 engines up to 1998.

Suitable for 1955 - 1959 Silver Cloud, Bentley S type and derivatives.

Please read all instructions below before fitting this Oil Filter adaptor

# The Kit contains

Copper Washer CD 253
Rectangular Ring Seal RE 21265

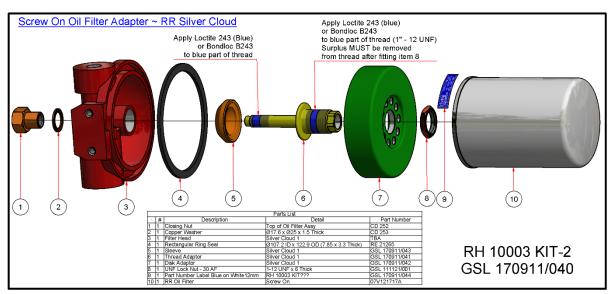
Sleeve GSL 170811/043

 Thread Adaptor
 GSL 170911/041

 Disc Adaptor
 GSL 170911/042

 UNF Lock Nut
 GSL 111121/001

 Oil Filter
 Bentley 07V121717A



## Note - High Oil flow

This filter system has been designed for filters with a 1"-12 UNF thread in order to maximise the oil flow without restriction to the lubrication system.

This system should not be compared with systems, which use spin on filters with smaller threads. These smaller thread filters will restrict some of the oil flow and will have an adverse effect in the long term of excessive wear and contamination within the engine.

## **Preparation**

Ensure that the area around the original Oil Filter Housing is clean.

Drain the engine oil.

Remove the Closing Nut, Filter Can, Filter and Rectangular Seal.

## **Clean Installation Area**

Before fitting the new Assembly, clean the installation area, the groove for the Rectangular Seal and ensure that the 1/2"–20 thread in the Closing Nut (CD 252) is clean and not damaged.

## Install the Sleeve (item 5) & the Thread Adaptor (Item 6).

Apply Loctite 243 or Bondloc B243 thread locker to the small thread of the Thread Adaptor,

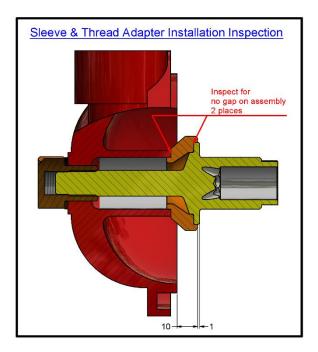
as indicated in the picture above.

Locate the Sleeve on the Thread Adaptor. The flange of the Thread Adaptor must fit **inside** the recess of the Sleeve.

Insert this assembly, as far as possible, onto the original Filter Head (item 3) until the location spigot of the Sleeve fits inside the opposing part of the Filter Head.

With this assembly held in position, as above, install the Copper Washer (item 2) onto the 1/2" thread of the Thread Adaptor and screw the Closing Nut (item 1) onto the same thread until it is finger tight.

Check that the Sleeve is the right way round and that there are no gaps between the Thread Adaptor, the Sleeve and the Filter Head. These faces must make a full contact – see the picture of the *'Sleeve & Thread Adaptor Inspection'* below.



If this operation cannot be implemented by hand without the use of a spanner or socket, remove all components and rectify the damage to the 1/2"–20 UNF thread in the Domed Nut.

This thread must be in a good condition to accept the Torque load, as specified below. If this thread has excessive damage, do not fit this Adaptor Kit. The Domed Nut must be replaced or the thread repaired with suitable Helicoil Insert

Install a calibrated Torque Spanner with a 24mm AF or 15/16" AF Socket Spanner onto the hexagon of the Closing Nut (item 1).

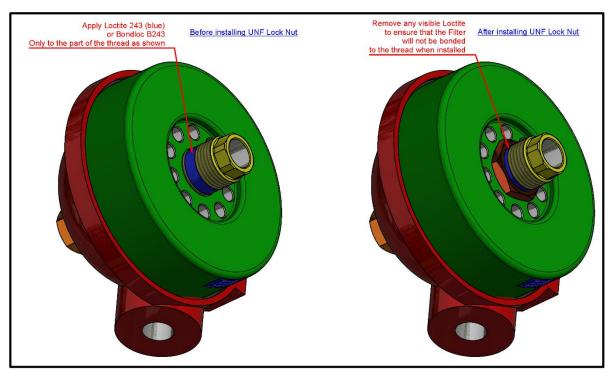
Apply a <u>maximum torque</u> of 50Nm to the Domed Nut. IF THIS TORQUE VALUE IS EXCEEDED, THE THREAD ADAPTOR AND / OR THE FILTER HEAD AND / OR THE DOME NUT WILL BE DAMAGED BEYOND REPAIR.

# Install a new Rectangular Ring Seal (item 4).

Fit a new Rectangular Seal (item 4) into position in the Filter Head, making sure that it is correctly seated in a clean groove. Do not use the old seal.

# Install the Disc Adaptor (Item 7).

Place the Disc Adaptor onto the Thread Adaptor as shown in the picture below and engage completely into the Rectangular Ring Seal groove.



#### Install the UNF Lock Nut (Item 8).

Apply Loctite 243 or Bondloc B243 as indicated by the Blue area on the left hand of the picture above.

Install the UNF Lock Nut onto the Thread Adaptor and lock in position while rotating the Disc Adaptor to ensure correct seating onto the Rectangular Ring Seal, see the picture above.

Use a 30 AF Socket Spanner, which is deep enough to completely cover the hexagon of the 6mm thick UNF Lock Nut.

Apply a <u>maximum torque</u> of 45Nm to this Lock Nut. IF THIS TORQUE VALUE IS EXCEEDED, THE UNF LOCK NUT WILL BE DAMAGED BEYOND REPAIR.

Make sure that there is no Loctite or Bondloc visible on the Thread Adaptor or the outside of the UNF Lock Nut. This could bond the Filter to the new system.

There must not be any Loctite or Bondloc on the portion of thread where the Oil Filter is installed.

# Oil Filter (Item 10).

Apply a thin film of engine oil onto the Oil Filter Sealing Ring.

Screw the Oil Filter (item 10) onto the Thread Adapter until the seal contacts the Disc Adapter. Note – there is an alignment diameter as part of the hexagon on the end of the Thread Adapter to aid alignment for ease of engaging the Oil Filter thread.

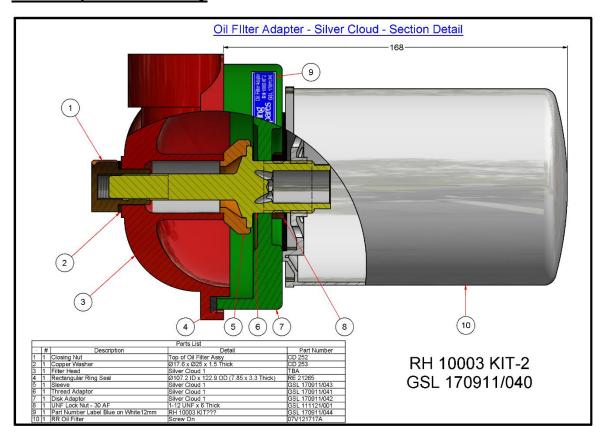
Check that the Oil Filter has more than 3.5 turns of engagement on the Thread Adapter

If less than 3.5 turns, there is an assembly error. Check the installation.

Turn the Filter by hand through a further half turn.

## Do Not Overtighten.

## **The Completed Assembly**



#### **After Installation**

Fill the sump with the correct engine oil. Start the engine and check for leaks. On completion check the Oil Level.

## Oil Filter change

Change the engine oil and filter as specified in the manual or at least once per year