

Wabco Air Suspension Compressor Piston Ring Seal Replacement Repair

by **x8r** on April 2, 2014

Intro: Wabco Air Suspension Compressor Piston Ring Seal Replacement Repair

It is very common that the piston ring seal within the Wabco compressor wears down reducing compressor performance leading to noisy, slow rising or even inactive air suspension.

This affects all models using this Wabco compressor including:

Audi allroad C5 models 2000-2005 C6 model 2006-2011
Audi A8, D3, 4E models between 2002-2010
Audi Q7 2005-2013
BMW X5, E53 2000-2006
BMW 5 Series E39 1997-2008
BMW 7 series, E65 chassis 2002-2006
Jaguar XJ series models between 2003-2010
Landrover Discovery II models between 1998-2004
Land Rover Range Rover MK 3 - L322 between 2002-2005
Mercedes S Class 1998-2005 (w220)
Mercedes E Class 2002-2009 (w211)
Porsche Cayenne models between 2002-2010
VW Touareg 2002-2010

The following guide explains how to resolve these problems by installing our piston seal replacement kit available from X8R Ltd. For instructions guiding removal of the compressor from your vehicle please check out our other Instructables.



Step 1: Remove head

Clean the outside of the compressor to stop any debris entering the internals of the compressor.

Using a T30 Torx remove head bolts and remove head. If the bolts are seized or appear rusty apply WD40 to the bolts and threads, allow time to work then remove bolts. On some vehicles there is a temperature sensor fitted on one of the head bolts; remove this and remember to refit when refitting head later on.



Step 2: Replace seal

Remove old seal from inside of head, clean groove and mating surfaces and replace with the correct seal from our kit, please note some compressors use an O-ring seal others use a shaped seal, we include both in our set, you only need to use one of these. Check cylinder for any damage; the cylinder is tapered, check for dents or scratches these can significantly reduce the life of replacement piston seals.



Step 3: Fit new piston seal

Note position of existing piston ring and fitment around timing pin and remove ring. Clean piston and piston ring groove and fit new piston ring in the same position as the old ring; fitting around the timing pin, compress ring in hand to ensure correct operation.



Step 4: Refit compressor head

Clean all mating surfaces and refit head. Install our new bolts applying a little lock tight to the threads. Refit temperature sensor if one was fitted.



Step 5: Test compressor output

It is good practice to bench test the compressor before refitting to the vehicle. From the compressor you will see two wires One Red and White and One Brown. Connect the Red and White wire to the positive terminal of a 12v car battery and the Brown wire to the negative terminal. This will allow the compressor to run, check output of compressor if producing good output install has been a success and you can now proceed to refit to your vehicle.

