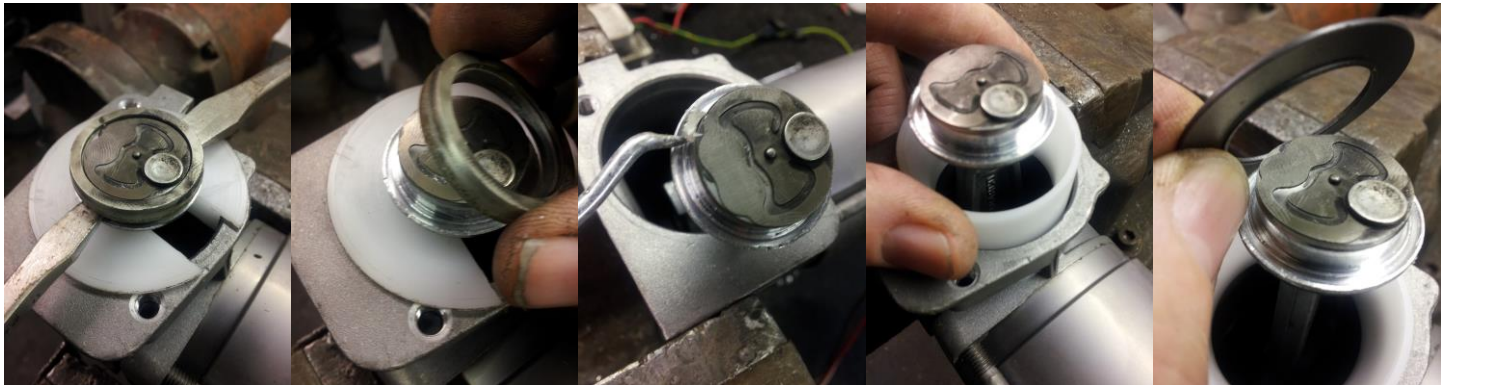
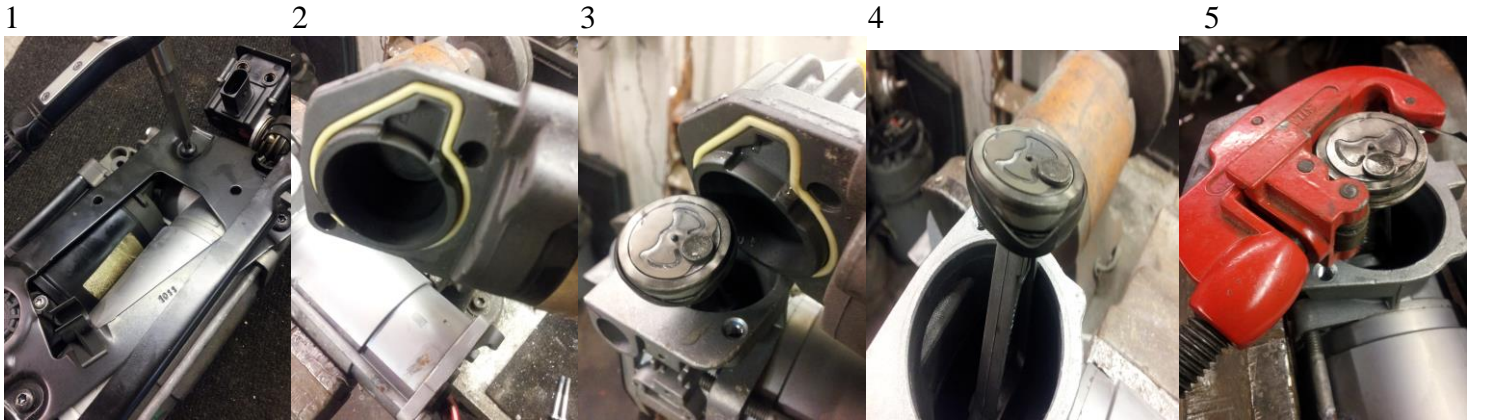
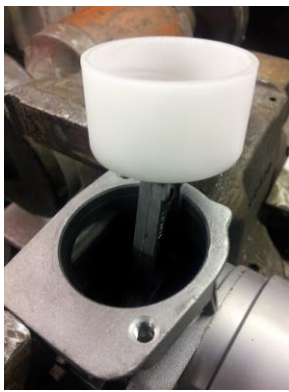


# BMW 5 7 Series Wabco Air Compressor Piston Seal & Air Dryer Filtration Repair Kit Fitting Instructions

Please work from left to right starting with the top row and refer to guidance notes



16 17 18 19 20



21



22



23



24



25



26



27



28



29



30



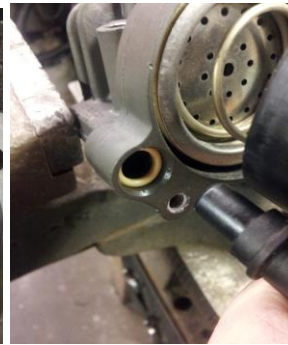
31



32



33



34



35



36



37



38



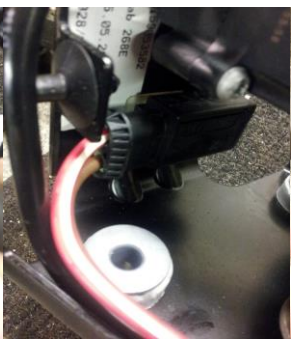
39



40



41



42



43



44



45

## Written Procedures

- 1 Take pictures of your units wiring and pipe routing e.t.c
- 2 Disconnect air pipe at the back
- 3 Disconnect Larger Pipe at the back
- 4 Remove Tie Wraps securing wiring and air pipe along chassis
- 5 Turn electrical main connector 1/4 of a turn and remove from its seating
- 6 Remove 4 off T30 Torx Screws from back chassis plate
- 7 Remove 2 off T25 Torx screws securing cylinder head assembly together air dryer chamber
- 8 Lift off cylinder exposing piston con rod and worn seal together with air dryer chamber
- 9 Pictures 8 & 9 illustrate the damage piston seal
- 10 Picture 10 shows the removal of the seal clamp ring using a plumbers pipe cutter which locates between the clamp ring and the area were the old seal is located ! ideally cut away the old seal using a stanley knife first before using this type of tool or if you do not have a suitable plumbers pipe cutter cut out as much of the old seal as possible in the positions were the 2 screwdrivers are located ! then fit the con rod support disk as pictured in picture 11 ! position the disk slot 90 degrees to screwdrivers / wedges making sure the piston con rod is fully down in the motor body and supported correctly with the support disk.
- 11 Using different wedges or various screwdriver blade sizes ! tap a wedge in one side of the clamp ring and at the same and in the same plain as pictured with the screwdrivers whilst supporting the opposite side with a block of hard wood.Gently working from one side to the other pry the clamp ring upwards until you can get 2 screwdrivers in at each side as pictured and slowly pry the clamp ring up evenly with the screw drivers and lift off the clamp ring picture 12.
- 12 Remove the old seal
- 13 Clean out the groove in picture 13.
- 14 Place the white pre form tool over the con rod and allow to rest in the motor crankcase ensuring the larger part of the tapered bore inside is positioned at the top.
- 15 Fit your new piston seal on the piston head and ensure the step lip on the seal is facing downwards and located in the groove on the piston head and that the flat style piston seal is fully seated .
- 16 Place a little loctite on the inside of the clamp ring for added security .
- 17 Using a socket of similar circumference to the clamp ring fit the clamp ring whilst supporting the underside of the piston head by tapping down on the socket, which in turn forces the clamp ring to be pressed on top of the new seal securing it ! you should not be able to turn your new seal if the clamp ring as been fitted correctly.
- 18 Apply a little lube grease supplied in the kit to the underside circumference of the new seal .
- 19 Position the preform tool as per picture 19.
- 20 Using reasonable upward pressure pull up the pre form cylinder until the seal shape is formed ensuring the pre form tool is kept horizontal and square at all times ! do not allow the pre form tool to slip out of the other side, If the preform tool slips off by mistake turn it upside down and refit it back over the seal .
- 21 Leave pre form tool in situ until you have completed fitting the air dryer filtration kit picture 21.

### **Air Dryer Filtration repair kit installation**

- 22 Remove the 2 long t30 torx bolts securing air dryer chamber to cylinder
- 23 Separate air dryer chamber from cylinder noticing the large spring and its orientation.
- 24 Remove the black plastic retainer disk.
- 25 Remove the old top filter pad.
- 26 Tip out the old granules into a dish/bowl
- 27 Pull out the 2nd old filter pad in the bottom of the chamber and clean and dry out the chamber.
- 28 Fit the 1st new filter pad in the bottom of the chamber.
- 29 Tip the new filtration granules into the chamber until the level is around 5mm from the top of the clear chamber liner.
- 30 Fit the last filtration pad on top of the granules .
- 31 Refit the black retaining plate.
- 32 Make sure the retaining plate is secured properly and no granules can escape or be seen in any shape or form.
- 33 Fit the new shaped oring around cylinder base.
- 34 Make sure the small white oring is still positioned in the hole ready for the air dryer chamber spigot .
- 35 Refit the large spring and push together the cylinder & air dryer chamber until they are located .
- 36 Whilst holding the cylinder together with the air dryer chamber ! refit the 2 long securing bolts and tighten.

37 Remove the white preform tool from the piston seal and quickly fit the cylinder over the seal gently locating the seal into the taper part of the cylinder ! if you need more time to locate the cylinder due to the seal returning back to its flat form !refit the pre form tool over the seal as previous you will need to turn the pre forming tool upside down to refit it back on .

38 Once you have located the new seal and piston head in the cylinder ! secure the new cylinder with the 2 retaining bolts .

39 Refit the chassis and 4 retaining bolts

40 Refit the rear air pipe taking care not to cross thread .

41 Refit the large rear vent pipe

42 Refit the electrical connector to the chassis plate

43 Refit the air pipe to the solenoid connector

44 secure the electrical wiring harness and air pipe with tie wraps

45 Compare the overall assembly with the pictures you have taken at the beginning to ensure all components are located correctly .

Thank you for purchasing a **4x4AirSeal Product**.