Mercedes Benz OM642 V6 Diesel Intake Inlet Manifold Swirl Flap Repair Connecting Runner Rod Fix Kit Install Instructions Guide

by x8rltd

Symptoms

Poor idle, power loss, engine management light lit, failed emissions test, delayed acceleration.

Fault codes P2006 (bank 1 runner flaps/P2007 bank 2 runner flaps), loss of low-down engine torque, rod broken or lifted upon physical inspection.

Fault

A rod on the intake manifold wears and fails causing vehicle faults

Mercedes OM642 V6 vehicles suffer issues with the intake manifold, the swirl flaps within this manifold are controlled by an external operating rod. This is made of a poor-quality plastic which wears prematurely.

Swirl flaps are designed to aid with low down torque and fuel economy. Over time the plastic wears at the connection points with the manifold, creating an oval shape which eventually lifts up the rod leading to breakages causing the faults noted above.

A physical inspection of the intake manifold will quite often show that the rod has snapped in half. The wear is caused by the plastic being the wrong specification for this task, it cannot deal with the heat and constant mechanical motion involved.

These intake manifolds can also get severely clogged up with carbon deposits which can lead to the swirl flaps becoming harder to move which in turn leads to more stress on the motor and rod.

You can ordinarily identify this issue by removing the engine cover and inspecting the intake manifold, often the rod is snapped or you can test the excess play in the rod linkage.

Solution

Install our replacement aluminium rod and restore your manifold.

Our repair kit is the best solution to this fault. The manufacturer will advise to replace the entire intake manifold (£600+). The new manifold would come with the same plastic rod attached which will lead to the same problem further down the line.

In the case of this engine, there are two intake manifolds, each with a rod, so to replace both will cost a small fortune, especially as its generally just the rod that needs replacing.

Our kit comprises of an aluminium rod machined from billet aluminium and anodised. It will not snap like the plastic versions and is designed to cope with the sustained heat and movement experienced during operation.

Our rod comes complete with anti-friction adaptors, these interact with the plastic bushes of the rod and the plastic of the manifold connections, this means there is plastic on plastic operation, our anti friction adaptors allow easy slip and protect from wear. Not a metal on plastic operation which would ultimately fail. A far superior improved design and material part.

Our part features sensor pick-ups. Some manifolds

have a position sensor on the plastic rod, failure to replicate this in a replacement rod will throw up errors. Our rod has this feature built in so can be a straight swap. Our rod will work with manifolds both with and without sensors.

Vehicles affected

This list is for guidance only, and may not be a complete list of vehicles with this engine. We have taken measures to ensure that all the below cars have compatible manifolds but you are best to check before purchasing.

You can check here: https://nemigaparts.com/cat_spares/epc/mercedes/

Find your model, click Engine, click Intake and Exhaust Manifolds. You can then check the part number corresponds to the ones in this listing.

You can also visually inspect the manifold by removing the engine covers to confirm compatibility.

Please note our rod will replace rods both with and without sensor pick-ups. Will fit both.

Our rod will also fit both intake manifolds on these vehicles Left and Right hand side.

Mercedes Benz:

C Class:

W203 C320 CDI (2005–2006)

W204 C320 CDI (2007-2009)

W204 C350 CDI (2009–2014)

W204 C350 CDI Blue Efficiency (2009-2011)

E Class:

W211: E280 CDI (2005-2009)

W211: E300 BlueTec (2006-2009)

W211: E320 BlueTec (2006-2009)

W212: E300 CDI Blue Efficiency (2009-2016)

W212: E350 CDI Blue Efficiency (2009-2016)

W212: E350 Bluetec (2009–2016)

W213: E350d (2016-2018)

S Class:

W221: S320 CDI (2006-2008)

W221: S320 CDI Blue Efficiency (2008-2009)

W221: S350 CDI Blue Efficiency (2009-2013)

W222: S350 BlueTec (2013-2017)

G Class (W463):

G320 CDI (2006–2018)

G280 CDI (2010-2018)

G300 CDI (2010-2018)

G350 BlueTEC (2010-2018)

G350 CDI (2009-2018)

GLK Class (X204):

GLK 320 CDI (2008-2009)

GLK 350 CDI (2009–2012)

GLK 350 CDI Blue Efficiency (2012-)

R Class (W251):

R280 CDI (2007–2013)

R300 CDI (2007–2013)

R320 CDI (2007–2013)

R320 Blue Tec (2007–2013)

R350 CDI L (2007–2013)

ML/GLE Class:

W164: ML320/350 CDI/Bluetec (2009–2011)

W166: GLE350 BlueTEC (2012-2019)

GL Class (X164):

GL350 CDI (2009)

GL350 CDI (2010-2012)

GL350CDI BlueTec (2009-2012)

CLS Class:

W219: CLS320 CDI (2005-2010)

W219: CLS350 CDI (2007-2010)

W218: CLS350 CDI BlueEfficiency (2011-2014)

W218: CLS350 BlueTec (2014-2017)

Vito/Viano (W639):

Vito 122 CDI (2010-2014)

Vito 122 CDI Blue Efficiency (2010-2014)

Vito 3.0 CDI (2010-2014)

Vito 3.0 CDI Blue Efficiency (2010-2014)

Sprinter (2006–Present) (W906):

218CDI, 318CDI, 418CDI, 518CDI (2006-2014)

219 CDI BlueTec, 319CDI BlueTec, 519CDI BlueTec (2014-)

NOT COMPATIBLE WITH Sprinter Gen2 NCV3 OM642 3.0L V6 (2007-2009).

Please check your intake manifold rod to make sure that it has a sensor pickup point at either end of the rod (facing opposite ways). If it has sensors back to back at one end of the rod, this option is not compatible with our kit.

Other Mercedes classes:

C209: CLK320 CDI (2005-2010)

C253: GLC 350 d (2016-present)

Other makes using OM642 V6 engine:

Chrysler 300C 3.0L diesel (2006-2011) (Europe and Australia only)

Jeep Cherokee WK (3rd gen) 3.0L diesel (2005-2010 Europe, 2007-2009 N America)

Jeep Commander XK 3.0L diesel (2006-2010)

Associated part numbers (compatible manifold):

A6420905437, A6420907737, A6420905037, A6420903237, A6420905137, A6420907037, A6420900837, A6420901137, A6420901237, A6420902637, A6420903337, a6420901337, A6420905437, A6420900537, A6420902337, A6420903537, A6420901537, A6420903737, A6420906637, A6420906537, A6420908337.

https://youtu.be/miGuRk8MfnU

Step 1: Remove Original Rod

There are 3 clips which retain the rod to the manifold.

Position a thin flat head screwdriver under the head of the clip and lever it upwards and out of its position.

Repeat this for the three clips and the rod will lift away.



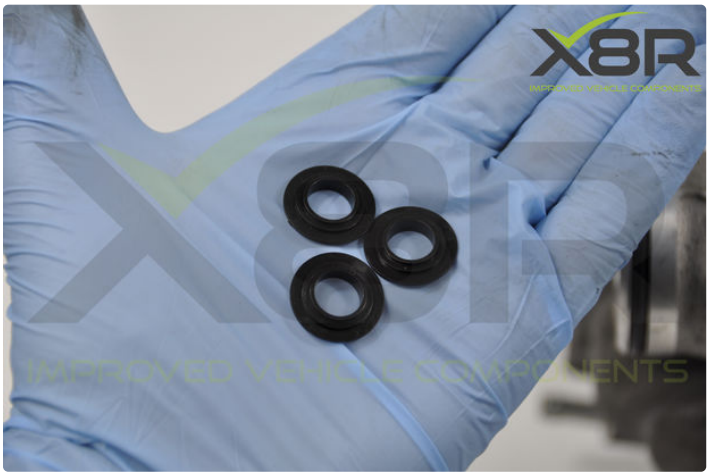



Step 2: Install Anti-friction Adapters

Clean the rotating arms of any debris.

Install the anti-friction adapters. These have one side which is stepped in design and this goes downwards into the recess on the rotating arm. Please see images for clarity. This orientation is essential.

Lightly grease all faces of these adapters.




Step 3: Fit New Rod

Push our new rod on to the anti-friction adapters. Align the 3 bushes on the rod on to these adapters and push in to position.

Step 4: Fit the Retaining Clips

Fit the new retaining clips into position. This is a simple push fit design. Use your hand to stabilize the rod and then fit the clips.

Step 5: Repair Complete

With the new clips installed that is the repair complete. You should notice a lot less "play" in the rotating arms and the movement should feel more solid.

Test the function of the rod to make sure everything is ok.

Before refitting to the car, it is a good idea to clean up the manifold to remove carbon deposits as much as possible, especially from around the swirl flaps themselves as this is where it can get very clogged up.

This completes the repair. If you need any further guidance on this install or would like to purchase the parts shown please call us on +44 01843 446643 or email us at sales@x8r.co.uk. Please also check out our instruction guide on YouTube. www.x8r.co.uk

Installation is carried out at installers risk, if unsure please contact us or a professional, X8R Ltd cannot be held responsible for any adverse result of installing this product or any injuries caused by install, if in doubt ask a professional.