

Hepco & Becker Engine Bars for BMW R1150GS

Fitting Instructions

Hepco & Becker engine bars are an excellent product and one of the best sets of bars available for the BMW R1150GS. However, they are not a perfect fit and require patience and a bit of muscle to get them right. Also, it is possible to get into difficulty with alignment of the bolt through the rider's footrest hanger and gearbox housing. For this reason, the manufacturer's clearly post the following warning:

Do not loosen the right hand side and left hand side rear attachments at the same time, otherwise there is a danger of the rear subframe dropping.

So, fit one side of the bike at a time!

Before you start

You will need just a few tools for the job:

- The bars and fitting kit (bolts, washers, spacers)
- 6mm and 8mm allen headed sockets (do not be tempted to use allen keys)
- Socket wrench and short extension bar
- Trolley or bottle jack or some sort of axle standard
- Torque wrench (this is not essential)
- A lubricant such as Copper-ease
- 2 to 4 spare 65mm long M10 bolts (this is a precaution not a necessity: they can be regular hexagon headed and do not have to be recessed allen headed)

It is strongly recommended that you have a spare pair of (strong) hands to help you, but it can be done on your own.

You will need to remove your Baglux tank cover if you have one.

The job should take no more than 1 hour per side and can be completed in as little as 30 minutes total if all goes well. However, it is best to allow up to 4 hours in case of difficulties. Read all the instructions first to familiarize yourself with the job.

The fitting kit

The fitting kit that comes with the bars consists of the following:

- Four 65mm long allen-headed bolts (requiring an 8mm allen key/socket)
- Four large washers
- Two smaller washers
- One M8 self-locking nut and bolt
- Two 18/11 x 12mm long alloy spacers
- One 18/11 x 20mm long alloy spacer
- One 18/11 x 17mm long alloy spacer

Preparation for fitting

The bars can be fitted without removing the tank but it must at least be moved backwards a few inches. This is very simple. However, the job is much easier if you can remove the tank entirely. These instructions assume that you have not done this and will simply slide the tank backwards.

- 1) Place the bike on its centre-stand and remove both seats from the bike
- 2) Remove the black plastic cover level with the bottom of the tank on the right hand side of the bike. This is a push fit with three male/female joints and simply pulls off.
- 3) Undo, remove, and put to one side the bolt and nut holding the tank in place (this is not a fixed nut – don't let it drop into the bowels of the bike)
- 4) Gently lift the rear end of the tank and slide it backwards until the brackets on either side (under the tank) clear their holders. If you've never done this before, don't worry, it'll be clear what is meant once you start. The tank can now be held either side and moved as desired backwards a few inches or twisted slightly to allow access for the front fixing bolt. Remember: the fuel lines are still attached, so don't try to move it too far! It's OK to rest the tank gently on the fuse boxes but it's best if the tank is not full with petrol!

It is now easier to appraise the situation, in conjunction with the Hepco & Becker diagram that came with the bars. There are three fixing points per side. It is impossible to get the wrong ones!

Fitting the bars

Fit one side at a time.

Offer up the bars to the bike to see more clearly how they fit.

Remove the three existing bolts one side of the bike first.

The front fixing position uses the original 6mm allen headed bolts that hold the instrument panel subframe to the main frame. This bolt is obscured by the tank, but with the tank moved backwards slightly and twisted a little the bolt can be accessed without complete removal of the tank.

The middle fixing position involves replacing the original allen-headed M10 bolt with one of the longer bolts. The bolt is situated just below the level of the tank, above the injector and air intake assembly and partially obscured by black plastic injector pipes. It fits into a recessed hole within the black tubular bike frame. For this reason, when you fit the bars you will need to put one of the 12mm long spacers into the recess and use a washer between the bolt head and the bars themselves. *There are two identical 12mm spacers in the fitting kit – these (short) spacers are for the right and left middle fixing positions.*

The rear fixing position involves replacing the original allen-headed M10 bolt with one of the longer bolts. The bolt is situated at the top of the diamond-shaped rider's footpeg hanger and is conspicuous because it goes through this hanger, through the black tubular bike frame that supports the seats, and into the gearbox housing. This is an awkward bolt to remove and replace. *Once you have removed this bolt*

you are committed. The bolt is under a lot of pressure laterally from the weight of the components it holds together. Removing it can be difficult and it will feel as if it's not turning smoothly. Do not be surprised if this bolt has been loctited in and is very stiff to shift. Do not worry though, your bike will not suddenly collapse when it is removed – *providing you do not remove the other side at the same time!* The original bolt is recessed into the footpeg hanger. This recess is filled by the longer 20mm spacer on the left side of the bike (the exhaust side) and by the 17mm spacer on the right side (the footbrake side). Again, use one of the washers between the bolt head and the Hepco bars.

Fitting is a matter of offering up the bars and refitting with new bolts, spacers (where needed) and washers. The sequence of fitting can be quite important:

- 1) Lubricate the bolt threads with copper-ease or similar.
- 2) Try fitting the middle bolt first, but do not tighten fully
- 3) Then fit the front, upper bolt that is hidden by the tank (If this proves too awkward then reverse this procedure and fit the front upper bolt first)
- 4) Do not fully tighten either of these bolts
- 5) Fit the rear lower bolt to the footpeg hanger last as the bar end here is the most pliant and with two pairs of hands can be held in place whilst fitting. *(First see the note below)* It is also the most accessible. Do not be surprised if the eyelet on the bars for this bolt seems to be an inch or two out of alignment! In the worst instances you will need to lever this section of the bars back using a strong bar placed between the H&C bars and the cylinder head to achieve vertical alignment and/or push/pull the arm of the bar down or up to get horizontal alignment – this is where the spare pair of hands comes in useful.
- 6) When all three bolts are partially tightened, fully tighten the rear bolt first. Then tighten the other two.
- 7) Now do the other side.
- 8) Finally, join the two sides of the bars together at the front with the nut and bolt

Warning: the Rear Bolt

As soon as you remove the original bolt from the footpeg hanger, the rear subframe will sink very slightly. This can make fitting the new bolt virtually impossible and any attempt to do so without correct alignment will result in stripping the threads of the new bolt. Before attempting to fit the bars, but after removing this bolt, use a torch and/or some sort of drift (a small screwdriver or a small allen key) to ascertain whether there is anything obstructing easy tightening of the bolt. If the subframe has dropped fractionally then you need to jack-up the rear of the bike. The simplest method is to use a trolley jack or bottle jack with a wooden block or brick under the rear pillion footrest. You only need to raise the subframe a millimeter or two; don't go too far the other way. Check with the torch/drift that the subframe is no longer obstructing the hole. Lubricate the bolt and try to make sure you keep it parallel to the sides of the hole. Once it is engaged with the threads of the gearbox housing you can use a socket to tighten it. Any excessive resistance at this stage is an indication that the bolt is rubbing against the hole in the subframe and the threads will be stripped very quickly. Be patient!