AHH7217Q
Adjustable Damper Valve
for Armstrong Lever Arm Dampers

Suitable for: MGA, MGB, MGC, Midget, Z & ZB models, Morgan, Aston Martin DB2/4, DB4 DAS 12's (not for Armstrong Selectarides) and Triumphs

These valves offer the user the ability to make their lever arm dampers adjustable and to change the lever arm damping characteristics. The adjustable element is a needle valve allowing oil bypass. Considering the 8mm hex', fully anticlockwise is full soft and fully clockwise closes the bypass bleed and hence is the stiffest setting. Like all needle valves its best to turn the adjuster fully clockwise and then count the number of turns back from this position. We recommned that to begin the valves be set to their half-way position. These valves use a shim stack much like modern racing dampers. In this application it allows the damper to be far more progressive and have a smoother characteristic than the standard valve which worked on a fixed bleed and total blow off coil spring valves. The valves alone do not improve the inherent deficiencies in lever arms, nor do they overcome the issues relating to age and degradation of lever arms.

Disclaimers.
Adding performance to any old bit of technology (Armstrong Lever Arms) can result in possible failure. This is the same when tuning any part for greater performance. These parts have previously been used in racing applications where these considerations are a given. This part has not been tested extensively for normal road use, though there is good feedback from owners. It is suggested that any Armstrong lever arm damper these are fitted to need to be in good condition and must use standard SAE20 viscosity hydraulic oil (Typically Motorcycle fork oil). So far there has not been extensive testing of the longevity of these valves but there is high confidence in their longevity.

Additional items

GSA001	Damper Cork Gasket Kit MGA, MGB, ZA & ZB (Comprises car set front & rear gaskets)
GSA002	Damper Cork Gasket Kit Midget (Comprises car set front & rear gaskets)
GSA2BA	Replacement Armstrong Damper Lid Screws
1747	Castrol Classic TQF SAE20 Oil

8mm Hex, turn anticlockwise to soften. [Clockwise to Stiffen]

From https://www.mgexp.com/article/refreshing-your-mgb-armstrong-shocks.204

Refreshing your MGB (& Morgan) Armstrong Shocks

This article is to walk you through refreshing the oil and operation of the Armstrong hydraulic lever shocks on the front of your MGB (or Rear Morgan). I have done the front ones for the photos and descriptions but I am sure you can take the information and apply it to the rears also. I found significant deposits of zinc from the years of use that I rinsed out with the flushing of oil as Peter Caldwell directed. Hopefully this will cushion your drive a bit!

Written by: Michelle Pierce
Material contribution: Peter Caldwell

In order to complete this process, you will need to remove the shocks from the car. In my steps I am refreshing the front shocks, the shocks were removed while disassembling the front suspension for a rebuild.

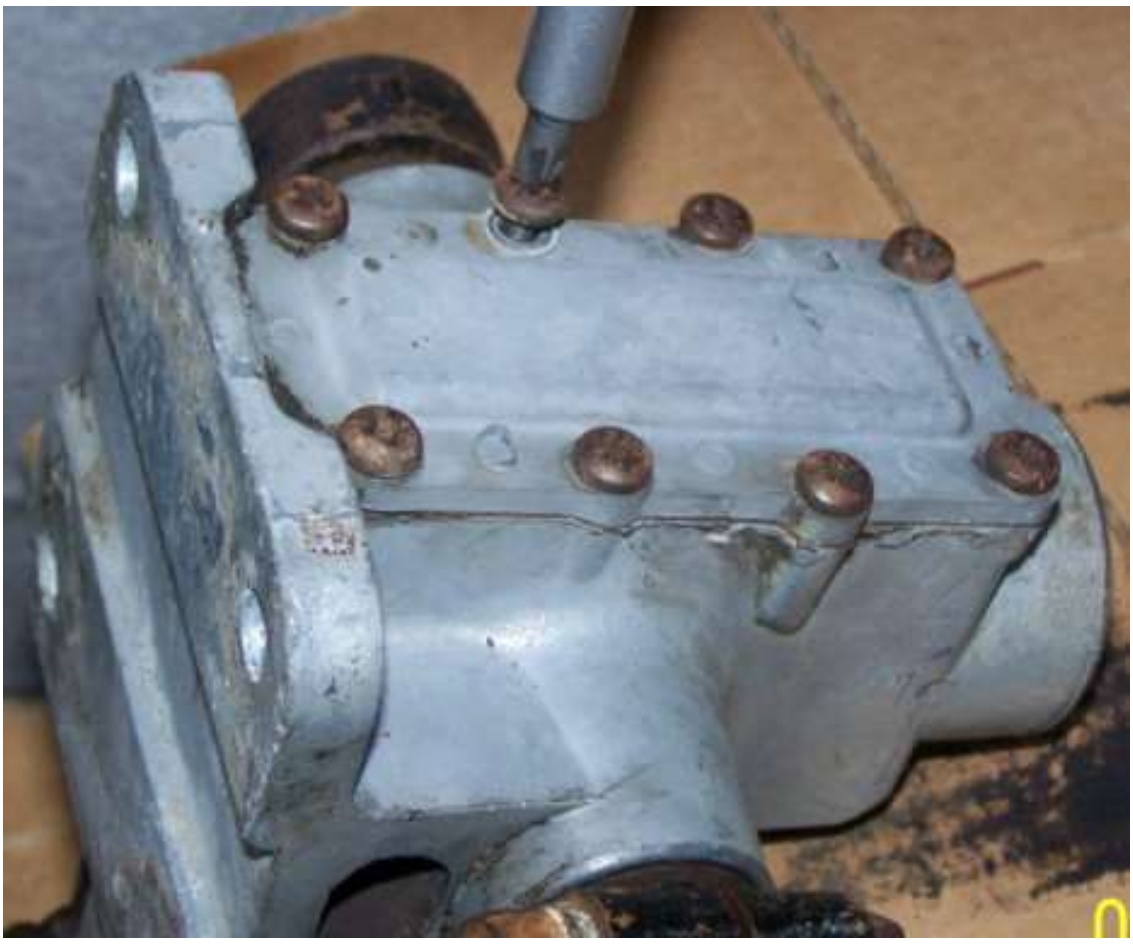
Tools needed:

- Oil drain pan
- Phillips screwdriver
- 7/8" socket and driver
- 20W Motorcycle/ATV oil (or whatever you choose to use - hot topic!)
- Small funnel

Find a clean worktop area or set up a spare piece of plywood on a couple of sawhorses if you don’t wish to cover your workspace permanently in oil. For my purposes I used a spare piece of plywood tucked into some extra garbage bags (to preserve the wood) and placed on top of two sawhorses.

Step 1: Remove the 8 screws (front, 6 rear) and carefully remove the gasket.

You'll want to save the gasket. Since you will be reusing it during the reassembly process.



Removing MGB Lever Shock cover screws

Removing MGB Lever Shock cover gasket

Step 2: Remove the valve assembly, using a 7/8" socket. You will end up with the threaded plug, an inner valve assembly / spring / pin assembly, a larger spring, and likely a shim washer or three.

Removing MGB Lever Shock valve assembly

MGB Lever Shock valve assembly, removed. Here is a photo of the lever shock valve and piston assembly, courtesy of Peter Caldwell:

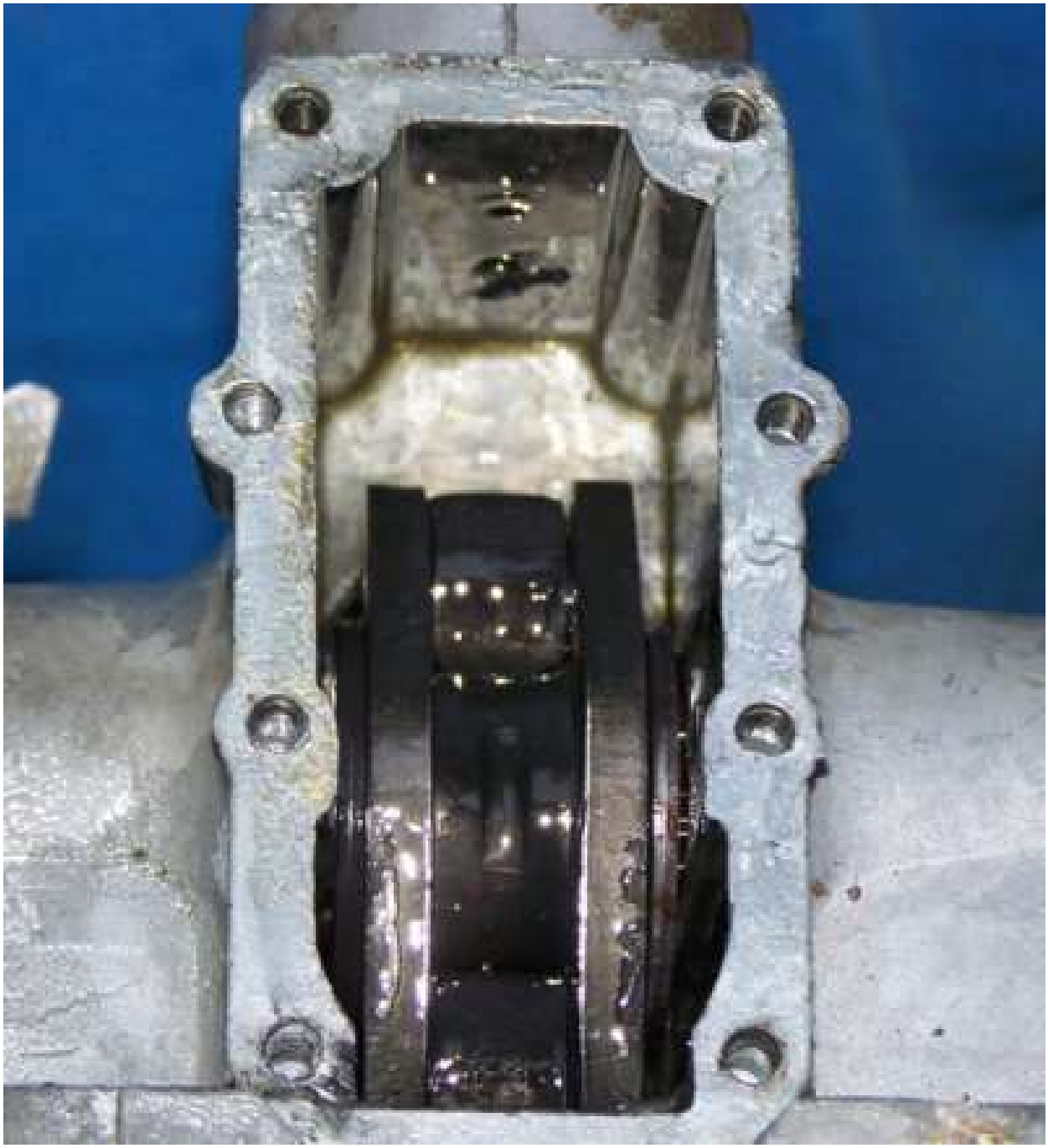
Below is the adjustable valve (AHH7217Q) that is a direct replacement of the original valve.

Step 3: Hold over your oil drain pan, invert and drain everything.

Then, rinse in fresh oil. Use engine oil, it is cheaper than shock oil (barely now a days). You should NOT use any type of solvent for rinsing the chamber. Most likely you will notice significant deposits of zinc along the shock base near the gasket. I rinsed mine until the majority of the zinc had passed through.

Draining oil from MGB lever shock

Rinsing lever shock with fresh engine oil



Zinc deposits along lever shock base

Step 4: Next you are going to refill the shock chamber using (in order of preference) 20W motorcycle/ATV fork oil, hydraulic ram oil (for snowplows, etc; or from farm stores, AWE68 oil), hydraulic jack oil, or straight 20W engine oil. For this step you should not need a funnel but for the topping off later on you will want one handy.

With the shock gasket surface uppermost, add oil to just below the gasket surface. To hold the gasket in place prior to reinstalling, use a little bit of RTV on the gasket, and install the lid with the screws. DO NOT MOVE THE ARMS.

Refilling MGB Lever Shock with fork oil

Replacing lever shock gasket and cover

Step 5: Now, invert the shock so that the valve opening is uppermost. You'll want to practice how you'll hold the shock beforehand, as it is at an odd angle. Add oil into the hole moving the arms slowly through their full range always keeping the opening full.

You'll note bubbles, when they finally disappear, you are done.

Working shock levers through full range

Topping up Armstrong lever shocks through valve opening

Step 6: Insert the new valve assembly. Don’t worry if some oil overflows from the shock when you insert the valve, it is normal and is only removing what needs to go. Tighten valve assembly.

Replacing stock valve assembly in MGB Lever Shock. Use same technique with the adjustable valve.

Step 7: Invert the shock to its normal in-use position, and you're done. Wipe everything off. Use your brake cleaner. Dry and paint.

MGB Armstrong Lever Shock, Before and After Refresh:

MGB Armstrong Lever Shock, Before

MGB Armstrong Lever Shock (Front), Refilled and Painted Like New

— Refreshing your MGB Armstrong Shocks —
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