

[For illustrations, see rearsus1.jpg and rearsus2.jpg]

From: Glenn Archer <[glenn@braunstone5.freemove.co.uk](mailto:glenn@braunstone5.freemove.co.uk)>  
Sent: Mon Mar 22 19:33:29 2004  
Subject: Re: G80 bits

Roy passed your message on. I did start to write up the experience of removing the bearings which I've copied below. I hope it helps, unfortunately there is no manual for this. I used plenty of penetrating oil before I started. The bearings themselves were obtained from a local bearing shop. I think mine cost about £4 each but I can't remember exactly (the number is below).

#### Swinging Arm Bearings (4 x TPX2S20DX 25 x 28 x 20)

The swinging arm consists of a central spindle which has bored greaseways down each end, two large journals and a pair of bushes fitted into each side of the swinging arm itself. There is a small gap between the bushes that will retain some grease. There are nuts and spring washers securing the spindle at each end.

#### Greasing

Screw a grease nipple into the end of the spindle. Grease can now be pumped from a grease gun down the end of the spindle and into the journal. A greaseway from the center of the journal to the bushes allows grease to pass into the bushes. Slacken the end nuts if necessary and twist the spindle to aid grease entry.

#### Removing the Swinging Arm.

Place the machine on its centre stand or place on suitable blocks.

Remove the rear wheel.

Undo the brake rod and remove the rear brake arm and rear brake plate.

Undo the rear shock absorber lower bolts and either tie up or remove.

Undo the nuts on one side of the spindle, which should now just tap out from the undone side, use a suitable drift so that there is no damage to the end of the spindle. Remove the spindle.

If it does not want to move, apply plenty of penetrating oil and/or some light grease pumped into each bearing.

The spindle goes through the back of the engine gearbox in addition to the swinging arm. With the spindle removed the whole of the swinging arm can be pulled out from the frame.

#### Replacing the bushes.

The bushes can now be tapped out, again with a suitable drift. They may need considerable force to remove them or cutting out with a hacksaw. If sawing out be careful not to damage the swinging arm bush housing itself.

The new bushes are a press fit. Tap (or pull in) from either side until they are flush with the edge of the housing. This should leave a small gap (1-2mm) that will trap grease.

Clean the journals, poking out the greaseway in each with a piece of wire.

Clean the spindles and their greaseways.

Grease the bushes, and journals and replace the journals inside the bushes.

Grease the spindle, align the swinging arm and tap in the spindle. Screw in a grease nipple and pump with a grease gun until grease emerges from the bearing, twisting the spindle if necessary. Repeat on the other side. Add the washers and tighten each nut. Replace end caps?

I've not started to rebuild mine yet. I intend to make a simple tool to pull the bearings into the swing arm from a long nut and bolt and some large washers but they would probably tap in gently with a suitable sized piece of plastic pipe or even one of the old bearings.

Good luck with this and let us know how it goes. I would be especially interested in any further information you could add.

Glenn

[reply] I've successfully replaced my bushes, thanks to your help. The only problem I had was getting the swinging arm back into the frame. I had to use a sash cramp to ease the frame apart by half a mm or so. The bushes cost 20 pounds as predicted.

John