



TClinic

REBUILDING “TC” SHOCKS

by Jay Lockrow

The first step is to remove the arm from the shock. This isn't actually necessary, but the rebuilding job is easier if this is off. This is quite a job and a good big hammer is needed along with a suitable drift and means of holding the shock body. This in itself should take an entire evening along with a good selection of four letter words.

Next step is to remove the top of the shock which is easily done by taking the four screws from the cover and lifting off the top. Be careful not to damage the gasket because replacement parts are to my knowledge not available and anything you break you have to make. Pour out any fluid that is contained. The end caps should now be removed from either end of the shock. Keep the parts in order as there is a metal plate and a disc gasket that will probably have to be replaced. I found that a suitable instrument for removing these caps was a large pair of pliers such as Peugeot water pump pliers. You will probably find that more fluid can be poured out at this point. I found the fluid in the shock about the consistency of catsup, far from what it should be and probably part of the trouble.

The next step in disassembly is the most critical and has to be done with care. Through the top of the shock you will notice a shaft with a cam on it held on with a pin. This pin must be drilled out as there is no way of driving it through to the other side. The drill size is trial and error, but the cam is, I believe, case hardened and not drillable, so it is just a matter of finding the drill that will do the job. After this is drilled out, the shaft can be withdrawn. If necessary, drill the freeze plug on the back and with a suitable drift, push out the shaft. The cam can then be lifted straight up and out of the shock body, and the double piston assembly can be pushed out of either side. It is a good idea to push out the freeze plug at this point, for if you drilled it, you will have to repair it in some way before reassembly. The disassembly of the double piston assembly is simple, but keep the parts clean and be sure to remove the drill fillings that may have dropped into the shock body.

The spring clips and spacers come off harder than they go on, so use care not to bend these. There are two

on each side, so make sure you have all four before reassembly. The cam followers can be pressed out with a screwdriver and a little leverage from the side of the piston body. The spring clip on the piston head can be popped off and the valve taken off after the little hold-down button is removed. This is where I found my trouble . . . these valves were broken so the fluid was passing without any resistance. I made two new ones carefully from .005 shim stock available from most machine shops. You need two pieces about the size of a silver dollar. The important part in making these is to try to keep the stock flat, so when drilling, start with a small drill and work up so as not to crinkle the metal. Next, pop out the piston head by using a drift from the back through the hole left by the cam follower. There should be a filter screen not unlike the kink found in the bowels of the SU carb. I see no reason why these couldn't be left out as long as the fluid was kept clean, but I found that some gas filters for a lawn mower engine with a little modification would fit if you press the piston head in on top of the screen so that the head actually holds the screen.

This completes the repair, and all that is left to do is to reassemble the unit. Remember to keep the parts as clean as possible. The rubber “O” rings around the shaft will probably have to be replaced. I found that a shock absorber rubber from a telescopic shock of domestic make cut in half will do the trick. It should be a tight fit so the fluid will not run out. (Don't forget to work it in a few times, then re-top the shock.) This job took me about four hours, as I had to do a little running around to locate the shim stock and filters for the screening.

Good luck with your rebuilding. So far mine has worked fine with no leaks sighted.

First printed by TCMG in 1969

2002 Update

Can't find a silver dollar? Wonder why? It is approx 1.5 inches in diameter. If you need shock fluid try a motorcycle shop and ask for fork oil. You will have different weight fluids to select from.