



Modifying the clutch basket

This kit originally developed by Tony Hall from Halco addresses the problem of broken springs in the back of the clutch basket. Seldom do I find a clutch basket with the clutch springs not broken or at best very loose in the slots.

The kit consists of three new springs to replace the six originals and three blocks of Nylon like material that act as buffer blocks to limit the travel of the springs and new button head bolts and half nuts to hold it all together. The springs are harder than the originals by virtue of their heavier wire gauge and the number of coils.

To install the kit it is necessary to first disassemble it. This is done by carefully drilling the "peened" end of the rivets on the back side of the clutch basket. Drill as much of the original rivet out as you can using a drill press so you drill straight. I then use a larger drill bit to remove any remaining rivet above the back plate. It should then be possible to lift off the back plate and disassemble the clutch basket. **Make a note of how all the bits go together!** Then carefully tap out the old rivets, try not to use excessive force as it is possible to crack the clutch basket.

The buffer blocks in these pictures are made of Vesconite which is a plastic composite material used to make bearings in high temperature (250°C) dirty environments and lasts up to ten times longer than bronze so it should be perfect for this purpose.



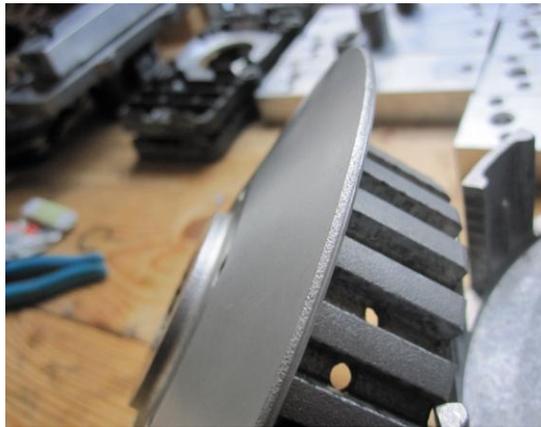
Now that it's apart, look at the back of the basket and you will notice there are long and short slots in the primary gear for the springs. In standard trim the springs work in two stages, the three springs in the short slots act as primary springs initially until there is enough rotation to engage the three springs in the longer slots which then come into play as secondary springs. Unfortunately there is enough rotation before the collars in the oval shaped holes stop the travel to almost completely compress the primary springs and this apparently causes them to break eventually. By putting heavier primary springs and buffer blocks in place of these secondary springs the travel is limited and thereby reduces the risk of breakage. This idea was designed for racing. For those who worry about this you might want to try using three standard springs as primaries and putting the heavier springs in as secondary's instead of the buffer blocks. However many hundreds of these kits are "out there" in their current form with no history of problems.

The new springs go in the short slots and the buffer blocks in the long slots see pic below



DO NOT INSTALL THIS KIT WITHOUT USING LOCTITE 278 ON THE THREADS!!!!

If you have any doubts about the nuts coming loose then tack weld them or centre punch the threads on the bolts to deform them so the nuts cannot come loose. You decide if want to do it yourself bearing in mind the experimental nature of the conversion. I have recently been installing the button head bolts, button outside and ½ nut inside, I then put a small tack of weld to stop them undoing. They need a small amount of clearancing, or alternatively a very light skim off the back of the clutch drum see pic, normally about 0.025”



Disclaimer

These are experimental parts intended for racing and as such no warranty is given or implied and if you decide to buy it is on the understanding that you assume complete responsibility for any possible injury, loss or damage that may occur as a result of using these parts and that you accept these conditions of sale prior to purchase.