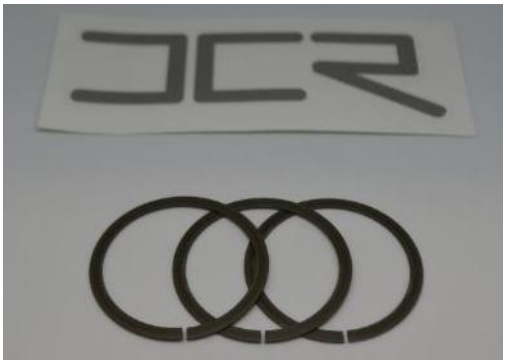
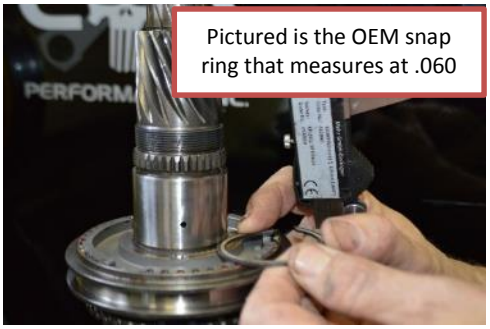
DCR Triple Carbon 3rd Gear Snap Ring Kit



Consisting of (3) individual carbon steel snap rings combined to replace the single failure prone OEM 3rd Gear Snap Ring.

There are a couple issues with the OEM snap ring that DCR has researched and developed a resolution to solve these issues. The first issue being the poor material of the OEM snap ring which can easily spin on the shaft or break into pieces causing transmission failure. The second issue being the OEM snap ring is too thin which allows excessive movement of the 3rd/4th synchronizer hub which causes poor gear engagement of 3rd and 4th gears. The ring land on the input shaft for the snap ring requires a thicker snap ring specification. DCR Triple Carbon 3rd Gear Snap Ring Kit consisting of three individual carbon steel snap rings address all of the issues from OEM engineering. Be utilizing three individual carbon steel snap rings we can accommodate the entire ring land for 3rd and 4th gears synchronizer hub. This ensures no movement of hub on shaft keeping 3rd and 4th gears engaged at its maximum potential as long as there is no pre-existing worn gear/slider teeth. The quality of these individual snap rings will also ensure positive snap ring engagement into ring land on shaft resolving the issue snap rings spinning on shaft. Carbon steel does not fatigue and break apart like the OEM snap ring does.



Pictured is the OEM snap ring that measures at .060

Pictured DCR Triple Carbon 3rd Gear Snap Ring Kit measures at .073

How to Install DCR Triple Carbon 3rd Gear Snap Ring Kit




Install 1st snap ring by spreading apart slightly and working around snap ring evenly to get it to go down to bearing journal.


Using pliers grab one side of snap ring to slightly pull it over bearing journal. Do not go more than needed to avoid over expanding snap ring.


Using pliers go to back side of snap ring which is opposite side of open end of snap ring, while holding the one side of snap ring that is down on bearing journal with your thumb take pliers on back side slightly pull out from shaft and slightly down at the same time. At this point the snap ring is two-thirds of the way onto bearing journal. Do not go any further yet to avoid damaging snap ring. Please use pictures for exact reference.


Using pliers grab the other end of snap ring that is not on the journal surface yet while holding rest of snap ring onto bearing journal surface with your hand, slightly pull remaining one third of snap ring onto bearing journal surface as pictured. Once snap ring is onto bearing journal surface use both hands as pictured to pull snap ring down bearing journal surface evenly as possible until it is located into ring land on shaft.


Repeat procedure to install 2nd ring and the final third ring. We recommend staggering ring end gaps 180 degrees. This helps prevent snap rings spinning on shaft during operation. Assemble rest of input shaft to OEM specification.


Any questions contact DCR by email at jennifer@darrellcoxracing.com or by phone at 517-369-9636.