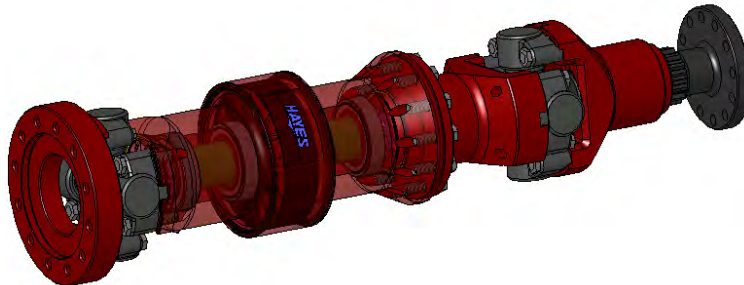




Hayes Manufacturing, Inc. Magnum Drive Shaft Service and Parts Manual



Greasing Of U-Joints:

Grease U-Joints with a premium lithium extreme pressure (EP) grease every 250 hours.

Drive Insert Replacement Schedule:

Rubber drive inserts will vary in life from application to application. When users install and starts running the “Magnum Drive Shaft” they will need to follow a strict maintenance schedule. This schedule will ensure that the inserts will not degrade to the point where the drive lugs start driving metal to metal. Once the shaft starts driving metal to metal it will need to be replaced with a complete new shaft, it will not be able to be rebuilt.

Determining Replacement Schedule: Run for one month – remove inserts and return to Hayes Mfg. for inspection –if OK run shaft for 2 months – remove inserts and return to Hayes Mfg. for inspection – if OK run for 3 months – keep repeating this schedule, adding 1 month each time, until you are told by Hayes Mfg that you have reached the point of needing to replace inserts. **Note that only 5 of the 10 inserts should be worn, so you need to check the inserts that are actually doing the driving.**

If you are running multiple Hayes drivelines you will only need to pull one “Magnum Shaft” from service to inspect. That way you will only need to wait 1 more month to inspect the 2-month runtime, and so on. If you do not reach the replacement interval and you have inspected all “Magnum Shafts” wait an additional month and then inspect the first inspected shaft again. Repeat the original process until replacement schedule is determined.

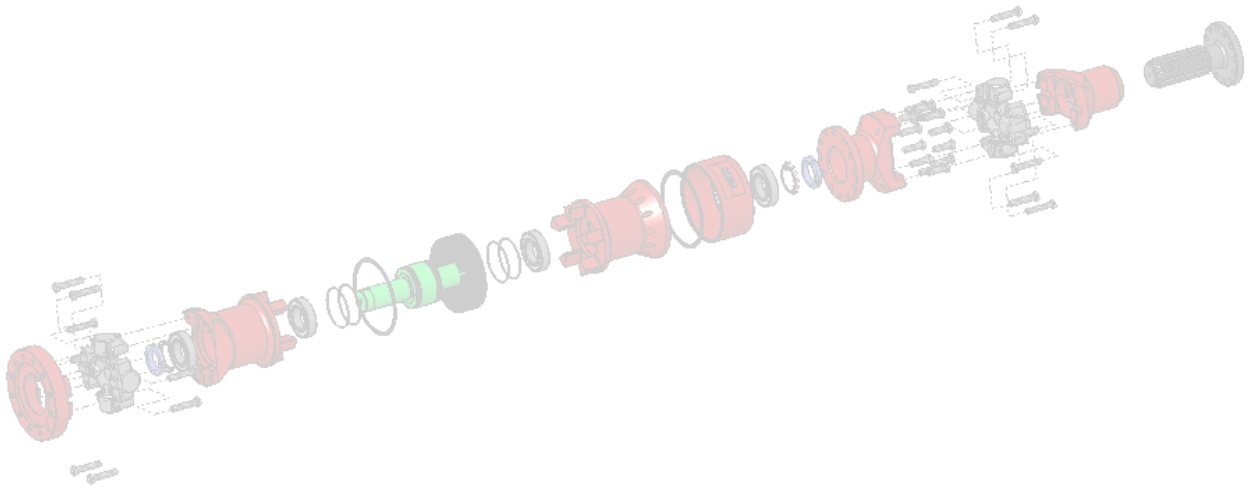
Caution: *At any time if your RPM will not hold constant during test, the inserts have prematurely worn. They will need to be removed and replaced immediately.*

Complete Rebuild Schedule:

The customer shall also determine a complete rebuild schedule. After drive shaft has run for 1 year, remove from dyno and inspect u-joints and internal shaft bearings. If bearing have very little play you will be able to re-assemble shaft and continue to run. If you would like to replace the bearings while the shaft is disassembled you may do so, especially if you have other dynos running the same shaft setup. Run shaft for another year before repeating process. Once you notice the bearings getting worn (sloppy or not smooth running) you will want to make note of the service time, and use that as your complete rebuild interval.



**Hayes Manufacturing, Inc.
Magnum Drive Shaft Parts Break Down**



If inserts need to be replaced you will want to order the Item Below:

Part Number 720615 Qty: 1set (Drive Inserts, 1set = 10pcs)

The following components will last much longer than the inserts. What you can do to check the integrity of the drive shaft is while the inserts are removed pull and push on the center of the drive shaft. If you feel movement then the bearings and following components should be changed before testing is continues. A complete rebuild consists of the following:

Part Number 586-152 Qty: 4 (O-ring)

Part Number 210PP Qty: 4 (Bearings)

Part Number W10 Qty: 2 (Washer)

Part Number N10 Qty: 2 (Lock Nut)

Part Number CP85WB-HWD Qty: 2 (U-Joint)

Remember to **Grease U-Joints every 250 hours** (Do not over fill). Use high-pressure lithium grease. U-Joints should be check each time the inserts are changed to ensure they do not need to be replaced. The maintenance working on these cells should be able to tell the difference between a good and bad U-Joint.

Important: If there is any damage to the metal ring or other metal components a complete rebuild should be performed.