

# WHAT IS HAPPENING TO REBUILDING?

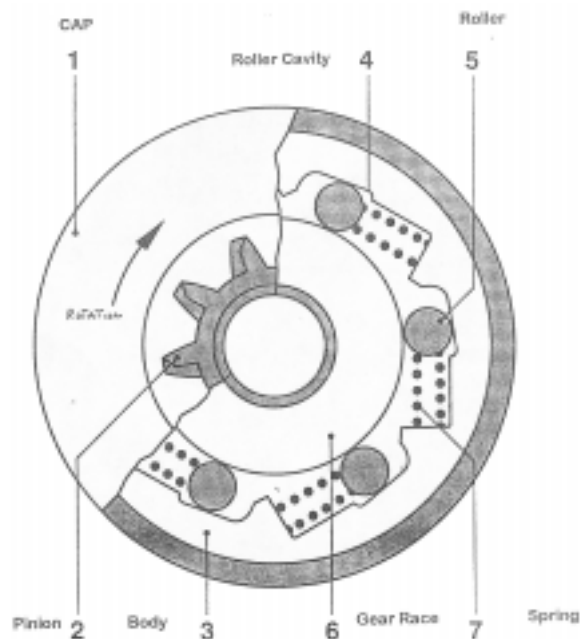
(Basic Rebuilding)

By Richard R. Vensel

It seems that many rebuilders are saying that they can buy almost everything for less than it costs to rebuild it. That may be true in some cases, but it sure is not true 100% of the time. Take the time to look for the truth. To do this take a look at the dollars and cents of the starter drives used today in import, domestic light truck and industrial starters. Why rebuild today's starter drives? The cost of parts to rebuild almost all small drives is \$0.30, yes thirty cents, not \$3.00 to \$75.00, and most shops already have 95% of the equipment it takes to do the job and make the extra profit. You can rebuild a minimum of 30 per hour. Even one at a time on an Onan drive that costs you \$50.00 to buy, might take less than 5 minutes and \$0.30 to rebuild.

*Let's review what makes up a basic drive and what is involved in rebuilding one:*

	<u>Part</u>	<u>Process and/or function for disassembly</u>
1	Cap	removed, scrape & replace with new
2	Pinion	Usually good and salvageable. Needs cleaning and a shaker is best. Can easily be colored black for better appearance. The gear race needs to be polished and discarded if it does not clean up.
3	Body	Usually good, needs cleaning. Make sure there is not steel shot dust left after steel shot blasting.
4	Roller Cavity	Make sure it is clean. A good cleaning test is to wipe it with a white cloth to make sure they are clean and steel shot and dust free.
5	Rollers	Remove, scrape and replace with new. The size is determined by measuring the drive race cavity and the gear race diameter and using a ratio of the difference.
6	Gear Race/Roller Surface	The roller surface needs to be polished. This is the outside diameter of the pinion body where the rollers ride allowing the pinion to be locked up for fly wheel rotation.
7	Springs	Remove, scrape and replace with new. Measure to determine replacement spring size.
	Washers (not illustrated)	Removes and clean in a shaker.



### **Drive Assembly Process**

- 1 Inspect bushing in pinion, replace if necessary.
- 2 Install grease into roller end of roller cavities.
- 3 Install pinion into drive body
- 4 Load correct rollers in roller cavity
- 5 Load springs into roller cavity
- 6 Install washers
- 7 Install cap
- 8 Place assembled drive in crimping tooling, place an arbor or hydraulic press & crimp cap.

Please call with any questions and ask for Dick Vensel 800-662-6099.