



Remington RM1025SPS Chainsaw Repair



The 2-in-1 Remington RM1025SPS Ranger™ pole saw/chainsaw had two adjustable aluminum poles that extended to 10-feet to give you extra strength and improved reach. The instant start, electric 8-amp motor helped you power through branches quickly and the low-kickback 10-inch bar and chain made lopping and pruning simple. Then when you've finished using the tree trimmer to take down branches from above, the easy flip and lock clamp allowed you to immediately disconnect and get down to cutting those downed limbs.

RM1025 Features:

- * Low-kickback 10" bar and chain.
- * Less kickback, thanks to the special 10" bar & chain design.
- * Small, light, 10" saw made it highly maneuverable.
- * Lightweight 8-amp motor; instant ON/OFF of electrical control.
- * Durable, adjustable 10' aluminum pole could reach 15'.
- * Easy-to-use pole clamps held tight at any height setting.
- * Quick removal of saw from pole for independent use.
- * Low cost - about \$100.00.
- * Remington offered a 2 year warranty.

This article will focus on disassembly, repair, and reassembly. The repair will address the mechanical failure of the chain drive.

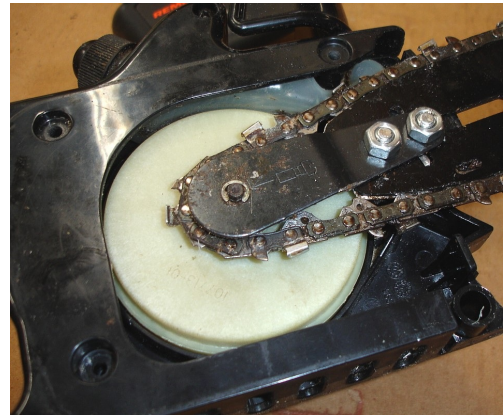
Operational Complaint:

During normal operation, while the motor is still running, the chain will stop, with a terrible, internal, grinding noise from the drive gear.

STOP OPERATION IMMEDIATELY! Continued operation will render the saw permanently inoperable as it is tearing apart the drive mechanism. The saw will need to be disassembled and repaired.

Disassembly Procedures:

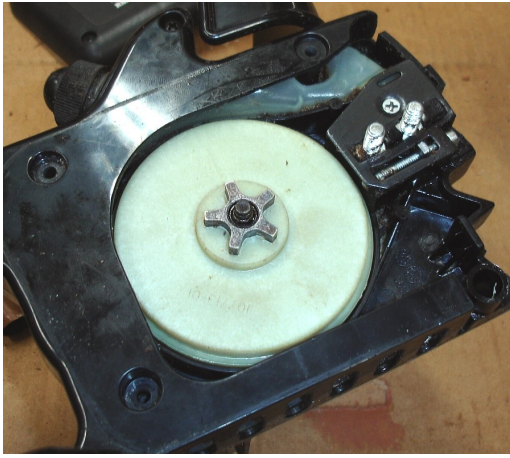
1. Remove the front cover. It has three Philips head screws accessible from the front, and a fourth from the bottom rear.



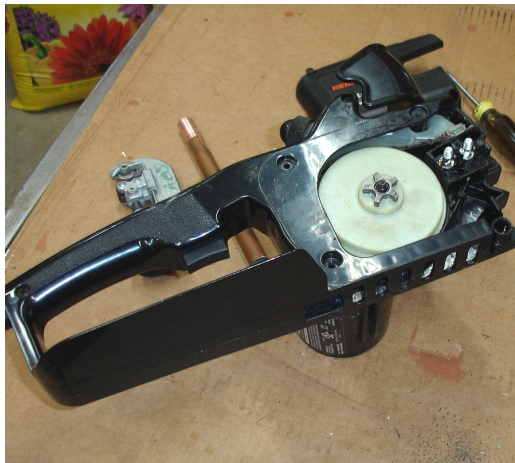
2. Remove the two nuts and the 'C' ring that attaches the bracket over the white sprocket disk. Remove the bracket and set aside.



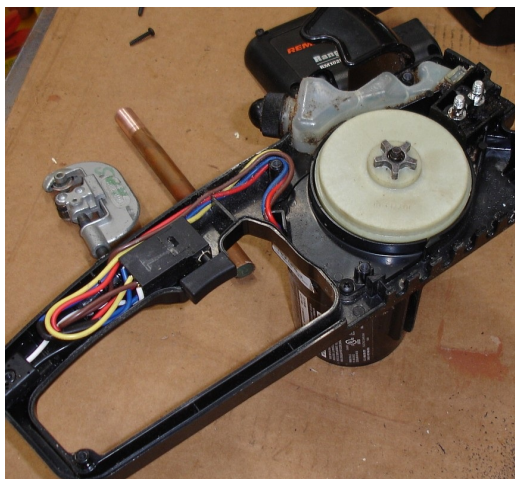
3. Remove the saw chain and bar.



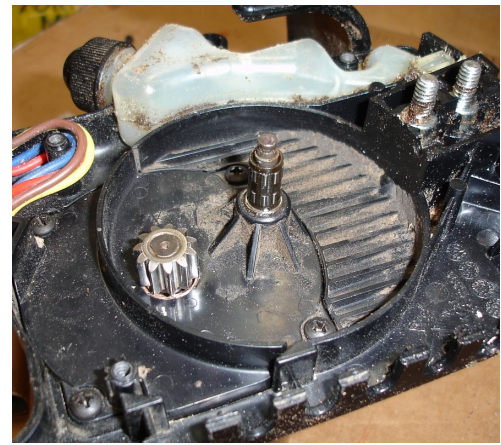
4. Remove the chain tightening assembly that surrounds the two bar bolts. It is held by one Philips flathead screw.



5. Remove three screws holding the handle cover to the saw assembly.



6. Lift off the white sprocket wheel from its axle.



7. The large drive gear is positioned on the motor shaft. It should be held tightly in position by the plastic bracket or plate as shown in the above picture. It is held in position by four screws at the four corners. Lift off this large gear for a better look at the bracket.

I am sorry that I don't have a picture of my melted bracket, but on my saw, the motor shaft was no longer held in position because the hole had been enlarged from an overheated motor shaft that became so hot as to melt the soft plastic that surrounded the motor bearing. This allowed the large gear to move towards the sprocket axle enough to disengage the teeth of the sprocket and grind down the teeth as shown in the next photo. If left unchecked, the teeth would eventually disappear, rendering the saw useless!

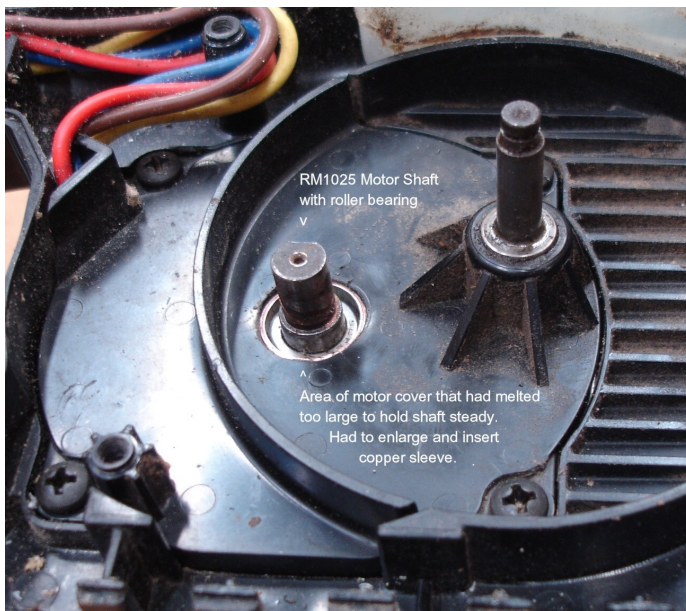


Before continuing, let us take a moment to address the sprocket. A replacement can be purchased on line. HOWEVER, do NOT purchase the replacement shown from China, as tempting as the price may be. While it is listed as a direct replacement for the RM1025SPS chainsaw, part number #107713-01, it is not! It is considerably thicker, has 6 teeth on the center gear instead of the required 5 teeth, and has a 3/8" shaft opening instead of our 1/4" shaft. See the next picture.

Order a new #107713-01 sprocket, if needed, from a US source, such as from the listing "Indiana 717-04749 5 tooth MTD sprocket RM1025..." on Ebay, where I ordered mine. This was a perfect fit.



Ok. Back to our issue at hand. Unless the sprocket failed on its own and just needs replacement, you will find the motor shaft is no longer held firmly by this plastic bracket or plate. Hopefully, however, it is only damaged slightly and there is sufficient good plastic material that you can still repair the saw by creating a sleeve that just fits the outside dimension of the motor shaft bearing ($\frac{1}{2}$ ") and will fit the size of the new hole that you must create in the bracket. A $\frac{3}{8}$ " piece of $\frac{1}{2}$ " rigid copper pipe works perfectly.



Locate a piece of $\frac{1}{2}$ " rigid copper pipe, but do not cut off a piece yet. It will be easier to work with the larger piece of pipe first. Square off and remove any burrs from one end of your pipe. Sand inside and out until it fits over the bearing on the end of the motor shaft. It should be snug, but do not use pressure to press it on. This bearing is fragile and can be easily damaged from too much force.

Next, you must locate the center of the original hole in the bracket. You cannot simply drill out a new hole because the hole has now been elongated into an oval toward the sprocket axle. We must carefully expand the opening such that the new hole center is in the exact same location as the original.

Carefully ream or file out the desired diameter of the new hole, testing the fit with the pipe end as you go. We want a snug fit with the pipe end.

Once you are satisfied with the fit over the bearing and in the bracket, cut off the desired length of pipe needed - about $\frac{3}{8}$ " to create our sleeve. I found that the usual rotary copper pipe cutter (one is pictured above) works well. The new cut end will have a bit of a tapered lip, but this just makes it easier to insert into our new hole in the plastic bracket.

Assembly Procedures:

1. Oil the shaft bearing with a drop of 3-in-1 oil or other light machine oil and rotate the bearing on the shaft to ensure the interior of the bearing is well lubricated.
2. Place the new sleeve over the bearing on the motor shaft, then press it into the hole of the plastic bracket as the bracket is being installed.

Do not let the sleeve extend above the surface of the plastic bracket too far, as it may interfere with the gear when it is installed. If the sleeve is too long, remove it and build a new, slightly smaller one.

3. Install the gear on the end of the motor shaft.

Note: As with the motor shaft bearing, give the sprocket bearing a drop of oil and rotate it several times to distribute the oil.

4. Mount the sprocket over its axle. It should install easily over the motor shaft gear **without binding**. Rotate it carefully through 360 degrees to ensure that there is no point where it binds.

Note: If binding occurs, there is little that can be done. Inspect the installation carefully. Perhaps take it apart and enlarge the hole on the plastic bracket slightly toward the sprocket shaft and accept that the sleeve will be slightly loose. It will still be better than what it was, but the fix probably will not last as long as expected because the sleeve may rotate and generate some frictional heat in the plastic bracket.

When satisfied that all has been done that can be done, continue to reassemble the saw by reversing the disassembly procedures. Ensure that when installing the bar and chain, that the pin on the tightening assembly fits in the hole of the bar. Adjust the chain tension as needed.

Note: If you wish to add any additional information and/or your comments, please let me know at:

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Cheers,

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Editor, Z-100 LifeLine

