

# Southern Turners Information Sheet

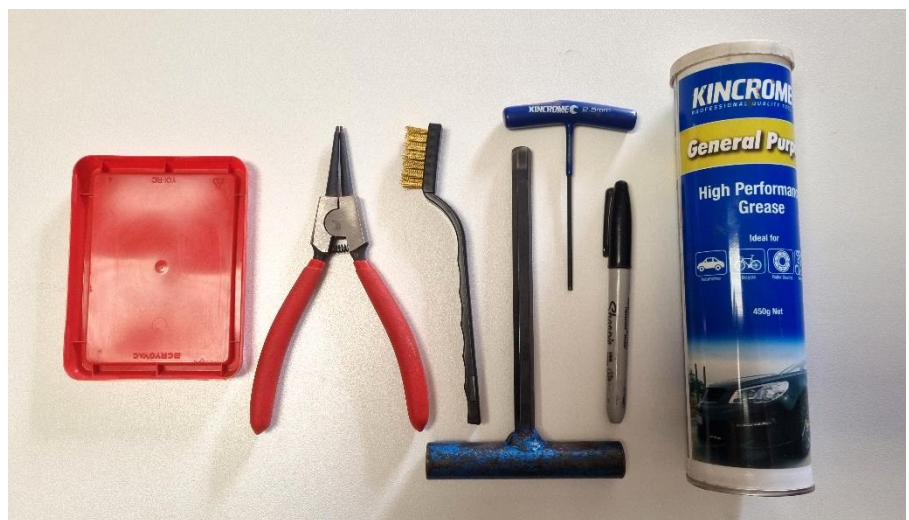
## Scroll Chuck Maintenance



This information sheet provides detail on how to maintain and service certain types of scroll chucks. The example pictured is of a Vicmarc chuck, but it is very similar to the club's 'rapid' branded chucks along with numerous other brands. Nova (technatool) chucks are slightly different in construction and therefore the method of disassembly differs and is not covered in this document.

### Equipment needed

- Allen keys
- Circlip pliers
- Wire brush
- Marker pen
- Grease
- Plastic lid/tray to hold screws
- Rag or paper towel



### Disassembly

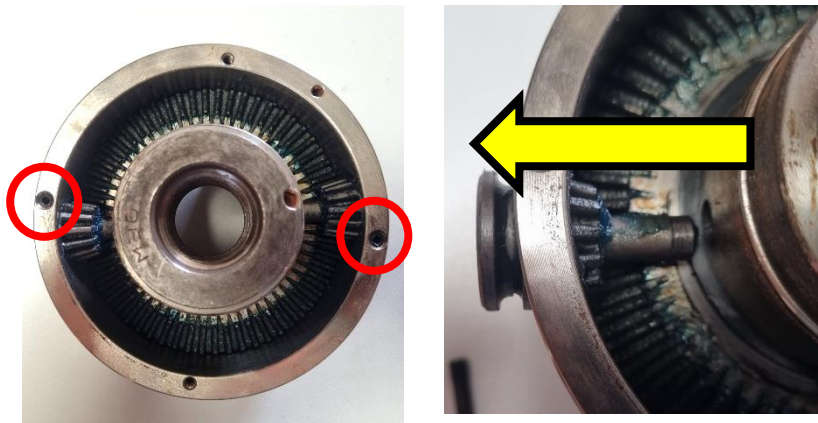
1. On the end of each jaw slide there will be a number stamped. Using your marker pen write the of each jaw onto the chuck body. Some chuck manufacturers label their slides clockwise around the chuck, others anticlockwise. Labelling will help make reassembly easier later.



2. Remove the backing plate by removing the 2 small screws. Ensure the screws are kept safe. Depending on your chuck, it may be necessary to remove the threaded insert to allow the backing plate to be removed.



3. Remove the 2 pinion retaining pins and keep safe, then remove the 2 pinions by sliding outward from the chuck body.



4. Using your circlip pliers, remove the large circlip from the centre of the chuck. It is safest to hold your hand over the top of the chuck while doing this as it is possible for the clip to slip from the pliers and fly off somewhere, never to be seen again.



5. Once the circlip has been removed, you can turn the chuck over and slide the scroll out. The photo above shows the teeth that the pinions engage while the picture to the right shows the scroll gear that the jaw slides work against.

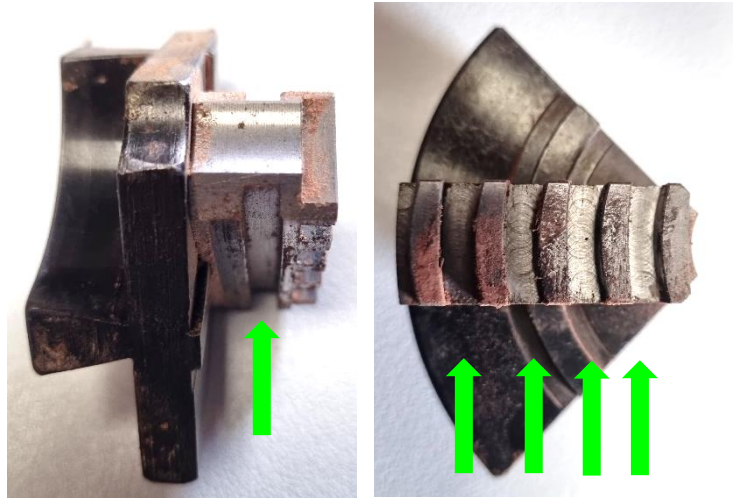


6. Returning the chuck to jaw side up, you can now remove the slides from the chuck body. It is not necessary to remove the jaws from the slides, but it is certainly possible if you want.

<p>Jaws 1,2,&amp; 3 will slide straight outward from the chuck body</p>	<p>Jaw 4 has a stop pin installed to prevent the chuck jaws from opening too far &amp; prevents jaw 4 from sliding outward</p>	<p>To remove jaw 4, slide it through the chuck body &amp; out the section that houses jaw 1. It is possible to remove the pin, but is not necessary</p>



7. Once the slides have been removed, clean with your wire brush, paying particular attention to the teeth and grooves along the sides to remove all accumulated dust, wipe over with rag or paper towel



8. Still using your wire brush, clean dust from the grooves of the scroll. Inspect the reverse side for any debris that may foul the pinion gears. It is not necessary to remove all of the grease if it is free of dust.

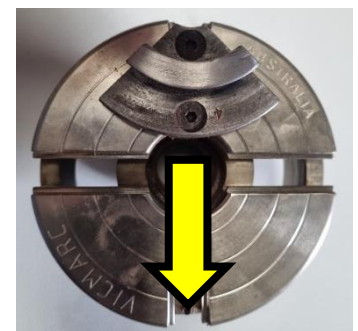


9. Clean both sides of the chuck body, wire brush the sections where the slides travel. Wipe the inside of the body clean with rag or paper towel

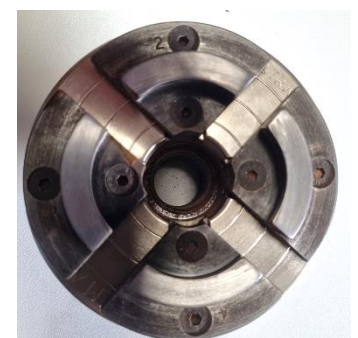


### Reassembly

10. Begin by replacing the jaws and slides into the chuck body, ensure the correct slide is inserted into the correct position. Begin with jaw 4, remembering to slide it in backward from the jaw 1 position through to its own position



11. Once all jaws are in their correct position, slide them so that they are at an equal distance out from centre. Holding your hand over the jaws to keep them in place, flip the chuck over.



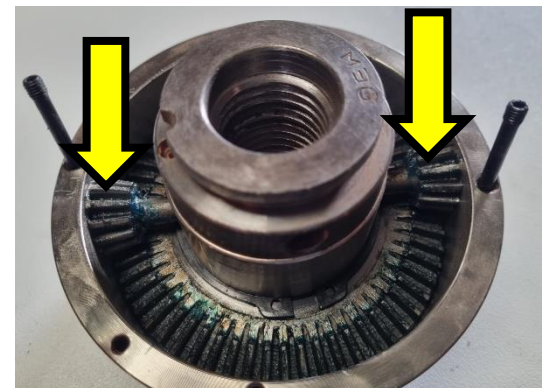
12. Replace the scroll into the chuck body. This bit can be a little fiddly as each jaw slide will need to be wiggled to get the scroll to seat properly. You will feel and hear the slides locate into the scroll as they find their home. Once seated properly replace the circlip.



13. Replace the pinions and pinion retaining pins. You may need to rotate the pinions slightly with the chuck key (allen key) to get them to locate properly. The retaining pins do not need to be overly tight as the backing plate will help hold them in place.



14. Using your finger put a blob of grease onto the tops of the pinions. You don't need to flood the area, but conversely don't use too sparingly. Do not use products such as RP7 or WD40 as they are too thin and what doesn't run away will attract dust. Also do not lubricate the jaw slides on the other side of the chuck as it will also attract dust and potentially stain any timber it touches.



15. Using the chuck key, ensure the chuck operates smoothly and the jaws move in and out evenly, this will also help spread the grease out around the geared teeth. Once you are happy replace the backing plate and threaded insert if it was removed earlier.

Enjoy using your good-as-new chuck!!!

