

## Teknatool International Limited

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### Frequently Asked Questions

Date Raised: 19 Oct 2020

Date Amended:

Safe practices should always be employed to ensure the Health and Safety of yourself, employees and customers (if applicable) Refer to product manuals, exploded drawings and our website if further assistance is required, or contact us on [service@teknatool.com](mailto:service@teknatool.com)

## How to Align Tailstock with Spindle for DVR Lathes

Generally new lathe tailstocks are inspected in-factory and does not need to be aligned again. Over time, the lathe may need to re-aligned as screws become loose.

#### Tools:

- 6mm Allen Key
  - A set of Sharp pointed tools (e.g. Spur/Live Centre)
- Or
- A Double-ended Morse Taper tool (NOVA 2MTNA 2MN Acruline)

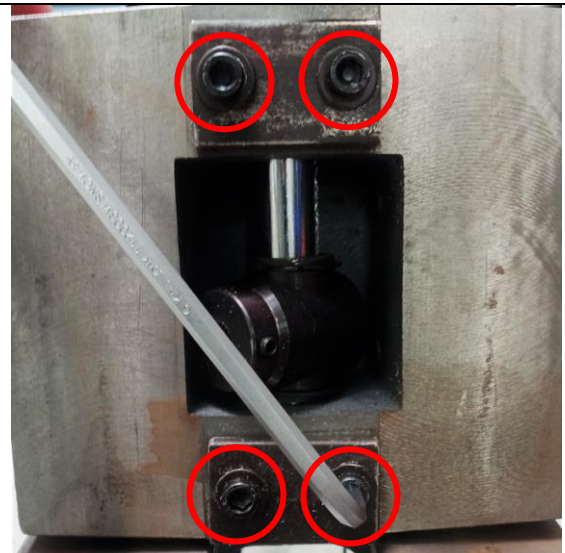
1	Turn your lathe off and unplug the headstock from the power so that it does not start up unexpectedly.
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2	Lock your headstock at 0° using the lock handle, so that the spindle is facing the tailstock.
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3	Loosen the alignment plates underneath the tailstock using your 6mm Allen key.
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There are four bolts in total.

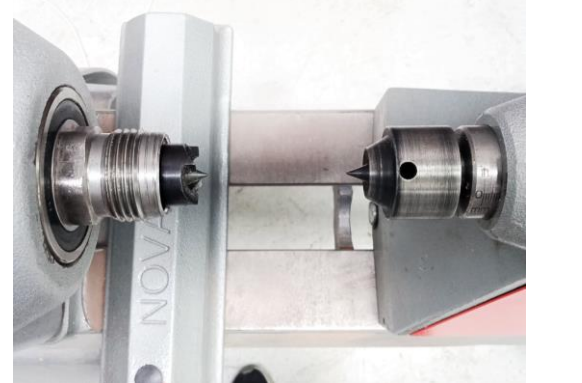
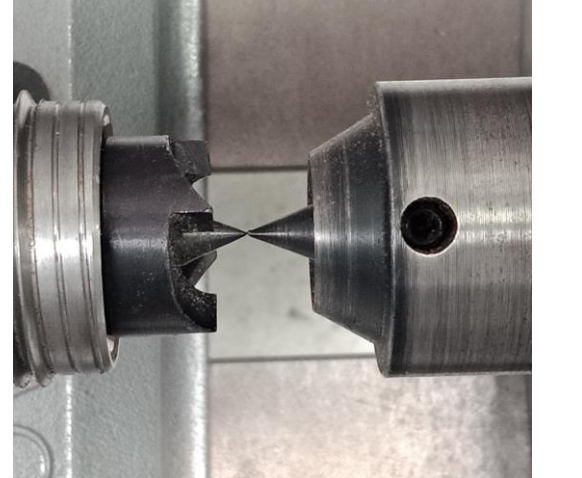
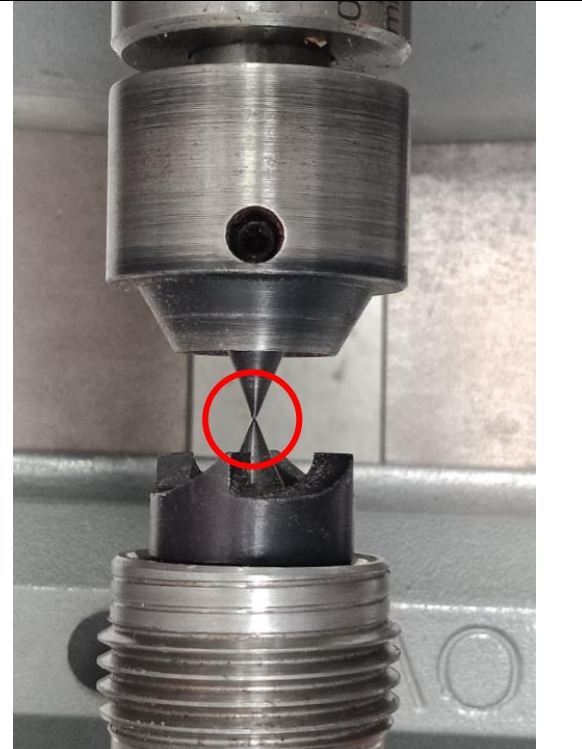
If you are installing new alignment plates, you can also remove the tailstock locking plate using a Phillip head screw driver.



4	Wind the tailstock quill back to retract it.
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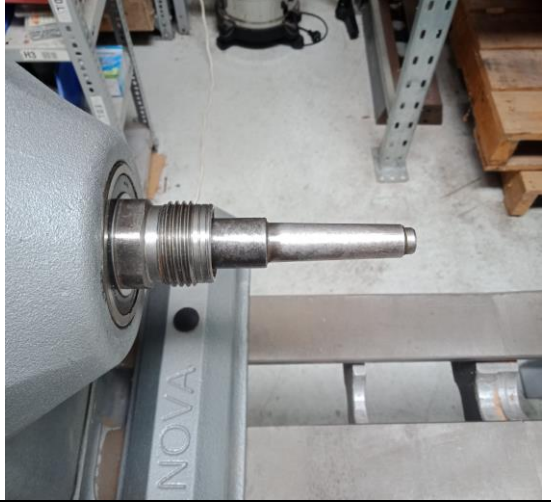
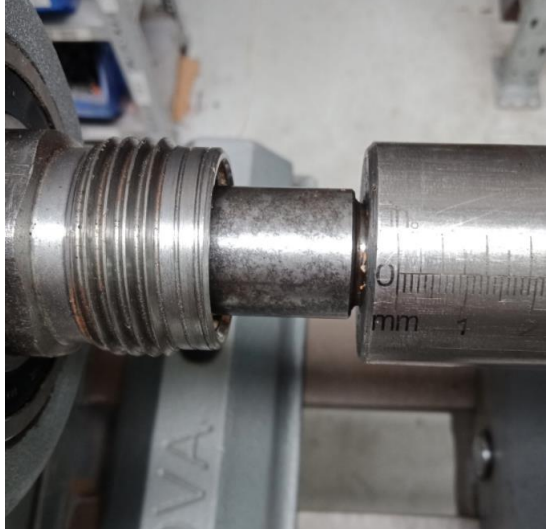
If you have a spur and live centre continue to step **(A)** otherwise go to **(B)** if you have a morse taper tool.


**(A) Spur and Live Centre:**

5a	<p>Insert your Spur and Live Centre into the Headstock and Tailstock respectively.</p>	
6a	<p>Extend the tailstock quill until the live centre is almost touching the spur.</p>	
7a	<p>Align the sharp points of the Spur and Live Centre by adjusting the tailstock until the points are almost touching each other on the horizontal axis.</p> <p>You can check this by looking directly down on the point of contact from above the lathe.</p>	

8a	<p>Twist the two alignment plates as far as it will go to ensure a snug fit between the rails. Tighten the alignment plates again in that position using your 6mm Allen key.</p> <p>Check that the Spur and Live Centre are still aligned.</p>	
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**(B) Double ended Morse Taper:**

5b	<p>Install the Double ended 2MT alignment tool onto the headstock.</p>	
6b	<p>Install the other end of the Double ended 2MT tool into the tailstock firmly either by extending the quill or by sliding the tailstock into place.</p>	

7b	<p>Twist the two alignment plates as far as it will go to ensure a snug fit between the rails.</p> <p>Tighten the alignment plates again in that position, using your 6mm Allen key.</p>	
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There maybe some play in the tailstock to allow it to slide along the rails.

Manufacturing tolerances for a new Orion bed are:

- Between Lathe Bed Rails: 50mm + 0.20mm
- Width of alignment plates: 50mm – 0.05mm

The maximum play between the lathe bed rails and the alignment plates should be 0.30mm with alignment plate bolts properly tightened.



*Minimum space between lathe bed rails 1 (Left) and max width of alignment plate (right)*