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## Frequently Asked Questions

### Replacing the belt, bearings and spindle on NOVA 1624 – II lathe

Date Raised: 6 March 2017

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)

Date Amended

**CAUTION:**




**Make sure the power source has been disconnected from the lathe before commencing procedures**

**Replacing the belt:****Required tools:**

1 x 19mm spanner OR adjustable spanner

1 x Philips screw driver

**Procedure:**

Step No.	Description	Image
1.	Unscrew the guard lock screw and lift the cover/ release the lock on the cover.	
2.	Remove the nut and washer that is holding the T-bar mechanism.  You do not have to remove the T-bar from the motor mount stud	
3.	Unscrew the 6 screws that are holding the headstock cover.  <b>Note:</b> 2 of the screws are in a difficult location to reach. See images to locate. To access these screws, the motor must be lifted up or the T-bar needs to be shifted out.  <b>To access screw on figure 1:</b>	

Pull out the T-bar and turn it to the lowest position.

**To access screw on figure 2:**

Lift the motor up by using the T-bar and lift it to the highest position.

Remove the headstock guard



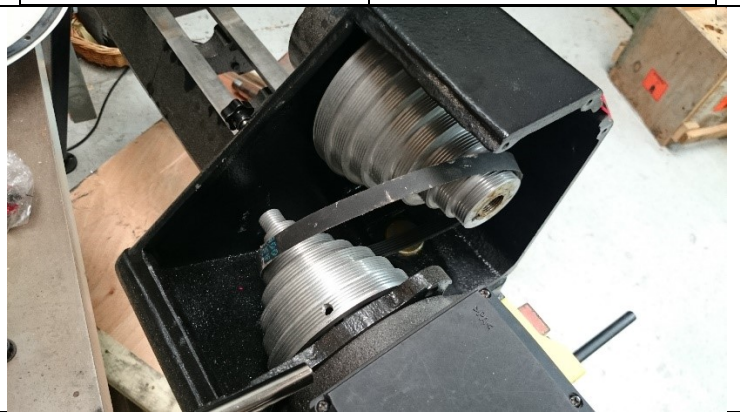
*Figure 1: Screw behind T-bar*



*Figure 2: Screw behind motor*

- 4.** Lift the motor by using the T-bar and release tension on the belt. Motor lifted to its highest position will allow the belt to be removed.

Install new belt then replace headlock cover and T-bar nut.



## Replacing the Bearings and Spindle

### Note:

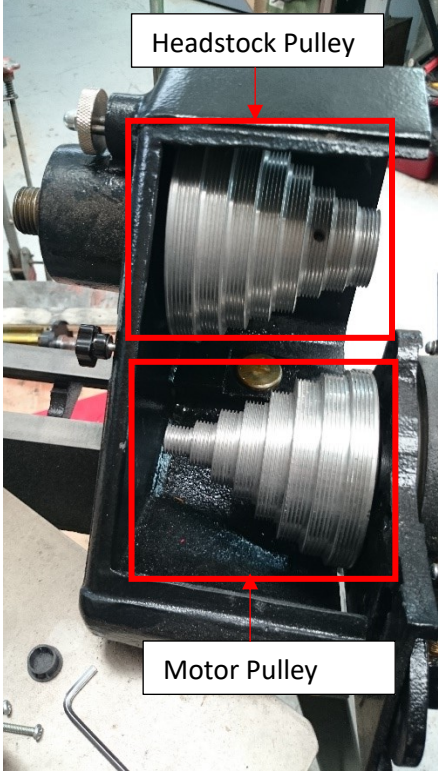
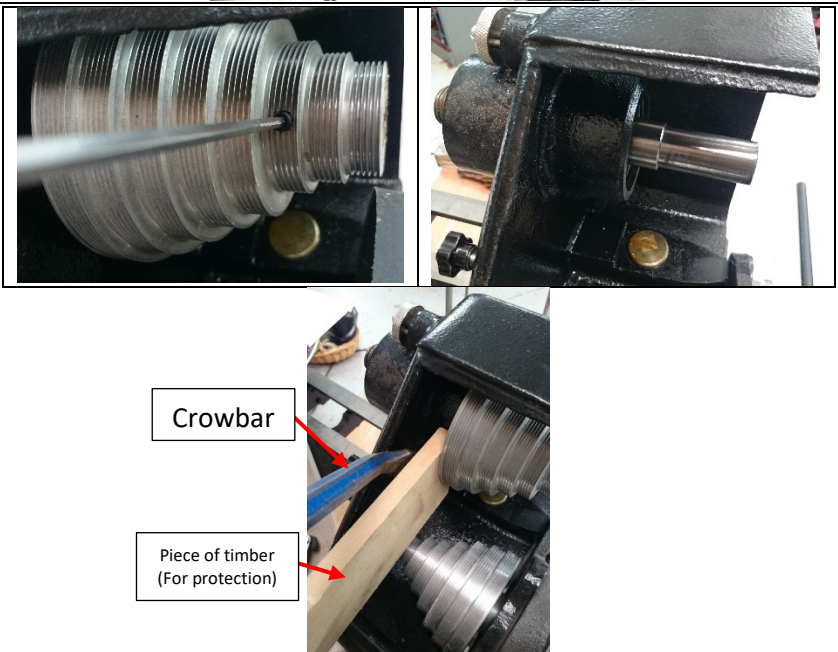
Replacement of the bearings are a delicate process and if not performed correctly, it will result in reducing the life of the bearings significantly. Ideally the bearings should be changed within an engineering workshop since it is highly likely that they will have the suitable tools to perform the operation.

### Tools Required:

2 x Replacement Bearings  
2 x Circlip Pliers (1 internal, 1 external)  
1 x Plastic Mallet (Or hydraulic press)

1 x 4mm Allen key  
1 x Crowbar (Or something that can provide leverage)  
1 x Puller

### Procedure:

Step No	Description	Image
1.	Remove the headstock guard to expose the pulleys.	
2.	<p>Remove the grub screw and headstock pulley. This exposes the spindle.</p> <p><b>Note:</b> The headstock pulley may be very hard to take off. Some leverage action may be required (bottom image). When applying leverage, ensure to have a block of timber in between the tool and pulley to minimize deformation.</p> <p><b>*Do not use the index pin while attempting to take the pulley off the spindle.</b></p>	

3. Remove both circlips. This will allow the spindle and bearings to be pushed out.

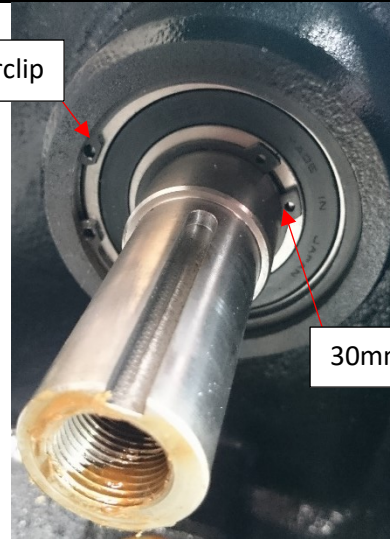
**Note:**

There are 2 types of circlips as shown in the image.

The outer (72mm) circlip is to hold the bearing and the inner (30mm) is to hold the spindle.

72mm Circlip

30mm Circlip



4. Secure the headstock on the bed so it does not move out of position when working.

Tap the spindle out towards the tailstock along with the bearings.

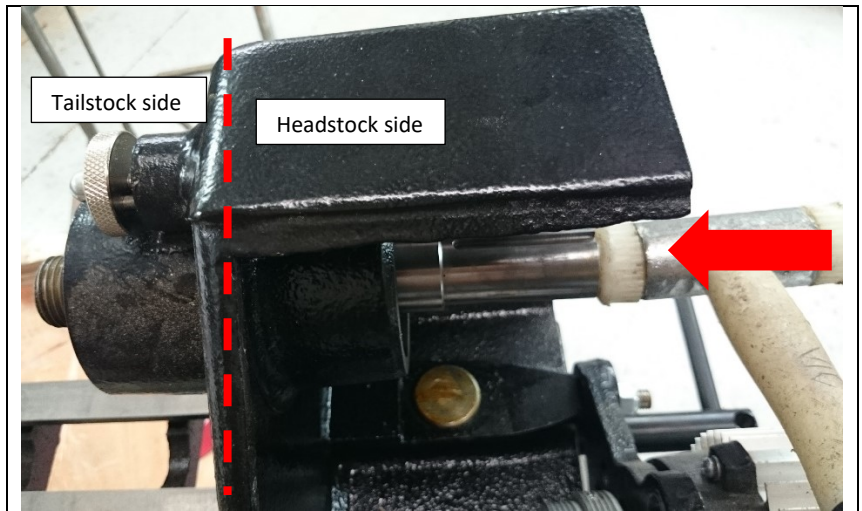
Bearing on the headstock side have to be pushed out with a drift.

**Note:**

This is better done with a hydraulic press by taking the headstock off the bed.

Tailstock side

Headstock side



5. The bearing on the tailstock side will be pushed out along with the spindle.

To remove the bearing from the spindle, a puller has to be used.

Once the spindle is removed from the old bearings, clean the spindle and bearing housing with methylated spirits.

Replace the spindle if necessary



**6. (Optional – for people that wants to replace both bearings)**

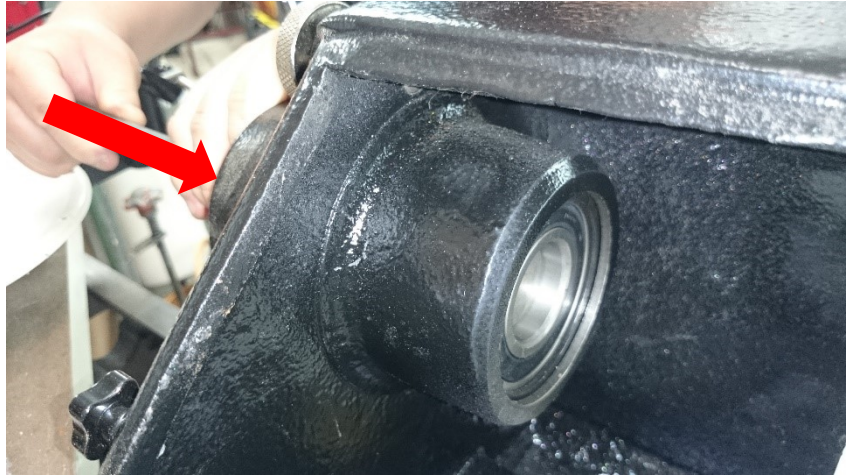
Remove the 72mm circlip found on the headstock side.

Use a drift (or a round hard metal piece) and a steel rod, push the bearing from the tailstock side out towards the headstock side as shown in the image.

Replace bearing and install 72mm circlip.

**Note:**

Ensure that bearing is square with the housing and old bearings are used as cushions when installing.

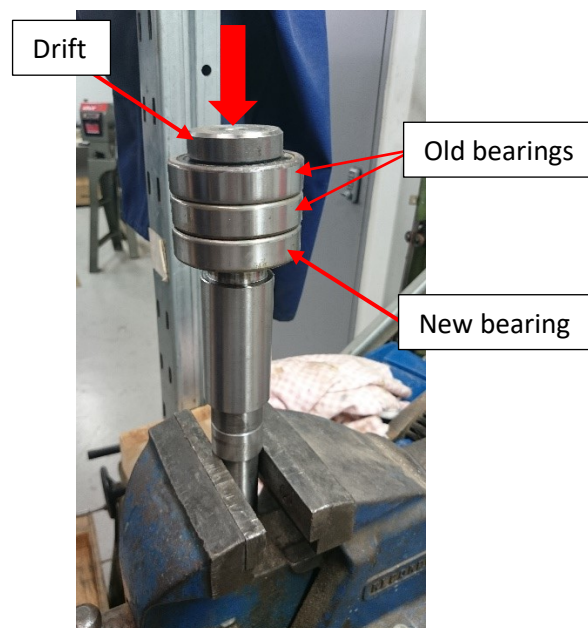


**7.** Press (or tap) the new bearing of the tailstock side onto the spindle first. Then insert spindle back in the housing.

**Note:**

You need to ensure that the spindle is pushed square onto the bearing to avoid any excess stress onto the ball race.

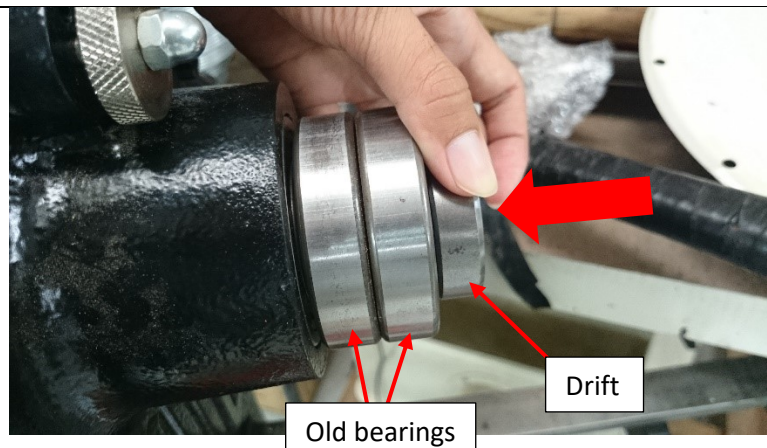
Do not tap the bearings directly with the mallet. Use the old bearings as cushion against the bearing to keep the bearing square with the spindle.



**8.** Re-install spindle and bearing back into the housing. Ensure that the bearing is square on the housing at all time.

**Tip:**

After the installation is complete, give the spindle a light tap from the headstock side to relieve stress on the circlip.



**9.** Reassemble every part back together. This stage will be the reverse of disassembly.