

D.I.Y./Self Help Sheet

How to change the bearings on Nova N1624, DVR XP , N3000 and TL1500 Lathes

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Safe practises 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

Date Amended:

Parts required:

- 2 x 6207LLB (or equivalent) bearing (**3 x DVR only**)
- Circlip pliers (Internal/External or pliers to fit External 25mm (1"), and Internal 72mm (3"))
- Plastic Mallet (Dead blow preferably)
- Clean cloth and mentholated spirits.
- #2 pozi/Phillips screw driver
- 2.5mm Allen key.
- 5.0mm Allen Key.
- Preferably access to a hydraulic press or similar.



This is best performed in a clean working environment. Replacing Bearings can be a delicate operation and if not done correctly the life of the bearings may be reduced dramatically. Ideally an Engineering shop would have most of the tools to perform this operation using the correct theory to get the maximum life from the new bearings.

1. Isolate the power to the lathe. Remove the plug from the wall socket.
2. Remove the Motor and motor mount from the Headstock (**N1624**).
3. Remove the Red guard and keep the screws in a safe place.
4. Undo the M8 set screw/s from the Headstock pulley and slide the pulley off the shaft. It may need some slight leverage to persuade it off (**N1624**).

5. **DVR xp . Loosen m4 grub screw securing aluminium index fan and carefully pry off using even force at 180deg (2 screwdrivers can be used) . Remove 8 x M6 cap screws and kidney shaped metal cover exposing the green coloured optical sensor .Remove the 2 screws fastening sensor and carefully pry loose place outside of headstock being careful to protect from damage(*this can be unplugged and removed if desired*).**
6. Remove the circlip from the rear bearing housing using circlip pliers (Triangular retainer clips used N3000 model. Take care in removing the Triangular spring clips. There is no tool for this operation, but pliers may work).
7. Secure the Headstock to the bed or remove the Headstock from the lathe (depending in preference).
8. Remove the spindle. This can be done by using a hydraulic press (if available) or using a mallet. I will explain how to do it with a mallet. The Spindle should be removed from the front to the back housing i.e. Use force on the front inboard spindle so that the spindle is removed through the back of the headstock. The rear bearing will come out with this. The front bearing will need to be removed with a drift.
9. Clean both bearing housings with methelated spirits.
10. Remove the 25/35mm circlip retainer from the spindle using the circlip pliers.
11. Remove the rear bearing from the spindle. remove all old bearings from housings with suitable drift and mallet
12. Clean both bearing journals on the spindle with methelated spirits.
13. Press new bearing on the rear spindle journal (**N1624/N3000**). Do this with care. The bearing must be pressed on square to the spindle and supported on the inner bearing ring so as to not place stress on the ball race.
14. **(DVR XP) Carefully place spindle rotor 55008 through stator , replace bearing carrier 55146 and fasten M6 cap screws. Ensure inner circlip is still installed.**
15. Fit rear bearing as in step 12.
16. Fit 25/35mm circlip on to the spindle.
17. Re-install the spindle back into the bearing housing. It is important to keep the spindle square to the bearing housing when doing this (**N1624**).
18. Fit triangular retainer or 72mm circlip to the rear housing.

19. Fit the bearing to the front housing. Do not tap the bearing with the mallet. Use an old bearing as a cushion against the bearing to keep it square and protect and support the inner and outer race of the new bearing.



20. Drive it "home" until it stops.
21. The rest of the assembly is a reverse of the disassembly.

We have FAQ's that can explain each re-assembly process.