



Craftsman 6" Bench Grinder – Setup and Upgrades

Setup

- The alignment, vibrations and tool rests of the bench grinder were not sufficient for precise grinding (e.g. for Lathe cutting tools)

Alignment

- The shaft showed significant play in the longitudinal axis which was resolved by installing brass bushings between the ball bearings and the shafts bearing shoulders
- Running the bench grinder with machined "blanks" revealed that the vibrations were not caused by the bench grinder itself, but by small differences in mass over the circumference of the grinding wheels.

The vibrations were eliminated by changing the angular mounting positions of both grinding wheels

Tool Rests and Protractor

- The original tool rests did not allow for precision grinding and were replaced by DIY tool rests with the following features
 - Tool-free adjustment of tool rest height with knurled aluminum wheels
 - Tool-free adjustment of tool rest angle (pitch) with knurled aluminum wheels
 - Tool rest base with groove for protractor
 - Protractor for precise adjustment of angular grinding angle (jaw)