QUICK CHANGE TOOL POST

It has been designed referring to the catalog of the commercial item and information on the website, etc. in consideration of easiness to make, easiness to use, and beauty of form, etc.

The design point is as follows.

- 1. It should be compatible with an original tool-post
- 2. It should be able to attaching big tool such as parting tool holder.
- 3. The holder should be able surely to be fixed.
- 4. It should be robust and easy-to-make.

I have been being freedom from adjustment by the sole plate using long time.

<< The drawing is here >>





1. (HOLDER)

The material of the holder is 30x60x250mm of the mild steel.

Adjusting the parallel of the material with the dial gauge.



2. (HOLDER)

This is a rough slitting of the material using 12mm roughing end mill. It's cut 8.5mm depth and 340rpm speed. It has taken around 12minutes.



3. (HOLDER)

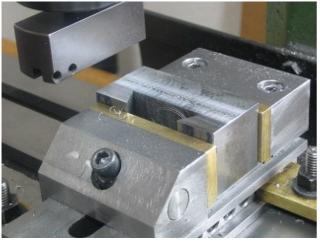
This is a measurement of the dove-tail



4.(HOLDER)

Chaffering the corner of the dove-tail corner after finishing the dove-tail cutting.

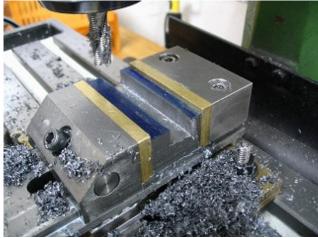
Then parting the holder for the adequate size.



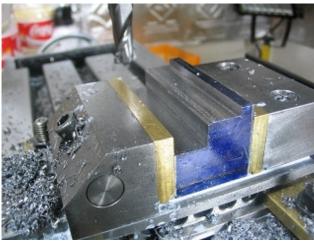
5. (HOLDER)

Paring the material to the 30mm each, and the end face is milled.

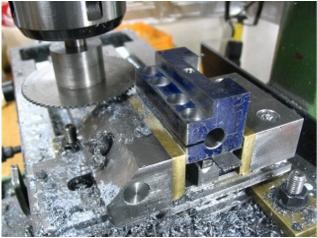
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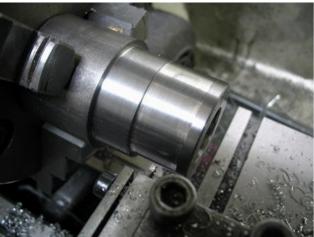
6. (HOLDER)
Making a groove for tools with a rough end mill.



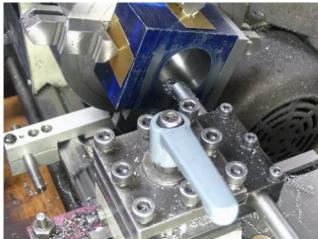
7. (HOLDER) This is for the paring tool.



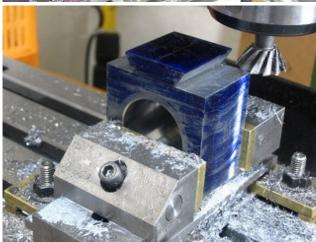
8.(HOLDER) This is for the boring bar.



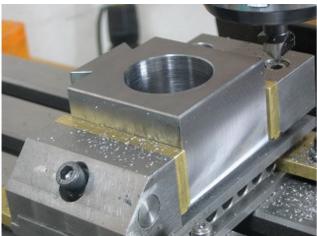
9. (ECCENTRIC CAM)
Turning of the eccentric cam. The material is free cutting steel of the 40mm diameter.



10. (BODY) Boring of the body.

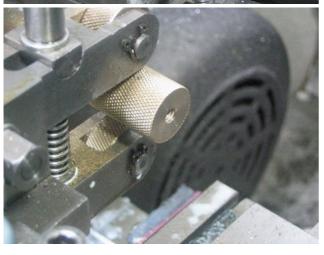


11. (BODY) Dove tail cutting. Its size must be fit to the size of the holder.

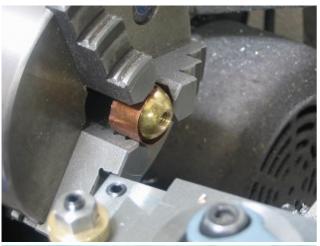


12. (BODY) Chaffering the body with the deburring tool.

After this procedure, filing the cutting mark on the belt sander.



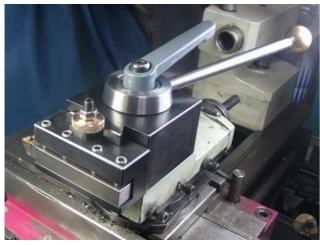
13. (SUNDRY PARTS) Knurling for the height adjustment nut. The material is brass.



14. (SUNDRY PARTS)
Machining of the ball for the lock lever. The material is brass.



15. All the parts are machined. This is a main parts before the black oxide finishing.



All the procedure is finished. and it is installed on the lathe.

Lock is very steady and easy. I have been very satisfied of it.

