

Metal Lathe Operations

Bob Sorenson

Objectives

- a. General overview
- b. Major sub-assemblies
- c. Attachments
- d. Lathe Specifications
- e. Cutting tools
- f. Precision measurement
- g. Shop references

General Overview



Headstock



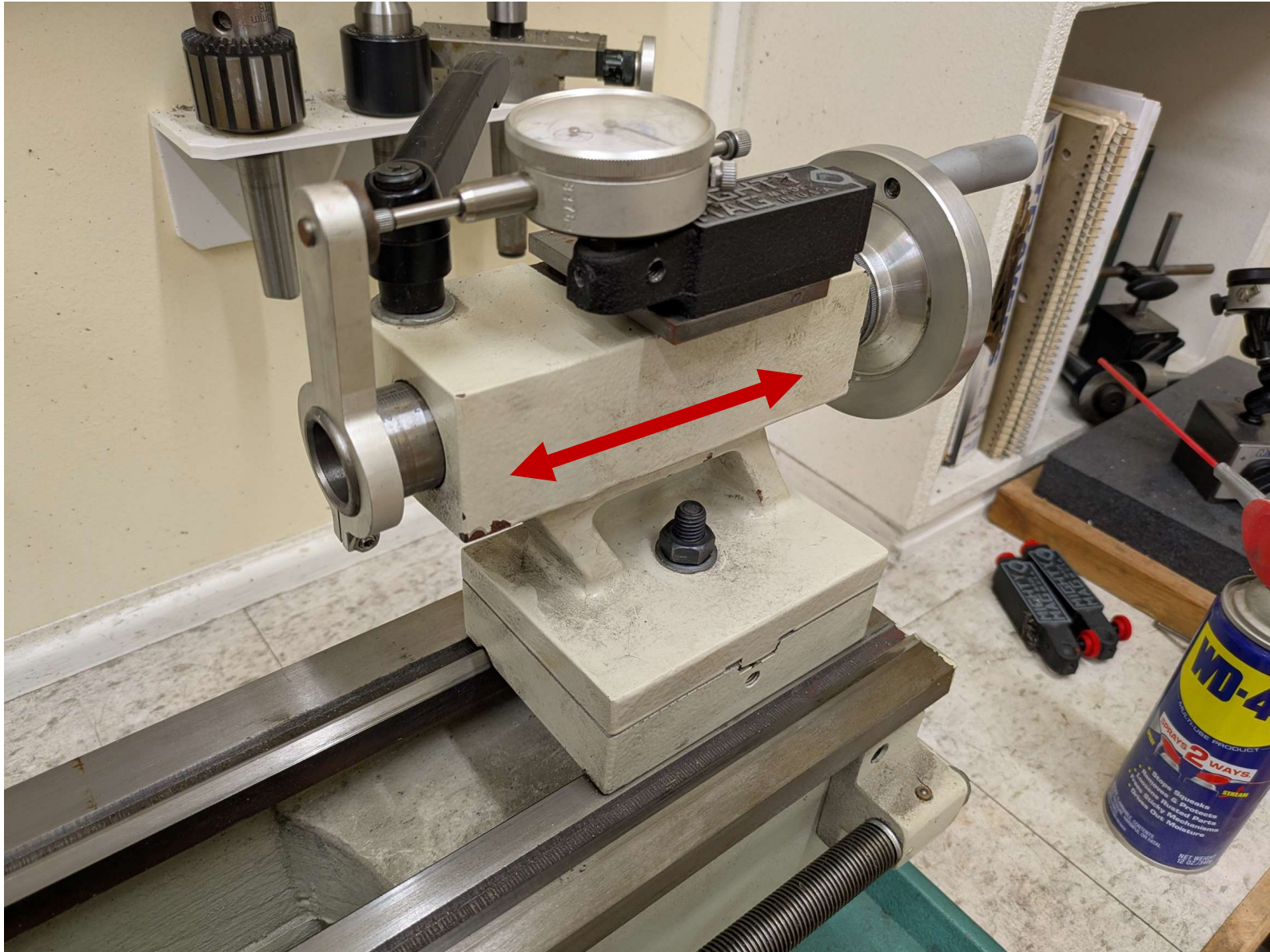
Carriage



Carriage



Tailstock

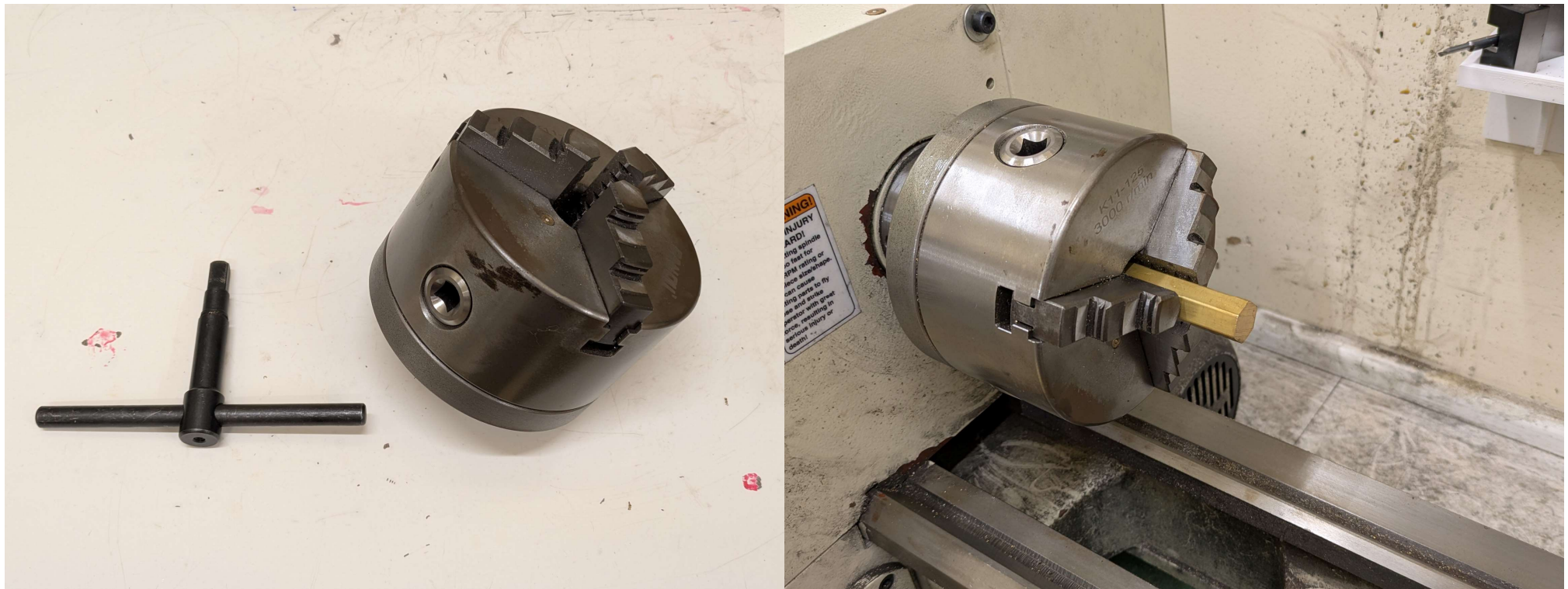


Ways



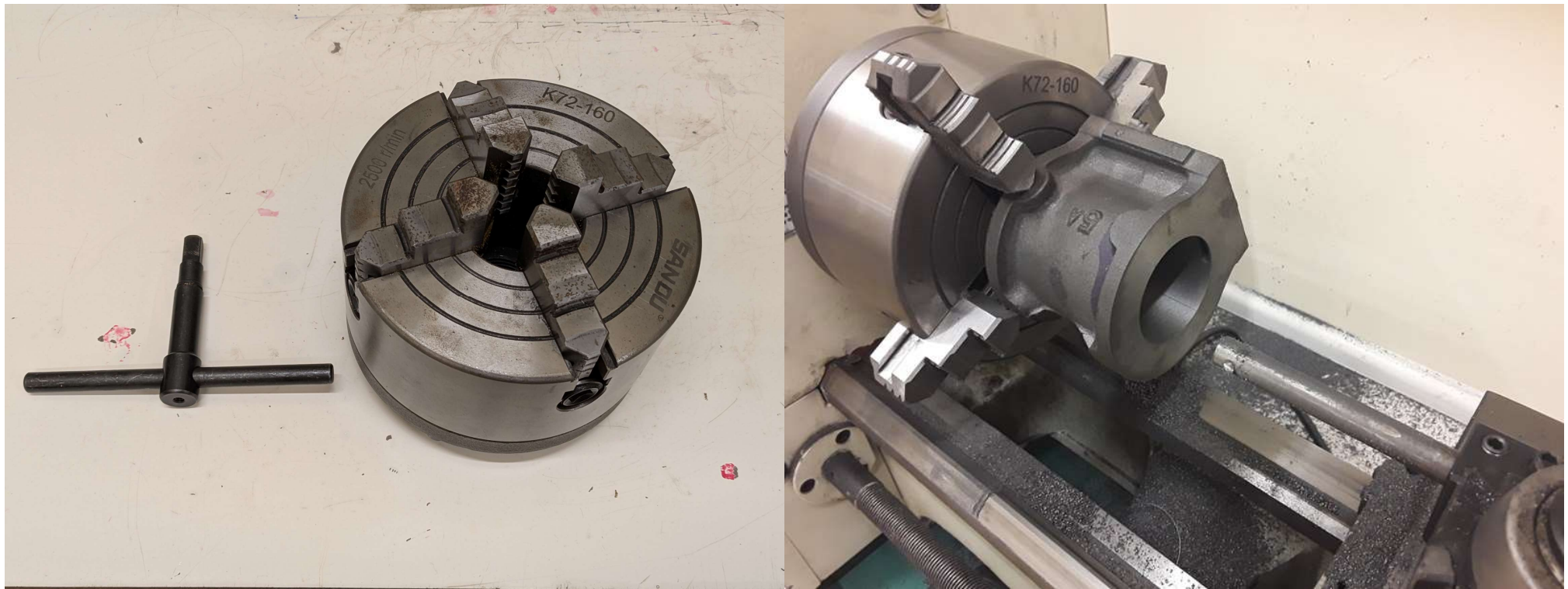
Headstock Attachments

3 Jaw Self Centering Chuck



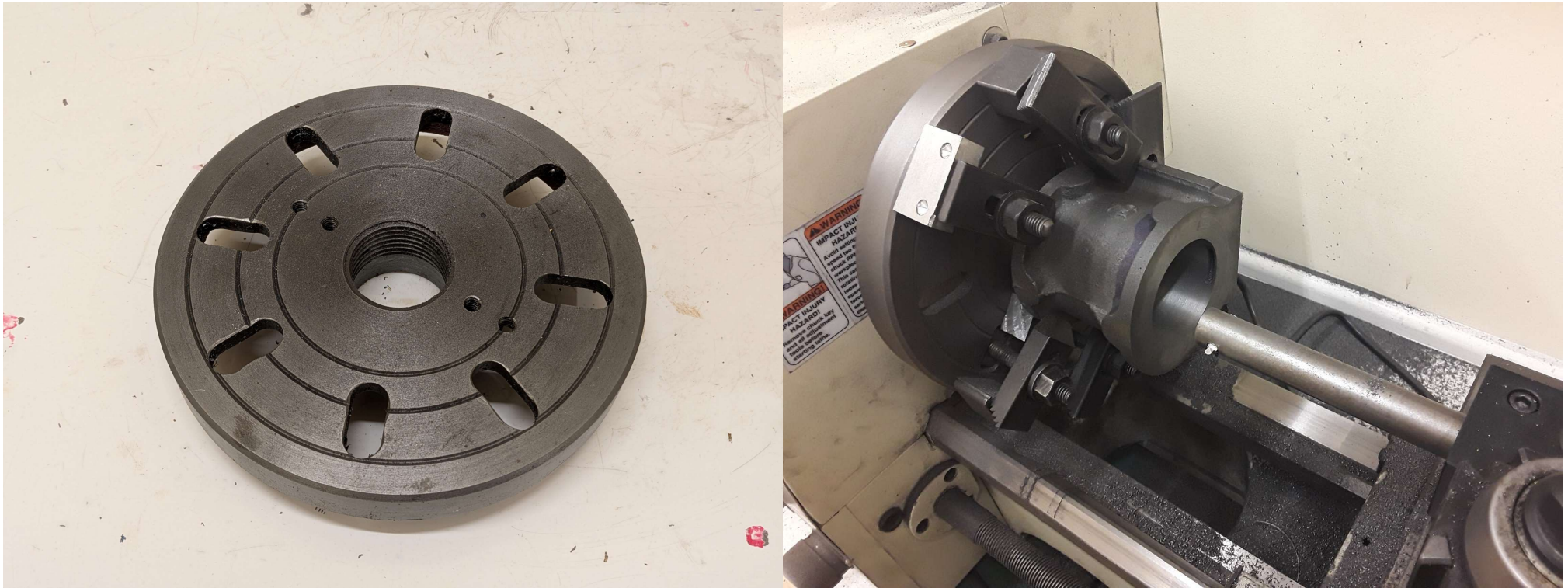
Headstock Attachments

4 Jaw Independent Chuck



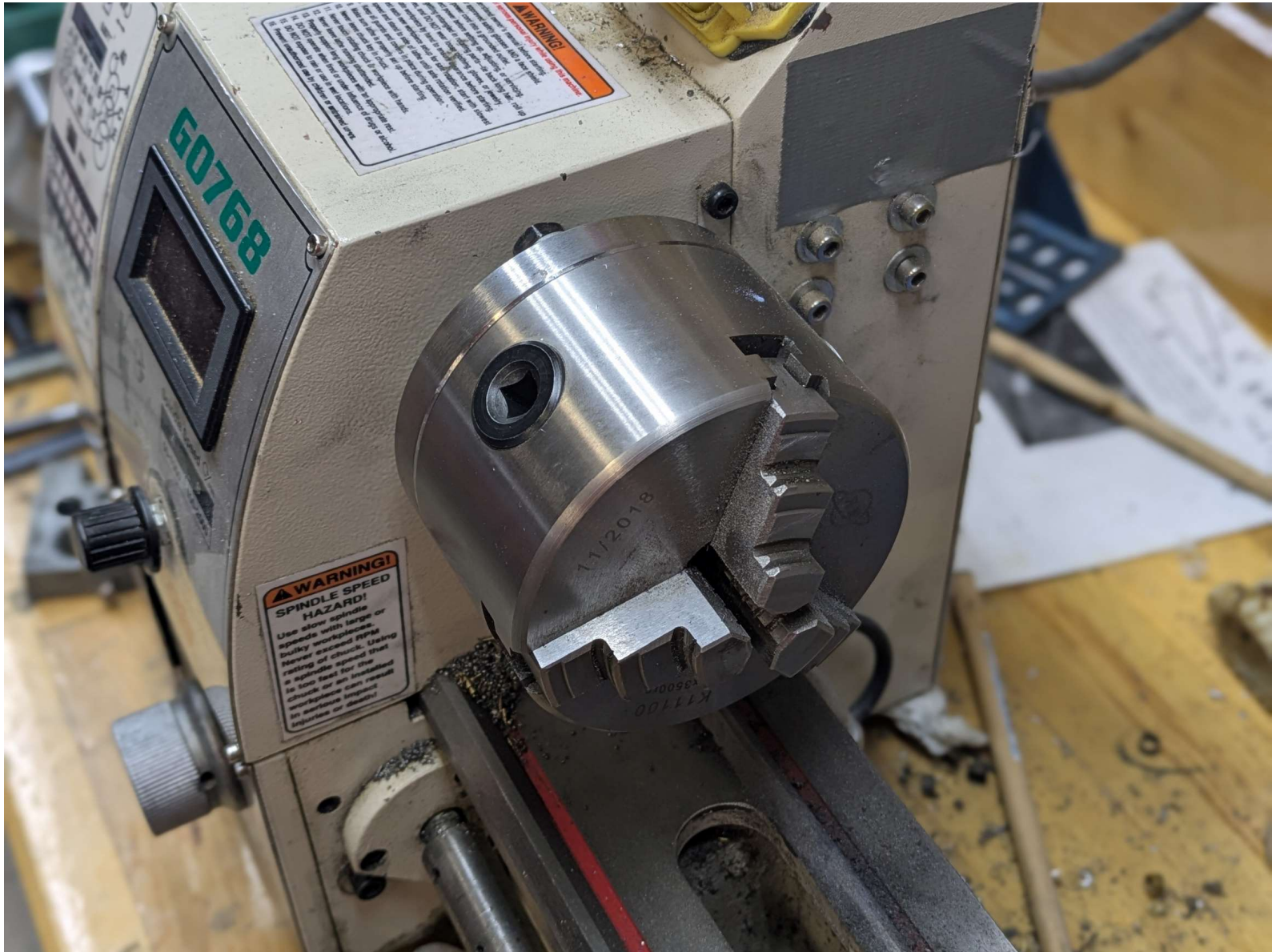
Headstock Attachments

Face Plate



Headstock Attachments

7" and 8" Import Lathe



Headstock Attachments

7" and 8" Import Lathe



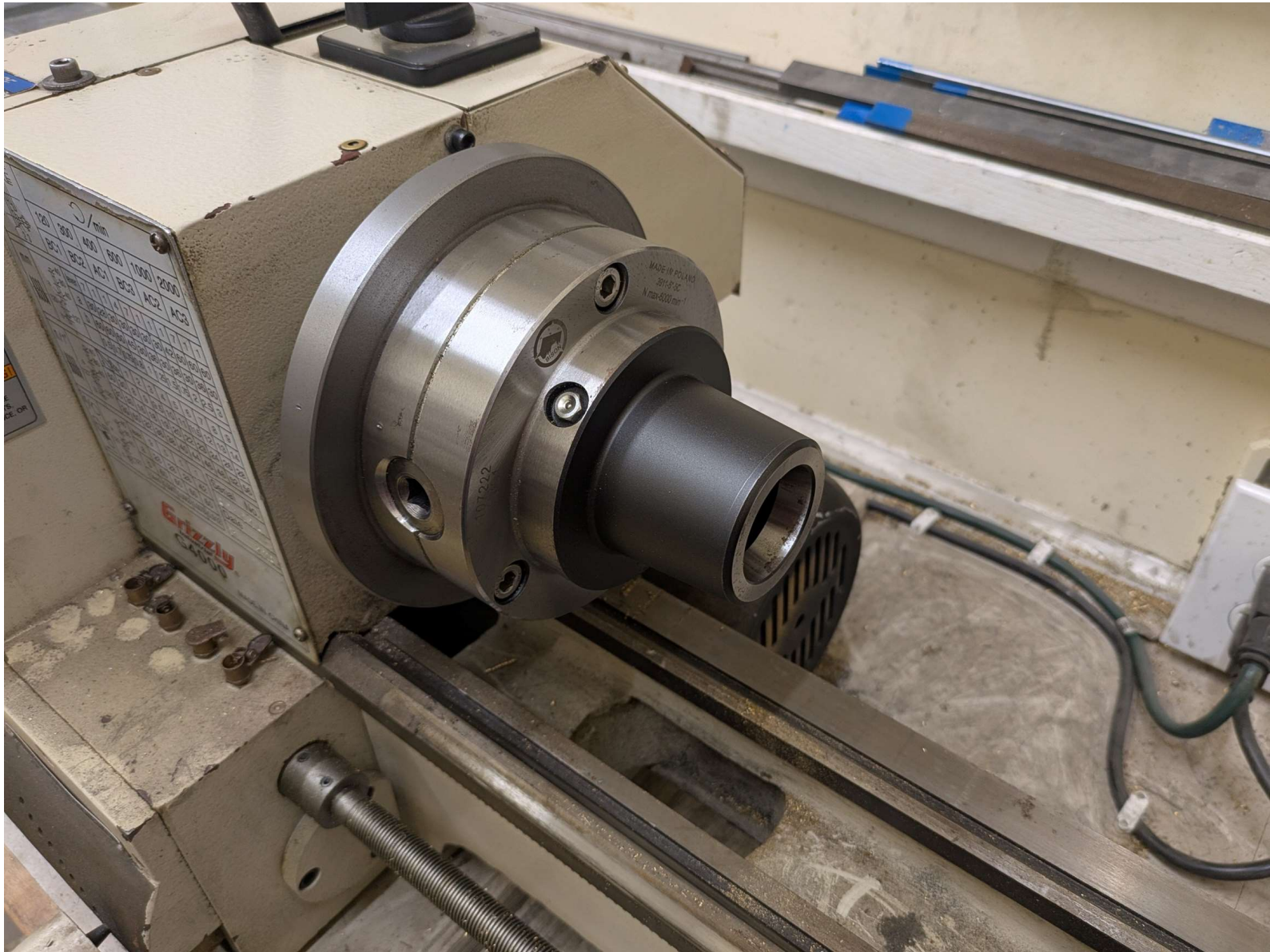
Headstock Attachments

Collets



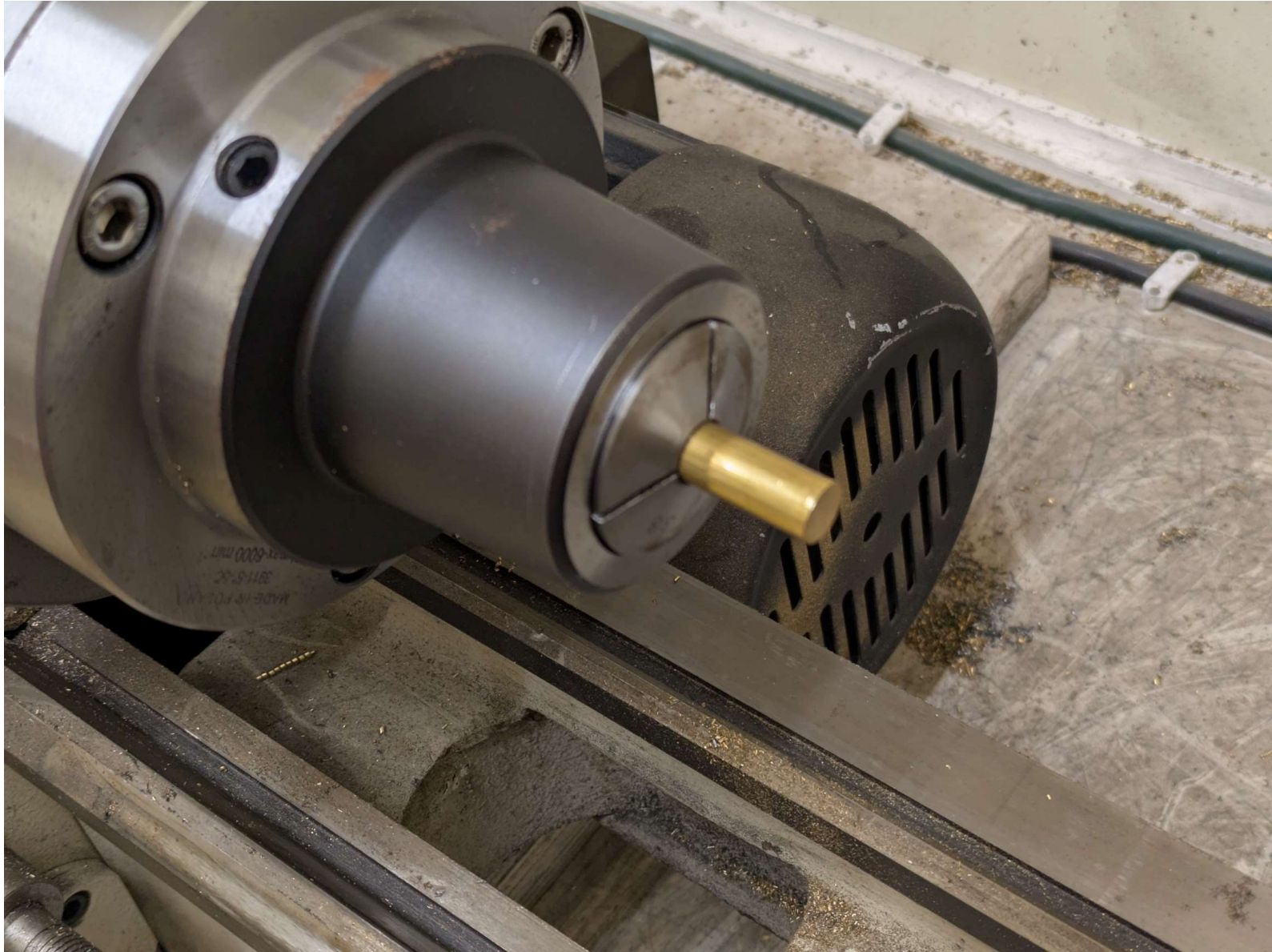
Headstock Attachments

Collets



Headstock Attachments

Collets



Headstock Attachments

Collets



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Collets



Headstock Attachments

Collets

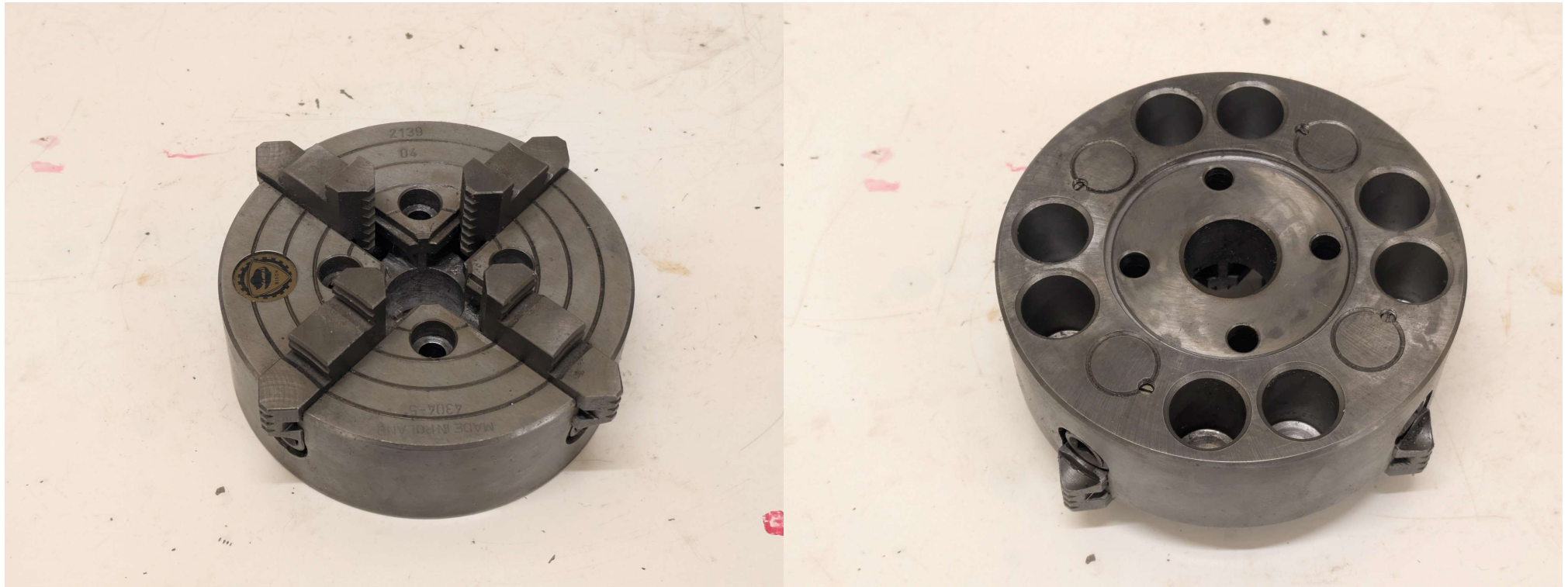


Headstock Attachments

Collets



Headstock Attachments Back Plates



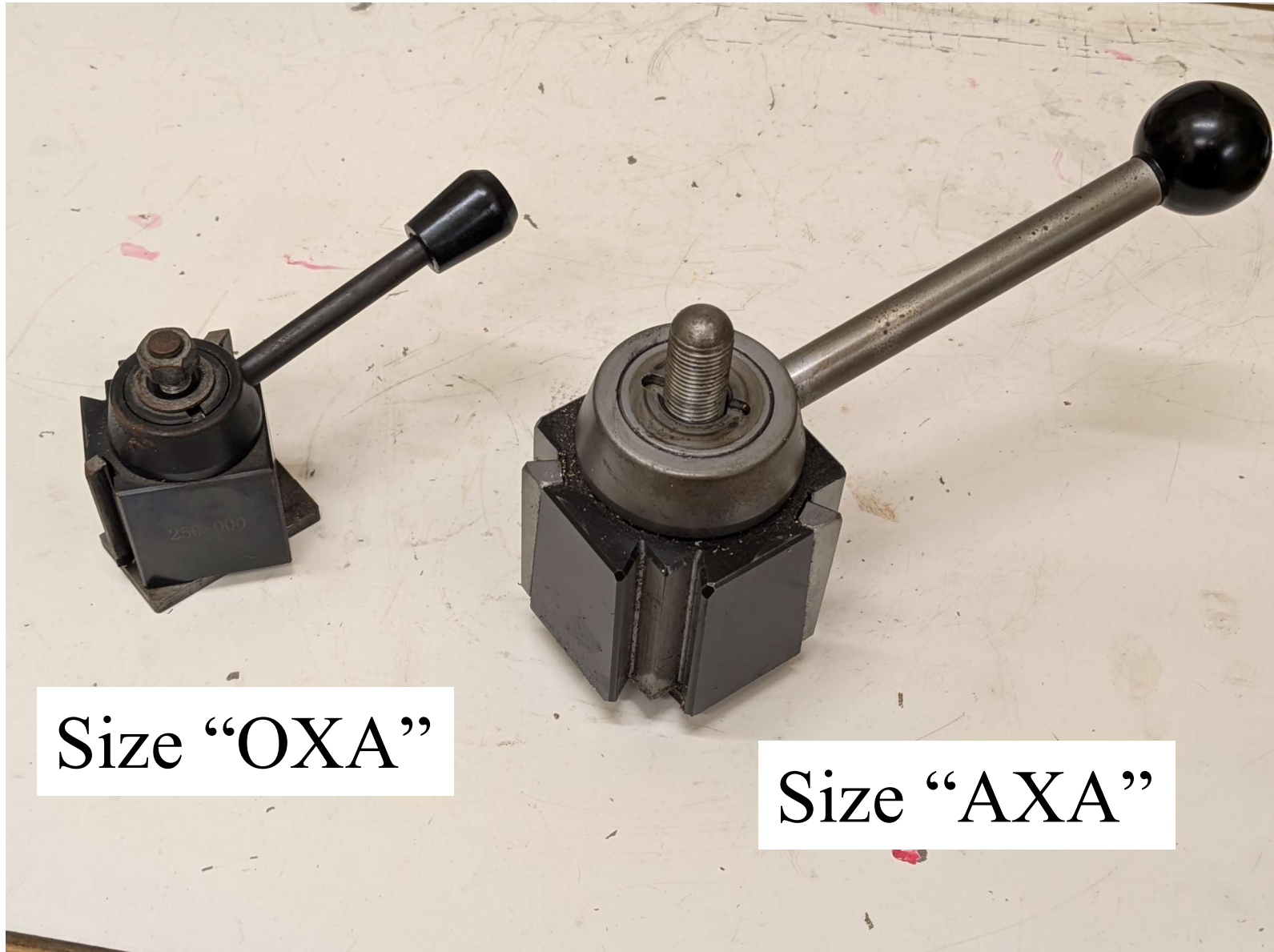
Headstock Attachments Back Plates



Headstock Attachments Back Plates



Carriage Attachments Quick Change Toolpost



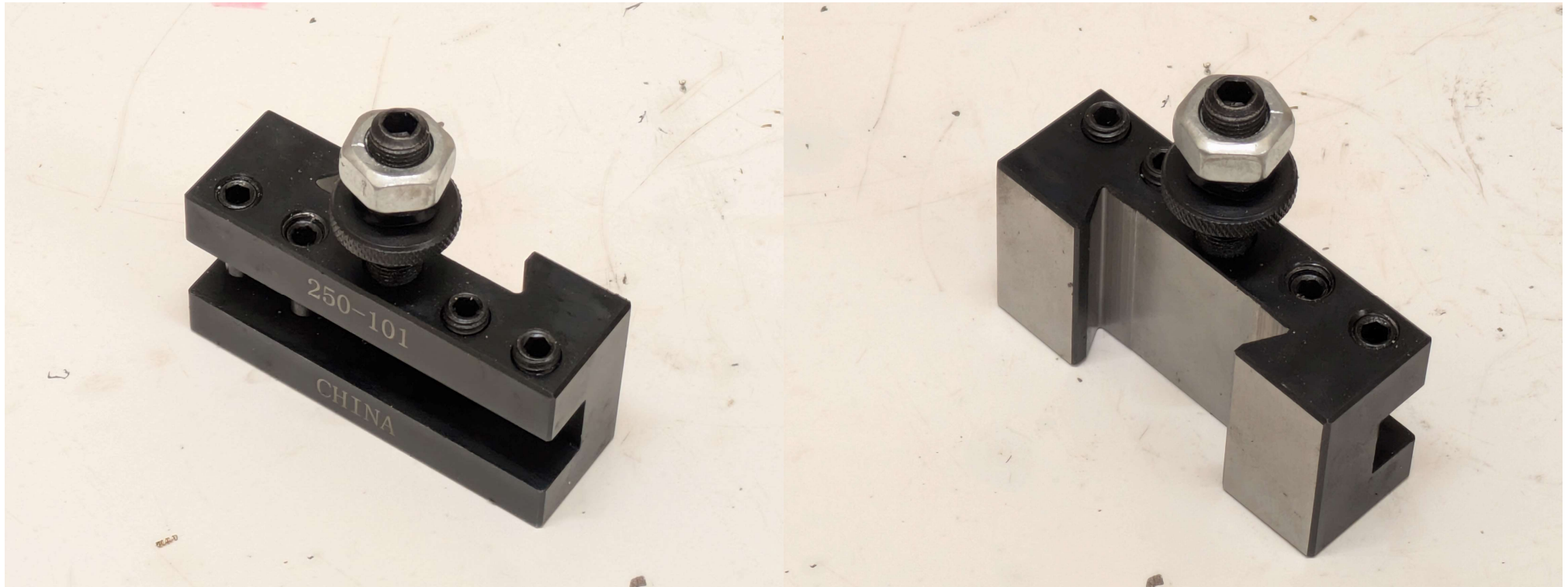
Size "OXA"

Size "AXA"

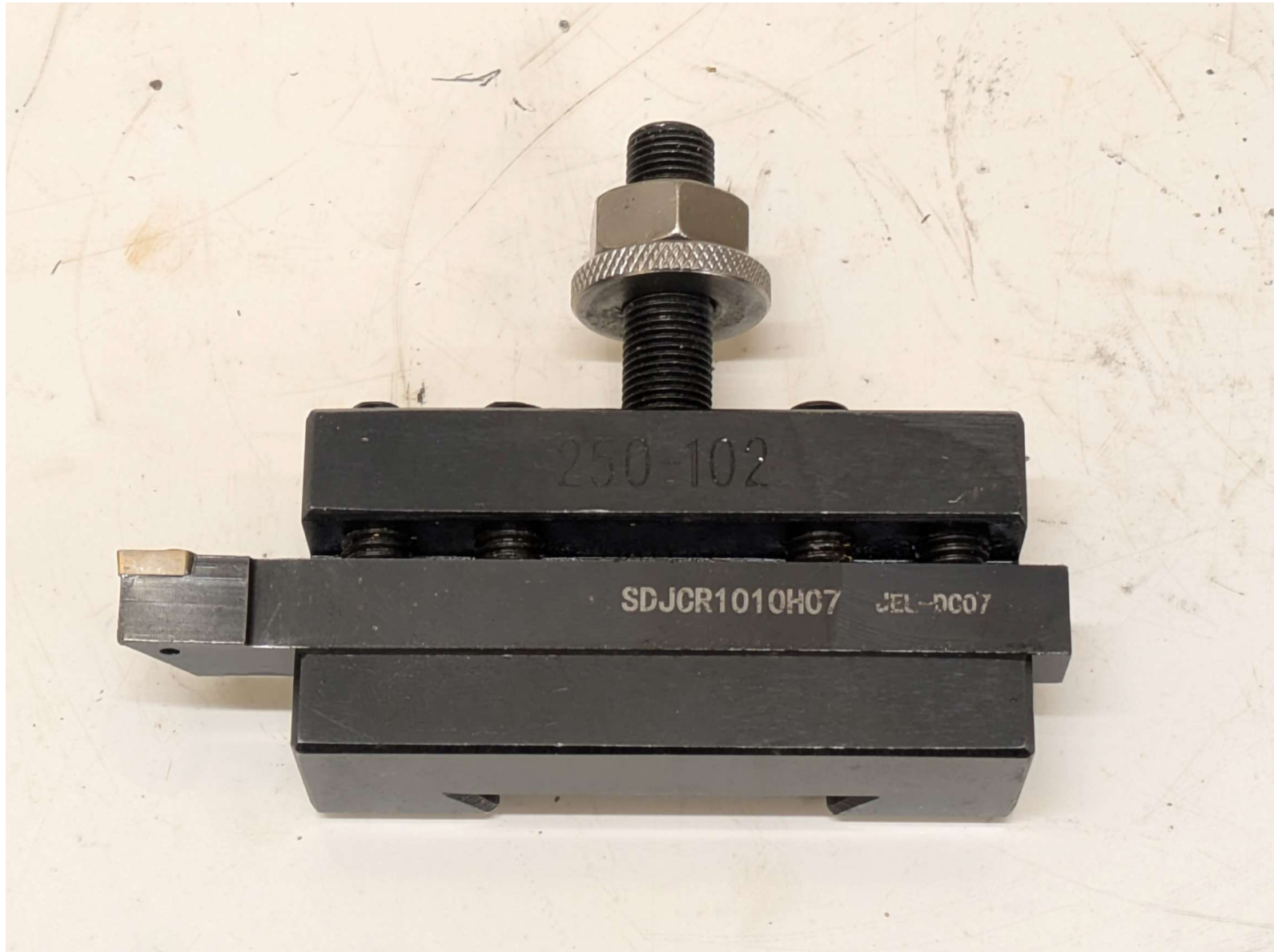
Carriage Attachments Quick Change Toolpost



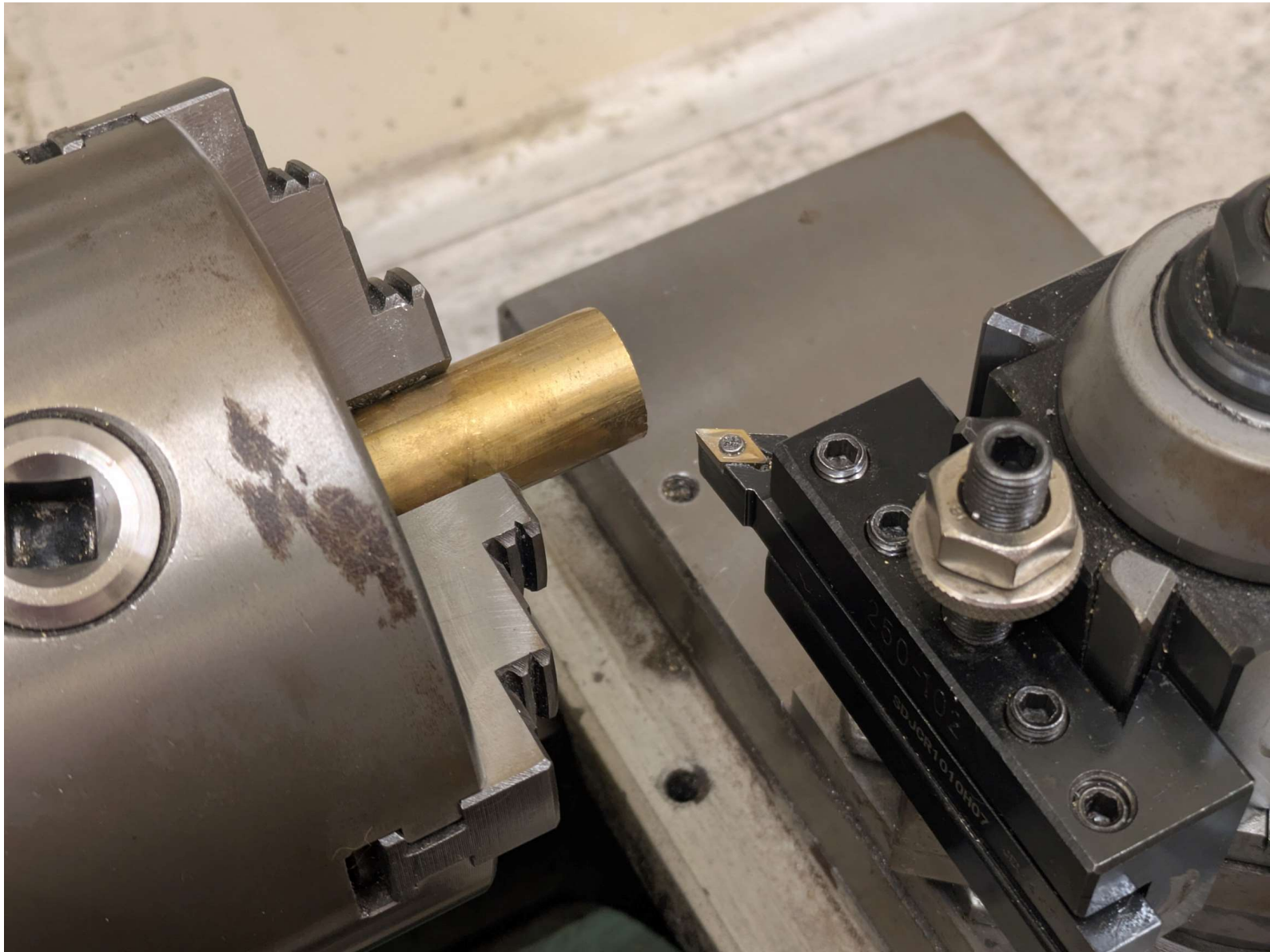
Carriage Attachments Quick Change Toolpost



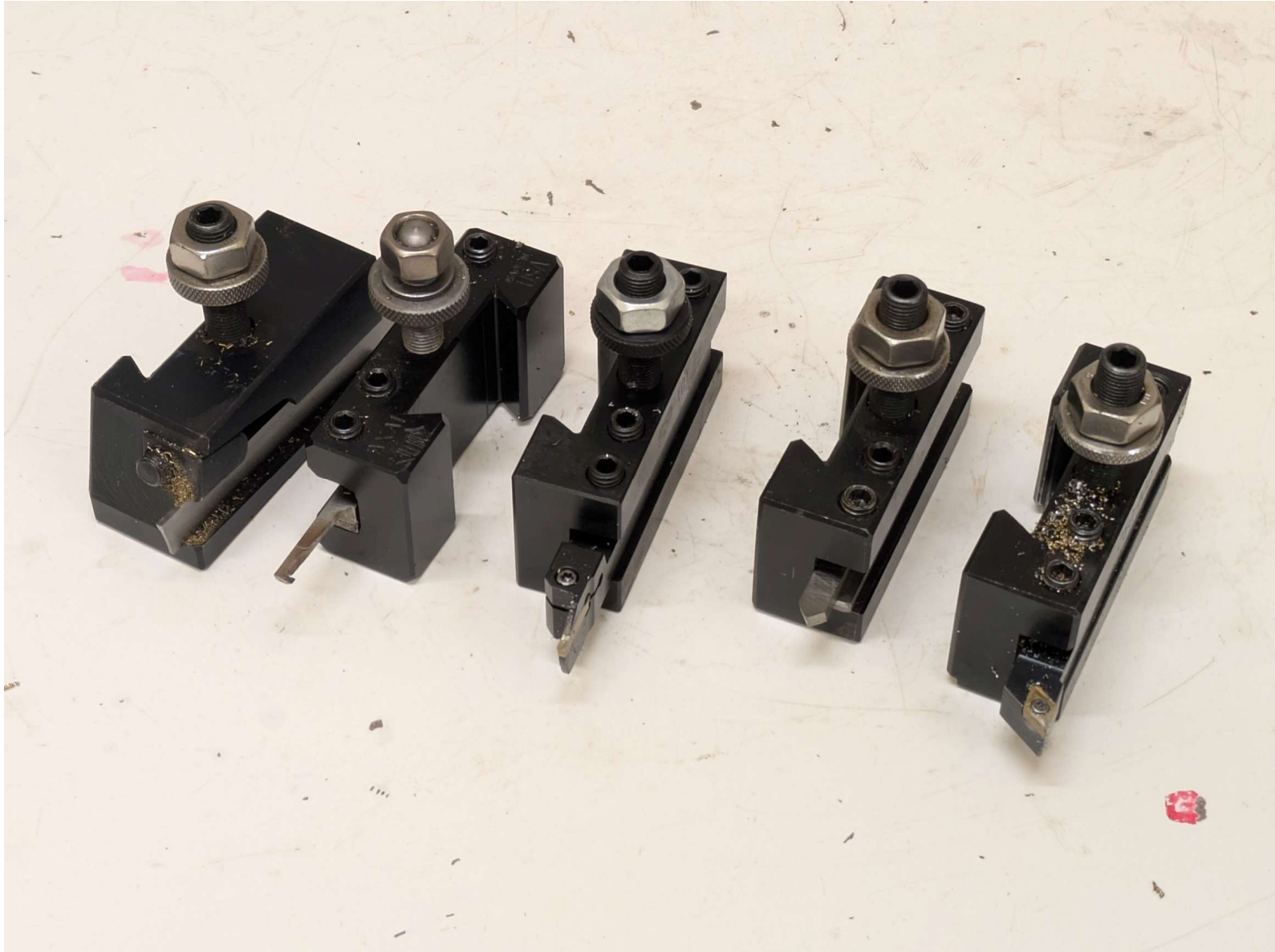
Carriage Attachments Quick Change Toolpost



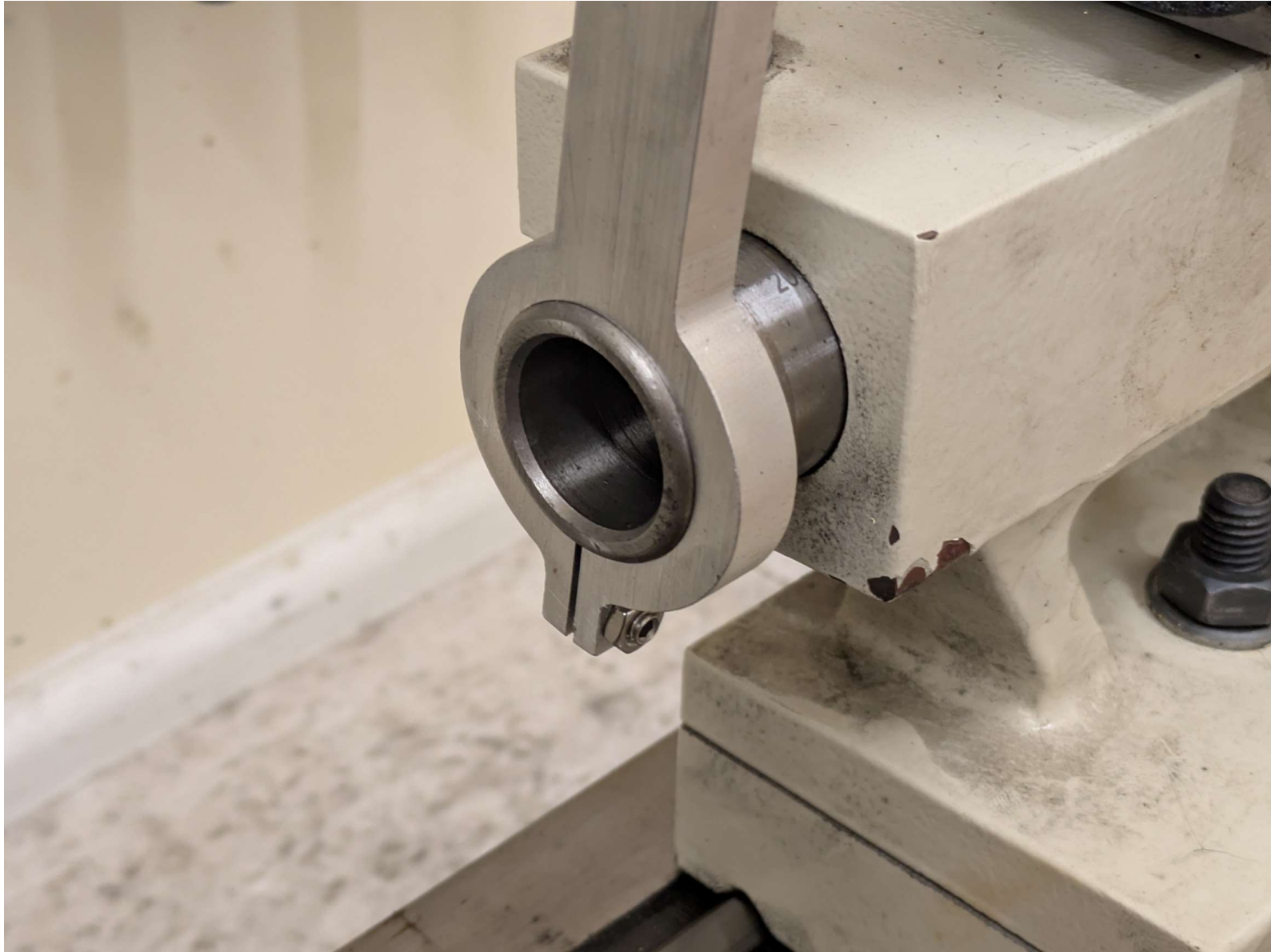
Carriage Attachments Quick Change Toolpost



Carriage Attachments Quick Change Toolpost



Tailstock Attachments



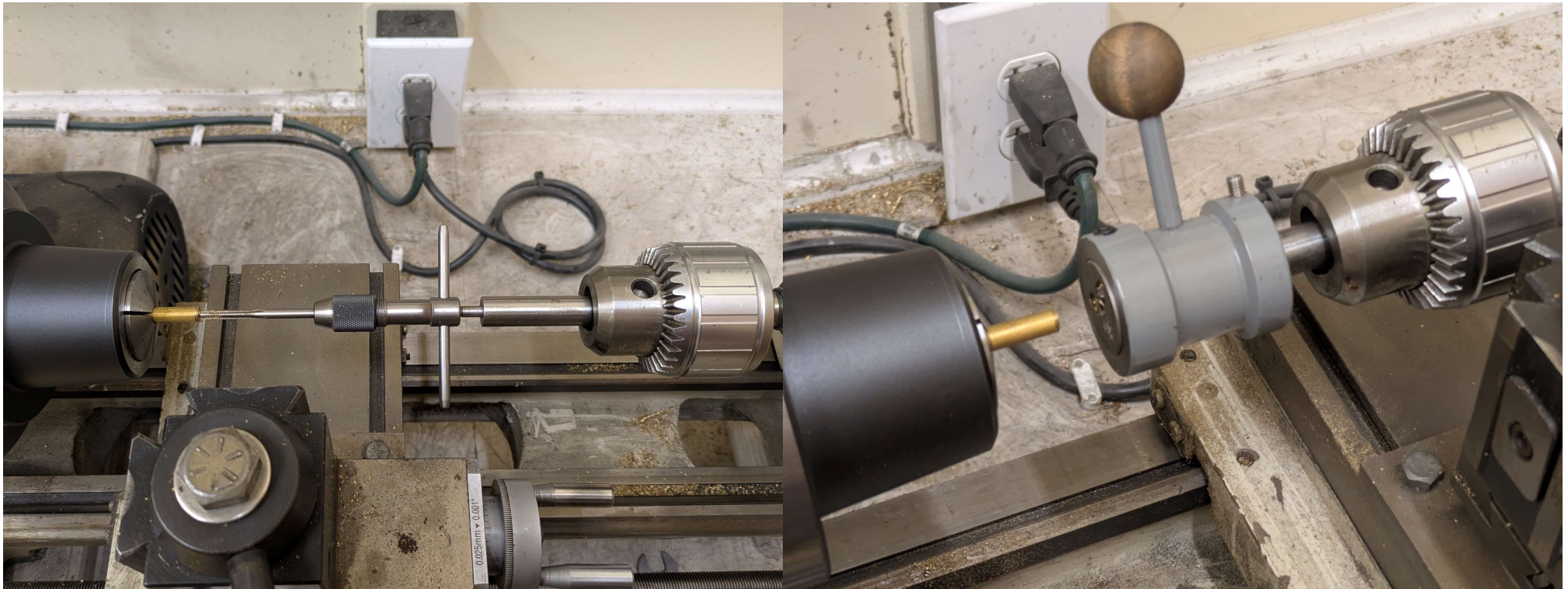
Tailstock Attachments



Tailstock Attachments

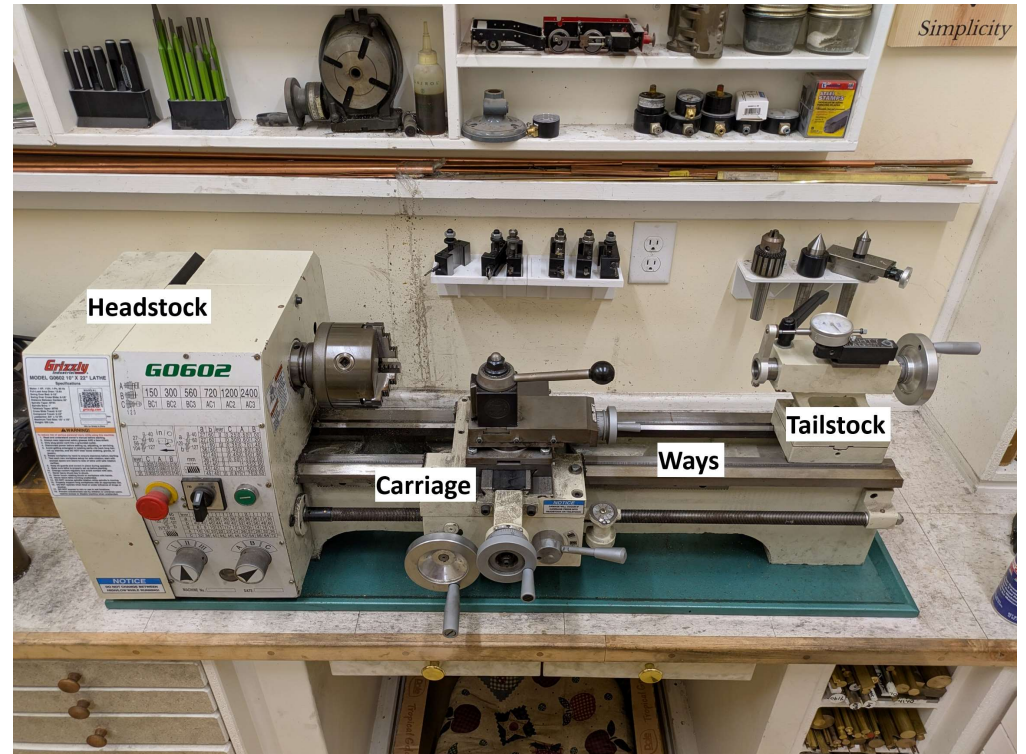


Tailstock Attachments

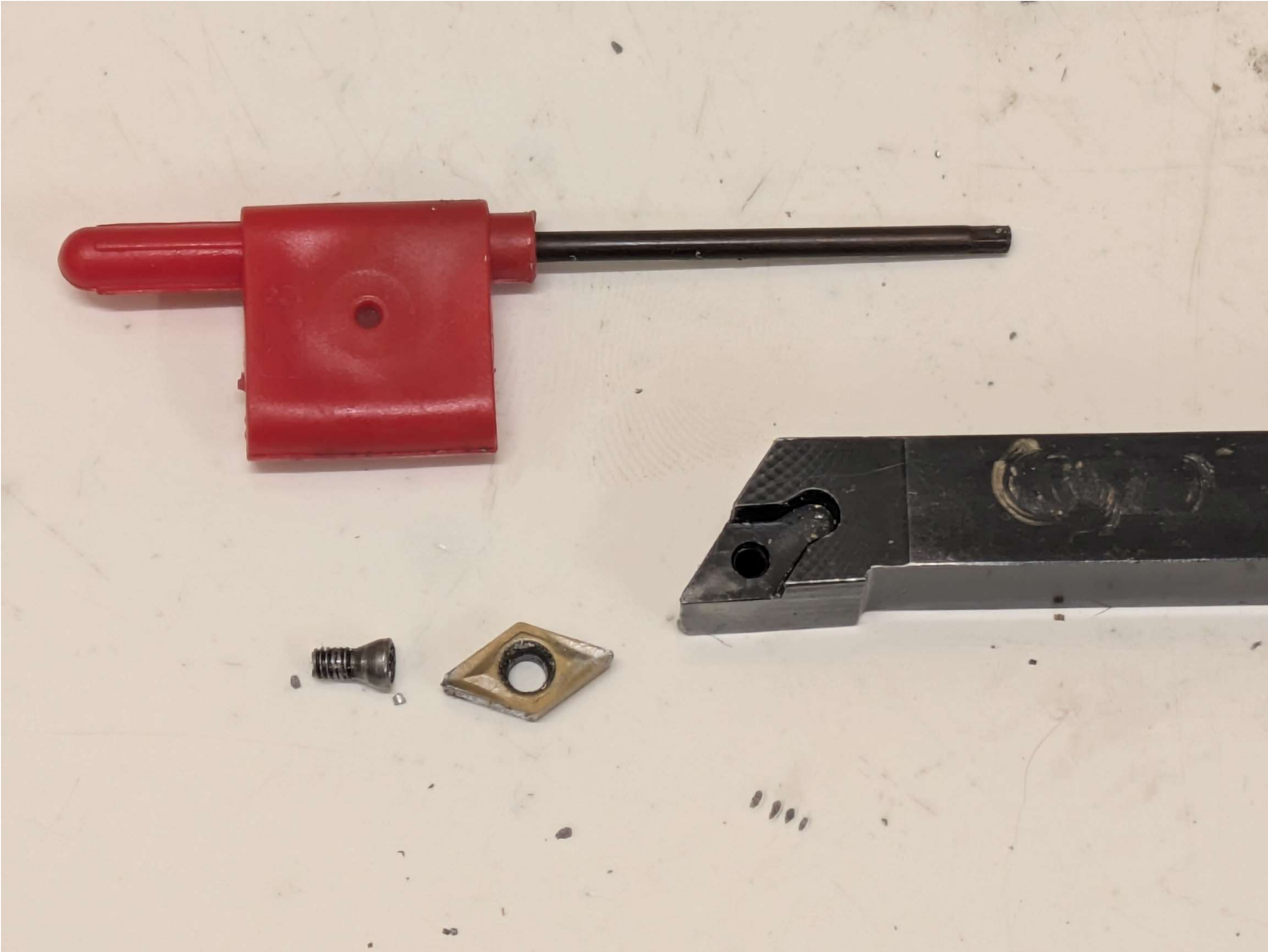


Lathe Specifications

Distance between centers
Swing over bed
Swing over carriage
Cross feed travel
Compound travel
Spindle & tailstock tapers



Cutting Tools



Cutting Tools



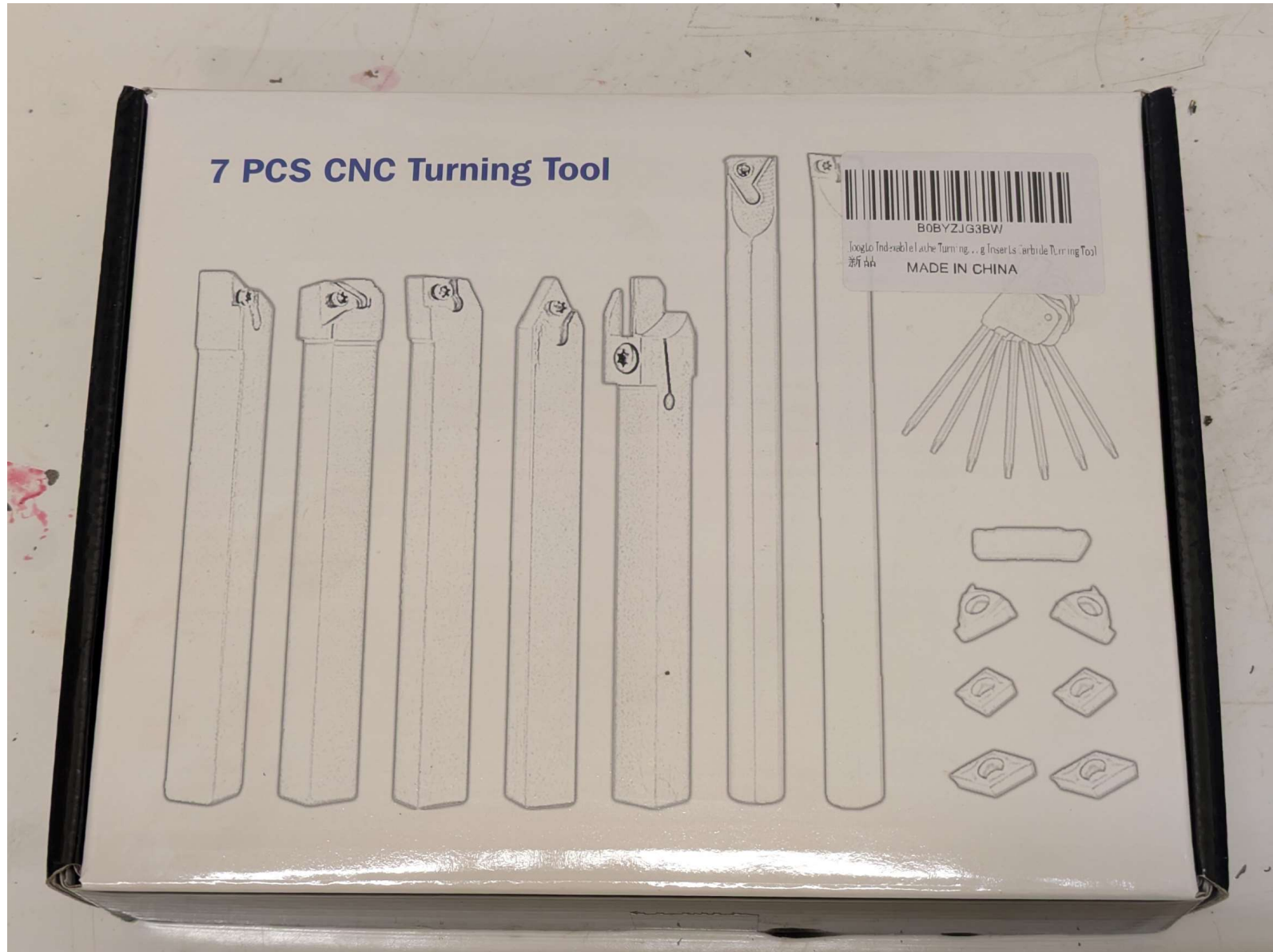
Cutting Tools



Cutting Tools



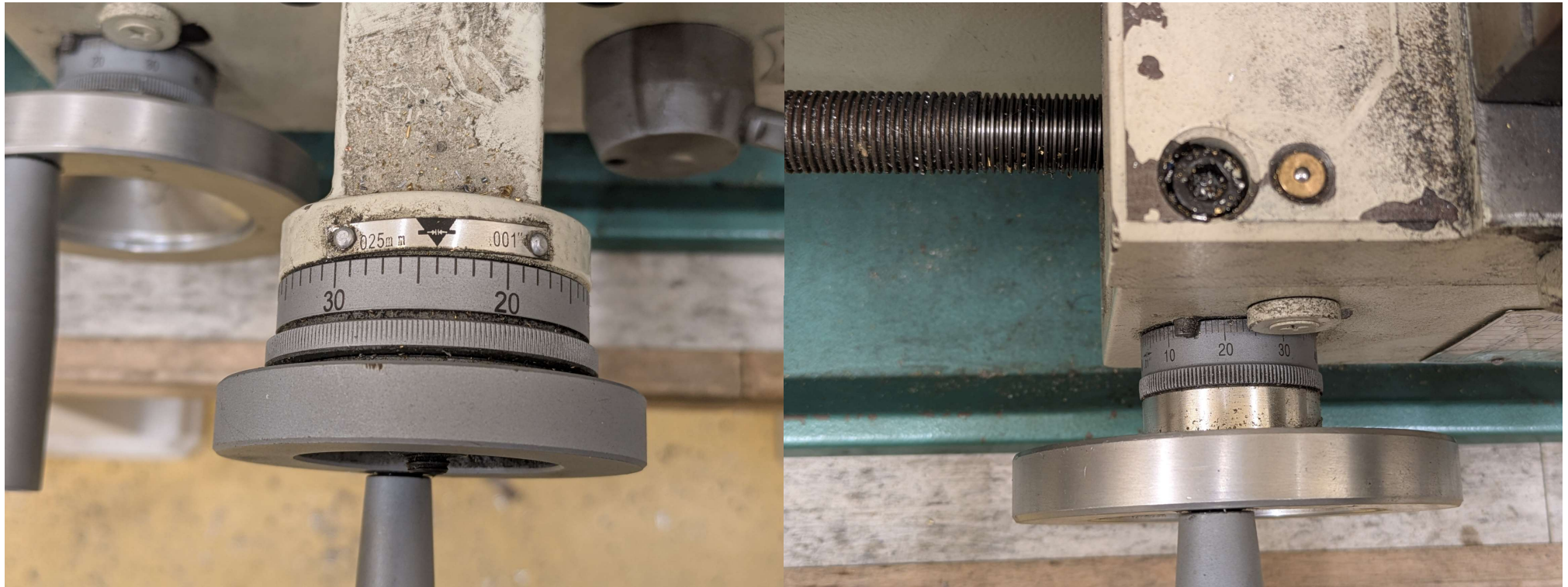
Cutting Tools



Cutting Tools



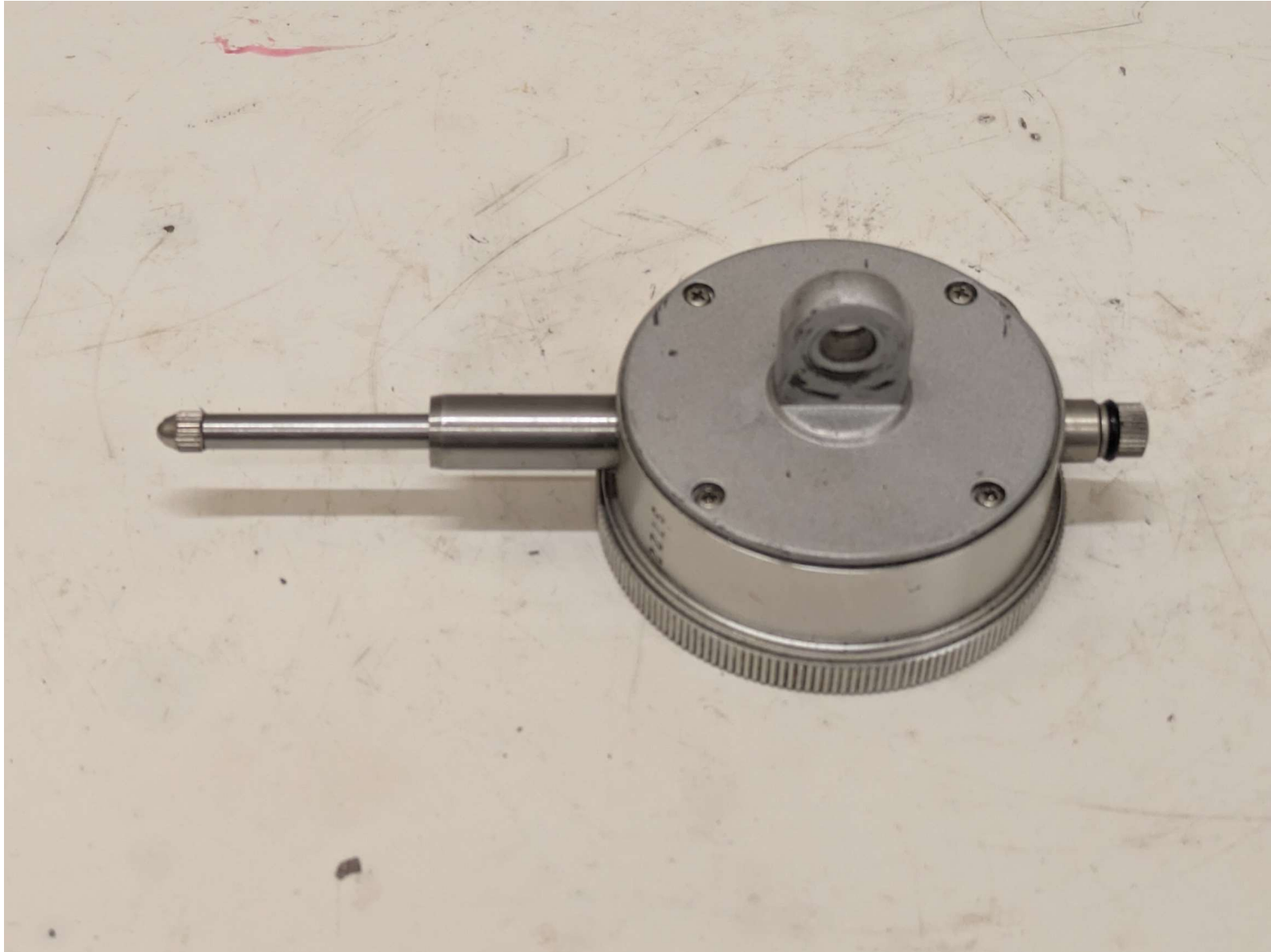
Precision Measurement



Precision Measurement



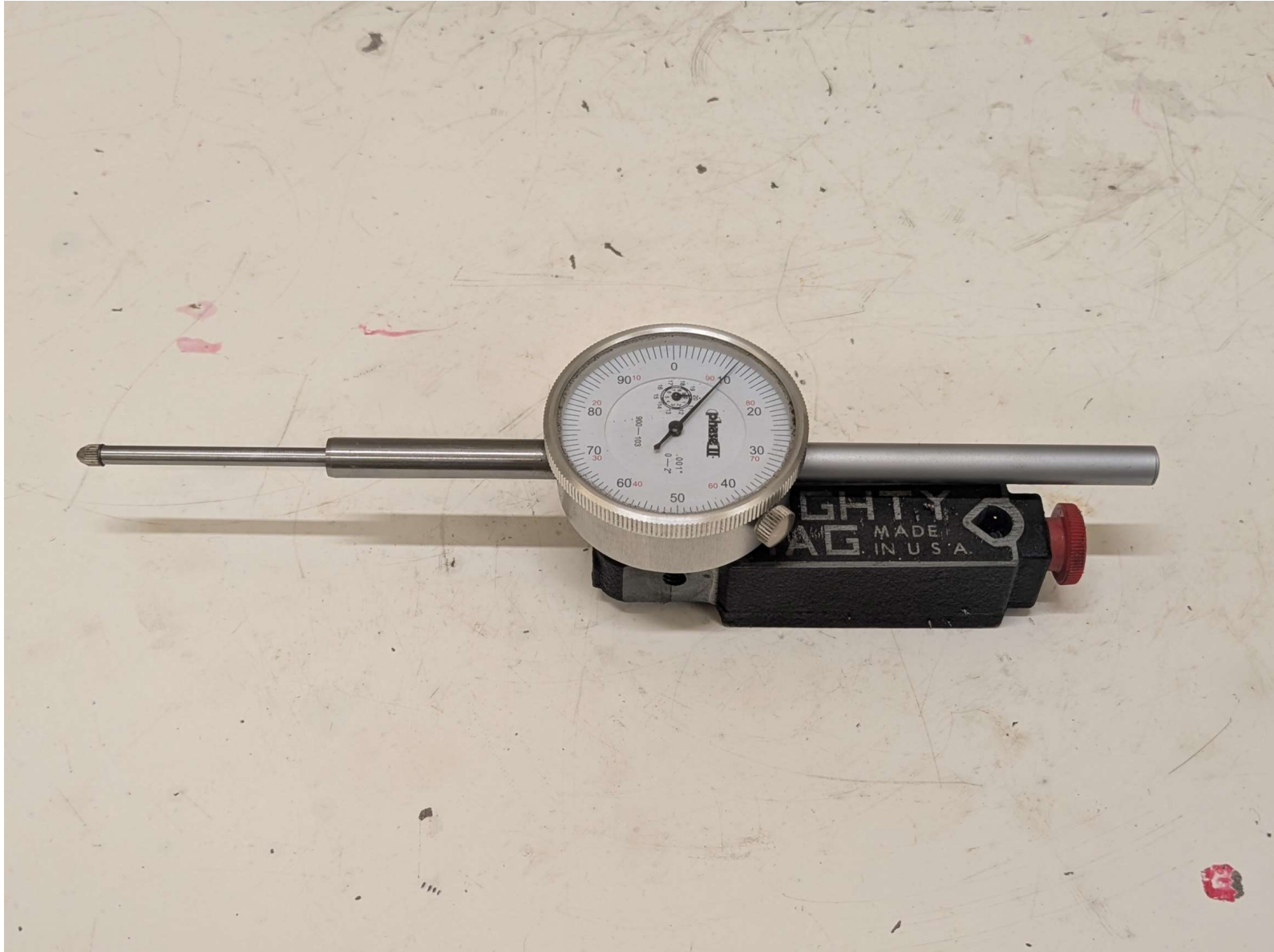
Precision Measurement



Precision Measurement



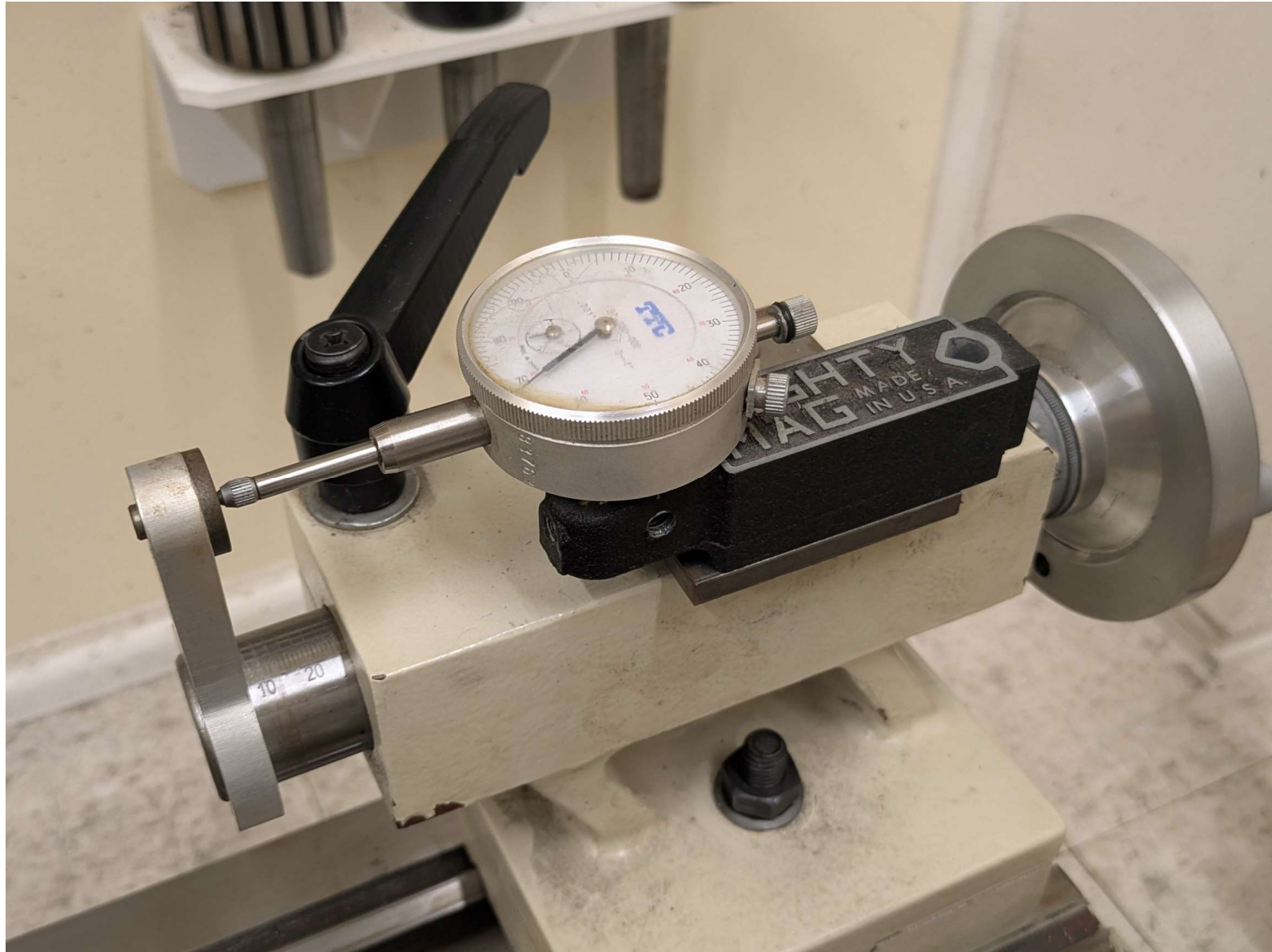
Precision Measurement



Precision Measurement



Precision Measurement



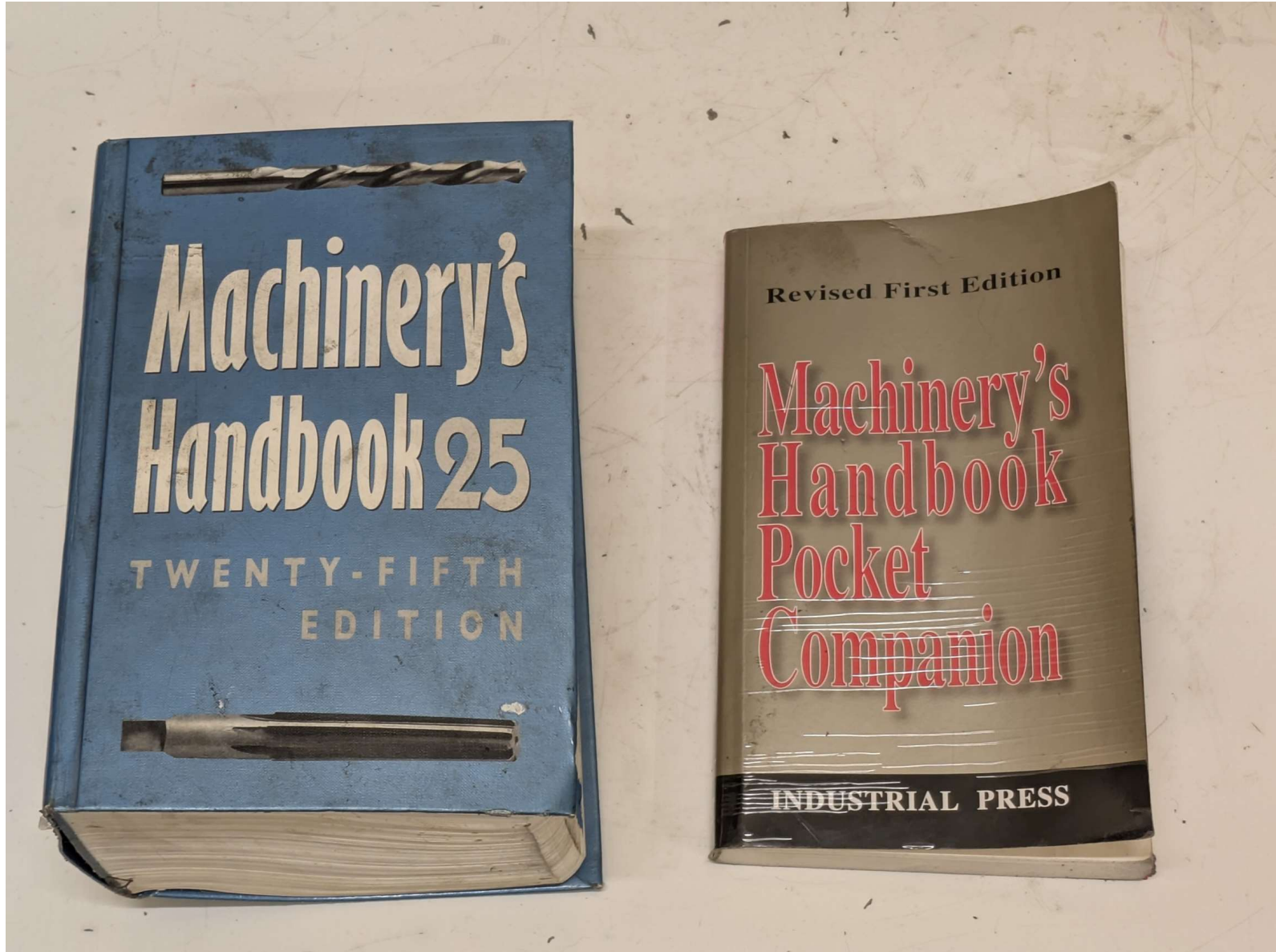
Precision Measurement



Precision Measurement



Shop References



Shop References

- a. LittleMachineShop.com
- b. Travers Tool
- c. McMaster-Carr
- d. VictorNet Tools
- e. Speedy Metals
- f. Amazon

Questions??