

# K-07

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## TOOLMAKER TRAINING

### TRAINER'S GUIDE

Duty K: Internal Grinder

**K-07: Set Up Machine (Lathe Chuck, Magnetic Parallel,  
Face Plate, Taper Pot, or No Holding Device)**

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## **Instructions To The Trainer**

1. The Learner will contact you when ready to practice setting up the machine.
2. Be prepared to demonstrate the steps for this task.
3. Ask the Learner to contact the Evaluator when ready for the Skill Check.



## **Skill Objective**

Given a process sheet and dimensional print requiring internal grinding, set up the internal grinder.

### **Task Standards**

1. The part must be installed to the required holding device, as determined from the dimensional print.
2. The holding device and/or part must be centered on the permanent magnet within .0001" or less, when measured with a dial indicator.
3. All safe practices must be demonstrated during the setup procedure.

## What The Learner Will Need

This section contains the safety information, tools, and resources you will need before setting up the machine.



- Follow all Caterpillar facility safety standards when performing this task.
- Be aware of rotating equipment and unexpected machine movement.



- internal grinder
- dial indicator (tenths)
- setup equipment (required holding device)
- shop towel
- measuring equipment (micrometers, calipers, etc.)
- Arkansas stone
- copper/brass knocker
- jo blocks



- dimensional print
- standards for holding tolerances from tool design



## **Practice Set-Up**

The Learner may perform the following practice to help prepare for the Skill Check. Set up the practice for the Learner. Assist the Learner during the practice, if necessary; answer any questions concerning the task; and be prepared to demonstrate the task to the Learner. Make sure the Learner follows safe work practices while practicing the task.

### **Practice 1:**

Help the Learner practice indicating a part. Set up the internal grinder with the part centered according to print specifications.

### **Tools and equipment for Practice 1:**

Internal grinder equipped with setup equipment, a dimensional print for a part, stock

### **Practice Objective 1:**

Indicated measurements must match the print specifications for the part.

### **Practice 2:**

Practice using the copper/brass knocker to center a part. Help the Learner master the “feel” for centering a part. Randomly select parts with the dimensional prints and have the Learner center the part.

### **Tools and equipment for Practice 2:**

Internal grinder, copper/brass knocker

### **Practice Objective 2:**

Part must be centered within .0001” or less, when measured with a dial indicator.

## **Next Step**

Allow the Learner to continue practicing and developing skills needed to demonstrate the task. The Learner should ask the Evaluator to schedule a Skill Check when ready to demonstrate the task unaided and meet all the task standards and safe work practices.

