

# **BL-04**

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## **MAINTENANCE MECHANIC TRAINING**

### **TRAINER'S GUIDE**

**Duty BL: Tool Changers  
BL-04: Align Tool Changer (G & L)**

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## Instructions To The Trainer

1. The Learner will contact you when ready to practice aligning a G & L tool changer.
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 two alignment tools, align the G & L tool changer.

### Task Standards

1. Tool changer must change tools without jerking or binding.
2. When checked with a straightedge, the spindle alignment tool turned diameter must be parallel with the exchange arm alignment tool turned diameter.
3. When checked with a straightedge, the swing spindle alignment tool turned diameter must be parallel with the exchange arm alignment tool turned diameter.
4. When checked with a straightedge, the swing spindle alignment tool turned diameter must be parallel with the tool chain alignment tool turned diameter.

## What The Learner Will Need

This section contains the safety information, tools, and resources you will need before aligning a G & L tool changer.

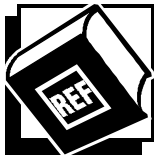
### **SAFETY FIRST**

**DON'T TAKE  
CHANCES**

- Follow all Caterpillar facility safety standards when performing this task.
- You will be inside the machining area, close to the spindle. Check for adequate head clearance.
- The machining area table surface is slippery; exercise caution to avoid injury from falls.
- Communicate clearly with coworkers when performing the alignment procedure. It is important that personnel be able to predict machine movement.
- The machine must be placed in the SETUP mode during the alignment procedure.



- two alignment tools (with the same turned diameters)
- shim stock
- access to a surface grinder
- straightedge or gauge block



- G & L General Instruction and Repair Parts Manual



## 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

Designate a G & L tool changer for the practice. Ask the Learner to:

- obtain the required equipment
- align the tool changer
- test the tool changer for smooth movement

Ask the Learner to demonstrate the safe work practices while performing this task.

### Practice Objective

The tool changer must change tools without jerking or binding. When checked with a straightedge, the spindle alignment tool turned diameter must be parallel with the exchange arm alignment tool turned diameter; the swing spindle alignment tool turned diameter must be parallel with the exchange arm alignment tool turned diameter; the swing spindle alignment tool turned diameter must be parallel with the tool chain alignment tool turned diameter. All the safe practices associated with aligning a tool changer must be demonstrated.

## 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.