

BL-04

MAINTENANCE MECHANIC TRAINING

SKILL CHECK GUIDE

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

Issued 06/01/98

Rationale

This Skill Development Guide provides the knowledge a Learner needs to align a G & L tool changer. The Learner must be able to align the tool changer so that tool changer movements are smooth, without jerking or binding. Accurate tool changer alignment ensures tool changes without damage to the machine or to the tools.

Skill Check Set-Up

Arrange for the availability of a G & L tool changer. Provide the tools, materials, and resources needed to demonstrate the task

Ask an Electrician to assist with the alignment. The Electrician enters machine commands for tool change movements. Observe to see if that the Learner communicates clearly with the Electrician during the alignment procedure. Check to ensure that all the task standards are met.

What The Learner Will Need

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

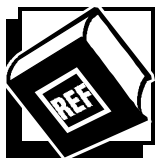
SAFETY FIRST

**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 anticipate 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



Skill Check

Given two alignment tools, align the G & L tool changer.

Needs
Mastered Practice

Safe Work Practices

- | | | |
|-------|-------|---|
| _____ | _____ | 1. Follow all Caterpillar facility safety standards when performing this task. |
| _____ | _____ | 2. You will be inside the machining area, close to the spindle. Check for adequate head clearance. |
| _____ | _____ | 3. The machining area table surface is slippery; exercise caution to avoid injury from falls. |
| _____ | _____ | 4. Communicate clearly with coworkers when performing the alignment procedure. It is important that personnel be able to anticipate machine movement. |
| _____ | _____ | 5. The machine must be placed in the SETUP mode during the alignment procedure. |

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. |



Evaluator's Sign-Off

The Learner has demonstrated safe work practices and competent performance of the task.

Evaluator: _____ Date: _____

Learner: _____ Clock No: _____

