

G-31

MAINTENANCE MECHANIC TRAINING

SKILL CHECK GUIDE

Duty G: Conveyors
G-31: Replace Belt (Product)

Issued 01/01/99

Rationale

This Skill Development Guide provides the knowledge a Learner needs to replace a product belt. The Learner must be able to:

- remove the old belt.
- splice a new belt to the old belt.
- guide the new belt onto the belt.
- tension and train the belt.

Skill Check Set-Up

Identify a conveyor that requires product belt replacement. Check the crib to ensure a replacement belt is available.

Provide the tools, materials, and resources needed to demonstrate the task.

What The Learner Will Need

This section contains the safety information, tools, and resources you will need before replacing a product belt.



- Follow all Caterpillar facility safety standards when performing this task.
- The conveyor drive motor must be locked and tagged when the defective belt is removed and during new belt installation.
- Check to ensure that the conveyor is unloaded before beginning the replacement procedure.
- If there is a possibility that material could be dumped from the hopper, lock out the hopper.
- If the conveyor is located in a dusty area, wear a protective mask, as necessary.
- If the conveyor is located overhead and a ladder, manlift, or scaffold is necessary, exercise caution when working aloft. Wear a harness, as necessary.
- Wear gloves to protect your hands. Conveyors and conveyor service equipment can present hazards such as pinch points, rotating and moving equipment.



- two belt clamps
- transporting equipment (for transporting belt)
- hoist (to support belt during removal and installation) or other means available
- air drive socket
- belt cutter

- cutter guide
- belt fasteners
- air drive socket (special equipment for fastener nuts)
- belt tape
- fastener template
- fastener bolt hole drill
- large framing square
- clamps or nails (for cutter guide and fastener template)
- 2 x 4 piece of wood
- hand-made custom tool or a standard bolt-breaking tool
- remote conveyor jog switch (optional)



- Repair Ticket (Service Order)
- machine parts list
- belt location map
- procedure for adjusting and training sand belts



Skill Check

Given a repair ticket to replace a defective product belt on a conveyor, replace the belt.

Mastered Needs
Practice

Safe Work Practices

- | | | |
|-------|-------|--|
| _____ | _____ | 1. Follow all Caterpillar facility safety standards when performing this task. |
| _____ | _____ | 2. The conveyor drive motor must be locked and tagged when the defective belt is removed and during new belt installation. |
| _____ | _____ | 3. Check to ensure that the conveyor is unloaded before beginning the replacement procedure. |
| _____ | _____ | 4. If there is a possibility that material could be dumped from the hopper, lock out the hopper. |
| _____ | _____ | 5. If the conveyor is located in a dusty area, wear a protective mask, as necessary. |
| _____ | _____ | 6. If the conveyor is located overhead and a ladder, manlift, or scaffold is necessary, exercise caution when working aloft. Wear a harness, as necessary. |
| _____ | _____ | 7. Wear gloves to protect your hands. Conveyors and conveyor service equipment can present hazards such as pinch points, rotating and moving equipment. |

Task Standards

- | | | |
|-------|-------|---|
| _____ | _____ | 1. The belt must run without catching or slipping. |
| _____ | _____ | 2. The belt must run centered on the conveyor, without side-to-side movement. |
| _____ | _____ | 3. All safe practices must be demonstrated. |



Evaluator's Sign-Off

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

Evaluator: _____ Date: _____

Learner: _____ Clock No: _____