

A-07b

MAINTENANCE MECHANIC TRAINING

SKILL CHECK GUIDE

Duty A: Pumps (Not Hydraulic)
A-07b: Rebuild Pump (Graco Displacement)

Issued 06/01/98

Rationale

This Skill Development Guide provides the knowledge a Learner needs to rebuild a Graco displacement pump. The Learner must be able to select a repair kit, clean the pump, disassemble and reassemble the pump.

Skill Check Set-Up

Designate a pump that needs to be rebuilt. Check to ensure that the kit required for the pump is in stock. Arrange the availability of a cleaning area for use when pump parts need to be cleaned. Observe as the Learner reassembles the pump. Check to ensure that all defective parts are replaced. The vented ball valve must be installed as designated by the tag on the pump base. The packing nut must be torqued to specification.

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 rebuilding a Graco displacement pump.

SAFETY FIRST

**DON'T TAKE
CHANCES**

- Follow all Caterpillar facility safety standards when performing this task.
- When working in the paint area, wear heavy industrial gloves and a respirator fitted with charcoal filter for protection against the hazards associated with the cleaning solvents.
- An explosive hazard exists with cleaning solvents. No smoking is allowed in the paint or cleaning areas.
- Know the location of the MSDS for the cleaning solutions.
- Solvents must be disposed of according to the HAZMAT regulations.



- blue loctite
- tank of solvent and solvent tray for cleaning parts
- tray with putty knife
- wire brush
- 13mm wrench
- 13/16" wrench
- torque wrench
- channel locks
- soft mallet
- vise
- defective Graco 220-547 Displacement Pump

- rebuild kit
- Cabot Seal assembly lubricant



- Graco Parts Manual



Skill Check

Given a defective Graco displacement pump, rebuild the pump.

Needs
Mastered Practice

Safe Work Practices

- | | | |
|-------|-------|--|
| _____ | _____ | 1. Follow all Caterpillar facility safety standards when performing this task. |
| _____ | _____ | 2. When working in the paint area, wear heavy industrial gloves and a respirator fitted with charcoal filter for protection against the hazards associated with the cleaning solvents. |
| _____ | _____ | 3. An explosive hazard exists with cleaning solvents. Smoking is not permitted in the paint or cleaning areas. |
| _____ | _____ | 4. Know the location of the MSDS for the cleaning solutions. |
| _____ | _____ | 5. Solvents must be disposed of according to the HAZMAT regulations. |

Task Standards

- | | | |
|-------|-------|--|
| _____ | _____ | 1. The pump must be reassembled using the specified parts. |
| _____ | _____ | 2. The packing nut must be torqued to 51.66 ft-lb (70n/m). |
| _____ | _____ | 3. The vented ball seat must be seated as designated by the warning tag on the pump. |
| _____ | _____ | 4. All cleaning solutions must be disposed of per HAZMAT regulations. |
| _____ | _____ | 5. 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: _____