

CC-01a

MAINTENANCE MECHANIC TRAINING

SKILL CHECK GUIDE

Duty CC: Gear Boxes
CC-01a: Rebuild Gear Box

Issued 01/01/99

Rationale

This Skill Development Guide provides the knowledge a Learner needs to rebuild a gear box. The Learner must be able to disassemble, clean and inspect, and reassemble the gear box.

Skill Check Set-Up

Designate a gear box that needs to be rebuilt. Check to ensure that the required bearings and gears for the gear box are in stock. Arrange the availability of a cleaning area for use when gear box parts need to be cleaned.

Observe as the Learner disassembles, cleans, and reassembles the air motor. Check to ensure that all defective parts are replaced. All screws must have Loctite 242 applied. All flange and seals must have flange sealant applied the surfaces.

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 gear box.



- Follow all Caterpillar facility safety standards when performing this task.
- Wear heavy industrial gloves for protection from the hazards associated with the cleaning solvents.
- An explosion hazards exists with cleaning solvents. Smoking is not permitted in the paint or cleaning area.
- Know the location of the MSDS for the cleaning solvents.
- Cleaning solvents must be disposed of according to the HAZMAT regulations.



- metric wrenches and sockets
- metric socket head wrenches
- punches and cold chisels
- snapping pliers
- pry bars
- soft and hard face hammers
- blocks
- depth gauges
- sealant
- 2004 lubricant
- bearings: 32004, 30204X, 32303J2, 6208JZ



□ Service and Repair Instructions Right-Angle Helical Bevel Reducers



Skill Check

Given a request to rebuild a gear box, rebuild the gear box.

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 from the hazards associated with the cleaning solvents. |
| _____ | _____ | 3. An explosion 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. Cleaning solvents must be disposed of according to the HAZMAT regulations. |

Task Standards

- | | | |
|-------|-------|---|
| _____ | _____ | 1. The gear box must be rebuilt using specified rebuild kit. |
| _____ | _____ | 2. All screws must have Loctite 242 applied. |
| _____ | _____ | 3. All flange and seals must have flange sealant applied to the surfaces. |
| _____ | _____ | 4. 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: _____