

ERP030/040VT (G807) SERVICE MANUAL CONTENTS

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FRAME.....	524295629	0100 YRM 1329	09/14
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Service information for Cummins diesel engines can be ordered through the Hyster Literature Distribution Center.

PART NO. 524320413 (12/14)

Introduction

GENERAL

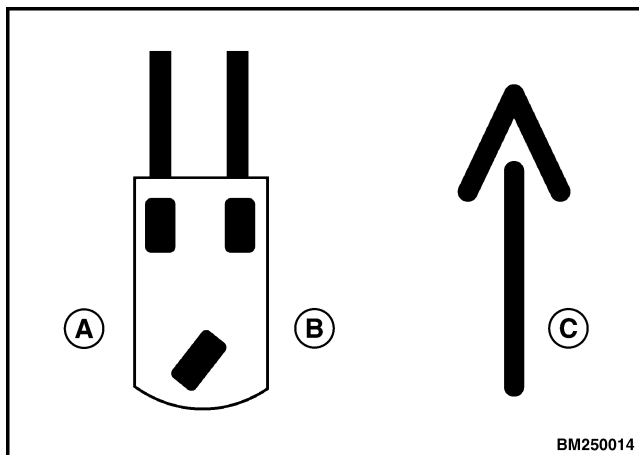
This section contains a description and the service procedures for the parts of the frame. These parts include the frame, counterweight assembly, overhead guard, hood and seat assembly, side panels, and labels. Throughout this section, forward will refer to travel in the direction of the forks and left and right will be determined by an operator sitting in the seat facing forward.

See Figure 1 for lift truck models

- ERP15-20VT (ERP030-040VT) (G807)

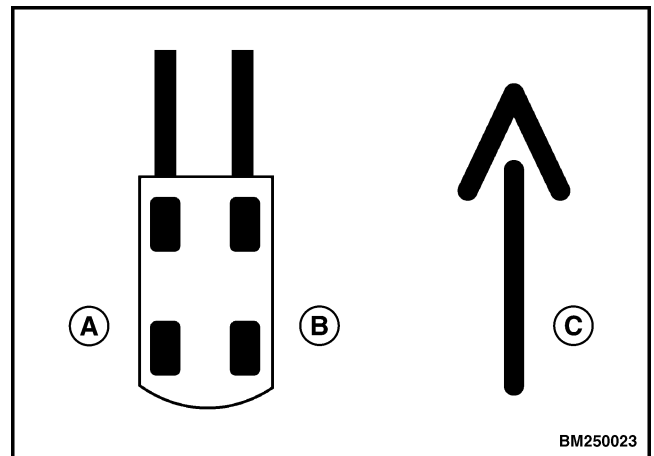
See Figure 2. for lift truck models

- ERP16-20VF (ERP30-40VF) (A955)



- A. LEFT SIDE
- B. RIGHT SIDE
- C. FORWARD TRAVEL

**Figure 1. Truck Orientation for Lift Truck
ERP15-20VT (ERP030-040VT) (G807)**



- A. LEFT SIDE
- B. RIGHT SIDE
- C. FORWARD TRAVEL

**Figure 2. Truck Orientation for Lift Truck
ERP16-20VF (ERP30-40VF) (A955)**

DESCRIPTION OF OPERATION

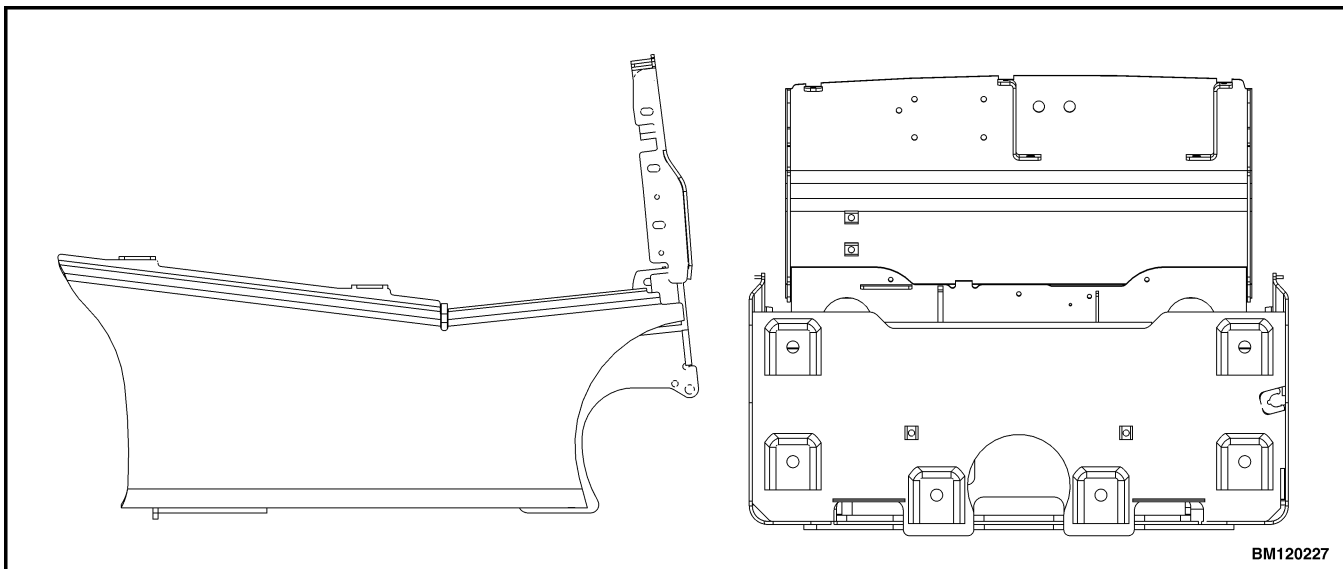
The frame is a welded assembly with mounts for the counterweight, overhead guard, mast, steering system, side panels, hydraulic system and transaxles. See Figure 3. The hood opens on hinges to provide access to the battery compartment. The weight of the battery is a major part of the counterweight system on this truck. A slot in the overhead guard permits removal of the battery without removing the overhead guard. Spacers may be added around the battery as required on some models.

Each lift truck has a cast-iron counterweight appropriately weighted for the indicated capacity on the nameplate.

The hydraulic pump and motor assembly and hydraulic tank are in the counterweight. The counterweight cover is removed for access.

The AC drive motors and transaxles are located under the floor plates in the operator compartment. The floor plates are held in position by tabs and are to be removed to give access to components underneath.

The hydraulic control valve is fastened to the front of the battery compartment and has covers to protect the control valve and control linkages.



NOTE: FRAME SHOWN FROM RIGHT SIDE AND REAR.

Figure 3. Frame

DISCHARGING THE CAPACITORS



WARNING

DO NOT make repairs or adjustments unless you have been properly trained and authorized to do so. Improper repairs and adjustments can create dangerous operating conditions. **DO NOT** operate a lift truck that needs repairs. Report the need for repairs to your supervisor immediately. If repair is necessary, attach a **DO NOT OPERATE** tag on the steering wheel and disconnect the battery.

Disconnect the battery and allow the capacitors to discharge before opening any compartment covers or inspecting or repairing the electrical system. **DO NOT** place tools on top of the battery. If a tool causes a short circuit, the high current flow from the battery can cause personal injury or property damage.

Some checks and adjustments are performed with the battery connected. **DO NOT** connect the battery until the procedure instructs you to do so. Never wear any metallic items on your fingers, arms, or neck. Metal items can accidentally make an electrical connection and cause injury.

Before performing any tests or adjustments, block the lift truck to prevent unexpected movement.

The capacitor in the transistor controller(s) can hold an electrical charge for about 10 seconds after the battery is disconnected. To prevent an electrical shock and personal injury, discharge the capacitor(s) before inspecting or repairing any component in the drive unit compartment. Make certain that the battery has been disconnected.

DO NOT short across the motor controller terminals with a screwdriver or jumper wire.

Make certain the Emergency-Disconnect switch has not been activated. This will isolate the controller and prevent the capacitors from discharging properly. The proper way to disconnect the battery is by separating the battery connectors.

1. Ensure the capacitors are discharged by performing Step 2 through Step 6 below.
2. Turn the key or keyless switch to the **OFF** position.

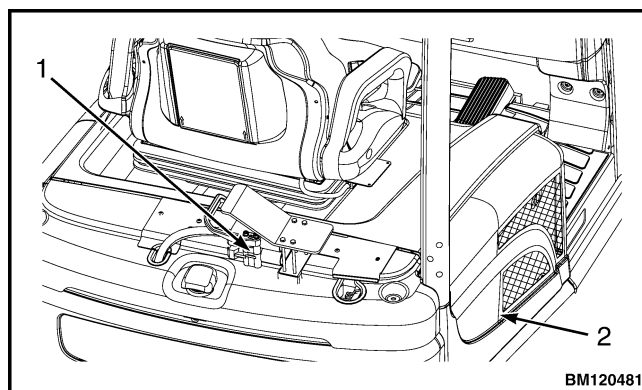
3. Disconnect the battery by separating the connectors.
4. Block the drive wheels to prevent the lift truck from moving.
5. Make sure the Emergency-Disconnect switch **HAS NOT** been activated. If the Emergency-Disconnect switch is activated, rotate the switch to the right until it pops up.
6. Push horn button. Wait 30 seconds to be sure capacitors are fully discharged.

RAPID CHARGE

The lift trucks covered in this manual may be equipped with a Rapid Charge System (see Figure 4). With a Rapid Charge System, the battery is charged during operator breaks or when the truck is not being used. The rapid charge system provides extended operation with a single battery.

Some of the features of the Rapid Charge System include:

- Battery connector externally mounted for easy access
- Vented side covers for improved battery cooling
- Requires rapid charge vented battery and sealed battery fan box with thermostat



1. RAPID CHARGE CONNECTOR
2. VENTED SIDE COVER

Figure 4. Rapid Charge System

Covers and Floor Plates

Various covers and floor plates provide access to components during service and securely cover areas during normal operation. Covers in the floor of the operator compartment allow access to the traction con-

trollers, AC drive motors, service and parking brakes. A cover on the top of the counterweight provides access to the hydraulic tank, hydraulic pump and motor assembly, and the hoist controller. See Figure 5.

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