

This SWOP outlines the Metcash safe and approved work method for LPG Gas Cylinder Filling or Changing of Gas Bottles on MHE in a Warehouse and retail environment.

Key Hazards

- Extremely flammable gas.
- Escaping gas can cause cold burns.
- Gas cylinder may be old or out of date.
- Incorrect storage of LPG gas cylinders.
- Incorrect placement of gas cylinder on forklift.
- Manual handling of gas cylinders.
- Use of Personal Electronic Devices (PEDs) whilst filling an LPG cylinder may present an ignition source.
- Over Filling LPG cylinder when using an object to hold down the dead man's handle on the filling station.
- Vehicle contact with electrical cabling and fittings at filling station.
- Static electricity.
- Damaged hoses, fittings or fixtures on filling station.



LPG Causes
Cold Burns /
Injuries

Key Identified Controls



- PED Protocol
- Gas cylinders inspected as per manufacturer requirements.
- Appropriate storage provided for LPG Cylinders, sheltered from weather and impact.
- Placards with emergency contacts and procedures (if required).
- Never hold down dead man's handle on filling station using a clamp, rubber band or other object.
- Visual inspection of hoses. Leak testing using detergent.
- Electrical installations and cabling are protected from impact with conduit.
- Protective leather riggers gloves and safety glasses must be worn during refilling.

PRIORITY ITEMS

- Safety Data Sheet for LPG displayed near use.
- Protective leather riggers gloves and safety glasses must be worn during refilling.

SAFE WORK OPERATING INSTRUCTIONS

Park Up Forklift in Designated Parking Bay

- Approach LPG storage area at slow speed and park up in designated refilling location.
- Turn off the forklift ignition.**
- Ensure that there are no sources of ignition within 6 metres of the forklift.**
- Check the LPG cylinder and dispensing equipment for condition and leaks.
- If an LPG cylinder has been affected by fire or heat, has rust on it, or has any other obvious physical damage, it should be isolated and tagged out and reported to the Supervisor.
- Check the date at the top of the LPG cylinder to verify it is less than 10 years old – cylinders older than 10 years must be removed from service and tagged out.

PHOTOS/DIAGRAMS

Filling

- Attach the dispenser hose to the cylinder fill connection.
- Discharge possible static electricity by touching supply cylinder and forklift cylinder with bare hands.
- Put on safety gloves and safety goggles.
- Do not chock the filling nozzle open.
- Check for leaks at all connection points.
- Store hoses and filling nozzle.
- Never overfill cylinder past 80%.

DO NOT LEAVE THE FORKLIFT UNATTENDED WHILE REFILLING

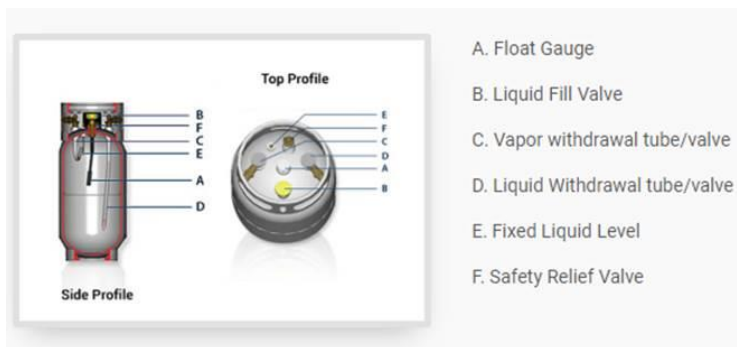


Figure 1 A list of all parts on an LPG cylinder



Figure 2 Wear safety gloves and safety glasses



Figure 3 Filling nozzle stored in holder.

Changing LPG Cylinder

- Turn off cylinder prior to disconnecting.
- Discharge possible static electricity by touching supply cylinder and forklift cylinder with bare hands.
- Put on safety gloves and safety goggles.
- Check replacement cylinder is turned off.
- LPG cylinder weighs 15-20kg. Keep load close to body. Recommended to have a two-person lift.
- After reconnecting hose, turn on gas and check for leaks.
- Ensure cylinder is in the correct alignment with the safety valve in the upper most position.
- Store empty cylinder in cage.



Figure 4 Pressure relief valve is at 12 o'clock when cylinder is oriented correctly.



Figure 5 LPG cylinder bracket is adjustable on this plant to bring down to between waist and shoulder height for removal.



Figure 6 Two-person lift when changing cylinder.

Other Requirements	LPG Emergency Procedure – Gas Leak 1. Press emergency stop button. 2. Close all valves of tank. 3. Keep bystanders away. 4. No smoking. No naked lights. 5. No engine to be started. 6. Phone fire brigade (000) (Australia) or (111) (NZ). 7. Phone Emergency Contact from Placard. 8. Isolate electricity (by supply authority if main switchboard is unsafe). LPG Emergency Procedure – Fire 1. Press emergency stop button. 2. Phone fire brigade (000) (Australia) or (111) (NZ). 3. Phone Emergency Contact from Placard. 4. Closes all valves of tank (if safe to do so). 5. Keep bystanders away. 6. Isolate electricity (by supply authority if main switchboard is unsafe). 7. Follow firefighting instructions.	 Figure 7 Emergency stop.  Figure 8 Placard on LPG Cylinder.
Other Requirements	Transporting and Storing LPG Cylinders • Ensure sealing plug is in place for disconnected cylinders to prevent leakage Transport: • If transporting LPG cylinder that is not connected to a forklift (e.g. damaged or empty cylinder) a cylinder cage must be used to ensure the cylinder is secured and in upright position Cylinders should be stored: • Securely in an upright position (even if empty) • Outdoors in a well-ventilated area • Away from excess heat or ignition sources	 Figure 9 Cylinder cage. Note cylinders must be in upright position.
Associated Documents	• AS/NZS 1596 The Storage and handling of LP Gas. • SHE-GT Risk Assessment LPG Filling and Gas Bottle Changing.	