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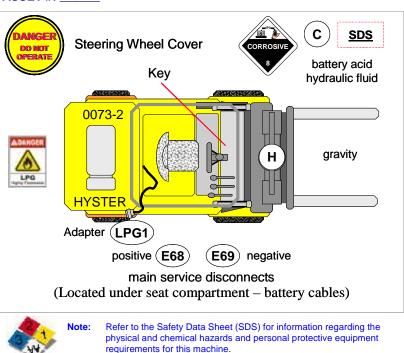
Equipment Description: HYSTER Powered Industrial Lift Truck (LPG)

Department: Facility/Mobile Equipment Reference #: 0073

safety safety



ASSET #:



"SERVICING OR MAINTENANCE IS NOT PERMITTED UNLESS THIS EQUIPMENT IS ISOLATED FROM ALL HAZARDOUS ENERGY SOURCES. THIS IS THE EXCLUSIVE RESPONSIBILITY OF 'DESIGNATED' AUTHORIZED EMPLOYEES WHO MUST FOLLOW THE COMPLETE LOCKOUT/TAGOUT PROCEDURE AS PUBLISHED BY HARRISREBAR, BOURBONNAIS OPERATIONS, BOURBONNAIS, ILLINOIS."

Date: 08/23/2016

# **Hazardous Energy Sources**

<u>Type</u>	<u>Magnitude</u>	
E68 – Electrical (Positive Battery Cable Connector)	12	volts DC
E69 – Electrical (Negative Battery Cable Connector)	12	volts DC
LPG1 – Liquid Petroleum Gas (LPG Connector)	450	psi
Hydraulics	1000	psi
Temperature	140	degrees F
Chemicals (Battery Acid/Engine Oil/Antifreeze/Hydraulic Oil/Liquid Petrole	um Gas)	
Gravity/Mechanical		

Required Safety Equipment			
Interlocking Hasp(s) - Optional	(4)		
Padlock(s)	(3)		
Tagout Tag(s)	(3)		
Approved Safety Blocks/Braces/Pins	(2)		
Cord Plug Canister(s)	(3)		
Wheel Chock(s) - If required	(2)		

## I. SHUT DOWN PROCEDURES - (See Established Shutdown Procedure)

Notify all affected employees that a lockout or tagout system is going to be utilized and the reason for its application. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the associated hazards.

Warning: This mobile equipment has a manufacture's established written Shut Down procedure,

which should be followed to avoid damage to the equipment or possible injury prior to

commencing lockout procedures.

**Warning:** Position the powered industrial lift truck in a location that does not present a hazard.

Lower the forks to the full down position or install safety blocks or braces to support

the forks and carriage.

**Electrical:** (Using the lift truck's dash control panel, initiate <u>a normal shut down sequence/cycle</u>

stop for the Hyster Powered Industrial Lift Truck).

Switch the "ON/OFF" ignition switch to "OFF" to de-energize the machine.

Remove the ignition switch key.

Attach a tagout tag to the Hyster's steering wheel.

**Mechanical:** Caution: Allow the Hydraulic components to come to a complete stop before

continuing. Also, wait approximately 10 minutes for the hydraulic system to de-

pressurize and fluid lines to drain.



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#### II. ENERGY ISOLATION PROCEDURES

**E68 Electrical: Local Service Disconnect:** (Located in the battery compartment under the seat for this vehicle specifically).

Disconnect the positive battery cable connector to isolate the electrical POWER

**E69 Electrical: Local Service Disconnect:** (Located in the battery compartment under the seat for this vehicle specifically).

Disconnect the negative battery cable connector to isolate the electrical POWER.

**LPG1 LP Gas:** (Located on and mounted to the rear of the

Rotate the main gas valve to the "OFF" position to block the gas service. Disconnect the gas supply hose at the quick disconnect.

#### **Chemicals:**

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**Note:** All chemical pressures automatically bleeds down when POWER is removed.

## Temperature:

Allow the Lift Truck's components and fluids to cool to a safe temperature.

Conduct maintenance and/or servicing operations as required. When this is completed continue with Return To Service protocols below.

## III. LOCKOUT/TAGOUT PROCEDURES

Lockout the positive battery cable connector using a cord plug canister, interlocking hasp, padlock, and tagout tag. After the positive battery cable is placed into the plug/cord canister, "Try" to open the canister to ensure the positive battery cable cannot be "**REMOVED**" removed from the canister.

Lockout the negative battery cable connector using a cord plug canister, interlocking hasp, padlock, and tagout tag. After the negative battery cable is placed into the plug/cord canister, "Try" to open the canister to ensure the positive battery cable cannot be "REMOVED" removed from the canister.

Lockout the gas valve quick disconnect using a cord plug canister, interlocking hasp, padlock, and tagout tag. After the gas valve quick disconnect is placed into the plug/cord canister, "Try" to open the canister to ensure the disconnect cannot be "REMOVED" removed from the canister.

**Note:** Refer to the Safety Data Sheet (SDS) for information regarding the physical and chemical hazards and personal protective equipment requirements for this machine.

#### IV. VERIFICATION PROCEURES

Reference #0073

Using the Lift Trucks dash control panel "Try" the Lift Truck's start controls (e.g. by switching the ignition "ON/OFF" switch to the "ON" or "START" position and observing that the machine does not operate) after lockout/tagout to make sure the correct isolation device has been secured and that the device is in the open or safe position. Switch the ignition "ON/OFF" or "STOP" switch to the "OFF" position.

Verify the blockage of the LPG gas service by observing that the flow of LPG gas ceases.

Verify isolation and dissipation of the hydraulic service by opening a fitting in the hydraulic service line and observing that the flow of hydraulic fluid ceases.

Verify cool down of the Lift Truck by observing the temperature gauge or probe indicates a lowering of the temperature to safe levels.

# V. RETURNING TO SERVICE – (See Established Restart Procedure)

Check the HYSTER Powered Industrial Lift Truck and the immediate area around the equipment to ensure that nonessential items have been removed and that the Lift Truck's components are operationally intact.

Check the work area to ensure that all employees have been safely positioned or removed from the work area.

Warning: This equipment has a manufacture's established written **Restart** procedure, which should be followed to avoid damage to the equipment or possible injury.

LPG1: Remove the tagout tag, padlock, interlocking hasp, and cord plug canister from the LPG gas feed service line and connect the gas supply quick disconnect line to the LPG tank on the back of the vehicle.

Remove the tagout tag, padlock, interlocking hasp, and cord plug canister from the negative battery cable connector and attach the cable to the battery electrical post (-).

E69: Remove the tagout tag, padlock, interlocking hasp, and cord plug canister from the positive battery cable connector and attach the cable to the battery electrical post (+). Remove the tagout tag from the HYSTER's steering wheel.

**Blocks & Braces:** Remove the Safety Block/Brace/Wheel Chocks if installed.

Notify affected employees that the maintenance is completed and the HYSTER Powered Industrial Lift Truck is ready for operation.



