

Handling
New Rules
4-29-11

Handling – Moving, connecting, or disconnecting a compressed gas cylinders under normal conditions.

Moving cylinders – Moving cylinder from one location to another at the worksite or place of business.

(--) You must:

(--) Move cylinders using a suitable hand truck, cart or cylinder pallet.
See acetylene exception

(--) Provide adequate access for cylinder handling.

(--) Remove regulators and ensure valve protection is in place, when provided for, before cylinders are moved unless the cylinders are secured on a special truck or cylinder hand truck.

(--) Leave the valve protection cap and valve seal outlet in place until the cylinder has been secured in place and is ready to be connected a regulator or manifold.

(--) Use warm, not boiling, water to thaw frozen cylinders loose.
253(b)(5)(ii)(C) & 350(a)(6)

(--) Promptly notify the supplier about trouble with cylinder valves and follow his instructions. 253(b)(5)(ii)(R)(1) & 253(b)(5)(iii)(G)

(--) Tag cylinders having leaking fuse plugs or other safety devices.
253(b)(5)(iii)(G)

(--) Take cylinders that have leaky valves or fittings that cannot be stopped by closing the valve outdoors away from ignition sources.

NOTE: A warning should be placed near cylinders having leaking fuse plugs or other leaking safety devices not to approach them with a lighted cigarette or other source of ignition. Such cylinders should be plainly tagged; the supplier should be promptly notified and his instructions followed as to their return. 253(b)(5)(iii)(G)

(--) When moving cylinders by a crane or derrick you must:

(--) Use a cradle, boat, or suitable platform that secures cylinders. 350(a)(2)

(--) Install valve-protection caps on cylinders designed to accept a cap.
350(a)(6)

(--) Not use slings or electric magnets for this purpose. 350(a)(2)

(--) Before moving a portable bank (P-bank, cylinder cradles) you must:

(--) Close all oxygen and flammable gas portable bank individual cylinder valves when in storage.

(--) Restrict manual movement of portable banks to clean, smooth, level stationary surfaces.

(--) Stay out of the bank's travel path when manually moved.

(--) When moving a portable bank (P-bank, cylinder cradles) with a forklift you must secure the cradle to the forklift.

(--) When moving a portable bank (P-bank, cylinder cradles) with a crane you must use the lifting hook attached to the cradle or other appropriate moving equipment.

(--) Before moving cylinders to storage you must:

(--) Close the cylinder valve.

(--) Replace and secure any valve outlet seals.

(--) Properly install the cylinder cap.

(--) Lift liquid cylinder by the cylinder lift eyes.

(--) Lift liquid cylinder with a lifting device designed for the lift and rated for the weight.

(--) You must not:

(--) Repair or alter cylinders or valves. 253(b)(5)(ii)(R)(1) & (2)

(--) Place bars under valves or valve protection caps to pry frozen cylinders loose.

(--) Use valve protection caps for lifting cylinders with a crane from one location to another.

(--) Use valve protection caps to manually lift or lower a cylinder from one position to another.

(--) Drag or slide cylinders. 350(a)(3)

(--) Lift a liquid cylinder by the cylinder grab ring.

(--) Drop cylinders or permit them to strike each other violently. 350(a)(3) & 253(b)(5)(ii)(B)

(--) Subject any cylinder to mechanical shocks that may damage the valve.

(--) Use cylinders as rollers for moving material or other equipment.
253(b)(5)(ii)(K)

(--) Permit oil, grease, or other combustible substances from contacting cylinders, valves, or other apparatus.

(--) Attempt to catch a falling cylinder.

(--) Place cylinders where they can become part of an electrical circuit..

NOTE: All high and low pressure cylinders in contact with or secured to a conductive table of column without being isolated from electrical current can become part of an electrical circuit.

Connecting cylinders for use

(--) You must: 253(b)(5)(ii)(P)

(--) Use a pressure-reducing regulator or separate control valve to discharge gas from a cylinder.

(--) Only use regulators approved for the specific gas.

(--) Loosen the valve outlet seal slowly when preparing to connect a cylinder.

(--) Back out the regulator adjusting screws before opening cylinder valves.

(--) Only open oxygen cylinder valve slowly and slightly (crack) for an instant and then close it before attaching a regulator.

(--) Not open acetylene cylinder valves more than one and one half turns.
253(b)(5)(iii)(K)

NOTE 1: It is preferable to open the acetylene valve no more than three-fourth of a turn.

(--) Return cylinders with contaminated valves (mud, oil, grease, and similar material) to the supplier.

(--) Only use acetylene tank keys or wrenches designed to open acetylene stem type valves.

(--) Notify the supplier if cylinder valves cannot be opened by hand.

(--) Stand with the cylinder valve between you and the regulator when opening the cylinder valve.

(--) Open cylinder valves slowly and carefully after the cylinder has been connected to the process.

(--) Perform a leak test to cylinder pressure relief and safety devices, valves and regulator connections after the cylinder valve is open and connected to the pressure reducing regulator.

(--) Ensure that cylinder valves, pressure reducing regulators, hoses, torches and all connections do not leak by performing a drop test.

(--) When the pressure drops during the drop test, perform a leak test to identify all leaks.

(--) Use industry approved oil free leak detection solution.

(--) Notify the gas supplier of any leaking cylinder, and follow the supplier's instruction for returning the cylinder.

(--) Keep the cylinder key used for opening stem type cylinder valves on the valve spindle.

(--) Allow each gas flow through its respective hose for a few seconds to purge the hose of any mixture of gases:

(--) After connecting welding, cutting or heating apparatus to oxygen and fuel-gas cylinders.

(--) When starting to reuse the apparatus after an interval of half hour or more.

(--) You must not:

Open cylinder valves (other than cracking oxygen) until a regulator has been attached.

Stand and/or have any body part in front or behind the pressure reducing regulator when opening cylinder valves.

(--) Use a hammer or wrench to open hand wheel cylinder valves.

Removing regulators from cylinders

(--) You must:

(--) Ensure that oxygen and fuel gas cylinder valves are close.

(--) Visually check the low pressure delivery gauges and high pressure supply gauge to ensure there is no pressure remaining in the system. 437-002-0290(3)

(--) Use the appropriate wrench to disconnect the regulator.

(--) Place disconnected regulators, hoses, and torch where they will not come into contact with dust, and oily or grease substances.