

# Total Safety

## General cylinder handling



There are various hazards associated with handling cylinders, which if not managed, may cause injuries, these hazards are;

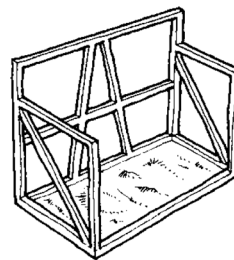
- Cylinder weight, shape and size.
- Falling cylinders, Pressure, hazardous properties of the gas contained.

The information and safety precautions contained in this leaflet will help minimise the risk of injury.

The main reasons these incidents occur are as follows:

### Uneven floor surface

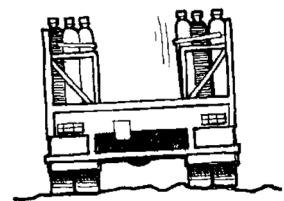
Damaged pallet bases



Rubbish on the floor



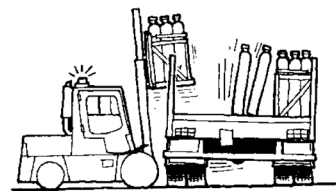
Trucks parked on uneven ground



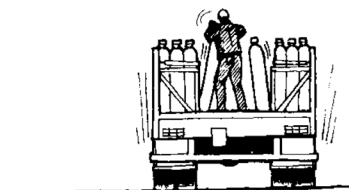
Dirt on the cylinder base



Removing pallets from truck when other cylinders are unrestrained.



Leaving free standing cylinders in the aisle of the truck while working in the area causing the truck to rock.



Unloading the truck unevenly causing cylinders to lean towards the centre so they fall when the straps are released.



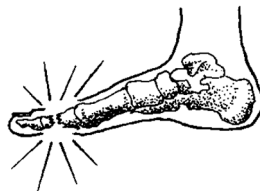
## Falling cylinders

The types of incident which have resulted from falling cylinders:

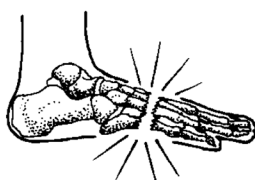
Leg injuries



Broken toes



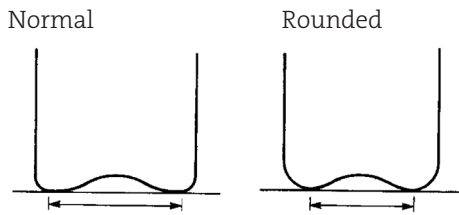
Broken metatarsal bones



Injured chest



N.B. Some cylinders have a slightly more rounded base profile. These cylinders are relatively unstable compared to other cylinders. Extra care should be taken when handling them.



If cylinders are found to be leaning in pallets, get help to straighten them up before releasing the restraining straps.



The use of footwear with metatarsal protection reduces the risk of foot injuries from falling cylinders. This type of footwear is only effective if kept in good condition and worn correctly.



### Golden rules

- Always secure cylinders to prevent them falling
- Never turn your back on a free standing cylinder
- Always wear foot protection
- Never try to catch or restrain falling cylinders



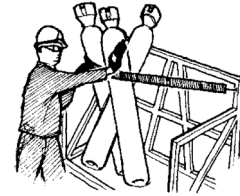
## Trapped hands

The types of injury resulting from people trapping their hands are:

**Broken bones, Dislocated fingers, Cuts, Bruises**

The main reasons for this type of incident occurring are:

Trying to straighten cylinders which are leaning in strapped pallets. To prevent this more care and attention must be paid to pallet loading and strapping leaflet.



Failing to remove the hand from between the cylinder being rolled and other cylinders or the side of pallets. Constant vigilance is required when moving cylinders by hand to ensure that hands are not caught or trapped.



Floor condition is also a contributing factor to this type of accident as it causes the cylinder to move unexpectedly, so good housekeeping is essential.



Excessive speed is a cause of many trapped-hand incidents.

Wet cylinders, due to weather conditions, can be slippery and therefore more difficult to handle.

### Constant awareness is vital when man-handling cylinders.

Hand protection is essential when handling cylinders. Stout gloves will greatly reduce the probability of cuts and abrasions. Use a trolley to move cylinders where possible.



## Musculature injuries

Handling heavy objects such as cylinders incorrectly can cause musculature injuries such as;

### Strained muscles

Curable with rest

### Torn muscles

Curable but can need surgery permanent to repair

### Slipped disc

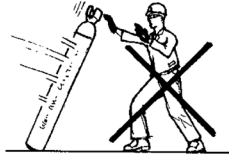
Permanent injury

### Trapped nerves

Can be curable or

### The main reasons for this type of incident are:

Trying to catch or restrain falling cylinders. Never try to restrain or catch falling cylinders.

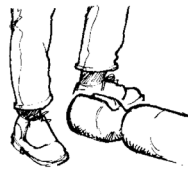


Attempting to lift fallen cylinders.

When lifting cylinders from the horizontal to the vertical position, the following rules must be followed:

- **Wear appropriate protective clothing**

Stout gloves and footwear with metatarsal protection



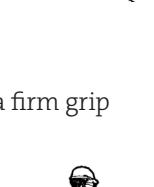
- **Foot position**

Hip width apart with one slightly in front of the other, astride the valve end of the cylinder.



- **Bend knees**

Bend the knees to lower your body. This will enable your strong thigh muscles to do most of the lifting.

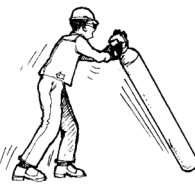


- **Firm grip**

Ensure the guard is secure then take a firm grip using both hands.

- **Straight back**

Keep your back straight throughout its length. This does not mean it has to be vertical. Doing this will prevent a slipped disc.



- **Pull the chin in**

By pulling the chin in, the back is locked in a straight line.



- **Lift decisively**

This is done initially by straightening the legs then following through with the arms, at the same time walking forward until the cylinder is upright.

- **Move the cylinder**

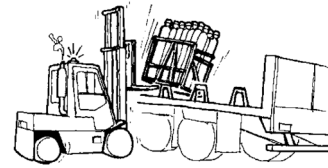
When the cylinder is upright do not leave it free standing, but move it to a safe storage area.



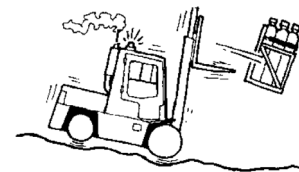
## Fork lift trucks

Incidents involving forklift trucks handling cylinders do occasionally occur;

- Pallet falling from the forks because it catches on another pallet as the driver reverses.

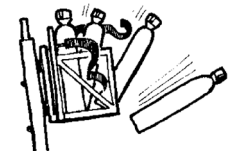


- Pallet coming off the forks because it is not lifted high enough to clear the securing pintle.



- Uneven ground.

- Pallet coming off the forks because it is not tilted back enough.

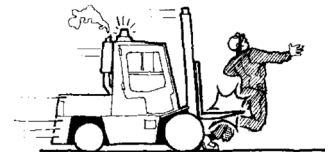


- Cylinders not secured.

- Driving too fast.

- Untrained operator.

- Hitting pedestrians.



The potential for serious injury or fatality exists in areas where fork lift trucks operate and for this reason strict rules for fork lift truck operation exist and must be observed.

Only people who have been formally trained, demonstrated competence and certified should operate fork lift trucks.

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