

GAS CYLINDERS IN WORKSHOPS & LABORATORIES

It is standard procedure to secure gas cylinders by a strap or chain, but many people do not know why. A heavy cylinder dropping on someone's toe or smashing equipment as it is falling is no joke, but do you realise what else may happen if the cylinder valve is sheared off? The following vivid description of what can happen appeared first in the (U.S.A) National Safety Council Chemical Section Newsletter, May 1969.

"Six 220 cubic foot cylinders, part of a fire extinguishing system, had been moved away from their wall supports to allow painters to complete painting of the area. While moving them back into position, it was noted that one cylinder was leaking, having been damaged earlier. The painter had the cylinder leaning against his shoulder, and was attempting to scoot it across the floor.

At this time the valve separated from the cylinder, and the man suddenly found himself with a 215lb. piece of jet propelled steel. He wrestled it to the floor, but was unable to hold it. The cylinder scooted across the floor, hitting another cylinder, knocking it over and bending its valve. The cylinder then turned 90o to the right and travelled 20 feet where it struck a painters scaffold, causing a painter to fall 7 feet to the floor and break his leg. After spinning around several times, the cylinder travelled back to its approximate starting point where it struck a wall. At this point, the cylinder turned 90o to the left and took off, chasing an electrician in front of it. It crashed into the end wall, 40 feet away, breaking loose four concrete blocks. It turned again 90o to the right, scooted through a door opening, still pursuing the electrician. The electrician ducked into the next door opening, and the cylinder continued its travel in a straight line for another 60 feet, where it fell into a truck well, striking the truck well door. The balance of the cylinder pressure was released as the cylinder spun harmlessly around in the truck well area."

The pressure in this cylinder was about 900 pounds per square inch (psi), but many cylinders are pressurised to 2,200 psi.

THE POINT SHOULD BE OBVIOUS - ALL GAS CYLINDERS SHOULD BE SECURELY STRAPPED OR CHAINED TO A WALL OR BENCH TO PREVENT ACCIDENTAL KNOCKING OVER. NO GAS CYLINDER SHOULD BE FOUND UNSECURED EXCEPT WHEN IN THE PROCESS OF RELOCATION. IF YOURS IS UNSTRAPPED - ACT NOW !

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