

**AS1219 1994**

# **POWER PRESSES AND SAFETY REQUIREMENTS**

**(A summary of excerpts pertaining to pneumatic control)**

2.2

All power presses are required to “incorporate a total system of protection designed to ensure the safety of people”.

At the very least safety features should include:-

- a) dual air valves for clutch operation.
- b) Inbuilt anti-repeat circuits in press controls...
- f) provision of means for isolating the energy source by locking off.

2.13

“Power presses shall be equipped with a monitoring function in order to sense a system fault and to inhibit continuation of operation.”

2.14.2

“Presses shall be equipped with anti-repeat devices and double action valves which prevent the actuation of equipment during malfunction or failure of vital components.”

3.2.6.2

“Control valves shall be designed so as to ensure that when a valve is in the non-operating position, leakage of air past the inlet valve will escape to atmosphere sufficiently freely to prevent build-up of pressure in the clutch-operating cylinder.

3.2.6.3

“Control valves shall be constructed so that it is not possible for both the inlet port and the exhaust port to remain closed at the same time.”

“Exhaust ports and piping between clutch-operating cylinders and valves shall be of sufficient capacity to ensure prompt release of air from clutch-operating cylinders.”

3.2.6.6

“Provision shall be made to relieve residual pressures from within pneumatic control systems, preferably automatically, in conjunction with main air supply isolation.”

#### 4.2.2

“Power presses incorporating a pneumatically controlled clutch and brake mechanism shall be equipped with a double valve arrangement and a self monitoring device. Valves shall retain their normal stopping functions where one part of the double valve element develops a fault”.

“A pressure gauge shall be fitted in the clutch/brake supply line. Arrangements shall be provided to ensure that operation ..... is automatically prevented if air pressure falls below the specified level or rises above any maximum recommended”.

“The control of air operated clutches shall be designed so as to prevent an increase in normal stopping time due to failure of the valve operating mechanism, and shall inhibit further operation of the equipment where failures occur”.

#### 7.6

“...safety devices on power presses shall be inspected by a competent person after every die change, before commencing production on each day the press is scheduled to run, and where found necessary as a result of risk assessment”.

“The inspection shall confirm that press guards and other safety devices are:..

- b) operating in accordance with the relevant requirements of this standard; and
- c) maintained in good order and condition.

A record of each inspection shall be made and kept for a period of not less than six months...”

#### 8.4

“The following operating procedures shall apply to all press installations:...

- e) Maintenance or repair work shall not be performed while a press is in motion. Power shall be disconnected and the stop control shall be positively locked in the open or stop position before such work is commenced....
- j) Power presses shall not be operated .....unless all guards and other safety devices are in position and are operational.”