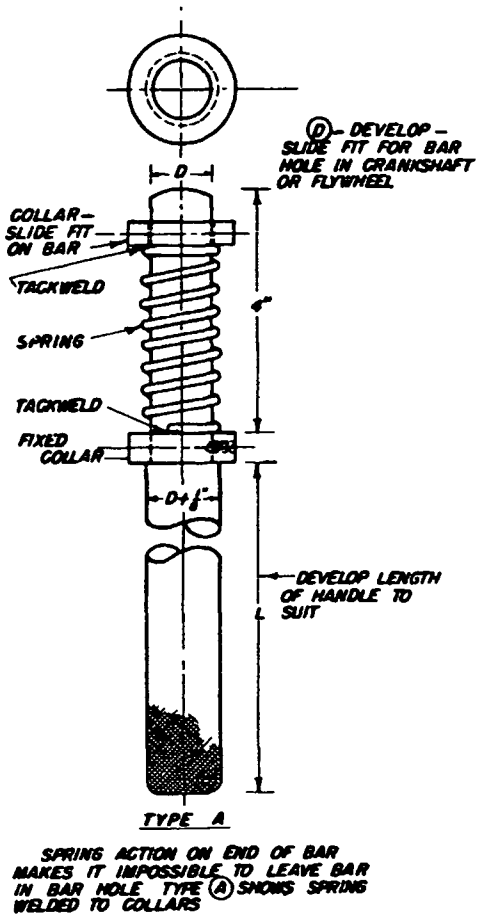


FIG 32–20 —Spring-action safety bar for turning power press flywheels during setups

Courtesy Liberty Mutual Insurance Co

noid-controlled air valves should be incorporated into the system to prevent accidental clutch release resulting from air leakage and pressure build-up in the air cylinder. The dual solenoid-controlled air valves are recommended as a back-up safety factor for the system Single solenoid-controlled air valves have been known to fail when foreign particles are caught between the valve and the valve seat This condition can cause leakage and sufficient pressure build-up in the air-cylinder to actuate the clutch even though the motor is off A simultaneous failure of both air valves due to this condition is very unlikely when dual solenoid-controlled air valves are used

Certain other precautions are essential to prevent the operator from making these devices inoperative Two-hand tripping devices should be used in conjunction with single stroke attachments When electrically operated tripping devices are used, the circuit should contain the necessary relays to permit only one stroke of the press for each operation of the tripping device

On pneumatically operated controls, the system should contain a measured chamber that will permit only one stroke of the press for each operation of the hand valve

On mechanical controls, the mechanism should be such that both hand levers are released and depressed for each stroke of the press Where the press itself is equipped with a single-stroke device, it is important to utilize the added protection.

On presses equipped with two-hand tripping devices, it is sometimes convenient to provide a selector switch for the selection of hand or foot controls The selector switch should be equipped with a lock, and the setup man or supervisor should be responsible for locking the selector in the proper position See the section on Foot Control Guards later in this chapter

All two-hand controls should be installed and supervised so as to prevent operation by one hand only, and the buttons or levers should be located far enough apart (21 in) to prevent the use of the hand and elbow of one arm to bridge the controls Some companies place a baffle between the controls when it is impossible to separate them by at least 21 in

Where more than one operator is required on a press, a duplicate set of controls should be provided for each operator, and the press should not cycle until all controls are energized

On presses having positive clutches, the operator can release his hand from the controls immediately after he has energized the circuit On long stroke, slow speed presses, therefore, two-hand trips are particularly hazardous unless they are located far enough from the die area that it is impossible for the operator to energize the controls and then reach into the point-of-operation area before