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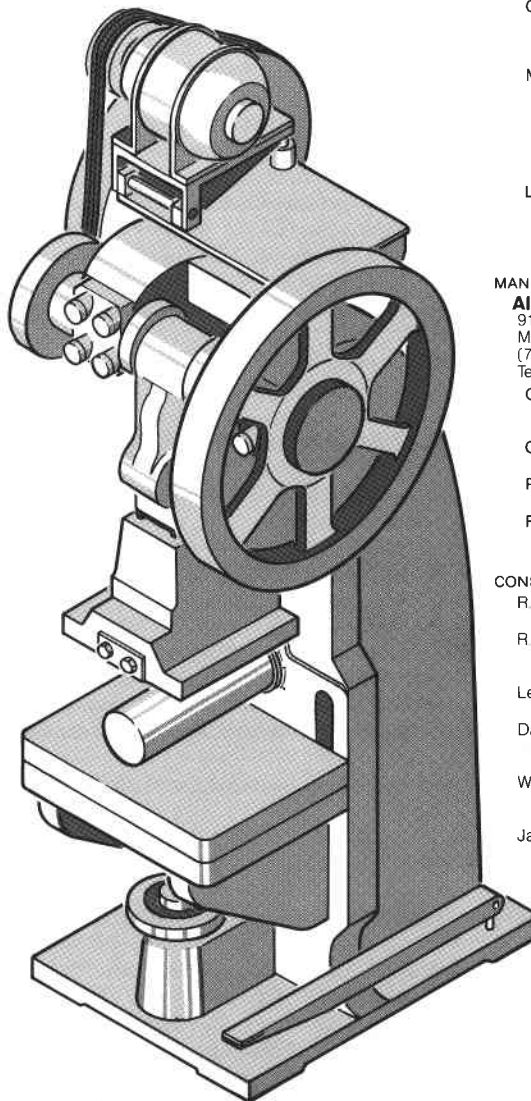
Mechanical Power Press Safety Bibliography

by Beth A. Hamilton¹, Joyce E. Courtois², and Cheryl A. Hansen³

The safety literature on mechanical power presses (punch presses) is characterized by publications more practical than scholarly and has not been subjected to the more exact bibliographic control of other technical literature, thereby inhibiting research on safety matters relating to power presses. The aim of this bibliography is to promote better control of, and to facilitate access to, the literature on mechanical power press safety.

Triodyne will maintain a database on mechanical power press literature for scholarly purposes, with the intention of building the most comprehensive collection available on the subject. Readers are invited to advise the Triodyne Safety Information Center of omissions in the Bibliography #956. We will be pleased to receive copies of papers or citations to be added.

The scope of the bibliography is limited to coverage of the safety literature of mechanical power presses; pneumatically and hydraulically-powered press and press brake documents are excluded. Patents, manufacturers' literature, medical and legal literature, and student theses and dissertations have also been excluded. The time period covered is 1902 to Jan. 3, 1986.



▲ Figure 1. Horn Press

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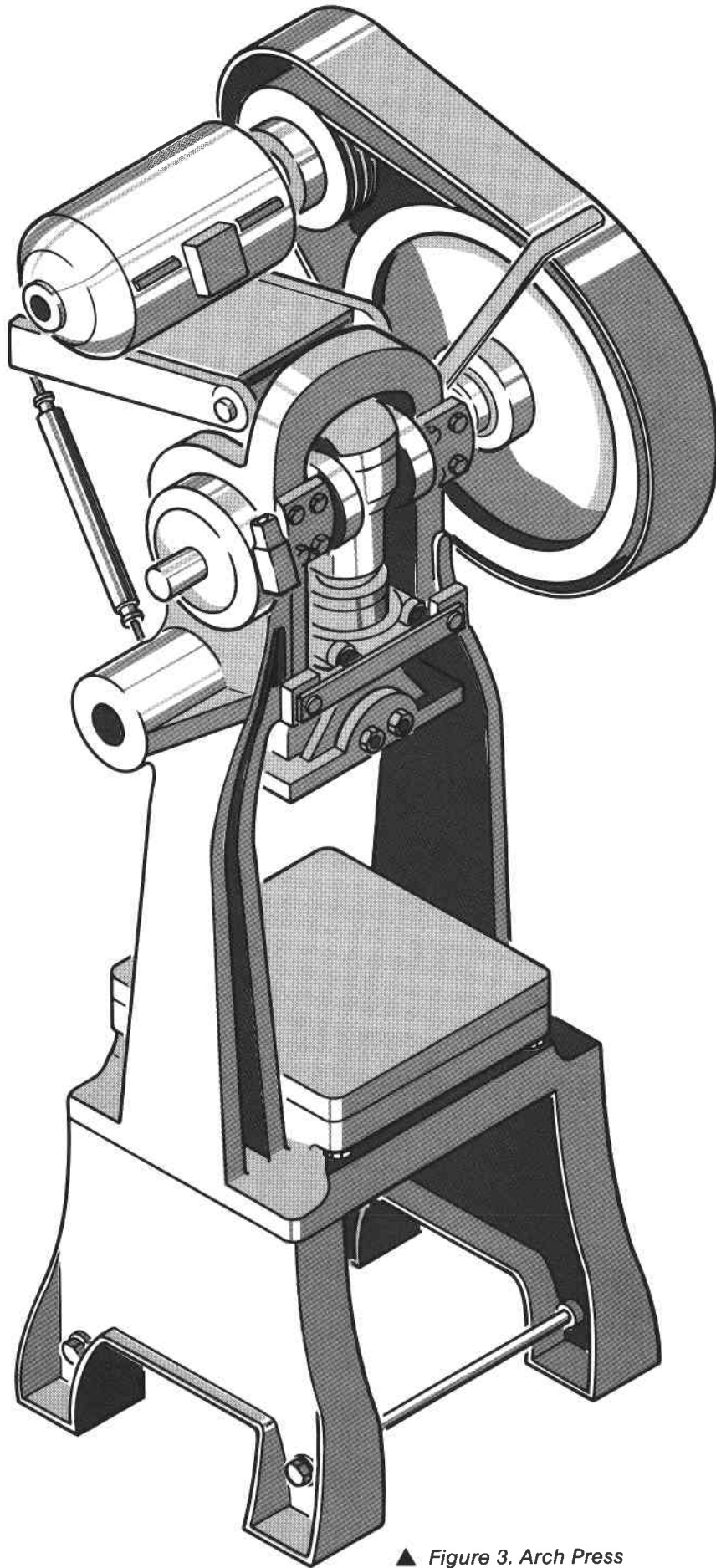
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▲ Figure 3. Arch Press

time of a properly maintained machine and that each machine was tested as it came off the assembly line to make sure the interlock device was functioning. He also testified that the machine carried a warning plate which read: "For your safety, do not force the lid. Do not attempt to load or unload if the basket is spinning."

The plaintiff's expert testified that he examined the extractor three days after the accident and that no interlock was present. On cross-examination, the expert said that if such an interlock device had been on the machine and if it was functioning, the machine would have met the standard of safety he felt was necessary.

The plaintiff's complaint alleged that Bock was negligent for manufacturing an extractor that could be opened while the basket was rotating and failing to warn that the basket continued to spin after the machine was turned off. Further, these conditions and the absence of safeguards made the extractor unreasonably dangerous.

The defendant contended that the extractor was not negligently designed nor unreasonably dangerous because it had been equipped with an interlock device to prevent access to the basket while it continued to rotate.

The court summarized its positions on product liability causes of action based on ordinary negligence and strict tort liability as follows:

"In a product liability cause of action based on ordinary negligence, a plaintiff must show that a defendant owed him a duty of reasonable care and either failed to do something which a reasonably careful person would have done or did something which a reasonably careful person would not have done. [*Kossifos v. Loudon Machinery Co.* (1974), 22 Ill. App. 3d 587, 317 N.E. 2d 749.] The manufacturer of a product owes a duty to design the product so that it is reasonably safe for its intended use and for any reasonably foreseeable use [*Johnson v. Amerco, Inc.* (1980), 87 Ill. App. 3d 827, 409 N.E. 2d 299; *Murphy v. Cory Pump & Supply Co.* (1964), 47 Ill. App. 2d 382, 197 N.E. 2d 849] and is liable in tort for the negligent design of a product that imposes an unreasonable risk of harm upon the user [see *Mieher v. Brown* (1973), 54 Ill. 2d 539, 301 N.E. 2d 307].

A manufacturer is liable under the theory of strict tort liability if the plaintiff proves that his injuries resulted from a condition of the product, that the condition was an unreasonably dangerous one, and that the condition existed at the time the product left the

manufacturer's control. [*Suvada v. White Motor Co.* (1965), 32 Ill. 2d 612, 210 N.E. 2d 182; *Gasdiel v. Federal Press Co.* (1979), 78 Ill. App. 3d 222, 396 N.E. 2d 1241.] A product is unreasonably dangerous where it fails to perform in the manner reasonably expected in light of its nature and intended function [*Dunham v. Vaughan & Bushnell Manufacturing Co.* (1969), 42 Ill. 2d 339, 247 N.E. 2d 401], and where the defect in the product subjects those exposed to it to an unreasonable risk of harm. [*Hunt v. Blasius* (1978), 74 Ill. 2d 203, 384 N.E. 2d 368.] An unreasonably dangerous design defect can be demonstrated by evidence that the product fails to conform to accepted design standards or by evidence of the availability or feasibility of alternative designs [*Neal v. Whirl Air Flow Corp.* (1976), 43 Ill. App. 3d 266, 356 N.E. 2d 1173; *Rivera v. Rockford Machine & Tool Co.* (1971), 1 Ill. App. 3d 641, 274 N.E. 2d 828]; (*Ebbert v. Vulcan Iron Works, Inc.* (1980), 87 Ill. App. 3d 74, 409 N.E. 2d 112). The question of what is unreasonably dangerous is usually a jury question [*Nelson v. Hydraulic Press Manufacturing Co.* (1980), 84 Ill. App. 3d 41, 404 N.E. 2d 1013], particularly where there is conflicting expert testimony. *Ebbert v. Vulcan Iron Works, Inc.*"

The court then ruled for the defendant:

"The plaintiff failed to prove that the water extractor was unreasonably dangerous and that the unreasonably dangerous condition existed at the time the extractor left the defendant's control.

Witnesses presented by both parties testified that the interlock safety device described at trial met industry safety standards and that, if the device was functioning, the water extractor was not unreasonably dangerous. [*Cf. Flores v. U.S. Industries, Inc.* (1980), 81 Ill. App. 3d 944, 401 N.E. 2d 979 (directed verdict proper where no testimony that product was unreasonably dangerous and where evidence showed that existent safety features performed same function as devices proposed by plaintiff)]. Furthermore, while the plaintiff's witness testified that the interlock safety device was not present during his examination of the extractor, which was subsequent to the time that the plaintiff was injured, the plaintiff presented no proof as to the condition of the extractor at the time it left the manufacturer's control. The only evidence on that issue was presented when the president of the defendant company testified that all

extractors were equipped with interlock devices and that all extractors were inspected and tested before the left Bock....

The trial court should have entered judgment notwithstanding the verdict in favor of the defendant on the negligence count. The plaintiff's negligence count was premised on allegations that the extractor was carelessly and negligently manufactured so that the operator would have access to the basket before it stopped rotating and that the manufacturer negligently failed to warn that the machine continued to spin after the control handle was placed in the 'off' position. The plaintiff also contended at trial that the machine should have been equipped with other safety or warning devices such as a warning light, buzzer or timing device.

The evidence at trial, however, showed that the extractor was manufactured with an industry-required safety interlock device and was equipped with a plate warning against the loading or unloading of the basket while it continued to rotate. While the plaintiff's expert suggested alternative safety and warning devices, he conceded that the extractor, when equipped with a functioning safety interlock device, would not have allowed access to the rotating basket. Thus, the plaintiff's premise for the defendant's alleged negligence, allowing access to the rotating basket, was disproved. Since the plaintiff failed to prove that the defendant imposed an unreasonable risk of harm to the operator of the extractor or that the defendant made the extractor unreasonably unsafe for its intended and foreseeable use, the plaintiff was not entitled to a verdict on the negligence count.

Cases selected by James T. J. Keating of the Law Office of James T. J. Keating, 11 South LaSalle Street, Suite 1700, Chicago, Illinois 60603.

SAFETY BRIEF

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