

# Charles Brand Lithography Press

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## Cautions

- Wear thick soled shoes that completely cover the top of the foot (steel toed boots are recommended).
- Ensure that long hair is tied up, and loose clothing is confined or removed.
- Keep hands and fingers away from moving parts and pinch points.
- Only the operator may stand near the press during use. All other persons are to stand clear.
- Only operators trained in the safe operation of the press are allowed to use it.

## Description and Uses

The lithography press is used to make prints from either a flat limestone, metal plate or polyester sheet. This press primarily differs from other presses in that it applies pressure to the printing media and paper with a scraper bar.

## Standard Operations

*Note: only those individuals that have received proper instruction are allowed to use the press. Please refer to training demonstrations for specifics about materials and settings.*

*The press and its surrounding area should be inspected before use to ensure that all parts are in working order and that the area is tidy and free of all other hazards.*

## Setting up

1. Roll out appropriate amount of lithographic ink on palette, using a rubber roller for coloured ink.
2. Place roller in roller cradle and brayers on their feet when not in use.
3. Position plate in the centre the press bed, closer to the scraper bar.
4. Select a tympan slightly larger than the plate.
5. Disengage the gear drive knob, located on the drive handle, and push the press through until the plate is directly under the printing arm.

6. Bring down the pressure handle, rotate the hand wheel to lower the scraper bar and do so until it reaches the plate, which is covered by the tympan.
7. Release the pressure handle and tighten the pressure wheel another quarter turn.

Note: The pressure is usually preset for polyester plates and will not need adjusting. You can increase/decrease pressure by adding or subtracting sheets of newsprint.

## Printing

1. Ink plates on glass tables. Stones can be inked on the press bed.
2. After inking, the bed is moved forward by raising the handle on the end of the bed. Move the bed by holding the handle only. Injury may result from improper hand placement.
3. Position the litho stone or litho plate under the scraper bar at the starting position.
4. Now engage the clutch knob below the gearbox until the pin on the knob is in the deep groove. When necessary turn the handle on the gearbox to allow the pin to go in the deep groove.
5. Bring down the long bar with medium pressure. This is adjusted by turning the pressure screw on the top of the press.
6. Now turn the handle of the gearbox clockwise and crank the stone/plate through. Stopping before the end of the stone/plate, once image area is cleared.
7. Disengage the clutch by pulling the knob out and making a half turn. The long pressure bar is now lifted and the bed pulled by the handle to the extreme left into a locked position.

## Shut Down

1. After work is complete clean any gum spots with water. Any grease spots on the top and bottom of the bed and roller should be cleaned with cleaning solution and left to dry thoroughly.
2. Scrape off excess ink and clean palette with vegetable oil. Degrease with diluted vinegar.
3. Clean rollers and brayers with vegetable oil, Degrease with diluted vinegar.
4. Clean bowls and rinse sponge.
5. Return all equipment to its place.

## Further Considerations

- Ask other workers to move away from the press while in use.

- Maximum pressure is not necessary. Increase pressure, as the print job requires.
- Never operate the press if there is anyone standing behind it.
- Ensure that the area around press is clear of other items or hazards. Trip hazards are particularly dangerous when using this tool.
- Make certain that nothing is placed on the press bed besides your plate, paper and tympan before making a print.
- If the press is not operating correctly then notify your supervisor immediately. Do not attempt to operate again until corrective action has been taken and documented. Only supervisors are trained and are permitted to perform maintenance on the press.

## Hazards

Presses exert powerful forces to transfer ink from the printing surface to sheets of paper. This presents severe dangers of crushing and severing extremities in moving parts and at pinch points. Always keep hands away from moving parts like springs, bearings, gears, or rollers when feeding work through the press or adjusting any pressures.

When the bed is moved by hand the weight of the bed can increase it's momentum making it difficult to stop. Always move the press bed in a controlled and continuous motion to avoid injury and/ or property damage. Never move the press bed if another worker is standing behind the press.

When moving the press bed, ensure that the clutch has been disengaged. Failure to comply will cause the crank handle to turn uncontrollably at high speed, with an increased potential of injury to anyone standing near it.