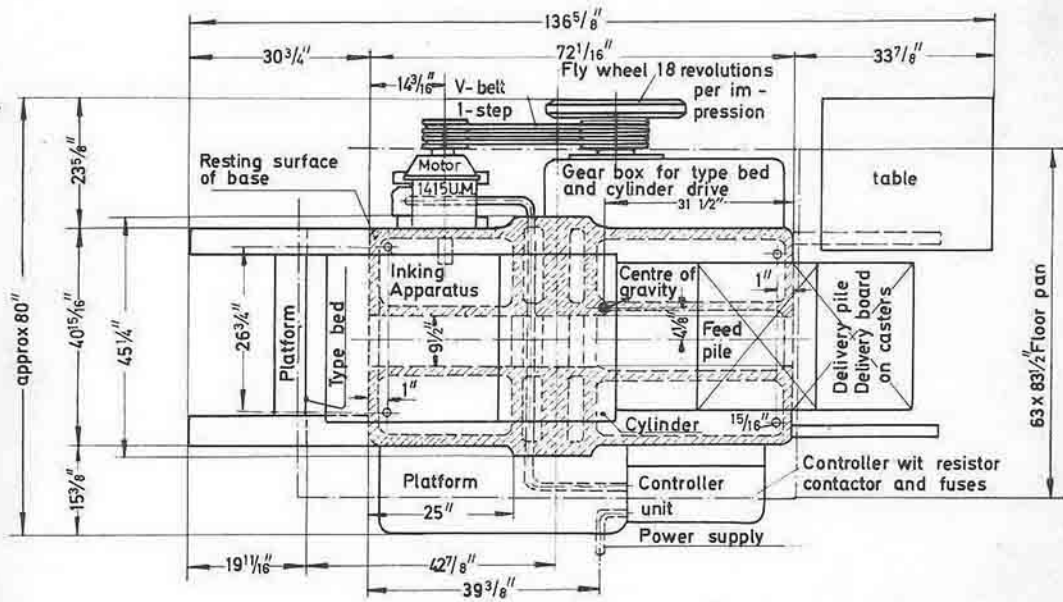
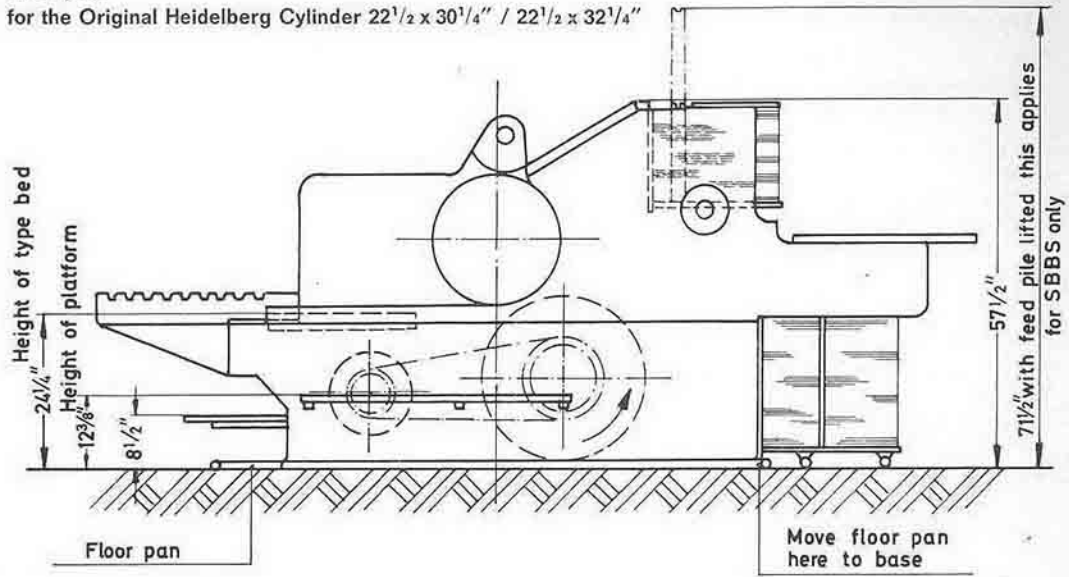


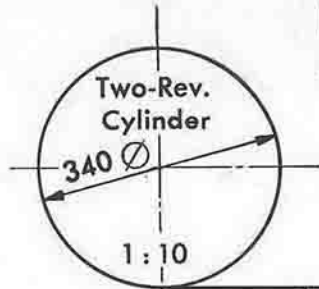
Floor plan
for the Original Heidelberg Cylinder $22\frac{1}{2} \times 30\frac{1}{4}$ " / $22\frac{1}{2} \times 32\frac{1}{4}$ "



Minimum distance on all 4 sides = $25\frac{5}{8}$ " (650 mm)
Floor contact surface = 22 sqft. (2,1 m²)

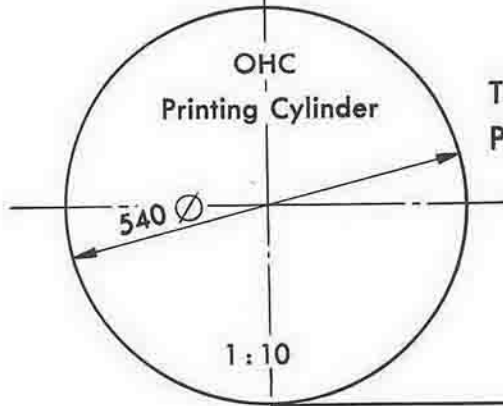
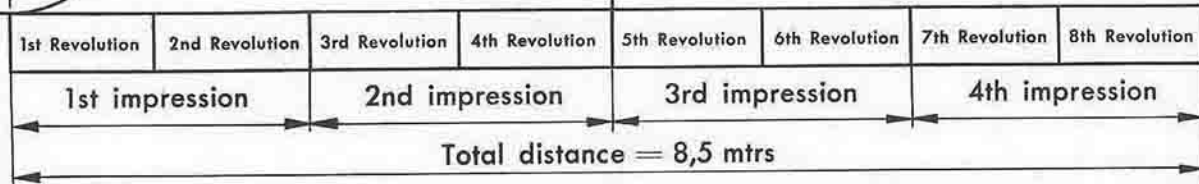
REVOLUTION-, IMPRESSION- AND DISTANCE-DIAGRAM

A Two-Revolution Press of same size and 4 forme rollers of same size makes 4 impressions to a distance of 8,5 mtrs



$$340 \times 3,14 \times 2 = 2,12 \text{ mtr. per impression}$$

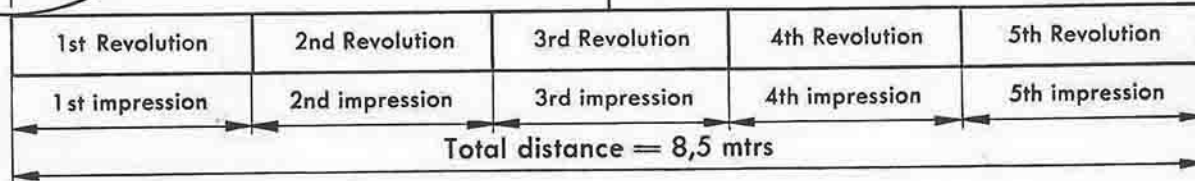
$$\text{Scale} = 1 : 50$$



The OHC makes 5 impressions to a distance of 8,5 mtrs
 Production increase over two rev. press = 1 impression
 Increased Output = 25%

$$540 \times 3,14 \times 1 = 1,7 \text{ mtr. per impression}$$

$$\text{Scale} = 1 : 50$$

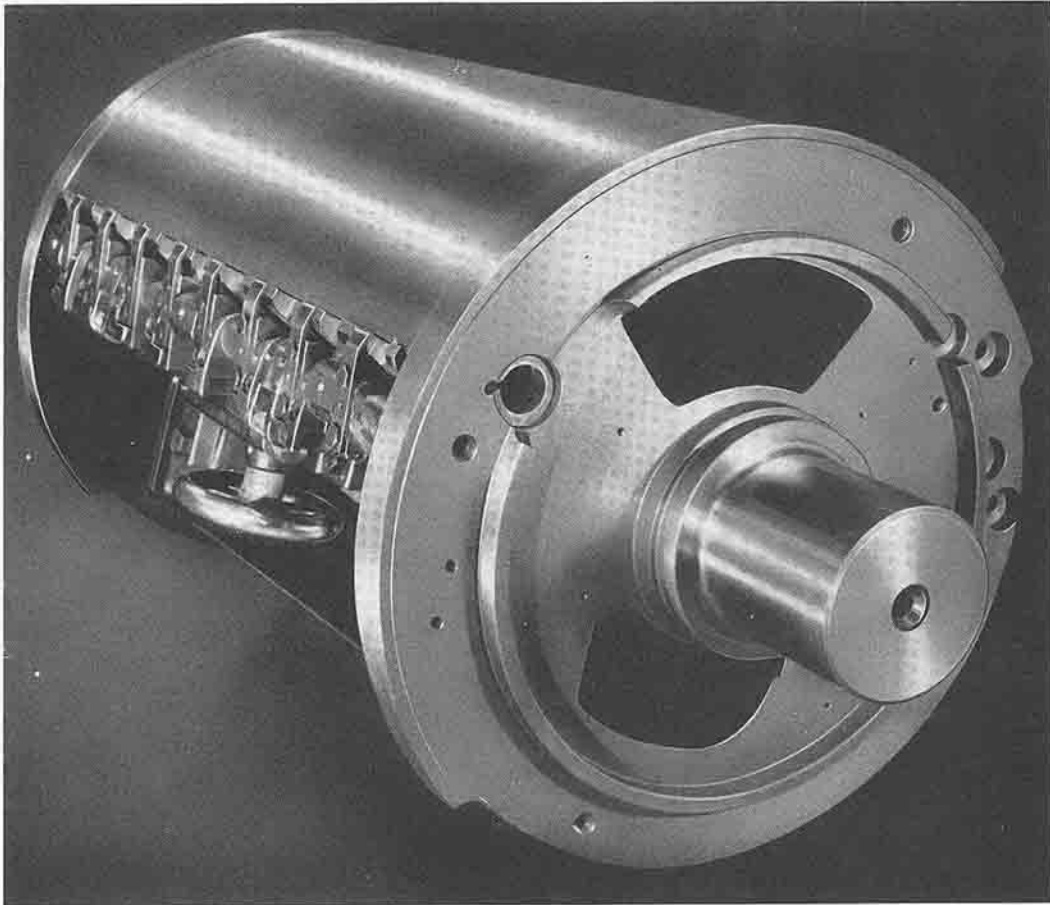


Reduction to the minimum of make-ready time achieved by rigid construction

The cylinder is ground and polished to the limits of mechanical perfection. With its bearings this cylinder weights one ton and with absolute rigidity ensured, flexure during the printing of heavy formes is impossible. The pressure of the cylinder on the bearers is greater than the counter pressure of the heaviest possible forme.

Make-ready is thus reduced to a minimum and is confined as it should be, to correcting inaccuracies in the forme alone. During make-ready, the whole of the printing area is in view and completely accessible without swinging away or removing any parts.

Illus. 1



**Cutting down unproductive time for changing jobs,
and adjusting forme. Simplification of maintenance and operation**

The operation of the Original Heidelberg Cylinder is simplicity itself. A single handlever controls starting, stopping, paperfeed and impression. The complicated controls and fittings which are usually found on cylinder machines have been eliminated. There are no parts to be lifted or swung away and everything is easily accessible. The few essential controls are clearly visible and are marked with instruction plates.

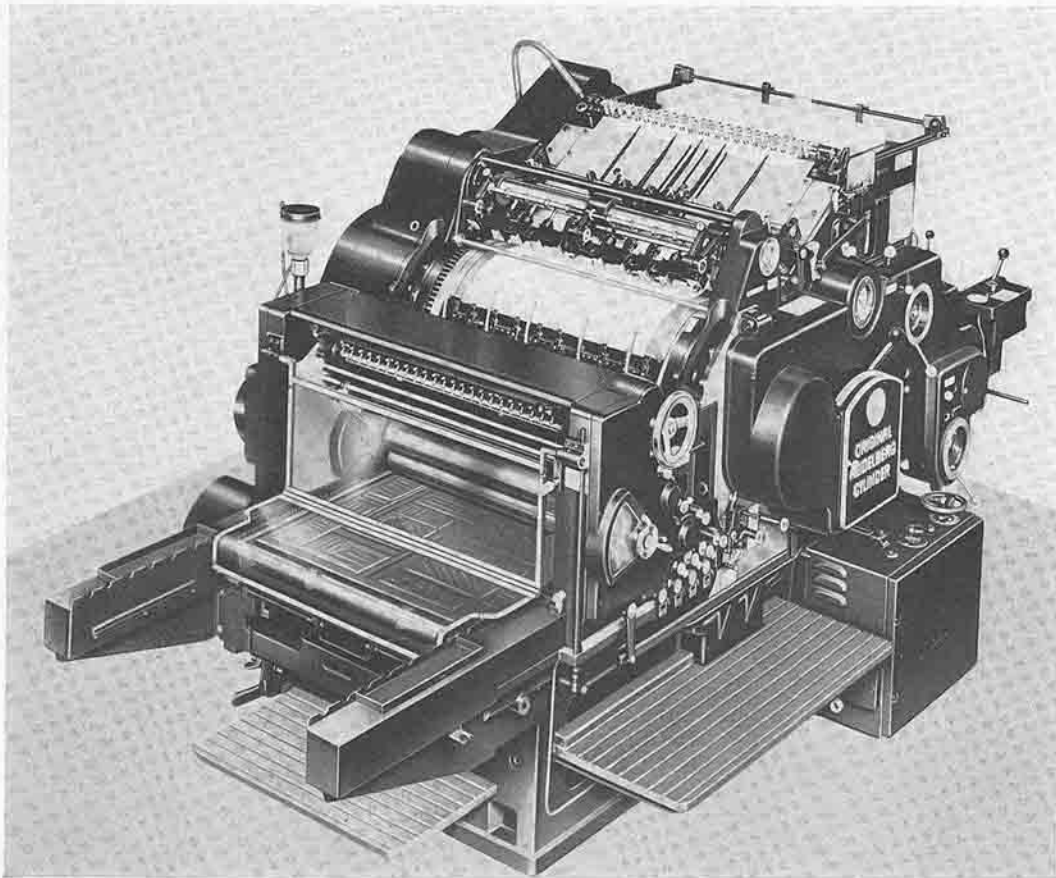
All control levers connected with the starting, stopping or central lubrication of the machine are

equipped with red ball handles. The other control levers which pertain to the operation of the machine are provided with white ball handles.

Positioning the forme, adjusting feed and delivery piles, and setting the lays, are jobs which are simplified by graduated scales on the chase, feed, delivery tables and side lay.

Furthermore, a device for adjusting the formes is supplied as an extra with the Original Heidelberg Cylinder which is instrumental in further reducing

Illus. 2



Correct forme alignment

The Original Heidelberg Cylinder is a craftsman's machine, precision built and absolutely rigid in all its parts. The cylinder of the Original Heidelberg Cylinder is free from deflection and remains firmly on its bearers under all conditions. Lack of such rigidity, so often found in less solidly constructed machines, greatly adds to the machine minder's task. These facts play an all important part in reducing make-ready time as the operator is not concerned with variations in the machine, but only in the inaccuracies of the forme.

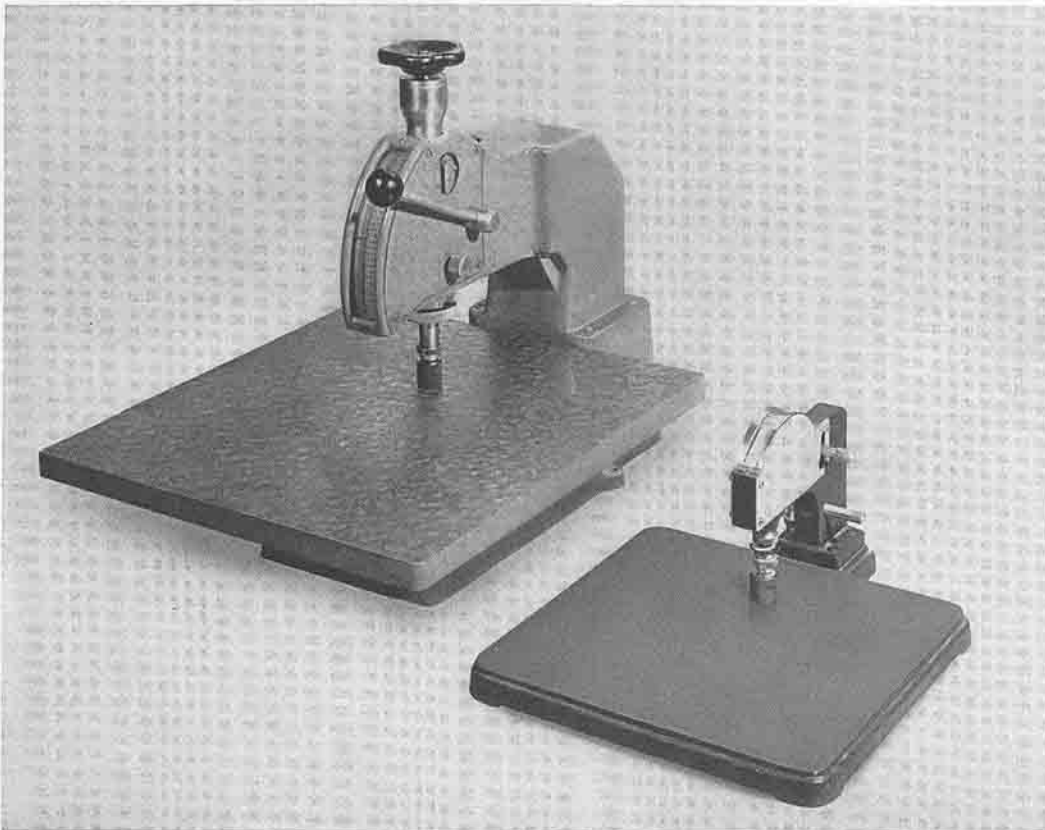
It is, therefore, worth-while spending a little time bringing the forme up to a similar state of accuracy. The solid area of a block requires more impression

than the rest of the forme. It is incorrect to start with the cylinder packing at exactly the prescribed thickness. Start with a properly adjusted forme then add or take away sheets from the cylinder packing according to the impression required. The specified cylinder packing is approx. .047" (1,2 mm), including the sheet to be printed.

Block justification

The height of a block can only be accurately gauged by means of a micrometer similar to the one shown in Illustration 3. Type high rules and hand gauges are not accurate enough for modern standards.

Illus. 3



this position the cylinder is on impression, and the operator can needle the make-ready steet and finally print it by returning the lever to "Start".

Illus. 59 shows the pasting of the makeready on the manila. The top manila and the blanket are laid back on the roller guard to prevent contact with the rollers. The top lid of the duct is laid back over the rollers to forme this guard.

As already mentioned in the chapter on selecting correct cylinder packing, the use of very soft materials should be avoided on the Original Heidelberg Cylinder. It is not necessary to resort to the old trick of using a soft packing to get a heavy forme to print because the machine possesses sufficient impressional strength.

When printing blocks alone, the blanket should always be placed in front of the make-ready to provide a small amount of elasticity in the packing. **The Heidelberg blanket is very thin compared to others and made of specially tested materials. Replacements should always be obtained from our agents, as blankets vary widely in quality and suitability. The position of the blanket in the make-ready is of great importance. It should not be directly under the top manila but inserted lower down in the packing after the second manila. This is still considered a hard packing, but it has just the right amount of elasticity when printing. The make-ready should be pasted on a smooth but tough manila and not on a soft or rough printing type of paper. It is essential that make-ready be pasted to a sheet that does not creep or tear on long runs. We would suggest to any printer who may feel that this is unnecessary advice and who is content to carry on with his usual methods, that he gives our suggestions a trial. The results will convince him that our exhaustige experiments have not been in vain.**

Because of its heavy design, the Original Heidelberg Cylinder has many advantages over any other machine and it is to the printer's own advantage to follow our suggestions concerning packing, make-ready, forme adjustment and the height of half tone blocks, even if he has to break with tradition to do so.

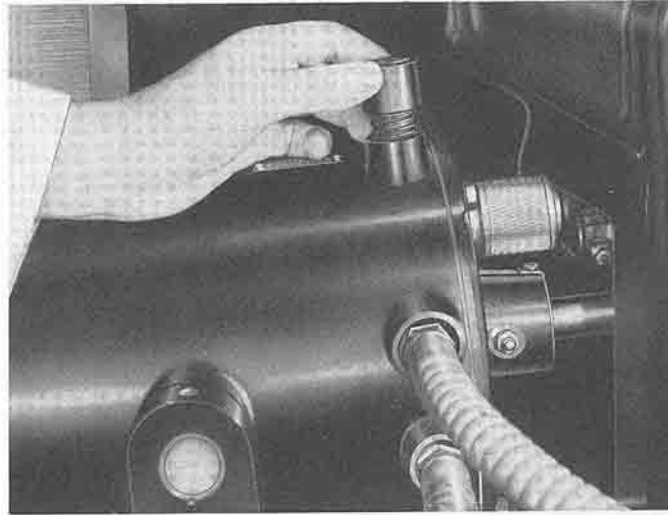
The printer must know and understand his Original Heidelberg Cylinder if he is to produce the highest class of printing.



Illus. 59

Sheet separation

The main method of separating the top sheet from the rest of the pile is by a blast of air from the front of the pile. The **strength** of the blast air is regulated by a spring-loaded valve located on the air pump (Illustration 64). The **amount** of the blast air can be regulated by a tap on the big cover on the driving side of the machine. Full air is supplied when the tap lies in the direction of the pipe (Illustration 65).



Illus. 64

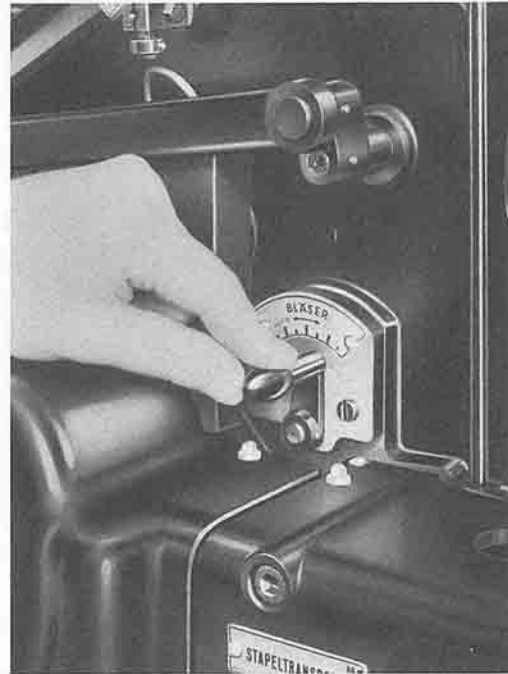
The effect of the blast of air is to separate the top sheet of the pile after it has been lifted clear by the suckers. The air should blow the entire length of the sheet so that the end flaps when lifted. Tinner papers require less blast than thicker ones.

The height of the blowers can be adjusted by a small lever and scale on the operator's side. With thin papers (airmail, onionskin) the indicator should be positioned to "higher", with normal papers in the middle, and with card to "lower" (Illustration 66).

Illus. 65

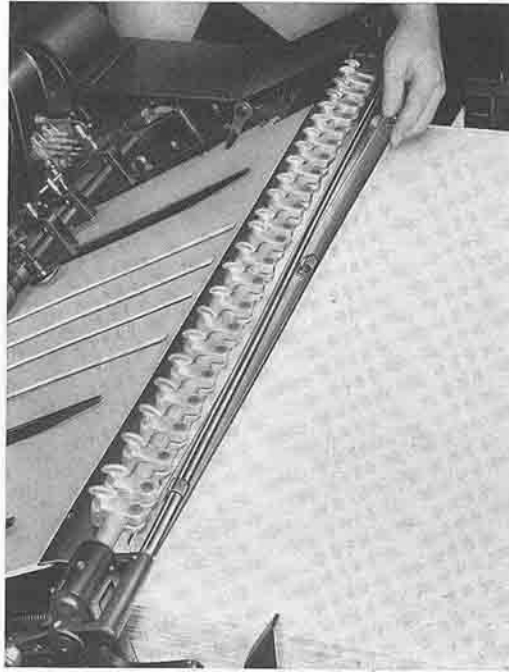


Illus. 66



Also included in the accessories is a narrow metal strip to be used when feeding thin papers. It is snapped on to the height control bar of the feed table by three spring clips as shown on illustration 69. The flat surface of this metal strip will prevent the height control bar from pressing into the feed pile. When using the metal strip it is recommended that the lever for the feed lift should not be put on "Thin Paper", but more in the direction of "Cardboard".

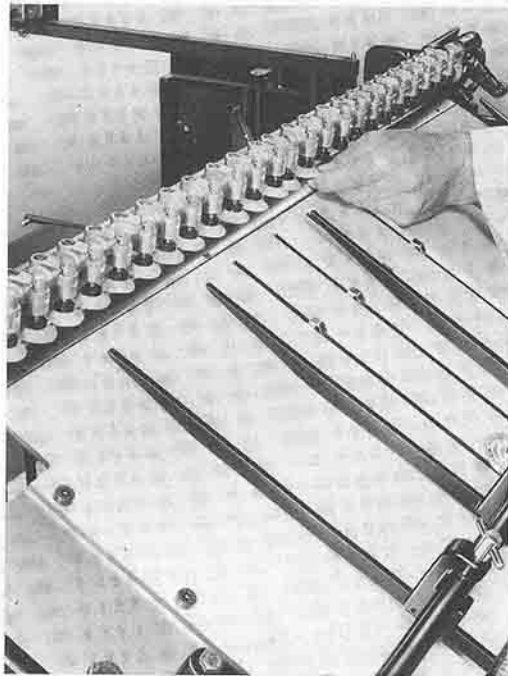
The metal strip can also be used for all thin papers which do not lie flat and level at the front edge.



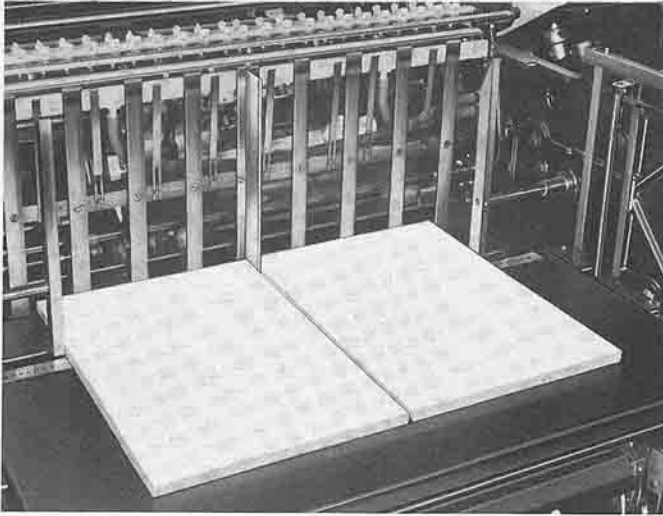
Illus. 69

Use of rubber suckers

To increase the effectiveness of the suction on heavy papers and boards an assortment of rubber discs are supplied with the machine. These discs slip over the head of the suckers and are held in place by fitting into a slot on the sucker. According to the weight of stock to be lifted, so more or less rubber suckers are fitted. Suckers which are not used should be closed (Illustration 70).



Illus. 70



Illus. 116

Device for printing two up

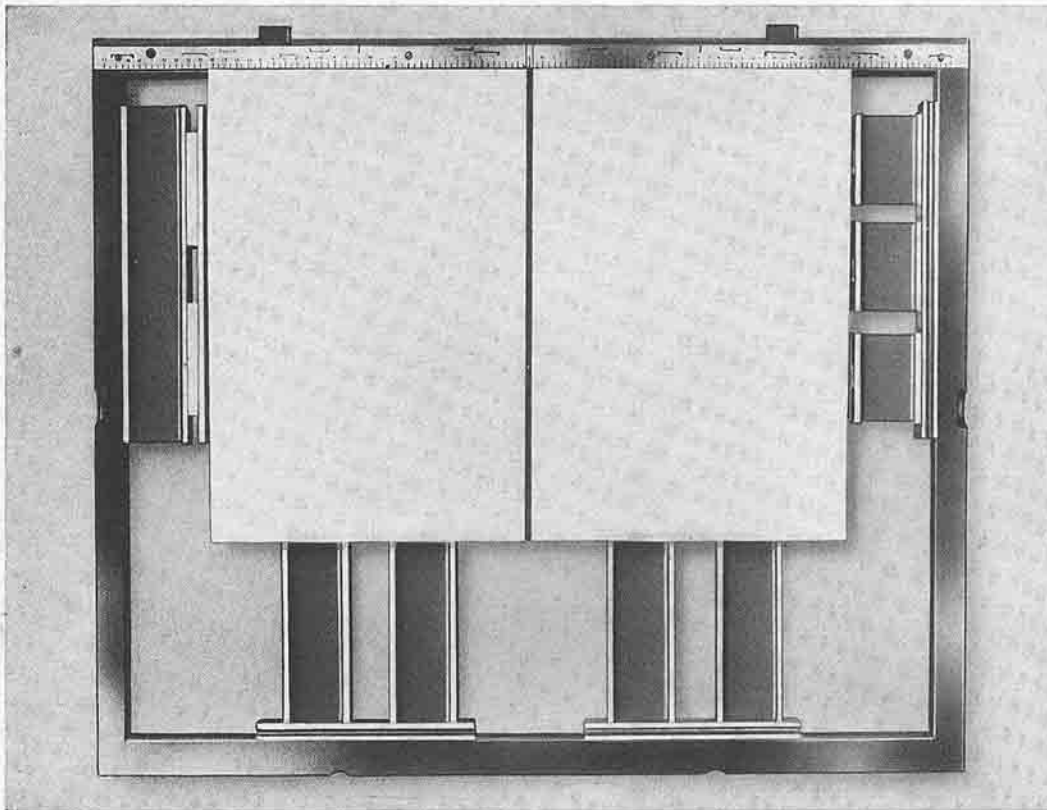
An extra equipment for printing two up can be delivered for the machine. This equipment enables two sheets to be printed side by side at the same time, thus doubling output on smaller sizes. Different jobs can be printed at the same time providing

the papers are of the same thickness. There is no alteration to standard equipment (see Illustration 116). Only a few additional accessories are required and these are fitted in a few minutes to feed and delivery.

A centre divider will be delivered to be fitted between the bars of the front stand. The divider is inserted between the two centre front standard bars and secured with a screw located in the right hand bar (Illustration 117).



Illus. 117



Illus. 120

Locking forme when printing two-up

The forme in the chase must be locked to the centre whether or not the job is 'work and turn'. The inside edges of the sheets must align with the two

lines $\frac{3}{32}$ " right and left of the "0" mark in the centre of the chase (Illus. 120).

**Numbering with centrally
controlled numbering boxes on the
Original Heidelberg Cylinder**

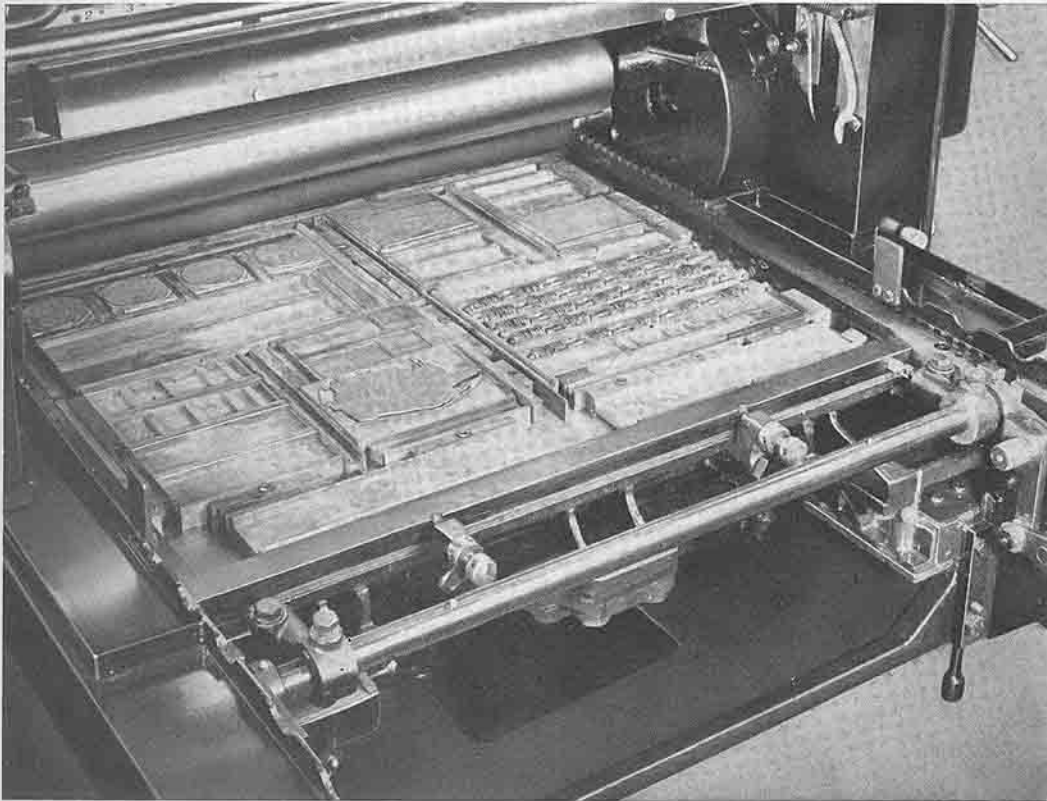
For jobs that require a large number of numbering boxes which must work absolutely reliably, as is frequently the case when printing security papers, we recommend the use of our centrally controlled numbering device.

For this method, the Heidelberg Cylinder chase is fitted with moving rods which centrally operate all the numbering boxes in the forme, obviating the need to purchase expensive numbering chases of special design. With the Heidelberg chase, the

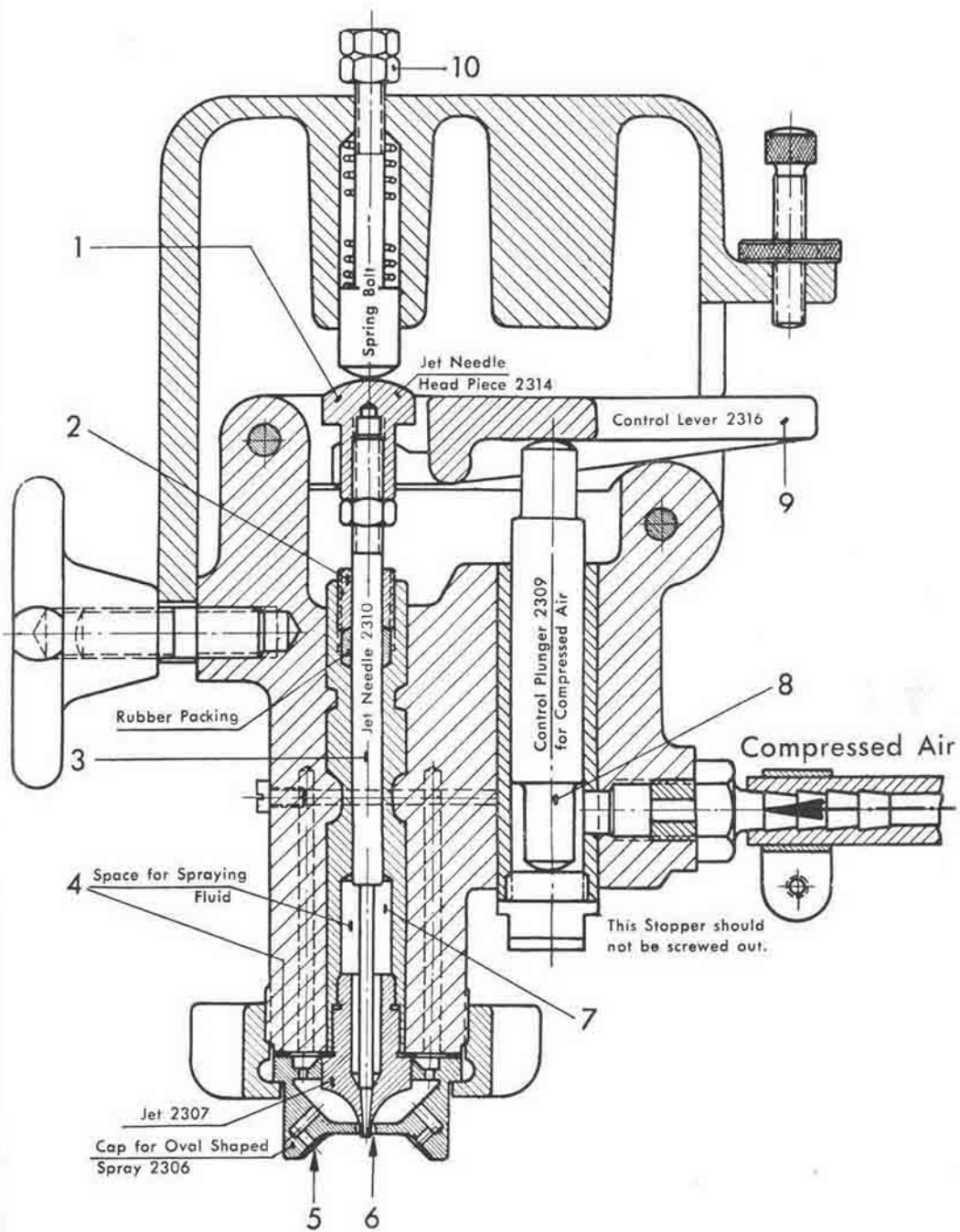
numbering boxes can be locked up with ordinary quoins, and type matter and numbering boxes can be worked together in one forme. To operate the moving rods, stops are fitted to the machine which automatically cut out when the machine is running off impression (Illustration 123).

It is possible to operate two moving rods simultaneously with the extra accessory delivered by us so that the numbering boxes can be built in lengthwise and across to the impression cylinder. This also allows the use of numbering boxes of different sizes and with different liftings. Printers interested in numbering on their Heidelberg Cylinders should communicate with their Heidelberg agent for full particulars.

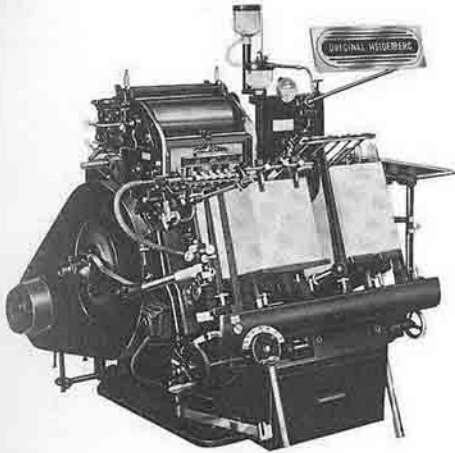
Illus. 123



Instructions for eliminating troubles of the spraying apparatus



THE HEIDELBERG MANUFACTURING PROGRAMME

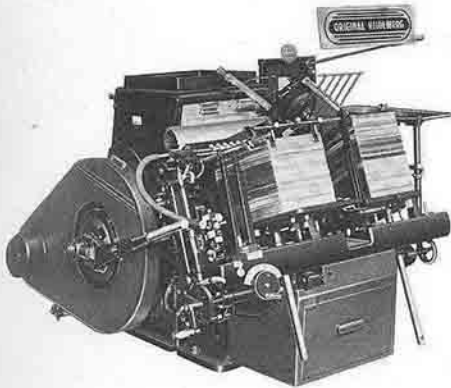
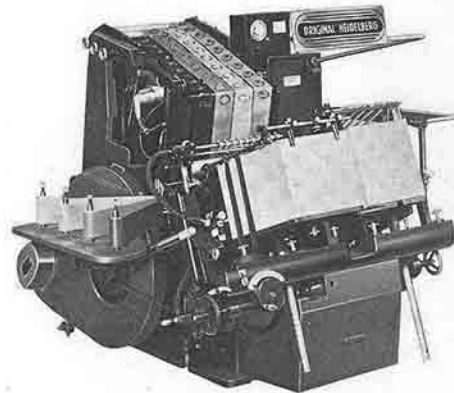


10 x 15" and 13 x 18" Original Heidelberg Automatic Platens

Model	Max. Size	Max. Speed
T	10 x 15"	5.500
GT	13 x 18"	4.000
GTK	13 x 18"	4.000

13 x 18" Heidelberg Special Cutter + Creaser for Gold and Colour Roll Foils and Hot Embossing

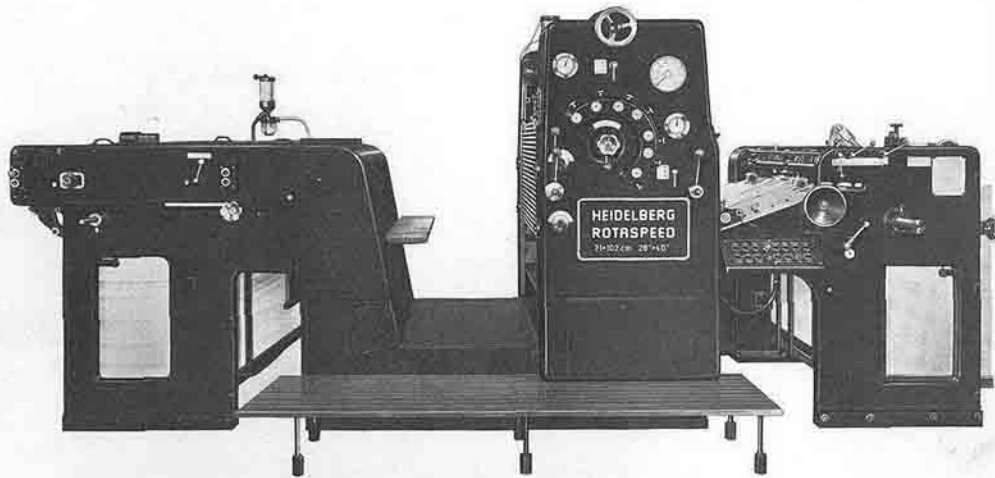
Model	Max. Size	Max. Speed
GTP	13 x 18"	4.000



13 x 18" Heidelberg Automatic Platen Cutter + Creaser

Model	Max. Size	Max. Speed
GTS	13 x 18"	4.000

REH 28 x 40" Heidelberg Rotaspeed Letterpress Single-colour High Pile — Max. Speed 8.000
ROH 28 x 40" Heidelberg Rotaspeed Offset Single-colour High Pile, — Max. Speed 8.000
or in Combination with Letterset



RZB 28 x 40" Heidelberg Rotaspeed Letterpress Two-colour — Max. Speed 7.000
RZO 28 x 40" Heidelberg Rotaspeed Offset Two-colour, — Max. Speed 7.000
or in Combination with Letterset

