# HANDBOOK OF THE HEIDELBERG AUTOMATIC PLATEN

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# OF THE HEIDELBERG AUTOMATIC PLATEN

CONTAINING INSTRUCTIONS
FOR WORKING & COMPLETE LIST OF PARTS,
FULLY ILLUSTRATED

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# FOREWORD

This handbook is issued for the purpose of giving Owners of the Heidelberg Automatic Platen correct instructions for the working of the machine, thus enabling them to use the platen to its utmost capacity. It gives full information as to how to meet difficulties which might occur when working with different stocks of paper, or different sizes, and should also help the operator to handle the Heidelberg efficiently and in a proper way.

We recommend all Heidelberg Owners to apply direct to us for all requirements concerning the machine.

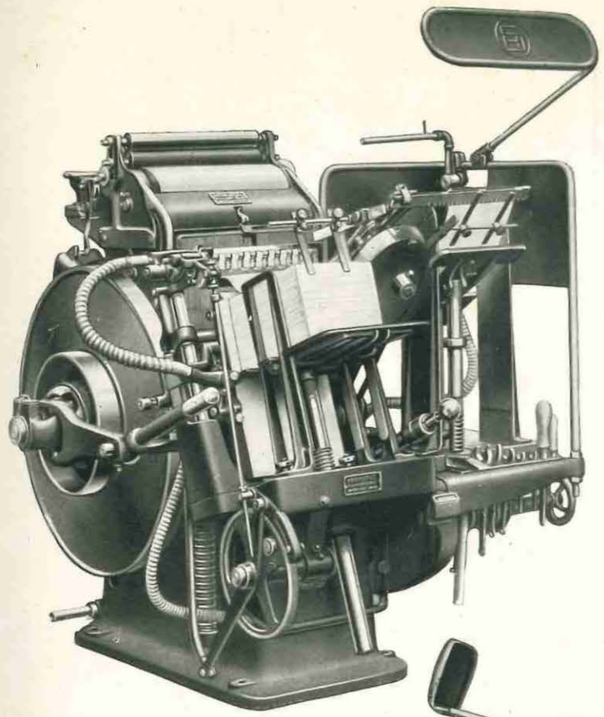
When spare parts are needed please quote the number of the part as per diagram and table. It is also advisable to mention the number of the machine, which is to be found on the left front edge of the base of the feed table. All parts of the machine are enumerated on pages 41 to 89 and are reproduced on photographs annexed. Every part bears a number, and when ordering, for instance, "Spring for end of roller track," you only need wire:

"Send for Machine No. 7410 part 0641."

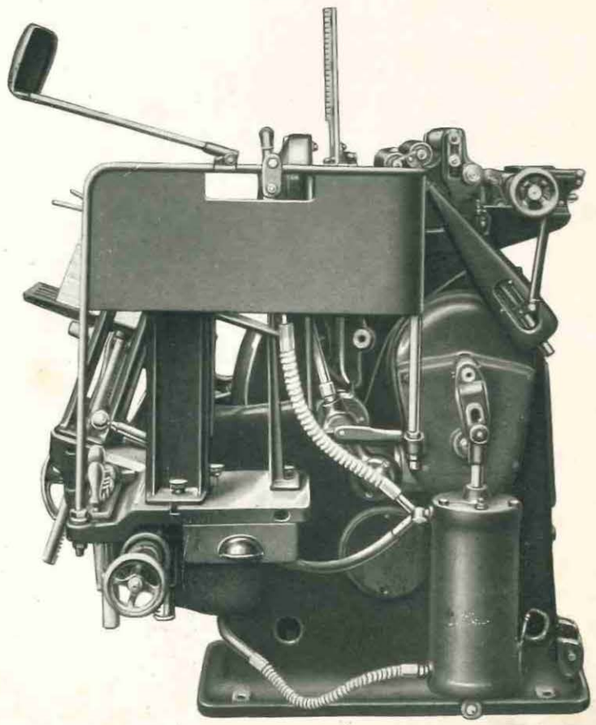
The Heidelberg Automatic Platens are built in series in large numbers, special jigs being used. After each process every part is thoroughly and carefully tested by the most accurate gauges and measuring tools. All parts of the machine are manufactured upon the interchangeability system which ensures easy fitting and the convenient changing of any part.

Every Heidelberg Automatic Platen is thoroughly tested before leaving the Works, and the absolute faultless working of every machine can be fully guaranteed.





Front View of the Machine



Side View of the Machine

# CONTENTS

# MEASUREMENTS AND WEIGHTS

| | |
|---|---|
| Maximum Paper Size | $10^1/_4'' \times 13^1/_2''$ |
| Maximum Type Surface | $9^1/_2'' \times 13^1/_4''$ |
| Inside Chase Measurements | $10^1/_4'' \times 13^1/_2''$ |
| Normal Output per Hour | 3000 |
| Diameter of the Fly-wheel (Direct Drive) | $27^1/_2''$ |
| Face of the Fly-wheel | 2″ |
| Diameter of Pulley on Fly-wheel (Drive from Shafting) | $12^5/_8''$ |
| Face of Pulley on Fly-wheel | 2″ |
| Revolutions of Fly-wheel to One Impression | 6 |
| Revolutions of Fly-wheel per Minute to give a speed equal to 2800 Impressions per Hour | 280 |
| Power Required | 1 h. p. |
| Net Weight of Machine (without motor) | approx. 1765 lbs. |
| Gross Weight | approx. 2315 lbs. |
| Space Required | 3′ 5″ × 5′ 3″ |
| Height of Machine | 4′ 1″ |
| Outside Case Measurements: Width | 4′ 3″ |
| Length | 5′ 1″ |
| Height | 5′ 1″ |



Packing of the Machine. The Machine is despatched from the Works completely fitted. By drawing out the nails, one side of the case can be removed, as illustrated, as well as the side opposite. Then the four nuts which connect the bottom of the case with the sides should be loosened. The sloping roof and the remaining sides can now easily be lifted up and placed upon one side so that the machine is easily accessible. After the four screws which hold the machine to the bottom board have been loosened, the machine can be removed. On the bottom of the case the machine accessories are also packed.

The case should be re-assembled and returned to us, if this arrangement has been made.

The Installation of the Machine. If the machine is to stand upon a wooden floor, care should be taken that it stands over two joists. If this is impossible fix the machine on a wooden frame about two inches thick, which must be tightly screwed down to the floor. The machine must be perfectly level. The position should be tested with a spirit level. This should be done by placing the spirit level in one direction upon the inking cylinder and in the other direction upon a square held against the type bed. The machine should be cleaned with paraffin and the anti-rust paint removed. Attention should be paid to the cleaning of the oil holes and the machine oiled up with the best thin acid-free machine oil. (See special Lubricating Instructions.)

Packing of the Machine

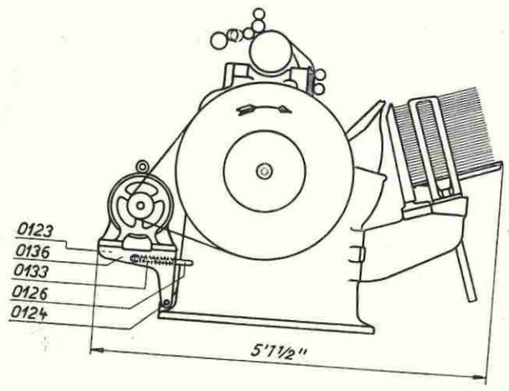
The Direct Electric Drive. For direct Electric Drive, fix the motor brackets 0123 and 0136 to the main frame 0101, on the flywheel side by means of shaft 0124 and its collars. This should be done in such a way that the square head screws in the main body hold shaft 0124 in position. The hook 0126 in the main frame must be connected with bracket 0136, so that the bracket is under the pressure of spring 0133. Then screw the motor to the brackets.

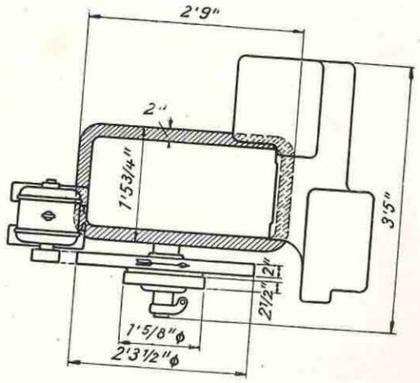
Care must be taken that the motor pulley is in line with the fly-wheel. The exact length of belting required is ascertained by keeping the motor brackets in a horizontal position and placing a string around the motor pulley and the flywheel rim, tightening the string and then knotting it. The motor brackets are able to oscillate in their bearings, and this allows the motor to act as a belt tightener. Motor slide rails for the electric motor are therefore not required.

The flywheel must revolve clockwise as indicated by the arrow.

The capacity of the motor should be 1 h. p. with 14—1500 revolutions per minute. To obtain this number of revolutions the diameter of the pulley of the motor should be approximately $5^1/_2$".

The speed of the machine may be varied by a regulating starter. This allows a speed reduction of approximately 50% and an increase of about 15% in the case of direct current. If alternating or three phase current is used only a reduction of speed is possible, viz. by a regulation of approximately 75% of the number of revolutions. The regulation is possible at a constant direction.

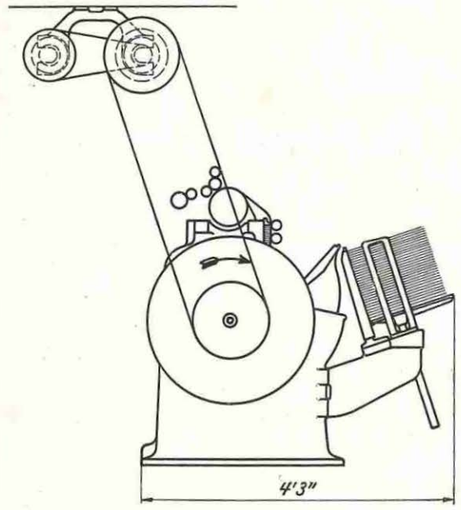


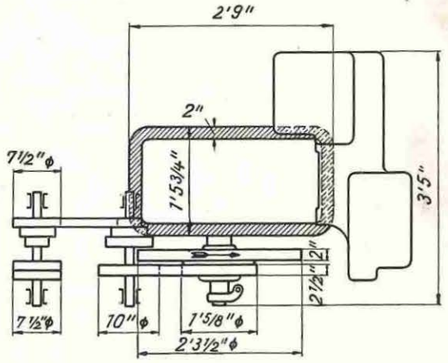






The Drive from Shafting. For driving from shafting the machine is driven by a countershaft from which the belt runs to the small pulley on the flywheel. The countershaft is driven from the main shaft by step-pulleys. Three or more speeds may be obtained as required. It is not advisable to fix the countershaft directly above the machine owing to the trouble caused by oil and dirt dropping on to the Platen.

Before starting the motor or shafting it is advisable to make sure that the clutch is disconnected, i. e. the flywheel must turn freely. The flywheel must only be turned in the direction as indicated by the arrow on the flywheel.



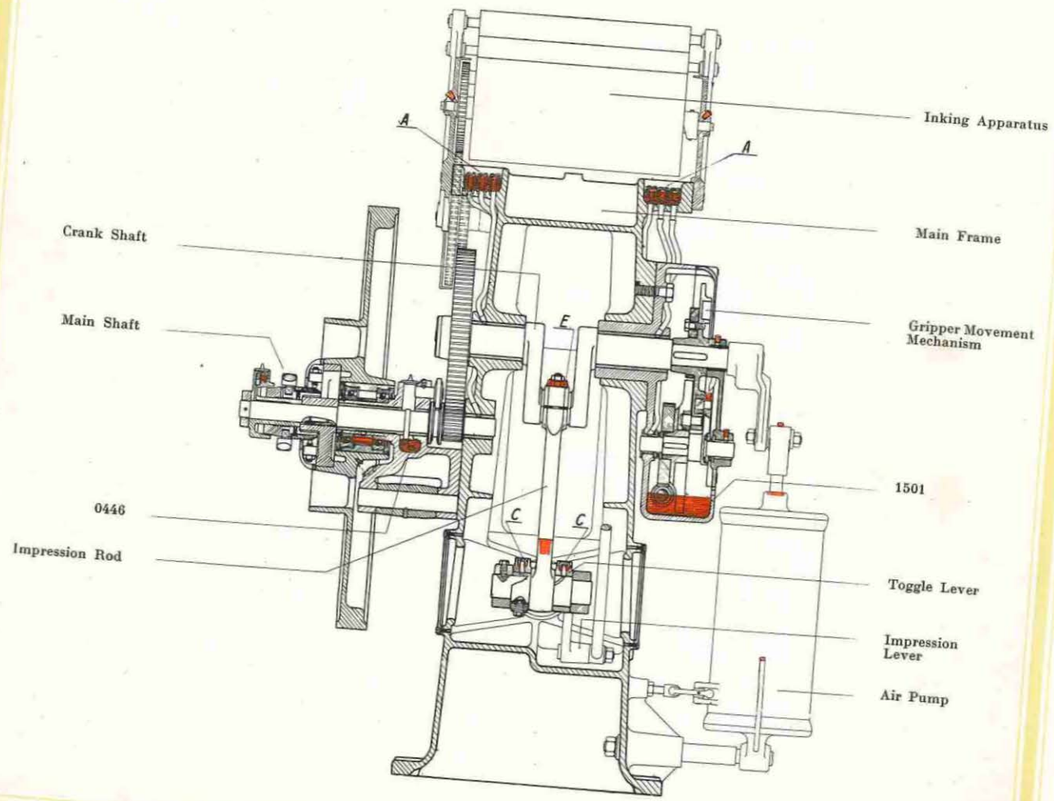
Oiling of the Machine. The machine should be oiled regularly. All parts requiring regular lubrication are recognisable by oil cups or red-bordered oil holes. Use the best machine oil and grease exclusively. The flywheel main bearing 0401 is self-lubricating. It should be filled until the oil shows at the oil-gauge 0446.

The oil reservoirs "A" below the vibrator on the main frame, and the oil reservoirs B, C, D, E inside the frame on the toggle lever and on the upper part of the impression rod, must be filled with oil at regular intervals. Replace the oil wicks used on the oil containers about every 6 months.

The case 1501 containing the Maltese Cross 1503 and the worm wheels 1509 and 1510, must be filled with oil until it shows at the hole on the bottom of the case. The air pump should be oiled frequently and freely, and especially when the machine is first installed.

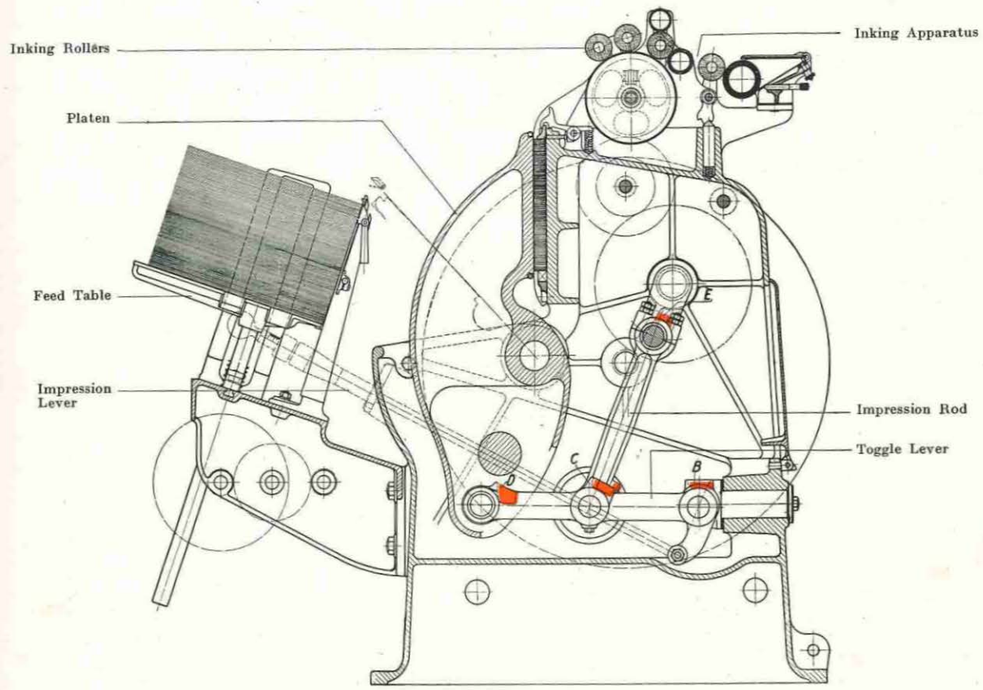
Runners and runner tracks for the roller carriage must be kept free of grease in order to avoid any skidding of the rollers.

## CROSS SECTION





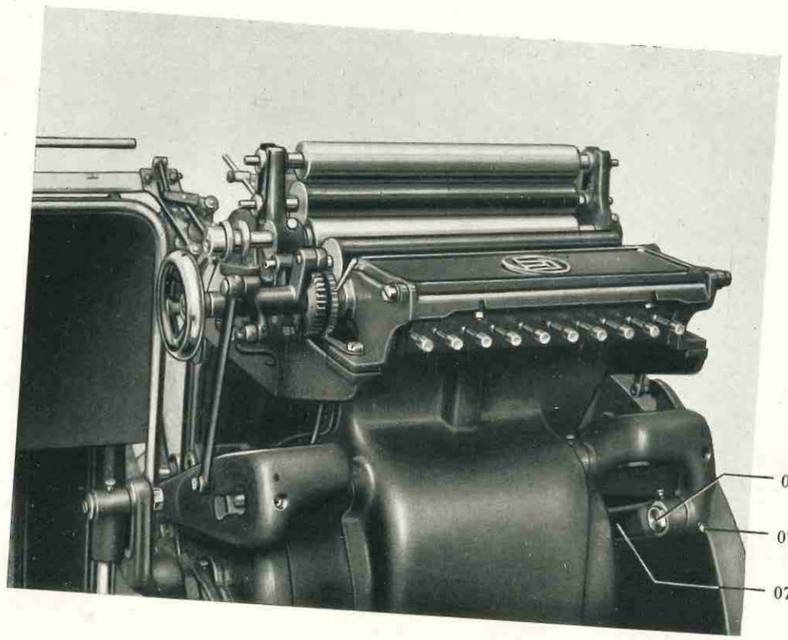

## LONGITUDINAL SECTION



The Inking Apparatus consists of a large and small inking cylinder with reciprocating movement, a distributing roller with steel rider roller arranged above it, two forme rollers, vibrator and ductor roller with ink fountain.

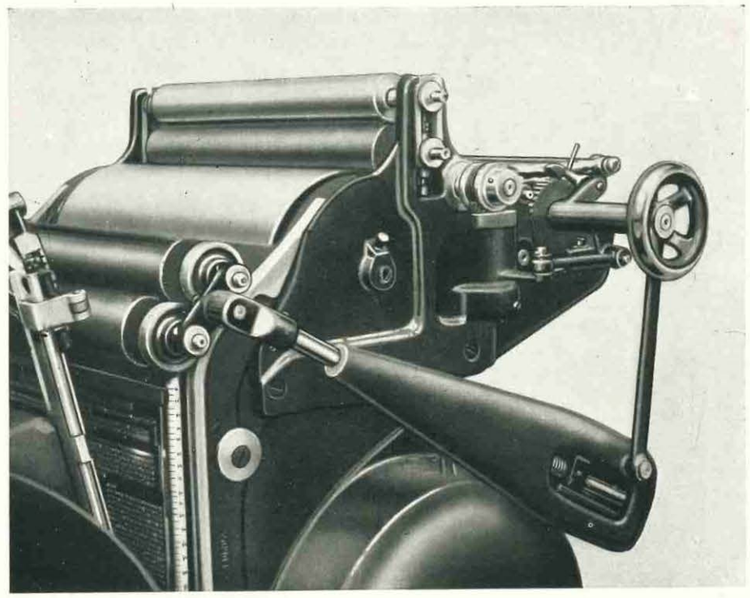
After inserting the forme rollers make sure that the shaft ends on the left roller bearing are secured by the catch provided for this. This must not be overlooked, otherwise the rollers are liable to jump from their bearings when the machine is running at high speed.

The roller carriage is driven from the main gear wheel by means of connecting rod 0701. It should be observed that the eccentric bolt 0702 is correctly replaced and securely locked by means of the set screw 0714, should it have been loosened.




Rear of the Inking Apparatus



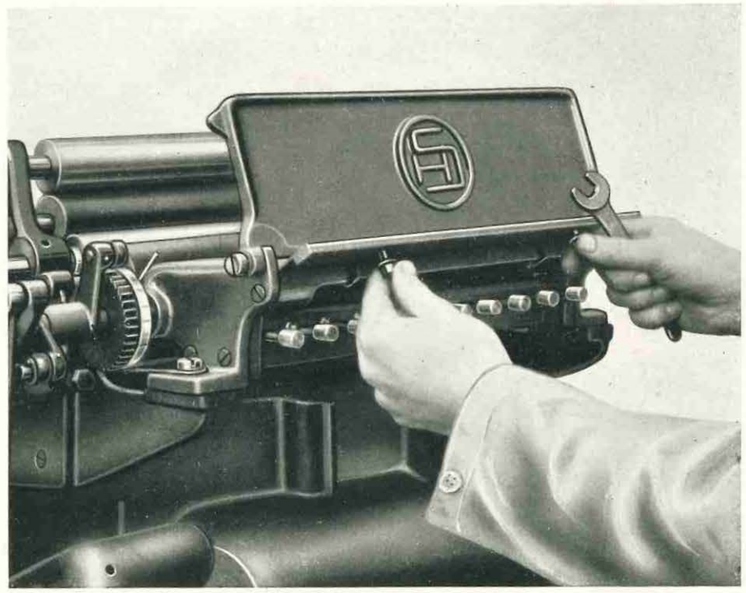


Front of the Inking Apparatus

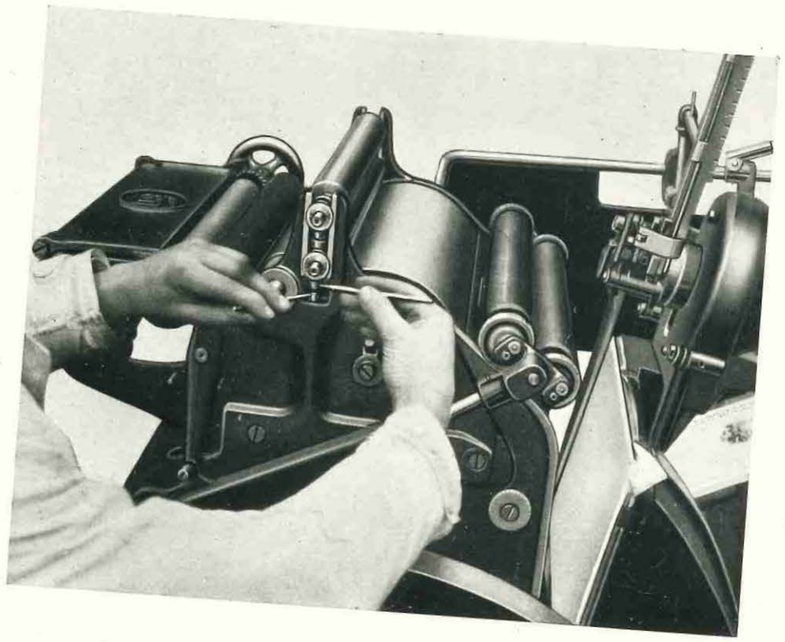
The Ink Duct is fitted with a flexible American steel knife, which can be adjusted by screws 0824 in the usual way.

For convenient cleaning of the ink duct the ink knife can be removed. After loosening the two hexagon nuts by means of a spanner the knife can be easily drawn out.

Ink Duct Removing of the Ink Knife



The Setting of the Distributing Rollers. Two tommy bars are supplied with each machine for this purpose. The roller bearings on each side of the inking apparatus are provided with screws which may be easily adjusted with the tommy bars so that the composition roller only presses lightly upon the inking cylinders. The small distributing cylinder on the top of the composition roller should be set in the same way, and should just "kiss" the roller beneath it. After setting be careful to lock the screws by the nuts provided for this purpose. When adjusted in this way the life of the rollers is considerably lengthened, as "flats" will not appear if the setting is properly carried out. The careless adjusting of the rollers may also cause the distributors to run hot, especially during the warm weather or when using "tacky" inks.



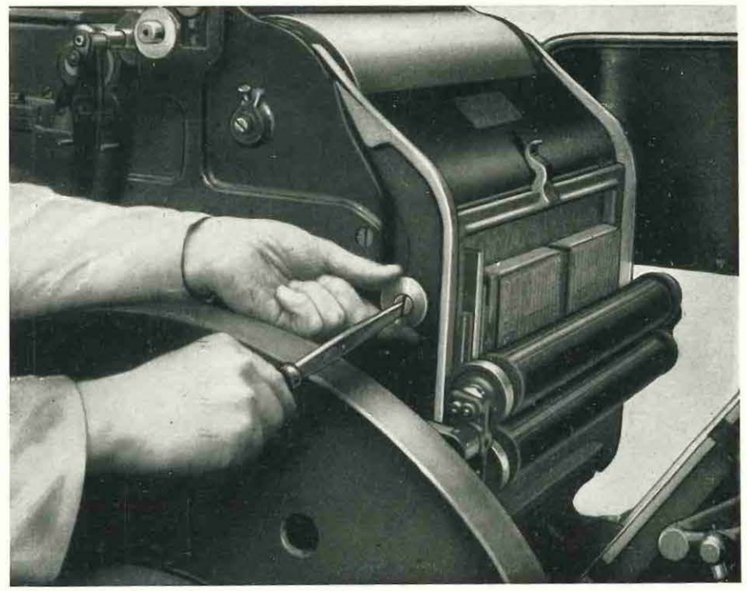
Setting of the
Distributing Rollers



Setting the Roller Tracks for the Forme Rollers. To make this adjustment the cheese-headed screws F 6 should be loosened with the screw-driver and the knurled eccentric nuts 0633 should be turned in the direction the runner tracks are to be set. When the tracks are equally adjusted in all four positions, the cheese-headed screws should be re-tightened. The fly-wheel has been provided with a hole, in order that the bottom screw on the fly-wheel side of the machine may be easily reached.

The disadvantages of incorrectly setting the runner tracks are known to every printer. If the tracks are set too far back, the composition rollers will become cut, and an uneven inking and a smeared result will be obtained. If set too far forward, the inking will probably be much lighter on one side of the impression than on the other, and will be generally inefficient. With the correct adjustment of the runner tracks the inking will be perfect.

Setting of the
Roller Tracks



The Setting of the Ductor Movement is easily done by turning an eccentric cam. To facilitate this adjustment a handle has been provided, and the ductor movement can either be discontinued altogether, or may be set for operating from one to seven teeth after each impression. Each tooth corresponds with an ink pick-up on the vibrator roller approximately $^1/_4$ of an inch, and therefore the maximum ink pick-up is $1^3/_4$ inches.

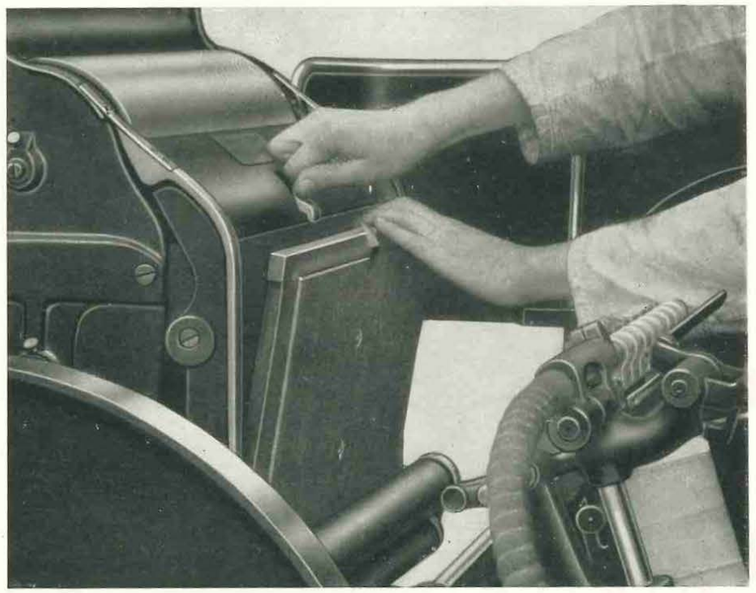
The setting of the ductor movement may be carried out while the machine is working, without the use of any tools, as the eccentric cam stops at each movement of the pawl over the teeth.

Setting the Ductor Movement



The Chase. The right hand inner edge of the chase provides the lay of the sheet, and the forme should therefore be locked up to this side. Should the margin be more than a $^1/_5$" more space must be left between the type and the chase accordingly. The type matter should be placed horizontally in the middle of the chase. The scale which is marked on the chase corresponds with the scale marked on the base of the feed and delivery tables, and this enables the type and the pile of paper to be placed in the correct positions without any difficulty.

The Placing of the forme in the Machine. This is performed in exactly the same way as on an ordinary platen, by sliding the chase downwards vertically between the runner tracks with the upper edge slightly inclined forward until it rests upon the chase holders 0104. Press the chase against the projecting chase catch 0106 until it passes the lip of the chase and automatically locks under the catch spring. When lifting the forme out, press the chase catch upwards and lift the forme out vertically. Both actions are done most conveniently when the platen is in the laying-on position with the forme rollers in the bottom position.



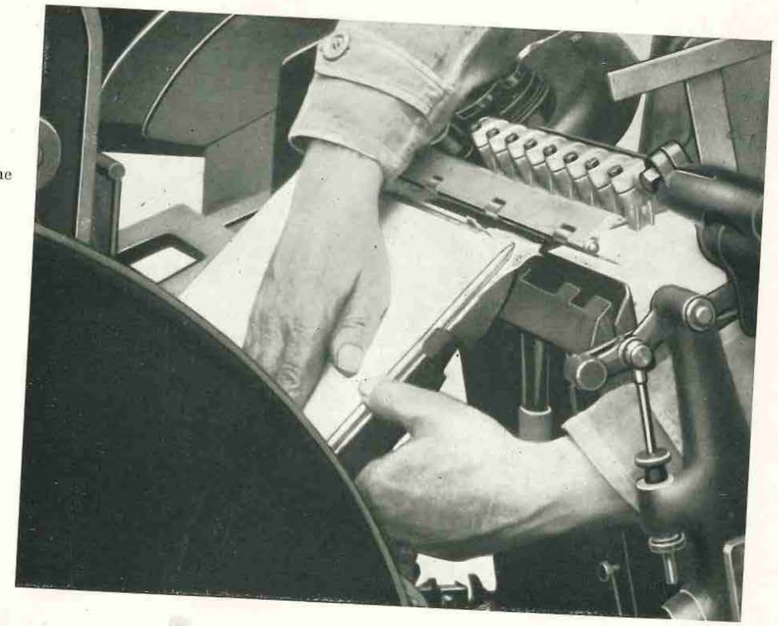
Placing the Forme in the Machine

The Tympan Packing should be of 1 mm. (1/25″) for printing ordinary letter paper, and proportionately thinner for heavier papers.

The Make-ready is carried out in the same way as on an ordinary platen. In view of the fact that the grippers pass over the make-ready, this must not be done on the top sheet, but underneath. The grippers pass over the surface of a normal packing leaving a distance of no more than $^1/_2$ mm. (1/50″), and should the packing be too bulky the make-ready may interfere with the movement of the grippers, or the tympan packing become injured.

The Frisket Fingers are adjusted as on ordinary platens. Usually, however, it is only necessary to use friskets for tabular work or jobs in which the paper and ink have a tendency to adhere together. The frisket fingers must be set to avoid the type and the forme.

The Tympan Packing and the Make-ready





The Regulation of the Impression can be effected while the machine is running. To increase the impression loosen the locking nut 1702 with the right hand by turning it to the left, and at the same time holding sleeve 1703 in position with the left hand. Then turn the sleeve 1703 to the right until the impression is of the required strength and re-tighten the locking nut 1702. To reduce the impression the sleeve 1703 should be turned in the opposite way.

The impression may be thrown off or put on while the machine is running. To put the impression on pull out the handle 1701 until it drops into its rest on the frame of the machine. To throw the impression off lift the handle 1701 and push it inward.

When running up ink or preparing the machine for printing, the impression should be thrown off, in order to avoid printing on the tympan.

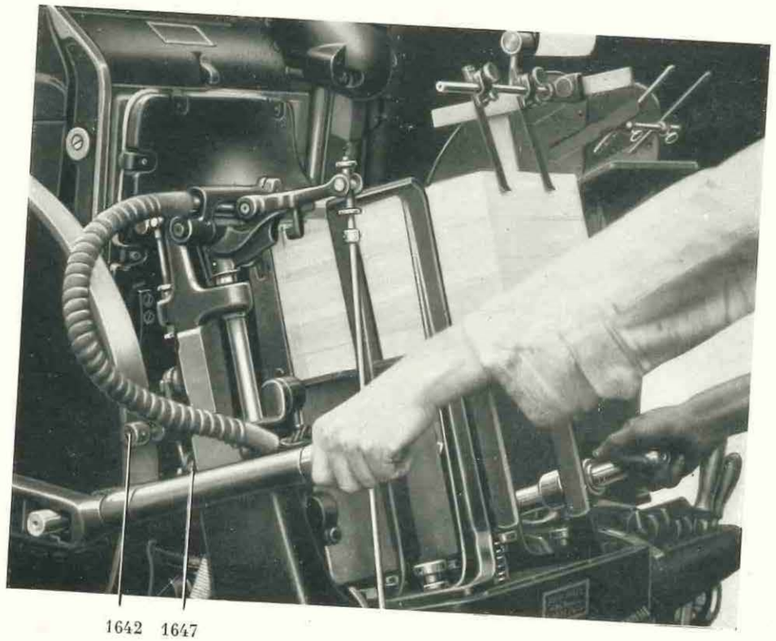
Special care should be taken when about to start printing a fresh forme. The impression should first be set lightly, in order to prevent any overloading of the mechanism. After taking a pull the impression can be increased to the required strength.

Regulation of the Impression

The Starting or Stopping of the Machine is effected by moving the lever 1907. To start the machine put in the clutch by moving the lever to the left, until the stop on the lever rests against the bracket stop for the automatic throw-off 1647. Hold in the right hand the thrown off impression lever, and directly the first sheet is passed to the grippers, pull out the impression lever and thus put on the impression. The machine will automatically stop when the paper pile is used up or should the suckers fail to pick the sheet up for any reason.

In order to avoid constant stoppages while running up ink, the automatic throw off may be put out of action by pulling out the knurled collar 1642 and giving it a quarter turn to the right and releasing it. Do not omit to replace this collar before commencing to print, as if this is not done the machine would not stop automatically in the event of a sheet not feeding and result in a print on the packing.

To stop the machine by hand give the lever 1907 a slight right-hand turn, and by means of a spring the lever will then be pulled to the right and the machine will stop.




Starting and Stopping the Machine

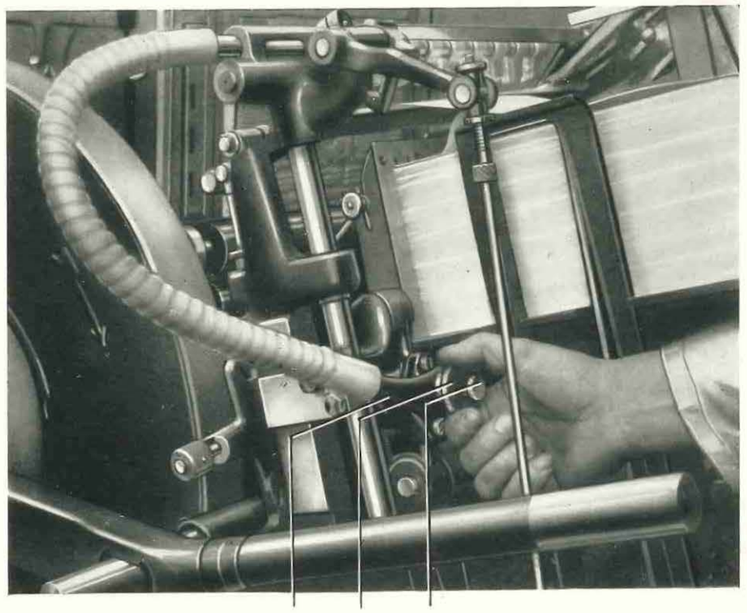


The Automatic Throw-off. When altering the stroke of the pump, or when printing small sizes or tissue paper the automatic throw-off sometimes fails to operate, although the sheet has not been picked up. In this case screw inwards knurled screw 1650 in nozzle 1639 until the automatic throw-off works properly.

Should it happen that the machine keeps on stopping automatically, although a sheet has been picked up, screw knurled screw 1650 outwards.

The knurled screw serves to increase or lessen the tension of the spring in the air cylinder. After adjusting care must be taken to secure the knurled screw by the clamping nut 1664.

The automatic throw-off also may fail to operate after the machine has been running for some time, and this is usually due to the paper dust from the feed table accumulating inside the suction nozzle. This hampers the movement of the small plunger. The simplest way to overcome this trouble is by cleaning same. Unscrew the two screws which connect the suction nozzle 1639 with the lever embodying automatic throw-off and then the plunger can be removed, and cleaning is easy. When refitting be sure to fit the spring plate and spring. The trouble will be overcome when the spring has been regulated correctly.




Setting of the Automatic Throw-off

Preparation of the Machine for Printing. To stack the paper on the Feed Table first disengage the connection between the Feed and Delivery Tables by loosening the Clutch on the Table Base 1001 below the Delivery Table 1010 by turning the handwheel 1123 towards you. This enables the Feed and Delivery Tables to work independently. Lift with your left forefinger the checking Pawls 1013 and 1018 and with your left thumb lift the Pawl 1103, thus leaving the teeth of Ratchet Wheel 1101 free. The Feed Table may then be lowered by turning the Ratchet Wheel 1101 with your right hand.

The Suckers should be in their lowest position before placing the pile on the Feed Table. The top sheet of the pile should not actually reach the Suckers themselves, but should be approximately 1/16th of an inch lower. The Delivery Table can then be lifted to its required position to receive the printed sheets and reconnected to the Feed Table by turning the handwheel 1123 to the right. The Lay Standards on both Feed and Delivery Tables are adjustable to the size of paper being printed by sliding into the T shaped slots.

A few proofs should be taken to see if the position of the forme corresponds with that of the paper, and if this is not the case make the necessary adjustment by shifting the pile of paper on the Feed Table to agree with the position of the forme, or if necessary, re-set the type matter in the Chase. The paper should be well fanned out to separate the sheets and ensure consistent feeding of one sheet only at a time. This is very important, as it will be found that paper often sticks together if cut by a blunt Guillotine knife.

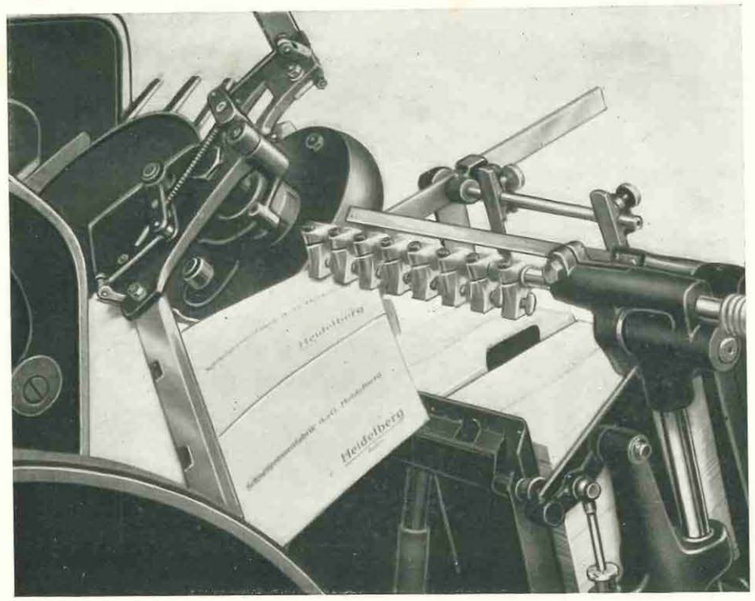
Suckers which do not cover the paper and are, therefore, not required should be turned off. The sucker is closed when the head of the tap plug is at right angles with the Sucker. and open when the plug head is in the direction of the air suction.

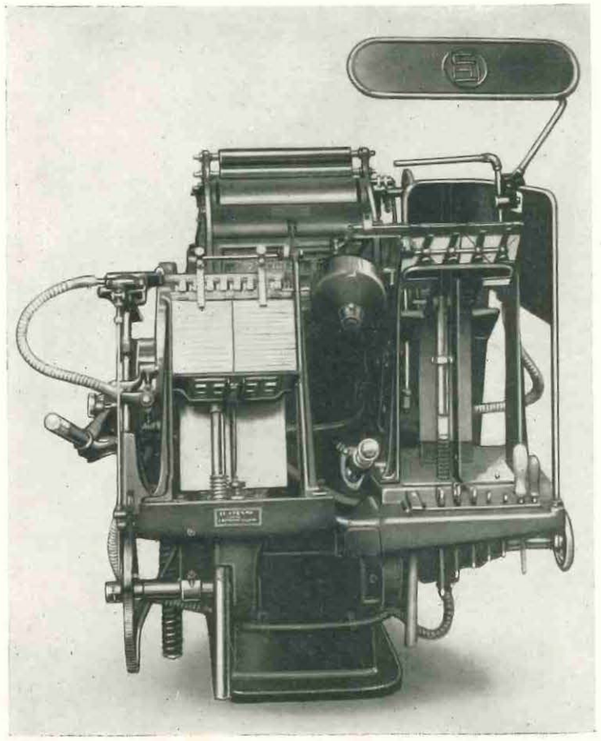
Printing two-up and Printing Envelopes. Extra Accessories are not required for this.

When printing two sheets at a time (two-up) use the centre standards 1004 and 1020, which serve as partition for the two piles. When printing envelopes and paper bags care should be taken that they do not adhere together or get entangled by the flaps.



Printing two-up
Printing Envelopes

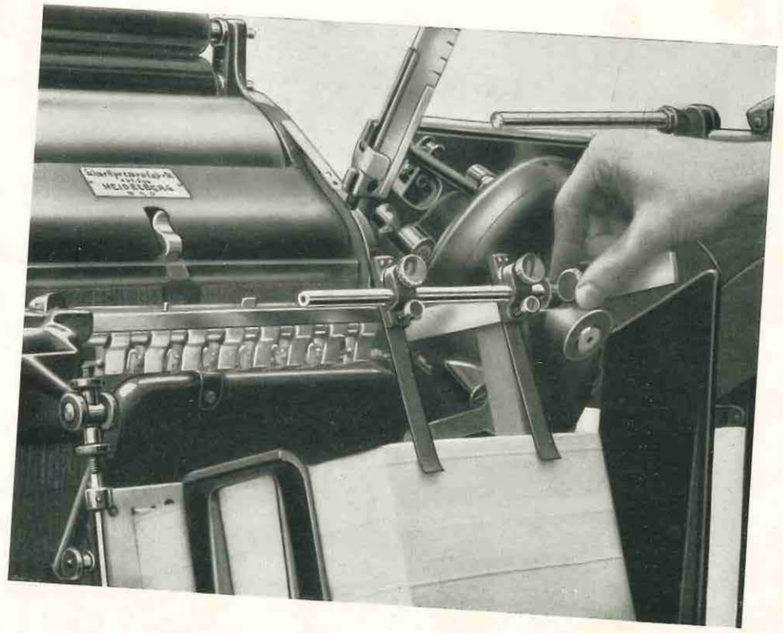


Front View while
printing two-up

The Sheet Steadier prevents the sheets from leaving the front lay standard from the effect of the blower, springs keeping the top sheets against the front lay gauge.

When preparing the machine for printing loosen knurled screws 2210 and turn the two springs 2203 upwards. When the machine is ready, turn the springs down and place the sheet steadier bar 2212 in position, so that the springs 2203 are slightly inclined towards the machine and lightly touch the back edge of the top sheets. Then tighten screws 2210. The screws 2209 allow the springs to be adjusted accurately.



Adjusting of the Sheet Steadier

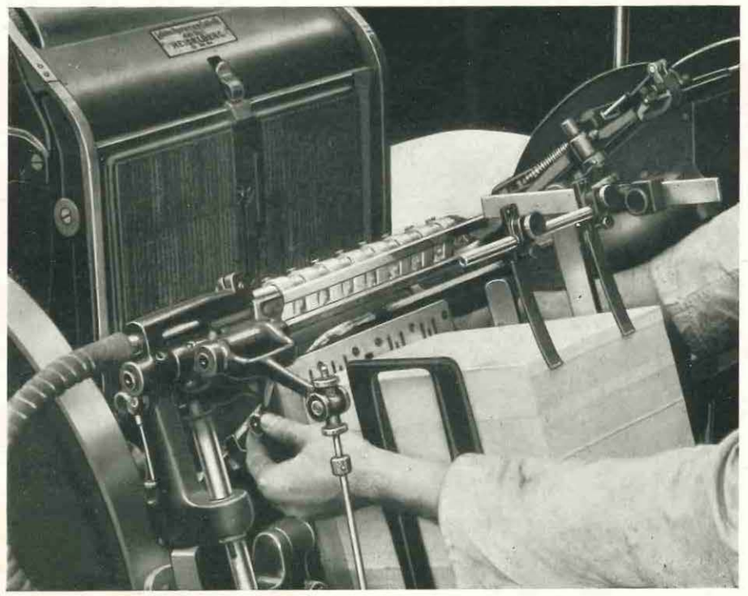


The Blower is fixed on the back of the front lay gauge 1201 and should be so adjusted that the upper holes blow over the paper pile, and the lower holes between the first and following sheets. For adjustment unscrew the knurled nuts 1619 and move the blower 1202 up or down as required. The blower should operate in such a way that it blows the top sheet towards the sucker bar and the air stream then separates the top sheet from the pile. The quantity of blowing air can be regulated on the air pump by means of the two-way tap. The top pipe on the two-way tap leads to the delivery and the bottom pipe to the blower on the feed. The two-way tap supplies a greater quantity of air in the direction in which the tap plug points. In addition to this an air regulating screw is fitted to the cover of the air pump through which the superfluous air can escape.

The Tripping Studs 1205 are riveted to tripping blades 1204, which are fixed on spindle 1206 and at the back of the front lay gauge 1201.

The function of the tripping studs is to separate the sheets and to prevent the taking of sheets adhering together. The studs must be adjusted to the kind of paper in use, by means of the knurled screws 1211, below the blower, shifting the balance lever 1207.

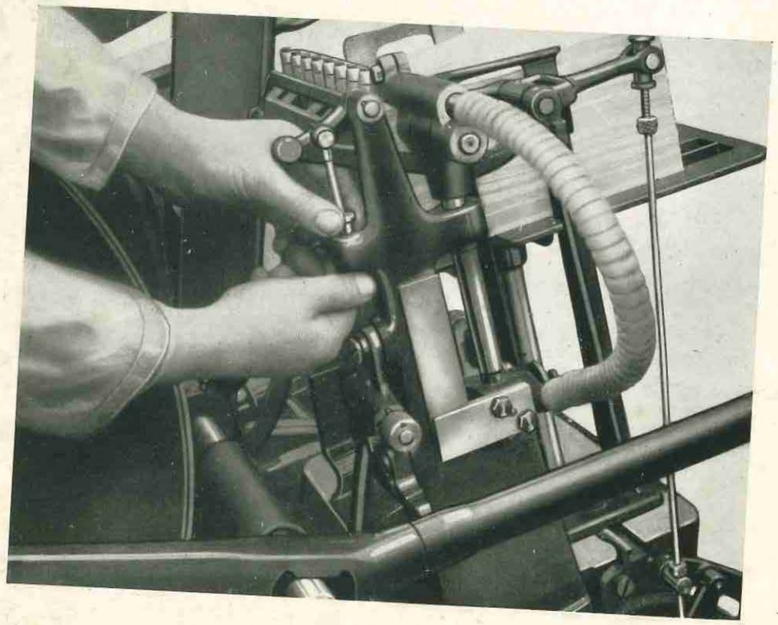
For thin papers the tripping studs should fully protrude from the front lay gauge. For cardboard they must be standing back otherwise they might push the stiff board from the suckers.



Setting of the Blower and the Tripping Studs

Tilting of the Sucker Bar is another means of separating the sheets. For thinner papers the angle of the sucker bar must be greater than is necessary for heavy paper or cardboard. The adjustment is made as follows: loosen the two knurled nuts 1619 (see illustration) and by turning the top or bottom one, the tilting rod 1613 may be adjusted. By adjusting the rocking lever 1604 and connecting rod 1611 the sucker bar can be set.

When taking the sheet the sucker bar takes the tilting position as adjusted, whereas the position of the sucker bar when passing the sheet to the grippers remains always the same. To ensure the correct adjusting for different papers please note table on page 37. After the adjustment tighten the knurled nuts. The tilting position of the suckers is of great importance to the correct working and should, therefore, always be carefully observed.



Tilting of the Sucker Bar



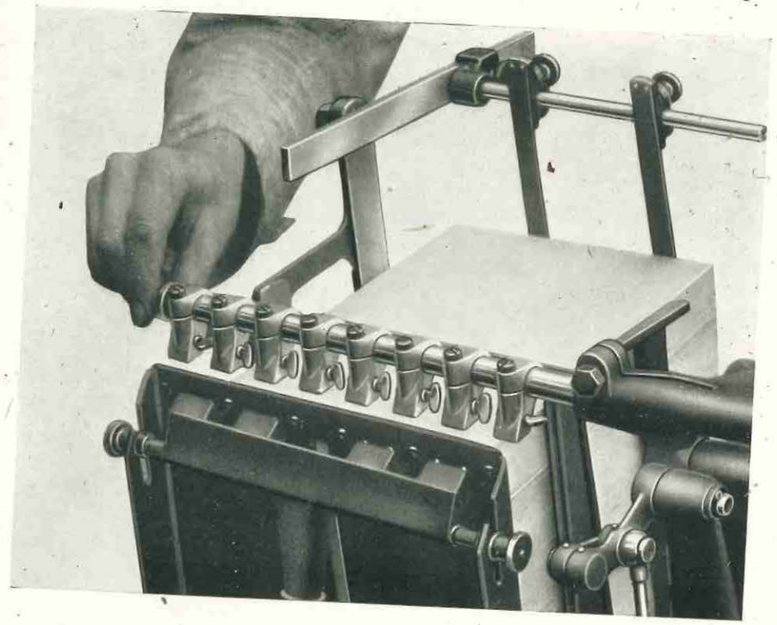
The Lifting of the Feed Table is operated by the gauge bar 1632, the paper height lever 1605, adjustment rod 1615, pawl 1103 and ratchet wheel 1101. The pawl 1103 fitted to the lever 1102 receives a periodical movement from an adjustable lever fitted to the driving gear through the connecting rod 1112. Adjustment is effected by loosening adjusting nuts 1664 and turning rod 1615. When the pile does not feed high enough the rod 1615 should be shortened which will then allow the pile to feed to the correct height, when the pile feeds too high the rod should be lengthened, which will automatically bring the pile down to the correct height. The nuts 1664 must be retightened after adjustment.

The correct setting of the feed table movement is very essential for continuous printing. In the case of tissue paper the distance between the top sheet of the pile and the suckers should be approximately $^1/_{12}$". Cardboard should just touch the suckers; if the distance is too wide the cardboard would not be lifted owing to its weight. This distance will be automatically controlled by the rod according to how it is set.

As the feed table lifts the delivery table lowers automatically at the same speed.


Setting of the Paper Movement

The Valve on the Sucker Bar. The suction air is normally regulated by increasing or decreasing the stroke of the air pump. A special valve has been fitted on the end of the sucker bar for use when printing very thin and porous papers, and through which the air passes and the vacuum becomes reduced and not more than one sheet is taken. It is only necessary to use this valve if the suction air is too strong even when the smallest stroke of the pump is in use. The valve screw must be secured by the locking nut after adjustment.



Valve on the Sucker Bar

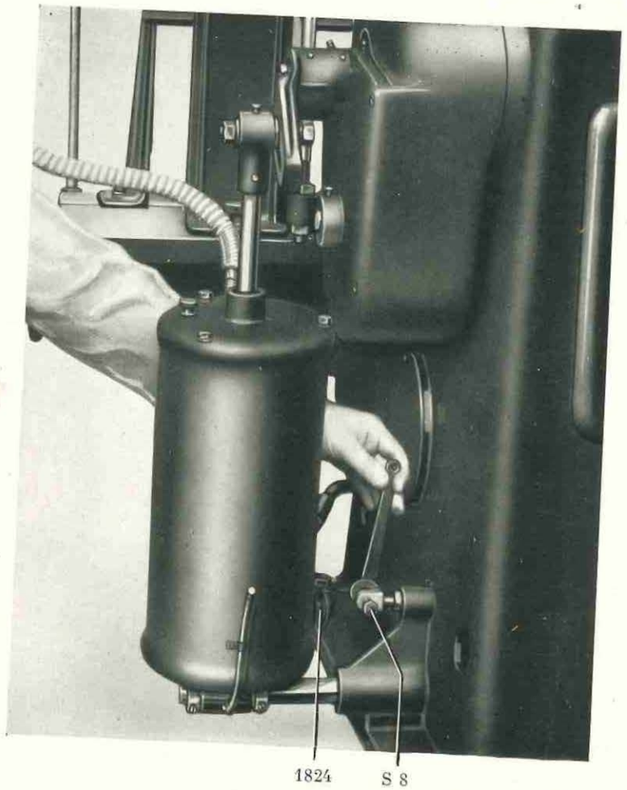


The Air Pump operates the suction air and the blowing air. The bottom nozzle 1807 of the air pump 1801 is connected by a rubber tube with the suction nozzle for the automatic throw-off. The blowing air is formed above the piston and is separated by the two-way tap.

The stroke of the pump can be adjusted according to the required quantity of suction and blowing air, by loosening the hexagon nut and moving the crank pin 1808. Tighten the nut after adjustment. The taps on the pump cylinder are for the purpose of regulating the supply of air to the blowers on feed and delivery tables.

Setting of the Stroke on the Air Pump

The Clack Valve on the Air Pump. The purpose of this valve is to stop the vacuum in the sucker bar tube immediately the gripper has closed and taken the sheet. If the valve opens too early the lifted sheet will not be passed properly to the grippers; if it opens too late the suckers might probably pull the sheet off the grippers, and in both cases register will be affected. The correct adjustment is carried out as follows: The clack 1824 strikes the screw S 8 and is thus opened. After loosening the nut with a spanner this screw can be adjusted. The further the screw is screwed into the stop, the earlier the valve opens. This adjustment may be necessary when setting a longer stroke.

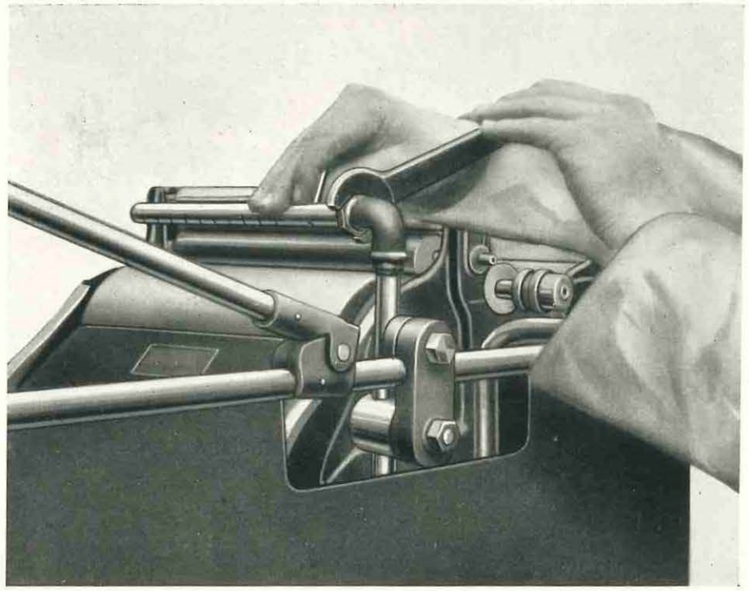



Clack Valve on
the Air Pump



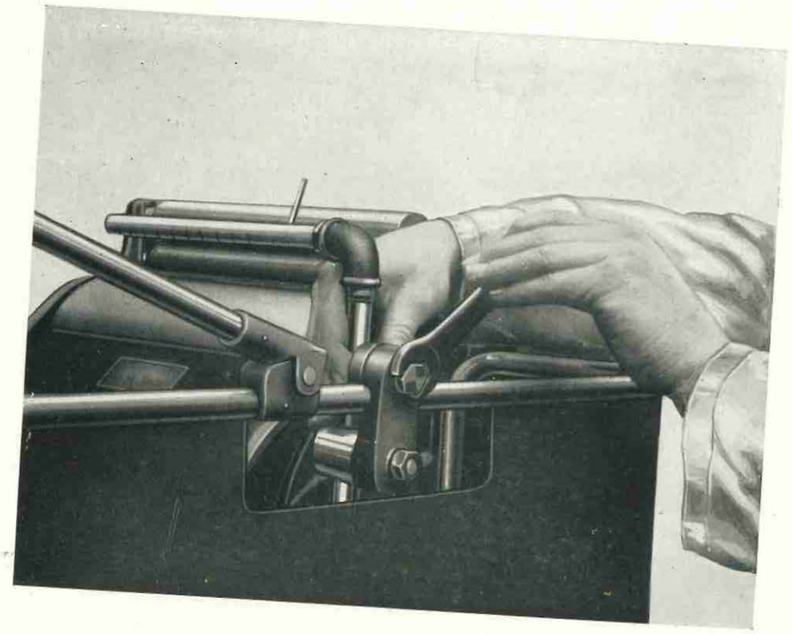
The Setting of the Delivery Blower is very essential for a perfect piling up of the printed sheets and is set in the following method: The direction of the air stream can be altered as desired by turning the blower tube 2111 after loosening the fixing nut 2112. The pin on top of the bar shows the direction of the air stream.

Setting of the
Delivery Blower



The blower tube can also be set higher or lower; moved forward or backward after the clamping screw or the nut has been loosened with a spanner.

If the quantity of blowing air over the delivery table is set properly the speed of the machine can very often be increased and the delivery will be equally good as when the machine is run at a lower speed. This adjustment is very important when printing thin papers. The air stream prevents the corners of the sheets from curling and correctly places the sheets on the pile. The air circulation also facilitates the drying of the prints. The force of air stream can be regulated by the two-way tap on the air pump or by setting the stroke of the pump.

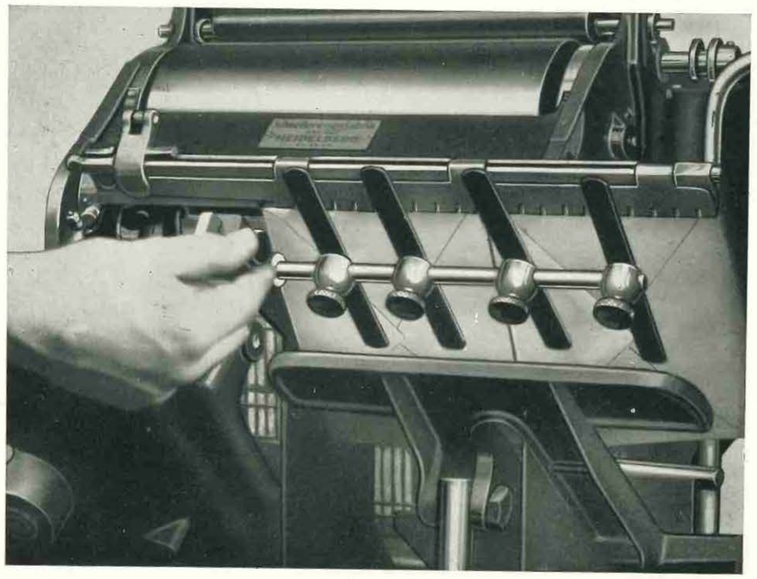


Raising and Lowering of the Blower Tube



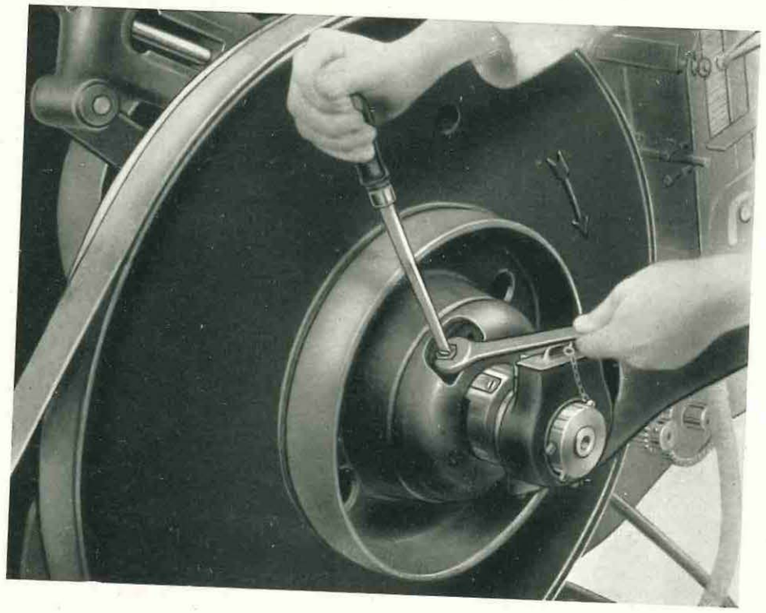
The Delivery Appliance for Small Sizes is of great advantage when printing small size jobs, and allows a better delivery. An adjustable rod 2302 carrying four adjustable delivery slides 2303 is fitted to the left hand delivery lay standard. Knurled clamping screws 2305 hold the delivery slides and the clamping pieces 2301 to the rod. The delivery slides are set so that the sheet slides towards the front lay standard after the gripper has opened.

In many cases two delivery slides are quite sufficient, but when printing small jobs or two-up the use of four delivery slides is advisable.



Delivery Appliance for Small Sizes

The Re-setting of the Friction Clutch may be necessary after the machine has been running for some time. This is necessary if the flywheel fails to move the machine while on impression. The re-setting is a simple operation and should be carried out as follows: With the screw driver in one hand, hold the clutch adjusting screw D 13 so that it does not move when loosening the nut D 14 with the spanner. Then move the clutch adjusting screw half a turn to the right and retighten the nut. The opposite screw should be treated in the same way, and this slight adjustment will be quite sufficient in most cases.



Re-setting of the Friction Clutch

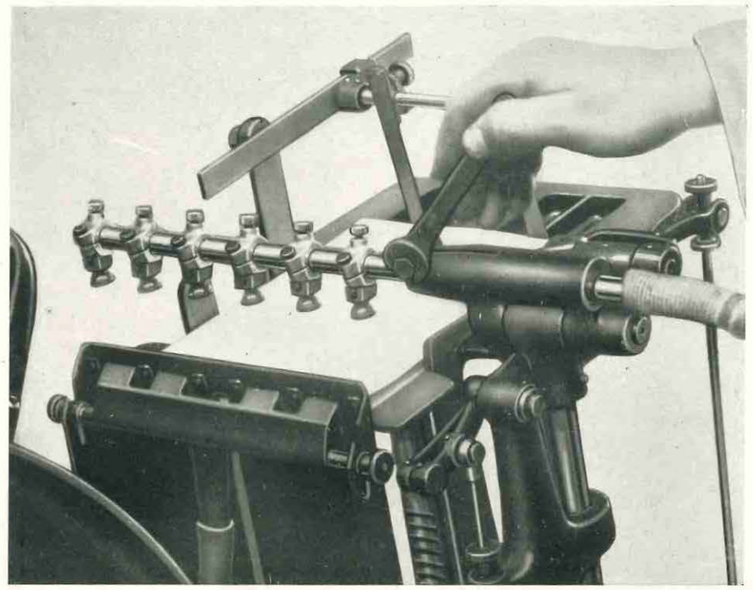


## Extra Appliances

Rubber Sucker Bars can be supplied to order. Rubber Sucker bars are used when printing heavy cardboard or wavy papers, pasted bags, etc. The sucker bar can be easily removed in the following way:

After loosening the hexagon screw Q 4 on the sucker bar bracket 1606 the ordinary sucker bar can be easily removed from the sucker bar bracket. The rubber sucker bar is placed in position in such a way that the small pin on the sucker bar fits in the slot of the sucker bar bracket. By means of this the sucker bar is fixed in the correct position. Afterwards retighten the hexagon screw.

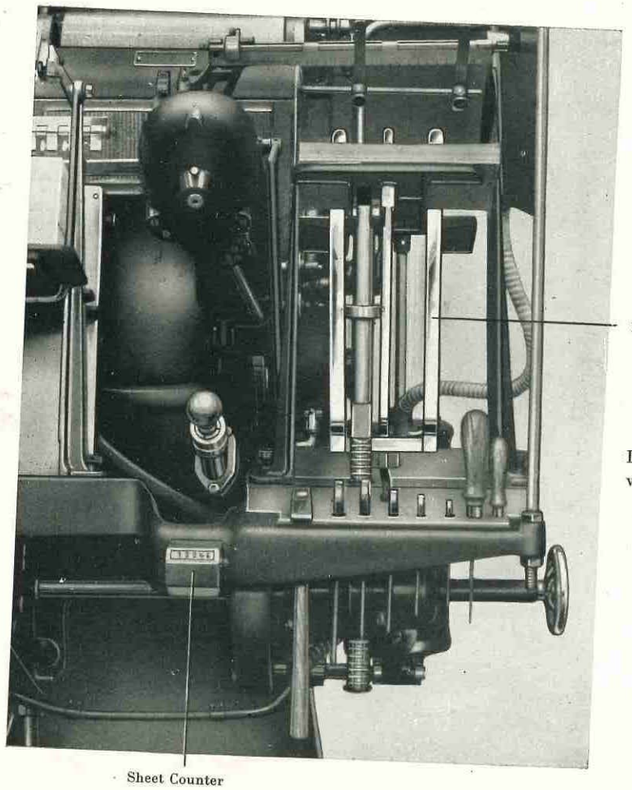
Each sucker can be turned off by knurled clamping screws. The rubber caps fitted to the aluminium suckers can be easily exchanged and new caps can be supplied at any time.



Rubber Sucker Bar

The Sheet Counter. A five figure sheet counter is supplied. This is fitted on the front of the machine and is operated from the platen by special fittings. The sheet counter only records the printed sheets. When the impression is thrown off the counter does not register.

The Lay Standard for very small sizes. This is to be fixed in such a way that the centre portion fits into the slot of the delivery table. This Lay Standard is generally used for very small and short sizes or thin papers which would not pile up properly without this device.

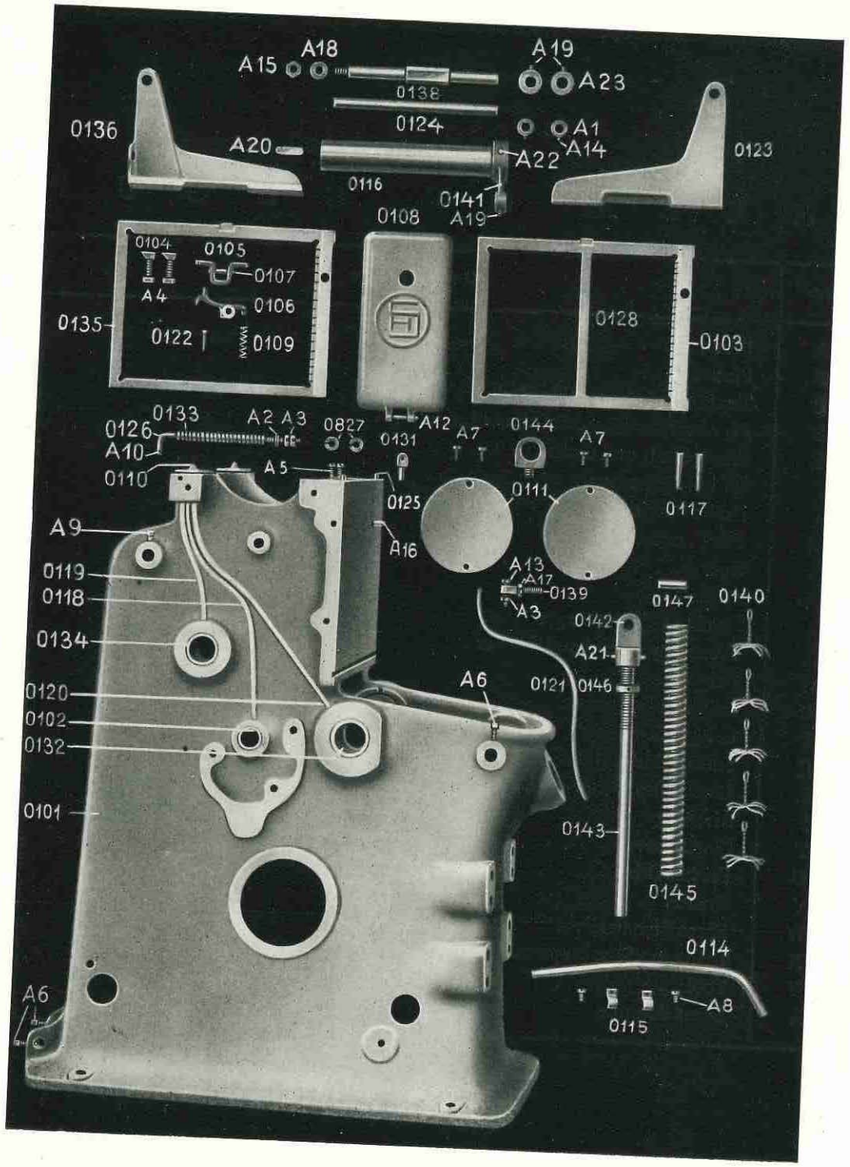





## Table for Adjusting the Most Important Parts when Working:

| Name of the Adjustable part | Tissue Paper | Ordinary Letter Paper | Cardboard for Post Cards |
|---|---|---|---|
| *Paper Table* Turn ratchet wheel 1101 by hand | Top sheet about 1/12" from lower edge of suckers | Top sheet about 1/16" from lower edge of suckers | Top sheet just touching lower edge of suckers |
| *Blower* Adjust air regulating screw 1812 or the stroke on the pump (see page 25) | Slight air between sheets and plenty over sheets on delivery table | Half air between sheets and half over paper on delivery table | All air between cards on feed table |
| *Tripping Studs* Adjust knurled screws 1620 (see page 25) | Coming out fully, springs slightly touch front paper stop | About 1/5" out. Springs quite free | Entirely receding, springs rest against blower |
| *Suckers* Adjust rocking lever 1604 (see page 26) | Lower edge of suckers to be turned 30° backwards against paper edge | Lower edge of suckers to be turned 15° backwards against paper edge | Lower edge of suckers to be parallel to paper edge |
| *Paper Feed* Adjust gauge rod 1615 (see page 27) | One stroke for every 15th to 20th sheet | One stroke for every 7th to 10th sheet | One stroke for every 3rd or 4th sheet |
| *Automatic Throw-off* Adjust knurled screw 1650 in air cylinder 1609 (see page 21) | Spring in the air cylinder to be but slightly tightened | Spring in the air cylinder to be moderately tightened | Spring in the air cylinder to be fully tightened |
| *Output* Regulate starter of electric motor | 1000 to 2000 prints per hour | 3000 prints per hour | 2500 to 3000 prints per hour |

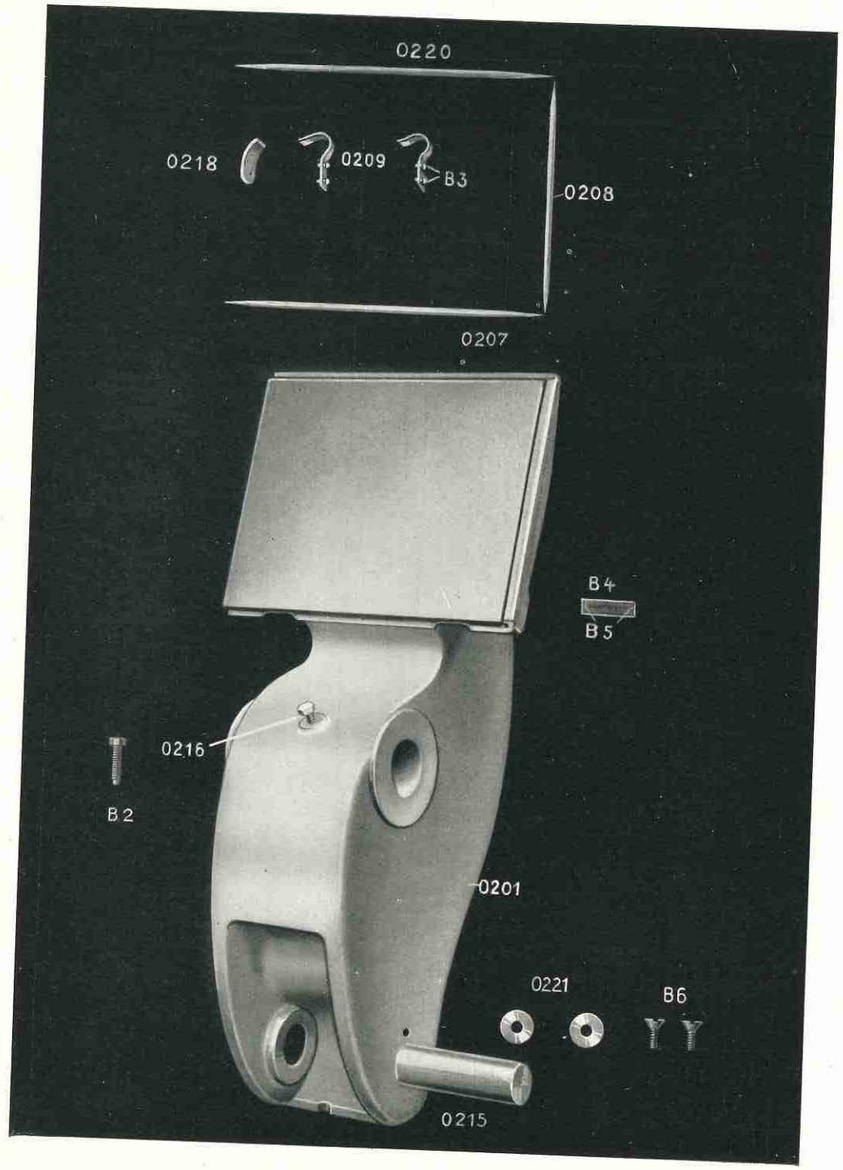
# INDEX OF GROUPS






# T A B L E A. F R A M E

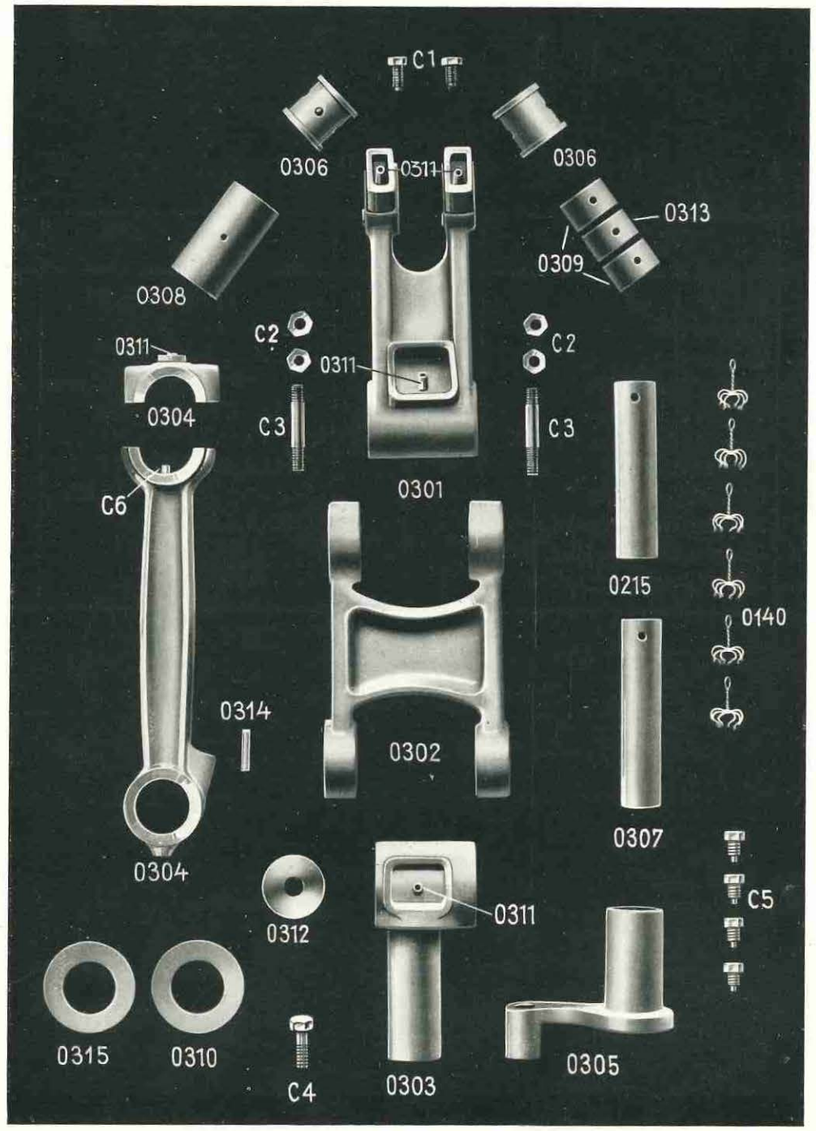
| Part No. | Description | Quanti ty | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 0101 | Frame | 1 | 0146 | Adjusting Collar for 0145 | 1 |
| 0102 | Bush for Driving Shaft | 1 | 0147 | Trunnion for 0142 | 1 |
| 0103 | Chase with Centre-piece | 1 | A 1 | Collar for Motor Bracket Spindle, N 108, 20×13 mm | 2 |
| 0104 | Bolts for holding Chase | 2 | A 2 | Washer for A 3, N 65/1 10,3 mm | 2 |
| 0105 | Bracket for Chase Catch | 1 | A 3 | Hexagon Nut for 0126 and A 13, N 61/1, 10 mm | 3 |
| 0106 | Chase Catch | 1 | A 4 | Hexagon Screw for 0104, N 46/1, 10×40 mm | 2 |
| 0107 | Pin for Chase Catch | 1 | A 5 | Cheese-headed screw for Part 0105, N 48/1, 8×22 mm | 2 |
| 0108 | Inspection Plate | 1 | A 6 | Square-headed Screw for fixing 0124 and 1928, N 107, 8×30 mm | 3 |
| 0109 | Spring for Chase Catch | 1 | A 7 | Screw for fixing 0111 and 0128, N 48/1, 5×12 mm | 6 |
| 0110 | Lid for Oil Container | 2 | A 8 | Screw for fixing Clips 0115, N 48/1, 6×10 mm | 2 |
| 0111 | Circular Inspection Plates | 2 | A 9 | Lubricator, No. 1 size, N 73 | 2 |
| 0112 | Packing Rings for Pipes in Oil Container | 6 | A 10 | Split Pin for 0126, N 75, 3×25 mm | 1 |
| 0114 | Tube for Suction Air | 1 | A 12 | Pin for fixing Inspection Plate, N 71, 8×55 mm | 1 |
| 0115 | Clips for Air Tubes | 2 | A 13 | Hexagon Screw for 0139, N 81, 10×45 mm | 1 |
| 0116 | Platen Shaft | 1 | A 14 | Grub Screw for A 1, N 53, 8×12 mm | 2 |
| 0117 | Short Oil Pipe in Oil Container | 2 | A 15 | Hexagon Nut for 0138, N 61/1, 16 mm | 1 |
| 0118 | Oil Pipe for Driving Shaft | 1 | A 16 | Guide Pin for Chase, N 71, 8×20 mm | 1 |
| 0119 | Oil Pipe for Crank Shaft, Flywheel Side | 1 | A 17 | Hexagon Nut for 0139, N 62, 12×9 mm | 1 |
| 0120 | Oil Pipe for Platen Shaft, Flywheel Side | 1 | A 18 | Packing Washer for 0138, N 65/1, 16,5 mm | 1 |
| 0121 | Oil Pipe for Platen Shaft, Cam Side | 1 | A 19 | Grub Screw for A 23, N 53, 8×16 mm | 2 |
| 0122 | Pin for pushing out Chase | 1 | A 20 | Key for fitting 0141 to 0116, N 113/1, 8×12×25 mm | 1 |
| 0123 | Motor Bracket, left | 1 | A 21 | Taper Pin for 0142, N 72, 4×45 mm | 1 |
| 0124 | Spindle for Motor Bracket | 1 | A 22 | Taper Pin for 0141, N 72, 8×80 mm | 1 |
| 0125 | Pin for locating Guard 2108 | 2 | A 23 | Collar for 0138, N 108, 24×14 mm | 2 |
| 0126 | Bar for Belt Adjustment | 1 | 0827 | Spring Washer for 0108 | 2 |
| 0128 | Centre Piece | 1 | | | |
| 0131 | Pivot Stud | 1 | | | |
| 0132 | Bush for Platen Shaft | 2 | | | |
| 0133 | Spring for Belt Adjusting Bar | 1 | | | |
| 0134 | Bush for Crank Shaft | 1 | | | |
| 0135 | Chase | 1 | | | |
| 0136 | Motor Bracket, right | 1 | | | |
| 0138 | Shouldered Pin carrying 1801 | 1 | | | |
| 0139 | Stop carrying Regulating Screw S 8 | 1 | | | |
| 0140 | Oil Wick with Wire | 6 | | | |
| 0141 | Lever for Platen Balancing Spring | 1 | | | |
| 0142 | End Piece for 0143 | 1 | | | |
| 0143 | Spindle carrying Spring 0145 | 1 | | | |
| 0144 | Stop for Spring 0145 | 1 | | | |
| 0145 | Platen Balancing Spring | 1 | | | |






# T A B L E B. P L A T E N

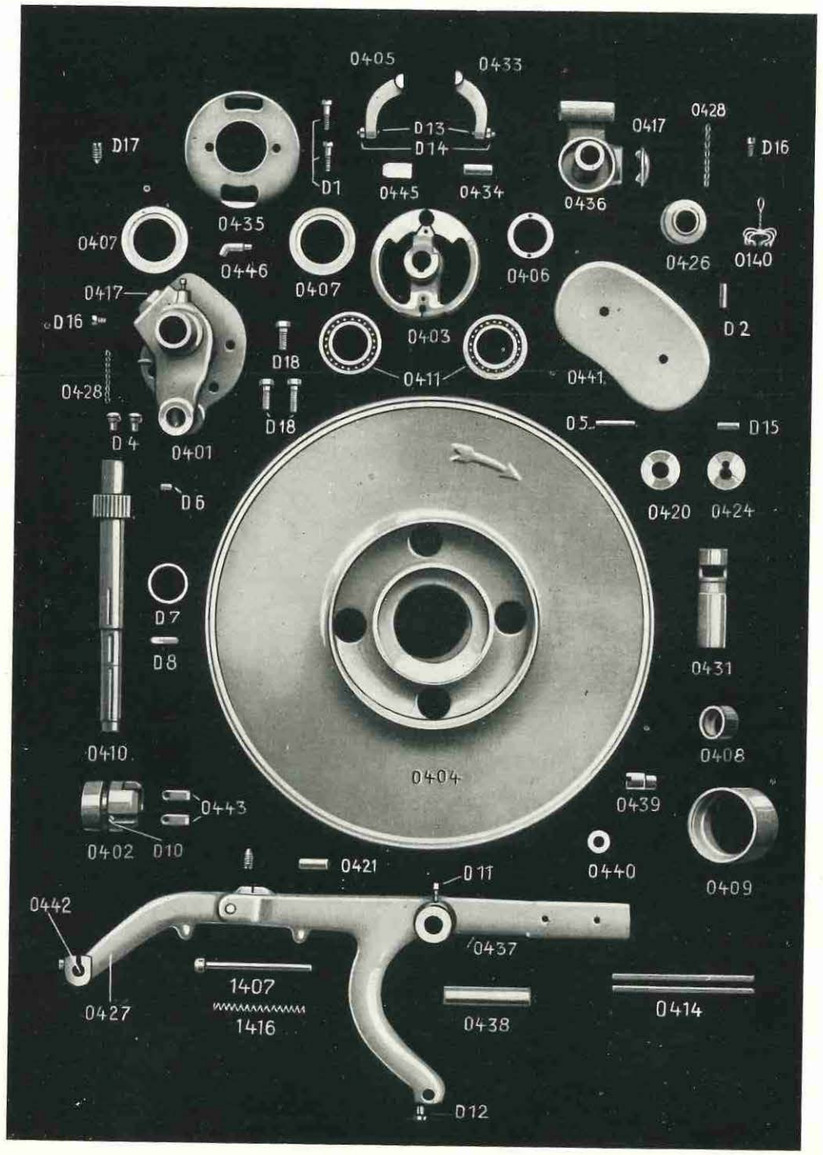
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 0201 | Swinging Platen | 1 | B 3 | Screw for Tympan Clip, N 48/1, 8×10 mm | 2 |
| 0207/0220 | Tympan Bar | 2 | B 4 | Metal Name Plate, N 122/2 | 1 |
| 0208 | Tympan Bar | 1 | B 5 | Copper Rivets for fixing above, N 78, 3×6 mm | 2 |
| 0209 | Clip for Tympan Bar | 2 | B 6 | Counter-sunk Screw for 0221, N 50/1, 6×20 mm | 2 |
| 0215 | Toggle Pin in Platen | 1 | | Cheese-headed Screw for 0218, N 48/1, 5×12 mm | 4 |
| 0216 | Hexagon Screw for fixing Platen Shaft | 1 | | | |
| 0218 | Clip for Tympan Bar | 4 | | | |
| 0221 | Stopping Washer for 0215 | 2 | | | |
| B 2 | Hexagon Screw for 0215, N 81, 10×42 mm | 1 | | | |






# T A B L E C. T O G G L E S

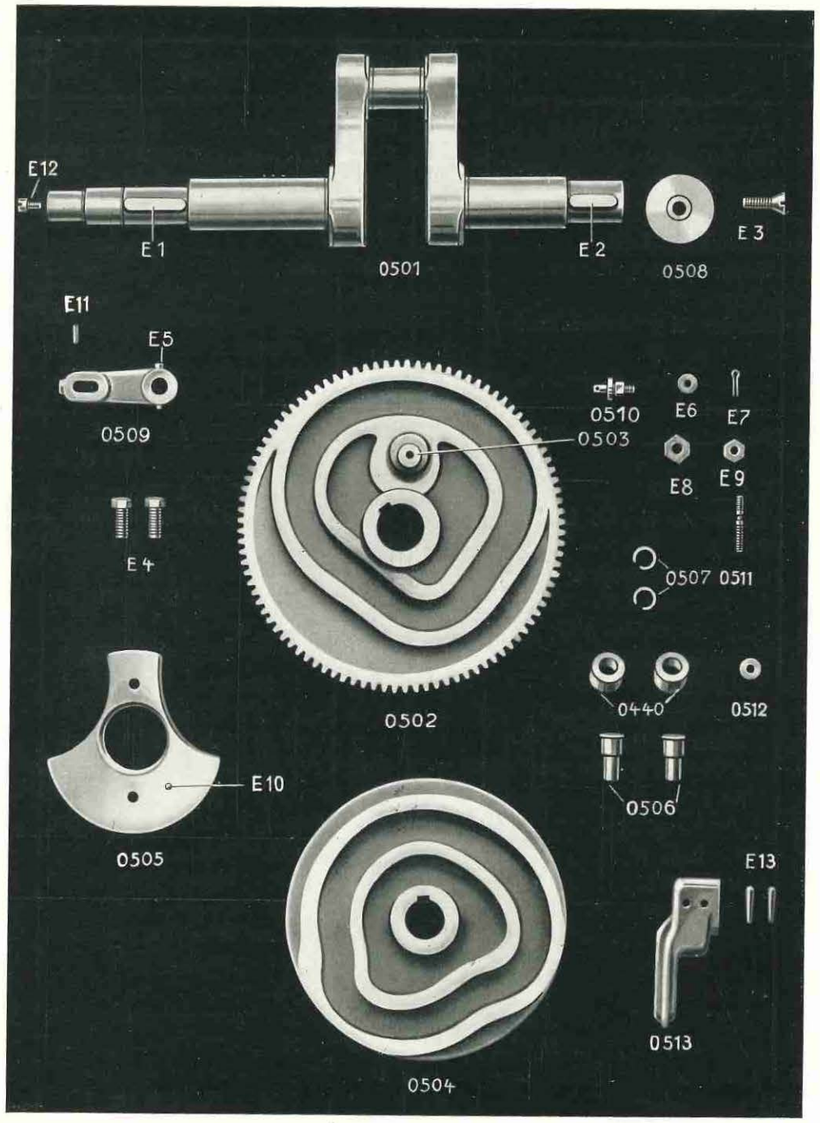
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 0301 | Front Toggle | 1 | 0314 | Oil Pipe for 0304 | 1 |
| 0302 | Rear Toggle | 1 | 0315 | Distance Washer | 2 |
| 0303 | Toggle Bearing | 1 | 0140 | Oil Wick | 6 |
| 0304 | Connecting Rod | 1 | 0215 | Pin coupling Connecting Rod to Toggles | 1 |
| 0305 | Eccentric for Impression Regulation | 1 | C 1 | Hexagon Screw for fixing Toggle Pins, N 81, 10×20 mm | 2 |
| 0306 | Split Big End Bush for Connecting Rod | 2 | C 2 | Hexagon Nut for 0304, N 62, 12×9 mm | 4 |
| 0307 | Pin for fixing Rear Toggle to Bearing | 1 | C 3 | Stud for 0304, N 52, 12×55 mm | 2 |
| 0308 | Bush for Front Toggle | 1 | C 4 | Hexagon Screw for 0303, N 47, 16×35 mm | 1 |
| 0309 | Bush for 0301 | 2 | C 5 | Hexagon Screw for fixing 0215 and 0307, N 81, 8×20 mm | 4 |
| 0310 | Distance Washer | 1 | C 6 | Pin for fixing 0306, N 71, 6×18 mm | 1 |
| 0311 | Oil Pipe for 0301, 0303 and 0304 | 5 | | | |
| 0312 | Washer on C 4 fixing 0303 | 1 | | | |
| 0313 | Bush for 0304 | 1 | | | |






# TABLE D. FLYWHEEL AND DRIVING SHAFT

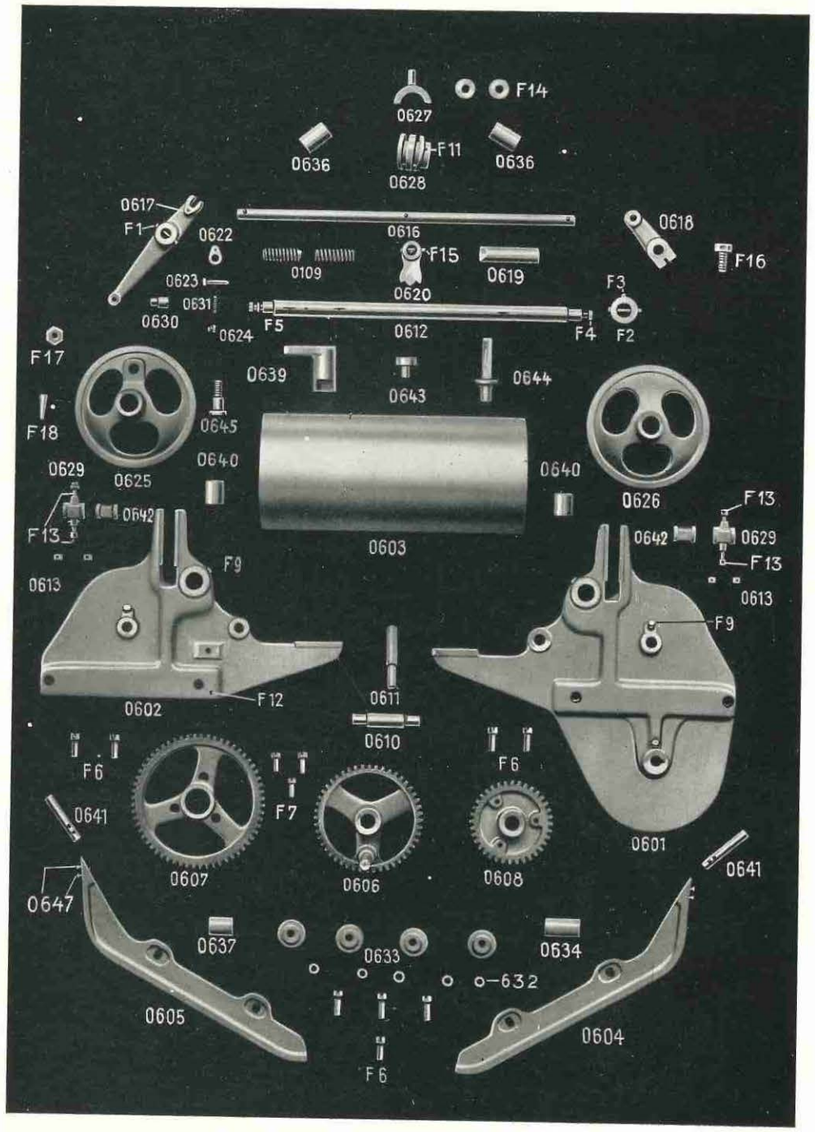
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 0401 | Bracket for Driving Shaft | 1 | 0442 | Eccentric Pin | 1 |
| 0402 | Clutch Operating Cone | 1 | 0443 | Hardened Tongues for Clutch | 2 |
| 0403 | Clutch Ring | 1 | 0445 | Plate for Coupling Lever | 1 |
| 0404 | Flywheel | 1 | 0446 | Oil Lever Pipe | 1 |
| 0405 | Clutch Lever, L. H. | 1 | 0140 | Oil Wick | 1 |
| 0406 | Screwed Locking Ring for Flywheel | 1 | 1407 | Plunger holding spring 1416 | 1 |
| 0407 | Locking Ring for Ball Bearing in Flywheel | 2 | 1416 | Compression Spring | 1 |
| 0408 | Distance Piece between Ball Bearing | 1 | D 1 | Screw for fixing Cover 0435, N 48/1, 8×40 mm | 2 |
| 0409 | Bush carrying Ball Bearing in Flywheel | 1 | D 2 | Pin for 0437 and 0427, N 71, 6×32 mm | 1 |
| 0410 | Driving Shaft | 1 | D 4 | Lubricator No. 1, N 73 | 3 |
| 0411 | Ball Bearing No. 211, L | 2 | D 5 | Taper Pin for fixing 0420, N 72, 5×60 mm | 1 |
| 0414 | Oil Felt | 2 | D 6 | Pin for 0401, N 71, 8×30 mm | 1 |
| 0417 | Cover for Oil Container | 2 | D 7 | Lubricating Ring for Main Shaft, N 95, 55 mm | 1 |
| 0420 | End Collar for Shaft | 1 | D 8 | Key for Main Shaft, N 113, 10×8×45 mm | 1 |
| 0421 | Pin joining 0437 to 0427 | 1 | D 10 | Screw for fixing 0443, N 48/1, 6×10 mm | 2 |
| 0424 | Eccentric Safety Catch | 1 | D 11 | Square-headed Screw for fixing Pin 0438, N 107, 8×25 mm | 1 |
| 0426 | Locking Disc for same | 1 | D 12 | Hexagon Screw for fixing 0442 and 0439, N 46/1, 10×35 mm | 2 |
| 0427 | Top Portion of Lever 0437 | 1 | D 13 | Clutch Adjusting Screw, N 111, 10×40 mm | 2 |
| 0428 | Chain for Oil Cover | 2 | D 14 | Hexagon Nut for same, N 62, 10×7 mm | 2 |
| 0431 | Slotted Bush for Bracket No. 0401 | 1 | D 15 | Pin for 0424, N 71, 5×32 mm | 1 |
| 0433 | Clutch Lever, R. H. | 1 | D 16 | Screw for 0428, N 48/1, 4×6 mm | 2 |
| 0434 | Pin for 0424 | 1 | D 17 | Grub Screw for fixing 0434, N 53, 8×16 mm | 2 |
| 0435 | Clutch Cap | 1 | D 18 | Hexagon Screw for Bracket 0401 and 0441, N 47, 12×40 mm | 5 |
| 0436 | Inverted Brake Cone | 1 | | | |
| 0437 | Lever for Sucker Bar Movement | 1 | | | |
| 0438 | Pin for Centre Bearing of Lever 0437 | 1 | | | |
| 0439 | Pin for 0437 carrying Roller 0440 | 1 | | | |
| 0440 | Roller for Sucker Bar Movement Lever | 1 | | | |
| 0441 | Balance Weight for Sucker Bar Movement Lever | 1 | | | |






# TABLE E. CRANK SHAFT

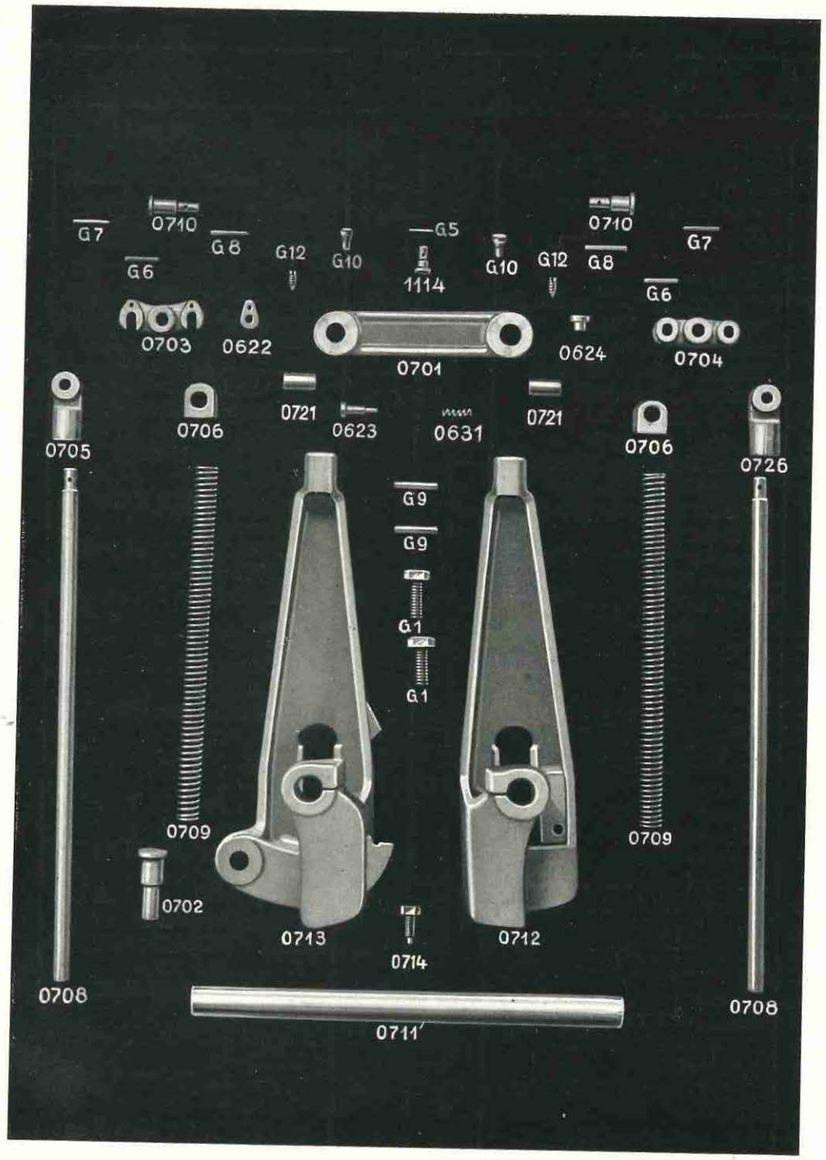
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 0501 | Crank Shaft | 1 | E 3 | Counter-sunk screw for fixing 0502, N 50/2, 12×25 mm | 1 |
| 0502 | Main Gear Wheel | 1 | E 4 | Hexagon Screw for fixing 0505 to 0504, N 46/1, 10×30 mm | 2 |
| 0503 | Pin in 0502 carrying 0509 and 0701 | 1 | E 5 | Taper Pin fixing 0509 to 0503, N 72, 4×45 mm | 1 |
| 0504 | Internal Cam operating Propeller Motion | 1 | E 6 | Washer for 0510, N 65/1, 10,3 mm | 1 |
| 0505 | Control Cam for same | 1 | E 7 | SplitPin for 0510, N75, 2×20mm | 1 |
| 0506 | Hardened Pin for Rollers 0440 | 2 | E 8 | Hexagon Nut for 0510, N 62, 10×7 mm | 1 |
| 0507 | Spring Retaining Ring for 0506 | 2 | E 9 | Hexagon Nut for 0511, N 62, 8×6 mm | 1 |
| 0508 | Washer for fixing 0502 to 0501 | 1 | E 10 | Guide Pin on 0505, N 71, 5×24 mm | 1 |
| 0509 | Lever carrying Eccentric Pin 0510 | 1 | E 11 | Rivet on 0509, N 77/2, 3×20 mm | 1 |
| 0510 | Eccentric Pin | 1 | E 12 | Cheese-headed Screw N 48/2, 12×12 mm | 1 |
| 0511 | Adjusting Screw for 0509 | 1 | E 13 | Taper Pin for 0513, N 72, 6,5×60 mm | 2 |
| 0512 | Distance Washer | 1 | | | |
| 0513 | Lever for Pump Drive | 1 | | | |
| 0440 | Roller for Pin 0506 | 2 | | | |
| E 1 | Key for Cam 0504, N 113/1, 8×10×50 mm | 1 | | | |
| E 2 | Key for Main Gear 0502, N 112/2, 8×12×45 mm | 1 | | | |






# TABLE F. INKING APPARATUS

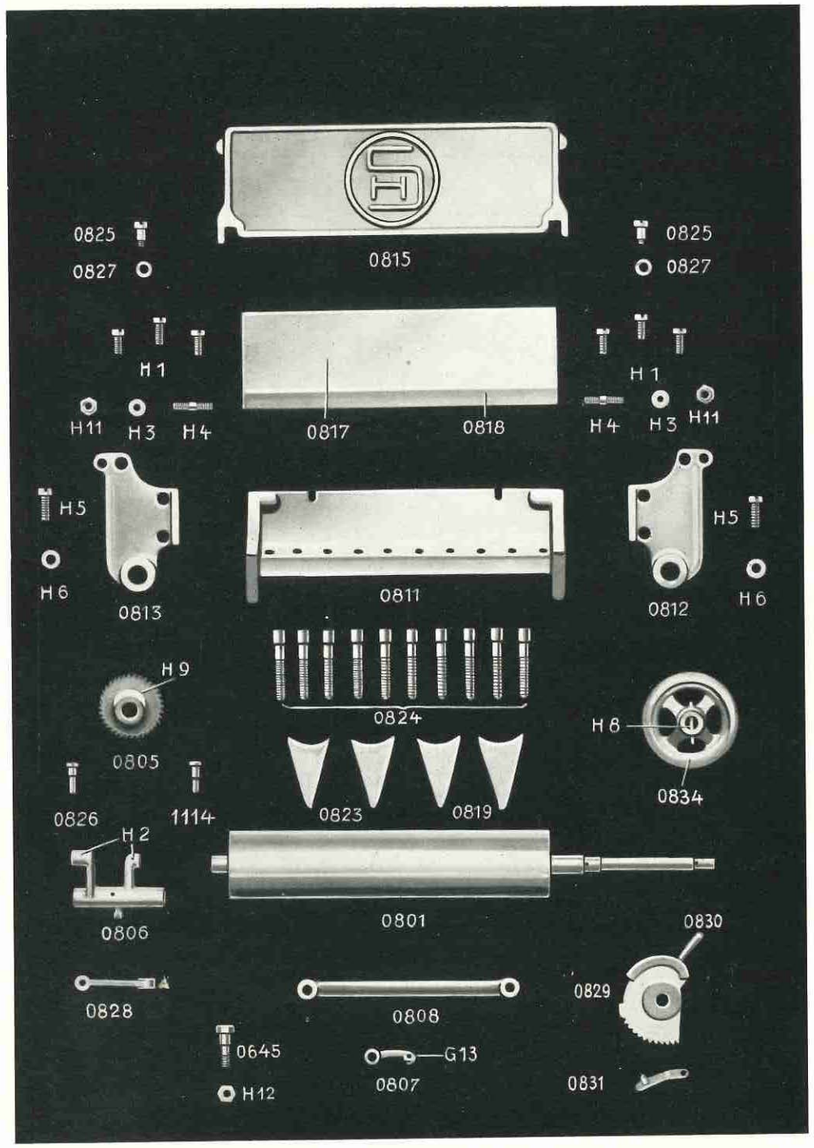
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 0601 | Side Frame, Flywheel Side | 1 | 0641 | Flat Spring for End of Roller Track | 2 |
| 0602 | Side Frame, Pump Side | 1 | | | |
| 0603 | Inking Cylinder | 1 | 0642 | Bearing for small distributing cylinder | 2 |
| 0604 | Roller Track, Flywheel Side | 1 | | | |
| 0605 | Roller Track, Pump Side | 1 | 0643 | Guide block connecting 0639 with 0923 | 1 |
| 0606 | GearWheel for Inking Cylinder, 48 Teeth | 1 | 0644 | Bearing Bolt for carrying 0639 | 1 |
| 0607 | Big Intermediate Gear for Inking Cylinder, 60 Teeth | 1 | 0645 | Bolt connecting 0828 with 0639 | 1 |
| | | | 0647 | Counter-sunk Screw for fixing Spring 0641 | 4 |
| 0608 | Small Intermediate Gear for Inking Cylinder, 36 Teeth | 1 | 0109 | Compression Spring for Checking Plunger 0619 | 2 |
| 0610 | Journalled Pin for 0608 | 1 | | | |
| 0611 | Pin with Shoulder for 0606 | 1 | F 1 | Taper Pin for 0617, N 72, 4×36 mm | 3 |
| 0612 | Shaft for Inking Cylinder | 1 | | | |
| 0613 | Circular Nut for Part F 13 | 4 | F 2 | Collar on 0612, N 108, 20×13 mm | 1 |
| 0616 | Vibrator Roller Spindle | 1 | | | |
| 0617 | Lever for Vibrator Roller, Flywheel Side | 1 | F 3 | Grub Screw for F 2, N 53, 8×8 mm | 1 |
| 0618 | Lever for Vibrator Roller, Pump Side | 1 | F 4 | Cheese-headed Screw for 0612, N 48/1, 8×12 mm | 2 |
| 0619 | Checking Plunger for Vibrator | 1 | F 5 | Washer for same, N 65/1, 8,3 mm | 1 |
| 0620 | Checking Lever for Vibrator | 1 | | | |
| 0622 | Safety Catch for 0617 | 1 | F 6 | Cheese-headed Screw for 0601, 0602 and 0604/05, N 48/1, 10×28 mm | 8 |
| 0623 | Pin for Spring for 0617 | 1 | | | |
| 0624 | Knob for 0622 | 1 | | | |
| 0625 | End Plate for Inking Cylinder, Flywheel Side | 1 | F 7 | Cheese-headed Screw for 0607, N 48/1, 8×22 mm | 3 |
| 0626 | End Plate for Inking Cylinder, Pump Side | 1 | F 9 | Lubricator for 0601/02, N 73, No. 1 | 5 |
| 0627 | Crescent for reciprocating Inking Cylinder | 1 | F 11 | Taper Pin for 0628, N 72, 4×45 mm | 2 |
| 0628 | Track for Crescent | 1 | F 12 | Dowel Pin for 0602, N 72, 5×50 mm | 2 |
| 0629 | Bearing for Distributing Roller | 2 | | | |
| 0630 | Pin for 0617 | 1 | F 13 | Screw with Tommy Holes for 0629, BN 82, 6×16 mm | 4 |
| 0631 | Spring for 0623 | 1 | | | |
| 0632 | Washer for 0633 | 4 | F 14 | Distance Washer for 0627, N 65/1, 10,3 mm | 2 |
| 0633 | Eccentric for Adjusting Roller Track | 4 | F 15 | Taper Pin for 0620, N 72, 4×28 mm | 1 |
| 0634 | Bush for 0608 | 1 | | | |
| 0636 | Bush for 0625 and 0626 | 2 | F 16 | Hexagon Screw for 0618, N 46/1 8×30 mm | 1 |
| 0637 | Bush for 0606 | 1 | | | |
| 0639 | Angle Lever for Reciprocating Motion | 1 | F 17 | Hexagon Nut for 0645, N 62, 8×6 mm | 1 |
| 0640 | Bush for 0601 and 0602 | 2 | F 18 | Taper Pin, N 72, 2,5×22 mm | 1 |






# TABLE G. ROLLER CARRIAGE

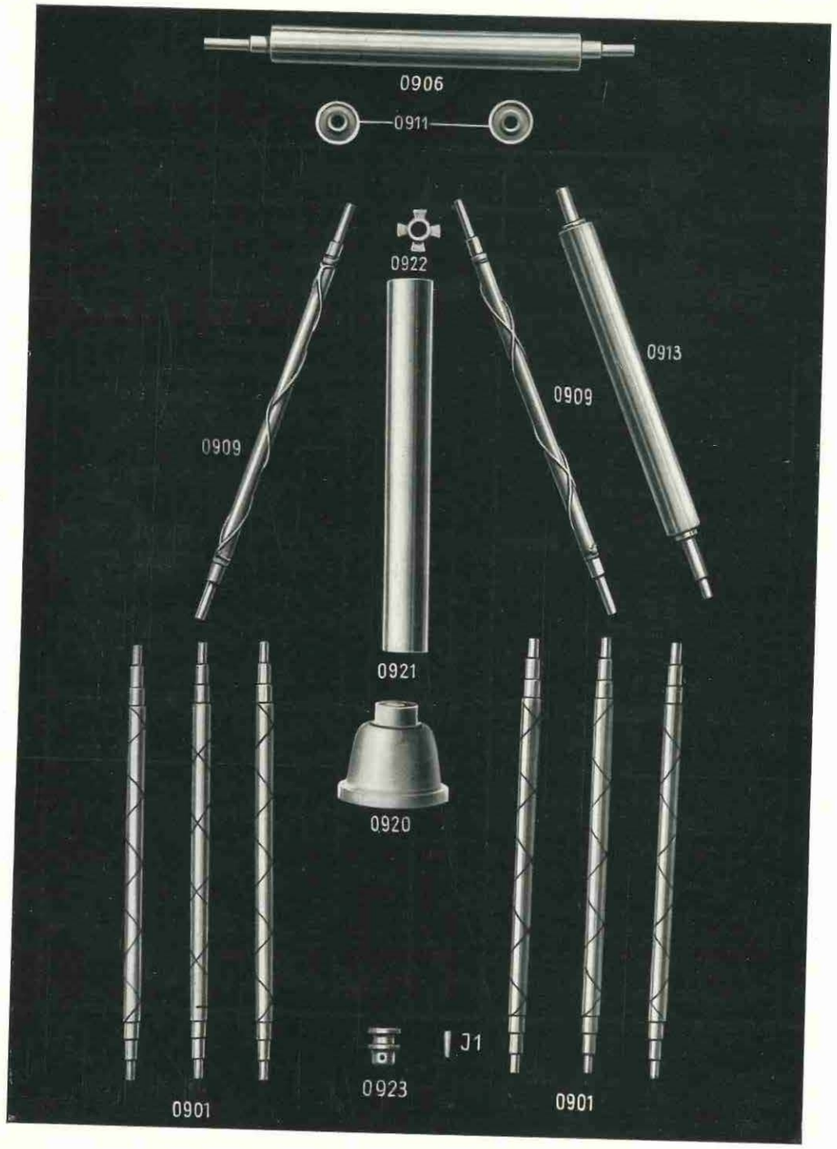
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 0701 | Connecting Link for Roller Carriage | 1 | 0714 | Hexagon Screw for fixing 0702 | 1 |
| 0702 | Eccentric Bolt for 0713 | 1 | 0721 | Bush for 0701 | 2 |
| 0703 | Journal Box for Inking Rollers, Flywheel Side | 1 | 0726 | Holder for Journal Box, Pump Side | 1 |
| 0704 | Journal Box for Inking Rollers, Pump Side | 1 | 1114 | Stud with Head connecting 0808 with 0712 | 1 |
| 0705 | Holder for Journal Box, Flywheel Side | 1 | 0622 | Safety Catch for 0703 | 2 |
| 0706 | Guide Block for Spring Rod | 2 | 0623 | Pin for Spring 0631 | 2 |
| 0708 | Roller Carriage Spindle | 2 | 0624 | Knob for 0622 | 2 |
| 0709 | Spring for Roller Carriage Spindle | 2 | 0631 | Spring for 0623 | 2 |
| 0710 | Bolt with Head for Journal Box | 2 | G 1 | Hexagon Screw for 0712 and 0713, N 47, 12×40 mm | 2 |
| 0711 | Shaft for Roller Carriage Arms | 1 | G 5 | Taper Pin N 72, 2,5×24 mm | 1 |
| 0712 | Roller Carriage Arm, Pump Side | 1 | G 6 | Taper Pin N 72, 3×28 mm | 2 |
| 0713 | Roller Carriage Arm, Flywheel Side | 1 | G 7 | Taper Pin N 72, 4×28 mm | 2 |
| | | | G 8 | Taper Pin N 72, 4×36 mm | 2 |
| | | | G 10 | Oil Cap for 0701, N 73 | 2 |
| | | | G 12 | Grub Screw N 53, 3×8 mm | 2 |






# TABLE H. INK FOUNTAIN

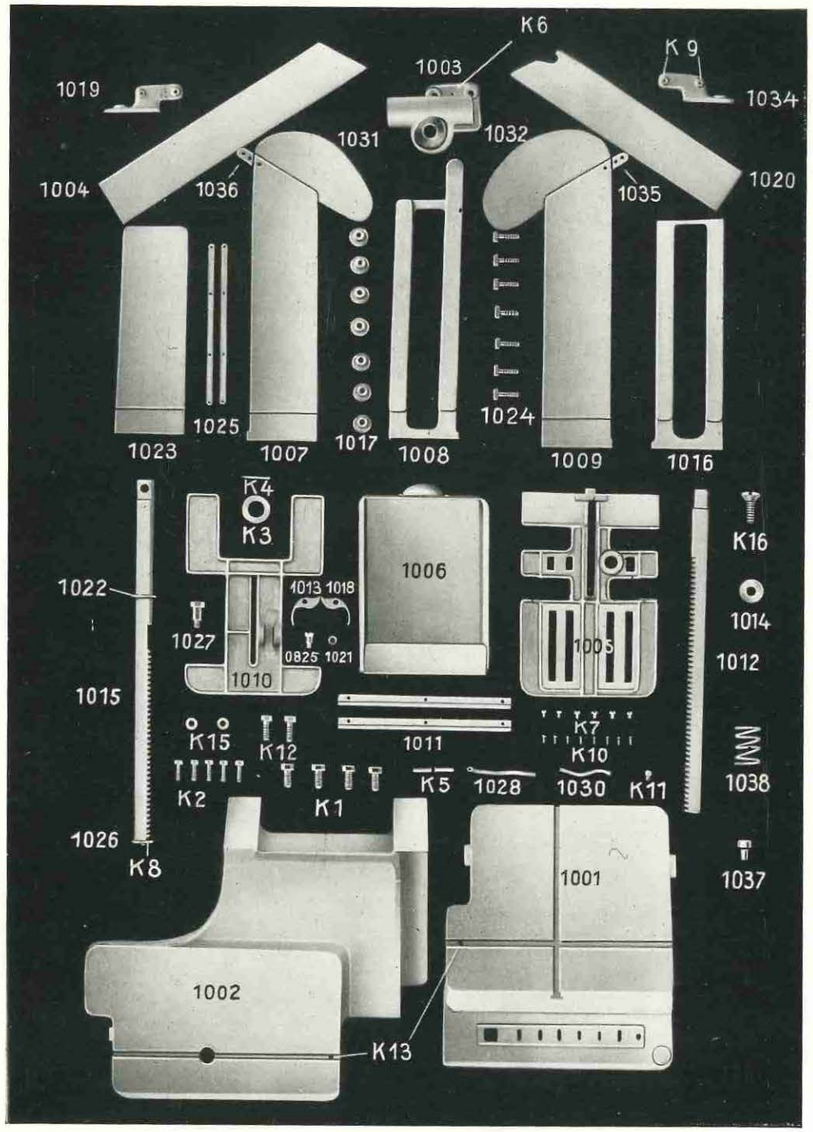
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 0801 | Ductor Roller | 1 | 0831 | Compression Spring (similar to 1826) | 1 |
| 0805 | Ratchet Wheel for Ductor Roller | 1 | 0832 | Plunger for 0829 | 1 |
| 0806 | Lever for Ductor Roller Movement | 1 | 0834 | Hand Wheel for Ductor Roller | 1 |
| 0807 | Pawl for Ratchet Wheel | 1 | 0645 | Stud connecting 0828 with 0806 | 1 |
| 0808 | Long Link for Ductor Roller Movement | 1 | 1114 | Stud connecting 0808 with 0806 | 1 |
| 0811 | Central Piece of Ink Duct | 1 | H 1 | Cheese-headed Screw for fixing 0812 and 0813, N 48/1, 8×18 mm | 6 |
| 0812 | End Plate for Ink Duct, Flywheel Side | 1 | H 2 | Taper Pin for fixing 0826, N 72, 2,5×22 mm | 2 |
| 0813 | End Plate for Ink Duct, Pump Side | 1 | H 3 | Washer for H 4, N 65/1, 6,2 mm | 2 |
| 0815 | Lid for Ink Duct | 1 | H 4 | Stud for Knife 0817, N 51, 6×18 mm | 2 |
| 0817 | Ink Knife, complete | 1 | H 5 | Cheese-headed Screw for fixing Ink Duct to Frame, N 48/1, 10×28 mm | 2 |
| 0819 | Lead Clump, narrow | 2 | H 6 | Washer for H 5, N 65/1, 10,3 mm | 2 |
| 0823 | Lead Clump, thick | 2 | H 8 | Taper Pin for fixing 0834, N 72, 3×30 mm | 1 |
| 0824 | Screw for Regulating Ink Knife | 10 | H 9 | Taper Pin for fixing 0805, N 72, 4×36 mm | 1 |
| 0825 | Cheese-headed Screw for fixing 0815 | 2 | H 11 | Hexagon Nut for H 4, N 61/1, 6 mm | 2 |
| 0826 | Shouldered Pin for attaching 0807 to 0806 | 1 | H 12 | Hexagon Nut for 0645, N 62, 8×6 mm | 1 |
| 0827 | Spring Washer for 0825 | 2 | H 13 | Pin N 71, 4×20 mm | 1 |
| 0828 | Connecting Lever for 0639 and 0806 | 1 | | | |
| 0829 | Ratchet for adjusting Ink Supply | 1 | | | |
| 0830 | Lever for same | 1 | | | |






# T A B L E J. R O L L E R S

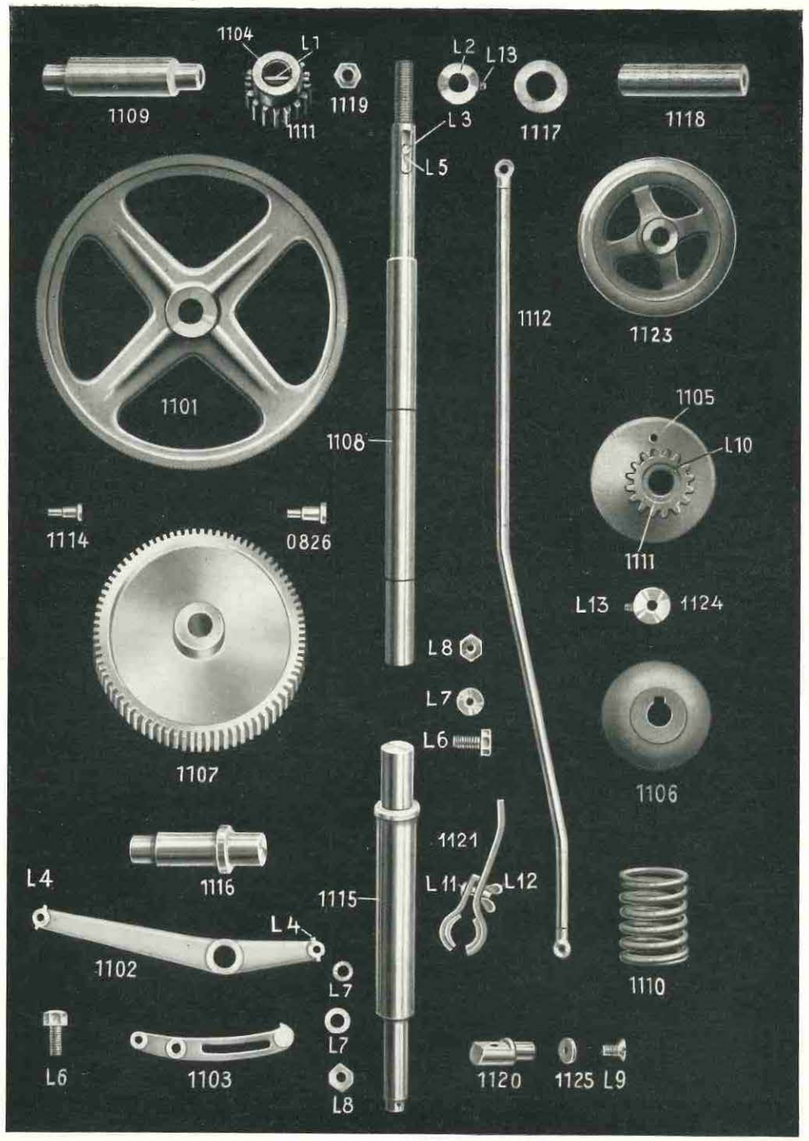
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 0901 | Spindle for Inking and Vibrator Roller | 6 | 0920 | Base for Roller Mould | 1 |
| 0906 | Small Distributing Cylinder | 1 | 0921 | Tube for Roller Mould | 1 |
| 0909 | Distributor Roller Spindle | 2 | 0922 | Star for Roller Mould | 1 |
| 0911 | Runners for Inking Rollers | 4 | 0923 | Guide Ring for 0913 | 1 |
| 0913 | Steel Reciprocating Rider | 1 | J 1 | Taper Pin fixing 0923 to 0913, N 72, 4×36 mm | 1 |






# TABLE K. PAPER TABLE

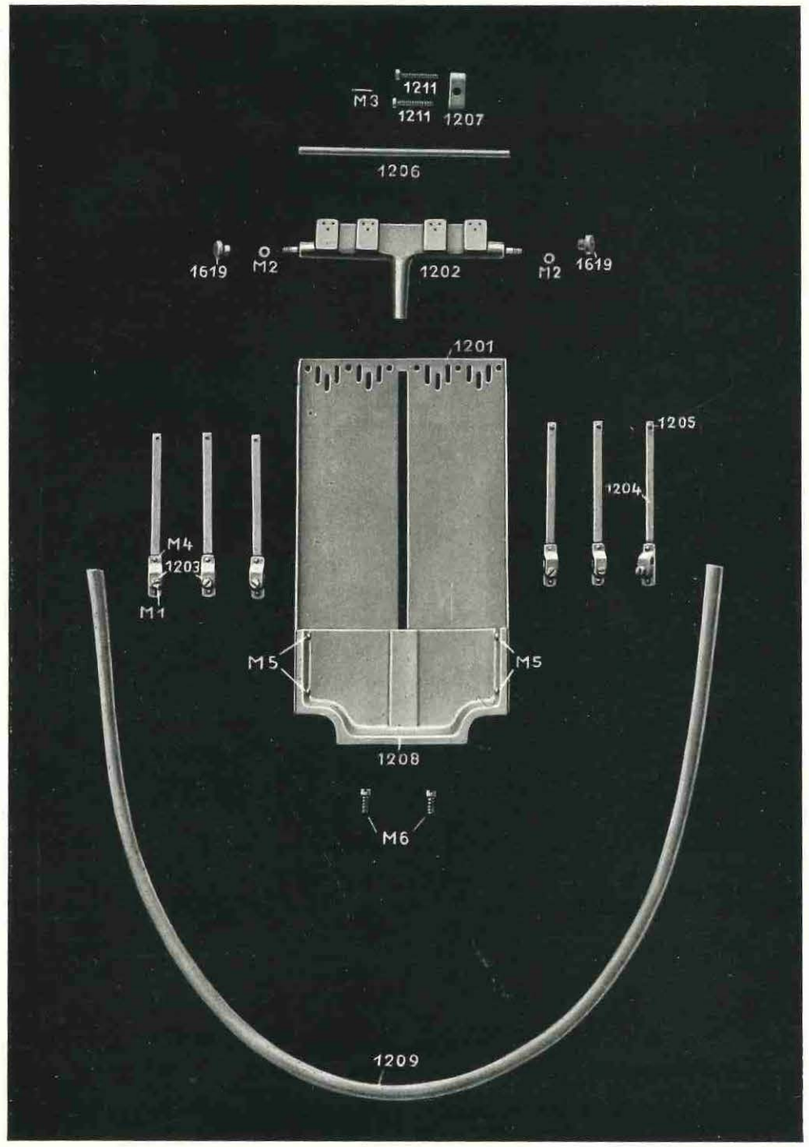
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 1001 | Base for Table, Delivery Side | 1 | 1032 | Extension for Lay Standard 1009 | 1 |
| 1002 | Base for Table, Feed Side | 1 | | | |
| 1003 | Guide for Delivery Table Rack | 1 | 1034 | Bracket for Partition Plate1020 | 1 |
| 1004 | Partition Plate, Delivery | 1 | 1036 | Delivery Slide Extension for 1007 | 1 |
| 1005 | Feed Table | 1 | | | |
| 1006 | Drawer for Small Tools | 1 | 1037 | Guide Pin for 1007 | 2 |
| 1007 | Lay Standard, Delivery | 1 | 1038 | Spring for 1012 | 1 |
| 1008 | Slotted Lay Standard, Feed | 1 | 0825 | Cheese-headed Screw fixing 1013 and 1018 | 1 |
| 1009 | Lay Standard, Delivery | 1 | | | |
| 1010 | Delivery Table | 1 | K 1 | Hexagon Screw for 1002, N 46/2, 16×40 mm | 4 |
| 1011 | Runner for 1006 | 2 | | | |
| 1012 | Rack for Feed Table | 1 | K 2 | Hexagon Screw for 1001 and 1003, N 46/1, 10×35 mm | 5 |
| 1013 | Checking Pawl for Ratchet Wheel | 1 | K 3 | Collar for 1015, BN 103, 30×14 mm | 1 |
| 1014 | Washer with counter-sunk hole for 1012 | 1 | K 4 | Taper Pin for K 3, N 72, 6,5×55 mm | 1 |
| 1015 | Rack for Delivery Table | 1 | | | |
| 1016 | Slotted Lay Standard, Feed | 1 | K 5 | Pin for fixing 1601, N 71, 8×30 mm | 2 |
| 1017 | Knurled Nut fixing Lay Standards | 7 | K 6 | Pin for 1003, N 71, 6×24 mm | 1 |
| 1018 | Checking Pawl for Ratchet Wheel | 1 | K 7 | Cheese-headed Screw for fixing 1011, N 48/1, 6×10 mm | 6 |
| 1019 | Bracket for Partition Plate 1004 | 1 | K 8 | Cheese-headed Screw for fixing 1026, N 48/1, 8×15 mm | 1 |
| 1020 | Partition Plate, Feed | 1 | | | |
| 1021 | Washer for 0825 | 1 | K 9 | Flush Rivet for 1019 and 1034, N 77/1, 4×18 mm | 4 |
| 1022 | Leather Collar | 1 | | | |
| 1023 | Front Lay Standard, Delivery | 1 | K 10 | Copper Rivet for fixing Scale 1025, N 78, 3×6 mm | 8 |
| 1024 | Square Headed Bolts for fixing Lay Standards | 7 | K 11 | Lubricator for 1028, N 73 | 2 |
| 1025 | Scale for setting Lay Standards | 2 | K 12 | Hexagon Screw for 1208, N 47, 12×60 mm | 2 |
| 1026 | Stop Washer attached to 1015 | 1 | | | |
| 1027 | Clamping Screw for attaching 1010 to 1015 | 1 | K 13 | Pin for 1001 and 1002, N 71, 6×16 mm | 2 |
| 1028 | Oil Pipe for 1108 | 1 | K 15 | Washer for K 12, N 65/1, 10,3 mm | 2 |
| 1030 | Oil Pipe for 1003 | 1 | | | |
| 1031 | Extension for Lay Standard 1007 | 1 | K 16 | Counter-sunk Screw for 1012, N 84, 8×25 mm | 1 |






# TABLE L. MOVING GEAR FOR PAPER TABLE

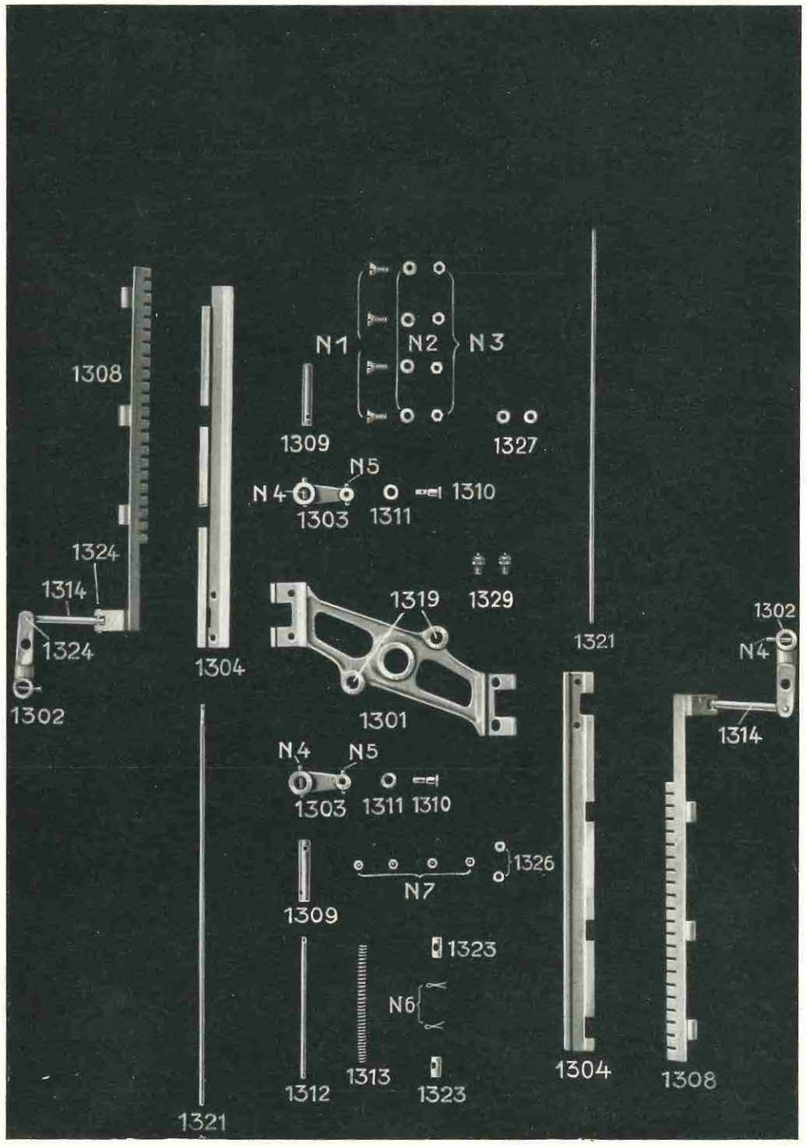
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 1101 | Ratchet Wheel | 1 | 0826 | Shouldered Pin for 1102 | 1 |
| 1102 | Lever for Feed Table Movement | 1 | L 1 | Taper Pin for Part 1104, N 72, 4×45 mm | 1 |
| 1103 | Pawl for Ratchet Wheel | 1 | | | |
| 1104 | Bush for Pinion 1111 | 1 | L 2 | Collar for 1115, N 108, 20×13 mm | 1 |
| 1105 | Outer Portion of Clutch coupling Delivery and Feed Tables | 1 | L 3 | Cheese-headed Screw for fixing L 5, N 48/1, 3×10 mm | 1 |
| 1106 | Inner Portion for same | 1 | L 4 | Taper Pin for 1102, N 72, 2,5×22 mm | 2 |
| 1107 | Gear Wheel | 1 | | | |
| 1108 | Shaft for Table Movement Mechanism | 1 | L 5 | Key for Shaft 1108, N 113/1, 8×7×40 mm | 1 |
| 1109 | Sleeve carrying 1101 and 1111 | 1 | L 6 | Hexagon Screw for 1103, N 46/1, 8×30 mm | 2 |
| 1110 | Spring for Table Clutch | 1 | | | |
| 1111 | Pinion for Shaft, 16 teeth | 3 | L 7 | Washer for L 8, N 65/1, 8,3 mm | 3 |
| 1112 | Connecting Rod with End Pieces operating Lever 1102 | 1 | L 8 | Hexagon Nut for L 6, N 61/1, 8 mm | 2 |
| 1114 | Stud with Head for 1102 | 1 | | | |
| 1115 | Journalled Shaft for 1101 | 1 | L 9 | Counter-sunk Screw for fixing 1125 to 1120, N 50/1, 6×12 mm | 1 |
| 1116 | Pin with Collar carrying 1107 | 1 | | | |
| 1117 | Washer for 1108 | 1 | | | |
| 1118 | Hollow Shaft | 1 | L 10 | Grub Screw for fixing 1111 to 1105, N 54, 4×8 mm | 4 |
| 1119 | Hexagon Nut for 1108 | 1 | | | |
| 1120 | Shouldered Pin with flat Side | 1 | L 11 | Flat round-headed Screw, N 131, 8×30 mm | 1 |
| 1121 | Brake Lever, complete | 1 | | | |
| 1123 | Hand Wheel, N 109, 14×125 mm | 1 | L 12 | Wing Nut, N 63, 8 mm | 1 |
| 1124 | Adjusting Ring | 1 | L 13 | Grub Screw for L 2 and 1124, N 53, 8×12 mm | 2 |
| 1125 | Washer with countersunk Hole | 1 | | | |






# TABLE M. FRONT LAY GAUGE AND BLOWER

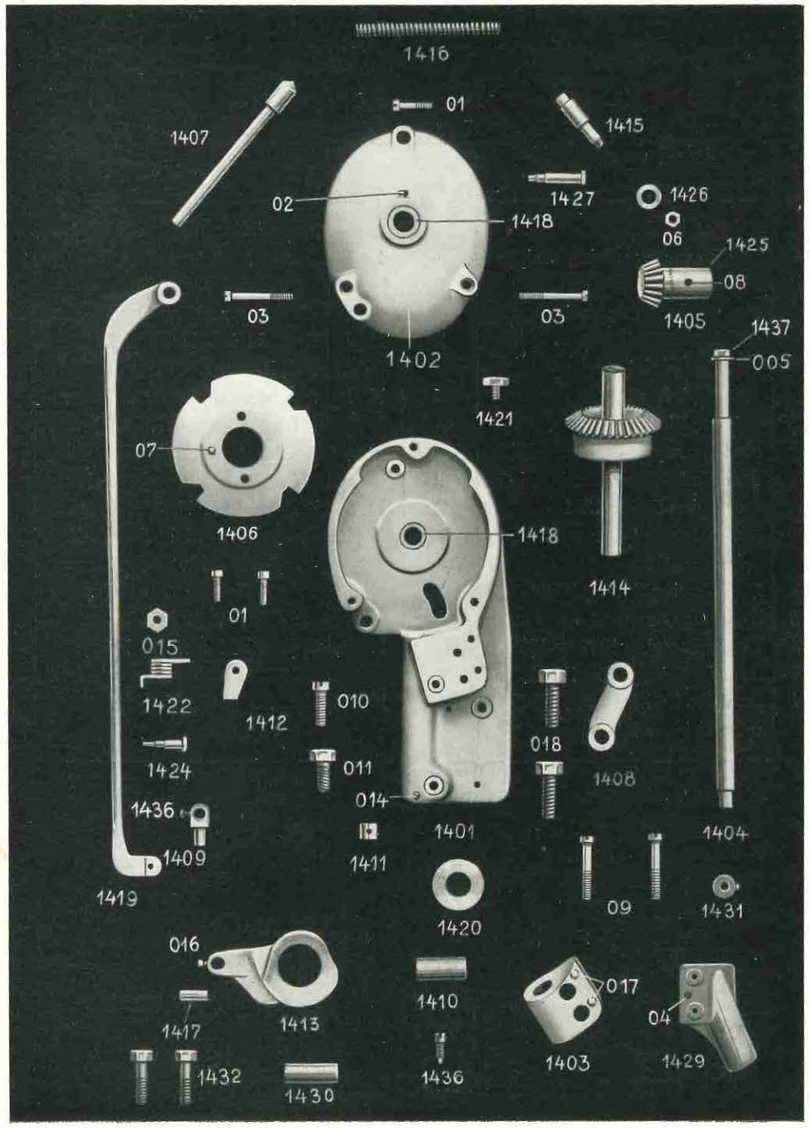
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 1201 | Front Lay Gauge | 1 | M 1 | Fixing Screw for 1203, N 48/1, 6×12 mm | 6 |
| 1202 | Blower Head | 1 | M 2 | Washer for 1202, N 65/1, 6,2 mm | 2 |
| 1203 | Clip for Tripping Blade | 6 | M 3 | Taper Pin Fixing 1206 to 1207, N 72, 2,5×20 mm | 1 |
| 1204 | Tripping Blade | 6 | M 4 | Rivet fixing 1203 to 1204, N 78, 3×8 mm | 12 |
| 1205 | Stud on Tripping Blade | 6 | M 5 | Rivet fixing 1201 to 1208, N 73, 5×14 mm | 4 |
| 1206 | Rod for Tripping Blades | 1 | M 6 | Cheese-headed Screw for fixing 1208, N 48/1, 8×22 mm | 2 |
| 1207 | Adjusting Lever for same | 1 | | | |
| 1208 | Base for Front Lay Gauge | 1 | | | |
| 1209 | Rubber Tube for Blower | 1 | | | |
| 1211 | Adjusting Screw for 1207 | 2 | | | |
| 1619 | Knurled Nut for 1202 | 2 | | | |






# T A B L E N. G R I P P E R

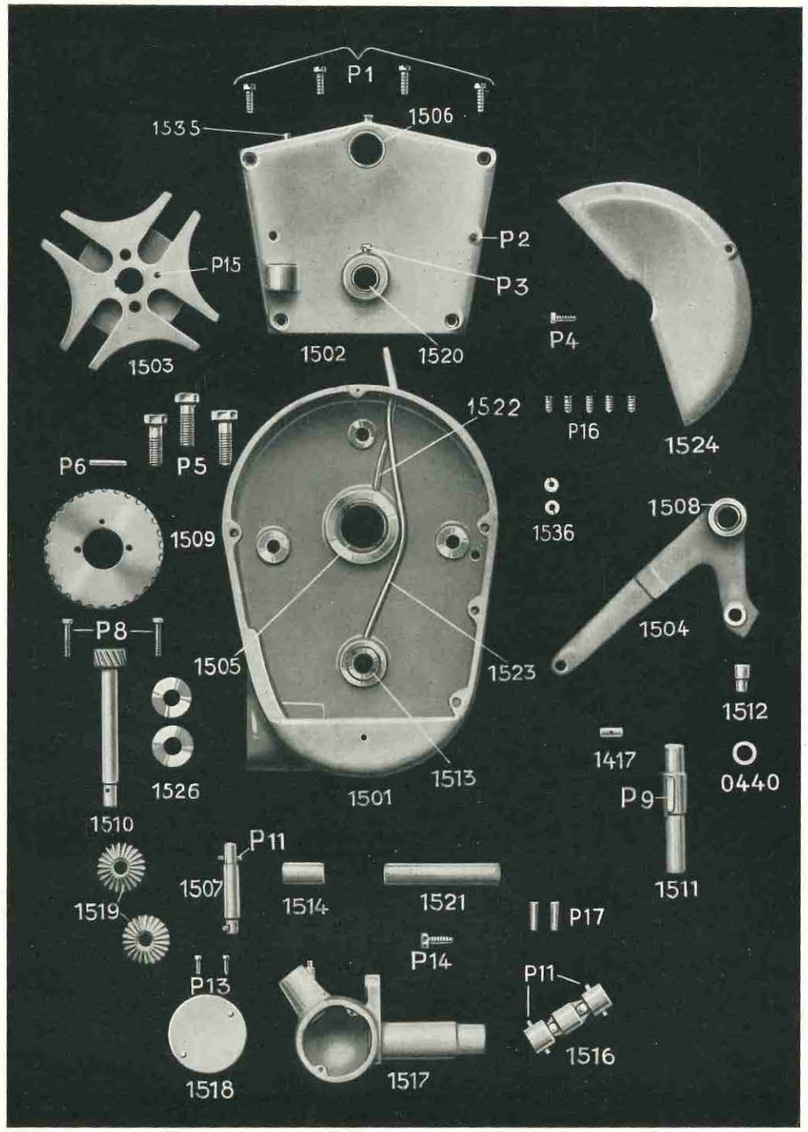
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 1301 | Gripper carrier | 1 | 1323 | Trunnion for 1312 and 1313 | 2 |
| 1302 | Top Lever operating Gripper Blade | 2 | 1324 | Rivet for attaching 1314 to 1302 and 1308 | 4 |
| 1303 | Bottom Lever operating Gripper Blade | 2 | 1326 | Washer for 1321, 0,8×5,2 mm | 2 |
| 1304 | Top Part of Gripper (Aluminium) | 2 | 1327 | Round Rivet Nut for 1321 | 2 |
| 1308 | Gripper Blade | 2 | 1329 | Ball Pressure Oiler | 2 |
| 1309 | Pin for carrying 1302 and 1303 | 2 | N 1 | Square Counter-sunk Screw for 1304, N 50/1, 6×20 mm | 4 |
| 1310 | Threaded Shouldered Pin carrying Roller 1311 | 2 | N 2 | Washer for same, N 65/1, 6,2 mm | 4 |
| 1311 | Roller for Gripper operating Lever 1303 | 2 | N 3 | Nut for N 1, N 61/1, 6 mm | 4 |
| 1312 | Bar carrying Spring 1313 | 1 | N 4 | Taper Pin for Big End of 1303 and 1302, N 72, 4×26 mm | 4 |
| 1313 | Spring for same | 1 | N 5 | Taper Pin for Small End of 1303, N 72, 2,5×18 mm | 2 |
| 1314 | Rod connecting 1302 to 1308 | 2 | N 6 | Split Pin for 1312, N 75, 1,6×10 mm | 2 |
| 1319 | Bush in Gripper Carrier 1301 | 2 | N 7 | Nut for 1321, N 61/1, 5×5 mm | 4 |
| 1321 | Steel Rod with Threaded End for Gripper Hinge | 2 | | | |






# TABLE O. GRIPPER MECHANISM

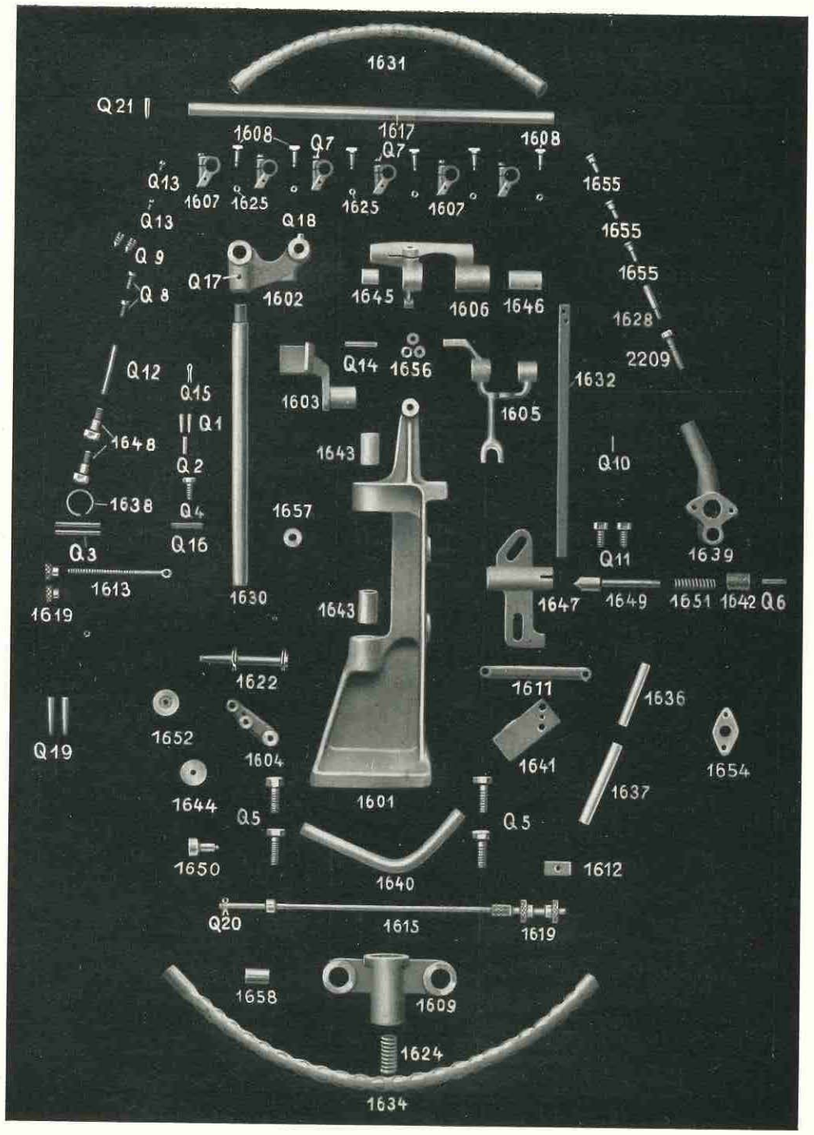
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 1401 | Gear Case | 1 | 1436 | Screw fixing 1409 to 1417 | 1 |
| 1402 | Cover for Gear Case | 1 | 1437 | Hexagon Screw with left hand thread for fixing 1405 | 1 |
| 1403 | Bearing carrying 1404 | 1 | | | |
| 1404 | Shaft | 1 | O 1 | Cheese-headed Screw for 1402 and 1406, N 48/1, 8×30 mm | 3 |
| 1405 | Bevel Pinion | 1 | | | |
| 1406 | Gripper Locking Disc | 1 | O 2 | Lubricator, No. 1, for 1401 and 1402, N 73 | 2 |
| 1407 | Plunger | 1 | | | |
| 1408 | Lever | 1 | O 3 | Cheese-headed Screw for 1402, N 48/1, 8×60 mm | 2 |
| 1409 | Connecting Piece between 1413 and 1419 | 1 | O 4 | Dowel Pin locating 1429, N 72, 6,5×55 mm | 2 |
| 1410 | Bush for 1403 | 1 | | | |
| 1411 | Collar for 1407 | 1 | O 5 | Washer for 1437, N 65/1, 8,3 mm | 1 |
| 1412 | Gripper Locking Pawl | 1 | O 6 | Hexagon Nut for 1427 and 1424, N 62, 8 mm | 3 |
| 1413 | Cam operating Grippers | 1 | | | |
| 1414 | Bevel Gear with Shaft | 1 | O 7 | Dowel Pin for 1406, N 71, 8×30 mm | 2 |
| 1415 | Shouldered Pin with Threaded End carrying 1408 | 1 | O 8 | Taper Pin for 1425, N 72, 5×36 mm | 1 |
| 1416 | Compression Spring for 1407 | 1 | | | |
| 1417 | Pin attaching 1409 to 1413 | 1 | O 9 | Hexagon Screw for fixing 1403, N 46/1, 10×65 mm | 2 |
| 1418 | Bush for 1401 and 1402 | 2 | | | |
| 1419 | Bar operating Cam 1413 | 1 | O 10 | Cheese-headed Screw for fixing 1401, N 48/2, 12×45 mm | 1 |
| 1420 | Washer between 1413 and 1301 | 1 | | | |
| 1421 | Hexagon Screw fixing Gripper Assembly to 1414 | 1 | O 11 | Hexagon Screw for fixing 1401, N 47, 12×35 mm | 1 |
| 1422 | Coil Spring | 1 | O 14 | Grub Screw for fixing 1411, N 53, 6×8 mm | 1 |
| 1424 | Bolt with Shoulder for 1412 | 1 | | | |
| 1425 | Collar with Serrated End fixing 1405 | 1 | O 15 | Hexagon Nut for fixing 1415, N 62, 10 mm | 1 |
| 1426 | Roller for 1415 | 2 | O 16 | Cheese-headed Screw fixing 1417 and 1409, N 48/1, 4×10 mm | 1 |
| 1427 | Bolt with Shoulder for 1408 | 1 | | | |
| 1428 | Packing Plate | 1 | | | |
| 1429 | Bearing carrying 1404 | 1 | O 17 | Taper Pin locating 1403, N 72, 6,5×55 mm | 2 |
| 1430 | Bush for 1429 | 1 | | | |
| 1431 | Safety Washer | 1 | O 18 | Hexagon Screw for 1401, N 47, 12×60 mm | 1 |
| 1432 | Hexagon Screw fixing 1429 | 2 | | | |






# TABLE P. GRIPPER MOVEMENT

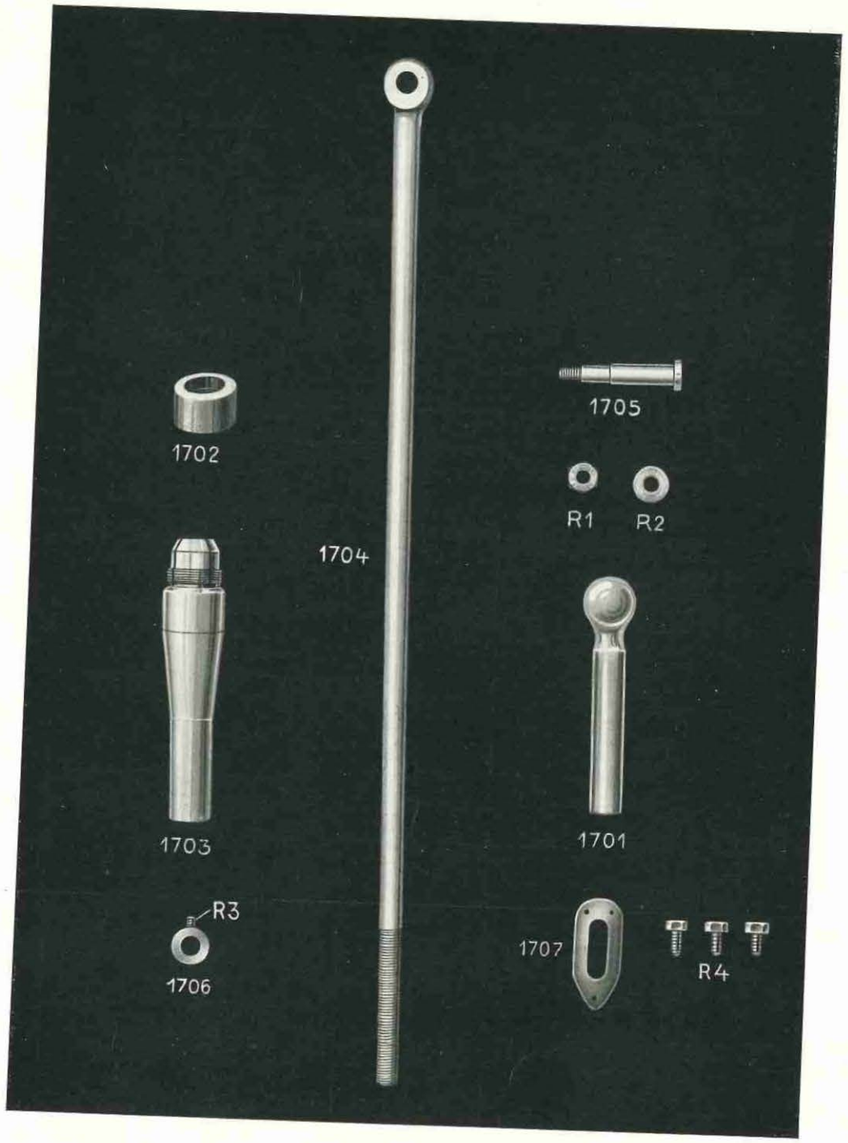
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 1501 | Bearing Case | 1 | 1536 | Spring Ring | 2 |
| 1502 | Cover for same | 1 | 0440 | Roller for 1512 in 1504 | 1 |
| 1503 | Maltese Cross | 1 | 1417 | Pin coupling 1504 with 1419 | 1 |
| 1504 | Control Lever | 1 | P 1 | Cheese-headed Screw fixing 1502 to 1501 N 48/1, 10×28 mm | 4 |
| 1505 | Bush for Main Bearing in 1501 | 1 | | | |
| 1506 | Bush in top of Cover 1502 | 1 | | | |
| 1507 | Shaft carrying 1519 and 1516 | 1 | P 2 | Pin locating 1502 to 1501, N 71, 8×28 mm | 3 |
| 1508 | Bush for 1504 | 1 | | | |
| 1509 | Worm Wheel | 1 | P 3 | Lubricator, No. 1, N 73 | 4 |
| 1510 | Worm Pinion with Shaft | 1 | P 4 | Cheese-headed Screw fixing 1524 to 1501, N 48/1, 5×50 mm | 1 |
| 1511 | Shaft for 1503 | 1 | | | |
| 1512 | Pin for 1504 carrying 0440 | 1 | | | |
| 1513 | Bush in 1501 carrying Shaft 1511 | 1 | P 5 | Hexagon Screw fixing 1501 to 0101, N 47, 16×35 mm | 3 |
| 1514 | Bush in 1517 for 1507 | 1 | P 6 | Pin locating 1501, N 71, 10×28 mm | 1 |
| 1516 | Universal Joint | 1 | | | |
| 1517 | Bearing Bracket carrying Bevel Gears | 1 | P 8 | Cheese-headed Screw fixing 1503 to 1509, N 48/1, 10×42 mm | 2 |
| 1518 | Cap for same | 1 | | | |
| 1519 | Bevel Gear | 2 | P 9 | Feather Key in 1511, N 113/1, 10×8×40 mm | 1 |
| 1520 | Bush in 1502 carrying Shaft 1511 | 1 | P 11 | Taper Pin for 1507, 1510 and 1516, N 72, 5×40 mm | 5 |
| 1521 | Bush in 1517 for 1510 | 1 | | | |
| 1522 | Oil Pipe for Main Bearing in 1501 | 1 | P 13 | Cheese-headed Screw fixing 1518, N 48/1, 4×10 mm | 4 |
| 1523 | Oil Pipe for Bearing of Shaft 1511 in 1501 | 1 | P 14 | Hexagon Screw fixing 1517, N 46/1, 10×30 mm | 1 |
| 1524 | Top Cover for 1501 | 1 | P 15 | Taper Pin locating 1503 to 1509, N 72, 6,5×45 mm | 1 |
| 1526 | Thrust Ball Race AJ 25 between Maltese Cross and 1501 | 2 | P 16 | Grub Screw fixing 1417 to 1419 | 5 |
| 1535 | Oil Pipe in 1502 leading to 1512 | 1 | P 17 | Taper Pin, N72, 5×36 mm | 2 |






# TABLE Q. SUCKER BAR AND GUIDE

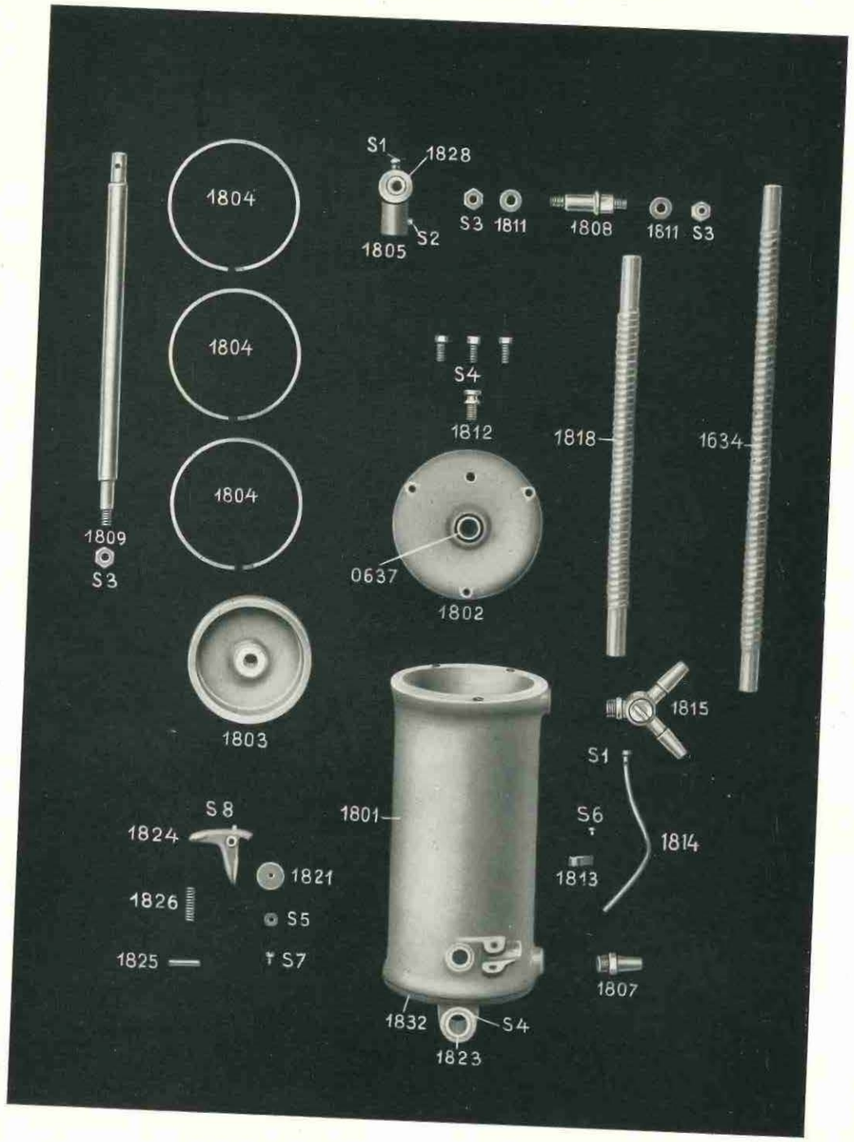
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 1601 | Bracket carrying Sucker Bar Movement | 1 | 1650 | Adjusting Screw for Automatic Throw-off | 1 |
| 1602 | Bearing Bracket attached to 1630 | 1 | 1651 | Compression Spring for 1649 | 1 |
| 1603 | Guide Block for 1630 | 1 | 1652 | Washer between Spring 1624 and 1650 | 1 |
| 1604 | Lever controlling angle of Suckers | 1 | 1654 | Flange Packing Washer between 1609 and 1639 | 1 |
| 1605 | Lever carrying Feed Control Rod 1615 | 1 | 1655 | Shouldered Pin for 1604 and 1611 | 3 |
| 1606 | Bracket carrying Sucker Bar | 1 | 1656 | Distance Washer | 3 |
| 1607 | Sucker | 8 | 1657 | Washer for 1628 | 1 |
| 1608 | Tap Plug for Sucker | 8 | 1658 | Bush for 1609 | 1 |
| 1609 | Lever embodying Automatic Throw-off | 1 | 1664 | Clamping Nut | 1 |
| 1611 | Lever coupling 1604 to 1606 | 1 | 2209 | Knurled Screw | 1 |
| 1612 | Trunnion for carrying 1615 in 1605 | 1 | Q 1 | Taper Pin for 1655, N 72, 2,5×22 mm | 2 |
| 1613 | Threaded Adjusting Rod for 1604 | 1 | Q 2 | Taper Pin for 1655, N 72, 2,5×18 mm | 1 |
| 1615 | Feed Control Rod with Knurled Sleeve and Stop collar | 1 | Q 4 | Hexagon Screw for 1606, N 46/1, 8×30 mm | 1 |
| 1617 | Sucker Bar | 1 | Q 5 | Hexagon Screw for fixing 1601, N 47, 12×35 mm | 4 |
| 1619 | Knurled Adjusting Nut | 4 | Q 6 | Pin for 1642, N 71, 4 ×36 mm | 1 |
| 1622 | Plunger for Automatic Throw-off | 1 | Q 7 | Cheese-headed Screw fixing 1607, N 48/1, 5×16 mm | 8 |
| 1624 | Spiral Spring for 1609 | 1 | Q 8 | Cheese-headed Screw for 1639, N 48/1, 6×16 mm | 2 |
| 1625 | Washer for Tap Plug 1608 | 8 | Q 9 | Grub Screw for 1602, 1603 and 1605, N 53, 8×8 mm | 3 |
| 1628 | Shouldered Pin for 1604 | 1 | Q 10 | Rivet, N 77/2, 2×14 mm | 1 |
| 1630 | Sucker Bar Slide Rod | 1 | Q 11 | Hexagon Screw fixing 1641 to 1603, N 46/1, 8×20 mm | 2 |
| 1631 | Flexible Tubing to Sucker Bar | 1 | Q 12 | Taper Pin for 1641, N 72, 5×60 mm | 1 |
| 1632 | Feed Control Bar attached to 1605 | 1 | Q 13 | Cheese-headed Screw for 1632, N 48/1, 4×10 mm | 2 |
| 1634 | Flexible Tubing connecting 0114 with 1640 | 1 | Q 14 | Taper Pin for 1642, N 72, 3×24 mm | 1 |
| 1636 | Spindle for 1605 | 1 | Q 15 | Split Pin, N 75, 2×20 mm | 1 |
| 1637 | Spindle for 1606 | 1 | Q 16 | Taper Pin for 1615, N 72, 2,5×16 mm | 2 |
| 1638 | Spring Ring in 1609 | 1 | Q 17 | Taper Pin for fixing 1602 to 1630, N 72, 4×36 mm | 1 |
| 1639 | Suction Nozzle for 1609 | 1 | Q 18 | Grub Screw fixing 1636 in 1605 N 53, 8×12 mm | 1 |
| 1640 | Tube for same | 1 | Q 19 | Taper Pin for 1601, N 72, 5×50 mm | 2 |
| 1641 | Guide Plate attached to 1603 | 1 | Q 20 | Split Pin for 1615, N 75, 1,6×10 mm | 1 |
| 1642 | Knurled Sleeve attached to 1649 | 1 | Q 21 | Guide Pin in 1617, N 72, 3×20 mm | 1 |
| 1643 | Bush in 1601 | 2 | | | |
| 1644 | Knurled Locking Nut for 1650 | 1 | | | |
| 1645 | Bush for 1606 narrow side | 1 | | | |
| 1646 | Bush for 1606 wide side | 1 | | | |
| 1647 | Bracket Stop for Automatic Throw-off | 1 | | | |
| 1648 | Shouldered Screws for fixing 1647 | 2 | | | |
| 1649 | Plunger Catch for Automatic Throw-off | 1 | | | |






## TABLE R. IMPRESSION THROW-OFF LEVER

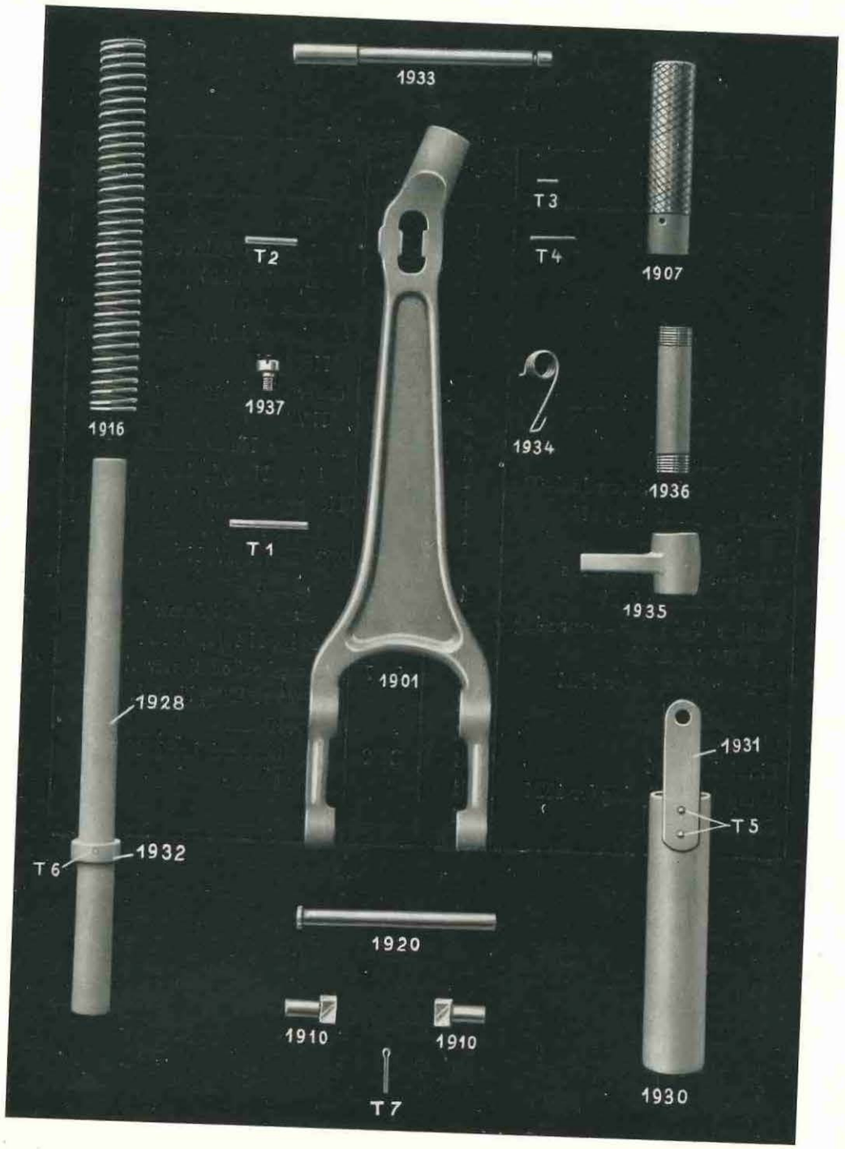
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 1701 | Balled Handle | 1 | R 1 | Hexagon Nut for 1705, N 62, 12×9 mm | 1 |
| 1702 | Knurled Locking Nut for 1703 | 1 | R 2 | Washer for 1705, N 65/1, 12,5 mm | 1 |
| 1703 | Regulating Sleeve for Impression | 1 | R 3 | Grub Screw for 1706, N 53, 6×8 mm | 1 |
| 1704 | Impression Throw-off Rod | 1 | R 4 | Hexagon Screw fixing 1707, N 46/1, 8×22 mm | 3 |
| 1705 | Shouldered Pin for fixing 1704 | 1 | | | |
| 1706 | Stop Ring for 1703 | 1 | | | |
| 1707 | Impression Lever Stop | 1 | | | |






# TABLE S. AIR PUMP

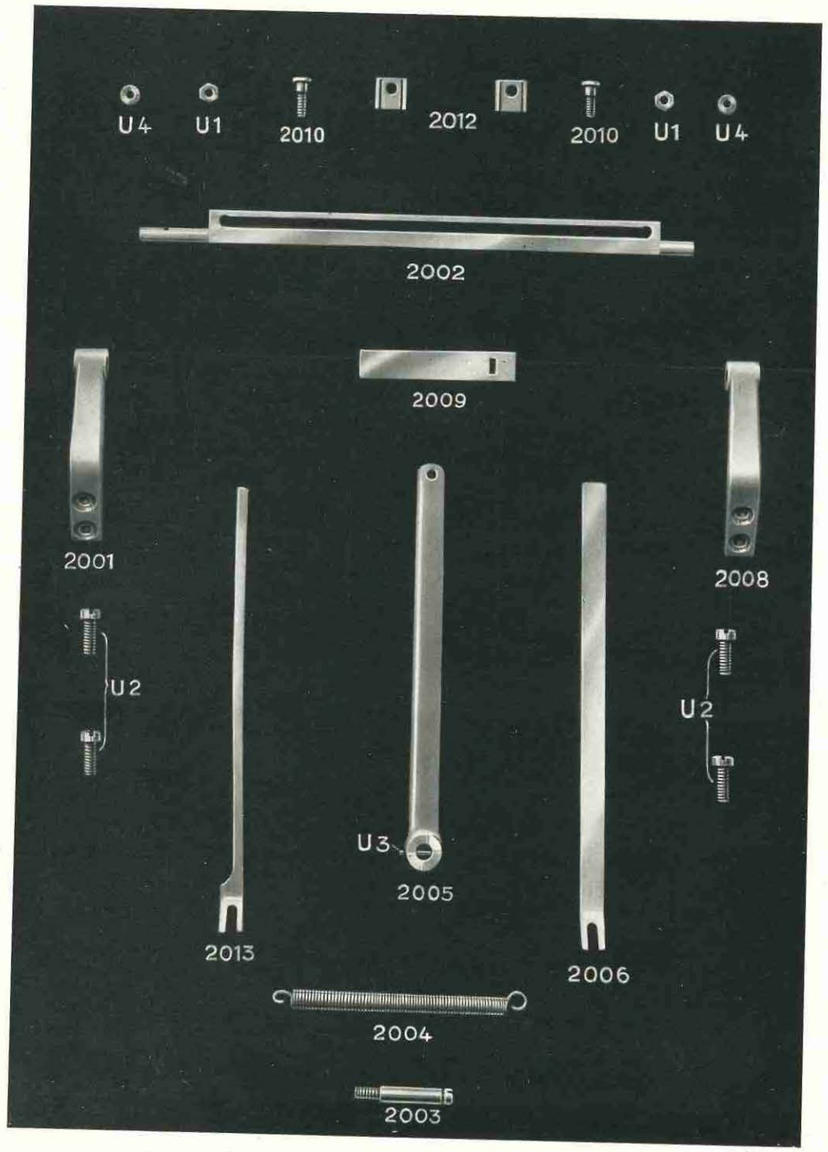
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 1801 | Air Pump Cylinder | 1 | 1832 | Bottom of Pump Cylinder | 1 |
| 1802 | Cover for same | 1 | 1634 | Flexible Air Tube connecting 1815 with 2110 | 1 |
| 1803 | Piston for 1801 | 1 | 0637 | Bush for 1802 | 1 |
| 1804 | Piston Ring for 1803 | 3 | S 1 | Lubricator in 1805 and 1814, No. 1, N73 | 2 |
| 1805 | End Piece for 1809 | 1 | S 2 | Taper Pin fixing 1805 to 1809, N 72, 6,5×36 mm | 1 |
| 1807 | Nozzle for 1801 | 1 | S 3 | Hexagon Nut for 1808 and 1809, N 61/1, 12 mm | 3 |
| 1808 | Crank Driving Pin in 1805 | 1 | S 4 | Hexagon Screw fixing 1802 and 1832, N 46/1, 8×22 mm | 6 |
| 1809 | Piston Rod | 1 | S 5 | Washer for S 7, N 65/1, 6,2 mm | 1 |
| 1811 | Washer for 1808 | 2 | S 6 | Cheese-headed Screw for fixing 1813, N 48/1, 4×6 mm | 1 |
| 1812 | Air Regulating Screw in 1802 | 1 | S 7 | Cheese-headed Screw fixing 1821 to 1824, N 48/1, 6×10 mm | 1 |
| 1813 | Flat Clip for fixing 1814 | 1 | S 8 | Grub Screw fixing 1824, N 53, 4×12 mm | 1 |
| 1814 | Oil Pipe | 1 | | | |
| 1815 | Two-way Tap with brass connection in 1801 | 1 | | | |
| 1818 | Rubber Tube for connecting 1807 with 0114 | 1 | | | |
| 1821 | Leather Washer for 1824 | 1 | | | |
| 1823 | Bush for 1801 | 1 | | | |
| 1824 | Clack Valve | 1 | | | |
| 1825 | Pin fixing 1824 | 1 | | | |
| 1826 | Compression Spring for 1824 | 1 | | | |
| 1828 | Bush for 1805 | 1 | | | |






# TABLE T. CLUTCH LEVER

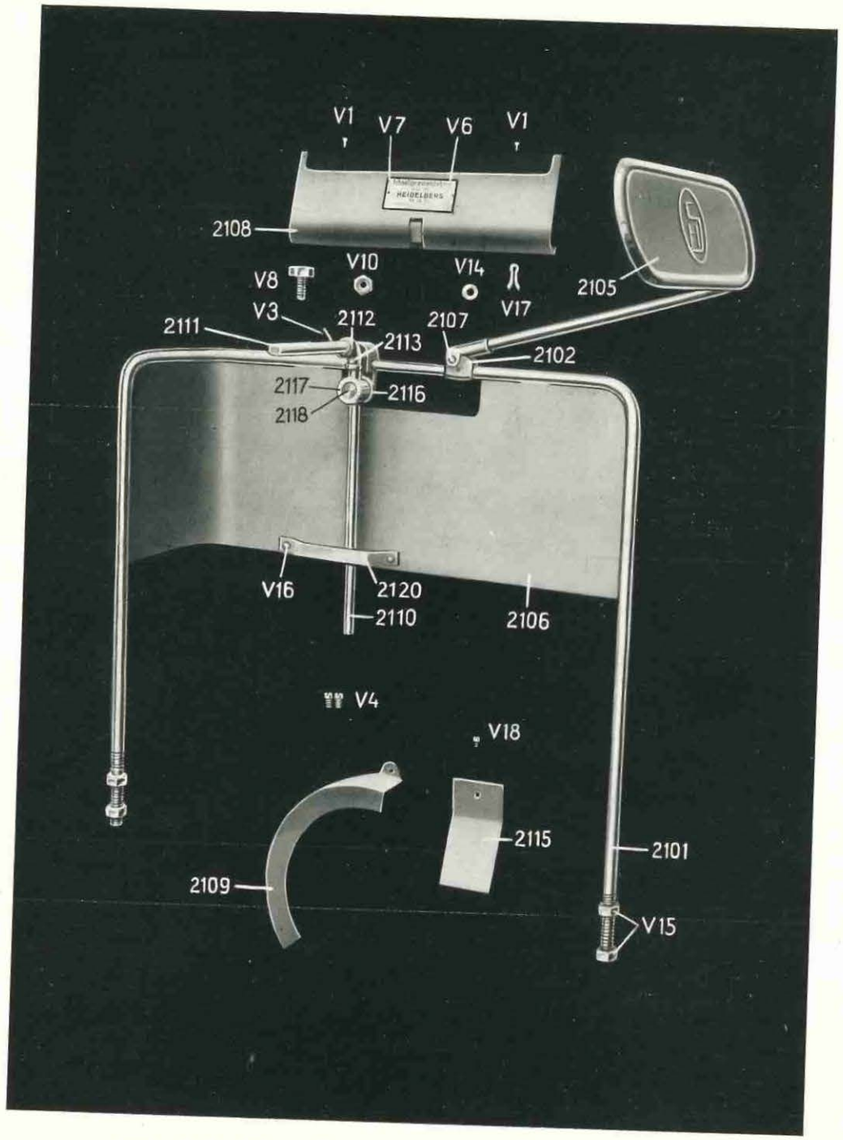
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 1901 | Clutch Lever | 1 | 1936 | Screwed Extension Piece coupling 1907 to 1935 | 1 |
| 1907 | Hand Grip attached to 1936 | 1 | | | |
| 1910 | Guide Pins operating 0402 | 2 | 1937 | Cheese-headed Screw fixing 1931 | 1 |
| 1916 | Return Spring for Lever 1901 | 1 | | | |
| 1920 | Pin coupling 1901 to 0436 | 1 | T 1 | Taper Pin, N 72, 5×45 mm | 1 |
| 1928 | Bar Support for 1901 | 1 | T 2 | Taper Pin, N72, 6,5×32 mm | 1 |
| 1930 | Sleeve carrying Spring 1916 | 1 | T 3 | Rivet, N 77/2, 4×14 mm | 1 |
| 1931 | Fixing Plate attached to 1930 | 1 | T 4 | Pin, N 71, 3×32 mm | 1 |
| 1932 | Collar for 1928 | 1 | T 5 | Rivet attaching 1930 to 1931, N 77/1, 4×10 mm | 2 |
| 1933 | Spindle carrying Hand Grip 1907, 1936 and 1935 | 1 | T 7 | Split Pin fixing 1920, N 75 3×25 mm | 1 |
| 1934 | Coil Return Spring for Stop 1935 | 1 | | | |
| 1935 | Clutch Engagement Stop attached to 1936 | 1 | T 6 | (Should be T2) | 1 |






# TABLE U. FRISKET BAR

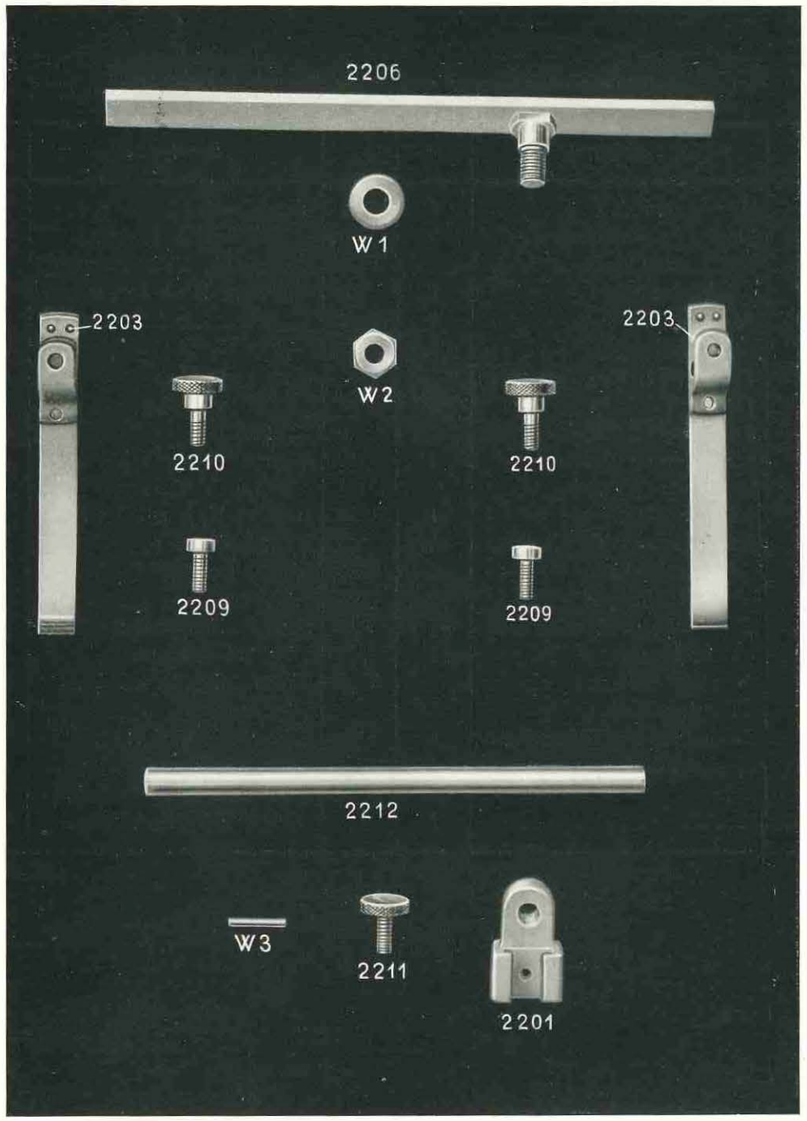
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 2001/8 | Bearing Bracket carrying 2002 | 2 | 2012 | Plates fixing Frisket Fingers | 2 |
| 2002 | Frisket Bar | 1 | 2013 | Frisket Finger, narrow | 1 |
| 2003 | Threaded Pillar carrying Spring 2004 | 1 | U 1 | Hexagon Nut for 2010, N 62, 6×5 mm | 2 |
| 2004 | Tension Spring attached to 2005 | 1 | U 2 | Cheese-headed Screw for fixing 2001/8, N 48/1, 8×22 mm | 4 |
| 2005 | Lever attached to 2002 | 1 | U 3 | Taper Pin, N 72, 2,5×24 mm | 1 |
| 2006 | Frisket Finger, wide | 1 | U 4 | Washer for 2010, N 65/1, 6,2 mm | 2 |
| 2009 | Cross Frisket | 1 | | | |
| 2010 | Screw fixing Frisket Fingers | 2 | | | |






# T A B L E V. G U A R D S

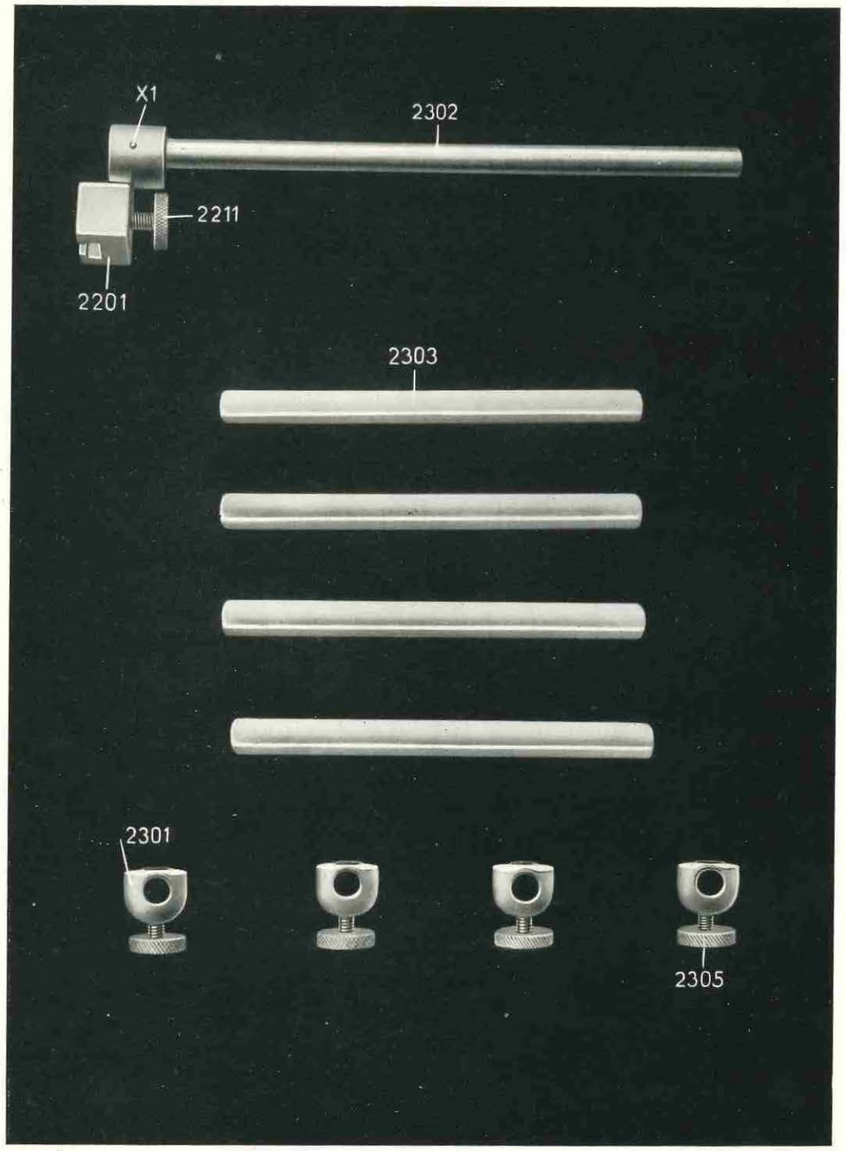
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 2101 | Side Guard Rail | 1 | V 1 | Cheese-headed Screw fixing 2108, N 48/1, 4×4 mm | 2 |
| 2102 | Bracket carrying Front Guard | 1 | V 3 | Taper Pin indicating air stream on 2111, N 72, 3×30 mm | 1 |
| 2103 | End Bearing for Front Guard fitted to 2105 | 1 | V 4 | Cheese-headed Screw fixing 2109, N 48/1, 8×15 mm | 2 |
| 2105 | Front Guard | 1 | V 6 | Name Plate, N 122 | 1 |
| 2106 | Side Guard | 1 | V 7 | Copper Rivet fixing V 6, N 78, 2×4 mm | 6 |
| 2107 | Pin carrying End Bearing 2103 | 1 | V 8 | Hexagon Screw fixing 2116, N 46/1, 10×30 mm | 1 |
| 2108 | Guard for Inking Cylinder | 1 | V 10 | Hexagon Nut for 2118, N 62, 10×7 mm | 1 |
| 2109 | Guard covering 0502 | 1 | V 14 | Washer for 2107, N 65/1, 10,3 mm | 1 |
| 2110 | Iron Tube Connection to Blower Tube | 1 | V 15 | Hexagon Nut for fixing 2101, N 62, 16×11 mm | 4 |
| 2111 | Blower Tube with Plug and Connecting Piece | 1 | V 16 | Rivets fixing 2120, N 78, 3×6 mm | 2 |
| 2112 | Fixing Nut for 2111 | 1 | V 17 | Split Pin for 2107, N 75, 2×20 mm | 1 |
| 2113 | Elbow Piece connecting 2110 to 2111 | 1 | V 18 | Cheese-headed Screw fixing 2115, N 48/1, 5×12 mm | 1 |
| 2115 | Guard for 0502 and Main Bearing Oil Pipes | 1 | | | |
| 2116 | Bracket carrying Blower Tube | 1 | | | |
| 2117 | Clamping Bush | 1 | | | |
| 2118 | Bolt | 1 | | | |
| 2120 | Bracket | 1 | | | |






# TABLE W. SHEET STEADIER

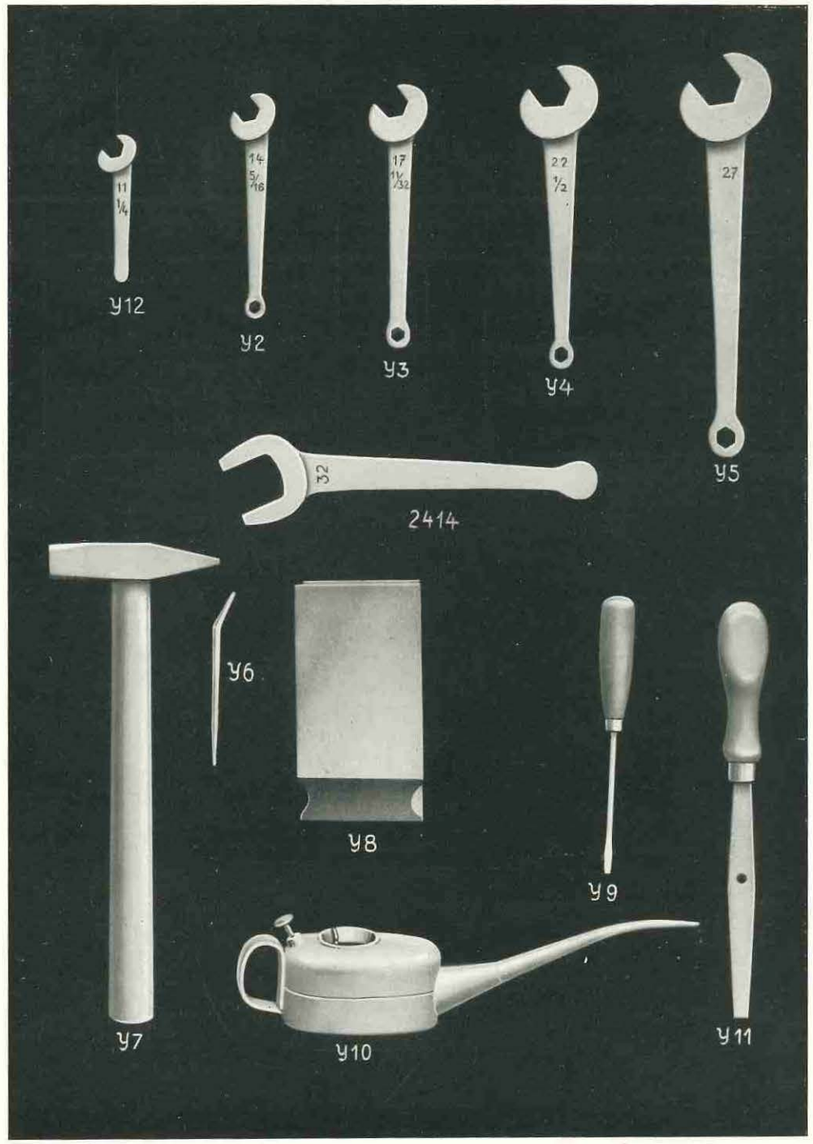
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 2201 | Clamping Sleeve for 2206 carrying 2212 | 1 | 2212 | Bar fixed to 2201 carrying 2203 | 1 |
| 2203 | Holder with Sheet Steadier Spring | 2 | W 1 | Washer for 2206, N 65/1, 10,3 mm | 1 |
| 2206 | Bar for 2201 | 1 | W 2 | Hexagon Nut fixing 2206 to Lay Standard 1008, N 62, 10×7 mm | 1 |
| 2209 | Knurled Screw for adjusting Sheet Steadier Spring | 2 | W 3 | Taper Pin fixing 2212 to 2201, N 72, 2,5×24 mm | 1 |
| 2210 | Knurled Screw for clamping 2203 to 2212 | 2 | | | |
| 2211 | Knurled Screw clamping 2201 to 2206 | 1 | | | |






## TABLE X. DELIVERY SLIDES FOR SMALL SIZES

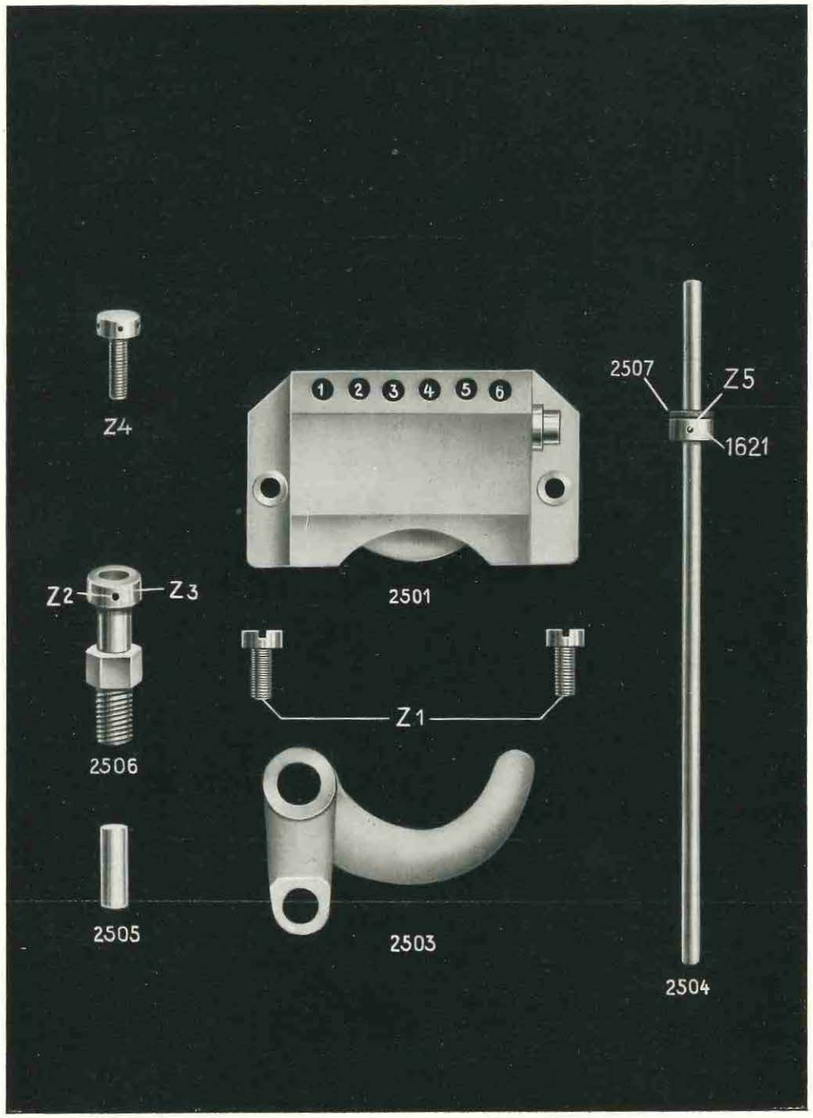
| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 2301 | Clamping Piece for Delivery Slide | 4 | 2201 | Clamping Sleeve fixed to 2302 | 1 |
| 2302 | Rod carrying Delivery Slides | 1 | 2211 | Knurled Screw clamping 2201 to Lay Standard | 1 |
| 2303 | Delivery Slide | 4 | X 1 | Taper Pin fixing 2302 to 2201, N 72, 2,5×24 mm | 1 |
| 2305 | Knurled Clamping Screw for 2301 | 4 | | | |






# T A B L E Y. T O O L S

| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 2414 | Single-ended Spanner, No. 32 | 1 | Y 8 | Planer, N 126, No. 1 | 1 |
| Y 2 | Spanner, N 106/2, No. 14 | 1 | Y 9 | Small Screw Driver, N 105, No. 1 | 1 |
| Y 3 | Spanner, N 106/2, No. 17 | 1 | Y 10 | Oil Can, N 127, No. 1 | 1 |
| Y 4 | Spanner, N 106/2, No. 22 | 1 | Y 11 | Large Screw Driver, N 105, No. 2 | 1 |
| Y 5 | Spanner, N 106/2, No. 27 | 1 | Y 12 | Small Spanner, N 106/2, No. 11 | 1 |
| Y 6 | Tommy Bar, N 123, 3×3 mm | 1 | | | |
| Y 7 | Hammer, N 125, No. 1 | 1 | | | |





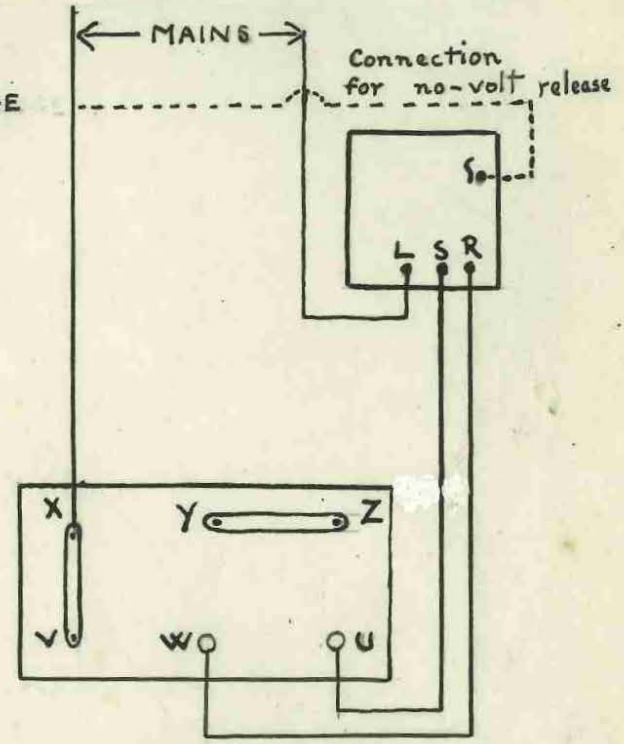

# TABLE Z. SHEET COUNTER

| Part No. | Description | Quantity | Part No. | Description | Quantity |
|---|---|---|---|---|---|
| 2501 | Sheet Counter | 1 | Z 2 | Taper Pin fixing Z3 to 2506, N 72, 2,5×24 mm | 1 |
| 2503 | Striking Lever | 1 | | | |
| 2504 | Push Rod operating 2503 | 1 | Z 3 | Collar for 2506, BN 108, 10×10 mm | 1 |
| 2505 | Trunnion coupling 2503 to 2504 | 1 | | | |
| 2506 | Threaded Pin carrying 2503 | 1 | Z 4 | Screw with Tommy holes, N 82, 6×16 mm | 1 |
| 2507 | Leather Washer | 1 | | | |
| 1621 | Adjusting Ring | 1 | Z 5 | Taper Pin fixing 1621 to 2504, N 72 2,5×18 mm | 1 |
| Z 1 | Cheese-headed Screw fixing 2501, N 48/1, 5×12 mm | 2 | | | |

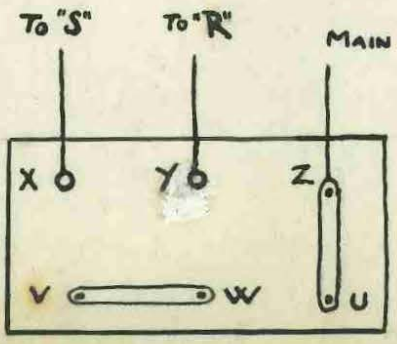
# DIAGRAM OF CONNECTIONS

For:— SPECIAL SINGLE-PHASE SQUIRREL-CAGE MOTOR WITH SIX TERMINALS.

CONNECTIONS ARE FOR HIGHEST VOLTAGE




Connections for Contrary Rotation




P. No. 103A