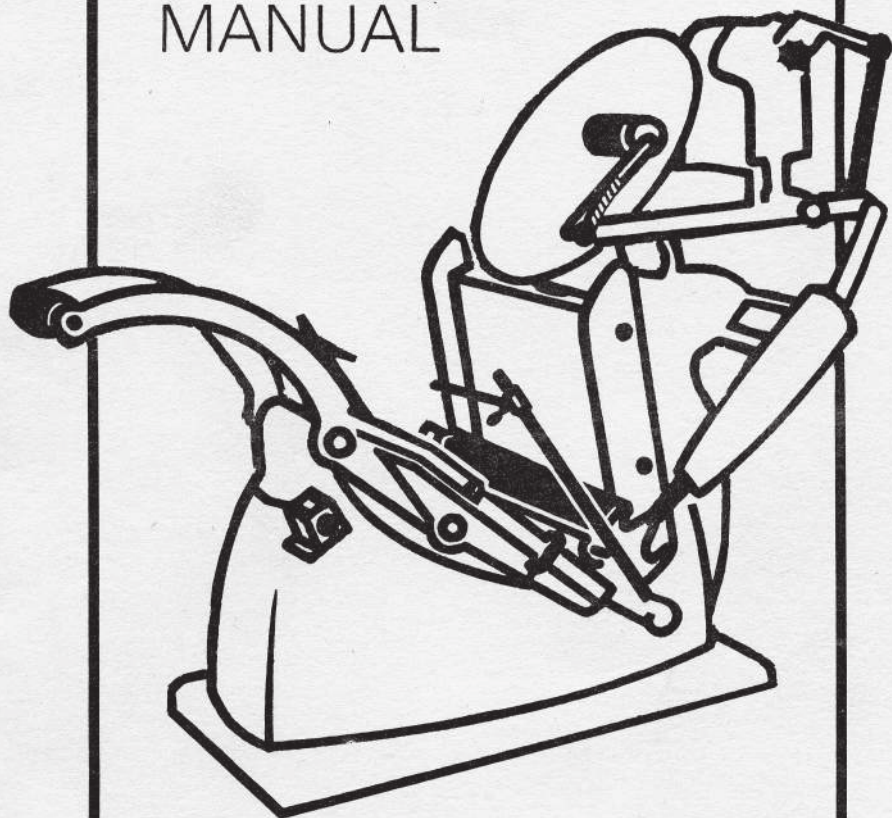


**THE ADANA
EIGHT FIVE
INSTRUCTION
MANUAL**



**adana model M0120
adana model M0125**



THE ADANA EIGHT-FIVE Printing Machine

This is the finest hand-platen printing machine in the world, with it you can print to an exceptionally high standard. Designed by printers' engineers of long experience the robust construction and smooth, rapid and easy operation of the *Eight-Five* have long established its unequalled reputation. It is used by professional printers, industry, educational establishments, hospitals, churches and the home printer—for whom it remains the most popular printing press.

Both card and paper can be printed on the *Eight-Five*, as can multi-colour work and illustrations from line and half-tone blocks. The range of work your press will print is vast—all manner of cards and stationery, envelopes, handbills, certificates, notices, menus, programmes, booklets and magazines—in fact the scope is unlimited.

This manual is designed to make the operation of the *Eight-Five* easy, particularly for those who are unfamiliar with printing.

Even if you own only the basic machine you should study carefully paragraphs 49-54 on *Care of inking rollers*.

SPECIFICATION

Chase 8 × 5 inches, 20.3 × 12.7 centimetres (inside dimensions)

There is no limit to the size of sheet that may be printed.

Two composition inking rollers

Duplex roller runners

Adjustable double grippers with variable length fingers

Fully adjustable laygauge

Impression controlled by standard printers' 4-screw method

Weight of the basic *Eight-Five* 33½ lb, 15.2 kg

Overall size: 23 × 13 × 19 inches, 58.4 × 33.0 × 48.3 centimetres.

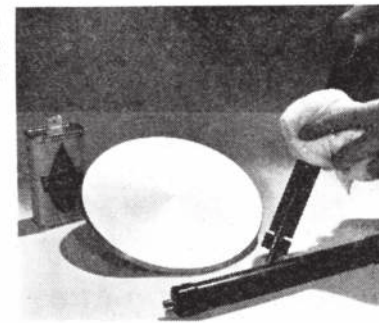
INSTRUCTIONS FOR ASSEMBLY

1 Remove the machine carefully from its packing case. The case also contains two inking rollers, one ink disc, one long gripper finger and the booklet *Type and Typesetting*.

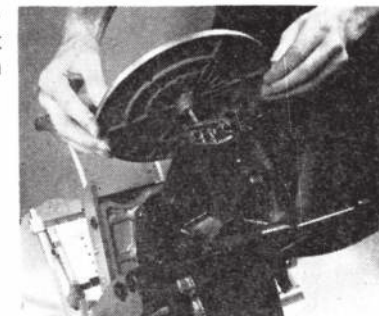
2 For ease of operation it is recommended that the machine is bolted to a bench or wooden base. (Adana supply a wooden base board as an accessory—see page 18.) A bench height of about 27 in. or 68 cms. suits most people.

INSTRUCTIONS FOR ASSEMBLY

3 Clean the protective film from the ink disc and rollers using lighter fuel or white spirit.



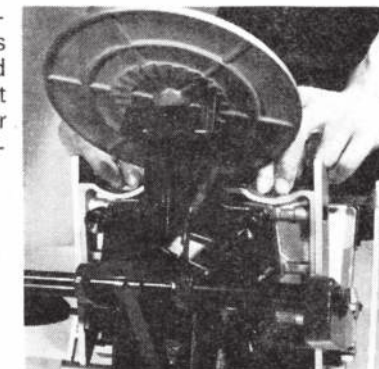
4 Fit the ink disc to the machine. Check that the ratchet striker engages with the teeth in the underside of the disc.



5 Fit the rollers to the carriage. To do this depress the handle about half way until the roller carriage arms are just above the lower half of the inking disc. When fitting the rollers ensure that the nylon runners are positioned with the flange of greatest diameter nearest to the rollers on each side. (See *care of inking rollers paras. 49-54.*)



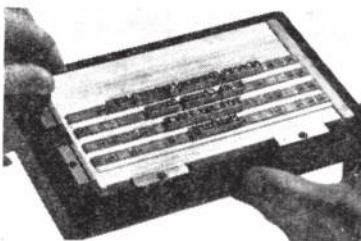
6 With the rollers in their lowest position, grip the chase as shown and lift it upwards and away from the bed. To assist this operation position your fingers in the two depressions at the top of the bed.



TYPESSETTING

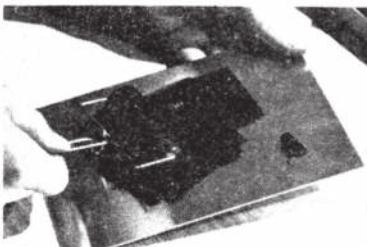
TYPESSETTING

7 Use the enclosed booklet *Type and Typesetting*. The chase, complete with the type and furniture locked in position, is known as the forme. Note the use of expanding mechanical quoins and quoin key.



OPERATING INSTRUCTIONS

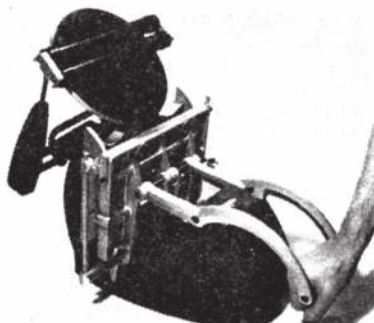
8 Place a small 'blob' of ink on a suitable non-absorbent surface, such as sheet metal or plate glass, using the hand roller to roll it out until it is well and evenly distributed over most of the surface. Leave it to aerate for about 15 minutes.



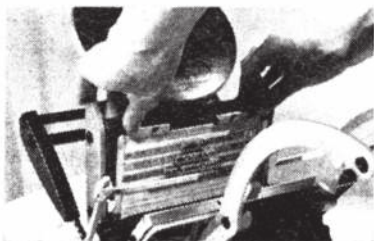
9 Transfer ink from the hand roller to the ink disc so that the disc is covered by a thin film. *Do not over-ink.* It is easier to add more ink than to take some away.



10 Ensure the even distribution of ink over the disc and rollers by depressing the handle several times.

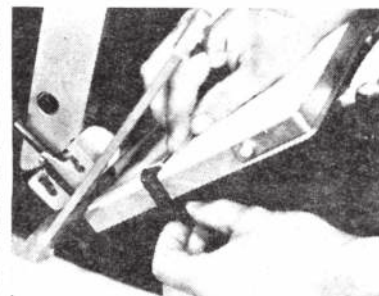


11 With the inking rollers in their lowest position insert the forme into the bed of the machine.



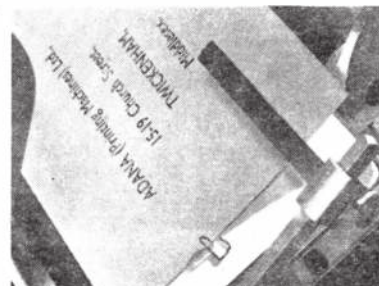
OPERATING INSTRUCTIONS

12 Position the laygauge and secure it with the clamps at each end. Heavy clamping pressure is not necessary. The laygauge should be positioned so that the sheet for printing will locate into the recess in the edge of the gauge. Once the clamps are tightened the laygauge may be removed without altering the position of the clamps.

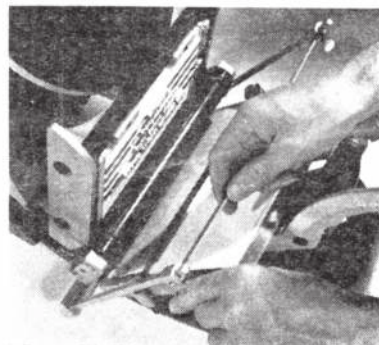


Accuracy in positioning the laygauge is important and is amply rewarded in the final printed work. Great care should be taken to ensure that the laygauge does not touch the type matter when an impression is taken, depress the handle very slowly whilst watching to check this.

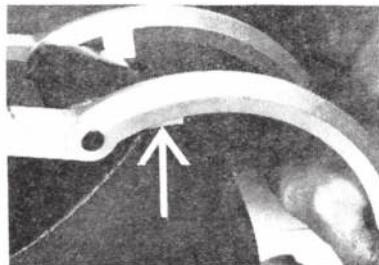
13 The sideways position of the card or paper is fixed by a laygauge pin. The laygauge pin is stuck into the padding and the point is pushed along the platen, under the padding, in a direction away from the paper or card. (See paragraph 23 for details of the padding for the platen.)



14 Adjust the position of the gripper fingers on the gripper arm. The fingers should prevent the paper or card from sticking to the type matter when releasing the handle after the impression. The fingers *must not* be allowed to foul the type face. The longer gripper finger can be used instead of the two short ones if this is more convenient.



15 Depress the handle several times so that the rollers transfer the ink from the disc to the type matter. Then, with the paper or card in position, depress the handle firmly until it presses against the impression stops as shown.



OPERATING INSTRUCTIONS

16 Release the paper or card and check this trial 'pull' for: laygauge squareness and position, laygauge pin position, uniformity of pressure and uniformity of inking.

17 If the pressure is uneven, the type bed can be adjusted as described in paragraph 24. Where individual letters are unclear, 'spotting up' is required. This technique is described in paragraph 25.

18 When all adjustments and spotting up are completed production can commence. Place a sheet of card or paper on the platen and depress the handle fully. Remove the card or paper and repeat for the next sheet.

19 As printing proceeds, inspect your work regularly to ascertain when re-inking of the ink disc is necessary. Also take care when stacking finished sheets, or smudging may occur.

GENERAL ADVICE

20 Do not over-ink. This is very important, as too much ink will clog small letters and spoil the impression, as well as taking much longer to dry.

21 To produce good work it is essential to keep both the machine and your fingers clean.

22 Do not apply more pressure than is necessary to get a clear impression. Excessive pressure damages the paper and gives a lower standard of printed work. For instructions on how to adjust pressure see paragraph 24. If the impression produces an embossed effect on the back of the paper you can be sure that the pressure is too great.

MAINTENANCE & ADJUSTMENTS

23 Periodically change the padding on the platen, particularly when changing the forme after a long run. The padding consists of six sheets of thin newsprint against the platen, followed by a padding card and finally one sheet of white paper on top. To change the padding, unclamp the padding bales and slide out the laygauge bar. Note that the laygauge clamps need not be removed when doing this.

24 Your machine was set and fully tested before despatch, but should adjustments be needed to make the pressure even, or to adjust for a lighter or heavier forme, this is done by the four impression screws. After making a number of such adjustments it may be necessary to square up the bed. Slacken off all the impression screws and renew the padding. A test forme should be set by placing four large pieces of type (24 point or over) one at each corner of the chase. Ink up and print as normal, but hold the handle down on its stops. With your other hand tighten the

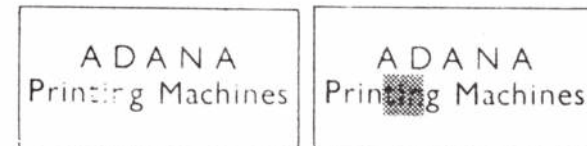
MAINTENANCE & ADJUSTMENTS

24 cont. impression screws until they are touching the bed to the same degree, and the four corners print with the same density. This is not difficult to do if you work slowly. Tighten each impres-



sion screw a small amount at a time. Before proceeding check that the bed does not wobble. Hold it on each side and attempt to move it. If it does wobble it is most likely that the bed is not resting on all four impression screws.

25 Even with new padding and correctly adjusted pressure, you may occasionally find local areas or individual characters which are unclear. To remedy this you must 'spot up' the offending area. Spotting up is carried out as follows.



- a) Print an impression on the top sheet of the platen padding.
- b) Stick thin pieces of tissue paper over those parts where the print is unclear. The gummed paper at the edge of a sheet of postage stamps is useful for this.

The left illustration shows a print with faulty letters 't, i, n'. The patch of tone on the right illustration shows paper pasted on the platen. Be careful to place the spotting up paper only where it is needed, or the place where it overlaps will print too heavily.

Spotting up will normally only be necessary when using old or worn type with new. Adana type is cast to standard British type height and when new should not require spotting up.

Wooden mounted blocks will often be below normal type height and may require a piece of paper or even thin card placed under the wooden mount to restore it to the correct height.

26 The gripper arms should normally be set so that they lie roughly midway between the type matter and the platen when the machine is open (i.e., when the handle is up). For some jobs it may be useful to move the gripper arms nearer to the platen, by adjusting the cams on the side of the machine.

27 After use clean the ink disc, rollers and type with lighter fuel (or white spirit), then remove the residue with dry rag. It is most important to remove all the ink or it will harden and spoil subsequent jobs. Avoid fluffy rag as fibres will stick to the rollers.

28 Occasionally lubricate the moving parts with a thin machine oil. Particular attention should be paid to the two roller arms, the ink disc spindle and the twelve oil holes. These holes are situated as follows: four in the impression toggle, two beneath the platen, three on the platen hinge—visible when the handle is depressed half way, one on each side of the roller carriage toggle located beneath the ink disc and one under this toggle.

29 Of all the parts of your *Eight-Five* the rollers are the most likely to become damaged if the correct precautions are not taken. Any damage to the rollers will affect the even distribution of the ink and hence spoil the printed sheet. Take great care of the rollers and they will give long service. Read carefully the section of this manual on the care of rollers.



Accessories for the EIGHT-FIVE

Equipped with the basic machine, some type, ink and paper there is nothing to prevent you from printing work of the highest quality. These accessories are designed to make printing easier still and to assist you to produce work of consistent quality.

THE INK DUCT

This attachment comes complete and is fitted easily in a few minutes.

Every printer must use care when hand-inking. With the basic *Eight-Five* the forme is inked automatically but care is needed to maintain the correct amount of ink, by hand, on the ink disc. The ink duct makes this operation very much more simple. Automatically it supplies exactly the right quantity of ink to the ink disc and it ensures an even film of ink so that all the printed sheets will look alike.

Particularly when long runs, or formes containing a lot of matter, are required, the ink duct will be found invaluable. Experience will also show that the use of the ink duct speeds up the printing operation thereby saving time.

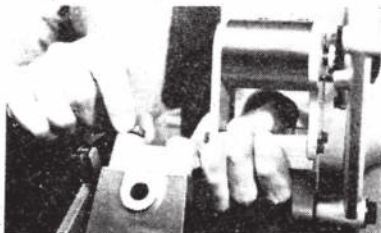
For a diagram of the ink duct see the flap on the inside back cover of this manual.

FITTING THE INK DUCT

30 Remove the ink disc. (See paragraph 52.)

31 Position the chassis next to the ratchet striker at the top of the machine and fix it in position with two bolts.

Do not tighten the bolts at this stage.

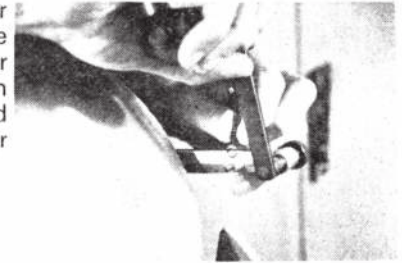


FITTING THE INK DUCT

32 Remove the link arm nut situated at the end of the roller carriage. (A box spanner, not supplied, may be useful for this.) Pass this nut through the hole in the end of the link arm and screw it back in position in the roller carriage. The link arm is now loosely held in position. (This looseness is correct as it allows the chassis to be moved into a correct position without straining the link. This operation is covered in paragraph 35.)

33 Replace the ink disc.

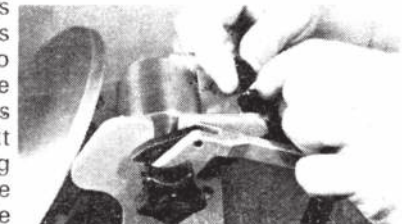
34 Position the transfer roller on the ink disc and loop the end of the tension spring over the lug situated on the main arm. Screw on the knurled nut to secure the transfer roller arm.



35 The chassis must now be correctly sited. Look down the plane of the ink disc and observe the point of contact between the disc and the transfer roller. Rotate the ink duct chassis until the transfer roller and the disc are in contact along the full length of the roller. Now lock the two chassis bolts to hold the ink duct in position.

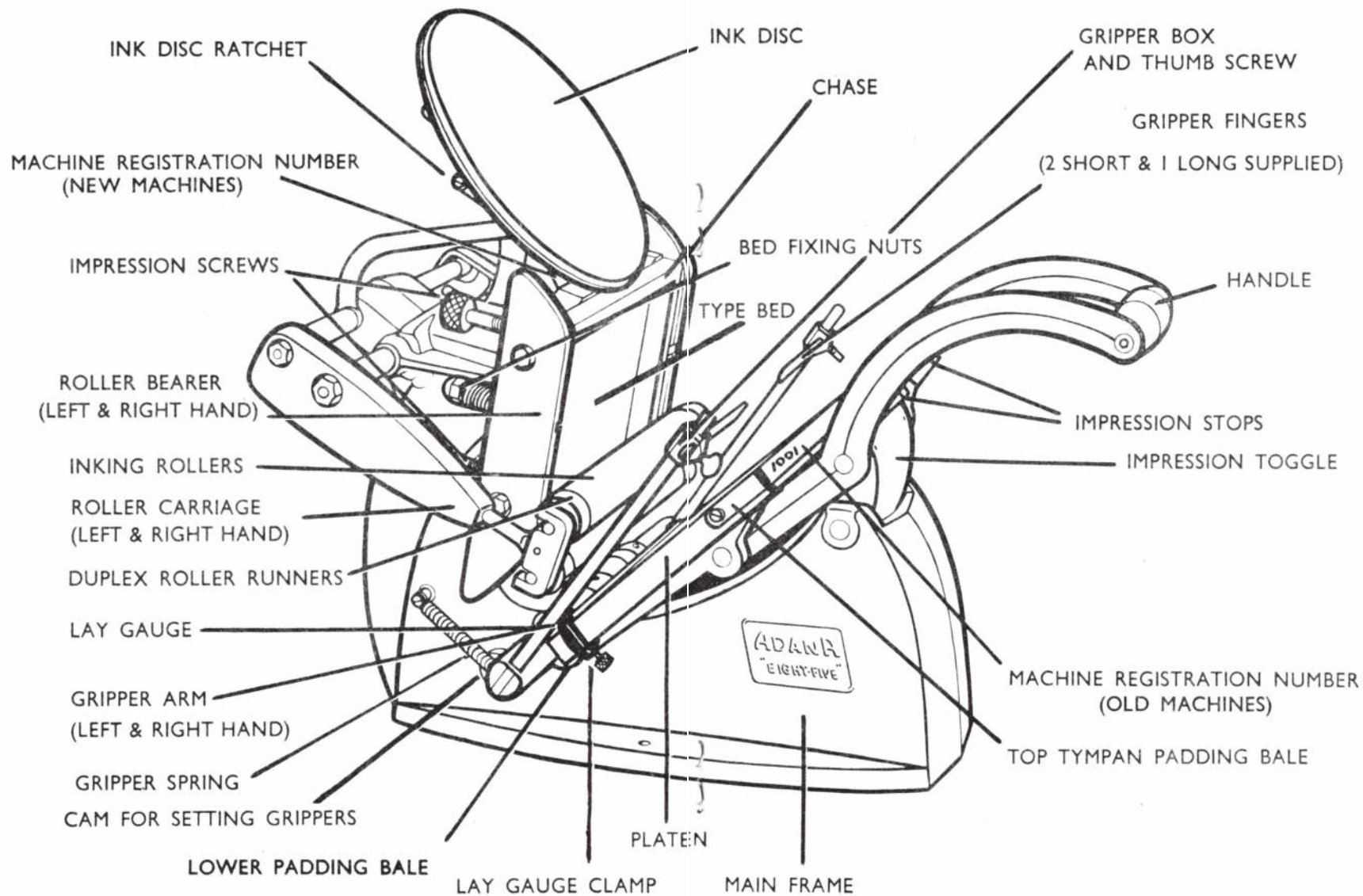


36 The doctor blade controls the quantity of ink that is allowed on the steel roller. To adjust it first slacken off the two blade adjustment screws underneath the blade. Next slacken the two blade locking screws above the blade. The ridge at the back of the blade can be used as a finger grip to position the blade in the required setting with the vertical sides touching the steel roller. The horizontal edge of the blade is now a small distance from the roller. The two blade locking screws should be tightened firmly but without force.



37 Fine adjustment of the doctor blade is achieved with the two blade adjustment screws underneath the doctor blade. These should be screwed with care and a little at a time. By tightening them the blade is brought nearer to the steel roller.

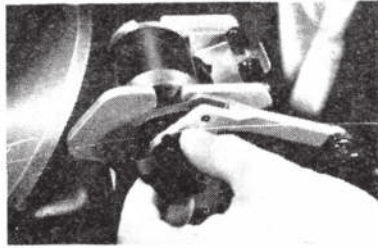
One spare doctor blade is supplied, and more can be purchased, as this item will, in time, be subject to wear.



THE BASIC EIGHT-FIVE

FITTING THE INK DUCT

38 Place a small quantity of ink on the steel roller and turn the ratchet locking knob in a clockwise direction to obtain a thin even film of ink on the steel roller.



39 As with the hand transfer of ink to the ink disc (paragraph 9) take care to adjust the doctor blade so that a thin film of ink is transferred. It is far easier to increase than to reduce the film of ink on the disc.

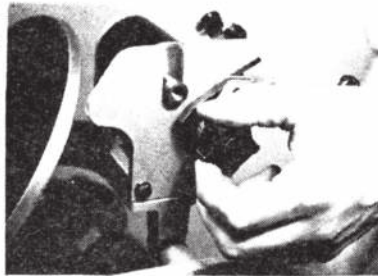
40 Without the forme in the bed depress the handle many times to transfer an even film of ink to the ink disc. This process can be speeded considerably if the disc is rotated manually about one quarter of a turn between handle depressions.

41 Proceed from paragraph 11, renewing the supply of ink as required.

CLEANING THE INK DUCT

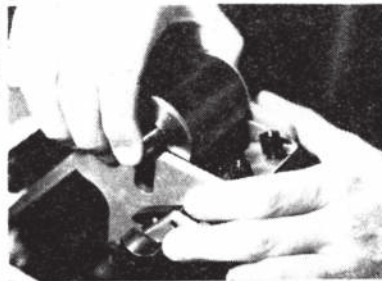
The simplicity of construction of the ink duct makes the cleaning operation very easy and quick to complete. Use lighter fuel or white spirit.

42 With the pawl engaged in the ratchet, turn the ratchet locking knob in an anticlockwise direction till the ratchet arm comes free from the steel roller. Screw the knob into the retaining hole whilst the cleaning operation is completed.



43 Slacken off both the two blade locking screws and the two blade adjusting screws.

44 Remove the steel roller with thumb and forefinger for cleaning. The doctor blade may now be removed completely.



CLEANING THE INK DUCT

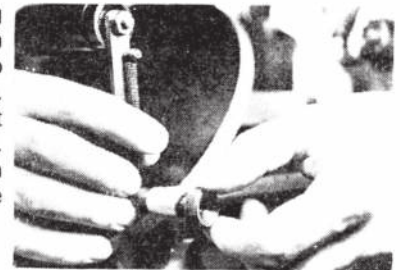
45 Release the tension spring from the transfer roller arm. The transfer roller may now be lifted up for cleaning. If desired the transfer roller may be removed—see paragraph 47.

46 When all the parts are thoroughly cleaned the ink duct should be re-assembled. First the doctor blade should be replaced and lightly secured with one blade locking screw. Next the steel roller followed by the ratchet locking knob which should be re-screwed into the steel roller. The doctor blade should be re-positioned as in paragraph 36. Lastly the transfer roller tension spring should be replaced—see paragraph 34.

DISCONNECTING THE TRANSFER ROLLER

For short run work, particularly with light formes, it may be best to apply the ink by hand to the ink disc. In these instances the transfer roller must be disconnected from the ink duct.

47 Release the tension spring from the transfer roller arm and unscrew the thumb screw at the end of the arm. The transfer roller on its short arm may now be removed. Replace the thumb screw on the short spindle whilst the transfer roller is stored.



48 Proceed as from paragraph 8.

CARE OF INKING ROLLERS

49 Good inking rollers are delicate and care is needed to maintain them in good condition.

Rollers in perfect condition should give slightly to the firm grip of the hand, but it should not be possible for the fingers to sink deeply into them. The surface should be slightly tacky but not wet and should offer firm resistance when the palm of the hand is drawn along it.

50 Rollers deteriorate rapidly when exposed to extremes of temperature or high humidity. In particular do not leave them on a radiator or in strong sunlight. Normal living-room environment is ideal.

51 Keep the roller composition free from contact when storing, or indentations and cuts will result. To eliminate this risk the rollers can be stored in the box provided. For long-term storage

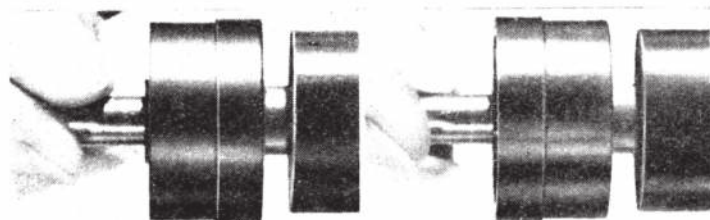
CARE OF INKING ROLLERS

coat the entire surface, including the ends of the rollers, with a thin film of Vaseline. This can be removed with a rag and lighter fuel or white spirit.

52 When the ink disc is removed from the machine the handle must not be used. Without the ink disc in position the rollers will, if the handle is used, be pressed against the casting. This can cause serious damage to the rollers.

53 Before use ensure there is no Vaseline or oil on the rollers. After use the ink must be removed before it solidifies. For this purpose use lighter fuel or white spirit, which must be removed immediately after cleaning using a clean rag.

54 After prolonged use the roller composition will tend to shrink slightly and will no longer contact the type. When this happens the life of the rollers can be extended by reversing the position of the nylon runners so that they bear on the small diameter. Ensure that all four runners are reversed.

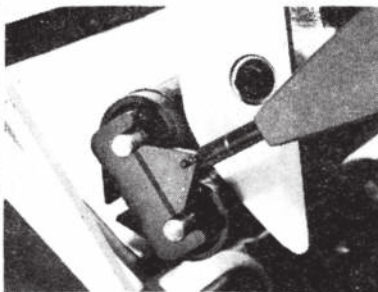


THE RIDER ROLLER

This slender metal roller comes into contact with both inking rollers and assists in distributing an even film of ink over them. This is particularly useful where the image to be printed is large and extends to the edges of the forme.

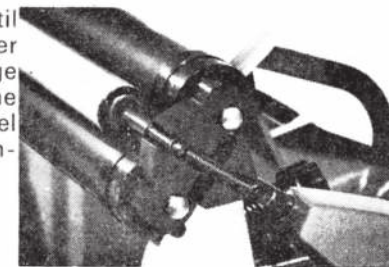
FITTING THE RIDER ROLLER

55 The rider roller nestles in slots in special nylon swivel blocks. On old machines, metal swivel blocks (grey) may be in use but these must first be removed by knocking out the retaining pins. The black nylon swivel blocks are fitted instead, and locked in position by two screws. They remain there even when the rider roller is not in use.



FITTING THE RIDER ROLLER

56 Depress the handle until the rollers rest on the lower part of the ink disc. Engage the rider roller spindle into the slots in the roller swivel blocks and clip on the retaining springs.



57 Depress the handle several times to achieve a thin film of ink over both inking rollers and the rider roller. Proceed from paragraph 11.

CLEANING THE RIDER ROLLER

58 Unclip the retaining springs, remove the rider roller and clean with lighter fuel or white spirit.

59 Always remove the rider roller when the machine is to stand idle to avoid it keeping in contact with one place on each inking roller. Such contact for any length of time might cause the inking rollers to become misshapen with a dent along them. (See paragraph 51.)

60 It is not necessary to remove the rider roller seating castings once they are fitted, the rider roller may be removed and the machine used with the castings in position. The inking rollers can easily be removed with these castings in position.

HINTS ON USING THE RIDER ROLLER

61 Always use the rider roller when there are a number of lines of type matter or a large illustration block to be printed. The ink will then be distributed more evenly over the image, with a noticeable improvement in the quality of the printed sheet.

When a small image is to be printed there is little point in using the rider roller and, indeed, in these circumstances it can even make the image worse by causing a slight slurring.

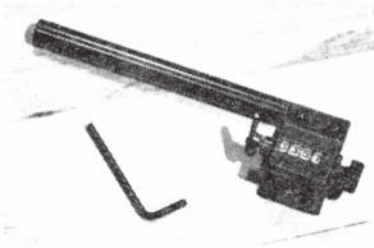
THE IMPRESSION COUNTER

Counting sheets is a tedious job that the printer must do on many occasions, particularly now that the Trade Descriptions Act requires printers to state clearly and accurately the number of copies they are selling to their customers.

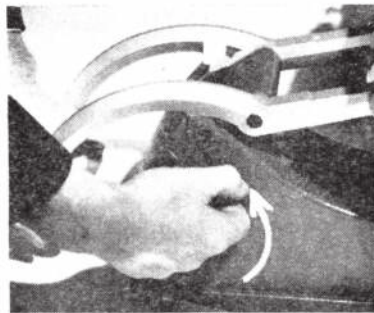
The impression counter takes all the tedium away. It is designed to give an accurate count, the total will not be affected by the handle depressions when 'inking up' the forme.

FITTING AND ADJUSTING THE IMPRESSION COUNTER

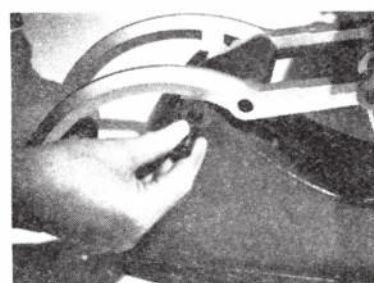
62 In addition to the counter and the bracket attached to it you are provided with a grub screw key.



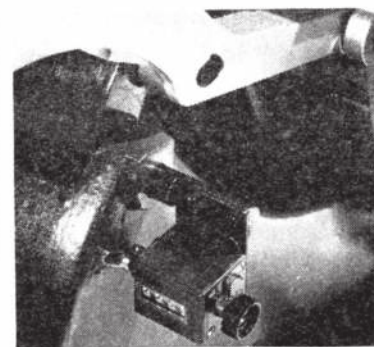
63 With your left hand hold the handle in the full impression position. With the grub screw key, unscrew the locking screw of the spindle which connects the impression toggle to the main frame. It is a normal right hand thread. The ends of the spindle on some machines are protected with chromium domes, these should be prised off with a screwdriver and discarded.



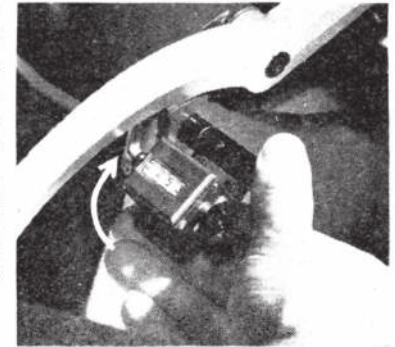
64 The spindle is now free to be removed, although it should still be a tight fit. Removal is most easily achieved by pushing the reverse end (i.e., the end without the grub screw) with a screwdriver or similar pointed object. Movements of the impression handle will help to dislodge the spindle from its initial position. When sufficient length of spindle is exposed to view it can easily be withdrawn by hand.



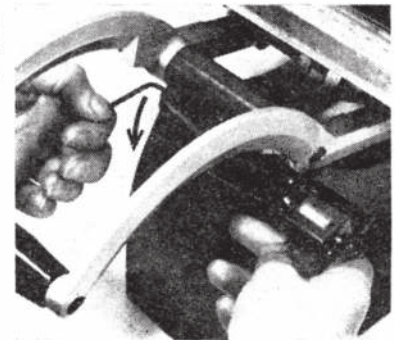
65 The new spindle, with impression counter attached, can now be inserted into the main body and toggle. Allow the counter to hang below the spindle as shown. Insert until the striker on the impression counter touches the side of the main frame. This defines the correct depth of insertion of the spindle.



66 Hold the handle in the full impression position. Rotate the spindle slowly so that the impression counter faces upwards. The striker will touch the underside of the handle and will be deflected by it. Note carefully the position at which the final digit increases by one unit. This is the correct position for the counter.



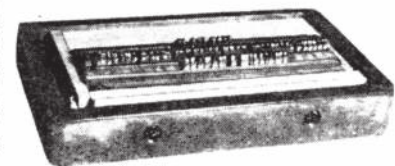
67 Hold the counter firmly in this position and tighten the grub screw. Do not tighten too much at this stage.



68 Check that the mounting position is correct. The counter should trigger reliably whenever the handle is put in the full impression position. If this does not happen, unlock the spindle and raise the counter until reliable operation is achieved. If the counter is mounted substantially too high, it will erroneously record impressions when the forme is being 'inked up'. When satisfied with the mounting position, lock the grub screw very firmly. A touch of lubricating oil or grease on the tip of the striker will help it to 'wear in' during initial operation. No lubricant is necessary afterwards.

THE INNER CHASE

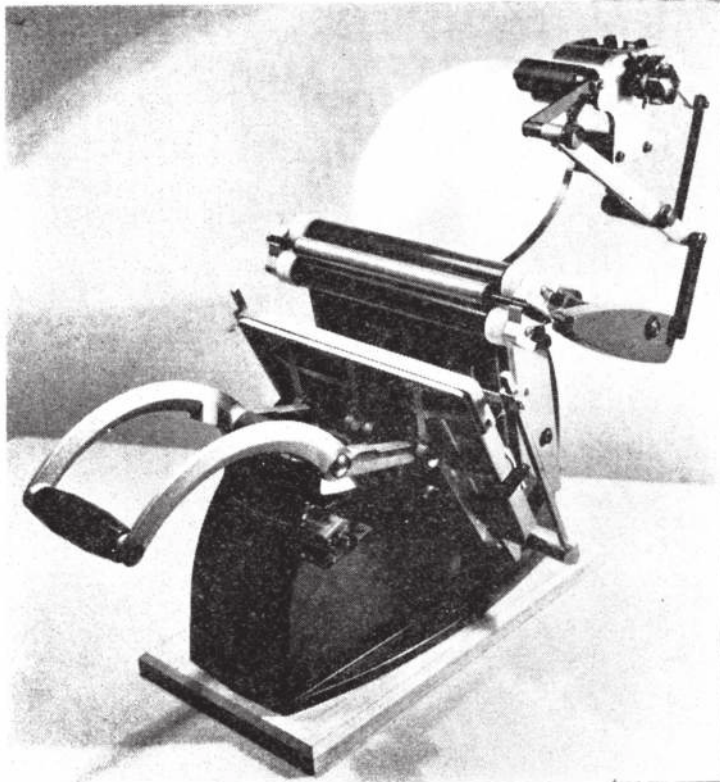
69 Some jobs to be printed require only a little quantity of type. In these instances it is necessary to use a great deal of furniture when locking up the type in the chase. This also takes some time.



With the inner chase this operation can become much more simple, for the small quantity of type with a minimum of furniture can be locked up in a moment with the aid of a screwdriver. The inner chase can easily be locked up into the chase to make the complete forme.



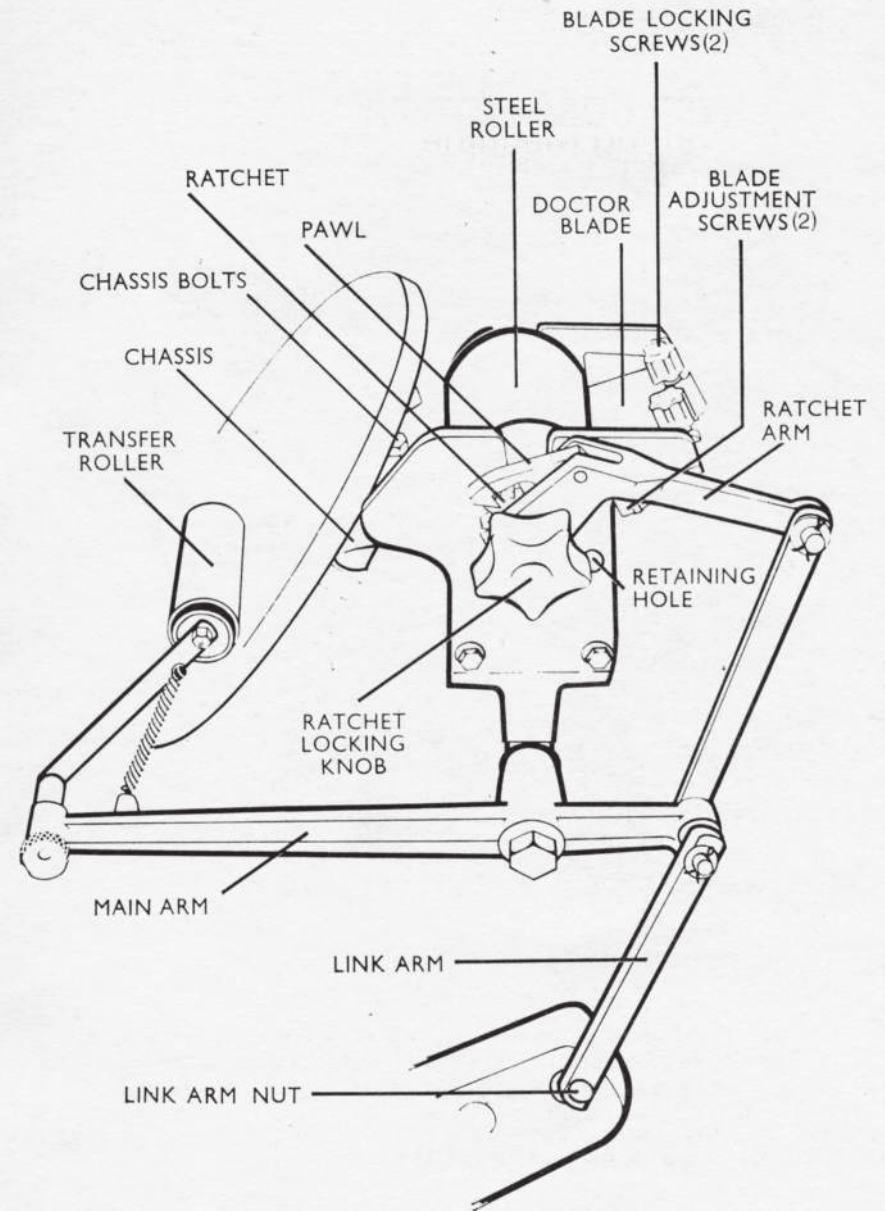
THE COMPLETE EIGHT-FIVE



Owners of the basic *Eight-Five* can purchase any of the Adana accessories as they need them. A baseboard which saves bolting the machine to a bench, and a plastic cover to keep the machine clean when not in use, are also available. It is also possible to buy the *Complete Eight-Five* which consists of the basic machine plus all the accessories as listed below.

- Ink duct
- Rider roller
- Impression counter
- An extra chase
- Inner chase
- Wooden mounting board
- Plastic cover

The complete Eight-Five is normally fitted with polyurethane rollers.



THE INK DUCT

Backed with over 50 years' experience of manufacturing high quality printing machines, the Adana range of hand-operated presses make professional quality letterpress printing available to all. Used by trade printers, schools, graphic arts departments, charities, factories, and therapy departments, Adana presses can produce one-off copies for repro masters and for proofing, or are equally suited to short or medium runs by the jobbing & home printer. All the machines in the Adana range have precise impression control, and adjustable lay gauges and grippers. Any conventional forme of type or blocks can be used with Adana presses and because of their convenient open-platen design, the machines will print on any size of paper, (although the printed area is naturally restricted by the size of the chase.) A wide range of type, inks, printers' cards and other materials and accessories is readily available, and catalogues will be sent on request.

In correspondence relating to the machine please quote the machine registration number. This is particularly important when ordering spare parts. The registration number on new machines is stamped on top of the main frame casting underneath the ink disc. On older models it is stamped on the platen underneath the top padding bale. These positions are indicated on the machine diagram in the centre of this manual.

My machine Registration No:



ADANA MAIL ORDER

**Unit 1, St. Margarets Business Centre,
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