Morgana

Documaster MK3

DOCUMENT CREASING & AUTOMATIC BOOKLET MAKING MACHINE

OPERATORS MANUAL (Part 1)

(Creasing Unit)

Morgana Systems Limited United Kingdom
Telephone: (01908) 608888 Facsimile: (01908) 692399
Website: www.morgana.co.uk

ISSUE 8 JULY 2009

FROM SERIAL No. 780156 ONWARDS.

70-111

Morgana DocuMaster MK3

The Morgana DocuMaster MK3 is a fully automatic, suction feeding, creasing / booklet making system; designed for use with both conventional litho and digital printers.

IMPORTANT the operating environment should be controlled to a temperature between 10°C and 30°C and at 35 - 85% relative humidity.

The system comprises a creasing unit linked to a fully automatic booklet making machine, the creasing unit and booklet maker can be used separately to give optimum flexibility.

The feed system incorporates an ultrasonic detector system to ensure complete booklet integrity.

The feed on the Documaster MK3 can also be manually operated for use with heavy stock, very small or very large sheets, embossed or even irregular sheets.

The crease is programmed from the leading edge of the sheet using the controls on the front panel.

The blade and anvil are mechanically controlled over their entire length and can be adjusted to accommodate various weights of media

CREASER UNIT SPECIFICATION.

Maximum sheet size:- 630mm x 330mm (24.8” x 13”)
Minimum sheet size:- 210mm x 140mm (8.27” x 5.5”)
Maximum sheet weight:- 400 gsm
Minimum sheet weight:- 80 gsm (160 gsm when creasing and folding).
Maximum number of creases:- Nine
Minimum distance between creases:- 4.0mm
Minimum incremental adjustment:- 0.1mm
Minimum crease distance from leading edge:- 30.0mm (1.2”)
Minimum crease distance from trailing edge:- 30.0mm (1.2”)

Production up to 5000 sheets / hour, (one crease on A4 sheet).

BOOKLET MAKER UNIT SPECIFICATION

Maximum sheet size:- 460mm x 320mm (18.1” x 12.6”)
Minimum sheet size:- 210mm x 140mm (8.27” x 5.5”)
Maximum staple pitch:- 138mm (5.4”)
Minimum staple pitch:- 115mm (4.5”)
Maximum number of sheets in book:- 20 sheets (80 gsm)
Maximum cover weight :- up to 350 gsm
Minimum inside sheet weight:- 80 gsm
Maximum trim:- 25mm (1”)

For optimum performance the difference between the cover and the inside sheet should be no more than 110 gsm.

Production up to 1560 books / hour, (dependant on number of sheets in book).

Safety Do's & Don'ts

REGLES DE SECURITE : « A FAIRE » ET « A NE PAS FAIRE »

Do - read this operator manual fully before operating the machine.
Lire ce mode d'emploi avant d'utiliser la machine.

Do - operate with the designated AC current only. Use an exclusive outlet, as overloading may cause fire or an electric shock.
Respecter l'alimentation électrique indiquée. Brancher sur une prise séparée car une surcharge peut entraîner un incendie ou un choc électrique.

Do - install the power cord out of the way to avoid a tripping hazard.
Installer le cordon d'alimentation de manière à ne pas pouvoir trébucher par dessus.

Do - make sure that the mains inlet connector is always easily accessible.
Ménager un accès libre à la prise de courant.

Do not - install the machine in an unstable place such that it tilts or shakes.
Ne pas installer la machine sur une surface non plane, afin d'éviter qu'elle ne penche ou ne vibre.

Do not - unplug the plug or unplug the power cord from the outlet with a wet hand, this can cause an electric shock.
Ne pas installer la machine sur une surface non plane, afin d'éviter qu'elle ne penche ou ne vibre.

Do not - unscrew and remove any covers from the machine, as it can cause an electric shock or injury.
Ne démonter et enlever aucun carter de la machine, par crainte de décharge électrique ou de blessure.

Do not - place receptacles containing liquids on any surface.
Ne pas placer de récipient contenant un liquide sur la machine.

Do not - adjust any part of the machine whilst rollers are running
N'effectuer aucun réglage pendant que les rouleaux fonctionnent.

Do not - operate the machine with loose or trailing clothing or loose hair.
Ne pas porter de vêtements flottants et rassembler les cheveux longs lors de l'utilisation de la machine.

Do not - under any circumstances adjust the paper gate when the machine is switched on.
En aucune circonstance, régler le séparateur de papier lorsque la machine est branchée.

Warning Labels

Do - be aware of any finger traps and rotating parts when operating the machine.
Attention au risque de se coincer les doigts, et aux pièces en mouvement lors du fonctionnement de la machine.

Do - read this operator manual fully before operating the machine.
Lire ce mode d'emploi avant d'utiliser la machine.

Do not - operate the machine with loose or trailing clothing.
Ne pas porter de vêtements flottants lors de l'utilisation de la machine

Do not - operate the machine with loose hair.
Rassembler les cheveux longs lors de l'utilisation de la machine.

Do - be aware of any finger traps and rotating parts when operating the machine.
Attention au risque de se coincer les doigts, et aux pièces en mouvement lors du fonctionnement de la machine.

Do - be aware of sharp points and blades.
Attention aux éléments tranchants et aux couteaux.

Do - be aware of rotating rollers.
Attention aux rouleaux en fonctionnement

Do - be aware of low current anti-static shock.
Attention aux faibles chocs d'électricité statique

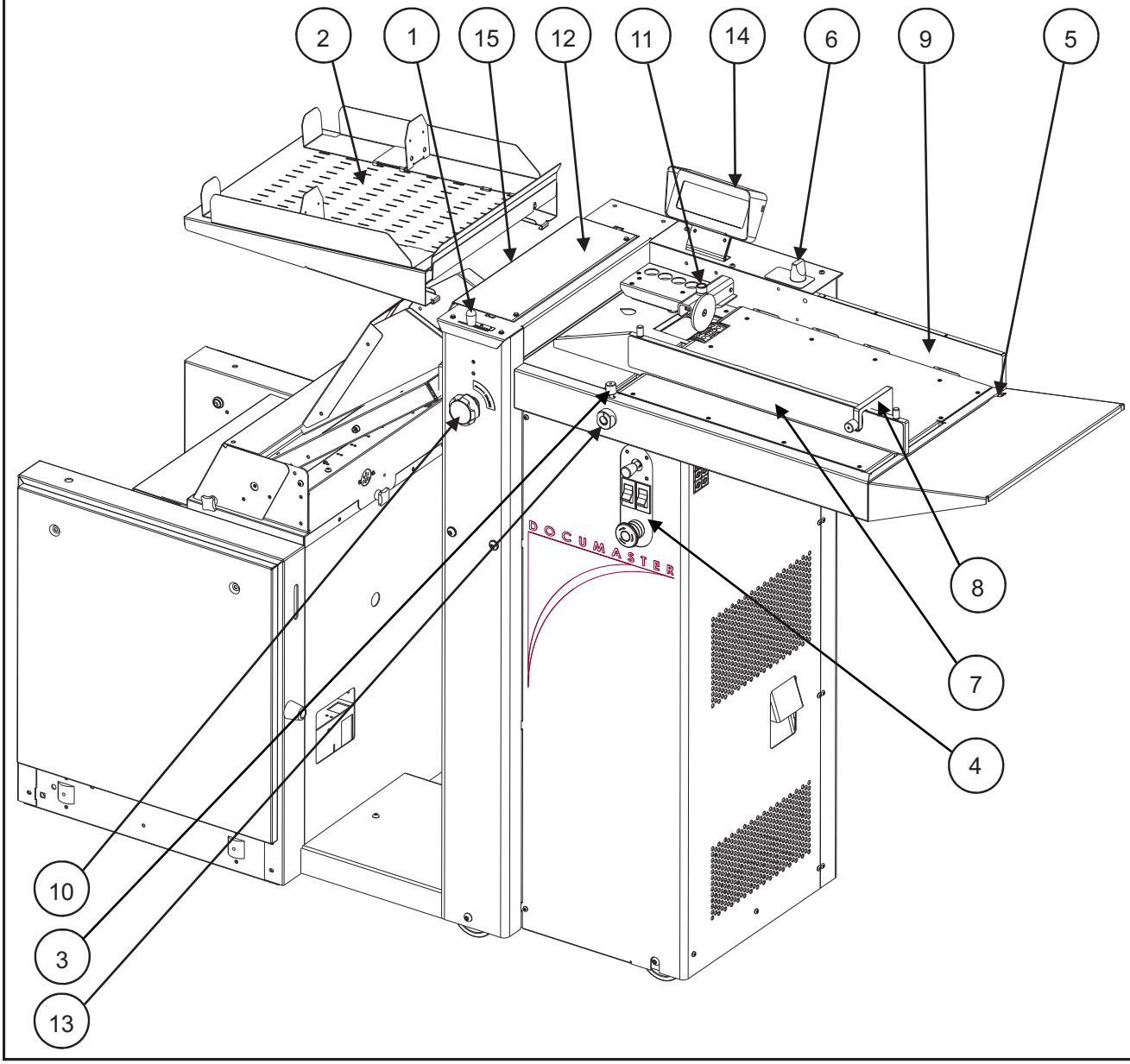
BLANK
PAGE

Morgana
DocuMaster MK3

THE CREASING UNIT

Key to photograph below

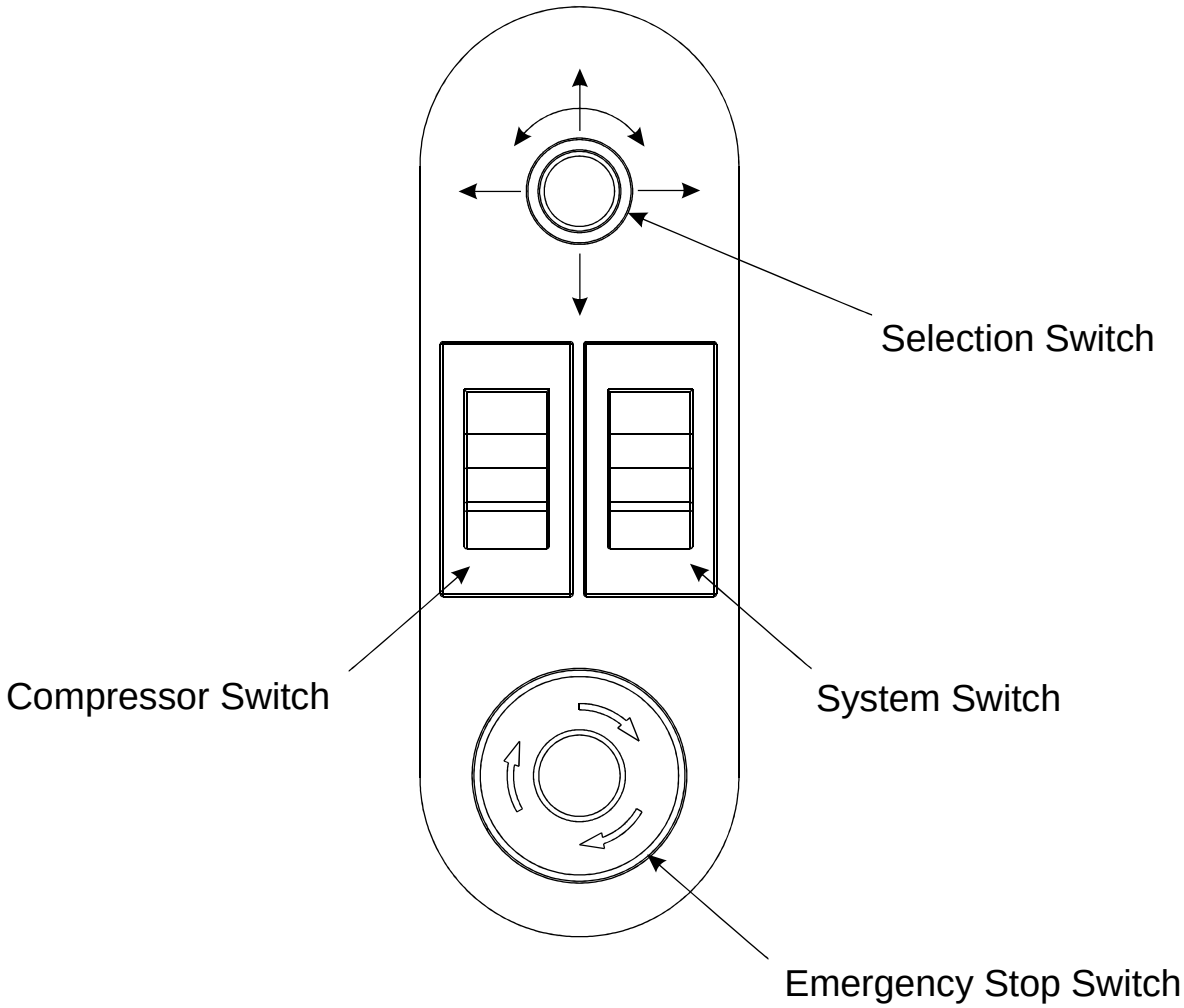
1	Roller tilt handle	6	Air separation knob	11	Paper Gate
2	Stacker assembly	7	Adjustable side lay	12	Exit Guard
3	Suction slot knob	8	Back stop	13	Vacuum Bleed Knob
4	The control panel	9	Fixed side lay	14	Display
5	Air distribution knob	10	Roller tilt knob	15	Anti-Static Unit



The Display Unit and the Switches on the Control Panel allow the operator to read, edit, create and initiate numerous creasing programs within the memory.

The Control Panel houses the Selection Switch, Compressor switch, System switch, and an industry standard Emergency Stop switch which will stop all power going to the machine when activated.

THE CONTROL PANEL



Features on the Control Panel

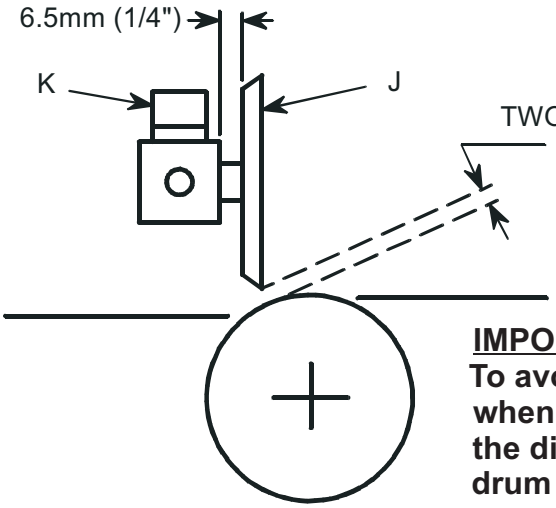
Selection Switch
Allows the operator to scroll through stored addresses and programs, increase or decrease the batch quantity and set a crease position.

System switch
When activated the system switch will operate the motors in order to begin the creasing sequence.

Compressor switch
Allows the operator to switch off the compressor unit in order to utilise the machine to manually feed sheets.

Adjusting the Paper Gate

The standard setting for horizontal adjustment of the paper gate is 6.5mm (1/4") away from the mounting block. Turn disc J to make this adjustment. This setting is only intended as a guide, for instance, sheets with an upward curl will require this setting to be increased. Set the height of the Paper Gate to approximately two thicknesses of paper, by turning knob K. An excessive gap is a most likely cause of double sheet feeding.



IMPORTANT:-

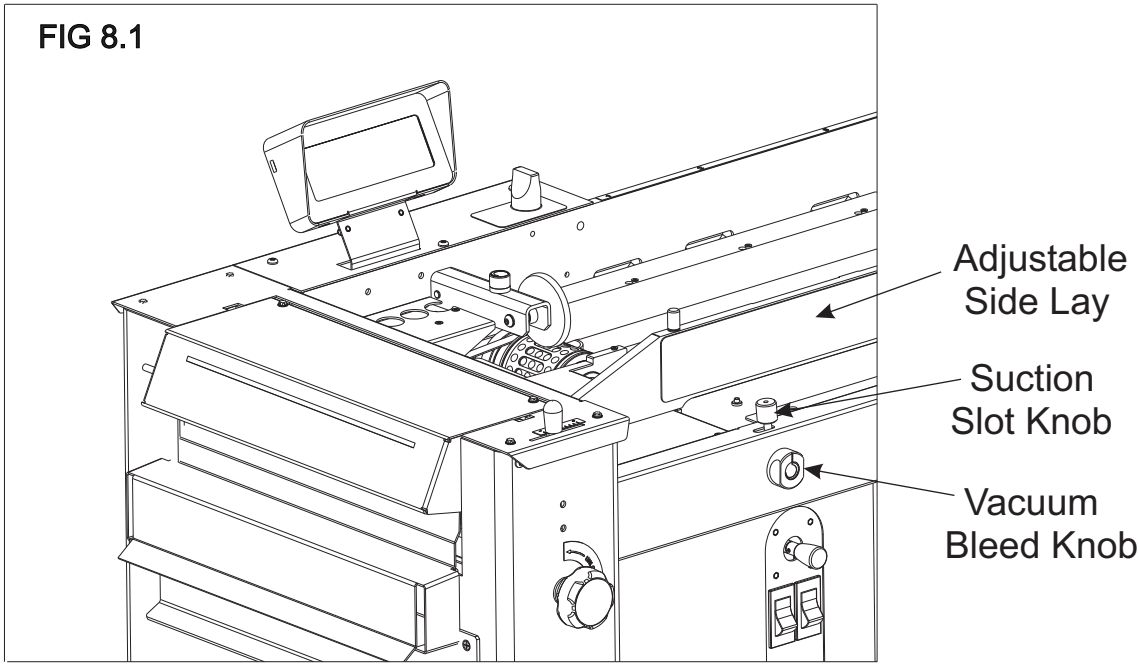
To avoid possible damage to the suction drum, when adjusting the paper gate height, ensure that the disc is located over a solid section of the suction drum and not over a slot in the drum.

Do not adjust the paper gate while the machine is running.

Setting the Suction Slot

The suction slot is located inside the vacuum roller and can be adjusted by releasing and moving the suction knob horizontally in either direction to the required position.
For light stocks set the knob to the left and for heavier stocks set the knob to the right.

FIG 8.1



Setting the Vacuum Bleed

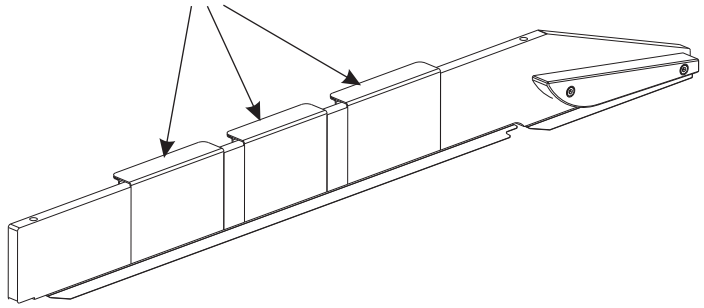
Situated on the front of the feed table, the Vacuum Bleed Knob is used to allow more control of the suction on the vacuum drum.
When light weight paper of 90gsm and lower is being fed through the machine turn the knob clockwise to reduce the possibility of marking, or damage to the leading edge of the paper.

Setting the Adjustable Side Lay

Place the paper stack on to the loading table and slide up to the fixed side lay and paper Gate. Release the clamps located at each end of the side lay and slide up towards the paper stack as demonstrated in FIG 8.1. Allow a gap of approximately 0.5mm (1/64 inch) between the paper and the side lay.

NOTE.
When using heavy stocks or large paper stacks, the feeding of the sheets may be improved by fitting the Clamp Plates to the Adjustable Side Lay, as shown in FIG 8.2 below; but please be aware that they may cause double feeding when using light stocks.

FIG 8.2 Clamp Plates



Setting the Back Stop

Position the backstop and slide up towards the paper stack allowing a gap (as specified in the above step).

Setting the Air Distribution

Depending on the length of the sheet to be creased, the air distribution knob can be rotated to various positions in order to supply air to different ports. Position 1 is recommended for most sheet sizes. However, a better result may be obtained by using the settings below or by experimentation.

Position 1 - For A5 sheets or 8 inches long, front port and port 1 open.
2 - For A4 sheets or 11 inches long, front port and port 2 open.
3 - For A3 sheets or 17 inches long, front port and port 3 open.
0 - For longer sheets in order to supply air to the centre of the stack, port 1 and port 2 open.

Setting the Air Separation Pressure

To control the amount of air supplied to the ports, the air separation knob can be adjusted by first rotating the knob to unlock its position, then push the knob down to the required position and rotate the knob to re-lock its position.

Setting the Roller Tilt Mechanism

The roller tilt mechanism has been designed to compensate for when the creasing position on the sheet is not square. This could be due to an inaccuracy in the media or if the roller tilt mechanism has been incorrectly set. The mechanism will be set to zero (square) when the machine is supplied.
To set the mechanism, unlock the roller tilt knob located below the roller tilting handle by turning anti- clockwise. Move the roller tilt handle left or right in order to compensate for any inaccuracy. When the position is set, ensure to lock the roller tilt knob before operating the machine. Repeat the above procedure until the creasing position is square.

Setting the positions of drive wheels and hubs

It is important that the drive wheels and drive hubs on the roller shafts are arranged evenly across the width of the media being creased. This is done to ensure that the media is accurately driven and supported through the rollers.
The drive wheels and hubs are fixed to the rollers by means of a grub screw. To locate this grub screw the rollers can be rotated by operating the motor manually.

DO NOT ROTATE THE DRIVE ROLLERS BY HAND

To operate the motors manually, switch the machine ‘on’ at the Emergency Stop switch. Following the arrows on the display unit, move the selection switch to the left to select **Tools**, the display will now show the Tools sub-menu. Press the system switch down and then move the selection switch to the left or to the right, to rotate the rollers in short pulses. Lift the exit guard to see if the grub screws in the drive wheels and hubs can be seen. If the grub screws cannot be seen, lower the exit guard and rotate the rollers by moving the selection switch to the left or to the right. Loosen the drive wheels and hubs with a 2mm allen key. Arrange the drive wheels and hubs as shown in FIG 10.1. In order to avoid marking on some types of media ensure a gap between the drive wheels and hubs.
This procedure should be repeated when installing perforating blades and anvils onto the drive wheels and hubs.

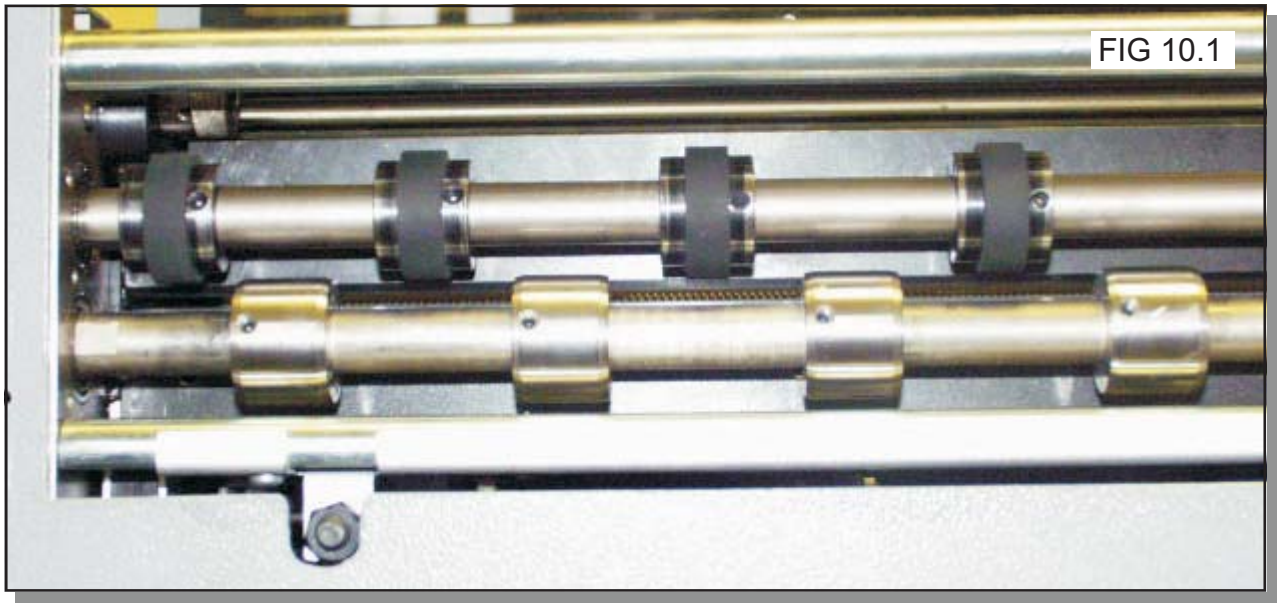


FIG 10.1

Setting the Stacker assembly

The stacker unit on the machine is used to catch the sheets once they have been creased or perforated.
NOTE:- This stacker unit is not fitted when the machine is being used as a Booklet maker.

1. Assemble the stacker unit to the machine as shown in fig 13.1 below.

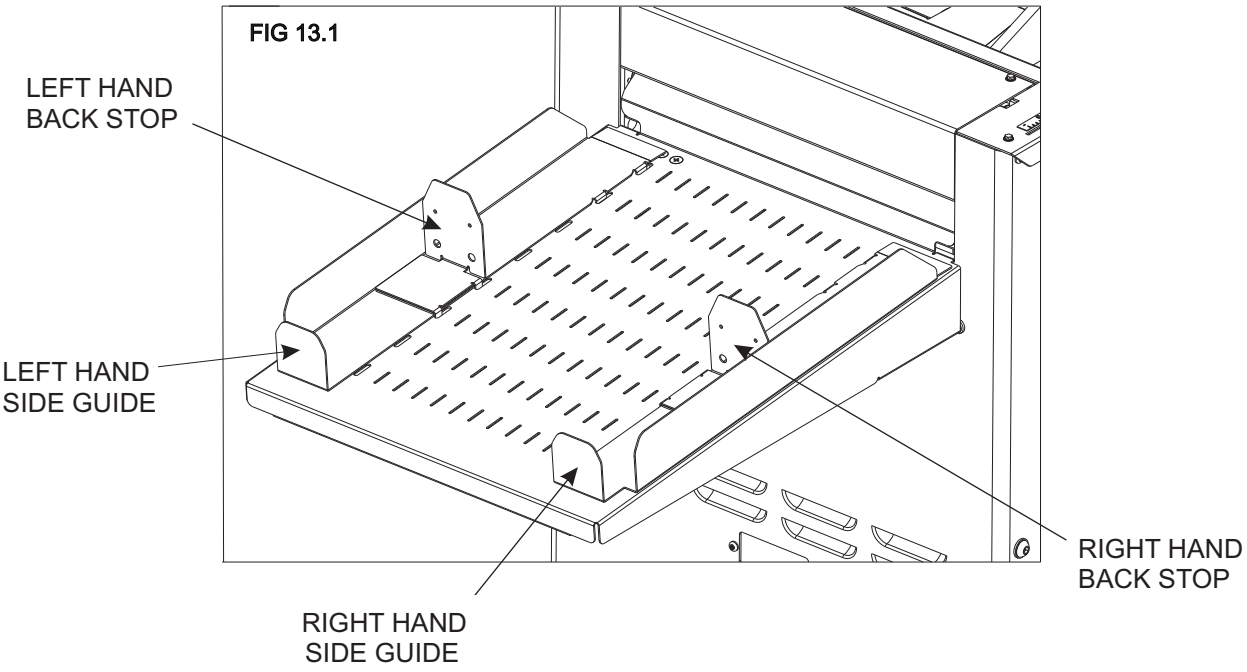
Important
Ensure that the stacker unit has been assembled to the machine properly. However, if it has not, the connection on the magnetic switch will be broken and the machine will not operate (see Trouble shooting pages for details).

There are two side guides on the stacker unit; a left handed guide and a right handed guide. The guides will control the way in which the paper is collated by setting their positions on the stacker bed.

2. Place a single sheet (from the stack to be creased / perforated) on to the stacker bed against the 'left hand' guide.

3. Position the 'right hand' side guide on to the stacker bed leaving a minimum clearance of approximately 1mm each side of the sheet.

FIG 13.1



4. Whilst the sheet is between the two guides on the stacker bed, set the distance . between the top of the sheet and the backstop flanges to approximately 5mm.

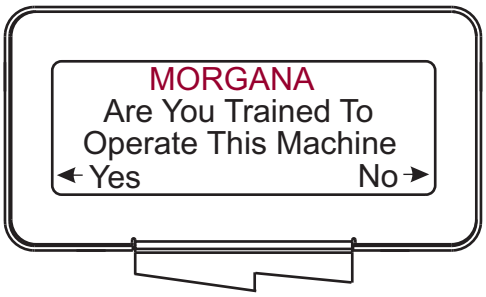
5. For shorter sheets, the back stop can be used (as shown in FIG 13.1 to adjust the position of the paper stack.

TIPS

The magnetic back stop supplied with the machine can also be used as a tool holder as demonstrated In the photograph (left).

Programming the machine for Creaser operation

1. Switch the power 'on' by turning the Emergency stop button clockwise to release the safety latch. The display is now switched on and will be as shown below.



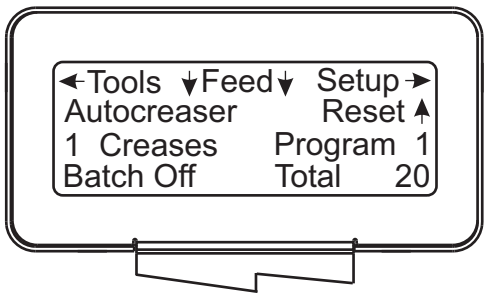
IMPORTANT.
If you have not been trained to operate this machine, we strongly advise that you move the selection switch to the right to select **No**. We recommend that you either seek training or ask a trained operator to run the machine for you.

Move the selection switch to the left to select **Yes** only if you have been trained to operate this machine. If you have not been trained to operate this machine and you select **Yes**, Morgana Systems Ltd accept no responsibility for personal injury, damage to the machine or damage to materials being processed by the machine.

2. If the text on the display contains the word ***'Book'*** the machine is in the Booklet Maker mode of operation.
   To change to the Creaser mode of operation proceed as follows:-

   (i) Move the selection switch up to select **Reset**.
   (ii) Move the selection switch down to **Mode to Autocreaser**.
   (iii) Move the selection switch to the right to select **Mode to Autocreaser**.

A typical Autocreaser display menu is shown below.



Set Feed

3. The length of suction on the sheet of paper being fed can be adjusted by setting the feed type as follows:-

   (i) Move the selection switch to the right to select **Setup**.
   (ii) Move the selection switch down to select the required feed type (**Long Pulse**, **Medium Pulse**, **Short Pulse**, or **Stream Feed**)
   (iii) Move the selection switch to the right to select **Select**.

Use **Long Pulse** for all standard size sheets, general purpose.
Use **Medium Pulse** for short non-standard sheets.
Use **Short Pulse** for very short sheets.
Use **Stream Feed** for high throughput, see note below.

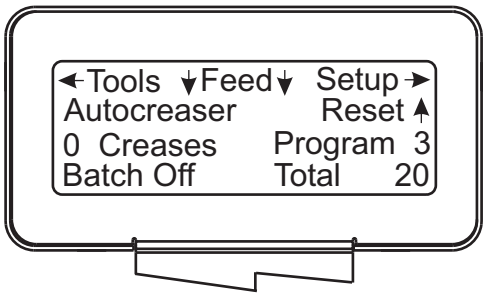
NOTE.
Do not use stream feed for creases less than 32mm from the leading edge of the paper.

Setting the batch quantity

4. (ii) Move the selection switch to the right to select **More**.
   (iii) Move the selection switch down to select **Batch Quantity**.
   (iv) Rotate the selection switch clockwise or anti-clockwise to adjust the batch quantity in increments of 5.

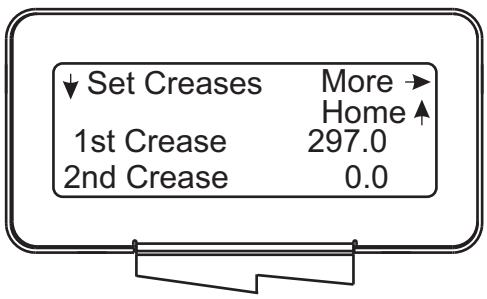
Setting the crease positions

5. Move the selection switch up, one click at a time, until the start up menu is displayed, (A typical start up display menu is shown below).

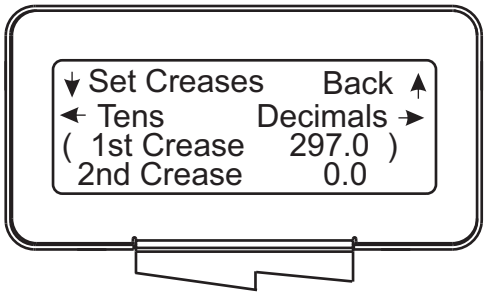


NOTE:-
The arrows on the display denote the direction in which the selection switch must be moved in order to access the various sub-menus.

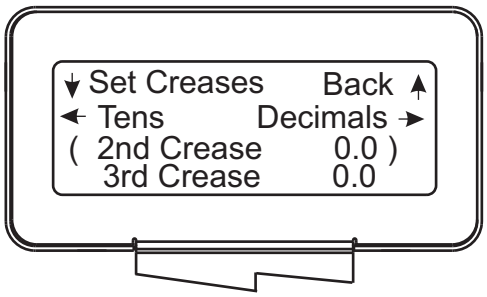
(i) Move the selection switch to the right to select **Setup**.
(ii) Move the selection switch to the right, one click at a time, selecting **More**; until the display shows **Set Creases** as shown below.



(iii) Following the arrows on the display unit; move the selection switch down to set the creases. The 1st Crease is now selected.

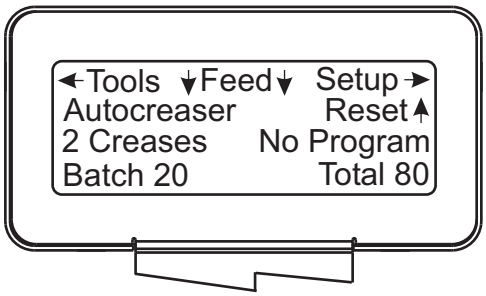


(iv) Move the selection switch to the left to select Tens, or to the right to select Decimals.
(v) The Tens or Decimals (whichever has been selected) can then be adjusted by rotating the Selection Switch, (clockwise to increase or anti-clockwise to decrease).
(vi) Adjust all other digits for the 1st Crease position as described in steps (iv) and (v), (i.e. move the selection switch to the left to select the Tens or to the right to select Decimals and then rotate the Selection Switch to adjust its value.
(vii) To set the 2nd Crease position move the selection switch down; the 2nd crease is selected and can be set as described in steps (iv) to (vi) above.



Crease positions can be set in increments of 0.1mm. Further creases can be set in this way, up to a maximum of nine creases.

(viii) When the required creases have been set, move the selection switch up, one click at a time, until the display contains the word **Feed**, see below.



Storing the crease positions

6. Once the crease positions are correctly entered, they can be stored as follows.
(i) Move the selection switch to the right to select **Setup**.
(ii) Move the selection switch to the right, one click at a time, (selecting **More**) until the display contains the word **Programs**.
(iii) Move the selection switch down to select **Save Settings.**
(iv) Rotate the Selection Switch to select the Program number (1 to 9).
(v) Move the selection switch to the right to select **Select**.
(vi) Move the selection switch to the left to select **Yes** or to the right to select **No.**

Running the machine

7. To run the job with the selected settings.

(i) Press the Compressor Switch down.
(ii) Press the System Switch down.
(iii) Move the selection switch down to begin feeding the sheets.

To stop feeding the media at anytime during the program, flick the selection switch up. The machine will complete its creasing operation if a sheet has already been fed through the paper gate.

In order to manually feed sheets see instructions below.

Reading stored programs

Any of the nine stored programs can be accessed and read as follows:-

(i) From the start up menu, move the selection switch to the right to select **Setup**.
(ii) Move the selection switch to the right, one click at a time, until the display contains the word **Programs**.
(iii) Move the selection switch down to select, **Retrieve Program**.
(iv) Move the selection switch to the right to select, **Select**.
(v) Rotate the selection switch clockwise or anti-clockwise to select, **Program 1** to **Program 9** and view the program settings.

Paper jamming

In the event of a paper jam occurring whilst the machine is operating the display will read **Paper Jam.** In order to remove the paper causing the jam, move the selection switch to the left or to the right to drive the paper forwards or backwards in short pulses.

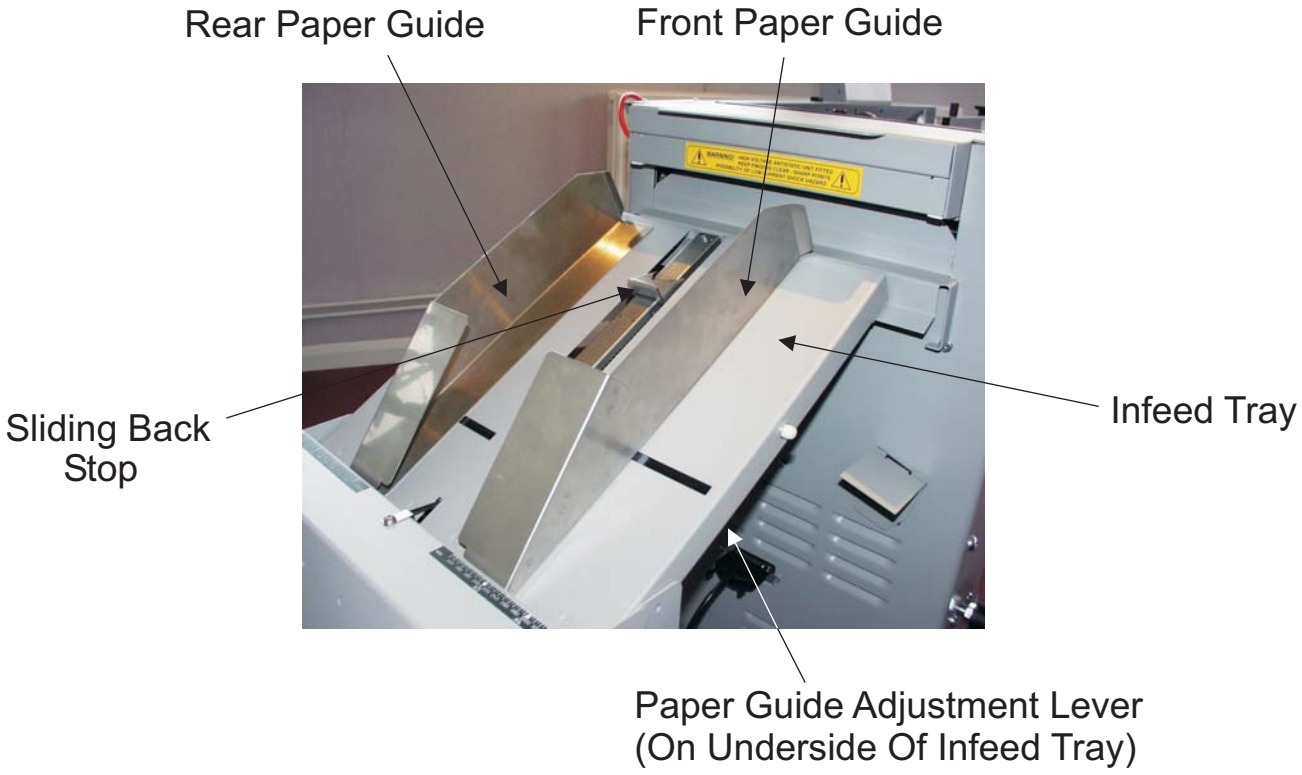
Setting the machine to operate in manual mode

In order to feed heavy stock, very small or very large sheets, embossed or even irregular shaped sheets, it may be required to operate the machine manually.
The machine can be programmed and set up in exactly the same way as explained when operating the machine automatically. However, when setting up the machine the paper gate must be raised to its highest position for the sheets to be fed freely.
Operating the machine manually will also require the suction length to be continuous in order to accommodate various types of stock. Therefore, the feed should be set to **Long Pulse** see page 17.
The machine can now be started by activating the System switch to 'on'. **Do not activate the Compressor switch.** Move the selection switch down to select **Feed** and begin to slide the sheets individually through the paper gate until they are driven by the drive belts. To stop feeding the sheets, move the selection switch up and then the System Switch up.

BLANK
PAGE

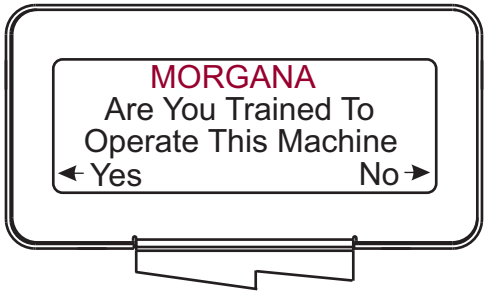
Adjusting the Paper Guides
Insert a sample sheet into the infeed tray of the Booklet Maker. Adjust the width of the paper guides, by sliding the lever (on the underside of the infeed tray) forwards or backwards until the sample sheet slides freely in the guides.

Adjusting the Sliding Back Stop
With the sample sheet in its downward resting position, adjust the sliding back stop until it is approximately 5mm to 10mm clear of the back edge of the sample sheet.



Programming the machine for Booklet Maker operation

1. Switch the power 'on' by turning the Emergency stop button clockwise to release the safety latch. Allow the booklet maker to run through its program, it will confirm a ready signal with two blips and a constant flashing of its light. If the light does not constantly flash and the optional Square Back System is fitted, make sure that the Square Back System mains switch is switched on. The display is now switched on and will be as shown below.



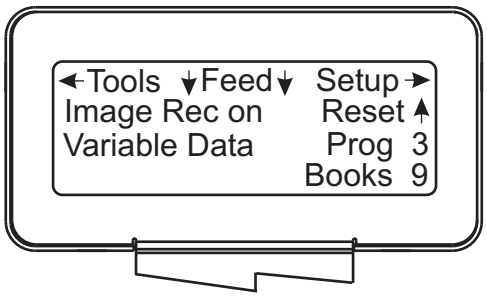
IMPORTANT.
If you have not been trained to operate this machine, we strongly advise that you move the selection switch to the right to select **No**. We recommend that you either seek training or ask a trained operator to run the machine for you.

Move the selection switch to the left to select **Yes** only if you have been trained to operate this machine. If you have not been trained to operate this machine and you select **Yes**, Morgana Systems Ltd accept no responsibility for personal injury, damage to the machine or damage to materials being processed by the machine.

2. If the text on the display contains the word ***'Autocreaser'*** the machine is in the Creaser mode of operation.
   To change the mode of operation to Booklet Maker mode proceed as follows:-

   (i) Move the selection switch up to select **Reset**.
   (ii) Move the selection switch down to **Mode to Documaster**.
   (iii) Move the selection switch to the right to select **Mode to Documaster**.

A typical Booklet Maker display menu is shown below.



3. Adjust the Paper Gate, Adjustable Sidelay etc, as described on pages 12 to 14 (Setting the Machine up as a Creaser).

Set Feed

4. The length of suction on the sheet of paper being fed can be adjusted by setting the feed type as follows:-

(i) Move the selection switch to the right to select **Setup**.

(ii) Move the selection switch down to select the required feed type (**Long Pulse**, **Medium Pulse**, **Short Pulse**, or **Stream Feed**)

(iii) Move the selection switch to the right to select **Select**.

Use **Long Pulse** for all standard size sheets, general purpose.
Use **Medium Pulse** for short non-standard sheets.
Use **Short Pulse** for very short sheets.
Use **Stream Feed** for high throughput, see note below.

NOTE.

Do not use stream feed for creases less than 32mm from the leading edge of the paper.

Set Booklet (Standard Sheet Sizes).

5A. A quick setup for a standard size sheet can be set as follows:-
For example A4/A5 - settings will be sheet size 297 x 210, trim size is 145 and number of sheets in book will be 1.

(i) From the Booklet Maker start up menu, move the Selection Switch to the left to select **Tools**, the display will now read **Quick Sizes**.

(ii) Move the Selection Switch down to select the required sheet size, and then move the Selection Switch to the right to select.

NOTE.

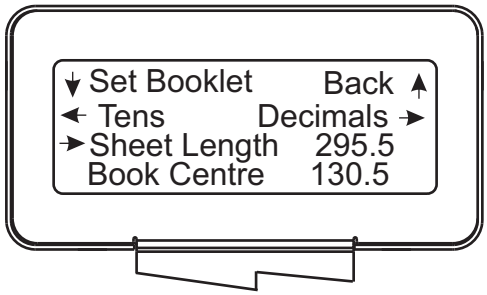
Once set, these sizes can be adjusted as required; by following steps 5B to 11. (as described on pages 24 to 32)

Set Booklet (Custom Sheet Sizes).

5B. Custom sheet sizes are setup as follows:-

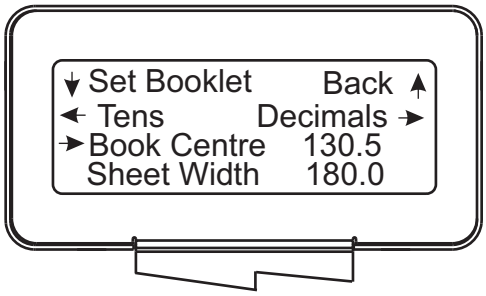
(i) Move the selection switch to the right to select **More**.

(ii) Move the selection switch down to select **Set Booklet**.



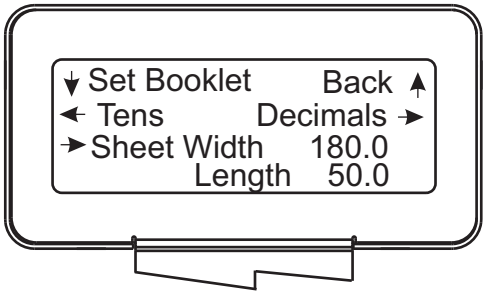
(iii) The **Sheet Length** can now be set as follows:-
Move the Selection Switch to the left to select **Tens** or to the right to select **Decimals**. The **Tens** or **Decimals** (whichever has been selected) can then be adjusted by rotating the Selection Switch, (clockwise to increase or anti-clockwise to decrease).

(iv) Move the selection switch down.



(v) The **Book Centre** can now be set as follows:-
Move the Selection Switch to the left to select **Tens** or to the right to select **Decimals**. The **Tens** or **Decimals** (whichever has been selected) can then be adjusted by rotating the Selection Switch, (clockwise to increase or anti-clockwise to decrease).

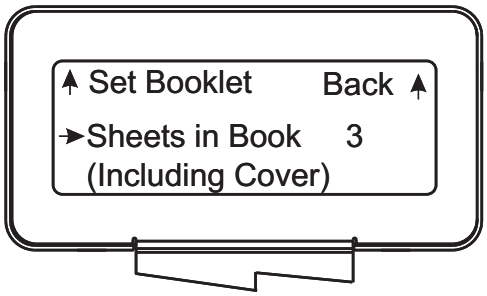
(vi) Move the selection switch down.



(vii) The **Sheet Width** can now be set as follows:-
Move the Selection Switch to the left to select **Tens** or to the right to select **Decimals**. The **Tens** or **Decimals** (whichever has been selected) can then be adjusted by rotating the Selection Switch, (clockwise to increase or anti-clockwise to decrease).

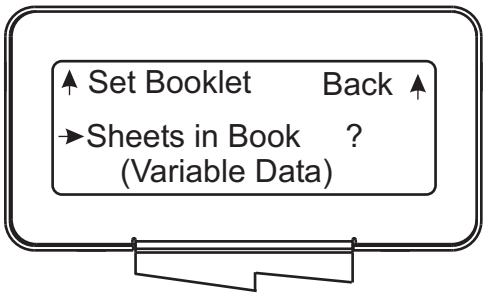
NOTE.
It is important to set the **Sheet Width** correctly. This will ensure that the Creaser and Booklet Maker units are aligned for Booklet Making operation. The Creasing unit automatically aligns with the Booklet Maker when the sheets are fed.

(viii) Move the selection switch down.



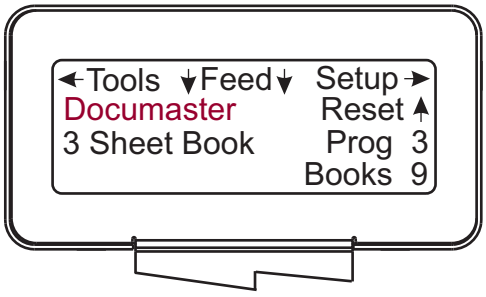
(ix) The number of **Sheets in Book (Including Cover)** can now be set by rotating the Selection Switch, (clockwise to increase or anti-clockwise to decrease). Range:- 1 to 20 sheets (including cover).

NOTE:-
If the selection switch is turned fully anti-clockwise the display will show 'Sheets in Book ?' '(Variable Data)' as shown on next page. This setting is used when the optional 'Camera Recognition System' is fitted and the number of sheets in the Booklet are variable.

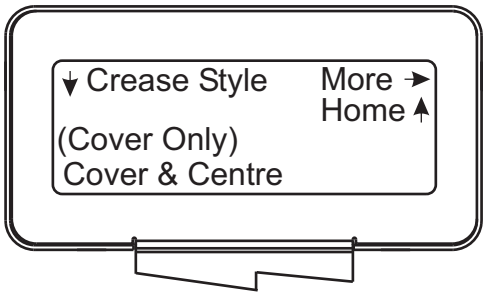


Setting the Crease Style.

6. From the Booklet Maker start up menu, the **Crease Style** can be set as follows:-.



(i) Move the selection switch to the right to select **Setup**.
(ii) Move the selection switch to the right, one click at a time, (selecting **More**) until the display contains the words **Crease Style**.

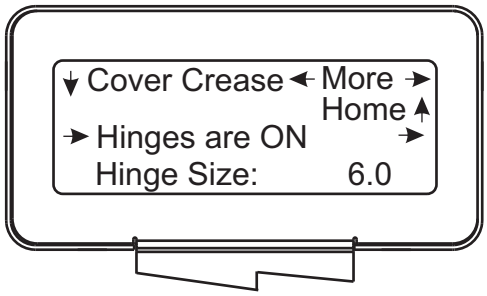


(iii) Move the selection switch down to select the **Crease Style** (**Cover Only**, **Cover & Centre**, **All Sheets** or **None**).
(iv) Move the selection switch to the right to select **Select.**

Setting the Cover Crease.

7. From the Booklet Maker start up menu, the **Cover Crease** can be set as follows:-.

(i) Move the selection switch to the right to select **Setup**.
(ii) Move the selection switch to the right, one click at a time, (selecting **More**) until the display contains the words **Cover Crease**.



(iii) Move the selection switch down.
(iv) Move the selection switch to the right, to toggle between **Hinges are ON** and **Hinges are OFF**.
(v) If **Hinges are ON** has been selected, move the selection switch down and then rotate the selection switch to adjust the hinge position.

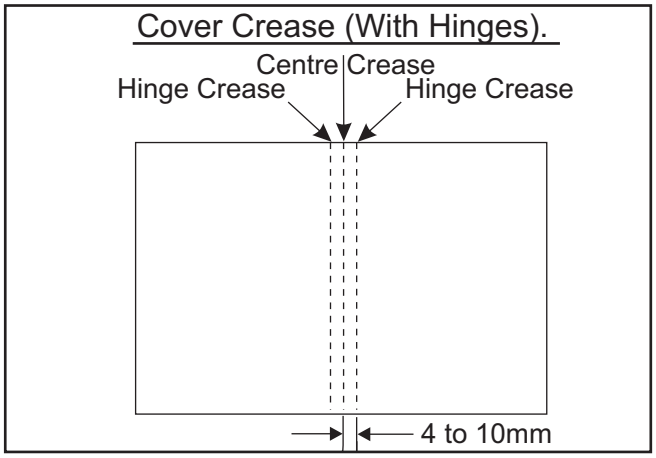


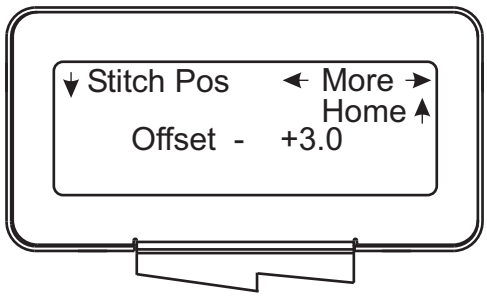
FIG. 1

Setting the Stitch Position.

8. From the Booklet Maker start up menu, the **Stitch Position** can be set as follows:-.

(i) Move the selection switch to the right to select **Setup**.

(ii) Move the selection switch to the right, one click at a time, (selecting **More**) until the display contains the words **Stitch Pos**.



(iii) Move the selection switch down to select **Stitch Pos.**

(iv) The Offset (From Booklet Centre) can now be adjusted by rotating the Selection Switch, (clockwise to increase or anti-clockwise to decrease).

NOTE.

This adjusts both the stitch and the fold.

Setting the Machine to Edge Stitch.

(i) Set the **Sheet Length** to double the length of the finished document. i.e. If the finished document is 210mm, (see FIG.2 below), set the sheet length to 420mm. (See page 24 for setting the sheet length).

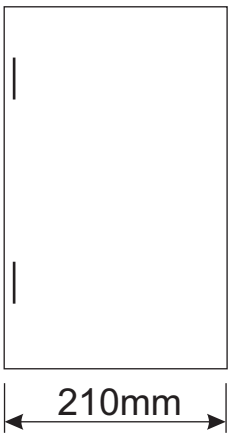


FIG. 2

.

(ii) Set the **Crease Style** to **None**. (See page 26 for setting the crease style).

(iii) Set the lever on the Booklet Making Unit to the **Edge Stapling** position, (Lever in down position).

Edge or Centre Staple Selection

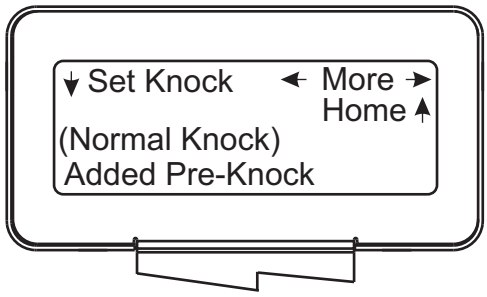
[Lever Up For Centre Stapling
Lever Down For Edge Stapling]

Setting the Set Knock.

9. From the Booklet Maker start up menu, the **Set Knock** can be set as follows:-.

(i) Move the selection switch to the right to select **Setup**.

(ii) Move the selection switch to the right, one click at a time, (selecting **More**) until the display contains the words **Set Knock**.



(iii) Move the selection switch down to select the **Set Knock t**ype (**Long Knock, Double Knock, PreStitch Delay & Pre-Fold Delay**).

(iv) Move the selection switch to the right to select **Select.**

.

NOTE.
Definitions of Set Knock types.

Long Knock:- Selects long side-knock which causes the infeed sidelays to hold the set during both stapling and folding without releasing. This is useful if the booklet is not being folded square, however it is essential that the sheet width is set accurately.

Double Knock:- Selects double knock which causes the infeed sidelays to actuate twice prior to stapling. This ensures that the booklet is jogged into a uniform book.

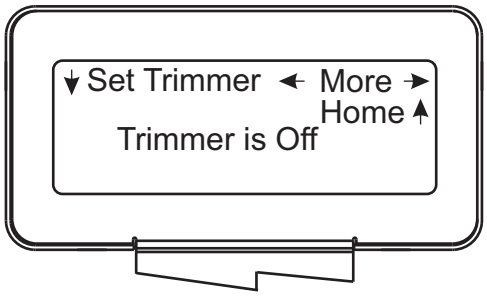
PreStitch Delay:- This adjusts the time delay between the side knock and stapling; this is sometimes useful in ensuring a tidy set. The default setting is 200ms, but the setting can be adjusted between 200ms and 900ms.

Pre-Fold Delay:- This adjusts the time delay before folding. The default setting is 300ms, but the setting can be adjusted between 300ms and 900ms. Reducing the value will increase the book making Speed

Setting the Trimmer.

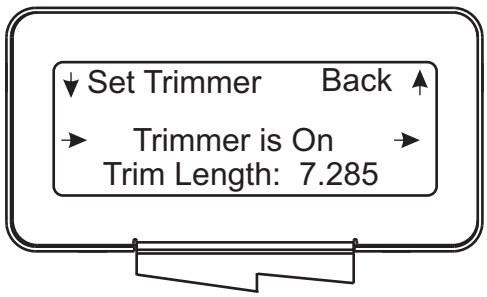
10. From the Booklet Maker start up menu, the **Set Trimmer** can be set as follows:-.

(i) Move the selection switch to the right to select **Setup**.
(ii) Move the selection switch to the right, one click at a time, (selecting **More**) until the display contains the words **Set Trimmer**.

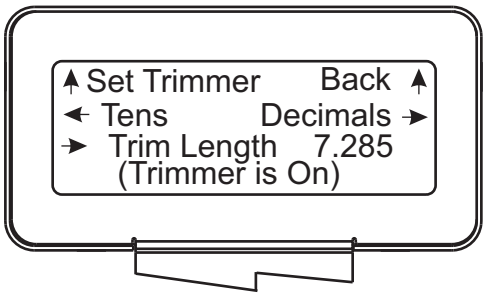


(iii) Move the Selection Switch down to select **Set Trimmer**.
(iv) Move the Selection Switch to the right to turn the Trimmer On (if required)

(v) If the Trimmer has been set to On, Move the Selection Switch down to set the **Trim Length**.



(vi) Move the Selection Switch down to select **Set Trimmer**.



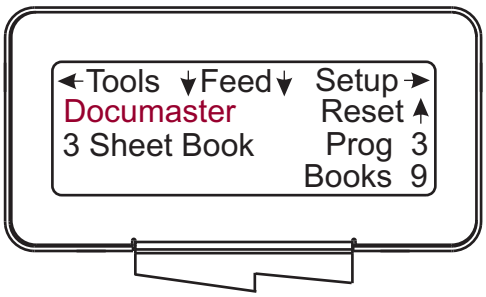
(vii) The **Trim Length** can now be set as follows:-
Move the Selection Switch to the left to select **Tens** or to the right to select **Decimals**. The **Tens** or **Decimals** (whichever has been selected) can then be adjusted by rotating the Selection Switch, (clockwise to increase or anti-clockwise to decrease).

Setting the Batch Quantity.

11. This function is not available in the Booklet Maker Mode of operation.

Storing the Program.

12. The booklet maker settings can now be stored as follows:-
(i) Move the selection switch up, one click at a time, until the display contains the word **Feed**; see below.



(ii) Move the selection switch to the right to select **Setup**.

(iii) Move the selection switch to the right, one click at a time, (selecting **More**) until the display contains the word **Programs**.
(iv) Move the selection switch down to select **Save Settings.**
(v) Rotate the Selection Switch to select the Program number (1 to 9).
(vi) Move the selection switch to the right to select **Select**.
(vii) Move the selection switch to the left to select **Yes** or to the right to select **No.**

NOTES.

1. **For Settings and Adjustments to the Booklet Maker Unit see the Booklet Maker operators manual 70-114.**
2. **If your machine is fitted with the optional 'Camera Recognition' system see the instruction details on pages 34 To 38.**

Running the machine

13. To run the job with the selected settings.

(i) Press the Compressor Switch down.
(ii) Press the System Switch down.
(iii) Move the selection switch down to begin feeding the sheets.

To stop feeding the media at anytime during the program, flick the selection switch up.

Reading stored programs

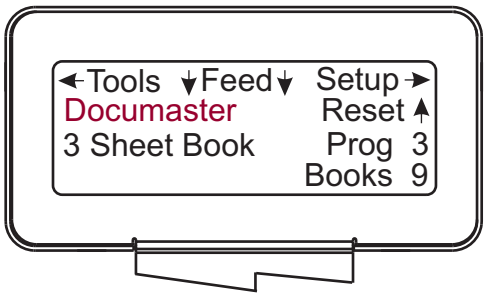
Any of the nine stored programs can be accessed and read as follows:-
(i) From the start up menu, move the selection switch to the right to select **Setup**.
(ii) Move the selection switch to the right, one click at a time, until the display contains the word **Programs**.
(iii) Move the selection switch down to select, **Retrieve Program**.
(iv) Move the selection switch to the right to select, **Select**.
(v) Rotate the selection switch clockwise or anti-clockwise to select, **Program 1** to **Program 9** and view the program settings.

Clearing Booklet sheets from the Booklet Maker Infeed Tray.

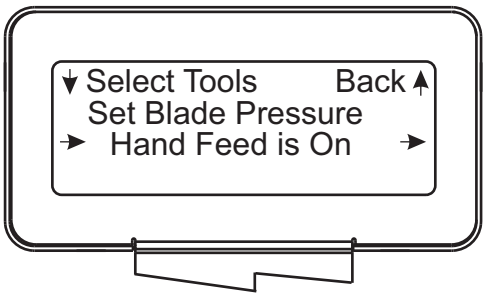
If for any reason the Feed switch is turned off, during booklet making operation, booklet sheets may remain in the Booklet Maker infeed tray.
To clear the sheets through into the Booklet Maker, (to be folded and stapled), follow steps (i) and (ii) on next page.

Using the Booklet Maker in Manual Mode (Hand Feed).

(i) From the Booklet Maker start up menu, move the selection switch to the left to select **Tools**.



(ii) Move the selection switch down, one click at a time, selecting **Select Tools** until **Hand Feed** is selected. If the display reads **Hand Feed is Off** move the selection switch to the right to change it to **Hand Feed is On**.



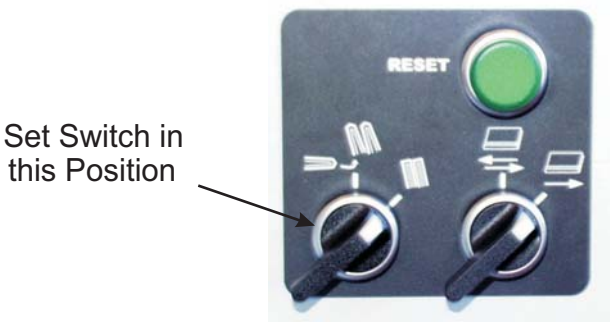
(iii) Feed the booklet sheets, by hand, into the infeed tray of the Booklet Maker. The booklet sheets will automatically feed into the Booklet Maker and be folded and stapled.

Single Sheet Booklet.

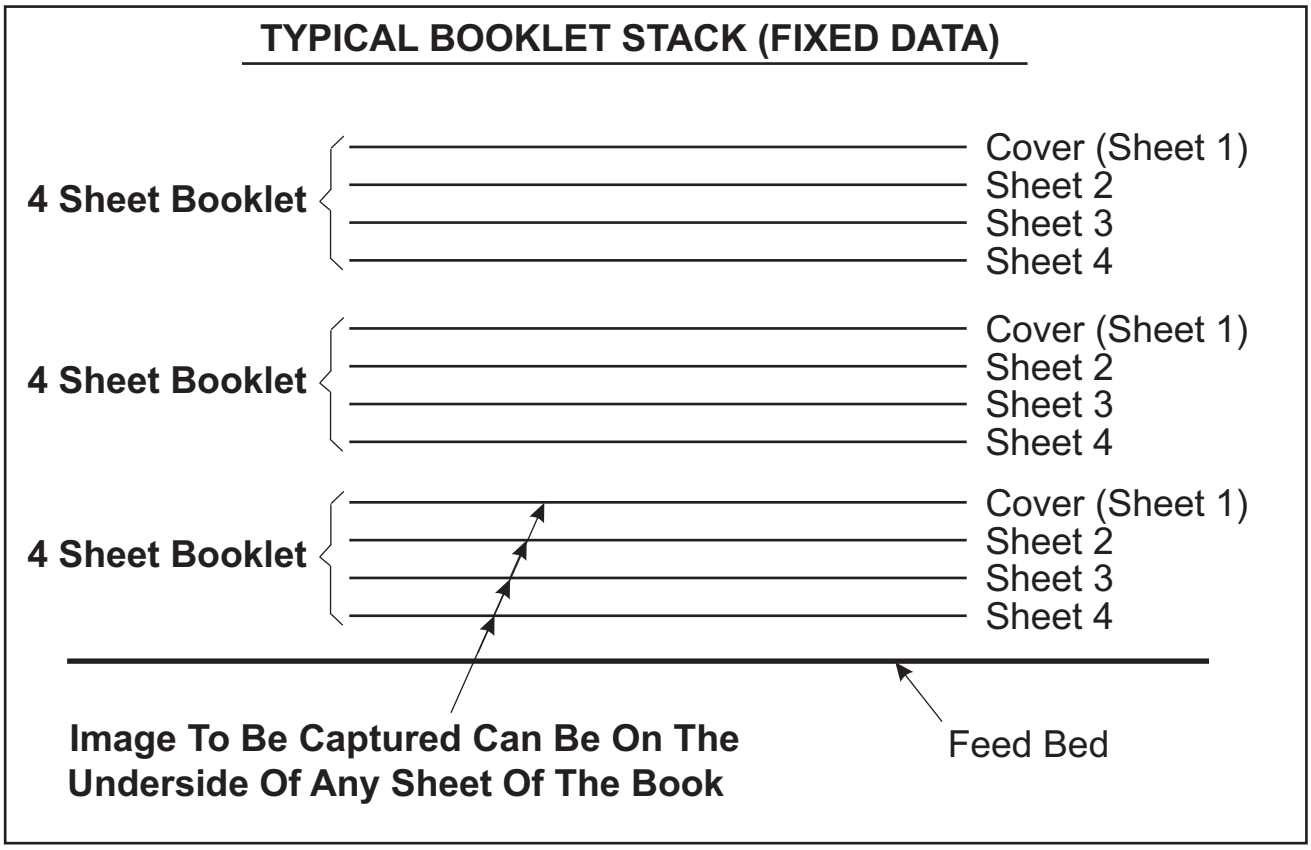
IMPORTANT.

1. If producing a single sheet booklet without stitch it will be necessary to set the Creasing Style to **All Sheets** or **Cover & Centre** NOT **Cover Only** or **None**.

2. If the 'Square Back System' is installed with the Booklet Maker ensure that the switch on the 'Square Back System' is set in the position shown below.



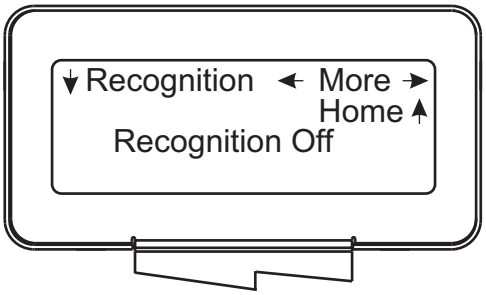
Using The Optional Camera Recognition System (If Fitted), and the number of sheets in each book are the same. (i.e. Fixed Data)



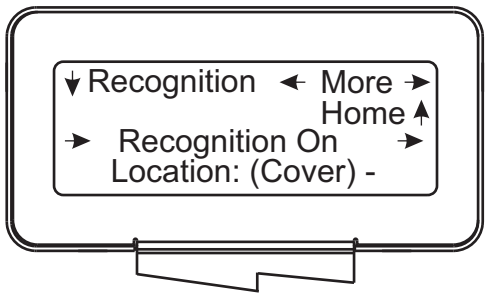
NOTE:-
Programme the machine for Booklet Maker operation as described on pages 22 to 32, and then operate the Camera Recognition System as follows:-

1. From the Booklet Maker start up menu, the camera **Recognition** can be set as follows:-.

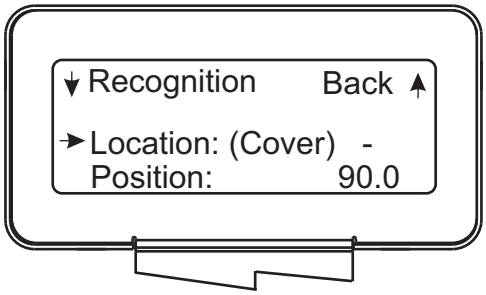
(i) Move the selection switch to the right to select **Setup**.
(ii) Move the selection switch to the right, one click at a time, (selecting **More**) until the display contains the word **Recognition**.



(iii) Move the selection switch down, (selecting **Recognition**). If the display reads **Recognition Off**, move the selection switch to the right to change it to **Recognition On**.

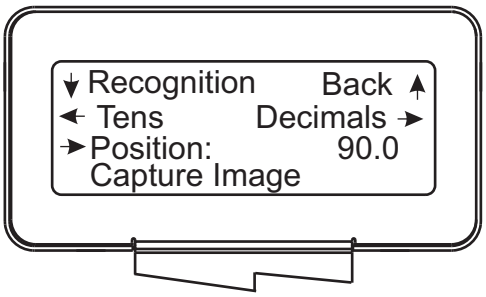


(iv) Move the selection switch down.



(v) The **Page** that contains the image to be captured can now be set by rotating the Selection Switch, (clockwise to increase or anti-clockwise to decrease).

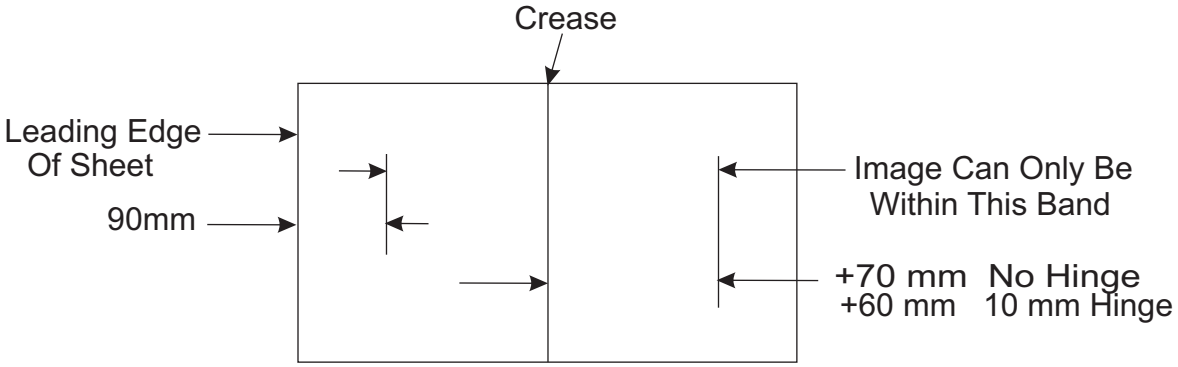
(vi) Move the selection switch down.



(vii) The **Position** of the image to be captured (from the leading edge of the sheet) can now be set as follows:-
Move the Selection Switch to the left to select **Tens** or to the right to select **Decimals**. The **Tens** or **Decimals** (whichever has been selected) can then be adjusted by rotating the Selection Switch, (clockwise to increase or anti-clockwise to decrease).

NOTE:-
Limitations of the position of the Image, to be captured, on the sheet.
The default position, (of the image capture position), from the leading edge of the sheet is 90mm.

If there is no image on the sheet, at 90mm from the leading edge of the sheet, then another position greater than 90mm must be set.
Limitations to the positions of the captured image are pre set in the software and cannot be exceeded. See Below.



FIXED DATA

An Image template is provided with the camera recognition system kit to assist in showing the possible area of the image that can be captured. The Template is shown below.

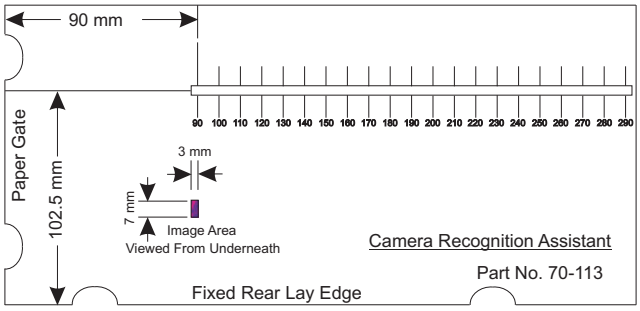
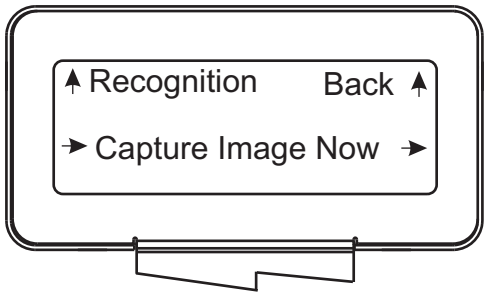


IMAGE TEMPLATE

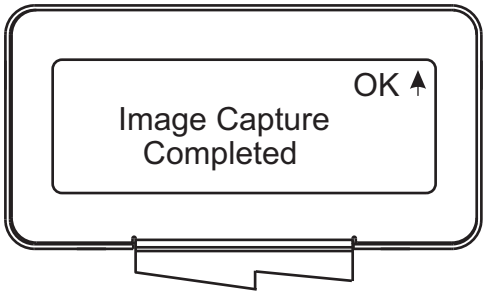
(viii) Move the selection switch down.



(ix) Place the sheet, that has the required image, onto the feed bed with the image face down.
(x) Press the Compressor Switch down.
(xi) Press the System Switch down.

(xii) Move the selection switch to the right to select **Capture Image Now**. The sheet will be automatically fed into the machine and the camera will be activated to capture and store the required image.

(xiii) The display will show that the image has been captured, as shown below.

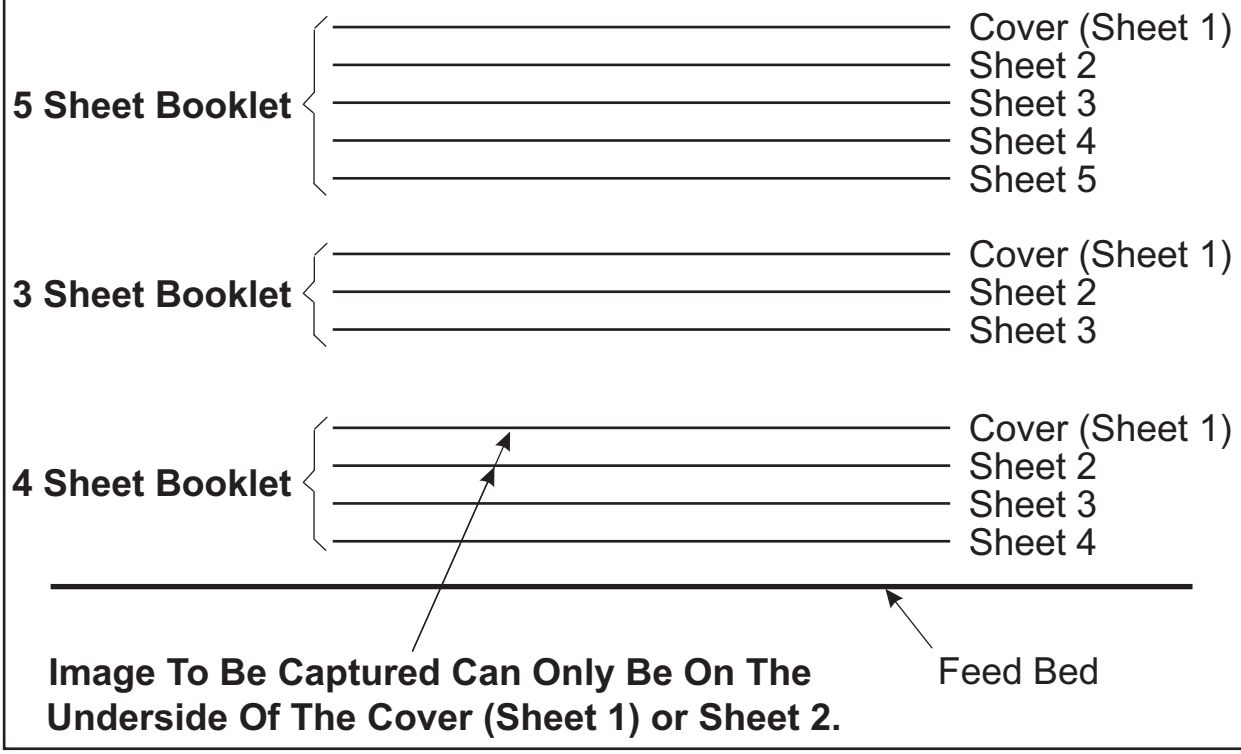


(xiv) Move the selection switch up, one click at a time, until the display contains the word **Feed**.

(xv) Load the booklet stack onto the feed bed; and then run the job by switching the Compressor and System Switches on, and then move the selection switch down to select **Feed**.

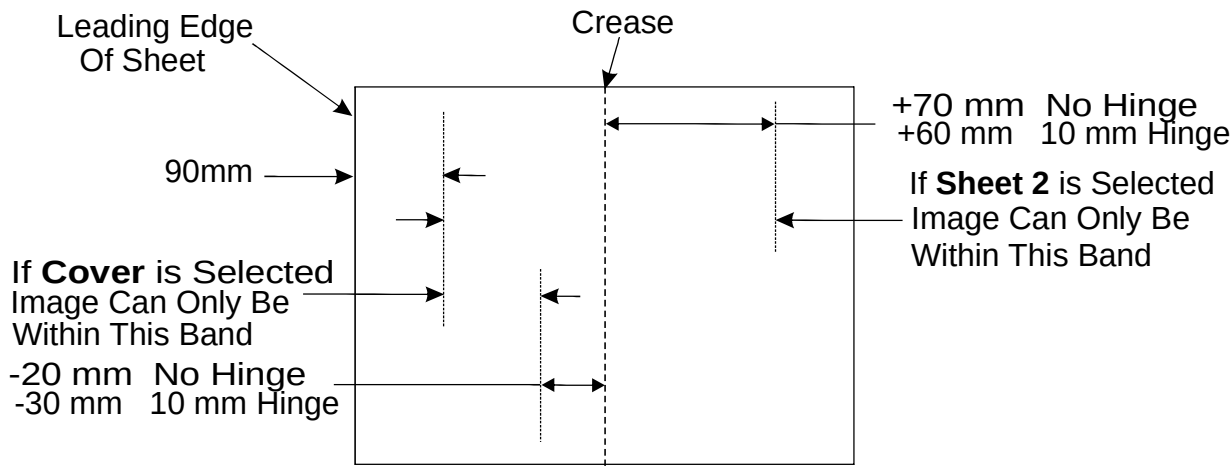
Using The Optional Camera Recognition System (If Fitted), and the number of sheets in each book are different. (i.e. Variable Data)
NOTE:-
Do not use 'Stream Feed' when running variable data jobs.

TYPICAL BOOKLET STACK (VARIABLE DATA)



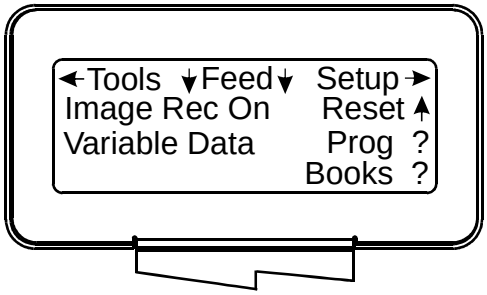
1. Programme the machine for Booklet Maker operation as described on pages 22 to 32, setting the **Sheets in Book** to **Variable Data** as described on page 25.
2. Operate the Camera Recognition System as described on pages 34 to 36.

NOTE:-
Limitations of the position of the Image, to be captured, on the sheet.
The default position, (of the image capture position), from the leading edge of the sheet is 90mm. If there is no image on the sheet, at 90mm from the leading edge of the sheet, then another position greater than 90mm must be set. Limitations to the positions of the captured image are pre set in the software and cannot be exceeded. See Below.



VARIABLE DATA

NOTE:-
When the selection switch is moved up until the display contains the word **Feed** the display will read as shown below.



3. Load the booklet stack onto the feed bed; and then run the job by switching the Compressor and System Switches on, and then move the selection switch down to select **Feed**.

Once the machine is set-up, the Documaster Mk3 can be used to perforate or crease.

Notes

1. **Perforating and creasing can be carried out simultaneously. However, if any adjustment is made to the roller tilt mechanism in order to compensate for the perforation line being 'out of square', this may effect the accuracy of the crease. If this occurs creasing and perforating must be carried out as separate operations.**
2. **By adjusting the outfeed drive tyres relative to the drive hubs it is possible to stear the sheet, (i.e. By placing the tyre on top of the hub one side of the paper will stear faster on that side).**

The components and tools required to install the perforator are contained in the despatch kit supplied with the machine, they are listed below.

1 off Set of standard perforation '56 tooth' blades.
1 off Set of standard hardened anvils.
1 off Perforator stripper.
1 off Scoring wheel
1 off 3mm bondhus wrench / allen key
1 off 2mm bondhus wrench / allen key

The perforator blades are split into two matching halves and are fitted to the drive wheels as shown in the photograph using the four screws supplied.

A hardened anvil is fitted to the drive hub as shown in the photograph also using the four screws supplied. Again the anvils are made from matching halves.

Important: The perforator blades are very sharp and care must be taken whilst handling.
Do not mix the matching pairs of blades or anvils.

Perforating 'Spares' kits

For perforating and other types of paper, various spares kits are available which can be assembled to the machine in the same fashion. They are listed below along with a range of scoring wheels,

Perforating blades	56 teeth	Part Number **1-99-41**	- Standard stock / fine perforations.
	28 teeth	Part Number **1-99-12**	- Medium stock / Medium perforations.
	20 teeth	Part Number **1-99-10**	- Heavy stock / coarse perforations.
Anvils	Standard Part Number **1-99-35**		- For all blade types

All of the blades and anvils are supplied with fixings.

***Perforator stripper** Standard Part Number **78-013**

*It is recommended that for multiple perforations, a separate perforator stripper is used for every perforating blade set fitted in the creasing unit.

Setting the machine

1. Turn the mains supply to the machine ‘off’.
2. Remove the stacker unit and open the exit guard.
3. Locate and remove the blades / anvils from the despatch kit supplied with the machine.
4. Using the 2mm allen key (supplied), loosen the drive wheel that is to accommodate the blades.
5. Slide the drive wheel away from any obstructing drive wheels or hubs in order to mount the blades.

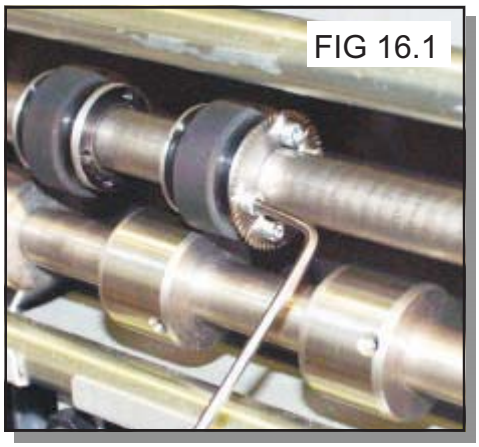


FIG 16.1

6. Using the 2.5mm allen key (supplied), take one half of the matching pair of blades and mount on to the drive wheel. Do not secure the blade.
7. Mount the other half of the blade to the drive wheel as shown (fig 35.1). Secure the blades to the wheel ensuring not to over tighten grub screw.
8. Mark on a single sheet the desired perforating position. Feed the sheet through the machine manually until the mark can be seen. Use this mark to assist in fixing the position of the perforating drive wheel to the roller drive shaft.

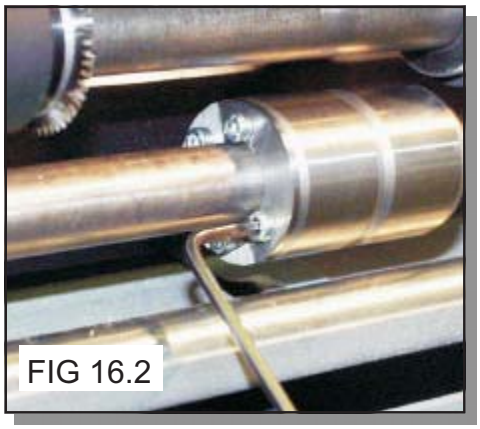


FIG 16.2

9. Using the 2mm allen key, loosen the drive hub nearest the perforating drive. Slide the drive hub away from any obstructing drive wheels or hubs in order to mount the anvils.
10. Using the 2,5mm allen key, take one half of the matching pair of anvils and mount to the drive hub. Do not secure the anvil.

11. Mount the other anvil ensuring that they have matched on the drive hub. Secure the anvil to the hub ensuring not to over tighten grub screw as shown in fig 16.2.

12. Slide the drive hub towards the perforating drive wheel until there is a clearance of 0.5mm.

13. To prevent damage to the blades or the anvils, do not force the drive wheel against the hub.

14. Fix the perforator stripper adjacent to the drive wheel and blade as shown.

15. Operate the machine and test the perforations for form.

It is important that the drive hubs are arranged evenly across the width of the paper in order to reduce the risk of jamming.

For multiple perforations repeat the above procedure.

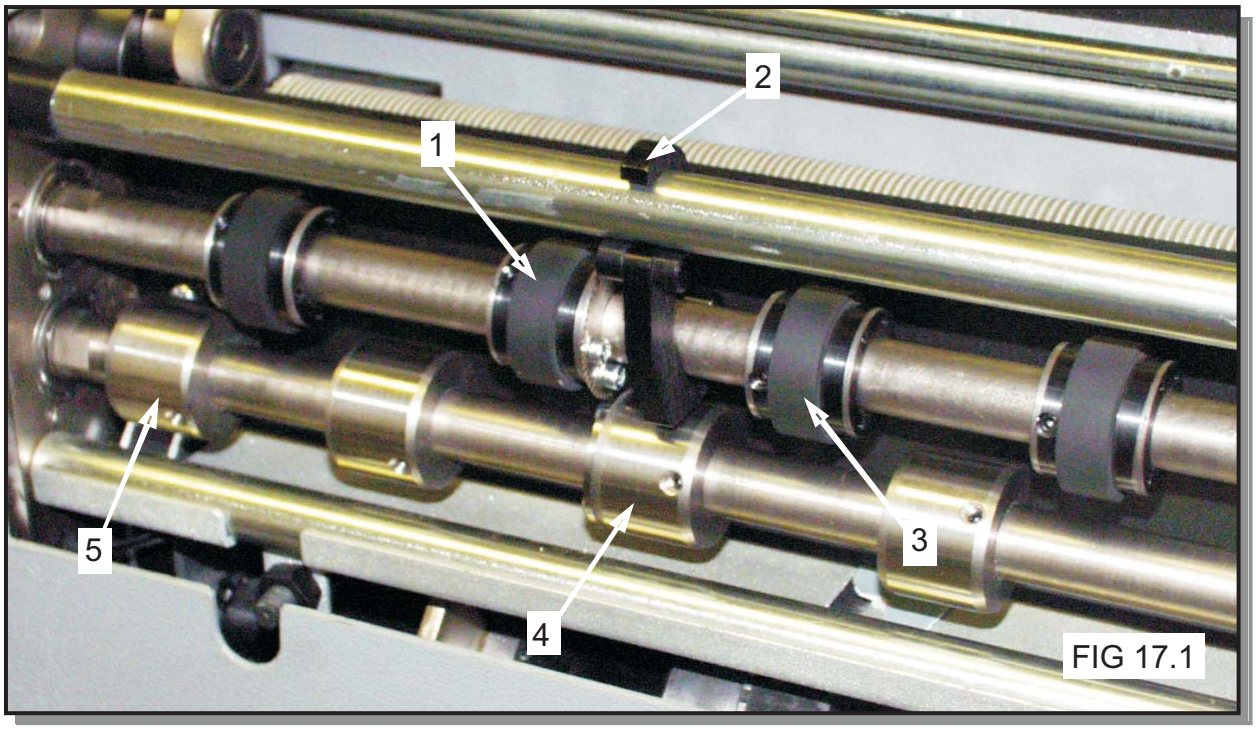


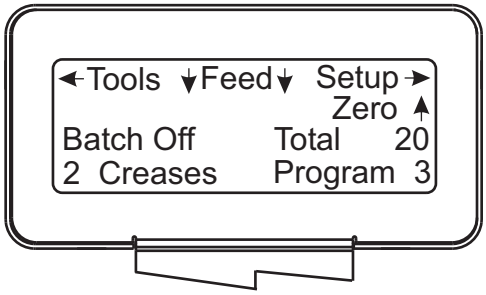
Fig 17.1 Demonstrates a typical set-up for perforating sheets.

1 - Perforating drive wheel with mounted blades
2 - Perforator stripper
3 - Standard drive wheel
4 - Drive hub with mounted anvils
5 - Standard drive hub

Always remove blades and anvils once the perforating operation has been completed to avoid marking on digital or delicate media.

Adjusting the blade pressure (no paper required)

1. (i) Switch the power 'on' by turning the Emergency stop button clockwise to release the safety latch. The display is now switched on and will show the start up menu as shown below.



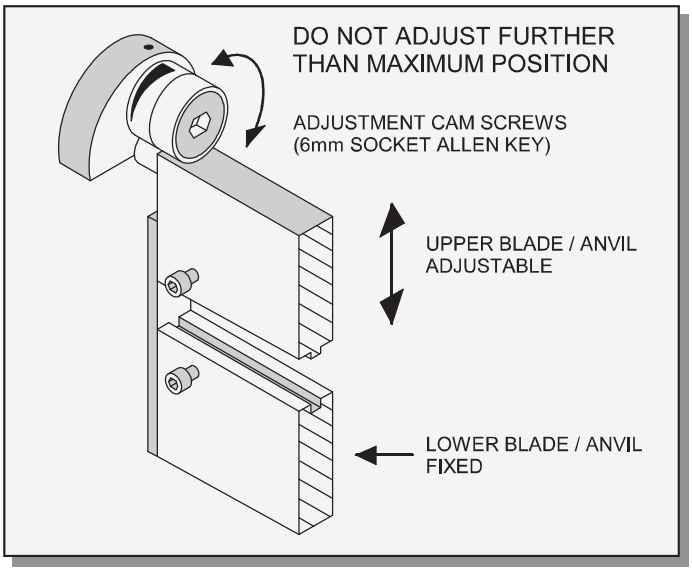
(ii) Move the selection switch to the left to select **Tools**.
(iii) Move the selection switch down to select **Set Blade Pressure**.
(iv) Press the system switch down.
(v) Move the selection switch to the right, the machine will activate and the blade will move to top dead center. The display will now read **Blade is moving to TOP DEAD CENTER** and then change to read **Blade Pressure May Now Be Adjusted See Operators Manual**.

2. Raise the exit guard
3. Using a 6mm allen key, unlock the shoulder bolts (labelled with scale transfer) positioned at each end of the creasing blade.

4. Turn the adjustment cam to adjust the blade pressure. Increasing the gradient on the scale will increase the blade pressure.

5. Ensure that the shoulder bolts are locked after setting.

The diagram below demonstrates the adjustment of the blade pressure



Adjusting the blade alignment

It is extremely important that the blade and anvil assembly within the creasing unit is correctly aligned. Misalignment of the blade or anvil can lead to damaged profiles and subsequently poor quality creasing so it must, therefore, be corrected immediately.
If the blade set is misaligned, the media being driven will be subject to scoring or even tearing at any point along the crease line. **Please note that to avoid damage to the blade set, adjustment should only be made in small increments.** The below sketch demonstrates how the blade alignment can be carried out.
Adjustment can be made at either of the blade or anvil. The two clearance holes positioned above the roller tilt mechanism are the front alignment (one for blade, one for anvil). The two holes are repeated on the back of the machine for the back alignment.

1. Remove the stacker unit from the machine.

2. Unlock and centralise the roller tilt mechanism in order to locate the heads of the front alignment screws.

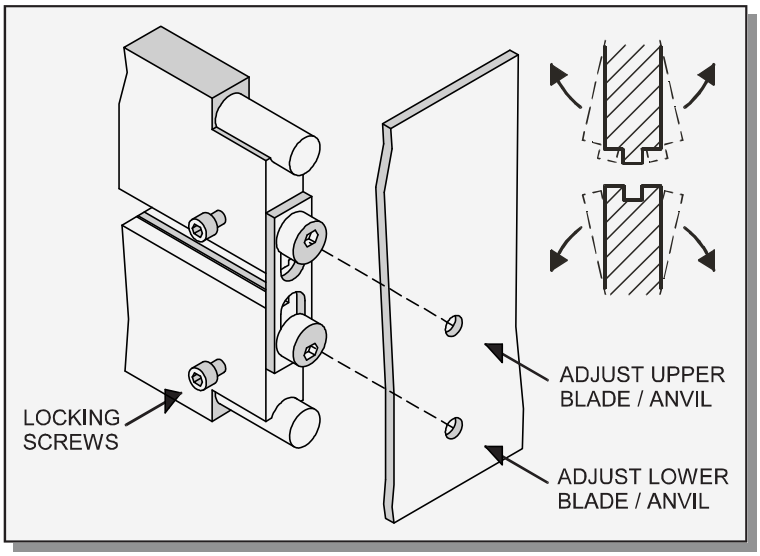
3. Using a 3mm allen key, loosen the cap head type locking screws located on the front face at both ends of the blade /anvil as shown below.

4. Using a 4mm allen key, locate the two front or back alignment screws in the side frame in order to adjust the blade / anvil.

5. The upper screw of the two, will adjust the upper blade / anvil whereas the lower screw will adjust the lower blade / anvil both in very small increments.

6. In order to obtain the required position, adjust either the blade or the anvil by a small amount and then operate the machine to test the form of the crease. Repeat the exercise until centralisation is located.

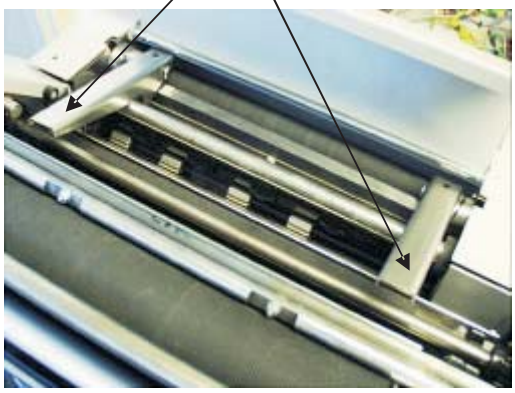
7. Using a 3mm allen key, lock the cap head type screws (as per step 3) on both the upper and lower blade / anvil.



1. Before removing the blade assembly, ensure that the lower blade / anvil is NOT at 'top dead centre', Switch the machine off.

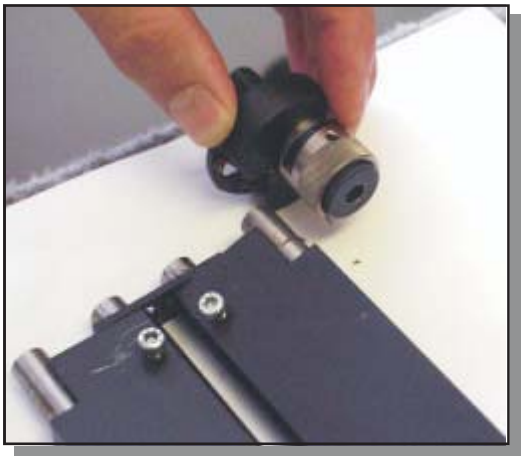
2. Remove the stacker unit and lift the exit guard.

Blade Extractor Tools



3. Using a 6mm allen key, loosen the socket head screws located inside the blade adjustment cams. Remove the screws and the blade adjustment cams.

4. Insert the blade extractor tools (70-055-01 & 70-055-02) into the holes in the adjustment links, as shown. Push downwards on the handles of the blade extractor tools to release the blade assembly from the power links.

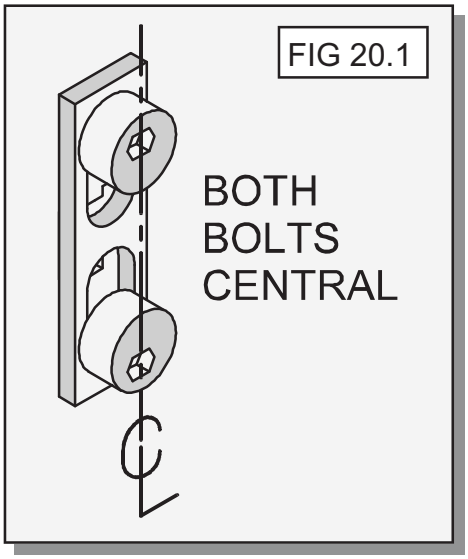


5. Slide the blade assembly out of the creasing unit and lay it on a flat surface.

6. Slide the adjustment links away from the dowels located in the ends of the blades / anvils as shown in the photograph (left)

7. Place the new blade set into position. Check that the eccentric shoulder bolts on the link plates have been positioned as shown in fig 20.1.

8. (Upper blade / anvil only)
Slide the adjustment links onto the dowels.



9. Slide the new blade set into the slots of the creasing unit as shown in fig. 21.1.

   Locate the blade extractor tools into the holes in the adjustment links as shown. Pull the handles of the blade extractor tools upwards to engage the blade assembly back into the power links.

10. Set the cam graphics for both ends of the blade / anvil to their lowest point on the scale (ie. When the mark on the scale reaches the mark on cam holder) Fasten the socket head screws on the adjustment cams until they are tight.

11. Push the exit guard down and replace the stacker assembly before operating the machine.

12. Switch the machine on and test the crease for form.

If the pressure and the alignment of the crease is not to a satisfactory level, see pages 42 - 43 to adjust the creasing line.

'Spares' kits

In the event of any damaged or lost components within the blade assembly, spares kits are available on request. However, components within the blade set can not be ordered separately ie single blade or anvil.

Standard Blade set **Part number 76-213-01**
Consisting of a standard blade and anvil, blade brushes, blade links and alignment bolts.

Extra Narrow Blade set **Part number 76-213-03**
Consisting of a narrow blade and anvil, blade brushes, blade links and alignment bolts.

Paper crease out of square

- Check that the sheets are all square and exactly the same size before loading the stack on to the table.
- Check that the roller tilt mechanism is correctly set and locked in position.
- Check that the adjustable side lay has been correctly positioned ie. No further than 0.5mm from the paper stack.

Paper jamming

- Check that the leading edge of the paper is not being damaged by the paper gate. If this is occurring, check that the suction slot and the paper gate have been correctly set.
- Check that the first crease position is not too close to the leading edge of the paper. A minimum distance of 32mm is recommended.

Machine will not start

- Check the power supply to the machine.
- Check that the emergency stop button has been released.
- Check that the exit guard is down.
- Check that the stacker unit is located correctly and has not been disconnected from the magnetic switch.
- Check that the lower blade / anvil is connecting to the home switch (mounted below the lower blade / anvil).

Paper not feeding

- Check that the paper stack is not too high or too heavy for the feeder. The height of the paper stack should be defined by the weight and the size of the stock being creased.
- Ensure that the adjustable side lay is not pressed against the paper stack. However, if the clearance between the adjustable side lay and the paper stack is too great, the air supply will escape instead of blowing through the paper thus making it difficult to feed.
- Check that the clearance between the paper gate and the suction roller is not set too low.
- On digital media, the feeding performance may be improved if the leading edge of the stack is trimmed before loading onto the machine.

- Check that the air distribution has been correctly set.
- Check that the air separation has been set high enough to feed the sheets.
- For heavy stocks, very small or very large sheets, embossed or even irregular stock, it may be required to feed the sheets manually - see page 20 for instructions.

Machine not counting

Open the exit and remove the blade set (see pages 44-45) to access the dual sensor post located in between the drive rollers. Using a soft brush, clean the visible sensor on the end of the post. Use the brush to clean the sensors between the post and the bottom paper guide which are not visible. Photograph (left) shows the dual sensor post containing the sensors.

No suction

- If the suction drum is not rotating, check all of the drive belts for cleanliness and splits (including the bottom in-feed roller drive belt).

.Control panel reads

- **Blade Not Home**
  If at any time during the creasing process the control panel reads **Blade Not Home** it is indicating that the lower blade / anvil has not made contact with the HOME switch ie. blade still in top position. Switch the machine off and remove the blade set and ensure that the area is free from obstructions. Return the blade set to the creasing unit and switch the machine on. Operate the machine in the normal sequence, if the display continues to read **Blade Not Home** it is advised to contact a Service Engineer immediately.

- **The Paper Path is not clear**
  If before operating the machine the display reads **The Paper Path is not clear** this indicates that there is an obstruction between the upper sensor assembly and the paper guide sensor (as shown in the above photograph). If there is no obvious obstruction in the paper path, switch the machine off and repeat the same procedure as explained above.

To Re-register the Booklet Maker Unit.

The Booklet Maker Unit can be re-registered as follows:-
1. From the Booklet Maker start up menu, move the Selection Switch to the left to select **Tools**.
2. Move the Selection Switch down to select **Re-register BMP**.
3. Move the Selection Switch to the right to select.

This function will adjust all motor settings to a known start position. It will also display the version of software loaded into the Interface Module (housed within the motorised infeed unit), and the version of software fitted on the Main Control board of the Booklet Maker Unit.

To Reset The Booklet Maker Unit Back To Factory Default Settings.

1. From the Booklet Maker start up menu, select move the Selection Switch to the left to **Tools**.
2. Move the Selection Switch down to select **Set BMP 'DEF'.**
3. Move the Selection Switch to the right to select.

This will reset the Booklet Maker Unit back to default factory settings and should only be used as a last resort.

To Adjust Misalignment Between Creaser Unit and Booklet Maker Unit.

Minor sideways misalignment, caused by uneven floor or machine build tolerances, can be adjusted as follows:-
1. From the Booklet Maker start up menu, move the Selection Switch to the left to select **Tools**.
2. Move the Selection Switch down to select **BMP Alignment**.
3. Rotate the Selection Switch to adjust, a positive value will move the Creaser Unit away from the operator.

NOTE:- Values of less than 3 may not be enough to adjust the position.

Recommended weekly operator maintenance

- Clean all sensors
- Clean in feed rollers and output drive hubs using the cleaning kit supplied. (Cleaning kit part number 90-018)
- Remove and clean the blade assembly
- With the blade assembly removed, clean the slots and surrounding area within the creasing unit.

Technician Maintenance

It is recommended that your machine is fully serviced at least once every six months by a factory trained Service Engineer.

‘Warning Sheets not cleared from Bookmaster infeed’
Remove sheets from the infeed tray of the Booklet Maker.

‘BookMaster Error’
Check all Doors and Access Panels are shut correctly
Check Mains Power is Switched on and also Communication Cable is Plugged in.
Check Waste Bin is Empty.

‘Double Sheet Feed - Detected’
Remove any sheets from the infeed tray of the Booklet Maker and also the Suction Drum area.
Ensure integrity of the remaining booklets in the feed stack.

‘Bookmaster Error - Trim Out Of Range’
Check that the trim length is less than half the sheet length.

‘Warning Vario Trim Guard Open’
If no Spinemaster (Square Back) is in line, check that the bridge plug is in place.

‘Warning Vario Stitch Guard Open’
Check that the Stitch Guard is shut correctly

‘Warning Sheet Failed to Arrive’
Check paper feeding is adjusted correctly, (see page 46).

‘Bookmaster Error - Bad Status Response’
Check yellow light on Booklet maker (see Booklet maker operators manual 70-114).

‘Warning Image Out of Sequence’
Check number of sheets is set correctly.
Check image is captured correctly, reset if necessary.

‘Warning Vario Jam Detected’
Check Booklet maker for jams and remove (see Booklet maker operators manual (70-114).

ITEM	PART NUMBER	QTY	DESCRIPTION
1	70-111	1	OPERATORS MANUAL (Part 1) (Creasing Unit)
2	70-114	1	OPERATORS MANUAL (Part 2) (Booklet Making Unit)
3	90-018	1	ROLLER CLEANING KIT
4	7-99-01	1	ANVIL SET - Perforator
5	1-99-12	1	PERFORATOR BLADE SET - 28T
6	650-040	1	POWER CORD C19 - 3Pin - UK
	650-041	1	POWER CORD C19 - 3Pin - USA
7	650-016	1	L6 - 15P Re-Wirable Plug (Used on USA Only)
8	617-004	4	GLASS BALL - Ø20
9	620-007	1	HEXAGON BALL DRIVER 2mm
10	620-020	1	HEXAGON BALL DRIVER 2.5mm
11	620-026	1	BONDUS L WRENCH 4mm
12	620-028	1	BONDUS L WRENCH 3mm
13	620-033	1	BONDUS L WRENCH 6mm
14	70-055-01	1	BLADE EXTRACTION TOOL - OP SIDE
15	70-055-02	1	BLADE EXTRACTION TOOL - LAY SIDE
16	624-018	1	DISPATCH BOX
17	94-087-01	1	CLAMP PLATE - SIDELAY
18	94-087-02	2	CLAMP PLATE WIDE - SIDELAY

WARNING.....
THE BLADES FOR ANVIL AND PERFORATING SETS ARE SUPPLIED AS MATCHING PAIRS AND SHOULD NOT BE MIXED OR LEFT UNPROTECTED OR SERIOUS DAMAGE MAY RESULT.

ITEM	PART NUMBER	DESCRIPTION
1	1-99-10	PERFORATING BLADE SET 20T (Card)
2	1-99-12	PERFORATING BLADE SET 28T (Single sheets)
3	1-99-41	PERFORATING BLADE SET 56T (Fine perforations)
4	1-99-35	ANVIL SET USED WITH ABOVE BLADE SETS
5	76-213-03	BLADE SET - EXTRA NARROW
6	79-052-01	FA45 OBJECT CAMERA KIT
7	75-407	ETHERNET KIT

ACCESSORIES....
....May be obtained from your dealer and fitted to your machine using the instructions supplied, or by reading your operators manual.

OPTIONS....
....May also be obtained and fitted by your dealer. You should not attempt to fit options as specialist tools and knowledge are required.

PART NUMBER	DESCRIPTION
93-021	FEED BELT
93-022	DRIVE BELT - Vacuum Roller
609-011	'O' RING Ø20
609-014	'O' RING Ø15
94-028	LOCK PIN ASSEMBLY - Side Lay
75-365	HOSE - Vacuum
75-366	HOSE - Vacuum Blow
75-367	HOSE - Separation Air
613-137	PLUNGER AND SPRING
613-255	SOLENOID COIL
609-013	'O' RING Ø25
613-365	EMERGENCY STOP SWITCH
652-011	SYSTEM SWITCH
652-009 652-010	COMPRESSOR SWITCH (UK) COMPRESSOR SWITCH (USA)
144-04-02	JOYSTICK AND LEAD ASSEMBLY
75-378-01	DOCUMASTER CONTROL PCB ASSY + CHIP
125-21-02	DUAL STEPPER DRIVE PCB ASSEMBLY
75-210-05	LCD DISPLAY UNIT - 4 LINE
655-011	PSU UNIT 5V/24V
655-015	PSU UNIT - SWITCH MODE - 24V
655-016	PSU UNIT - SWITCH MODE - 48V
76-156	BLADE POSITION SENSOR
76-230-03	PAPER GUIDE ASSEMBLY - Bottom Sensor
76-242	PAPER JAM SENSOR ASSEMBLY
76-154	UPPER SENSOR ASSEMBLY
98-013	ANTI-STATIC BRUSH
609-022	'O' RING Ø32
606-035	KNOB - Roller Tilt
76-109	POWER LINK BEARING
76-213-01	BLADE SET - Standard
76-042	DRIVE BELT - FEED BED
607-042	TIMING BELT 160XL
607-048	TIMING BELT TWIN GRIP - 200 DXL 050
608-019	SHOULDER BOLT
75-352	POT & LEAD ASSEMBLY

PART NUMBER	DESCRIPTION
76-175-01	INPUT ROLLER - Lower
76-177-01	INPUT ROLLER - Upper
76-250-01	UPPER OUTPUT SHAFT ASSY
78-251-01	LOWER OUTPUT SHAFT ASSY
613-351	MICRO SWITCH - Guard Circuit
613-191	MICRO SWITCH - Home Circuit
78-071-01	ACTUATOR ASSY. - STACKER
602-056	BEARING-DRAWN CUP NEEDLE ROLLER - Ø15XØ21X12
602-085	BEARING-DRAWN CUP NEEDLE ROLLER - Ø10XØ14X10
78-013	PERFORATOR STRIPPER ASSEMBLY
613-023	FUSE 3.15A - Fast Blow
681-011	FUSE 315ma - Anti-surge
681-015	FUSE 4A - Anti-surge
175-082-01	RELAY PCB Assy
75-388	INTERFACE CABLE
76-042	DRIVE BELT - FEED BED - Polycord
75-040	STACKER SWITCH Assy
654-014	ULTRASONIC RECEIVER
654-015	ULTRASONIC TRANSMITTER
626-004	STATIC ELIMINATOR BAR
75-258	ANTISTATIC TRANSFORMER
610-029	DOGA MOTOR

NOTE.....
The items listed above represent parts which are subject to wear, loss, or accidental damage, and is included for your guidance only.
Replacement of parts fitted to your machine require specialist knowledge and should therefore be entrusted to your dealer.

MACHINE CALIBRATION HISTORY

Serial Number:-

Date:-					
Total Count:-					
Stretch					
Lead Edge Trim					
Width Trim					
Camera Fitted					

PRODUCT RECYCLING & DISPOSAL

European Union

Disposal Information for Commercial Users

Application of this symbol on your equipment is confirmation that you must dispose of this equipment in compliance with agreed national Procedures.

In accordance with European legislation end of life electrical and electronic equipment subject to disposal must be managed within agreed procedures.

Prior to disposal please contact your local dealer or representative for end of life take back information.

Disposal Information for Domestic Users

Application of this symbol on your equipment is confirmation that you should not dispose of the equipment in the normal household waste stream.

In accordance with European legislation, end of life electrical and electronic equipment subject to disposal must be segregated from household waste.

Private households within EU Member States may return used electrical and electronic equipment to designated collection facilities free of charge. Please contact your local disposal authority for information.

In some Member States when you purchase new equipment your local retailer may be required to take back your old equipment free of charge. Please ask your retailer for information.

Other Countries

Please contact your local waste authorities and request disposal information.