

AUTOMATIC PUNCHING MACHINE

EX 380

OPERATING AND MAINTENANCE MANUAL

**ISSUE 4.2
AOUT 1999**

SERIAL NO. DATE : _____

Thank you for buying a **TYPE EX** automatic punching machine from **James Burn International**. This manual is designed to help you in getting the most from your new machine.

NOTICE



- Read this manual carefully before installing your automatic machine.
- This manual contains recommendations and instructions for installing, adjusting, operating maintaining your machine.
- It is therefore a vital and permanent part of your machine and failure to read this manual, it could result in damage to the machine or injury to operators.
- The manual offers suggestions on the installations and operation of your **EX** automatic punching machine, however, it does not cover every query you may have or every situation that can occur. Also, as with the ongoing effort to improve quality, James Burn International reserves the right to carry out changes to this machine.

If you have any question on your automatic punching machine, please contact your agent in one of the following countries.

FRANCE AND FRENCH SPEAKING AFRICA USA AND NORTH AMERICA

James Burn International
Boîte Postale 134
67, rue du Docteur Blaizot
61304 L'Aigle Cedex
FRANCE

(02.33.84.21.50
Fax 02.33.84.21.51

James Burn International
205 Cottage street
PO Box 430
Poughkeepsie NY 12602
USA

((914) 454 8200
Fax (914) 454 8208

GREAT BRITAIN, ASIA, SOUTH AMERICA AND ENGLISH SPEAKING AFRICA

James Burn International
Douglas Road
Esher
Surrey
KT10 8BD
UNITED KINGDOM

((0372) 466 801
Fax (0372) 460151

James Burn International
Claycliff Business Park
Barugh Green Road
Barnsley
SOUTH-YORKSHIRE S75 1JU

((01226) 380 088
Fax (01226) 388 110

GERMANY, ITALY, BENELUX, AUSTRIA

James Burn International
Postfach 54 07 52
D-22507 Hamburg 54
GERMANY

((40) 540 70 13
Fax (40) 540 70 90

SPAIN

James Burn International SA
C/.Progres 356
E08912 Barcelona
SPAIN

((93) 383 6256
Fax (93) 383 8258

SWEDEN, SCANDINAVIA AND RUSSIA

James Burn International AB
Box 4093
S-20312
Malmö
SWEDEN

((0) 40 733 55 (VX)
Fax (0) 40 91 20 40

GREAT BRITAIN / NORTH

James Burn International SA
(Northern Office)
198 Barnsley Road
Denby Dale
West Yorkshire HD8 8TS
ENGLAND

((0484) 864 944
Fax (0484) 865 439

I - USING YOUR PUNCHING MACHINE SAFELY	
page 6	
II - HANDLING AND INSTALLATION	
page 9	
III - TECHNICAL SPECIFICATIONS AND DESCRIPTION OF THE EQUIPMENT	
page 10	
IV - START UP	page 11
A) Electrical connection	
B) Pneumatic connection	
C) Safety devices	
D) How to start your machine	
E) Operating your machine	
F) Motorized high pile paper feeder	
G) Motorized high pile reception	
V - ADJUSTING THE TIMING	page 20
VI - FITTING / REMOVING TOOLS	page 21
A) Fitting	
B) Removal	
VII - OPERATING SETTINGS	page 23
A) Positioning the tool	
B) Positioning the vertical guides of the high pile unit	
C) Setting the feeder	
D) Setting the laygauge	
1. Head laygauge	
2. Side laygauge	
3. Foot laygauge	
4. Other settings	
VIII - MAINTENANCE - LUBRIFICATION	page 26
Daily Maintenance	
Weekly Maintenance	
Monthly Maintenance	
Maintaining Your Tool	

IX - INDEX

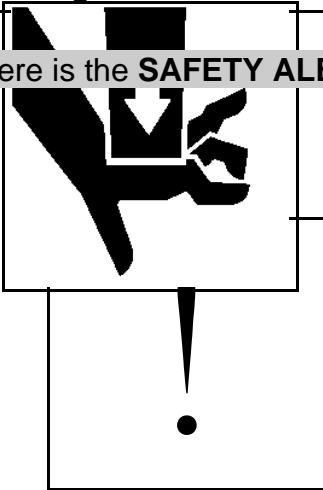
	page 27-59
1) Sketch of the machine	page 28
2) Ex floor space requirements	page 29
3) Electrical connection diagram	page 30
4) Pneumatic connection diagram	page 31
5) Sketch of the top beam	page 34
6) Sketch to identify the parts	page 35
7) Fitting tools	page 36
8) Pick-up beak	page 37
9) Feeder	page 38
10) Adjusting the bites	page 39
11) Lubrification	page 40
12) Adjusting the solenoid of the ejection device	page 41
13) Electrical diagrams	page 42
14) Spare parts list	page 53
15) Technical specification of the motor	page 56
16) Standard perforations	page 57
17) Drawing of the sub-assemblies	page 59

I - USING YOUR PUNCHING MACHINE SAFELY

6

Here is the **SAFETY ALERT** symbol:

It means : **IMMEDIATE DANGER**



DANGER

è You **WILL** cause serious personal injury if you ignore the message.

WARNING

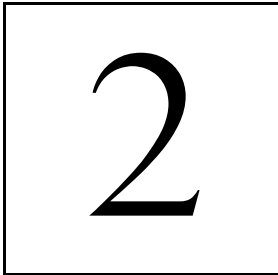
è You **MAY** cause severe injury if you ignore this message.

CAUTION

è You **MAY** cause minor injury or substantial material damage if you ignore this message.

NOTICE

è Important information for installation operation or maintenance, you must pay close attention to it.

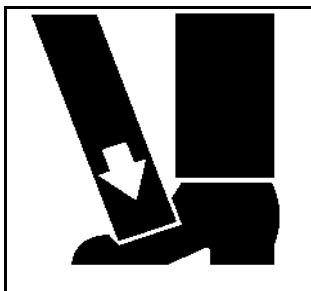


DANGER

è Electrical shock hazard.

HANDLE HEAVY EQUIPEMENT PROPERLY DANGER OF CRUSHING FEET

Always use proper mechanical lifting device to handle heavy equipment.



Always locate the weight on your mechanical lifting device that it is stable when lifted or moved.

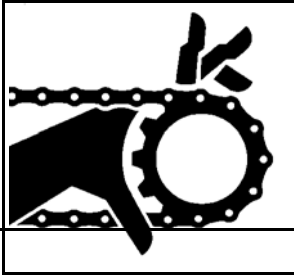
Always check the weight of heavy equipment before trying to lift it.

Check the maximum rated capacity of your lifting device before using it.

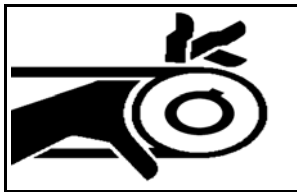
NEVER try to lift equipment heavier than the rated maximum capacity of your lifting device.

CARE

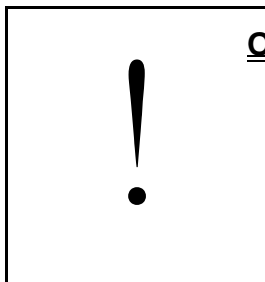
DANGER OF CRUSHING FINGERS HANDLE WITH



! WARNING
Chain in motion.
DO NOT open the top cover while the machine is operating.



! WARNING
Belts in motion.
DO NOT open the top cover while the machine is operating.



OFF.

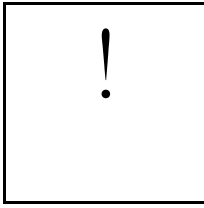
~~As a general rule, for maintenance or operations~~
inside the machine, the machine must be **SWITCHED**

DO NOT bypass guard interlock

NEVER achieve repairs or maintenance when the machine is switched on.

THE MACHINE IS SUPPLIED AS

FOLLOWS :



- * pinching at position "zero"
- * minimum the speed
- * removed small covers
- * removed side laygauges
- * removed micrometric scale
- * removed guides
- * top beam at lowest position

LIST OF PARTS SUPPLIED WITH THE EX:

Tools:

- * 1 metric Allen key set 2,5 - 3 - 4 - 6 - 8 - 10 mm
- * 1 oil-pump.

Accessories:

- * tube, **Æ** 17,12, length 100 mm
- * locking screw no. 12 and no. 25
- * inserting handle
- * separator
- * steel shims for the reception
- * left and right micrometric screw
- * side laygauge for small sizes
- * plates : 2 large sizes
- * **Æ** 8 handle for small sizes (**EX380**)

II. HANDLING

When unpacking, unbolt and remove the 4

fixing screws from the base of the wooden case with a 17 mm key.

if

Lift the machine using a fork-lift truck with a 1.5 ton capacity at least, either from the side or end the forks are long enough.

(Appendix 1)page 28

INSTALLATION

Floor space requirements:
See Appendix 2 page 29

We recommend that you install the machine on a flat, stable site within the factory capable of supporting 800 Kg per square meter.

the
isolate it from

Insert **GRIPSOL, FEURTRAFIX** or similar buffer pads under the feet to protect the machine from vibrations and operating noise and to the floor.

CHECK that the machine is stable.

There is no need for levelling it.

that
any

Adjust the 4 jackscrews of the reception unit so it can be placed in the desired location without sudden movement.

III - TECHNICAL SPECIFICATION AND DESCRIPTION OF THE EQUIPMENT

EX 380

TOP PUNCHING

A	B	C
Mini. Max	Mini. Max	Mini.
95 x 380	2 x 30	95

- A** **ø** *SHEET LENGTH (MINI/MAXI) (MM)*
B **ø** *FRONTLAY TO TOP OF PERFORATION (MINI/MAXI)*
C **ø** *BOTTOM OF PERFORATION TO BACKLAY (MINI)*

TECHNICAL FEATURES	EX 380
MACHINE CYCLE SPEED (MAX.)	140 / minute
AVERAGE PRODUCTION SPEED	depends on the typsetting and width of sheets
MAXIMUM BITE/PUNCHING THICKNESS	adjustable up to 2,5 mm
POWER REQUIRED	3 KW
ELECTRICAL CURRENT	230/400 Volts 3-phase 50 Hz (or 60 Hz)
DIMENSIONS OF THE MACHINE	L x l x H : 2,35 x 1,04 x 1,4 m
GROSS WEIGHT	1 200 KG

NOTICE

*DO NOT FORGET TO GROUND
CHECK THE GROUND OF THE NETWORK !*

CHECK THE VOLTAGE OF THE NETWORK :

- ø** *IF IT IS 230 V, THE VOLTAGE HAS TO BE IN THE 210-250 V BRACKET.*
ø *IF IT IS 400 V, THE VOLTAGE HAS TO BE IN THE 380-430 V BRACKET.*

IV. START -UP

A. ELECTRICAL CONNECTION

Check that the cables are tightened properly in the motor terminal, in spite of the vibration during shipping.



The machine is shipped for 400 V three phase operation, unless you have specified otherwise.

For 230 V three-phase operation, please change :

- the connection of 230 V terminal transformer,
- the position of the bars motor terminal box (Appendix 3, page 30)
- 7.10 thermal relay instead of 4.6

Connect your 3 conductors+ Earth cable to the machine by using the supplied socket (located in the electrical box).

- required power 3 Kw. Be careful with the connection to ground.
- turn the power switch on, located on the electrical box.
- white and red signal lamp should light up ;if it is not the case
- check that the machine has been connected correctly;
- check that the initial voltage of the feeder cable
- check the fuses (**F3**)

BEFORE FITTING ANY TOOL, insert a sheet of paper into the feeding belts.

To check whether the motor is connected correctly :

• set the control panel switch to position I and press and release the (green) start-up button by pulses.

• check that the paper sheet is being fed well towards the tool location. If not,reverse the 2 -phase connection (**u,v,w**) on your power line.

B. PNEUMATIC CONNECTION

• if your machine has pneumatic equipment-

Connect the pipe which is connected to your compressed air ductwork system (6 bar) to the barbed nipple.

- located at the bottom of the left side of the high pile unit.

-open valve B.

C- SAFETY ENGINEERING

LOCATION OF THE SAFETY SWITCHES ON THE MACHINE

USE: The safety system is controlled by the safety relay “**PILZ**” as per the **VDE 0113** and **EN6024-1** standards.

The opening of one of the emergency stop button switch off the power of the motor and cut the output; the machine is on safety.

As long as one of the covers stays opened or that one of emergency stop is on “off position”, it is impossible to restart the **EX 380**

NOTA: The perspex covers have a safety action only in “auto” position.

IMPORTANT

D - HOW TO START THE MACHINE

1. TURN MAIN ISOLATOR ON. (**ITEM 1**)
2. PUSH THE **GREEN** BUTTON TO START MACHINE. (**ITEM 6**)

NOTA :WHEN YOU SWITCH ON THE MAIN ISOLATOR, A **WHITE INDICATOR LAMP LIGHTS UP : "ON" (ITEM 2)**.

E - COMMISSIONING

THE FUNCTIONS OF THE VARIOUS BUTTONS AND WARNING LIGHTS

FIGURE A.....page 16

ITEM 1	<p>“ON” Switch. Pressing this switch activates electrical and pneumatic systems within the machine.</p>
ITEM 2	The “power ON” white indicator lamp.
ITEM 3	“UP” button : Start switch of the motorized high pile unit.
ITEM 4	“STOP” button : of motorized high pile unit.
ITEM 5	<p>“EMERGENCY STOP”</p> <p>Pull to reset. Delatch before using it again</p> <p><i>In case of incorrect passage of the paper, press this button to stop the machine. We recommend that you dispose of the paper in question or reposition the paper correctly before restarting the machine by pressing “START” button.</i></p> <p><i>If you press this button, no action is possible : the power is cut off.</i></p>
ITEM 6	“START” button, which switches “ON” the selector switch (Item 7).
ITEM 7	<p>TWO - position switch.</p> <p>INCHING: At a low speed when <i>Item 6</i> is pressed, the machine keeps on running until the button is delatched</p> <p>Nota: In this manual mode, it is possible to open the perspex covers when running.</p> <p>NORMAL By pressing the green button 6, the machine begins to operate and runs continuously.</p>
ITEM 8	“STOP” button: if you press this button, the cycle stops immediately.
ITEM 9	“RED warning light” : ”error” message.

ITEM 10	“START” button to start the lifting of the high pile reception after turn-over.
ITEM 11	“START” button to lower the high pile reception after turn-over.
ITEM 12	HAND WHEEL designed to lower again the high pile reception after turnover.
ITEM 13	HAND WHEEL for manual operation of the high pile reception. Place 7 in the “inching” position and PULL OUT the HAND WHEEL to turn it clockwise.
ITEM 14	Adjustment nose blowed.
ITEM 15	Adjustment laygauge blowed.

F - MOTORIZED HIGH-PILE PAPER FEEDER

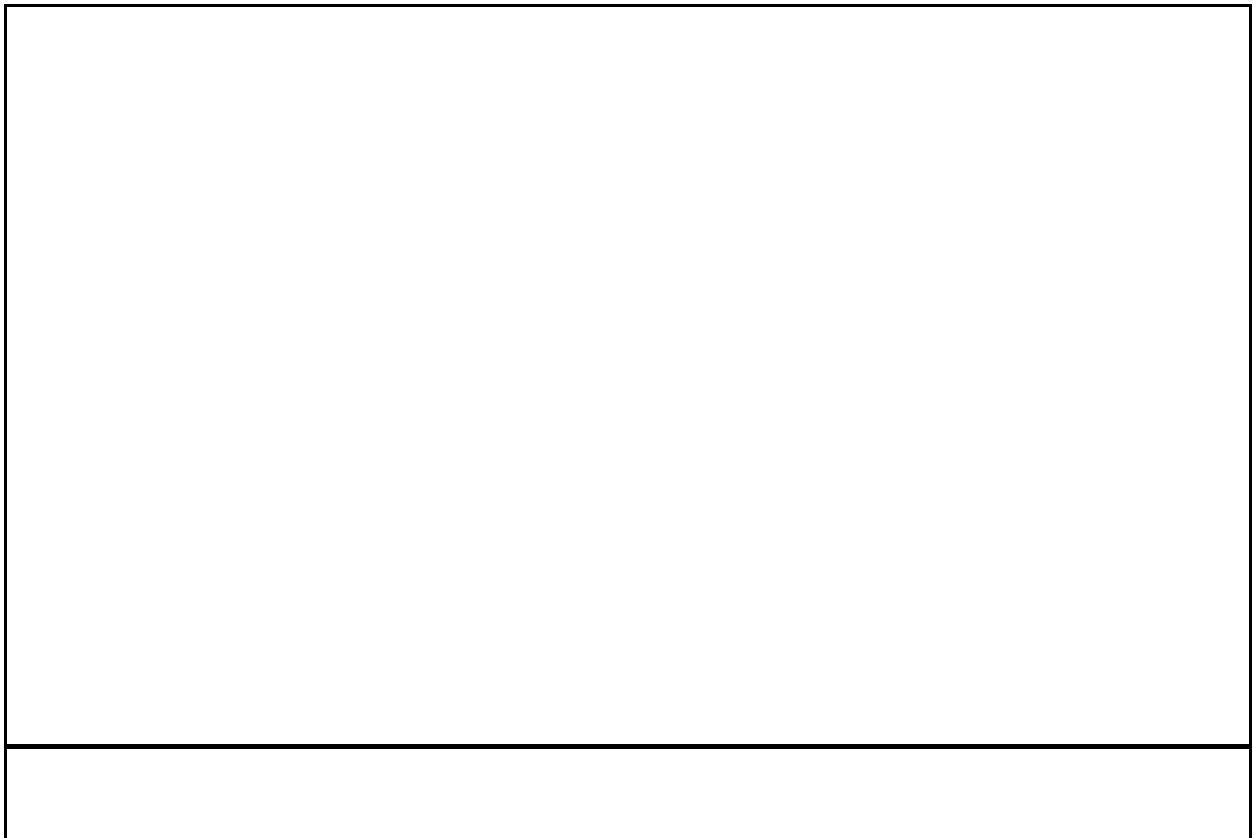
The motorized paper feeder is operated by pushing “up” button (Item 1). It stops temporarily when this latter paper is detected by a luminous beam, and the paper is thus positioned correctly, for a better pick-up. The paper feeder is driven by the machine by means of this light-cell whatever the mode of the running is (AUTO/INCH).

The “stop” button (Item 2) is designed only to stop the pile feeder in the event of a malfunction which would impede the proper running of the machine.

* * * * *

NOTA: In no circumstances should an attempt be made to lower the tray on the high-pile feeder. The direction cannot be reversed.

FIGURE 1.....page 17



G -MOTORIZED HIGH-PILE RECEPTION UNIT AFTER TURN-OVER

FIGURE 2.....page 19

HOW TO LOWER THE TRAY (MANUAL MODE)

To lower the tray, push the “**down**” black button (**Item 3**). At the end of the stroke, the tray is stopped electrically. (**Item 4**).

HOW TO RAISE THE TRAY (MANUAL MODE)

To raise the tray, push the “**up**” green button (**Item 5**). Then the electric contactors (**Item 6**) stop the trays at their highest position.

LOWERING IN AUTOMATIC MODE

From the high position, a sensor (**Item 7**) detects the loading of the tray and sends an impulse which lowers it approx. each 10 mn.

EMERGENCY STOP OF THE MACHINE

In the event of a malfunction which impede the correct running of the machine, check :

- if the paper size is suitable
- if -when needed- the safety nuts are well retightened.

ADJUSTMENT OF LAYGAUGES FOR JOGGING

Loosen the security nuts (**Item 8 and 9**) on the jogger side laygauges, reposition them to suit paper format and then retighten securing nuts.

To improve high-pile reception, an air-blowing unit (**Item 10**) is installed to guide each paper bite against the backstops and ensure a tidy paper pile.

V. ADJUSTING THE TIMING

Our machines are always set and tested before leaving the factory, however if readjustment is necessary, please follow these steps :

ø timing settings are always adjusted to the beam. To adjust the timing (mobile beam)

Set the switch to the "inching" position, i.e. I
Turn the handwheel always clockwise (working direction).
ø ! NEVER ANTICLOCKWISE.

Raise the mobile beam to the TOP position of its stroke and measure dimension X (Appendix 5, page 34).

Lower the beam (manually) to the following positions :

	EX 380
CLOSED HEAD LAYGAUGE	X + 6 mm
CLOSED SIDE LAYGAUGE	X + 6.3 mm
CLOSED FOOT LAYGAUGE	X + 7 mm
CLOSED PINCHER	X + 10 mm

Keep on turning the wheel to bring the beam to the BOTTOM position (always clockwise).

Adjust upwards to the position to X + 7.5 mm : ejection wheels control.

If you rise above one of these positions, turn fully to reset the position.

VI - FITTING / REMOVING TOOLS

A) Fitting

TOOLS MUST BE FITTED ONLY WHEN THE POWER IS SWITCHED ON
(Even if the machine is not operating)

- ǒ Set the control panel switch to the “inching” position (1)
- ǒ Remove the small covers (K) by pulling upwards. (Appendix 6, page 35)

IMPORTANT !

RETRACT THE STOPS OF THE HEAD LAYGAUGE ASSEMBLY (T) AS FAR AS POSSIBLE by releasing handle (A)

- ǒ Lower the beam to the bottom position using handwheel (R).
- ǒ Insert the tool as shown in the drawing (Appendix 7, page 36).
- ǒ Push in fully the tool until it meets the fixed stop located at the other end.
- ǒ Fasten the tool by using the 12 mm \overline{AE} screw at the end of the bearing plate, on the fixed stop side.
- ǒ Remove the insertion tool handle.
- ǒ Turn the handwheel once before starting up.
- ǒ Reposition the covers (K).



IMPORTANT: *see tool maintenance.*

B) Removal

ALWAYS REMOVE TOOLS ONLY WHEN THE POWER IS SWITCHED ON !

ǒ Set the control panel switch to the “inching” position (I)

ǒ Remove the small covers (K)

RETRACT THE ASSEMBLY OF STOPS FROM THE HEAD LAYGAUGE ASSEMBLY (T) AS FAR AS POSSIBLE.

ǒ Lower the beam to the bottom position.

ǒ Unscrew the tool.

ǒ Remove the tool.

ǒ Fit another tool.

VII - OPERATING SETTINGS

Setting the machine for a specific job will be achieved quickly if you follow the sequence we suggest :

- A) Positioning the tool
- B) Positioning the feeder guides of the high-pile unit
- C) Setting the feeder stops
- D) Setting the laygauge stops

A) POSITIONING THE TOOL

Ensure that the tool is properly clamped (Appendix 7, page 36).

NOTA: Once the tool is fitted, it is always centred on the machine (except for special tools such as tab tools...)

B) POSITIONING THE VERTICAL GUIDES OF THE HIGH-PILE UNIT

Place some sheets on the tray that you are going to punch, then by using the lift handwheel, bring the tray to the level of the pick-up beack.

Fold one sheet to mark the center of this latter, at the top edge.

From this mark, center your sheets under the tip of the pincher.

You can position the vertical top guides (sides) and bottom guides (rear) without confining the paper.

Once you adjust the feeder by using the handwheel (guides positioned as per the paper size), feed in one bite of sheets up to the punching tool.

Check that they have been fed in correctly. The pincher may have released them too early (this is normal in manual mode, which can not duplicate the automatic performance). In this case, insert the sheets manually into the belts by making sure that there is no misalignment.

Feed the sheets into the tool.

C) SETTING THE FEEDER

The upper feeder can be easily moved, to enable rapid action if the paper jams at the input of the tool.

The feeder has a set of sliding rollers (Appendix 9, page 38) which can be moved and locked as per the paper size by means of the handle (1).

When the sheets are jogged by the head stops (Appendix 9), the rollers (2), have to be shrunk by about 3mm, as shown on the drawing.

D) SETTING THE LAYGAUGE STOPS

1) Head laygauge stops : (Appendix 6, page 35).

As shown in *Appendix 4, from page 31 to 33*, the head stop assembly consists of a set of 6 stops, which permits a use for each size.

This assembly operates by alternative vertical motion.

The margin is set by releasing handle A and feeding or shrinking the head stop assembly. Knob B is used for final adjustment (1 cycle = 1mm).

DO NOT forget to relock handle A.

When setting the margin, the parallelism has to be adjusted between the edge of the sheets and the centerline of the punch pins. They are aligned by using knobs C and D (1 revolution = 1 mm); the knobs C and D may also be used to perfect the adjustment of the margin.

2) Side laygauge stops (Appendix 6, page 37)

For any large movement of the side laygauges (for instance change in format), just release the handle G and move the rod H.

Lock handle G in position and perfect the side laygauge using the knob E, after having released the handle F (1 cycle of the knob = 1mm).

The side laygauges have to be adjusted to hold the paper not to confine it.

NOTA : Any correction regarding the micrometer adjustment can be carried out while the machine is running.

3) Foot laygauge

The foot laygauge consists of 2 stops which can be retracted as the paper passes through.

By using the handwheel, bring the stops to the jogging positions.

The stroke should come to end from the contact the paper. If not, loosen the support screw -located on the support of the central stop- with a Allen key no. 5 and move the stops on their sliding rail. You can carry out this operation **ONLY** when the machine is **NOT** running.

Once these adjustments have been made, keep on turning the handwheel until one sheet of paper has been punched and then check it.

Repeat the operation if necessary.

The machine is now ready to operate.

**! IMPORTANT !
BEFORE STARTING UP THE MACHINE, TURN FULLY THE HANDWHEEL.**

4) Other settings

Thickness of bites

It is advisable to operate with smaller bites and to run at higher speed.

The thickness of the bites depends essentially on the type of tool used and the hardness of the material to be punched.

The bite (Appendix 10, page 39) is adjusted by turning the button I, after releasing the handle J. Do not forget to relock the handle J.

Speed

Turn the wheel of the variator (located under the confetti tray) to increase or decrease speed. However, **DO NOT exceed 60 strokes / minute** during the first continuous working week.

VIII - MAINTENANCE - LUBRIFICATION



Before commencing any maintenance work, switch OFF and disconnect the electric supply for personal safety.

All maintenance work have to be carried out by authorised personnel such as a maintenance or service engineer, or a qualified electrician.

DAILY MAINTENANCE

The large quantity of dust emanating from the paper is detrimental to all the parts in sliding contact insofar as it produces in combination with the oil and the lubricant a kind of abrasive paste which damages the parts.

The mobile beam has to be lubricated one a day with oil mobil oil no. 3 or Labo CR 4.

WEEKLY MAINTENANCE

The cleaning-up requires few minutes and has to be achieved meticulously once a week.

The lubrication is very instrumental in ensuring the good running of the machine. It is necessary to complete it properly.

Check the oil-level once a week (by unscrewing the plug to check whether the oil flows, as the gear is in OFF-position).

To have access to the gear motor, remove the guard on the opposite side to the handwheel.

Lubricate the transmission chain once a week (opposite side to the handwheel).

MONTHLY MAINTENANCE

The cams have to be greased once a month.

The gear motor will be drained after the first 1 000 operating hours and then, after each 5 000 hours.

To fill by pouring in the oil filter neck to the level with the oil "MOBIL OIL 629" or MOBIL OIL 40 (AF)".

! The cleaning up of the machine requires a certain rigour !

MAINTAINING YOUR TOOL

Take care to lubricate the punch pins regularly with vaseline oil.
If the tool is equipped with guide pillars, lubricate their bearings as well.

IX - INDEX

- 1) Sketch of the machine
- 2) EX floor space requirements
- 3) Electrical connection diagram
- 4) Pneumatic connection diagram
- 5) Sketch of beam
- 6) Parts identification diagram
- 7) Fitting tools
- 8) Pick-up beak
- 9) Feeder
- 10) Adjusting the bites
- 11) Lubrification
- 12) Adjusting the solenoid of the ejection device
- 13) Electrical diagrams
- 14) Spare parts list
- 15) Technical specification of the motor of the high pile reception unit
- 16) Standard perforations
- 17) Drawing of the sub-assemblies

ELECTRICAL DIAGRAMS

3-005	Implantation of control buttons 400 v	42
3-010	Power supply 400 v	43
-015	Control and security	44
-020	Control circuit	45
-025	Option power supply reception	46
-030	Option control circuit reception	47
-035	Option power supply high pile feeder	48
-040	Option control supply high pile feeder	49
-045	Terminals blocks	50
-050	Electrical box implantation	51
9901	Option small size	52
-055	Parts list	53-55

LIST OF DRAWINGS

1)	Shafts locations
2)	Guards for protection
3)	Joining shaft pick-up carriage-front part
4)	Main driving-rod
5)	Electro-ejection
A)	Bottom guide, high -pile front part
A1)	Shaft high pile
A2)	High pile jog
B)	Shaft high pile
C)	Shaft driving-rod
D)	Support shaft of bottom guides
E)	Inferior carriage shaft-front part
F)	Countershaft drive high pile-front part
G)	Driving shaft for pick-up carriage-front part
H)	Joining shaft pick-up carriage-front part
I)	Support shaft of lever-front part
J)	Upper pick-up beak shaft-front part
K)	Shaft from pick-up beak roller-front part
L)	Shaft with neck of circlips for upper carriage-front part
M)	Shaft from upper carriage-front part
N)	Inferior belt transmission shaft-front part
O)	Inferior carriage shaft-front part
P)	Structure spacer
R)	Reinforcement for crank support-front part
S)	Main shaft
T)	Beam shaft
V)	Beam and crank-head
X)	Cam-shaft - back part
Y1,Y2,Y3,Y4)	Returning shaft-back part
Z,Z1)	Support shaft of head guide-back part
AR1)	Driving return shaft-back part
AR2)	Returning rollers shaft-back part
AR3, 4)	Returning shaft-back part
RP1)	High pile delivery - General view
TLM)	Movable side laygauge

SPECIFICATION OF THE MOTOR OF THE HIGH PILE RECEPTION UNIT

MANUFACTURER	SEW USOCOME
DESCRIPTION	GEARED MOTOR
PART NUMBER	RX61D22DT90L2B
OUTPUT POWER	2.2 KW
OUTPUT SPEED	163 to 815 RPM
BRAKE	230 V
MOUNTING POSITION	B 3
OUTPUT SHAFT	Æ25 X 50
CONFORM TO SPECIFICATIONS	NEMA
VOLTAGE . Europe . USA	230/400 V 50 Hz 220 V 60 Hz