

ACCUFIL CUP FILLER

Part of the Charles Wait group of companies

Fylde Road • Southport • Merseyside

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E-Mail: sales@charleswait.co.uk - Website: www.charleswait.co.uk

I / We have been received the instruction manual and understand each operator must read and understand all instructions and warning labels before operating the machine

I / We have been trained by the engineer in the safe use of this machine.

Engineers name

Signature..... Date.....

Supervisors name.....

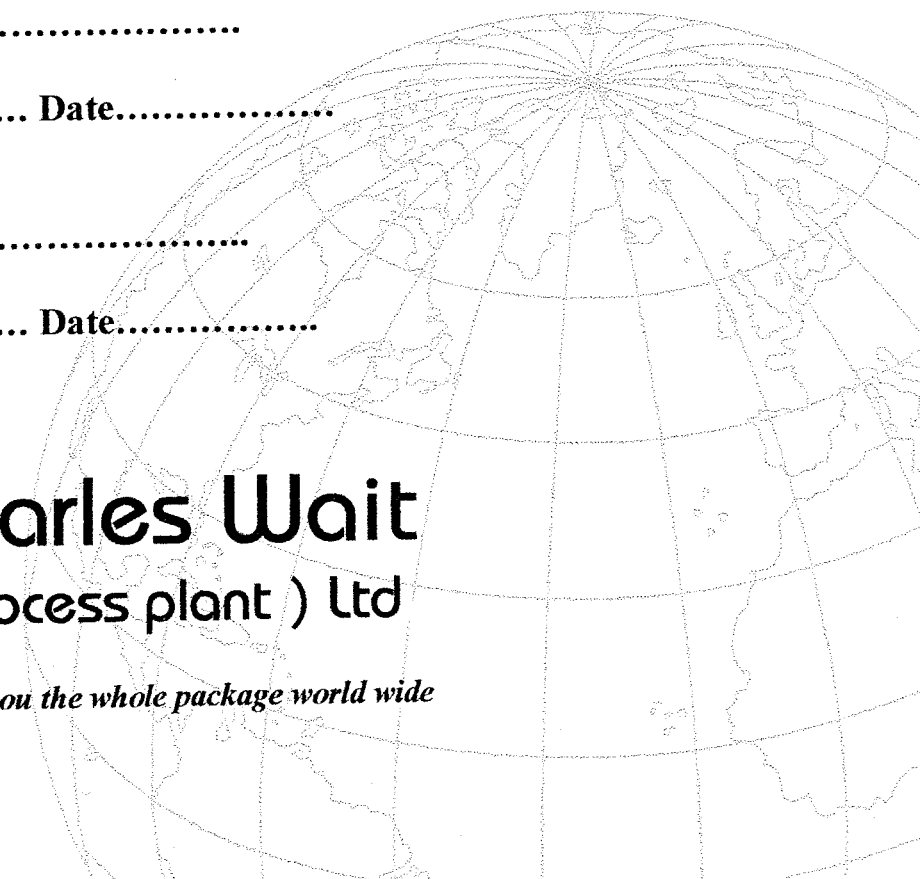
Signature..... Date.....

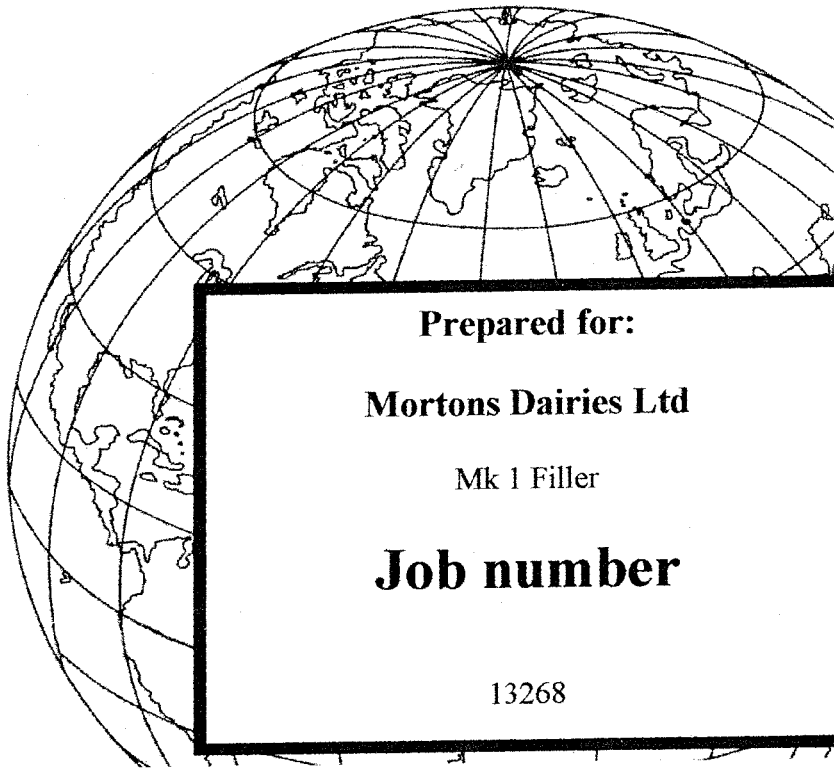
Operator name.....

Signature..... Date.....

Charles Wait
(process plant) Ltd

Giving you the whole package world wide





Prepared for:
Mortons Dairies Ltd
Mk 1 Filler
Job number
13268



ISSUE ONE

Charles Wait
(process plant) Ltd

Fylde Road – Southport- England
Tel: +44 (0)1704 211273 Fax: +44 (0)1704 225878

1 SAFETY SECTION

2 OPERATING INSTRUCTIONS

3 RESERVED

4 RESERVED

5 RESERVED

6 RESERVED

7 RESERVED

8 RESERVED

9 RESERVED

10 RESERVED

11 RESERVED

12 RESERVED

13 RESERVED

14 RESERVED

15 SPARES PARTS

Section 1

INTRODUCTION / FORWARD

The purpose of this manual is to provide the operators of the equipment, supplied by Charles Wait (process plant) Ltd, with instructions, which will enable the equipment to be operated safely and efficiently.

All operating personnel should read this manual carefully and pay special attention to the safety warnings and cautions stated in the manual and the safety labelling placed on the equipment, before attempting to operate or service the equipment. Special attention should always be given to familiarising all personnel with the position of the emergency stop switches and other safety features before attempting to start the machine.

All equipment new supplied by Charles Wait (process plant) Ltd is constructed from high quality materials and great care is taken in its design and manufacture to reduce hazards, promote safety, reliability and output performance. It will give every satisfaction, provided it is operated, in Accordance with the information in this manual and normal safe working practices.

Charles Wait (process plant) Ltd
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The supply or machinery (safety) regulations 1992

All Charles Wait (process plant) Ltd equipment new complies with the above regulations and is designed and manufactured in conformity with specified European harmonised standards and UK national standards satisfying essential Health and Safety requirements.



The appropriate conformity assessment procedure has been carried out and CE marking has been affixed to the machine. A copy of Conformance is supplied on completion of satisfactory installation.

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(process plant) Ltd

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PR9 9XP • England

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CONTROL PANEL CARE

SAFETY INFORMATION

All control panels contain devices that are dangerous and only skilled persons should access the enclosure.

Some control panels contain live terminals that are supplied from external sources.

It is essential that all supplies are isolated before working on the control panel.

Persons working on control panels should have a working knowledge of the IEE wiring regulations BS 7671 1997, Health and Safety at Work Act and the Electricity at Work regulations.

No special tools are required to service the panel.

INSTALLATION GUIDANCE

Check panel for transit damage.

Where panels have been in transit for long periods, it is advisable to check all terminals and fixings for tightness before installation.

EXTERNAL WIRING

All external wiring should be in accordance with the IEE wiring regulations, BS 7671 1997

Do not earth via conduit fittings.

OPERATIONAL CHECKS

Connect the main cable as shown on the wiring diagram.

Check the operation of the control circuit.

Perform insulation tests as appropriate, but DO NOT test thermister or PT100 circuits with high voltage.

Check overloads are set to their correct setting.
Inverters may require setting.

WORKING ON LIVE EQUIPMENT

Working on live equipment must be authorised by the relevant authority on site.

ROUTINE INSPECTION

DISCONNECT ALL SUPPLIES

Check for:

1. Overheating
2. Ingress of dirt or moisture
3. Check all screws and fixings are tight
4. Check all moving parts for ease of operation
5. Examine all wiring, particularly near metal parts, and check for insulation damage
6. Check all connections are tight
7. Check push buttons for normal operation
8. Check mechanical interlocks of motors are functioning correctly
9. Check door seals are free from damage
10. Check incoming and outgoing cables are securely fastened to the enclosure
11. Check all earth connections are tight and free from corrosion
12. Carry out insulation tests with caution
13. Check fuses are of the correct size and check for signs of overheating
14. Check door isolator functions correctly
15. Check overloads are set correctly
16. Check thermister units function correctly, if they are fitted
17. Check all indicators are functional
18. Should any wiring appear damaged replace it
19. Ensure all instruments are in calibration
20. Spares are available from Charles Wait (Process Plant) Ltd

CHARLES WAIT (PROCESS PLANT LTD)
FYLDE ROAD.SOUTHPORT.MERSEYSIDE. PR9 9XP

ROTARY 2000 Mk 1 MACHINE MANUAL

IMPORTANT!

**EVERY OPERATOR MUST READ THIS MANUAL
BEFORE ATTEMPTING TO USE THIS MACHINE.**

CONTENTS

	Page No
Introduction	1
Operation of the Machine	2
The Filling System	3 - 4
Filling Heads	5 - 6
Stripping Down for Cleaning	7
Lid Applier	8
Sealing Head	9
Cup Dispenser	10 - 11
Ejection and Sweep-off	12
The Coder	13- 17
General Notes on Crouzet Logic Valves	18
Connecting the Electrical/Air Supply	19
Maintenance	20 - 21
Spare Parts	22 - 26
Wiring Diagram	27

CHARLES WAIT (PROCESS PLANT) LTD
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TELEPHONE (01704 211273)

2000 MK I

INTRODUCTION

The 2000 MK I cartoner performs five distinct operations. It DISPENSES the cups, FILLS them with the required quantity of the product, APPLIES foil lids, HEAT SEALS the lids to the cups and DATE-CODES the lids.

The air supply required is to I.S.O. 8573 Class 2 - 4 at 3 c.f.m. at 80 p.s.i. (5.5 Bar) minimum. A Filter Pressure Regulator is mounted at the side of the machine.

Electrical supply 380/440V, 10A, 50/60HZ.

A variable speed unit is fitted and recommended speeds are:-

5/6 oz. cups - 2000 c.p.h. (34 c.p.m.)
7/8 oz. cups - 1800 c.p.h. (30 c.p.m.)
9/10 oz. cups - 1700 c.p.h. (28 c.p.m.)

These speeds can be affected by the viscosity of the product.

It is recommended that a balance tank of 20/25 gallons be used in conjunction with the machine.

As we continue to improve our products we reserve the right to alter or amend any specification or design without prior notice.

OPERATION OF THE MACHINE

The Engineer will train the nominated operator how to:-

1. Run the machine in production
2. Strip down for cleaning

Every operator must be trained by the nominated operator and read the Machine Manual.

WARNING

In the event of cups jamming in the machine, stop the machine, clear the blockage and check the machine. Replace the viewing guard before re-starting.

NEVER ATTEMPT TO CLEAR A BLOCKAGE WHEN MACHINE IS RUNNING.

KEEP HANDS OUTSIDE VIEWING GUARD.

ALL GUARDS MUST BE IN PLACE WITH KEY SWITCH IN RUN POSITION WITH KEY REMOVED.

Charles Wait Process Plant Filling Machine

PRODUCTION START UP PROCEDURE

BEFORE ATTEMPTING TO USE THE MACHINE ALL OPERATORS MUST READ AND UNDERSTAND THE MACHINE MANUAL AND THIS PROCEDURE

1/ SWITCH POWER SUPPLY ON

IMPORTANT

THE KEY SWITCH IS FOR MAINTENANCE ONLY AND MUST BE REMOVED BEFORE RUNNING THE MACHINE

2/ SWITCH AIR SUPPLY ON AND ENSURE THE REGULATOR IS SET AT 80 PSI

3/ SWITCH HEATSEAL HEAD ON (takes approx 15 mins to heat up, when red light goes out on the temp controller "head is up to temperature" .)

4/ LOAD CUP DISPENSER WITH CUPS

5/ LOAD LID APPLIER WITH LIDS

6/ FIT PRINTING DATE CODE & INK BOTTLE TO THE CODING HEAD

7/ CONNECT PRODUCT TANK AND PIPWORK

8/ START MACHINE AND PRIME THE FILLING SYSTEM (by pushing in the product prime button, and releasing when product reaches the head .)

THE MACHINE IS NOW READY FOR PRODUCTION/

START THE MACHINE : LOAD CUPS & LIDS AS REQUIRED

IN THE EVENT OF A BLOCKAGE OR JAM UP OF CUPS, STOP THE MACHINE BEFORE ATTEMPTING TO REMOVE THEM .

MACHINE WILL NOT RUN OR HAS STOPPED

Check power supply, air supply (80 psi) the machine will stop if air pressure drops below 50 psi)
Check emergency stop button (to re-set twist the red button)

Check all machine guards are in position

Machine runs but indexing table not moving or out of time (shear pin broken) remove broken pin in the indexing table clamp, and below in the indexing table .set shear pin holes in line and fit new shear pin.

**WARNING the shear pin is designed to break if there is a blockage/jam up with cups etc .
Always use- Shear pins supplied by Charles Wait Process Plant or damage may occur to the gear box**

FOR FURTHER NFORMATION OR ADVICE TEL 01704 211273
Charles Wait (Process Plant) LTD

THE FILLING SYSTEM

As the indexing table brings a cup beneath the filling head, the cup pushes a “no cup no fill lever”, this is connected through a linkage to the gear box, which operates the filling system.

As the piston ‘E’ enters the measuring cylinder ‘F’ the filling head valve ‘W’ opens, allowing the product to flow into the cup. When the piston has completed it’s inward movement the filling head valve closes giving a clean cut off, and the cock ‘g’ turns through 90 degrees, allowing the product to be drawn from the supply tank into the measuring cylinder by the piston on it’s outward stroke. At the completion of this movement the cock again turns in readiness for the next cycle.

The capacity of the fill is regulated by turning the hand knob ‘H’ clockwise to increase the volume and anti-clockwise to decrease. There is a locking screw ‘I’ on the adjuster which should be undone before moving the hand knob and tightened after the adjustment.

A scale is fitted to enable the operator to quickly obtain the correct setting, this is purely an indicator and does not denote ounces or grams.

Filling operates when no cup is present, check that the linkage is free and not sticking.

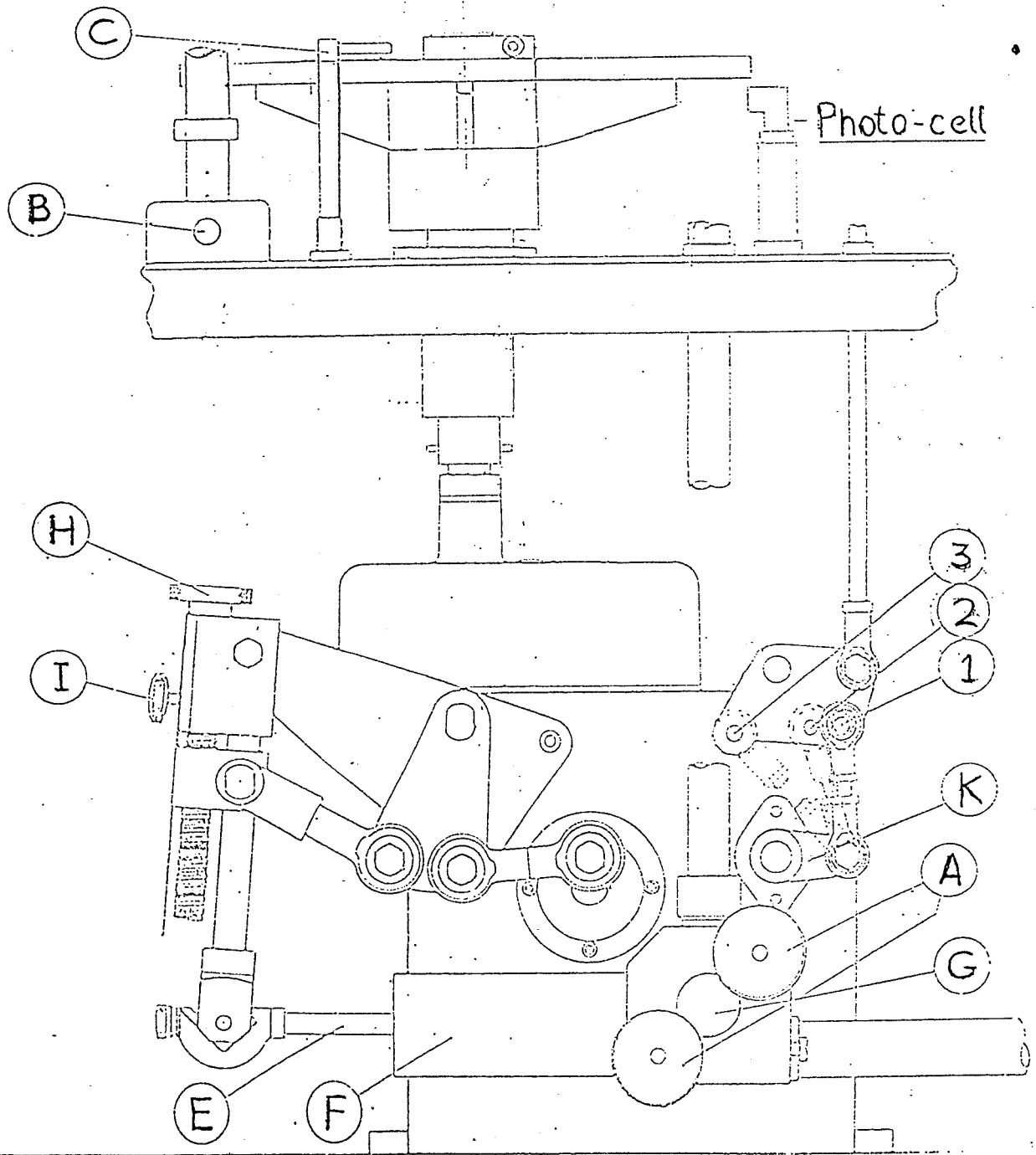
Cup present but not filling, cup is **not** pushing the “no cup no fill lever” far enough.
(Adjust the lever)

Filling weight’s are inconsistent. Check red seal on the filling piston for wear/splits also all the “O” rings on the filling head and pipework.

Filling head dribbling. Run the machine at a slower speed, check that the filling valve is closing fully, and the product in the holding tank is well mixed

Note some machines are fitted with a photo cell to operate the filling system, this replaces the “no cup no fill lever”.

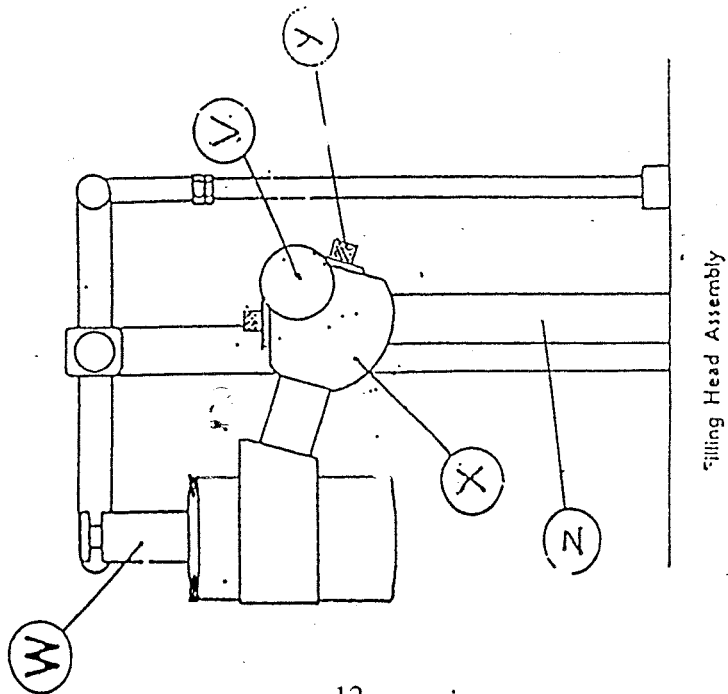
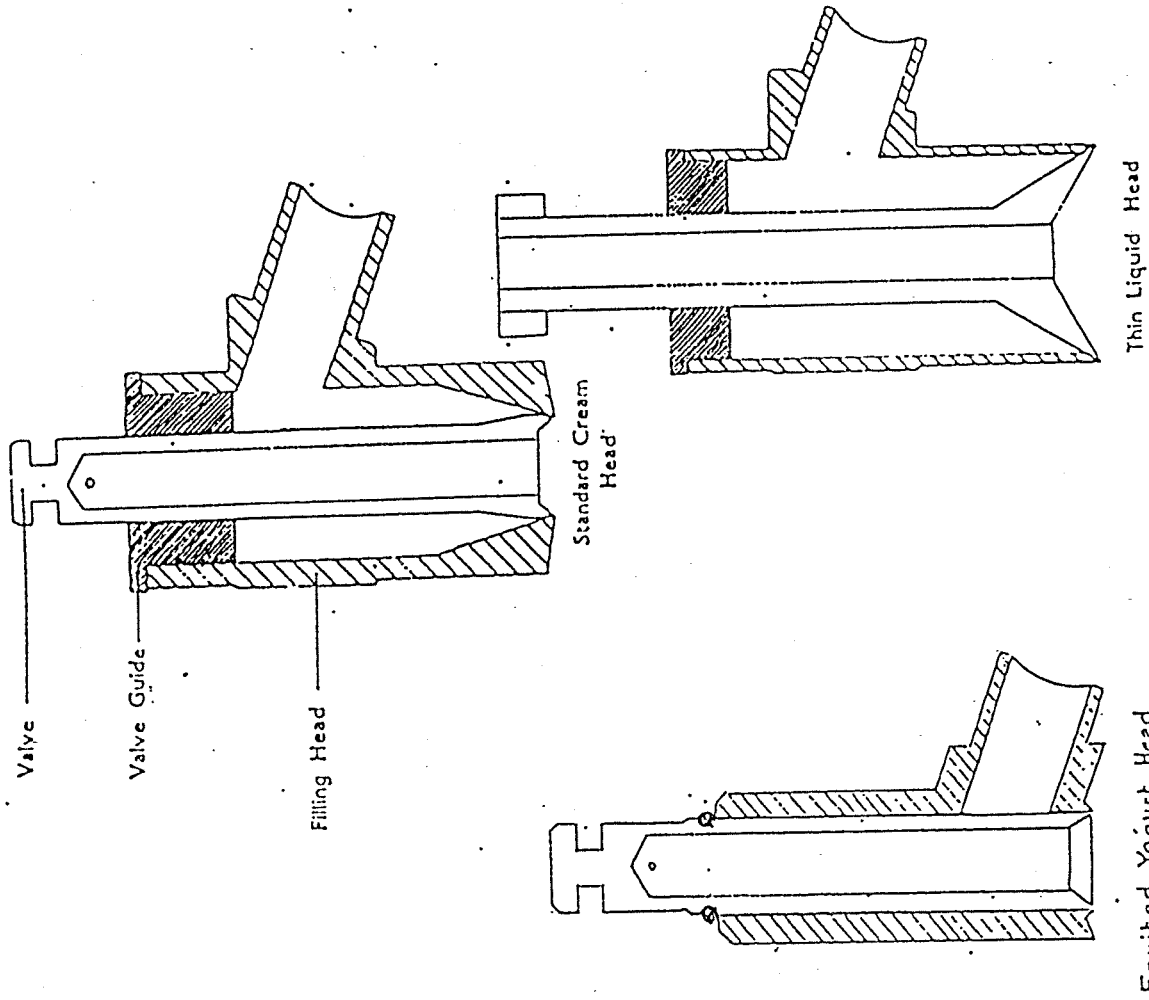
THE FILLING SYSTEM



- A - Hand Nuts
- B - Thumb Screw
- C - Two Carton Cut-out Lever
- E - Piston
- F - Cylinder
- G - Cock

- H - Capacity Adjuster Hand Nut
- I - Locking Thumb Screw
- K - Valve Lifting Lever
- 1 - Stud for Cream Filling Head
- 2 - Stud for Fruited Yoghurt Filling Head
- 3 - Stud for Thin Liquid Filling Head

FILLING HEADS



2000 MK I

FILLING HEADS

Owing to the variation in the consistency of the products, three filling heads have been designed. One which is suitable for cream, one for whole fruited yoghurt, and one for thin liquids. All three heads can be used on the same machine and can be quickly interchanged.

For cream, the head valve lifts to allow product to flow into the cup, for fruited yoghurt the valve again lifts but by a greater amount. For thin products, the head valve is lowered into the cup and the flow is directed onto the side of the cup, thus cutting down splash and froth.

The different movements required for operating the filling head valves is obtained by moving a connecting link to alternative studs on the change-over plate, which is situated inside the machine, slightly above and to the right of the cock-body. The keep plate should be swung to one side and the link put on the correct stud to suit the filling head being used. Numbers stamped beside the studs are :-

No 1 -	CREAM HEAD
No 2 -	FRUITED YOGHURT HEAD
No 3 -	THIN LIQUID HEAD

The keep plate prevents the rod end from coming off the stud and eliminates the use of tools when making the change over.

(See Filling Head Diagram)

V	Handwheel
W	Filling Valve
X	Cross Head
Y	Blanking Plug
Z	Filling Down Tube

STRIPPING DOWN FOR CLEANING

Isolate the machine and remove the guard from the side of the machine and disconnect the balance tank or supply line from the inlet pipe. Remove the inlet pipe (which has a bayonet fitting) by turning anti-clockwise and pulling out.

Remove the hand-knob 'V' fastening the filling head to the bracket on the pillar and turn the head to disengage the valve operating lever. Draw the filling head and tube up through the machine top. Remove the valve and valve guide, then the two plugs from the cleaning ports in the cross head 'X'.

Take out the piston 'E', then remove the two large hand nuts 'A' which secure the cock and body to the side of the gearbox, taking care that the tapered cock does not drop out of the body during removal.

All parts can now be thoroughly and easily cleaned.

Re-assembly is done in reverse order making sure that all fastenings are tight.

IMPORTANT

Care should be taken with all parts, especially valve and cock seatings, as damage will be detrimental to good filling.

LID APPLIER

When a cup reaches the lidding position it pushes a 'No-cup - No-lid' lever which moves a rubber sucker, mounted on an arm inside the machine, to cover an aperture, allowing vacuum to reach the lid applying sucker. The bottom lid is pulled out past the pointed support screws, turned over and placed on the cup, then the vacuum is released by a cam operated roller valve.

The lids should be a good fit in the dispenser, but free and not sticking together and the pointed support screws should protrude a minimum amount (about 1/32") without the lids dropping past them.

The linkage should be set to lift the stack of lids about 1/8" in the top position and release a lid about 1/8" above the cup in the lower position, allowing the lid to settle on the cup.

The vacuum is obtained from a GAST pump, which works by blowing air through a venturi, the optimum pressure being 40 lbs per square inch set on the regulator inside the side of the machine.

The exhaust from the GAST pump is piped to a roller valve, actuated by a cam, situated at the back of the reduction gearbox. The valve is open to atmosphere when vacuum is required and shuts off the exhaust to release the lid.

Filters etc. should be kept clean because of the small ports in the GAST pump, as a partial blockage will reduce the vacuum available. Low or no vacuum can also be caused by a blockage of product in the black Nitrile tube to the lid applier, sucker or sucker tube. Check for splits in pipe or pipe nipping when machine is operating.

If however the vacuum is still low or not working remove the GAST pump which is located behind the Secondary Filter Regulator and flush through with hot water, this will flush out any product which may have entered. Dry the GAST pump and re-fit.

SEALING HEAD

The operation of the sealing head is controlled by a cam on the top of the main gearbox which activates a 'Burgess' roller microswitch, and passes current (50v AC) to a solenoid air valve connected to the air cylinder. The wiring is connected via the motor starter so that the sealing head does not stay down on a carton if the machine is stopped.

The recommended temperature is 200-220 degC and is regulated by a C.A.L. Temperature Controller with a Thermocouple fitted in the head. The head should be switched on about 15 minutes before starting production in order to reach the operating temperature, which is indicated by a red light on the controller going out. The light will then go on and off intermittently to keep the head at operating temperature.

CLEANING

It is very important that the Sealing Head is kept clean as any build-up of burnt material will tend to act as an insulator and result in poor sealing.

The Sealing Head Bracket is hinged for easy cleaning with the wire brush supplied.

Stop the machine and remove the retaining screw (see drawing) with the Tommy Bar provided and swing the whole unit upwards making the sealing face accessible.

Take great care not to cause any damage to the face.

Replace the retaining screw ensuring that it is fully tightened.

Warning - care should be taken when cleaning as the head is VERY HOT

THE CUP DISPENSER

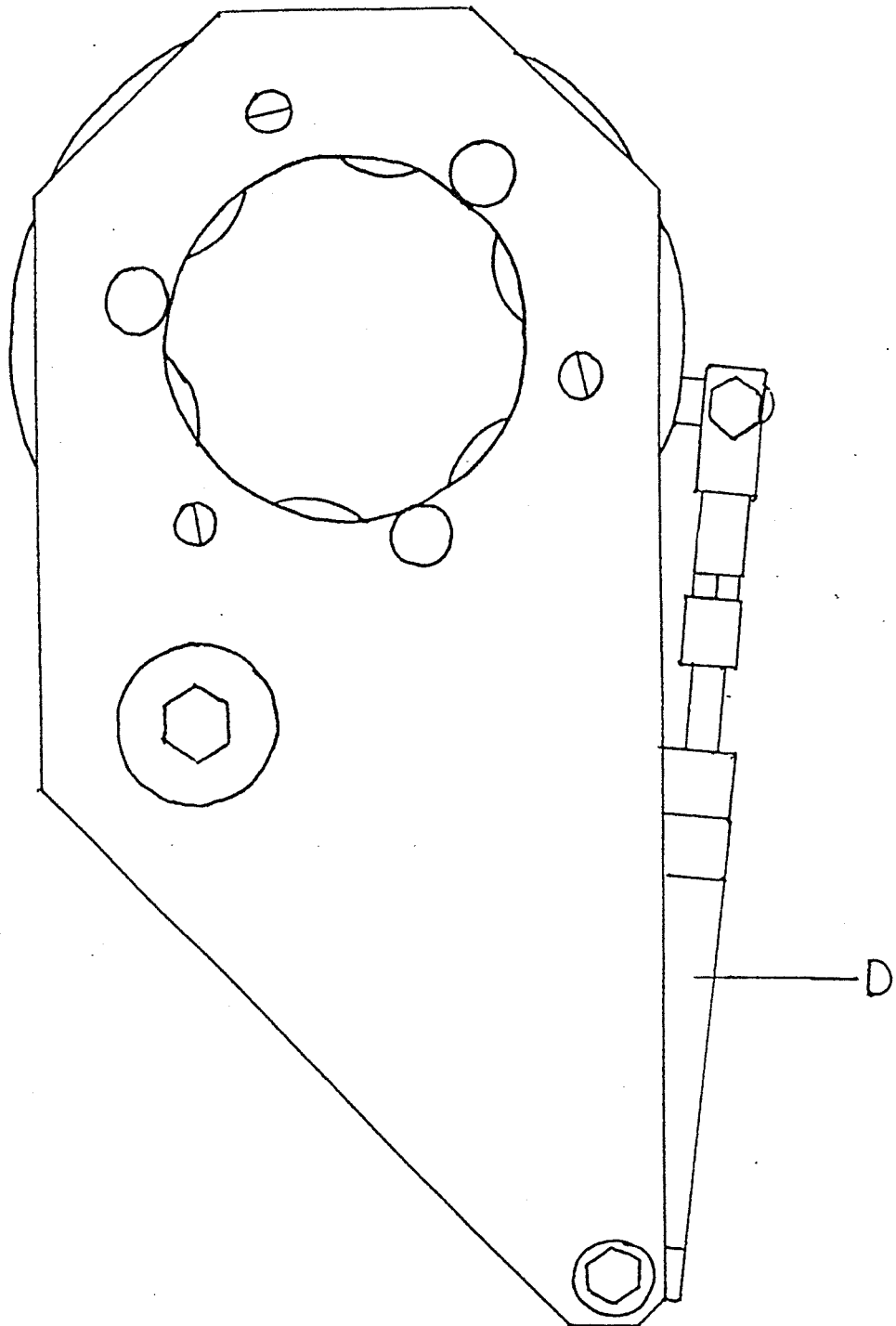
The dispenser has six cams operated by a circular rack. The rack movement is obtained by an air cylinder (D) which, when forward, allows a cup to rest on a step on the cams. As the cylinder moves back the six cams rotate, forcing down the bottom cup whilst holding back the remainder of the stack. The released cup drops into a cupholder in the indexing wheel which is stationary during this operation.

Should two cups be dispensed together the machine will stop when the indexing wheel brings the cups against a two-cup-cut-out lever 'C'. This lever operates a micro-switch which breaks the circuit. To restart the machine, remove the extra cup, reset the lever 'C' to its normal position and press the start button.

The height of the cup dispenser can be adjusted. This facility is built in when the machine is manufactured, to suit the cup sizes.

To alter the height of the dispenser, loosen the knurled screw 'B' and raise or lower the unit, (including the coder), to the correct height for the cups to be used. Tighten screw 'B', making sure that it engages in the dimple in the pillar. Both the coder and the cup dispenser will then be set correctly.

For dispensing cups with large stacking distance, i.e. in the 8-10 oz range, three extra cams are fitted above the standard cams. These cams hold up the stack whilst the other six force down the bottom cup.



CUP DISPENSER

EJECTION AND SWEEP OFF

The cup is lifted out of the Indexing Table by the Ejector, is coded, and pushed onto the chute by the Sweep-off.

The Ejector is lifted by an air cylinder, acting as a spring, and is lowered by a cam, this is to ensure that the ejector does not stay up for any reason and collide with the Indexing Table.

If any adjustment has to be made it is very important that the pad does not bottom on the top frame.

The Sweep-off is operated through levers from a cam on the top of the Main Gearbox.

In the event of something obstructing the sweep arm the operating lever at the lower end of the vertical pivot shaft (under the machine tip frame) may slip, which would put the sweep arm out of position.

To check the correct position, turn the machine by hand with a cup in the indexing table over the ejector until the ejector reaches the top, then take it four more turns and the sweep arm should be just touching the cup. If this is incorrect, undo the clamp-bolt in the lower lever, re-position the sweep arm and tighten the bolt fully.

THE CODER

Basic Principle

The basic principle is common knowledge, and has been for many years. A rubber type face is presented first to an inked pad and then to the product to be printed.

To obtain good quality print requires a more detailed understanding of the six following points:

1. The face of the type must be flat
2. The face of the type must be presented to the inked pad flat, so that the ink is transferred evenly.
3. The right amount of ink must be transferred.
4. Some force, however small, is used to apply the inked typeface to the product, causing deflection of the product and some deformation of the type face. This force should therefore be kept at a minimum.
5. There should be no lateral movement between the type face and the product during contact.
6. The ink should be suitable for the surface being printed.

A thorough understanding of these points will pave the way to first class results, but please read the following sheets for detailed information.

INK CAPSULE

1. The ink capsule is essentially a plastic screw top jar containing appropriate ink-loaded wicking material which brings this particular ink to the surface at the desired rate.
2. The ink used is very fast drying and for this reason capsules should remain tightly capped when not in use.

3. Before screwing the capsule into the holder on the coder, check that the pad is snug against the inside rim of the jar and if not, replace the cap, invert and bump moderately on a flat surface.
4. If type is projecting through the holder aperture when fitting a new capsule it is best to either remove the holder or swing it to one side to avoid displacing the type by rotating the pad whilst in contact with the type.
5. A new capsule which does not ink immediately should be re-capped, inverted and left for 15 minutes.
6. A used capsule which is not inking satisfactorily may be revitalised by depressing the pad with the tool provided and adding one capful of make up (using the cap from the make up bottle). Work the pad a few times to distribute the make-up, re-cap and leave for 3 hours. When this procedure no longer gives the desired print, discard the capsule.

SEALING CAPSULE HOLDER

If the capsule holder is sealed to the type chase, then when the coder is at rest, air cannot enter the capsule, this then permits the capsule to be left in the machine for long periods, even overnight, without drying out.

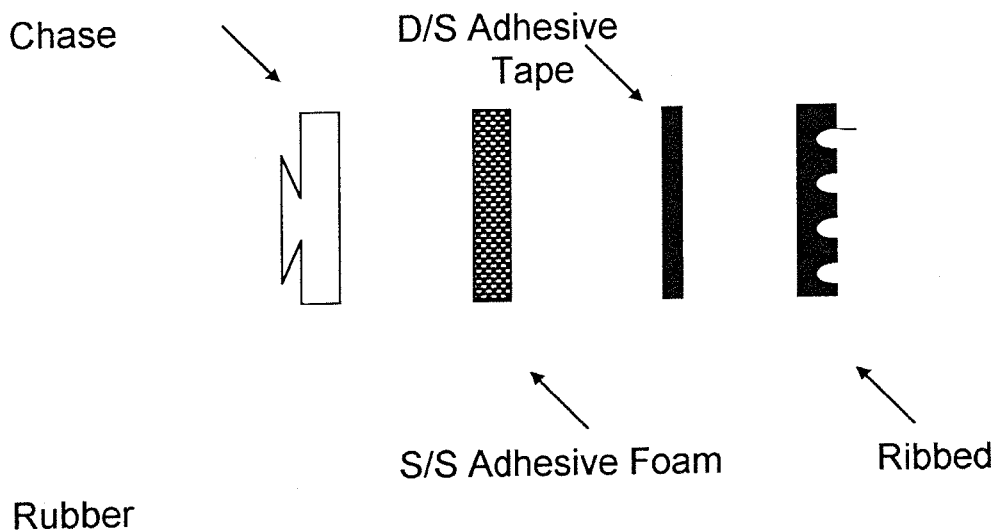
This can only be done if the full face of the type face is not covered with type.

The holder will have been supplied to you with appropriate foam plastic attached to the holder when this applies, and if this becomes damaged it should be replaced with the material provided in the same manner.

On machines which are not sealed, due to the greater use of the type chase, capsules should not be left in the machine when not in use.

TYPE CHASE

1. Two type chases are supplied with each head, so that whilst one is in use the other can be typeset for the next code. Further type chases may be ordered if desired.
2. A chase may be dove-tailed into the head form either side, but in dynamic applications where movement of the product could displace the chase, load the chase so that the fouling pin prevents displacement.
3. Ribbed rubber base for use with rubber type, or polymer logos if used, should be attached to the chase using double sided adhesive plastic foam tape.
4. In some cases, for instance where product deflection is a problem, the type face can be encouraged to form partly to the shape of the product by introducing a 6mm thick self-adhesive foam between the chase and the double sided adhesive tape.



PRINT QUALITY

1. Head operates but no print:

Check that the type face is reaching the product and if not:

Check head height
Increase head pressure slightly
Increase dwell time slightly

2. If type face touches product but no print:

Check that type face is reaching ink pad
Check that ink is present at pad

3. If a part of the code is consistently missing e.g.

SELL BY	SELL B
CORRECT FEB 5 E	CODE MISSING FEB 5
50p	50p

Increase pressure slightly, say 1 p.s.i.
Check that the ink pad is clear
Check that the type face is flat and undamaged
Check that it is not due to shape of the product, such as
printing over a seam.

4. If type backing is also printing, for example:

SELL BY	
FEB 5	E
50p	

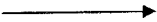
Reduce head pressure, if necessary compensating by
lengthening dwell time.
Check level of type face.
If head is printing right at the end of its stroke, decrease
head to product height slightly

5. If code characters are infilled, eg.

SELL BY
FEB 5 E
50p

Too much ink, reduce supply to pad. Clean surplus ink from both pad and type face.

6. If code is smudged, eg.

Clean edge **SELL BY** Ragged edge direction of smudge
this side **FEB 5 E**
50p 

Ascertain direction of smudge. Check if product is moving whilst being coded.

Alter head to product height, if too close printing can occur before head has reached straight line motion.

Too far can result in slight displacement if print and end of cylinder stroke occur simultaneously.

7. If print misses in centre, eg.

SF' ' BY
F E
50p

First try remedies at '3'.

Probably product deflection is the cause, a circular missing area on a plastic tub lid is typically indicative of product deflection. Introduce a plastic foam filler between the type base and the chase as specified in the next section.

GENERAL NOTES ON CROUZET LOGIC VALVES

Port No. 1	Signal Port	Green
Port No. 2	Supply Port	Yellow
Port No. 3	Output Port	Red

When fault finding, pop up indicators should be pushed in. Those that pop up indicate presence of air at that port.

Elements are secured to their sub-base by two screws. When replacing an element ensure that the fouling pin is correctly engaged in its hold in the subbase. Screws should be tightened to 5-10 cm kg torque.

MEMORY: With supply on port signal at 1 gives output at 3,
 Signal at 1 gives output at 3.

NOT: With supply at 2 signal at 1 exhausts 3. With
supply at 2 no signal at 1 gives output at 3.

LEAK RELAY: Supply at 2 bleeds small amount of air from port
1. Occlusion of this bleed gives output at 3.

2000 MK I

CONNECTING THE ELECTRICAL/AIR SUPPLY

Connect the incoming electrical supply 380/440 Volt, 10 A, 50/60 Hz, 3 phase, neutral and earth to the top row of terminals situated inside the electrical enclosure.

Air Supply:

The air supply required is to I.S.O. 8573 Class 2- 4 at 3 cubic feet per minute, (1.5 cu dm per s) at 6 bar.

MAINTENANCE

Lubrication

2 gearboxes - check oil level monthly. Use Shell Tonna T68 or equivalent.

Insert two squirts of oil into the wick caps on top of the small reduction box and in the one on top of the main gearbox.

17 Grease Nipples - weekly with food quality grease.

IMPORTANT

Clean off all excess grease.

Keep grease, oil and water away from all pneumatic valves, this can enter into the silencer ports and cause the valves to stick.

Rod End Bearings - Light oil weekly.

Check the roller bearing cam followers for wear on the levers next to the small reduction box and on top of the main gearbox monthly. Replace if worn or seized.

Lid Applier - weekly

Check the black rubber pipe for wear and splits as well as the rubber suckers, top and bottom (under the top frame).

IMPORTANT

Use neoprene tube and suckers.

Cap Coder - weekly

Remove and clean the chase pad. Spray inside the coder guide plates with 'Plus Gas'. DO NOT USE OIL. Check small black air pipes for leaks. Clean all excess dried ink from the square hole where chase pad takes ink.

Indexing Table Shear Pin

Always fit the recommended shear pin. The pin is designed to break so that no damage can occur to the main gearbox.

Once maintenance is completed the machine must be cleaned ready for production.

All guards replaced and key switch set in run position with key removed.

Testing Safety Switches

The switches are located on the top viewing guard, left hand side clear capacity adjuster guard and the front filling mechanism guard.

With key set in the run position, run the machine, open top viewing guard and machine should stop. Repeat this procedure on the above guards.

Spare Parts

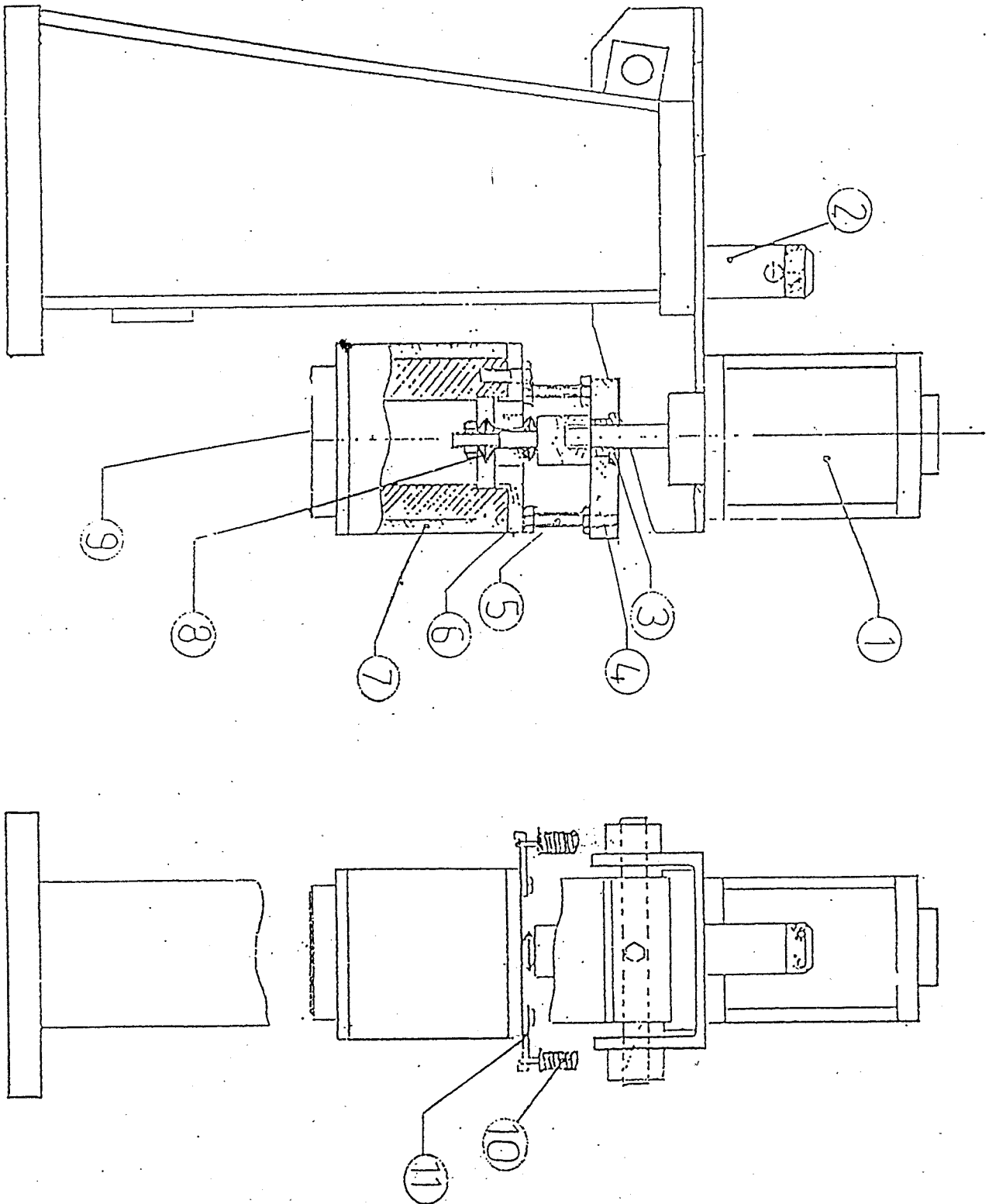
All spare parts are available from Charles Wait Process Plant. The use of alternative parts may invalidate warranty.

Charles Wait Process Plant Ltd recommend that the machine is serviced every twelve months.

2000 MK I

SEALING HEAD ASSEMBLY

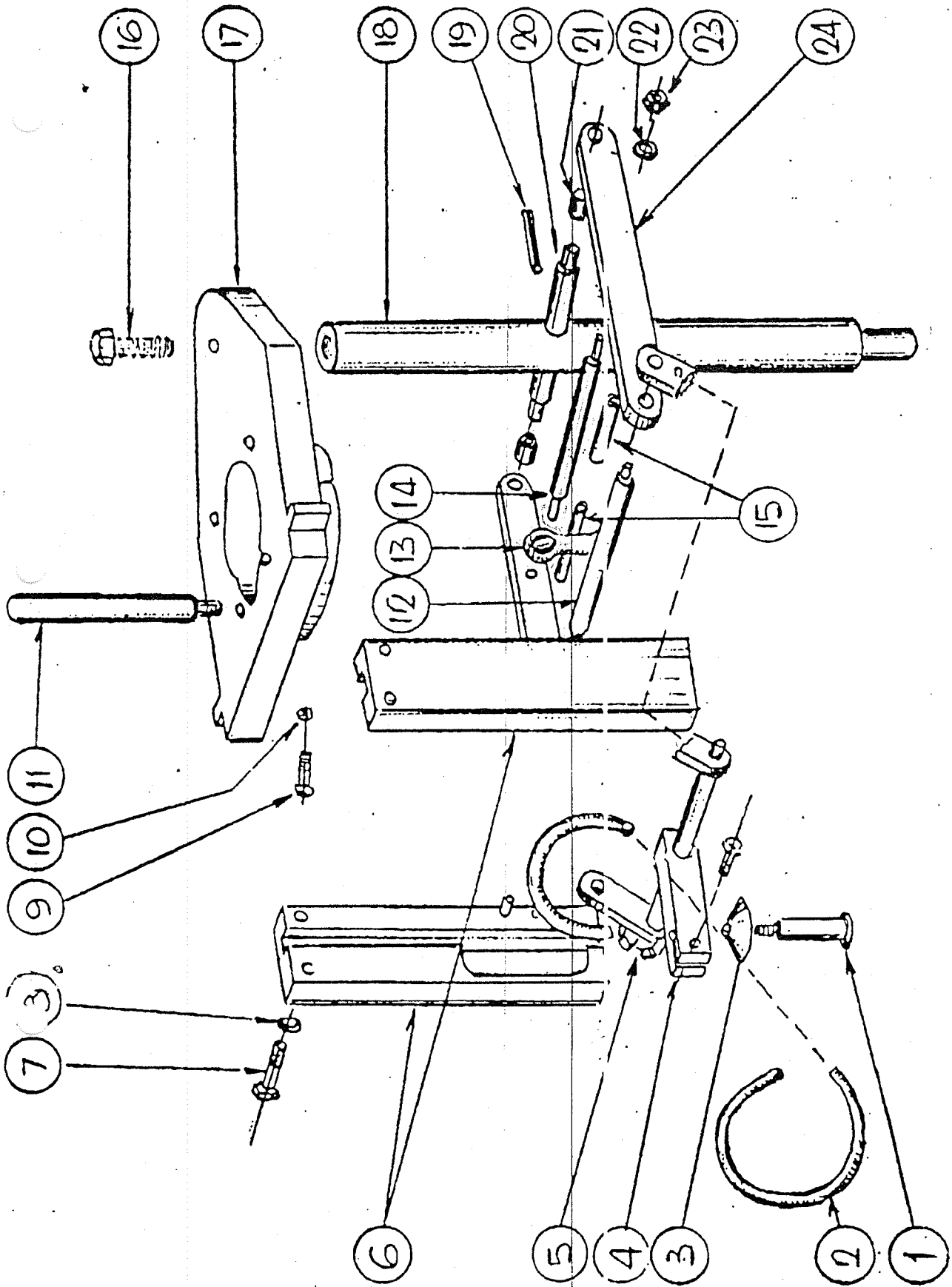
<u>DIAGRAM REF NO.</u>	<u>DESCRIPTION</u>	<u>SPARES PART NO.</u>
1	Air Cylinder	
2	Retaining Screw	E4
3	Flanged Bush	E9
4	Levelling Plate	E7
5	Levelling Screw - 3 off	
6	Support Plate	E6
7	600 Watt Band Heater	E17
8	4 off Bellville Washers	E19
9	Head Insert	E15
10	D.L St/Steel Springs	E13
11	Spring Anchors	E10

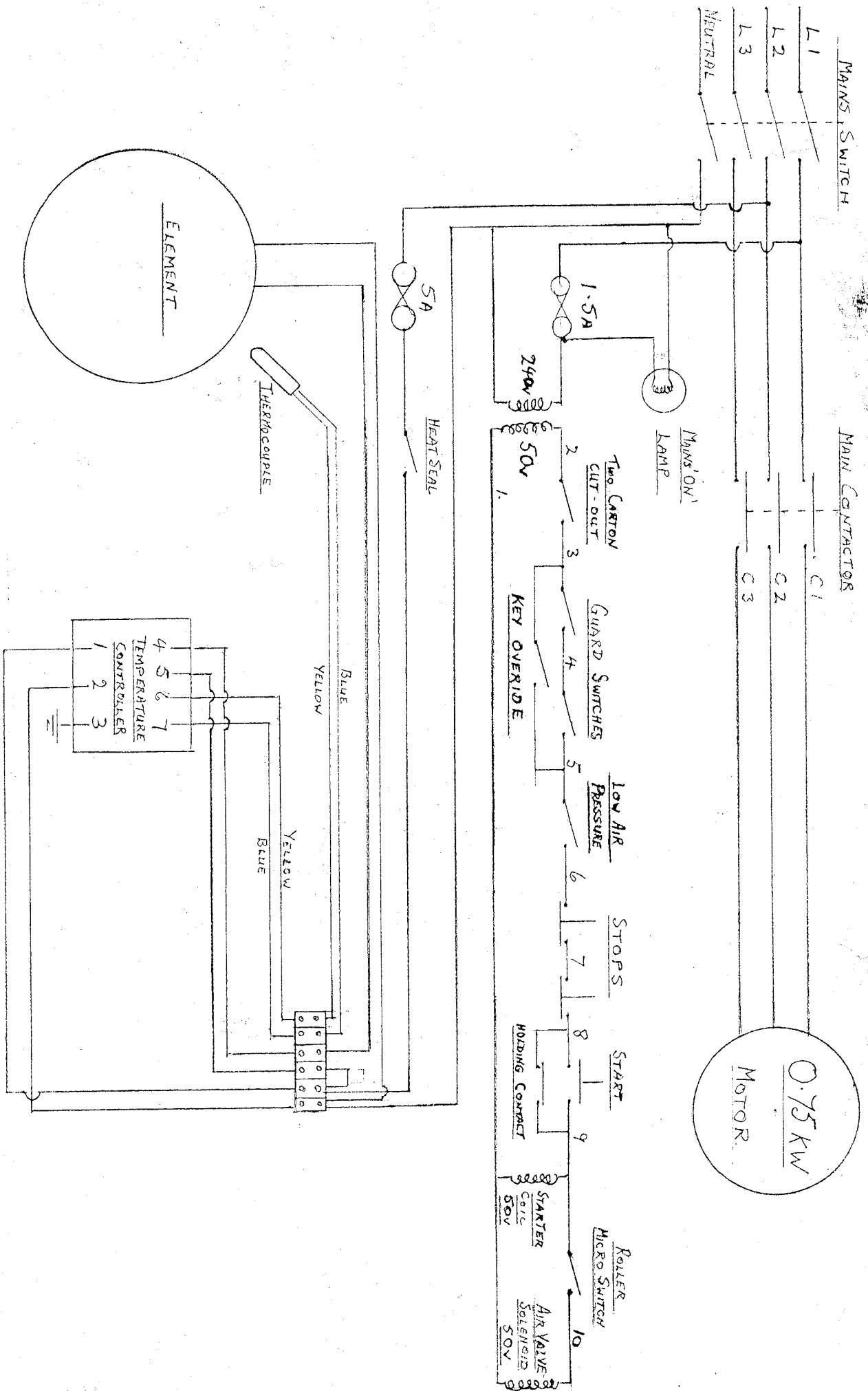


SEALING HEAD ASSEMBLY

LID DISPENSER ASSEMBLY

DIAGRAM NO.	DESCRIPTION	SPARES PART NO
1	Sucker Holder	D20A
2	Neoprene Tube	
3	Sucker	08 · 1 $\frac{1}{4}$
4	Support	D19
5	Turn-over Assy. Comprising of:- 2 x Link Geneva Shaft Geneva Wheel	D11 D12 D13
6	2 x Side Plates	D31
7	4 x $\frac{1}{4}$ BSW x 1" Hex. hd Set Screws	
8	4 x $\frac{1}{4}$ " Washers	
9	6 x Stripper Screws	D35
10	6 x $\frac{3}{16}$ " BSW Nuts	
11	4 x Guide Rod	D9B
12	Link Shaft	D15
13	Uni Ball	T 3/8
14	Operating Shaft	D16
15	2 x Spacers	D18 D18A
16	$\frac{1}{2}$ " BSW x 1 $\frac{1}{2}$ " Set Screw	
17	Top Bracket	D1
18	Pillar	D14
19	$\frac{3}{16}$ " Dia. Sel-lok Pin	
20	Pivot Shaft	D17
21	2 x $\frac{3}{8}$ " x $\frac{1}{2}$ " x $\frac{3}{8}$ Oilite Bushes	
22	2 x $\frac{1}{4}$ " Washers	
23	2 x $\frac{1}{4}$ " BSW Nuts	
24	Pair Levers	D10





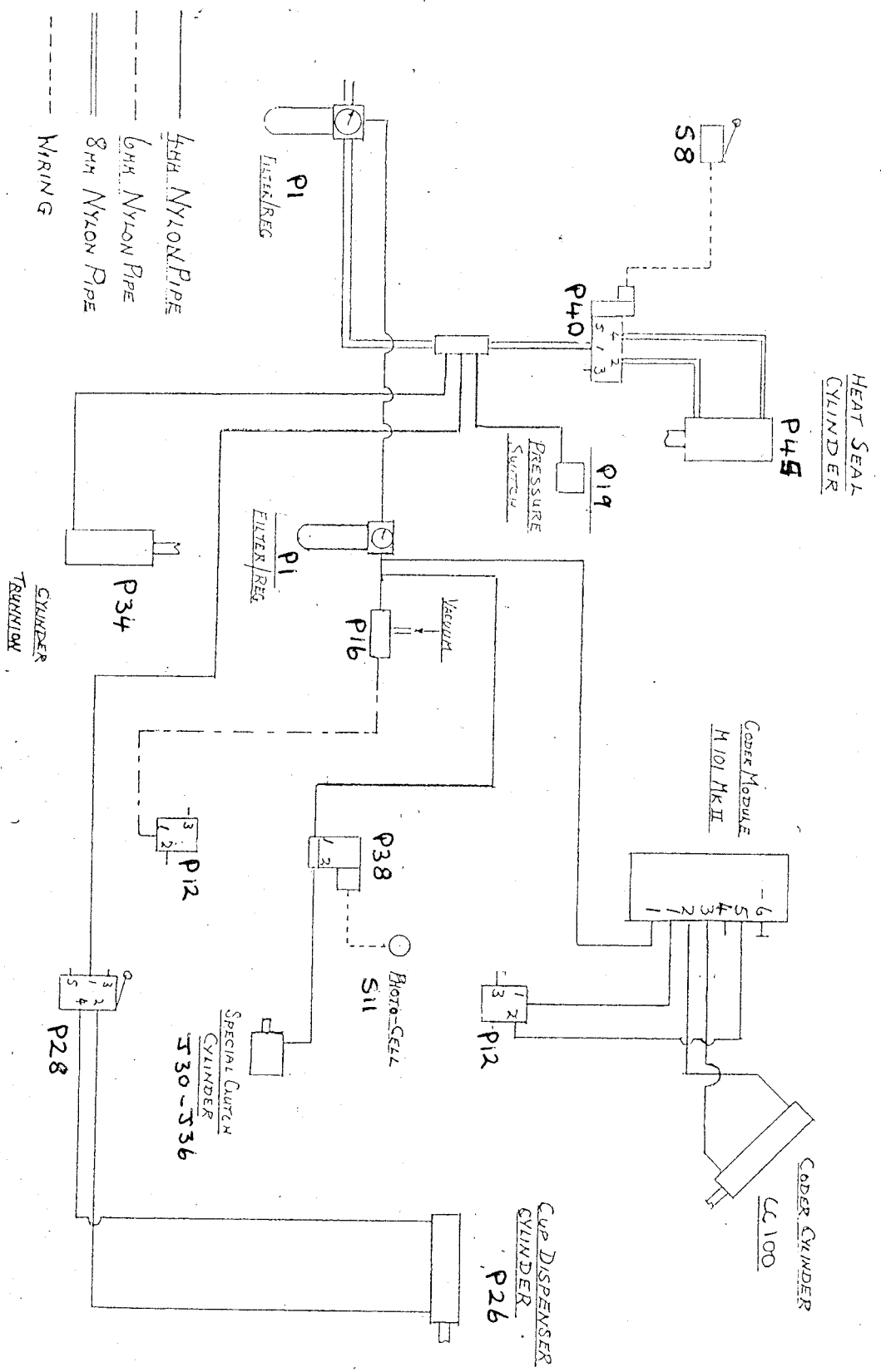
C.F. 2000 ELECTRICAL CIRCUIT

2000 MKI
PNEUMATIC CIRCUIT

DESCRIPTION	PART NO.	
Primary Filter/Regulator	P1	Set at 80 PSI main air supply
Secondary Filter/Regulator	P1	Set at 40 PSI air supply to cap coder and vacuum Generator.
Roller Spool Valve Cap Coder	P12	- Mounted left side Frame Pillar
Roller Spool Valve Vacuum Exhaust	P12	Mounted at Rear Cam operated
Vacuum Generator	P16	Mounted inside the machine on the vacuum supply tube.
Low Air Pressure Switch	P19	Mounted inside Control Panel
Cup Dispenser Air Cylinder	P26	Operates grey plastic Cup Dispenser
Cup Dispenser Roller Spool Valve	P28	Mounted at rear with P12 Cam operated. Fitted with Restrictors on exhaust ports.
Cup Eject Cylinder	P34	Mounted left side operates Eject Pad
Trunnion Bracket	P35	Bracket for above
Filling Solenoid Valve	P38	Mounted right hand side on top of Main Gearbox For machines with photo cell only
Heat Seal Solenoid Valve smc 48v	P40	Mounted behind cover plate under the electrical Control panel
Heat Seal Air Cylinder	P45	Mounted on Heat Seal Head
Clutch Air Cylinder	J30 - J36	Mounted on rear of Main Gearbox For machines with photo cell only
Roller Micro Switch (electrical)	S8	Mounted on top of Main Gearbox, Cam operated Switch for heat seal air cylinder.
Photo Cell	S11	Mounted under Indexing Table, activates filling System.

Note. If the air supply falls below 50 psi the machine low air pressure switch will trip and stop the machine.

Pneumatic Circuit



Charles Wait (process plant) Ltd

'Giving you the whole package world-wide'

151 Fylde Road

Southport

PR9 9XP

England

Charles Wait (pp) Ltd will be pleased to Quote for spares on request.

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Email sales@charleswait.co.uk

2000 MK I

RECOMMENDED SPARES FOR 2000 MACHINE

<u>QUANTITY</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
1	600 Watt Band Heater	E17
1	Thermocoupler	E18
6	Shear Pins	I6A
2	Dairy Pipeline O Rings	O3
2	Blanking Plug O Rings	O4
2	Filling Valve O Rings	O5
2	Filling Head Down Tube O Rings	O6
4	Sucker Cups 1 $\frac{1}{4}$ "	O7
2	Piston Nu-Lip Seals (Red)	O8
4	Cup Ring O Rings	O9
1 metre	Black Nitrile Tube (Lid Applier)	P25
2	250V F100MA Fuses (20mm Long)	SF1
2	5 Amp Fuses (30mm Long)	SF2
2	250V F1.5A Fuses (20mm Long)	SF3