

5325
 REC. ALTAJ
 7/9/86

ECOPROCESSOR 300 MTV INSTRUCTIONS FOR USE

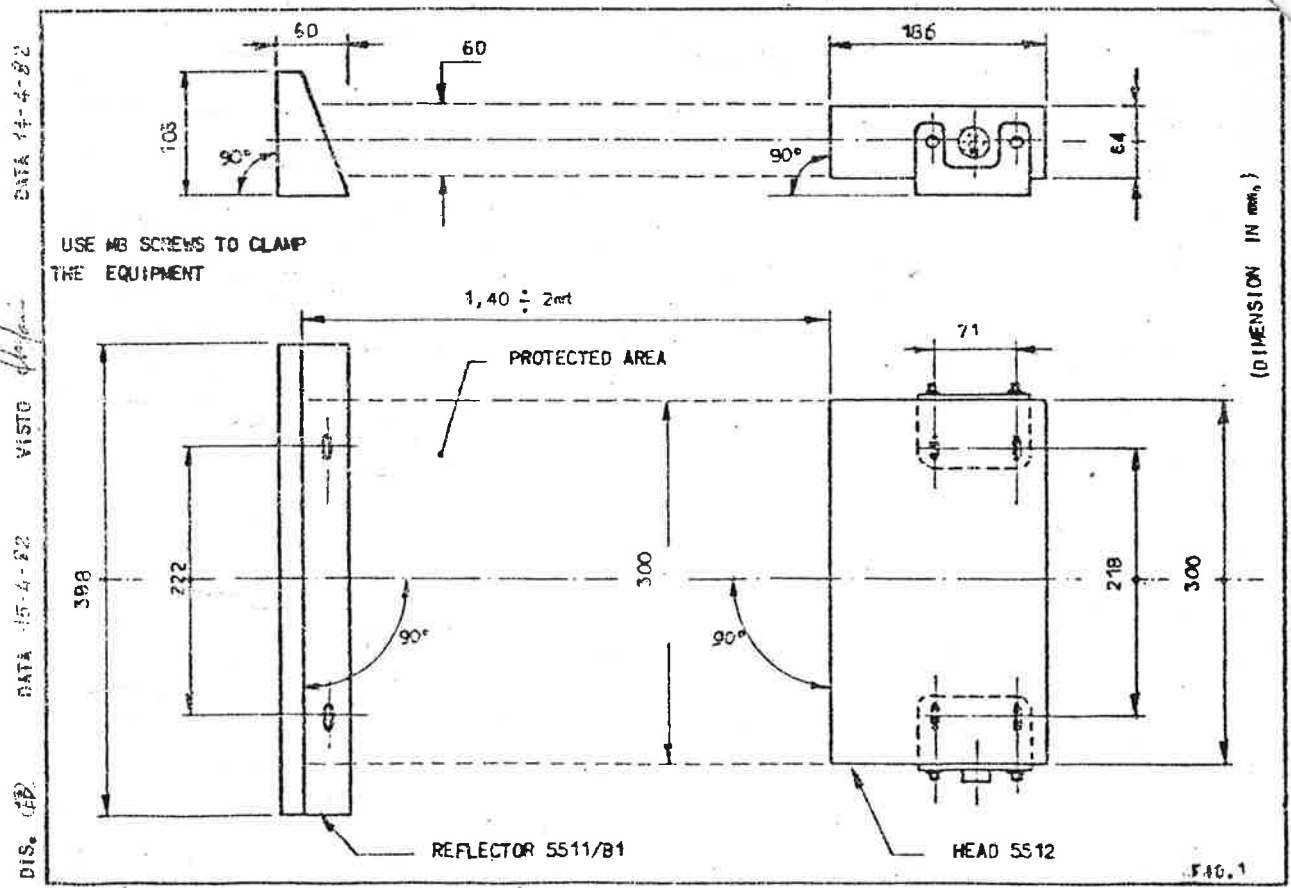
1 - GENERAL INFORMATION

Ecoprocessor 300 MTV photoelectric barrier protects the operation area of presses and dangerous machines in general, interrupting machine operation until any solid obstacle (worker's hand, steel sheet, etc.) is removed from it. The equipment operates on multiple photoelectric reflection principle and consists of a powered head (transmitter/receiver unit including the electronic circuit) and a non-powered (the reflector).

The barrier generated by the equipment consists of cyclically scanned modulated infrared light beam with a mean pitch of approx. 35 mm. being this more than sufficient to ensure the operator's safety.

The equipment is constructed to the most up to date technological standards, for guaranteed and long-lasting service. It includes:

- Microprocessor control unit
- 2 guided contact safety relays
- Special light-excluding devices



2 - TECHNICAL SPECIFICATIONS

MODEL	ECOPROCESSOR 300 MTV	
FEED	24V c.a. +10% 50/60Hz. 15 VA	
WORK RANGE	1,40 - 2,50 mt	
MIN. OBJECT PICKED UP	\geq ϕ 40 mm	
MAX. HEIGHT PROTECTED	\leq 300 mm.	
RESPONSE TIME	\leq 20 ms.	
OUTPUT	2 N.O. contacts 2A - 220V A.C. Resist. 1 N.C. contact 1A - 220V A.C. Resist.	
FUNCTION TYPE	Manual or automatic (using internal bond)	
WORK TEMP.	0 - 50°C.	
SIGNALS	GREEN LED ON	Barrier not intercepted - machine working
	RED LED ON	Barrier intercepted - machine blocked
	YELLOW LED ON	Barrier break down - Barrier overhaul required
REFLECTOR WEIGHT	\approx 2,6 Kg.	
EQUIPMENT WEIGHT	\approx 4,6 Kg.	

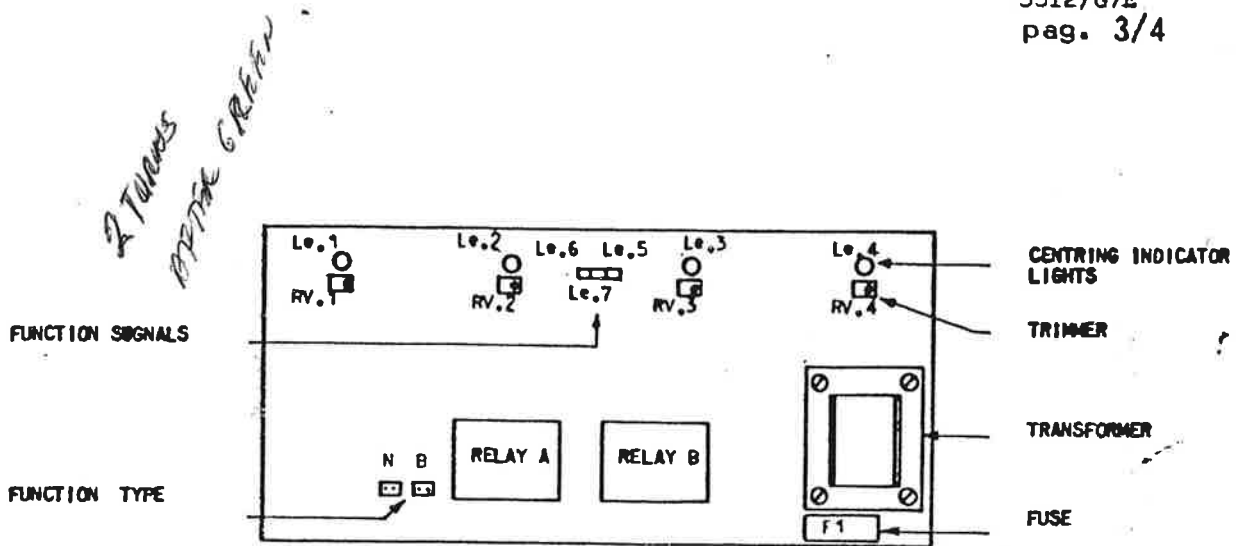
3 - INSTALLATION

The head and reflector assembly shall be installed at the sides of the area to be protected, one facing the other, at the required distance and shall be fixed by proper brackets. The 2 components of the photoelectric barrier must be perfectly aligned and perpendicular to each other (see fig.1)

4 - CONNECTOR LINK-UP

PIN	CONNECTIONS
1 - 2	Feed 24V A.C.
1 - 4	Feed 110V A.C. (On request)
5	Earth
7 - 8	Contact n. 1 output (N.O.)
9 - 10	Contact n. 2 output (N.O.)
11 - 12	Test external contact (N.O.) (Not connected)
13 - 14	Contact n. 3 output (N.C.)
15 - 16 *	external reset (N.O. contact)

* The external reset contact is used only when resetting manually.



5 - SETTING UP

- a) Connect wires as described in para. 4
- b) Unscrew and remove cover from equipment (6 screws)
- c) Check that equipment is on automatic reset (bond on connector N).
- d) Switch on and make sure all 4 centring lights are on (Le 1 - Le 2 - Le 3 - Le 4) if not:
 - check equipment - reflector alignment
 - check that all 4 trimmer screws have been completely rotated clockwise (RV 1 - RV 2 - RV 3 - RV 4)
- e) - Let the equipment warm up for about 15 minutes.
- f) - Make sure the photoelectric barrier is not intercepted
- g) - Slowly rotate the trimmer screw RV 1 anticlockwise (with a screwdriver of the right size) until the green light (Le 1) goes out.
- h) - Very slowly turn the trimmer screw RV 1 clockwise until the green light (Le 1) goes back on, then continue the clockwise rotation for another $\frac{1}{2}$ turn (approx).
- i) - Repeat (h) for the other 3 trimmer, checking the respective indicator lights.
Once the trimming operation is terminated, the equipment is operational. Correct function signals:
Green led (Le 6) on, Red led (Le 7) and Yellow led (Le 5) off
- l) - Set the equipment on the work mode desired:
 - AUTOMATIC RESET = bond on connector N.
 - MANUAL RESET = bond on connector B.

m - Replace cover

N.B. The operations described under f, g, h, i must be carried out every time the equipment is moved or the distance between equipment and reflector is altered.

6 - TROUBLE-SHOOTING

In case of operation failure (no light on), remove side panel by underscrewing the relevant screws and make sure that fuse F1 is not burnt. If required, replace it with a similar one 1A semi-delayed (5x20). Before supplying power again to the equipment, make sure that the supply voltage is correct. If the replacement is not sufficient to restore operation, send the equipment to our laboratories preventing additional tampering, specifying:

- The detected trouble
- The operation period
- The installation has been made.

ELEMAC SPA DECLINES ANY RESPONSABILITY ABOUT THE NON-COMPLIANCE WITH THE CONTENTS OF THE INSTRUCTION BOOKLET

NOTE: The strict compliance with the instruction is essential in order to preserve the safety level provided by this equipment.

INSTRUCTIONS FOR THE

USE OF THE S 325

PLEASE READ CAREFULLY: IT IS VERY IMPORTANT

ATTENTION:

Before connecting up the machine, it is necessary to:

- 1) fit the shock-absorbers to the machine feet.
- 2) remove the back cover and the beam constraint pin (as shown at table n. 10) utilized for the machine transport.
- 3) fill the tank with 100 Kilos of special quality hydraulic oil of high viscosity index (3,5° - 4° Engler at 50° C. / 122° F) (We recommend you to use ISO 46 type).

CONNECTING UP AND SETTING-UP OF THE MACHINE

Before connecting up the machine, ensure that the factory voltage corresponds with that of the machine which is shown on the plate (V) (see table n. 1). If, for any reason, the voltage should be changed, it is imperative that the voltage to the transformer of the electrical equipment is also changed.

The pump is working in the right direction when the motor - switched on by the main switch (O) and operated by the black pushbutton (I) - turns in the direction of the arrow outside the motor.

If it does not, change the polarity of the connections.

In order to exhaust all the air in the pipes and cylinders, act as follows:

- 1) place the pressure adjuster (F) on the minimum value, by turning it anticlockwise.
- 2) place the daylight adjuster (E) at the middle of its value approx.
- 3) operate the machine by laying both hands on the hand contact controls (Q) and (R) - simultaneously - (for safety purposes the controls present a built-in device for 3/10 of second maximum delay operation).

Repeat this operation for a few minutes.

At this point the machine is ready for working.

CUTTING WITH AUTOMATIC STROKE END SETTING-UP (PRESSURE SWITCH)

To adjust the cutting with automatic stroke end setting-up, act as follows:

- 1) turn the pressure adjuster (F) to the minimum value.
- 2) bring the selector handle (U) to position 0-zero.
- 3) the cutting table completely free, get the beam down onto the cutting board by operating the hand contact controls (Q) and (R) simultaneously.
- 4) bring the selector handle (U) to position 1 and the beam will move upwards automatically.
- 5) operate the adjuster (E) to obtain the wanted daylight.

6) operate the pressure adjuster (F) to obtain the right cutting-precision according to the linear development of the cutting-knife and to the thickness of the material to cut.

At this point the machine is ready for working with any cutting-knife of whatever height.

CUTTING WITH TRADITIONAL STROKE END SETTING-UP

To adjust the cutting with traditional stroke end, act as follows:

- 1) turn the pressure adjuster (F) to the minimum value.
- 2) bring the selector handle (U) to position 0-zero.
- 3) place the cutting-knife on the cutting table of the machine, without any material to cut.
- 4) get the beam down onto the cutting-knife by operating the hand contact controls (Q) and (R) simultaneously.
- 5) bring the selector handle (U) to position 2 and the beam will move upwards automatically.
- 6) operate the adjuster (E) to obtain the wanted daylight.
- 7) operate the pressure adjuster (F) to obtain the right cutting precision according to the linear development of the cutting-knife.

At this point the machine is ready for working with any cutting-knife of the same height as the one employed to adjust the machine. Whenever you change the height of the cutting-knife, you must readjust the machine as above described.

PHOTOCELLS PROTECTION BARRIER

The photocells protection barrier with manual restoration (A) performs during the whole descent of the beam.

During this operation, whenever the photocells protection barrier is crossed by the hands of the operator or any other interference, it stops the descent of the beam.

HOW TO OPERATE THE AUTOMATIC FEEDER

By turning the switch (H) to the right, the upper roller of the automatic feeder lifts up, by turning it to the left the roller lowers.

By turning the switch (G) to the right, the material is fed; by turning it to the left, the material moves back.

The material feeding can also be controlled by the foot-treadle (Z).

The switch (B) puts on and off the light.

The switch (C) inserts or excludes the cut-counting device (D).

The red pushbutton (L) stops the machine.

OTHER DEVICES

On the S 325 the cutting pressure variations can also be obtained by linking up the machine with either the 10-cutting-knife holder PF/10 or the scheduled cut-counting device for 5 cutting-knives G/5 or 10 cutting-knives G/10.

In fact, through the potentiometers inserted in these devices you can preset the most suitable cutting pressure for every single cutting-knife.

IMPORTANT

For a prompt supply of the spare parts we need to know:

- type and serial number of the machine
- number of plate in the catalogue
- reference number of the spare part
- required quantity.

For example:

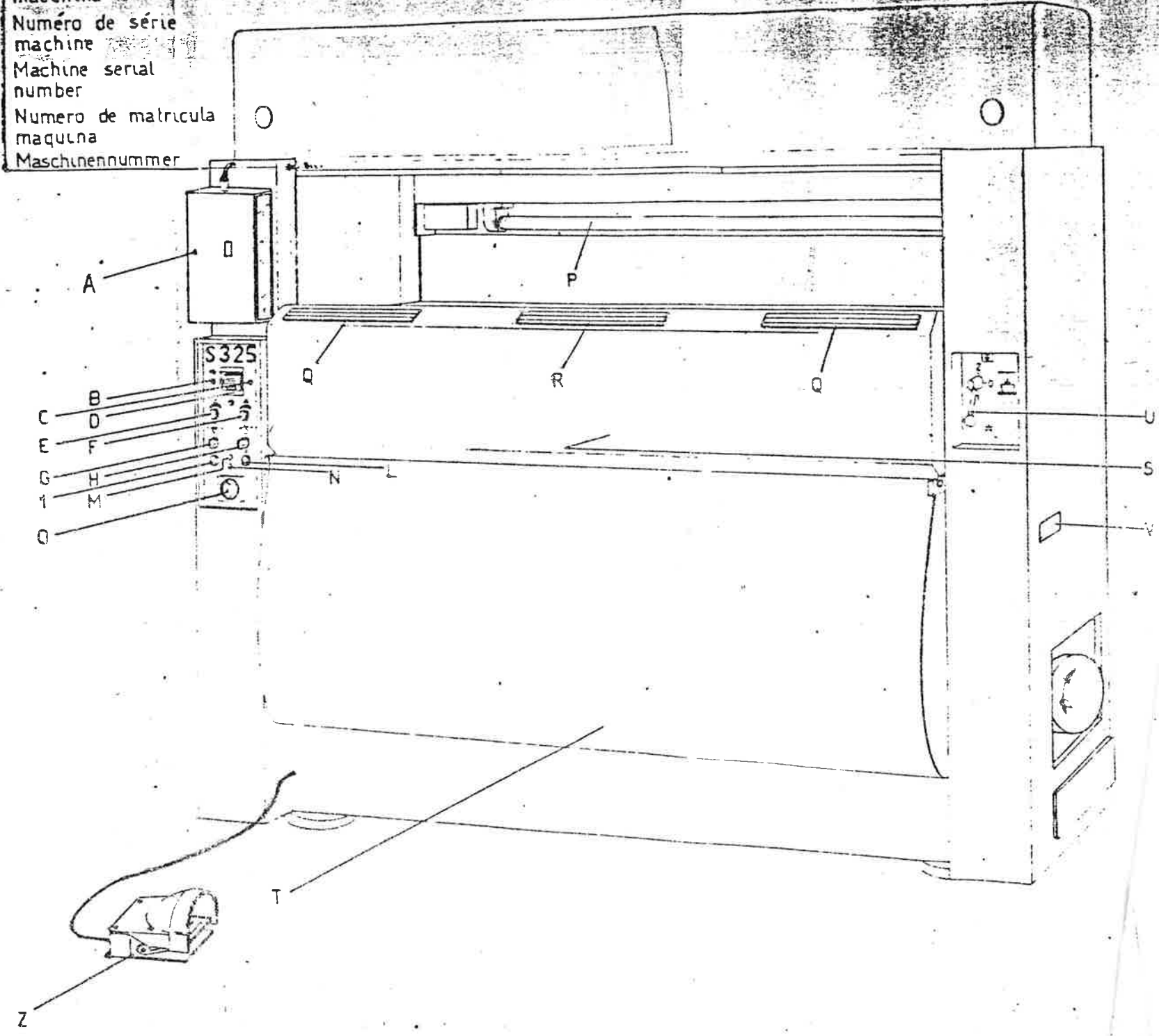
No. 2 pieces - part No. 1.2552 plate 5 for machine S 325 Serial No....

No. 1 piece - part No. 2.1356 plate 2 for machine S 325 Serial No....

NOMENCLATURE

- A - PHOTOCELLS PROTECTION BARRIER
- B - NEON LAMP SWITCH
- C - CUT-COUNTING DEVICE SWITCH
- D - SCHEDULED CUT-COUNTING DEVICE
- E - DAYLIGHT ADJUSTER
- F - PRESSURE ADJUSTER
- G - 2-WAY SWITCH FOR FEEDING AND MOVING BACK THE MATERIAL IN THE FEEDER
- H - 2-WAY SWITCH FOR OPENING AND CLOSING THE FEEDER ROLLERS
- I - START BLACK PUSHBUTTON
- L - STOP RED PUSHBUTTON
- M - CURRENT FEEDING GREEN WARNING LIGHT
- N - RUNNING MOTOR RED WARNING LIGHT
- O - MAIN SWITCH
- P - NEON LAMP
- Q - SIDE HAND CONTACT CONTROL
- R - CENTRAL HAND CONTACT CONTROL
- S - SCRAP CONVEYOR
- T - MARSUPIUM
- U - STROKE END SELECTING HANDLE
- V - SERIAL NUMBER AND VOLTAGE PLATE
- Z - MATERIAL FEEDING FOOT TREADLE CONTROL

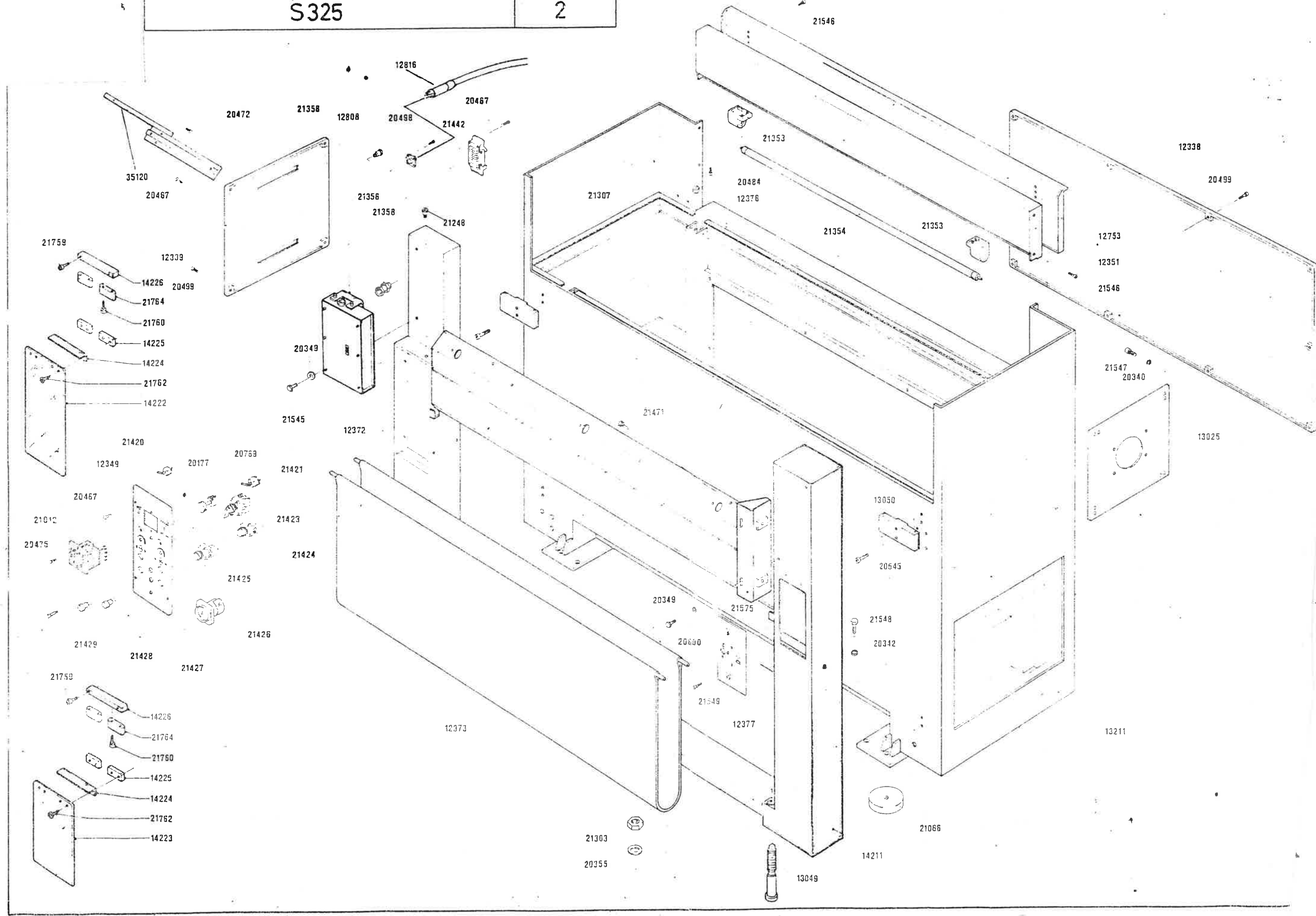
Numero di matricola
macchina
 Numéro de série
machine
 Machine serial
number
 Numero de matricula
maquina
 Maschinennummer



Data apertura tavolo - Data chiusura tavolo

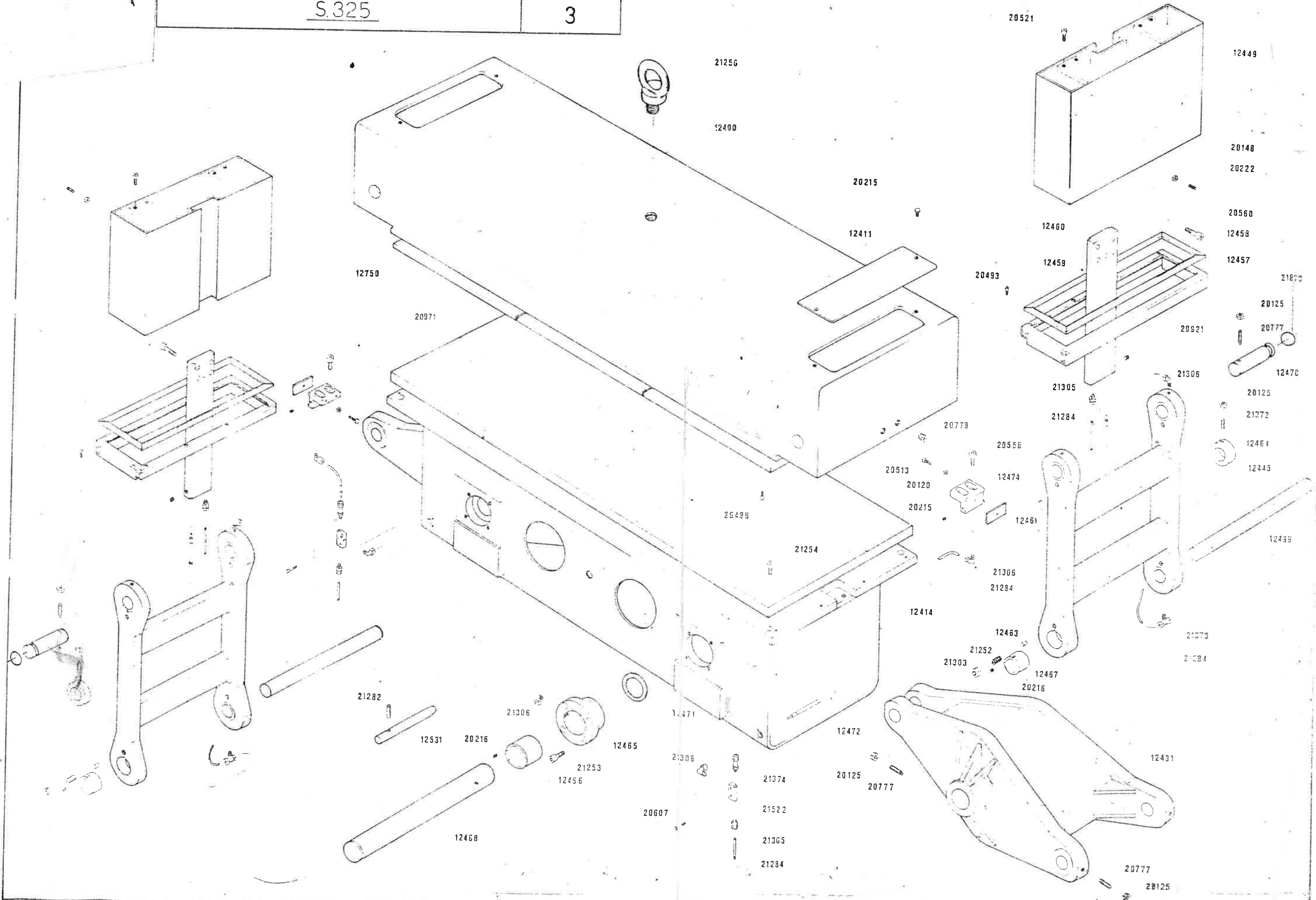
GRUPPO BASAMENTO
S325

TAVOLA
2



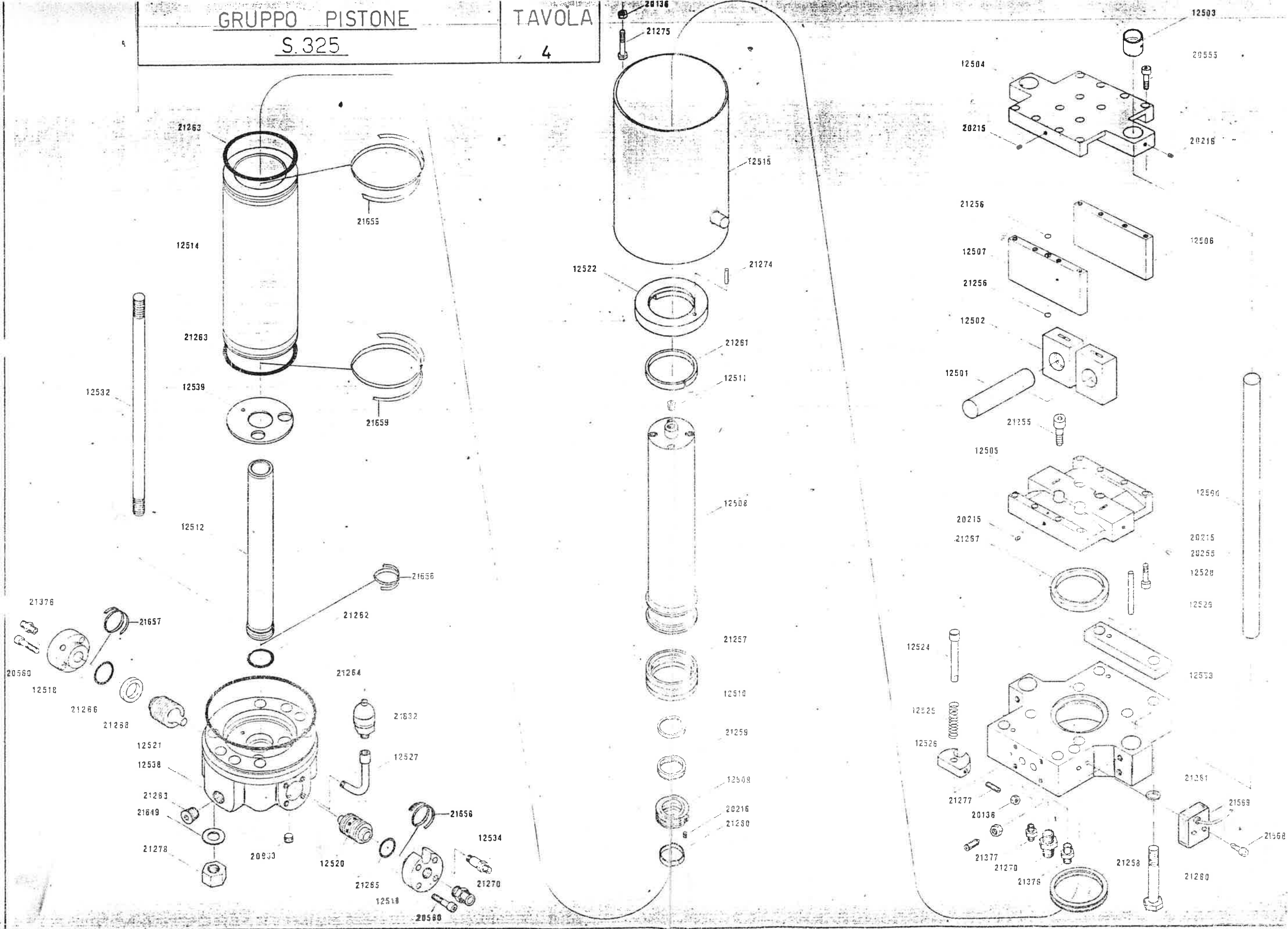
Date _____
 Data _____
 Tab. _____

data struttura tavola



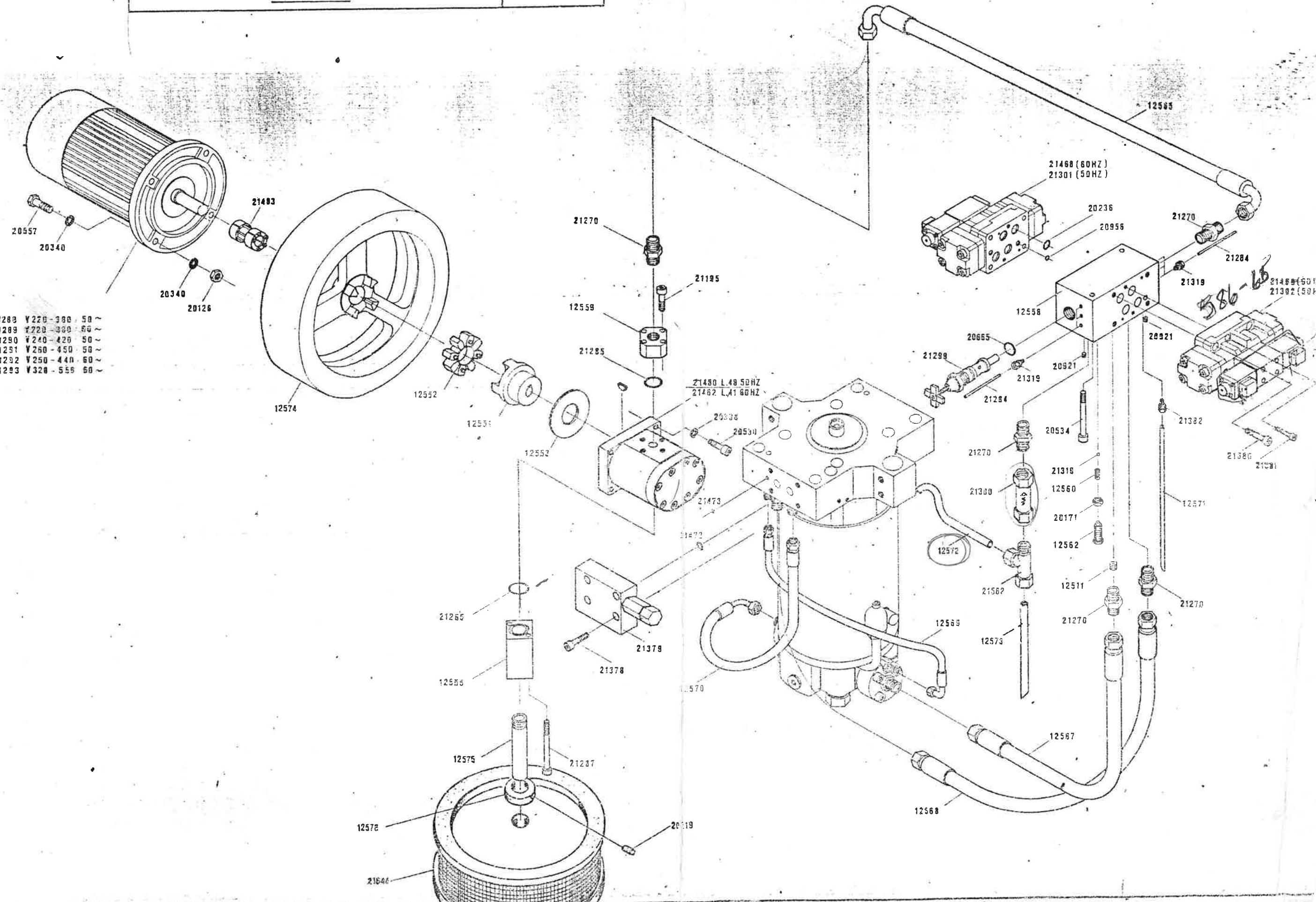
GRUPPO PISTONE
S.325

TAVOLA
4



data chiusura tavola
Data apertura tavola

1288	V228-380	50	~
21289	V220-380	50	~
21290	V240-420	50	~
21291	V260-450	50	~
21292	V250-440	50	~
21293	V328-555	50	~



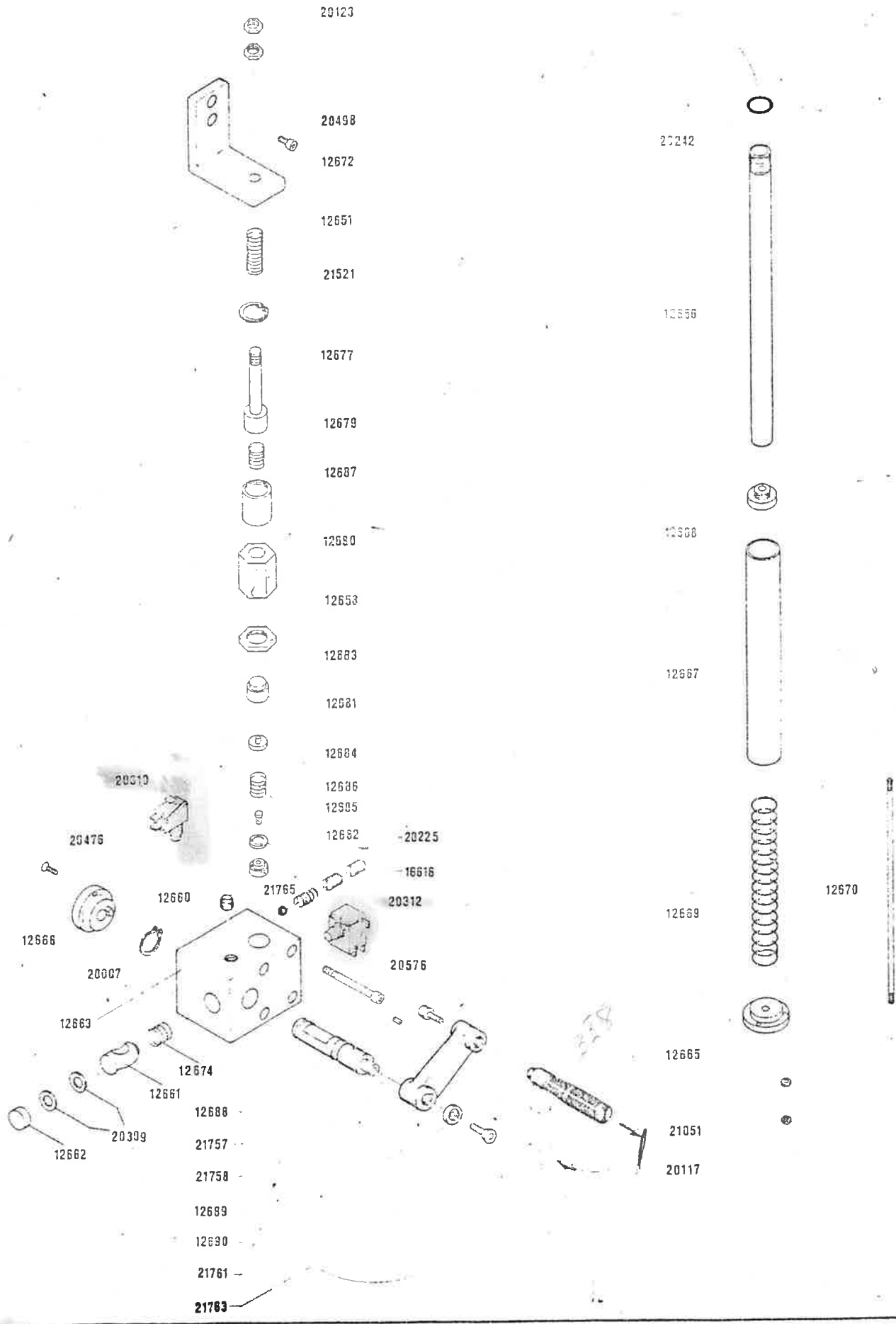
Data apertura tavola 13-12-81 data chiusura tavola

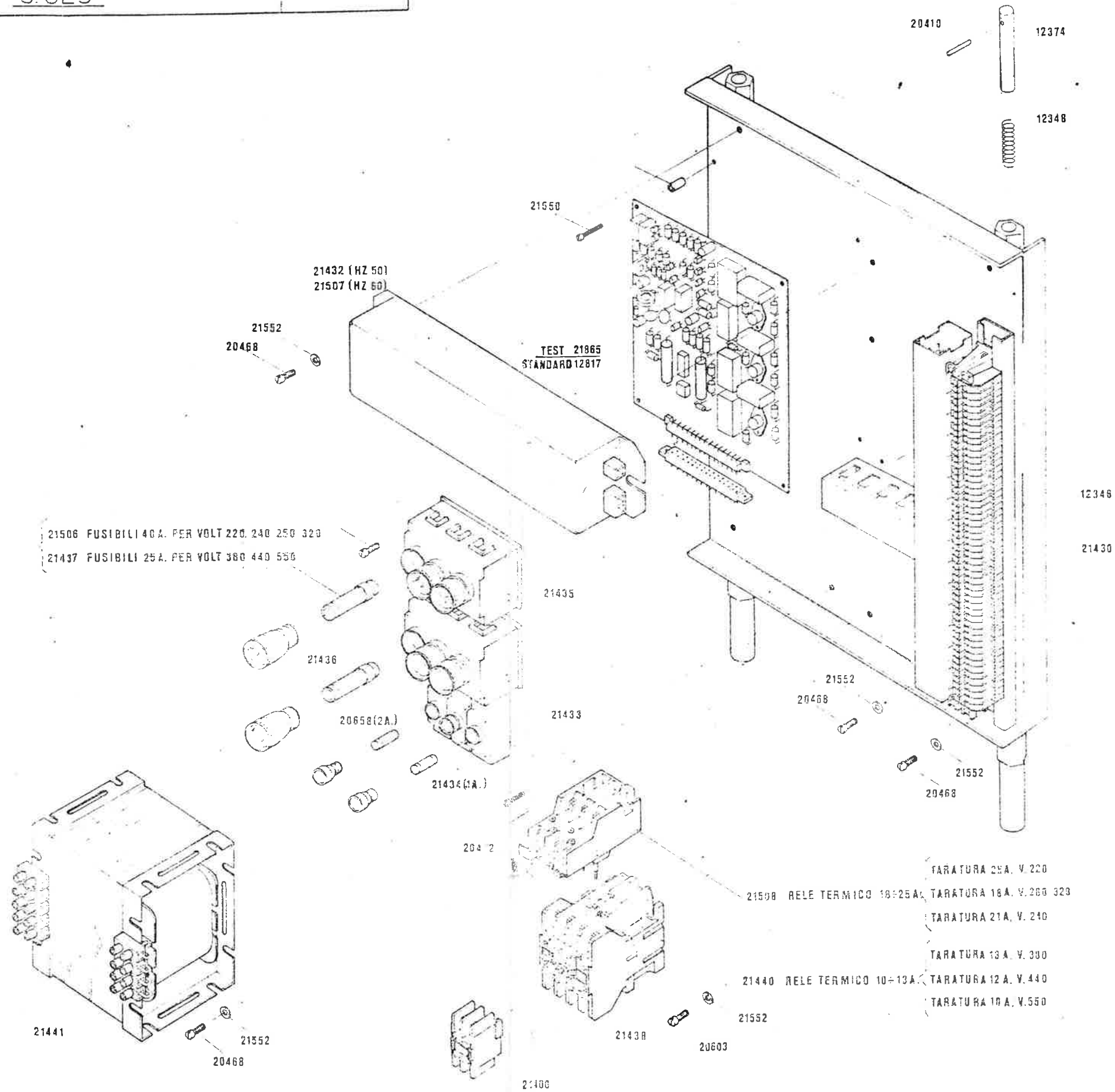
GRUPPO FINE CORSA
S325

TAVOLA
6

Dalla matricola
data chiusura tavola

Dalla matricola
data apertura tavola

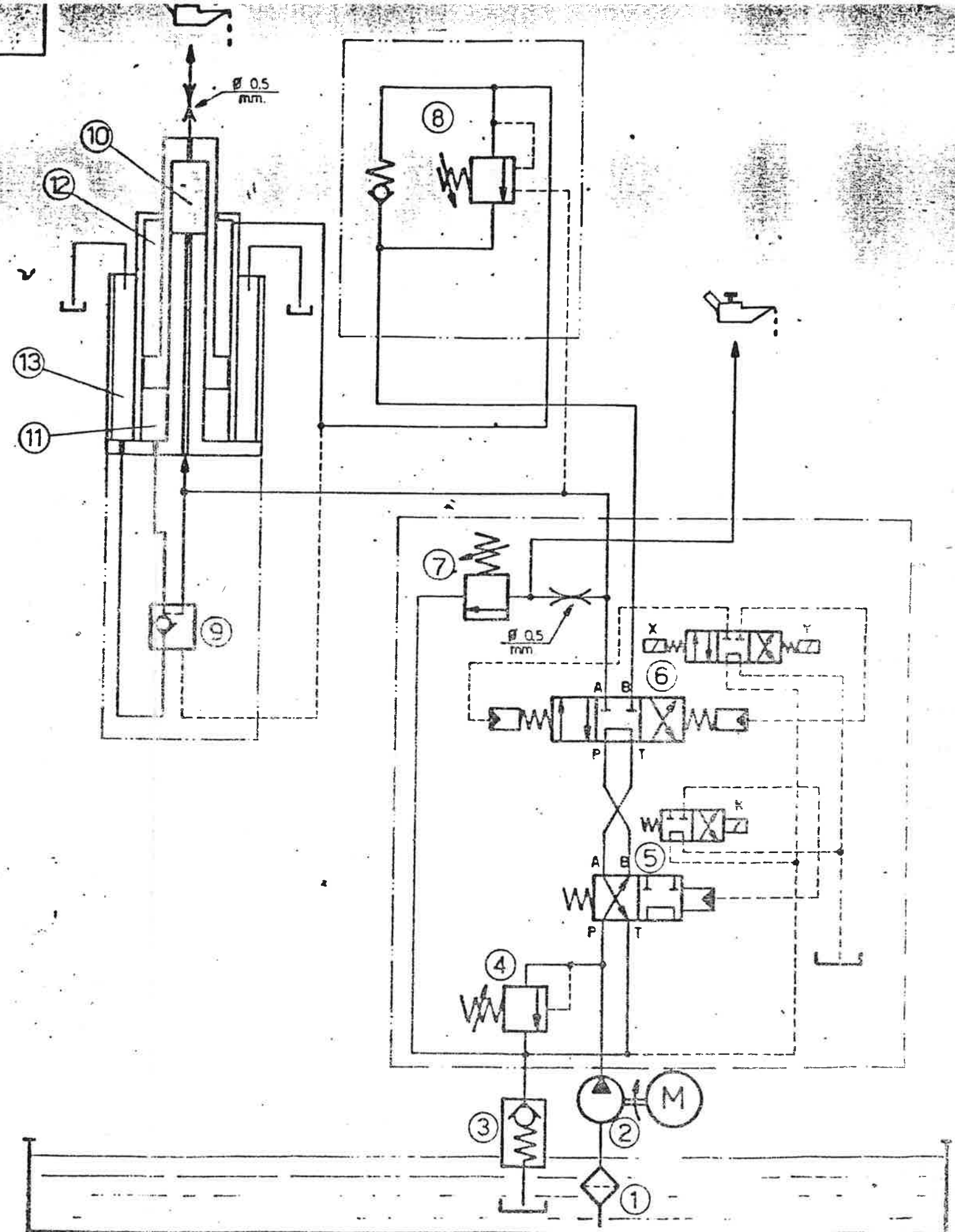




Data gruppo tavola

Data apparecchiatura tavola

- ① SUCTION FILTER
- ② GEAR PUMP
- ③ THROTTLE VALVE
- ④ PRESSURE RELIEF VALVE (SET FOR 200 BARS)
- ⑤ 2-POSITION SAFETY DISTRIBUTOR
- ⑥ 3-POSITION CONTROL DISTRIBUTOR
- ⑦ PRESSURE RELIEF VALVE (SET FOR 8 BARS)
- ⑧ BACK PRESSURE VALVE (SET FOR 40 BARS)
- ⑨ CHECK AND PREFILLING VALVE
- ⑩ BEAM QUICK DOWN STROKE CYLINDER
- ⑪ CUTTING CYLINDER
- ⑫ BEAM UPSTROKE CYLINDER
- ⑬ PREFILLING TANK



SCHEMA APPARECC. ELETTRICA TAVOLA

S320 S325 S350 S358

9

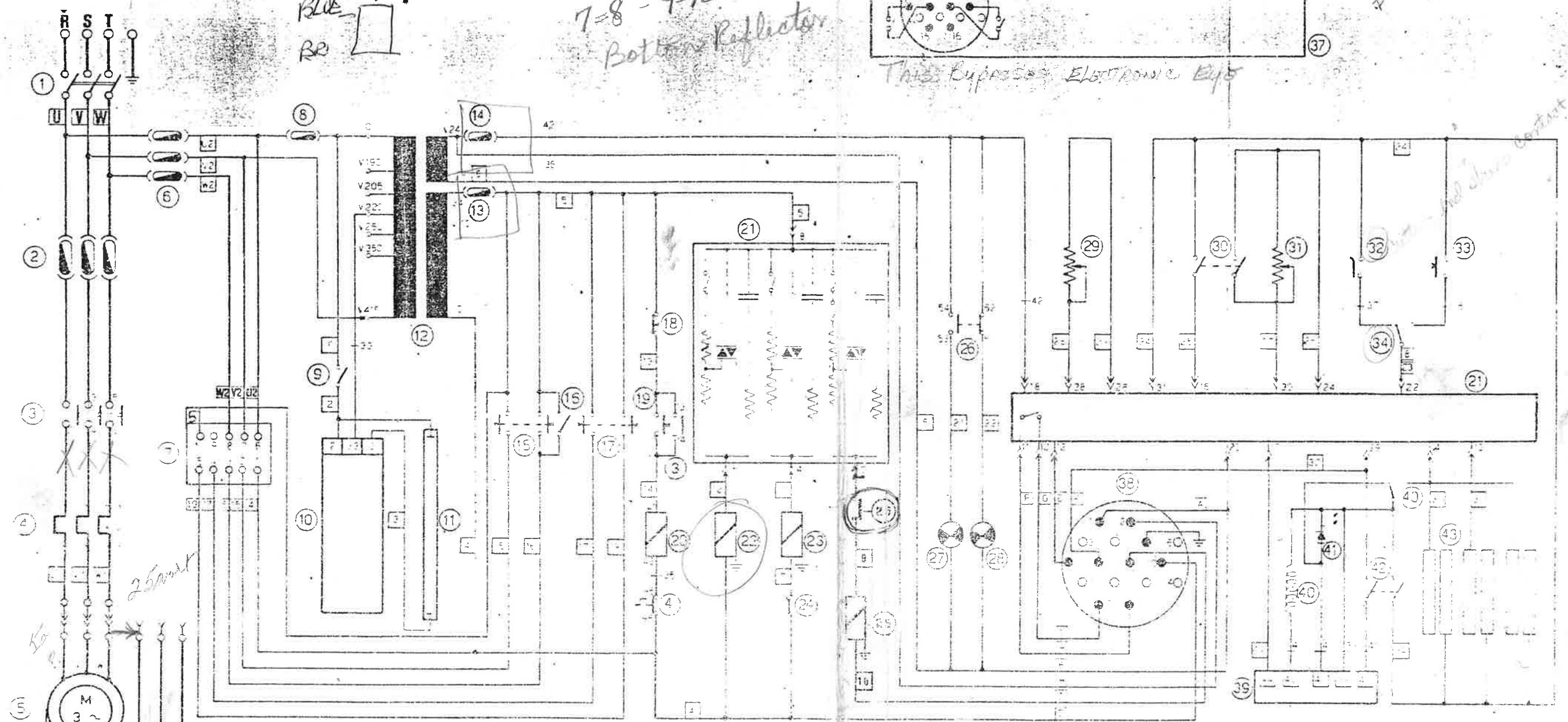
PAUL
HOPKINS



7-8-9-10
Bottom Reflector



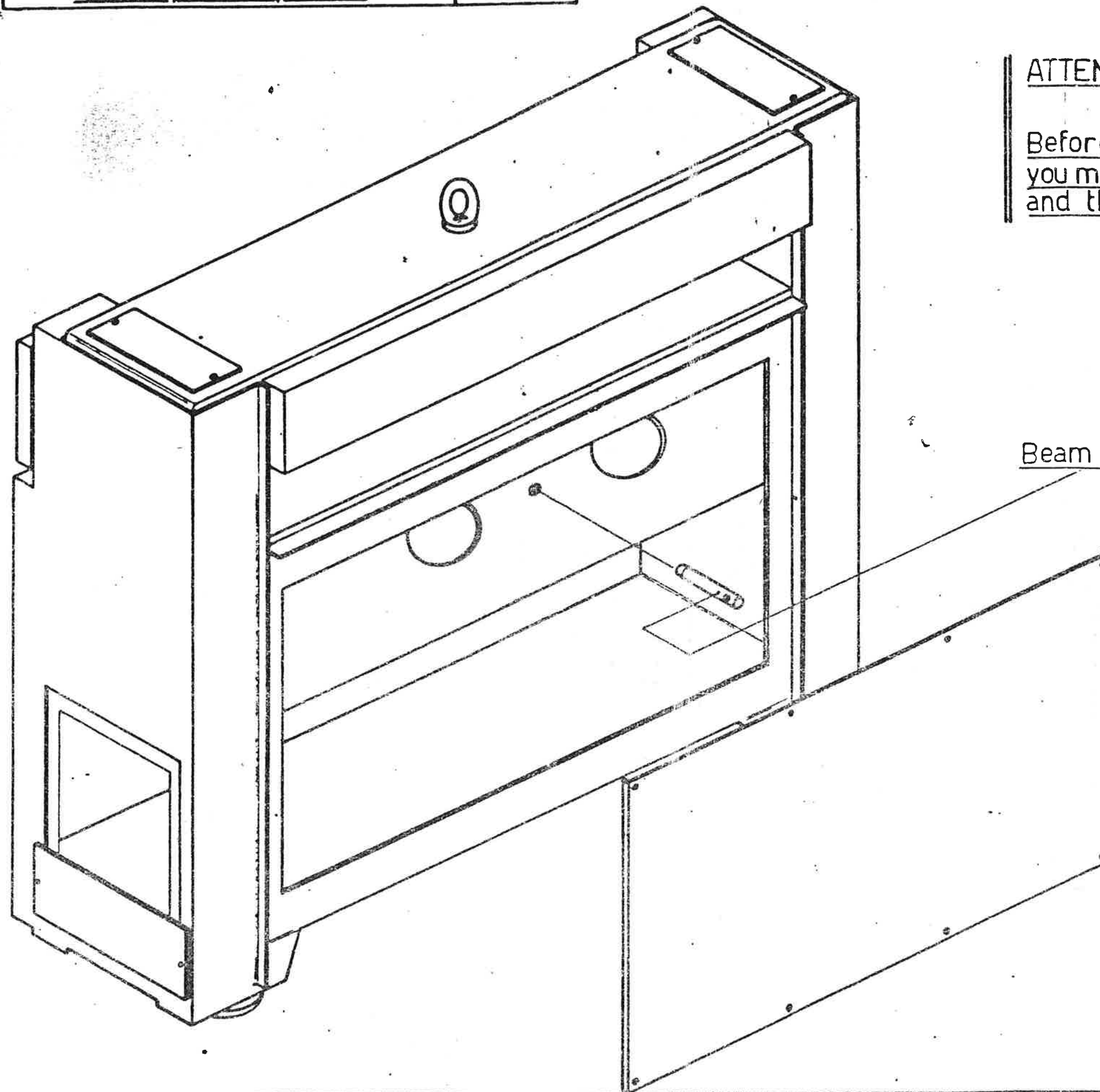
This Bypasses Electronic Eyes



data chiusura tavola

Data apertura tavola

- | | | | | | |
|--|--------------------|--|---------|---|---------|
| 1-MAIN SWITCH
25A. FUSES (VOLT 380/440/550) | (21426)
(21437) | 15-CHANGE OVER SWITCH FOR FEEDING IN
AND BACK OF THE MATERIAL | (21423) | 29-BEAM UPWARD RETURN POTENTIOMETER | (20769) |
| 2-50A. FUSES (VOLT 220/240/250/320) | (21506) | 16-FEEDING FOOT TREAQUE SWITCH | (21357) | 30-MICROSWITCH LOCATED ON THE LEVER
(U PLATE 1) IN 0 (ZERO) POSITION | (20312) |
| 3-PUMP MOTOR CONTACTOR | (21438) | 17-CHANGE OVER SWITCH FOR UP AND DOWN
MOVEMENT OF THE FEEDING ROLLS | (21423) | 31-PRESSURE POTENTIOMETER | |
| 4-THERMIC RELAY | | 18-STOP PUSHBUTTON | (21425) | 32-CUTTING STROKE-END CONTACT | (12596) |
| 5-PUMP MOTOR | | 19-START PUSHBUTTON | (21424) | 33-CUTTING STROKE-END PRESSURE SWITCH | (21632) |
| 6-6A. FUSES | (21436) | 20-PUMP MOTOR CONTACTOR COIL | | *34-MICROSWITCH LOCATED ON THE LEVER
(U PLATE 1) IN 1 OR 2 POSITION | (20610) |
| 7-MATERIAL FEEDER TAP | (21442) | *21-PRINTED CIRCUIT CARD | (12817) | 37-PHOTOCELLS SAFETY-BARRIER | (21356) |
| 8-2A. FUSE | (20658) | 22- SAFETY VALVE ELECTROMAGNET 50HZ (21652) 60HZ (21653) | | 38-PHOTOCELLS SAFETY-BARRIER | (21356) |
| 9-LAMP SWITCH | (21420) | 23-BEAM UPWARD RETURN VALVE ELECTROMAGNET " " | | 39-CUT-COUNTING DEVICE CARD | (21645) |
| 10-LAMP REACTOR 50HZ (21432) 60HZ (21507) | | 24-BEAM UPWARD RETURN STROKE-END
MICROSWITCH | (21559) | 40-CUT-COUNTING DEVICE | (21012) |
| 11-NEON LAMP | (21354) | 25-CUTTING VALVE ELECTROMAGNET
50HZ (21652) 60HZ (21653) | | 41-COUNTING END LED | (21429) |
| 12-500 VA. TRANSFORMER | (21441) | 26-PUMP MOTOR CONTACTOR AUXILIARY CONTACTS (21127) | | 42-CUT-COUNTING DEVICE SWITCH | (21421) |
| 13-2A. FUSE | (20658) | 27-RED WARNING LIGHT | (21427) | 43-HAND CONTACT CONTROLS (14054 - 14055) | |
| 14-1A. FUSE | (21434) | 28-GREEN WARNING LIGHT | | 44-Y/D SPECIAL STARTING DEVICE
FOR 220 V. CONNECTION | (30405) |

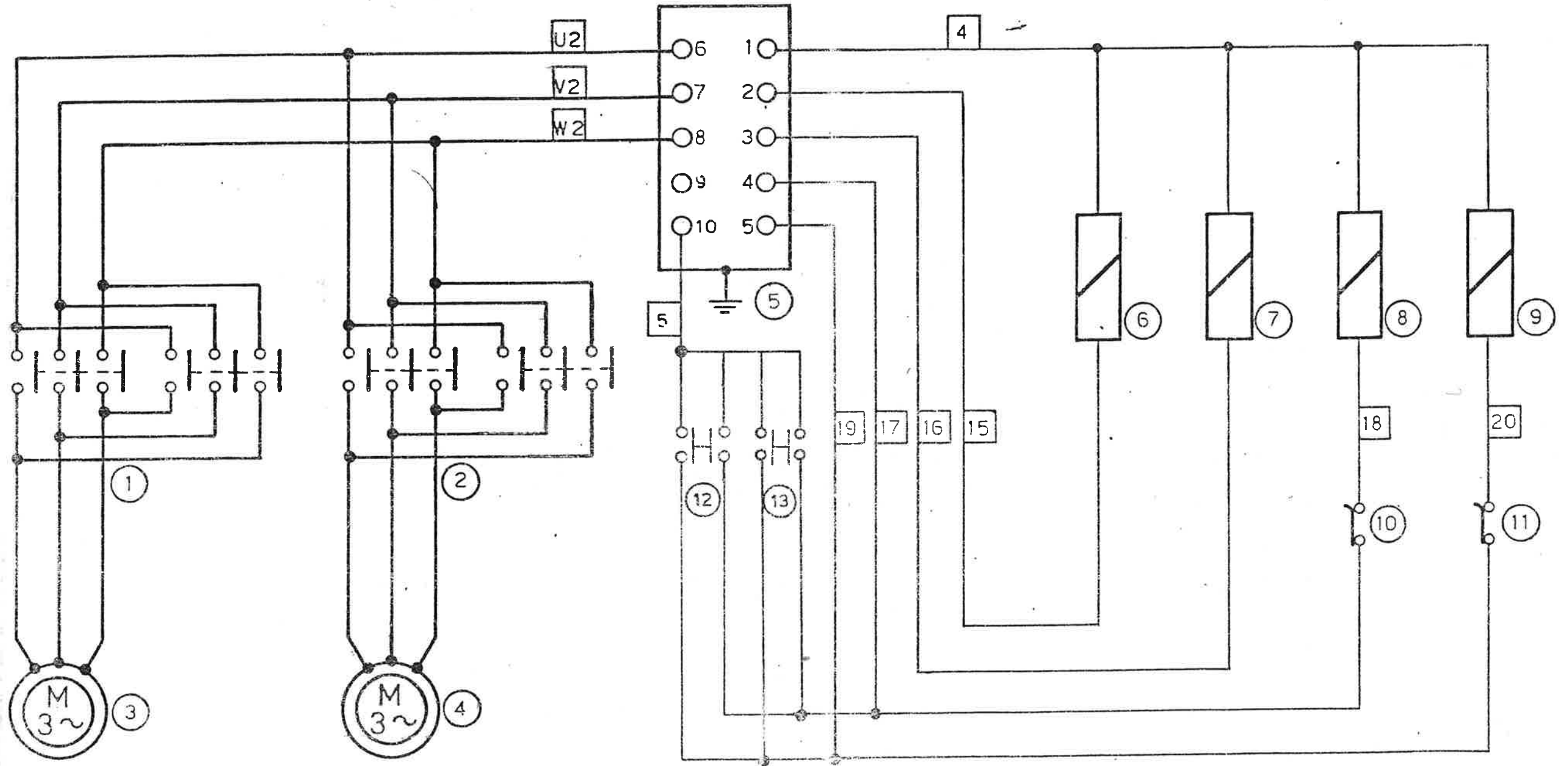


ATTENTION-IT IS VERY IMPORTANT

Before connecting up the machine
you must remove the back cover
and the beam constraint pin

Beam constraint pin

SCHEMA APPARECC. ELETTRICA
AL 81

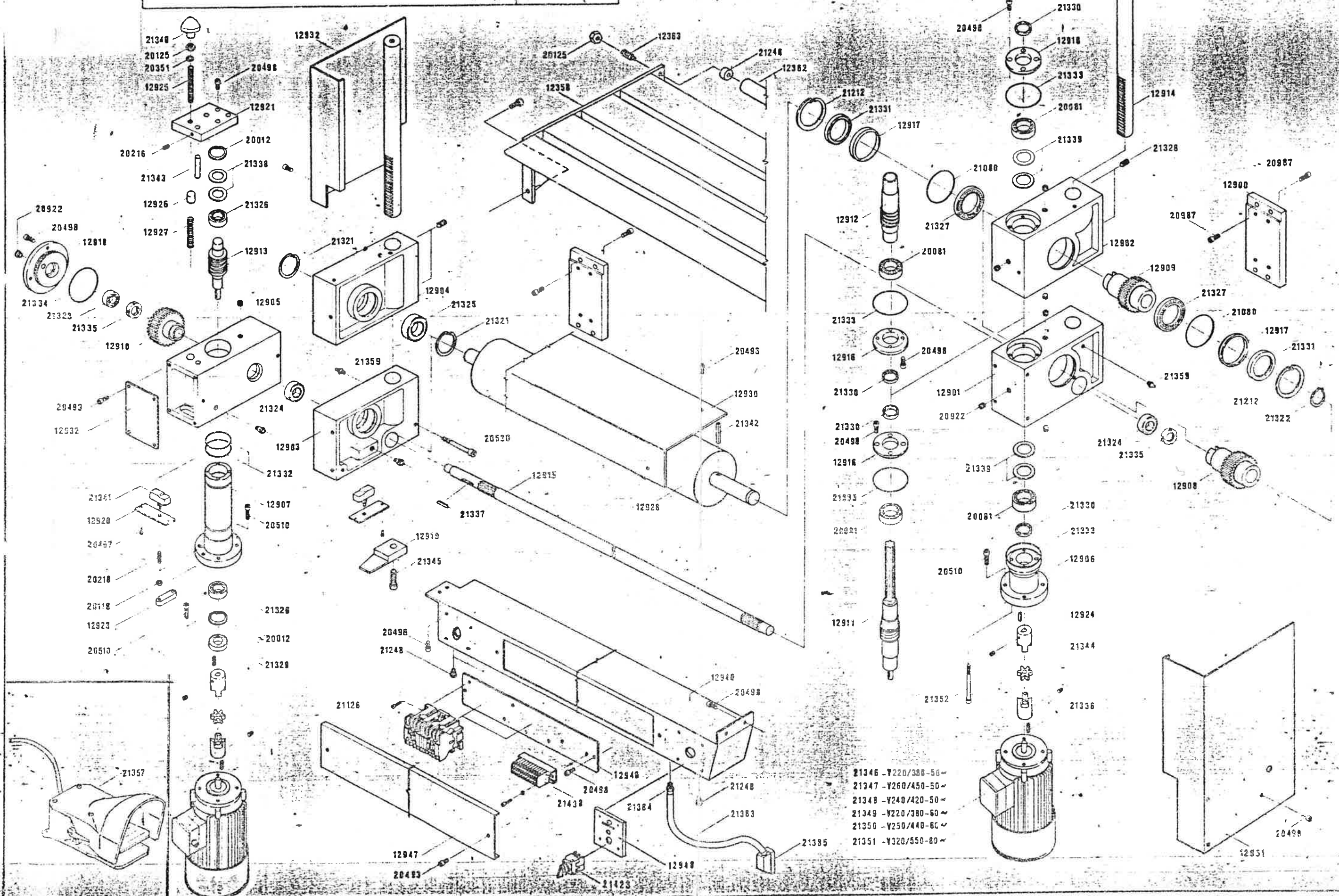


- 1 - REMOTE CONTROL REVERSER FOR FEEDING IN AND BACK OF THE MATERIAL
- 2 - REMOTE CONTROL REVERSER FOR UP AND DOWN MOVEMENT OF THE FEED ROLLS
- 3 - MOTOR FOR FEEDING IN AND BACK OF THE MATERIAL
- 4 - MOTOR FOR UP AND DOWN MOVEMENT OF THE FEED ROLLS
- 5 - AUTOMATIC FEEDER PIN
- 6 - REMOTE CONTROL REVERSER COIL FOR FEEDING BACK OF THE MATERIAL

- 7 - REMOTE CONTROL REVERSER COIL FOR FEEDING IN OF THE MATERIAL
- 8 - REMOTE CONTROL REVERSER COIL FOR UP MOVEMENT OF THE FEED ROLLS
- 9 - REMOTE CONTROL REVERSER COIL FOR DOWN MOVEMENT OF THE FEED ROLLS
- 10 - STROKE-END OF UP MOVEMENT OF THE FEED ROLLS
- 11 - STROKE-END DOWN MOVEMENT OF THE FEED ROLLS
- 12- ROLLS OPENING/CLOUSING SWITCH
- 13- ROLLS OPENING/CLOUSING SWITCH

Data apertura tavola
Data chiusura tavola

GRUPPO ALIMENTATORE AUTOMATICO AL 81 TAVOLA
 n° di matricola _____ TAVOLA
 _____ 11

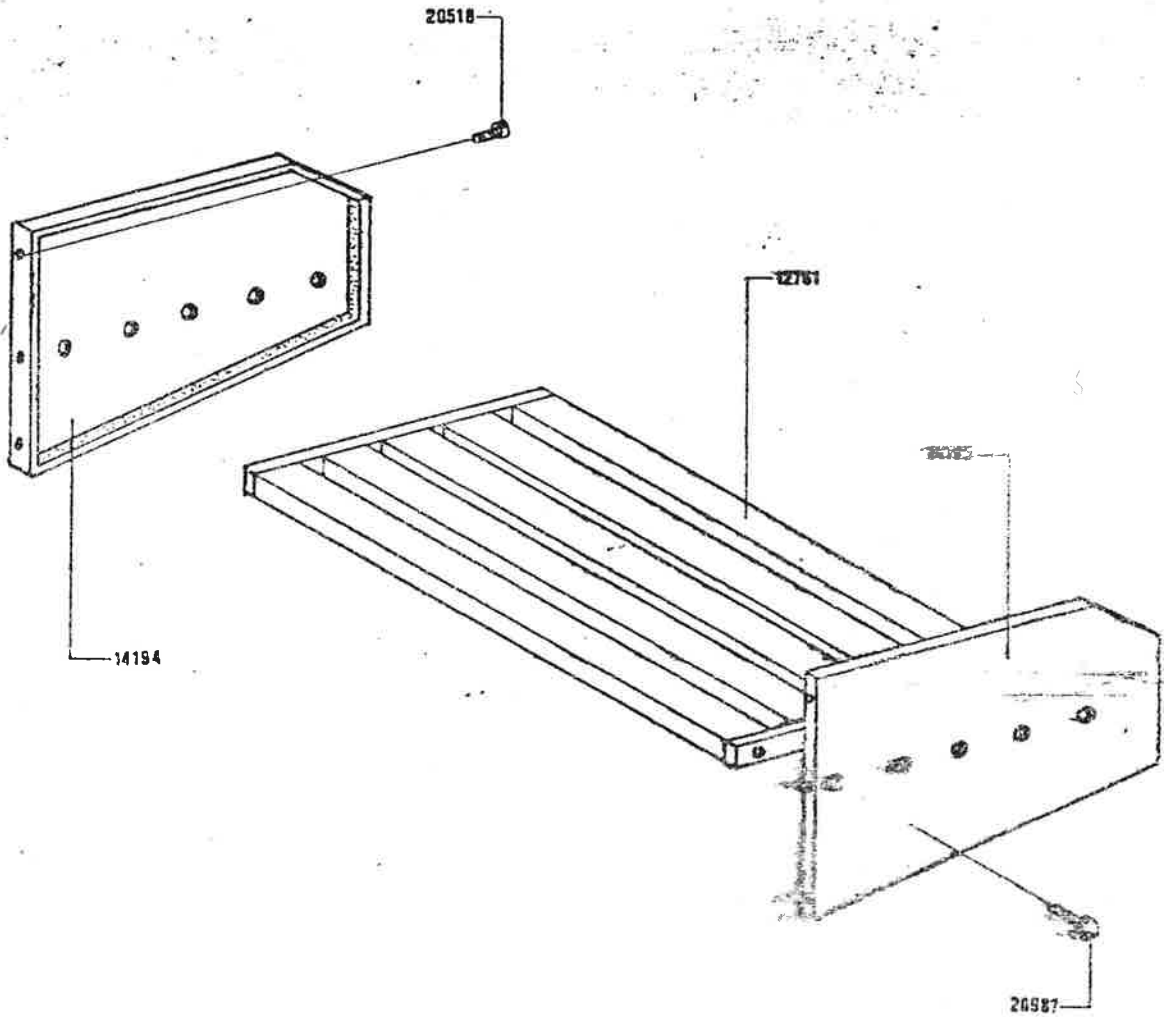


- 21346 - V220/380-50 ~
- 21347 - V260/450-50 ~
- 21348 - V240/420-50 ~
- 21349 - V220/380-60 ~
- 21350 - V250/440-6C ~
- 21351 - V320/550-80 ~

Data matricola _____ Data apertura tavola _____ Data chiusura tavola _____

TAVOLO POSTERIORE
S325

TAVOLA
12



data apertura tavola

data chiusura tavola

Dalla matricola alla matricola
Data apertura tavola
Data chiusura tavola

