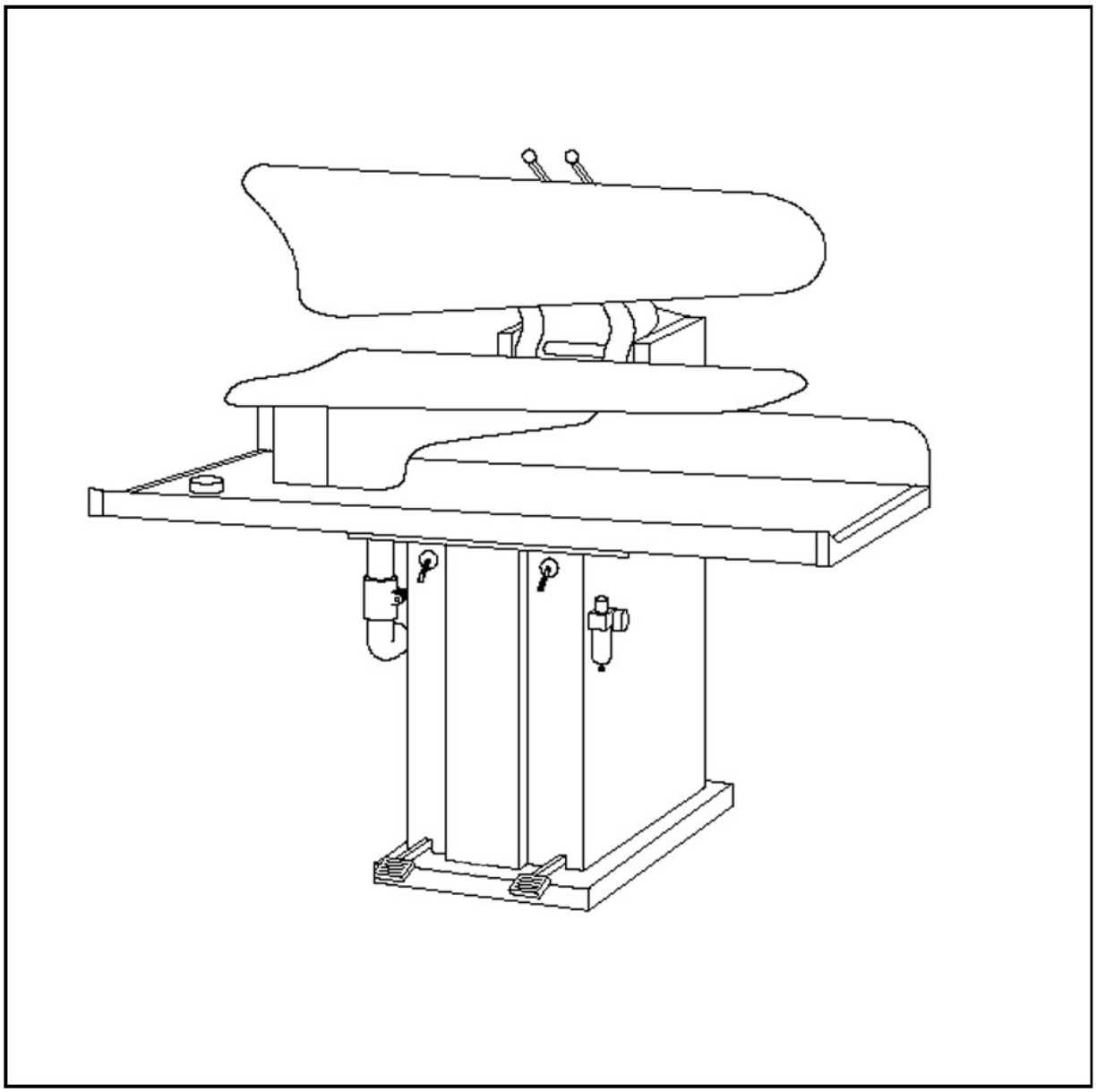
Manual

cissell

Air operated utility press



Type : 19/24/41/45/47/50/
52/220/226/439/
441/444/448/487

Serienr. :

831 South First St. / POB 32270 * Louisville, KY 40232-2270
Phone: (502) 587-1292 * Fax: (502) 585-3625 * www.cissellmfg.com

Part No. D0137

WARRANTY

The Cissell Manufacturing Company (Cissell) warrants all new equipment (and the original parts thereof) to be free from defects in material or workmanship for a period of one (1) year from the date of sale thereof to an original purchaser for use, except as hereinafter provided. With respect to non-durable parts normally requiring replacement in less than one (1) year due to normal wear and tear, including, but not limited to, cloth goods, valve discs, hoses, and iron cords, and with respect to all new repair or replacement parts for Cissell equipment for which the one (1) year warranty period has expired, or for all new repair or replacement parts for equipment other than Cissell equipment, the warranty period is limited to ninety (90) days from date of sale. The warranty period on each new replacement part furnished by Cissell in fulfillment of the warranty on new equipment or parts shall be for the unexpired portion of the original warranty period on the part replaced.

With respect to electric motors, coin meters and other accessories furnished with the new equipment, but not manufactured by Cissell, the warranty is limited to that provided by the respective manufacturer.

Cissell's total liability arising out of the manufacture and sale of new equipment and parts, whether under the warranty or caused by Cissell's negligence or otherwise, shall be limited to Cissell repairing or replacing, at its option, any defective equipment or part returned f.o.b. Cissell's factory, transportation prepaid, within the applicable warranty period and found by Cissell to have been defective, and in no event shall Cissell be liable for damages of any kind, whether for any injury to persons or property or for any special or consequential damages. The liability of Cissell does not include furnishing (or paying for) any labor such as that required to service, remove or install; to diagnose troubles; to adjust, remove or replace defective equipment or a part; nor does it include any responsibility for transportation expense which is involved therein.

The warranty of Cissell is contingent upon installation and use of its equipment under normal operating conditions. The warranty is void on equipment or parts; that have been subjected to misuse, accident, or negligent damage; operated under loads, pressures, speeds, electrical connections, plumbing, or conditions other than those specified by Cissell; operated or repaired with other than genuine Cissell replacement parts; damaged by fire, flood, vandalism, or such other causes beyond the control of Cissell; altered or repaired in any way that effects the reliability or detracts from its performance, or; which have had the identification plate, or serial number, altered, defaced, or removed.

No defective equipment or part may be returned to Cissell for repair or replacement without prior written authorization from Cissell. Charges for unauthorized repairs will not be accepted or paid by Cissell.

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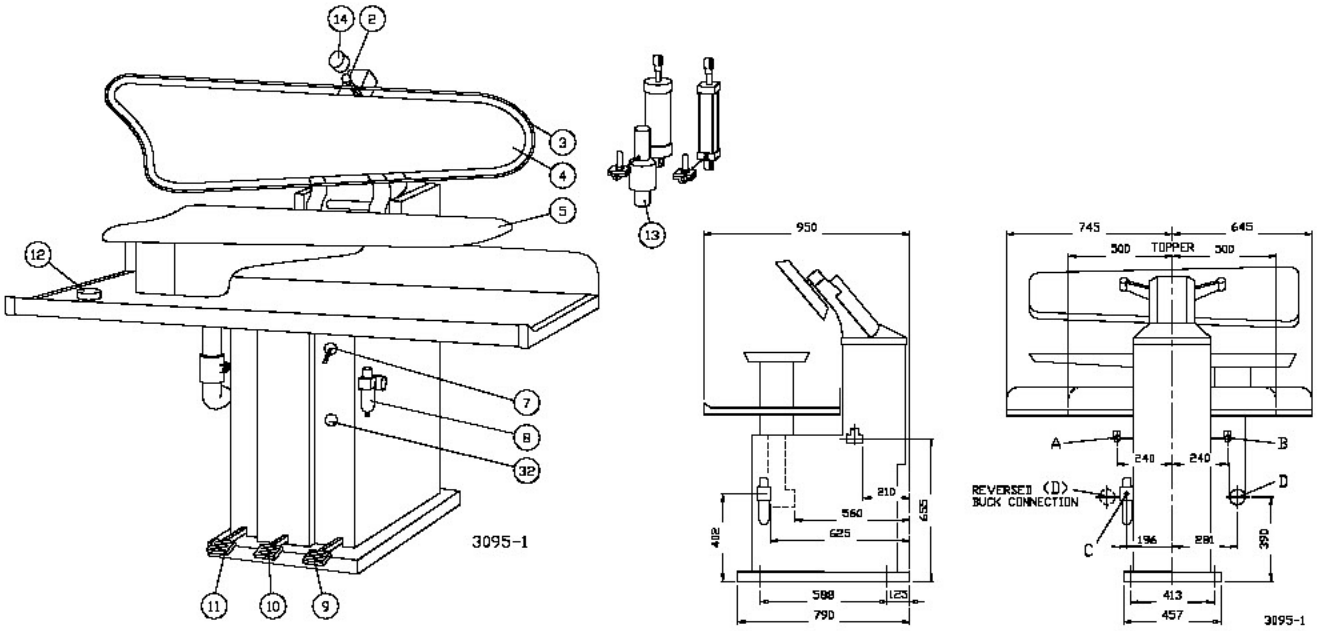
For warranty service, contact the Distributor from whom the Cissell equipment or part was purchased. If the Distributor cannot be reached, contact Cissell.

Operating functions and connections



1. Left lever: operation booster
2. Right lever: head steam
3. Safety bar
4. Upper pressing shoe (= head)
5. Lower pressing shoe (= buck)
6. Head-lever: closing of the press (code /70, /71, /78, /79)
7. Lever automatic head steam
8. Air control
9. Right foot switch: buck steam
10. Middle foot switch: closing of the press (code /73)
11. Left foot switch: vacuum buck
12. Pressure regulator
13. Hydraulic booster
14. Manometer pressure
32. Reset switch

A. Steam supply ½"
B. Steam drainage ½"
C. Compressed air connection ¼"
D. Vacuum line

There is no option to close the press. The press can be closed by EITHER a head-lever (6) (code /70, /71, /78, /79) OR a foot switch (10) (code /73).

All number or capitals indicated in brackets () refer to the number/capitals on the different drawings (operating functions and spare parts).

Symbols

The following symbols can be found in this manual and/or on the machine.

Warningsymbols:

Attention!
Caution!
Follow the instructions.

Caution, electricity >50V AC
Can cause electrical shocks
Do not touch!

Caution, heat!
Do not touch!

Attention! Mind your hands when the press is closing.

Very important!
Safety aspect!

Symbols for operation and use:

Closing and head steam
Head-lever under the table.

High pressure with manometer
Lever (1)

Head steam
Lever (2)

Open and vacuum upper pressing shoe
Foot switch (11)

Buck steam
Foot switch (9)

Table of contents

User directions

1 Introduction

The PANTEX-UTILITY PRESSES are for the pressing of all kinds of garments and laundry. This UTILITY PRESS is air-operated.

All numbers or capitals indicated in brackets () refer to the numbers/capitals of the different drawings (machine survey and spare parts).

Important:

Advice: Keep this manual somewhere near the press.

! Read this manual before installing and using the UTILITY PRESS.

! All the installation, repair, adjusting and maintenance activities must be carried out by experts (qualified mechanics).

! The UTILITY PRESS is suitable for a maximum steam pressure of 6 bar. A higher pressure will bring along safety risks and could lead to damage to the machine.

! A higher compressed air pressure than 6 bar is not allowed. A higher pressure may cause damage to the machine or bring along safety risks.

! Create enough working space around the machine. Place the machine as close as possible against a wall.

2 Technical data

Type: 19/24/41/45/47/50/52/220/226/439/441/444/448/487

Maximum allowed steam pressure	:	6 bar
Steam consumption (with 6 bar steam pressure)	:	12 - 15 kg/hour
Temperature	:	approx. 30˚C (covered head) approx. 160˚C (uncovered head)
Maximum allowed air pressure	:	6 bar
Air consumption	:	30 l/min. (air pressure 5 bar)
Voltage (only code 358)	:	230/3 phases or 400/3 phases
Ampere	:	3x1,8A (230V) / 3x1,1A (400V)
Weight	:	375 Kg (gross) 300 Kg (net)
Dimensions	:	1600 x 1050 x 1440 mm (LxWxH)
Floor surface	:	1550 x 1000 mm

Sound level: A-weighed equivalent continuous sound pressure : < 70 dB

3 Installation

3.1 Transport and placement

☞ **Mind your safety! Wear safety shoes and working gloves.**

- Avoid hard shakes when moving the machine.
- Use a lifting device for transport to its location and and to move into position.
- Handle the press by its frame.
- Fix the machine with 4 bolts (M10 x 100mm) in case of an uneven floor.
- Push the upper pressing shoe (4) down and cut the twine that holds the shoes together. **Attention:** the upper shoe will rise automatically!
- Remove the back cover of the press and take the tin with oil and the spare parts.
- Refill the hydraulic booster (13), if necessary, by pouring hydraulic booster fluid into the charging hole at the top of the cylinder to the brim. The upper pressing shoe has to be pushed up and down a few times while fluid is added, expelling any air bubbles from the cylinder and improving the in-flow of oil.

☞ Never fill with lubricating oil, brake fluid oil or any other hydraulic oil, but only with Hydraulic Booster Fluid (ISO) HLP 15.

3.2 Connections

☞ **When connecting the lines, utmost care must be taken that no dirt or other materials enter the lines, since this may cause the machine to malfunction.**

3.2.1 *Steam*

☞ **Wear working gloves!**

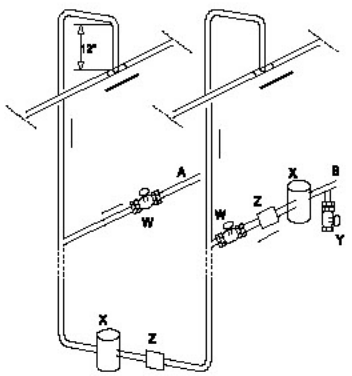


Fig. 1 Illustration steam connection

Connection: ½"

Maximum steam pressure: 6 bar

A. steam supply
B. steam drainage
W. shut off valve
X. steam trap
Y. blow off cock
Z. non-return valve

- Connect the steam branches according to fig.1.
  The branches of the supply and drainage lines must run at least 12" (300 mm) upwards first, to avoid condensation to enter the machine.
- Flush the connected steam lines with steam from the steam supply before shut off valves and steam traps are being installed.
- Mount hand-operated shut off valves and steam traps at the indicated positions of figuur 1.
- Advice: Install a shut off valve in both supply and drainage lines in order to be able to shut off the machine from the steam lines, for instance for repair activities.

3.2.2 *Vacuum*

- Connect the press with a 2" gas pipe to the main vacuum line (D).
  The connection is on the left of the press, under the table.

3.2.3 *Built-in vacuum (code 358)*

- Remove cover electrical connection of the blower (35, see figure 2).
- Connect the main power supply according to figure 3.

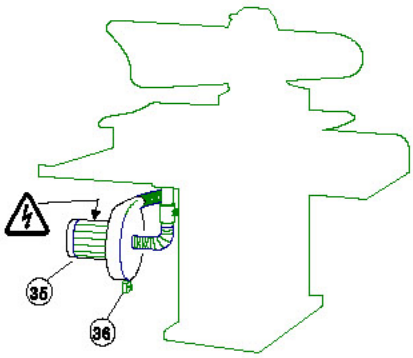


Figure 2: Vacuüm unit

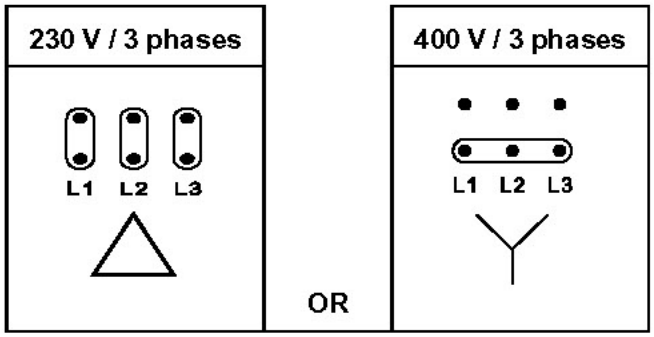


Figure 3: Electrical connection blower

- Mount cover electrical connection of the blower.
- Mout a plug (if you want with a switch).

Check rotating direction of blower (35):

- Switch on the main power.
- Press left footpedal (11, vacuum buck) and check with the aid of a piece of paper whether or not the buck (5) is exhausted sufficiently. If not, change the electric connections L1 en L2.
- Switch off the main power supply.

3.2.4 *Compressed air*

- Connect the air control (8) of the machine to the compressed air line (connection 1/4").
- The working pressure should be at 6 bar and has been adjusted at factory.

3.2.5 *Water conduit spray gun (optional)*

Connect the far end of the water conduit to the water supply.

4 Put into operation / use

☞ **Mind your own and other people's safety!**
Create a clean, surveyable and spacious working environment.
Make sure that nobody stands behind the machine.

☞ **Check the following points daily before you start!**

- Check the compressed air pressure on the air control (8).
  Recommended working pressure: 6 bar.
- Only for code 358: (see figure 2)
  - Switch on the main power supply of the vacuum unit (35).
  - **Warning!:** Drain collected water daily (36)!
- Check the working of the safety bar (3):
  - Operate the head-lever (6), by which the press closes.
  - Touch the safety bar with your other hand while the press is closing.
  - The upper pressing shoe (4) will return into its starting position IMMEDIATELY.
  - Press the reset-switch (32).
- Pressing:
  The pressure can be adjusted by means of the pressure regulator (12).
  By operating the left lever (1), the booster (13) is filled with air, by which the machine starts pressing.
  You can read the pressure on the manometer (14).
- Head steam:
  There are 2 ways to release head steam:
  - Hand-operated • Operate the head-lever (6) wiht the one hand (hold during steaming) and operate the left lever (2) with the other hand, by which steam is released from the upper pressing shoe (4).
  - Automatic • By pushing the lever (7) up, the upper shoe (4) will release steam as soon as and as long as you operate the head-lever (6).
- Buck steam:
  Buck steam will be released by operating the right foot switch (9).
- Vacuum:
  When operating the left foot switch (11), the vacuum valve is opened, so that the buck (5) can be sucked off. The machine can also be exhausted by means of this pedal.
- Consult chapter 6 'Troubleshooting' in case of malfunctions.
- Let the machine heat up for about 20 minutes.
- Ready for use.

Tips for use:

☞ **Mind your safety! The pressing shoes are hot, don't touch them.**

- Only press garments when they are damp. When available, use the spray gun.
- Short pressing duration for synthetic fibres, longer duration for cotton/linen.
- The left foot switch (11) can also be used as emergency stop, because the press will open as soon as this pedal is operated.
- If eventually through wear away of the padding the machine does not press well, the head (4) needs adjusting. This can be done by turning the adjusting bolts on top of the head. For proper functioning, the distance between the lid of the booster and the turning point on the head lever has to be 215mm. (Measure when the booster is under pressure).

Attention: When the compressed air is cut off, the upper pressing shoe (4) will come up immediately.

5 Put out of operation

- Only for code 358: (see figure 2)
  - Switch off the main power supply of the vacuum unit (35).
  - **Drain daily the collected water! (36)**
- Close the steam and compressed air lines.

Attention: Draining is done automatically when the machine is cut off from the air line.

☞ Catch the water for it might contain oil.

6 Troubleshooting

☞ **Think of your safety!**

If you cannot solve the malfunction with the aid of table 1, call for a qualified mechanic.

Table 1: Troubleshooting

Trouble	**Check / solution**
Upper shoe (4) doesn't close	1. The upper shoe only closes when the head-lever (6) OR the middle foot switch (10) is being operated. 2. Check the compressed air connection (C). 3. Check the pressure (6 bar) on the air control (8)
Pressing shoes (4+5) don't get hot	1. Chec if the steam traps are fully opened. 2. Check the steam pressure.
Insufficient pressing result	1. Try a longer/shorter pressing duration. 2. Change the compressed air. 3. Check if the covering is damaged or if any holes in the head plate are blocked up.
Garment shows smooth surfaces	1. Shorten the pressing duration or lower the air pressure. 2. Check if the covering is damaged (and replace if necessary).
Lower shoe (5) isn't sucked off (sufficiently)	1. Only use original PANTEX covering for the pressing shoes.oen. 2. Check the vacuum line (D).
Garment is too wet after pressing	1. Shorter steaming duration. 2. Check the steam pressure. 3. Clean the dirt catchers if the condensation valve is blocked.

7 Maintenance and repairs

7.1 Maintenance

7.1.1 *Lubrication*

At regular intervals the spring rods must be properly greased.

Once a month, the oil lever in the pressure cylinder (13) has to be checked. If necessary, the oil reservoir needs to be refilled to the brim with Hydraulic Booster Fluid (ISO) HLP 15. The upper pressing shoe (4) has to be pushed up and down several times while the fluid is added to expell any air bubbles from the cylinder and to improve the in-flow of the oil.

☞ Do not add lubricating oil, brake fluid or any other hydraulic oil into this cylinder, only add Hydraulic Booster Fluid (ISO) HLP 15.

7.1.2 *Air filter control*

The standard incorporated air filter (8) serves to purify and dry the air supplied from the main supply line. Check at regular intervals whether dirt or condensate have accumulated in the clear plastic bowl. The air filter drains automatically after pressing the lower side of the yellow shut off valve carefully.
Catch the water for it might contain oil remains

⚠ **Cleaning** as follows

☞ **Shut off the air supply first!**

- unscrew the plastic bowl;
- empty the bowl;
- clean the bowl in paraffin or gas oil (never use any acids or detergents);
- screw the bowl on the valve (the sealing ring has to press evenly on its seat).

7.1.3 *Covering*

It is recommended to wash the press coverings regularly. This will prolong their life considerably.

7.2 Repairs and spare parts

☞ **Before starting the disassembly, always close the steam shut off valves and uncouple the compressed air line.**

To be able to execute the repair activities, the parels at the rear of the machine can be removed.

☞ **Have all repair activities executed by a qualified serviceman.**

When the repairs have been completed, put the parels back before using the machine.

In case some parts have become defective, spare parts can be ordered through your distributor (see table 2 'spare parts').

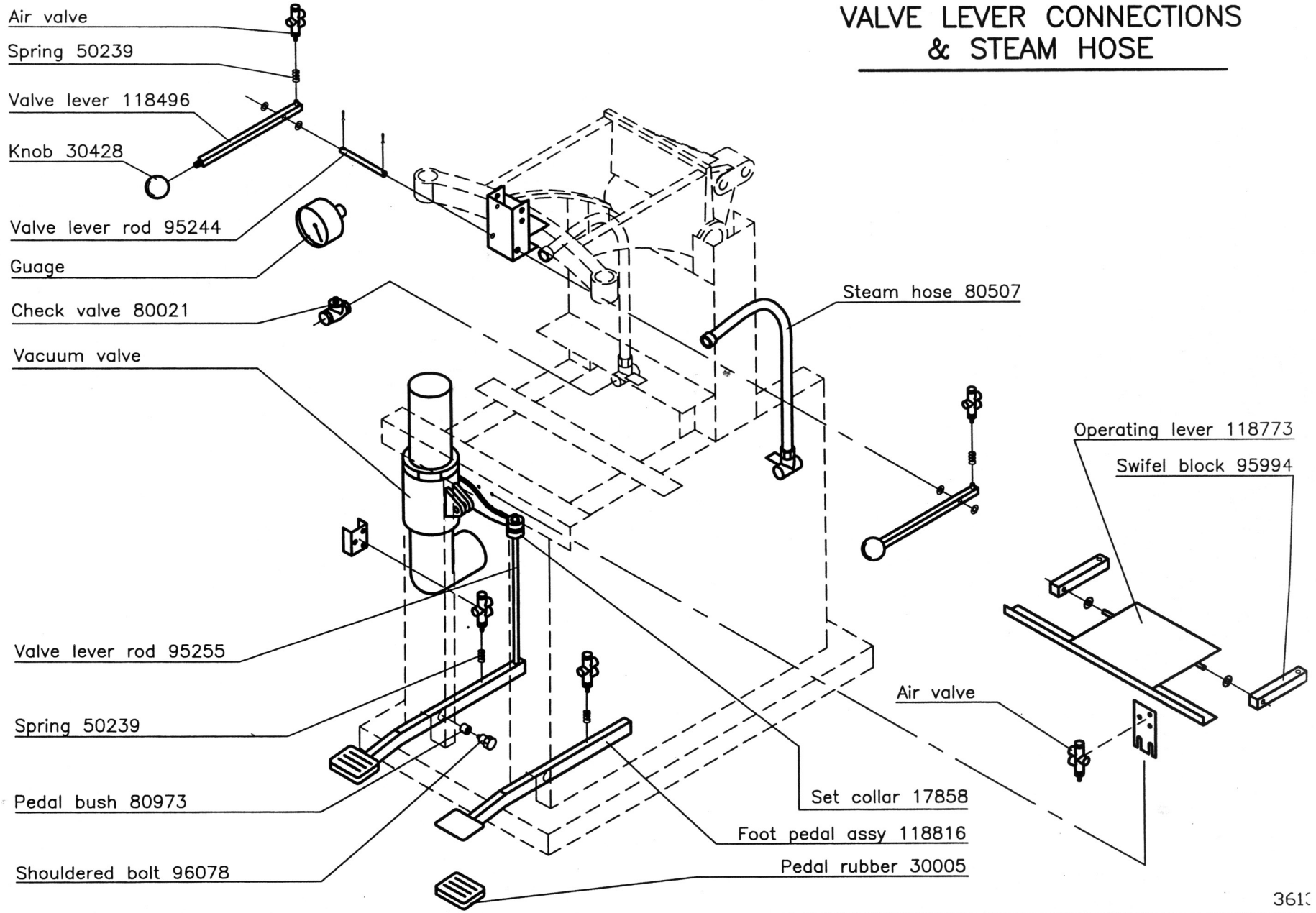
☞ **Only use original PANTEX spare parts!**

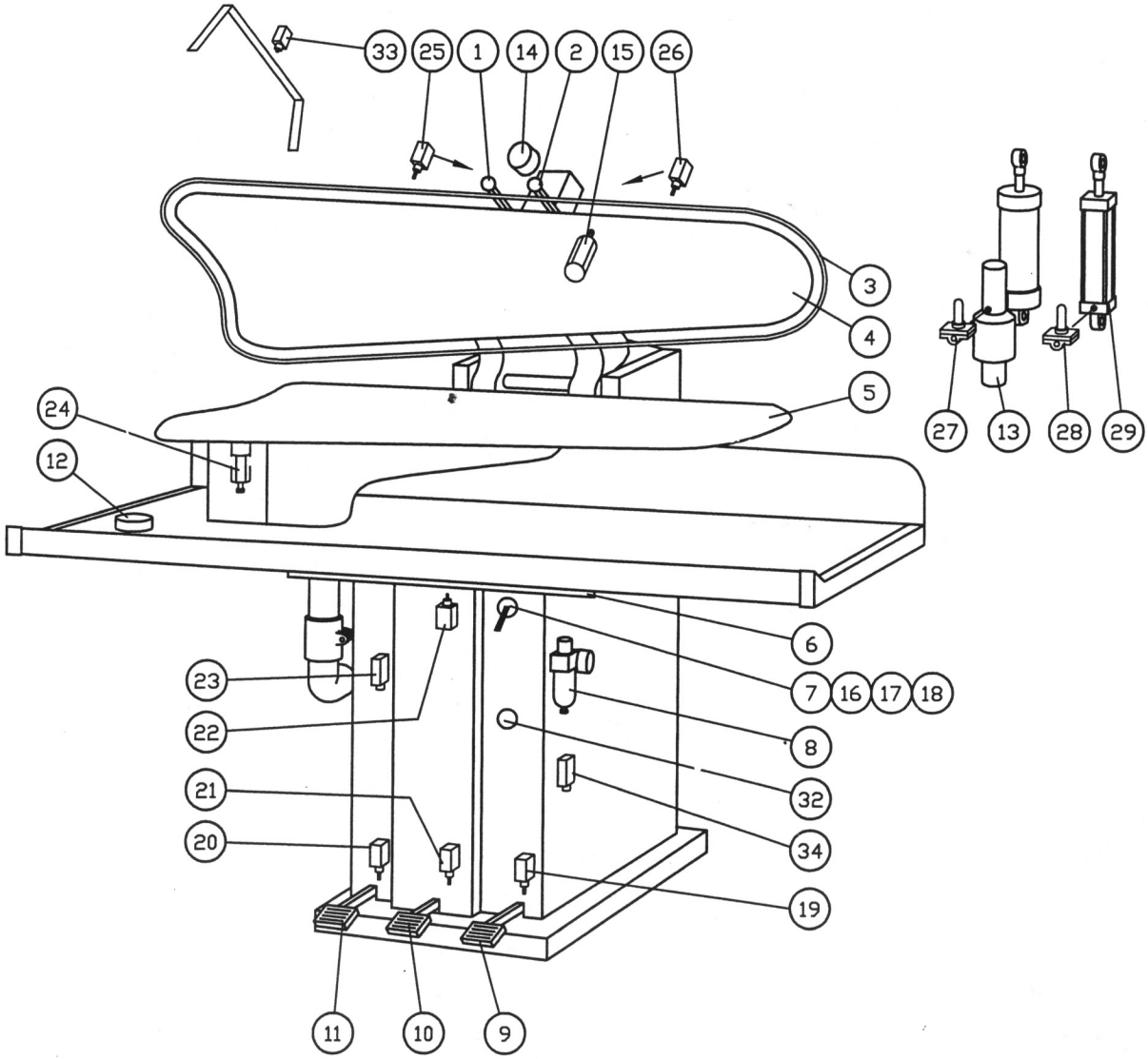
Table 2: Spare parts

Nr.	Parts	Art.nr.
8	air control	118551
12	fabricfeel valve	118601
13	hydraulic cylinder	118505
14	gauge	80949
15	head steam valve	115609
16	steam valve	80846
17	tumbler valve	118587
18	shuttle valve	118592
19	3/2 air valve	118795
20	3/2 air valve	118795
21	3/2 air valve	118795
22	3/2 air valve	118795
23	3/2 air valve	118542
24	steam valve	115609
25	3/2 air valve	118795

Nr.	Parts	Art.nr.
26	3/2 air valve	118795
27	exhaust valve	110025
28	exhaust valve	110025
29	air motor	118595
30	exhaust valve	110025
31	air cylinder	116972
32	air valve 1/8	118572
33	air valve 1/8	118572
34	3/2 air valve	118542
35	cat blower	118171
36	shut off cock	80501

VALVE LEVER CONNECTIONS & STEAM HOSE




33
25
1
14
2
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26
3
4
5
24
12
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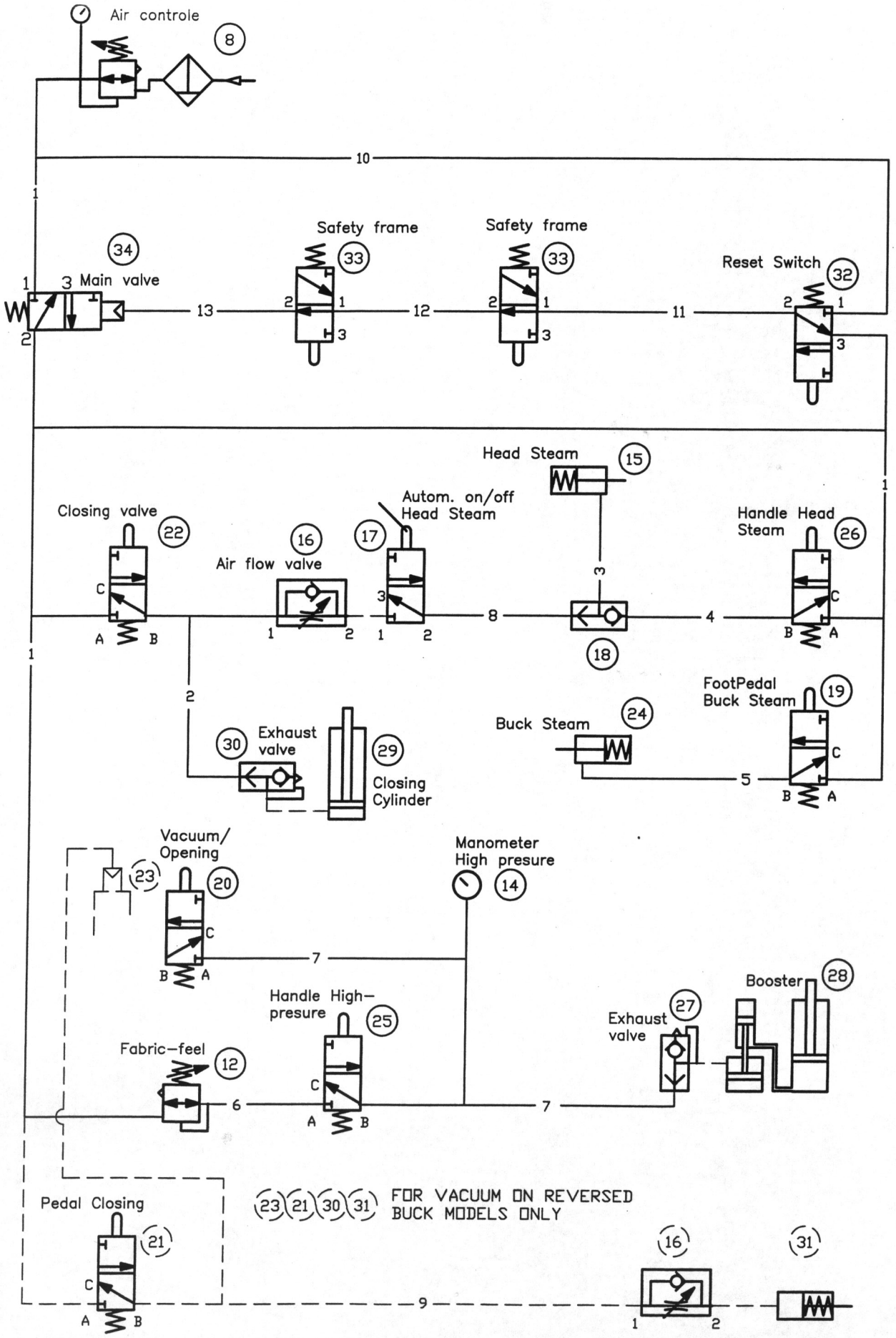
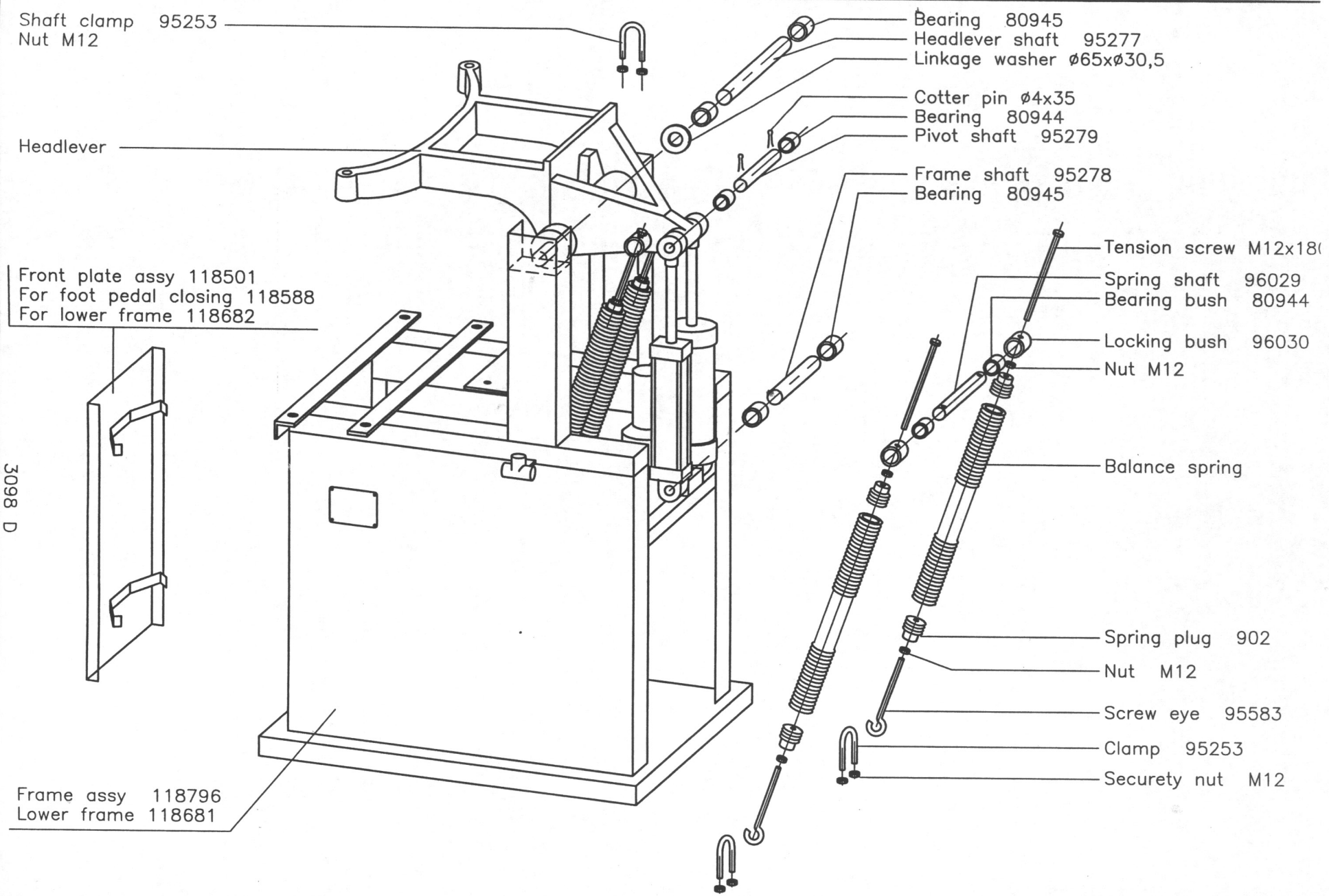
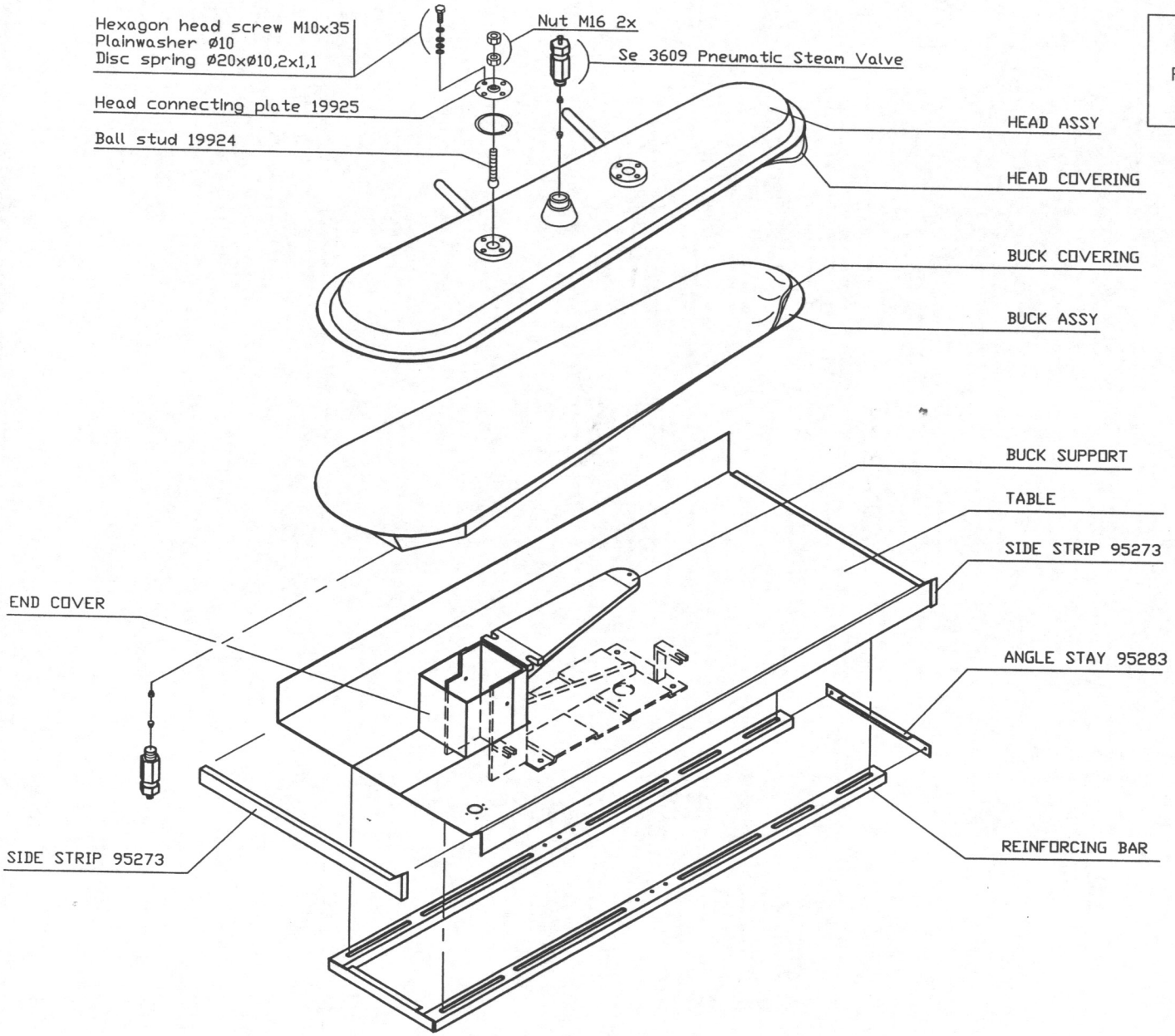

Air controle
8
10
1
34
1
3
Main valve
2
13
Safety frame
33
2
1
3
12
Safety frame
33
2
1
3
11
Reset Switch
32
2
1
3
Head Steam
15
Autom. on/off
Head Steam
17
Closing valve
22
16
Air flow valve
C
A
B
1
2
3
1
2
8
3
18
4
Handle Head
Steam
26
C
B
A
1
2
FootPedal
Buck Steam
19
Buck Steam
24
C
5
B
A
30
Exhaust
valve
29
Closing
Cylinder
Vacuum/
Opening
23
20
C
B
A
Manometer
High presure
14
7
Booster
28
Exhaust
valve
27
Handle High–
presure
25
Fabric–feel
12
C
6
A
B
7
Pedal Closing
21
C
A
B
23 21 30 31 FOR VACUUM ON REVERSED
BUCK MODELS ONLY
16
31
9
1
2

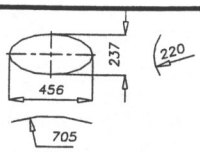

Shaft clamp 95253
Nut M12
Headlever
Front plate assy 118501
For foot pedal closing 118588
For lower frame 118682
Frame assy 118796
Lower frame 118681
Bearing 80945
Headlever shaft 95277
Linkage washer ø65xø30,5
Cotter pin ø4x35
Bearing 80944
Pivot shaft 95279
Frame shaft 95278
Bearing 80945
Tension screw M12x18(
Spring shaft 96029
Bearing bush 80944
Locking bush 96030
Nut M12
Balance spring
Spring plug 902
Nut M12
Screw eye 95583
Clamp 95253
Securety nut M12

3098 D

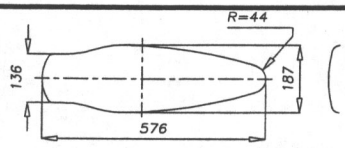
PRESS SHOE AND TABLE GROUP

Please state model and serialnumber of the press when ordering



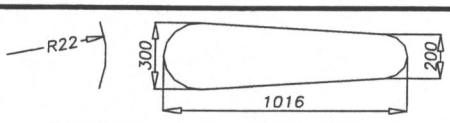


PA-19-70	**&**	**PA-19-72**
PA-19-73	**&**	**PA-19-74**
PA-19-81	**&**	**PA-19-86**
Press Shoe Group:		121999
Head:		102241
Head covering:		118368
Buck covering:		118367
Buck:		102239



PA-220-70	**&**	**PA-220-73**
PA-220-76	**&**	**PA-220-77**
PA-220-81		
Press Shoe Group:		121071
Head:		102303
Head covering:		118350
Buck:		102301
Buck covering:		118349

PA-220-80	
Press Shoe Group:	121983
Head:	102212
Head covering:	118678
Buck:	102210
Buck covering:	118351



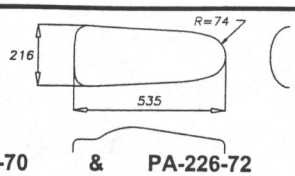
PA-41-70	**&**	**PA-41-71**
PA-41-72	**&**	**PA-41-73**
Press Shoe Group:		122410
Head:		102403
Head covering:		118291
Buck:		102219
Buck covering:		118290

PA-41-78	
Press Shoe Group:	121994
Head:	102235
Head covering:	118291
Buck:	102219
Buck covering:	118290

PA-41-79	
Press Shoe Group:	121997
Head:	102179
Buck:	102219
Buck covering:	118290

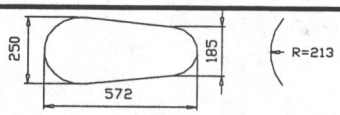
PA-41-81	
Press Shoe Group:	122420
Head:	10243
Head covering:	118291
Buck:	102219
Buck covering:	118290

PA-41-84	
Press Shoe Group:	122421
Head:	102417
Buck:	102219
Buck covering:	118290

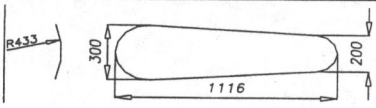


PA-226-70	**&**	**PA-226-72**
PA-226-73	**&**	**PA-226-74**
PA-226-77	**&**	
Press Shoe Group:		121074
Head:		102311
Head covering:		118005
Buck:		102309
Buck covering:		118006

PA-226-80	
Press Shoe Group:	121952
Head:	102087
Head covering:	118679
Buck:	102085
Buck covering:	118006



PA-24-70	**&**	**PA-24-73**
PA-24-74	**&**	**PA-24-77**
PA-24-81	**&**	
Press Shoe Group:		121058
Head:		102277
Head covering:		118370
Buck:		102278
Buck covering:		118369



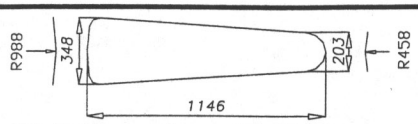
PA-45-70	**&**	**PA-45-73**
Press Shoe Group:		122411
Head:		102404
Head covering:		118293
Buck:		102220
Buck covering:		118292

PA-45-71	
Press Shoe Group:	121993
Head:	102176
Buck:	102220
Buck covering:	118293

PA-45-78	
Press Shoe Group:	121995
Head:	102236
Head covering:	118293
Buck:	102220
Buck covering:	118292

PA-45-79	
Press Shoe Group:	121998
Head:	102178
Buck:	102220
Buck covering:	118290

PA-45-81	**&**	**PA-45-93**
Press Shoe Group:		122427
Head:		102404
Head covering:		118293
Buck:		102220
Buck covering:		118292



PA-47-70 & PA-47-72
PA-47-73

Press Shoe Group:	122412
Head:	102405
Head covering:	118372
Buck:	102222
Buck covering:	118371

PA-47-71

Press Shoe Group:	122419
Head:	102424
Buck:	102222
Buck covering:	119481

PA-47-78

Press Shoe Group:	121996
Head:	102237
Head covering:	118372
Buck:	102222
Buck covering:	118371

PA-47-81 & PA-47-93

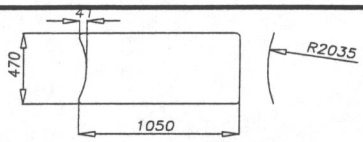
Press Shoe Group:	122424
Head:	102405
Head covering:	118372
Buck:	102222
Buck covering:	118371

PA-47-84

Press Shoe Group:	122422
Head:	102424
Buck:	102222
Buck covering:	118371

PA-47-85

Press Shoe Group:	121065
Head:	102193
Buck:	102222
Buck covering:	118371

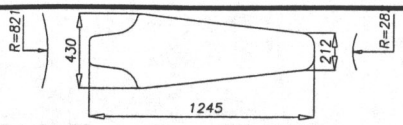


PA-439-70 & PA-439-72
PA-439-73 & PA-439-74
PA-439-81 & PA-439-88

Press Shoe Group:	121068
Head:	102227
Head covering:	118376
Buck:	102228
Buck covering:	118375

PA-439-89

Press Shoe Group:	121081
Head:	102324
Head covering:	118376
Buck:	102228
Buck covering:	118375



PA-50-70 & PA-50-72
PA-50-73

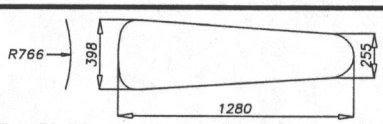
Press Shoe Group:	122413
Head:	102418
Head covering:	118345
Buck:	102224
Buck covering:	118344

PA-50-78

Press Shoe Group:	121066
Head:	102298
Head covering:	118345
Buck:	102224
Buck covering:	118344

PA-50-81

Press Shoe Group:	122425
Head:	102418
Head covering:	118345
Buck:	102224
Buck covering:	118344



PA-52-70 & PA-52-72
PA-52-73 & PA-52-86

Press Shoe Group:	122414
Head:	102419
Head covering:	118347
Buck:	102226
Buck covering:	118346

PA-52-71

Press Shoe Group:	121076
Head:	102314
Buck:	102226
Buck covering:	118346

PA-52-78

Press Shoe Group:	121067
Head:	102299
Head covering:	118347
Buck:	102226
Buck covering:	118346

PA-52-81 & PA-52-93

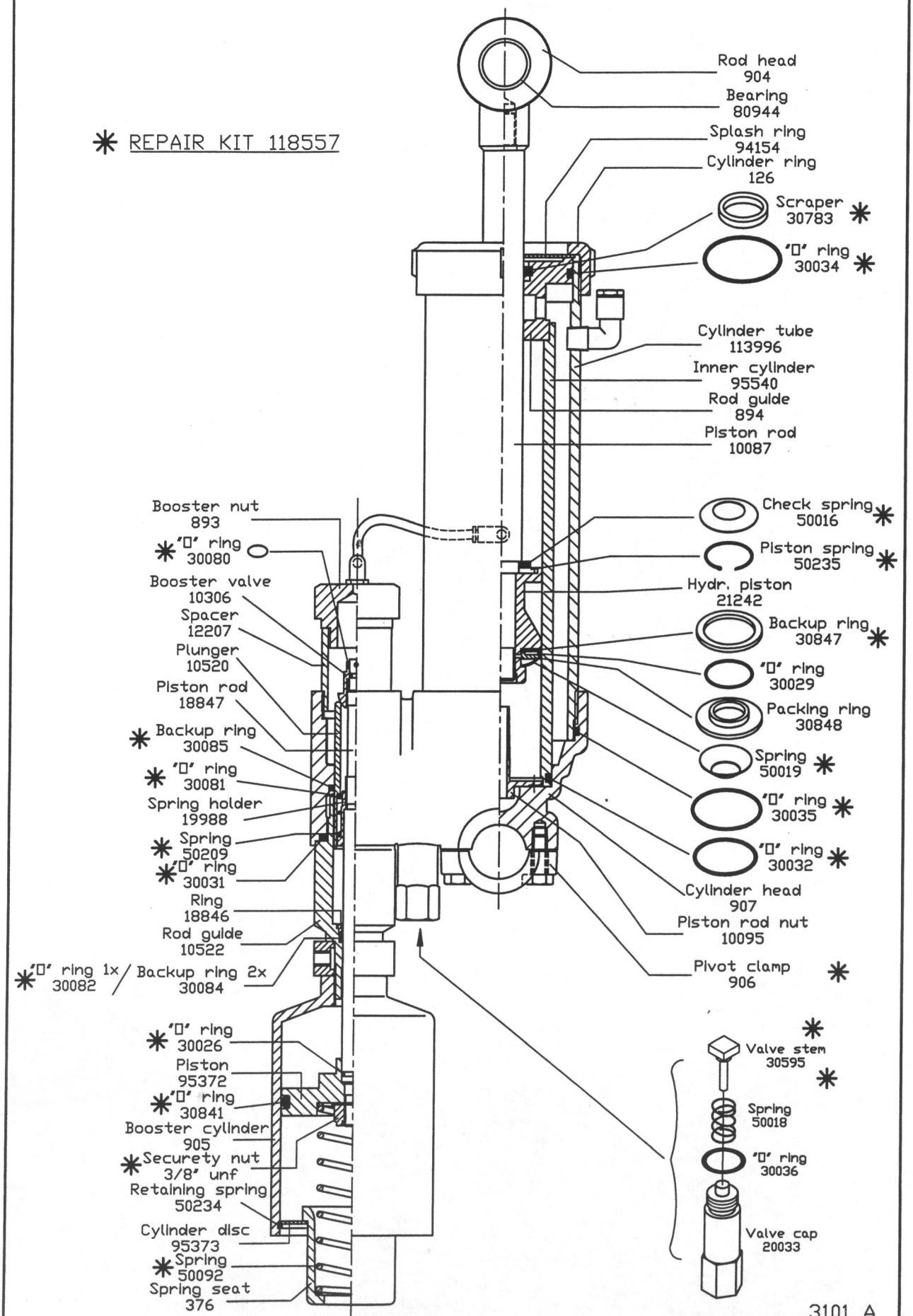
Press Shoe Group:	122426
Head:	102419
Head covering:	118347
Buck:	102226
Buck covering:	118346

PA-52-84

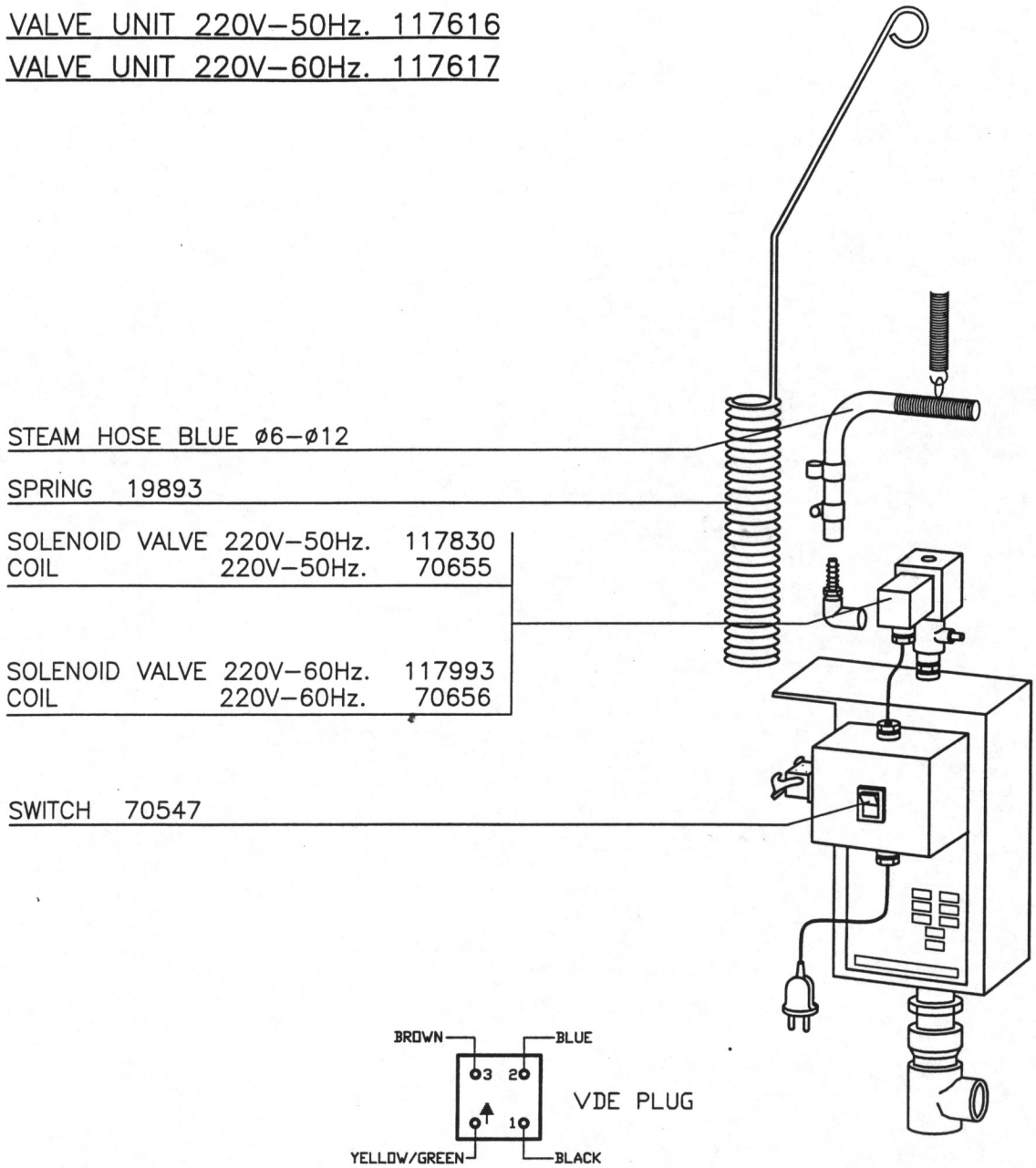
Press Shoe Group:	122423
Head:	102314
Buck:	102226
Buck covering:	118346

PA-52-87

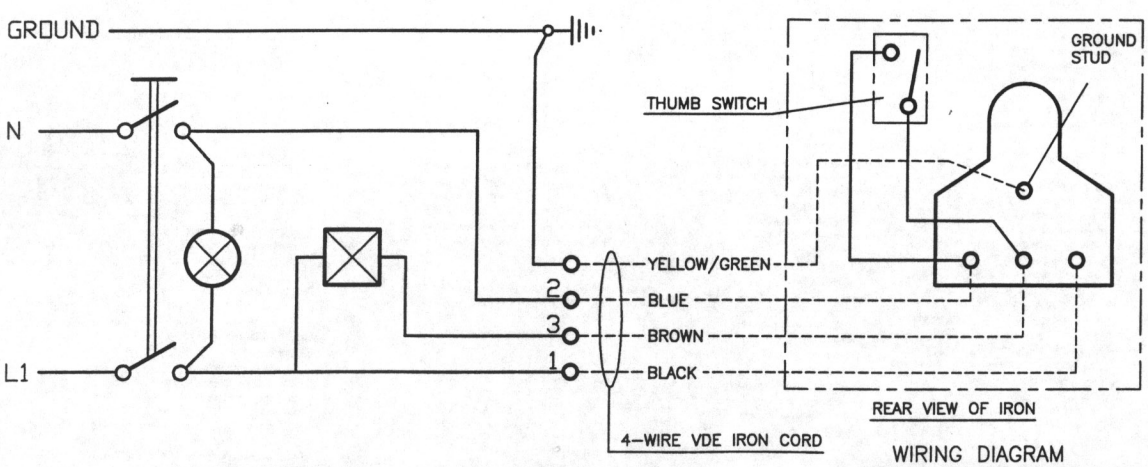
Press Shoe Group:	121068
Head:	102227
Buck:	102228
Buck covering:	118058


* REPAIR KIT 118557
Rod head 904
Bearing 80944
Splash ring 94154
Cylinder ring 126
Scraper 30783 *
'O' ring 30034 *
Cylinder tube 113996
Inner cylinder 95540
Rod guide 894
Piston rod 10087
Booster nut 893
* 'O' ring 30080
Booster valve 10306
Spacer 12207
Plunger 10520
Piston rod 18847
* Backup ring 30085
* 'O' ring 30081
Spring holder 19988
* Spring 50209
* 'O' ring 30031
Ring 18846
Rod guide 10522
* 'O' ring 1x 30082 / Backup ring 2x 30084
* 'O' ring 30026
Piston 95372
* 'O' ring 30841
Booster cylinder 905
* Securety nut 3/8' unf
Retaining spring 50234
Cylinder disc 95373
* Spring 50092
Spring seat 376
Check spring 50016 *
Piston spring 50235 *
Hydr. piston 21242
Backup ring 30847 *
'O' ring 30029
Packing ring 30848
Spring 50019 *
'O' ring 30035 *
'O' ring 30032 *
Cylinder head 907
Piston rod nut 10095
Pivot clamp 906 *
*
Valve stem 30595
*
Spring 50018
'O' ring 30036
Valve cap 20033
3101 A

VALVE UNIT 220V–50Hz. 117616
VALVE UNIT 220V–60Hz. 117617



VDE PLUG

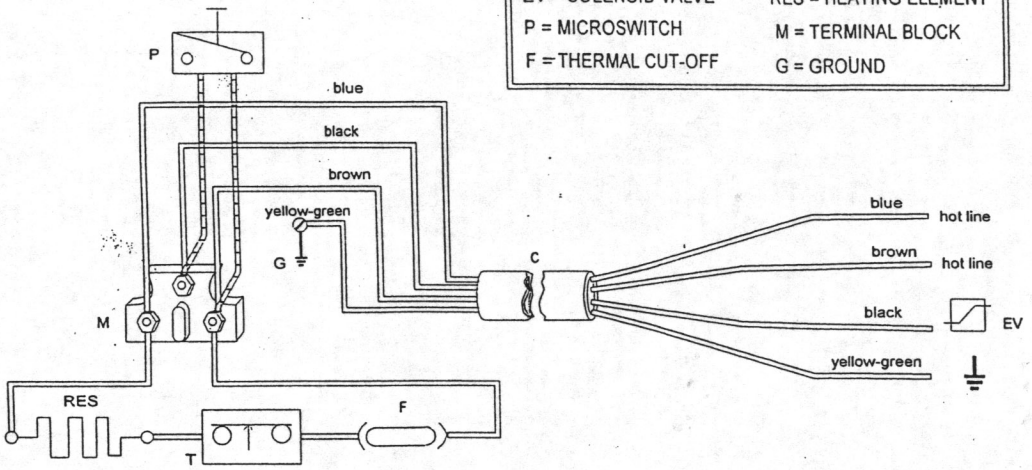


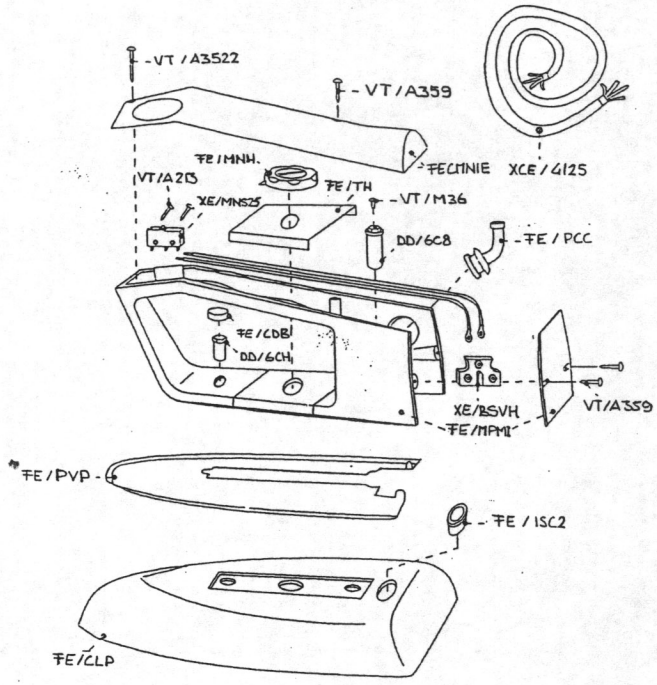
WIRING DIAGRAM
LOW BOY

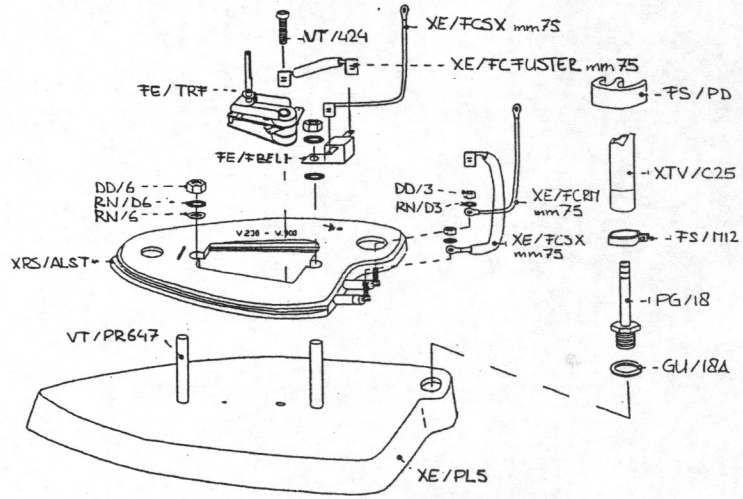
WIRING DIAGRAM
STEAM ELECTRIC IRON
WITH GERMAN VDE CORD

WIRING DIAGRAM IRON PANTEX

LEGENDA	
C = FEEDING CABLE	T = THERMOSTAT
EV = SOLENOID VALVE	RES = HEATING ELEMENT
P = MICROSWITCH	M = TERMINAL BLOCK
F = THERMAL CUT-OFF	G = GROUND





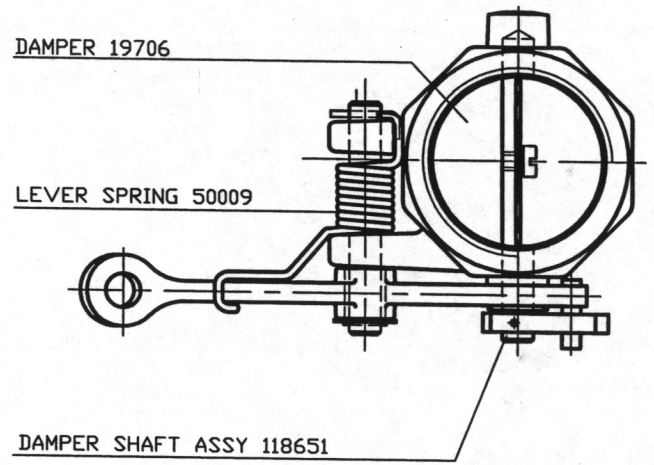


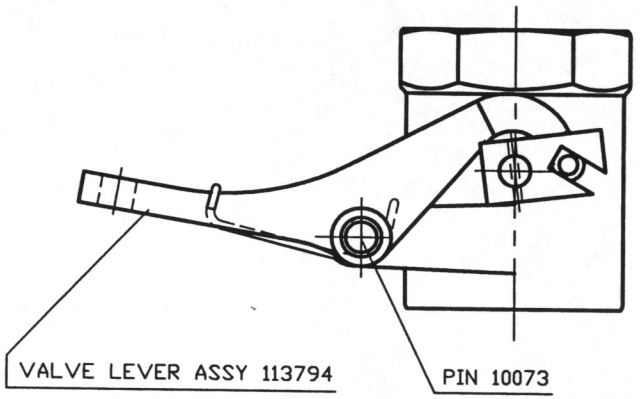
CODE	DESCRIPTION
DD/6	Nut M6
DD/6C8	Rear hex screw
DD/6CH	Front hex screw
FEICDB	Rubber cupnut
FE/CLP	Iron cover
FEICMNIE	Handle cover
FEIFBEL1	Thermal fuse
FEIISC	Wire insulator
FEIMNH	Thermostat knob
FEIMPMI	Plastic handle + contacts cover
FE/PCC	Curved strain relief
FEIPVP	Aluminum steam guard
FEITH	Name plate
FEITRF	Thermostat with faston
FSIM12	Metal hose clamp
FSIPD	Plastic double tie wrap
GU/18A	Aluminum gasket
PG/18	Hose nipple 118"
RN/35	Washer

CODE	DESCRIPTION
RN/6	Washer
RN/D3	Washer
RN/D6	Washer
VT/424	Thermostat screw
VT/A213	Screws for microswitch
VT/A3522	Handle screws
VT/A359	Handle screw
VT/M36	Screw
VT/PR647	Base bolt
XCE/4125	Electric wire mt.2,50
XEIBSVH	Therminal block
XEIFCFUS	Contact wire
XEIFCFUSTER	Contact wire
XEIFCRM	Contact wire
XEIMNS25	Microswitch with wires
XEIPL5	Anodized base
XRSIALSTV	Aluminum heating element W.900 with screw
XTV/C25	Steam hose mt.2,50

VACUUM VALVE ASSY

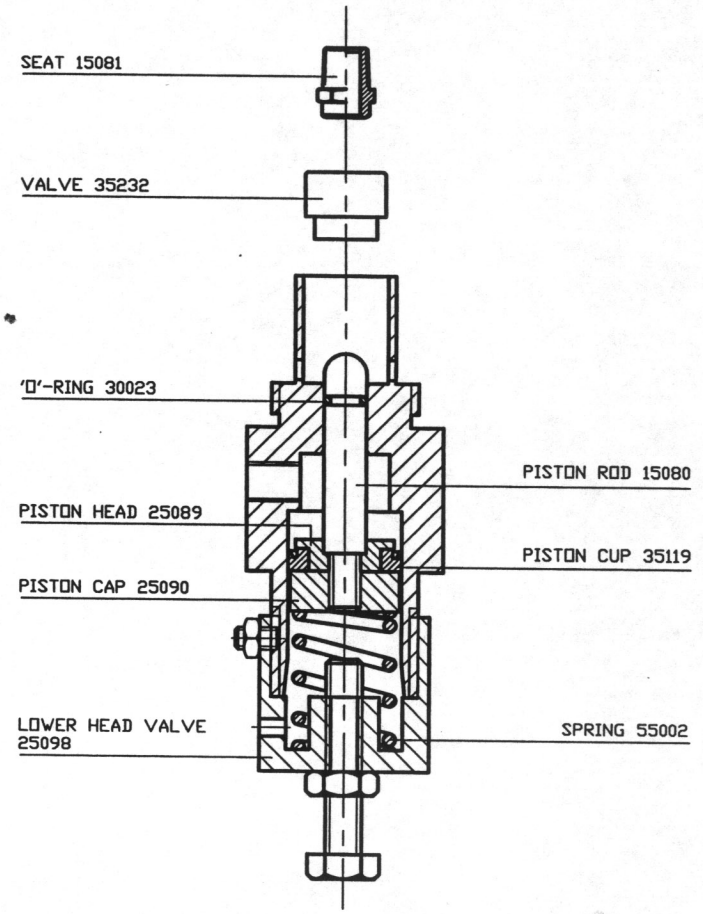
118652



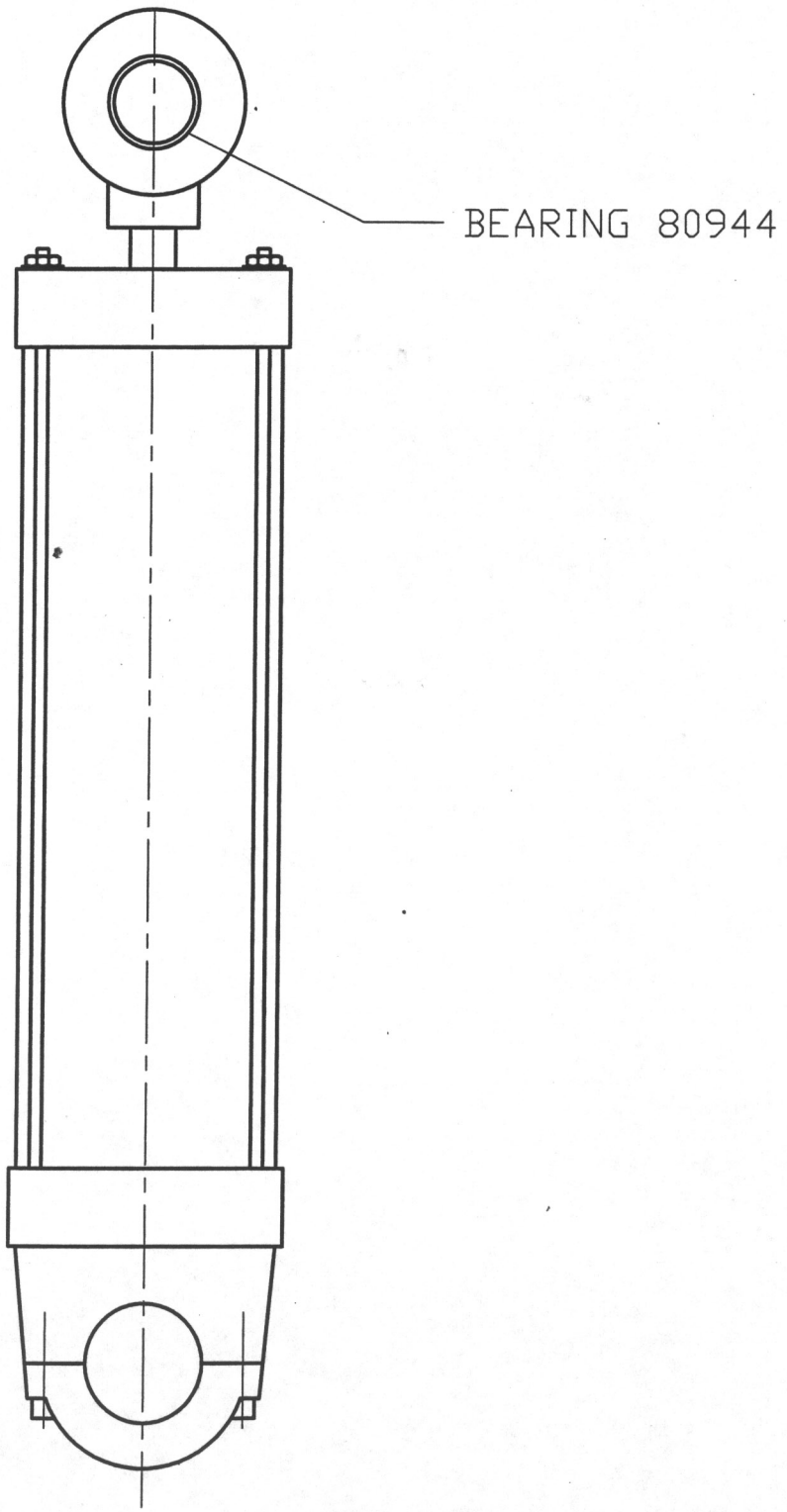


PNEUMATIC STEAM VALVE

115609

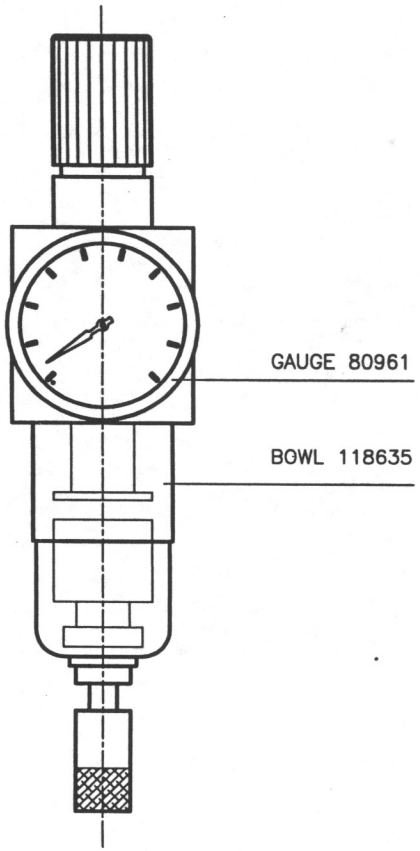


CLOSING AIR CYLINDER 118595



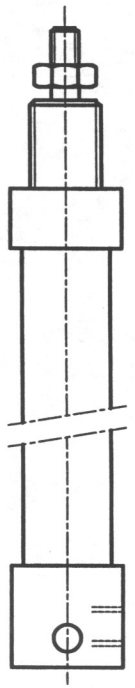
REPAIR KIT 118633

AIR CONTROLE ASSY 118593 (including automatic drain)
AIR CONTROLE ASSY 118551 (without automatic drain)



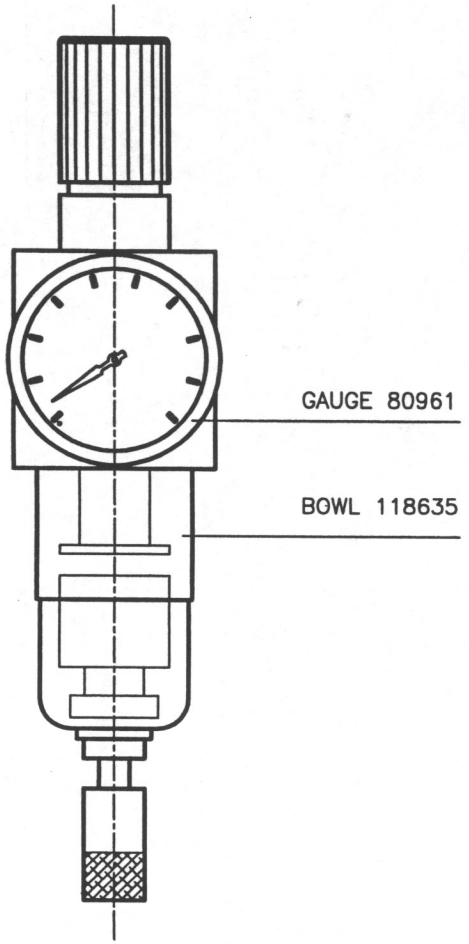
REPAIR KIT 118634

AIR CYLINDER ASSY
116972
ø20x25



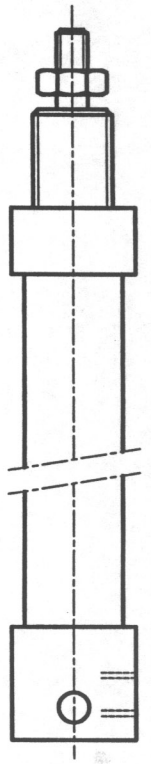
SET SPARE PARTS 117122

AIR CONTROLE ASSY 118593 (including automatic drain)
AIR CONTROLE ASSY 118551 (without automatic drain)



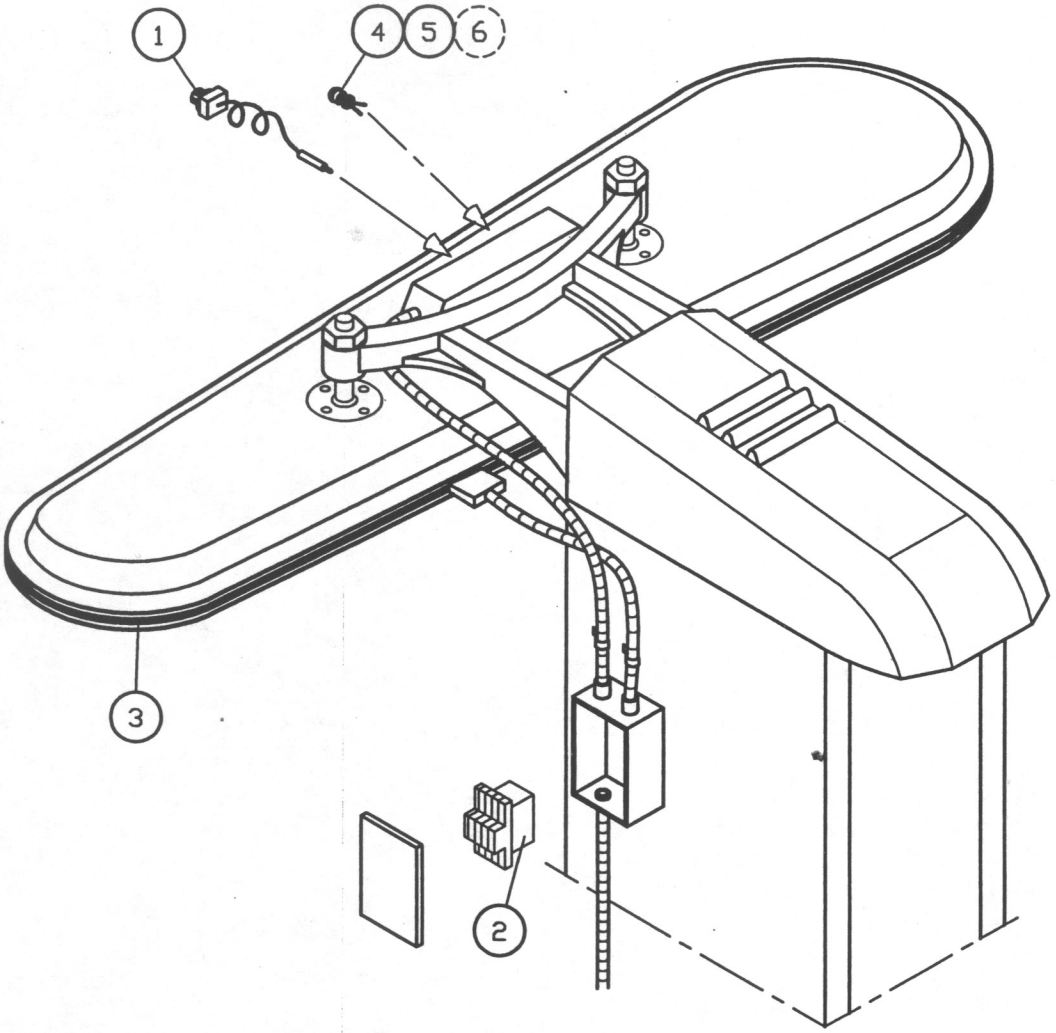
REPAIR KIT 118634

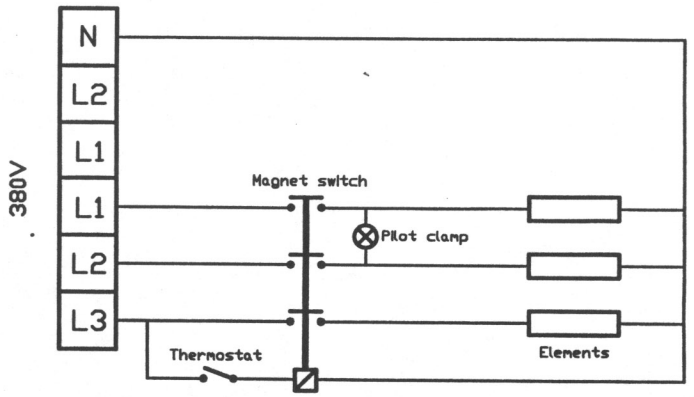
AIR CYLINDER ASSY
116972
ø20x25

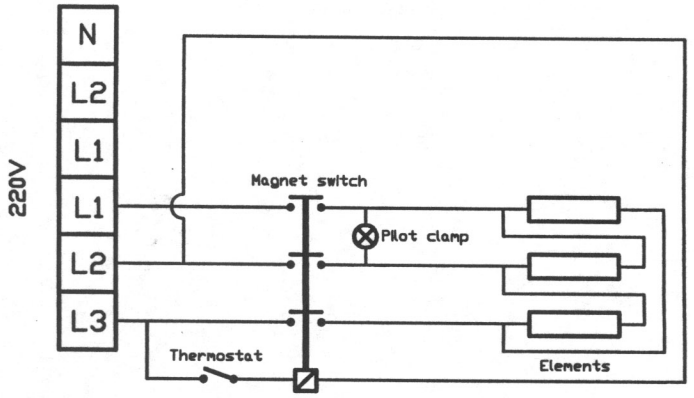


SET SPARE PARTS 117122

ELECTRIC HEATED HEAD



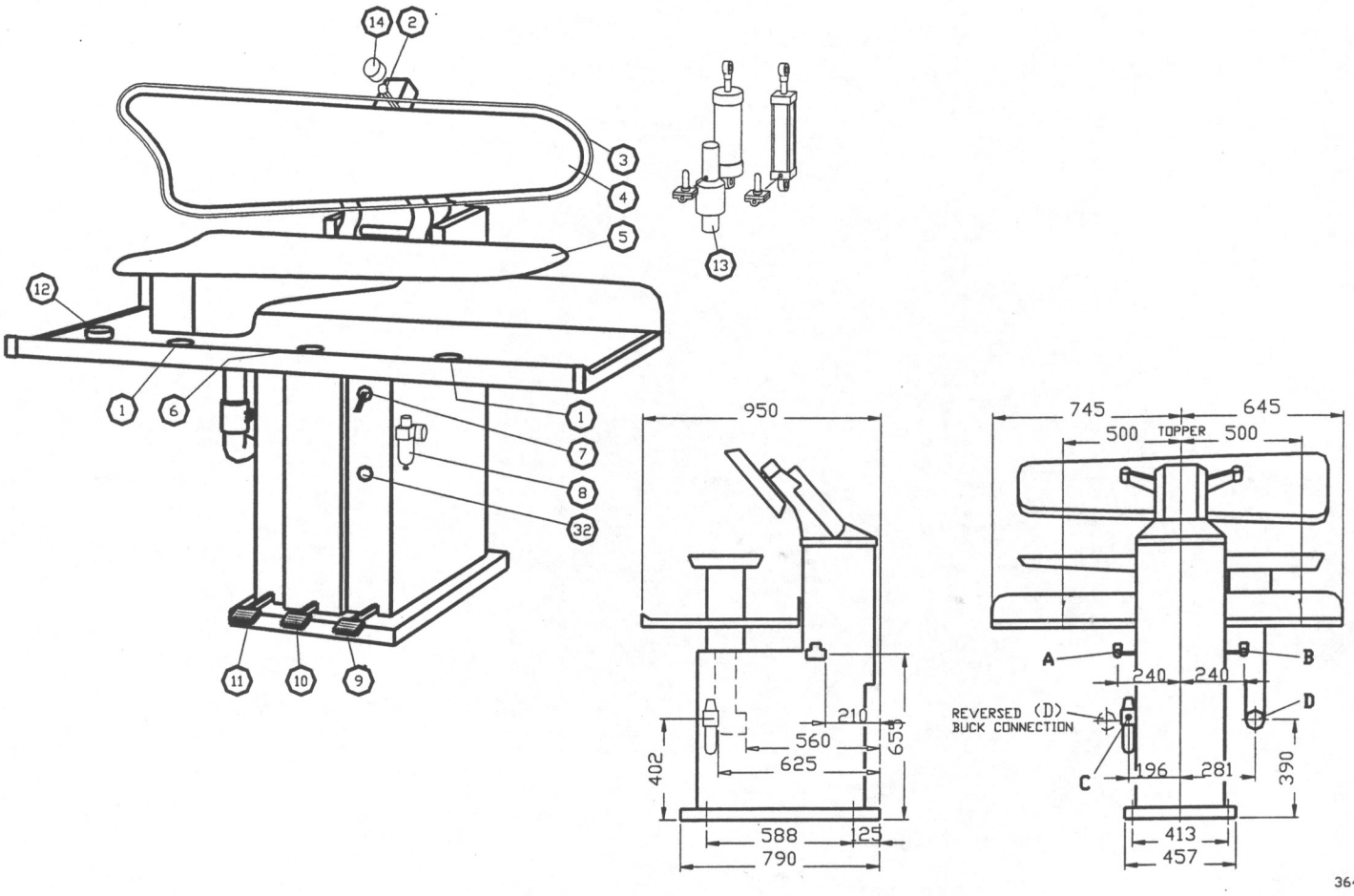




machine has to be connected to the main current in the switchbox.
ove the cover from the switchbox. You will see a therminal block.
machine has to be connected to the connections L1–L2–L3–N and
earth. Other voltages and frequencies upon request.
temperature of the Head can be controled by a termostat. As soon
ne desired temperature is reached the pilot lamp will turn off.

1	Thermostat	70915
2	Magnet switch	70627
3	Head heating element	–
4	Lamp 380V	70212
5	Lamp holder	70454
6	Lamp	70016

Operating functions and connections

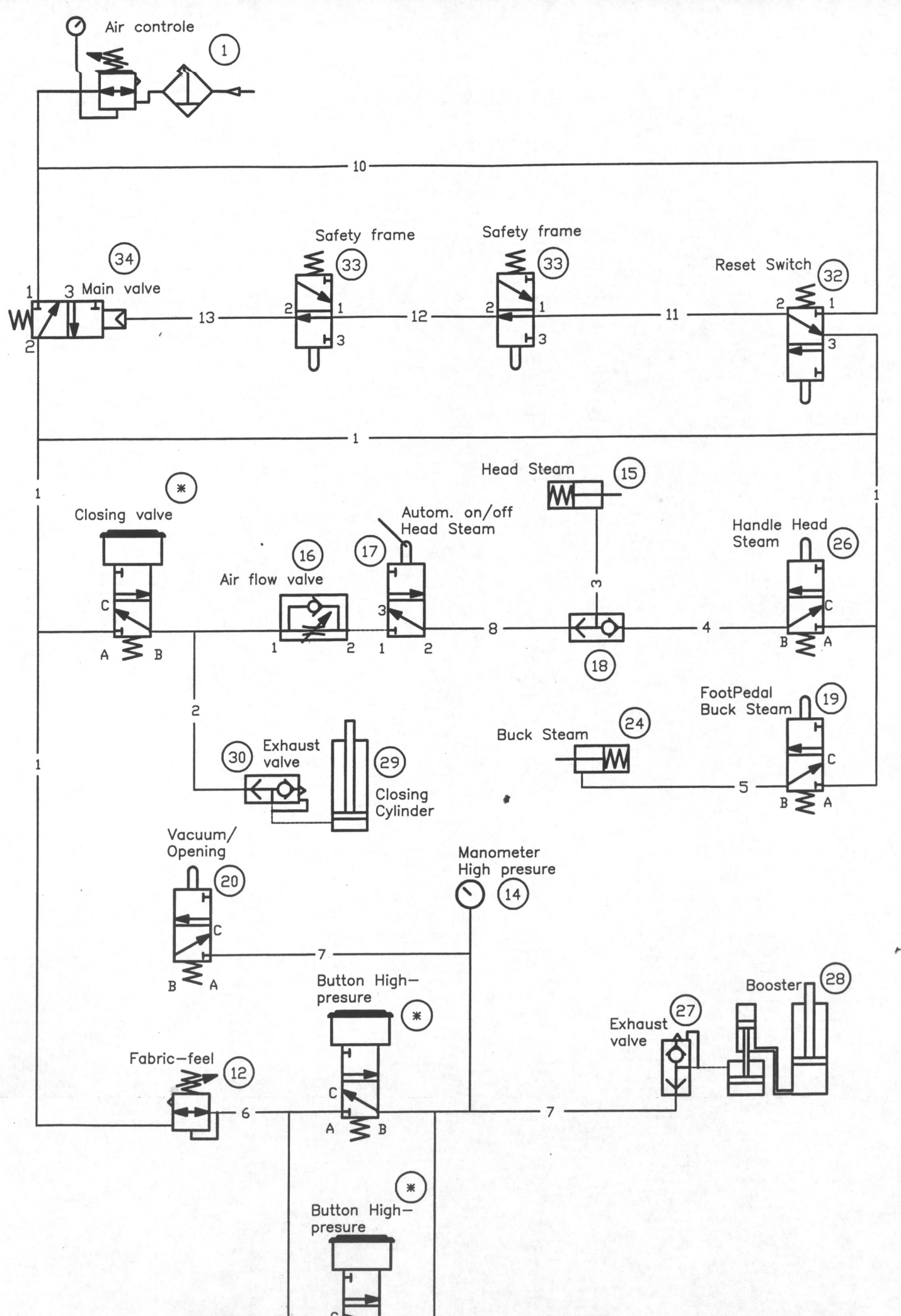


1. Left lever: operation booster
2. Right lever: head steam
3. Safety bar
4. Upper pressing shoe (= head)
5. Lower pressing shoe (= buck)
6. Head-lever: closing of the press (code /70, /71, /78, /79)
7. Lever automatic head steam
8. Air control
9. Right foot switch: buck steam
10. Middle foot switch: closing of the press (code /73)
11. Left foot switch: vacuum buck
12. Pressure regulator
13. Hydraulic booster
14. Manometer pressure
32. Reset switch

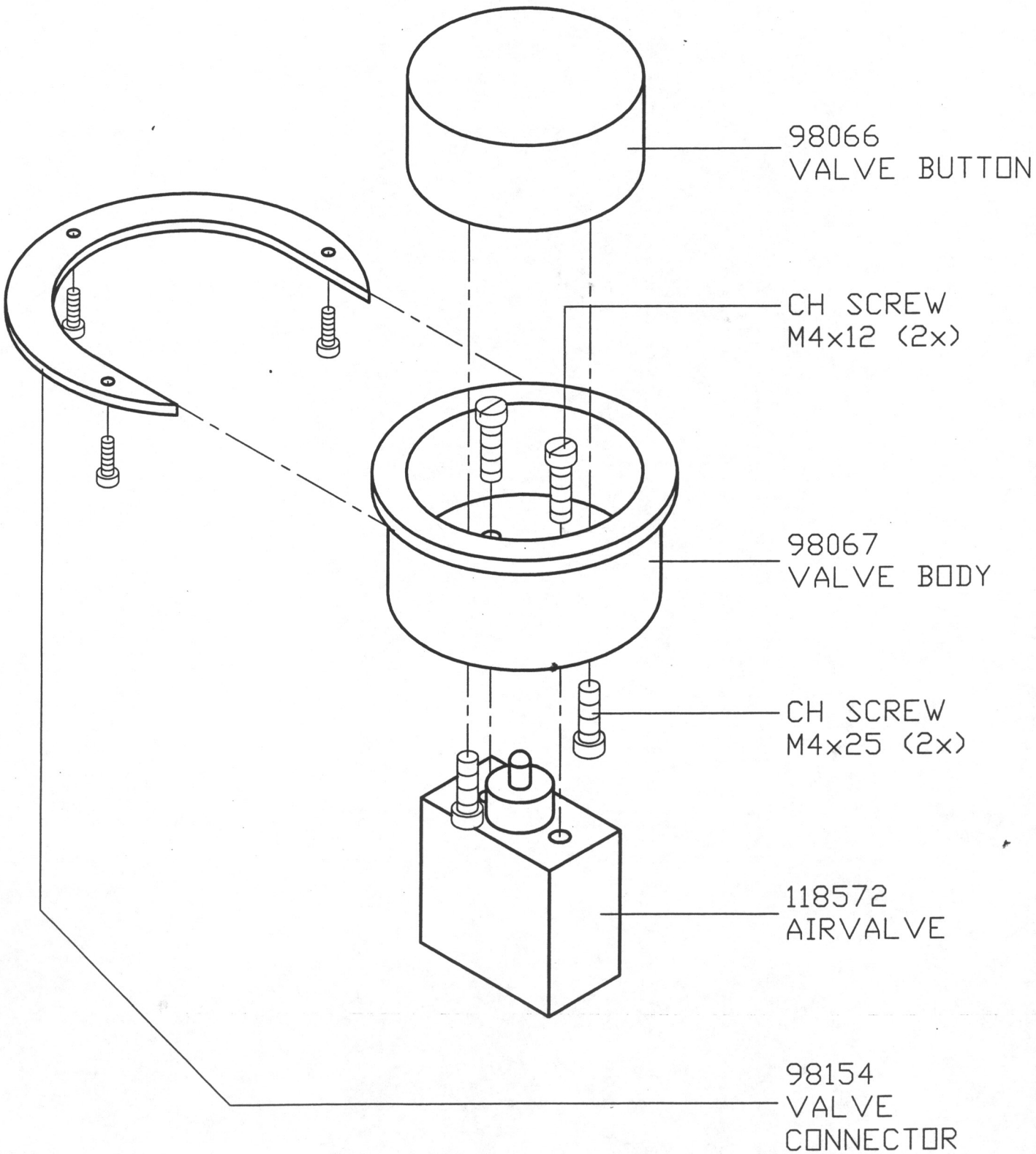
A. Steam supply ½"
B. Steam drainage ½"
C. Compressed air connection ¼"
D. Vacuum line

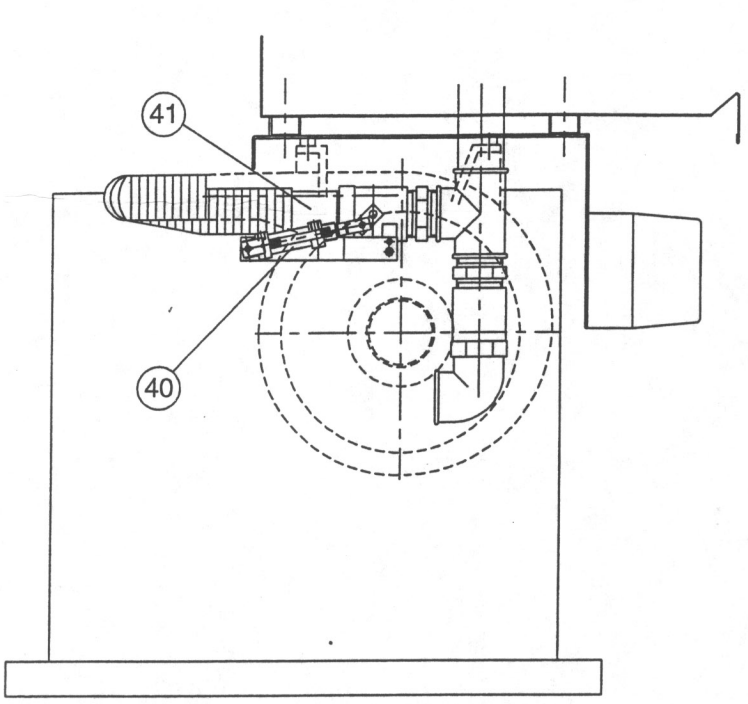
There is no option to close the press. The press can be closed by EITHER a head-lever (6) (code /70, /71, /78, /79) OR a foot switch (10) (code /73).

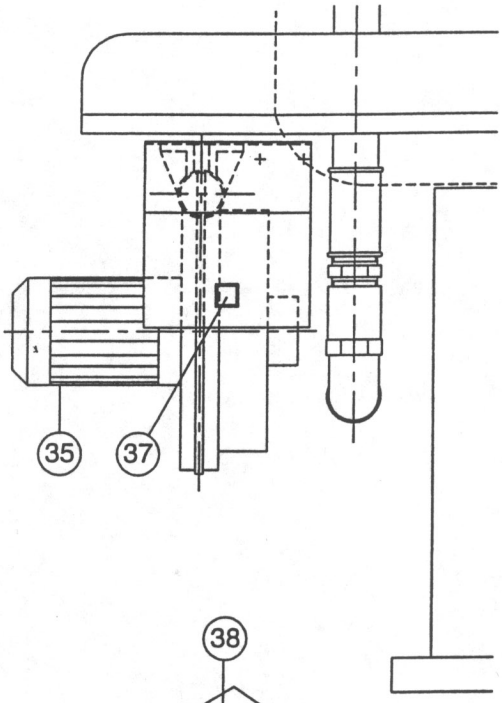
All number or capitals indicated in brackets () refer to the number/capitals on the different drawings (operating functions and spare parts).

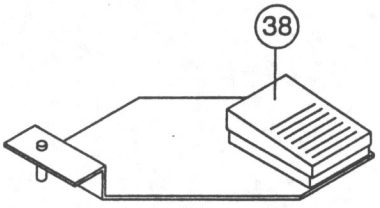

Air controle
1
10
34
Main valve
1
3
2
13
Safety frame
33
2
1
3
12
Safety frame
33
2
1
3
11
Reset Switch
32
2
1
3
1
1
1
*
Closing valve
C
A
B
16
Air flow valve
1
2
17
Autom. on/off
Head Steam
3
1
2
8
Head Steam
15
3
18
4
Handle Head
Steam
26
C
B
A
2
30
Exhaust
valve
29
Closing
Cylinder
Buck Steam
24
FootPedal
Buck Steam
19
C
B
A
5
Vacuum/
Opening
20
C
B
A
Manometer
High presure
14
7
Button High–
presure
*
C
A
B
Booster
28
Exhaust
valve
27
Fabric–feel
12
6
7
*
Button High–
presure

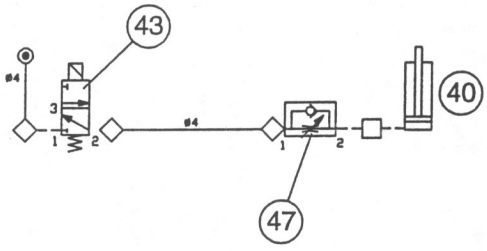
VALVE ASSY

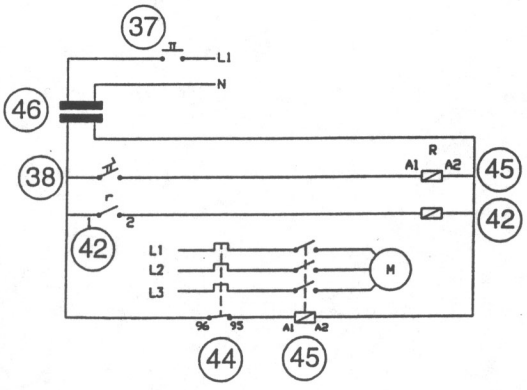

98066
VALVE BUTTON
CH SCREW
M4x12 (2x)
98067
VALVE BODY
CH SCREW
M4x25 (2x)
118572
AIRVALVE
98154
VALVE
CONNECTOR

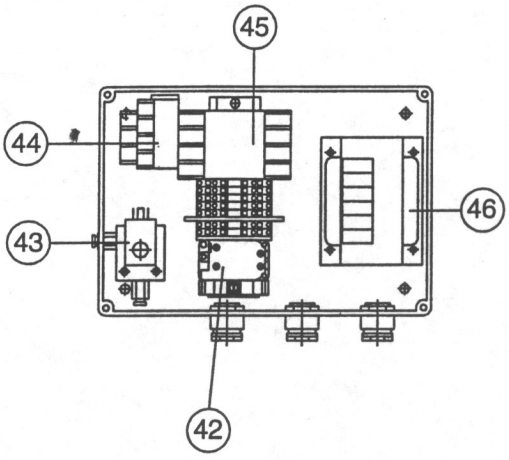

41
40


35
37

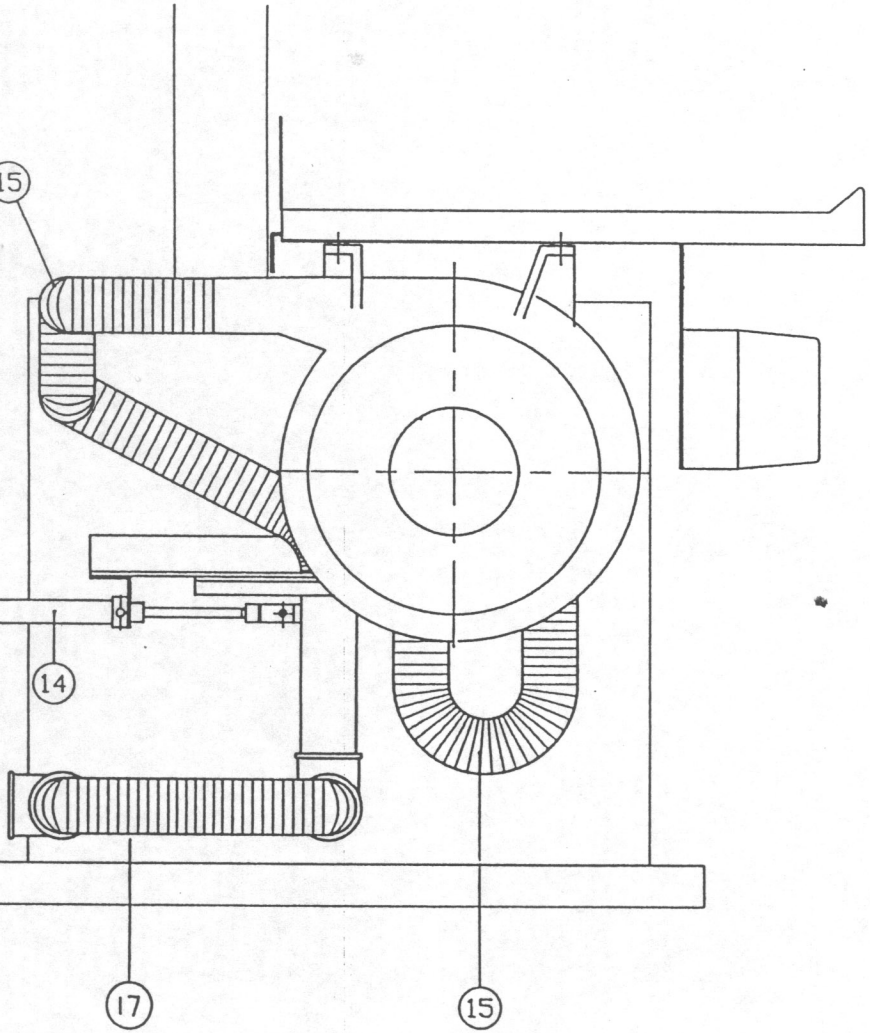

38

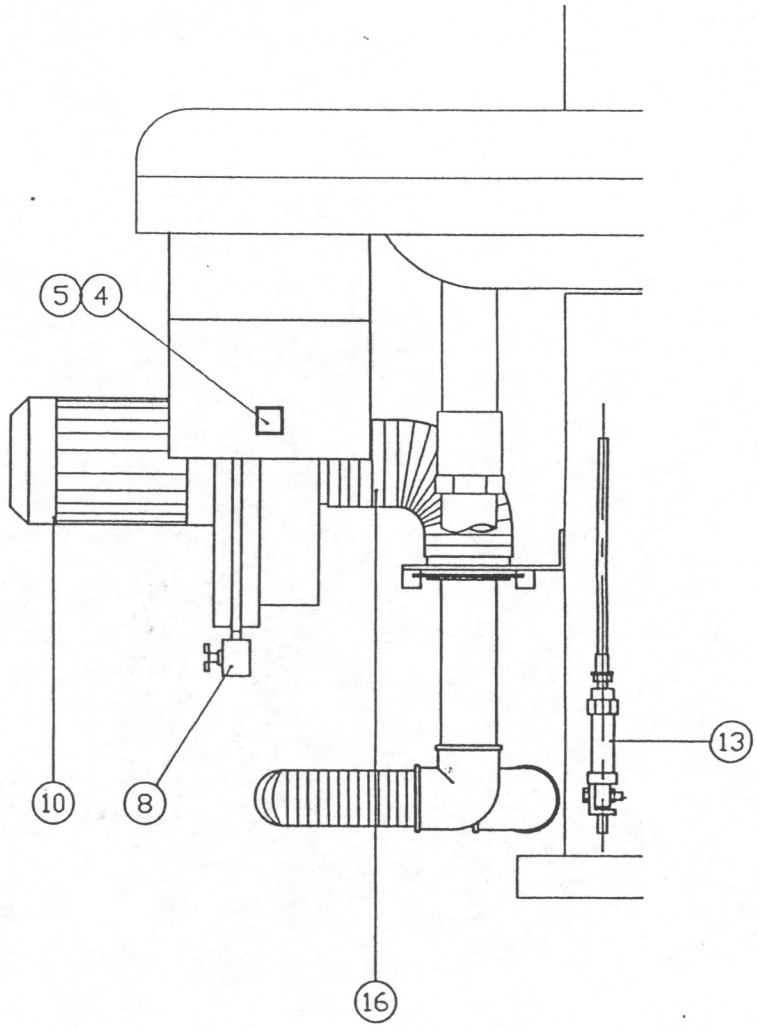

43
40
47
Ø4
Ø4
3
1
2
1
2


37
L1
N
46
38
R
A1
A2
45
42
42
L1
L2
L3
M
96
95
A1
A2
44
45

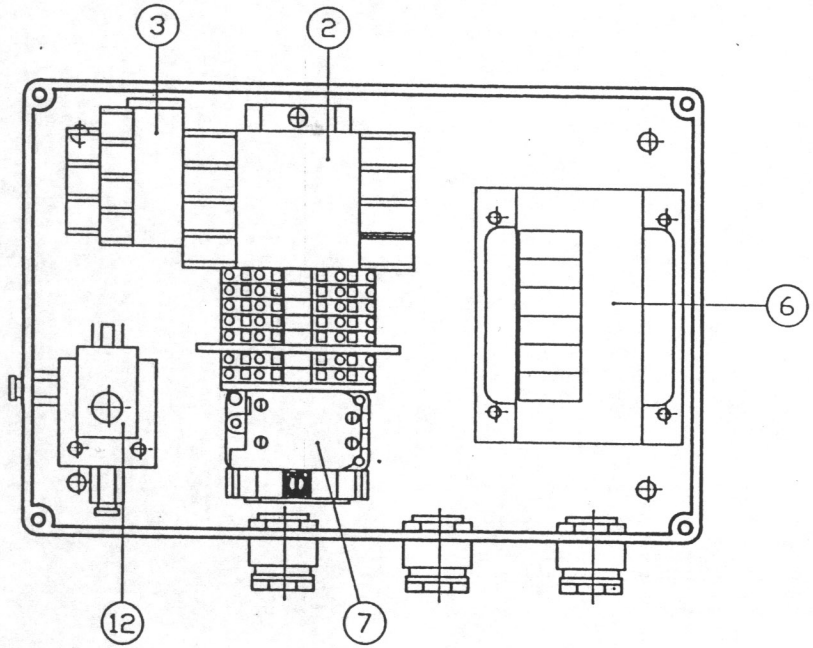

45
44
46
43
42

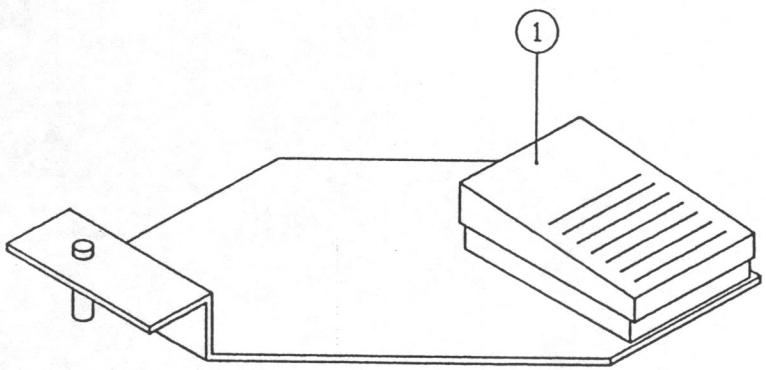
VACUUM & BLOWING UNIT





CONTROL BOX & PEDAL

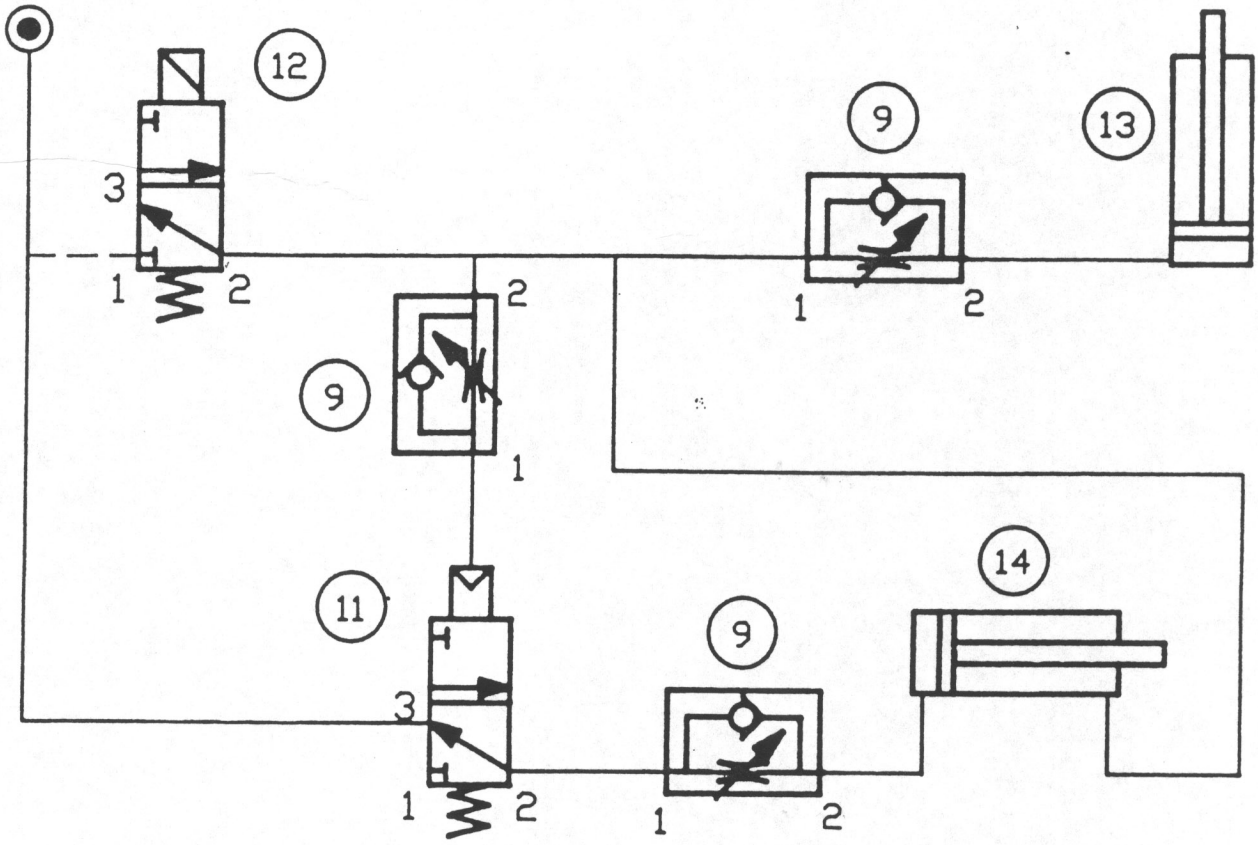




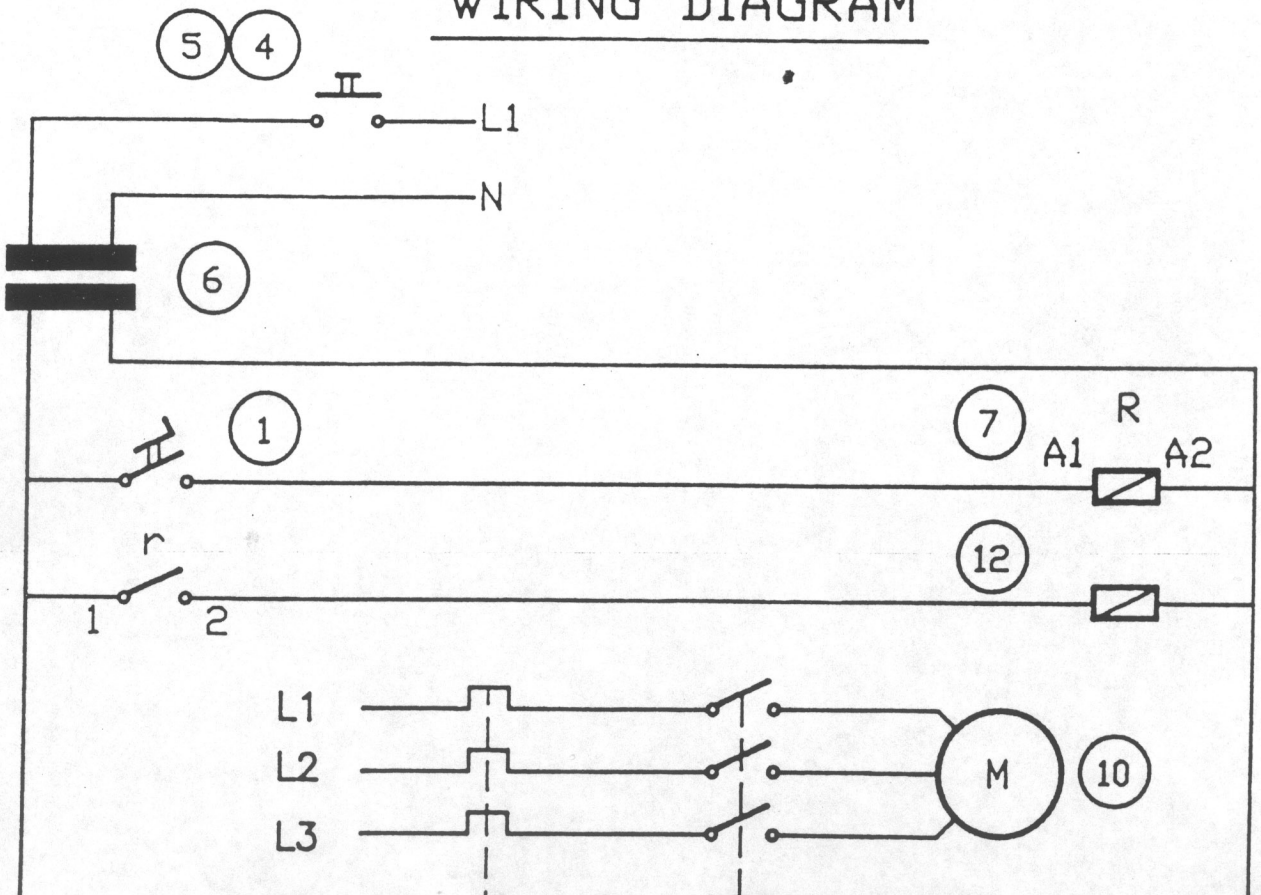
SPARE PARTS

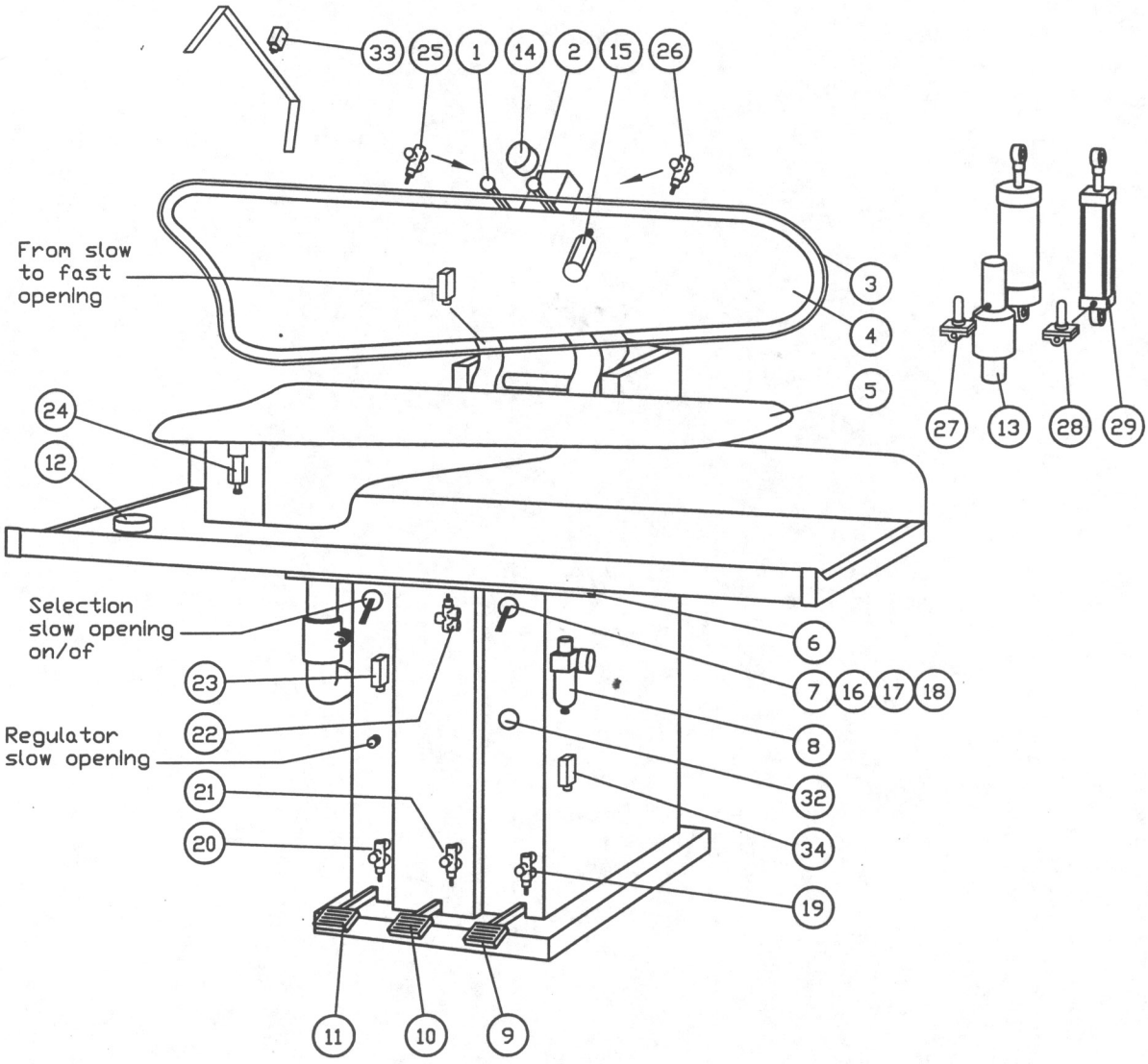
1	FOOT PEDAL		70590
2	MAGNET SWITCH		70611
3	THERMICAL RELAY		70629
4	SWITCH		70696
5	SWITCH ELEMENT		70697
6	TRANSFORMER		70773
7	RELAY		70795
8	DRAIN VALVE		80501
9	AIR FLOW VALVE		80846
10	VACUUM PUMP		118171
11	AIR VALVE		118542
12	SOLENOID VALVE		118602
13	CYLINDER		118606
14	CYLINDER		118766
15	VACUUM HOSE	2057029	(L=700)
16	VACUUM HOSE	2057080	(L=350)
17	VACUUM HOSE	2057029	(L=500)

AIR LINES SYSTEM



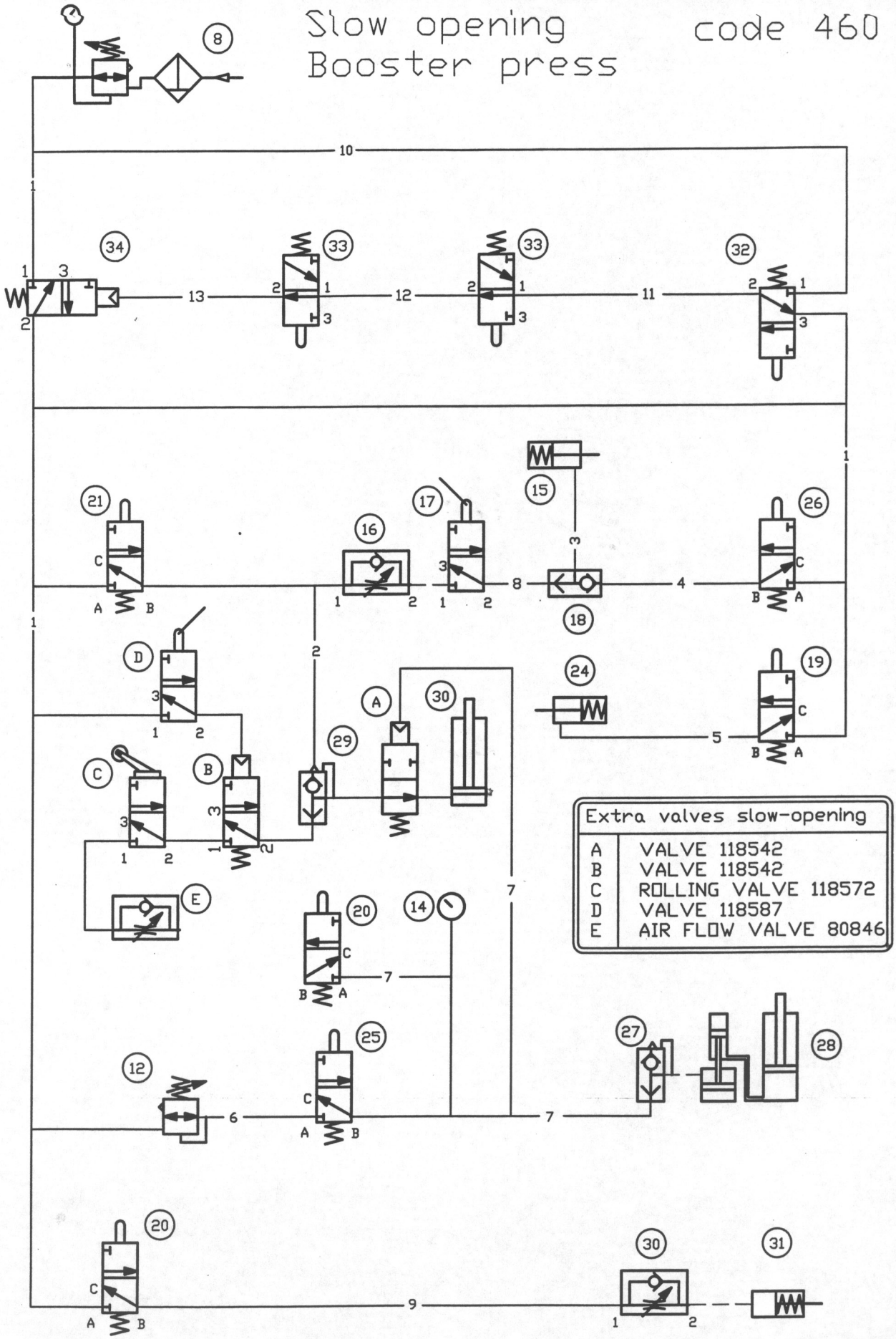
WIRING DIAGRAM




33
25
1
14
2
15
26
From slow to fast opening
3
4
5
24
12
Selection slow opening on/of
6
7
16
17
18
23
22
8
Regulator slow opening
32
21
34
20
19
11
10
9
27
13
28
29

Slow opening Booster press

code 460



Extra valves slow-opening	
A	VALVE 118542
B	VALVE 118542
C	ROLLING VALVE 118572
D	VALVE 118587
E	AIR FLOW VALVE 80846

3584

Hydraulic Booster

Maintenance Instructions
Trouble-Shooting

CISSELL MANUFACTURING COMPANY
HEADQUARTERS
831 SOUTH FIRST ST.
P.O. BOX 32270
LOUISVILLE, KY 40232-2270

PHONE: (502) 587-1292
SALES FAX: (502) 585-3625
SERVICE/PARTS FAX: (502) 681-1275

THIS MANUAL MUST BE GIVEN TO THE EQUIPMENT OWNER.

MAN386 8/95 1C

TROUBLE SHOOTING LIST OF THE HYDRAULIC BOOSTER

(see also “example of assembling” Fig. 1 to 8)

What to do if:

1. Press opens too slowly.
2. Booster gives no pressure.
3. Press looses pressure during cycle.
4. Loss of oil / Loss of pressure.

When disassembling the Booster, all Packings and O-Rings have to be replaced preferably. This is less expensive than disassembling resp. reassembling of Booster every time.

At least once a year the Hydraulic Oil in the Booster has to be replaced, because the Oil reduces its viscosity and could be penetrated with dust or dirt.

1. Press opens too slowly

   a) BOOSTER NUT 893 (see Fig. 8) has been driven in, hindering back flow of oil. If the Booster Nut is slightly driven in, it might be sufficient to adjust Booster Valve 10306 somewhat higher (see Fig. 7).
   Otherwise a new Booster Nut has to be mounted.

   b) AIR BOOSTER SPRING 50092 is broken (see Fig. 8) or has not sufficient tension anymore. Requires replacement.

2. Booster gives no pressure

   Check whether Operating Valve in resting position allows air to pass to booster, so that this valve is already worked out before operated.

3. Press loses pressure during cycle

   a) Check if air supply line is leaky.

   b) It may occur that there is a leakage between Check Valve Stem 30595 and Seat (see Fig. 1). If necessary, replace Valve and adjust Seat. Former presses have been equipped with a metallic Valve instead of a plastic one.
   Such metallic Valve has to be tightened by means of an O-Ring. Old parts can simply be replaced by 30595.

   c) BACK-UP RING 30025 and O-RING 30029 (see Fig. 2) require replacement. Damages on Back-Up Ring can be hardly located, because of small cracks. Check also O-Ring 30032; after longer use this)-Ring can be damaged.

d) Check if seat between Plunger 10520 and Booster Valve 10306 is damaged (see Fig. 7) (always to be replaced at the same time).

e) Check O-Ring 30081 (damages do not occur very often) (see Fig. 8).

f) Check O-Ring 30083 (see Fig. 5).

4. Loss of oil and eventual loss of pressure

a) CHECK VALVE STEM 30595 does not work, causing that oil cannot flow back. Oil will then accumulate in the top of the Booster at PISTON ROD GUIDE 894 (see Fig. 1 and 4).

b) BACK-UP RING 30084 and O-RING 30082 let oil pass through, so that it can enter into the air part. In most cases to be located by a greasy oil vapour, which blows out of the Exhaust Valve during release of air part.
(The Exhaust Valve is mounted in front of air inlet of Booster.) Check also, if PISTON ROD 1884 has been damaged. Sometimes this Rod can be repaired by rubbing with very fine sandpaper in longitudinal direction (only slight damages) (see Fig. 7 and 8).

5. Press slows down badly at closing

a. Refill oil on Booster (use only oil with Pantex No. 80022).

b. In case of loss of oil, see point 4.

Please note, when mounting the Booster between the shafts, that upper and lower fastening points must be lined out absolutely vertically.

EXAMPLE OF ASSEMBLING HYDRAULIC BOOSTERS

This example of assembling is meant of those who have some technical insight in the process of working of the above mentioned cylinders, like service technicians and similar persons.
The numbers indicated in this example of assembling may not be used for ordering spare parts.
For this purpose you have to use the spare parts catalogue, which is delivered with every machine.
Disassembling takes place in reversed order of succession.
The used auxiliary tools can be ordered as per the following list:

Auxiliary tools:

A. "O" Ring mounting tool	19 946
C. Chain tong	19 949
D. Auxiliary tool	19 943
E. "O" Ring mounting tool	19 945
F. Mounting Rod	19 941
H. "O" Ring mounting tool	19 944
J. "O" Ring adjusting tool	19 947
K. Special screw driver	19 950
M. Shaft clamp	19 948
N. Protection plate (2x)	19 942

Booster Revision Tools (complete set as described above) 117 847

For prices of these auxiliary tools, please see price list.

PRELIMINARY ASSEMBLING OF CYLINDER HEAD

(Figure 1)

Pinch tool “L” in a bench screw and fix to it CYLINDER HEAD 297 by means of PIVOT CLAMP 128 and the fastening bolts.

Fix O-RING 30036 after greasing by means of special tool “A” round the CHECK VALVE CAP 20033.

Check whether there is a sharp edging at point “B” in the CYLINDER HEAD 297; if there is, remove it. This prevents damage to the valve.

Fix successively CHECK VALVE STEM 30595, CHECK VALVE CAP SPRING 50018, and the already preliminary assembled CHECK VALVE.

Instead of a plastic CHECK VALVE STEM a metal one is used in older executions, on which an extra O-RING 30036 has been mounted.
Both old parts CHECK VALVE STEM and O-RING can be replaced by the new CHECK VALVE STEM 30595.

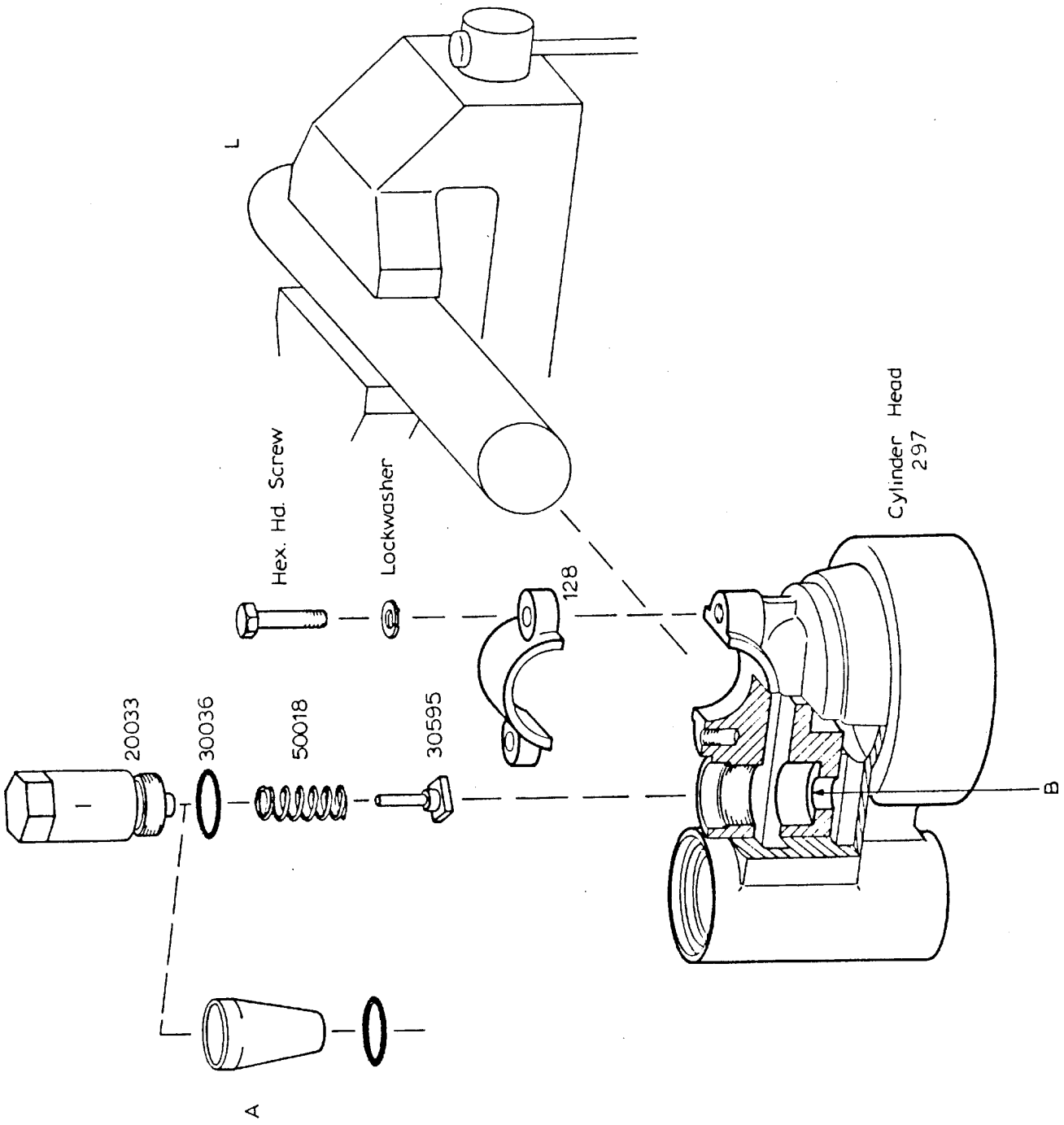


Figure 1

Information subject to change without notice.

PRELIMINARY ASSEMBLING OF PISTON ROD

HYDRAULIC PART (Figure 2)

Mount NEEDLE BEARING 80011 into ROD HEAD 114 and screw this on to PISTON ROD 10087.

Assemble successively on the PISTON ROD;

CHECK SPRING _____ 50 016

CHECKING RING _____ 10 088

HYDRAULIC PISTON _____ 20 697

BACK-UP RING _____ 30 025

O-RING _____ 30 029

PISTON PACKING RING _____ 10 094 (check if it is damaged)

SPRING _____ 50 019

PISTON ROD NUT _____ 10 095

After tightening the PISTON ROD NUT 10095 the hole at the bottom of PISTON ROD 10087 may be deformed somewhat. Please note, that this will not cause any difficulties when assembling CHECKING DISC ASSY 110029 (see Figure 3).

This only appears on replacing the PISTON ROD 10087 and not on disassembling and assembling in the normal way.

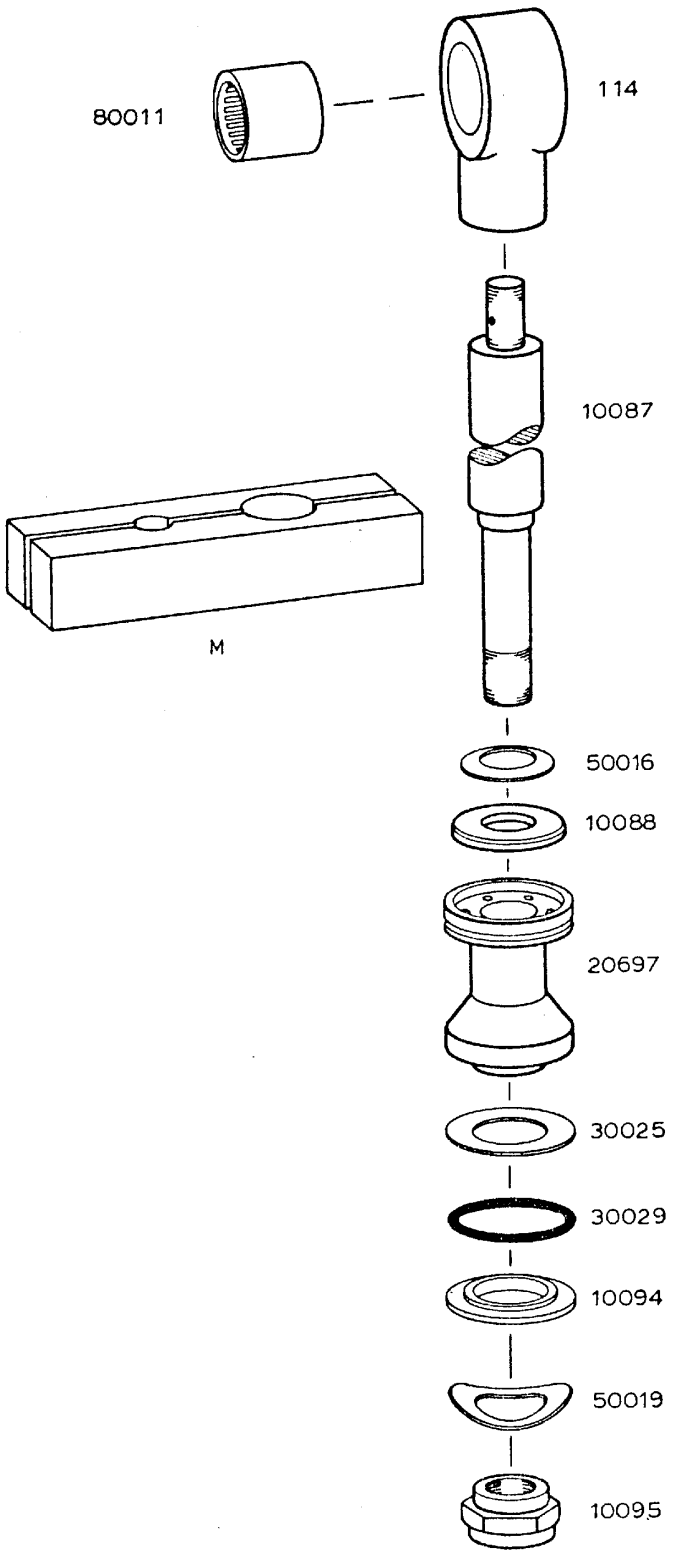

80011
114
10087
M
50016
10088
20697
30025
30029
10094
50019
10095

Figure 2

ASSEMBLING OF IN AND OUTSIDE CYLINDERS

HYDRAULIC PART (Figure 3)

Mount O-RING 30035 in the CYLINDER HEAD.

Provide point / / of BOOSTER CYLINDER TUBE 113996 with liquid packing and screw it f.e. by means of a chain tong “C” into the CYLINDER HEAD.

Insert between these two parts any available SPACER RINGS. These SPACER RINGS are necessary to fix the BOOSTER CYLINDER TUBE in the right position.

Mount O-RING 30032 after greasing round the HYDRAULIC CYLINDER (INNER) 10096.

Put the CHECKING DISC ASSY 110029 into the recess of 10096 and press the whole thing with the aid of tool “D” into the CYLINDER HEAD.

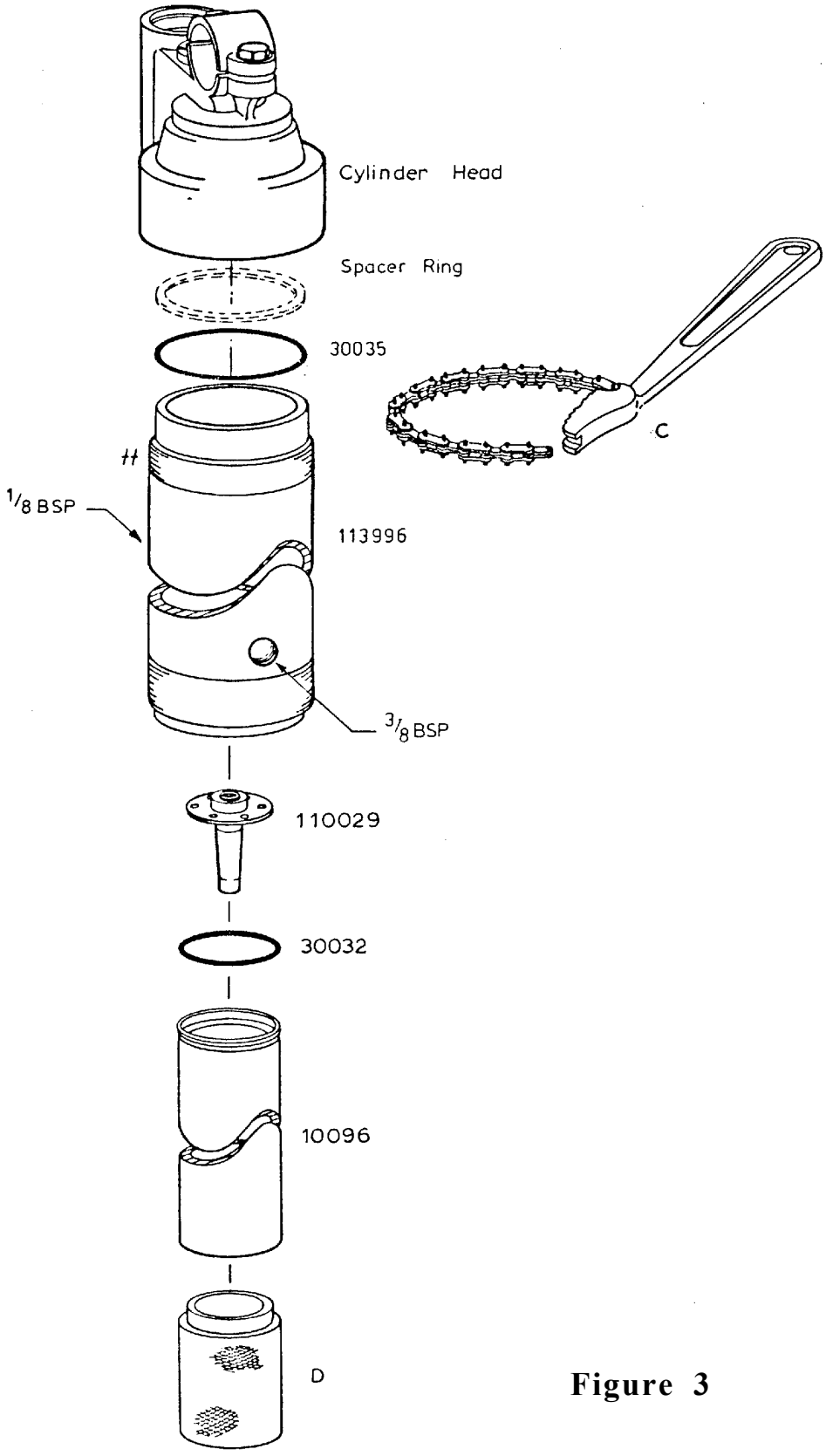


Figure 3

Information subject to change without notice.

ASSEMBLING OF IN PISTON ROD

HYDRAULIC PART (Figure 4)

Screw ROD HEAD 114 from the PISTON ROD 10087.

Fix HYDRAULIC PISTON SPRING 50015 round the already preliminary assembled piston rod and push round it auxiliary tool “D”, so that 50015 cannot jump away.

Press the piston part into HYDRAULIC CYLINDER (INNER) 10096 and remove auxiliary tool “D”.

Fit O-RING 30034 round PISTON ROD GUIDE 894, after the first has been greased. Then also mount SCRAPER RING 30783 into Piston Rod Guide.

Mount successively into the cylinder:

PISTON ROD GUIDE _____ 894 (incl. O-Ring and Scraper Ring)

SPLASH RING _____ 94 154

CYLINDER HEAD RING _____ 126

ROD HEAD _____ 114

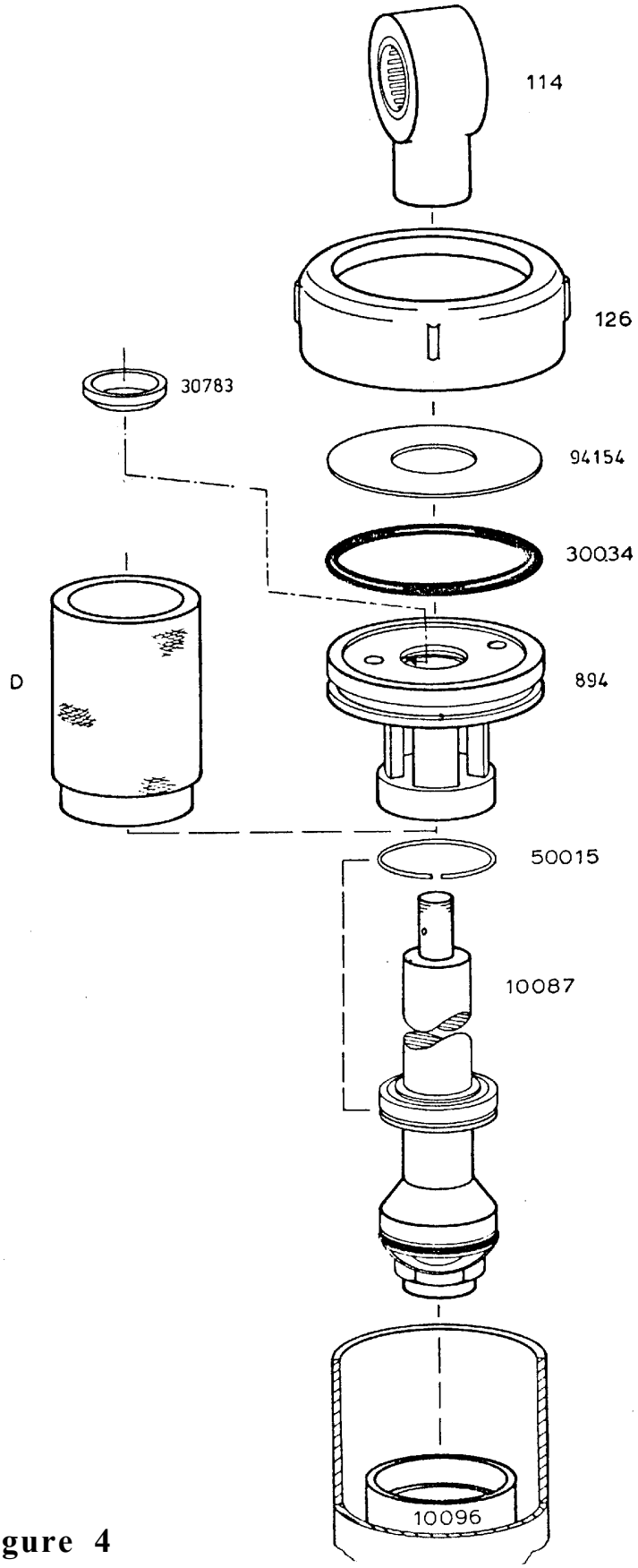


Figure 4

Information subject to change without notice.

PRELIMINARY ASSEMBLING OF AIR CYLINDER PISTON

(Figure 5)

Tighten PISTON ROD 18847 into a bench screw, whereby you MUST make use of tool "N" (aluminum sheets or another similar material), so that damages of the PISTON ROD in any way are prevented.

Provide O-RINGS 30026 and 30080 with grease and push the latters round the PISTON ROD with the aid of tools "E" and "H".

Check whether the O-RING groove of BOOSTER PISTON 296 is free from damages, slight damages may sometimes be corrected with the aid of very fine emery-cloth. (Rub in longitudinal direction)

Fix successively BOOSTER PISTON 296, PLAINWASHER and SECURITY NUT.

Provide O-RING 30083 with grease and mount it round the BOOSTER PISTON.

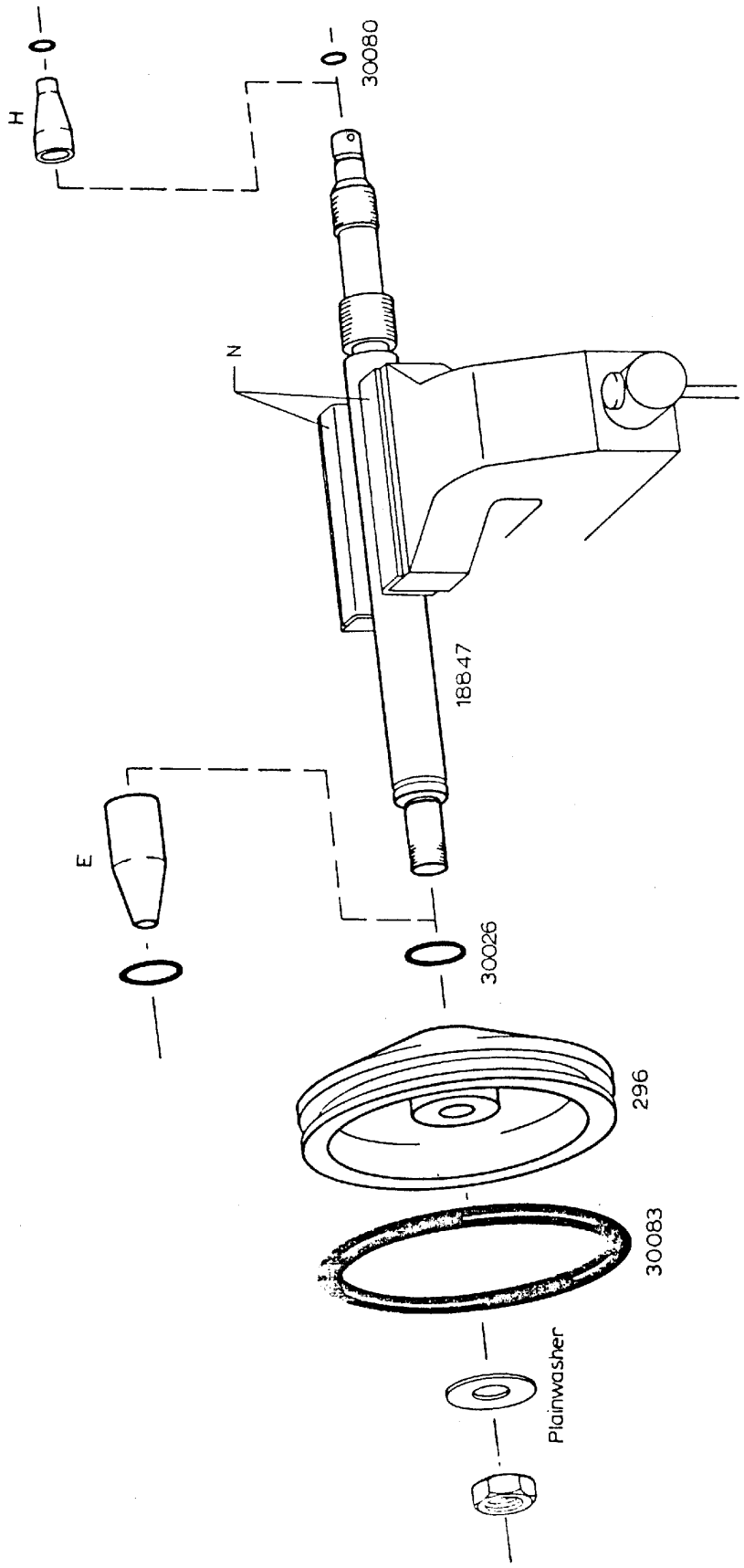


Figure 5

Information subject to change without notice.

PRELIMINARY ASSEMBLING OF AIR CYLINDER PART

(Figure 6)

Screw PISTON ROD GUIDE 10522 into the preliminary assembled CYLINDER HEAD 297.

Screw AIR VALVE INLET 20747 onto the PISTON ROD GUIDE ASSY (groove downwards) after the first has been provided with liquid packing on both sides. Use tool “F” for this purpose.

Angle “□” is about 15° for normal presses.

Fix BOOSTER AIR CYLINDER 205 f.e. by means of a chain tong “G”.

Pinch this tong around the bottom side / of the cylinder in order to prevent impressing.

Screw now the complete assembled part again out of the CYLINDER HEAD to assemble the inner work.

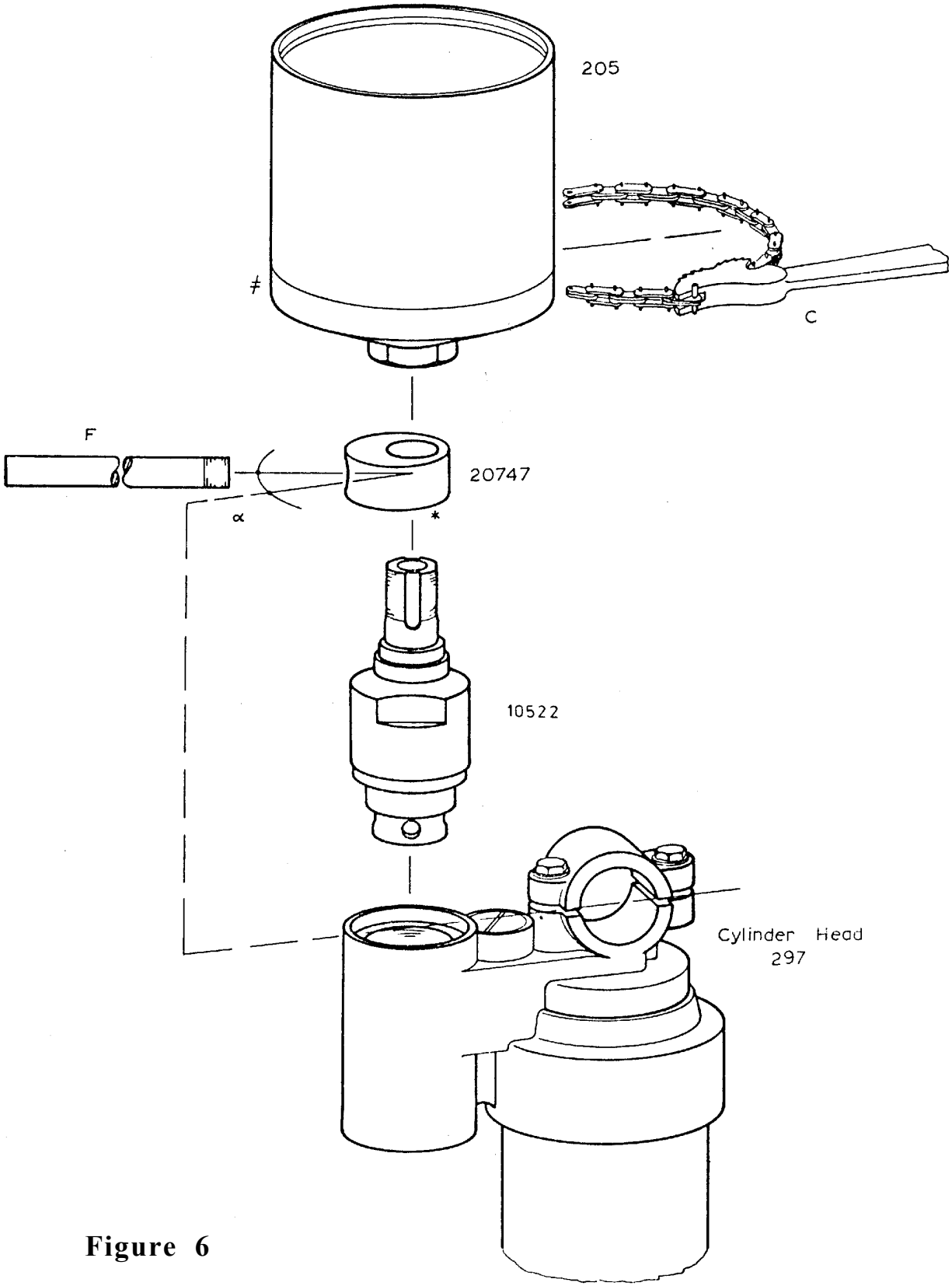


Figure 6

Information subject to change without notice.

ASSEMBLING OF THE PACKING BETWEEN HYDRAULIC AND AIR CYLINDER PART

(Figure 7)

Fix BACK-UP RING 30084 on the seat at the bottom of the preliminary assembled cylinder part; the flat side has to be directed downward and press this with the aid of tool “J”.

Then fix O-RING 30082 and now mount the next BACK-UP RING 30084 directed with the hollow side to the O-Ring, after which all parts can be locked away by means of RING 18846. Use tool “K” for this purpose.

Put some oil on the preliminary assembled PISTON ROD 18847 and on the inner side of the BOOSTER AIR CYLINDER 205.
Now press the piston rod through the back-up rings upwards.

Mount successively Spring Holder 199882, Spring 50209, Plunger 10520, Booster Valve 10306, and guard the latter by means of a cotter pin.
The lower side of the hole in PISTON ROD 18847 and the lower side of the groove in PLUNGER 10306 must be in line with each other (see point A).

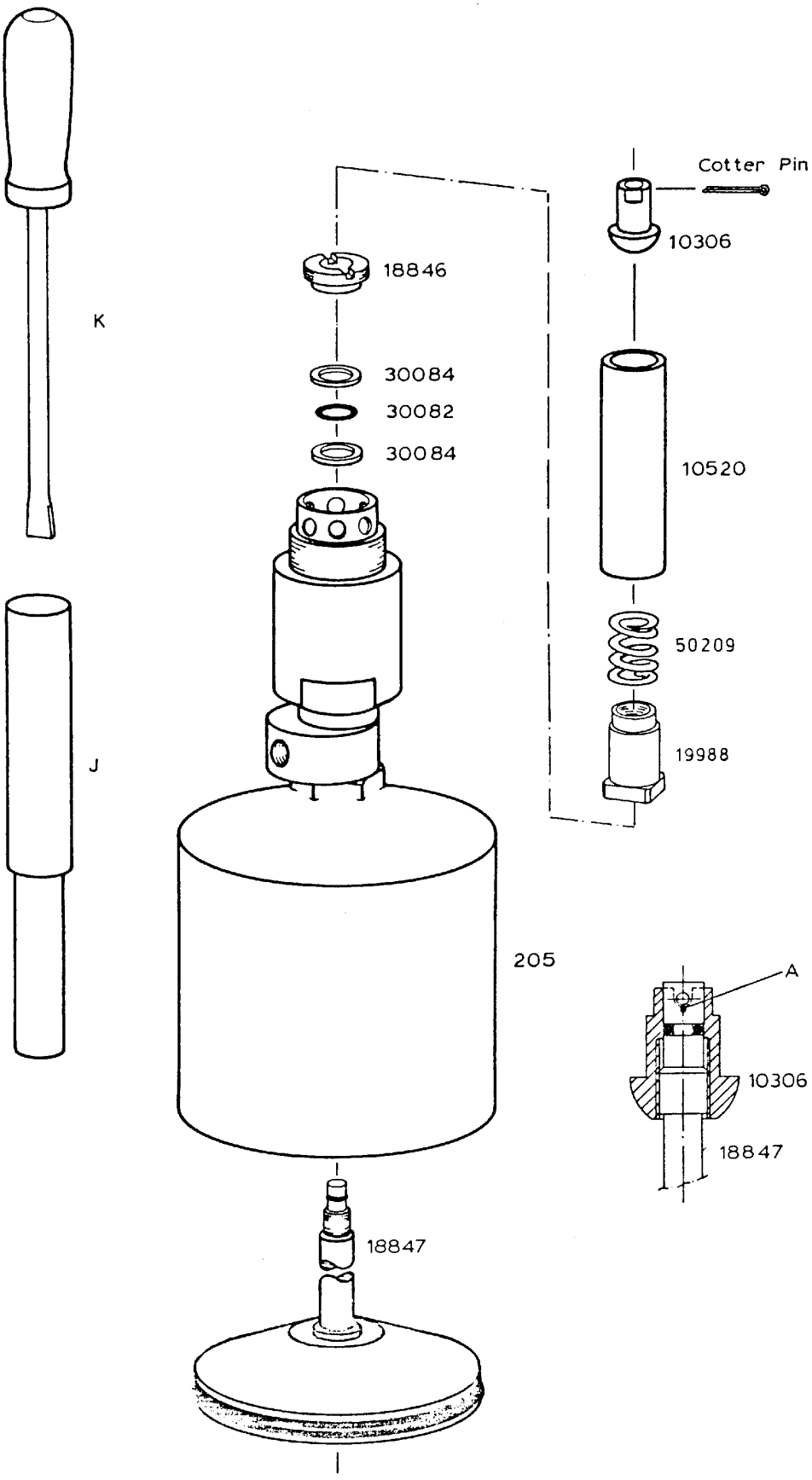


Figure 7

ASSEMBLING OF AIR CYLINDER AND PLUNGER PART IN THE CYLINDER HEAD

(Figure 8)

Mount after greasing successively BACK-UP RING 30085 (flat side downward, see picture), O-RING 30081 and O-RING 30031 in the CYLINDER HEAD 297.

Mount the preliminary assembled plunger and air cylinder part in the CYLINDER HEAD, after having put some oil on the plunger / /. Use f.e. a chain tong “C” (bottom side cylinder /).

Fit successively in the BOOSTER AIR CYLINDER 205:

AIR BOOSTER SPRING _____ 50 092

SPRING SEAT _____ 376

CYLINDER DISC _____ 12 208 and guard the latter by

REATINING SPRING _____ 50 040

Mount after having applied liquid packing next parts:

SPACER _____ 12 207

BOOSTER NUT _____ 893

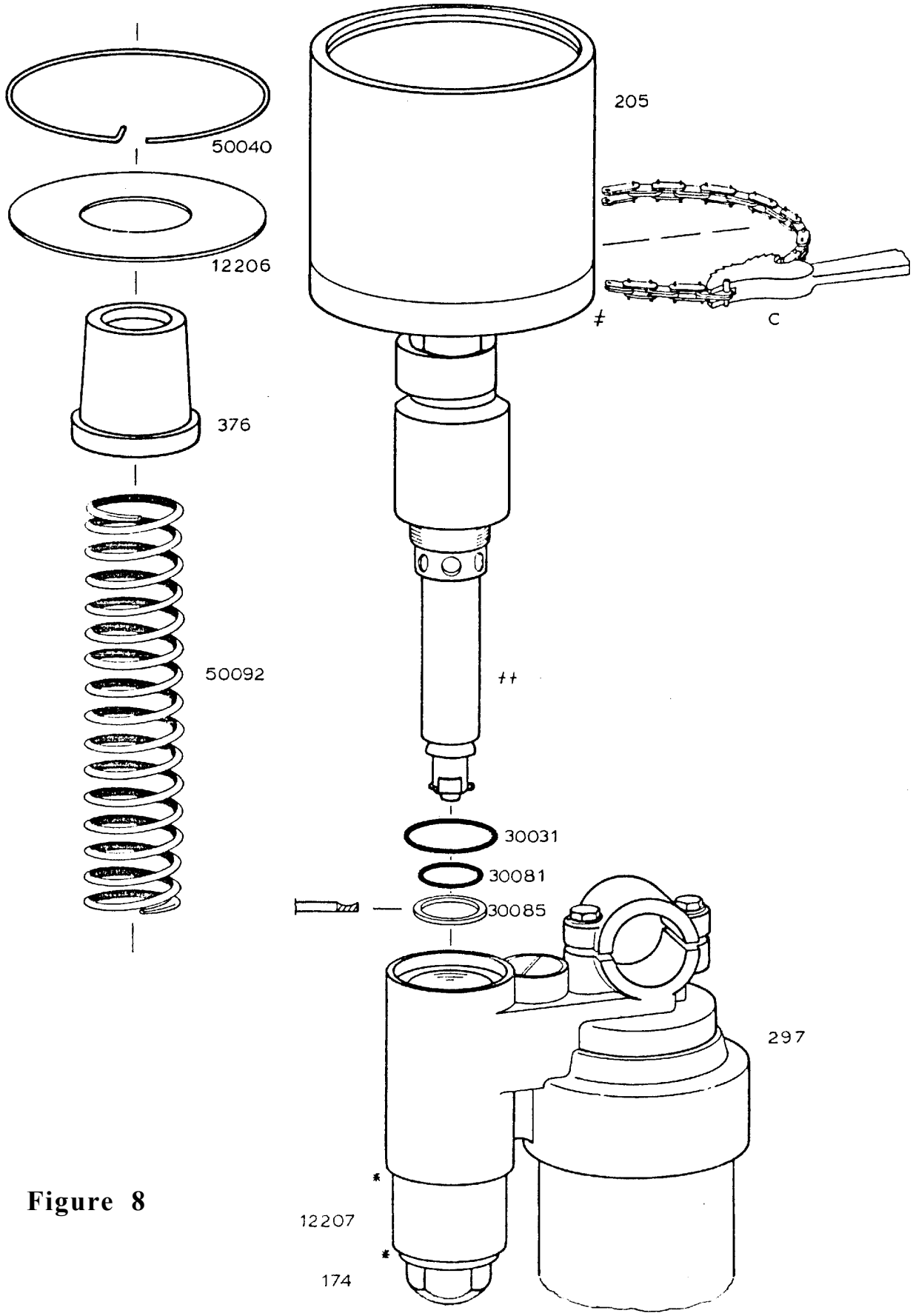


Figure 8

FINISH

(Figure 9)

Mount STRAIGHT ADAPTER 45128 into BOOSTER NUT 893 and fix ELBOW ADAPTER 45125 in CYLINDER TUBE 113 996.
(Seal with liquid packing).
Fit a nylon tube 0.5 mm between these two points.

Screw ELBOW 40647 into CYLINDER TUBE 113 996.
(Seal with liquid packing).

Refill the Booster with oil through the filling orifice.

Tighten the filling orifice with COPPER WASHER 40649 and BLANKING PLUG 40 648.

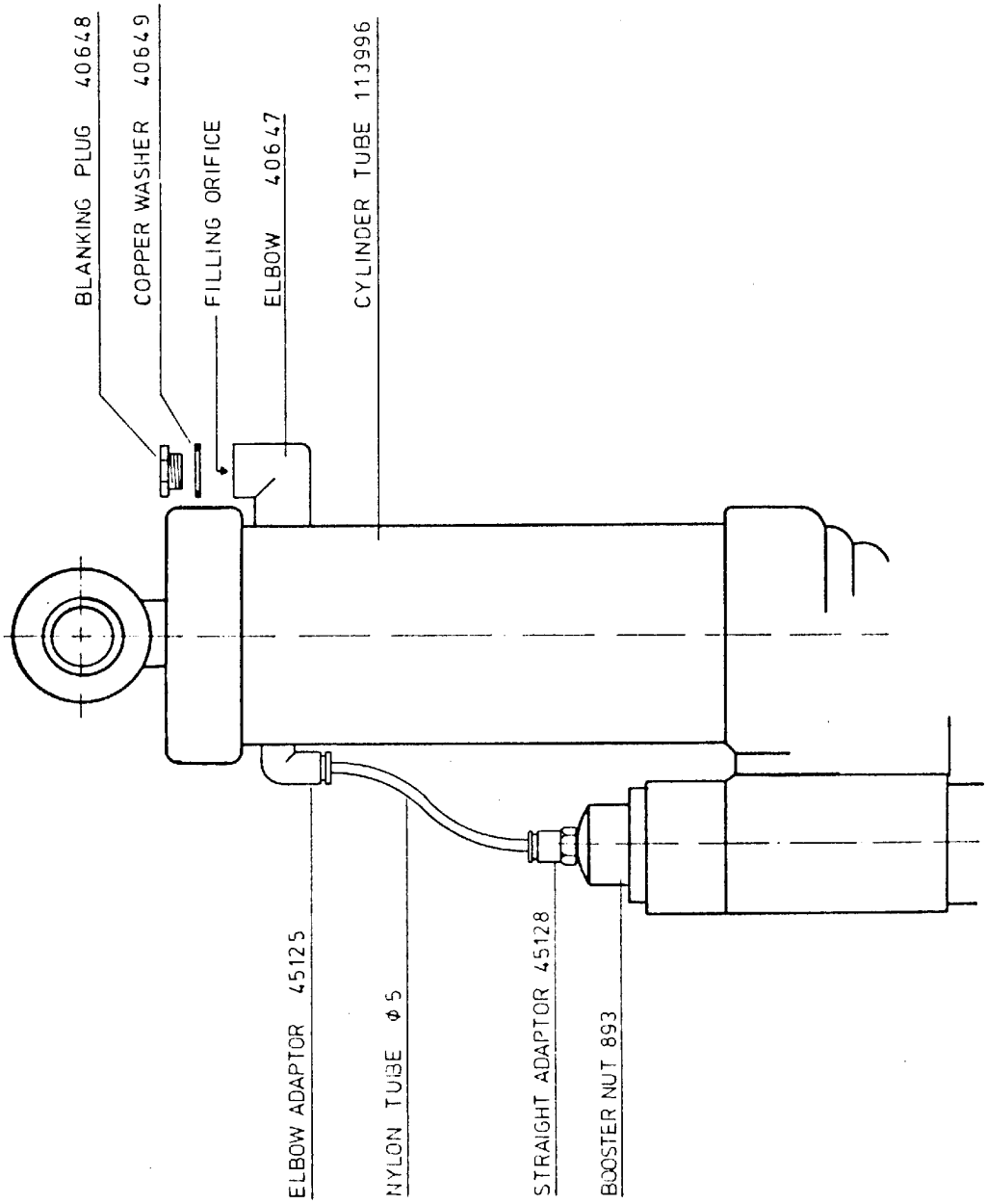
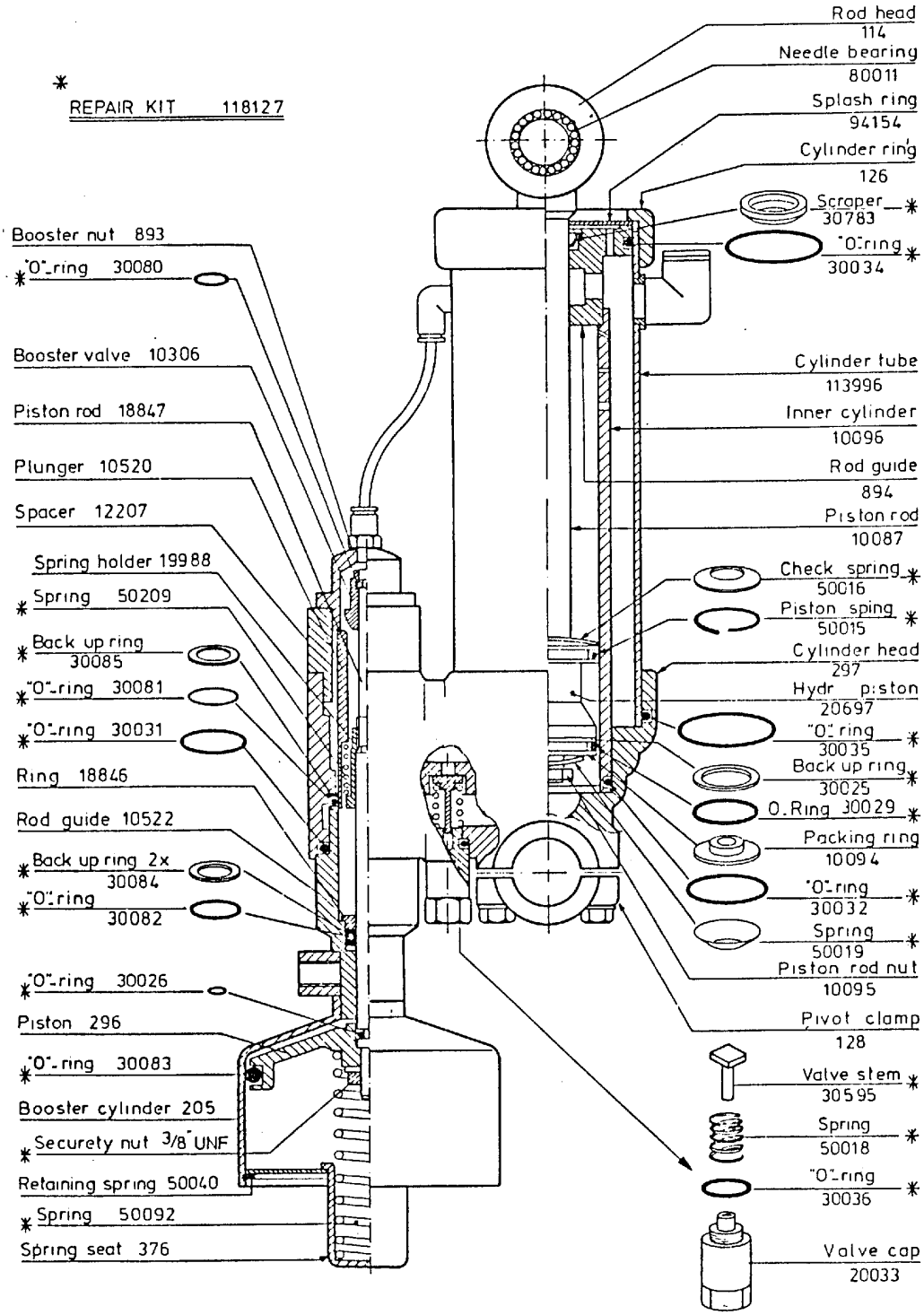

BLANKING PLUG 40648
COPPER WASHER 40649
FILLING ORIFICE
ELBOW 40647
CYLINDER TUBE 113996
ELBOW ADAPTOR 45125
NYLON TUBE Φ5
STRAIGHT ADAPTOR 45128
BOOSTER NUT 893

Figure 8

NOTE: THE INSTRUCTIONS IN THIS MANUAL ARE THE SAME FOR ALL BOOSTERS. TO ORDER REPLACEMENT PARTS, REFER TO THE CORRECT BOOSTER ASSEMBLY DRAWING THAT MATCHES YOUR PARTICULAR MACHINE

HYDRAULIC BOOSTER ASSY 118108



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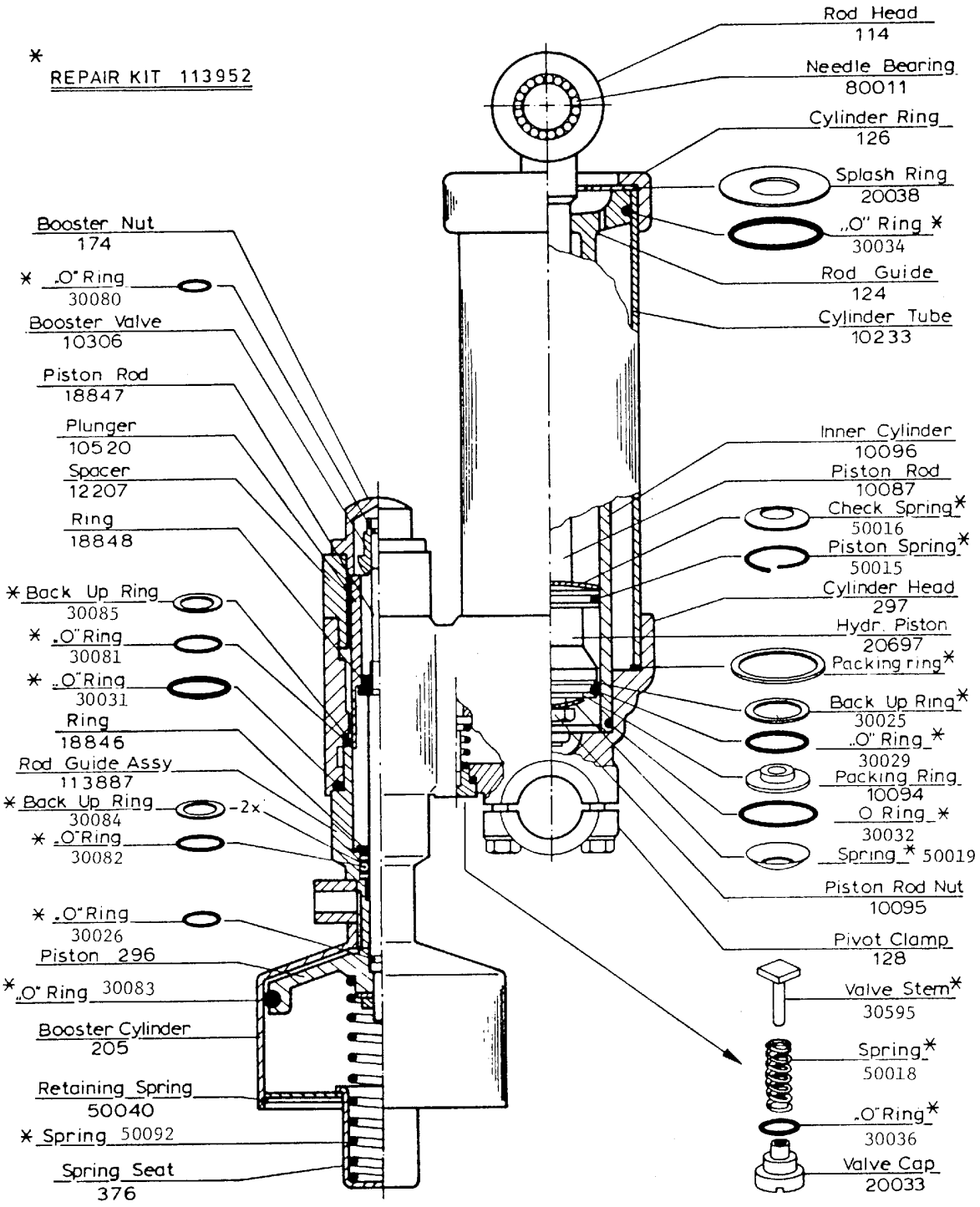
HYDRAULIC BOOSTER ASSY.
113888



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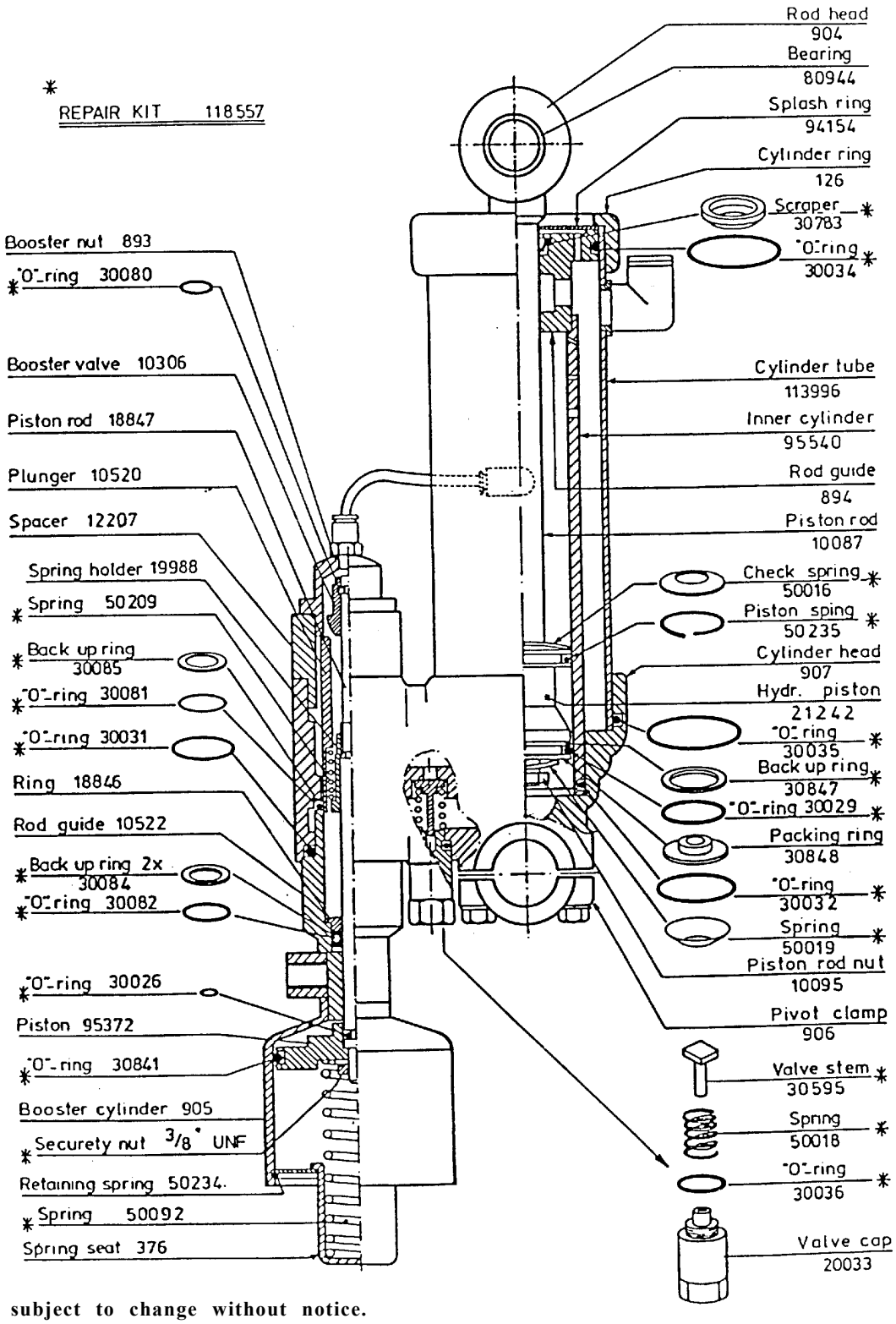
HYDRAULIC BOOSTER ASSY 118505



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