TWO POST VEHICLE LIFT

Model No: CPL30T

OPERATING & MAINTENANCE INSTRUCTIONS

0703

Thank you for purchasing this CLARKE 2-Post Vehicle Lift which has been designed with safety in mind and complies with all relevant European safety standards.

Before installation, it is important that you read this manual thoroughly and ensure the instructions are carefully followed.

All operators of this equipment MUST read this manual before being allowed to use it. They must ensure that all safety, operating and maintenance instructions are fully complied with, thus ensuring the safety of themselves and others in the vicinity.

You can look forward to the Vehicle Lift giving you long and satisfactory service, provided the instructions and maintenance schedules are carefully followed, .

Please note, that this manual is an integral part of the equipment, and should be kept with it at all times. even in the event of re-sale.

GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase. This guarantee is invalid if the product is found to have been abused, modified or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be reported to your Clarke dealer immediately.

This guarantee does not effect your statutory rights.

Clarke® INTERNATIONAL

DECLARATION OF CONFORMITY

We declare that this product complies to the following standards/directives:

- **89/392/EEC**
- **EN 292-1**
- **EN 292-2**
- **EN 294**

EC TYPE APPROVAL No. **70/205/10.D000114/93**
Dudenstrasse 28, 68167, Mannheim

Product Description: **VEHICLE LIFT**

Model Number: **CPL30T**

Serial (Batch) No: **See product data plate**

Signed _____

Clarke® INTERNATIONAL
Hemnall Street, Epping, Essex CM16 4LG

DOC No. GO75/01

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Description, model

Description	Two-post lift with swivel arm
Model	CPL30T

Scope of application

The two-post lift with swivel arm, type CPL30T, is used to lift passenger vehicles up to a weight of 3,000 kg.

The chassis and running gear of the lifted-up vehicle are easy to survey and can be accessed easily. Any required repair or maintenance works can be carried out. The electrical and mechanical safety devices of the lift make working on and under the vehicle safe.

Dimensions and Ratings

Max. load	3,000 kg
Max. lifting height	1,800 mm
Lowest pick-up height	130 mm
Height of the base frame	48 mm
Clearance between posts	2,050 mm
Lifting speed	0.036 m/s
Lowering speed	0.038 m/s
Max. permissible eccentricity of centre of gravity at half load:	491 mm
Electrical protection:	IP 31
Contact-voltage protection	I.
Splash (water) protection	IP 54
Height	2,600 mm
Width	2,960 mm
Voltage	3 x 380/220 V, 50 Hz
Motor power	3 kW
Lifting time at max. load	57 s
Lowering time at max. load	55 s
Max. lifting frequency	8/h
Overall weight	620 kg
Length of swivel arm: long version	775/1,250 mm
Length of swivel arm: short version	515/940 mm
Positioning pads	Ø150 mm

Basic conditions for operation

The lift can only be installed on a level concrete foundation with solid floor covering.
Concrete quality: B 25 according to DIN 1045. The deviation of the concrete slab from level must not exceed 10 mm on a length of 1,000 mm. The lift must not be installed in a hazardous location (potentially explosive environment).
The lift must only be used with its base frame properly fastened using anchors.
Operating voltage: 3 x 380/220 V, 50 Hz
Power consumption: 3 kW
The lift must not be installed in open areas or in humid locations.

Installation, foundation

When determining the place of installation, the convenient access to the lift and the drive-through direction should be considered. The power connection cable must be lead to the lift overhead (see Fig. 7). The electrical installation and connection is to be carried out by qualified personnel only; the applicable CE regulations must be strictly adhered to. The completely assembled frame is put on the prepared concrete foundation as shown in Fig. 3. The anchor threadings in the base frame are sketched onto the concrete slab; then, the appropriate holes for the anchor plugs are drilled. The bolts (anchors) of the base frame are then fixed with a torque of 80-120 Nm.

Operation

The unit is an electromechanical lifting device driven by an electric motor over a screw rod. The installed lift is shown in Fig. 1; the most important dimensions can be seen from Fig. 2 and 3.

The lift consists of the following main components:

1. Post with motor
2. Post without motor
3. Base frame
4. Control box
5. Swivel arms with swivel arm lock and positioning pads
6. Lifting spindle
7. Nut system
8. Carriage
9. Roller chain
10. V-belt drive (electric motor)
11. V-belt drive (cable pull)
12. Selector switch
13. UP/DOWN switch
14. Fuses (in control box)

Lifting spindle

The lifting spindles are accommodated in the two lift posts. The lift posts concurrently serve as guides for the carriages. The post with motor furthermore carries the electric driving motor and the control box. The swivel arms with swivel arm lock and foot protection rods are mounted onto the carriages. The threading of the lifting spindles is self-locking. The upper ends of the spindles are designed in a way that permits to turn the spindles manually using a crank. The cover plates at the posts protect the spindles and bearings from dirt. The drive operates from the electric motor over V-belts onto the spindles. The V-belt tension can be adjusted. The motor is protected by a thermal motor protection switch housed in the control box. Its setting value is 7 A (motor protection: IP 44). The lift is equipped with a cable-pull control system. The control system has the following functions:

Functions of the control system

- Lower and upper limit of travel
- Drive-on protection
- Perception of chain breaks
- Perception of nut breaks
- Perception of cable tear
- Upper and lower emergency switch-off

The control system initiates an emergency switch-off in the following situations:

- Defect of the upper or lower limit switch
- Broken cable

In case of a broken nut, the upward movement is blocked and only the downward movement of the unit is possible. In case of an emergency switch-off, no movement is possible any more.

The complete electrical installation is accommodated in the control box. On the control box, the lockable selector switch, the control switches for lifting and lowering, and the shockproof plug (230 V, 6 A) are located. Protection of the control box: IP 32. The limit switch system is located in the upper part of the post with motor. Protection of the limit switch system: IP 41.

Transport, storage

Note

The packed item should be stored under a roof or, if stored in a free area, with an appropriate cover (tarpaulin etc.). For transport and storage, all items and packing must be free from defects.

Installation

Foundation

The foundation must be laid as described in the section `Installation, Foundation' (see also Fig. 3). Unpacking the lift and accessories: after the packaging has been opened, the contents of the shipment should be controlled using the `Machine Book'. Complete unpacking is only recommended shortly before installation.

Installation instructions for the lift

Mount the base frame to the properly prepared foundation as shown in Fig. 3 using screws (anchors). Lay the lifting posts on the anchored base frame. Put up the posts and preliminarily fix them using bolts M14 x 50; for preliminary fixing, only the first five threads of the screws should be screwed in (five full turns). Then insert the chain. This step will be made easier by tilting the preliminarily fixed posts back.

ATTENTION! 

Before the chain is inserted, ensure that both carriages are at the same height (approx 800 mm), then, the post with motor may be installed.

The control cable is included in a separate package (coiled by manufacturer). The cable is inserted, beginning at the post with motor.

At the side of the motor, mount the threaded rod in a centre position with the cable down, then, from the right-hand side, lead the cable over the cable roller at the carriage and then up over the cable roller at the control rod into the hollow of the post. Lead the cable down through the hole in the post footing and then to the opposite post. Enter it through the hole in the post footing again, and lead it upwards until you can fix it to the control rod using a connection block (from terminal strip) (see Fig. 6).

The fine adjustment is done over the threaded rod at the control rod on the motor side. The control cable is adjusted correctly when the red mark of the control rod is located at the centre of the emergency switch roller (see Fig. 8).

Attention: The control cable must be exactly lead through the grooves of the guiding rollers under the posts. Before using the lift for the first time, check the position of the control cable again!

After adjusting, the function of the switch system is verified by manually lifting one of the carriages and pushing the upper limit switch. After the adjustment has been completed, the tension of the V-belts is checked and adjusted as required. The power cable is a five-core cable. The connection is made in the control box: connect the three phase conductors to points 4, 6, 14 of selector Q, the neutral conductor to point 16, the protective earth conductor to the cover of the control box. The connection is made over a five-core cable with a diameter of 2.5 mm, the main fuse must have a rating of 20 A.

The electric motor direction of rotation must be checked. If connected correctly, the carriages move in accordance with the symbols.

After the connection has been completed, carry out lifting and lowering cycles to check the function of the switch system and the free movement of the carriages. It must be checked whether the spindles move the felt inserts serving their lubrication further down after the lower limit switch has been actuated (after the carriages have come to a halt). Then, the oil tanks must be filled with oil according to Table 1. The required oil volume per tank is about 0.08 l. The manufacturer equips the unit with pre-soaked felt inserts. Switch off the power supply. Fit the dismantled cover plates again. Then assemble the swivel arms and the swivel arm locks to the carriages.

Test run without load

Switch the lift on using the selector switch. The lifting without load is initiated by selecting switch position "Up". If the lift should now move downward, the electrical connection was made wrong. Change poles immediately! The carriages move upward until they reach the upper limit of travel. After the upper limit of travel has been reached, the lift will not move any more if switch position "Up" is selected. By selecting switch position "Down" the carriage moves downward until it reaches the lower limit of travel. When the lower limit of travel has been reached, the switch position "Down" has no effect any more. Only after 4 – 5 lifting processes without load, the first test under load can be performed.

Test run under load

After the lifting cycles without load have been completed, a vehicle with a weight of about 1,300 kg is driven on the lift to carry out a further 4 – 5 lifting cycles. If no unusual phenomena can be observed, further run-in cycles are required.

Operation

Arrangement of the control elements (see Fig. 5)

Switch the unit on using the selector switch. By holding the selector switch in one of the positions "Up" or "Down" the lift is put into operation. In case of an emergency, the lift cannot be operated. The various situations for an emergency switch-off are listed in the section 'Functions of the switch system'.

Instructions for the use of the lift

- Move the carriage to the lower limit of travel.
- Put the swivel arms in the position shown in Fig. 3.
- Drive the vehicle over the base frame of the lift. Swing the arms under the vehicle and adjust their length according to the seating points.
- Briefly put the selector switch in position "Up" to slightly lift the vehicle; check for a safe seating of the vehicle.
- Lift the vehicle to the desired height. To make repair and maintenance work easier electrical tools can be plugged into the shockproof socket at the post with motor.
- Put the selector switch to position "Down" to lower the vehicle until the lower limit of travel is reached.
- Swing the swivel arms back from under the vehicle.
- Remove the vehicle from the lift base frame.

ATTENTION! 

Do not stand or leave any items under the load during lifting and lowering! When the lift is operated, the lifted vehicle must be observed! In case of anomalous function, the operation of the unit must be immediately stopped! The lift must only be operated by appropriately trained personnel! It is forbidden to stay in the lifted vehicle!

Safety instructions for operation

The following safety instructions must be put up when near the lift:

1. Unauthorised persons must stay away from the lift. The lift must only be operated by appropriately trained persons over the age of 18.

2. The maximum permissible load of the lift must never be exceeded; possibly present additional load of the vehicles must be considered.

3. Vehicles must be positioned such that their weight is distributed evenly over the lift.

4. Before putting the lift into operation, the operator must pay particular attention to the fact that this is done without danger to other persons.

5. The control devices should be used in a way that ensures a symmetrical lifting and lowering.

6. During the movement of the lift no persons must stand under the load, and no works must be carried out on a vehicle being lifted. It is forbidden to ride on the lift.

7. The operator must take care that particularly when lifting vehicles with superstructures these are not pushed against constructional parts of the shop.

8. When operating mechanical lifting units, it must be ensured that the intended locking devices are properly locked when in working position, and that the emergency switch off is not used to switch off the unit during usual use.

9. With mechanical lifts, the condition of the supporting components must be checked regularly; the supporting components must be replaced if required.

10. Lifts must be checked for the effectiveness of their safety devices as required, but at least once every month.

11. After longer interruptions of operation as well as after repairs, the lift must only be put into operation after it has been inspected and found good as to its proper working condition by an appropriately qualified person.

Maintenance

Required maintenance/inspection periods

The maintenance/inspection periods are stipulated as follows:

- The operator (owner) is obliged to maintain a maintenance/inspection log.
- The time between technical inspections of the lift by authorised personnel of the manufacturer is maximum 12 months.
- The interval for the maintenance works to be carried out by the operator is maximum 1 month.
- The completion of all inspections, repair works, the replacement of spare parts or unusual operating conditions must be recorded in the maintenance/ inspection log.

Points and components requiring regular maintenance/inspection

- The lubrication of the spindle is done over oil-soaked felt pads.
- The oil level must be checked regularly; if the level should range under 50 mm the tank must be filled to its upper brim.
- For the lubrication of the chain, grease type LZS-3 or a gear lubricant oil with high viscosity is used.
- The thrust bearings located on the top of the posts must be lubricated using grease type LZS-3.
- The lower and upper bearings must be lubricated with grease type LZS-3 once a year.
- The swivel arm locks are to be lubricated every six months using gear lubricant oil with a high viscosity.
- All other sliding surfaces are to be lubricated with a gear lubricant oil or grease type LZS-3 once a year.
- The wear indicator of the nut system must be checked monthly (see Fig. 9).

Wearing parts

The following parts are subject to increased wear and tear:

- the rubber pads of the swivel arms
- the supporting nut of the nut system
- the guiding rollers of the carriages

These and other spare parts of the lifting system are supplied on order.

Replacement of wearing parts

Repair and maintenance works of any kind must only be carried out after the power supply of the unit has been disconnected. Repairs of the electrical system must only be carried out by a qualified electrician in accordance with the applicable country-specific regulations or the CE regulations. For repair work of any kind, the technical service of the manufacturer or the supplier is available to the operator.

Replacement of the rubber guides of the chain

Remove the cover plate of the base frame. Loosen the connection of the rubber guide to be replaced, replace the guide and properly fix the new guide. Assemble the cover plate to the base frame again.

Replacement of the nut system

Remove the cover plates of the lifting posts. Move the carriage to the lower limit of travel. Loosen the fixing screws of the upper bearing.
Remove the cable of the switch system from its guiding elements. Use a crowbar to lift the spindle at the nut system and remove the suspension components.
Turn the spindle to screw the nut system towards the end of the spindle. Lift the spindle by about 150 mm and remove the feather key at the end of the spindle; screw the nut system off the spindle and put a new one into the carriage. The distance between supporting nut and safety nut is 24 mm (min.) to 30 mm (max.).
Assembly is done in reverse order of disassembly.
After the control cable has been assembled anew, the function of the cable switch system must be checked.
Do not reassemble a defective control cable. It is, however, recommended not to reassemble even fully undamaged cables, as our experience revealed that the usually extremely long service life of the control cable is in most cases considerably shortened by reassembling.
Tension the V-belts properly. Reassemble the protection covers. Then, the directions for installation must be observed.

When replacing the nut system, it is recommended to also replace the guiding rollers of the carriage if these show any sign of wear. The replacement of the guiding rollers of the carriage requires that the lifting post is fully disassembled. The replacement of the nut system and guiding rollers is regarded as a major overhaul and must be recorded in the maintenance/inspection log.

ATTENTION!
All repair works must only be carried out by qualified service technicians authorised by the manufacturer.

Failure of the supporting nut

In case of a failure or breaking of the supporting nut, the supporting nut falls down onto the safety nut; the safety nut is of an identical design as the supporting nut and can thus pick up the load. The failure of the supporting nut is realised by the control cable switch system. The resulting arrangement is recognised by the control system as if the carriage has reached the upper limit of travel – a further lifting of the load is not possible, the load can only be lowered. The carriages can, however, slightly move up from the lower limit of travel if the selector switch is put in "Up" position, but then the upper limit switch will actuate. Thus, the lifting of the load is not possible any more.

Failure of the chain (torn chain)

In case of a torn chain, the switch system interrupts the operation of the lift until the failure has been corrected. If the chain is torn the lifted load can by carefully returned to the lower end-of-travel position by concurrently turning both spindles after the unit power supply has been disconnected. The pulleys at both posts have threadings into which pins can stuck. Use these to concurrently turn the pulleys and thus manually lower the vehicle to remove it from the lift unit. Then the chain can be assembled as required and the lift put into operation again.

ATTENTION!
Directly after the chain has been torn, the carriage on the side of the motor post may still move about 20 – 30 mm up or down!

Failure of the upper limit switch

In case of a failure of the upper limit switch, the emergency switch will actuate. In case of an emergency, the lifted load is manually lowered by 50 – 60 mm as described above; thus, the blocking of the movement is reversed and the load can be lowered as usual. After the defective limit switch has been repaired or replaced, run 2-3 lifting cycles without load.

Failure of the lower limit switch

In case of a failure of the lower limit switch, the emergency switch will actuate. The power supply of the unit must be disconnected and the carriage lifted manually to about 150 mm by turning the pulley clockwise. Then, the protection cover of the frame can be removed and the defective switch replaced by an appropriately qualified technician. After the unit power supply has been disconnected, the failure must be corrected by an appropriately qualified expert in accordance with all applicable regulations. After the

defective limit switch has been repaired or replaced, run 2-3 lifting cycles without load.

Drive-on protection (antilock system)

If when lowering the lift any item, e.g. a tool car, should have been left under the lift, the automatic drive-on protection or antilock system actuates. The system automatically switches off the lift and does only permit to move the unit upward. It is thus simulated that the carriages have reached the lower limit of travel. After the item under the lift has been removed, the lift can be further operated. If the emergency switch should actuate proceed as described above (‘Failure of the lower limit switch’).

Short circuit protection

The short circuit protection works automatically. It must be checked whether the ratings of the safety plug correspond to the ratings given in the circuit diagram. Overload protection is granted by the built-in thermal protector. If an overload should occur the thermal protector interrupts the operation. No actions by the operator are required. Please verify that the value is actually set to the required 7.0 A. To verify the protection against accidental contact, the correct connection of the earth leads should be checked.

Failure of the control cable

In case of a defect or even tear of the cable of the control cable switch system an emergency switch-off will always occur. After an emergency switch-off, the lifted load is manually lowered and removed from the lift as described above (‘Failure of the chain’) after the unit power supply has been disconnected. The torn cable is replaced by a new one and inserted according to Fig. 6. The lift is put into operation as described in section 4.0. Pay attention to the correct adjustment of the switch system!

ATTENTION!

A torn control cable must neither be repaired nor completed and reassembled! This is strictly forbidden! Always use a new control cable! Measures to be taken in case of an accidental defect: the unit must be shut down anytime an unusual event occurs during operation. The correction of failures should be left to an expert or authorised service personnel. The operation of the lift is forbidden unless the failure has been corrected! The lift must be disconnected from its power supply and protected from unauthorised return to service.

Safety directions

The lifting unit must only be operated with its protection covers and safety devices properly installed. If the lift should be exposed to the danger of a potential unauthorised use the selector switch must be secured in position ‘0’ using a padlock.

The lift must be decommissioned

- in case of a longer standstill;
- for the time of repair or maintenance works;
- if the safe operation of the lift cannot be granted for any reason.

To decommission, proceed in the following order:

1. Fully lower the carriages and remove any vehicle possibly positioned on the unit.
2. Move the carriages up by 250 – 300 mm.
3. Put the carrying arms into a central position.
4. Disconnect the unit power supply.
5. Screw off the fuse.
6. Secure the working area of the lift against further access.
7. Put up a 'Do not operate' sign on a visible place on the lift.
8. Lock the selector switch in position '0' using a padlock.

Other risks/dangers

Beware of the following!

Do not stand under a lifted vehicle or within the reach of the lift during the upward or downward movement of the lift. If this prohibition should be ignored personal injury may occur. The operator is instructed that he/she is only allowed to use the operating switch for lifting or lowering if there are no persons within the reach of the unit.

- The foot protectors are in accordance with EN 1493: 1998; however, this does not exclude any and all possible accidents, but only those probable according to general practice. The operator is to be instructed that he/she is only allowed to use the operating switch for lifting or lowering if there are no persons within the reach of the unit.

- If vehicles are positioned as required an accident hazard does usually not exist. However, if vehicles are not properly positioned personal injury may occur. The operator is to be instructed that vehicles must be checked for their correct positioning before any works are carried out.

Components

1. Post with motor, complete
2. Post without motor, complete
3. Base frame, horizontal bar, 2 pieces
4. Base frame, traversal bar
5. 2 long arms with rubber pads
6. 2 short arms with rubber pads
7. Bushed roller chain 5/8 10B, 5.5 m
8. Fastening elements
    - 1 control cable
    - 6 screws M 14 DIN 934-8
    - 16 screws M 14 x 50 DIN 559
    - 6 screws M 14 DIN 126
    - 22 screws M 14 DIN 127
    - 8 screws M 6 x 14 DIN 559
    - 8 screws M 6 DIN 126
    - Swivel arm lock, 4 sets
    - 4 pins for swivel arm lock
    - Safety lock 5/8 10B MSZ 5508, 2 pieces
    - 4 foot protectors

Spare parts available on request

1. Rubber pads for arms
2. Rubber guides for chain
3. Bushed roller chain
4. Safety lock for chain
5. Nut system
6. Control cable
7. Limit switch

Note: Electric motors and electric equipment are only supplied as complete components. A supply of separate spare parts is not possible.

RECOMMENDED SPARE PARTS ARE:

- Wearing parts
- Control cable

Table of lubricants

Component	Lubricant	Interval
Nut system	15W40 oil or light gear lubricant oil, about 2 x 0.8 dl	every six months
Sliding surfaces of the cable switch system	C-90 oil	monthly
Axial bearings	LZS-3	annually
Radial bearings	LZS-2	annually
Chain lubrication	LZS-3	every six months

Reference table of lubricants

MSZ C-90

TOCT TAN-15

DIN SAE-90

SHELL OENTAX-90

AGIP ROTRA-90

BP GEAR-90

ESSO ..... GEAR-OIL + 85 W-90

MOBIL ..... Mobilube C 90

MSZ LZS-3

MSZ LZS-2

TOCT YC-3

DIN ..... Roller bearing grease B/6562

SHELL ..... Grease FN 2

MOBIL ..... Mobilgrease AA No 3

MSZ ..... Molybdenum paste

DIN ..... Molybdenum Disulphide Paste (Molykote)

Figure 1

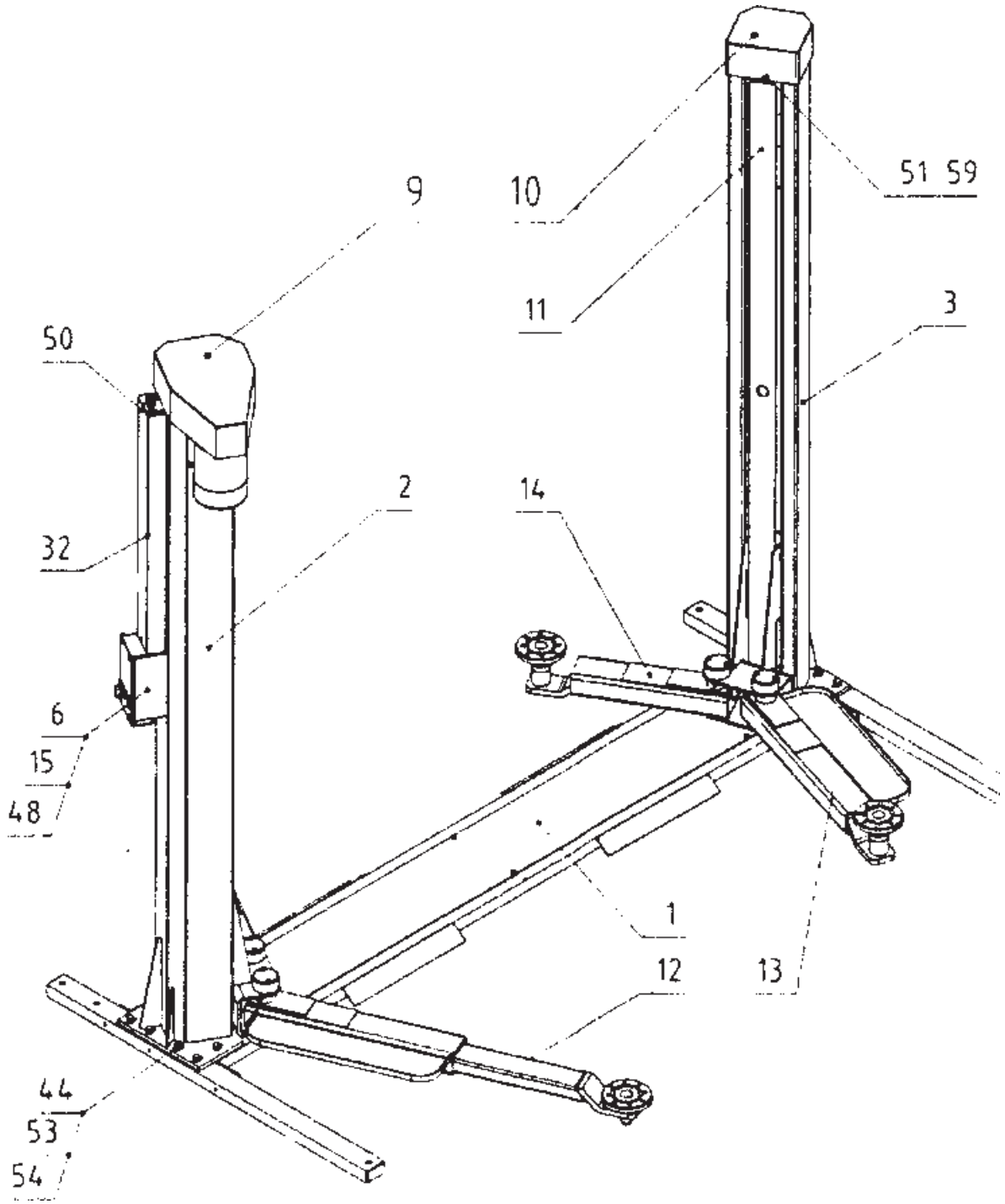
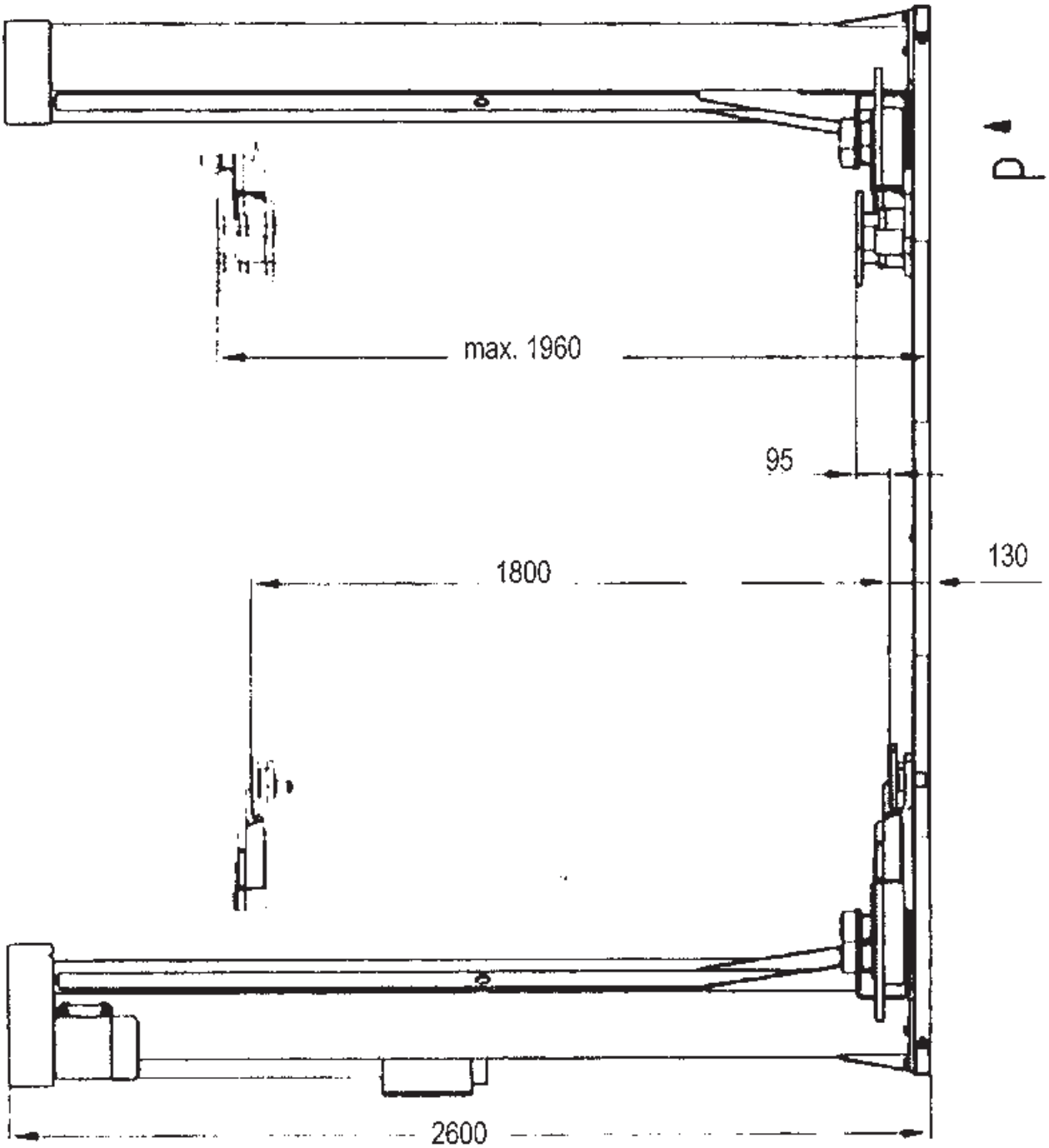
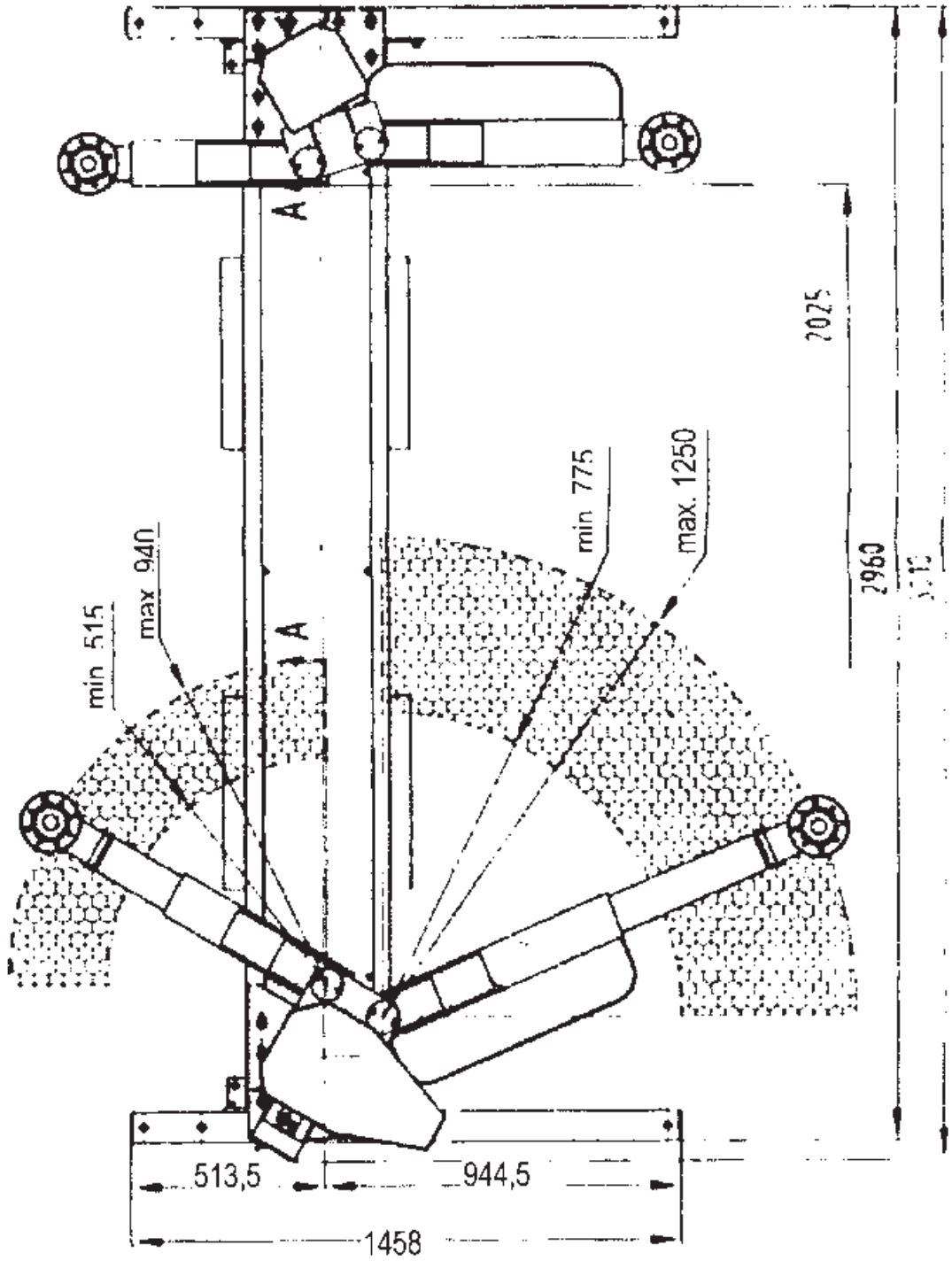


Figure 2



GROUND PLAN - DIMENSIONS & SWIVEL RANGE

Figure 3

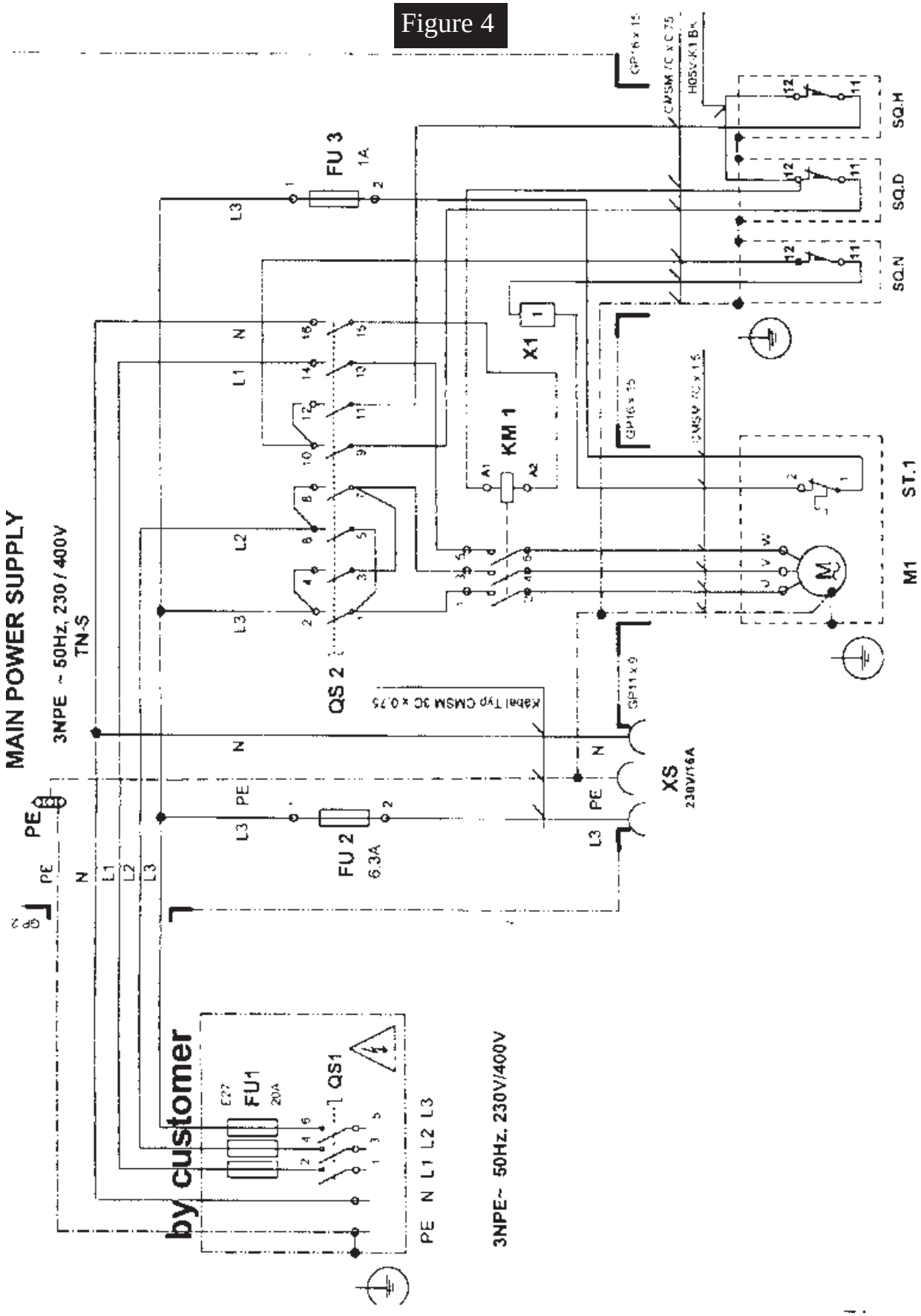


Fixing

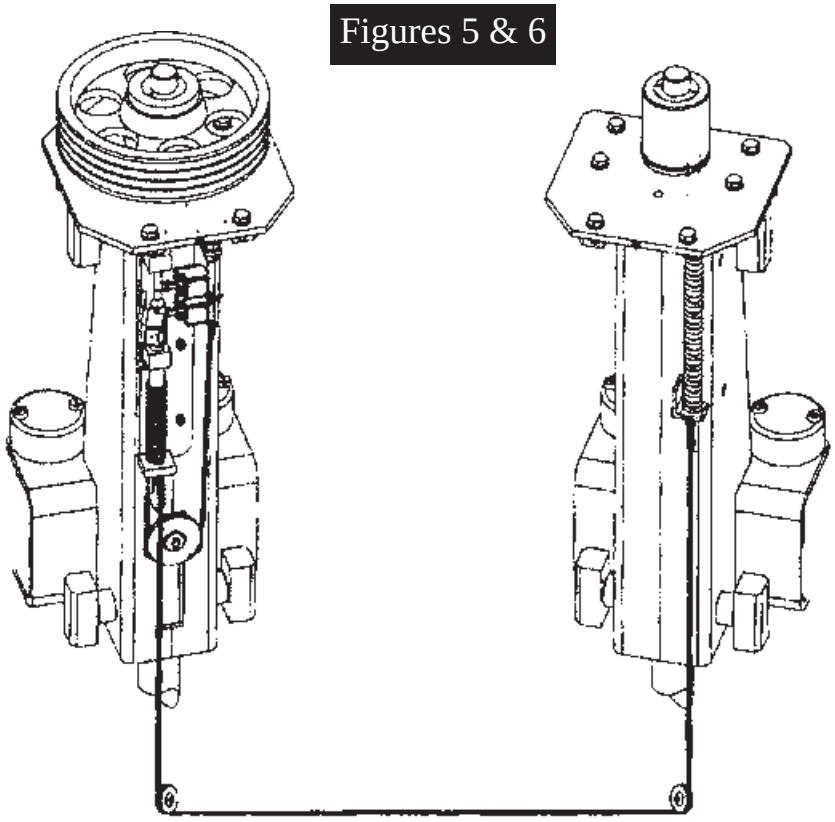
Tie bolts:	**M16-100/215**
Torque:	110Nm
Concrete quality:	min. B25
Concrete thickness:	min. 210mm

CIRCUIT DIAGRAM

Figure 4



Figures 5 & 6



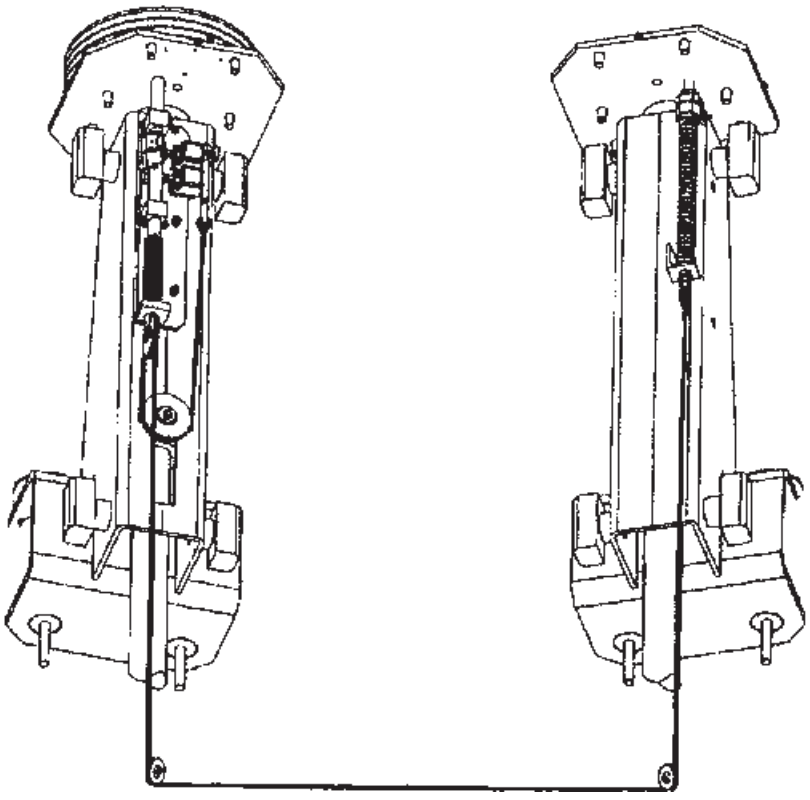


Figure 7

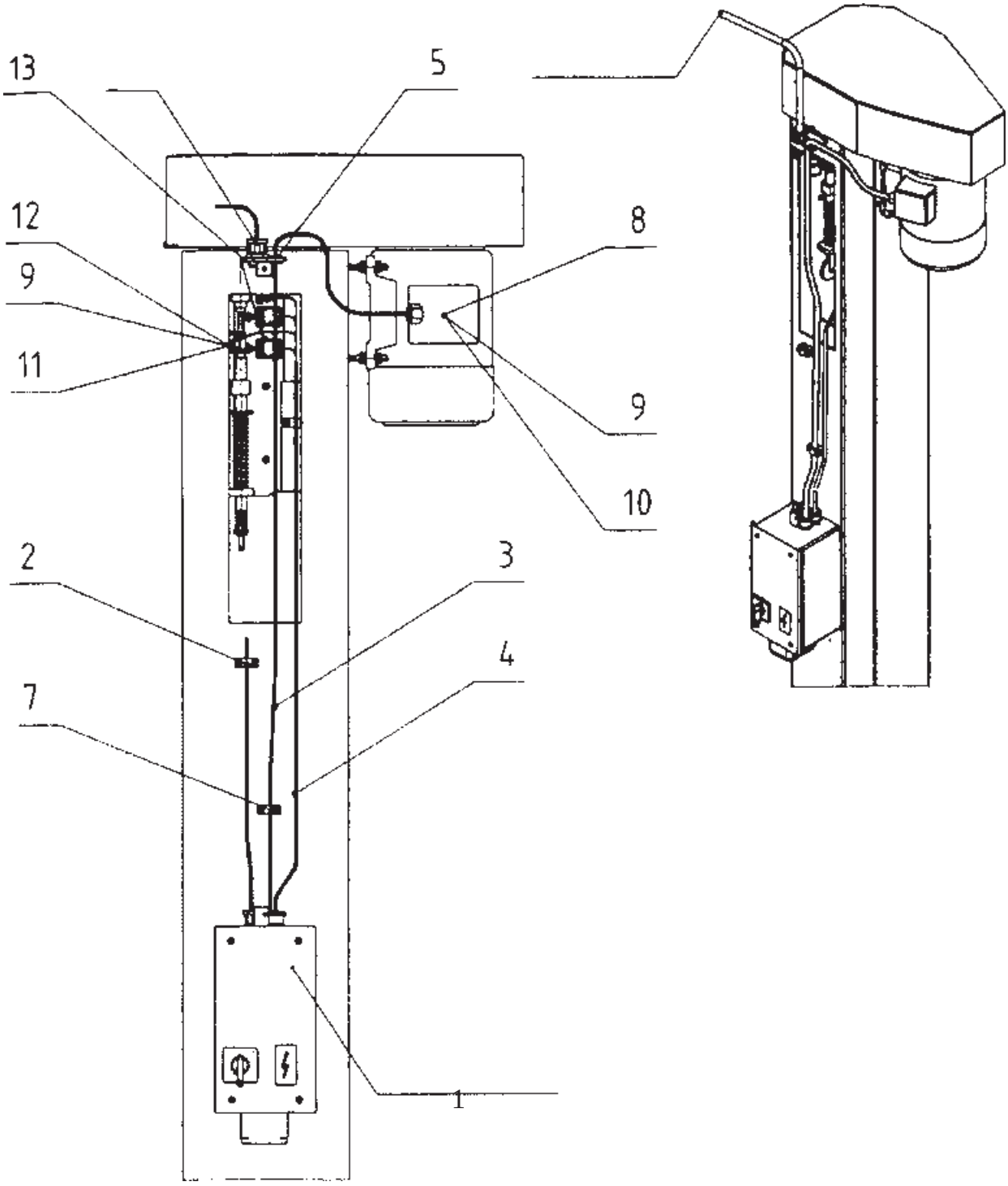


Figure 8

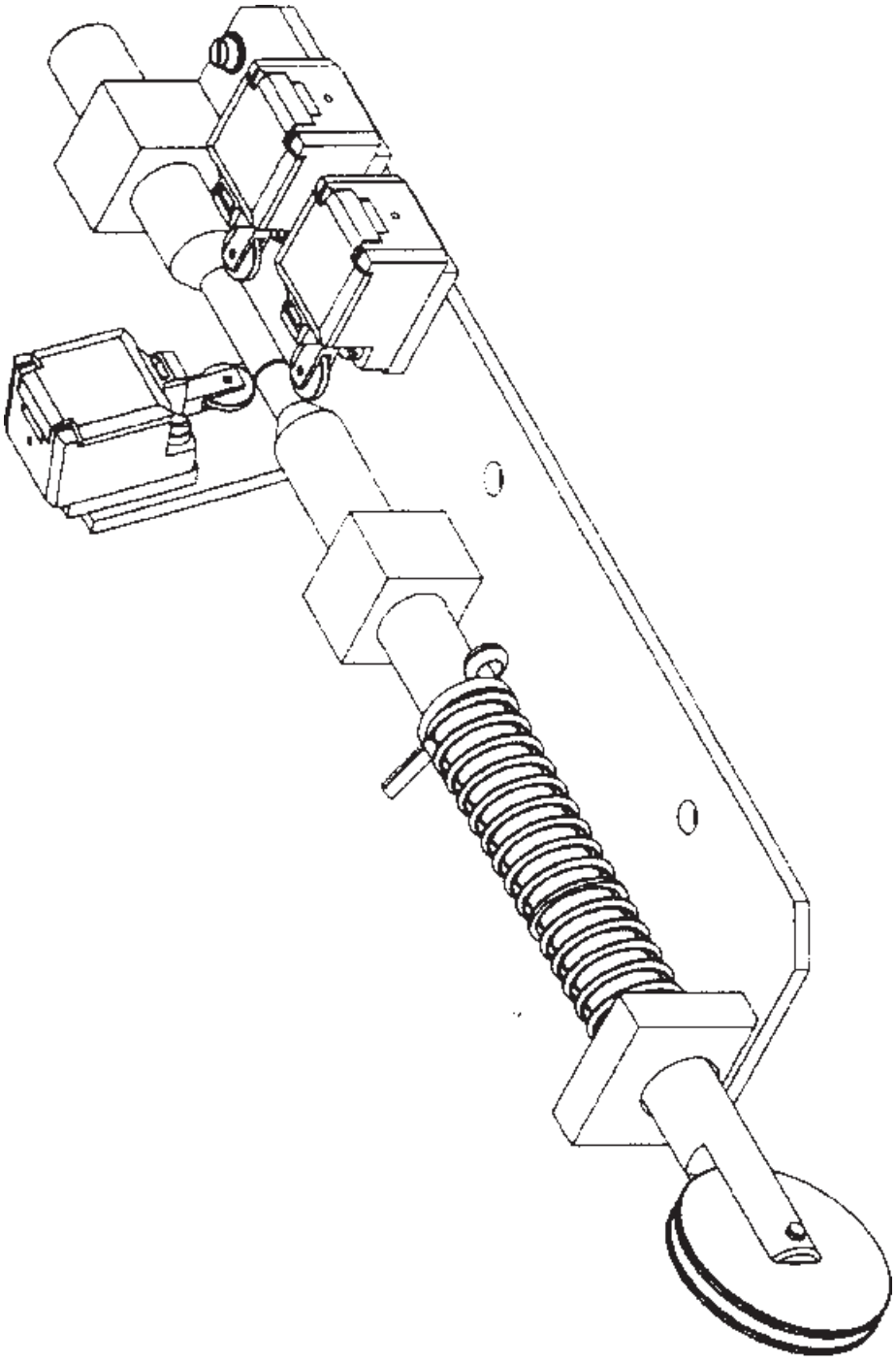
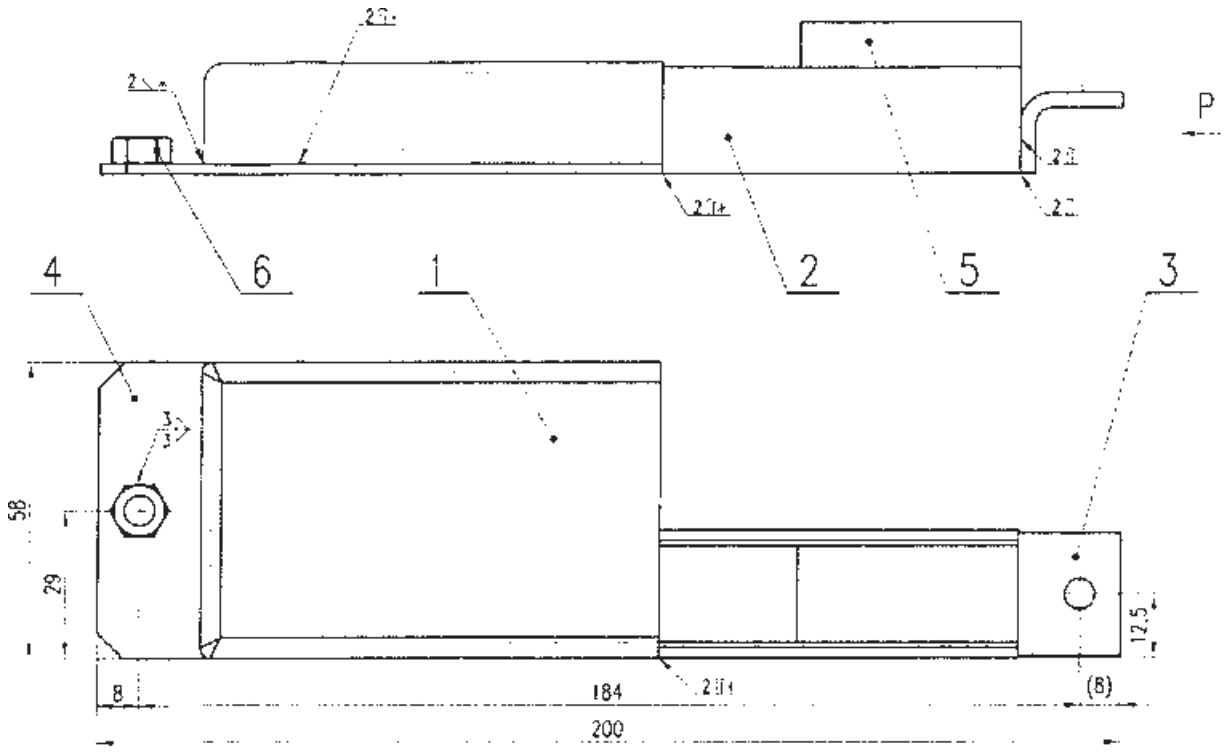


Figure 9



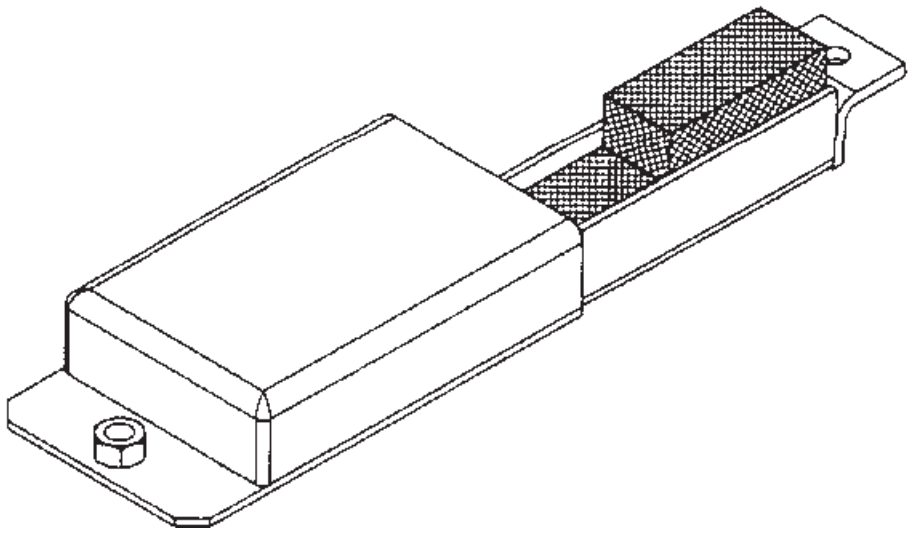


Figure 10

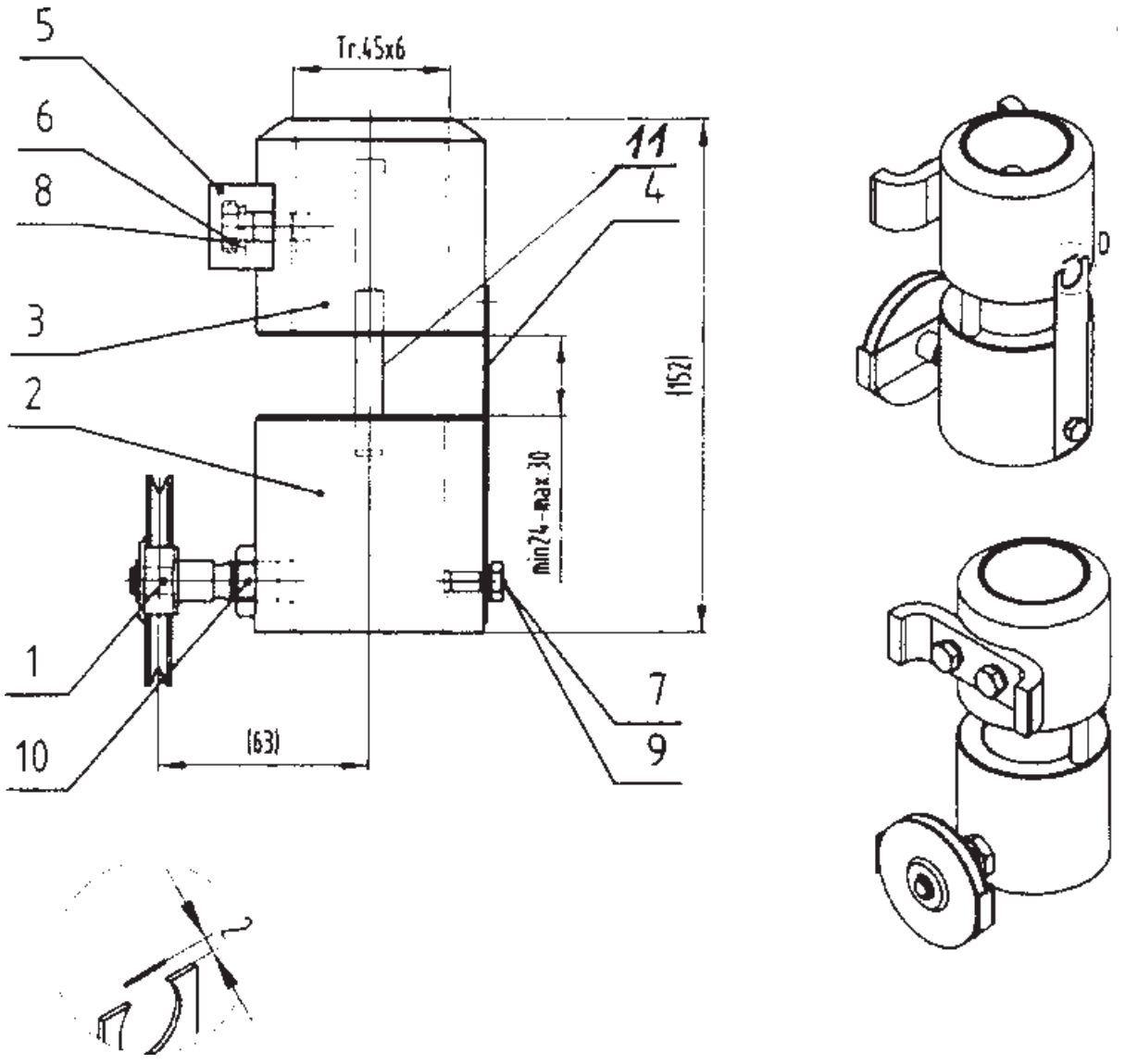


Figure 11

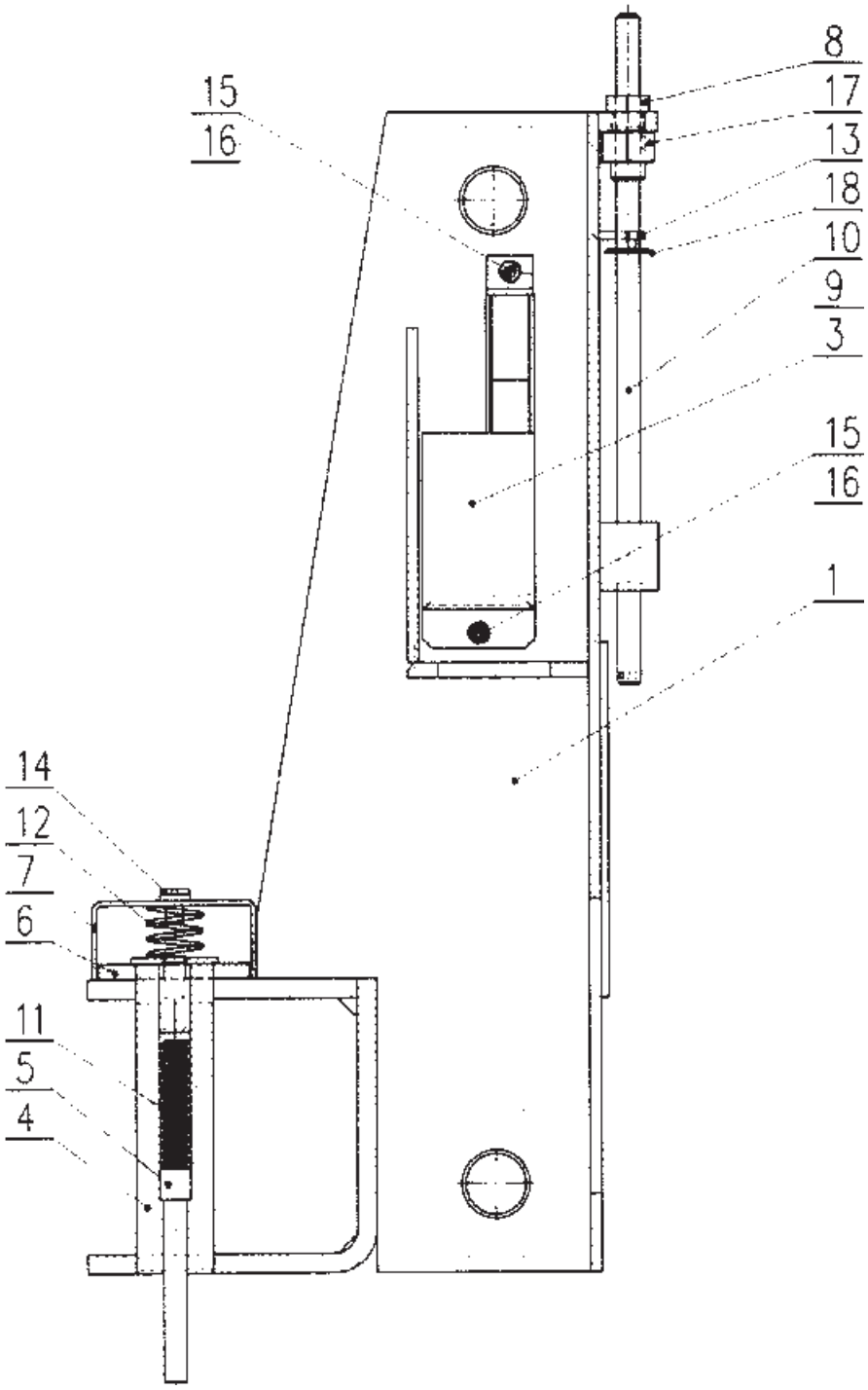


Figure 12

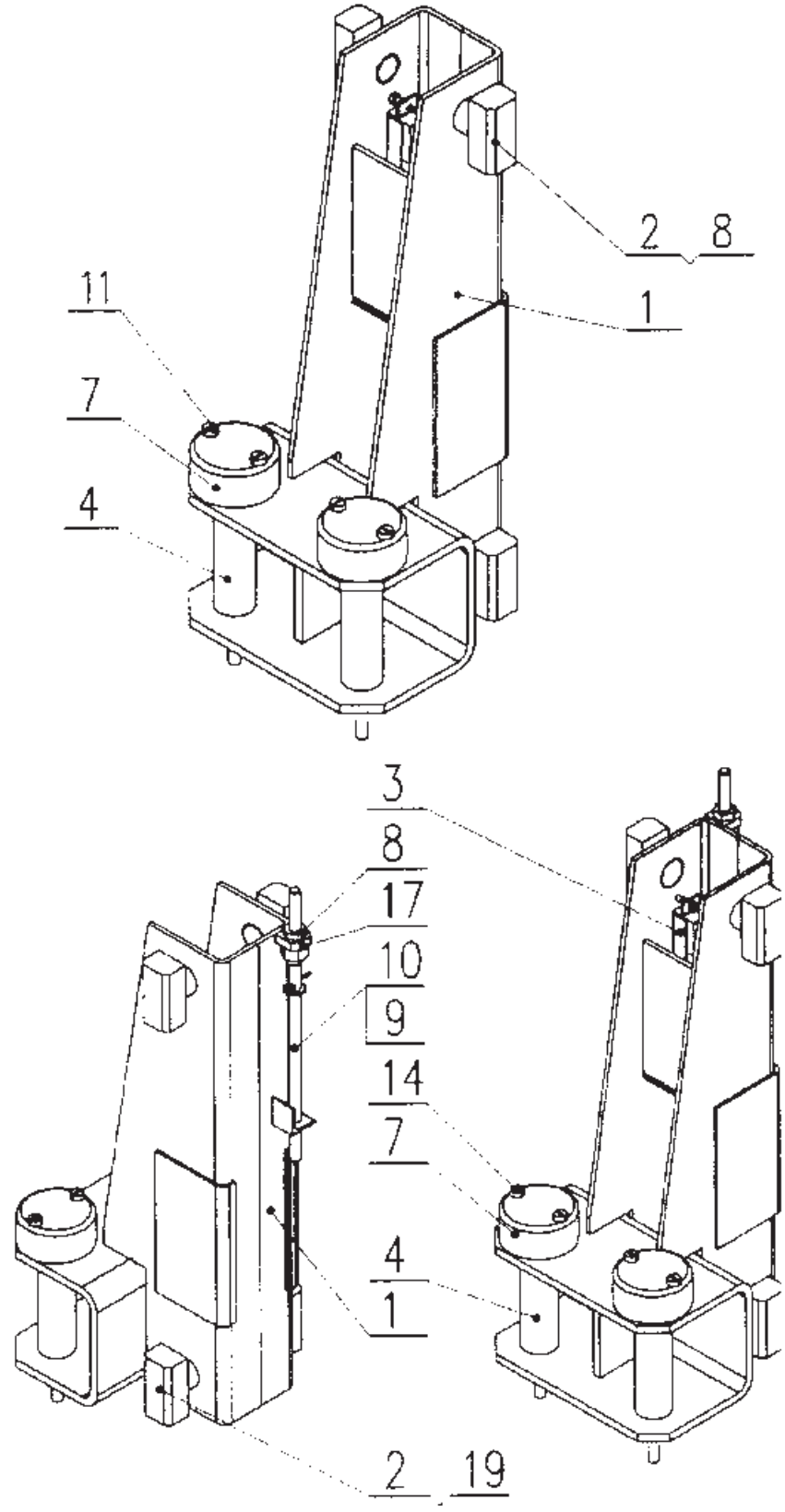


Figure 13

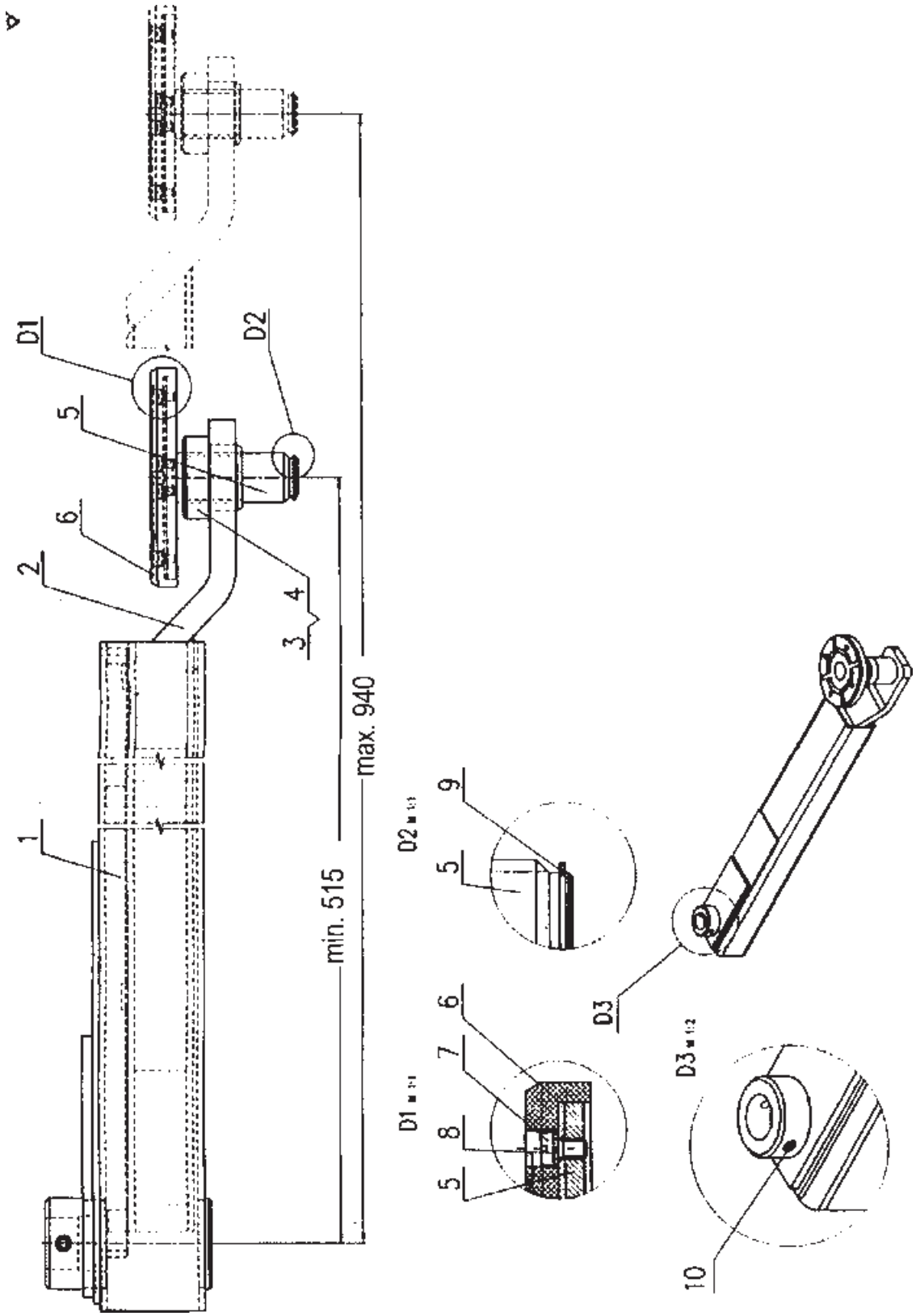


Figure 14

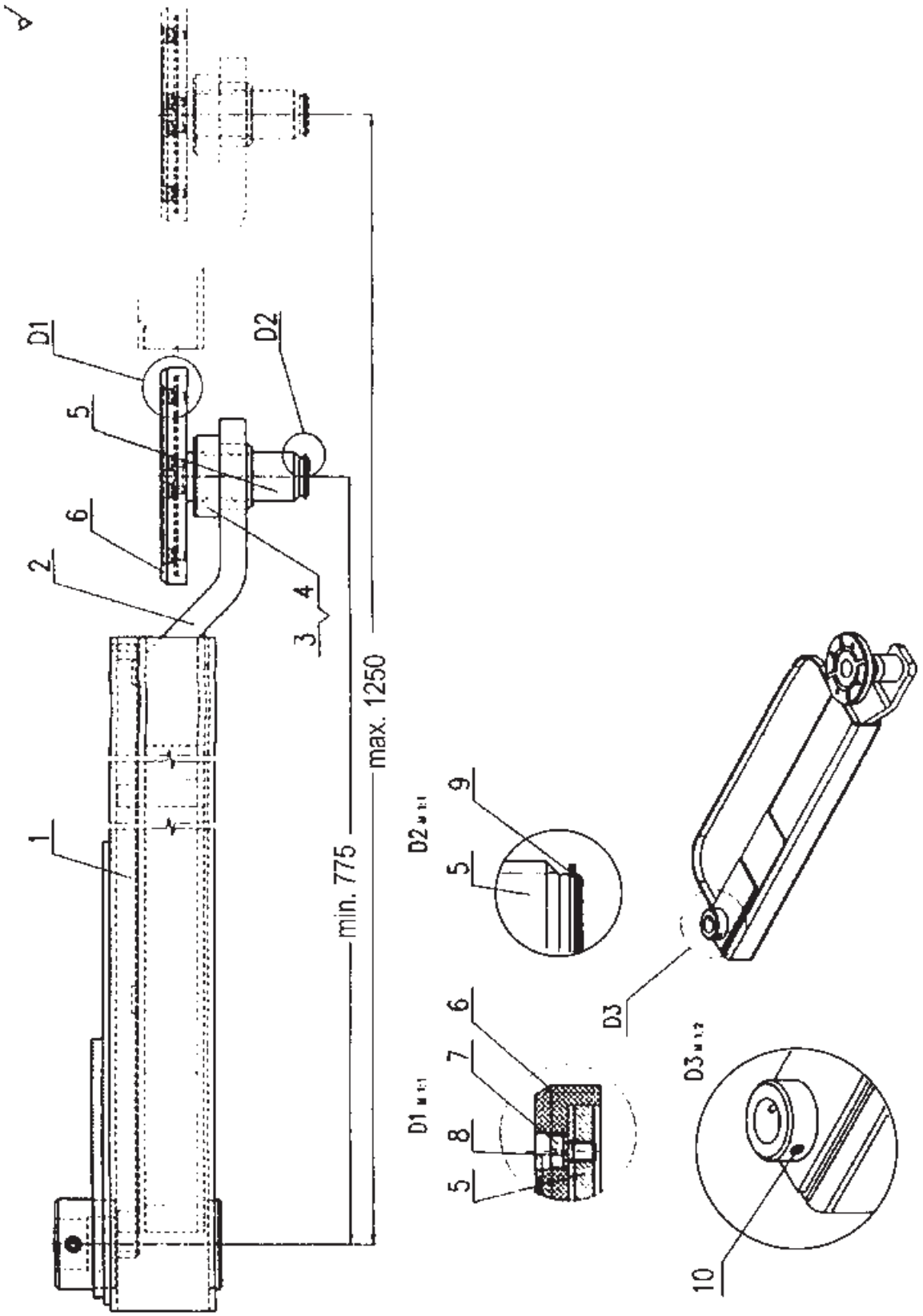
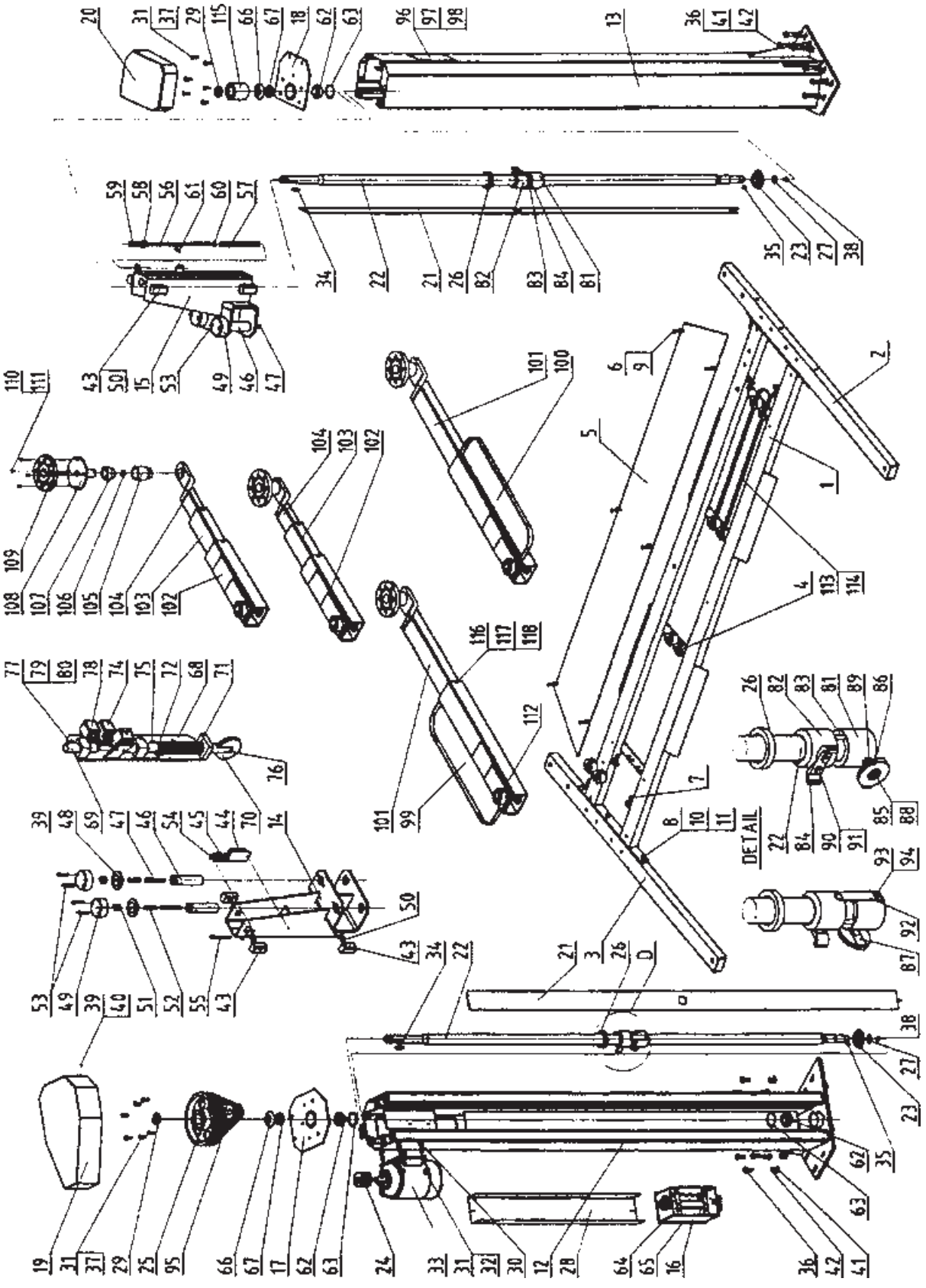


Figure 15



Item	Description	Code No.	Qty
1.	Frame	GZH75010300	1
2.	Supporting arm II.	GZH75010200	1
3.	Supporting arm I.	GZH75010100	1
4.	Chain guide	GZM25010004B	8
5.	Cover plate	GZH75010005	1
6.	Screw M 8 x 16	GZSTN02110315	6
7.	Screw M 12 x 45	GZSTN02110315	4
8.	Nut M 12	GZSTN02140115	6
9.	Washer 8	GZSTN02170215	6
10.	Washer 12	GZSTN02174015	6
11.	Washer 13	GZSTN02170205	6
12.	Post with motor	GZH75020000	1
13.	Post	GZH75030000	1
14.	Carriage, post with motor	GZH75040000	1
15.	Carriage, post w/o motor	GZH75050000	1
16.	Control box, complete set	GZH75060000	1
17.	Upper cover plate, post with motor	GH75070000	1
18.	Upper cover plate, post w/o motor	GZH75080000	1
19.	Cap, post with motor	GZH75000900	1
20.	Cap, post w/o motor	GZH75001000	1
21.	Spindle cover plate	GZH75001100A	2
22.	Spindle	GZH75000019	2
23.	Chain wheel	GZH75000022	2
24.	V-belt pulley I.	GZ616000024	1
25.	V-belt pulley II.	GZH75000024	1
26.	Ring-shaped supporting nut	GZM25000028	2
27.	Washer	GZH75000031	2
28.	Cable cover	GZH75000032	1
29.	Ring	GZH75000035	4
30.	Washer	GZM25000096	4
31.	Washer 10.5	GZSTN02170205	12
32.	Nut M 8	GZSTN02140105	8
33.	Electric motor, 3 kW	GZ3 kW230/400V	1
34.	Spring BE 7 x 7 x 45	GZSTN022562	2
35.	Spring BE 7 x 7 x 20	GZSTN022562	2
36.	Screw M 14 x 40	GZSTN02110355	16
37.	Screw M 10 x 25	GZSTN02110325	12
38.	Screw M 10 x 16	GZDIN7991	2
39.	Screw M 4 x 8	GZSTN02115615	6

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Item	Description	Code No.	Qty
40.	Washer 4.3	GZSTN02170205	8
41.	Washer 15	GZSTN02170205	16
42.	Washer 14	GZSTN02174005	16
43.	Slider	GZH75040002	8
44.	Oil tank (spindle lubrication)	GZH75040300A	2
45.	Felt insert	GZH75020305	2
46.	Bush	GZH75040004	4
47.	Pin	GZH75040005	4
48.	Toothed wheel	GZH75040600	4
49.	Locking cap	GZH75040007	4
50.	Levelling disc	GZH75040008	16
51.	Spring	GZTL2000x220x0400	4
52.	Spring	GZTl 2000x145x0710	4
53.	Nut M 10 x 60	GZSTN02113125	8
54.	Screw	GZH75040012	2
55.	Control cable	GZ469C005700	1
56.	Rod	GZH75050010	1
57.	Spring	GZM25080004	1
58.	Nut M 18 x 1.5	GZSTN02140305	1
59.	Screw	GZM25080006	1
60.	Washer 13	GZSTN02170205	1
61.	Pin 5 x 25	GZSTN02178105	1
62.	Bearing UC 206	GZZVL	4
63.	Circlip	GZSTN02293105	4
64.	Control box housing	GZH75060100	1
65.	Control box cover	GZH75060200	1
66.	Cone-shaped ring	GZH75070002	2
67.	Axial bearing 51107 A	GZSTN024730	2
68.	Control rod holding device, motor side	GZH75300100A	1
69.	Control rod, motor side	GZH75300002A	1
70.	Roller	GZH75300003	1
71.	Spring	GZM25380004	1
72.	Ring	GZM25380005	1
73.	Washer	GZM25150003	3
74.	Limit switch C2-U1 ZR	GZ6008116.013	3
75.	Pin 5 x 32	GZSTN021781.05	1
76.	Pin 4 x 20	GZSTN022140	1
77.	Screw M 4 x 10	GZSTN021131.25	1
78.	Screw M 4 x 16	GZSTN021131.25	6

Item	Description	Code No.	Qty
79.	Washer 4.3	GZSTN021744.05	1
80.	Washer 4.3	GZSTN021702.05	1
81.	Lock nut	GZH75170002	2
82.	Supporting nut	GZM25000017	2
83.	Bush	GZM25000029	4
84.	Turn limiting bracket	GZH75170004	2
85.	Screw	GZH75170101	1
86.	Cable roller	GZM25000039	1
87.	Metal plate	GZM25004003	1
88.	Circlip	GZSTN022926.05	1
89.	Nut M 12	GZSTN021401.05	1
90.	Screw M 8 x 16	GZSTN021103.15	2
91.	Washer 8	GZSTN021740.05	2
92.	Cover, nut break indicator	GZH75170003	2
93.	Screw M 6 x 8	GZSTN 02110315	2
94.	Washer 6	GZSTN 02174005	2
95.	V-belt SPZ 9.5 x 975 LA	GZSTN 023112	4
96.	Cover	GZH75030002	1
97.	Screw M 4 x 8	GZSTN02113115	4
98.	Washer 4	GZSTN021740.05	4
99.	Arm II., long, left	GZH75130100A	1
100.	Arm II., long, right	GZH75120100A	1
101.	Telescopic arm insert, long	GZH75120200A	2
102.	Swivel arm, short	GZH75140100A	2
103.	Arm, middle part	GZH75140200A	2
104.	Arm, end part	GZH75140300A	2
105.	Bushing I.	GZH75120003	4
106.	Circlip 28	GZSTN022930	4
107.	Bushing II.	GZH75120004	4
108.	Seating disc	GZM25120300	4
109.	Rubber pads	GZM25120500	4
110.	Screw 5 x 10	GZSTN02113125	16
111.	Washer 6.1	GZSTN021740.05	16
112.	Screw M 12 x 20	GZSTN02118915	8
113.	Chain	GZSTN0233110	1
114.	Chain lock 10B-1	GZSTN0233113	1
115.	Hub	GZH75-000037	1
116.	Screw M 8 x 12	GZSTN021131.25	6
117.	Washer 8	GZSTN02174005	6
118.	Nut M 8	GZSTN021403.15	6

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