STENHØJ

T73770

# INSTALLATION INSTRUCTIONS

# FOR

# 2-POST MULTIFLEX (USA)
# (Flutec)

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|---|---|
| Date: 280706 | Serial No: |
| Ref.: KBR/gf | Pages: 18 |

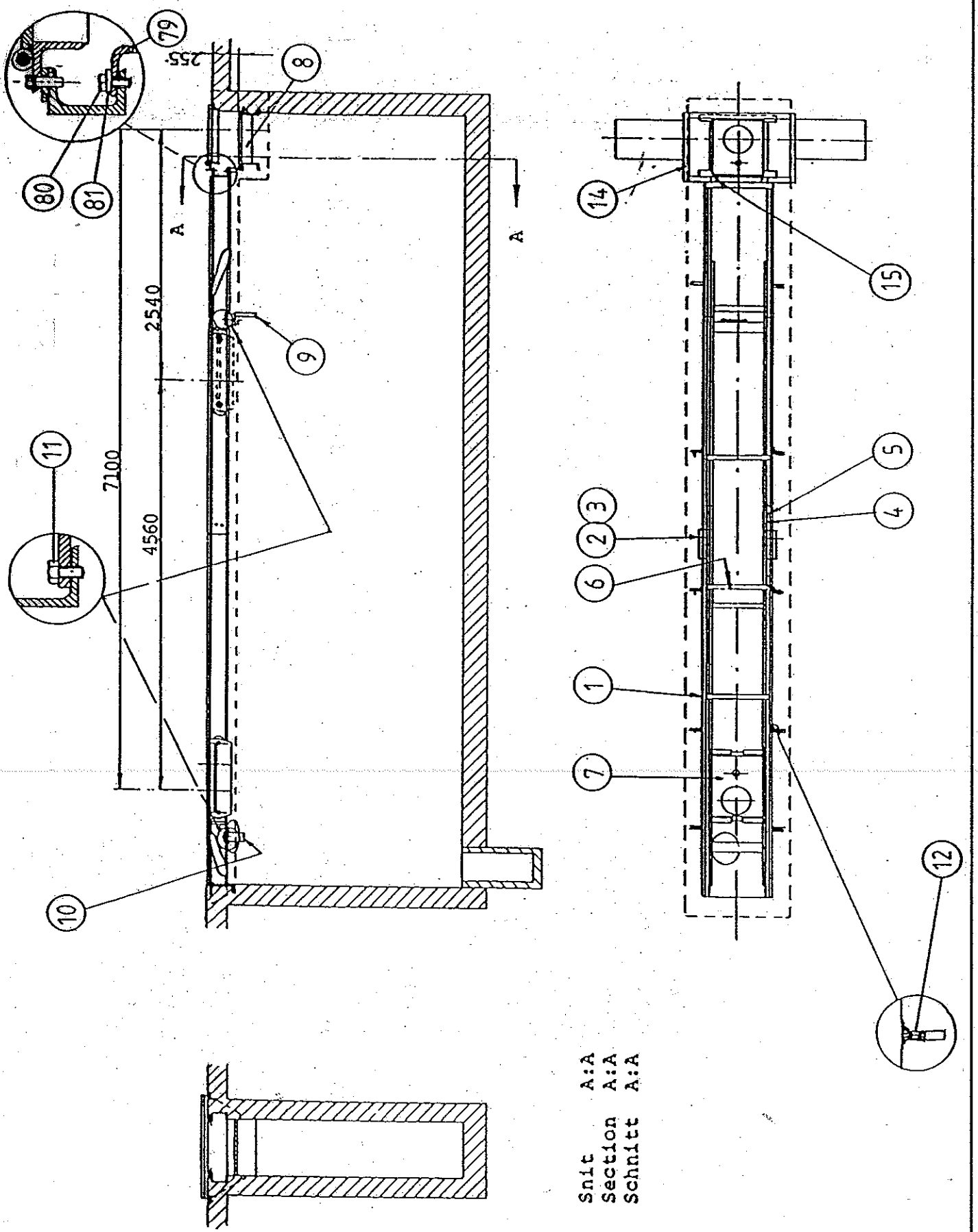
# NOTICE

Read this manual thoroughly before installing, operating or maintening the lift.

Operational test of lift is to be made using a typical vehicle.

Deliver the lift-specific operation, inspection and maintenance instructions to lift owner/ user/employer along with the other instructional materials furnished with the lift.

Maintenance to be performed by owner/employer and maintenance to be performed only by trained lift service personel.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Schnitt A:A

Remove plug and fit angle connection (item 16) and thereafter oil pipe (item 82).

When fitting cylinders, take care that the unprotected oil piping is not damaged.

Fit cylinders (item 18) on carriage (item 7) and frame (item 8) respectively. Cylinder oil piping (item 82) should face cylinder at opposite end of pit. Cylinders can be placed in position by means of e.g. a crane.

Attach cylinders by means of M16 x 60 screws (item 19) and ø16 and square washers (item 20) and fasten them by 22 kpm.

Clean piston heads and stuffing boxes (items 21 and 22) in mineral terpentine or the like to remove corrosion inhibitor.

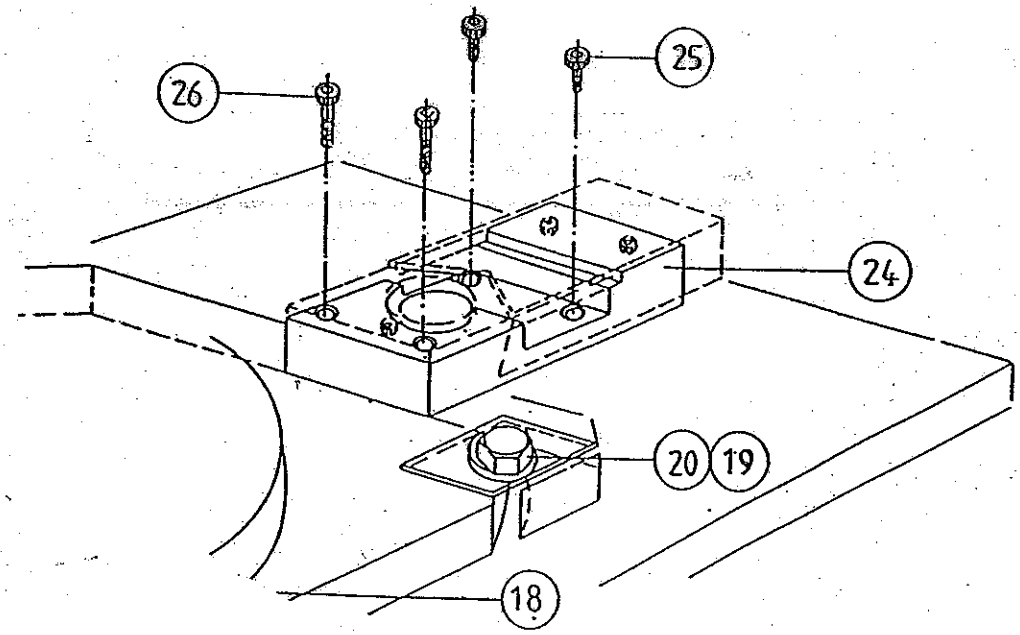
Fit ½" bushing (item 23) in postion head and pack it.

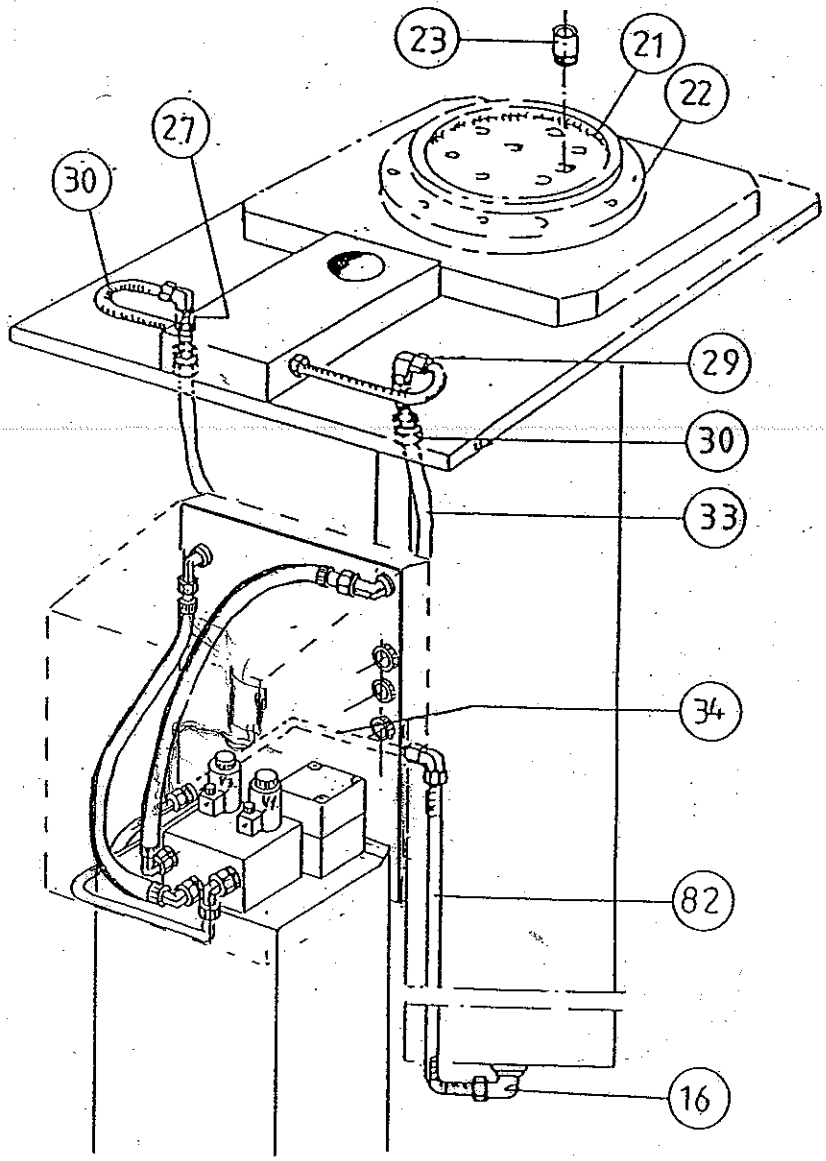
Fill each cylinder with 40 l lubricating oil through hole (item 23). Oil type according to specifications in operation and maintenance instructions provided.

Fit ratchet housing (item 24) on carriage (item 7) with movable cylinder and on supporting plate (item 8) for fixed cylinder by means of screws M8 x 20 (item 25) and screws M8 x 45 (item 26). Grease movable parts of ratchet housing.

Fit socket (item 27), adjustable elbow (item 28) and socket (item 29) in supporting plate.

Fit piping (item 30) to ratchet housing.




The pump unit is installed on the wall, min. 18" above floor level.

Remove plug and fit angle connection (item 16) and thereafter oil pipe (item 82).

When fitting cylinders, take care that the unprotected oil piping is not damaged.

Fit cylinders (item 18) on carriage (item 7) and frame (item 8) respectively. Cylinder oil piping (item 82) should face cylinder at opposite end of pit. Cylinders can be placed in position by means of e.g. a crane.

Attach cylinders by means of M16 x 60 screws (item 19) and ø16 and square washers (item 20) and fasten them by 22 kpm.

Clean piston heads and stuffing boxes (items 21 and 22) in mineral terpentine or the like to remove corrosion inhibitor.

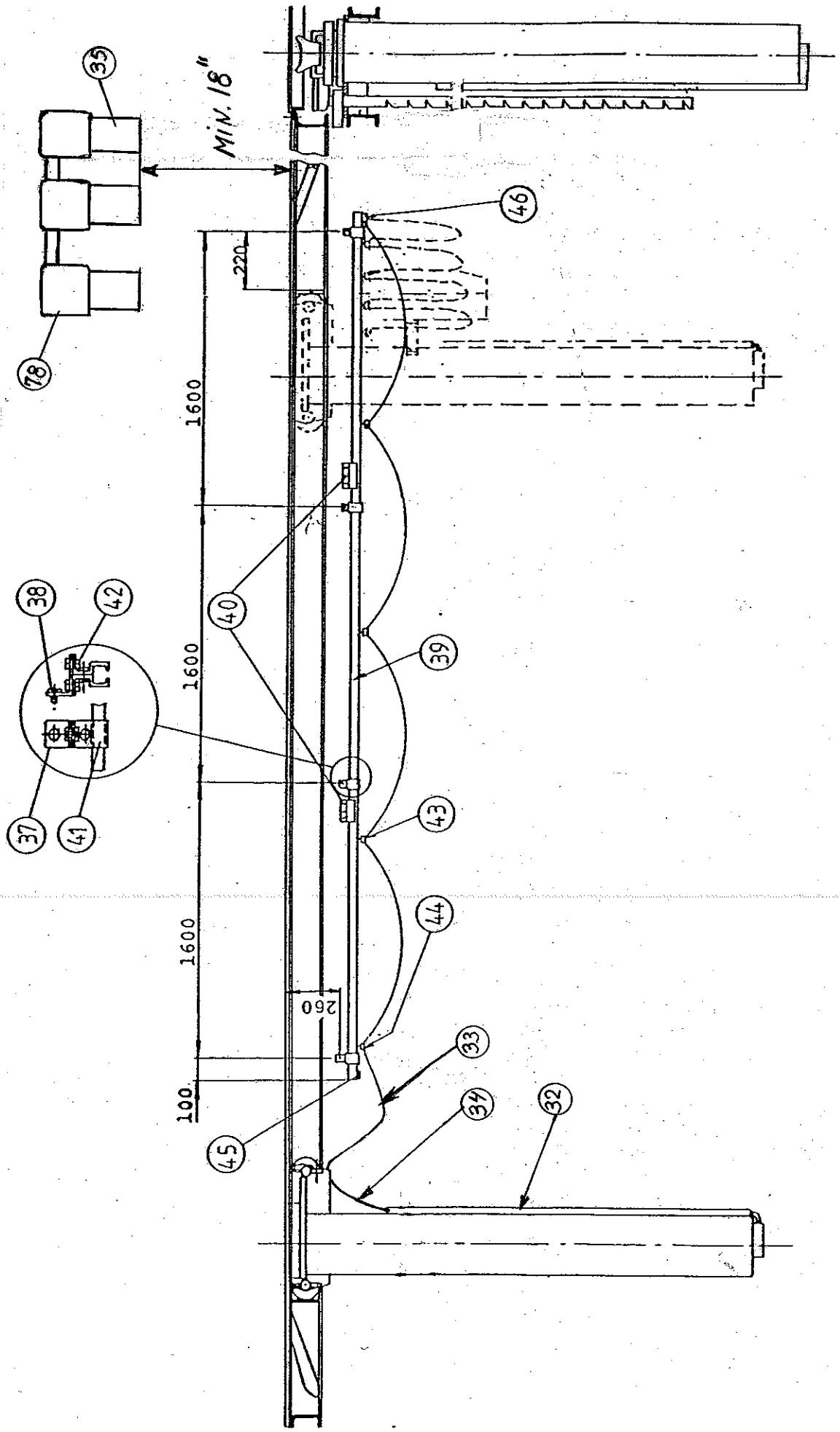
Fit ½" bushing (item 23) in postion head and pack it.

Fill each cylinder with 20 l lubricating oil through hole (item 23). Oil type according to specifications in operation and maintenance instructions provided.

Fit ratchet housing (item 24) on carriage (item 7) with movable cylinder and on supporting plate (item 8) for fixed cylinder by means of screws M8 x 20 (item 25) and screws M8 x 45 (item 26). Grease movable parts of ratchet housing.

Fit socket (item 27), adjustable elbow (item 28) and socket (item 29) in supporting plate.

Fit piping (item 30) to ratchet housing.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Min. 18"
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Fit suspension for oil pump (item 31) unit by means of M10 x 20 screws and ø10.5/28 washers (item 32). Place suspension (item 32) on movable cylinder in left side of pit seen from fixed towards movable cylinder.

Fit high pressure hoses (item 33).

Place pump unit (item 35) on wall (see drawing page 7) by means of the screws welded on pump unit and tighten by means of ø10.5/28 washers and M10 nuts. Connect piping (item 32) and high pressure hoses (item 34) to cylinder and threaded bushing in supporting plate (see page 5).

Place suspension (item 37) in left side of pit seen from the fixed towards the movable cylinder as shown and attach it to pit wall by means of M8 x 75 expansion bolts. Join cable rail (item 40), and suspend it by means of fittings (item 41) which are to be attached to suspension (item 37) by means of M8 x 16 screw and M8 nut (item 42). Place carriages (items 43 and 44) and end stops (items 45 and 46) on cable rail. Fasten end stops.

Place driver (item 85) in suspension (item 32) and through bow on carriage (item 44) and tighten by means of M8 wing screw (item 86). Adjust driver (item 85) and possibly cable rail (item 39) to avoid cable carriages jamming when cylinder reaches stops at both ends of the pit.

Fill each pump unit with 20-25 l oil. Oil type according to operation and maintenance instructions provided.

Connect lift to mains. Electric installation should be made by an authorized electrician.

List of components for wiring diagram:

K1 : Contactor for "return" function, hydraulic geared motor
K2 : Contactor for "advance" function, hydraulic geared motor
K3 : Contactor for "up" function, cylinder
K4 : Contactor for "down" function, cylinder
K5 : Contactor for function, fixed cylinder
K6 : Contactor for function, movable cylinder
K10 : Auxiliary relay for contactor K1 and K2 for movable cylinders.
S14 : Parking
S13 : Emergency stop
S3 : "DOWN"
S5 : "UP"
S7 : "ADVANCE", electric winch
S9 : "RETURN", electric winch
V1 cyl. 1, V3 cyl. 1, V1 cyl. 2, V3 cyl. 2: Solenoid valves

Use two-core cable with cross section of at least 1.5 mm² between relay station and solenoid valves near pump unit.

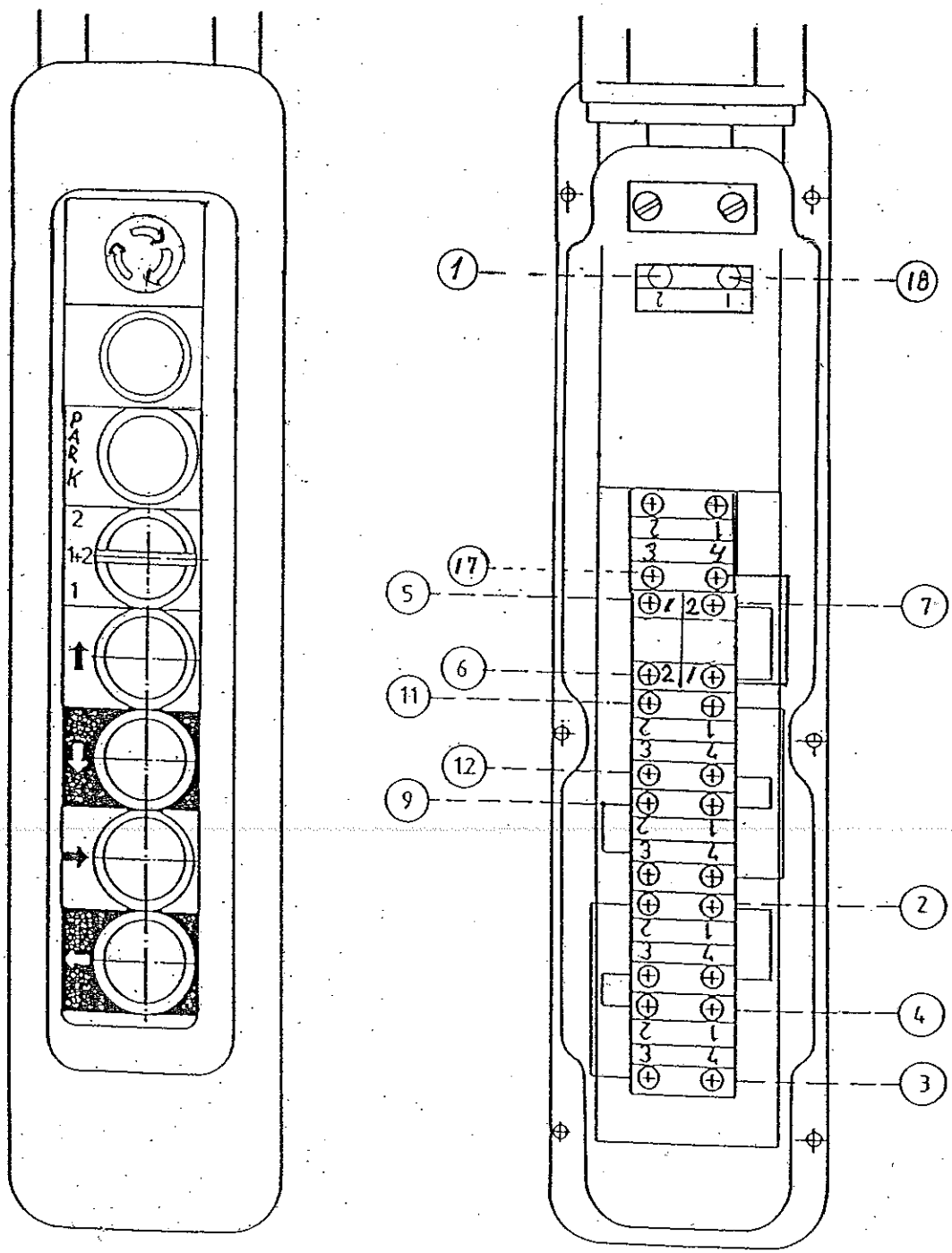
Use three-core cable + earth with cross section of a least 1.5 mm² between relay station and pump unit motor.

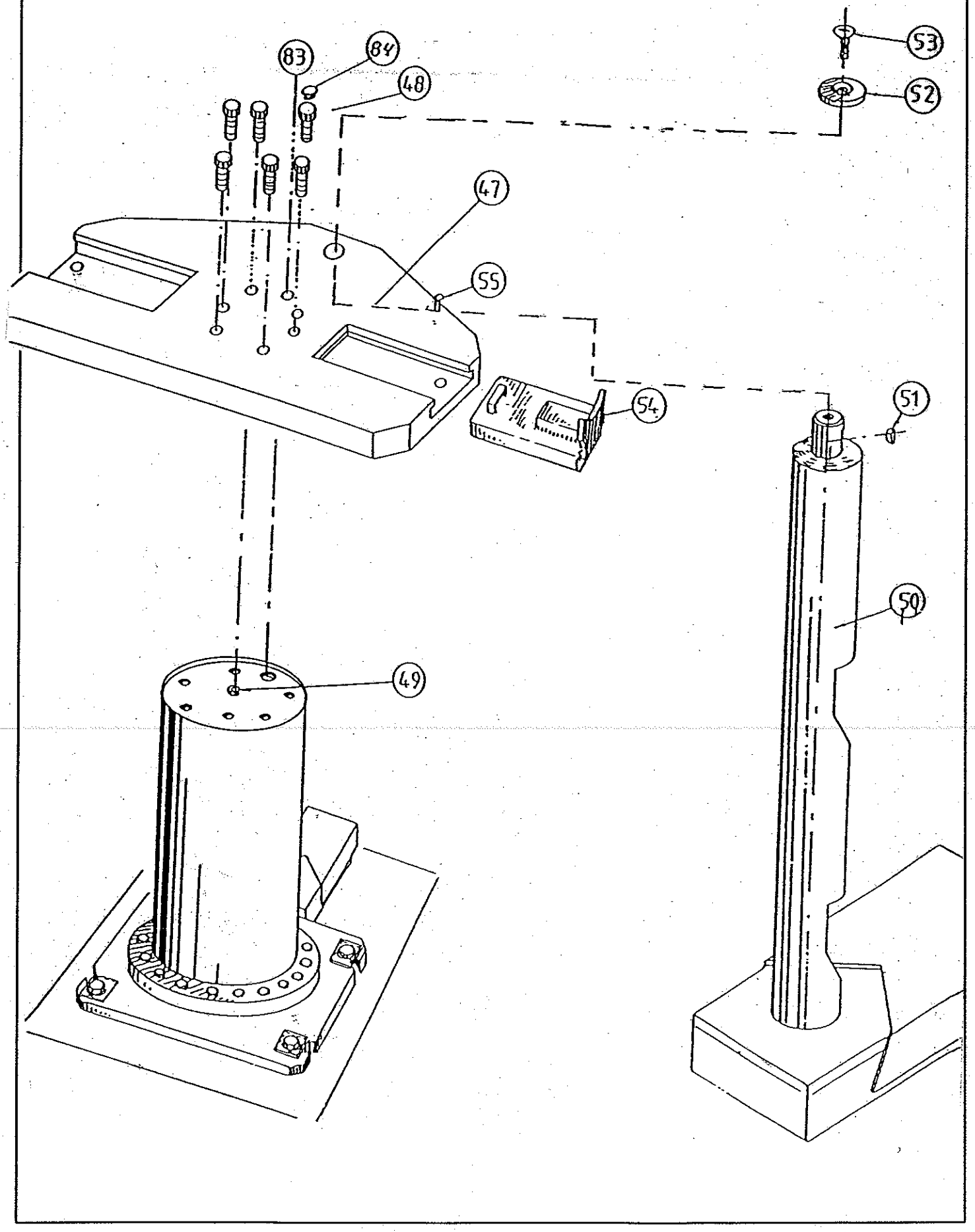
Use twelve-core cable with cross section of at least 1 mm² between relay station and remote control panel.

IMPORTANT ! Connect to correct voltage.

Activate main switch and push UP-button; if pump does not give any oil (lift does not raise) interchange the two phase cables in the control unit (see above).

# REMOTE CONTROL PANEL FOR 2-POST MULTIFLEX LIFT

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Fit supports (item 47) by means of 6 M20 x 60 screws (item 48) placing ø35 hole over hole for oil dipstick. Torque moment 39 kpm. Grease screw head and fit plastic plugs (item 84).

Raise lift pistons about 1 m. Loosen venting screws (item 49) until oil free of air bubbles flows out. Retighten venting screws. Raise lift pistons to top position.

Pull ratchet in ratchet housing back to stop and lower safety leg (item 50) through ratchet housing hole. Check that lowering is possible without obstruction and that ratchet does not stop or catch the leg. In case of insufficient clearance between ratchet and leg, adjust ratchet by tightening adjusting screw at back of ratchet housing enough to make leg descend through ratchet housing without touching the ratchet. Fit key (item 51) in safety leg groove and place ring (item 56) over safety leg. Fit safety leg in support (item 47) by means of ø45/12 x 6 washers (item 52) and M12 x 35 countersunk screws (item 53).

Pull ring (item 56) up to support (item 47) and place screws (item 57) in holes. Do not tighten until safety leg has been adjusted.

Raise pistons to top position and measure exact distance between each lift piston and safety leg at the superstructure and at floor level. In case of difference between these measurements, move cylinder and/or ratchet housing for safety leg in mounting holes sufficiently to make measurements identical.

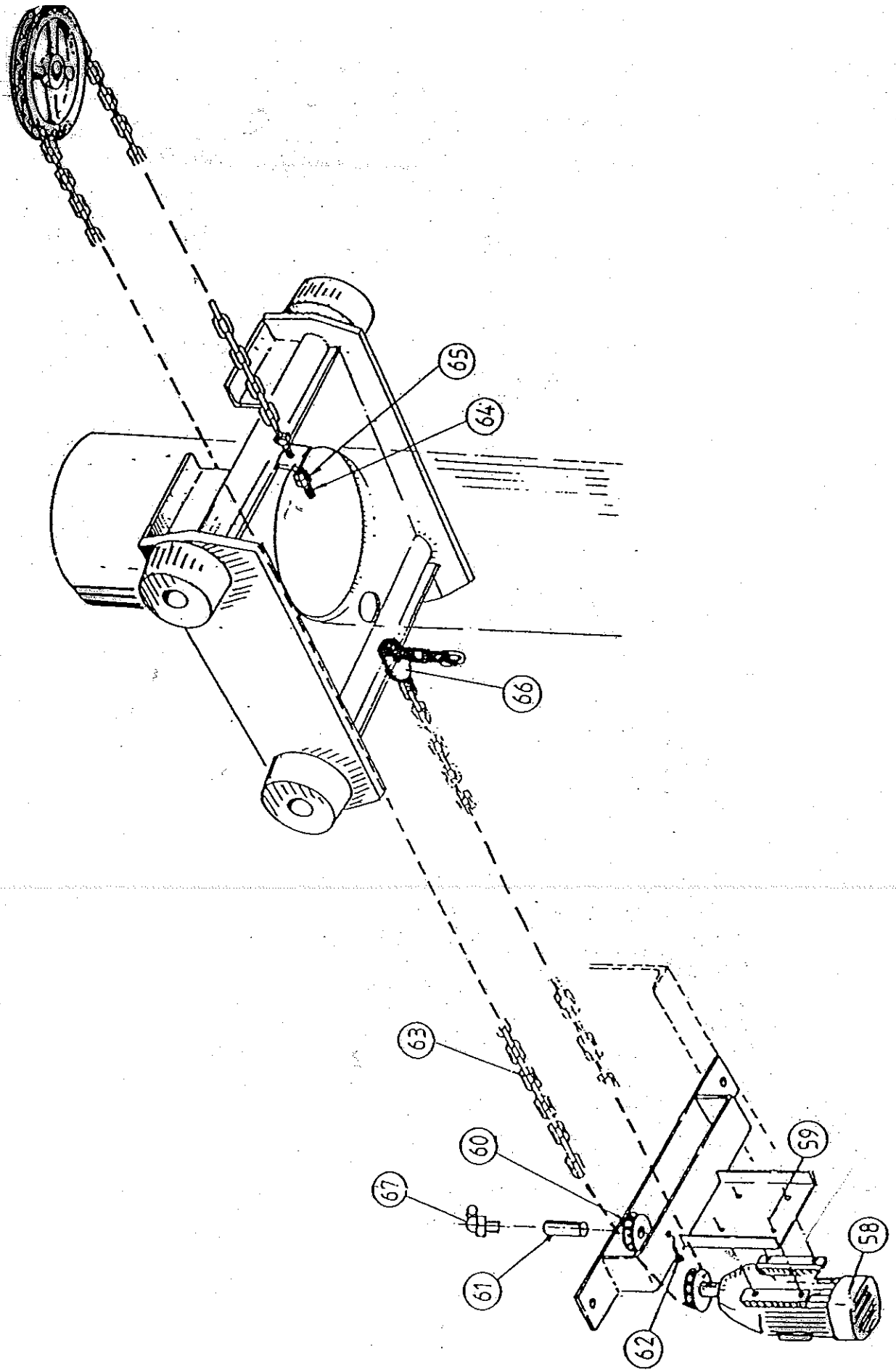
Retighten cylinder/ratchet housing. Torque moment: 22 kpm for cylinder.

Lower pistons (one at a time) ensuring that safety legs pass ratchet housing holes without binding in bushings of ratchet housings and without vibrations. If safety legs bind or vibrate, adjust ratchet housings/cylinders until safety legs pass freely through ratchet housings. Torque moment for cylinder: 22 kpm.

Tighten screws (item 57)

Place adjustable supports (high or low) (item 54) on superstructure and safety rivets (item 55) in holes.

Raise and lower pistons a couple or times and stop them at about 1 m's height. Check that the "clicking" is audible when ratchets in housings for safety legs engage during rising of pistons. Loosen venting screws (item 49) until oil free of air bubbles flows out. Lower pistons to bottom position. Refill pump unit with oil up to mark on dipstick.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Attach geared oil motor (item 58) by means of M8 x 30 screw and ø8 washer (item 59). Place chain wheel (item 60) and axle (item 61) on support. Attach axle by means of M8 x 15 screw and ø8 washer (item 62).

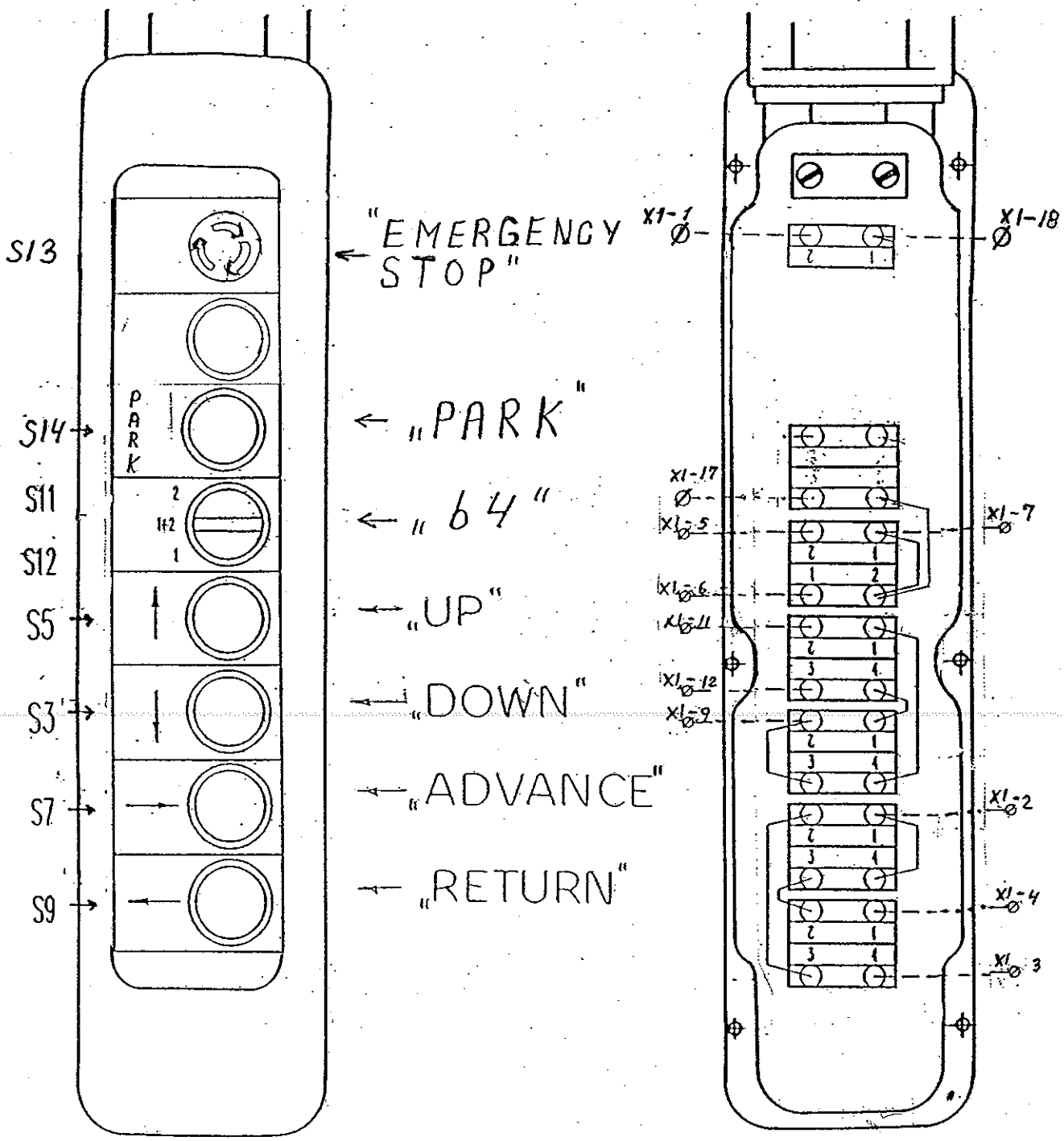
Fit winch chain (item 63) between carriage and winch by placing end of chain with tightening screw (item 64) in the respective fittings on side of carriage.

Fit nuts (item 65). Pull opposite end of chain round chain wheel of suspension and both chain wheels of geared oil motor and fit through chain lock (item 66) to carriage. Tighten and lock chain. Re-tighten chain (not too much) by turning the tightening screw (item 64) and grease chain.

Screw grease nipple (item 67) into axle.

Test geared oil motor by operating the movable cylinder forwards and backwards through its entire travel checking at the same time that pump unit on cylinder passes cable rail freely and that cable on cable rail does not drag agains pit wall, as this could damage cable insulation.

# REMOTE CONTROL



Check list for the electric installation of 2-post all-purpose lift - ONLY VALID for wiring diagram T50634 covering the version of the lift (230/3/60).

Before checking, remove fuses (F1-F2) for electric motors.

Cylinder 1 UP: Turn rotary switch b4 to position I. Auxiliary relay K5 in current path 11 draws. UP-button (S5) is activated, and contactor K3 draws.

Cylinder 2 UP: Turn rotary switch b4 to position II. Auxiliary relay K6 in current path 12 draws. UP-button (S5) is activated, and contactor K3 draws.

Cylinder 1 and 2 UP: Turn rotary switch b4 to position I + II. Auxiliary relays K5 and K6 draw. UP-button (S5) is activated, and contactor K3 draws.

Cylinder 1 DOWN: Turn rotary switch b4 to position I. Auxiliary relay K5 draws. DOWN-button (S3) is activated, contactor K4 and valves V1.1 and V3.1 are activated.

Cylinder 2 DOWN: Turn rotary switch b4 to position II. Auxiliary relay K6 draws. DOWN-button (S3) is activated. Contactor K4 and valves V1.2 and V3.2 are activated.

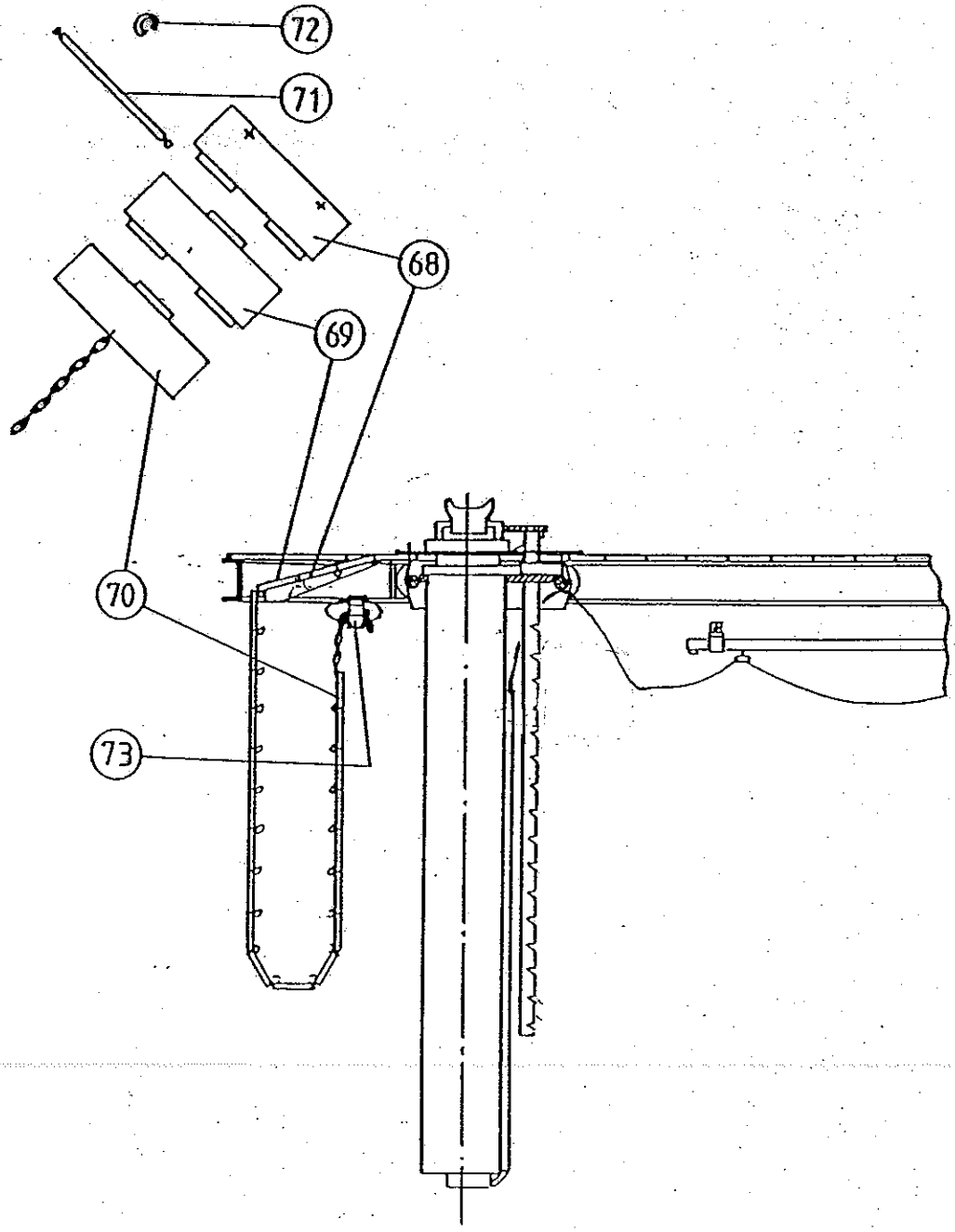
Cylinders 1 and 2 DOWN: Turn rotary switch b4 to position I + II. Auxiliary relays K5 and K6 draw. DOWN-button (S3) is activated. Contactor K4 and valves V1.1, V3.1, V1.2 and V3.2 are activated.

Cylinders 1 and 2 PARKING: Park-button S14 is activated, valves V2 cyl. 1, V2 cyl. 2 are activated.

Electric/hydraulic winch: Turn rotary switch b4 to position II. ADVANCE-button (S7) is activated, contactor K2 draws, valve V5 is activated, RETURN-button (S9) is activated, contactor K1 draws.

If no irregularity is found during this check on either relay station, remote control panel, oil pump units, or electric/hydraulic winch, the electric installation is correct, and fuses can be replaced.

Check direction of rotation of both electric motors, see page 9.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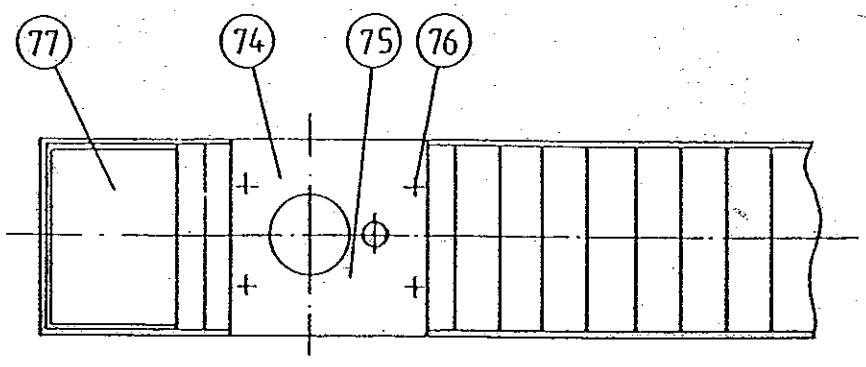
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Divide roller shutter in 2 sets of plates each comprising:
- 1 off plate (item 68)
- 34 off plate (item 69)
- 1 off plate (item 70)

Connect plates by pushing axle (item 71) through hinges and lock by means of a locking washer (item 72) at both ends.

Place roller shutter over the pit. Place end plate with holes (item 68) against carriage. Ensure that plates do not fall into pit.

Lower end plate with chain (item 70) approximately ½ m into pit and pull chain through chain lock (item 73). Push the last link but one of chain into the groove in chain lock, thus locking chain completely.

Raise movable piston until support clears floor.

Pull opposite end of roller shutter plates towards carriage and place end plate with holes over M12 threaded holes in carriage.

Place cover plates (items 74 and 75) over carriage. Ensure that piston and safety leg are not damaged.

Fasten cover plates (items 68, 74 and 75) by means of M12 x 30 roundhead screws (item 76).

Place cover plates (item 77) over pit.

Check that motor on pump unit for winch rotates in the direction of the arrow and that there is current on the right solenoid valve.
Adjust safety valve so that the roller shutter moves smoothly (starts normally) and lock safety valve (if the pressure is too high the chain will brake when movable cylinder runs against the stop).

IMPORTANT ! Pump unit for lifting cylinder : check (adjust) safety valve: 34000 lbs = 240 bar.
After adjustment the safety valve has to be sealed (with sealing wax).

Check oil level on all pump units.

Place cover (item 78, page 7) on all pump units.