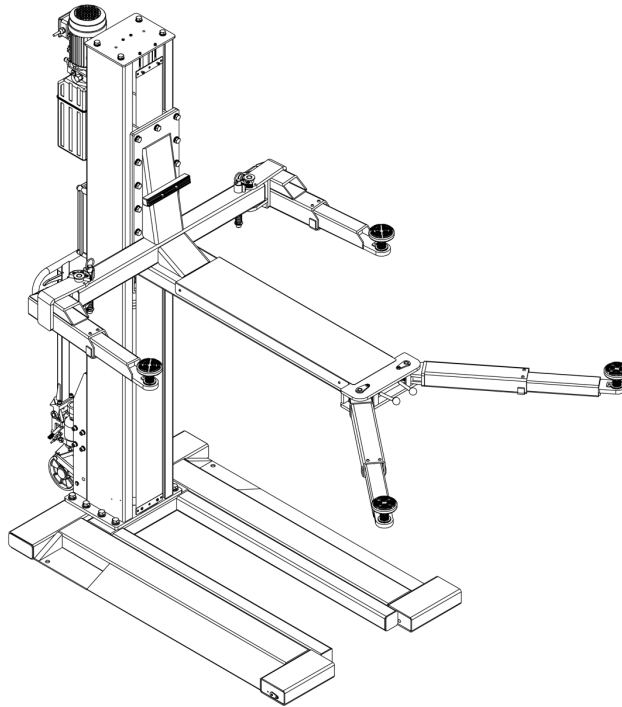


Installation, operation and maintenance manual

HAMMER TOOLS CLD 2800 ONE

Mobile single-post lift • 2,800 kg • electrical release • 230 V



This manual forms part of the machine. Read it completely before installation, operation or maintenance and keep it accessible. This edition covers electrical safety-lock release and a 230 V single-phase supply. Maximum working height is limited to the shop specification of 1,800 mm. Diagrams and component references are for qualified personnel; check them against the rating plate and actual wiring before work. Never bypass a safety device.

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1. Safety and intended use

Use the lift only to raise complete vehicles weighing no more than 2,800 kg. Do not carry people or lift only one side or end of a vehicle. Only trained, instructed personnel may operate it; electrical work is restricted to qualified electricians. Unauthorized changes to controls, mechanical parts or accessories are prohibited. Warranty is governed by the agreed sales terms; avoid incorrect installation, overloading, unsuitable floors and inadequate maintenance.

Use indoors only, on a sound, dry, level, non-slip concrete floor; never on asphalt. Keep hands and feet away from moving parts, especially during lowering. Do not wear loose clothing. Keep the work area clean and clear. Support the vehicle at the vehicle manufacturer's designated lifting points using all four pads. Centre its gravity between the four supports. Raise it slightly first and check secure seating. If it tilts, lower it immediately and reposition. Work under the vehicle only with the mechanical safety locks fully engaged. Nobody may stand beneath the vehicle or in the danger area during raising or lowering. Account for changes in the centre of gravity when removing heavy vehicle parts. Stop using the lift immediately if noise, leaks, damage or safety-device faults occur. Lower fully after use. For long-term shutdown, disconnect power, drain hydraulic fluid correctly and protect moving parts. Never discharge oil into the environment.

Electric shock hazard: use only suitable, tested power cables. Damaged insulation requires immediate shutdown and qualified replacement. Isolate and secure the supply against reconnection before opening the control box. Keep warning labels clean and legible; replace missing or damaged labels. They warn particularly of crushing, falling loads and electrical voltage. The source specifies a noise level below 75 dB; investigate unusual changes.

1. Safety and intended use

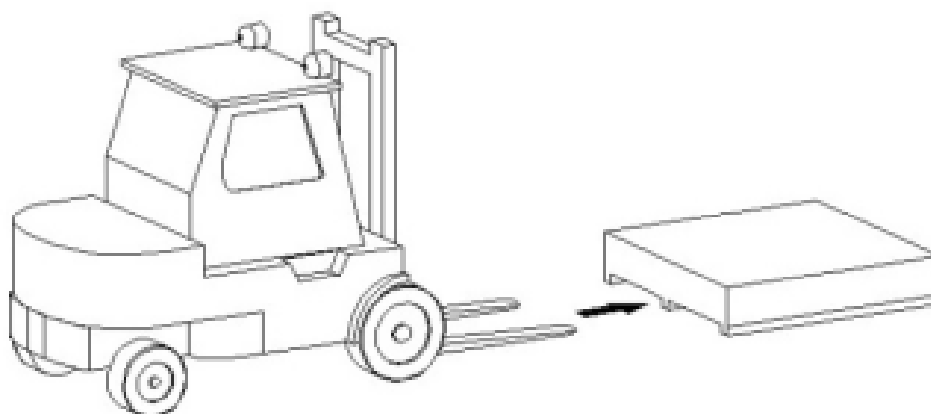
Additional label instructions: watch the vehicle continuously during every movement. Do not enter the vehicle or climb onto the lift while raising or lowering. Do not rock the vehicle excessively. Use suitable safety stands when installing or removing heavy components so that changes in the centre of gravity do not destabilize it. Read all warnings before operating and maintain the lift regularly.



2. Packaging, transport and storage

Six packages; total gross weight 850 kg. Packing uses frames, protective film, cushioning, a wooden pallet or a carton. Check the delivery note for completeness on arrival; report damage or missing parts immediately to the carrier and Hammer Tools. For loading and unloading, the source specifies a hoist or forklift rated at least 3 t. A second person must observe from a safe distance. Never handle the load manually; secure it against tipping and falling. Use an enclosed vehicle or container. Store dry and protect from water if temporarily stored outside. Storage temperature: -25 °C to +55 °C.

#		mm	kg
1	Column	395 × 430 × 2723	392
2	Base plate	99 × 1140 × 1790	195
3	Carriage	775 × 1206 × 1537	159
4	Lifting arms	330 × 400 × 615	65
5	Power unit	260 × 350 × 810	25
6	Mobile kit	210 × 390 × 1211.5	14



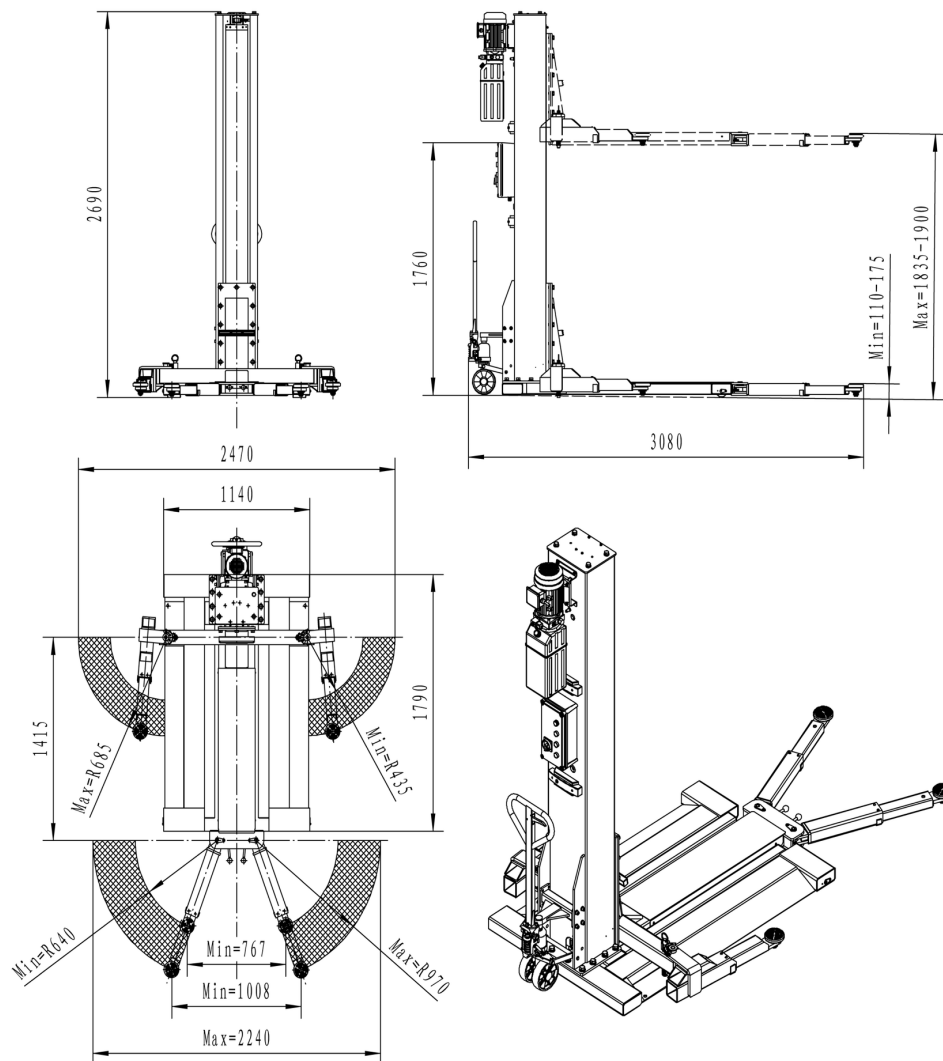
3. Construction and technical data

The gear pump supplies the hydraulic cylinder. Its piston rod moves the carriage through a chain, raising the platform and arms. Mechanical locks engage automatically during lifting; electromagnets release them for lowering. The 24 V controls, upper limit switch, lower safety stop and warning beeper complement the mechanical protection. Move the lift only when unloaded.

CLD 2800 ONE	
Rated capacity	2.800 kg
Maximum working height	1.800 mm
Raising/lowering time (shop)	55 s
Overall height	2.690 mm
Overall width (source)	2.470 mm
Overall length (source)	3.080 mm
Power supply	230 V / 50 Hz / 1 Ph
Motor power	2.2 kW
Oil quantity (source)	10 l
Maximum vehicle wheelbase (shop)	2.8 m

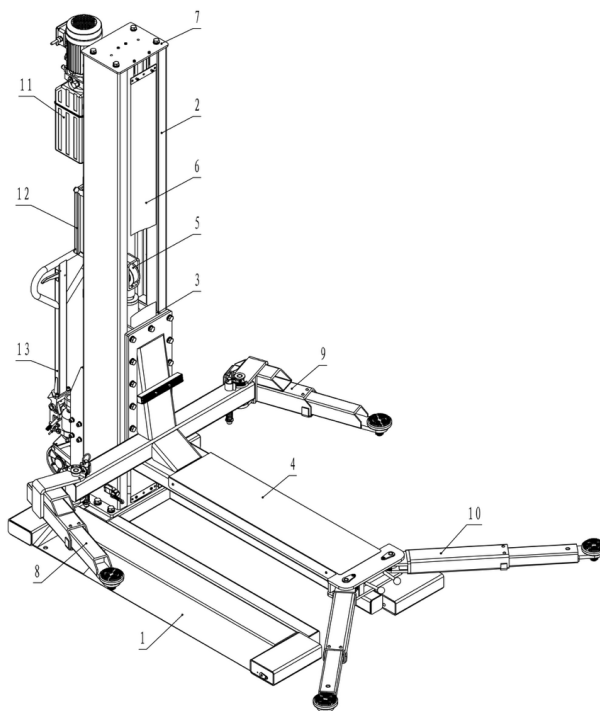
The original drawing shows geometric heights of 1,835-1,900 mm including adjustable pads. The lower working limit of 1,800 mm applies to this shop version; the drawing does not override it. The source states about 60 s and the shop 55 s. Actual travel time depends on load and operating conditions.

3. Construction and technical data



The original drawing shows geometric heights of 1,835-1,900 mm including adjustable pads. The lower working limit of 1,800 mm applies to this shop version; the drawing does not override it. The source states about 60 s and the shop 55 s. Actual travel time depends on load and operating conditions.

3. Construction and technical data



#	
1	Base plate
2	Column
3	Carriage
4	Lifting platform
5	Hydraulic cylinder
6	Protective curtain
7	Column top plate
8	Rear left arm
9	Rear right arm
10	Front arms (2)
11	Power unit
12	24 V control box
13	Mobile kit

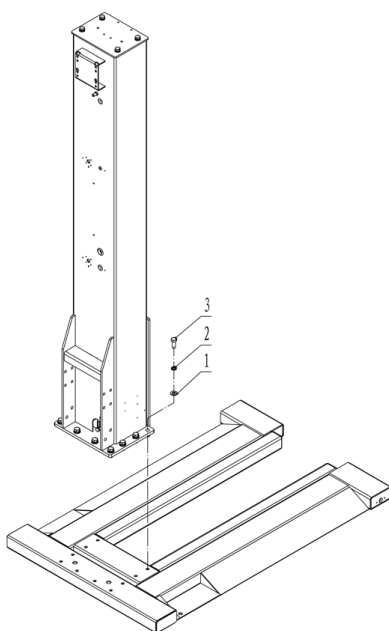
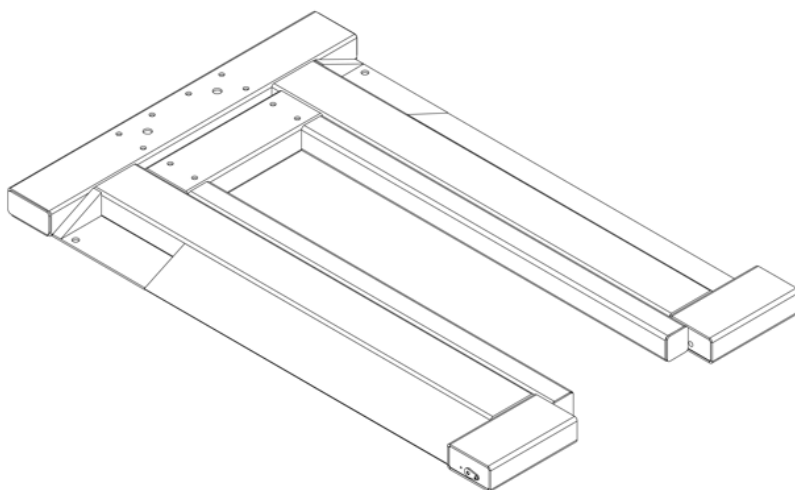
4. Preparation and installation

Provide at least 1 m clearance from fixed obstacles all around, adequate vehicle access and sufficient headroom. Plan the floor and protected power supply before installation. The source requires C20/25 concrete exceeding 3,000 psi compressive strength, over 200 mm thick, with less than 5 mm flatness deviation; new concrete must cure for at least 20 days. Have actual floor capacity professionally checked on site. During operation the mobile lift must rest fully on its base. Generic references to anchors in the source are not instructions to anchor this mobile version without an approved fixing plan.

Tools: crane/forklift and slings rated over 1 t for individual assembly operations (see section 2 for transport); 10 l suitable hydraulic oil; two each of 14-17 and 17-19 mm open spanners; adjustable wrench over 30 mm; 2-10 mm hex keys; PH2 screwdriver; long ratchet; 22 mm (M16) and 24 mm (M18) sockets; circlip pliers; MD400 torque wrench or suitable equivalent. Check all six packages and the accessory list before starting. Resolve missing items first. Secure the column against falling, set it vertical, connect hoses correctly and secure all fasteners. Start trial operation without a vehicle.

4. Preparation and installation

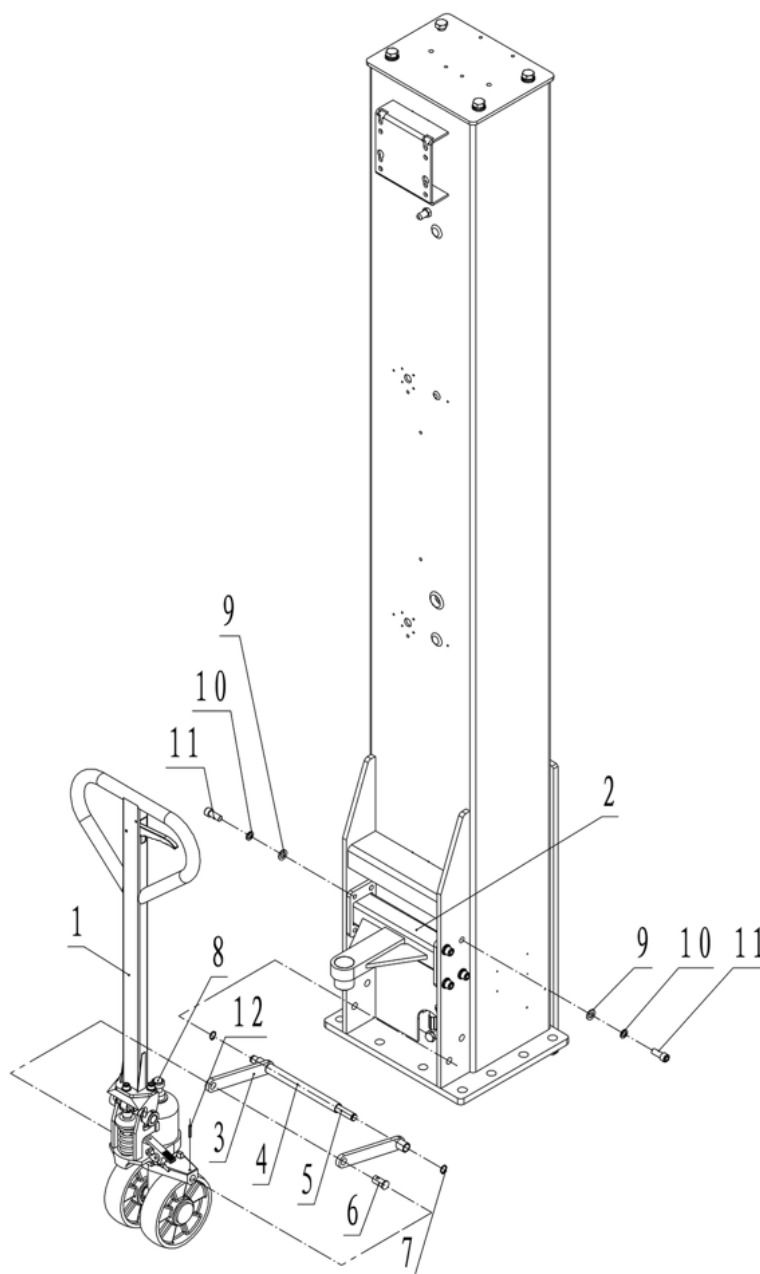
1-3. Unpacking: unpack the base and place it on level ground. Support the column with lifting equipment before removing its frame. Carefully remove arms, accessory box and loose parts. Prevent the heavy column from tipping.



4. Fix the column to the base. Drawing: 1 M18 flat washer, 2 M18 spring washer, 3 M18x45 hex-head screw.

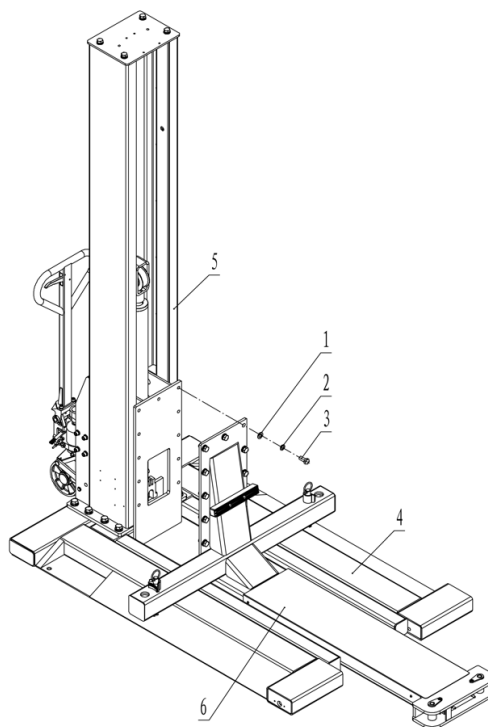
4. Preparation and installation

5. Fit the mobile kit and connecting parts. Drawing: 1 mobile kit, 2 movable part, 3 connecting lever, 4 spacer sleeve, 5 fixing shaft, 6 connecting shaft, 7 Ø16 circlip, 8 steel ball, 9 M12 washer, 10 M12 spring washer, 11 M12×30 screw, 12 Ø5×3 spring pin.

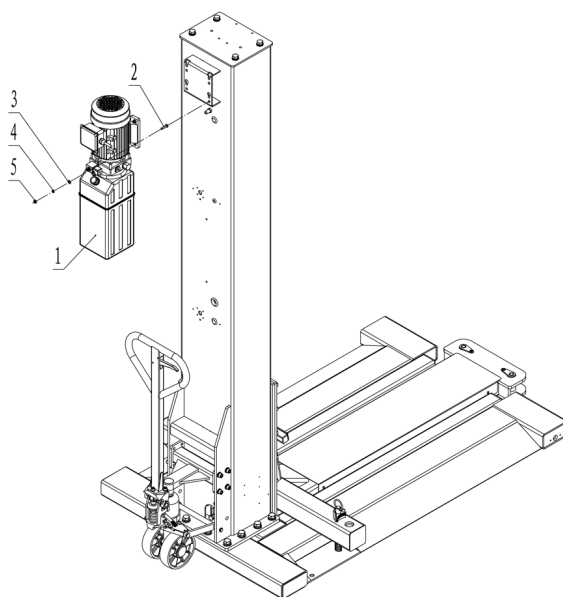


4. Preparation and installation

6. Fit the platform to the carriage. Drawing: 1 M16 washer, 2 M16 spring washer, 3 hex-head screw, 4 base, 5 column, 6 platform. The drawing specifies M16×35 while the accessory list specifies M16×45. Have the supplied screw length and thread engagement checked before assembly; do not substitute arbitrarily.

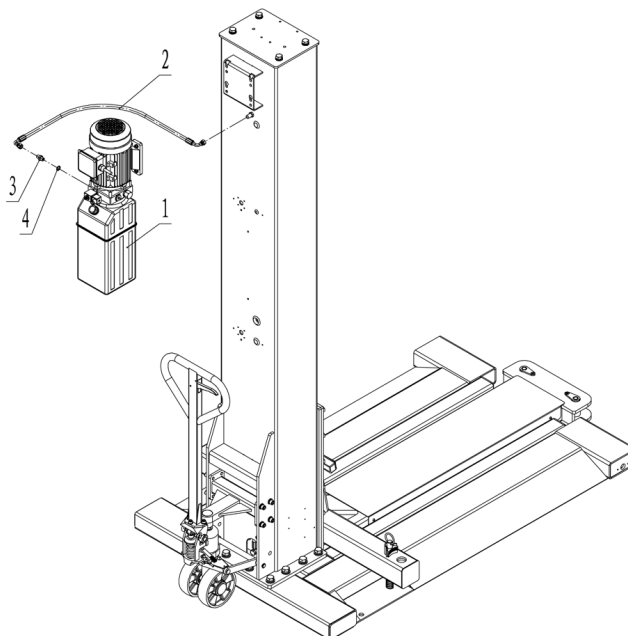


7. Mount the power unit: 1 unit, 2 M8×30 screw, 3 M8 washer, 4 M8 spring washer, 5 M8 nut.

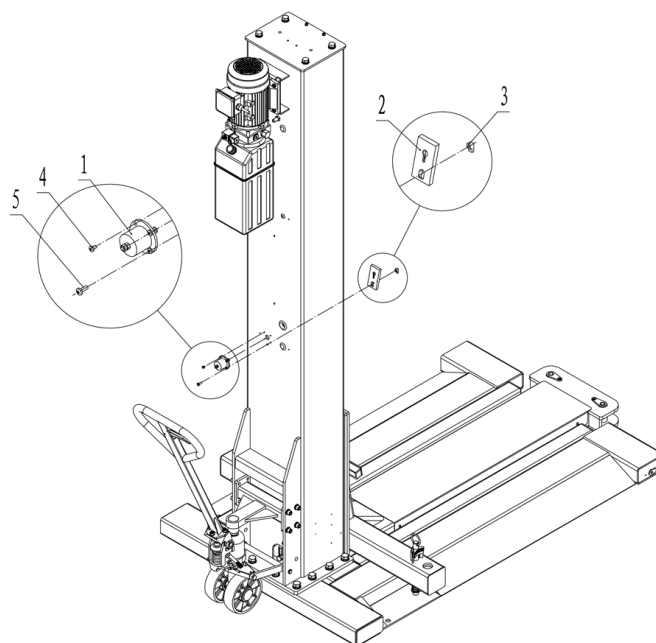


4. Preparation and installation

8. Connect the hydraulic hose. All fittings must be clean: 1 unit, 2 hose L=320, 3 unit fitting, 4 M14 bonded seal. Check for leaks.

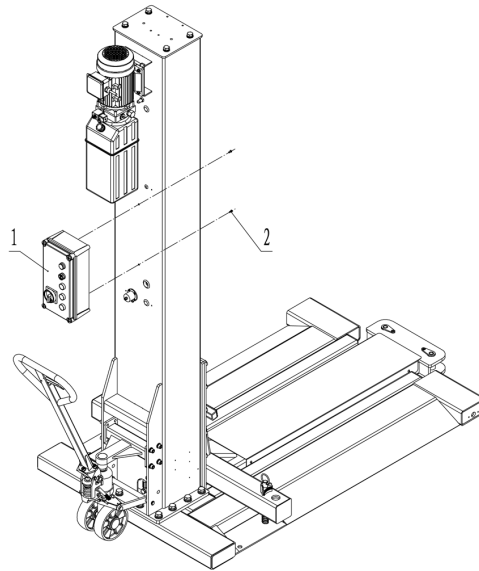


9. Install the safety lock: 1 electromagnet, 2 locking block, 3 fixing plate, 4 M5×8 screw, 5 M6×16 screw. Check free engagement and release.

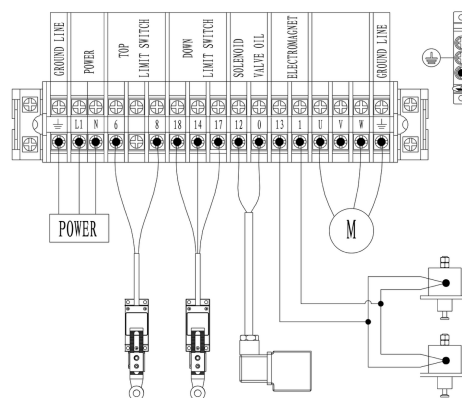


4. Preparation and installation

10. Fit the 24 V control box with M5×12 screws. Only a qualified electrician may connect it, with the supply isolated.

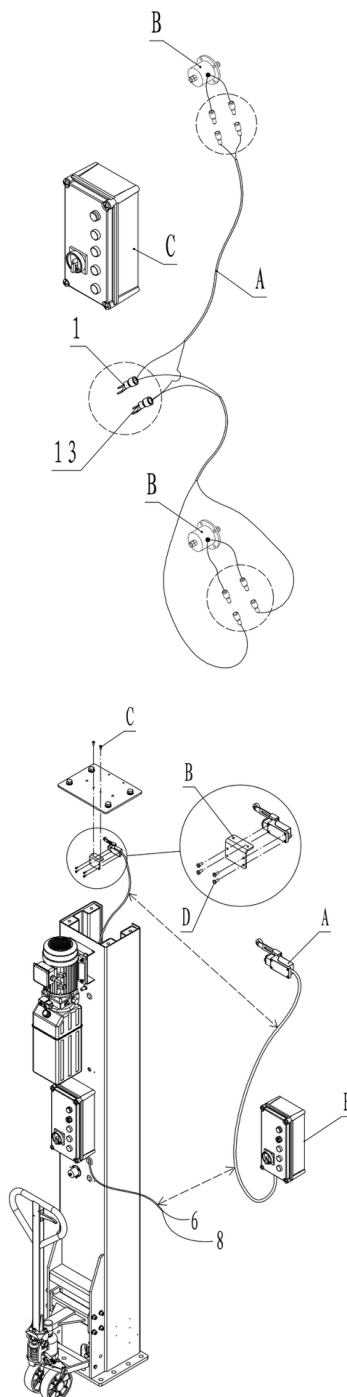


11. Wiring of the confirmed 230 V single-phase version. Original diagrams are marked 220 V. Supply: L1, N, PE; motor: U, W, PE. Electromagnets: terminals 13 and 1; upper limit switch: 6 and 8; lower limit switch: 18, 14 and 17; solenoid valve: 12 and 0. Check the delivered control box markings before connection. The 380 V three-phase variant does not apply. Have earthing, protection, cable size and connection checked to local regulations. Fuse ratings shown in the source diagram are not a general specification for the building supply.

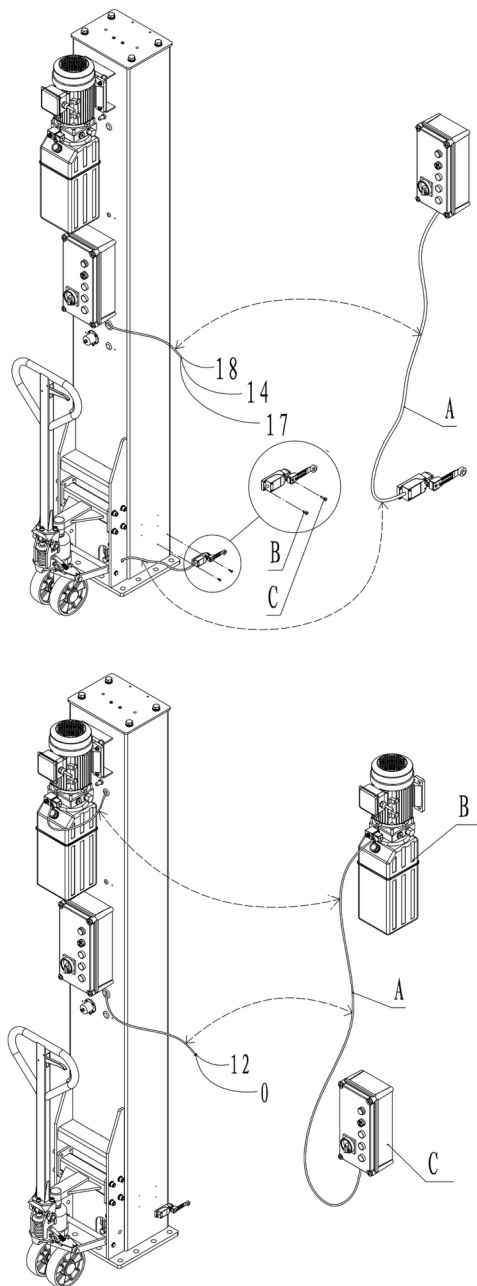


4. Preparation and installation

A cable or limit switch; B electromagnet, bracket or power unit; C control box or fixing screw. Upper limit switch: D M5×12 screw, E control box. Terminal numbers are listed in the text and diagrams.

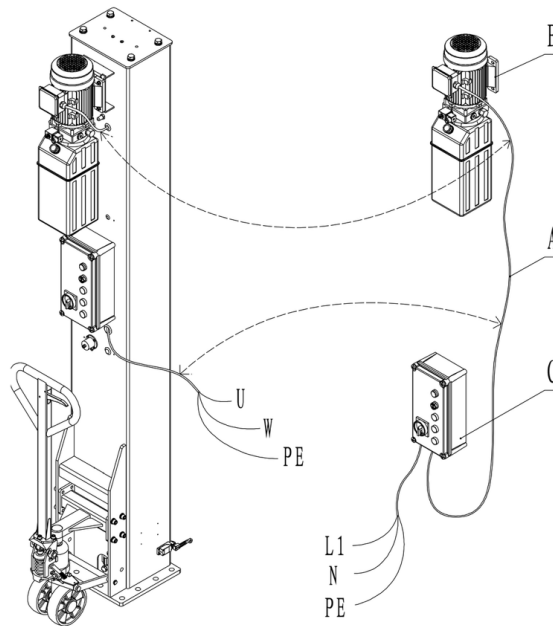


4. Preparation and installation



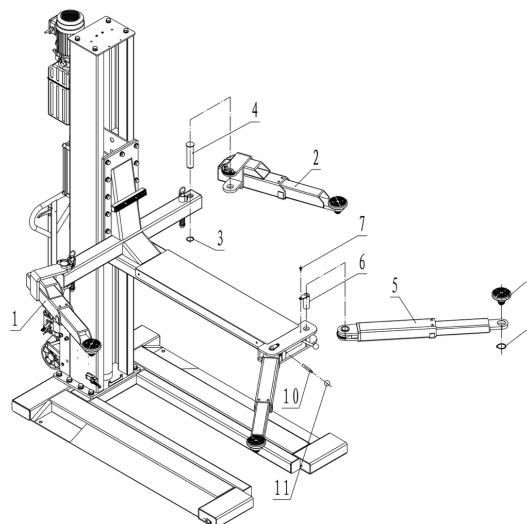
11. Wiring of the confirmed 230 V single-phase version. Original diagrams are marked 220 V. Supply: L1, N, PE; motor: U, W, PE. Electromagnets: terminals 13 and 1; upper limit switch: 6 and 8; lower limit switch: 18, 14 and 17; solenoid valve: 12 and 0. Check the delivered control box markings before connection. The 380 V three-phase variant does not apply. Have earthing, protection, cable size and connection checked to local regulations. Fuse ratings shown in the source diagram are not a general specification for the building supply.

4. Preparation and installation



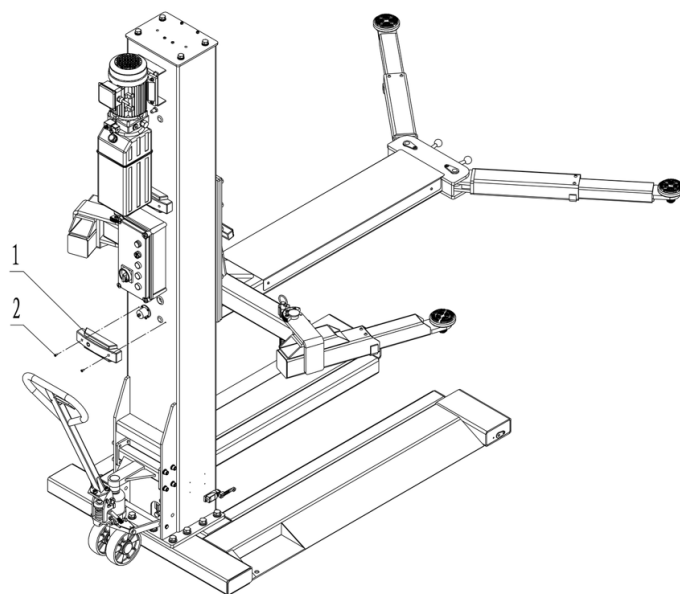
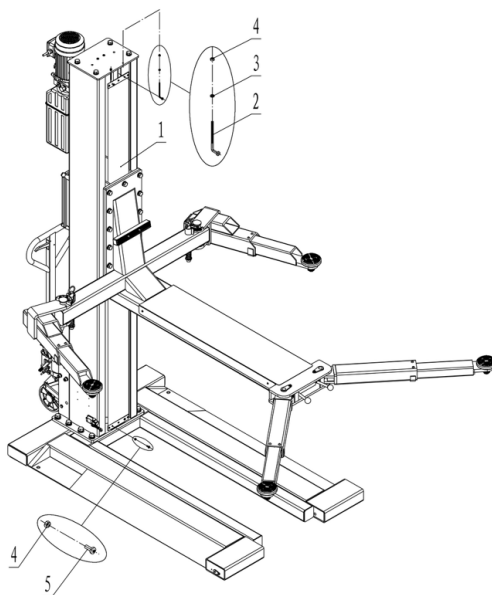
12. Fill hydraulic oil with the lift fully lowered. Use new, clean oil only; do not fill to the brim. The source specifies 10 l total and grade #46, or #20 anti-wear oil below 10 °C. These are not complete product specifications: verify compatibility before selecting oil and do not mix grades indiscriminately. After several unloaded cycles, check the level with the lift lowered and top up as required. First change after six months, then annually; change immediately if contaminated.

13. Fit front and rear arms, pads and release levers. Drawing: 1 rear left, 2 rear right, 3 Ø40 circlip, 4 rear arm shaft, 5 front arms, 6 front arm shaft, 7 M8×16 countersunk screw, 8 three-stage screw pad, 9 Ø50 circlip, 10 release lever, 11 handle ball. Circlips must seat fully in their grooves.



4. Preparation and installation

14. Perform trial operation without a vehicle or load. Check several complete lifting/lowering cycles, oil level, leaks and safety functions. Do not attempt phase swapping on this single-phase machine. 15. Fit the curtain: 1 curtain, 2 hook, 3 M6 washer, 4 M6 nut, 5 M6×16 screw. 16. Fit electromagnet covers with M5×12 screws. Complete the following checklist before release for use.



4.4 Commissioning checklist

#	Check	Result
1	Lifting speed at least 20 mm/s according to source	_____
2	Noise no greater than 75 dB	_____
3	Protective earth checked (source states $\leq 4 \Omega$	_____
4	observe local requirements)	_____
5	Movement stops when buttons are released	_____
6	Upper and lower limit switches operate	_____
7	Protective earth properly connected	_____
8	Smooth raising and lowering	_____
9	No unusual noise under permitted load	_____
10	No hydraulic leaks	_____
11	Screws, nuts and circlips secured	_____
12	1,800 mm working limit observed	_____
13	Rating plate and warning labels legible	_____

Date / inspector / signature: _____

5. Operation



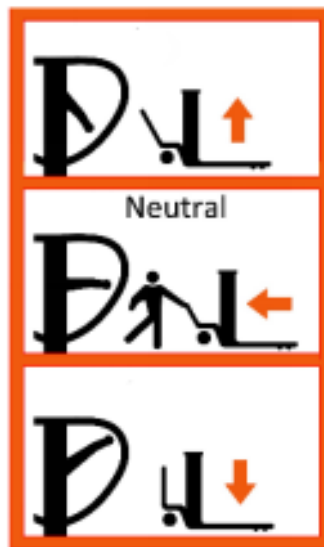
SB1	Raise
SB2	Lock / lower II
SB3	Lower
HL	Power indicator
FA	Lowering beeper
QS	Main switch

Raising: 1 Park on level ground, position the unloaded lift underneath and lower its base onto the floor. 2 Set all four arms to the specified lifting points and centre the load. 3 Switch on and press SB1 gently until the pads contact the vehicle. 4 Lift slightly off the ground; recheck supports, arm locks and stability. 5 Raise to the required height, no more than 1,800 mm. Press SB2 to secure the lift on the mechanical locks. Verify engagement, then switch off against unauthorized operation. Only then work underneath. Never rely solely on hydraulic pressure.

5. Operation

Lowering: clear the work area and the space underneath completely. Switch on or release the emergency stop only after removing its cause. Press SB3: the lift first rises about 50 mm to unload the locks, releases electrically and lowers. It stops at the lower safety switch. Once the foot area is clear, press SB2 to lower the remaining distance; the beeper sounds. Lower fully, swing the arms clear (source: 180°), then remove the vehicle. Stop immediately if the sequence is abnormal.

Moving: only fully lowered and without any vehicle or load. Push the mobile-kit control lever down and pump the pallet-truck handle to raise the base. Put the lever in neutral for rolling. Pull it up to lower the base. Before lifting again, ensure the base is fully supported on the floor. Never use the mobile kit to move a raised or loaded lift.

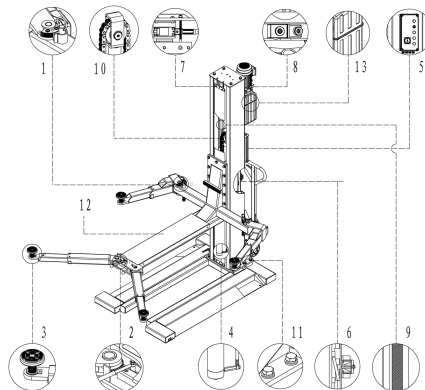


6. Maintenance and troubleshooting

Before maintenance, unload, lower fully and isolate power. Work on hydraulics, electrics or safety locks is restricted to qualified personnel. Securely support any raised component independently. Lubricate with lithium grease, grade #1 according to the source. Shorten intervals under demanding use. Record checks; maintenance does not replace required safety inspections.

Daily before use: check rear arm locks during lifting and lubricate as needed; release front arm locks with their levers and check automatic re-engagement; check pads are clean and undamaged, cylinder and fittings leak-free, all buttons correct, safety locks engage and release, upper limit switch stops travel and lowering valve seals properly. Do not use if faulty; have valves cleaned or replaced professionally.

Every three months: clean and grease carriage/column sliding surfaces; grease and inspect chain and shafts. The source recommends replacing them every three years; replace cracked shafts immediately. Check structural fasteners for secure seating and their specified torque. The generic source value ≥ 80 Nm for "anchor bolts" does not authorize that torque for all bolts or floor anchoring of this mobile lift. Have a qualified person check smooth, stable operation unloaded and with an approved test load. Change oil after the first six months, then annually, immediately if black or contaminated. Dispose of used oil correctly.



6. Maintenance and troubleshooting

Abnormal noise: friction or debris at column/carriage - clean and lubricate. Motor does not run: have wiring, contacts, motor and limit switches checked; replace defective parts. Motor runs but lift does not rise: check oil level, suction line, pump, relief and cushion valves. Do not adjust valves without specified settings. Unintended lowering: inspect cylinder seals, check valve, relief and lowering valves; stop use immediately. Slow lifting: check blocked filter, air in oil, valve setting, hot oil (source >45 °C), worn seals or inadequate lubrication. Slow lowering: check throttle, hose-burst protection, dirty oil or obstructed hose; have cleaned/replaced. The generic source fault table also mentions loose/frayed wire ropes; this lift is chain-driven. Identify the actual assembly before ordering parts; stop using damaged load-bearing components immediately. If unresolved, contact Hammer Tools with fault description and photos. Never repair beneath an unsecured load.

4. Preparation and installation

Assembly accessory inventory

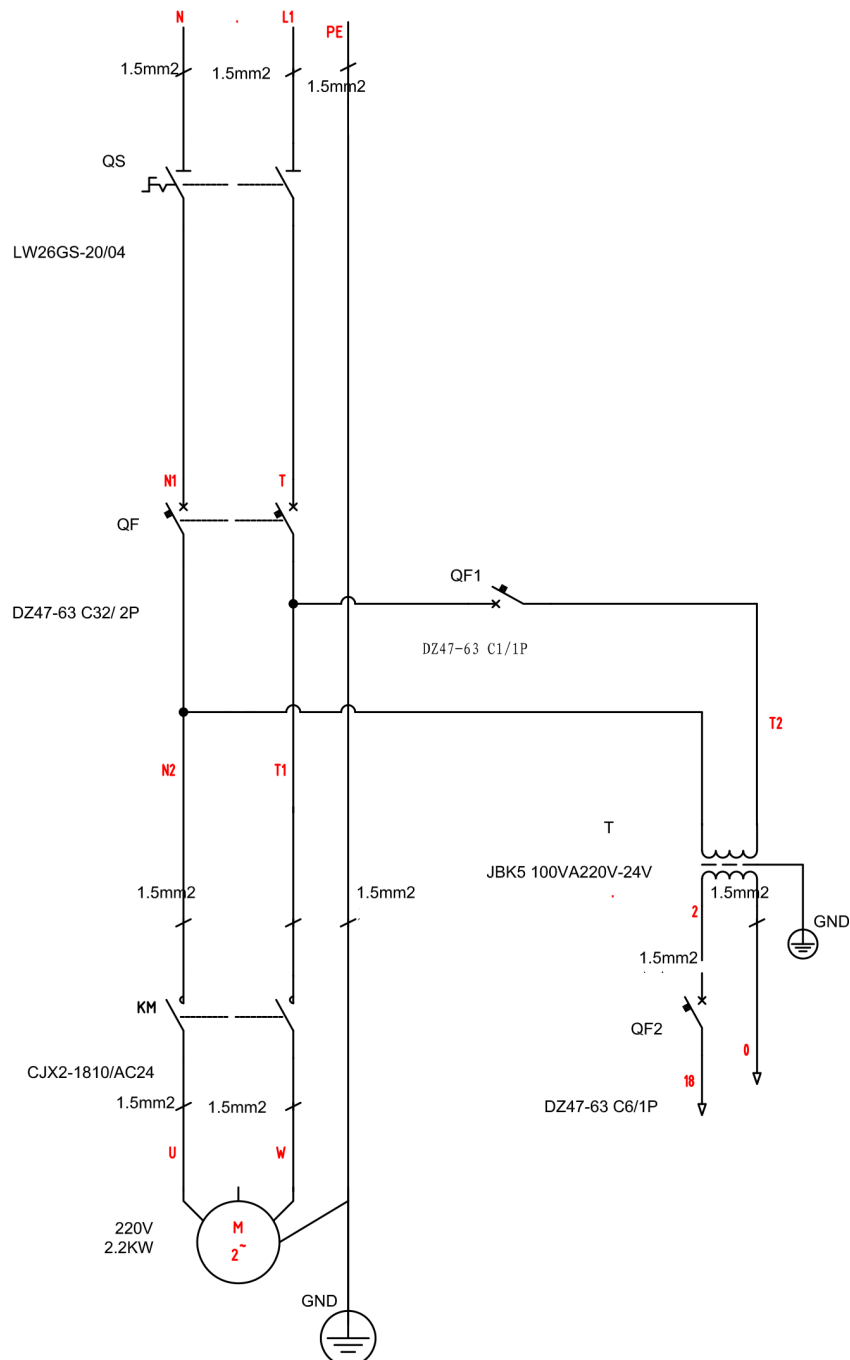
#	Code		mm	#
1	SFB01008L30	Hex-head screw	M8*30	4
2	SFB05A008	Flat washer	M8	4
3	SFB06A008	Spring washer	M8	4
4	SFB07A008	Nut	M8	4
5	SFB04005L12	Phillips screw	M5*12	2
6	SFA150001	Electromagnet	ø60*77	2
7	SFB04005L8	Round-head screw	M5*8	8
8	SFA080024	Locking block	94*50*10	2
9	SFA080025	Lock fixing plate	10*10*20	2
10	SFB04006L16	Phillips screw	M6*16	2
11	SFA120010	Magnet cover	250*85*46	2
12	SFB04005L12	Phillips screw	M5*12	4
13	SFA120057	Curtain	170*2475*5.2	1
14	SFA080019	Curtain hook	M6*102	2
15	SFB07006	Nut	M6	2
16	SFB05006	Flat washer	M6	2
17	SFB04006L16	Phillips screw	M6*16	2
18	SFB07006	Nut	M6	2
19	SF01020023	Limit switch bracket	30*55*70	1
20	SFB04006L16	Phillips screw	M6*16	2

4. Preparation and installation

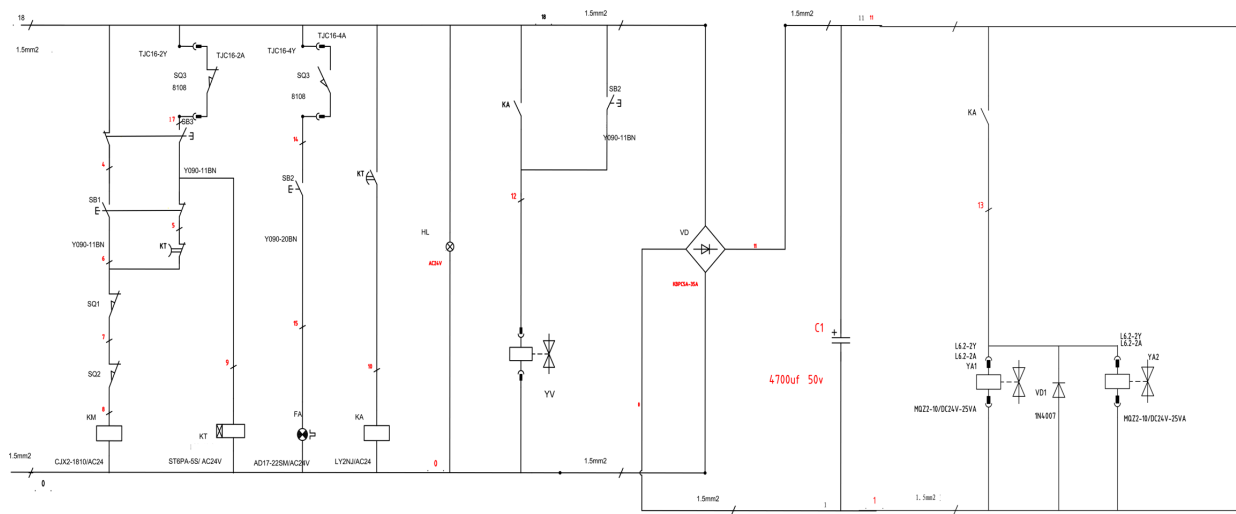
#	Code		mm	#
21	SFA020000D30A	Upper limit switch and cable		1
22	SFB04005L12	Phillips screw	M5*12	4
23	SFB02012L30	Socket-head screw	M12*30	8
24	SFB05012	Flat washer	M12	8
25	SFB06012	Spring washer	M12	8
26	SFB01018L45	Hex-head screw	M18*45 (8.8)	10
27	SFB05018	Flat washer	M18	10
28	SFB06018	Spring washer	M18	10
29	SFA080073	Arm release lever	Ø14*95	2
30	SFA120019	Handle ball	Ø35	2
31	SFB01016L45	Hex-head screw	M16*45 (8.8)	11
32	SFB05016	Flat washer	M16	11
33	SFB06016	Spring washer	M16	11
34	SFA080026	Three-stage screw pad	Ø107*90	4
35	SFB09050	External circlip	Ø50	4
36	SFA050075	Oil hose 320	2-M14*1.5-L=320	1
37		Manual		1
38	SFA020000E13A	Lower limit switch and cable		1
39	SFB04004L12	Phillips screw	M4*12	1
40	SFB04004L25	Phillips screw	M4*25	1

7. Diagrams and spare-part references

Original technical diagrams for qualified personnel. Component references and part codes are retained for identification. The single-phase diagram's 220 V label comes from the source; the supplied version is confirmed as 230 V. Check the rating plate and actual components before intervention. Drawings do not replace electrical commissioning. Hydraulic numbers are explained in the following parts list.

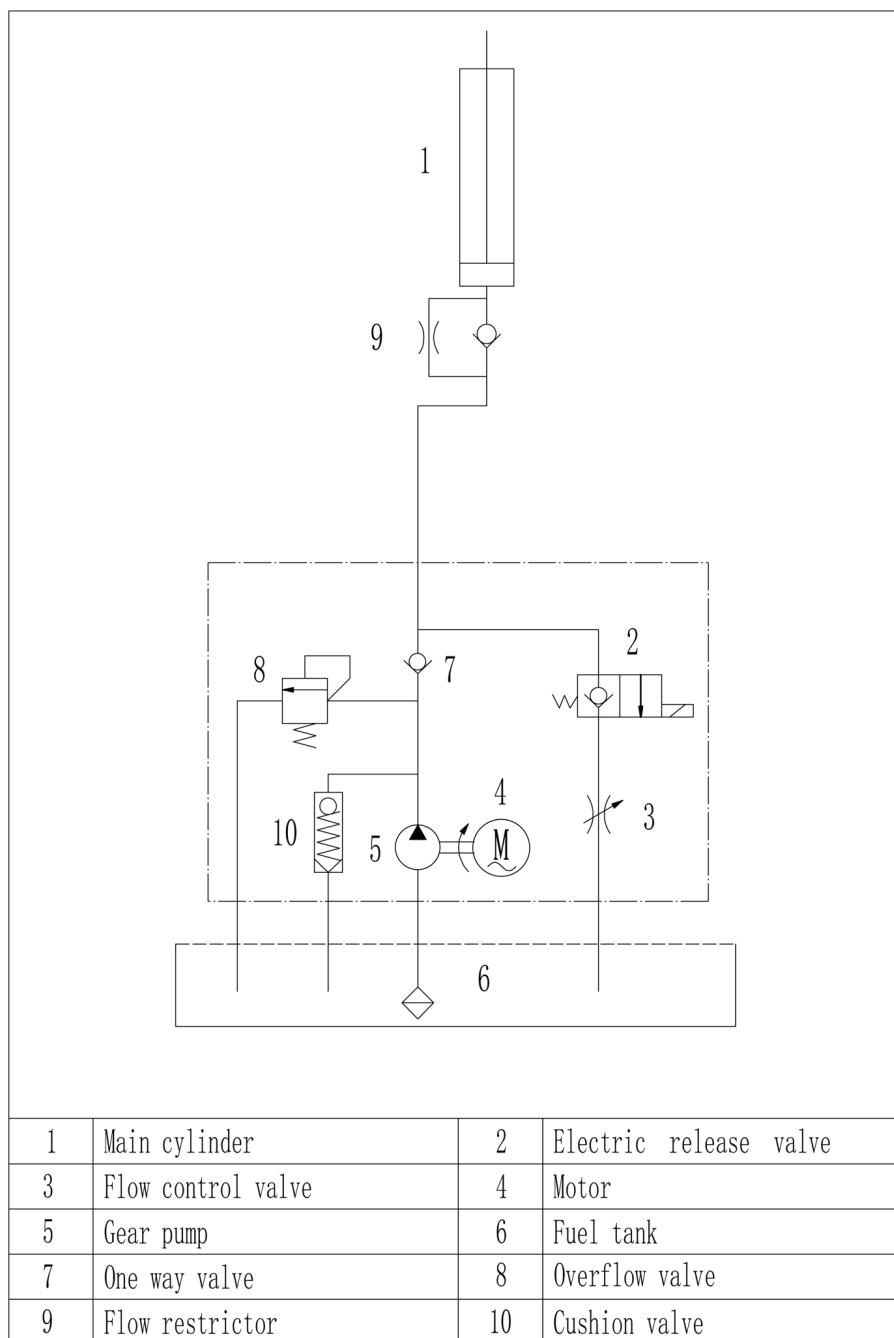


7. Diagrams and spare-part references



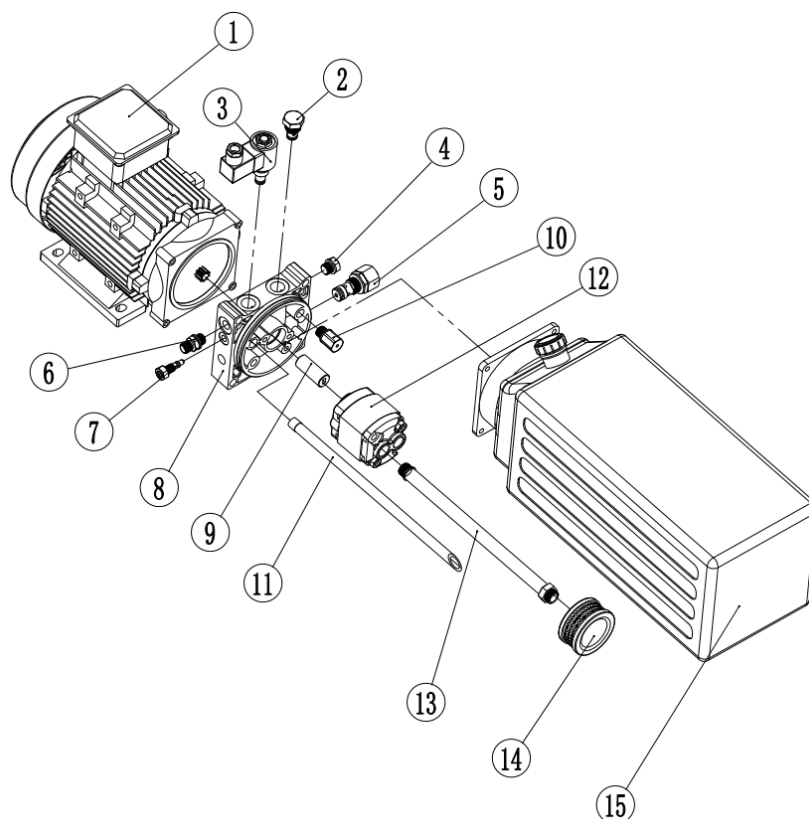
		#
T	Transformer	1
M	Motor	1
SQ1, SQ2	Limit switches	2
QS	Main switch	1
SB1, SB3	Raise/lower buttons	2
SB2	Lock button	1
KA	Relay	1
KT	Time relay	1
QF	Single-phase breaker	1
QF1	Circuit breaker	1
QF2	Circuit breaker	1
KM	Contactor	1
C	Capacitor	1
VD	Bridge rectifier	1
HL	Power light	1
FA	Beeper	1
YA1, YA2	Electromagnets	2

7. Diagrams and spare-part references



Hydraulic diagram: 1 main cylinder; 2 electrical lowering valve; 3 flow-control valve; 4 motor; 5 gear pump; 6 oil tank; 7 check valve; 8 pressure relief valve; 9 restrictor; 10 cushion valve. This diagram's numbering is independent of the exploded parts drawing on the next page.

7. Diagrams and spare-part references



#	Code		#
1	SFI02B-013-DF	Motor	1
2	SFI02C-001-DF	Check valve	1
3	SFI02AC-002-DF	24 V AC solenoid valve	1
4	SFA060036	Plug	1
5	SFI02G0001-DF	Pressure relief valve	1
6	SFA060009	Three-way fitting	1
7	SFI02R0002-DF	Flow-control valve	1
8	SFI02T0003-DF	Valve block	1
9	SFI02H0001-DF	Coupling	1
10	SFI02U-0002-DF	Cushion valve	1
11	SFI02J0001-DF-10L	Return pipe	1
12	SFI02O0001-DF	Gear pump	1
13	SFI02K0001-DF-10L	Suction pipe	1
14	SFI02S0002-DF	Oil filter	1
15	SFI03-SL-DF-10L	Plastic tank	1

Verify the version against the rating plate before ordering parts. Source specifications: tank 10 l; plug M14×1.5; fitting 2-M14×1.5, L=35.5; gear pump CBK-F 2.1F / 2.5F (verify version).