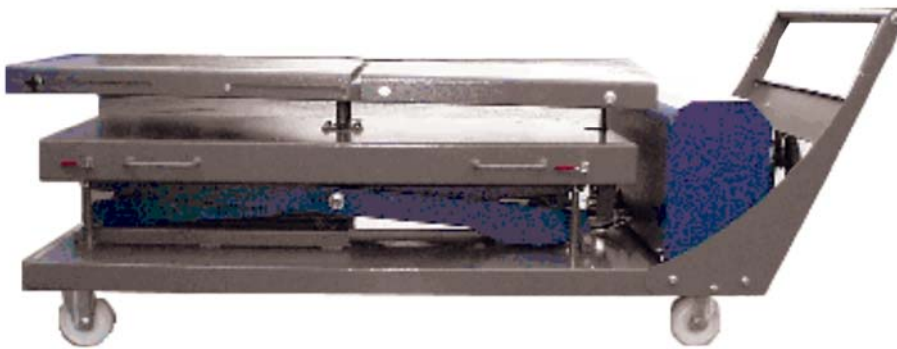


INSTALLATION, MAINTENANCE AND OPERATION MANUAL

VAS 6131

Scissor-based lift table 8805.A



Made in Germany

ZIPPO GmbH

Heinrich-Hertz-Straße 21
77652 Offenburg, Germany

Telephone: +49 (0)7 81-6 01-0 Fax: +49 (0)7 81-6 01-33

CONTENTS

1. General description	2
2. Safety.....	3
2.1 Safety instructions and tips.....	3
2.2 Intended purpose.....	4
2.3 Operator requirements.....	5
2.4 Workspace requirements.....	6
2.5 Location requirements for the lift table.....	7
3. Transport/installation	8
Installation diagram	8
3.2 Technical data	9
3.3 Transport and storage	10
3.4 Assembly	11
3.5 Electrical connection.....	12
3.6 Checklist.....	13
4. Operation.....	14
4.1 Main switch.....	14
4.2 Remote control	15
4.3 Spacer plate with locks	16
4.4 3D platform	16
5. Servicing/maintenance.....	17
5.1 Maintenance schedule.....	19
5.2 Servicing the hydraulic unit.....	20
5.3 Checking the hydraulic unit.....	21
6. Table of malfunctions.....	22
7. Decommissioning and disposal.....	23
8. Circuit diagrams	24
8.1. Hydraulic diagram.....	24
8.2. Electrical circuit diagram.....	27
9. Spare and wear parts for the lift table.....	30
9.1 Parts subject to wear	30
9.2 Vehicle-lift spare parts	30
9.3 Spare parts for the control panel	35
10. Declaration of Conformity	36
11. Confirmation.....	37
12. Warranty Card	38
13. Transport damage.....	39
13.1 Transport damage report.....	40
14. Inspection record	41

1. General description

The portable lift truck has a height-adjustable receiver plate for holding the vehicle engine and/or transmission when removing or installing for repairs.

The lift truck with the scissor-based lift table is even able to lift heavy engines and transmissions weighing up to **1200 kg** individually or as a unit, as well as to securely lift and lower them.

Two receiver plates are mounted on the 3D platform so that the engine and transmission can be repaired separately. The engine plate is fixed (optional special equipment: 90° swiveling plate) and the transmission plate can be moved 300 mm linearly. Once the connection between engine and transmission is released via the horizontal sliding of the transmission plate, the two assemblies are lightly separated from each other. The bore hole pattern enables various vehicles to be mounted without long retrofitting times.

With the portable lift table, the engine and transmission can be repaired at an adjustable working height anywhere in the workshop.

The 3D platform needs to be tilted along its length or width in order to be able to install and remove assemblies on the raised vehicle without problem. The lift platform can be tilted easily and continuously thanks to the receiver plate's centered, ball-and-socket bearing and two joints with double-acting hydraulic cylinders. The hydraulic cylinders can be controlled separately or together. Check valves on both cylinder outputs enable the position of the load to be maintained even when the center of gravity shifts.

The platform has a floating bearing so that it can easily be positioned perpendicularly to the lift truck's direction of motion. It can also easily be pushed by hand or slightly turned and then locked.

The lift unit and the 3D platform can only move separately.

Since the lifting device has a scissored base, great lifting heights are possible even with small assembly lengths and heights.

The lift truck has a portable lower frame with two turning and two fixed wheels (150 mm diameter), providing ideal conditions for moving the lift table with and without a load. The turning wheels have locks to ensure safety when lifting and lowering the load. A push/pull bar is attached to the front of the scissor-based lift table so that it can easily and safely be moved from one place to another.

2. Safety

2.1 Safety instructions and tips

The lift table is equipped with protective devices. It was subjected to a safety check, which it passed.

But if it is operated improperly or misused, hazards can still arise for:

- the operator
- the machine and other property
- the machine's efficient functioning

All individuals involved in the installation, commissioning, operation, servicing and maintenance of the machine must:

- possess the necessary qualifications
- carefully observe this manual

It's about your safety!

This manual uses the following symbols!



Hazard!

Indicates an imminent hazard to life and limb.

Failure to heed these warnings can lead to serious injury — or even death — to yourself and others!



Caution

Indicates a potential hazard to the machine and other systems.

Failure to heed these warnings can lead to the damage or destruction of the machine or other systems.

These hazards can themselves often lead to hazards to life and limb.

Important: Indicates operating tips and other useful information that does not pertain to imminent hazards for people or machines.

2.2 Intended purpose

The Zippo lift table was designed exclusively for lifting and lowering loads to a different level.

Loads heavier than the specified bearing capacity may not be lifted or lowered, since that would destroy the lift table. The lift table may not be used for bracing loads.

Attachments or supplements, such as chain conveyors and roller guides, may only be installed with the approval of the manufacturer of the lifting equipment. This point should be clarified during the project's technical planning.



Hazard!

Never stand or remain under the platform!

If you do, you could be crushed or cut by parts moving under the platform, resulting in serious injury or death!

Riding on the platform is prohibited. Falling from the platform can lead to serious injury or death.



Caution

Do not make any unauthorized structural or other modifications to the machine! Doing so could damage or destroy the machine.

Important: Strictly observe the operating, service and maintenance conditions prescribed in this manual in order to preclude hazards for people and the machine as much as possible.

2.3 Operator requirements

Only authorized individuals may work on the lift table. The operator must be at least 18 years old.

The operator is responsible for other persons in the workspace.

The responsibilities for various machine activities must be clearly defined and observed. Unclear levels of authority present a safety risk.

The owner must:

- give the operating manual to the operator
- ensure that the operator has read and understood the operating manual

Important: Hook up the machine to a lockable switch to prevent unauthorized operation.

Personal protective gear

For operation:

- Wear safety boots

Important: Foot protection corresponds to VBG 14 (German administrative trade association), which does not preclude all conceivable injury risks but only those that experience shows to be probable. The operator must understand that he may only actuate the lifting/lowering switch when nobody is in the lift table's hazard area.

For cleaning:

- Wear protective gloves

2.4 Workspace requirements

- The operator must stand where he can always see the lift table and its hazard area.
- The operator's workspace may not include any parts of the hazard area. Do not climb onto the platform!

2.5 Location requirements for the lift table

- The lift table must be placed on even, solid ground.
- The load-bearing capacity of the ground must suffice for both the lift table and the lift table's maximum lifting load.
- There must be access to a power supply that corresponds to the requirements of the scissor-based lift table (see Chapter 3, "Transport/installation", Section 3.5, "Electrical connection").

Important: The power cables for the machine should be laid in such a way that access is clear and damage is precluded.

- The lighting at the lift table's location must be sufficient to guarantee safe operation.



Caution

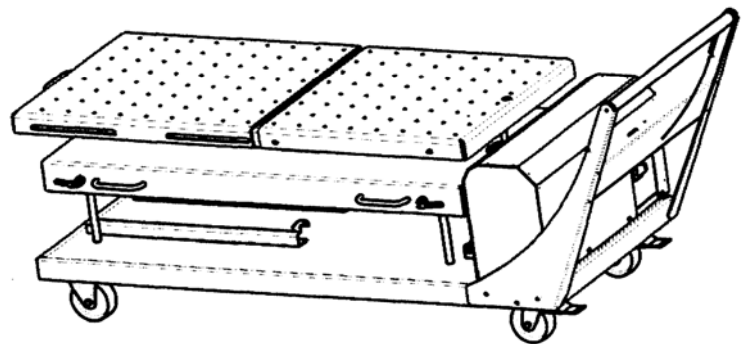
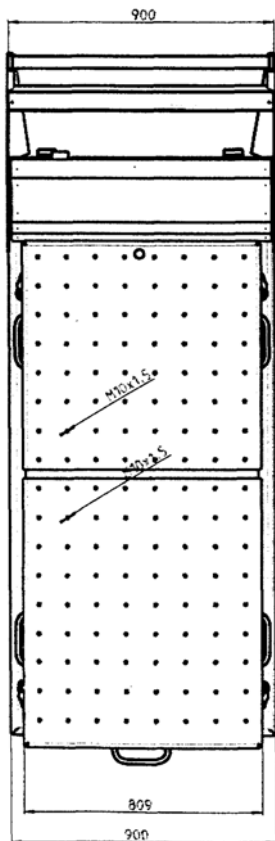
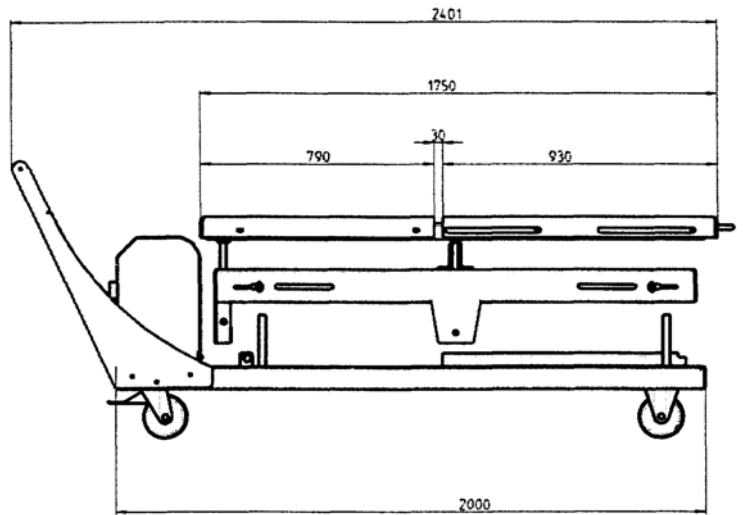
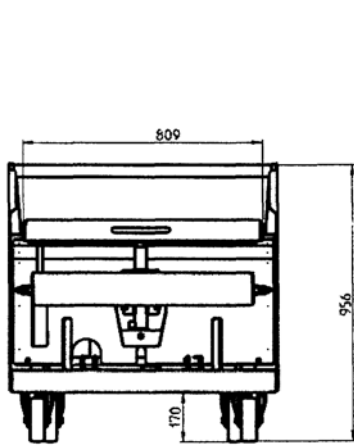
Other systems or machine parts may not lead to any crushing/cutting danger at the lift table or disable any of the lift table's protective devices.

- There needs to be free space all the way around the lift table in order to permit safe operation and necessary maintenance tasks.
- The lighting height must suffice for the completely extended lift table, including the load it is lifting.

Important: Provide instructions and implement checks to ensure that the vicinity of the machine is always clean and tidy.

3. Transport/installation

3.1 Installation diagram



Dimensions [mm]

Installation, Maintenance and Operation Manual

3. Transport/installation

3.2 Technical data

Load-bearing capacity (kg):.....	1200
Size of receiver platform, length x width (mm):	1740 (2040) x 808
Receiver platform consists of:	
Engine plate (LxW) mm.....	790 x 808
Transmission platform (LxW) mm...930 x 808, 300 mm linear movement possible	
Engine and gearbox platform with 100 mm bore hole pattern M10	
3D platform: width tilt: max 100 mm, length tilt: max 100 mm	
Floating plate:.....	slides ± 20 mm
Lower frame: portable, with push/pull bar, L x W (mm)	~ 1910 x 900
Floor space: 150mm, turning wheels with lock: \varnothing 150 mm, fixed wheels: . \varnothing 150 mm	
Total length (mm):	2380
Height (mm):.....	963
Platform base height (mm):	750
Effective lift (mm):.....	1055
Lifting speed, quick lift (mm/s).....	~ 45
Lifting speed, fine lift (mm/s).....	~ 11
Supply voltage (Volt):	208-230, 1 Phase, (AC), L1/N/PE
Rated current (Ampere).....	12
Frequency (Hz):.....	60
Control voltage (Volt):.....	24 DC
Valve voltage (Volt):	24 DC
Total connection power (kW):.....	~ 1.6
Type of protection IP:	54
Own weight (kg):	800
Max. operating pressure (bar):	220
Hydraulic oil:.....	HLP-46
Fill volume (liter):	5

3.3 Transport and storage

The machine must be transported and stored in the manufacturer's original packaging. The packaging consists of a EURO pallet, two squared boards, two fastening strips, and box pieces to protect the edges under the squared boards. The two squared boards are positioned between the palette and the lift table frame so that the lift table's wheels do not touch the ground. The squared boards are nailed to the pallet. The fastening strips loop around lift table and pallet, preventing the lift table from sliding while on the pallet. When securely attached to the pallet, the lift table can easily be loaded to or unloaded from a truck, as well as transported small distances, with a forklift. The lift table may therefore only be transported as described above. Avoid any load or mechanical strain caused by external objects or impermissible jolting (dropping or carelessly placing onto the ground). When the lift table is moved on its own wheels, it may only be pushed or pulled with the bar provided.

Check the parts for transport damages when unpacking them. Obviously damaged parts may not be installed. In such an event, immediately inform the shipper and the insurance carrier.

If you do not assemble the device immediately, store it in a dry, dust-free room. Protect the device against mechanical damage — especially falling objects.

The lifting mechanism may not be sprayed with water or cleaning vapor.

When returning the device to Zippo for maintenance or repair, provide the factory with notification and machine data. Also describe the operating problems or the desired maintenance tasks.

Installation, Maintenance and Operation Manual

3. Transport/installation

3.4 Assembly

- Drive the packaged scissor-based lift table to the assembly location with a forklift. If the necessary access is provided, the lift table can be unpacked at a suitable location and rolled on its own wheels to its assembly location. Make sure to move the lift table only by its push/pull bar.

Caution! To prevent damage during transport, the pre-assembled push bar has been stowed for delivery between the upper 3D platform and the middle spacer plate, and secured to prevent it from moving.

- Check the dimensions of the assembly location.



Hazard!

When unpacking, keep in mind that the fastening strips were secured under considerable tension. When they are cut, their ends fly out in opposite directions. Take corresponding precautionary measures!

- Grasp the lift table directly under the frame with wheels and lift it from the pallet.
- Remove the securing device and carefully take out the push bar. Attach it to the frame of the lift table using the attachment accessories provided. (For more information, see the "Push bar attachment" supplementary sheet)
- Have the electrical cable connected by qualified personnel.
- Fill the oil tank with hydraulic oil and check the oil level
- Briefly press the "SPEED+RAISE" buttons. If the lift table rises, then the operating voltage has the correct rotating field. The motor's direction of rotation is indicated by an arrow on the housing. If the rotation is not correct, have qualified personnel change the supplied operating voltage.

To do this, pull the plug of the connection cable between the lift table and a wall socket out of the wall socket and observe the reverse of the rotation direction in the electric circuit diagram.

- Press the "SPEED+RAISE" buttons to extend the lift platform.



Hazard!

Do not step under the extended lift platform!

3.5 Electrical connection

The power must be supplied via a lockable main switch with safety mechanisms. This main switch should be located near the lift table.

Supply voltage: 208 – 230 Volt AC, 1 Phase, L1,N,PE

The single phase must imperatively be protected with a 20 Ampere slo-blo fuse by the owner.



Hazard!

Only trained, authorized personnel may connect the device, and only in compliance with VDE and local safety regulations.

Installation, Maintenance and Operation Manual

3. Transport/installation

3.6 Checklist

Check through the following points once the lift table is delivered and assembled:

Activity	Checked	OK
Check machine completeness acc. to packing list		
Visually check for transport and other damage (immediate damage report)		
Check oil level of hydraulic unit (if delivered with filled hydraulic unit)		
Perform safety check		
Perform trial run (see Section 2.4)		
Make operating manual accessible to everyone near machine		
Instruct qualified personnel for maintenance and troubleshooting		
Select individual for safety check		
Instruct operating staff		

4. Operation

Have you read and understood Chapter 1, "Safety"?
If not, you may not operate the machine!

You as operator must be convinced, before each operation, that all relevant safety regulations are being observed and that safe operation can be ensured.



Hazard!

Make sure that

- there is nobody underneath the platform
- there are no potentially crushing or cutting objects in the lifting area

Danger to life and limb!

The lift table works with moving platforms jointed to the base frame. A person who ends up under a platform can be killed.

To move the lift table, push it manually using the push bar with the load platform set to the lowest lift-position.

After moving it, and when you want to lift, lower or tilt the load platform, apply the brakes on the rear turning wheels.

Make sure that the parking brakes on the lift table are locked in position to preclude the scissor-based lift table from rolling.

4.1 Main switch

Turn on main switch before setting into operation.

During work at the raised engine gearbox unit, the main switch must be at **O**.

The main switch can be padlocked to secure against unauthorized operation of the scissor-based lift table.

When performing maintenance tasks, the scissor-based lift table can also be padlocked to secure against unintended activation.

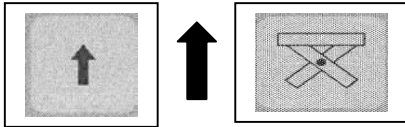


If you need to perform arc welding work on the lift table or an engine block that has been lifted, always set the main switch to **O**!

4.2 Remote control

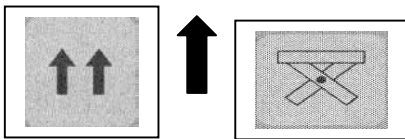
The buttons on the remote control have the following functions:

speed

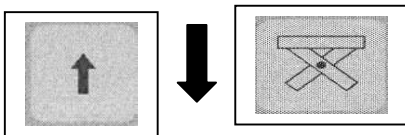


Lift the lift table

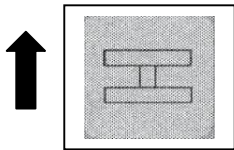
rapid speed



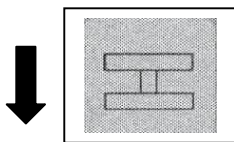
Quickly lift the lift table



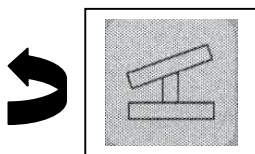
Lower the lift table



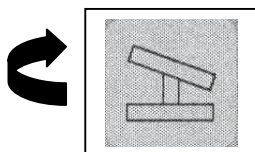
Lift the head end of the 3D platform



Lower the head end of the 3D platform



Lift the side of the 3D platform



Lower the side of the 3D platform

4.3 Spacer plate with locks

For fine adjustments, release the locks to move the spacer plate on the lift platform.

4.4 3D platform

You can use the remote control to tilt the 3D platform in every direction.

Slide platform

You can use the slide platform to increase the area of the 3D platform.

Important: The load on the 3D platform must be evenly distributed.

5. Servicing/maintenance



Hazard!

During adjustment and maintenance, there is a risk of injury from moving machine parts. Therefore:

- Have adjustment and maintenance tasks performed only by qualified personnel
- If maintenance tasks are to be performed on the extended platform, securely attach supporting blocks to the upper frame
- Isolate the scissor-based lift table from the power supply before adjustment and maintenance
- Make sure that no one else can re-establish the power supply and start the lift table
- Make sure to depressurize the hydraulic system before working on it

Before all maintenance and cleaning tasks, make sure to set supporting blocks in place, and interrupt the power supply / pull the plug or switch off the fuse.

Support blocks keep the platform from dropping during repair and maintenance tasks.

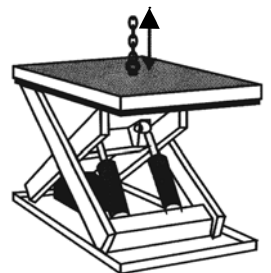
Never remove safety devices or disable them via modifications to the machine.

CAUTION! *During repair work, it may be necessary to pull the lift table into the upper limit position using another hoist (e.g. chain hoist, forklift). When doing so, always make sure that the lift table is only lowered using this hoist!*



Danger !

Otherwise the lift table can fall into its bottom limit position at high speed (crash) and fatally injure the service technician.



Protective devices

- A sound transformer tones a warning signal during the entire lowering procedure
- Place signs to warn of hazards
- An electrically releasable check valve with integrated lowering throttle is located on the cylinder floor

The protective devices

- are installed for the safety of the operators
- may under no circumstances be modified, removed, or bypassed via modifications to the machine!



Hazard!

Danger of combustion and poisoning!

The lifting mechanism works hydraulically. The hydraulic oil is under significant pressure and can spray out if parts are damaged.

Installation, Maintenance and Operation Manual

5. Servicing/maintenance

5.1 Maintenance schedule

Activity	When?	Who?
Clean	Weekly	Operator
Check the hydraulic hoses	Weekly	Operator
Check the hydraulic system for leaks	Weekly	Operator
Check the oil level, fill if necessary	Weekly	Operator
Clean and lubricate the wheel surfaces	Weekly	Operator
Check bearings for wear	Annually	Technician
Change the hydraulic oil	Annually	Technician
Check the filter (on the hydraulic unit)	Annually	Technician
Change the hydraulic hoses	Every 6 years	Technician
Check the lifting mechanism acc. to EN 1570 (formerly UVV VBG 14 [German accident-prevention guideline])	Annually	Technician

5.2 Servicing the hydraulic unit



Hazard!

Hydraulic oil can cause skin rashes and other health problems. Avoid prolonged contact. Wash thoroughly after every contact.

Protect the environment:

The handling and disposal of mineral oils are subject to legal regulation. Bring used oil to an authorized receiving station. Contact your local environmental-regulation or industrial-inspection agency for details.

Do not spill any hydraulic oil!

Make sure to collect any spilled oil (use oil-tight tarpaulins or vats).

The hydraulic unit is nearly maintenance-free:

- The operator should weekly check the:
 - oil level
 - screw connections, flanges, valves, cylinders
- If there is too little hydraulic oil in the system, the operator should refill with HLP 46 oil.
- If there are any other damages, have a technician repair them immediately.

5.3 Checking the hydraulic unit

A technician must check the hydraulic unit once every year.

The following checks/tasks need to be performed:

- Change the hydraulic oil (HLP46)

- Check the hydraulic hoses for

exterior damage

deformation when there is no pressure

deformation at operating pressure

leaks in the hose or at the connection

CAUTION! Replace hydraulic hoses every 6 years.

- Immediately eliminate any defects found

6. Table of malfunctions

Malfunction	Causes	Remedy	By
Lift does not rise	Lift overloaded (pressure control valve in effect)	Reduce load	Operator
	Power supply interrupt, motor does not run	Check electrical system	Technician
	Solenoid valve leaking	Clean valve	Technician
Lift does not remain at set level	Leakage in hydraulic system	Tighten screws, seal	Technician
	Dirty oil	Change oil	Technician
	Solenoid valve leaking	Clean system	Technician
Lift rises in jolts	Bearings stuck	Lubricate	Operator
	Foreign bodies in machine's range of motion	Remove	Operator
	Air in cylinder	Evacuate	Technician
Lift does not lower	Solenoid valve defective	Exchange solenoid valve	Technician
	Foreign bodies in machine's range of motion	Remove	Operator
	Power supply interrupted, electrical malfunction	Check electrical system	Technician

7. Decommissioning and disposal



Caution

Have a certified disposal company dispose of the machine in order to minimize environmental harm.

8. Circuit diagrams

8.1. Hydraulic diagram



Installation, Maintenance and Operation Manual

8 Circuit diagrams

0; type of construction B14; protection
Class IP54

0 bar

tory at 230 bar

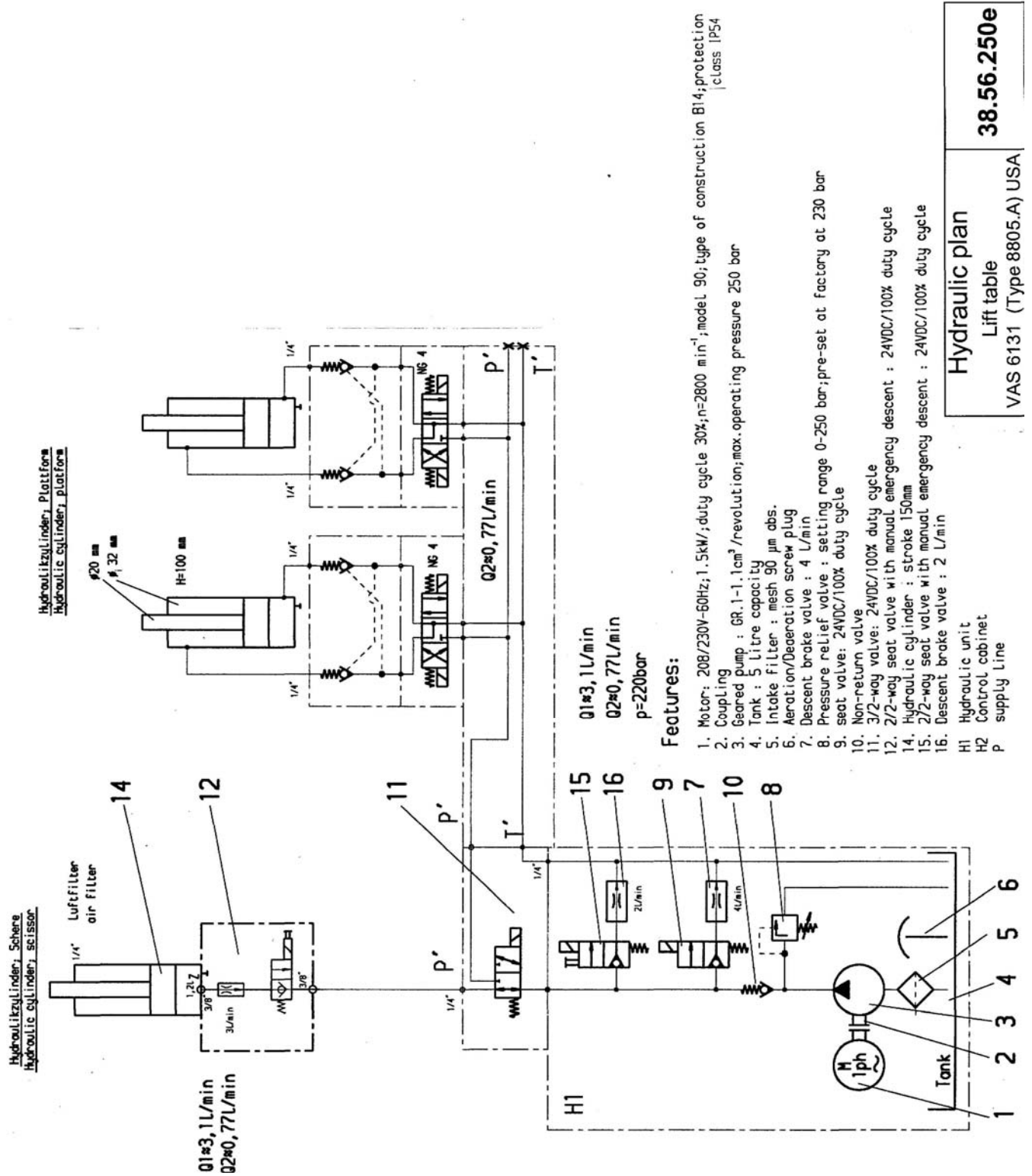
duty cycle

duty cycle

plan	38.56.250e
le	
8805.A) USA	

Installation, Maintenance and Operation Manual

8 Circuit diagrams



8.2. Electrical circuit diagram

Installation, Maintenance and Operation Manual

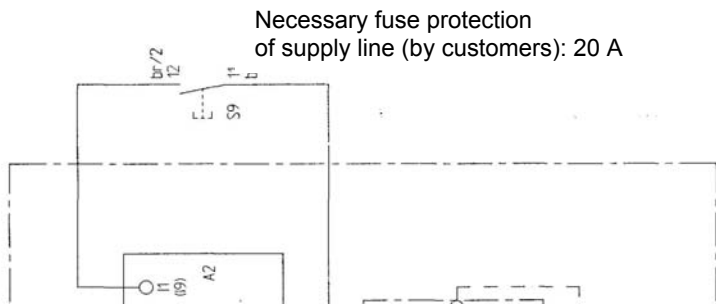
8 Circuit diagram

- S1** Scissor „up“
- S2** Scissor „down“
- S3** Swivel plifforme „up“
- S4** Swivel plifforme „down“
- S5** Swivel plifforme „left“
- S6** Swivel plifforme „right“
- S7** Rapid
- S8** Slow
- S9** Upper limit

- | | | |
|------------|---|-------------------------------|
| A1 | Siemens LOGO 6ED1 052-2MD00-0BA3 | Series-parallel-series memory |
| A2 | Zusatzmodul 6ED1 055-1MB00-0BA1 | Addition module |
| A4 | Steuerkonsole | Removable remote control unit |
| H1 | Schallwandler MEB07SA24AW | Sound transformer |
| K1M | Schütz 3TG1010-0BB4 24V DC | Contacteur |
| M | Motor 208V | Electromotor |
| Q1 | Schalter KG10A T202 / 04E | Main switch |
| T1 | Netzteil 76013B | Power pack |
| X1 | Flanschgerätestecker Twistlock NEMA L6-20P F1 | Plug |
| X2 | D-SUB Buchse 9-pol. | Socket... |

- S1 Große Schere
- S2 Große Schere
- S3 Schwenkplatte
- S4 Schwenkplatte
- S5 Schwenkplatte
- S6 Schwenkplatte
- S7 Schnell
- S8 Langsam
- S9 Obere Endlage

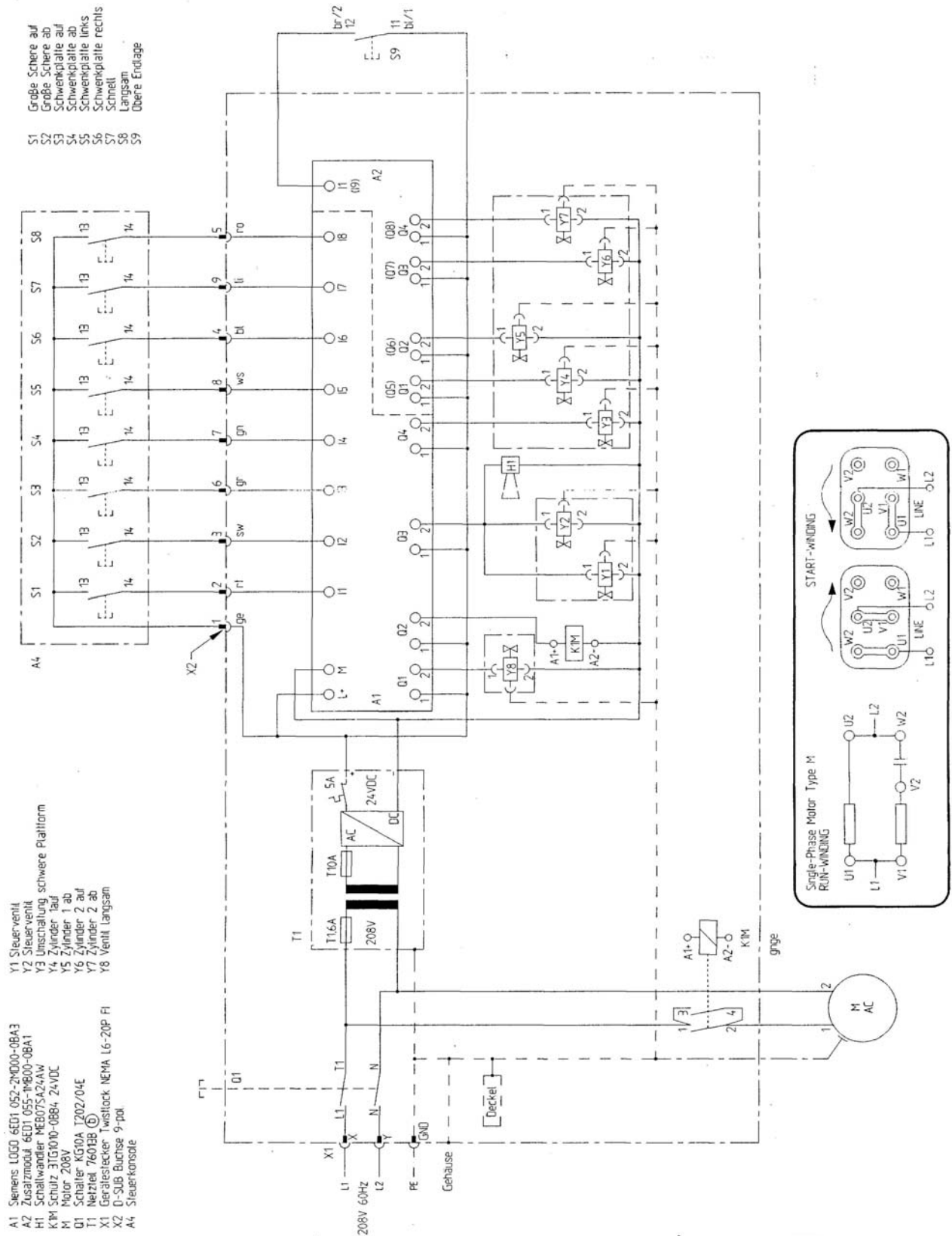
- | | | |
|-----------|------------------------------|---------------------------------|
| Y1 | Steuerventil | Control valve |
| Y2 | Steuerventil | Control valve |
| Y3 | Umschaltung Schere/Plattform | Changing over scissor/plifforme |
| Y4 | Zylinder 1 auf | Cylinder N°1 „up“ |
| Y5 | Zylinder 1 ab | Cylinder N°1 „down“ |
| Y6 | Zylinder 2 auf | Cylinder N°2 „up“ |
| Y7 | Zylinder 2 ab | Cylinder N°2 „down“ |
| Y8 | Ventil langsam | Valve slow |



Necessary fuse protection
of supply line (by customers): 20 A

Installation, Maintenance and Operation Manual

8 Circuit diagrams



9. Spare and wear parts for the lift table

9.1 Parts subject to wear

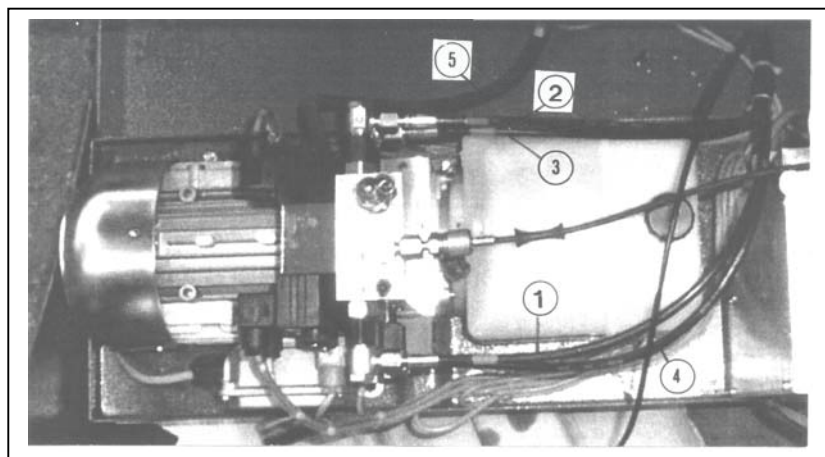
Item	Qty.	Description	Order no.
	2	Turning wheel	66.75.150
	2	Fixed wheel	66.75.155

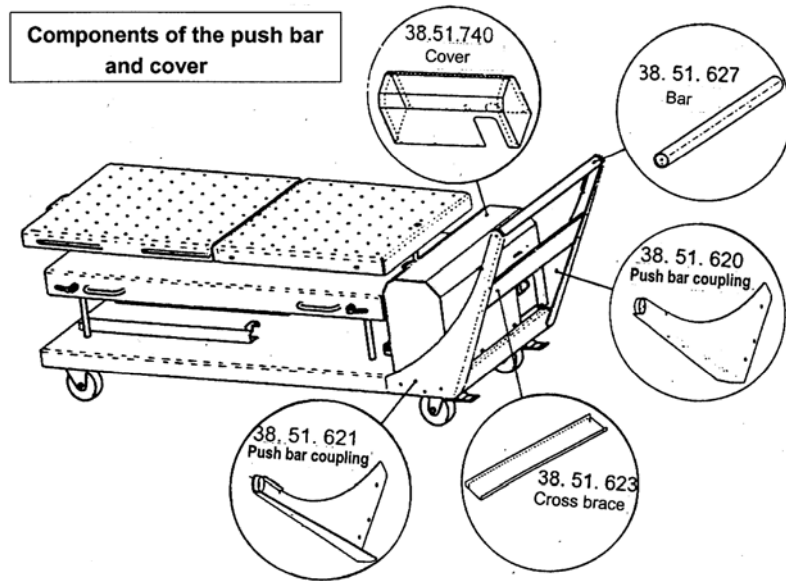
9.2 Vehicle-lift spare parts

Item	Qty.	Description	Order no.
	2	Center-axle bolts	38.51.519-38.51.095
	4	Glycodur bush	66.25.097
	1	Ball socket, complete	66.85.100
	1	Welded ball head	38.51.717
	4	Wheels, Dm 52-25 lg.	38.31.189
	4	Glycodur bush	66.25.087
	2	Bolts for 3D cylinder	38.51.734
	2	Double-acting hydraulic cylinder, 32/20x315 (3D cyl.)	64.60.308
	1	Cylinder bolts, top	38.51.086.1
	1	Cylinder bolts, bottom	38.51.543
	1	Pressure cylinder	38.31.570
	1	2/2-way seat valve	38.56.410
	4	Pushing-bar clamp	98.26.010
	1	Circular level	98.35.100

Hydraulic hoses for the lift table

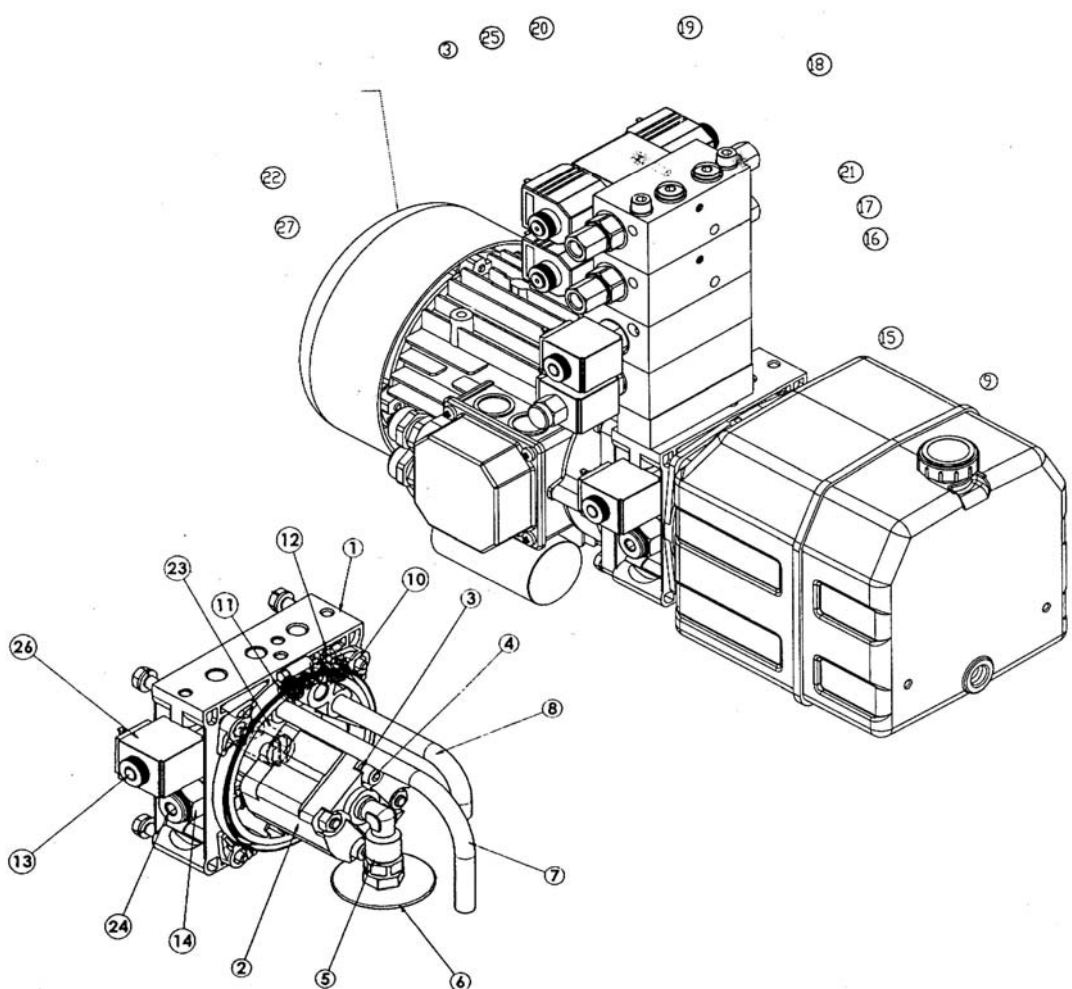
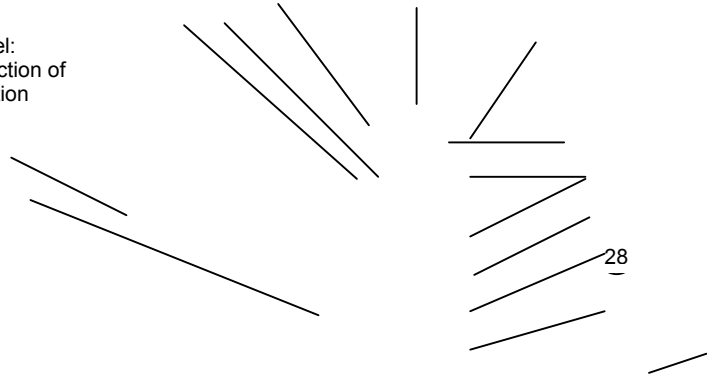
Item	Art. no.	Identification	Connections	Color	Attached to	Cylinder position
1	63.10.076	DN4 2340 Lg	1x/ 1x [~]	Gray	DA cyl., top	3D platform, front
2	63.10.081	DN4 2510 Lg	1x-/ 1x [~]	Red	DA cyl., bottom	
3	63.10.086	DN4 3170 Lg	1x/ 1x [~]	Blue	DA cyl., bottom	3D platform, side
4	63.10.091	DN4 3330 Lg	2x-	Black	DA cyl., top	
5	63.10.095	DN6 900 Lg	M14x1.5/M18x1.5	None	Pressure cylinder	Scissor base

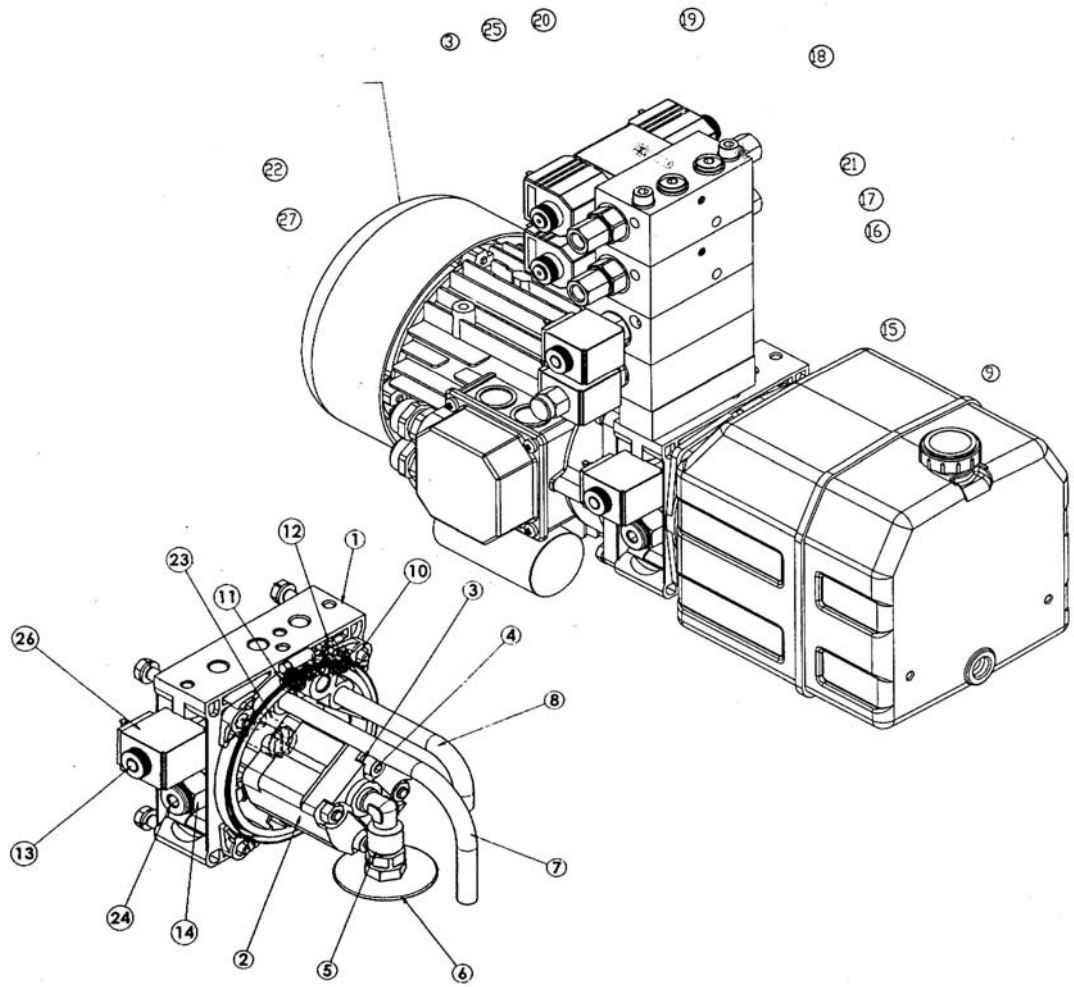




Spare parts for the hydraulic unit 38.56.036

Label:
Direction of
rotation



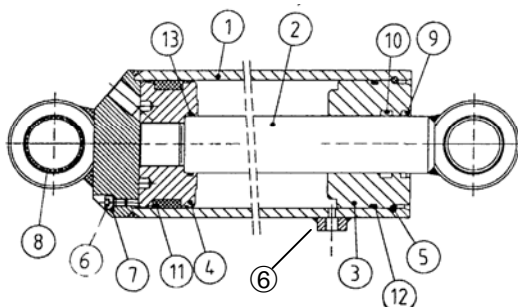


Spare parts for the hydraulic unit 38.56.036

Item	Qty.	Description	Order no.
1	1	CENTRAL MANIFOLD KE2000 MO4.Z complete	64.08.017
1.1	1	CENTRAL MANIFOLD IN ALUMINIUM	64.08.021
1.2	1	RELIEF VALVE VMP 15 (adjustable 80-250 bar)	64.25.186
1.3	1	CHECK VALVE 3/8"	64.35.260
2	1	GEAR PUMP, PRESSURE-COMPENSATED 1.1 cc/revolution	64.05.219
3	4	WASHER GROWER diam. 8,4 UNI 1751	64.08.653
4	2	SCREW M8x75 UNI 5931	64.08.586
5	1	SUCTION KIT	64.08.061
6	1	SUCTION FILTER, diam. 63mm (90 micron)	63.40.177
7	1	RETURN PIPE M12x1(3D platform)	64.08.112
8	1	RETURN PIPE (lift cylinder)	64.08.113
9	1	PLASTIC TANK, S202, horizontal, 5 Lt.	64.75.004
10	1	TANK FIXING KIT	64.75.505
11	1	FLOW REGULATOR STF 14P 4 Lt/min	64.36.102
12	1	CAVITY PLUG TC4, 3/4"-16 UNF	63.19.058
13	1	2/2 WAY VALV CE1-NC	64.20.525
14	1	CAVITY PLUG TS3	63.19.056
15	1	DISTANCE_BLOCK N92 , H=34 mm	64.42.340
16	1	VALVE BLOCK V229	64.42.345
17	2	BLOCK N224	64.42.346
18	5	FILTER, 300 micron	63.40.187
19	2	4/3-way CETOP VALVE E408 24V cc	64.20.560
20	6	SCREW, M5x25	64.08.556
21	2	PLUG 1/4"	63.19.049
22	1	E-MOTOR 1.5kW 208-230V, 60Hz, 2p, 1phase	62.05.086
23	1	COUPLING FOR MOTOR	66.30.081
24	1	PLUG 3/8"	63.19.057
25	2	SCREW M8x170	64.08.594
26	2	COIL S2-CE 24 V cc 18W	64.42.126
27	1	COIL, S2-CE-R 24Vcc 26W	64.42.127
28	1	VALVE BLOCK VO4	64.42.344

Pressure cylinder No.: 38.31.570

(number stamped on cylinder: 38/31/570)



Set of seals for pressure cylinder No: 38.10.533Fi

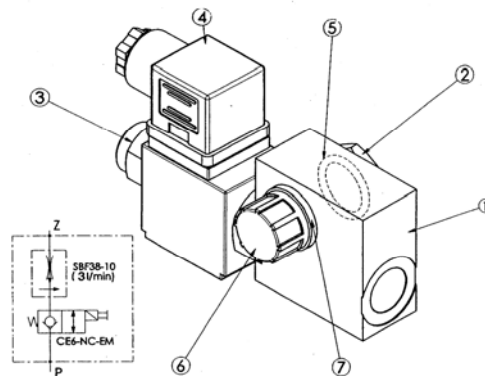
(consisting of pos.: 9) wiper ring, 10) grooved ring, 11) piston seal, 12) O-ring, 13) O-ring)

When changing a seal set, proceed as follows:

- 1) Unscrew the hexagon socket screw 6 on the cylinder tube.
- 2) Strike the guide bushing 3 back by about 20 mm.
- 3) Remove the RB ring 5.
- 4) With a strong jolt, remove the guide bushing 3 and the piston 4 from the cylinder tube 1.
- 5) Unscrew the axial bolt in the thread between the piston rod 2 and piston 4.
- 6) Screw the piston 4 off the piston rod 2.
- 7) Take out worn sealing elements and replace them with new ones.
- 8) Re-assemble the cylinder in reverse order.

Control block with 2/2-way seat valve, 24V DC, 3 l/min, 3/8", 38.56.410
on the pressure cylinder

Item	Qty.	Description	Order no.
1	1	Steel module (block)	64.42.329
2	1	Hollow screw, 3/8", with load-lowering valve, 3 l/min	64.42.051
3	1	2/2-way seat valve with emergency release	64.10.179
4	1	Magnetic coil, 24V DC, 18W, 100%ED	64.42.122
5	1	O-ring 17.86x2.62 70Sh (OR123)	63.32.287
6	1	Screw cap GPN 800 R3/8"	66.40.142
7	1	Edge ring seal, R3/8" (custom model)	64.42.495

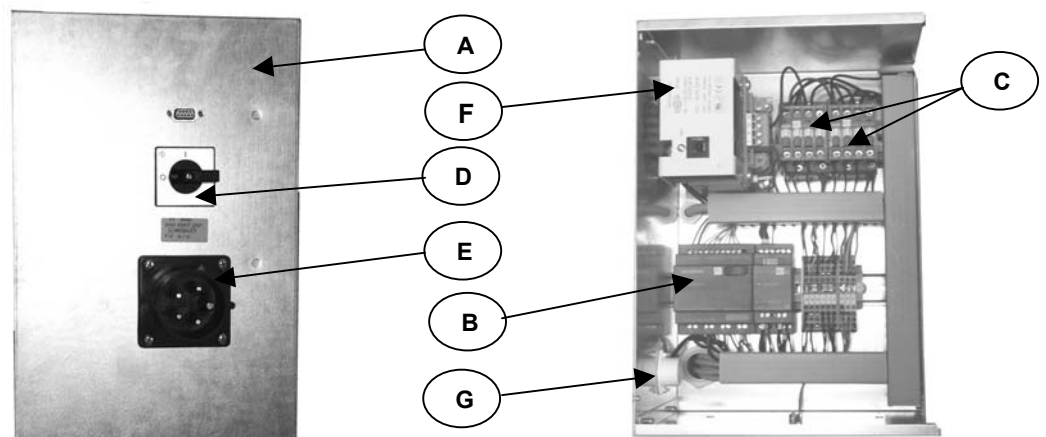


9.3 Spare parts for the control panel

Spare electrical parts

See the electrical circuit diagrams with parts list

Item	Qty.	Description	Order no.
A	1	Switch cabinet, complete	38.58.510
-	1	Control assembly, complete, incl. spiral cable	38.58.550
B	1	LOGO controller	61.50.532
C	2	DL4 power contactor	61.05.135
D	1	Main switch	61.10.262
E	1	Plug housing	61.35.160
-	1	Limit switch	61.15.101
-	1	Start-up roller	61.15.021
F	1	Switch-mode power supply	62.62.105
G	1	Sound converter	61.65.011



10. Declaration of Conformity

in compliance with EC Machine Directive 98/79/EC

We,



Heinrich-Hertz-Straße 21
D-77652 Offenburg, Germany
Tel: +49 (0)7 81-6 01-0
Fax: +49 (0)7 81-6 01-33

hereby declare that the construction of our product,

Product description: **Scissor-based lift table**

Type: **8805.A**

Zippo serial no.:

Year of construction: **2002**

corresponds to the prevailing fundamental safety and health requirements of the EC Directive, based on its concept, design, and construction as sold. Any unauthorized modifications to the product void this declaration.

The owner is responsible for properly installing and using the machine.

Harmonized standards were also taken into account, especially:

EN 292 T1 and T2

EN 349; EN 954-1 **Safety of machines, basic terms,**


..... **general design principles**

EN 60204.1 **Electrical machine equipment**

EMV 89/336/EWG i.d.F. 93/97/EWG; EN 50081-1; EN 50082-1

EN 1570 **Safety requirements for lifting tables**

Offenburg, 11 June 2002



i.A. Hartmut Pohl, Dipl.-Ing.
Director of Design, Zippo GmbH

11. Confirmation

pursuant to § 5 paragraph 4 of the
accident-prevention regulation for
“Electrical systems and equipment”
(BGV A2)

To

We hereby confirm that the electrical system/components / the electrical equipment of the
machine or system

Scissor-based lift table 8805.A

(precise specification of type and location)

Serial no. _____

as procured complies with the provisions of the accident-
prevention regulation for “Electrical systems and equipment” (BGV A2).

This confirmation serves exclusively to release the owner from checking or arranging for the check of the
electrical system/components / the electrical equipment of the machine or system before the first commis-
sioning (§ 5 paragraph 1, 4 of BGV A2). This confirmation does not affect civil warranty and liability claims.

Manufacturer or assembler
of the system/equipment:



Gesellschaft für Hebetchnik mbH
Heinrich-Hertz-Straße 21
D - 77656 OFFENBURG, GERMANY

Offenburg, 11 June 2002

(City and Date)



Signature
Dipl. Ing. Hartmut Pohl

12. Warranty Card

Dear Customer.

Your decision in favor of a Zippo lift table is well-founded. Being one of the largest manufacturers specializing in vehicle lifts we have the necessary know-how. Many progressive developments – particularly in view of safety requirements – can be traced back to Zippo. As result of our advanced technology we offer

a two year guarantee

after take-over of the lift, **at the following conditions:**

During the guarantee-period, we remove all defects due to proved machining or material deficiencies. We alternatively repair or replace defective parts. Replaced parts become our property. Guarantee-claims can be approved only in case of immediate notification of the defect. Interventions on the lift of persons non-authorized by Zippo effect the nullity of the guarantee. Damages due to improper operation or servicing of the lift, use of unsuitable operation-agents, as well as non-observance of the operation instructions are not covered by the guarantee. Also excluded are all damages due to normal wear and tear, wear and tear itself, and fragile plastic accessories. All service charges not arising from the guarantee are to be borne by the customer.

13. Transport damage

IMPORTANT INFORMATION!

For end customers of our lift tables

Delivery

Please carefully check the merchandise immediately after delivery in the presence of the shipper!

If there are transport damages, the shipper may not be given a simple receipt. Note any damage found on the shipping papers.

Damage report

Every transport damage must immediately be reported to the ZIPPO service dealer for it to be handled quickly and easily.

The report can be made by phone, fax or post and must contain the following information:

- **Order no. of the ZIPPO delivery note and date of the delivery**
- **Lift table type and serial number**
- **Precise damage description**

(Use the back of this sheet if necessary.)

Damage elimination and invoicing

ZIPPO can only handle the transport damages if it was provided with a damage report as described above.

YOUR ZIPPO SERVICE PARTNER HANDLES THE REPAIRS / DELIVERY OF SPARE PARTS AS WELL AS THE INVOICING.

13.1 Transport damage report

The lift table Type:

Serial number:

delivered with Delivery-note no.:

by Company:

Date:

was damaged during delivery

during unpacking

as follows:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(precise damage description)

The packaging was damaged

not damaged

.....

City/Date

.....

Customer

14. Inspection record
for



Lift table

Type: **8805.A**

Serial number:

Year of construction: **2002**

Owner:

Date of first commissioning:

Inspection Report

on the inspection performed before the first commissioning by an expert / certified engineer

The lift platform was inspected for operational readiness on
No / ~~The following~~ *) defects were found.

Scope of _____

inspection: based on the acceptance log for type 8805.A / VAS 6131

Partial inspections
still to be performed **None**

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

OFFENBURG

(City, Date)

(Signature)

Name and address
(please print) _____

Profession

Fitter

Employed by ZIPPO GmbH Heinrich-Hertz-Str. 21 77656 Offenburg, Germany

Owner or contractor

Defects noted
on

(Date)

(Signature)

Defects eliminated

(Date)

(Signature)

POST-INSPECTION

The lift platform was subjected to a post-inspection on

The defects noted in the regular/extraordinary*) inspection have not*) been eliminated.

Continued operation is not*) recommended, a post-inspection is not*) required.

(City, Date)

(Signature)

Expert/Certified Engineer

*) Cross out the words that do not apply

Name and address _____

(please print) _____

Profession _____

Employed by _____

Inspection Report

on a regular / extraordinary inspection

The lift platform was subjected to a regular*) / extraordinary*) inspection on

No / The following*) defects were found.

Scope
of
inspection

Partial inspections
still to be performed

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

(City, Date)

(Signature)

Name and address
(please print)

Profession

Employed by

Owner or contractor

Defects noted _
on

(Date)

(Signature)

Defects eliminated

(Date)

(Signature)

POST-INSPECTION

The lift platform was subjected to a post-inspection on

The defects noted in the regular/extraordinary*) inspection have not*) been eliminated.

Continued operation is not*) recommended, a post-inspection is not*) required.

(City, Date)

Expert/Certified Engineer
(Signature)

Name and address

(please print)

Profession

Employed by

*) Cross out the words that do not apply

Inspection Report

on a regular / extraordinary inspection

The lift platform was subjected to a regular*) / extraordinary*) inspection on

No / The following*) defects were found.

Scope
of
inspection

Partial inspections
still to be performed

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

(City, Date)

(Signature)

Name and address
(please print)

Profession

Employed by

Owner or contractor

Defects noted _
on

(Date)

(Signature)

Defects eliminated

(Date)

(Signature)

POST-INSPECTION

The lift platform was subjected to a post-inspection on

The defects noted in the regular/extraordinary*) inspection have not*) been eliminated.

Continued operation is not*) recommended, a post-inspection is not*) required.

(City, Date)

Expert/Certified Engineer

(Signature)

Name and address

(please print)

Profession

Employed by

*) Cross out the words that do not apply

Inspection Report

on a regular / extraordinary inspection

The lift platform was subjected to a regular*) / extraordinary*) inspection on

No / The following*) defects were found.

Scope
of

inspection

Partial inspections
still to be performed

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

(City, Date)

(Signature)

Name and address
(please print)

Profession

Employed by

Owner or contractor

Defects noted _
on

(Date)

(Signature)

Defects eliminated

(Date)

(Signature)

POST-INSPECTION

The lift platform was subjected to a post-inspection on

The defects noted in the regular/extraordinary*) inspection have not*) been eliminated.

Continued operation is not*) recommended, a post-inspection is not*) required.

(City, Date)

Expert/Certified Engineer
(Signature)

Name and address
(please print)

Profession
Employed by

*) Cross out the words that do not apply

Inspection Report

on a regular / extraordinary inspection

The lift platform was subjected to a regular*) / extraordinary*) inspection on

No / The following*) defects were found.

Scope of _____ inspection

Partial inspections still to be performed

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

(City, Date)

(Signature)

Name and address (please print) _____

Profession _____

Employed by _____

Owner or contractor

Defects noted _ on

(Date)

(Signature)

Defects eliminated

(Date)

(Signature)

POST-INSPECTION

The lift platform was subjected to a post-inspection on

The defects noted in the regular/extraordinary*) inspection have not*) been eliminated.

Continued operation is not*) recommended, a post-inspection is not*) required.

(City, Date)

Expert/Certified Engineer
(Signature)

Name and address _____

(please print) _____

Profession _____

Employed by

*) Cross out the words that do not apply

Inspection Report

on a regular / extraordinary inspection

The lift platform was subjected to a regular*) / extraordinary*) inspection on

No / The following*) defects were found.

Scope
of

inspection

Partial inspections
still to be performed

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

(City, Date)

(Signature)

Name and address
(please print)

Profession

Employed by

Owner or contractor

Defects noted _
on

(Date)

(Signature)

Defects eliminated

(Date)

(Signature)

POST-INSPECTION

The lift platform was subjected to a post-inspection on

The defects noted in the regular/extraordinary*) inspection have not*) been eliminated.

Continued operation is not*) recommended, a post-inspection is not*) required.

(City, Date)

Expert/Certified Engineer

(Signature)

Name and address
(please print)

Profession

Employed by

*) Cross out the words that do not apply

Inspection Report

on a regular / extraordinary inspection

The lift platform was subjected to a regular*) / extraordinary*) inspection on

No / The following*) defects were found.

Scope
of

inspection

Partial inspections
still to be performed

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

(City, Date)

(Signature)

Name and address
(please print)

Profession

Employed by

Owner or contractor

Defects noted _
on

(Date)

(Signature)

Defects eliminated

(Date)

(Signature)

POST-INSPECTION

The lift platform was subjected to a post-inspection on

The defects noted in the regular/extraordinary*) inspection have not*) been eliminated.

Continued operation is not*) recommended, a post-inspection is not*) required.

(City, Date)

Expert/Certified Engineer

(Signature)

Name and address

(please print)

Profession

Employed by

*) Cross out the words that do not apply

Inspection Report

on a regular / extraordinary inspection

The lift platform was subjected to a regular*) / extraordinary*) inspection on

No / The following*) defects were found.

Scope
of _____
inspection

Partial inspections
still to be performed

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

(City, Date)

(Signature)

Name and address
(please print) _____

Profession _____

Employed by _____

Owner or contractor

Defects noted _
on

(Date)

(Signature)

Defects eliminated

(Date)

(Signature)

POST-INSPECTION

The lift platform was subjected to a post-inspection on

The defects noted in the regular/extraordinary*) inspection have not*) been eliminated.

Continued operation is not*) recommended, a post-inspection is not*) required.

(City, Date)

Expert/Certified Engineer

(Signature)

Name and address _____

(please print) _____

Profession _____

Employed by

*) Cross out the words that do not apply

Inspection Report

on a regular / extraordinary inspection

The lift platform was subjected to a regular*) / extraordinary*) inspection on

No / The following*) defects were found.

Scope
of

inspection

Partial inspections
still to be performed

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

(City, Date)

(Signature)

Name and address
(please print)

Profession

Employed by

Owner or contractor

Defects noted _
on

(Date)

(Signature)

Defects eliminated

(Date)

(Signature)

POST-INSPECTION

The lift platform was subjected to a post-inspection on

The defects noted in the regular/extraordinary*) inspection have not*) been eliminated.

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

(City, Date)

(Signature)

Name and address

(please print)

Profession _____

Employed by

*) Cross out the words that do not apply

Inspection Report

on a regular / extraordinary inspection

The lift platform was subjected to a regular*) / extraordinary*) inspection on

No / The following*) defects were found.

Scope
of

inspection

Partial inspections
still to be performed

Continued operation is not*) recommended, a post-inspection is not*) required.

Expert/Certified Engineer

(City, Date)

(Signature)

Name and address
(please print)

Profession

Employed by

Owner or contractor

Defects noted _
on

(Date)

(Signature)

Defects eliminated

(Date)

(Signature)

POST-INSPECTION

The lift platform was subjected to a post-inspection on

The defects noted in the regular/extraordinary*) inspection have not*) been eliminated.

Continued operation is not*) recommended, a post-inspection is not*) required.

(City, Date)

Expert/Certified Engineer

(Signature)

Name and address
(please print)

Profession _____

Employed by

*) Cross out the words that do not apply

Push bar attachment on the running gear of the lift table

Attachment pieces (per side):

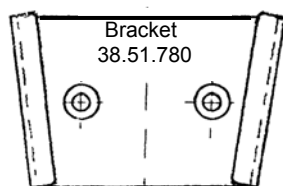
M10x25 hexagon bolts, 3 pieces	DIN 933	Art. no.: 70.00.220
10.5 washers, 6 pieces	DIN 125	Art. no.: 72.00.040
B10 lock washers, 3 pieces	DIN 127	Art. no.: 72.10.110
M10 hexagon nuts, 3 pieces	DIN 934	Art. no.: 71.00.060

Sequence of the elements used:

- 1) M10x25 hexagon bolt, DIN 933, Art. no.: 70.00.220
(with head outwards)
- 2) 10.5 washer DIN 125 Art. no.: 72.00.040
- 3) Push bar
- 4) Running gear
- 5) 10.5 washer DIN 125 Art. no.: 72.00.040
- 6) B10 lock washer, DIN 127 Art. no.: 72.10.110
- 7) M10 hexagonal nut, DIN 934 Art. no.: 71.00.060



Attachment of the bracket, 38.51.780 for the control assembly on the hydraulic unit cover.



Pull the protective film off the bracket and attach the bracket to the inclined side of the cover using two M4x10 counter-sunk screws, DIN 963, art. no.: 70.12.036.

