



OPERATING MANUAL

SPARE PART LIST



**Waschbär SE 112 / 118
HWY118 EXT**



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GeneralRemarks:

1. the "Guidelines for LiquidJets" (RFL) of the Central Federation of Industrial Trade Unions - Technical Committee on Chemistry are to be observed. The brochure "Guidelines for LiquidJets" is available from the Carl Heymanns- Verlag KG, Luxemburger Straße 449, 50939 Cologne, under order No. ZHI/406.
2. The RFL orders that high-pressure cleaning equipment must be tested for operational safe as often as required, though at least every 12 months by a qualified person (persons who have adequate knowledge of the pertinent regulations on account of their training and experience to be able to assess the safe working condition of the equipment). The results of such tests are to be put on written record.
3. The owner of the equipment must issue corresponding instructions necessary for a safe operation and monitor their observance. It is thus necessary that the owner of the equipment observes the Guidelines for Liquid Jets.
4. If connected into the public water network the regulations of the waterworks are to be observed.
5. When making the electrical connections, please pay attention to the regulations of the pertinent electric company (electricity works).
6. The heating device consists of a burner which must be checked once a year by your local chimney sweep in accordance with the 1st Implementing Order of the Federal Pollution Protection Legislation to ensure that the emission limit values are observed.
7. When operating the equipment in rooms, a safe discharge of the flue gases must be ensured (flue gas pipe with air flue interruption/ chimney). Care must also be taken to ensure that adequate ventilation is provided (combustion air).
8. Repairs to the high-pressure cleaner may only be carried out by the firm of Weidner or by a person authorised by such.
9. During repair work only original Weidner parts may be used in accordance with the enclosed parts list.
10. Only original high-pressure hoses, type DN 8 ST1, operating pressure 210 bar, are to be used. Please pay particular attention to the hoses. Every pressure hose must comply with the safety regulations and be marked with the operating pressure, date of manufacture regulations and be marked with the operating pressure, date of manufacture and manufacture.

Attention:

High-pressure hoses with a short service life and repaired high-pressure hoses are extremely dangerous. Burst or leaky high-pressure hoses can lead to injuries, in particular scaldings through pressurized hot water.

11. Only use chemicals which comply with the detergents act, are biologically degradable and do not burden the environment. Ask for a DIN specification sheet.
12. We recommend the conclusion of a maintenance contract with the firm of Weidner agencies to ensure the regular and professional testing of the high-pressure cleaner.

- 13. Accessories and cleaning agents can be found in our list of accessories. We will be delighted to help you in the choice accessories and cleaning agents suitable for your cleaning needs.**
- 14. Befor working on the high-pressure cleaner it must be disconnected from the mains, remove plug from socket.**

Description and function of the safety devices

Unloader valve with switch:

The unloader valve limits the operating pressure. The desired operating pressure can be infinitely varied with this. If the max. permissible operating pressure is exceeded or the spray gun closed the unloader valve channels the water through its bypass line depressurized back to the high-pressure pump.

While the gun is closed the integrated micro-switch will open. About 20 sec. After the micro-switch opened, the motor of devices with time delay stop will be cut off.

If the pressure sinks below 10 bar, the motor switches on immediately again.

*There will be no time delayed stop after the gun closed at devices without time delay stop. The device runs without pressure in the bypass. /

Attention:

The unloader valve has to be adjusted that overpressure is not more than 10% over working pressure.

Use and description of the equipment

The Weidner Waschbär SE 112/118 is a fully enclosed mobile hot water high-pressure cleaning device. The working pressure is generated by a Triplex pump with 3 ceramic plungers. The pump is flange-mounted directly on the motor. There is a pressure regulator with mechanical switch, flow controller and pressure relief valve on the high-pressure side of the pump. When the gun is closed the pressure regulator receives a switching surge which causes the water conveyed by the high-pressure pump to be returned to the high-pressure pump's suction side depressurized. The motor and pump run without a load. Heating is by means of a flow heater with heating spiral. The oil feed is controlled by the control chain thermostat, flow controller and microswitch in the mechanical pressure regulator. An Ap-type heating oil switch can be incorporated in this control chain as an accessory.

If work is interrupted for longer than 1 minute the device should be switched off to save energy. The device is suitable to remove dirt from surfaces by means of a freely-expelled water jet. The cleaning device is particularly suitable for cleaning machines, building facades, stables and floors as well as vehicles such as cars and trucks. The choice of working pressure depends on the cleaning task. In the case of hard and stubborn dirt the highest possible pressure should be used for cleaning. The operating pressure depends on the size of the spray nozzle, whereby the max. operating pressure is limited by the pressure regulator.

Apart from the working pressure and working distance from the object to be cleaned, the jet shape is also important for the cleaning effect. A round spray nozzle with an angle of 0 degrees has the highest mechanical effect and is, e.g. appropriate for cleaning stables or heavily soiled construction machinery and equipment. Normal work can be carried out with a 25 degree nozzle. In case of large-scale cleaning work, e.g. floors, a 40 degree nozzle can be used.

Important notices

If you discover transportation damage during unpacking please contact your Weidner sales office.

Start-up:

Open the stainless steel cover (64), check the oil level in the high-pressure pump and top up as required (see specifications). /

Electrical connections

The voltage shown on the ratings plate must correspond with the voltage from the source of electric power.

The current lead must be fused with 32A on the SE112 and with 50A on the SE118. A higher fusing is not allowed. An FI safety switch is to be provided by the customer. .

The electrical connections and mains fusing should only be installed by a professional.

The device may only be connected to a socket which has been installed in accordance with local laws. Work on electrical components in the device may only be carried out by a qualified electrician.

Additional safety measures and precautions when working with el

1. Only connect the equipment to regular sources of electric power.
2. Check the cables for damage before use -never connect damaged cables.
3. Connections must be dry and should not lie on the floor .
4. Do not touch the plug with wet hands.
5. If an extension cable is used this should be completely unwound from its drum and should have an adequate wire cross section, otherwise the cable can overheat (scorch) and cause a short-circuit;
(Three-phase current equipment up to 10 meters long wire cross section 1.5 mm, up to 30 m long 2.5 mm, single-phase device type Waschbär SE 112/118. ..generally at least 2.5 mm wire cross section.)

Water supply

Connect water hose with Geka coupling on high-pressure cleaner at .

Connect water connection piece.

Fully open water tap.

Water feed pressure min. 2 bar, ..max. 4 bar: A pressure reducing valve must be incorporated in the feed line with higher water mains pressures.

Connection of the high-pressure hose

Screw one end of the high-pressure hose onto the pressure output nipple on the device. The other end of the high-pressure hose is screwed to the spray gun.

Cleansant feed and supply

An injector will meter out the cleansant. Connect the cleansant hose to the injector and place the suction filter into the cleansant. The quantity of cleansant can be adjusted by turning the hand nut at the cleansant-injektor. If all the prenamed points are fulfilled, activate the cleansant feed while opening the pressure adjusting nozzle at the end of the jet pipe. The more the pressure adjusting nozzle is opened the more cleansant will be fed and the other way around.

The function of the injector takes place only in case of *low pressure*. Feeding takes place only to a max. hose length of 15 meters. Before using for other purposes consult with the firm of Weidner or one of their agencies first.

Protection against freezing

Freeze can destroy equipment which has not been completely emptied of water .The best protection against freeze is to place the device in a room protected against frost.

Warnings

Do not point the water jet at persons or animals (risk of injuries through pressure and heat as well as irritation of mucous membranes and acid burn through chemicals).

Do not point the water jet at the device itself or other electrical components (risk of short-circuits and other damage).

The device may not be used in rooms exposed to the risk of explosions.

When using chemicals suitable safety equipment should be worn (safety goggles, safety overall, safety gloves, boots etc.).

Please pay attention to Section " A " of the appendix to VBG 1 35-47, Protection against dangerous chemicals.

Operation

Cold-water operation

Appliance switch to "0".

Thermostat to "0" degrees C (off).

Insert appliance plug into socket.

Turn on water supply .

Pull spray gun trigger and set appliance switch to position 1 "pump on".

The device starts.

The pump at first empties the device of air. After a while water comes out of the spray gun. Hold the spray gun open until a steady jet of water is ejected. Now close the spray gun and switch off device.

Screw the lance with nozzle piece (34) onto the spray gun.

The device is now ready for operation.

Attention:

The water jet emitted causes a repulsion power in the spray gun. In the case of an angular lance with a spray nozzle size 05 the repulsion power amounts to 43 N (Newton).

Keep a tight hold on the lance and spray gun.

Cleansant additive

The dilution of the cleansant and the adjustment of the concentration at the metering valve depends on the cleansant and the field of application.

Cleansant from integrated cleansant tank -turn the switch into the direction "tank".

Cleansant from separate drum -turn the switch into the direction "2" .

If the cleansant tank/ drum is empty the metering valve should be closed (pos since otherwise air will be sucked in and the working pressure will drop completely. On completion of work with cleansant the device should be thoroughly rinsed with clear water .

Stopping

Close gun.

Set selector switch to "0".

Close water tap.

Open gun to allow remaining air to escape.

Close gun and secure trigger .

Remove plug from socket

Store hoses without bending ,

Care and maintenance

The care and maintenance of the device are the concern of the operator.

This must be carried out carefully so as to maintain the operational safety and efficiency of the device.

Attention:

The most important components of the high-pressure cleaner such as the high-pressure hoses, spray gun, pump and safety devices are to be checked for proper function before every use.

Maintenance plan:

Weekly oil level: is the oil cloudy or has it dropped to below the MIN mark ? Change or top up oil.

Oil change every 50 working hours at the latest, though at the latest every 6 months.

Check heating oil filter for dirt and clean as required.

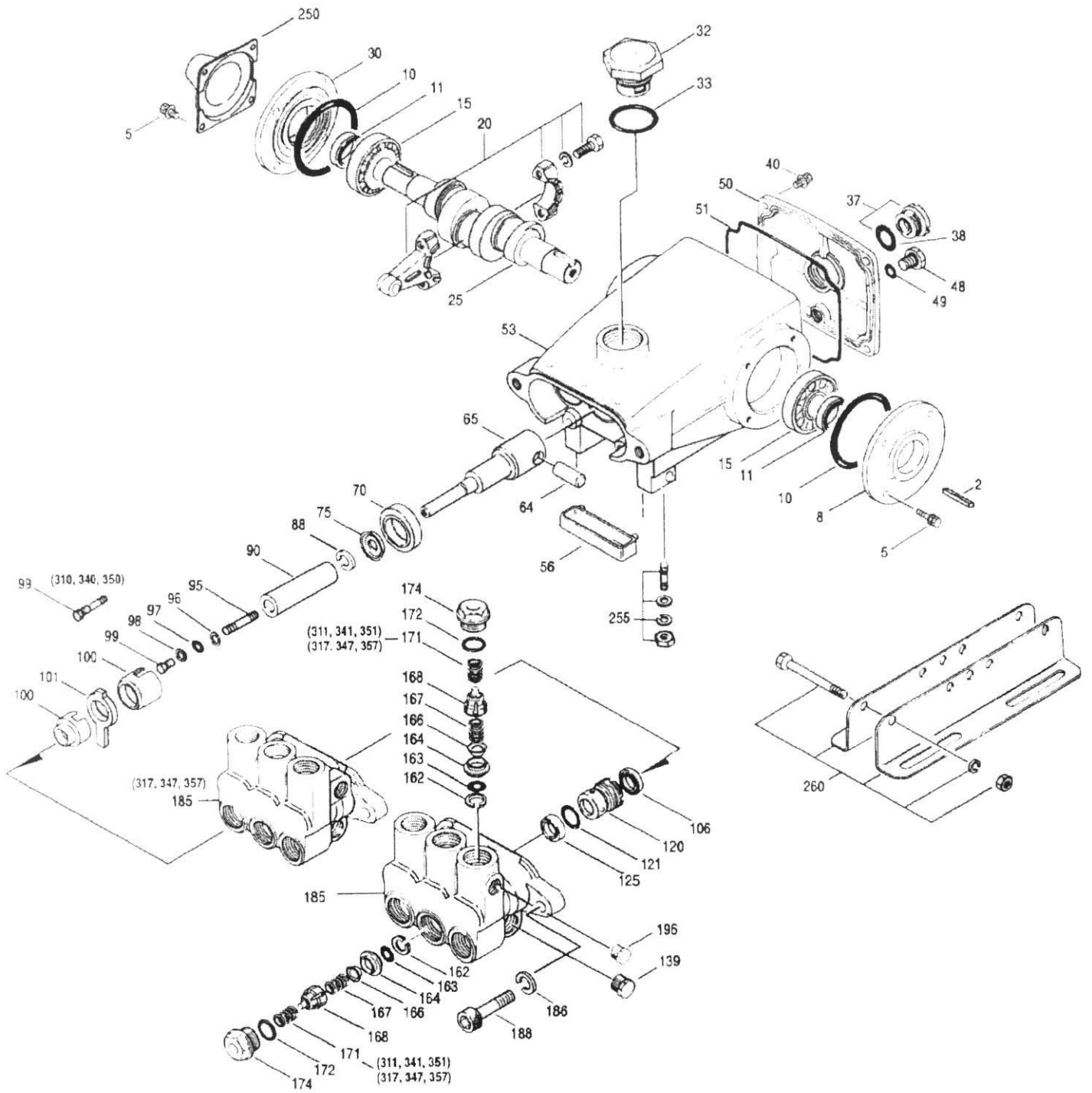
Check filling of lime stabilizer, always keep the stabilizer bottle full.

Fault and remedies

Fault	Possible cause	Remedy
device does not start	no electricity	check cables, plugs socket and fuse
	thermoprobe motor triggered	determine and remedy cause of overload
	pilot fuse defect	replace pilot fuse find out cause if there is a burn through again
	pump under pressure	trigger spray gun
water leak	packing worn or plunger pipe defect	replace
pump does not reach pressure or is loud, pressure fluctuations	water supply inadequate	open water tap check float valve clean water inlet sieve reduce height of suction
	suction valve clogged soiled or worn valves, packing worn unloader valve leaky or soiled	rinse pump with clear water clean or replace
	nozzle washed out or	replace
	wrong nozzle size	
oil leak on crankshaft	shaft seal faulty	replace seal, check shaft
increased noise with no loss of pressure	bearing worn out change	replace bearing, interval too long
pump oil milky white	condensation water formation	reduce oil change interval
unloader valve trips at short intervals with gun closed	gun or hp-hose leaky jack valve or unloader valve worn out	seal, replace replace jack valve
high pressure gauge deflection when gun closed	unloader valve incorrectly set or foul	adjust unloader valve, replace
Water volume too small	wrong nozzle size	use nozzle acc. to rating, plates
	nozzle dirty	clean or replace
	unloader valve too low	set correctly
	unloader valve faulty	replace
Chemicals are not sucked in	chemical tank empty	fill

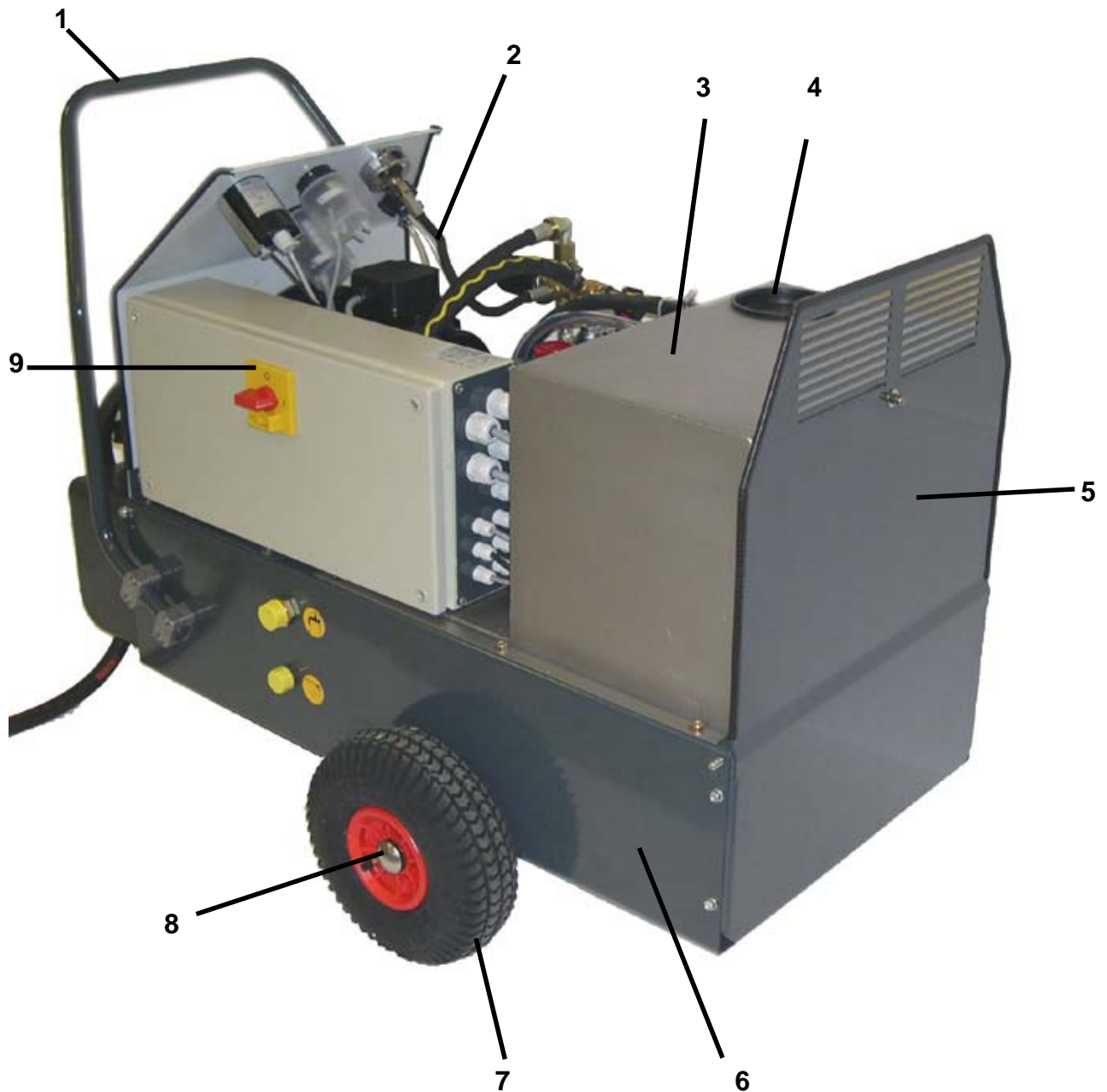
Chemical line blocked	clean
Chemical line faulty	replace
injector blocked	clean
injector faulty	replace
pressure adjustment nozzle too far closed	open
hp-hose too long	use a hose w. nominal diameter

CAT Pumpe 300



Pos.	No.		Bezeichnung	Description
2	3851502700	1	Passfeder	parallel key
5	3851502745	8	Schraube	screw
8	EPACA43344	halb	Lagerdeckel	quill
10	EPACA43343	2	O-Ring Lagerdeckel	o-ring quill
11	EPACA43222	halb	Simmering	simmering
15	EPACA014480	2	Lager	camp
20	EPACA043345	3	Pleuel, kompl.	piston rod
25	EPACA044923	1	Kurbelwelle	crankshaft
30	EPACA044949	1	Hauptschalter für Bodenbefestigung	main switch for soil attachment
32	EPACA043211	1	Verschluß (Öleinfüllstutzen)	catch
33	EPACA014177	1	O-Ring Verschluß	o-ring catch
37	EPACA043987	1	Ölschauglas	
38	EPACA044428	1	Flachdichtung	gasket
40	EPACA092520	4	Schraube	screw
48	EPACA025625	1	Ölablaßschraube	oil drain plug
49	EPACA023170	1	O-Ring, Abblaßschraube	o-ring,
50	EPACA043339	1	Gehäusedeckel	discharge screw
51	EPACA043340	1	O-Ring, Gehäusedeckel	o-ring, fram cover
53	EPACA043338	1	Kurbelgehäuse	crank case
56	EPACA043355	1	Ölwanne	oil pan
64	EPACA043351	3	Bolzen	pin
65	EPACA43365	3	Plungerstange	plunger seaweeds
70	EPACA043228	3	Simmering Buna-N	simmering
75	3851502778	3	Stauscheibe	pilot disk
88	EPACA045697	3	Scheibe	disk
90	EPACA043367	3	Keramikplunger	creamics plunger
96	EPACA043235	3	Stützring, Plungerhalter	back-up ring
97	EPACA017399	3	O-Ring, Plungerhalter	o-ring, plunger owner
98	EPACA045891	3	Scheibe	disk
99	EPACA104360	3	Plungerhalter	plunger owner
100	EPACA0456812	3	Dichtungshalter kompl.	seal owner
101	EPACA043302	3	Ölfiltz	oil felt
106	EPACA043305	3	ND-Dichtung	ND-seal
120	EPACA045679	3	Dichtungsgehäuse	seal housing
121	EPACA014200	3	O-Ring, Dichtungsgehäuse.Buna-N	o-ring, seal housing
121A	EPACA011719	3	O-Ring, Dichtungsgehäuse, Viton	o-ring, seal housing
125	EPACA046667	3	HD-Dichtung, Buna-N	HD-seal
125A	3851502811	3	HD-Dichtung, Viton	HD-seal
139	EPACA022179	1	Stopfen, Einlaß 1/2"	plug inlet
162	EPACA043357	6	Stützring	back up ring
163	EPACA043358	6	O-Ring, Ventilsitz Buna-N	o-ring, valve seat
163A	EPACA044938	6	O-Ring, Ventilsitz Viton	o-ring, valve seat
164	EPACA030821	6	Ventilsitz	valve seat
166	EPACA030821	6	Ventil	valve
167	3851502832	6	Ventilfeder	vale spring
168	EPACA044565	6	Federhalter Ventil	penholder valve
172	EPACA017615	6	O-Ring Ventilst. Buna-N	o-ring valve Buna-N
172A	EPACA015855	6	O-Ring Viton	o-ring Viton
174	EPACA043849	6	Ventilstopfen	valve pot
185	EPACA044837	1	Pumpenkopf	pumping head
186	EPACA012503	2	Federring	lock washer
188	EPACA087931	2	Schraube M10x35	screw M10x35
250	803118672	1	Wellenschutzkappe	waving protective cap
299	EPACA810027	1	Pumpenkopf komplett	pump head compl.
350	EPACA030696	1	Werkzeug (Ventilsitz)	tool (valve seat)
351	EPACA035104	1	Werkzeug (Dichtungsgehäuse)	tool (seal housing)
300*	EPACA033623	1	Dichtungssatz STG, enthält Nr.97; 101; 106; 121; 125	gasket kit

HWY 118EXT Blechteile



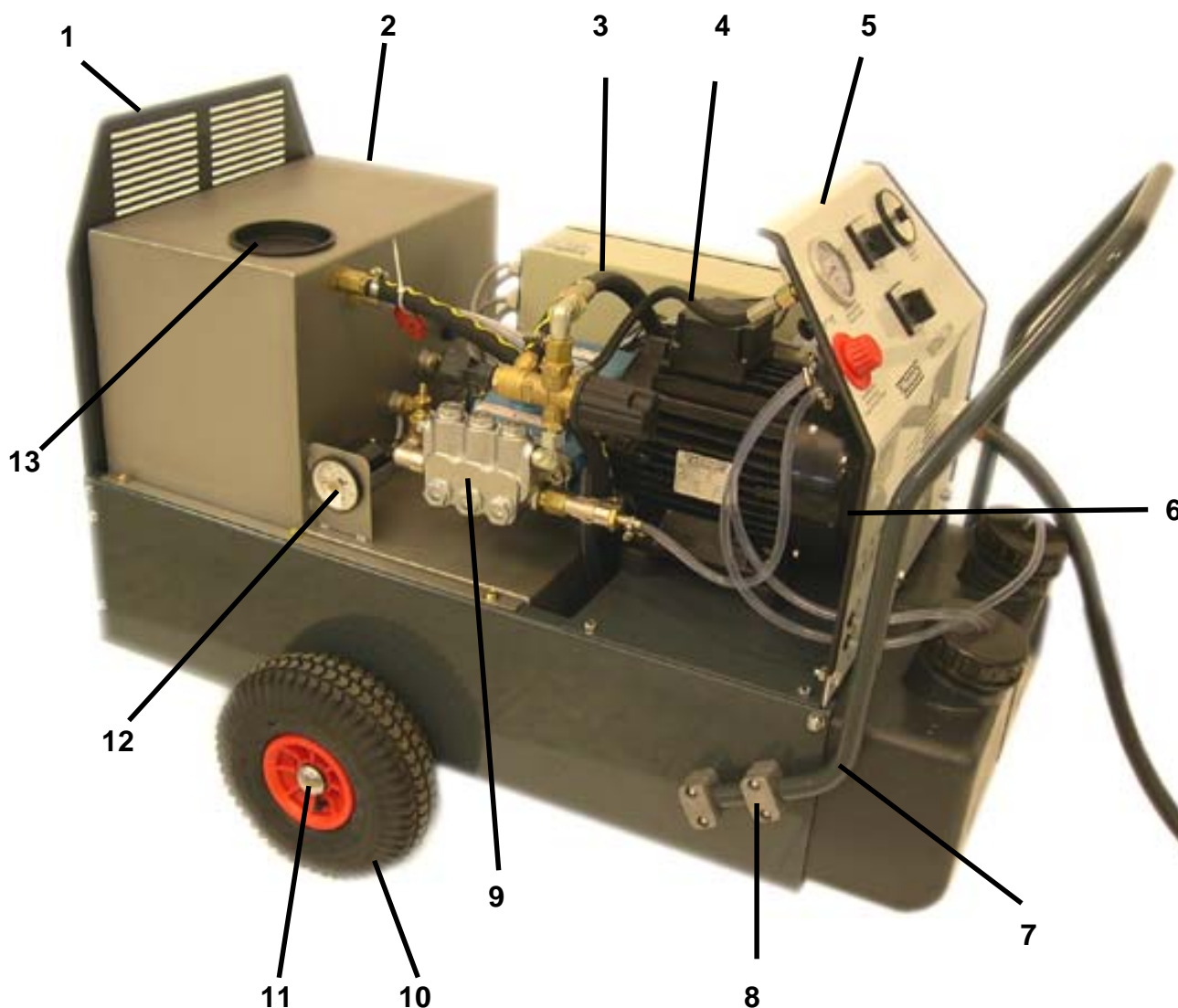
Pos.	No.	Bezeichnung	Description
1	ETA200035	Schiebebügel Waschbär ab 06/1999	handle, Version after 06/1999
2	ETD130000	Manometerschlauch,410 lg. 250 bar	h.p. hose f.pressure gauge
3	3882800060	Brennkammer VA Waschbär SE	combustion camber
4	ETB220102	Steckdeckel	PVC Cover
5	35900001060	Sicherheitsthermostat 95°C mit Tauchhülse	safety thermostat with dipping case
6	EPACA00300	Hochdruckpumpe CAT 300 in spezialausf.	HP pump CAT 300 special edition
7	ETA200600	LaufRad,schwarz, luftbereift 260x85	air wheel,black
8	ETA201500	2 Starlockkappe für 20mm Achse	lock disc for wheel
9	3651427520	Hauptschalter für Bodenbefestigung	mainswitch

HWY 118EXT Rückwand



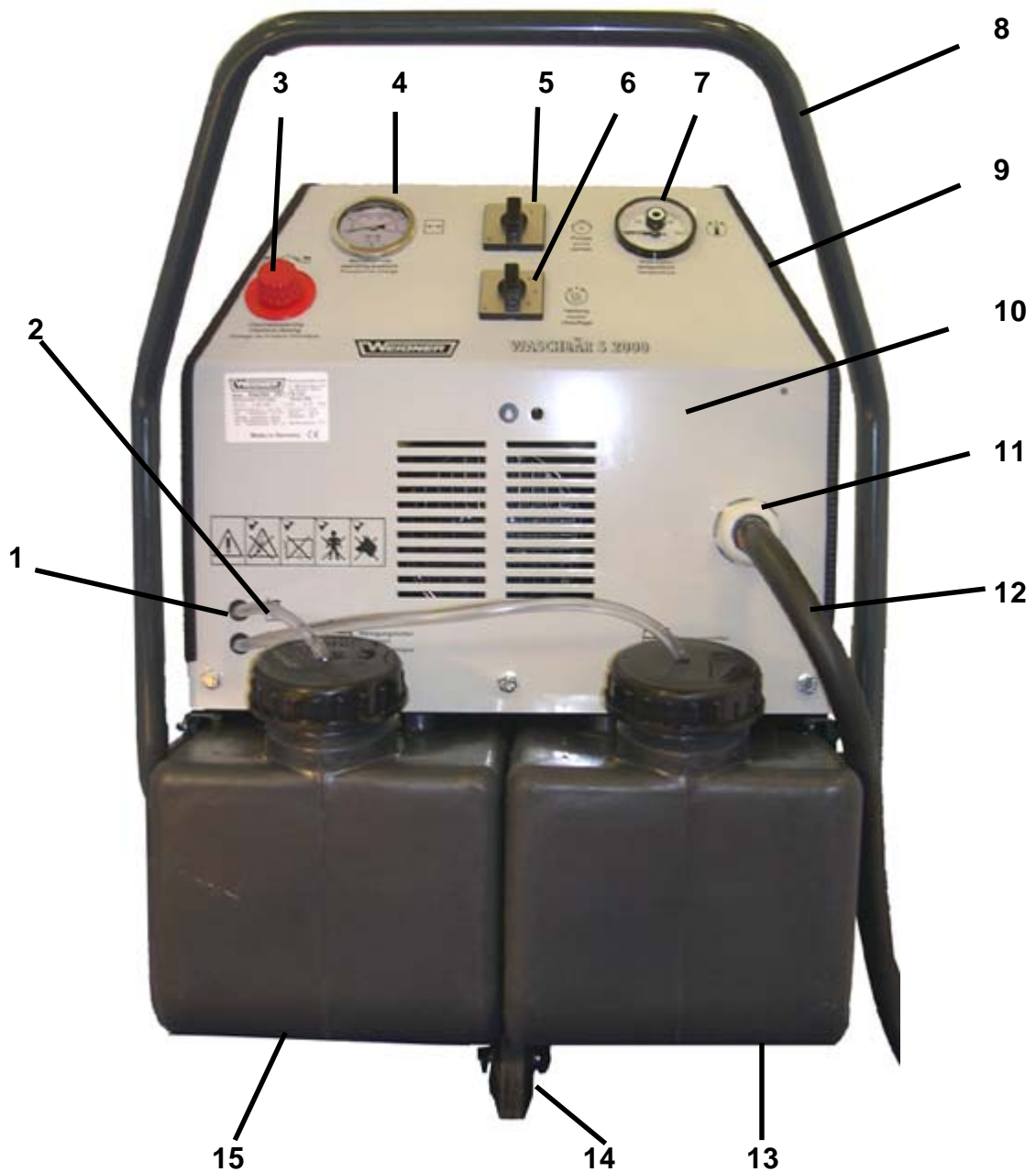
Pos.	No.	Bezeichnung	Description
1418	3882800060	Brennkammer VA Waschbär SE	combustion chamber
1423	3656040600	Einschraubheizkörper 403K 600/44/3 B G1 6000W	heating unit 6000W

HWY 118EXT Seitenansicht



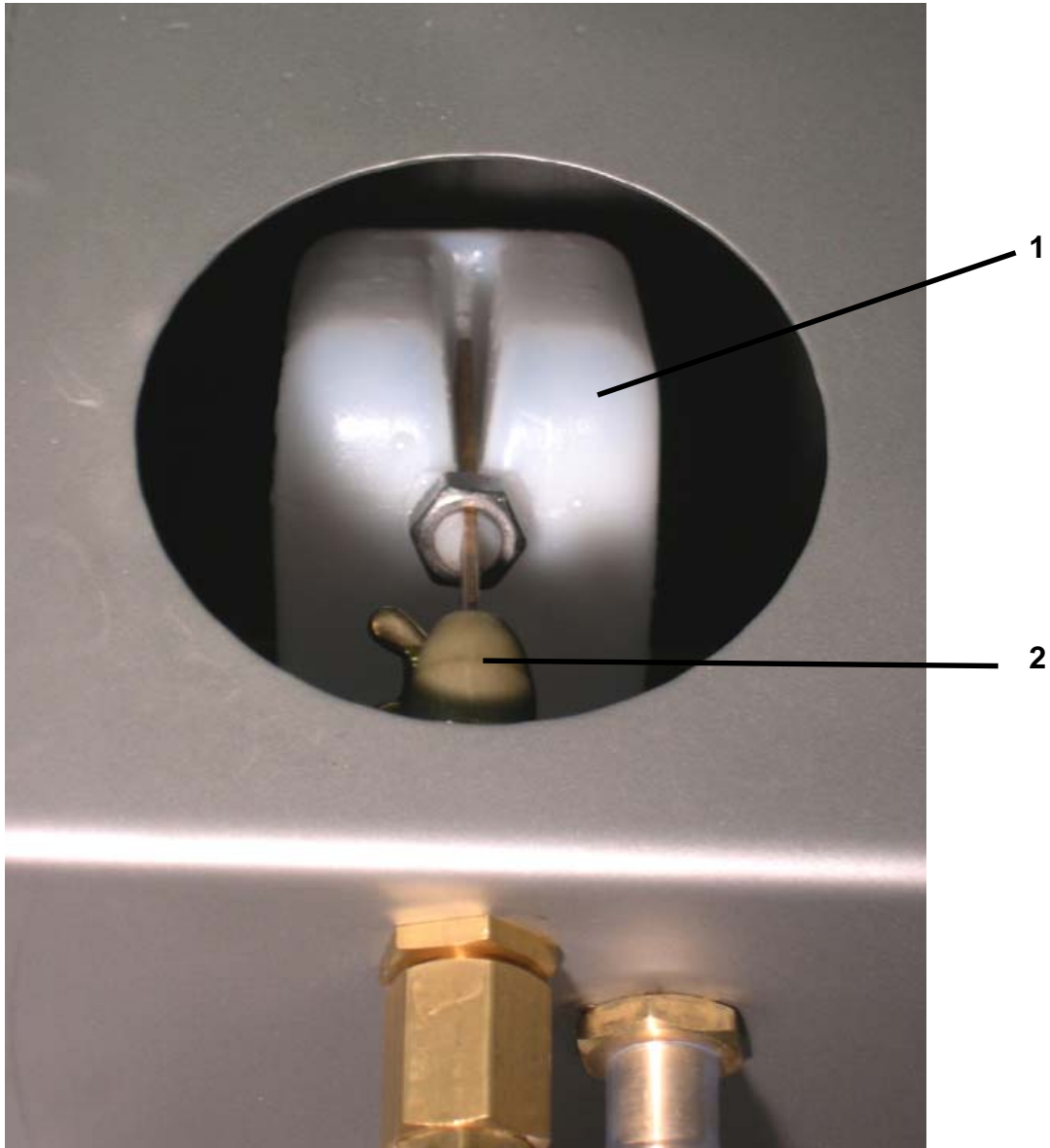
Pos.	No.	Bezeichnung	Description
1	3882800040	Rückwand Waschbär SE montagefertig	rear panel
2	3882800060	Brennkammer VA Waschbär SE	combustion chamber
3	3708500518	Hochdruckschlauch 600mm 2ST 10,es AGR	hp hose 600mm 2ST 10, es AGR 3/8"
4	ETD130000	Manometerschlauch,410 lg. 250 bar	h.p. hose f.pressure gauge
5	3882800030	Armaturreibblech Waschbär SE montagefertig	front panel
6	ETE504300	Elektromotor 3,0 KW 400V, 50Hz, 1420	Electromotor 3,0 KW, 400V, 50Hz, 1420
7	ETA200035	Schiebebügel Waschbär ab 06/1999	handle, Version after 06/1999
8	3914900010	Rohrschelle, 22 mm, Aluminium,	clamp, aluminium
9	EPACA00300	Hochdruckpumpe CAT 300 in spezialausf.	HP pump CAT 300 special edition
10	ETA200600	LaufRad,schwarz, luftbereift 260x85	air wheel,black
11	ETA201500	2 Starlockkappe für 20mm Achse	lock disc for wheel
12	35900001060	Sicherheitsthermostat 95°C mit Tauchhülse	Safety thermostat 95°C with dipping case
13	ETB220102	Steckdeckel	PVC Cover

HWY 118EXT Frontansicht



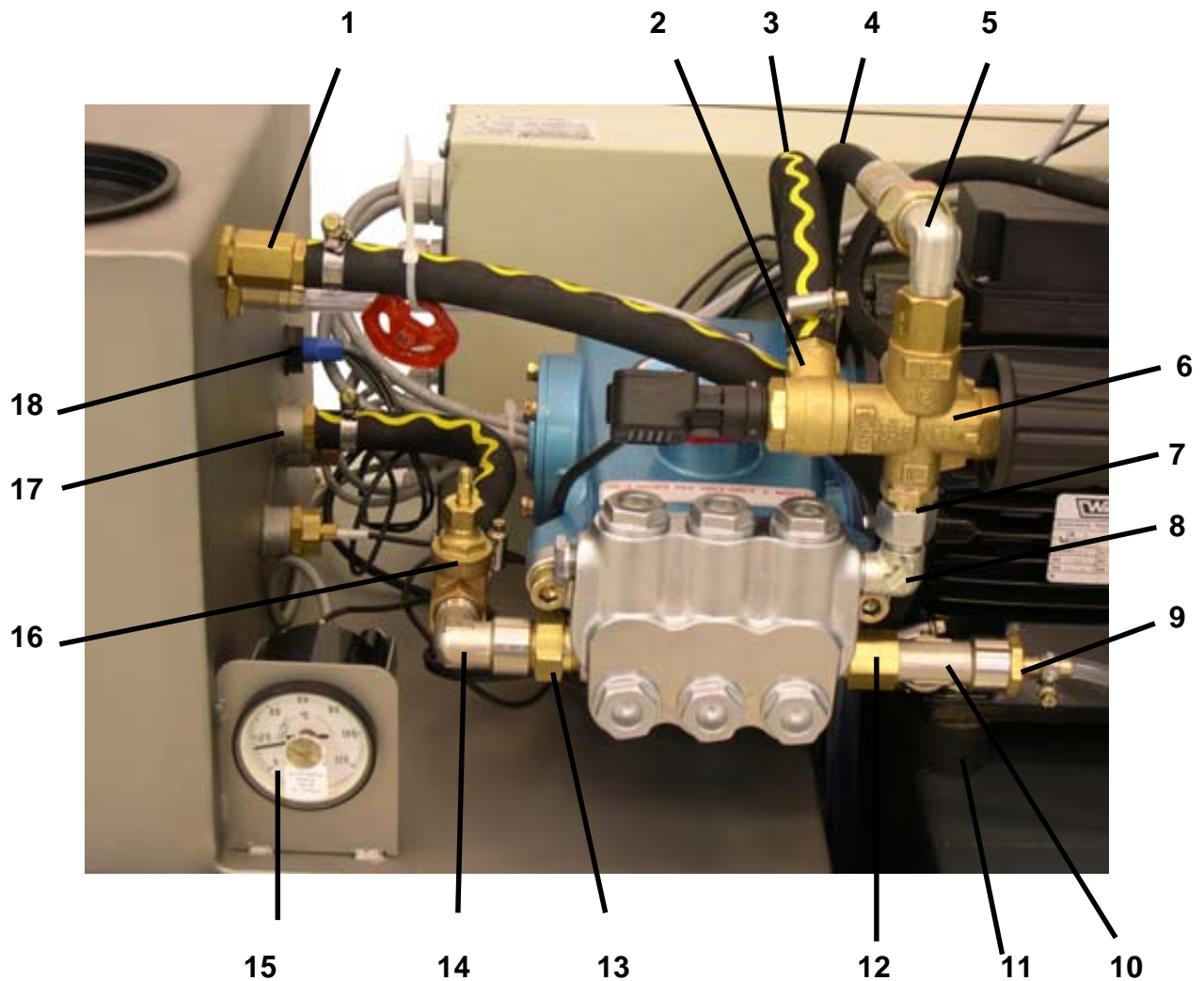
Pos.	No.	Bezeichnung	Description
1	4561664xx8	Kabeltüllen dopps. 9 X 11 X 16	Cable sleeve
2	ETG1111055	PVC-Schlauch 5 x 2, Länge angeb.	PVC hose order lenght you need
3	ETG204500	Dosierventil für Reinigungsmittel	dosing valve for 2 detergent
4	ETD260200	Druckmanometer 0-250 bar, 63mm	pressure gauge 0-250 bar
5	3652827502	Ein-Ausschalter 1 polig f. Frontbefestigung	switch off/on 0 / 1
6	3652827602	Gruppenschalter 1polig f. Frontbefestigung	switch 0/1/2/3 for Heating
7	ETE186200	Temperaturregler 0-95°C mit Tauchhülse	temperature regulator with dipping case
8	ETA200035	Schiebebügel Waschbär ab 06/19999	handle, Version after 06/1999
9	ETA190100	Kantenschutz,kl. Länge angeben	protection profile order lenght you need
10	3882800030	Armaturblech Waschbär SE montagefertig	front panel
11	3654899108	Kabelverschraubung M32 aus Polyamid	cable gland M32
12	3655005100	Gummikabel H07RN-F 5G10	rubber wire 5 G 10mm ²
13	ETB110601	Chemietank anthrazit-grau	dtergent tank anthrazit - grey
14	3759900019	Lenkrolle 100 x 30, 4 Loch Flansch	jockey wheel 4 hole fixing
15	ETB110701	Heizöltank anthrazit-grau	fuel tank anthrazit - grey

HWY 118EXT Schwimmerventil



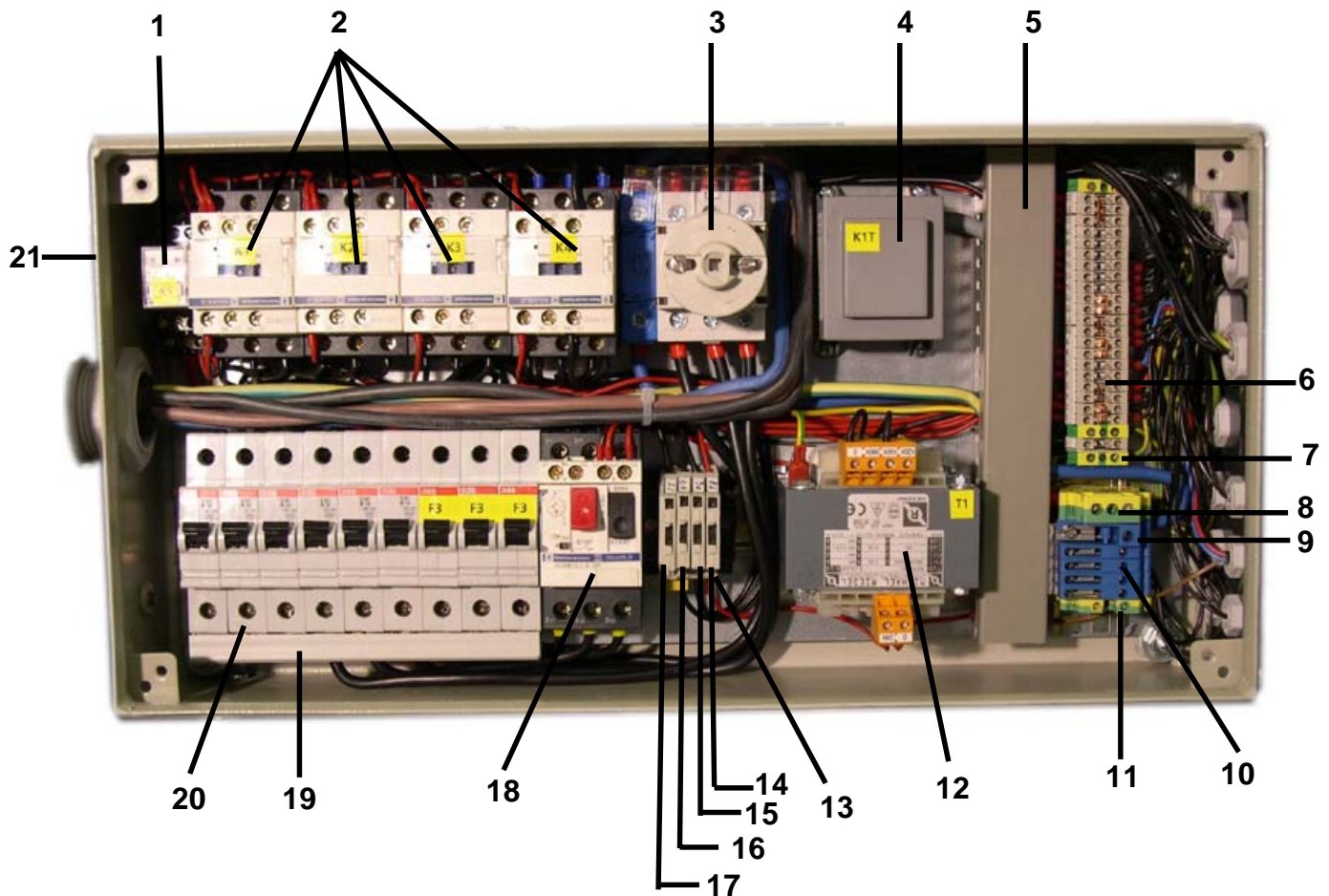
Pos.	No.		Bezeichnung	Description
1305	3909900153	1	PVC Kunststoffschwimmer 65 x 130	pvc ball 65 x 130
1304	3909900103	1	Schwimmerventil 3/8" 12mm ,170 mm	floatvalve 3/8" 12mm ,170 mm

HWY 118EXT Pumpenaggregat



Pos.	No.	Bezeichnung	Description
1	ETE504300	Elektromotor 3,0 KW 400V, 50Hz, 1420	Electromotor 3,0 KW, 400V, 50Hz, 1420
2	5680301580	1 Schlauchtülle, 3/8" AG x 13 mm	brass nipple 3/8" x 13 mm
3	3780000030	2 1/2" Schlauch (Länge angeben)	1/2" hose (order lenght you need)
4	ETE180500	Wassermangelschalter f. Waschbär SE	low water swich
5	5684901208	1 WE-15 x 3/8 Winkelverschraubung,	h.p. fitting
6	ETD500100	Unloaderventil VB 9 m. Druckschalter	unloaderventil VB 9 w. switch
7	5684901060	1 GE 12-PLR-R3/8 Gerade Einschraubvers.	hp fitting
8	ETD161600	1 12 x 3/8" WE RST Sonder - Winkelverschraubung	hp fitting
9	5680301500	Schlauchtülle 1/2" AG x 6 mm	low pr. Fitting 1/2" AG x 6 mm
10	5680301350	T-Stück 1/2" Mess. AG x IG x IG	T-pc 1/2"
11	ETA350040	4 Gummi-Metallpuffer, 40 x 30 mm 2xM8 AG	rubber element
12	ETD345010	1 Verlängerung, 60mm, 1/2" AG x 1/2" IG M	extention brass 1/2" x 60 mm
13	5680301630	1 1/2" Verschraubung, keg. 1/2" Ag.xAG. Mess.	union 1/2" m x m brass
14	5680301410	Winkel 90° 1/2" IG x AG Messing	ellbow 90° 1/2" ma. x fe.
15	3708500518	Hochdruckschlauch 600mm 2ST 10, es AGR 3/8"	hp hose 600mm 2ST 10, es AGR 3/8"
16	3686904003	Muffenschieber 1/2"	sleeve valve
17	5680301490	3 Schlauchtülle, 1/2"AG. x 13mm	brass nipple 1/2" x 13 mm
18	3882800040	Rückwand Waschbär SE montagefertig	rear panel

HWY 118EXT Schaltkasten



Pos.	No.	Bezeichnung	Description
1	3652458110	Miniaturrelais MY4 24VAC	miniatur relais
2	3652473404	Schütz 12A 1S+1Ö 24V 50/60Hz	contactor 12 A
3	3651427520	Hauptschalter für Bodenbefestigung	mainswitch
4	ETE116200	1 Zeitrelais rückfallverzögernd Typ 51183	electronic timer relais delayed
5	3659151425	1 Verdrahtungskanal LK 4 40/25	PVC installation tube
6	3652291002	12 Durchgangsklemme	terminal block
7	3652299000	Schutzleiter Klemme	ground terminal block
8	3652251201	Schutzleiterklemme USLKG16N	earth terminal
9	3652251110	Reihenklemme UKN16BU	terminal block
10	3652251100	Reihenklemme UKN5BU	terminal block
11	3652251200	Schutzleiterklemme USLKG4	earth terminal
12	ETE600000	1 Transformator RST 100 400V / 24 AC	transformer
13	3652299100	3 Sicherungshalter	fuse holder
14	3652051951	Glasrohrsicherung 5x20 3,15A tr	fuse 5 x 20 3,15 A tr
15	ETE153500	1 Glasrohrsicherung 5 x 20 1,0 A tr	fuse
16	ETE153500	1 Glasrohrsicherung 5 x 20 1,0 A tr	fuse
17	ETE151300	Glasrohrsicherung 5 X 20 0,5A träge	fuse 0,5A
18	3651773209	Motorschutzschalter 6-10A	circuit breaker
19	3651251300	Dreiphasenschine 1065mm SZ PSB 4N	power rail 3 ~
20	3651851010	Leitungsschutzschalter B10 1polig	fuse automat B10
21	3651268220	1 Klemmkasten	power panel