



TW X-31 / TW X 36

Tyre fitting machine

twinbusch.de



INSTALLATION, OPERATION AND MAINTENANCE MANUAL



Read this entire manual carefully before installation or operation of the TW X-31 / TW X-36. Follow the instructions

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TWIN BUSCH GMBH

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1. Introduction/application

This automatic tyre machine is especially designed for the removal and fitting of standard, low section and run flat tyres up to small transporters (12" outer & 28" inner).

Attention: This machine is only designed for the removal and fitting of tyres, under no circumstances should you use this machine for any other purpose. The manufacture will not accept any responsibility for damage or injury caused by misuse.

Warning:

Please read this manual carefully before operating the TW-X98 and keep this manual safe for future reference.

Guarantee will be void if any technical changes are made to the construction of the TW-X98 without the approval of the manufacture.

2. Safety precautions

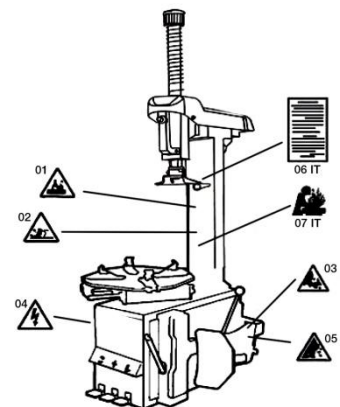
Only trained qualified personnel are allowed to operate the TW-X98 tyre fitting machine.

If the machine is damaged or needs parts replacement, work should be stopped immediately. For advice and repairs please contact the manufacture or dealer for further information.

The manufacture offers one year guaranty after buying for any repair within a normal usage, damage caused by misuse will not be covered. Spare parts can be ordered according to the parts list in this manual.

3. Safety warning

- 01 Keep hands clear of the mounting head during operation.
- 02 Keep hands clear of the rim clamp during operation.
- 03 Use extreme caution when operating the bead breaker, keep hands and feet clear.
Always stand to one side and be sure that the wheel is securely clamped to avoid the wheel jumping out.
- 04 Please make sure that the TW-X98 is correctly earthed.
- 05 Always wear protective clothing and safety glasses during operation.
- 06 Take note of all warnings!
 - The TW-X98 is equipped with a mechanical protection against over inflating.
 - Tyres and rims should always have the same sizes and have no signs of damage.
 - Never overinflate, always make sure of the correct tyre pressure as over inflation can lead to explosions which can cause serious injury or even death.
 - Take care when inflating tyres not to trap fingers.



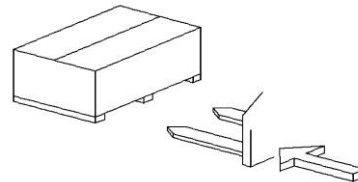
4. Technical Data

Type	TW X-31	TW X-36
Rim diameter (outer)	12" - 24"	12" - 24"
Rim diameter (inner)	14" - 26"	14" - 26"
Wheel (max.)	45" (1143 mm)	45" (1143 mm)
Rim diameter (max.)	16" (406 mm)	16" (406 mm)
Pressing weight	2500 kg	2500 kg
Pneumatic connection	8-10 bar	8-10 bar
Power input	380 V	380 V
Motor output	0,75 kW	0,75 kW
Noise level	<70 dB	<70 dB
Net weight (ca.)	246 kg	320 kg

5. Transport

To transport the TW-X93 a fork lift should be used and please take note of the lifting points (see diagram below)

Fig. 1



6. Packing

Remove carefully the packing and make sure all needed parts for assembly (see pack list) are available. Should any parts be missing or damaged please don't hesitate to contact the manufacture or dealer.

7. Required work space

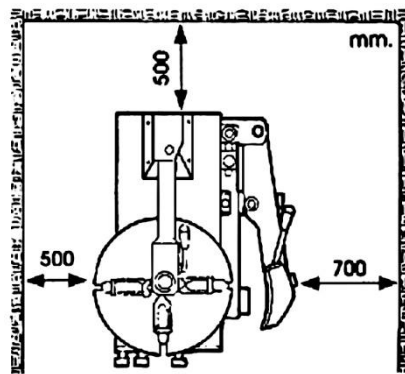


Fig. 2

Choose the designated work place for the TW-X31-36 according to the safety regulations. The power and air supply should be connected according to the instructions. The work place should be dry and the floor level to mount the machine, and a distance should be kept between walls (see Fig. 2).

Warning:

The machine should not be used in areas where there are dangers of explosions.

8. Assembly instructions

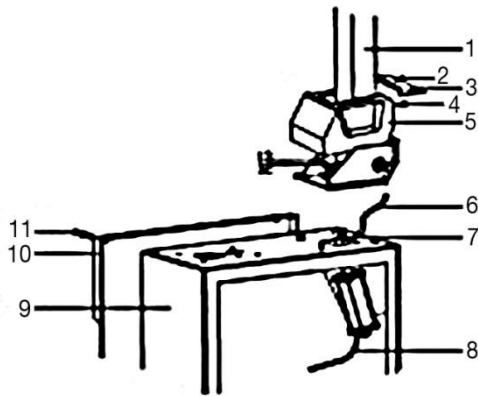


Fig. 3

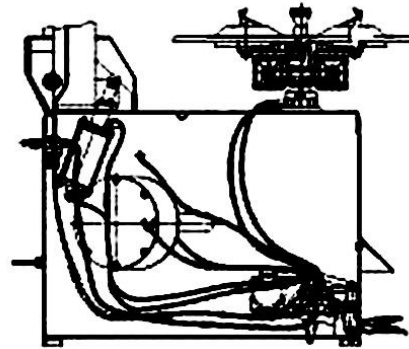


Fig. 4

1. Mount the main column 1 (Fig. 3) on the 4 bolts of the housing 9 (Fig. 3), push the air hose through the hole 6 (Fig. 3) and tighten the self locking nut.
2. Place the bolts in the holes and connect the cylinder 7 (Fig. 3)
3. Loosen the screws 11 (Fig. 3) and remove the left hand side panel 10 (Fig. 3) then connect the air hose to the T-junction inside the machine.
4. Mount the plastic cover 5 (Fig. 3) with the two screws 4 (Fig. 3)
5. Mount the rear plastic cover 3 (Fig. 3) on the column with the screws 2 (Fig. 3)
6. Mount the air tank at the back of the machine (Fig. 5) and tighten the nut 1 (Fig. 5) on the bolts 2 (Fig. 5), and attach the hose 4 to the tank 3.

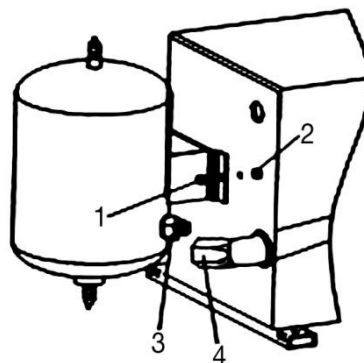


Fig. 5

(Only TW X-36)

Remove the water separator and fit the assistant arm using the provided Allen key and screws. Refit the water separator and connect the air supply using the T junction.

9. Pneumatic and electrical connections

1. Connect the pressure gauge to the designated connector at the back of the machine.
2. Connect the TW-X98 to the compressed air supply over the regulator on the right hand side.
(Pipe/inside diameter 7~8 mm), recommended air pressure 8~10 bar.
3. Air pressure above 10 bar is not permitted and could damage the machine which would result in a refusal of guaranty from the manufacture.

Attention: If the pressure in the workshop is more than 10 bar an extra regulator should be installed.

Before the machine is connected to the power source please check that the voltage is equivalent to that of the ID plate at the back of the machine. **IMPORTANT the machine must be earthed** and connected with a 30A circuit breaker.

Attention: Check the ID plate for the correct voltage.

All electrical connections must be carried out by a qualified electrician.

The manufacture will take no responsibility through disregard to the manual.

Warning: Warning stickers should be kept clean and replaced when unreadable or damaged.

The machine should not be used when the stickers are missing.

Do not obstruct the stickers they should be readable at all times.

10. Using the controls

Technical changes for purposes of a technical advancement as well as deviation in colour, errors and printing mistakes are reserved.

Pedals:

Turntable - Pedal (To turn the wheel in both directions)



Clamp - Pedal (To clamp the wheel to the machine)



Bead breaker – Pedal (To press the tyre from the rim)



Tilt arm - Pedal (To tilt the main arm back and forth)



Pressure gauge (To inflate tyres)

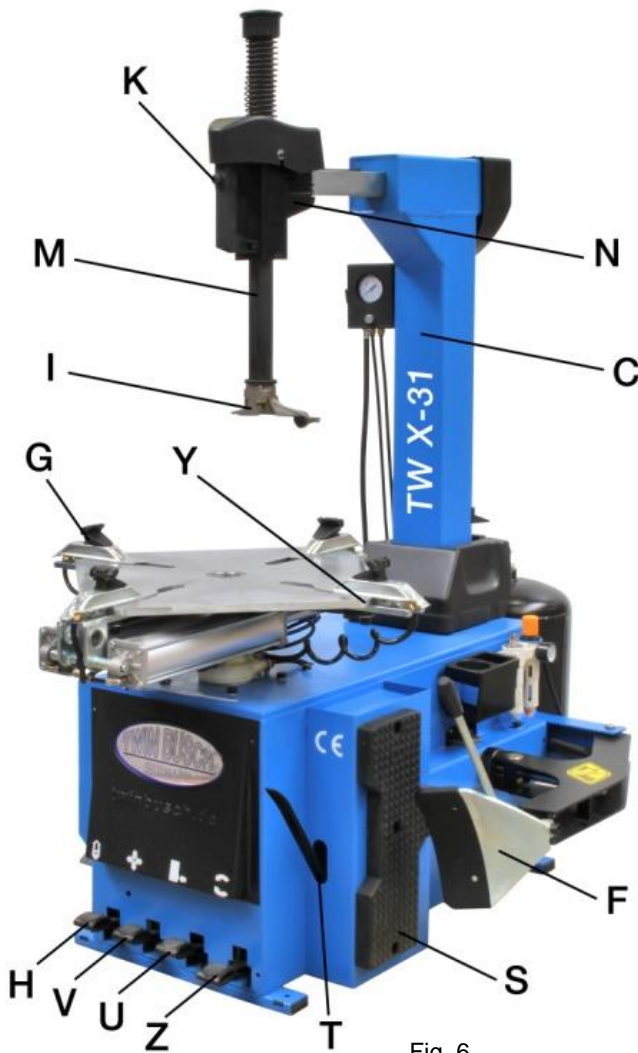


Fig. 6

- K – Vertical arm lock
- N – Horizontal arm lock
- C – Main column
- F – Bead press shovel
- S – Rim protection
- T – Tyre lever
- Z – Rotation pedal
- U – Bead breaker pedal
- V – Wheel clamp pedal
- H – Tilting arm pedal
- G – Wheel clamp
- I – Mounting head
- Y – Turntable

11. Function test

Check after connecting that all functions are working

- Press and pull the turntable pedal it should turn in both directions. (Down clockwise, up anti clockwise)
- Hold the lever on the bead press and press the pedal, the shovel closes on the tyre.
- Press the wheel clamp pedal to open and close the claws.
- Press the tilting arm pedal to move the arm to the rim and back again.
- Press the button on the horizontal and vertical arm to lock or loosen the arm. When locked the mounting head will automatically adjust to 3mm away from the rim to prevent damage.
Press the button once again to release.
- Press the inflation pedal to inflate and deflate the tyre.

12. Tyre fitting instructions

Attention: Remove all weights from the rim before you start working with the machine.

12.1. Breaking the bead

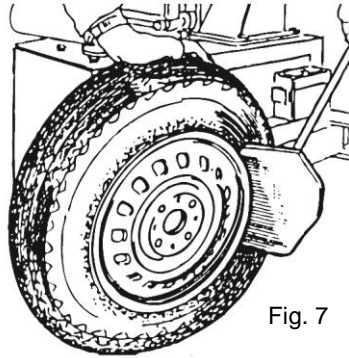


Fig. 7

Please take care when using the bead breaker, the arm presses with a force of 2500 kg and moves with a great jolt.

This could lead to injury if wrongly operated.

- Be sure to let the air completely out of the tyre by removing the valve core before trying to press off the tyre.
- Open the arm with the lever by hand and roll the wheel in up to the desired point. Press the rim against the rubber support on the machine, and place the shoe (Fig. 7) 10mm away from the rim.

Press the bead breaker pedal and the shoe will press against the tyre, repeat this action in various positions on both sides of the wheel until the tyre is completely free from the rim.

12.2. Clamping the rim

- Make sure that all weights are removed.
- Clamp the rim using the clamp pedal, making sure that the wheel is in the middle of the turntable.
- Press the tyre down with the assistant arm to aid with the lubrication (Fig. 8).
- Lubricate the tyre and remove.

Attention: Never place hands under the rim when clamping.

- To clamp a wheel from the inside, (wheel diameter from 12" to 24").
- To clamp a wheel on the outside (wheel diameter from 14" to 26").

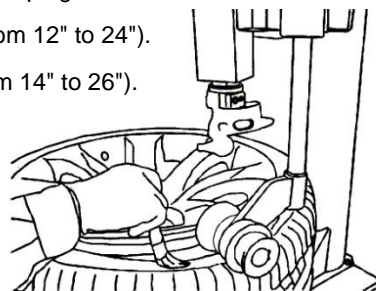
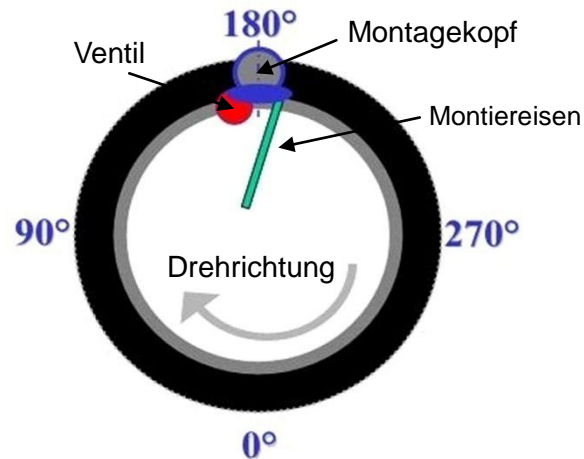


Fig. 8

12.3. Removal of the tyre



To avoid accidents always keep hands and other body parts away from moving parts when operating.

- Place the mounting head on the rim using the swing arm and adjust the distance, press the button on the swing arm to fix the position. The mounting head will automatically lift 2 or 3 mm.
- Insert the tyre lever between the tyre and right side of the mounting head and pull the tyre over the mounting head.



Fig. 9

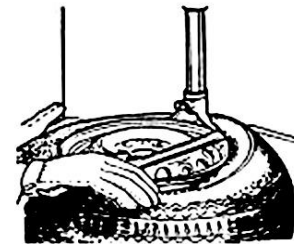


Fig.10

Caution:

If the wheel is fitted with an inner tube it is recommended to place the valve approximately 10 cm to the left of the mounting head to avoid damage to the tube.

- Hold the tyre lever in position (Fig. 8) and press the pedal (J), the turntable will turn clockwise and the tyre will be forced over the mounting head. Keep pedal pressed until the tyre is completely removed from the rim.
- When fitted remove the inner tube.
- Repeat the steps to dismount the back side of the tyre and remove from rim.
- **(Only TW X-36)** Press the tilt pedal and move the column back, move the assistant disc under the tyre and pull the pedal to turn left and push the tyre up over the rim.
- Repeat the steps for the other side of the tyre.
- Remove the tyre from the rim.

12.4. Mounting the tyre

Check tyre and rim,

Attention: Be sure that tyre and rim are of the same size to avoid accidents.

Check for damage on the rim and tyre, if damaged it should be replaced.

Take extra care with aluminium rims as hairline cracks are difficult to see and when damaged should not be used.

Mounting the tyre:

- Replace the valve.
- Lubricate the tyre with appropriate paste.
- Clamp the rim, if it was removed.
- Turn the valve to the top position next to the mounting head.
- Place the tyre according to the markings in the right direction of rotation over the rim.
- Adjust the mounting head as in description 12.3.
- Be careful not to trap fingers when mounting tyres, keep hands away from the rim when turning the wheel.
- Place the tyre over the front side of the mounting head and push the tyre down over the rim. (Fig. 9)
- If necessary the tyre can be held in position with the assistant arm
- Press the turntable pedal (J) until the tyre drops completely over the rim.
- If an inner tube is fitted then replace it before continuing with the front side of the tyre.
- Repeat the steps for the front side of the tyre.



Fig. 11

- **(Only TW X-36)** Move the tyre press roller to the mounting head, use the joystick to press the tyre into the mounting position.

Attention:

The turn table should always be turned clockwise when mounting, anti clockwise is only for correction.

13. Inflating the tyre

Warning 

Important: Inflating tyres can be very dangerous, always follow safety instruction to avoid serious injury.

Tyres can explode due to the following:

- The rim and tyre are of different sizes.
- The tyre or rim is damaged.
- The tyre pressure is over the maximum manufactures recommendation.

15. Inflating the tyre

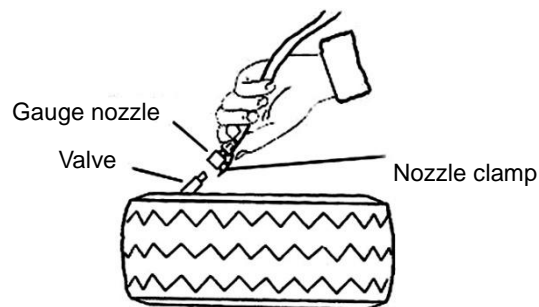


Fig. 10

- Remove the valve cap and take out the valve core.
- Hold and push the nozzle clamp over the valve completely and release the clamp.
Pump the tyre up to approximately 3 bar to ensure that the tyre is properly seated and sealed not forgetting to constantly check the pressure to avoid over inflating.
- Check that the tyre is evenly seated use tyre guidelines if available, replace the valve core and inflate to manufactures recommended pressure.

14. Air booster-Function

This device is designed to aid the inflation of tubeless tyres, through a strong air jet which pushes the tyre against the rim.

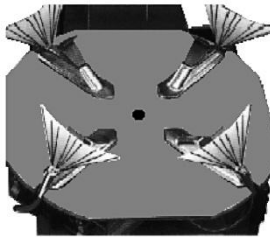
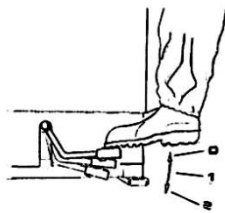
- Clamp the wheel rim (see description 13.2 claws from the inside)
- Remove the valve cap and take out the core.
- Clamp the pressure gauge over the valve and press the pedal fully down, air will be forced through the jets on the claws directly under the tyre. (See Fig below)
- Inflate the tyre to 3 bar making sure that the tyre is properly seated. Remove the clamp and insert the valve core. Inflate the tyre to manufactures recommended pressure.

A safety valve is fitted in the machine which releases at 3.5 bar to avoid the danger of over inflating.

Attention: Tyres can still explode if the manufactures recommendations are not followed.

Warning:

Only qualified trained personnel are allowed to operate this machine. Keep hands and body parts away from the wheel while inflating.

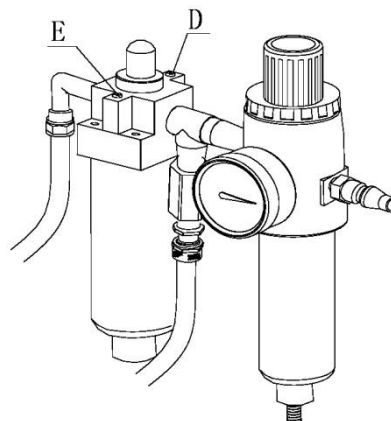


15. Storage

If the machine is not used for a longer period of time it should be disconnected from the power and air supply.

Lubricate all moving parts and drain the water separator/ oil vaporiser.

Protect the machine against dust by covering.



16. Maintenance

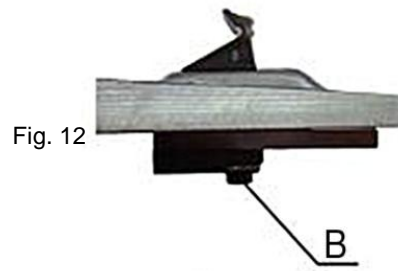


Fig. 12

Attention: Never allow unqualified people to work on this machine, all maintenance work should be carried out from professionally trained personnel. Before any maintenance work is done disconnect the power and air supply. In order to prolong the life of your TW-X98 it is important to carry out regular maintenance and to follow the directions in this manual. Keeping your TW-X98 in good working order will save expensive repairs and prevent injury.

- Always keep your working area clean and free from dust as this will affect the liability of moving parts.
- Check the hexagonal column for movement and keep well lubricated.
- Check the assistant arms for movement and lubricate regularly.
- Check the turntable and claws daily. Clean and lubricate.
- Clean and lubricate all moving parts weekly.
- Check the oil level in the vaporiser weekly, refill when necessary. (SAE30).
- Empty the water reservoir daily.
- Check the tension of the drive belt every 6 months (Abb. 13).
- Check the jets on the claws after 6 months.
- Check the bolts under the turntable (Fig. 12-B) monthly tighten and adjust if necessary.
- Remove protective cover on the hexagonal column and check the tightness of the fixing plate nuts. (If adjustment is made reconnect the air supply and check once again).
- Adjust and clean the valve system as follows:
Remove the cover panel of the housing (Fig.14-x), unscrew the cushion valve and clean the valves (Fig. 15-A) with compressed air. Replace defect parts if needed.

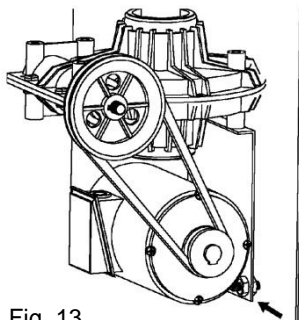


Fig. 13

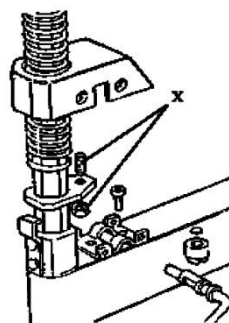


Fig. 14

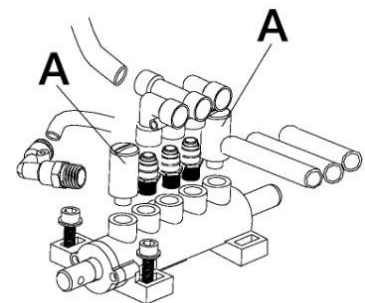
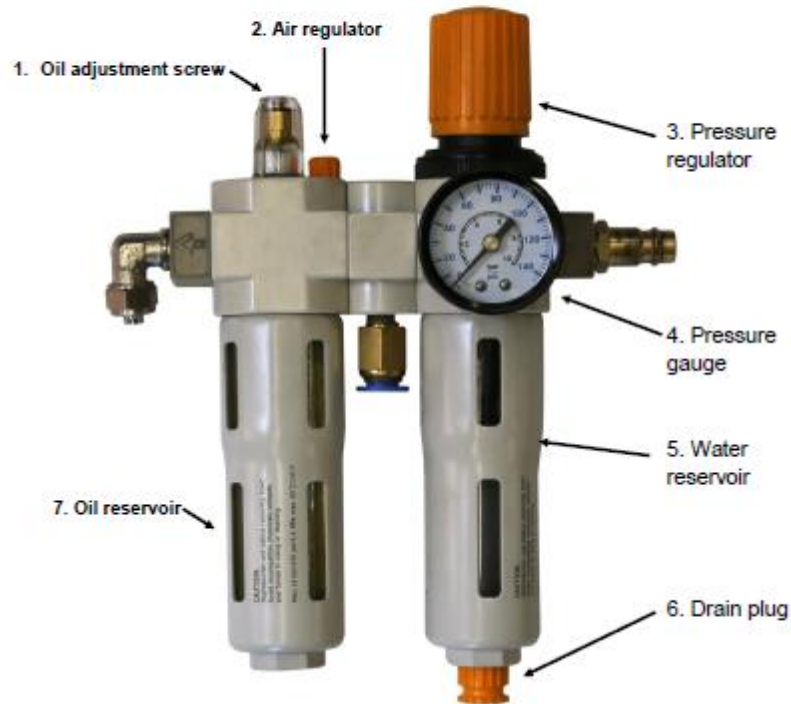


Fig. 15

Water separator / oil vaporiser



1 Application

The water separator works as follows:

- Compressed air flows through the chamber and the condensed water is collected in the reservoir. The oil vaporiser supplies oil to the end device.
- The falling drops of oil are vaporised by the passing air caused by a vacuum in the chamber.
- The actual oil requirement depends on the design of the system. The following values are to be used as a guideline:
- approx. 1 drop of oil/1000 litres air flow: light oil vapour
- approx. 6 drops of oil/1000 litres air flow: heavy oil vapour

Setting the pressure regulator:

- Pull the orange knob (3) up to unlock and turn towards “-“ this will close the valve.
- Turn towards “+“ and fill the system slowly until the desired pressure is achieved.
- Press the knob down to lock.

Setting the oil vaporiser:

- Fill the oil reservoir with oil approx. 60mm of recommended pneumatic lubricant.
- The air pressure can be adjusted with the small screw (2) on the top of the vaporiser.
- The oil adjustment screw (1) is preset and should not have to be adjusted, if adjustment is needed it can be done with a small screw driver. (Warning: this is only for fine adjustment of oil quantity and should be carefully adjusted until the desired level is reached).
- Disconnect the air supply before any maintenance work is carried out on the vaporiser.

Draining the water reservoir:

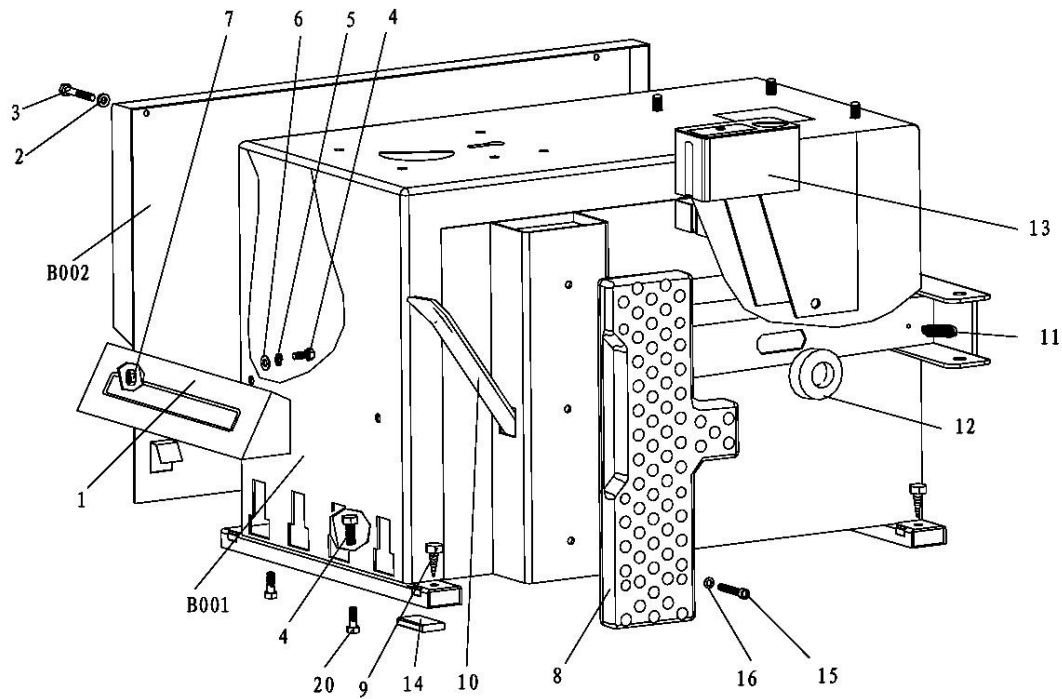
- The reservoir should be checked daily and emptied as required.
- To empty press the drain plug (6) up towards the reservoir to release the water.
- If the system is extremely dirty the reservoir should be removed and cleaned.

Warning: Unauthorised modifications are not permitted and will result in the loss of guaranty.

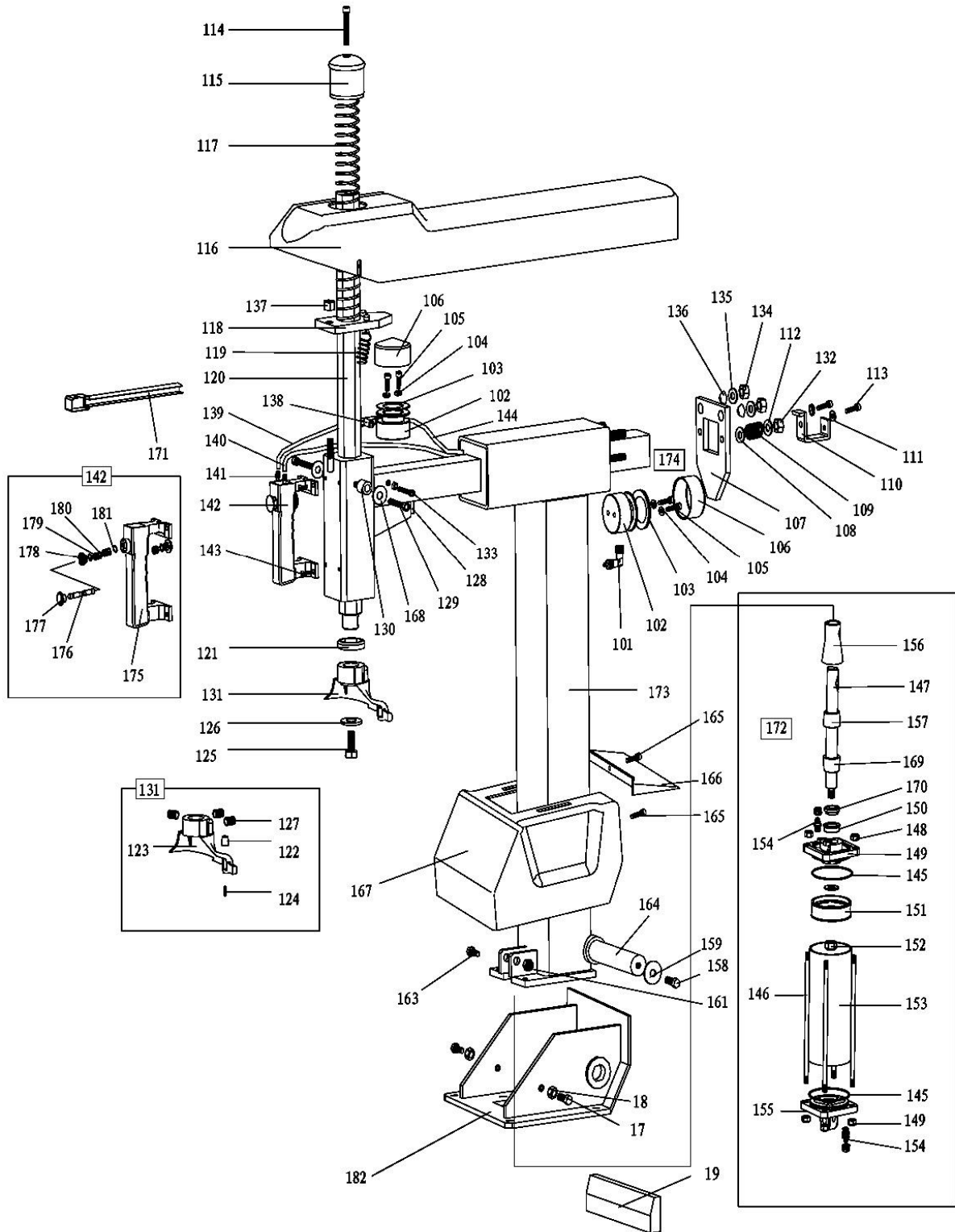
17. Trouble Shooting

Problem	Reason	Solution
The turntable turns in only one direction	Switch malfunction	Check connections
		Replace
Turntable does not turn	Motor is defect, drive belt is loose or damaged	Replace defect parts
		Adjust belt
The claws are not locking	Leakage in air system	Check connections
	Cylinder is defect	Replace defect parts
The mounting head is touching the rim	Wrong setting on the adjustment plate	Adjust
		tighten screws
The bead breaker does not return to start position	Pedal spring is broken, blocked silencer valve	Replace
		Clean or replace
	Insufficient pressure	Check air connections

18. Diagram / Spare parts

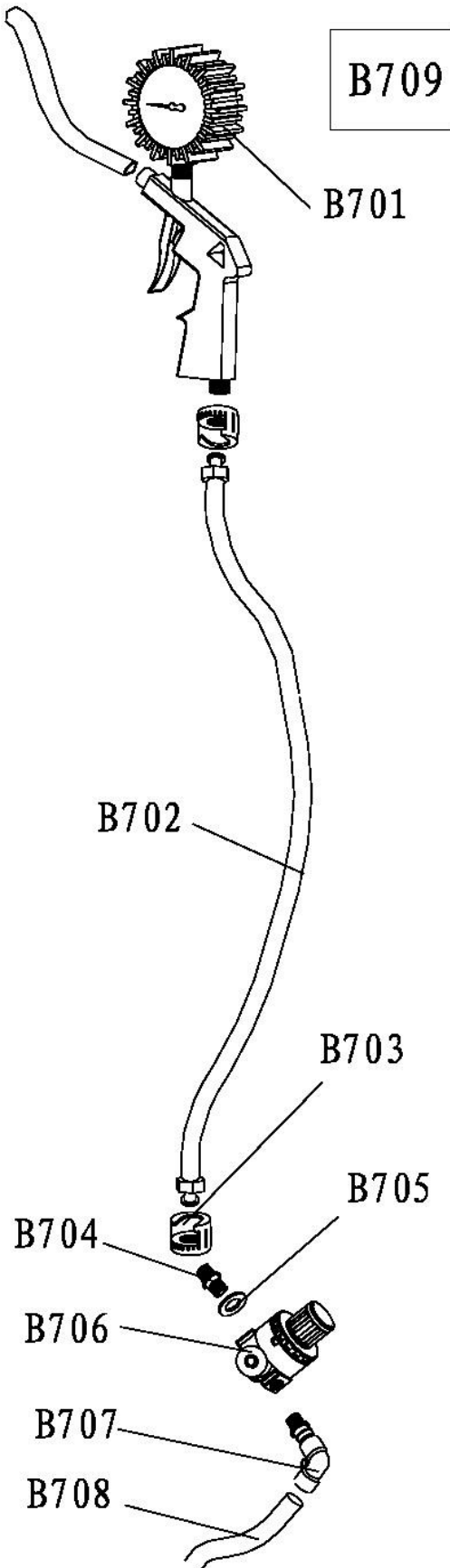


1	Frontabdeckung
2	Unterlegscheibe $\phi 6 * 14 * 1,2$
3	Schraube M6*55
4	Schraube M8*20
5	Unterlegscheibe $\phi 8 * 17 * 1.5$
6	Federscheibe $\phi 8$
7	Mutter M8
8	Gummiauflage
9	Schraube M6*40
10	Montageeisen
11	Rückzugfeder
12	Gummianschlag
13	Kunststoffkasten
14	Gummifuß
15	Schraube M8*25
16	Unterlegscheibe $\phi 8 * 22 * 2$
17	Schraube M10*25
18	Mutter M10
19	Plastikabdeckung
20	Schraube M8*25
B001	Gehäuse
B002	linke Abdeckung

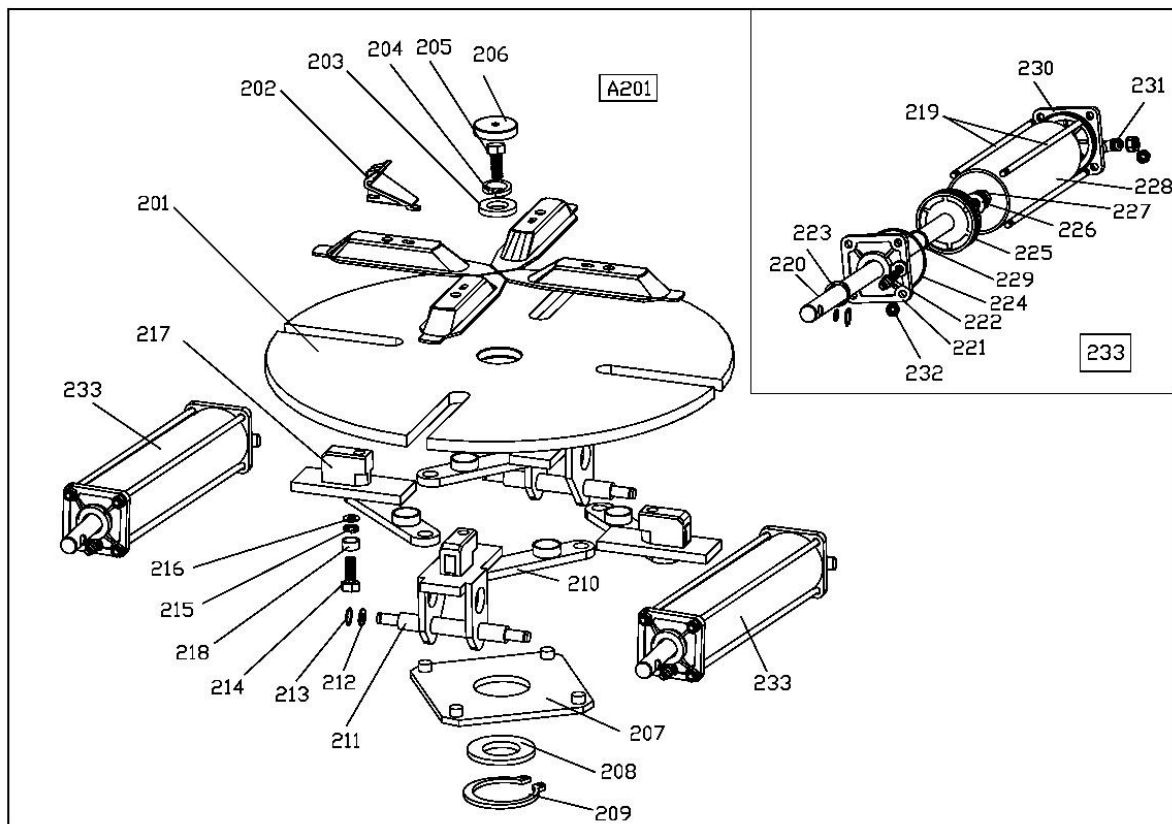
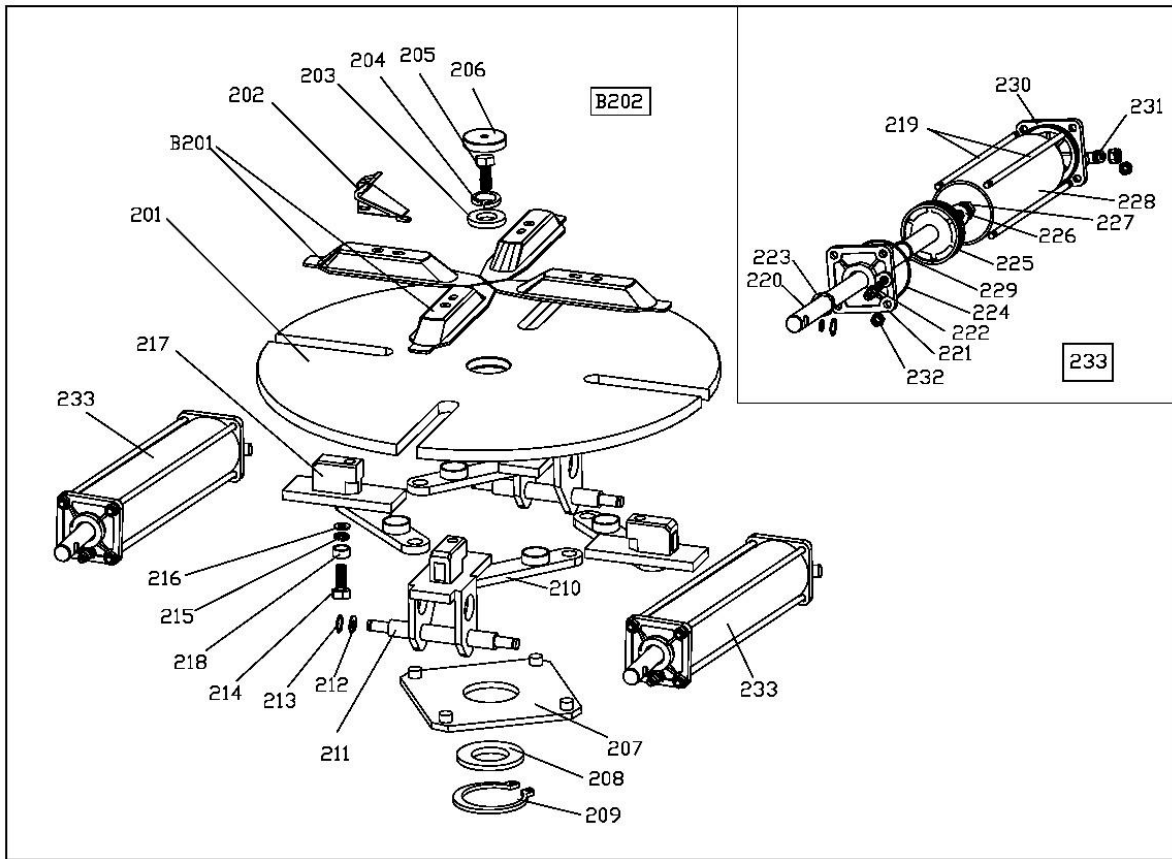


101	L-Anschluss 1/8-φ6
102	Schließzylinderkolben
103	V-Dichtung 60 * 50 * 6,5
104	Unterlegscheibe φ6*14*1.2
105	Schraube M6*55
106	Zylinder Abdeckung φ60
107	horizontale Verriegelungsplatte
108	Unterlegscheibe φ8*17*1.5
109	Verriegelungsfeder
110	Armsicherung
111	Unterlegscheibe φ8*17*1.5
112	Unterlegscheibe φ8*17*1.5
113	Schraube M8*20
114	Schraube M8*50
115	Griff
116	Kunststoffabdeckung
117	Feder
118	vertikale Verriegelungsplatte
119	Feder
120	Sechskantarm
121	Anschlaggummi
122	Rolle
123	Montagekopf
124	Stiftschraube
125	Schraube M10*25
126	Unterlegscheibe
127	Schraube M12*16
128	Anschlag
129	Schraube M6*35
130	Abstandhülse
131	Montagekopf
132	selbstsichernde Mutter M8
133	Schraube M6*30
134	selbstsichernde Mutter M12

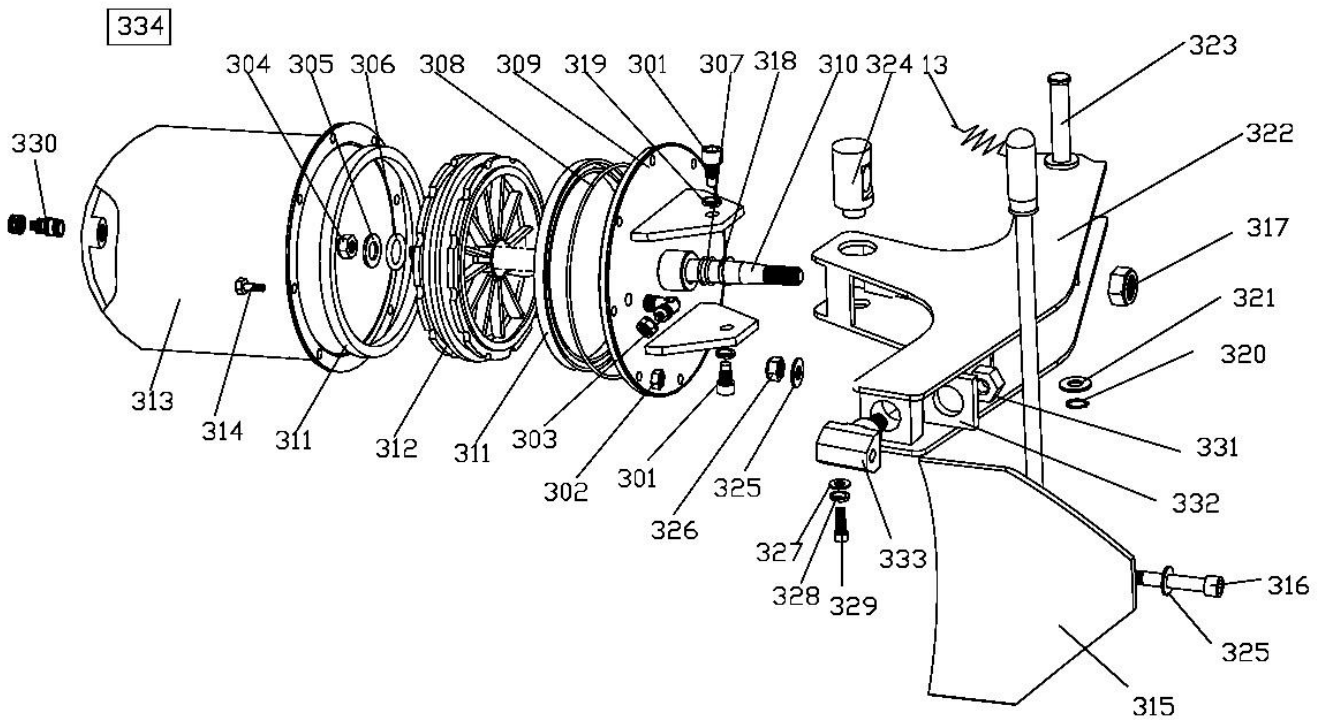
146	Spannschraube
147	Kolbenstange
148	selbstsichernde Mutter M8
149	Zylinderflansch
150	V-Dichtung $\varnothing 20 \times 36 \times 8$
151	Kolben mit Dichtung
152	Mutter M12*7*1,5
153	Zylindergehäuse
154	Verbindungsanschluss 1/8- $\varnothing 6$
155	Zylinderflansch
156	Kolbenstangenschutz
157	Gummianschlag
158	Schraube M10*25
159	Unterlegscheibe
161	selbstsichernde Mutter M12
163	Schraube M10*25
164	Bolzen
165	Schraube M5*16
166	Kunststoffabdeckung
167	Kunststoffabdeckung
168	Unterlegscheibe $\varnothing 6 \times 14 \times 1.2$
169	Unterlegscheibe
170	Abdeckung
171	Kunststoffabdeckung
172	Kompletter Kippzylinder
173	Montagesäule
174	Verriegelungszylinder Komplett
175	Schalter
176	Ventilstange
177	Knopf
178	Abdeckung
179	Abstandhalter
180	O-Dichtung 7.5*2.65
181	Haltering $\varnothing 8$



B701	Manometer
B702	Schlauch
B703	Mutter
B704	Anschluss 1/4-1/4
B705	Unterlegscheibe $\varnothing 13$
B706	Druckminderer
B707	L-Anschluss 1/4- $\varnothing 8$
B708	Schlauch 5 * 8
B709	Luftprüfer

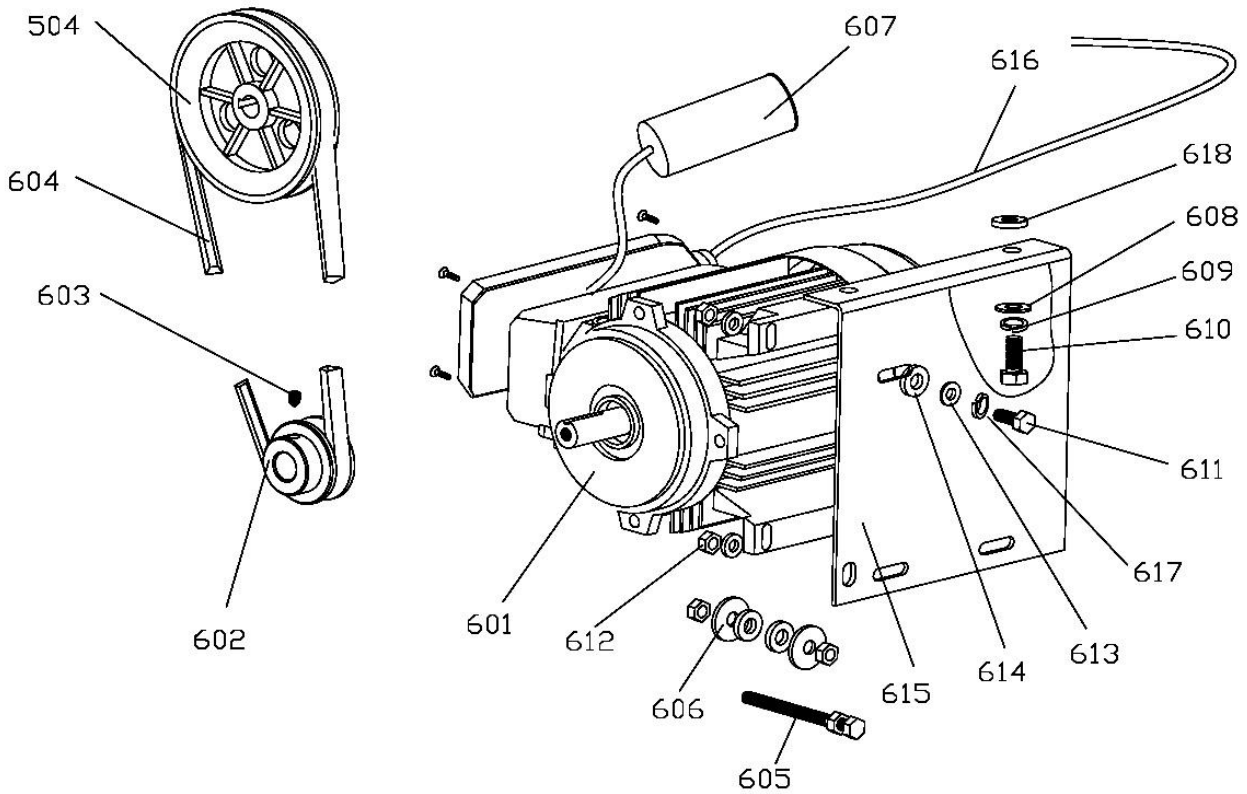


201	Montageteller
202	Spannbacke
203	Unterlegscheibe
204	Federscheibe $\varnothing 16$
205	Schraube M16*40
206	Schutzkappe
207	Drehplatte
208	Scheibe
209	Haltering $\varnothing 65$
210	Schubstange
211	Führungsbolzen
212	Unterlegscheibe $\varnothing 12 * 25 * 2$
213	Haltering $\varnothing 12$
214	Schraube M12*80
215	Federscheibe $\varnothing 12$
216	Unterlegscheibe $\varnothing 12 * 30 * 3$
217	Schiebestück
218	Distanzbuchse $\varnothing 20$
219	Spannschraube
220	Kolbenstange
221	Zylinderabdeckung
222	Anschluss 1/8- $\varnothing 8$
223	V-Dichtung UHS-20 * 28 * 7,5
224	O-Verdichtung 63*2.65
225	Kolben mit Dichtung
226	Unterlegscheibe $\varnothing 12 * 25 * 2$
227	Mutter M12*7*1.5
228	Zylindergehäuse
229	O-Verdichtung 20*2.65
230	Zylinderabdeckung
231	L-Anschluss 1/8- $\varnothing 8$
232	selbstsichernde Mutter M8
233	kompletter Spannzylinder
B201	Spannbackenführung
B202	Kompletter Montagedrehteller $\varnothing 615$

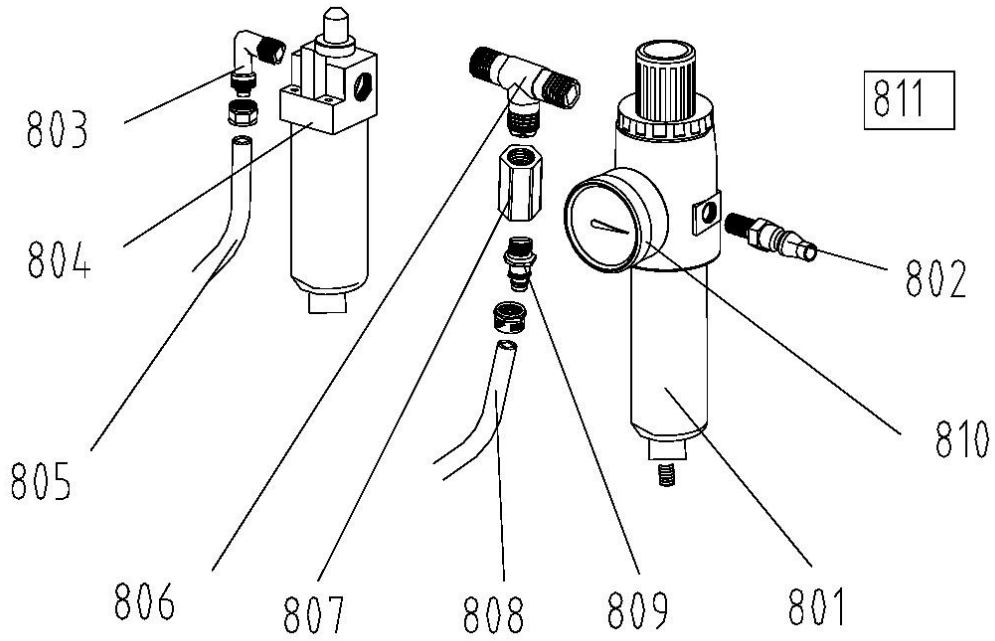


301	Schraube M14*30
302	selbstsichernde Mutter M6
303	L-Anschluss 1/4-φ8
304	Schraubenmutter M16*1.5
305	Unterlegscheibe φ16*28*2
306	O-Verdichtung 16*2.65
307	O-Verdichtung 20*2.65
308	O-Verdichtung 180*3.5
309	Abdrückzylinder Deckel (vorne)
310	Kolbenstange
311	V-Verdichtung 185*168*11.5
312	Kolbenplatte
313	Abdrückerzylindergehäuse
314	Schraube M6*20
315	Abdrückschaufel
316	Schraube M12*100

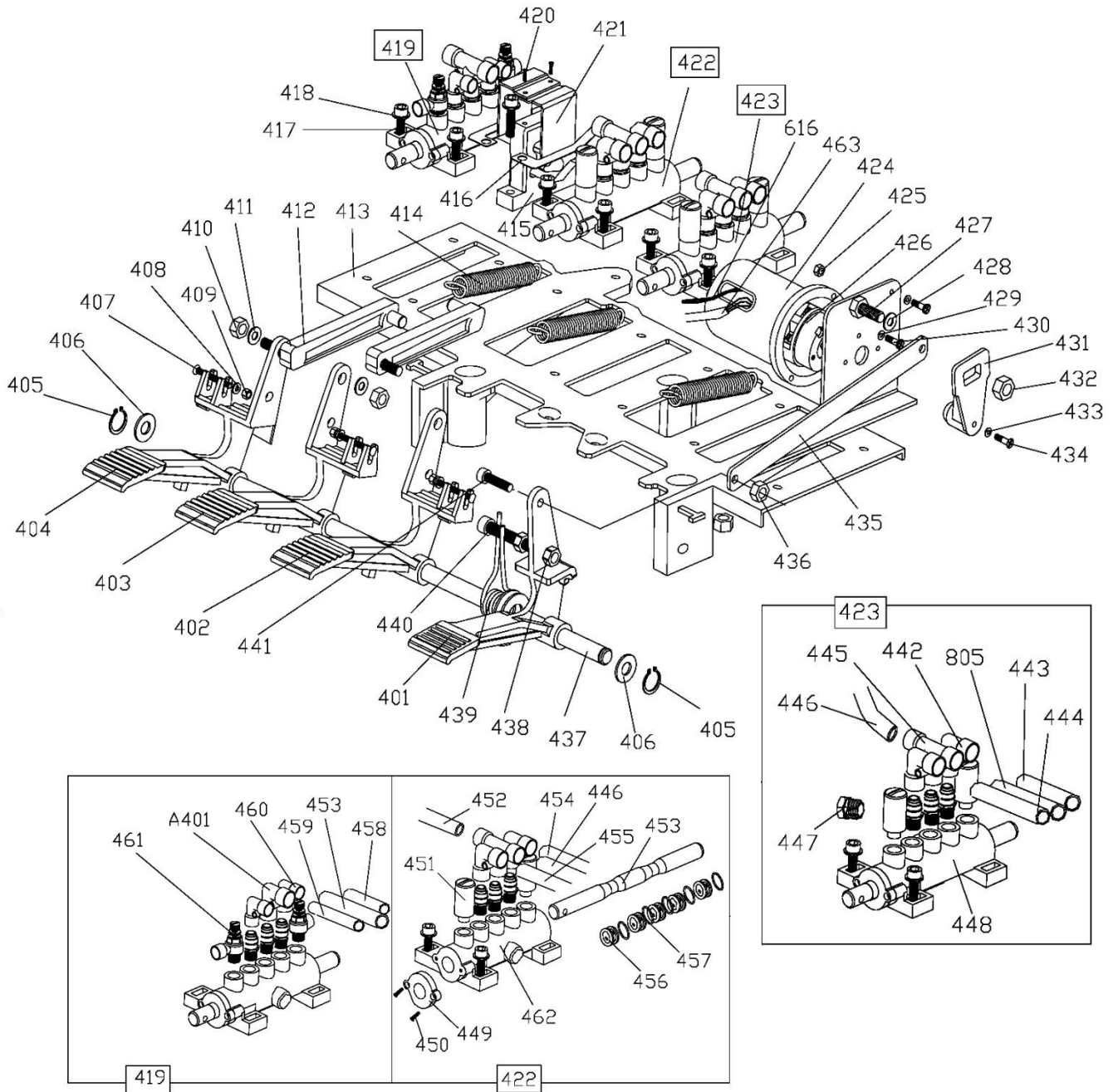
317	selbstsichernde Mutter M16
318	Führungsscheibe
319	Federscheibe φ14
320	Haltering φ16
321	Unterlegscheibe φ16*28*2
322	Abdrückarm
323	Führungsbolzen
324	Führungsbolzen (Kolbenstange)
325	Unterlegscheibe φ12*25*2
326	selbstsichernde Mutter M12
327	Unterlegscheibe φ8*30*3
328	Federscheibe φ8
329	Schraube M8*20
330	Anschluss 1/8-φ8
331	Kompletter Abdrückerzylinder



601	Motor MY8024
602	Riemenscheibe (Antrieb)
603	Schraube M8*12
604	Gurt A-28
605	Schraube M8*70
606	Unterlegscheibe $\varnothing 8.5*30*3$
607	Kondensator
608	Unterlegscheibe $\varnothing 10*20*2$
609	Federscheibe $\varnothing 10$
610	Schraube M10*25
611	Schraube M8*25
612	Mutter M8
613	Unterlegscheibe $\varnothing 8*22*1.5$
614	Gummischeibe
615	Motorhalterung
616	Anschlusskabel
617	Federscheibe $\varnothing 8$
618	Gummischeibe

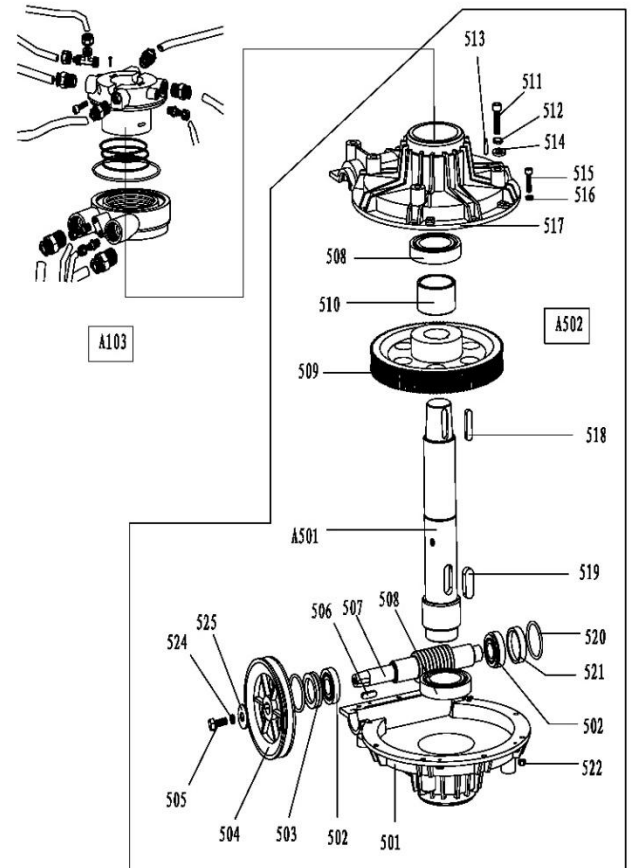
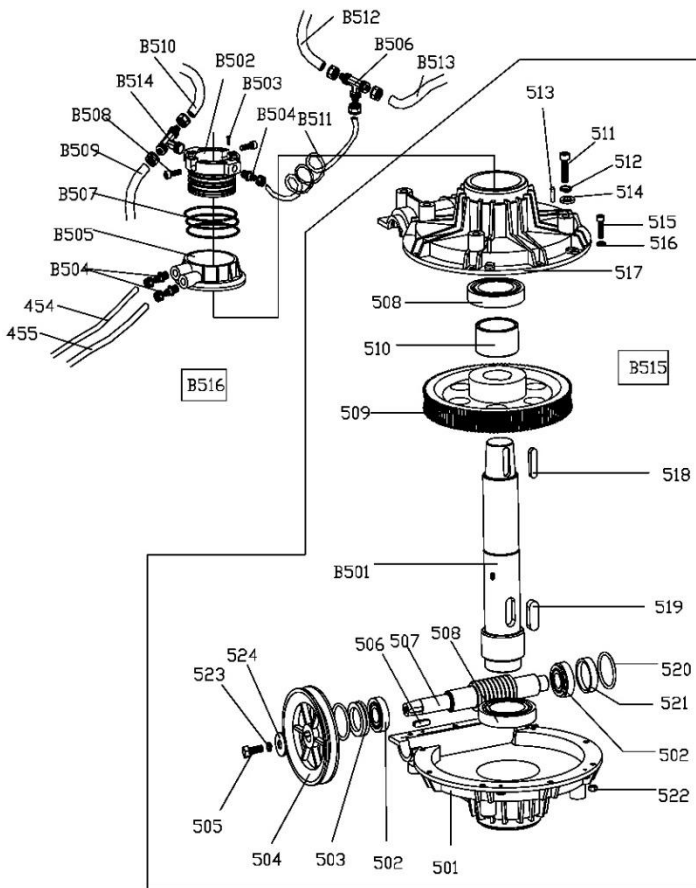


801	Wasserabscheiderglas
802	Druckluftanschluss
803	L-Anschluss
804	Öler-Druckluftwartungseinheit
805	Schlauch 5*8
806	T-Stück/Luftleitung
807	Verbindung 1/4-1/4
808	Schlauch 5*8
809	Verbindung 1/8-φ8
810	Manometer
811	Wartungseinheit mit Druckminderer



401	Pedal (Montageteller Drehrichtung)
402	Pedal (Reifenabdrücker)
403	Pedal (Spannklauen)
404	Pedal (Montagearm)
405	Haltering $\varnothing 12$
406	Unterlegscheibe $\varnothing 12 \times 25 \times 2$
407	Schraube M4*30
408	Unterlegscheibe $\varnothing 4$
409	selbstsichernde Mutter M4
410	selbstsichernde Mutter M8
411	Unterlegscheibe $\varnothing 8 \times 17 \times 1.2$
412	Raststange
413	Pedal-Halteplatte
414	Feder
415	Nutenführungsplatte
416	Unterlegscheibe
417	Schraube M6*20
418	Unterlegscheibe $\varnothing 6 \times 12 \times 1$
419	Komplettes 5-Wege-Ventil (Kipparm)
420	Blechschrabe ST2.9*12
421	Nockenstangenhalter
422	Komplettes 5-Wege-Ventil (Spannbacken)
423	Komplettes 5-Wege-Ventil (Reifenabdrückzylinder)
424	Schalterabdeckung
425	Mutter M4
426	Schalter (Drehrichtung Motor)
427	Schraube M6*20
428	Unterlegscheibe $\varnothing 6 \times 12 \times 1$
429	Unterlegscheibe $\varnothing 4$
430	Schraube M4*16
431	Führungswinkel
432	selbstsichernde Mutter M6
433	Unterlegschrabe
434	Schraube M4*30
435	Schaltstange
436	selbstsichernde Mutter M8
437	Pedalachse
438	Schraubenmutter
439	Ringfeder
440	Schraube M8*50

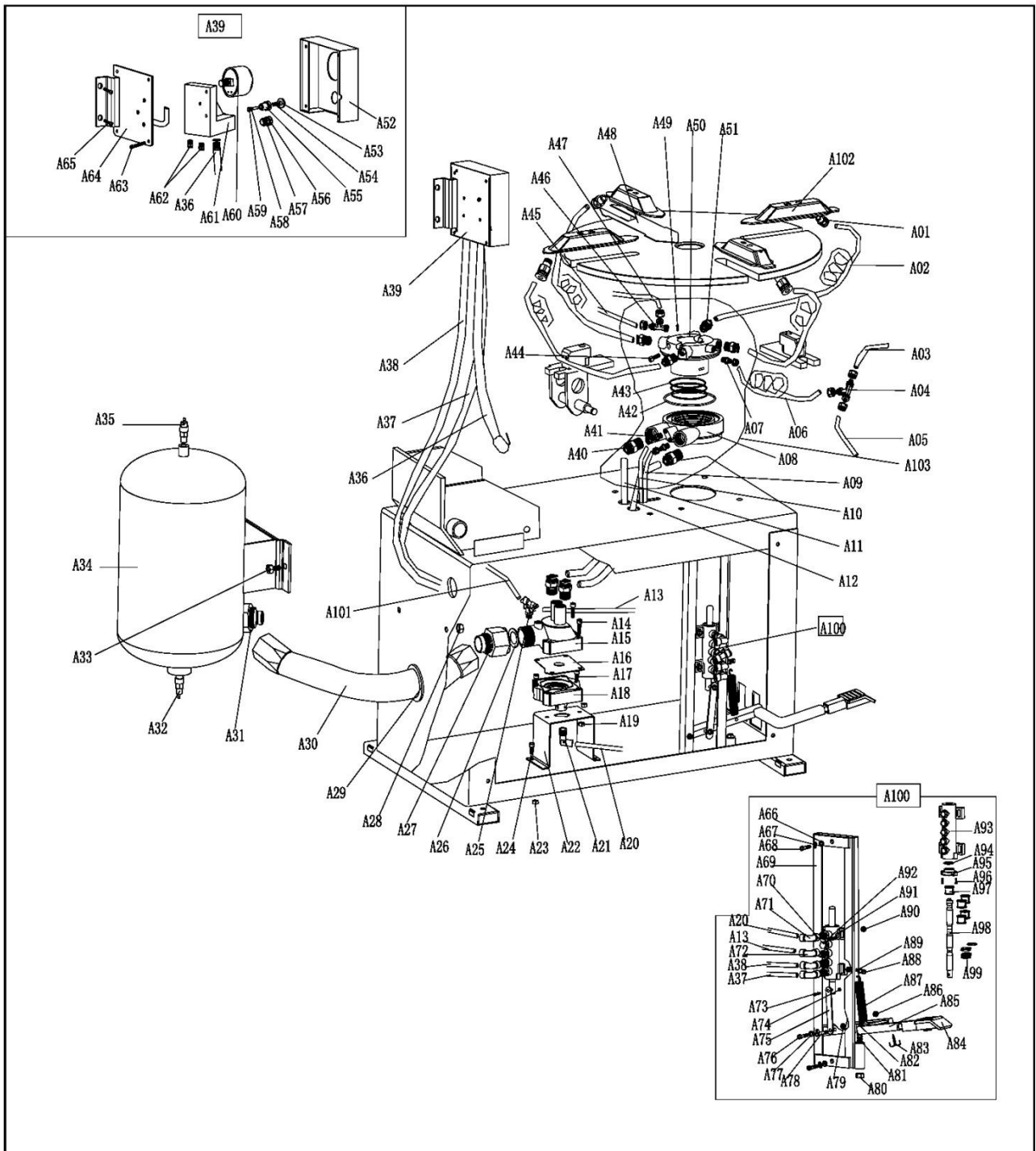
441	Schraube M8*20
442	L-Anschluss 1/8- φ8
443	Schlauch 5*8
444	Schlauch 5*8
445	T-Anschluss 1/8-2*φ8
446	Schlauch 5*8
447	L-Anschluss 1/8-φ6
448	5-Wege-Ventil Gehäuse
449	Ventildeckel
450	Blechschrabe ST2.9*16
451	Schalldämpfer 1/“
452	Schlauch 5*8
453	Ventilstange
454	Schlauch 5*8
455	Schlauch 5*8
456	Abstandhalter
457	O-Verdichtung 12*20*4
458	Schlauch 6*4
459	Schlauch 6*4
460	L-Anschluss 1/8-φ6
461	Einstellventil 1/8-φ6
462	5-Wege-Ventil Gehäuse
463	Anschlussleitung 3*1.5
B401	Schlauch 6*4
B402	L-Anschluss 1/8-φ6



501	Gehäuseabdeckung unten
502	Lager 30204
503	Dichtung $\varnothing 20 \times 35 \times 8$
504	Riemenschiebe
505	Schraube M8*20
506	Keil 6*20
507	Schneckenwelle
508	Lager 6010
509	Schneckenwelle
510	Abstandhalter
511	Schraube M10*55
512	Federscheibe $\varnothing 10$
513	Stift 6*20
514	Unterlegscheibe $\varnothing 10 \times 20 \times 2$
515	Schraube M6*20

516	Unterlegscheibe $\varnothing 6 \times 14 \times 1.2$
517	Gehäusedeckel oben
518	Keil 10*40
519	Keil 14*40
520	O-Dichtung $\varnothing 27.8 \times 3.1$
521	Dichtung
522	selbstsichernde Mutter M6
523	Federscheibe $\varnothing 8$
524	Unterlegscheibe $\varnothing 8 \times 30 \times 3$

B501	Antriebswelle
B502	Drehführung
B503	Schraube M4*6
B504	Anschluss 1/8"- $\varnothing 8$
B505	Ventilgehäuse
B506	T-Anschluss 3* $\varnothing 8$
B507	O-Dichtung 59.9*2.62
B508	Schraube M6*20
B509	Druckluftzufuhrschlauch 5*8
B510	Druckluftzufuhrschlauch 5*8
B511	Schlauch 5.5 $\varnothing 8$
B512	Druckluftschlauch 5*8
B513	Druckluftschlauch 5*8
B514	T-Anschluss 1/8-2* $\varnothing 8$
B515	Komplettes Getriebe
B516	Kompletter Luftverteiler



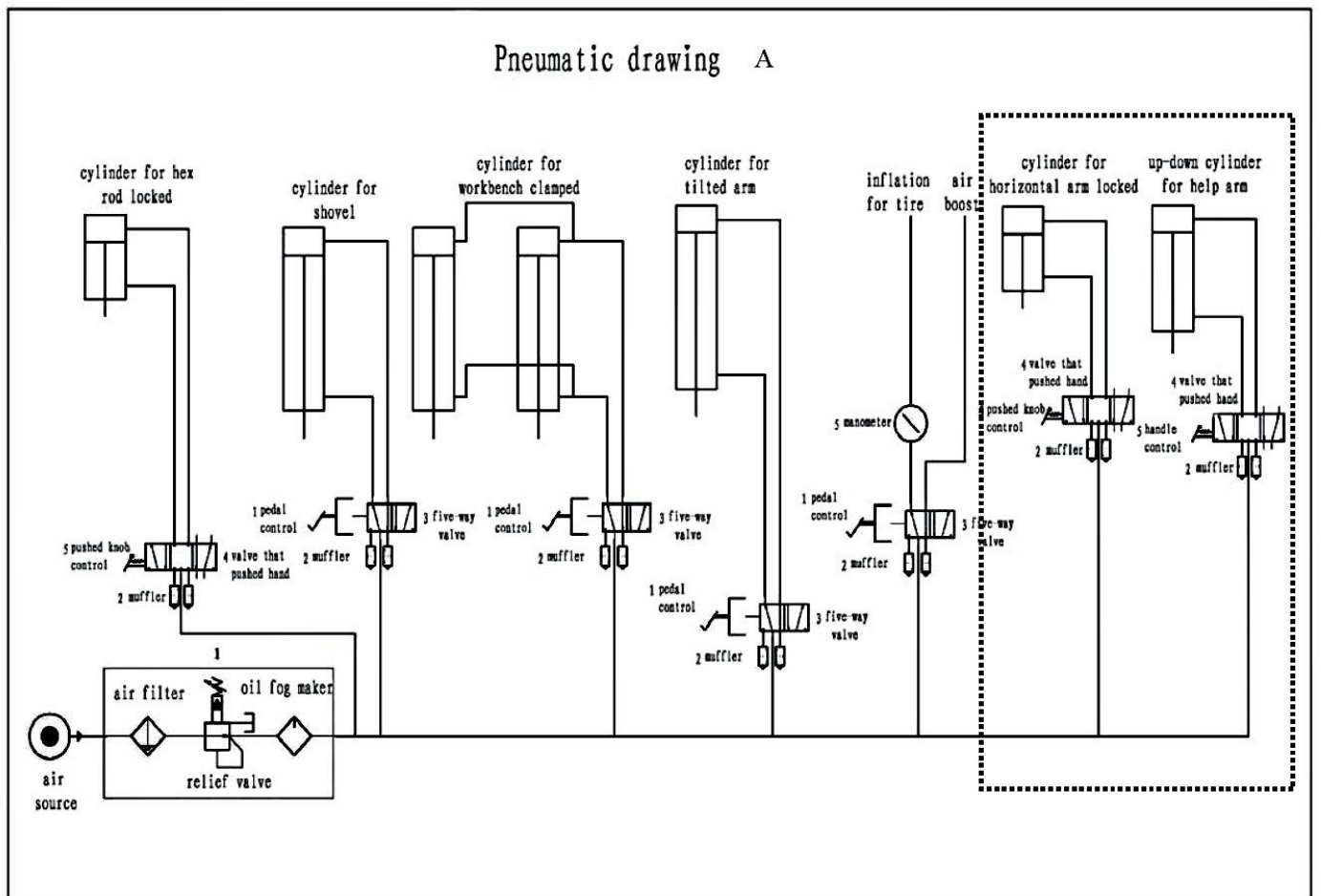
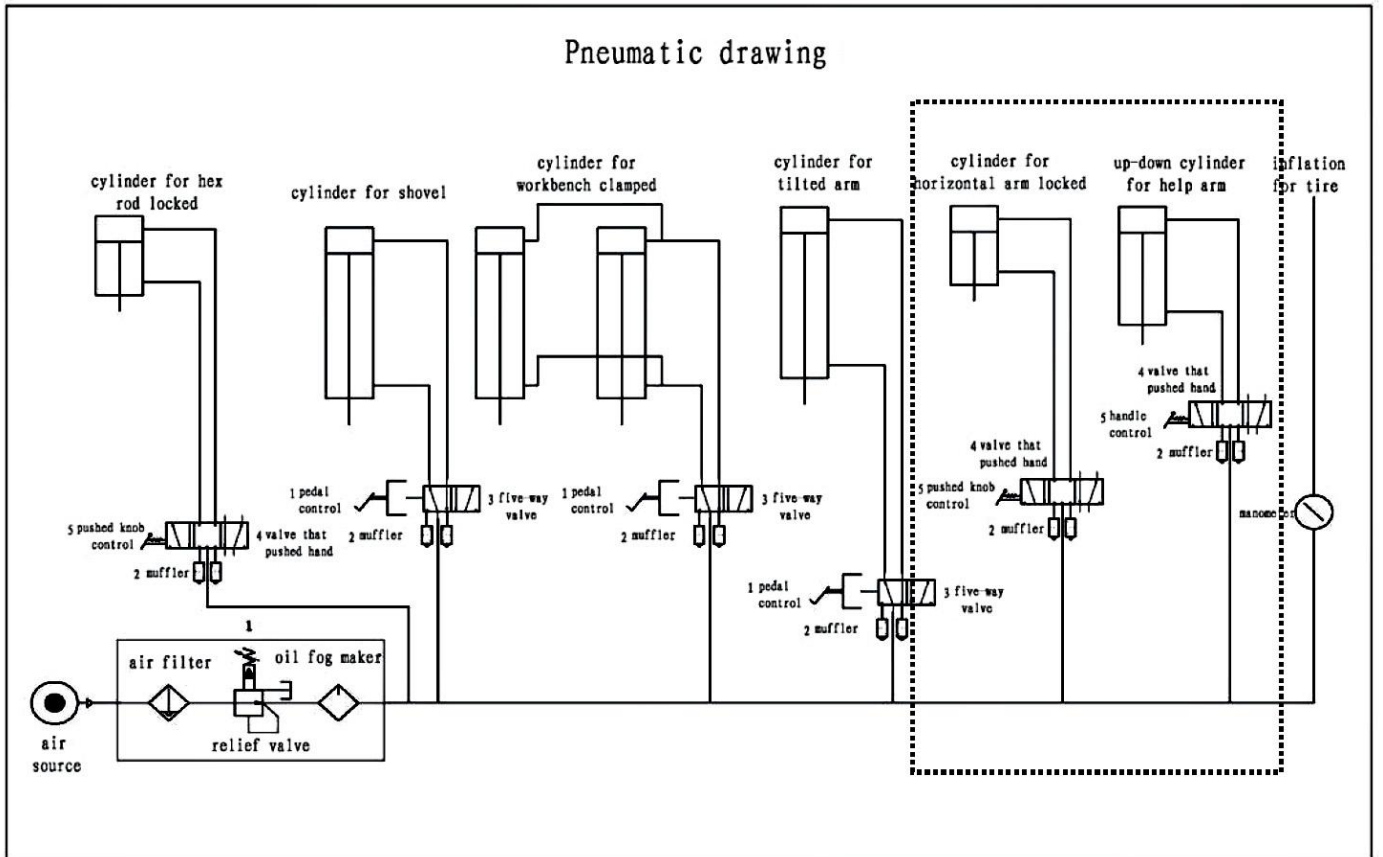
A001	Gehäuse
A002	linke Abdeckung
A201	Komplette Drehteller $\Phi 615a$
A501	Antriebswelle
A502	Komplettes Getriebe
A01	Anschluss 1/4- $\phi 10$
A02	Schlauch 6.5* $\phi 10$
A03	Schlauch 5*8
A04	T-Anschluss
A05	Schlauch 5*8
A06	Schlauch 5.5* $\phi 8$
A07	Anschluss 1/8- $\phi 8$
A08	Luftverteiler
A09	Schlauch 5*8
A10	Schlauch 5*8
A11	Schlauch 12*8
A12	Schlauch 12*8
A13	Schlauch 12*8
A14	Schraube M6*30
A15	Ventildeckel
A16	Gummidichtung
A17	Schraube M6*20
A18	Ventilunterseite
A19	Mutter M6
A20	Schlauch 5*8
A21	L-Anschluss 1/4- $\phi 8$
A22	Halter
A23	Mutter M6
A24	Schraube M6*16
A25	T-Anschluss 1/8-2* $\phi 8$
A26	Gummischeibe $\phi 24*34*2$
A27	Anschluss
A28	Selbstsichernde Mutter M10
A29	Durchführungsschutz
A30	Schlauch
A31	Anschluss
A32	Entwässerungsventil
A33	Schraube M10*25
A34	Tank
A35	Sicherheitsventil
A36	Verbindungsschlauch
A37	Schlauch 5*8

A38	Schlauch 5*8
A39	Kompletter Luftprüfer
A40	Anschluss 1/2- φ12
A41	Anschluss 1/8-φ8
A42	O-Dichtung
A43	O-Dichtung φ62*2.8
A44	Schraube M6*25
A45	Schlauch 5*8
A46	T-Anschluss 1/8-2*φ8
A47	Schlauch 5*8
A48	Seitenplatte
A49	Schraube M4*6
A50	Drehführung
A51	Anschluss 3/8-φ10
A52	Manometergehäuse
A53	Taste
A54	Feder
A55	Ventil

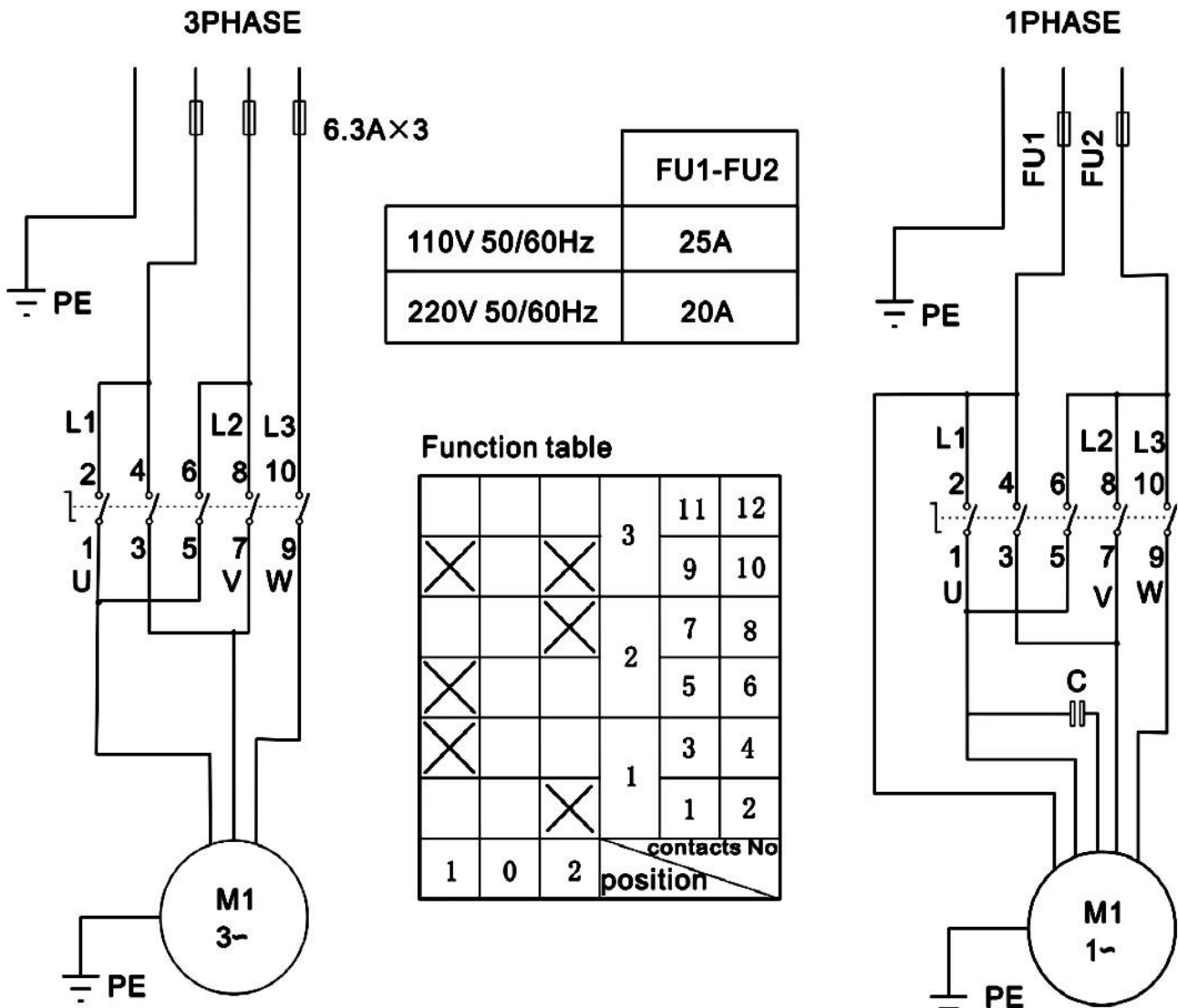
A56	Stecker
A57	O-Dichtung 4*1.8
A58	O-Dichtung 6.9*1.8
A59	Achse
A60	Manometer
A61	Halter
A62	Anschluss 1/8- φ8
A63	Schraube M4*30
A64	Halteplatte
A65	Schraube M6*16
A66	Unterlegscheibe φ8*30*3
A67	Federscheibe φ8
A68	Schraube M6*25
A69	Rahmen
A70	Stecker 1/8
A71	L-Anschluss 1/8- φ8
A72	L-Anschluss 1/8- φ8
A73	Schraube M5*20
A74	selbstsichernde Mutter M5
A75	Ventilstrebe
A76	Schraube M6*25
A77	Unterlegscheibe φ6*12*1

A78	Schraube M8*25
A79	Mutter 8
A80	Selbstsichernde Mutter M10
A81	Feder
A82	Schraube M10
A83	Stift
A84	Pedalgummi
A85	Pedal
A86	Mutter M6
A87	Feder
A88	Schraube M6*25
A89	Mutter
A90	selbstsichernde Mutter M6
A91	Unterlegscheibe $\varnothing 6*12*1$
A92	Schraube M6*20
A93	5-Wege Ventil
A94	O-Dichtung 12*20*4
A95	Ventilabdeckung
A96	Blechschrabe ST2.9*16
A97	Ventil Abstandhalter
A98	Ventilstange
A99	O-Dichtung 12*20*4
A100	Komplettes Fußpedal Reifenfüller
A101	Schlauch 5*8
A102	Sperrungsschieberegler
A103	Kompletter Luftverteiler

19. Pneumatic Diagram



20. Circuit plan





Space for notes:

TWIN BUSCH GMBH



The company

Twin Busch GmbH | Amperestr. 1 | D-64625 Bensheim

declares hereby, that the **vertical tyre changer**

TW X-01, TW X-31, TW X-36, TW X-36 WDK, TW X-39, TW X-98
(TW 1801, TW 1831, TW 1836, TW 1839, TW 1898)

serial no.

in the configuration placed on the market by us, meets the relevant safety and health requirements, as required by the following EC directive(s) in it's/their current version(s).

EG-directive(s)

2006/42/EC machine

Applied harmonized standards and regulations

EN 60204-1/A1:2009 part 1 Safety of machinery - Electrical equipment of machines

CE Certificate

CE-C-0928-11-66-02-2B	date of issue:	09.10.2013
	place of issue:	London
	technical file no.:	TF-C-0928-11-66-02-2A

Certification body

CCQS UK Ltd.,
 Level 7, Westgate House, Westgate Road,
 London W5 1YY UK
 Notified Body Appointment No. 1105

Any alteration to the equipment, improper use or installation void this declaration.

Authorized person to compile technical documentation is: Michael Glade (adress as below)



TWIN BUSCH GmbH
 Amperestr. 1 · 64625 Bensheim
 Tel. 08251 / 70585-0 · Fax: 70585-28

Authorized signatory: Michael Glade
 Bensheim, 08.12.14 Qualitätsmanagement

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