

the cleaning pad is used, it shall also be checked in time according to the wear condition of the cleaning pad to prevent the pad holder from being damaged due to excessive wear of the cleaning pad, resulting in possible floor damage

Operation sequence: (manual installation)

1. Keep the brush cover lifted.
2. Hold the brush with both hands in the diameter direction, align the brush head with the center of the brush, and rotate the brush to the center of the machine to lock the bayonet of the brush head and the bayonet of the brush.
3. After the manual loading is completed, put down the lifting handle of the brush, turn on the key switch to make the machine in the forward state, slightly increase the accelerator on the right foot to make the machine move forward slowly, and feel that the brush has been loaded normally.
4. If you feel that the brush is not installed (jumping), repeat the operation of "3" on the side before operation.

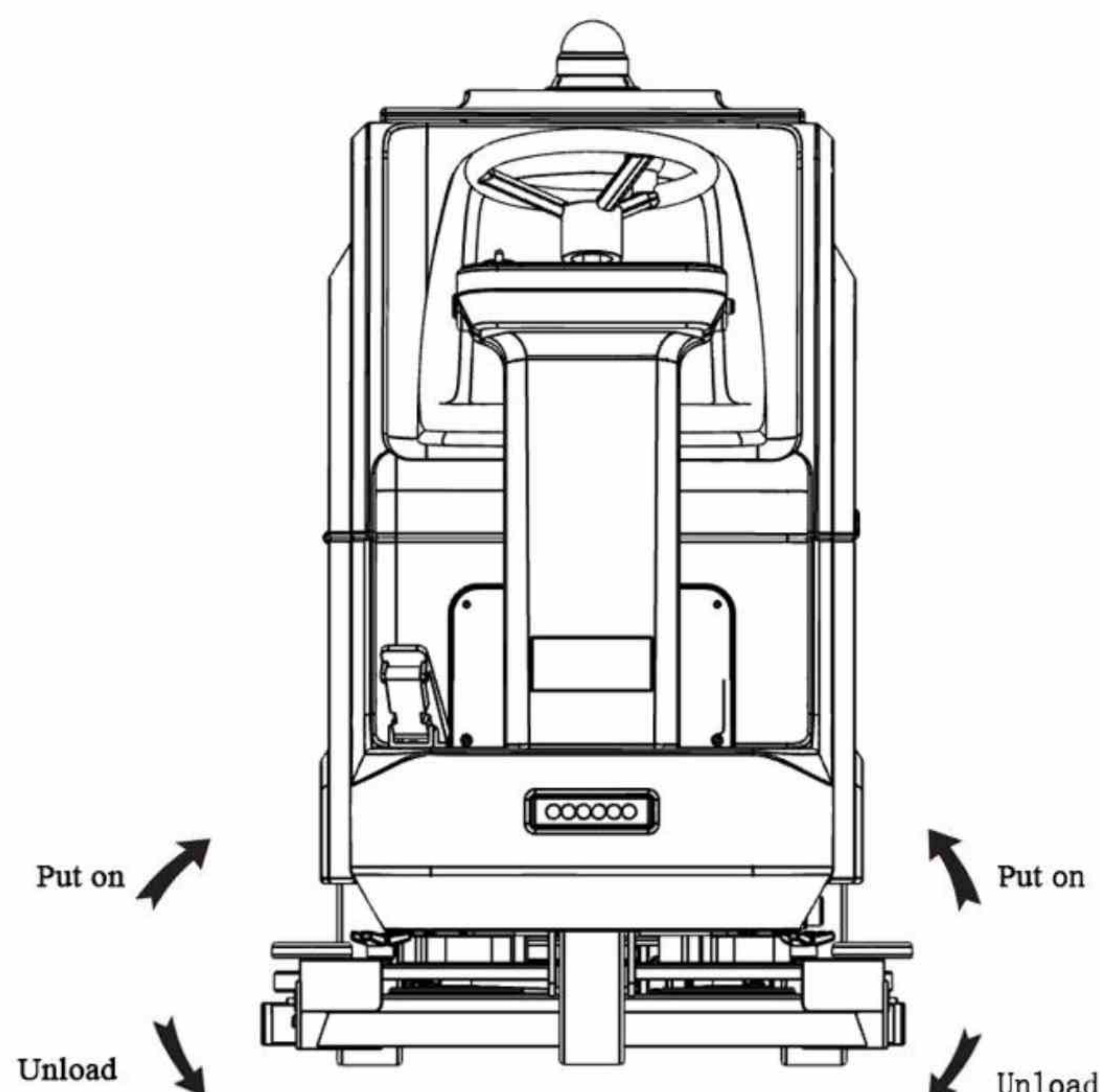
Be careful! This operation can be completed with gloves to avoid injury to hands caused by sundries carried by the brush.

Machine installation:

(operation after mastering the Essentials)

1. Place the brush at the position where the brush should be placed.
2. Put down the handle of the brush and see that the brush cover contacts the brush.
3. Check whether the brush is in place? If it is not in place, pull the brush to make it in place.
4. Open the key and gently press the pedal accelerator to make the machine move forward slightly, the brush rotates and the machine installs the brush.

This is a skill that needs many times of practice.



Clean the suction hose

When the machine is running in public places, it will face sand, hair, toothpicks and other sundries. When running in the factory workshop, it will face sediment, greasy and other sundries. When the machine works in a place with too much garbage and sundries on the floor, it may cause the blockage of the suction pipe. When you find sewage overflowing from both ends of the squeegee during working hours, please check whether the sewage suction pipe is blocked.



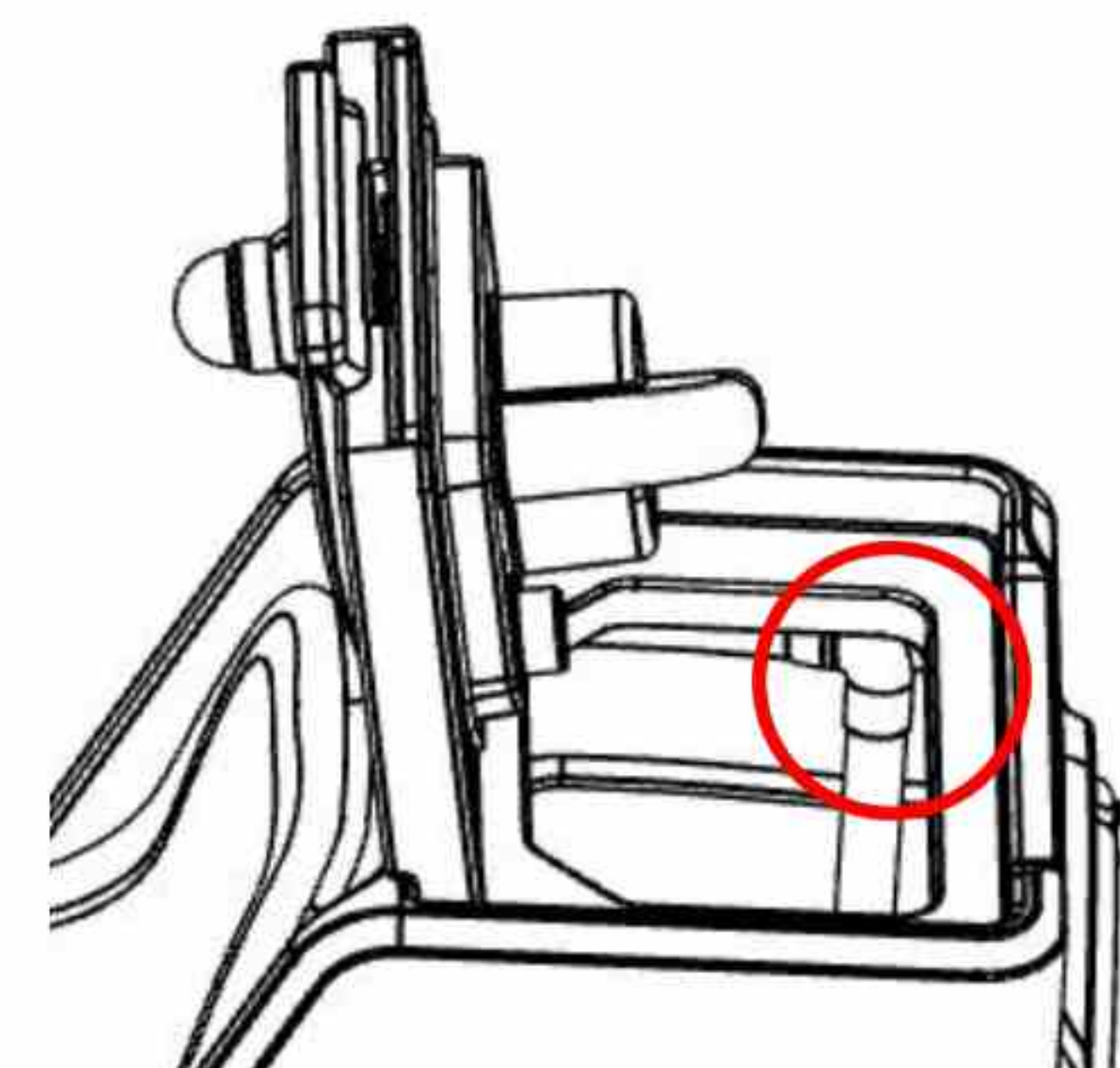
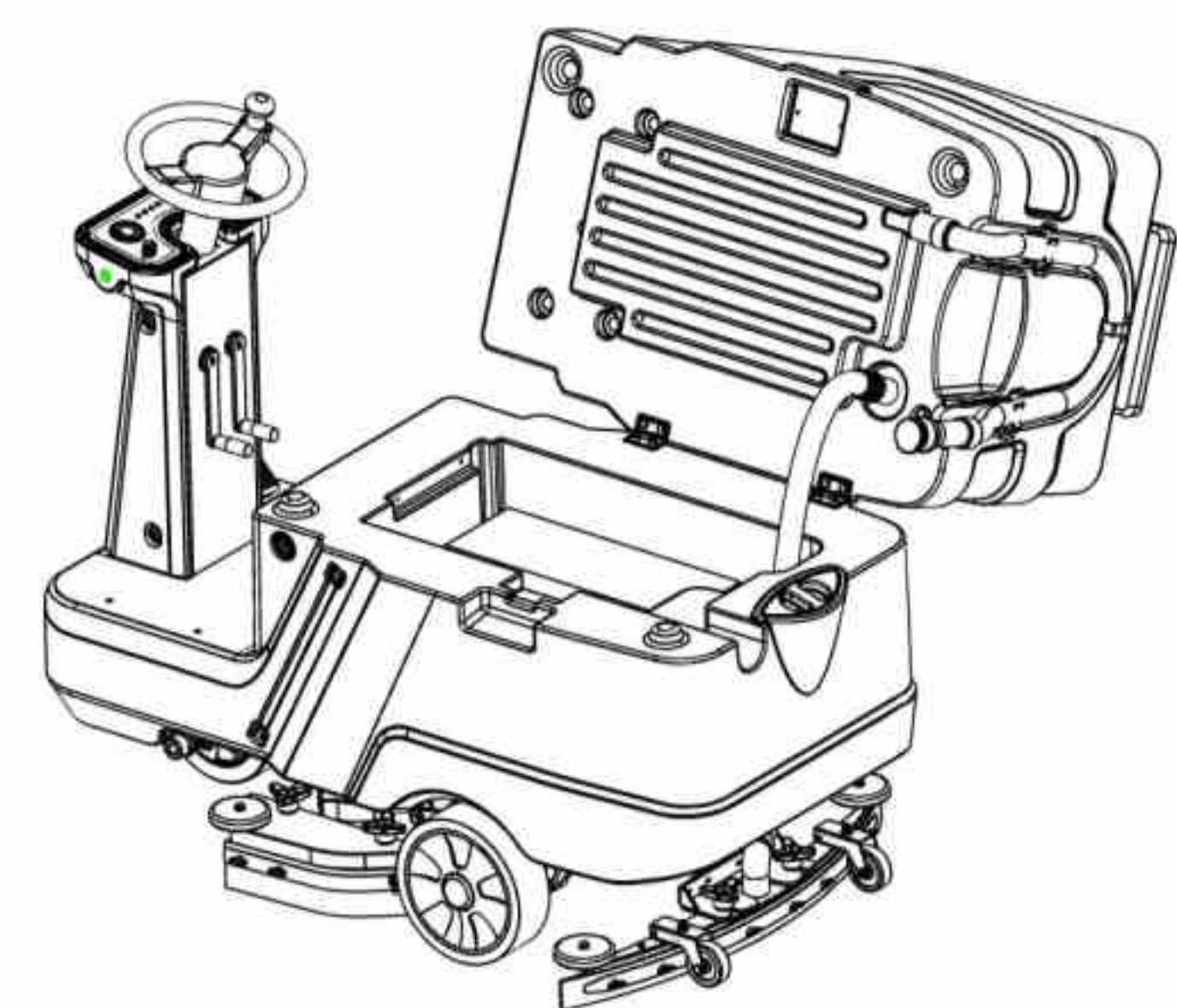
If the suction motor operates normally and the machine turns or goes straight, the sewage will overflow from both sides of the squeegee, indicating that the suction pipe or squeegee must be blocked. Please stop the machine for inspection.

1. Unplug the suction pipe from the squeegee and check whether the suction pipe opening and the sewage suction pipe opening are blocked.
2. You can turn up the recovery tank, remove the suction pipe from the recovery tank, wash it on the tap, remove the blockage, and then reinstall it.

Clean the recovery tank

The recovery tank is an important container for the machine to recover sewage. A considerable amount of sediment will remain in the recovery tank every day. It should be cleaned every day, otherwise it is easy to cause blockage.

1. At the end of each day's work, clean the recovery tank at the last discharge. When the sewage is discharged to an appropriate amount, try to lift and shake the recovery tank to discharge more sediment.
2. If possible, flush the recovery tank with clean water and discharge the sediment in the recovery tank in time.
3. During operation, the mouth of the sewage suction pipe in the recovery tank shall be flushed with water, so that the sewage suction pipe can be saved and not blocked.
4. There is a sewage level sensor in the recovery tank. Keep the sensor clean and remove the winding's on it to ensure its free movement.





The suction motor of the machine is installed in the upper cover of the recovery tank. Please keep the air inlet net of the upper cover clean. Check and clean it once a week. Do not allow water to enter the upper cover



floor scrubber can not use high foaming cleanser, pay more attention to foam in the recovery tank. If there is a large amount of foam, it will directly damage the suction motor (the damage is not within the scope of warranty). Use defoamers or replace cleaning agents.

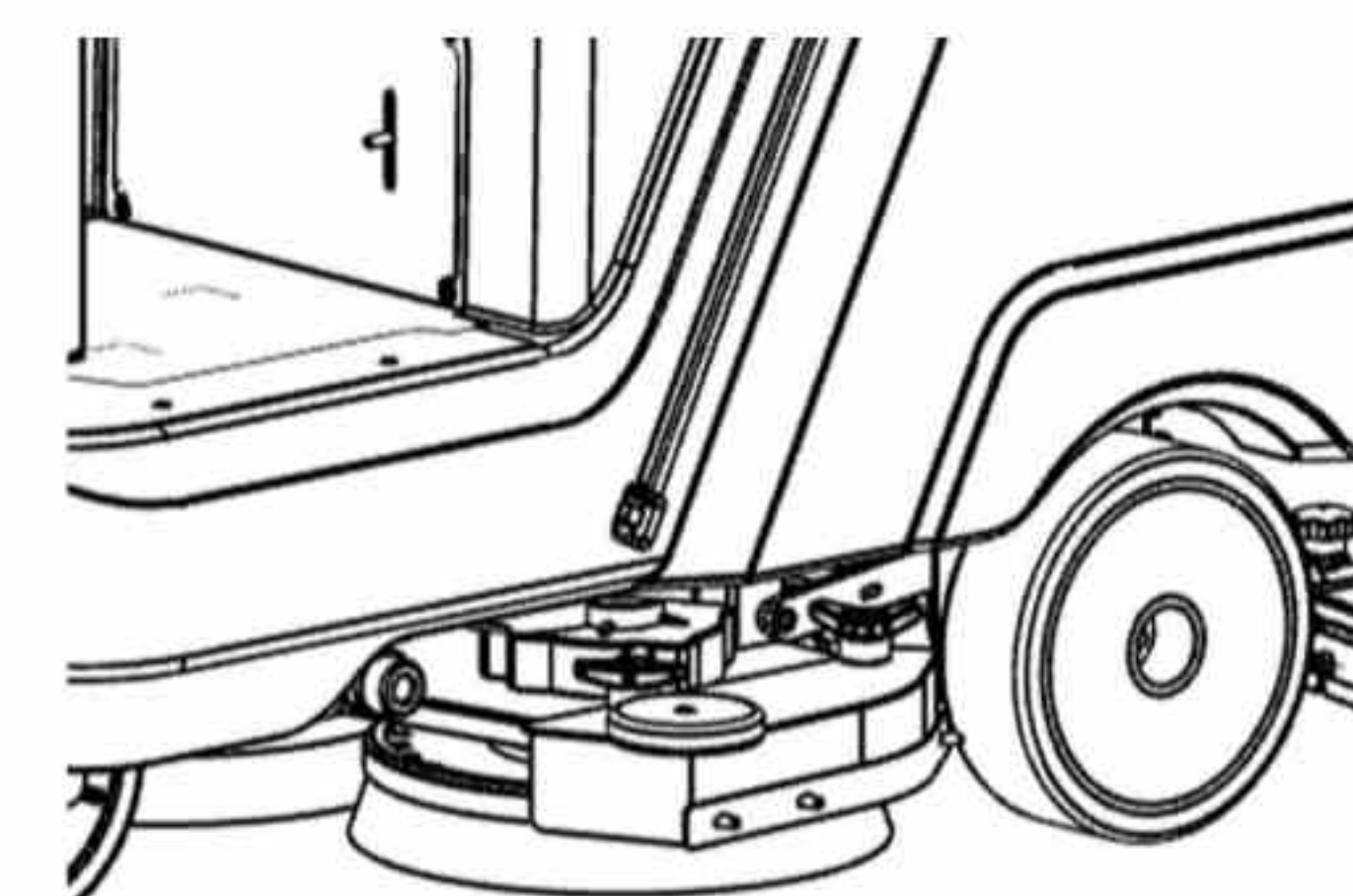
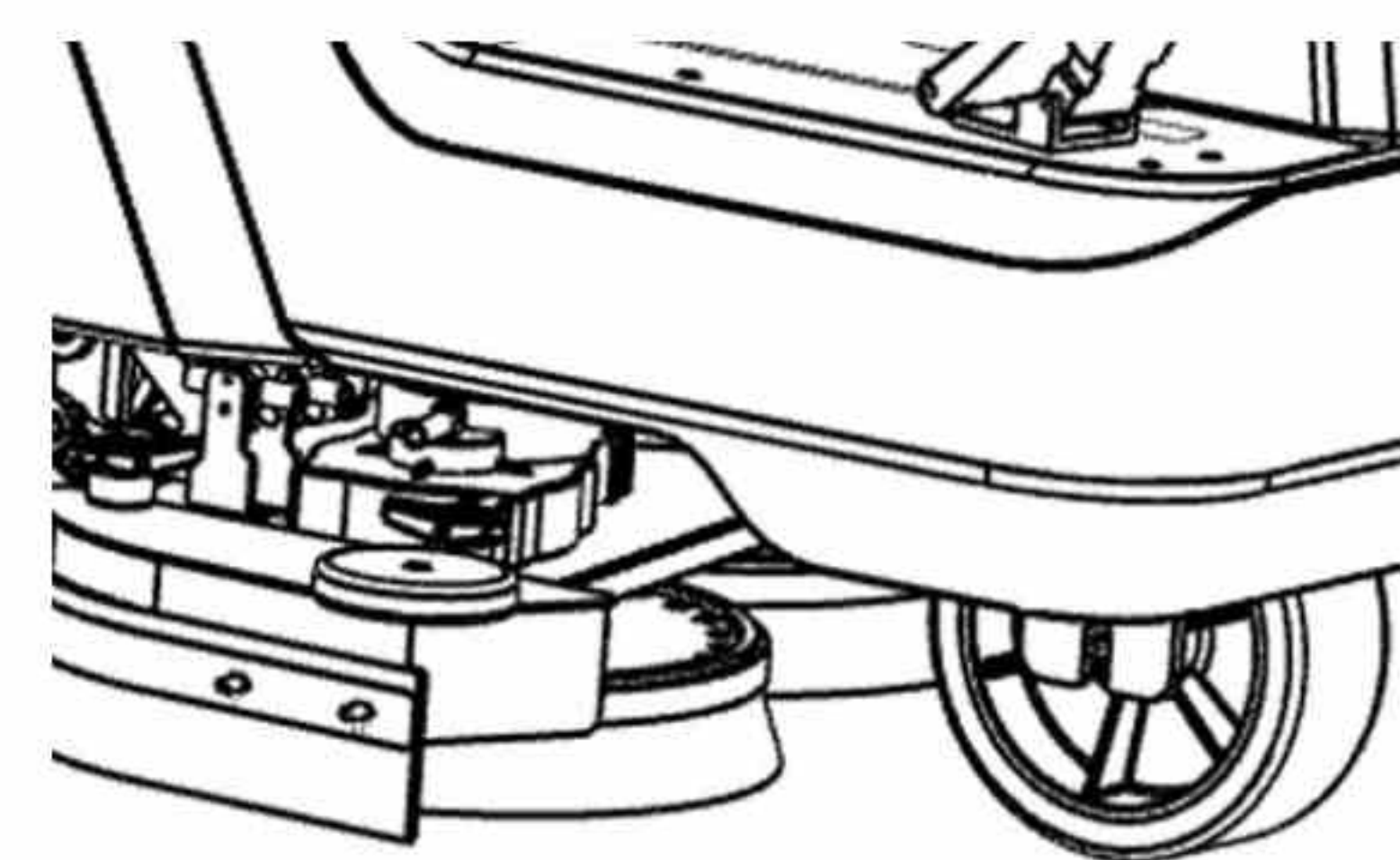


There is a liquid level sensor in the recovery tank. When cleaning the recovery tank, pay attention to remove any entanglements and dirt, but do not impact it directly with water and do not damage its duck beak structure. Once damaged, the machine will lose the sewage full alarm function.

Inspection and replacement of anti-splash rubber

The anti-splash rubber is a consumable like the squeegee rubber. With the increase of service time, the rubber will wear naturally and need maintenance. It shall be adjusted, changed and replaced in time.

1. The rubber design can be used on four sides. It is recommended to change the surface every 2-4 months.
2. With the different wear of the brush, the contact between the rubber and the floor will also change. Please check and adjust the height of the rubber to ensure that the rubber is in the best state.
3. If the rubber is worn or the waterproof cover is cancelled, it may cause splashing and sharp turning, and the sewage cannot be completely wrapped by squeegee.





The anti-splash adhesive strip is a consumable, which can be removed and replaced. If it needs to be replaced, it can be purchased from the dealer or factory.

The anti-splash device can be removed by removing only two fixing nuts (without tools)

Common problems and troubleshooting

* **no water or insufficient water in the brush**

1. Check whether the water volume control handle has been opened sufficiently.
2. Confirm that there is water in the solution tank.
(check the water level pipe of the solution tank. If there is no water at the water level pipe, even if there is still a small amount of water, it will affect the water outlet)
3. Check whether the filter screen is blocked?
(remove the filter cover, check whether the filter screen is blocked and clean the filter, observe whether the water outlet at the filter inlet is normal? If the water outlet here is abnormal, please check whether the clean water tank is blocked by foreign matters. It is strictly prohibited not to install the filter screen. If there is no filter screen, it will cause damage to the solenoid valve or other pipelines)

If routine inspection cannot be ruled out, professional maintenance personnel shall be invited.

* **After the machine is pass through, there are filamentous marks left after squeegee.**

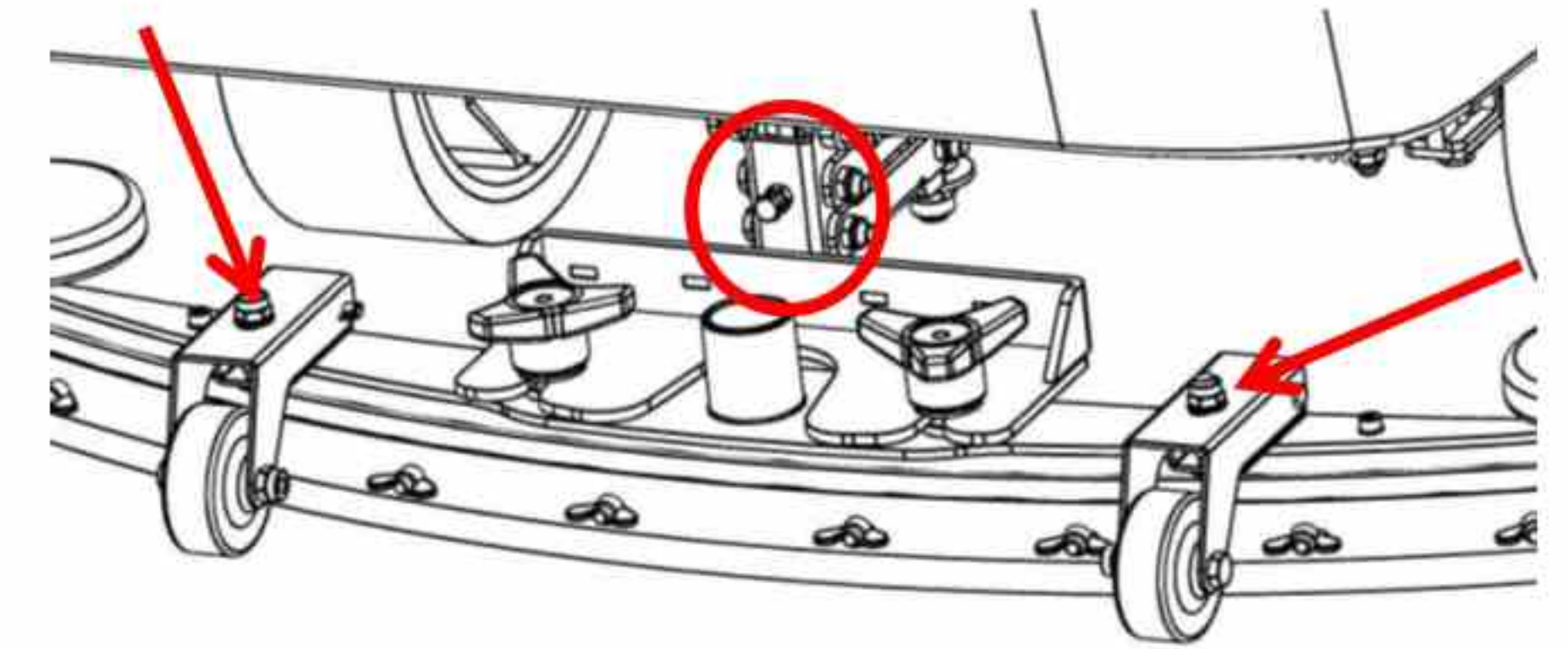
Sand, hair or small sundries on the floor will affect the rubber to scrape the floor, leaving filamentous traces.

Solution:

1. The sequential operation of pre sweeping and then cleaning can greatly improve the cleaning efficiency.
2. The reverse operation method is adopted to make the sundries pressed under the rubber separate from the rubber and resume normal operation.
3. Repeat cleaning with primary and fine cleaning methods.

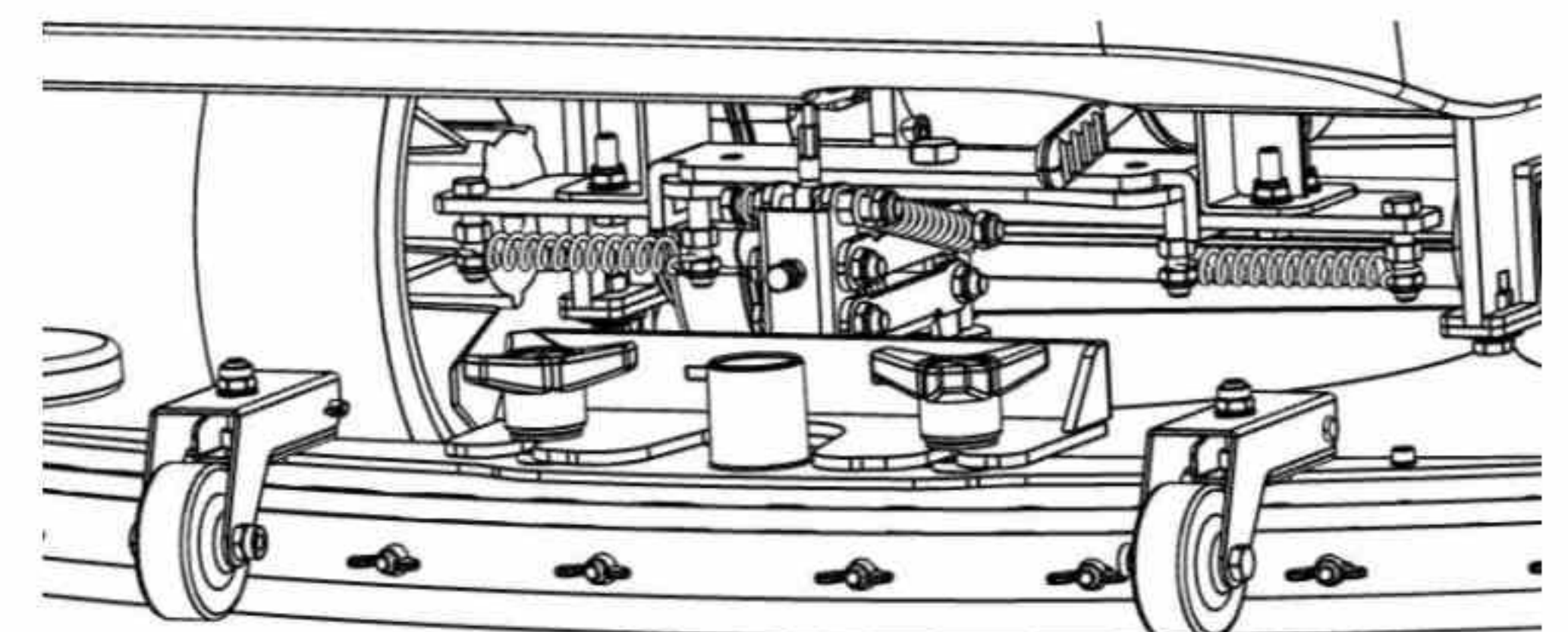
*** There is a large area of water after the machine is running**

1. Scraping in the middle of the squeegee is good, and scraping on both sides is not good: (the verticality of the squeegee is not good)
2. It is OK to scrape on both sides, but it is not good to scrape in the middle (poor perpendicularity of squeegee)
3. One side is good, the other side is bad or the rubber does not touch the floor (pressure divider adjustment)



Possible causes

1. During the operation or handling of the machine, the squeegee is displaced due to accidental impact.
2. The original adjusting screw of the squeegee system has been changed.



Solution:

1. Adjustment steps
 - Put down the squeegee handle to make the squeegee to the working position.
 - Screw up the adjusting nut of the pressure divider wheel to make it completely off the floor.
 - Push the machine forward and observe whether the rubber contacts the floor evenly?
2. Adjust squeegee:

In case of the above 1 or 2 conditions, adjust the perpendicularity of the squeegee, that is, the screw in the middle of the right figure. Rotate the screw to see the change between the rubber and the floor. After adjustment, push the machine forward to observe the change of the rubber until the rubber is in uniform contact with the floor.



After the perpendicularity adjustment is completed, start to adjust the pressure dividing wheel, and turn down the adjusting nut of the pressure dividing wheel to make the wheel contact with the floor. The left and right adjustment shall be equal. When the rubber reaches the position in the right figure, it is good.

3. If the squeegee cannot be adjusted according to the above methods, maybe your squeegee support or squeegee suspension system has serious deformation in some place, which needs to be checked by professionals.

* The machine cannot be started

* Turn on the key switch, the display of the electricity meter is normal, and there is no response when stepping on the accelerator.

1. Check whether the control panel controller indicator is flashing?

2. If the indicator light flashes, it indicates that the clutch is not engaged.

Pull down the clutch handle to keep the clutch in the engaged state, and then it can return to normal

3. The indicator light of the controller is normal. Please check whether the constant speed knob is off.



* Turn on the key switch, the electricity meter has no display, and the machine can't walk and other operations

1. Check whether the emergency stop switch is off?

2. Check whether the machine is in the low-voltage protection state. If the power is under voltage, the machine will protect itself, please charge immediately.



*The display of the machine is normal, the voltage is normal, the water absorption operation is normal, and the lifting of the brush is normal, but the machine can not move.

1. Check whether the clutch handle is in the disengaged state?

2. Check whether the constant speed knob is closed.

* Excess foam in recovery tank

Too much foam in the recovery tank has many disadvantages. It will cause a lot of problems. In the long run, it will cause damage to the suction motor.

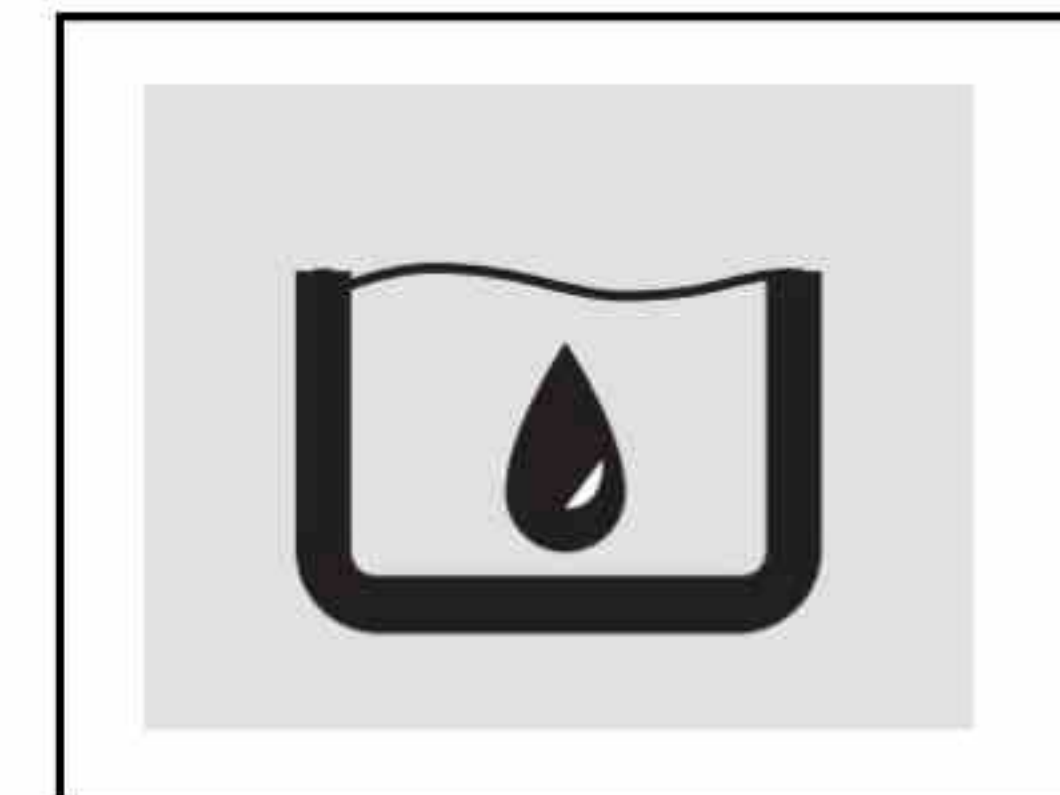
1. check whether the use of high foam cleaners, if you can not replace low bubble cleaners, you need to add defoamers in the recovery tank.

2. If you are not using high foaming detergent, please check whether the dosage ratio is too high? This phenomenon can be changed by properly controlling the use concentration.

3. Under the same dosage, the more clean the ground is, the more foam will be generated. In this case, the amount of detergent must be reduced.

* Suction (pump) motor does not work

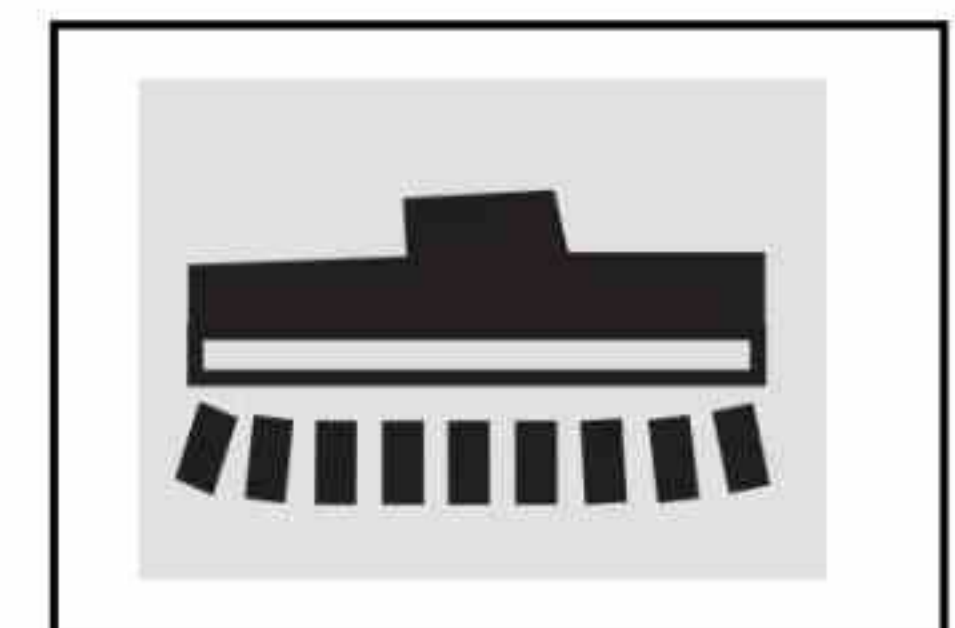
1. Check whether the sewage indicator on the control panel is on? (right figure) if it is on, it indicates that the recovery tank is full. Just empty the recovery tank.
2. Check whether the water absorption indicator on the control panel is on after the suction handle is put down? If the indicator light is not on, first check whether the travel direction switch is in the reverse position? Return to the forward position.
3. The above operation can not eliminate the fault. It may be the fault of the controller or control circuit, which needs to be checked by professionals.



* Brush motor does not work

Note: the cleaning brush motor will only rotate when the equipment is moving.

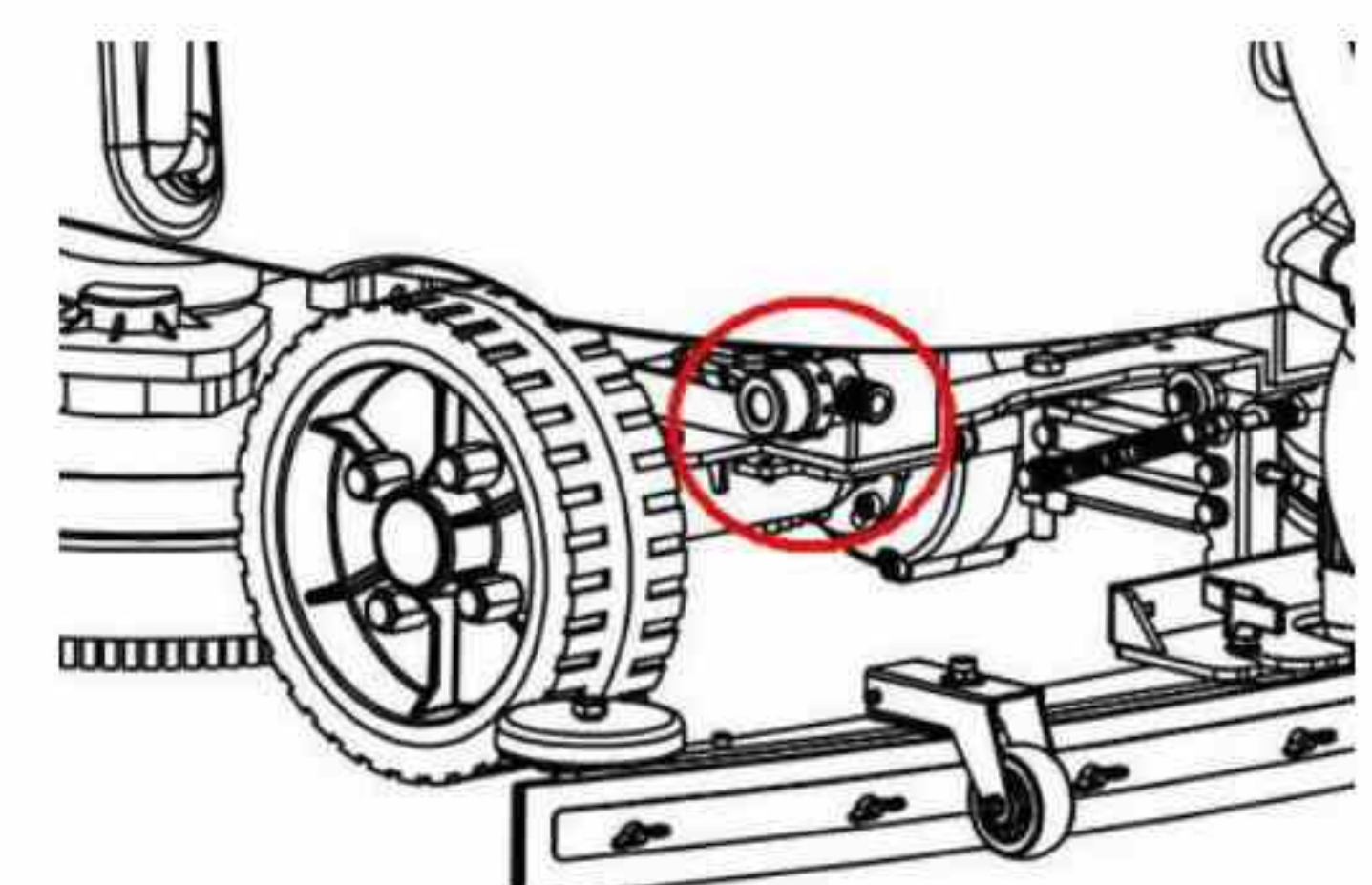
1. Check whether the indicator light of the brush system is on.
2. Check whether the travel direction switch is in the reverse position.
3. Turn off the key switch and restart.
4. It is possible that the brush buckle is damaged, resulting in the non rotation of the brush.



* No water or small water output

The drainage system consists of filter + solenoid valve + water regulating valve. In this system, the filter is the key component to ensure smooth flow, and the filter screen is the core of the filter, which must be kept intact.

1. Unscrew the filter cover, remove the filter screen, clean the filter screen and check whether the water output here is normal.
2. If the filter screen is lost, the filter screen must be replaced, otherwise the blockage problem cannot be solved.



3. Replace the filter cover, separate the water pipe joint on the right brush cover, put down the brush to work, and observe whether the water outlet of the water pipe is normal? If the outlet water is obviously smaller, it indicates that the solenoid valve or water volume valve may be blocked.

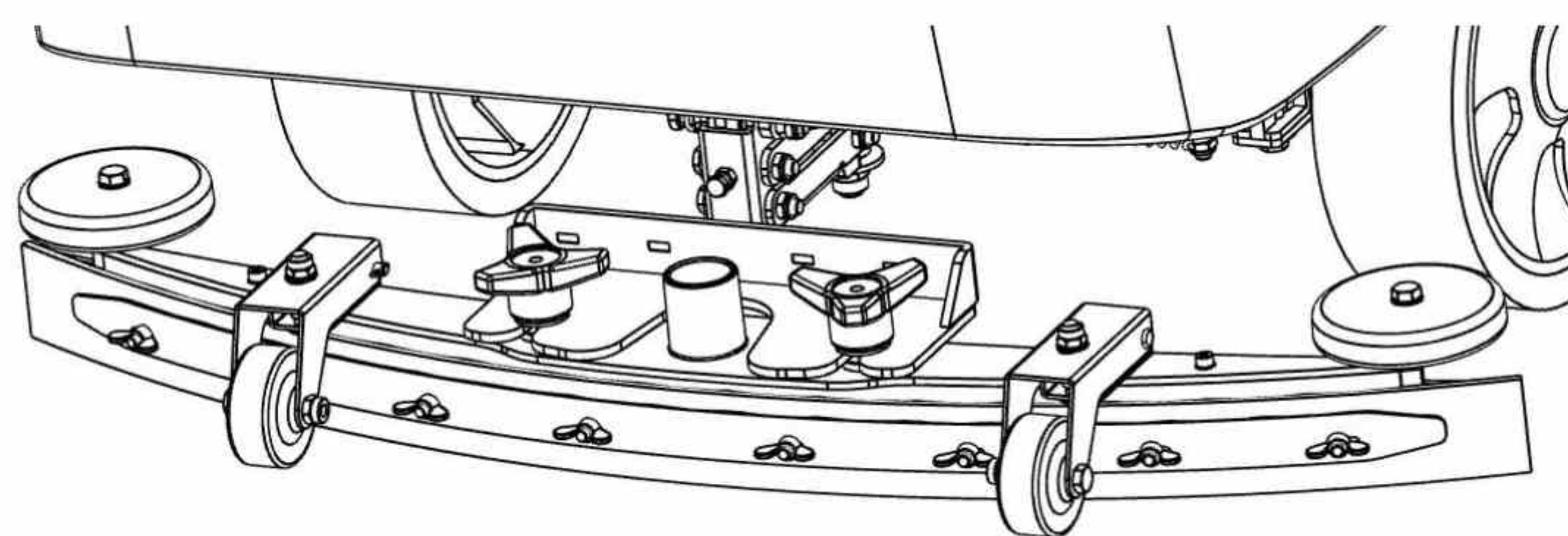
When the water outlet of clean water is not smooth, connect it with the external water pipe, backwash and eliminate the blockage (fully open the water volume valve and remove the filter cover during operation)



4. Remove the filter cover again, connect the external water pipe with the outlet pipe on the brush cover, open the external water source, back flush the solenoid valve and water valve channel, and close it for about 1 minute.
5. Then open the brush to check whether the water output has changed. If the fault cannot be eliminated, professional personnel need to replace the accessories.

* **Squeegee often falls off**

1. The connection between the squeegee and the machine is a detachable design to prevent the damage caused by the impact of the squeegee when the machine passes through a narrow space.
2. Keep the fixing screw tight, too loose will cause falling off during normal operation.
3. Change the bad operation habits, do not drive the machine too close to the side, master the skills of avoiding obstacles and improve the operation skills.
4. It is strictly forbidden to fix the squeegee and the support frame with iron wire, which will cause damage to the squeegee tailstock system in case of impact.



* **The service time becomes shorter after charging**

1. The battery is an electric energy storage and conversion device. In order to have continuous power output, ensure sufficient charging time for the battery. First, please

check your charging habits and rules to see if they meet the charging requirements. Bad charging habits will lead to premature aging of the battery and even direct damage.

2. To change your charging habits, you must ensure sufficient charging time (> 8 hours) after each continuous use, and try whether your injured battery can recover.

selection and use of brush

Polypropylene cleaning brush (PPL)

It is suitable for various types of floors. It is wear-resistant and high temperature resistant (hot water cannot exceed 60 °C). Because the PPL is not hygroscopic, it can maintain its characteristics when working on a wet floor.

Nylon brush

It is suitable for various types of floors. It is wear-resistant and high temperature resistant (hot water cannot exceed 60 °C). Because the nylon brush is hygroscopic and easy to stretch, it cannot maintain its characteristics when working on a wet floor.

Wear resistant hard brush

The bristles of this cleaning brush are very hard and suitable for particularly dirty floors. We recommend that you use it with minimum pressure to avoid damaging the floor.

Steel brush

Steel brush is made of steel wire and artificial fiber steel brush is used to clean extremely uneven ground or large interfaces and gaps, and deal with dirt that is extremely difficult to remove.

Dense bristle brush

The bristles of this cleaning brush are dense, hard and straight. It is suitable for ceramic tile floors with narrow and smooth joint.

We recommend that you use a soft brush on uneven or deep seams or corners of the floor in order to get a good cleaning effect.

Please note that the ideal cleaning effect cannot be achieved when the bristles are worn or too short. If the bristles are too long, the brush is easy to jump.

Battery maintenance

The energy supply of this machine is: power type colloidal deep cycle maintenance free battery. The battery is matched with the charger. The warranty of the battery configured by the original factory is 6 months and the warranty of the charger is 12 months.

It is forbidden to use other kinds of chargers to charge the original battery, and it is also forbidden to use the original charger to charge other batteries. Both conditions may cause damage to the battery or charger.

Special care must be taken when handling the battery. The weight of each battery is about 40kg. Be careful to place it to avoid damage to the shell.



If the battery is disassembled and reconnected by yourself, be sure to ensure the correct polarity connection of the battery. The wrong polarity connection of the battery will cause direct damage to the brush motor and suction motor!



Do not put batteries of different groups, specifications and brands together! Different kinds of batteries are equipped with chargers of different specifications. Mixing chargers will cause safety accidents!

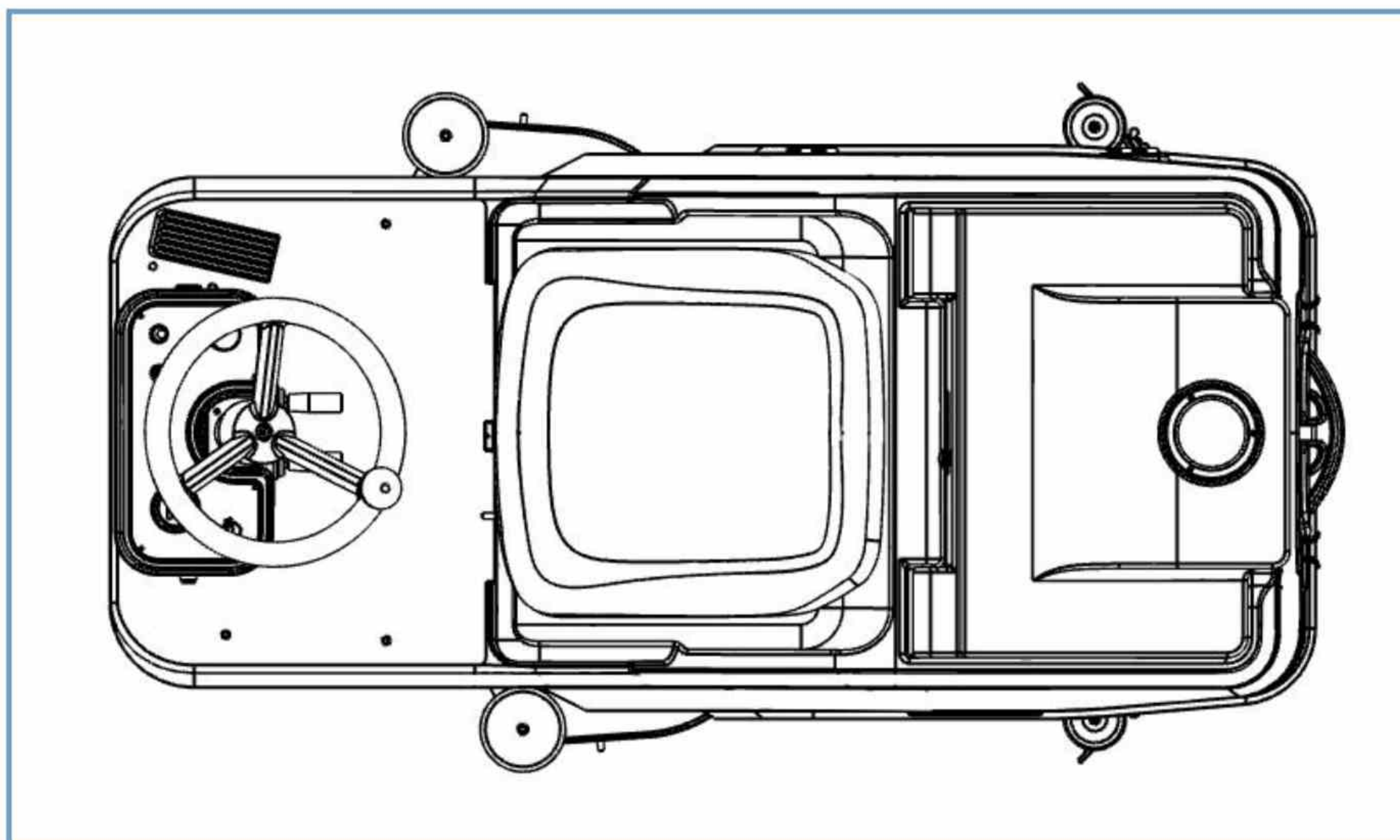
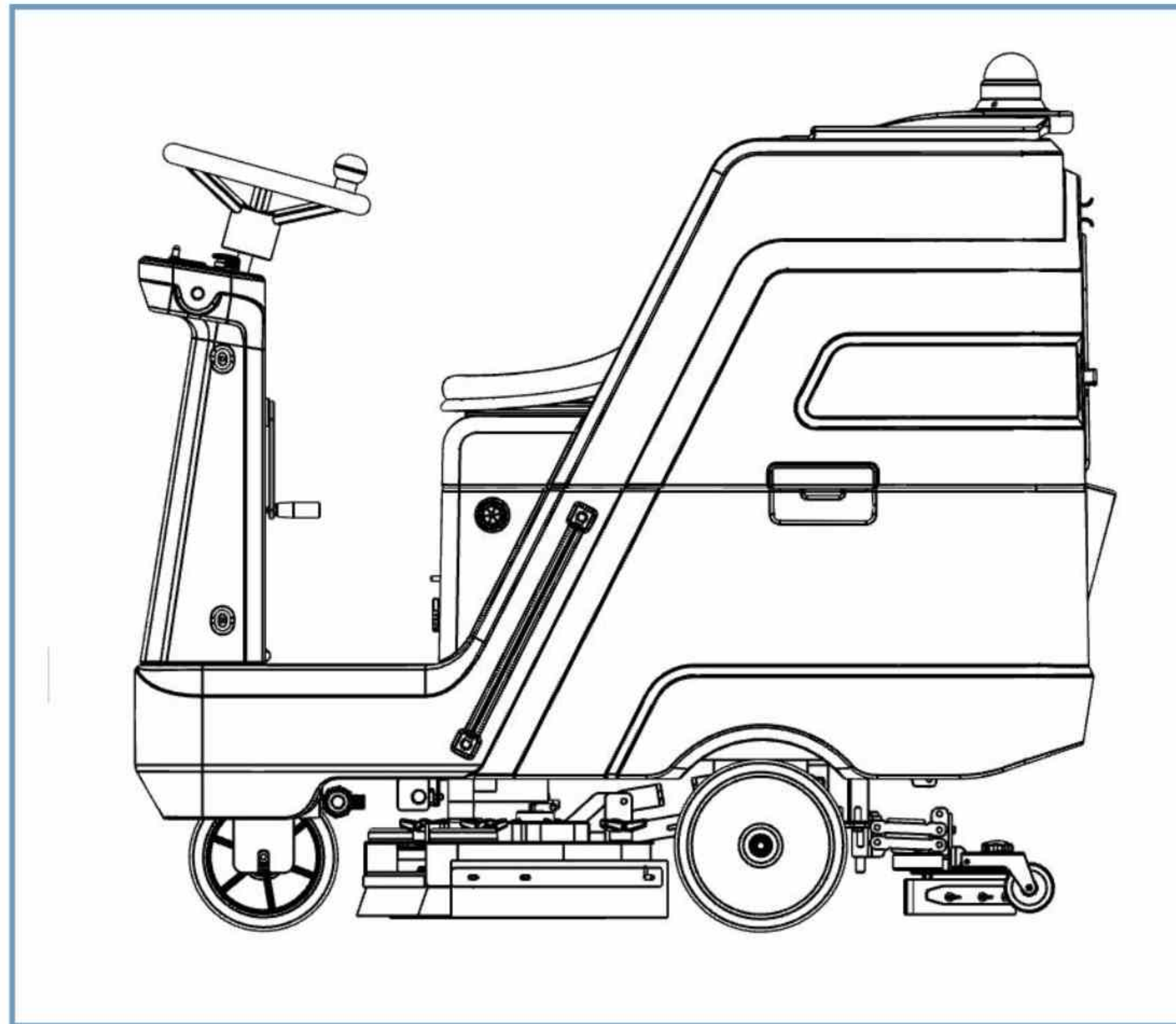
Matters needing attention:

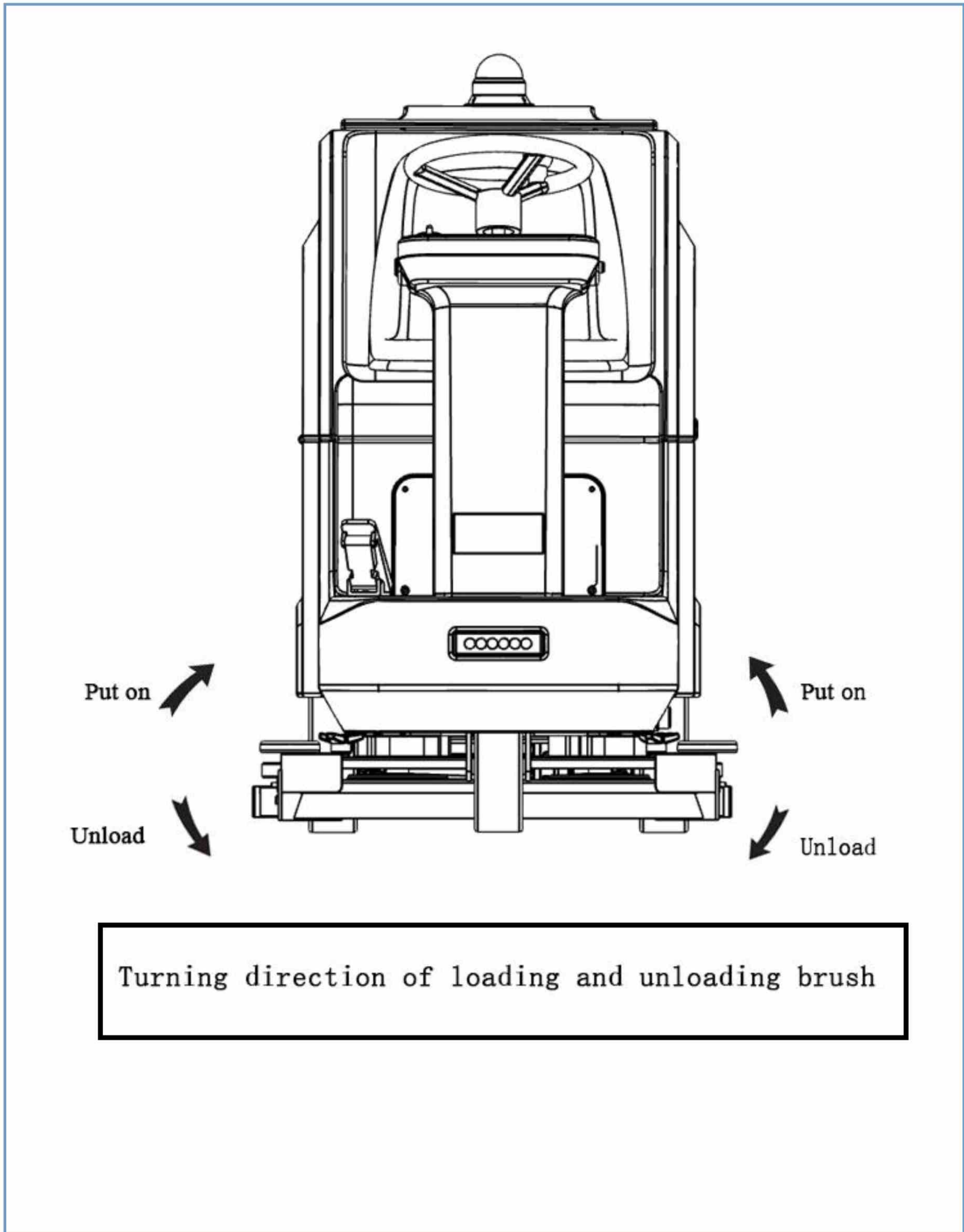
1. When the machine has a low power alarm, follow-up work shall be handled in time, and return to charging as soon as possible after the work is completed.
2. After the machine with power shortage alarm returns, it shall be charged in time. If the machine with power shortage is not charged for a long time, it will have a great impact on the service life of the battery.
3. Power shortage alarm: after the machine is placed, the voltage will rise automatically, and this part of the power can never be used again, which will cause great damage to the battery. If it is often operated in this way, the battery will not be charged and the storage time will be significantly attenuated.
4. Ensure that the battery can have a complete battery charging time (≥ 8 hours) every day. If the working time is long every day, supplementary charging is allowed in the middle, but supplementary charging must not replace normal charging. Such operation will lead to rapid decline of battery performance and attenuation of power storage capacity.
5. Place the battery at full power, and do not place the battery at low power.
6. Charge the battery if it is not used for more than 3 months.
7. Only with good charging habits can the service life of the battery be fully extended.
8. It is strictly forbidden to mix batteries of different brands and specifications, which is easy to cause safety accidents.

9. Different batteries have different requirements for chargers. Misuse of chargers will not only damage the batteries, but also cause safety accidents.

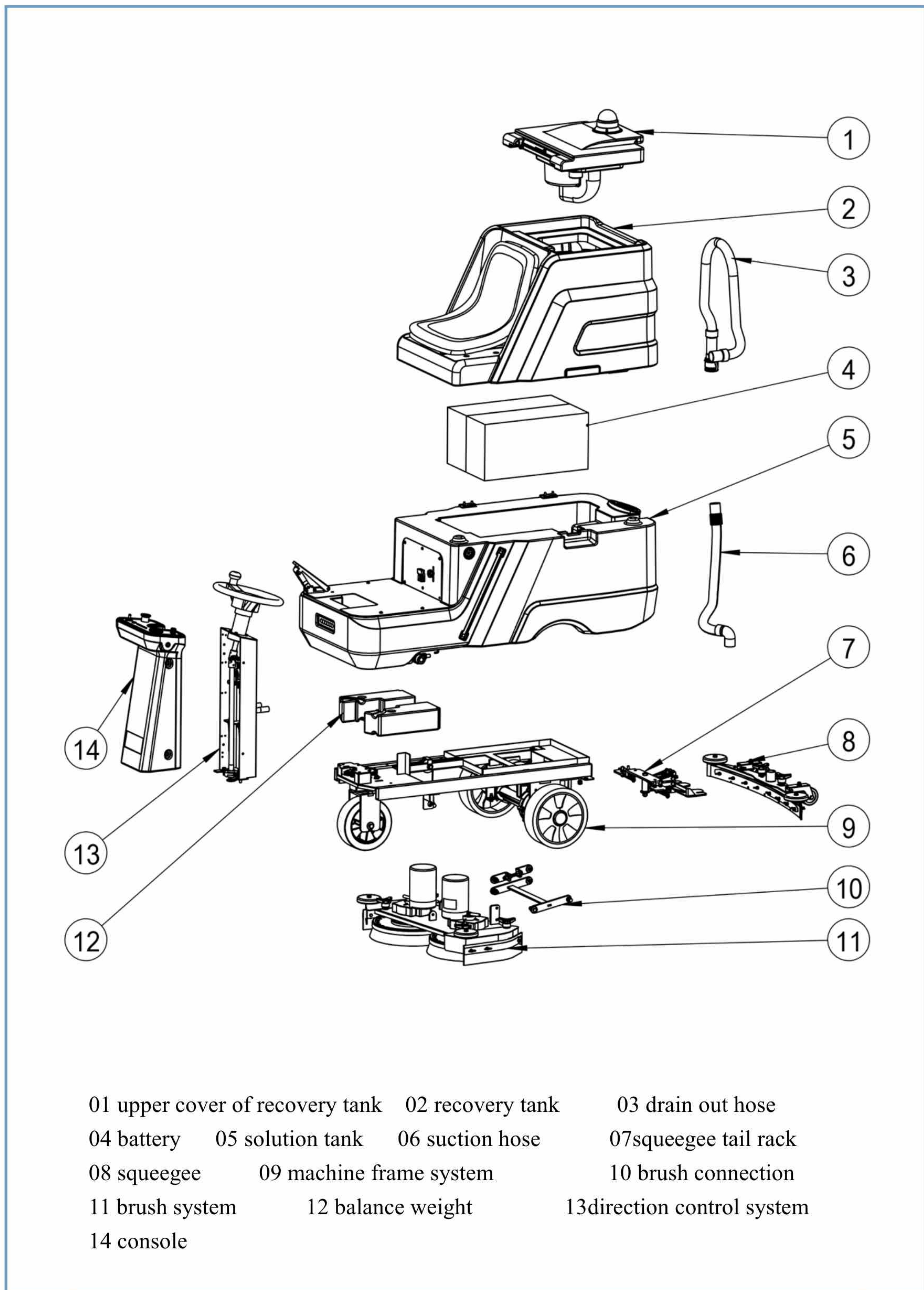
Be careful:

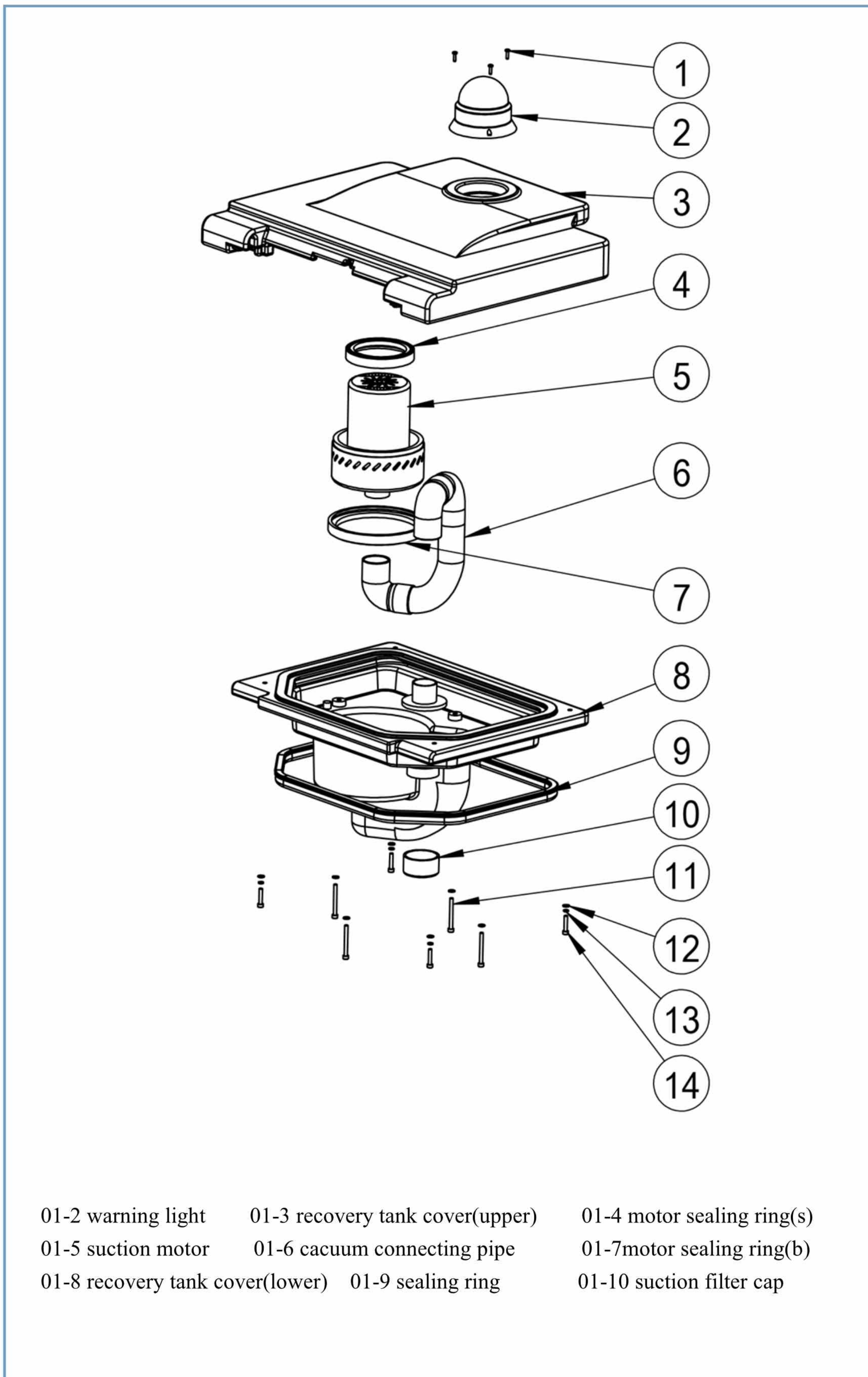
The rubber configured by the original machine is the same American Linatex brand rubber as Tennant, Nilfist and Karcher brand machines. It has the characteristics of good wiping effect, wear resistance and long service time. Using the brand rubber will make you feel its charm.



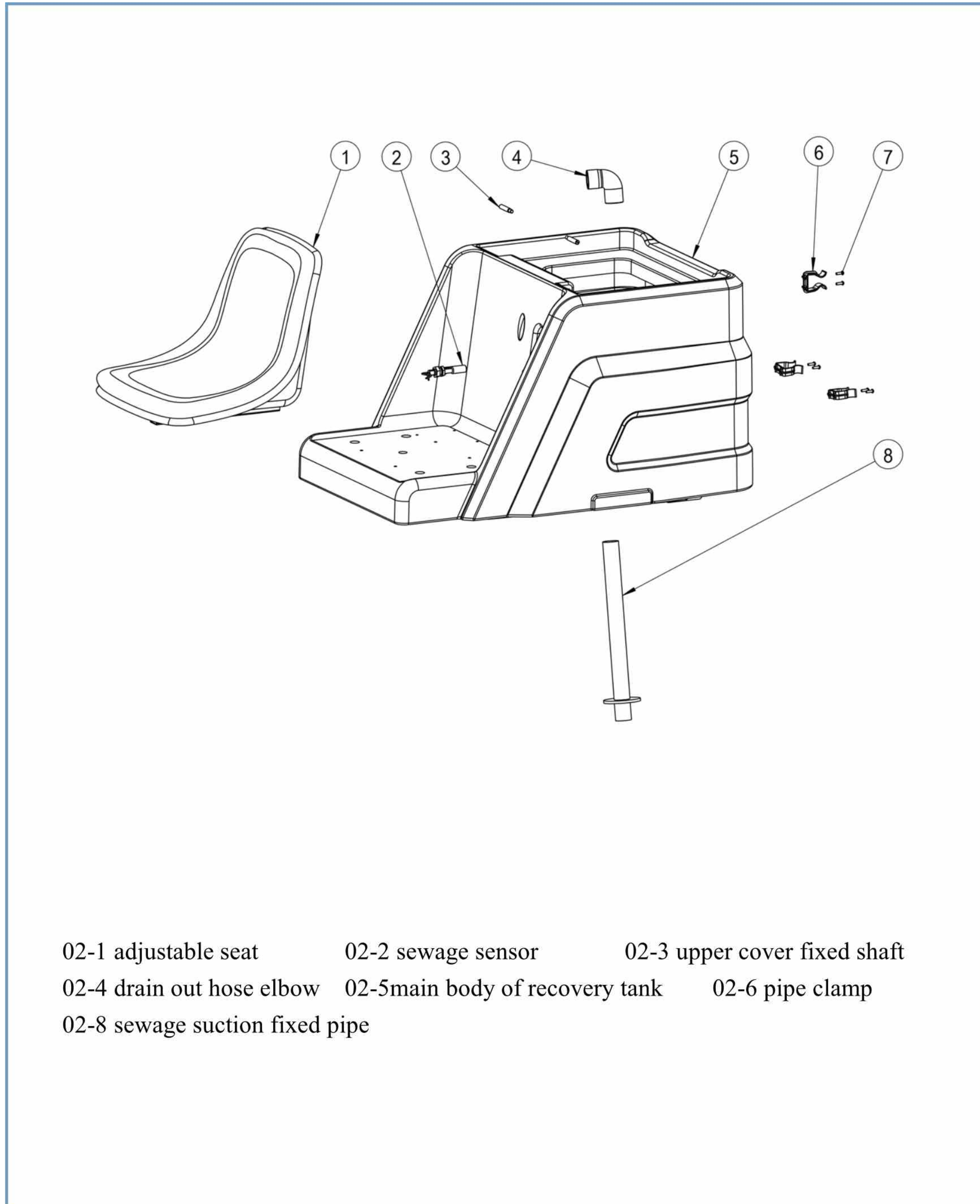


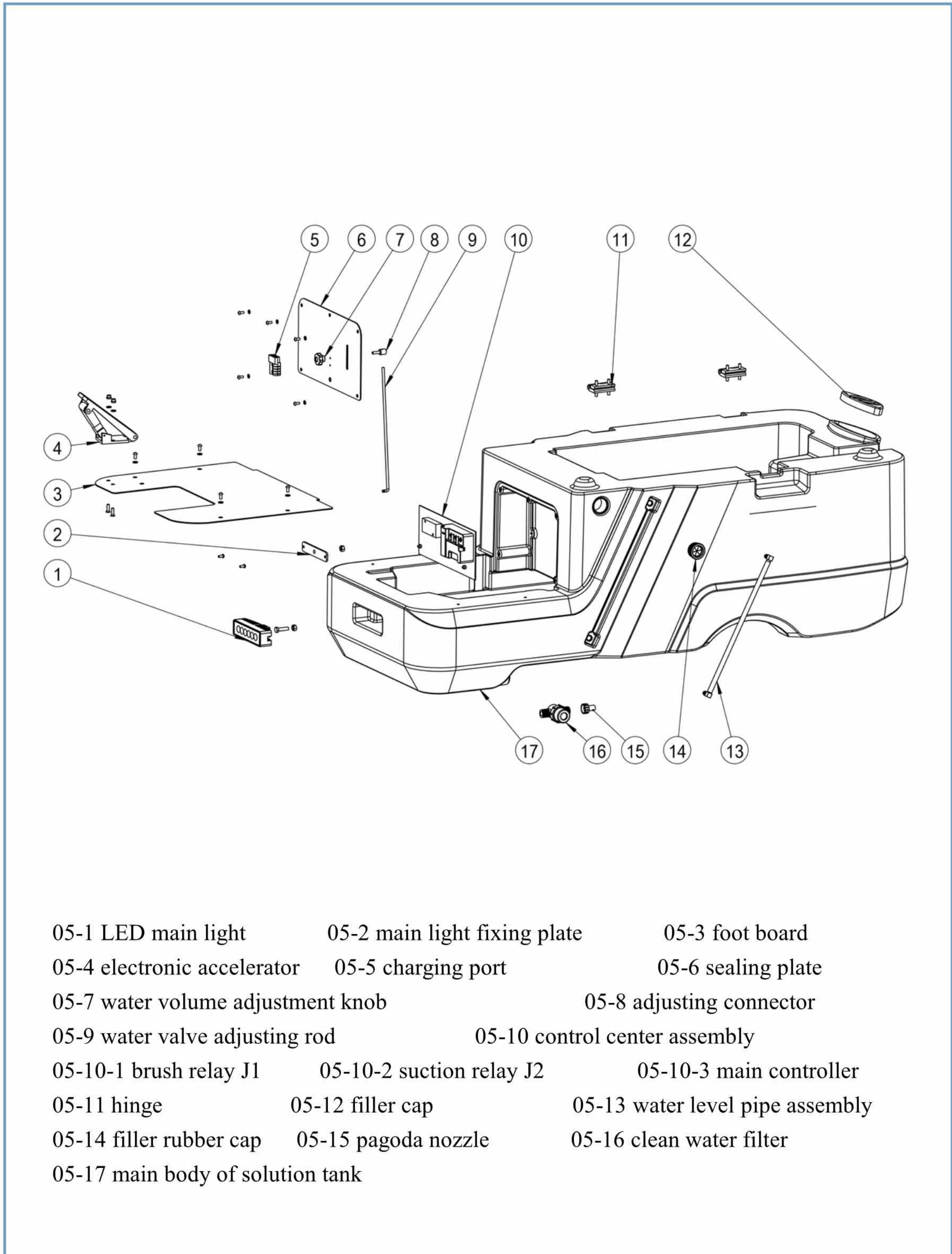
D8-N ride on floor scrubber diagram

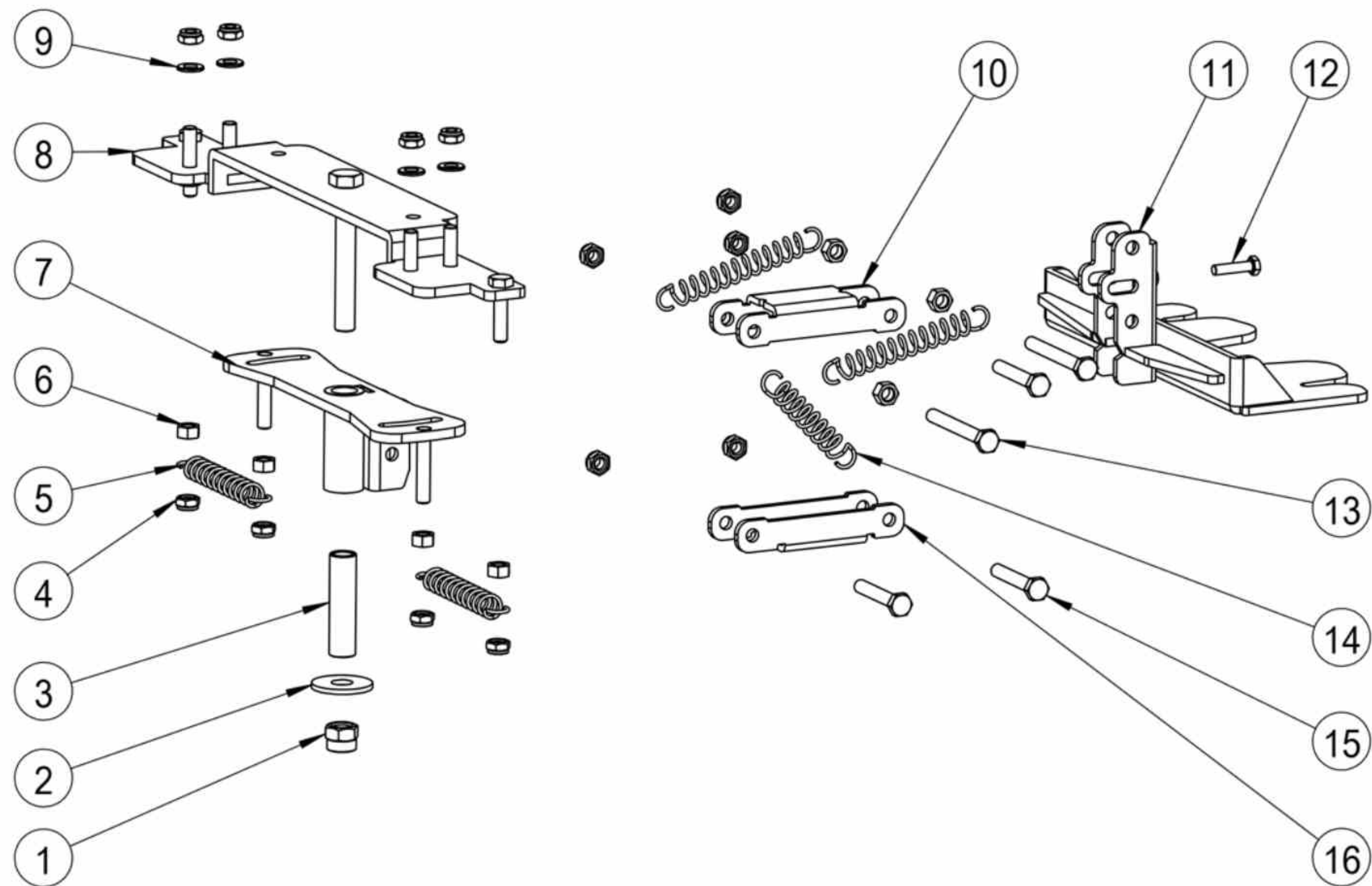




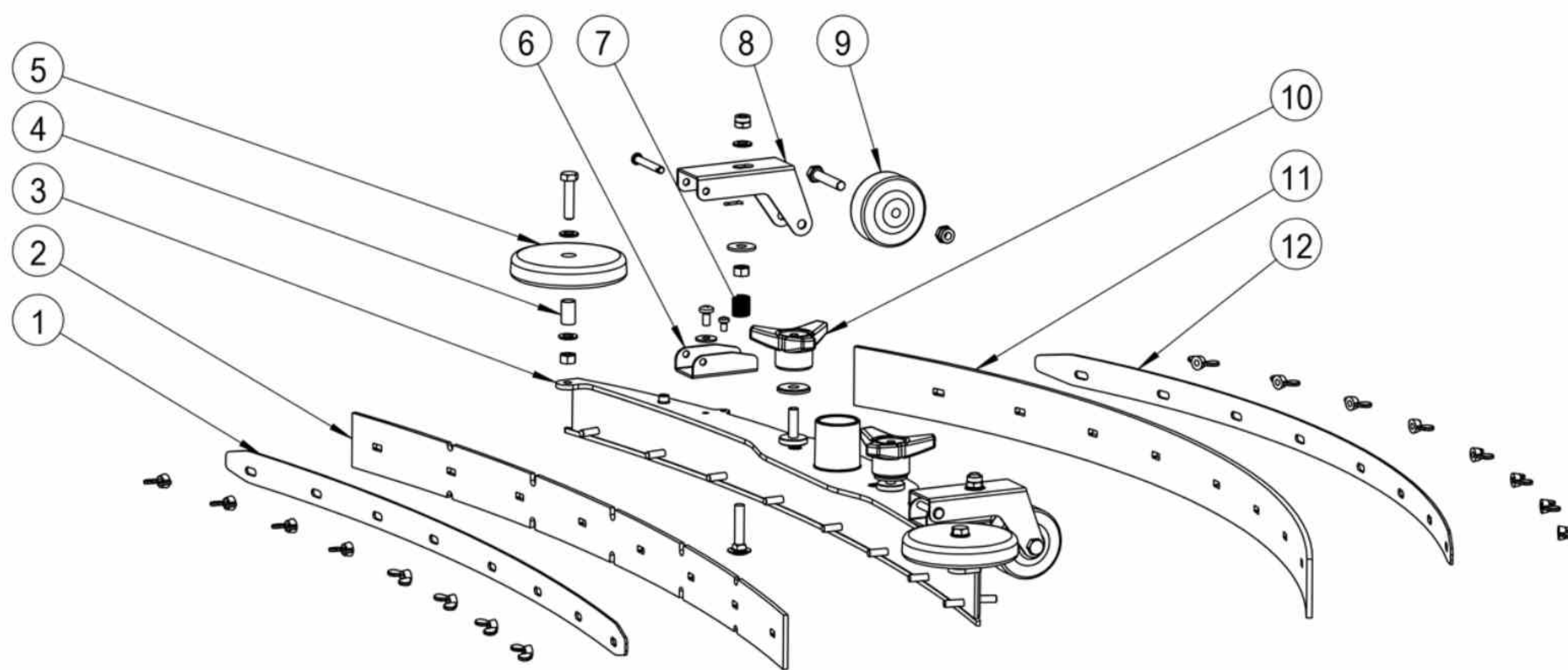
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|---------------------------------|---------------------------------|----------------------------|
| 01-2 warning light | 01-3 recovery tank cover(upper) | 01-4 motor sealing ring(s) |
| 01-5 suction motor | 01-6 vacuum connecting pipe | 01-7 motor sealing ring(b) |
| 01-8 recovery tank cover(lower) | 01-9 sealing ring | 01-10 suction filter cap |



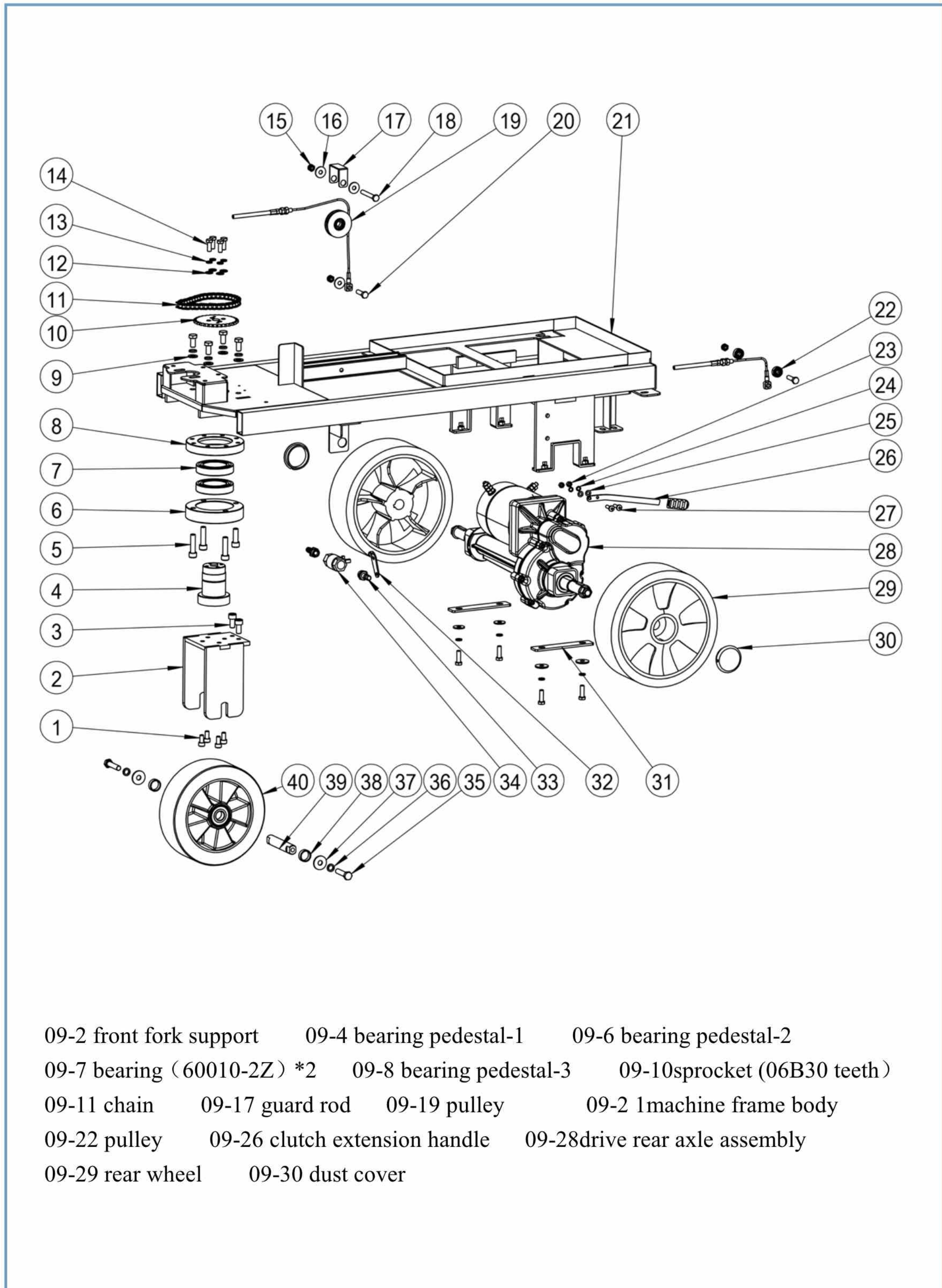


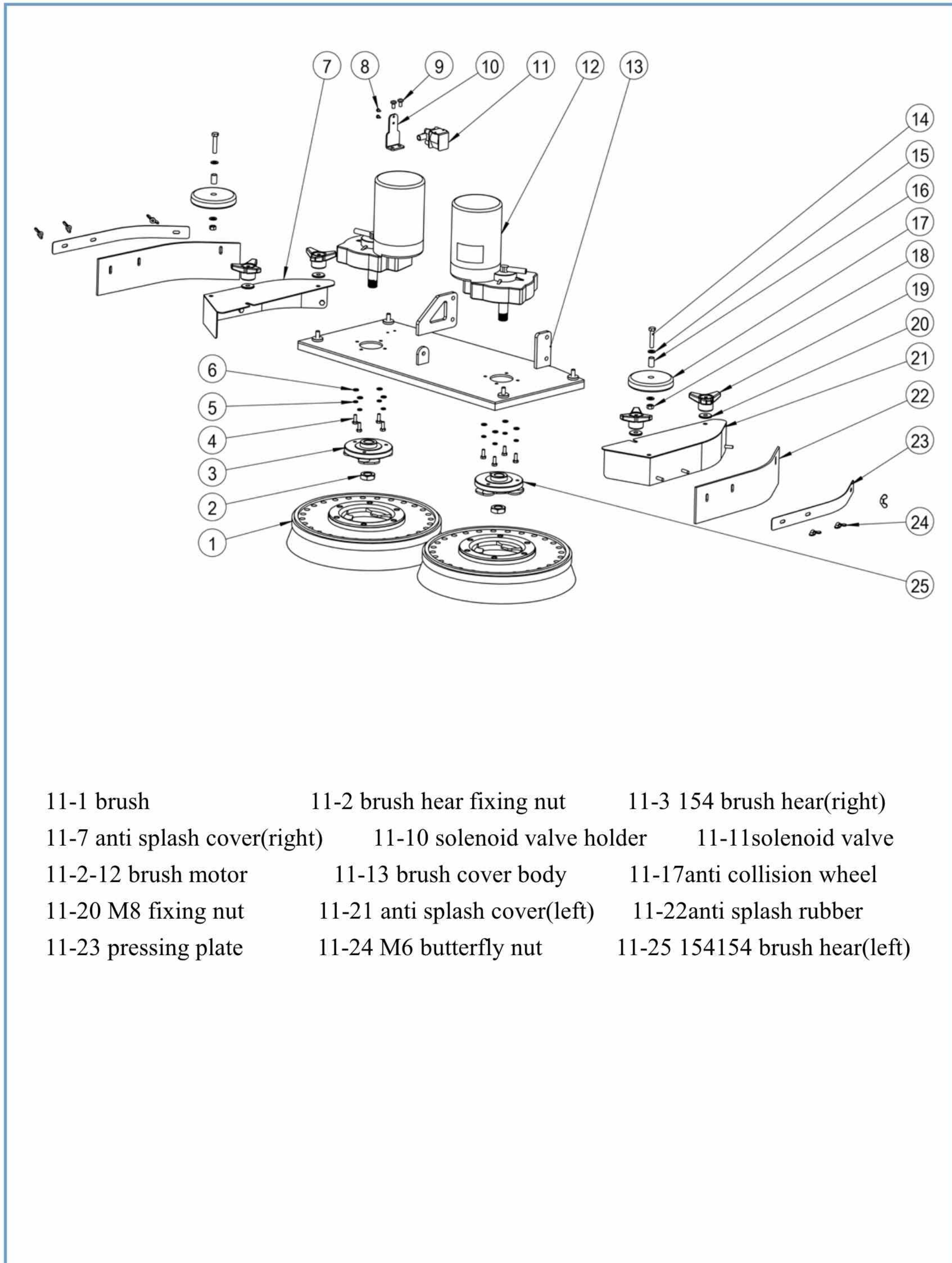


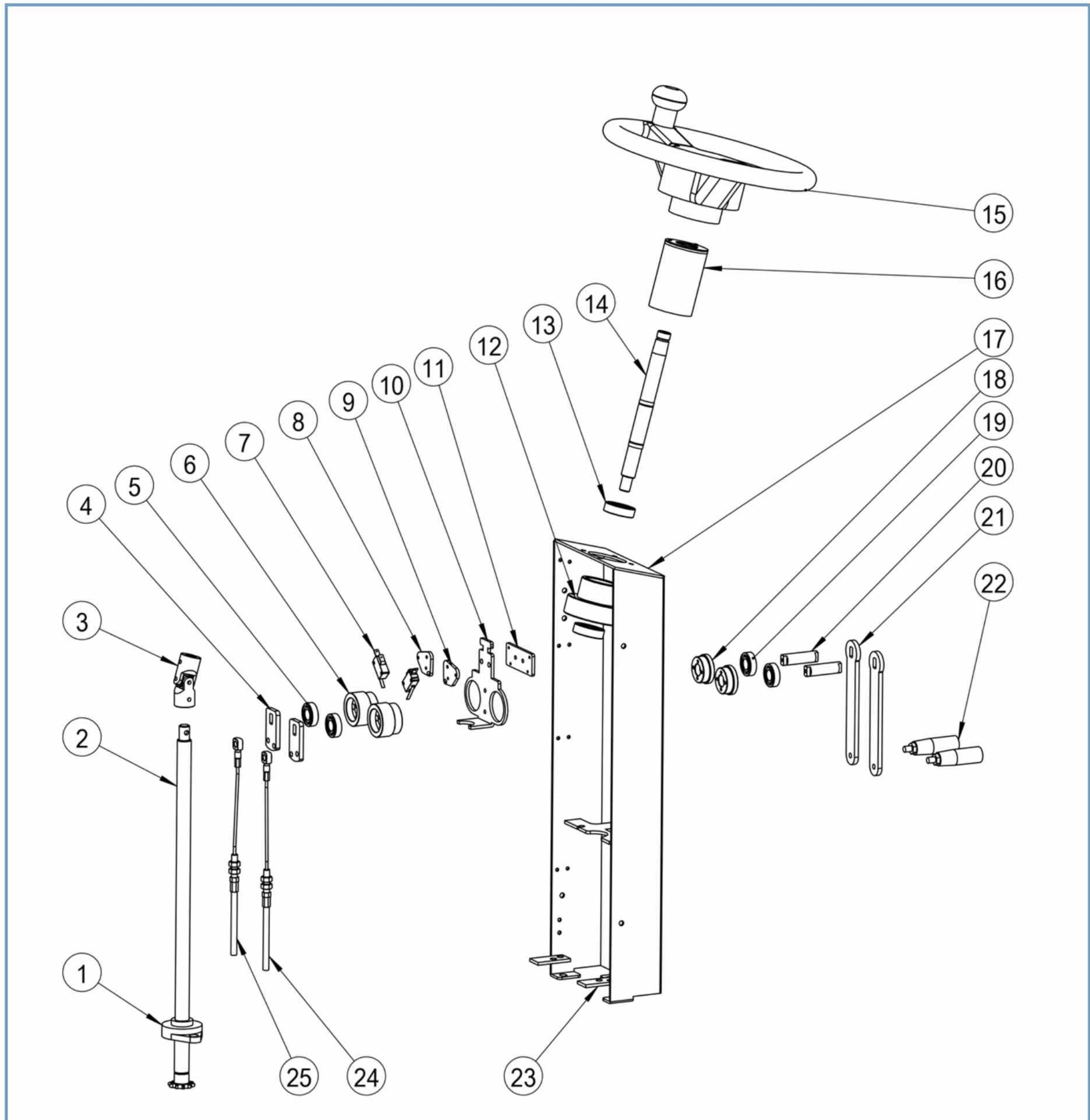
- 07-1 M12 anti locking screw 07-2 washer 07-3 axle sleeve
 07-4/6 M8 nut 07-5 balance tension spring 07-7 rotating support
 07-8 tailstock fixing plate 07-10 raising rod 07-11 squeegee fixing plate
 07-12 M8 squeegee adjusting screw 07-14 tension spring*3
 07-16 raising rod



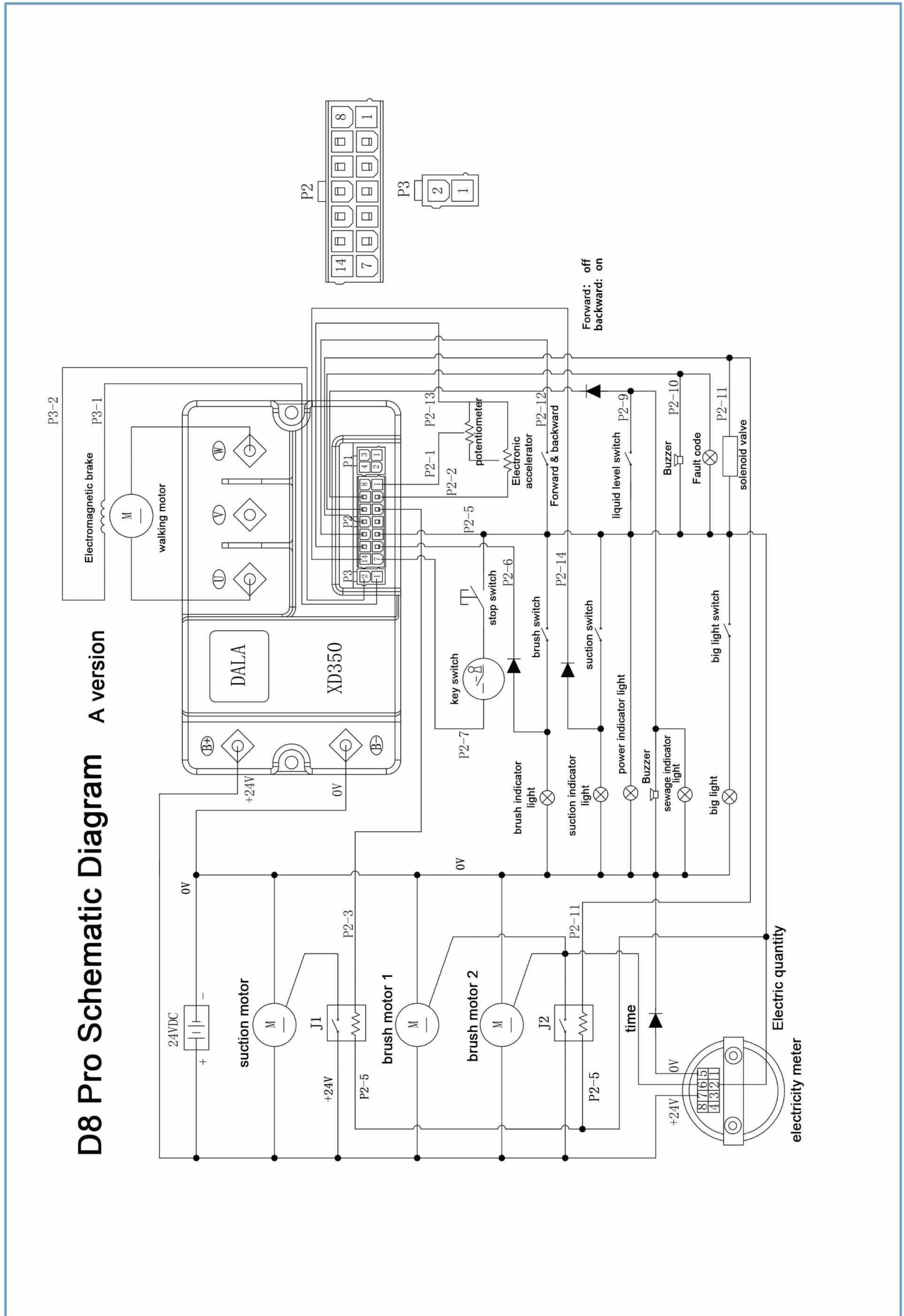
- 08-1 front pressing plate 08-2 front rubber 08-3squeegee(850)
 08-4 Anti collision axle sleeve 08-5 Anti collision wheel
 08-6 pressure dividing wheel seat 08-7 spring 08-8pressure dividing bracket
 08-9 pressure dividing wheel 08-10 fixing nut M8 08-11 rear rubber
 08-12 rear pressing plate







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|------------------------------|-----------------------------------|-----------------------------|
| 12-1 bearing seat | 12-2 direction axis (long) | 12-3 cardan joint |
| 12-4 lifting plate | 12-5 bearing 6002-2Z | 12-6 lifting bearing seat-1 |
| 12-7 micro switch | 12-8/9 microswitch mounting plate | 12-10 bracket |
| 12-11 connecting plate | 12-12 direction bearing seat | 12-13 bearing 6004-2Z |
| 12-14 direction axis (minor) | 12-15 steering wheel | 12-16 sheath |
| 12-17 column body | 12-18 lifting bearing seat-2 | |
| 12-19 bearing 6002-2Z | 12-20 lifting shaft | 12-21 lift arm |
| 12-22 lifting handle | | |
| 12-23 column pressing plate | 12-24 squeegee lifting cable | 12-25 brush lifting cable |



D8-N Circuit diagram XD350 A version

