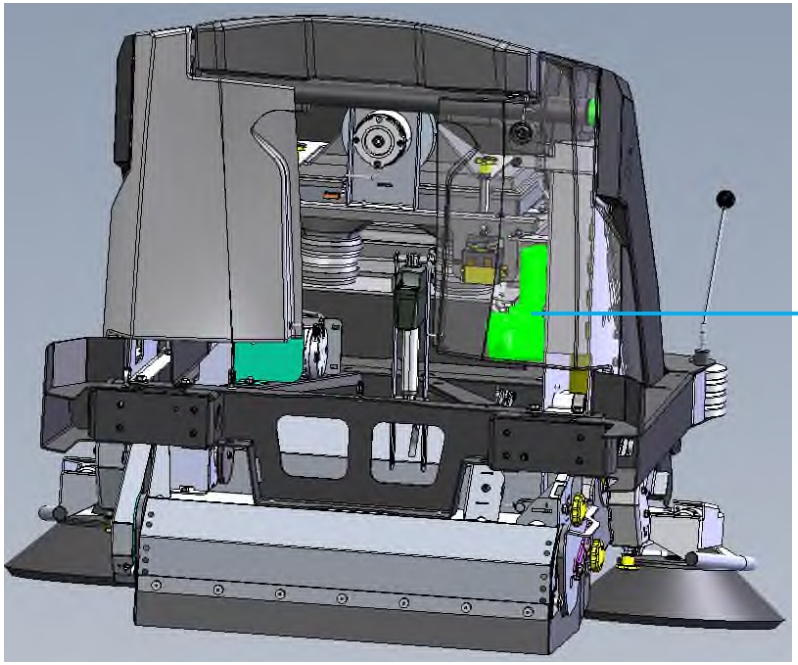
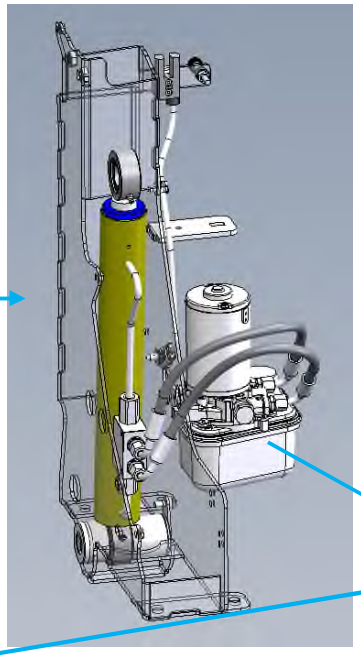
2.3 Service

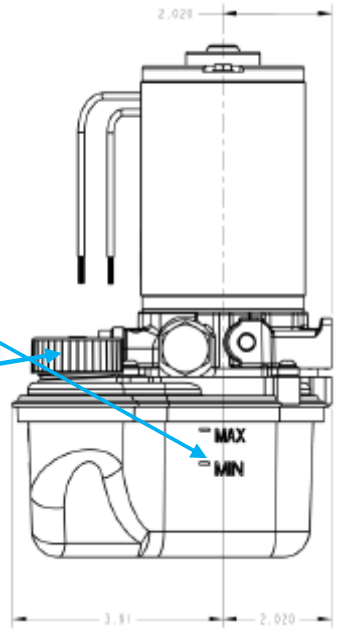
Daily/Weekly Service
By User

Daily works

Check hydraulic oil level

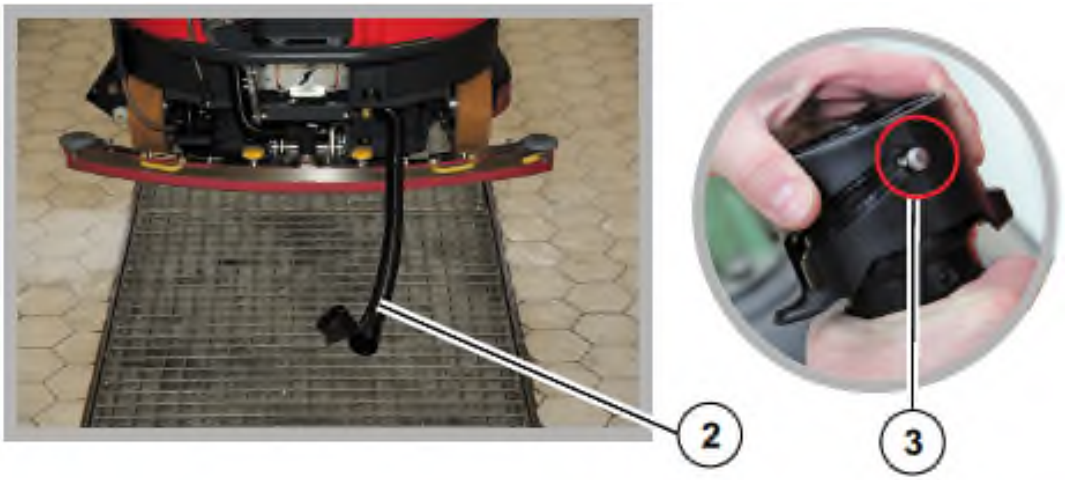






Oil filler cap
Oil type: HVLP46 (Mobil DTE 10 Excel 46)
Quantity (refillable): 0.5l

Draining waste water tank



2 = Drain hose, waste water tank
3 = Drain valve, closed

- Switch off the machine and remove the key
- Remove the drain hose from the holder, open the drain valve and empty the recovery tank through a drain
- Close the drain hose completely after emptying!
- Stow the drain hose back into the holder

Filling solution water tank

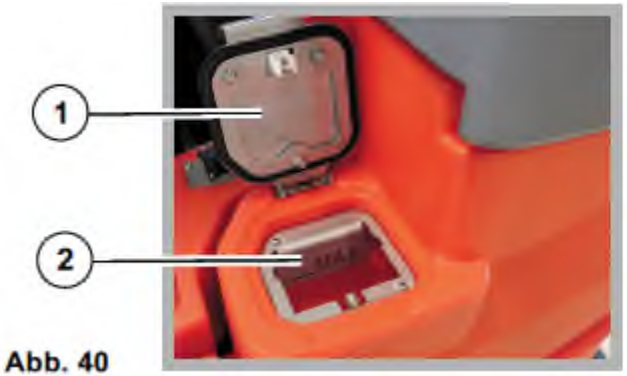


Abb. 40

MIX	
1:20	19,0 L
1:50	7,8 L
1:100	4,0 L
1:150	2,6 L
1:200	2,0 L
1:500	0,8 L
1:700	0,6 L

- Open the cover (1) of the filling opening (2) for fresh water on the left side of the machine
- Fill the fresh water tank three quarters full (maximum water temperature 50°C)
- Add cleaning agents according to the manufacturer's instructions (observe the table above)
- Fill the fresh water tank with fresh water up to the maximum level
- Close the cover (1) and snap it into place with little hand pressure

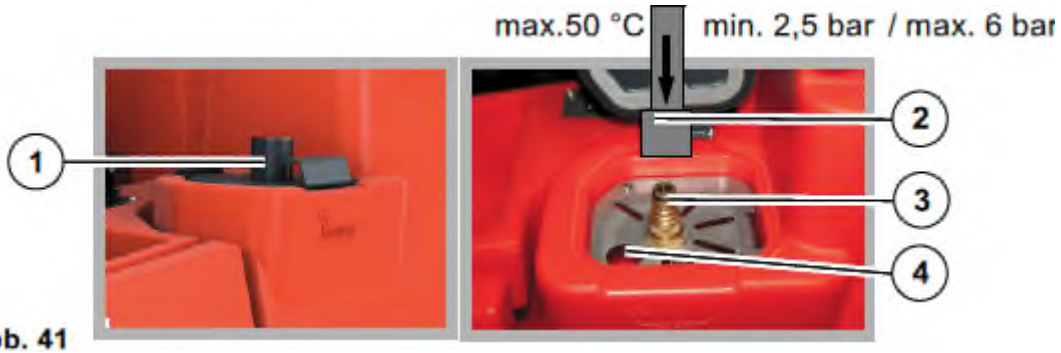


Abb. 41

- Open the cover (1) of the filler opening
- Attach the hose with the quick coupling to the connection (3)
- Open the water supply - water flows
- When the tank is full, the filling unit switches off automatically
- Close the water supply line and remove the hose with the quick-release coupling
- Close the cover (1) and snap it into place with little hand pressure

Cleaning of brushes

Abb. 51

- Make sure that the disc brush unit is in the raised position and the machine is stationary
- Use the rotary pushbutton to select and confirm the softkey (1) EJECT brushes.
- “Action window” (2) opens
- Confirm the start with the turn-push button
- The process starts and the symbols (3+4) appear one after the other in the multifunction display
- Only now is the process complete

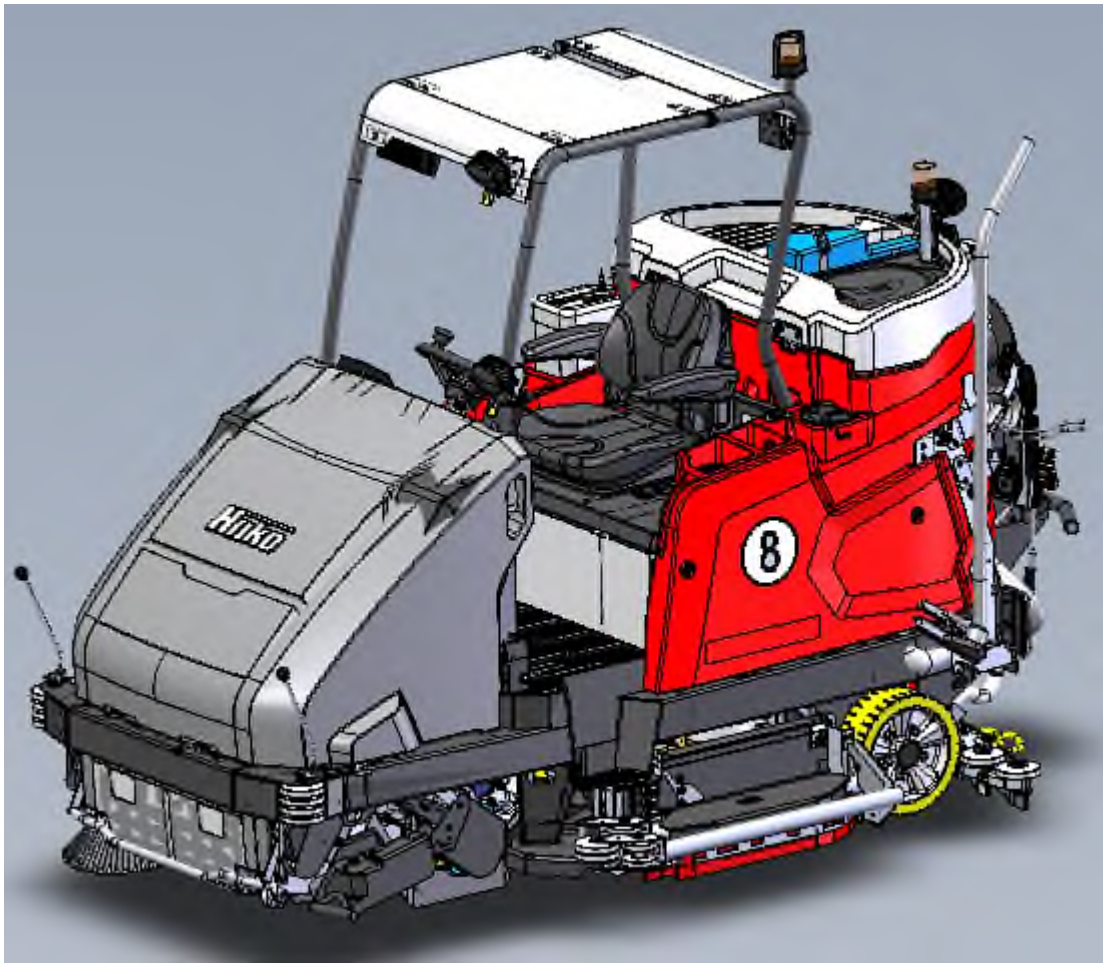
- If available, unlock the two side collision guards (3) on the sides of the machine, lift them slightly and swing them to the side
- Lift the two side scrapers (4) on the sides of the machine and swing them to the side
- Thoroughly clean disc brushes under running water, removing solid parts

Check side deflectors

Abb. 63

- If available, unlock the side collision protection, raise it slightly and swing it to the side
- Loosen wing nut (2)
- Remove tensioning strap (3)
- Turn the scraper rubber (4) (can be used 4 times) or change it

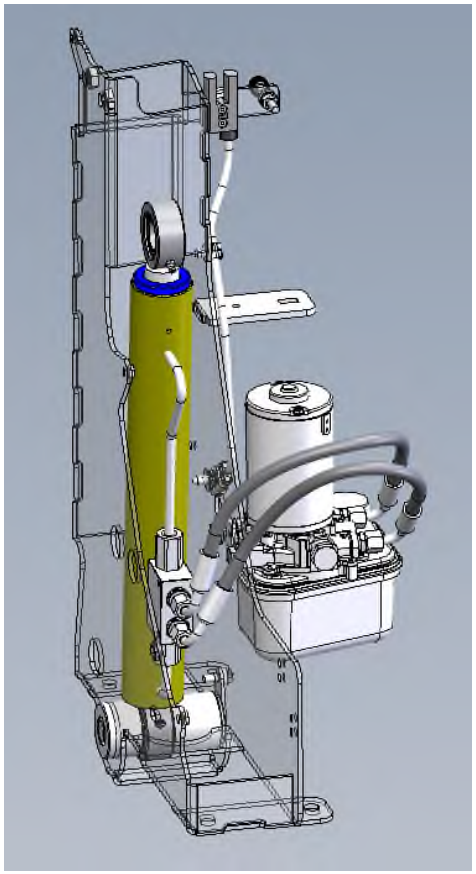
Cleaning of machine



Weekly works

Check hydraulic circiut for leaks

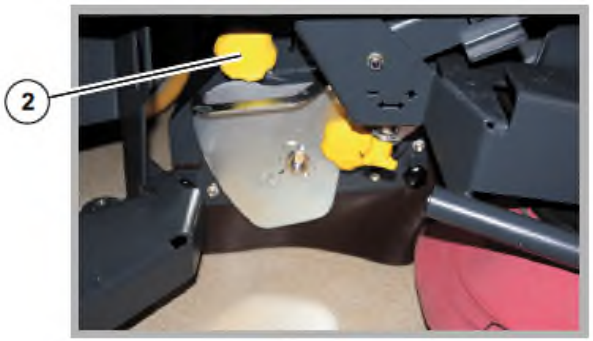
There is only the lifting hydraulics in the corresponding machine variant



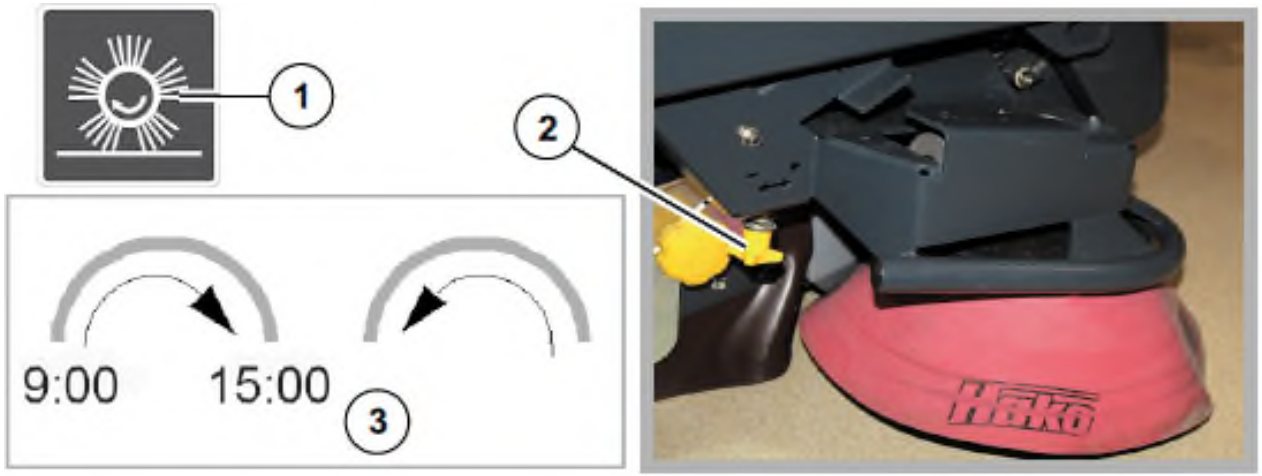
Check main broom for wear and damage

1 = Coverage
2 = Star grip (yellow)
3 = Gear, main broom
4 = Main broom
5 = Star grip (black with yellow dot)
6 = Sheet metal with seal

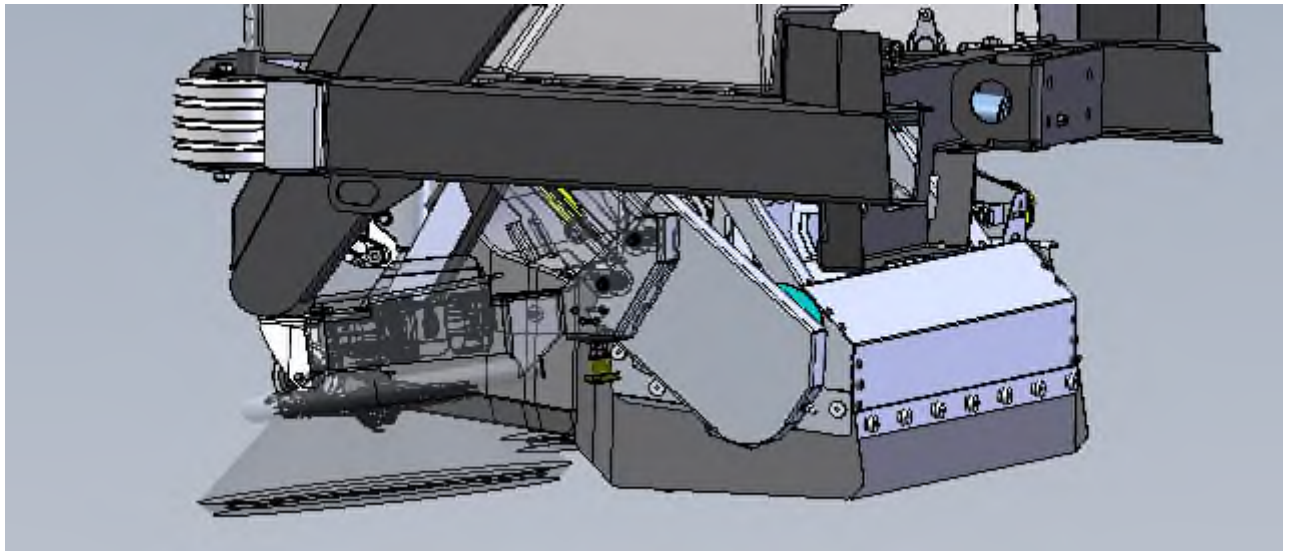
- Park the machine on a leveled surface
- Switch on the machine and press the vacuum sweeper button
- Allow the rotary brush to rotate briefly while stationary
- Switch off sweeping, wait until the sweeping unit is lifted and drive away from the marked area
- Check the sweeping level. If the setting is correct, a parallel sweeping level of approx. 50 +/- 10 mm should appear on the floor
  - •If the sweeping pattern is correct, no further adjustment needs to be made
  - •If the sweeping level is not correct, the further work steps must be continued
- Turn off the machine and remove the key
- Adjust the sweeping level with the star grip
- Repeat the process until the setting is correct



Check side broom for wear and damage

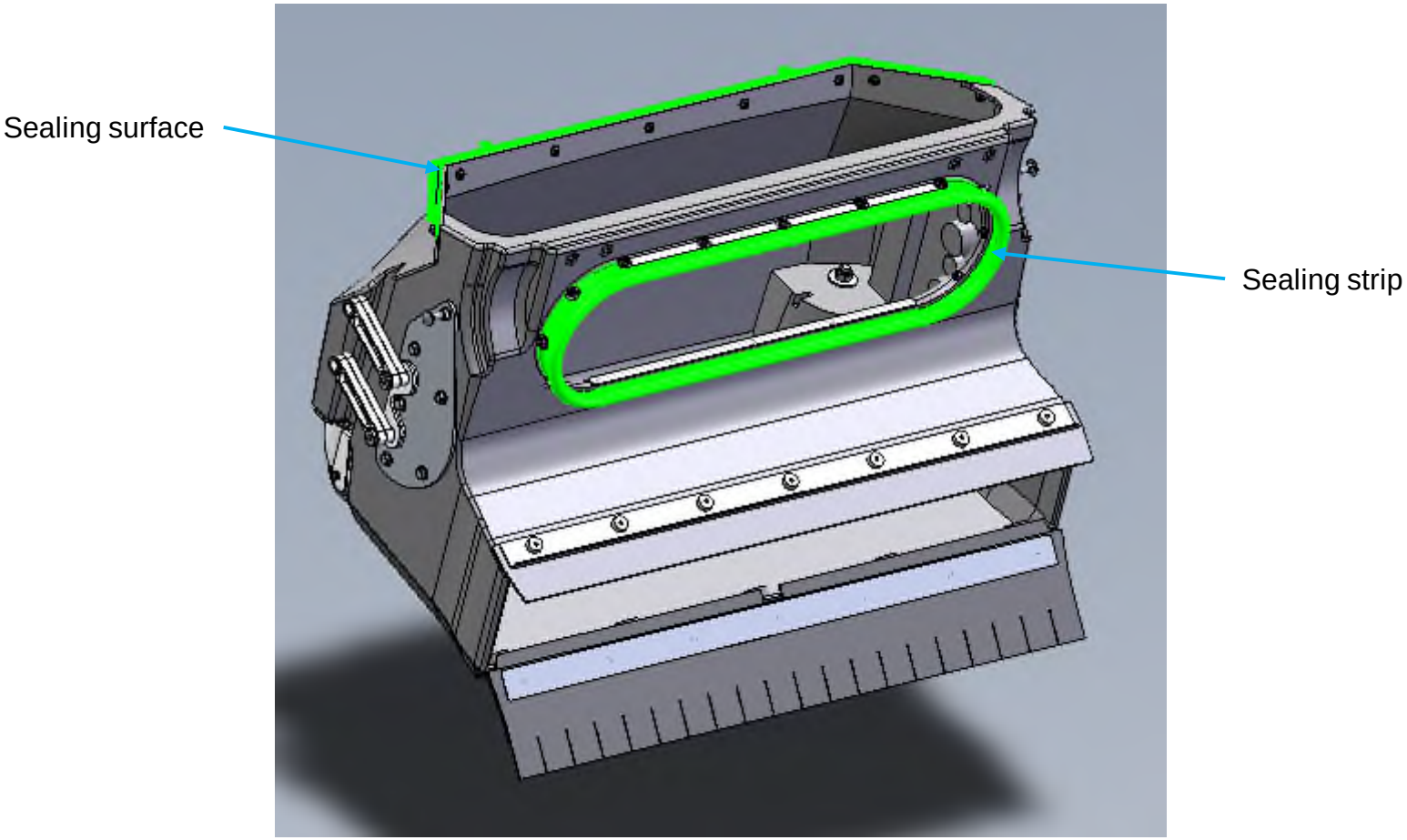


Check broom aprons (sealing strips) for clearance, wear and damage



side and rear sealing strips 3 +/-1mm distance to the ground, this creates a negative pressure of approx. 0.5 mbar in the broom tunnel

Check dirt container seals



Check dust filter system

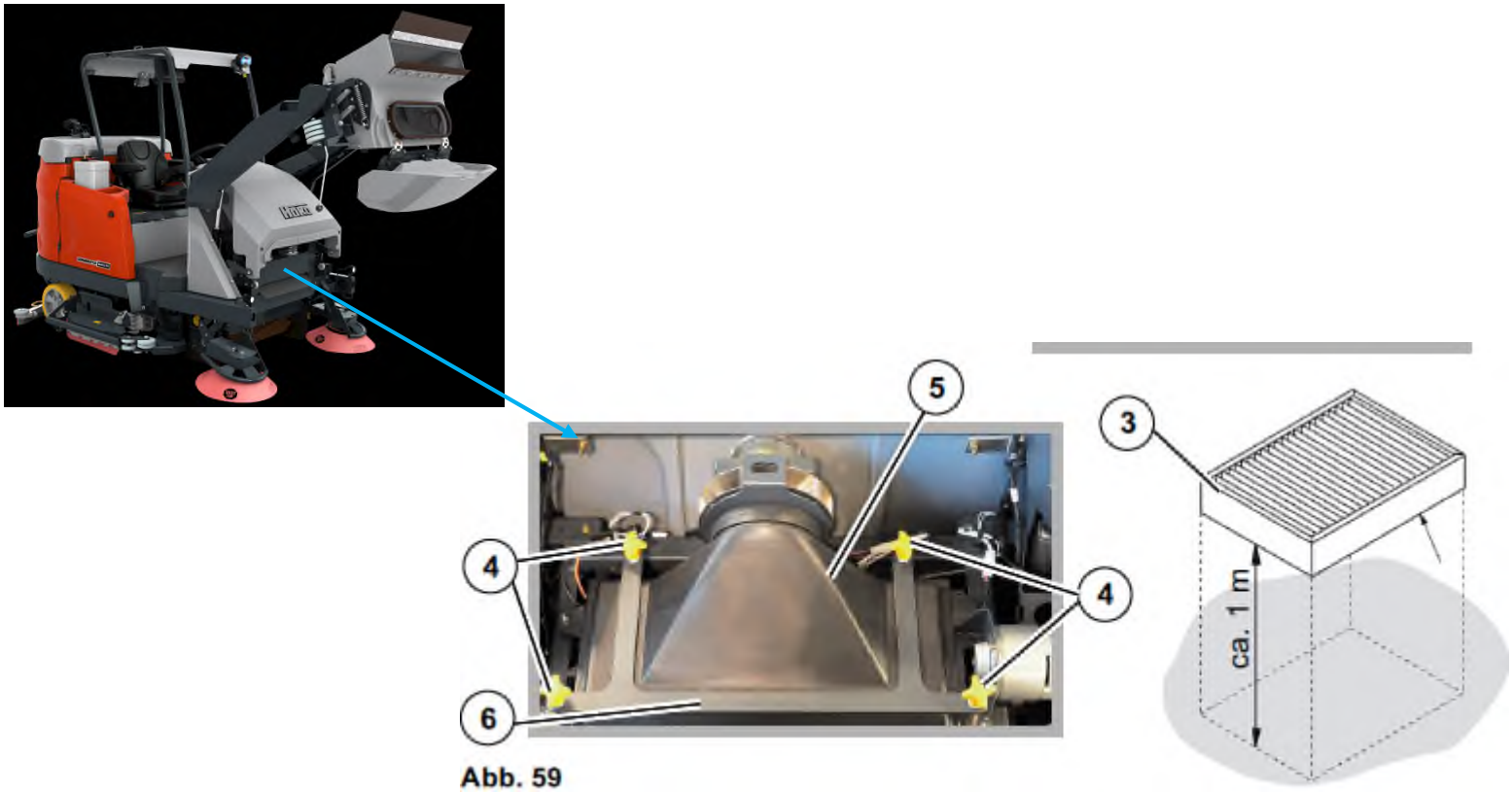
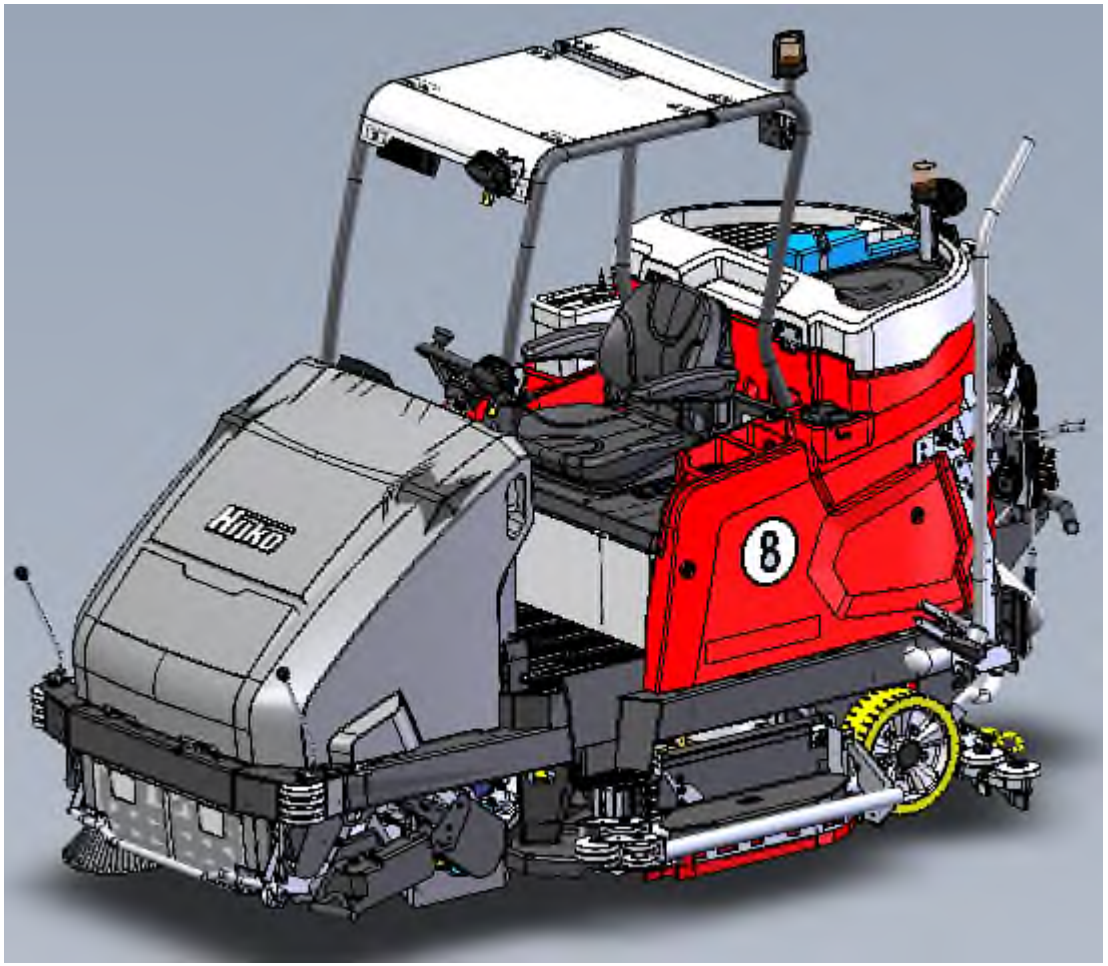


Abb. 59

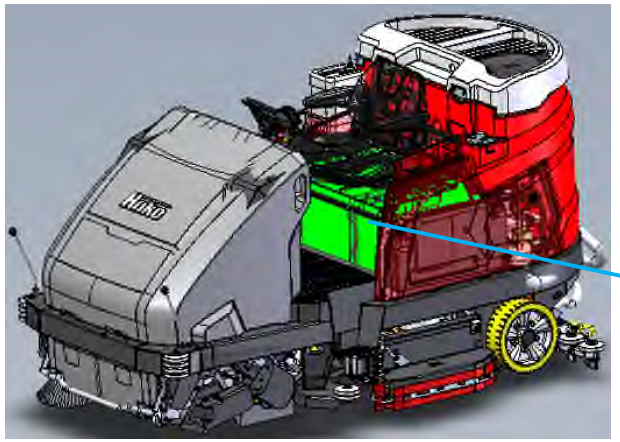
3 = Plate filter
4 = Star grip
5 = Hood, filter
6 = Mounting plate

Check optical condition



every 250h

Check battery and charger



- Park the machine on a leveled surface, switch it OFF and remove the key
- Fold up the seat console to the front

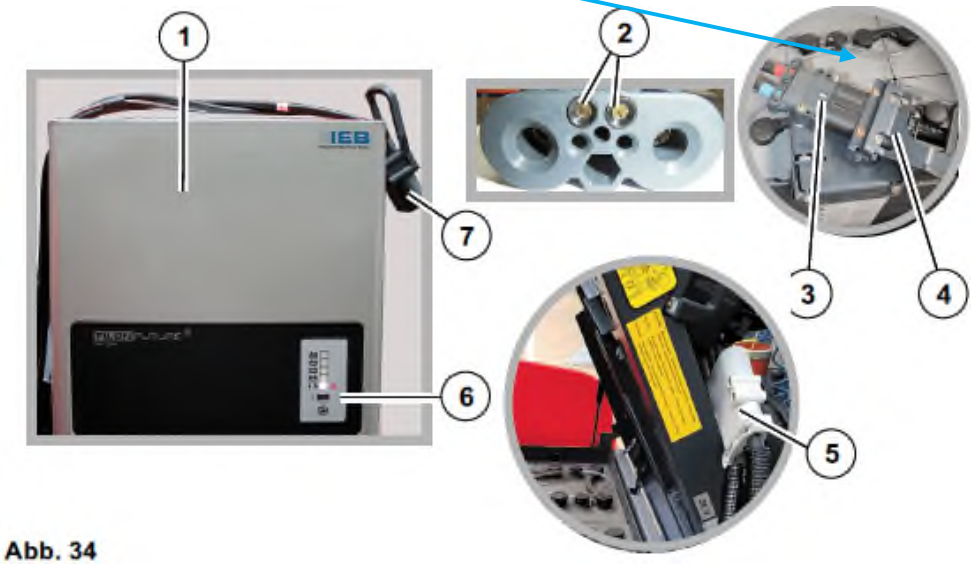


Abb. 34

1 = Charger
2 = Safety circuit (pilot contact control)
3 = Battery socket
4 = Machine connector
5 = Position of the machine plug in the charging process
6 = Charger indicator
7 = Charger plug

Check battery acid level (after charging)

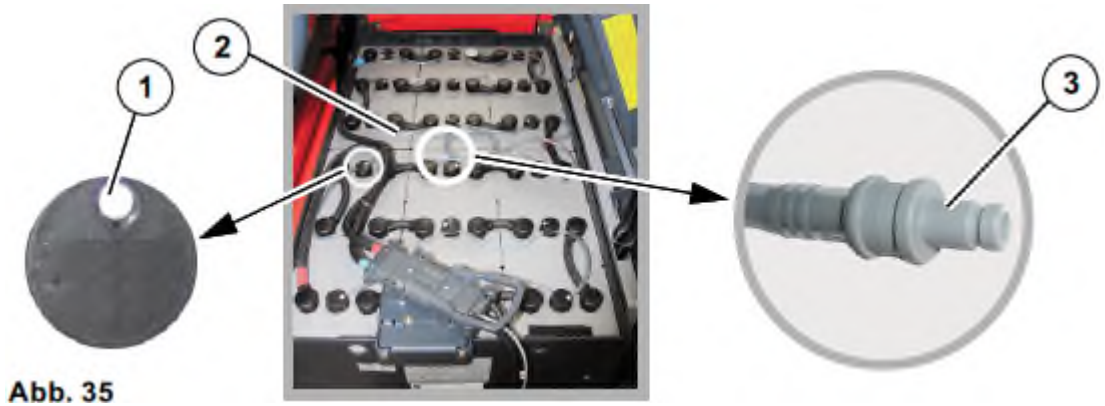


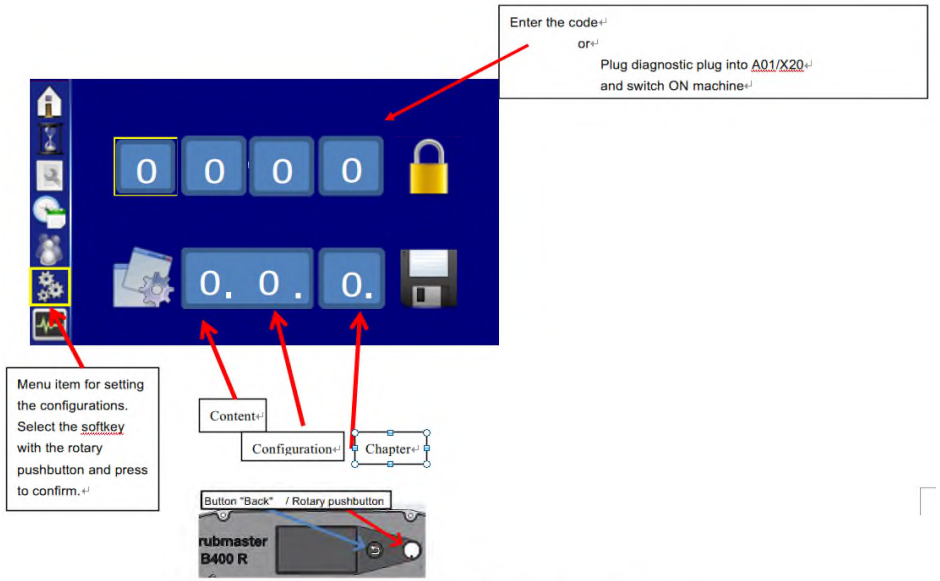
Abb. 35

1 = Float indicator
2 = Aquamatic system
3 = Aquamatic end piece

The white dot (1) must be clearly visible at the top. If this is not the case, demineralized water, according to DIN 43530-4, must be refilled

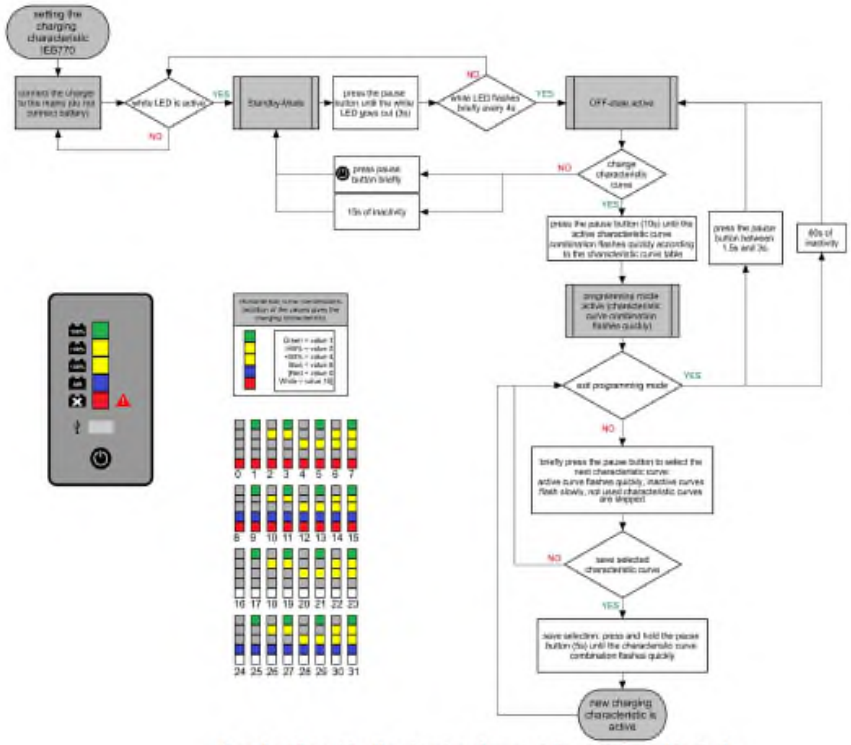
Clean and grease battery poles

Check the setting of the battery management system (BMS)



0	3		LDS Type		Only visible and adjustable if B400 is activated
0	3	0	Crown without Offset	x	
0	3	1	Crown	x	B400 R with compensation
0	3	2	GiS „Unterrolle"	x	B400 R with compensation
0	3	3	GiS	x	B400 R with compensation
0	3	4	PrS or PrB „Unterrolle"	x	B400 R with compensation
0	3	5	PrS or PrB	d	B400 R with compensation
0	3	6	GiV	x	B400 R with compensation
0	3	7	PrV	x	B400 R with compensation
0	3	8	AGM	x	Attention: currently only verified for Hoppecke
0	3	9	Li	x	from version 1.005.000

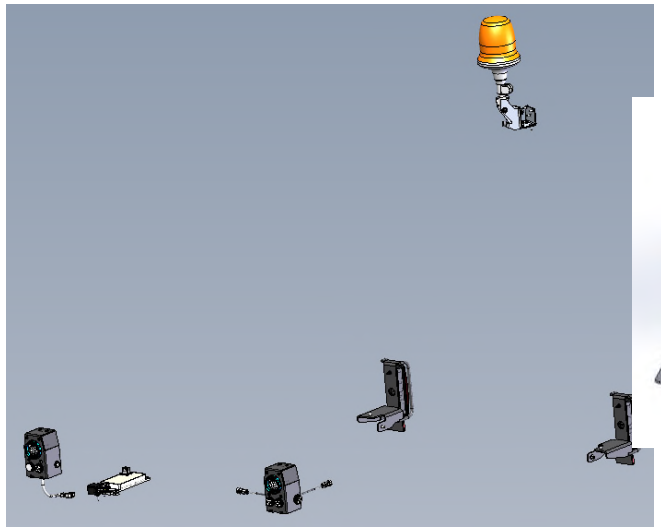
Check the setting of the charger

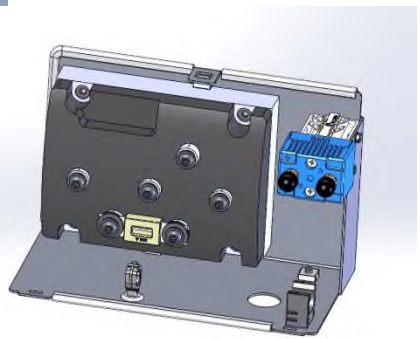


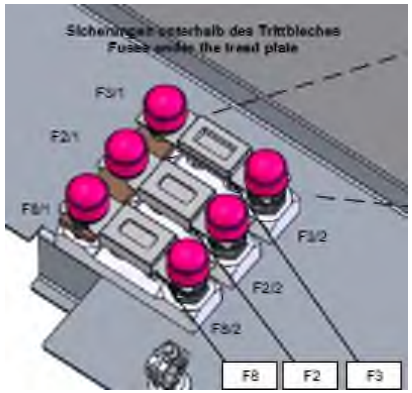
flow chart for setting the charging characteristic without graphic display

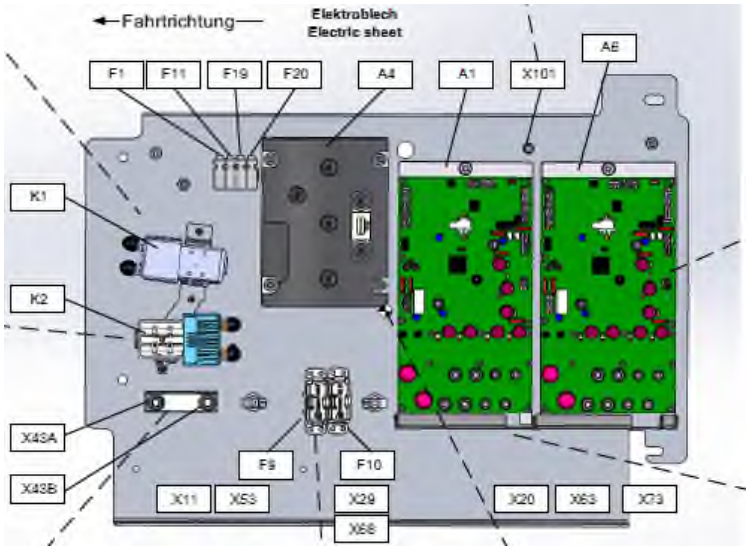
Programm (LEDs blinken)	0	1	2	3*	4	5	6	7	8	9	A	B	C	D	E	F
Kapazität	320Ah-400Ah	480Ah-600Ah	540Ah-675Ah	810Ah-1037Ah	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)	NO SETTING (reserviert für Sondereinstellung)
Ladevorschrift Kennlinie	PzS EXIDE IUIoIa	PzS EXIDE IUIoIa	PzS EXIDE IUIoIa	PzS EXIDE IUIoIa												
Formierung [4]	X	X	X	X												
Desulfatierung [7]	X	X	X	X												
Hauptladung I_1	84,0A	88,8A	108,0A	120,0A												
U_1	43,2V	43,2V	43,2V	43,2V												
$t_{Ic\,max}$ [1]	5,5h	5,5h	5,5h	7h												
t_{HLmax} [2]	8,5h	8,5h	8,5h	10h												
I_{um}	16,0A	24,0A	27,0A	40,5A												
Nachladung I_P	---	---	---	---												
$U_{2\,Pause}$	---	---	---	---												
I_2	16,0A	24,0A	27,0A	40,5A												
U_{2max}	50,4V	50,4V	50,4V	50,4V												
t_{NL}	Max 4h dudt	Max 4h dudt	Max 4h dudt	Max 4h dudt												
Ausgleichsldg. I_2	16,0A	24,0A	27,0A	40,5A												
U_3	50,4V	50,4V	50,4V	50,4V												
t_{Aus}	8h [5]	8h [5]	8h [5]	8h [5]												
t_{Ein}	15min [5]	15min [5]	15min [5]	15min [5]												

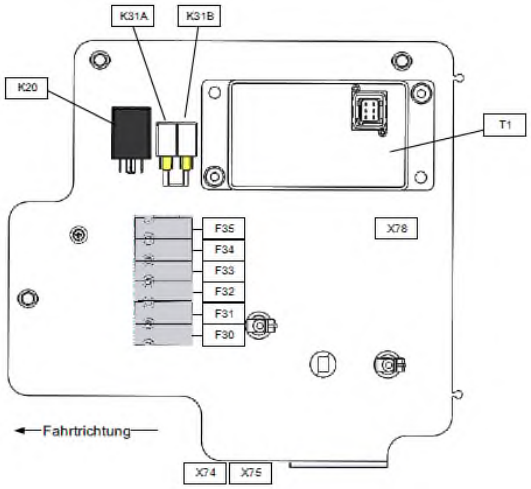
Check electrical system (lights, fuses and relays), replace parts if necessary



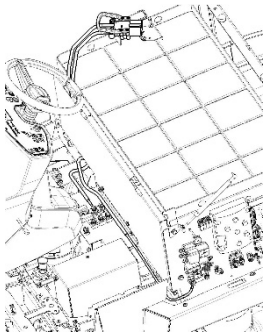


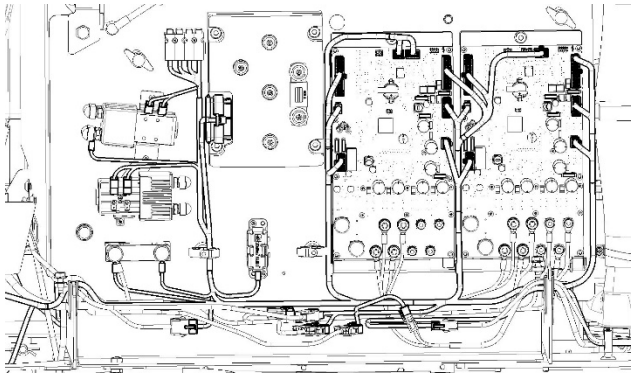


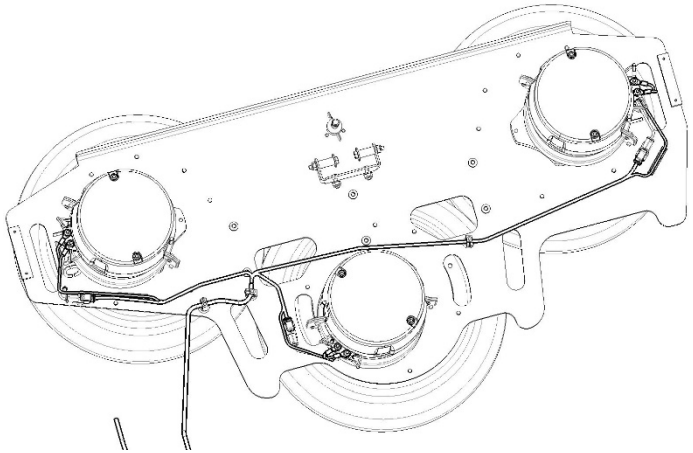


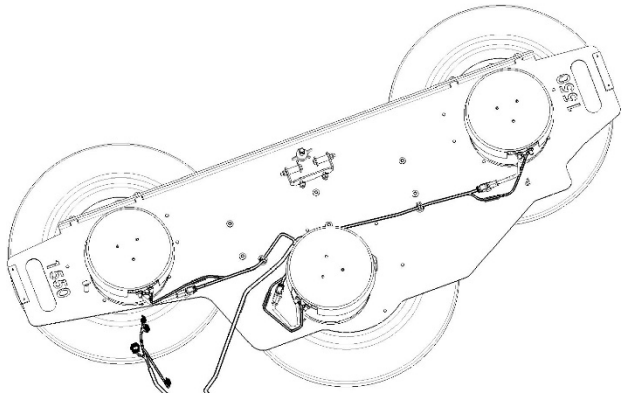


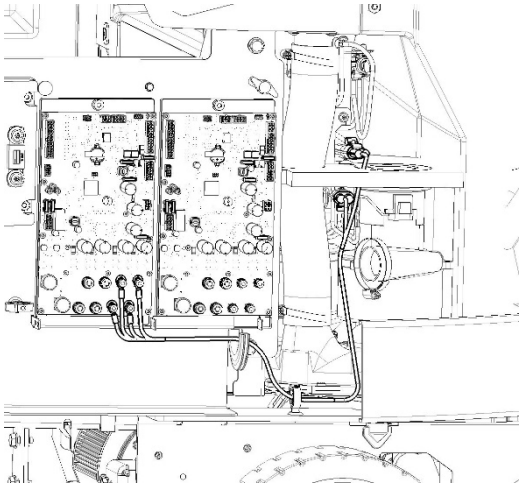
Checking of all power connections on the controls, drive control, power relays, fuses, potential distributors

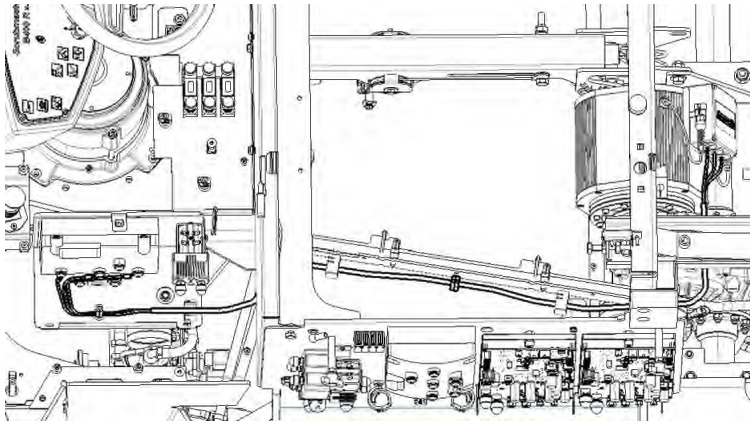


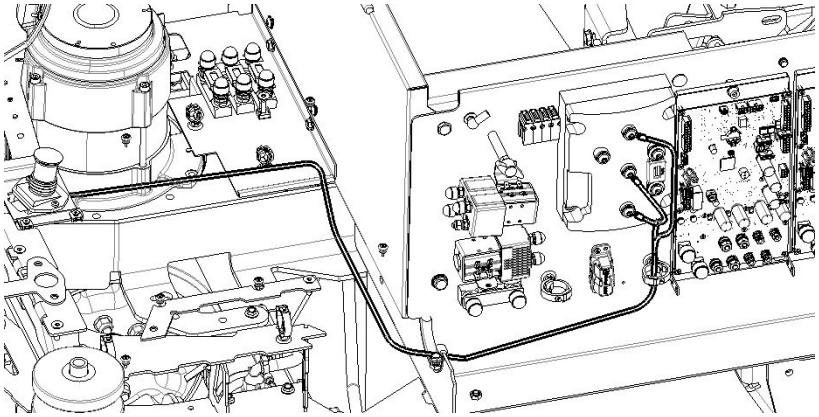


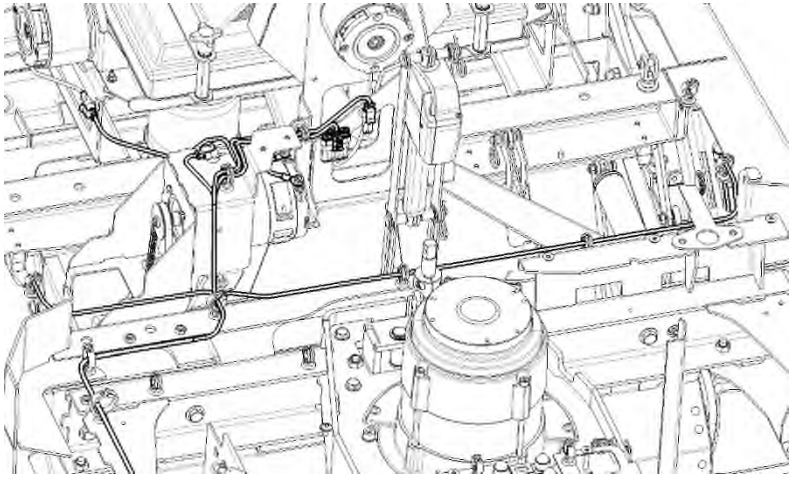


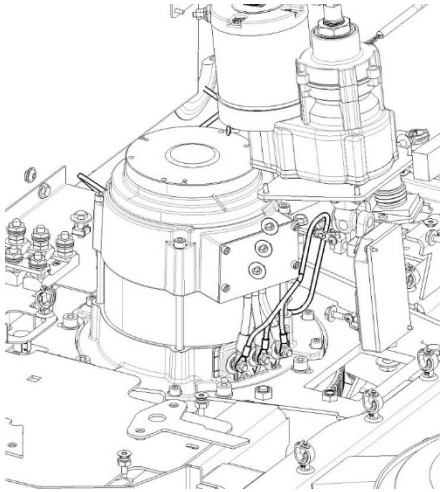


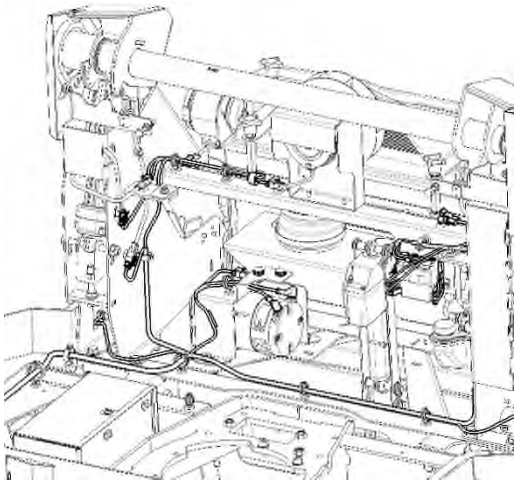












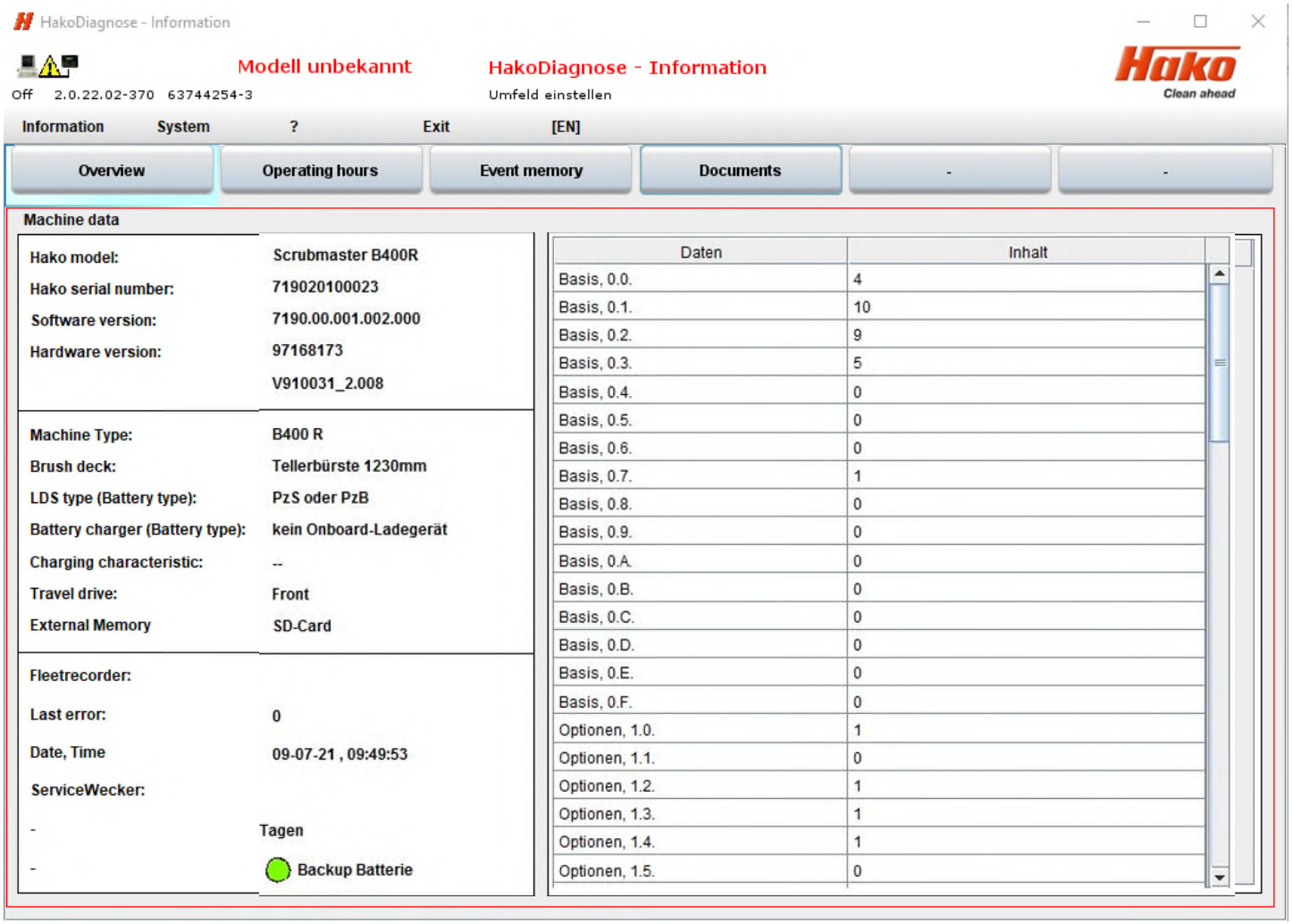
Check software versions (sample B260R, equal for all types)

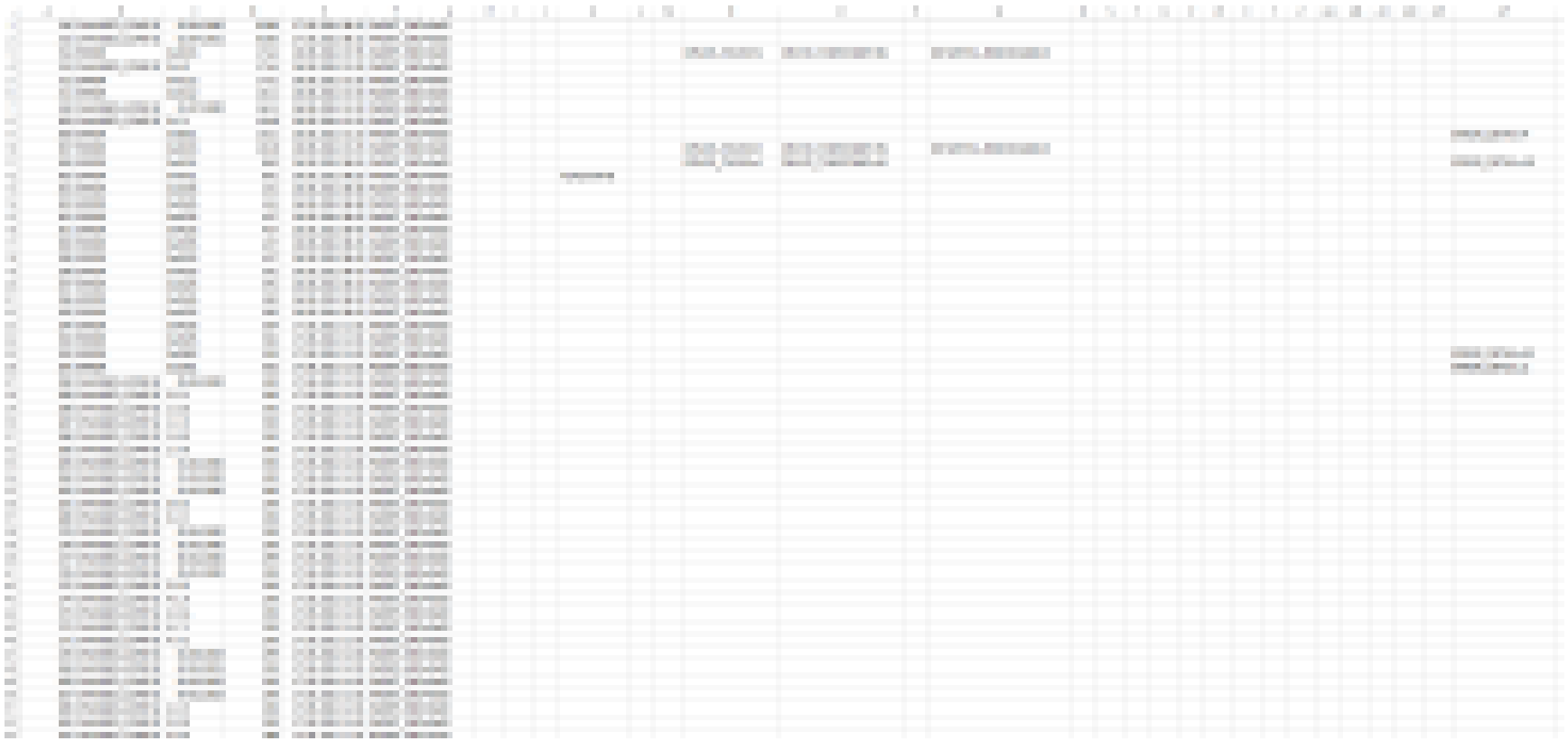
“Rotate” until green arrow on red background confirm by “Pressing” rotary push button

"Rotate" until the information field is framed in yellow confirm by “Pressing” rotary push button

(sample B260R, equal for all types)
Serial number of the machine
Display version
Front wheel drive control version
Rear wheels drive control version
Main board (A1) version
Bootloader version

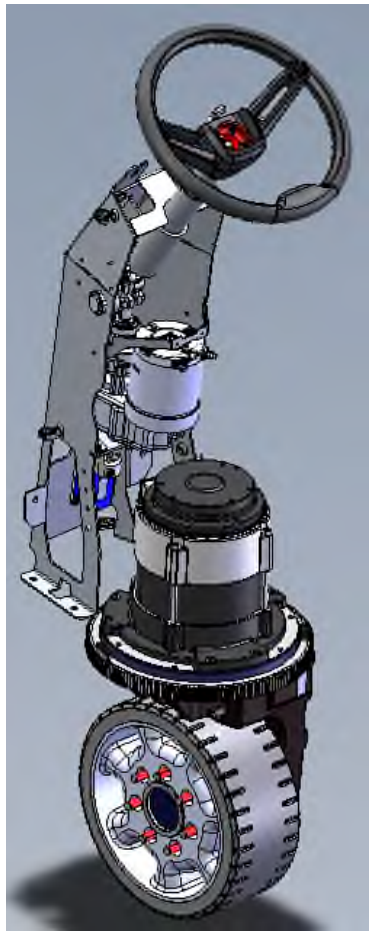
Read Event logs (Event memory)





Check steering

- Check the steering for stiffness
- Check the bearing play of the pinions and universal joints
- Check steering pinion and ring gear for damage, grease if necessary



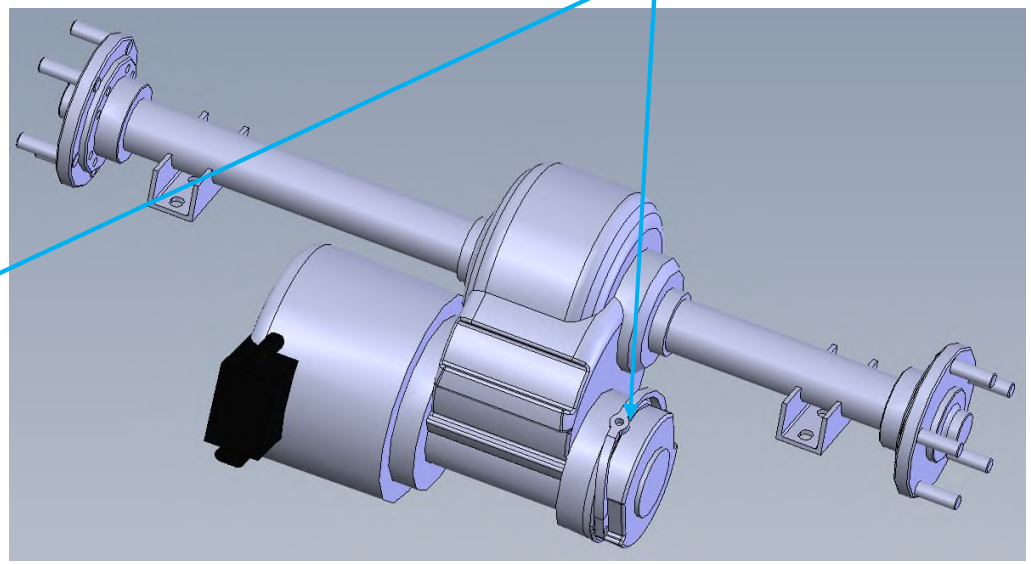
The steering must be equally,
easy to operate in both directions

Check the service and parking brakes

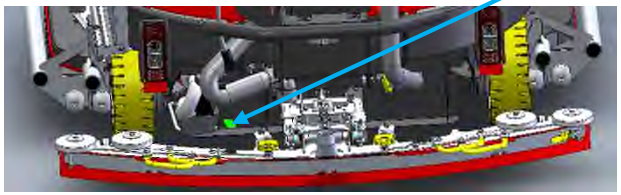
Front wheel drive parking brake can only be unlocked electrically (with tool kit 01381500)

- Test parking brake release function front and rear (X-AC drive only)
- Test signaling in the multifunction display
- Check the function of the brake
- Brake deceleration when the brake button is applied must be noticeably stronger, than when releasing the accelerator pedal

Parking brake rear wheel drive
Mechanically unlockable

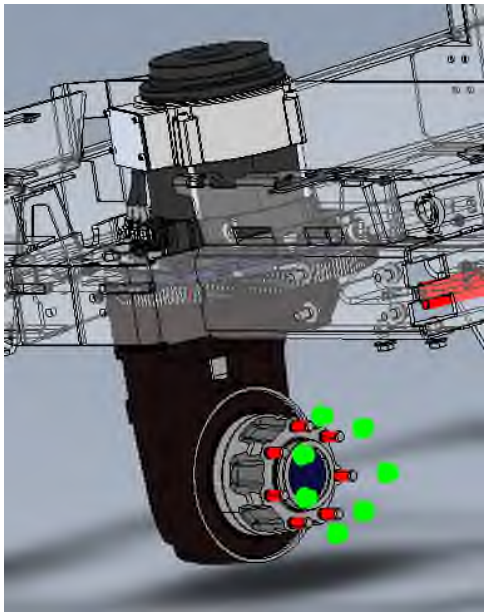


Each brake must individually hold the machine. To check this, unlock and check the front wheel brake with the kit. Then unlock the rear wheel brake on the bracket and check

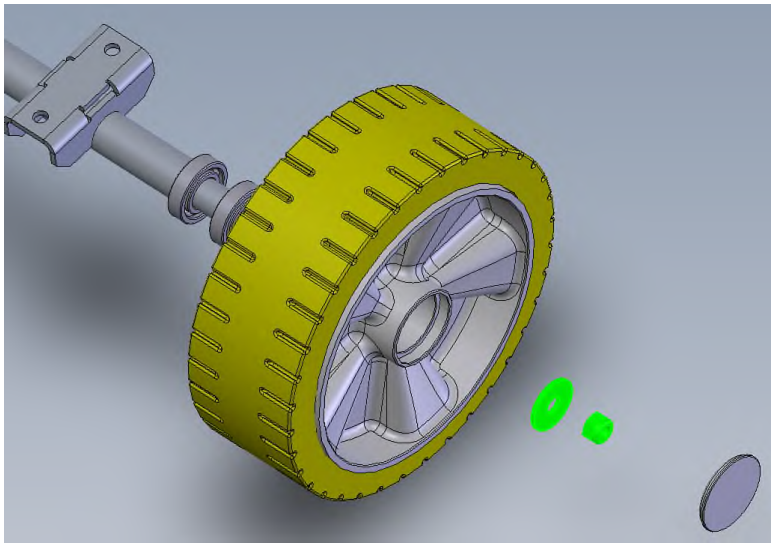


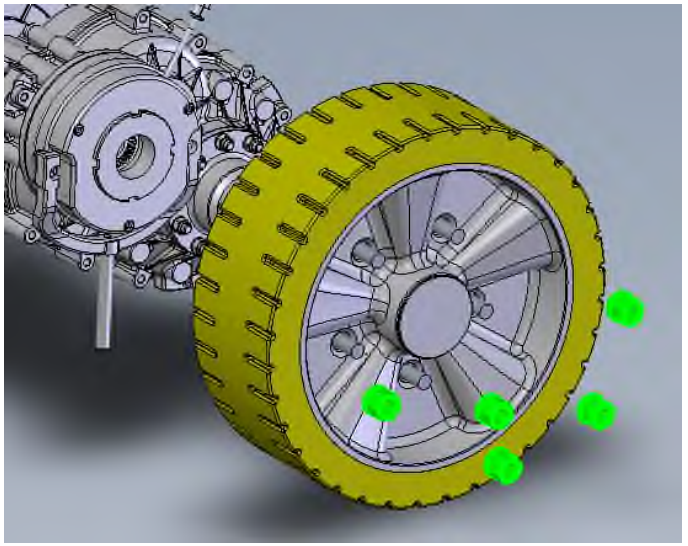
Wheels

- Front wheel: check tire condition and wheel mounting bolts, tighten if necessary (170 ± 25Nm)



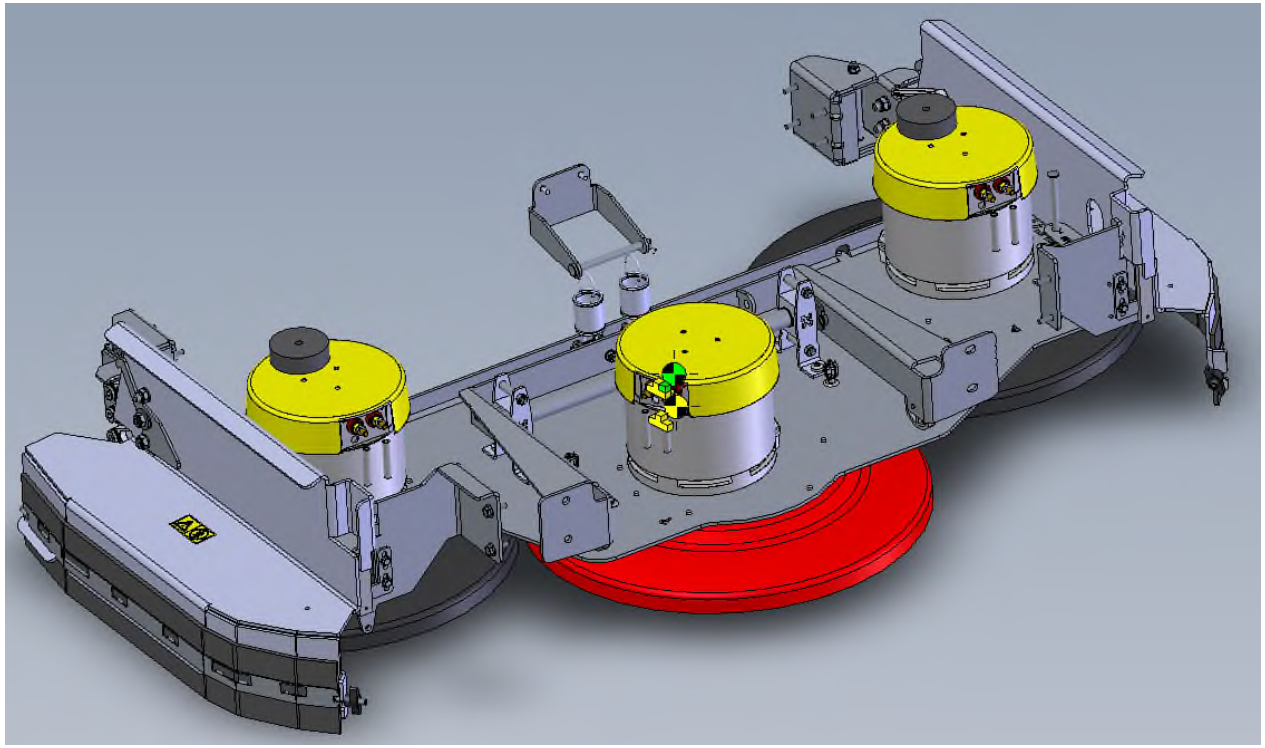
- Rear wheels: check tire condition and wheel mounting bolts, tighten if necessary
  Standard drive: 50Nm
  X-AC drive : 72Nm





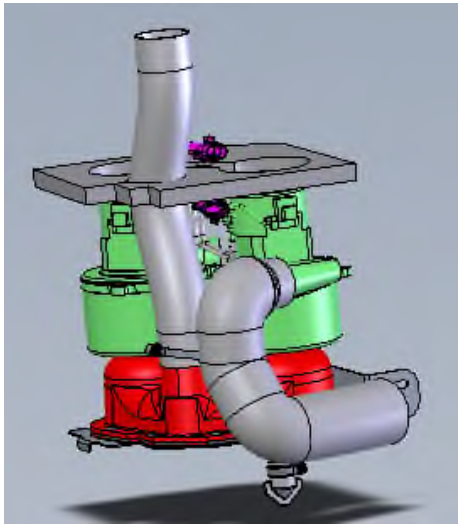
Disc brush unit and side scraper

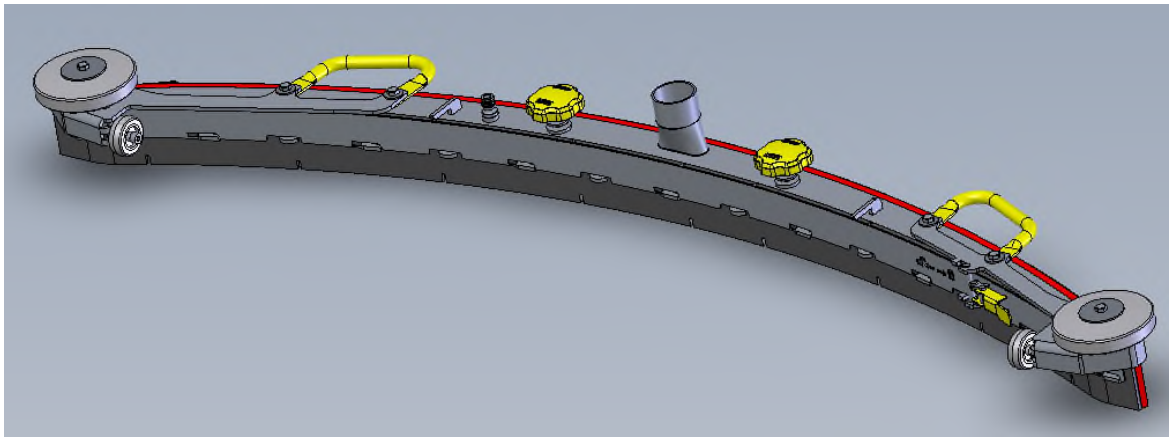
- Check function of lifting, lowering and surface pressure reinforcement
- Check the ejection and pickup function of the brushes
- Check the driver of the disc brushes for condition and function, replace if necessary
- Check disk brushes for wear and replace if necessary
- Clean fluff and dirt from the ventilation grid of the brush motors
- Check the scraper rubber from the side scraper, turn or replace if necessary
- Check the front collision protection with the deflector roller for damage



Squeegee and suction turbines

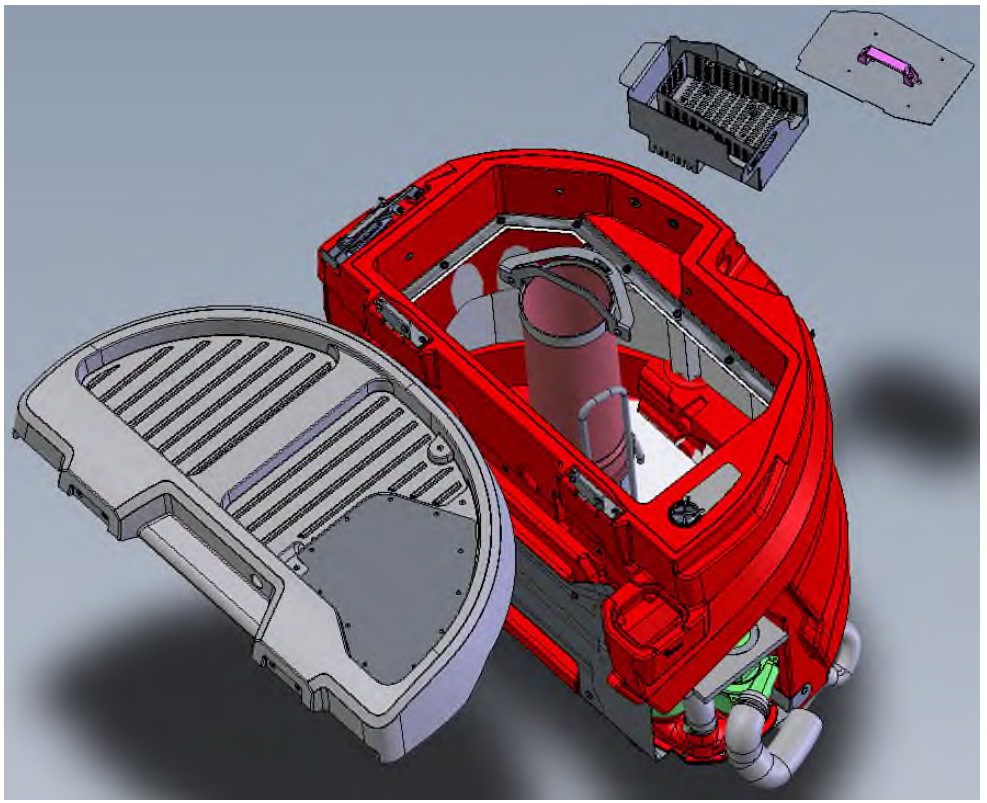
- Check the sealing strip and slotted strip of the squeegee, turn or replace if necessary
- Check the flap function of the squeegee
- Check the deflector bar/deflector rollers on the squeegee and replace if necessary
- Check the squeegee setting and readjust if necessary
- Check the squeegee support rollers for ease of movement and wear, replace if necessary
- Check suction turbines for function
- Check the suction turbine drain valve and clean if necessary





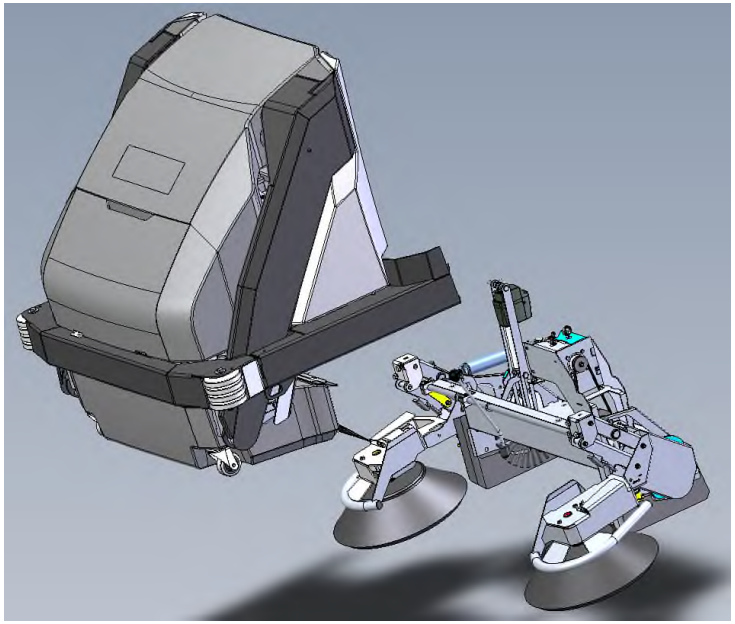
Flexible wall tank

- Check the lid seal of the flexible wall tank and replace if necessary
- Check the function of the lid's positioner
- Check the waste water and suction system, replace worn parts if necessary
- Check the flexible wall for damage
- Check fresh water fill level display, calibrate if necessary
- Check drain hoses (fresh and dirty water) for leaks and function, replace if neccesary
- Clean coarse dirt and filter sieve
- Check fresh water supply, replace worn parts if necessary
- Check the fresh water inlet cover seal
- Check filter insert and lid seal of fresh water filter for damage, change if necessary



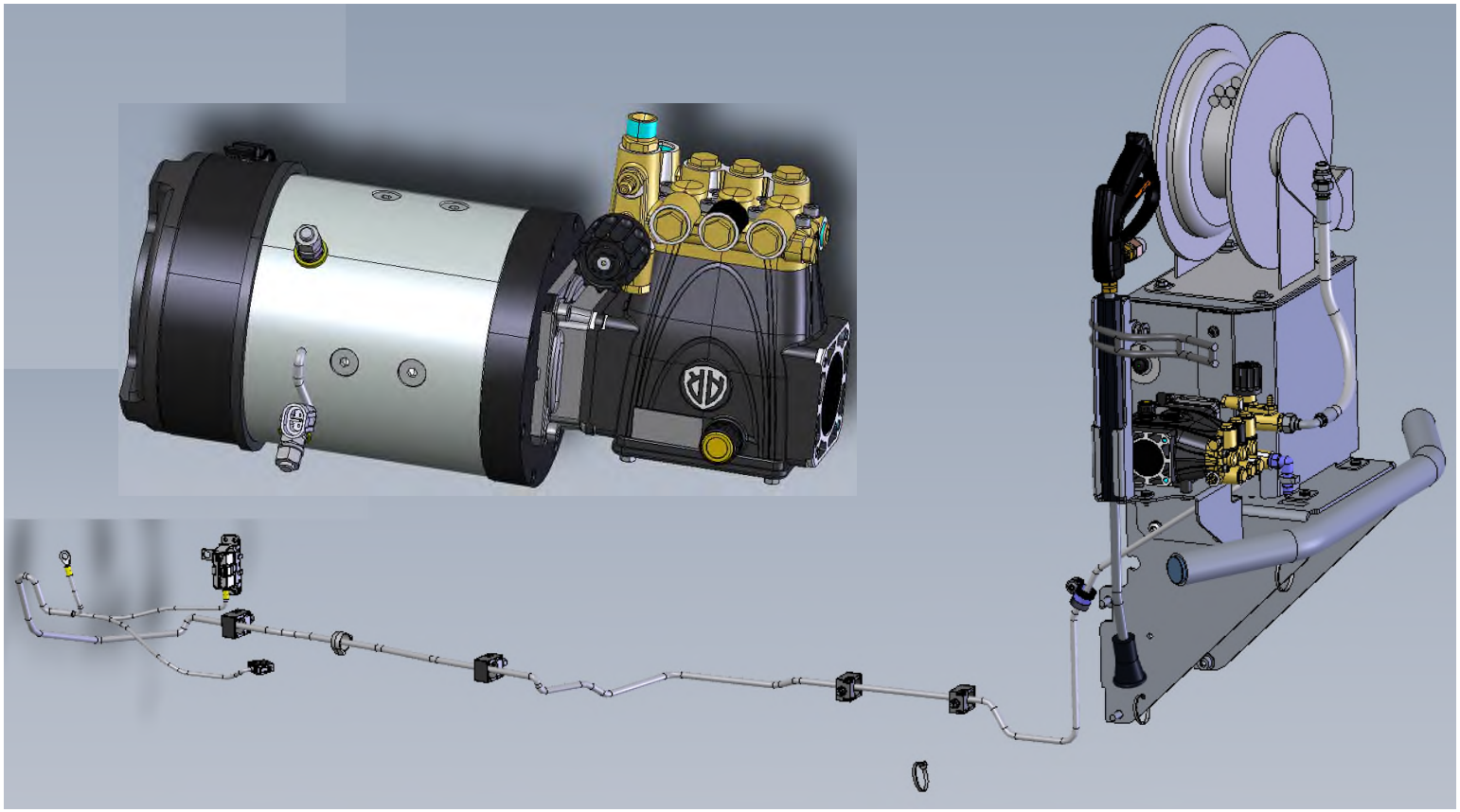
Sweeper attachment

- Check high dump function (only B400 RH)
- Check hydraulic oil level, fill if necessary (B400 RH only); 0.5l HVLP46, zinc-free
- Check V-belt drive, replace if necessary
- Check the main broom for wear and adjust or replace if necessary
- Check the sweeping pattern setting and readjust if necessary
- Check the shaking function and suction from the filter system
- Clean plate filter
- Check the sealing strips in the broom room for clearance, wear and damage, replace adjust or change if necessary
- Check side brushes for wear and replace if necessary
- Check side brush setting, adjust if necessary
- Check the function of the coarse dirt flap lock (only B400 RH)



High pressure cleaner

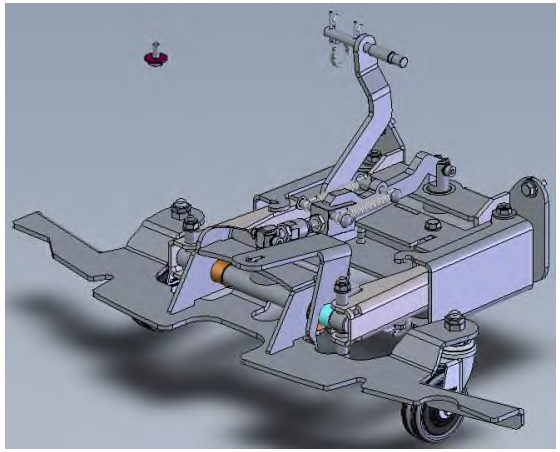
• Oil change (once); 0.175l SAE15W40 CF4

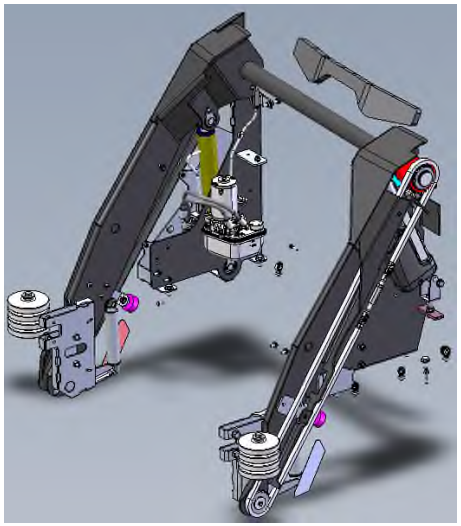


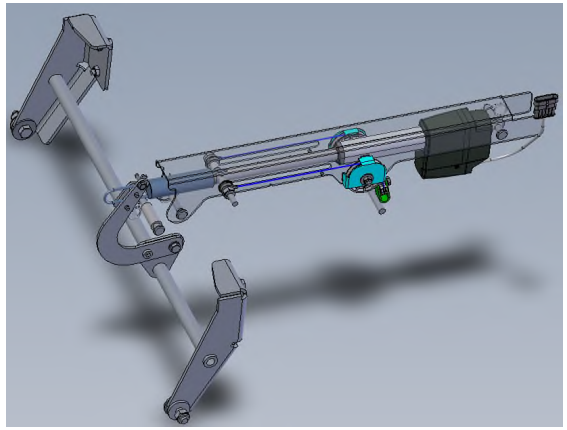
Spray the following points on the machine with penetrating oil:

Caution! Do not spray DU dry or plain bearing bushes!

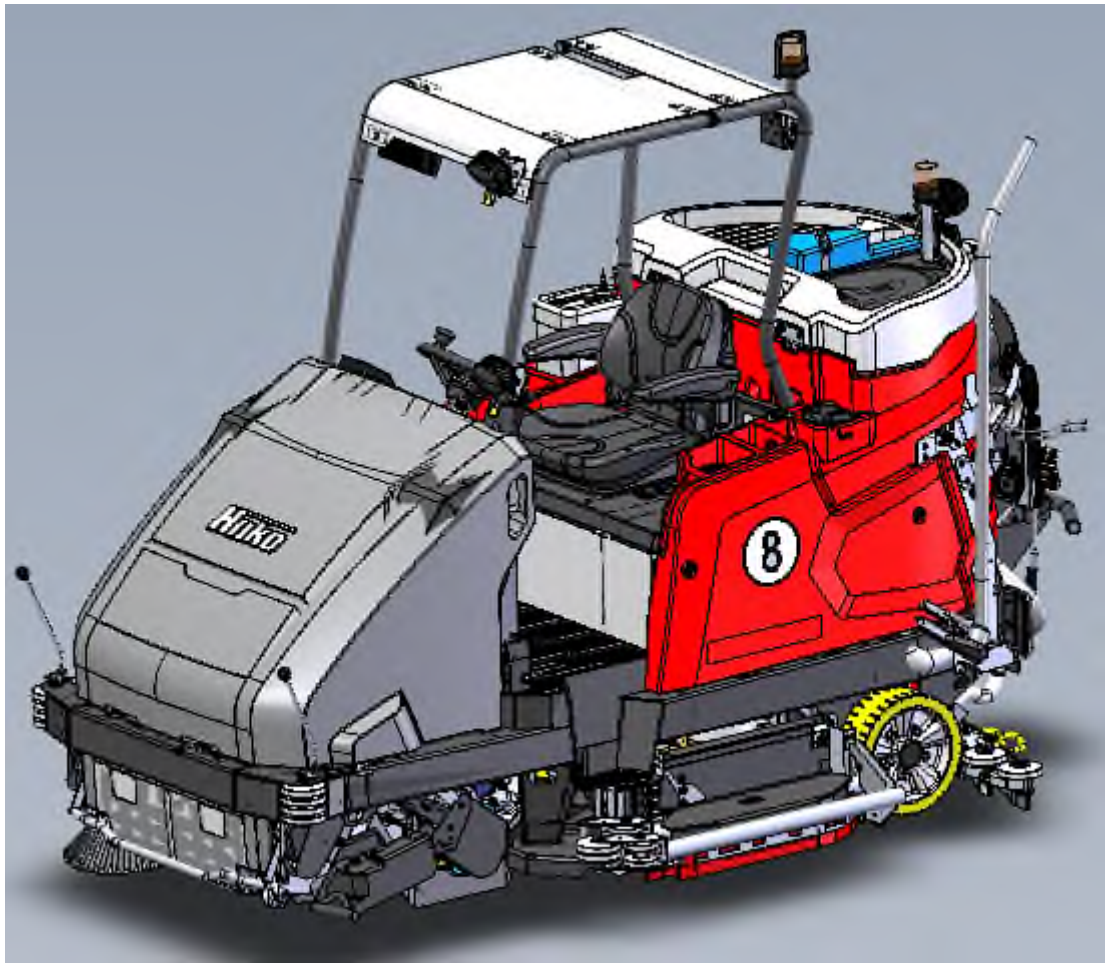
- Hinges on the squeegee lift
- Hinges on the side deflectors
- Hinge and articulation points of the brush lift
- Grease high dump chain (B400 RH only)
- Lubricate the lubricating nipples on the lifting cylinder (B400 RH only)





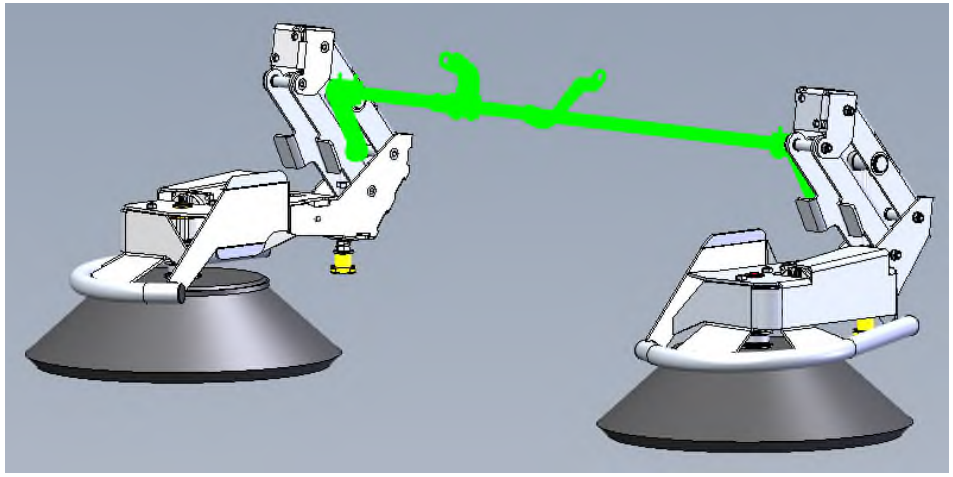


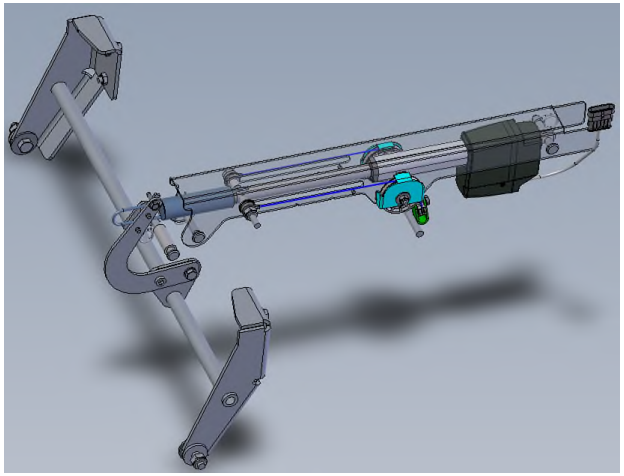
- Check optical condition of the machine (corrosion and labels)
- Test drive and function test



additionally every 500h

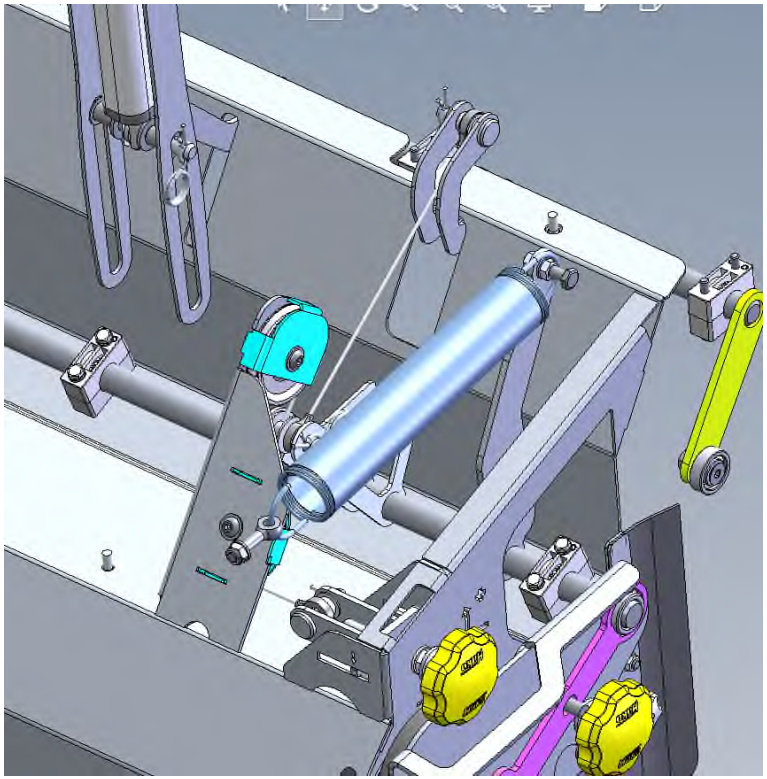
- Check side brush system for ease of movement and damage, repair if necessary
- Check the scraper rubber on the side scraper and replace if necessary



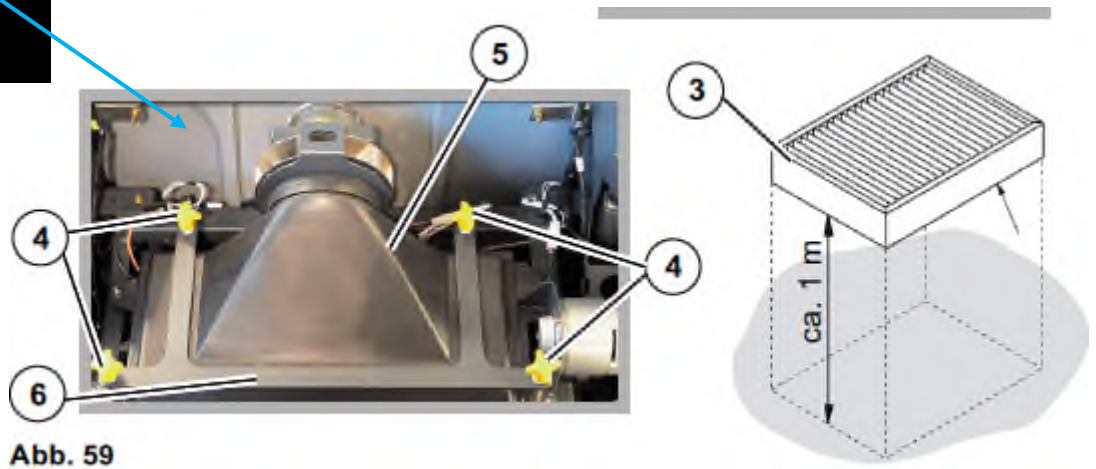


Sweeping attachment

- Check the sweeping attachment lifting cables



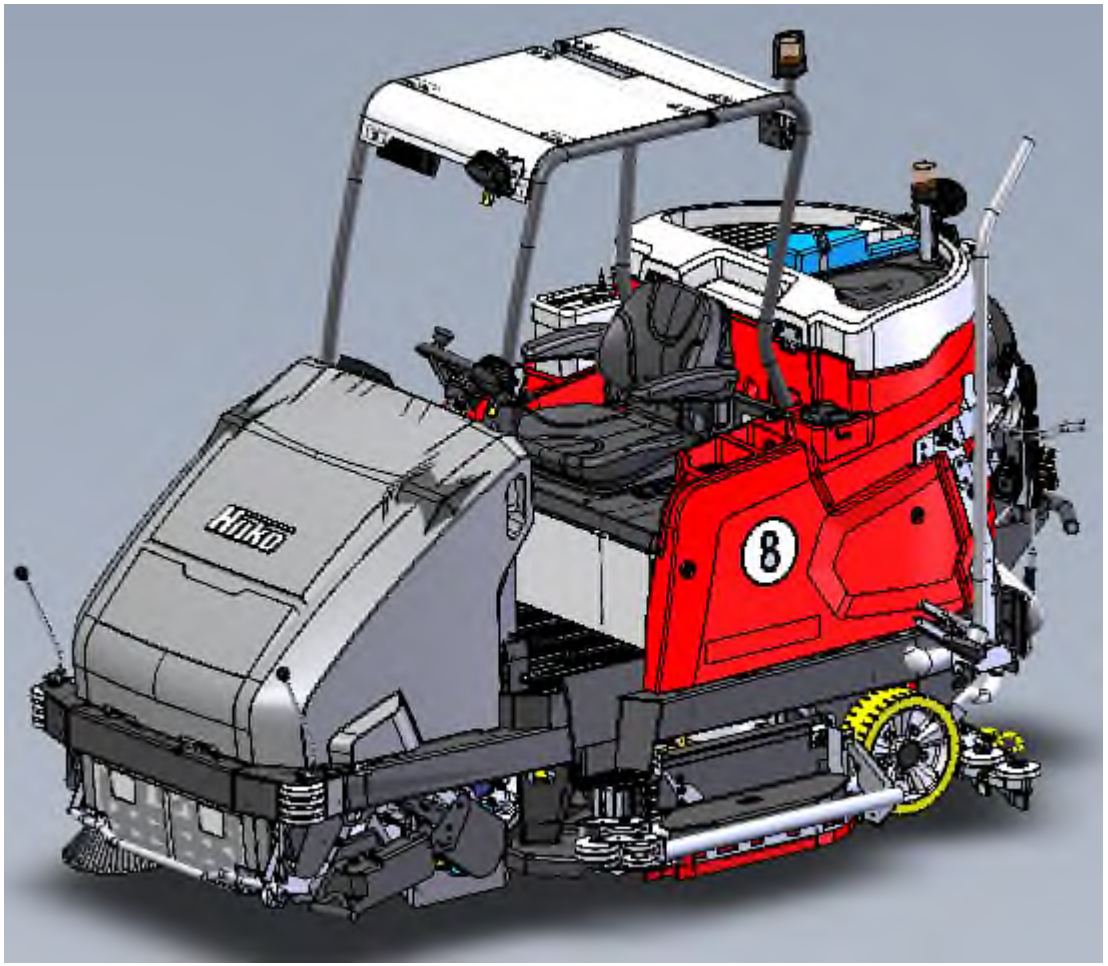
- Change plate filter



3 = Plate filter
4 = Star grip
5 = Filter hood
6 = Mounting plate

Abb. 59

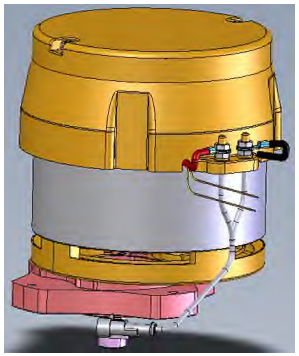
- Test drive and function test

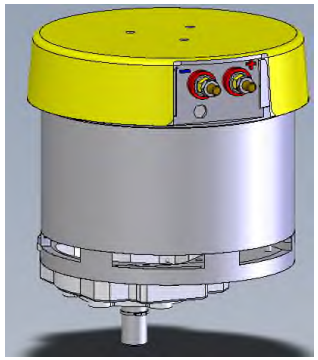


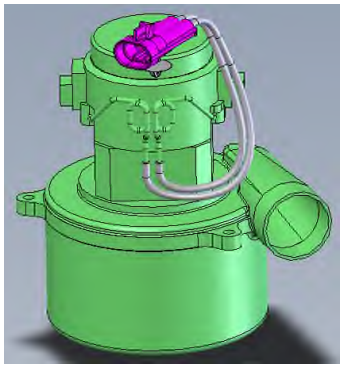
additionally every 1000h respectively yearly

Check the following electrical powers:

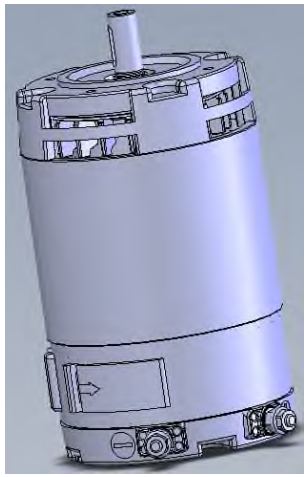
- Brush motors (1230mm); Rated current 26A
- Brush motors (1550mm); Rated current 40A
- Suction turbines ; max. current 18A

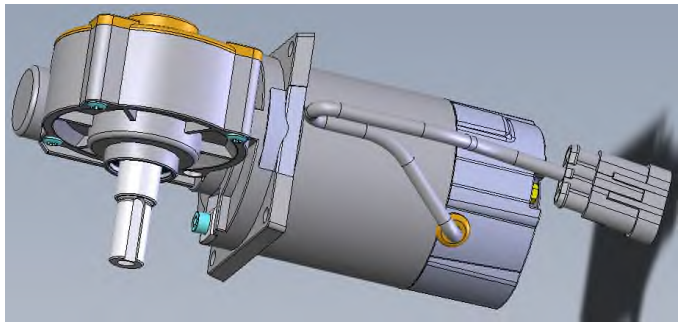


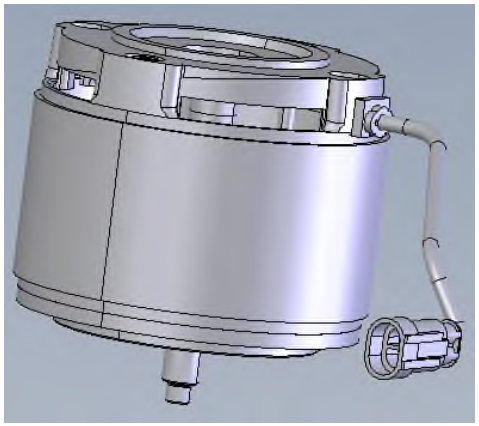




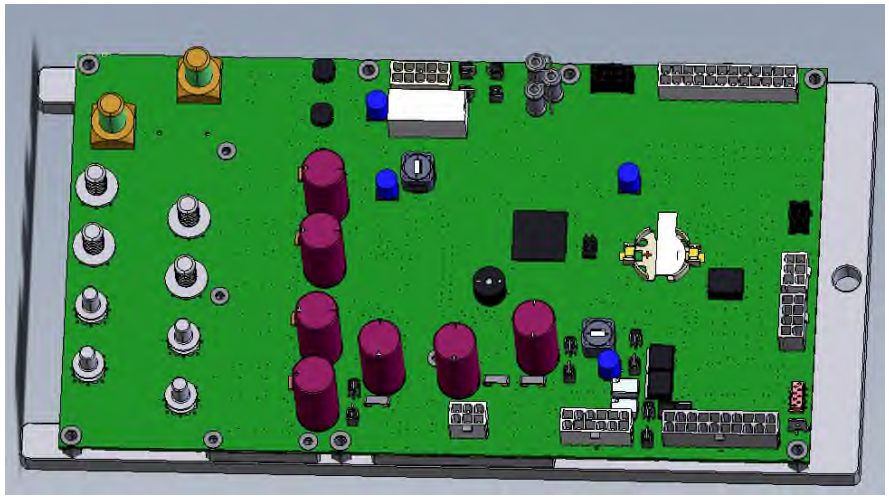
- Sweeper attachment, broom motor ; Rated current 21A
- Sweeper attachment, side broom motors; Rated current 3.2A
- Dust extraction ; max. current 10A







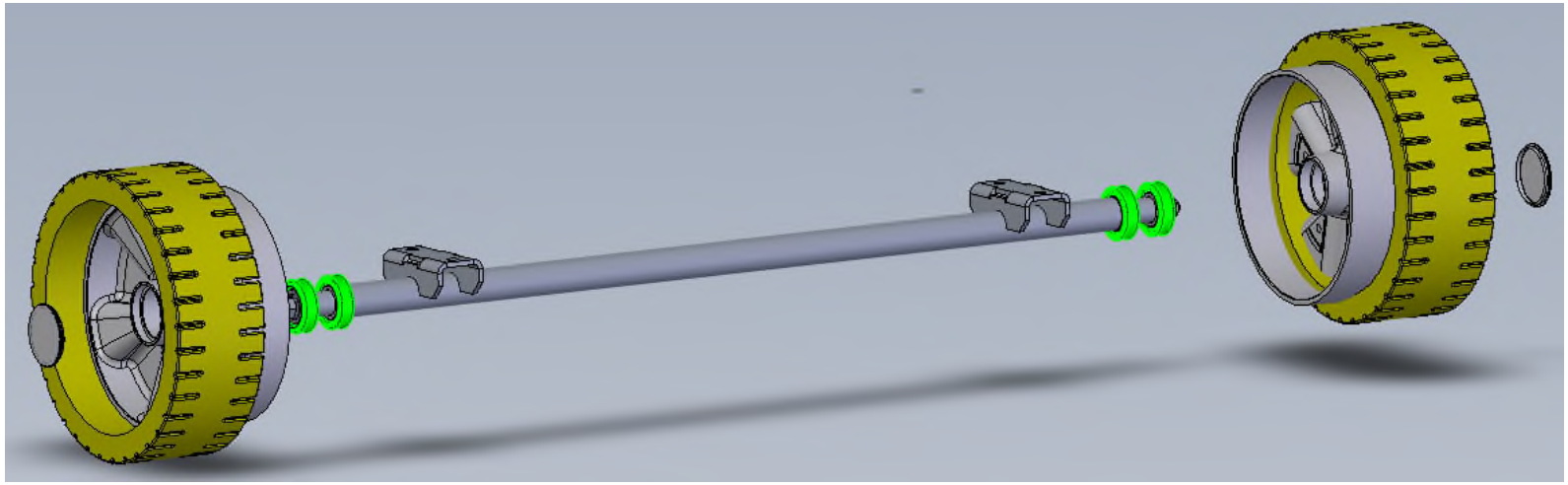
- Clean brush motors, suction turbines and main broom motor from carbon dust and check carbon brushes for ease of movement and wear, replace if necessary.
  min. 9mm (brush deck 1230mm)
  min. 14mm (brush deck 1550mm)
  min. 10mm (suction turbines)
  min. ?mm (main broom)



- Change backup battery of the electric control and set real time clock

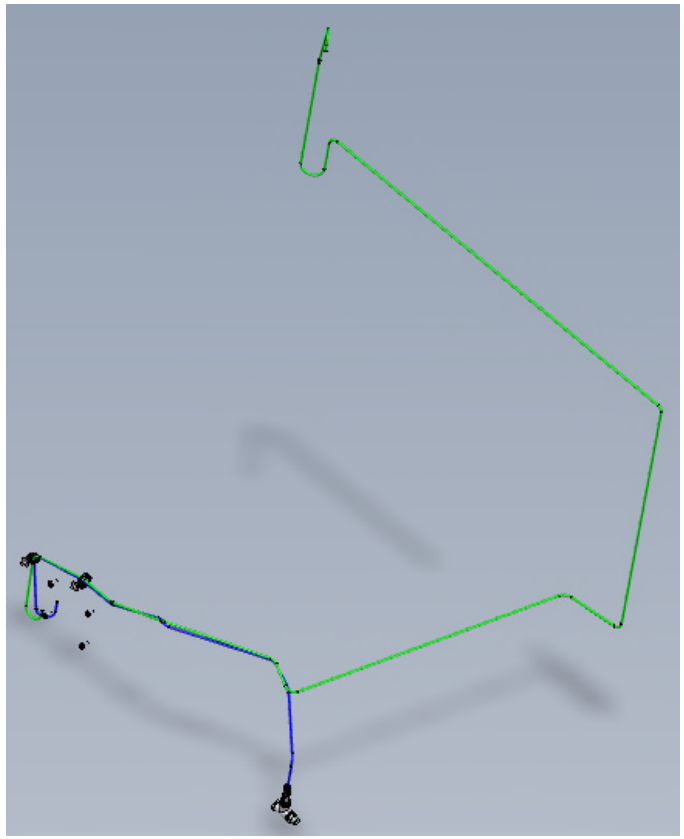
Standard drive rear axle

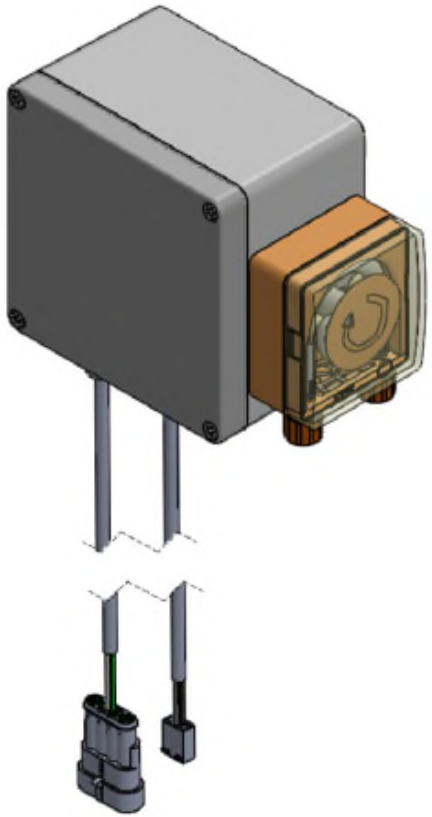
- Check the rear wheel bearing play and replace the wheel bearing if necessary



Dosing system (option)

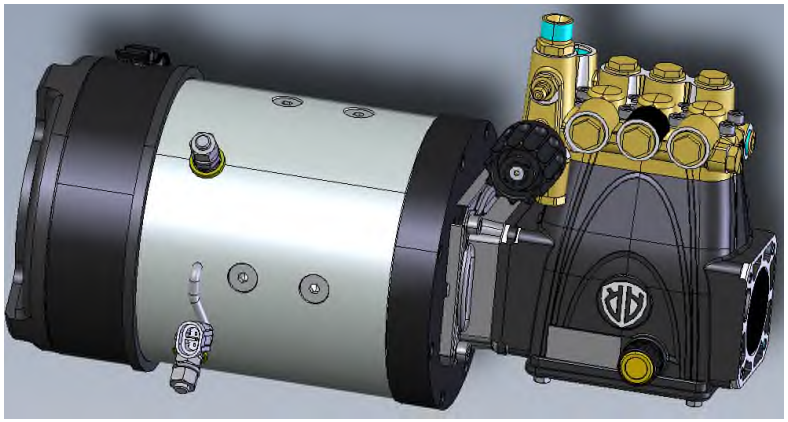
- Replace the dosing pump hose
- Replace the dosing pump rotor after three years





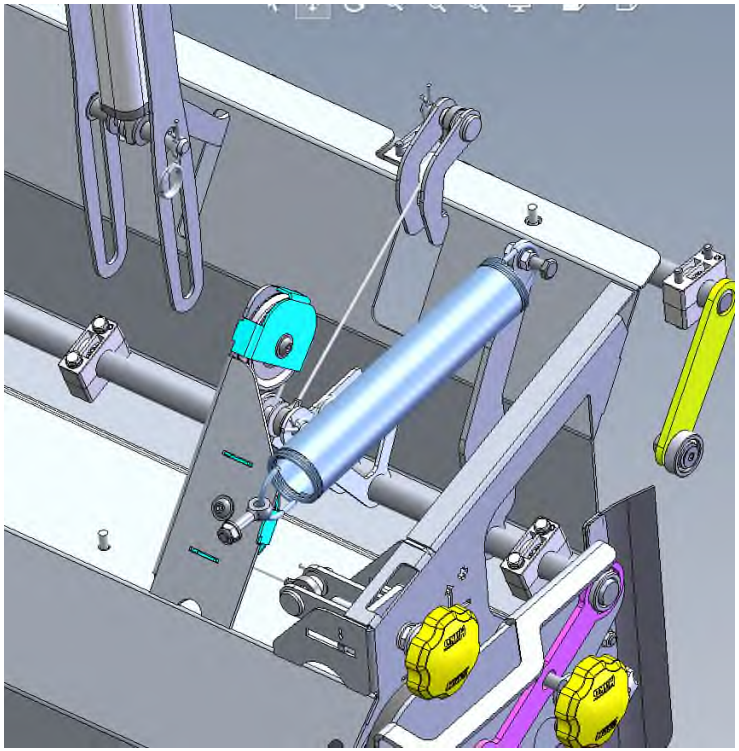
High pressure cleaner

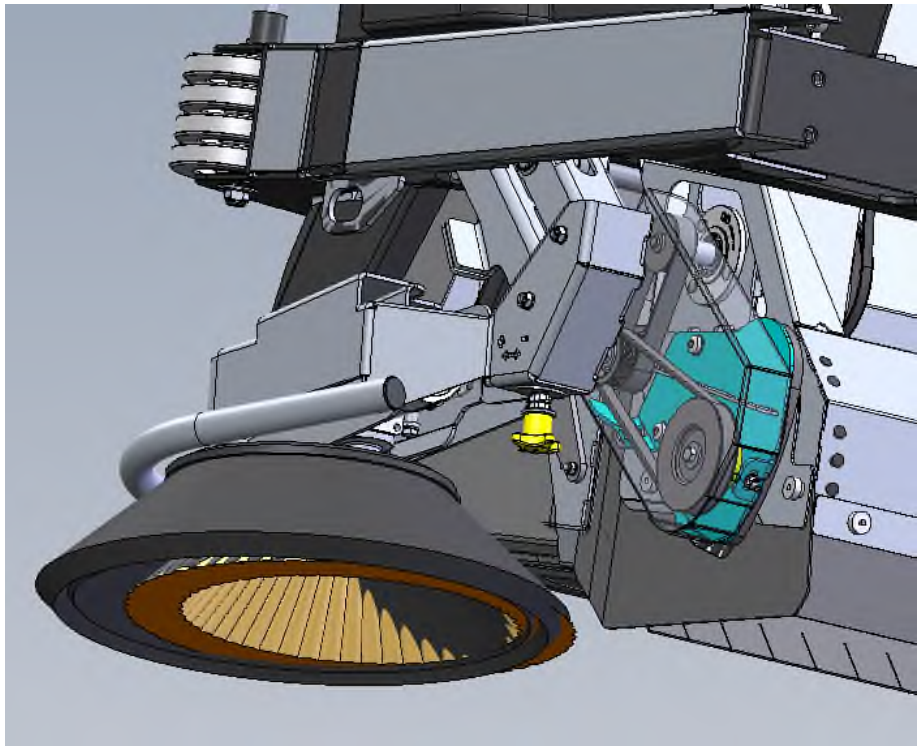
- Oil change; 0.175l SAE15W40 CF4



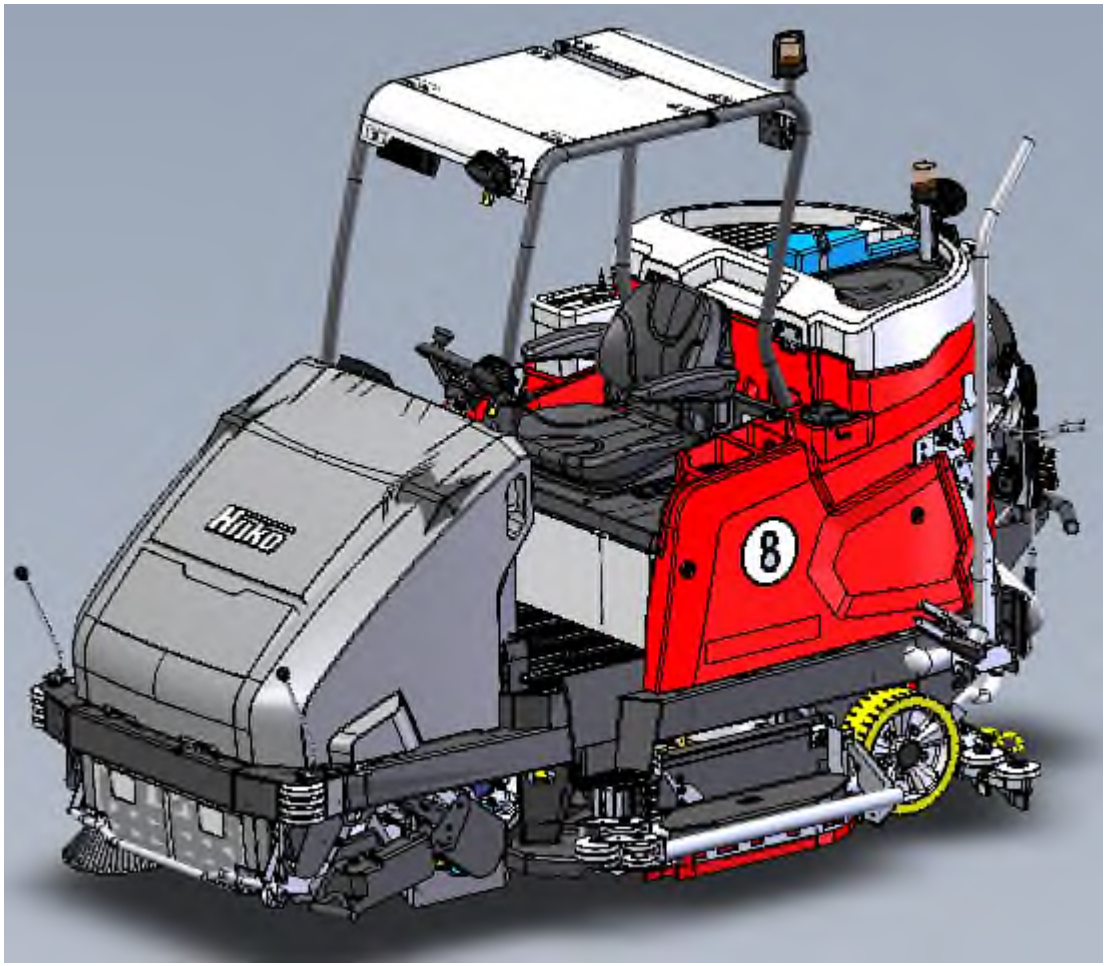
Sweeper attachment

- Replace the sweeping attachment lifting cables
- Change the V-belt at the vacuum sweeper attachment



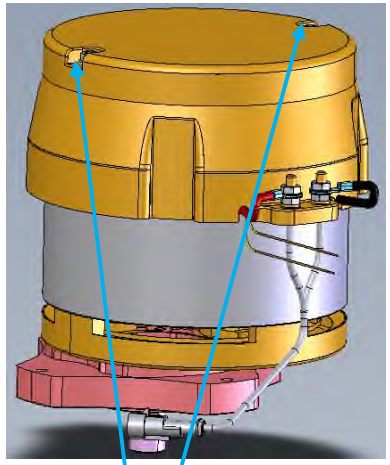


- Test drive and function test

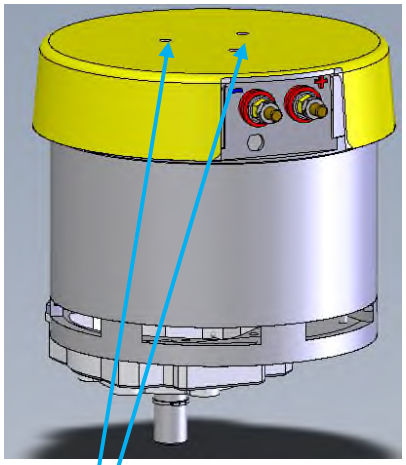


additionally every 2000h

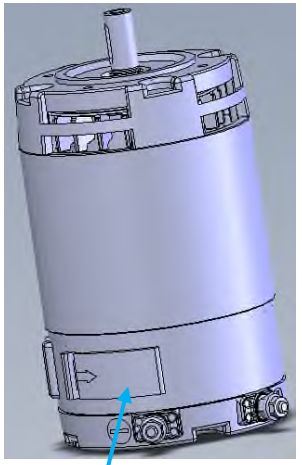
Change carbon brushes of brush motors and main broom motor



Access to carbon brushes
- loosen screws
- remove cover



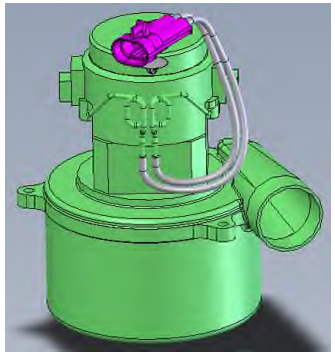
Access to carbon brushes
- loosen screws
- remove cover

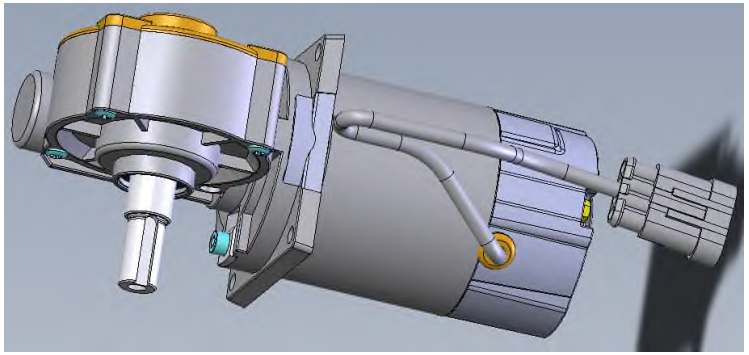


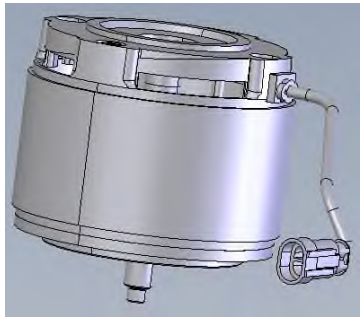
Die Abdeckung über den Kohlebürsten ist wie in den Bildern 7/2, 7/3 und 7/4 gezeigt wieder zu schließen. Dabei ist darauf zu achten, daß der Kunststoffverschluß über einem Bürstenausschnitt des Motorgehäuses zu liegen kommt.

Bild 7/2 Bild 7/3 Bild 7/4

Change motors of suction turbines, side broom motors and motor dust extraction







- Test drive and function test