



Cleanmeleon 2 PRO

agile | powerful | flexible to use

Operating instruction



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1 EC Declaration of Conformity

**EC declaration of conformity in accordance with
Machinery Directive 2006/42/EC Annex II 1.A**

The manufacturer / distributor::
Westermann GmbH & Co. KG
Schützenhof 23
D - 49716 Meppen

hereby declares that the following product

Product name: Cleanmeleon 2 PRO

Make: Westermann GmbH & Co. KG

Serial number: 59 _ _ _ Model / type description: CM2 PRO

Description: The Cleanmeleon 2 PRO is a self-propelled compact work machine that does not fully comply with road traffic regulations. The machine allows the attachment and use of various hydraulic implements.

The following additional EU directives have been applied:

The protection objectives of the EC Directive

Machinery Directive 2006/42/EC
EMC Directive 2004/108/EC
Low Voltage Directive 2006/95/EC

have been complied with.

1 EG-Konformitätserklärung

The following harmonised standards were applied:

EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)
-------------------	---

The following other technical specifications were applied:

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3 Important general information

3.1 Scope of supply

The operating manual is part of the working equipment and must be kept accessible in the immediate vicinity of the machine at all times.

The operating manual contains important information for safe and effective operation of the machine. Therefore, the operator must read and understand this operating manual carefully.

The basic requirement for safe working is compliance with all safety instructions and operating procedures given in this operating manual. The local accident prevention regulations and general safety regulations for the specific application must also be observed.

The provided supplier documentation for the installed components must also be observed.





The illustrations are provided for basic understanding and may deviate from the actual design.

The manufacturer assumes no liability for damage due to non-observance of the operating manual, improper use, improperly performed maintenance or repairs, unauthorised modifications, technical modifications and use of unauthorised spare parts.

3 Important general information

3.2 Conventions













3.2.1 Symbols and signal words

Symbol / signal word	Meaning
	Indicates the handling and effects of the safety information.
	Alerts you to a dangerous situation that, if not avoided, <u>will</u> result in death or serious injury.
	Alerts you to a dangerous situation that, if not avoided, <u>may</u> result in death or serious injury.
	Alerts you to a dangerous situation that, if not avoided, may result in minor or moderate injury.
	Indicates possible damage to property and other important information.

3 Important general information

3.2.2 Pictogram overview

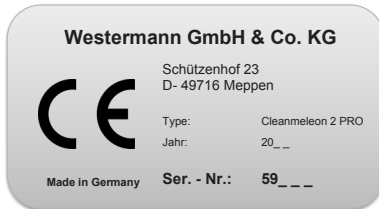
The safety notes within these operating instructions, which may endanger persons and the machine if not observed, are specifically marked by the following pictograms.

Pictogram	Meaning
	General warning sign
	Warning of danger of falling
	Warning of automatic startup
	Warning of counter-rotating rollers (danger of being drawn in)
	Warning of harmful or irritating substances
	Warning of toxic substances
	Warning of hand injury
	Warning of hot surface
	Warning of danger of crushing
	Warning of danger of slipping
	Warning of electrical voltage
	Warning of obstacles on the ground

3 Important general information

3.3 Marking on the machine

The Cleanmeleon 2 PRO has a nameplate that contains all basic data. Components and accessories from suppliers have their own nameplates.



3.4 Ordering spare parts

NOTE

When ordering spare parts or accessories, state the type designation, machine number and year of manufacture. The use of accessories and spare parts from other manufacturers is only permitted after consultation with the manufacturer.

Original accessories and manufacturer-authorised accessories help to ensure safe use. Use of other accessories may void liability for consequential damages.

4.1 Intended use of the machine

The Westermann Cleanmeleon 2 PRO is to be used exclusively for the intended use described here.

Areas of application of the working machine are the cleaning of slatted floors, sweeping of paved areas such as courtyards, paths, car parks, silo plates and stables, clearing snow, breaking up fodder, littering stables or similar work.

The Cleanmeleon 2 PRO has no attachment in its basic version. The approved implements can be found under the accessories chapter. Any use over and above this is considered improper. The manufacturer is not liable for damage resulting therefrom. The risk is borne by the user alone. Proper use also includes compliance with the operating, maintenance and service conditions prescribed by the manufacturer.

4.2 Machine naming information

The Cleanmeleon 2 PRO is referred to below simply as machine or CM2 PRO.



4.3 Operator requirements



Danger due to misuse!

Misuse can lead to dangerous situations.

Therefore:

- ✓ Any use beyond or different from the intended use must be avoided.
- ✓ Strictly adhere to all information in this operating manual and, if applicable, associated documents.
- ✓ Switching operations on the control elements should only be carried out by instructed persons.
- ✓ Maintenance and servicing should only be carried out by trained maintenance personnel.
- ✓ Refrain from modifying, retrofitting or altering the design or individual pieces of equipment with the aim of changing the area of application or usability.
- ✓ Use the operating resources only with the aids specified in the operating instructions.
- ✓ Only use the operating resources when they are in a technically perfect condition.
- ✓ Use in areas with explosive atmospheres is prohibited.
- ✓ Do not exceed the load capacity of the equipment.
- ✓ Refrain from transporting persons with the equipment.

NOTICE

Maintenance and repair

Maintenance and repair work are part of the intended use and must be carried out according to the maintenance intervals.

4.4 Danger zone



Danger while within the danger zone!



Being in the danger zone involves risks that unauthorised persons can not assess.

Therefore:

- ✓ Always monitor the danger zone during the work process and ensure that no persons are present there.
- ✓ If an unauthorised person enters the danger zone, warn the person and stop operating immediately.

The area surrounding the machine with a safety distance of 1.5 meter is declared a danger zone. This area must be free of unauthorised persons during the work process in order to protect them and not to affect the work process. Attachments can increase the danger zone of the machine depending on their size.



(Fig. 1: Danger zone)

4.5 Foreseeable misuse | Reasonably foreseeable misuse

All use deviating from the intended use are regarded as misuse and are not permitted. This includes, e.g.

- transport of people and animals
- use as a climbing aid
- use outside the permissible operating limits

4.6 Behaviour in case of an emergency



4.6.1 Personal injury



If, during use, an incident occurs that results in personal injury, the reaction must correspond to the severity of the injury.

4.6.2 Fire



fire extinguisher

If a fire occurs, immediate actions must be taken.

- Protect people
- Fight the fire
- Repair the damage

4.6.3 Technical complications

If, during use, technical complications occur, they must be corrected by qualified personnel before further use.

4.7 Range of application

The range of application includes all sites worldwide that allow for the safe use of the machine. The application must be in accordance with the specified intended use.

4.7.1 Local requirements

The range of application includes all sites worldwide that allow for the safe use of the machine. The following criteria must be met.

- ✓ Safe assembly of the machine
- ✓ Temperature range between max. -10°C and +40°C
- ✓ Suitable area of use for safe use of the WKB 660.

4.7.2 Disposal

The hazardous substances must be disposed of separately to ensure an environmentally acceptable disposal. All other materials must be sorted by their material quality and disposed of accordingly.

4.8 Responsibility of the operator

If the machine is to be used commercially, the operator is subject to the statutory provisions on work safety.

4.8.1 Obligations of the operator

The operator is responsible for the perfect condition of the machine.

- ✓ The operator must regularly check all safety devices for their functionality and completeness.
- ✓ The operator must ensure that the scheduled maintenance work is carried out as scheduled.
- ✓ The operator must inform the manufacturer immediately of any damage found.
- ✓ The operator must provide the personnel with the necessary protective equipment and check, maintain and replace defective parts according to the regulations.
- ✓ The operator must request a new copy of the operating instructions if they are in poor condition or if parts are missing.
- ✓ The operator must immediately replace all markings, signs or labels that are in poorly legible condition or that have been lost
- ✓ The operator must keep the working areas and escape routes free and in perfect condition.

4.9 Personnel responsibility

Preconditions

- ✓ Only persons who are expected to observe the safety regulations and perform their work reliably may enter the danger area.
- ✓ Persons whose ability to act is influenced by drugs, alcohol, medicines, etc. are not permitted.
- ✓ When selecting personnel, the age and occupation-specific regulations applicable at the location of use must be observed.
- ✓ The user must be at least 16 years old!

Qualifications

As a rule, all personnel may only carry out actions for which they have the necessary qualifications.

Qualified personnel for installation and commissioning

Due to their professional training, knowledge and experience as well as knowledge of the relevant regulations, they are able to perform the work assigned to them and to recognize and avoid dangerous situations independently.

Service personnel for maintenance and commissioning

Due to their professional training, knowledge and experience as well as knowledge of the relevant regulations, they are able to perform the work assigned to them and to recognize and avoid possible dangers independently.

Electrically qualified people for maintenance, installation and commissioning

Due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, they are able to perform work on the electrical components and to recognize and avoid possible dangers independently. The electrically qualified person is trained for the specific site at which he works and knows the relevant standards and regulations.

Instructed operating personnel for operation

Has been instructed by the operating company on the tasks assigned to him and possible dangers in the event of improper behaviour.

4.10 Observance of the operating instructions



The operating instructions are supplied by the manufacturer or supplier of the product in order to impart essential knowledge to the user for the proper and safe use, and to point out dangers in handling the machine.

Before commissioning the machine, the operating instructions must be read through; they must be strictly observed during commissioning. We would like to point out that we accept no liability for damage or malfunctions resulting from non-observance of the operating instructions.

We reserve the right to make technical changes, which are necessary for the improvement of the machine, to the illustrations and information in these operating instructions.

4.11 Residual dangers and safety measures

The knowledge and technical implementation of the safety notes within this documentation is a prerequisite for a faultless product. However, this documentation cannot cover every detail of every conceivable case of machine application. Therefore, as in any other case, a residual risk in particular due to human error remains. This documentation is intended to minimise this residual risk.

4.12 Safety markings on the machine

NOTICE

Danger and warning points as well as important information must be clearly marked on the machine and must be cleaned or replaced if they become dirty or unrecognisable.

4.13 Personal protective equipment

Personal protective equipment (PPE) is not included in the scope of delivery. Responsibility for the presence, inspection and correct use of PPE therefore lies with the operator.

- ✓ Wear PPE according to the following instructions.
- ✓ Do not enter the danger area without PPE.
- ✓ Follow the instructions on the PPE attached to the equipment.



Use foot protection

Protection of the feet against heavy falling objects, slipping, stepping on sharp objects lying around.



Use protective clothing

Tight working clothes with low tensile strength, narrow sleeves and no protruding parts. Mainly protection against being drawn into rotating machine parts. When working on electrics, use working clothes with arc protection.



Use hand protection

Protection of the hands against friction, abrasions, stabs and cuts and contact to hot surfaces. When working on live parts, use insulated protective gloves.



Use hearing protection

Protection of the auditory system against harmful sound frequencies.

5 Safety notes for the operator/user



Only operate the machine in well-ventilated areas and **NEVER** use in enclosed spaces as fuel combustion produces toxic carbon monoxide.

If other people are to operate the vehicle, they must be instructed in the operation of the vehicle and have read and understood the operating manual in order to avoid accidents.

Before removing any safety devices, such as a safety cover, make sure all moving parts of the vehicle have come to a standstill. Removed parts must be re-attached after maintenance.

Never refuel with a running or hot engine. Keep away from flames and under no circumstances smoke near the tank or while refuelling. When refuelling in the dark, never use naked flames as a light source.

Pay attention to people, animals, obstacles etc. in the area of the vehicle before starting to avoid personal injury or property damage.

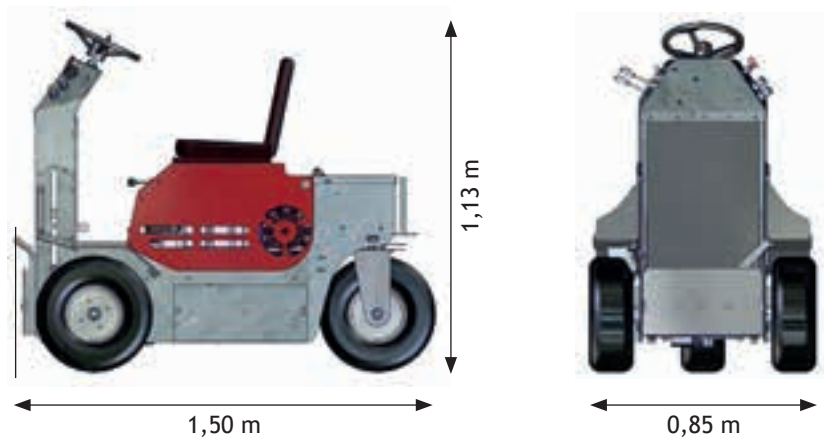
Drive carefully and slowly on unsafe ground such as unpaved roads, downhill, on banks or embankments or off-road.

Never transport people on the machine or on attachments.

6 Technical data

6.1 General technical data of CM2 PRO

Basic dimensions	Value	Unit
Machine length	1,50	meters (m)
Machine width	0,85	meters (m)
Machine height	1,13	meters (m)
Speed	10	km/h
Dry weight	270	kilograms (kg)



(Fig. 2: Dimensions)

6 Technical data

6.2 Design variant of CM2 PRO

6.2.1 Machine type GXV 340

Characteristics

Engine variant:	GXV 340 Honda	
Motorentyp:	air-cooled 1-cylinder 4-stroke OHV petrol engine, vertical crankshaft, cast iron bushing	
Number of cylinders:	1	
Displacement:	340	cm ³
Engine power:	6,6	kW
Speed:	3000	1/min
Fuel:	petrol	
Ignition system:	electric starter	
Length:	430	mm
Width:	385	mm
Height:	410	mm

6.2.2 Machine type Vanguard 2-cylinder

Characteristics

Engine variant:	Briggs & Stratton Vanguard	
Engine type:	air-cooled 2-cylinder 4-stroke OHV petrol engine, horizontal crankshaft, grey cast iron bushing	
Numbers of cylinders:	2	
Displacement:	479	cm ³
Engine power:	11,9	kW
Speed:	3600	1/min
Fuel:	Benzin	
Ignition system:	electric starter	
Length:	279	mm
Width:	410	mm
Height:	438	mm

6 Technical data

6.2.3 Additional information

Front tyre pressure min max	2,2 2,5	bar
Rear tyre pressure min max	2,2 2,5	bar
Hydraulic oil	HLP 46 Tellus 46	
Oil pressure in bar	~ 180	bar
Work hydraulics (at max. engine speed)	~ 18	l/min
Hydraulic oil tank	~ 13	litres
Fuel tank	~ 6,5	litres
Maximum inclination right left	15	°
Maximum inclination front rear	15	°
Emission sound pressure level	82	dB/A



(Fig. 3 - Inclination)

7 Assembly, first start-up

7.1 Sicherheit

NOTICE

To ensure the safety of man and machine, easy and risk-minimised installation/handling was taken into consideration during construction. Thus, the handling unit is subject to all applicable DIN EN standards. Operator training and instruction are required and further reduce the safety risk.

7.2 Assembly

The complete assembly and first start-up is carried out exclusively by the manufacturer. The machines are subjected to a thorough test run and are supplied only after successful acceptance.

7.3 First start-up

NOTICE

Before first start-up, check the entire vehicle for possible damage.

The Westermann CM2 PRO is designed and implemented for the demanding user. It serves as a carrier vehicle for wide-ranging applications.

It is possible to sweep paved areas such as yards, paths, parking lots, silo slabs and stables, to clear snow, to loosen fodder, to litter stables or to push slatted floors.

The powerful engine ensures effortless working with various accessories and attachments while being always ready for operation.

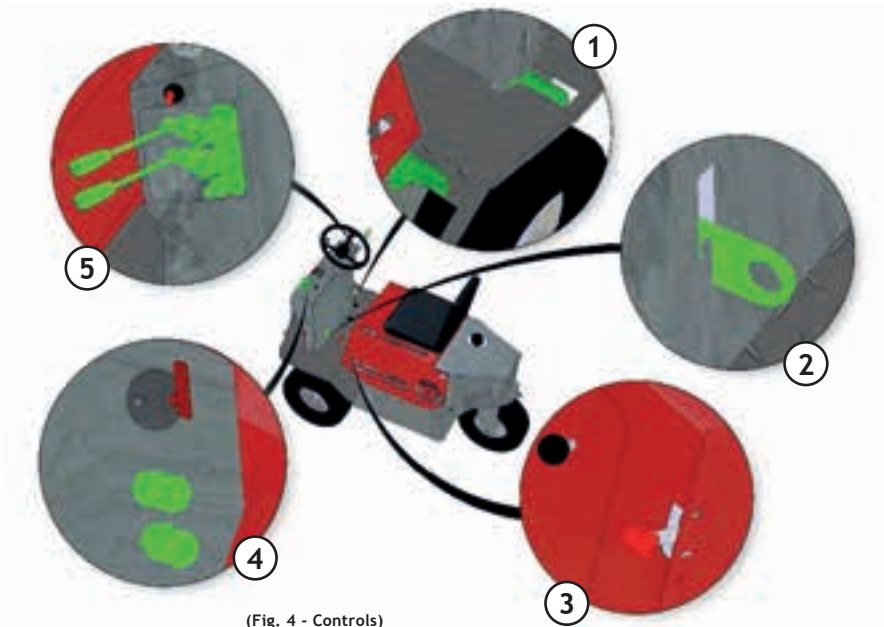
The CM2 PRO can be moved forwards or backwards using the right foot pedal. Furthermore, it is possible to turn the CM2 PRO 360° on the spot by the arrangement of the three wheels. This is particularly advantageous on narrow slatted floors (passages).

The hydraulic lift for lowering and lifting attachments is controlled manually by a control valve.

The vehicle frame consists of a robust, hot-dip galvanised torsion-free steel construction, making the CM2 PRO ideal for use in demanding areas.

The machine is operated exclusively via the control units on the steering column. The hoist is operated via a control block valve with hand lever control. Forward, reverse and handling operations are performed by the operator through a continuously adjustable foot pedal and steering wheel with a steering angle of 88 degrees.

9.1 Controls



(Fig. 4 - Controls)

Pos.	Description	Function
1	Accelerator	Accelerator pedal for continuous speed regulation
2	Parking brake	Securing the machine against uncontrolled rolling away
3	Speed regulation	Engine speed regulation
4	Hydraulic plug-in coupling	Plug-in couplings for hydraulic circuit of the attachment
5	Way valve	Hydraulic control for the power lift including control circuit
6	Ignition keys	Engine start/stop

10.1 Checking the engine before start-up

The following steps are to be carried out regularly before each use.



(Fig. 5 - Oil level)

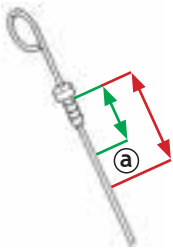
Checking the engine oil level

The oil quantity is checked with a dipstick! Pull dipstick out:

NOTICE

Depending on the engine variant, the oil dipstick is located on the side of the engine.

GXV 340 - dipstick direction of travel right B&S - dipstick direction of travel right



(Fig. 6 - Sight glass)

Checking the hydraulic oil level

The oil quantity is checked using a dipstick!

NOTICE

The filling quantity of the hydraulic oil tank should always be within the range shown **a** between 5 cm and 7 cm.

Oil quantity must be in the marked area!



(Fig. 7 - Fuel supply)

Checking fuel tank contents

The amount of fuel is visually checked at the tank!

NOTICE

The fuel tank is located behind the driver's seat on the right in the direction of travel.

Open the cover by turning it.

11 Operation

11.1 Start | stop the CM2 PRO B&S engine

Before starting the engine, make sure that all controls are in their neutral positions to prevent uncontrolled starting of attachments. Then observe the following steps:

11.1.1 Cold start



- ✓ Slide the throttle to the uppermost position (choke).
- ✓ Press the ignition key
- ✓ **START**

11.1.2 After the cold start



- ✓ If the engine was started with the aid of the choke, set the throttle to the desired position as soon as the engine has warmed up and is running smoothly without the choke.
- ✓ **Optimal performance at full throttle**

11.1.3 Starting at operating temperature



- ✓ Slide the throttle to the position just above idle.
- ✓ Middle position between MIN and MAX
- ✓ Press the ignition key
- ✓ **START**

11.1.4 Stopping the machine

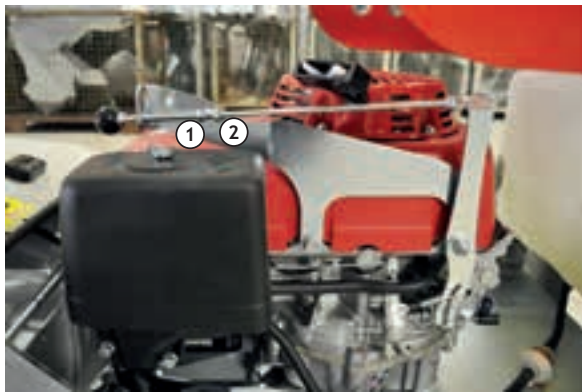


- ✓ Turn the ignition key.
- ✓ Engine stops.

11.2 Start | stop the CM2 PRO GXV engine

Before starting the engine, make sure that all controls are in their neutral positions to prevent uncontrolled starting of attachments. Then observe the following steps:

11.2.1 Starting the engine



(Fig. 8 - Starting the engine)

Start engine

- Lift the throttle rod and pull out to behind the guide nut ② before securing over the keyhole plate (choke position).
- After the engine has warmed up, briefly raise the throttle lever again and insert between the two nuts ① + ②

Stop engine

- Lift the throttle rod and push it back as far as it will go.

11.2.2 Starter cord



(Fig. 9 - Starter cord)

In case of failure of the electric start due, for example, to insufficient battery voltage.

- ✓ Lift the engine cover
- ✓ Push the throttle lever into the foremost position.
- ✓ Strongly pull the starter cord directly at the engine until the machine starts.

11 Operation

11.3 Running-in period

The first 50 hours of operation have a major impact on the performance and service life of the CM2 PRO.

The following aspects should be taken into account for a long service life of the machine:

- ✓ The engine can be run from start to full speed, but heavy loads should be avoided.
- ✓ Stalling the engine is to be avoided!
- ✓ Check fluid levels (oil, ...) frequently during running-in and check for leaks.
- ✓ Repeatedly inspect nuts, bolts and screws etc. and re-tighten if necessary. Pay particular attention to wheel bolts!
- ✓ Use only clean fuel.



Proper maintenance is of crucial importance for the operational safety of the vehicle.

11.4 Short engine running time

The oil level must be checked regularly when running the engine for only short periods of time (less than 15 minutes)! When run for short periods, water and fuel can quickly get into the oil and thus the lubricating effect of the oil is largely lost. This has the consequence that parts wear out faster and thus creates a high risk of engine damage.

Therefore, if the engine is often only run for short periods it is advisable to change the engine oil at regular intervals or to let the engine run once or twice a week for half an hour, so that it is not only operated in a cold condition.



11.5 Functional overview



(Abb. 10 - Sitzverstellung)

Seat adjustment

The lever for seat adjustment (to optimally position yourself on the machine) is located on the left hand side in the direction of travel under the seat.

Briefly pulling the locking bar outwards unlocks the track. Positioning takes place via body movement.

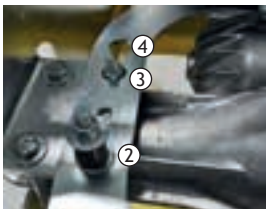


(Fig. 11 - Parking brake)

Parking brake

In order to prevent the machine from moving in idle state, the parking brake can be activated for safety reasons.

To operate the handbrake, pull the brake lever on the steering column upwards and place it in the notch.



(Fig. 12 - Gearbox release)

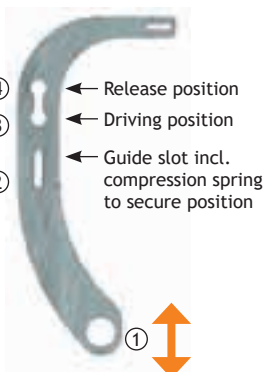
Gearbox release

If the CM2 PRO is to be moved manually, the gearbox release must be used.

To activate the gearbox release, remove the rubber flap and turn the lever shown.



Only carry out the gearbox release with the engine switched off.

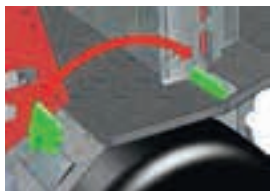


To activate the release

- Press the lever at the front tip ① (approx. 2 - 5 cm) downwards to get over the nut.
- Pull lever forward and release above pos. ④
- Gearbox release is activated.

To deactivate the release

- Press lever ① down and push it backwards.
- Then release the lever above pos. ③.
- Gearbox release is deactivated.



(Fig. 13 - Accelerator pedal)

Accelerator

The CM2 PRO has an accelerator pedal on the right side of the vehicle:

By pressing the pedal forward, the vehicle moves forward. The speed is regulated depending on the pressure intensity on the pedal.

The machine is reversed by pressing the rear of the pedal with the foot. The speed is regulated depending on the pressure intensity on the pedal.



(Fig. 14 - Steering)

Steering





The CM2 PRO has a very tight turning radius due to the wheel geometry. The chain-guided steering is translated via the steering wheel to the rear wheel. This allows turning in narrow passages and spaces on the spot.



(Fig. 15 - Speed control)

Regulating engine speed

During operation, set the throttle position according to the desired engine speed.

	 GXV ①	 B&S ②
high speed	pulled out	
low speed	pulled in	

Hydraulic controls



Upper hand lever - Attachment position

Hand lever pushed forward:	Lowers the hoist
Hand lever pulled backwards:	Raises the hoist
Hand lever pushed all the way forward:	Floating position

Lower hand lever - Attachment direction of rotation

Hand lever pushed forward:	Pressure on connector A
Hand lever pulled backwards:	Pressure on connector B



12 Attachments

12 Attachments in the hoist



The following attachments can be mounted on the CM2 PRO.
This ensures a variety of uses.



Radial brush



WKB 660



WKB 550



Segment brush



Axial sweeper



Snow plough



Pushing shield



Feed auger



Scraper



Washer



Spreader



Lime spreader

(Fig. 16 - Attachments)



- The attachments themselves must not be changed!
- The safety regulations in chapter 4 apply.
- Conversion or modification of the attachments by the operator or a third person will void the liability for any resulting damage.

12 Attachments

12.1 Attachment of the equipment

The hoist connects the machine and the attachment making it into one working unit. The position and lifting of the attachment are hydraulically controlled.

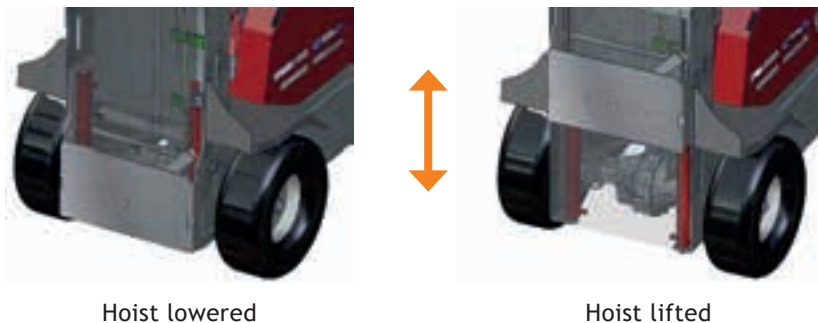
In addition, the weight and load of the attachment exert pressure on the front axle to improve traction.

The selected attachment is to be attached or coupled onto the CM2 PRO.

NOTICE

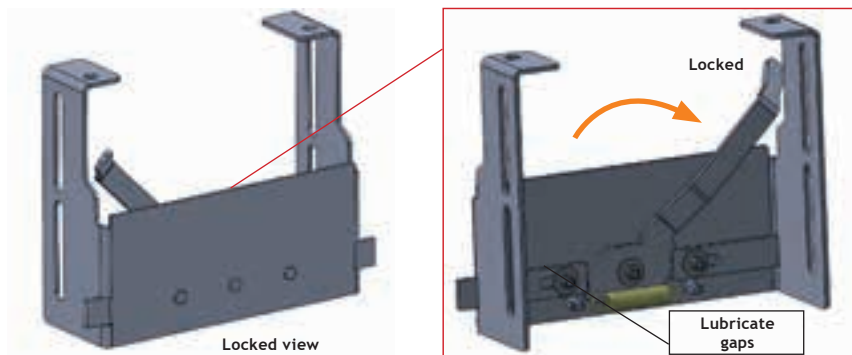
If ballast weights are required, they must be connected to the CM2 PRO at the designated attachment points according to the instructions.

When attaching or coupling the attachments particular caution is necessary.



(Fig. 17 - Fitting attachments)

Always lower the attachments to the ground, turn off the engine, and release the system pressure (by operating the control levers with the engine off) before attaching or detaching the attachments' hoses. The machine has a 350 mm lift height.



(Fig. 18 - Equipment lock)

The attachments are factory-equipped with a mounting bracket. The attachment is attached to the illustrated holder by approaching the CM2 PRO in a straight line. Once the attachment is correctly mounted in the bracket, the attachment is firmly connected to the machine by simply swinging the lock over. The two parallel locking bolts slide out. Depending on the attachment and application, further connections such as hydraulic lines or power supply must be made. The complete machine can then be used.

12.1.1 Regular lubrication of the equipment lock

The mobility of the equipment lock must be checked at regular intervals. If the function is impaired by dirt and/or stiffness, the equipment lock must be cleaned and the moving parts must be lubricated with grease.

NOTICE

It is recommended to use a brush when applying grease.

12.1.2 Floating position

NOTICE

The floating position of the hydraulic system is made possible by pushing the upper control lever away into the locking position.

13.1 General



All maintenance, repair and modification work on the CM2 PRO is only to be carried out at a standstill and with the engine switched-off. The procedure described in the operating manual for stopping the machine must be strictly adhered to.



The CM2 PRO is to be checked to ensure it is in a safe condition and secured to prevent it rolling away.



The safety regulations in chapter 4 apply.

Note before starting work

- ✓ Check for externally visible damage and defects! Immediately report any changes (including those regarding operating behaviour) to the responsible service personnel! If necessary, take the machine out of service immediately!
- ✓ Check the completeness and functionality of all accessories. Worn parts, or those whose functionality has been impaired must be replaced. Replacement parts must be ordered from the manufacturer.
- ✓ Monitor the completeness and legibility of all type and information labels as well as the operating manual. Replace missing or illegible signs and documents.

Please note during regular maintenance:

- ✓ If necessary, electronically stored instructions for maintenance must be available in paper form during maintenance.
- ✓ For maintenance work involving components from third-party manufacturers, consult the documentation of the third-party manufacturer if necessary.
- ✓ Maintenance work requiring specialist knowledge can only be carried out by service personnel.
- ✓ The intervals specified in the maintenance schedule must be adhered to as a minimum, but they can also be shorter, depending on operator specifications and environmental conditions.
- ✓ Correct safety-relevant defects immediately!
- ✓ Only use original spare parts and manufacturer approved accessories/tools.
- ✓ Only use components that meet the required specifications.

13 Maintenance and servicing

13.2 Table of regular servicing

			Before starting	First service 20 hours	100 hours	200 hours	300 hours	400 hours	500 hours	per month	per year	
Engine	1	Engine oil	X									Change every 100 hours
	2	Engine filter		X	X	X	X	X	X			Change every 100 hours
	3	Radiator	K							X		Blow out once a year
	4	Fuel filter	K	X								Change every 500 hours
	5	Fuel hose	K									Change every 2 years
	6	Engine valve clearance							W			Check every 500 hours
Gearbox		Gear oil		X	X			X				Change every 400 hours
		Gear oil filter		X	X			X				Change every 400 hours
		Screw connections	X									Check before operation
		Wear parts							W			Check every 100 hours
		Gear brake		X	X	X	X	X	X			Check every 100 hours
		Bearing clearance		X	X				W			Check every 100 hours
		Tightness	K									Check before operation
CM2 PRO		Hydraulic oil							X			Change every 500 hours
	9	Hydraulic oil filter							X			Change every 500 hours
	10	Lock chain	K		X	X	X	X	X			Check every 100 hours
	11	Accelerator pedal play	K		X	X	X	X	X			Check every 100 hours
	12	Throttle cable	K		X	X	X	X	X			Check every 100 hours
	13	Tyre pressure	K		X	X	X	X	X			Check every 50 hours
	14	Wheel nuts			X	X	X	X	X			Check every 100 hours
	15	Elec. wiring								X		Check once a year
	16	Lubricate lubrication	X	X	X	X	X	X	X	X	X	Check before operation
	17	Lubricate the equipment block	X	X	X	X	X	X	X	X	X	Check before operation
	18	Check housing for cracking	X	X	X	X	X	X	X	X	X	Check before operation
	19	Hydraulic hoses	X	X	X	X	X	X	X	X	X	Check before operation Change after 5 years
	20	Hydraulic cylinders	X	X	X	X	X	X	X	X	X	Check before operation

X: Inspection instruction to be carried out

C: Check

W: Execution by specialist workshop

13 Maintenance and servicing

13.3 Screw connections

Check bolts and nuts for the first time after five hours of operation and then tighten them regularly (every 50 hours of operation).

- ✓ All torques are standard values for metric standard threads according to DIN. Friction coefficient 0.14 - new bolts - unlubricated. The values were recommended as guide values by different bolt manufacturers. The manufacturer does not assume any liability in case of application.
- ✓ Self-locking nuts must be replaced after each dismantling.



Tightening torque MA						
Thread	3.6	5.6	6.8	8.8	10.9	12.9
M6	3.43	4.51	8.73	10.3	14.71	17.65
M8	8.24	10.79	21.57	25.50	35.30	42.17
M10	16.67	21.57	42.17	50.01	70.61	85.32
M12	28.44	38.25	73.55	87.28	122.58	147.10
M14	45.11	60.80	116.70	135.27	194.17	235.36
M16	69.63	93.16	178.46	210.84	299.10	357.94
M18	95.13	127.40	245.17	289.30	411.88	490.34
M20	135.33	180.44	348.14	411.88	576.50	669.26
M22	162.40	245.17	470.72	558.98	784.45	941.44

13.4 Tensioning/loosening the steering roller chain

13.4.1 Version with turnbuckle

Steering roller chain

When the engine cover is raised, the steering chain is located on the housing geometry as shown in the illustration.

For tensioning or loosening the chain, a turnbuckle is fitted between the chain links as shown in the illustration. The chain is tensioned or loosened by turning the turnbuckle.



(Fig. 19 - Tensioning / loosening the roller chain)

13.4.2 Version with rollers

Steering roller chain

When the engine cover is raised, the steering chain is located on the housing geometry as shown in the illustration. The vehicle is fitted with four chain guide rollers for tensioning or loosening the chain. The slotted guide rollers allow the desired tensioning/loosening of the chain. When finished, tighten the screws properly.

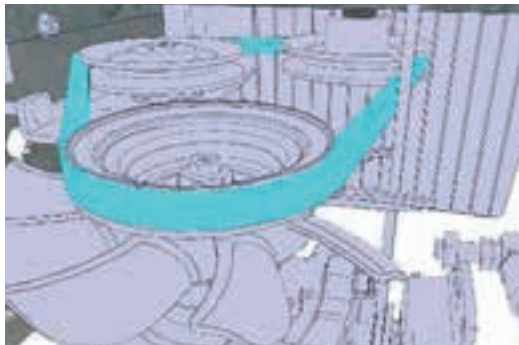


(Fig. 20 - Tensioning / loosening the roller chain)

13.5 Tensioning/loosening the engine V-belt

Engine V-belt

When the engine cover is raised, the engine V-belt is centrally located in the machine. Access is provided by removing the tread plate. To tension/replace the belt, the screw connection of the tensioner must be loosened/tightened on the right in the direction of travel. The belt is placed or removed via the belt pulleys as shown in the illustration opposite. Install the new belt in the appropriate order.



(Fig. 21 - Tensioning / loosening the engine V-belt)

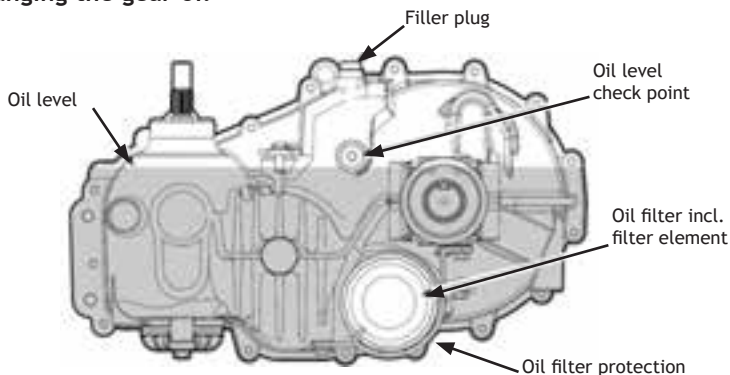
NOTICE

Apply pressure to the V-belt with two fingers. If the preload is correct, the belt can be pressed down by only 10 mm.

If the V-belt is new, then by only approx. 5 mm.



13.6 Changing the gear oil



Sequence of operations:

- ✓ Dismantle oil filter protection
- ✓ Dismantle oil filter
- ✓ Allow the oil to drain off completely
- ✓ Remove filler plug and oil level check point
- ✓ Replace filter element (Art. No.: KT-00-00797)
- ✓ Mount oil filter and oil filter protection properly
- ✓ Fill up gear oil to the oil level check point (quantity approx. 2.7l)
 - > Oil grade 20W50 standard, 15W50 for colder regions.
- ✓ Close check point and filler plug again
 - > If necessary, replace sealing ring

NOTICE

Operate the vehicle for approx. 1 minute and check the oil level again.

Cleaning procedures:

Due to the impact air has on efficiency in hydrostatic drive applications, it is important that it is flushed out of the system. Air causes inefficiency because its compression and expansion rate is higher than that of oil approved for use in hydrostatic drive systems. These flushing operations should always be performed when a hydrostatic system has been opened to facilitate maintenance or to change the oil.

The resulting symptoms in hydrostatic systems can be:

- ✓ Noisy operation.
- ✓ Lack of power or drive after short-term operation.
- ✓ High operating temperature and excessive oil expansion.

Before starting, make sure that the oil level in the gearbox is correct.

The following procedures are best carried out with the vehicle wheels on the ground. Then repeat under normal operating conditions. If this is not possible, the procedure should be carried out in an open area free of objects or bystanders.

- ✓ Switch off the brake if it is activated.
- ✓ With the bypass valve open and the engine running, slowly move the direction controller in the forward and reverse direction (5 to 6 times).
- ✓ With the bypass valve closed and the engine running, slowly move the direction control forward and backward (5 to 6 times). Check the oil level and top up oil after switching off the engine.

It may be necessary to repeat the steps until all air is completely removed from the system. When the gearbox operates at normal noise level and moves smoothly forward and backward at normal speeds, the gearbox is considered cleaned.

13 Maintenance and servicing

13.7 Procedures after maintenance

After completing the maintenance, perform the following steps:

- ✓ Make sure that all previously loosened screw connections are tightened.
- ✓ Ensure all previously removed guards and covers are properly reinstalled.
- ✓ Ensure all tools, materials, and other equipment used have been removed from the work area.
- ✓ Clean work area and remove any leaked liquids. Remove cleaning material such as cloths, etc.
- ✓ Make sure all safety devices are working properly.

13.8 Notes regarding maintenance work

NOTICE

For maintenance work and related replacement of components, only the use of original spare parts is permitted.

13.9 Documentary list

NOTICE

Incidents and interference must be recorded in a documentary list. The documentary lists must be filed electronically and/or in paper form.



Slip hazards



Risk of injury due to slip hazards!

Defective or improperly fastened hydraulic components can lead to the escape of lubricants in the event of damage.

Therefore:

- ✓ Operation may only be carried out by trained personnel.
- ✓ Perform all operating steps in accordance with the instructions in this operating manual.
- ✓ Before operation, make sure all fasteners are properly connected and undamaged.
- ✓ In case of visible oil loss, stop operation immediately and switch off the machine.
- ✓ Use the provided personal protection equipment!



Hot surfaces



Risk of injury due to hot surfaces!

Parts and components of the machine may become very hot in the event of excessive use and may cause injury if they come into direct contact with the skin.

Therefore:

- ✓ Operation may only be carried out by trained personnel.
- ✓ Perform all operating steps in accordance with the instructions in this operating manual.
- ✓ Mark affected components with warning signs.



Improper operation



Risk of injury due to improper operation!



Improper operation can lead to personal injury or property damage.

Therefore:

- ✓ Operation may only be carried out by trained personnel.
- ✓ Perform all operating steps in accordance with the instructions in this operating manual.
- ✓ Before operation, make sure all fasteners are properly connected and undamaged.
- ✓ Pay attention to order and cleanliness! Loosely stacked or objects lying around, such as tools, cables and components are potential sources of accidents.



Operation movements



Risk of injury due to moving components!



During operation, individual components or components of the machine can move and lead to dangerous situations.

Therefore:

- ✓ Always monitor the danger zone during operation and ensure that no persons are present there.
- ✓ Switch off the equipment before carrying out work on the main switch and secure it against being switched on again.
- ✓ Perform all operating steps in accordance with the instructions in this operating manual.
- ✓ Do not operate the machine without safety devices. Install all safety devices securely before starting.



15 Storage conditions

For proper storage, park the CM2 PRO in a dry and clean place and secure against unplanned startup.

Risk of accident!

The CM2 PRO is to be checked to ensure it is in a safe condition and secured to prevent it rolling away.

- ✓ Park the vehicle level
- ✓ Activate the parking brake

NOTICE

Check vehicle for possible damage! Clean the CM2 PRO thoroughly, if necessary. Dirt attracts moisture and leads to corrosion. Repair damaged paint if necessary.



(Fig. 22 - Vehicle)

Fault	Cause	Remedy
Vehicle does not start	<ul style="list-style-type: none"> • No fuel in the tank • Spark plug defective • Accelerator pedal faulty 	<ul style="list-style-type: none"> • Fill the fuel tank • Replace spark plug • Check throttle cable position
Vehicle does not drive	<ul style="list-style-type: none"> • Parking brake applied • Gearbox in neutral • V-belt defective / loose 	<ul style="list-style-type: none"> • Release the parking brake • Turn the lever • Replace or tension the V-belt
Attachment does not turn	<ul style="list-style-type: none"> • Hydraulic connections not working properly • Hydraulic oil level too low • Control valve defective • Too low pressure or volume flow • Hydraulic motor defective 	<ul style="list-style-type: none"> • Check the connections • Top-up hydraulic oil • Consult specialist workshop • Consult specialist workshop • Consult specialist workshop
Hydraulic lifting does not work	<ul style="list-style-type: none"> • Hydraulic oil level too low • Control valve defective • Cylinder defective 	<ul style="list-style-type: none"> • Top-up hydraulic oil • Consult specialist workshop • Consult specialist workshop

17 After operation

After operation of the CM2 PRO, it must be stored properly: When storing the machine, the following points must be observed:

- ✓ The CM2 PRO must be placed in such a way that it can not tip over or fall down.
- ✓ At the storage site, the ambient conditions must meet the required conditions (see technical data).
- ✓ The machine, which does not have sufficient protection itself, must be protected against the effects of the weather and corrosive substances if these can impair safety.

If the machine is to be shut down for a long time, it may be necessary to take preservation measures to prevent corrosion and other damage.

17.1 Dismantling / Disposal

Disassembly/disposal should be carried out by a specialist. Using specialists in the recycling and waste management sectors ensures that waste is disposed of correctly and recycled. The raw materials of the CM2 PRO must be sorted according to disposal type and material. The copper-containing components such as cables can be recycled. Equipment such as fuses, capacitors, regulators, etc. must be disposed of as electronic waste, these must not be disposed of with household waste in order to prevent environmental damage. The support frame and the protective covers can be recycled as metal scrap.

The following policies are valid from 01.01.2002 for the Westermann warranty.

1. For Westermann products of the consumer goods sector (private use), which have been sold via the Westermann specialist trade, the warranty period is 2 years from the date of sale to the end customer. For Westermann products of the capital goods sector (commercial/professional), which have been sold via the Westermann specialist trade, the warranty period is 1 year from the date of sale to the end customer.
2. The warranty covers defects which can be traced back to material and/or manufacturer defects. All faults occurring due to a Westermann product or production defect during the warranty period will be acknowledged and corrected by repair or a spare parts delivery via a Westermann specialised dealer.
3. Excluded from this are wear parts such as Bowden cables, starter ropes, V-belts, bearings, clutch plates, tyres, air filters, spark plugs, glow plugs, fuel filters, oil filters, sweeping brushes, rubber lips, batteries if these cannot be proven to have clear material defects.
4. Warranty claims are generally excluded in the event of inadequate maintenance and care. Regular maintenance and cleaning of the product as specified in the Westermann operating instructions is essential. Damage due to improper maintenance and cleaning cannot be accepted as a case of warranty.
5. The operating instructions for the respective product as well as the safety notes must be observed. Damage caused by faulty operation, improper use or use of accessories not authorised by Westermann GmbH & Co. KG, cannot be accepted as a case of warranty.
6. Make sure that only original Westermann spare parts and Westermann accessories are used. They can be obtained from Westermann specialised dealers. Damage and an increased danger of accidents cannot be ruled out if other than original Westermann spare parts or Westermann accessories have been used. These consequential damages are not subject to warranty claims.

7. As from 01/01/2002, only Westermann warranty claim forms must be used. The warranty claim forms are mandatory. Exceptions will not be accepted. Warranty claim forms without the required information cannot be processed and will be returned unprocessed for completion of the missing information.
8. The Westermann Machine and Warranty Pass (warranty document) must be sent to Westermann Customer Service within 4 weeks of the sale of the product, complete with the information on the end customer, the end customer's confirmation by signature and the indication of use (private | commercial | professional).
9. The warranty period for original Westermann spare parts is 2 years if the installation by a Westermann specialised dealer is proven (for wearing parts the limitation under point 3 applies). For warranty claims relating to spare part deliveries or warranty repairs, we ask you to keep the relevant parts on call for 2 months after receipt of the warranty claim. We may require the relevant part for examination.
10. As from 01/01/2002, for logistical reasons, spare parts required for warranty purposes can only be ordered via Westermann Customer Service. From Monday to Friday between 08:00 a.m. and 4:30 p.m., telephone orders are accepted on +49(0)5931 / 49690-0. Please state the item no., the serial no. of the device in question and the customer no. You may also forward your warranty spare parts order to us via fax: +49(0)5931 / 49690-99.
11. Should your warranty claim be rejected, you will be charged for the ordered spare parts at their usual purchase conditions. The invoice will also be issued if no warranty claim has been received by Westermann Customer Service within 4 weeks. If a Westermann spare part for warranty repairs is not available at short notice (within 2 working days) and you use an original Westermann spare part from your stock to repair the damage, we will deliver a replacement free of charge as soon as it is available again or can be supplied by Westermann Customer Service. If a spare part is no longer available (NLA), the purchase price paid by you will be refunded.

18 Warranty policy

12. The complained parts or machines are to be sent free of charge to the Westermann works in Meppen. After the warranty has been accepted, the freight costs will be reimbursed.
13. The warranty claim must be submitted to Westermann Customer Service no later than 5 working days after the repair has been performed to ensure a fast processing. Warranty claims received 3 months after repair can no longer be processed.
14. All previous warranty guidelines as well as the conditions of the general terms and conditions and point 7 hereby lose their validity.



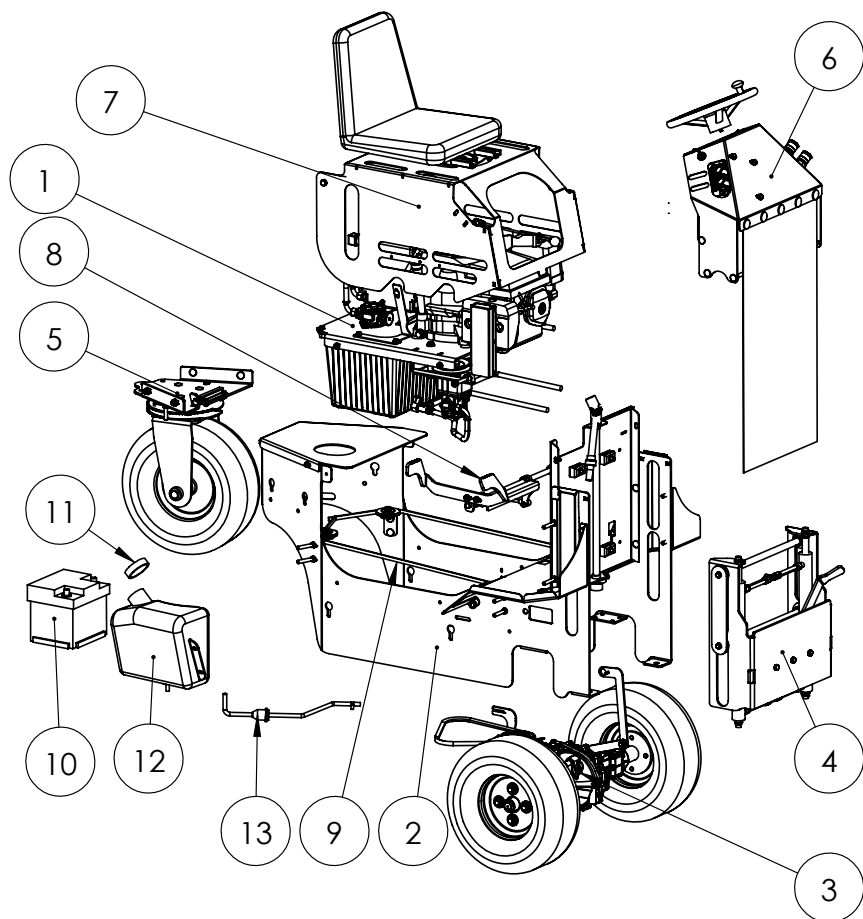
Westermann GmbH & Co. KG

19 Overview of wear parts

Description	Make	Item- No.
Air filter	Briggs & Stratton	KT-00-00464
Engine oil filter	Briggs & Stratton	KT-00-00468
Fuel filter	Briggs & Stratton	KT-00-00444
Air filter	GXV 340	KT-00-00375
Hydraulic oil filter element		KT-00-00796
Hydrostat (gearbox, filter)	Hydro Gear	KT-00-00797
Spark plug	Briggs & Stratton	KT-00-00465
Spark plug	GXV 340	KT-00-00383

20 Spare parts list

20.1 CM2 PRO HONDA GXV 340



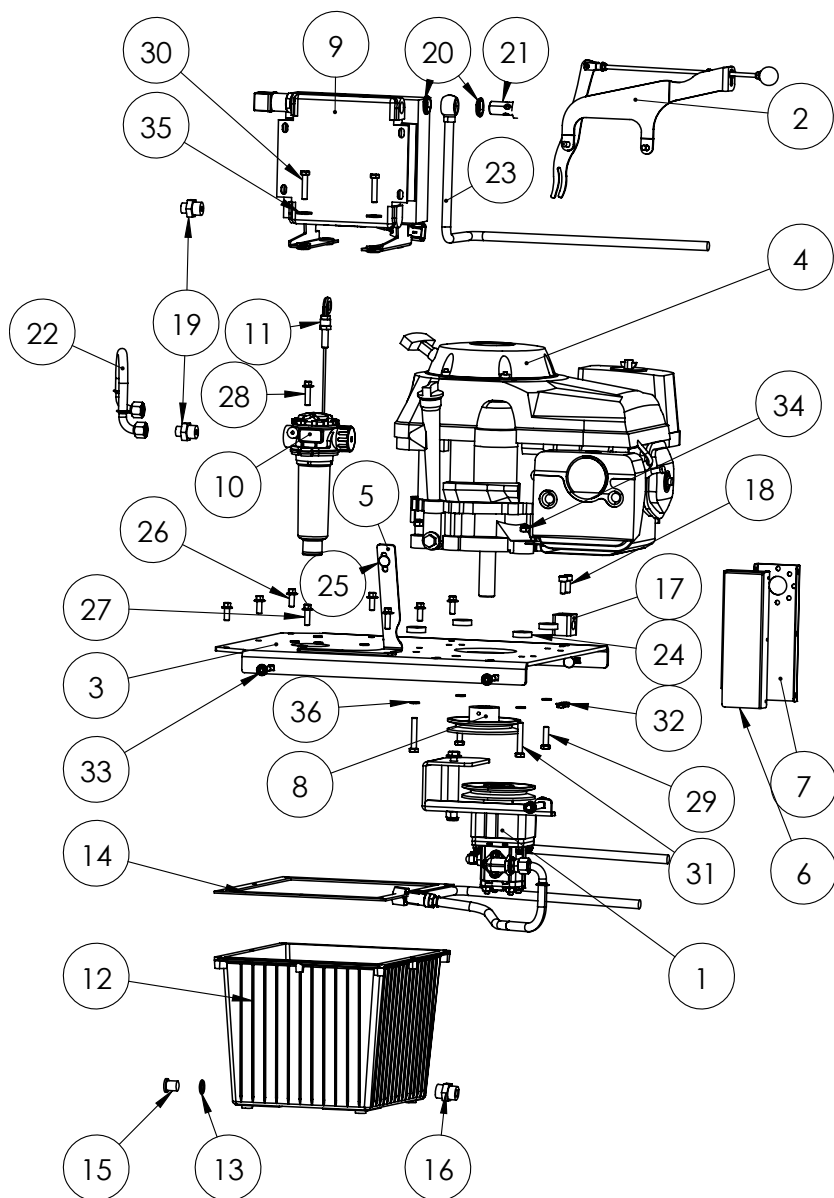
20 Spare parts list

POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	-	Baugruppe Motorblech	engine plate assembly	1
2	-	Baugruppe Grundrahmen	base frame assembly	1
3	-	Baugruppe Getriebe	gearbox assembly	1
4	-	Baugruppe Aushebung	lift assembly	1
5	-	Baugruppe Hinterachse	rear axle assembly	1
6	-	Baugruppe Lenkkonsole	steering console assembly	1
7	-	Baugruppe Motorhaube	engine cover assembly	1
8	-	Baugruppe Fahrpedal	gas pedal assembly	1
9	KT-00-00772	Rollenkette	roller chain	1
10	KS-00-00020	Batterie 12V 44Ah	battery 12V 44Ah	1
11	KT-00-00174	Tankdeckel	tank cap	1
12	KT-00-00175	Kraftstofftank	tank	1
13	KT-00-00444	Kraftstofffilter	fuel filter	1

20.1.1 Overview filter and spark plugs

Artikel	BENENNUNG	part name	Menge/ quantity
KT-00-00375	Luftfilter	air filter	1
KT-00-00378	Vorfilterelement	prefilter	1
KT-00-00383	Zündkerze	spark plug	1

20.1.2 Engine plate assembly

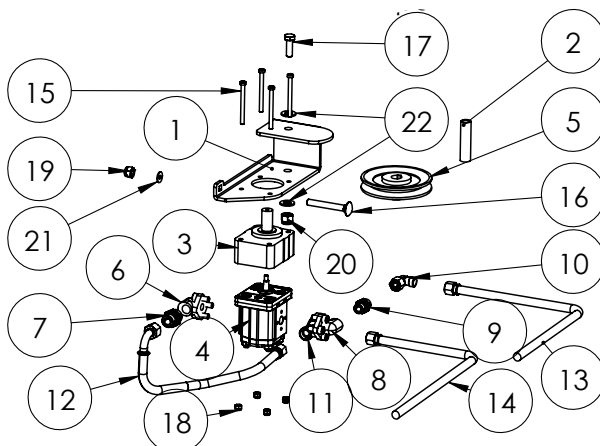


20 Spare parts list

POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	-	Baugruppe Hydraulikpumpe	hydraulic pump assembly	1
2	-	Baugruppe Gasgestänge	carburettor control assembly	1
3	LA-00-00717	Motorblech	engine plate	1
4	MO-00-00018	Honda Motor GXV 340	Honda engine GXV 340	1
5	LA-00-00719	Tankhalter	tank mount	1
6	LA-00-00736	Deckel Auspuffrohr	exhaust cover	1
7	LA-00-00735	Auspuffrohr	exhaust pipe	1
8	DR-00-00158	Riemenscheibe Motor	engine belt pulley	1
9	KT-00-00218	Ölkühler	oil cooler	1
10	HY-00-00167	Rücklauffilter	return line filter	1
11	HY-00-00168	Ölpeilstab	oil dipstick	1
12	KT-00-00411	Ölwanne	oil pan	1
13	KT-00-00418	Kupferring 21x26x2,5	copper ring 21x26x2,5	1
14	KT-00-00413	Dichtung für Ölwanne	seal for oil pan	1
15	KT-00-00416	Ablaßschraube	drain screw	1
16	HY-00-00084	Ger. Einschraubversch. 22x1,5	straight screwed coupling 22x1,5	1
17	HY-00-00031	Rohrschelle 15mm	pipe clamp 15mm	1
18	DIN-912-M6x45	Zylinderschraube M6x45	cylinder head screw M6x45	2
19	HY-00-00056	Einschraubstutzen 1/2"	screw-in fitting 1/2"	2
20	HY-00-00102	Dichtring mit Gummi 1/2"	sealing ring 1/2"	2
21	HY-00-00022	Hohlschraube 1/2"	hollow screw 1/2"	1
22	HYS-00-00102	Hydraulikschlauch 320mm	hydraulic hose 320mm	1
23	HYS-00-103	Hydraulikschlauch 1900mm	hydraulic hose 1900mm	1
24	KT-00-00495	Distanzstück 10,5x30x8	spacer 10,5x30x8	4
25	DIN-603-M8x20	Flachrundschraube M8x20	mushroom head screw M8x20	5
26	DIN-SZ-M8x20	Sperrzahnschraube M8x20	locking screw M8x20	6
27	DIN-SZ-M8x25	Sperrzahnschraube M8x25	locking screw M8x25	2
28	DIN-SZ-M8x30	Sperrzahnschraube M8x30	locking screw M8x30	1
29	DIN-933-M8x30	Sechskantschraube M8x30	hexagon head screw M8x30	2
30	DIN-933-M8x40	Sechskantschraube M8x40	hexagon head screw M8x40	4
31	DIN-933-M8x50	Sechskantschraube M8x50	hexagon head screw M8x50	2
32	DIN-SZ-M6	Sperrzahnmutter M6	locking nut M6	2
33	DIN-SZ-M8	Sperrzahnmutter M8	locking nut M8	4
34	DIN-985-M8	Sechskantmutter M8 selbsts.	selflocking hexagon nut M8	3
35	DIN-522-8,4x40x3	Kotflügelscheibe 8,4	fender washer 8,4	5
36	DIN-127-A8	Federring A8	spring washer A8	4

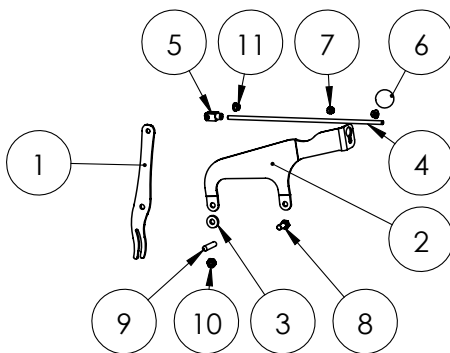
Bei Modellen ohne Ölkühler entfallen Pos. 9, 19, 22, 30 und 35.
Pos. 9, 19, 22, 30 and 35 are not required for vehicles without
an oil cooler

20.1.3 Hydraulic pump assembly



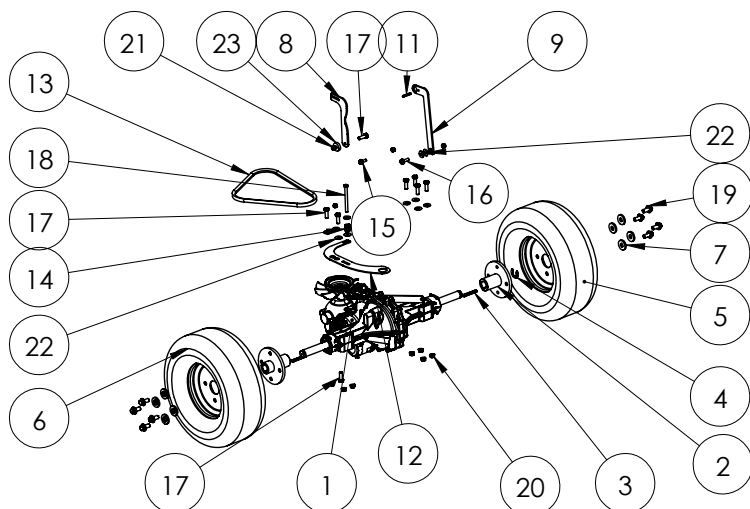
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00718	Hydraulikpumpenhalter	pump mount	1
2	DR-00-00157	Distanzrohr Pumpenhalter	space pipe	1
3	KT-00-00655	Vorsatzlager	outboard bearing	1
4	KT-00-00654	Hydraulikpumpe	hydraulic pump	1
5	DR-00-00156	Riemenscheibe für Hydraulikpumpe	belt pulley for hydraulic pump	1
6	HY-00-00153	Pumpenflansch 1/2" mit Schrauben	pump flange 1/2" with screws	1
7	HY-00-00118	Einschraubstutzen 1/2"	screw in fitting 1/2"	1
8	HY-00-00152	Pumpenflansch 3/8" mit Schrauben	pump flange 3/8" with screws	1
9	HY-00-00117	Einschraubstutzen 3/8"	screw-in fitting 3/8"	1
10	HY-00-00055	Winkelstutzen	elbow fitting	1
11	HY-00-00122	Einstellb. L-Verschraubung	L-screw fitting	1
12	HYS-00-00104	Hydraulikschlauch 400mm	hydraulic hose 400mm	1
13	HYS-00-00101	Hydraulikschlauch 1490mm	hydraulic hose 1490mm	1
14	HYS-00-00112	Hydraulikschlauch 1690mm	hydraulic hose 1690mm	1
15	DIN-912-M6x70	Zylinderschraube M6x70	cylinder head screw M6x70	4
16	DIN-603-M10x75	Flachrundschrabe M10x75	mushroom head screw M10x75	1
17	DIN-931-M12x110	Sechskantschraube M12x110	hexagon head screw M12x110	1
18	DIN-985-M6	Sechskantmutter M6 selbsts.	selflocking hexagon nut M6	4
19	DIN-985-M10	Sechskantmutter M10 selbsts.	selflocking hexagon nut M10	1
20	DIN-985-M12	Sechskantmutter M12 selbsts.	selflocking hexagon nut M12	1
21	DIN-9021-10,5	Kotflügelscheibe 10,5	fender washer 10,5	1
22	DIN-125-A13	Scheibe 13,0	washer 13,0	2

20.1.4 Throttle linkage assembly



POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00309	Gashebel	throttle lever	1
2	LA-00-00310	Halterung Gashebel	lever mount	1
3	KT-00-00180	Distanzstück 8,4x20x4	spacer 8,4x20x4	1
4	KT-00-00402	Gewindestange Gashebel	threaded rod for lever	1
5	DIN-71751-M6x12	Gabelkopf M6	fork head M6	1
6	DIN-319-M6x25	Kugelkopf M6	ball end M6	1
7	DIN-985-M6	Sechskantmutter M6 selbsts.	selflocking hexagon nut M6	1
8	DIN-931-M8x20	Sechskantschraube M8x20	hexagon head screw M8x20	1
9	DIN-914-M8x40	Gewindestift M8x40	threaded pin M8x40	1
10	DIN-985-M8	Sechskantmutter M8 selbsts.	selflocking hexagon nut M8	1
11	DIN-SZ-M6	Sperrzahnmutter M6	locking nut M6	2

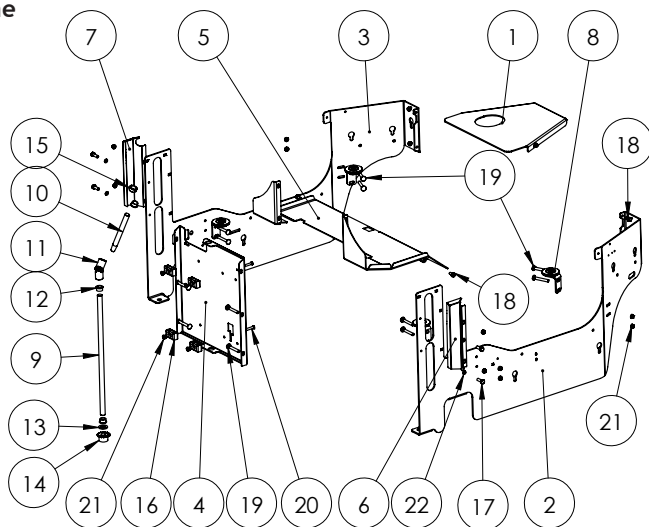
20.1.5 Transmission assembly



POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	KT-00-00716	Getriebe CM2 PRO	gearbox CM2 PRO	1
2	SB-00-00075	Radnabe	wheel hub	2
3	KT-00-00391	Passfeder 1/4"	parallel key 1/4"	2
4	DIN-6799	Seegering 19er	circlip 19	2
5	RE-00-00018	Antriebsrad links	drive wheel with rim left	1
6	RE-00-00017	Antriebsrad rechts	drive wheel with rim right	1
7	DIN-6319-13x24x4,6	Kugelscheibe	rounded washer	8
8	LA-00-00733	Drehmomentstütze	torque arm	1
9	LA-00-000738	Arretierung Feststellbremse	locking device for parking brake	1
10	LA-00-00737	Blech Feststellbremse	lever for parking brake	1
11	DIN-1481-6x30	Spannstift 6x35	dowel pin 6x35	1
12	LA-00-00829	Freilauf Getriebe	lever for freewheel	1
13	KT-00-00717	Keilriemen	V-belt	1
14	KT-00-00679	Druckfeder	pressure spring	1
15	DIN-SZ-M8x20	Sperrzahnschraube M8x20	locking screw M8x20	1
16	DIN-SZ-M8x25	Sperrzahnschraube M8x25	locking screw M8x25	1
17	DIN-933-M8x55	Sechskantschraube M8x55	hexagon head screw M8x55	8
18	DIN-933-M8x100	Sechskantschraube M8x100	hexagon head screw M8x100	1
19	DIN-6921-M12x20	Radschraube M12x20	wheel bolt M12x20	8
20	DIN-SZ-M8	Sperrzahnmutter M8	locking nut M8	7
21	DIN-985-M8	Sechskantmutter M8 selbsts.	selflocking hexagon nut M8	4
22	DIN-9021-8,4	Kotflügelscheibe 8,4	fender washer 8,4	11
23	KT-00-00180	Distanzstück 8,4x20x4	spacer 8,4x20x4	1

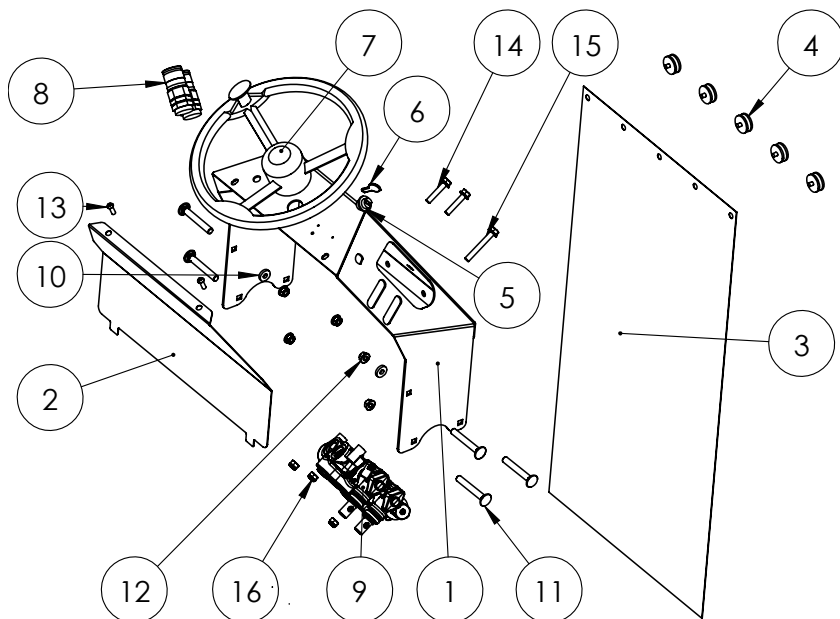
20 Spare parts list

20.1.6 Base frame assembly



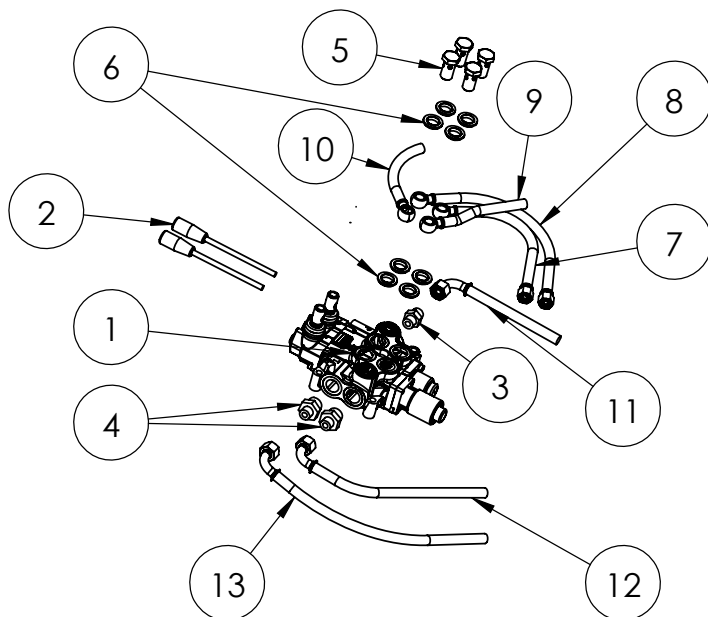
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00722	Deckel	cover	1
2	LA-00-00721	Seitenteil links	frame left	1
3	LA-00-00720	Seitenteil rechts	frame right	1
4	LA-00-00723	Blech Lenkwellenlagerung	steering shaft bearing	1
5	LA-00-00729	Trittblech	step	1
6	LA-00-00891	Abdeckung Aushebung links	lift cover left	1
7	LA-00-00890	Abdeckung Aushebung rechts	lift cover right	1
8	VMBG-00-00086	Kettenspanner	rod strainer	4
9	DR-00-00164	Lenkwelle Ritzel	steering gear shaft	1
10	DR-00-00163	Lenkwelle Lenkrad	steering wheel shaft	1
11	KT-00-00067	Kreuzgelenk	cardan joint	1
12	KT-00-00482	Gleitlager 20x25x15	sleeve bearing 20x25x15	3
13	DIN-125-21,0	Scheibe 21,0	washer 21,0	1
14	KT-00-00446	Ritzel Kettenlenkung	steering gear	1
15	KT-00-00167	Stelling 20mm	adjusting ring 20mm	1
16	HY-00-00012	Doppelrohrschelle 15mm	double pipe clamp 15mm	4
17	DIN-933-M8x16	Sechskantschraube M8x16	hexagon head screw M8x16	4
18	DIN-SZ-M8x20	Sperzahnschraube M8x20	locking screw M8x20	8
19	DIN-603-M8x20	Flachrundschrabe M8x20	mushroom head screw M8x20	12
20	DIN-912-M8x40	Zylinderschraube M8x40	cylinder head screw M8x40	4
21	DIN-SZ-M8	Sperzahnmutter M8	locking nut M8	18
22	DIN-125-8,4	Scheibe 8,4	washer 8,4	4

20.1.7 Steering console assembly



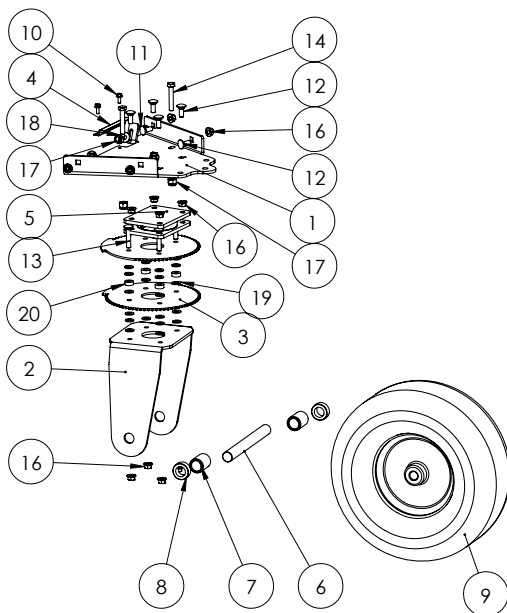
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00725	Lenkconsole	steering console	1
2	LA-00-00732	Abdeckung Lenksäule	steering console cover	1
3	PE-00-00038	Gummituch	rubber blanket	1
4	KT-00-00221	Druckknopf	push button	5
5	KT-00-00219	Zündschloss	ignition switch	1
6	KT-00-00194	Schlüsselsatz	key set	1
7	KT-00-00297	Lenkrad	steering wheel	1
8	HY-00-00171	SVK-Muffe	SVK quick connector	2
9	KT-00-00533	Steuerventil	control valve	1
10	KT-00-00180	Distanzstück 8,4x20x4	spacer 8,4x20x4	2
11	DIN-603-M8x20	Flachrundschrabe M8x20	mushroom head screw M8x20	6
12	DIN-SZ-M8	Sperrzahnmutter M8	locking nut M8	6
13	DIN-7380-M6x20	Linsenschraube M6x20	lens head screw M6x20	2
14	DIN-933-M8x40	Sechskantschraube M8x40	hexagon head screw M8x40	2
15	DIN-933-M8x60	Sechskantschraube M8x60	hexagon head screw M8x60	1
16	DIN-985-M8	Sechskantmutter M8 selbsts.	selflocking hexagon nut M8	3

20.1.8 Control valve with hydraulic hoses



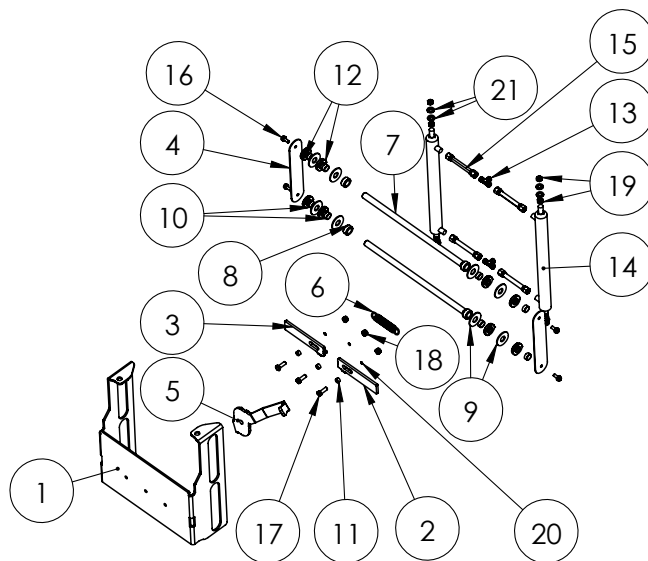
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	KT-00-00533	Steuerventil	control valve	1
2	KT-00-00032	Hebel Steuergerät	lever for control valve	2
3	HY-00-00052	Einschraubstutzen S-XGE 10-LR 3/8"	screw in fitting S-XGE 10-LR 3/8"	1
4	HY-00-00117	Einschraubstutzen AGR3/8"-WD CEL 12	screw-in fitting AGR3/8"-WD CEL 12	2
5	HY-00-00024	Hohlschraube 3/8"	hollow screw 3/8"	4
6	HY-00-00069	Dichtring mit Gummi	sealing washer	8
7	HYS-00-00097	Hydraulikschlauch 360mm Anbaugerät 1	hydraulic hose 360mm accessory equipment 1	1
8	HYS-00-00104	Hydraulikschlauch 400mm Anbaugerät 2	hydraulic hose 400mm accessory equipment 2	1
9	HYS-00-00099	Hydraulikschlauch 940mm Anbaugerät heben	hydraulic hose 940mm elevate	1
10	HYS-00-00100	Hydraulikschlauch 1130mm Anbaugerät senken	hydraulic hose 1130mm drop	1
11	HYS-00-00101	Hydraulikschlauch 1490mm Druckleitung Pumpe	hydraulic hose 1490mm pressure line	1
12	HYS-00-00112	Hydraulikschlauch 1690mm Rücklauf Pumpe	hydraulic hose 1690mm return line to pump	1
13	HYS-00-00103	Hydraulikschlauch 1900mm Rücklauf Filter	hydraulic hose 1900mm return line to filter	1

20.1.9 Rear axle assembly



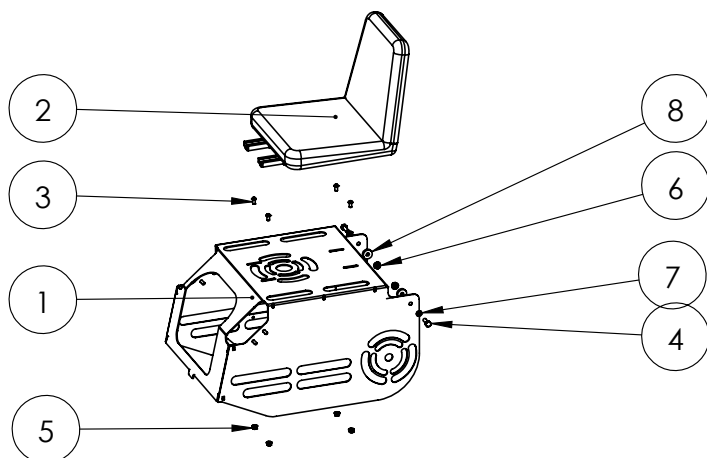
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00714	Lagerblech	bearing plate	1
2	LA-00-00715	Hinterradschwinge	rear swing fork	1
3	LA-00-00314	Kettenführungsscheibe	chain guide gear	2
4	LA-00-00286	Klemmblech Batterie	clamping plate	1
5	KT-00-00113	Druckkugellager DK-LS 200	ball thrust bearing DK-LS 200	1
6	DR-00-00155	Hinterradachse	wheel axle	1
7	DR-00-00154	Distanzbuchse	spacer rear wheel	2
8	KT-00-00407	Stellring 25mm	adjusting ring 25mm	2
9	RE-00-00019	Hinterrad	rear wheel with rim	1
10	DIN-SZ-M6x16	Sperrzahnsschraube M6x16	locking screw M6x16	2
11	DIN-603-M8x25	Flachrundschrabe M8x25	mushroom head screw M8x25	1
12	DIN-603-M10x25	Flachrundschrabe M10x25	mushroom head screw M10x25	8
13	DIN-603-M10x50	Flachrundschrabe M10x50	mushroom head screw M10x50	4
14	DIN-933-M10x60	Sechskantschraube M10x60	hexagon head screw M10x60	2
15	DIN-SZ-M6	Sperrzahnmutter M6	locking nut M6	2
16	DIN-SZ-M10	Sperrzahnmutter M10	locking nut M10	12
17	DIN-985-M10	Sechskantmutter M10 selbsts.	selflocking hexagon nut M10	3
18	DIN-9021-8,4	Kofflügelscheibe 8,4	fender washer 8,4	1
19	DIN-125-10,5	Scheibe 10,5	washer 10,5	24
20	KT-00-00101	Distanzstück 10,5x21x8	spacer 10,5x21x8	4

20.1.10 Lifting assembly



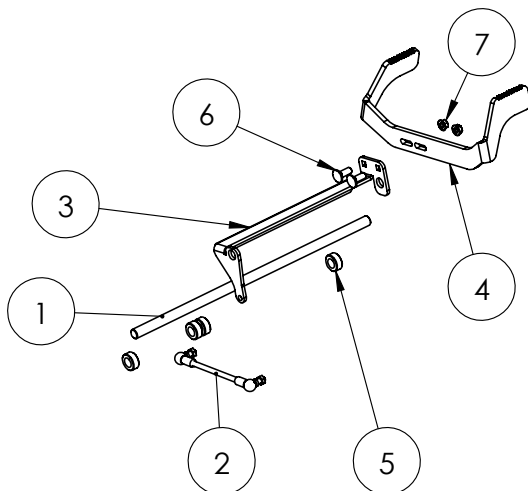
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00848	Anbaugeräte Aufnahme	accessory equipment mount	1
2	LA-00-00851	Verriegelungsbolzen links	locking bolt left	1
3	LA-00-00850	Verriegelungsbolzen rechts	locking bolt right	1
4	LA-00-00903	Verbindungsblech	connection plate	2
5	LA-00-00849	Verriegelungshebel	locking lever	1
6	KT-00-00819	Zugfeder	extension spring	1
7	DR-00-00159	Welle Aushebung	lift shaft	2
8	KT-00-00167	Stellring 20mm	adjusting ring 20mm	4
9	LA-00-00854	Scheibe 20,5x52x3	washer 20,5x52x3	8
10	KT-00-00884	Gleitlager	sleeve bearing	8
11	DR-00-00179	Hülse	hull	3
12	DR-00-00190	Buchse 42mm	bush 42mm	8
13	HY-00-00147	T-Stück	T-fitting	2
14	KT-00-00710	Hydraulikzylinder 40/20/350mm	hydraulic cylinder 40/20/350mm	2
15	HYS-00-00096	Hydraulikschlauch 133mm	hydraulic hose 133mm	4
16	DIN-SZ-M8x20	Sperrzahnschraube M8x20	locking screw M8x20	4
17	DIN-933-M10x30	Sechskantschraube M10x30	hexagon head screw M10x30	3
18	DIN-985-M10	Sechskantmutter M10 selbsts.	selflocking hexagon nut M10	3
19	DIN-4035-M16	Sechskantmutter M16 flach	hexagon nut M16 flat	6
20	DIN-9021-10,5	Kotflügelscheibe 10,5	fender washer 10,5	3
21	DIN-125-17,0	Scheibe 17,0	washer 17,0	6
22	DIN-9021-17,0	Kotflügelscheibe 17,0	fender washer 17,0	4

20.1.11 Seat console assembly



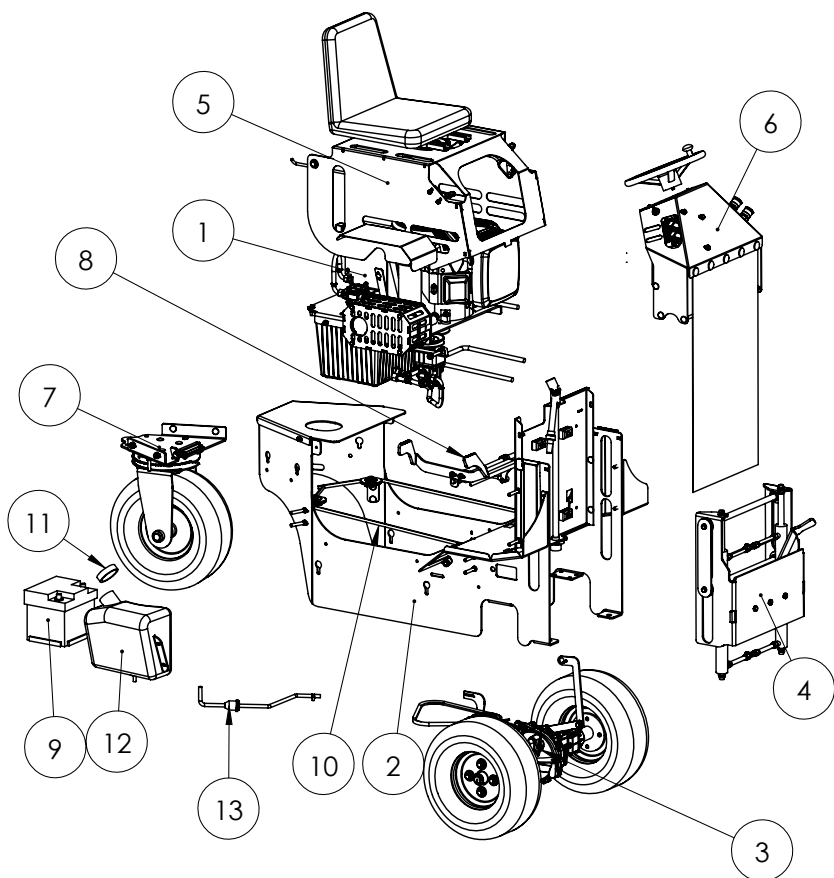
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00716	Motorhaube	engine cover	1
2	KT-00-00419	Sitz mit Schienen	seat with bars	1
3	DIN-7380-M8x16	Linsenschraube M8x16	lens head screw M8x16	4
4	DIN-933-M10x30	Sechskantschraube M10x30	hexagon head screw M10x30	2
5	DIN-SZ-M8	Sperrzahnmutter M8	locking nut M8	4
6	DIN-SZ-M10	Sperrzahnmutter M10	locking nut M10	2
7	DIN-9021-10,5	Kotflügelscheibe 10,5	fender washer 10,5	2
8	KT-00-00495	Distanzstück 10,5x30x8	spacer 10,5x30x8	2

20.1.12 Accelerator assembly



POS-NR.	Artikel	BENENNUNG	part name	Menge
1	DR-00-00162	Welle Fahrpedal	pedal axle	1
2	DR-00-00165	Gewindestange Fahrpedal	threaded rod for pedal	1
3	LA-00-00730	Fahrpedalanbindung	pedal mount	1
4	LA-00-00731	Fahrpedal	pedal	1
5	KT-00-00164	Stelling 16mm	adjusting ring 16mm	4
6	DIN-603-M8x20	Flachrundschrube M8x20	mushroom head screw M8x20	2
7	DIN-SZ-M8	Sperzahnmutter M8	locking nut M8	2

20.2 CM2 PRO Briggs & Stratton 2-cylinder



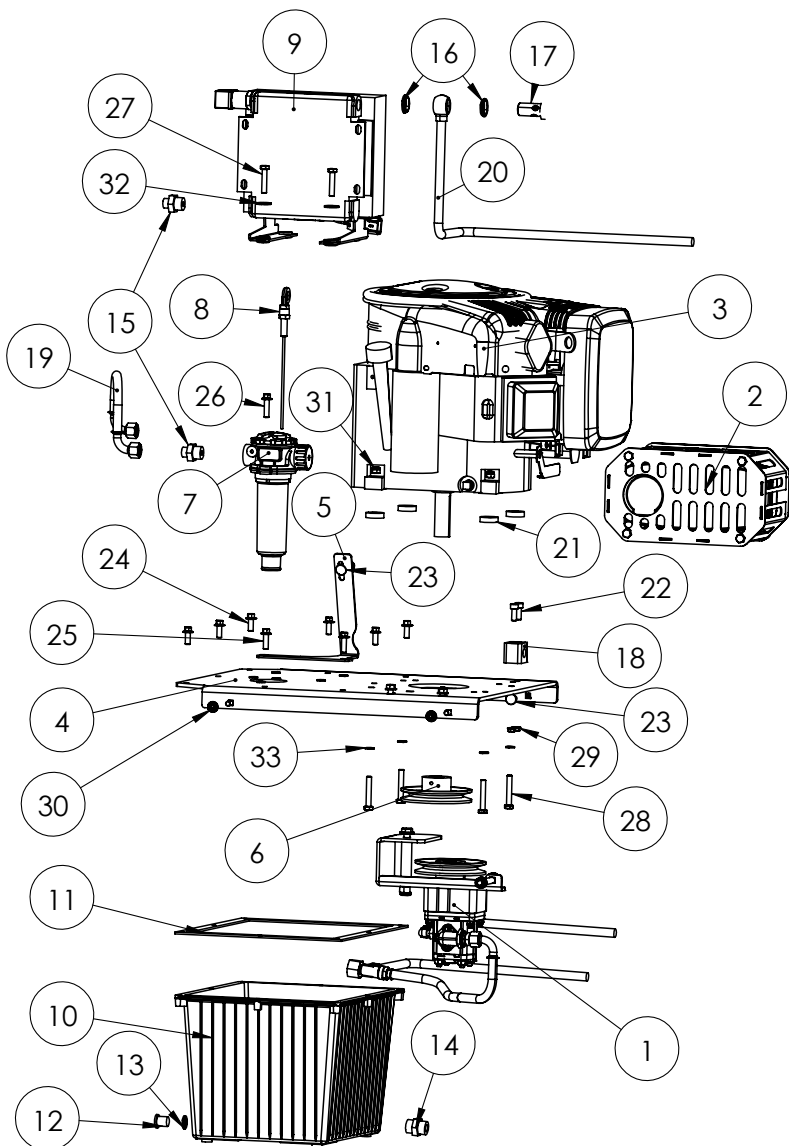
20 Spare parts list

POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	-	Baugruppe Motorblech	engine plate assembly	1
2	-	Baugruppe Grundrahmen	base frame assembly	1
3	-	Baugruppe Getriebe	gearbox assembly	1
4	-	Baugruppe Aushebung	lift assembly	1
5	-	Baugruppe Motorhaube	engine cover assembly	1
6	-	Baugruppe Lenkkonsole	steering console assembly	1
7	-	Baugruppe Hinterachse	rear axle assembly	1
8	-	Baugruppe Fahrpedal	gas pedal assembly	1
9	KS-00-00020	Batterie 12V 44 Ah	battery 12V 44Ah	1
10	KT-00-00772	Rollenkette	roller chain	1
11	KT-00-00174	Tankdeckel	tank cap	1
12	KT-00-00175	Kraftstofftank	tank	1
13	KT-00-00444	Kraftstofffilter	fuel filter	1

20.2.1 Overview filters and spark plugs

Artikel	BENENNUNG	part name	Menge/ quantity
KT-00-00464	Luftfilter	air filter	1
272490	Vorfilterelement	prefilter	1
KT-00-00468	Ölfilter	oil filter	1
KT-00-00465	Zündkerze	spark plug	2

20.2.2 Engine panel assembly



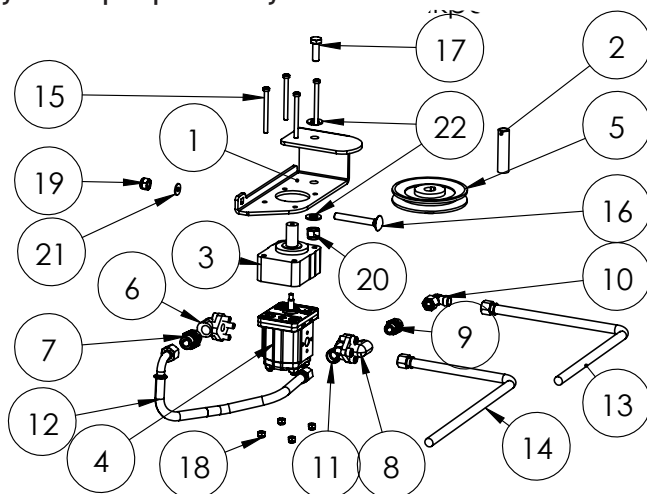
20 Spare parts list

POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	-	Baugruppe Hydraulikpumpe	hydraulic pump assembly	1
2	-	Baugruppe Briggs Auspuff	Briggs exhaust assembly	1
3	MO-00-00019	Motor B&S 2 Zylinder	B&S 2-cylinder engine	1
4	LA-00-00717	Motorblech	engine plate	1
5	LA-00-00719	Tankhalter	tank mount	1
6	DR-00-00158	Riemenscheibe Motor	belt pulley	1
7	HY-00-00167	Rücklauffilter	return line filter	1
8	HY-00-00168	Ölpeilstab	oil dipstick	1
9	KT-00-00218	Ölkühler	oil cooler	1
10	KT-00-00411	Ölwanne	oil pan	1
11	KT-00-00411	Dichtung für Ölwanne	seal for oil pan	1
12	KT-00-00416	Ablassschraube	drain screw	1
13	KT-00-00418	Kupfering 21x26x2,5	copper ring 21x26x2,5	1
14	HY-00-00084	Ger. Einschraubverschraubung 22x1,5	straight screwed coupling 22x1,5	1
15	HY-00-00056	Einschraubstutzen 1/2"	screw-in fitting 1/2"	2
16	HY-00-00102	Dichtring mit Gummi 1/2"	sealing ring 1/2"	2
17	HY-00-00022	Hohlschraube 1/2"	hollow screw	1
18	HY-00-00031	Rohrschelle 15mm	pipe clamp 15mm	1
19	HYS-00-00102	Hydraulikschlauch 320mm	hydraulic hose 320mm	1
20	HYS-00-103	Hydraulikschlauch 1900mm	hydraulic hose 1900mm	1
21	KT-00-00495	Distanzstück 10,5x30x8	spacer 10,5x30x8	4
22	DIN-912-M6x45	Zylinderschraube M6x45	cylinder head screw M6x45	2
23	DIN-603-M8x20	Flachrundschraube M8x20	mushroom head screw M8x20	7
24	DIN-SZ-M8x20	Sperrzahnschraube M8x20	locking screw M8x20	6
25	DIN-SZ-M8x25	Sperrzahnschraube M8x25	locking screw M8x25	2
26	DIN-SZ-M8x30	Sperrzahnschraube M8x30	locking screw M8x30	1
27	DIN-933-M8x40	Sechskantschraube M8x40	hexagon head screw M8x40	4
28	DIN-933-M8x50	Sechskantschraube M8x50	hexagon head screw M8x50	4
29	DIN-SZ-M6	Sperrzahnmutter M6	locking nut M6	2
30	DIN-SZ-M8	Sperrzahnmutter M8	locking nut M8	6
31	DIN-985-M8	Sechskantmutter M8 selbsts.	self locking hexagon nut M8	5
32	DIN-9021-8,4	Kofflügelscheibe 8,4	fender washer 8,4	5
33	DIN-127-A8	Federring A8	spring washer A8	4

Bei Modellen ohne Ölkühler entfallen Pos. 9, 15, 19, 27 und 32.

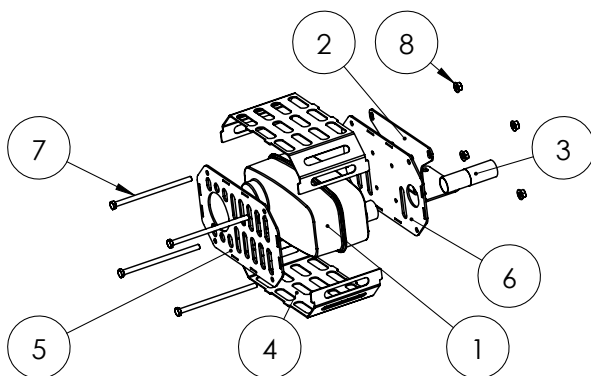
Pos. 9, 15, 19, 27 and 32 are not required for vehicles without an oil cooler.

20.2.3 Hydraulic pump assembly



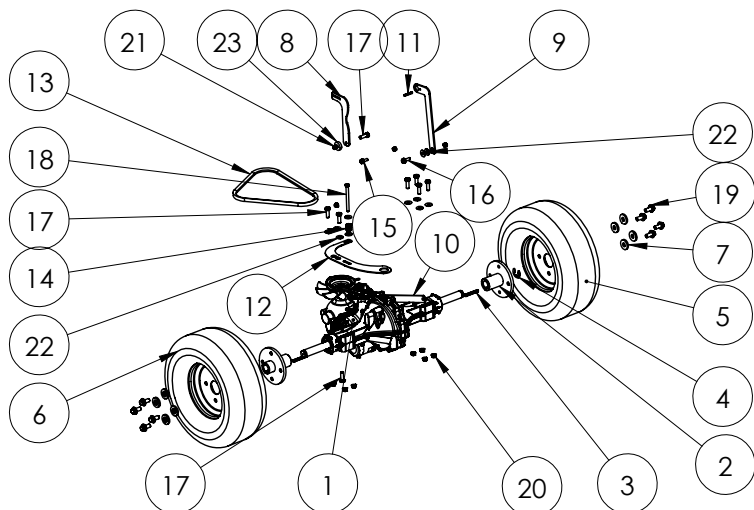
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00718	Hydraulikpumpenhalter	pump mount	1
2	DR-00-00157	Distanzrohr Pumpenhalter	space pipe	1
3	KT-00-00655	Vorsatzlager	outboard bearing	1
4	KT-00-00654	Hydraulikpumpe	hydraulic pump	1
5	DR-00-00156	Riemenscheibe für Hydraulikpumpe	belt pulley for hydraulic pump	1
6	HY-00-00153	Pumpenflansch 1/2" mit Schrauben	pump flange 1/2" with screws	1
7	HY-00-00118	Einschraubstutzen 1/2"	screw-in fitting 1/2"	1
8	HY-00-00152	Pumpenflansch 3/8" mit Schrauben	pump flange 3/8" with screws	1
9	HY-00-00117	Einschraubstutzen 3/8"	screw-in fitting 3/8"	1
10	HY-00-00055	Winkelstutzen	elbow fitting	1
11	HY-00-00122	Einstellb. L-Verschraubung	L-screw connection	1
12	HYS-00-00104	Hydraulikschlauch 400mm	hydraulic hose 400mm	1
13	HYS-00-00101	Hydraulikschlauch 1490mm	hydraulic hose 1490mm	1
14	HYS-00-00112	Hydraulikschlauch 1690mm	hydraulic hose 1690mm	1
15	DIN-912-M6x70	Zylinderschraube M6x70	cylinder head screw M6x70	4
16	DIN-603-M10x75	Flachrundschrabe M10x75	mushroom head screw M10x75	1
17	DIN-931-M12x110	Sechskantschraube M12x110	hexagon head screw M12x110	1
18	DIN-985-M6	Sechskantmutter M6 selbsts.	selflocking hexagon nut M6	4
19	DIN-985-M10	Sechskantmutter M10 selbsts.	selflocking hexagon nut M10	1
20	DIN-985-M12	Sechskantmutter M12 selbsts.	selflocking hexagon nut M12	1
21	DIN-9021-10,5	Kotflügelscheibe 10,5	fender washer 10,5	1
22	DIN-125-A13	Scheibe A13	washer 13,0	2

20.2.4 Briggs exhaust assembly



POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	KT-00-00182	Auspuff	exhaust	1
2	LA-00-00739	Halter Auspuffabdeckung	cover mount	1
3	DR-00-00033	Distanzrohr	space pipe	1
4	LA-00-00194	Auspuffabdeckung oben/unten	exhaust cover top/bottom	2
5	LA-00-00195	Auspuffabdeckung vorne	exhaust cover front	1
6	LA-00-00193	Auspuffabdeckung hinten	exhaust cover back	1
7	DIN-931-M8x145	Sechskantschraube M8x145	hexagon head screw M8x145	4
8	DIN-SZ-M8	Sperzmutter M8	locking nut M8	4

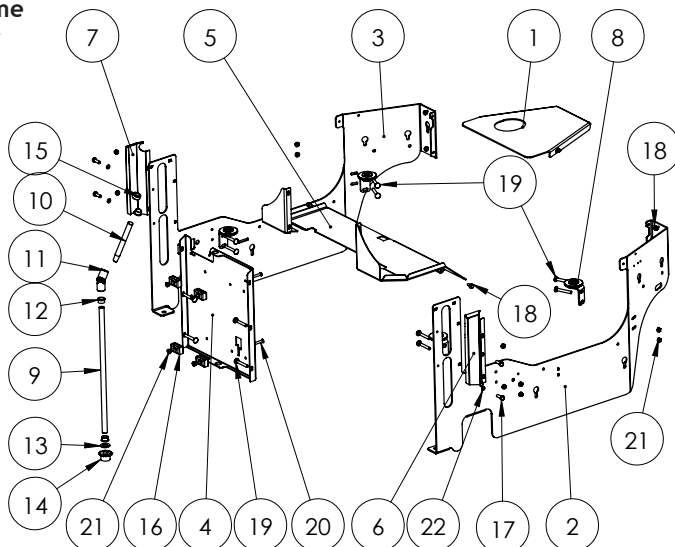
20.2.5 Transmission assembly



POS-NR.	Artikel	BENNENUNG	part name	Menge/ quantity
1	KT-00-00716	Getriebe CM2 PRO	gearbox CM2 PRO	1
2	SB-00-00075	Radnabe	wheel hub	2
3	KT-00-00391	Passfeder 1/4"	parallel key 1/4"	2
4	DIN-6799	Seegering 19er	circlip 19	2
5	RE-00-00018	Antriebsrad links	drive wheel with rim left	1
6	RE-00-00017	Antriebsrad rechts	drive wheel with rim right	1
7	DIN-6319-13x24x4,6	Kugelscheibe	rounded washer	8
8	LA-00-00733	Drehmomentstütze	torque arm	1
9	LA-00-000738	Arretierung Feststellbremse	locking device for parking brake	1
10	LA-00-00737	Blech Feststellbremse	lever for parking brake	1
11	DIN-1481-6x30	Spannstift 6x35	dowel pin 6x35	1
12	LA-00-00829	Freilauf-Hebel	lever for freewheel	1
13	KT-00-00717	Keilriemen	V-Belt	1
14	KT-00-00679	Druckfeder	pressure spring	1
15	DIN-SZ-M8x20	Sperrzahnschraube M8x20	locking screw M8x20	1
16	DIN-SZ-M8x25	Sperrzahnschraube M8x25	locking screw M8x25	1
17	DIN-933-M8x55	Sechskantschraube M8x55	hexagon head screw M8x55	8
18	DIN-933-M8x100	Sechskantschraube M8x100	hexagon head screw M8x100	1
19	DIN-6921-M12x20	Radschraube M12x20	wheel bolt M12x20	8
20	DIN-SZ-M8	Sperrzahnmutter M8	locking nut M8	7
21	DIN-985-M8	Sechskantmutter M8 selbsts.	selflocking hexagon nut M8	4
22	DIN-9021-8,4	Kofflügelscheibe 8,4	fender washer 8,4	11
23	KT-00-00180	Distanzstück 8,4x20x4	spacer 8,4x20x4	1

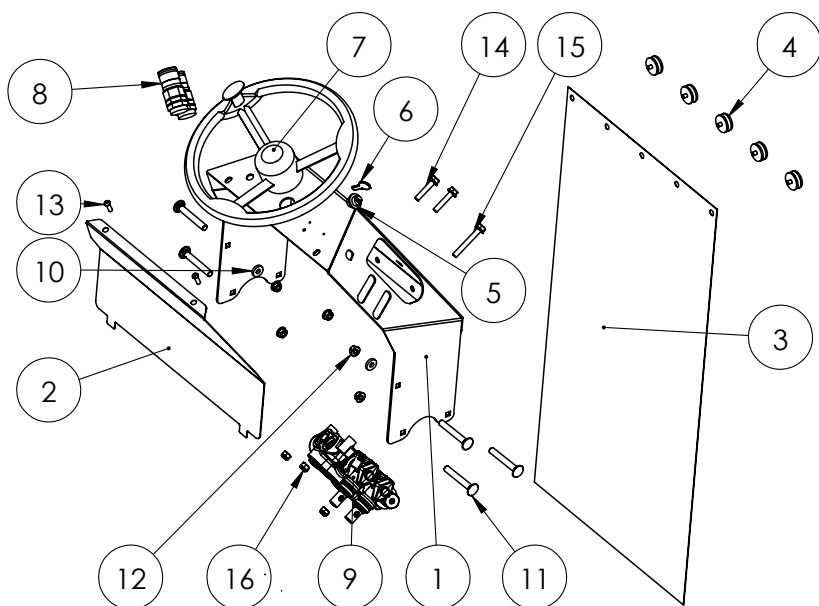
20 Spare parts list

20.2.6 Base frame assembly



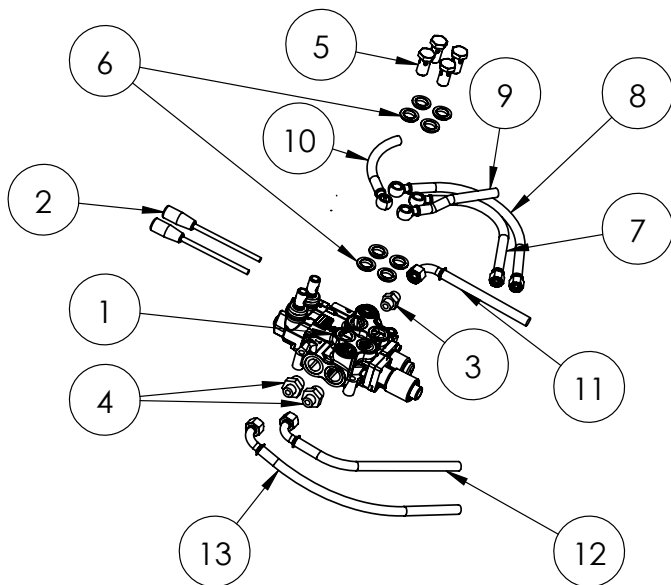
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00722	Deckel	cover	1
2	LA-00-00721	Seitenteil links	frame left	1
3	LA-00-00720	Seitenteil rechts	frame right	1
4	LA-00-00723	Blech Lenkwellenlagerung	steering shaft bearing	1
5	LA-00-00729	Trittblech	step	1
6	LA-00-00891	Abdeckung Aushebung links	lift cover left	1
7	LA-00-00890	Abdeckung Aushebung rechts	lift cover right	1
8	VM8G-00-00086	Kettenspanner	rod strainer	4
9	DR-00-00164	Lenkwelle Ritzel	steering gear shaft	1
10	DR-00-00163	Lenkwelle Lenkrad	steering wheel shaft	1
11	KT-00-00067	Kreuzgelenk	cardan joint	1
12	KT-00-00482	Gleitlager 20x25x15	sleeve bearing 20x25x15	3
13	DIN-125-21,0	Scheibe 21,0	washer 21,0	1
14	KT-00-00446	Ritzel Kettenlenkung	steering gear	1
15	KT-00-00167	Stellring 20mm	adjusting ring 20mm	1
16	HY-00-00012	Doppelrohrschele 15mm	double pipe clamp 15mm	4
17	DIN-933-M8x16	Sechskantschraube M8x16	hexagon head screw M8x16	4
18	DIN-SZ-M8x20	Sperrzahnschraube M8x20	locking screw M8x20	8
19	DIN-603-M8x20	Flachrundschraube M8x20	mushroom head screw M8x20	12
20	DIN-912-M8x40	Zylinderschraube M8x40	cylinder head screw M8x40	4
21	DIN-SZ-M8	Sperrzahnmutter M8	locking nut M8	18
22	DIN-125-8,4	Scheibe 8,4	washer 8,4	4

20.2.7 Steering bracket assembly



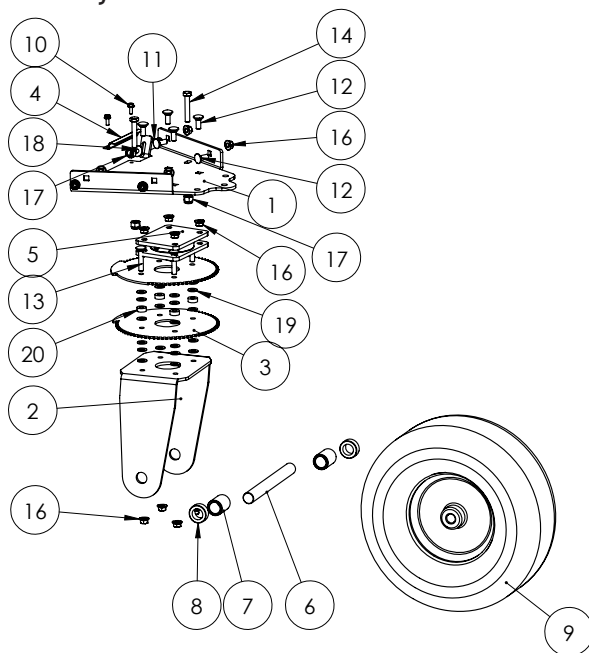
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00725	Lenkkonsole	steering console	1
2	LA-00-00732	Abdeckung Lenksäule	steering console cover	1
3	PE-00-00038	Gummituch	rubber blanket	1
4	KT-00-00221	Druckknopf	push button	5
5	KT-00-00219	Zündschloss	ignition switch	1
6	KT-00-00194	Schlüsselsatz	key set	1
7	KT-00-00297	Lenkrad	steering wheel	1
8	HY-00-00171	SVK-Muffe	SVK quick connector	2
9	KT-00-00533	Steuerventil	control valve	1
10	KT-00-00180	Distanzstück 8,4x20x4	spacer 8,4x20x4	2
11	DIN-603-M8x20	Flachrundschraube M8x20	mushroom head screw M8x20	6
12	DIN-SZ-M8	Sperrzahnmutter M8	locking nut M8	6
13	DIN-7380-M6x20	Linsenschraube M6x20	lens head screw M6x20	2
14	DIN-933-M8x40	Sechskantschraube M8x40	hexagon head screw M8x40	2
15	DIN-933-M8x60	Sechskantschraube M8x60	hexagon head screw M8x60	1
16	DIN-985-M8	Sechskantmutter M8 selbsts.	selflocking hexagon nut M8	3

20.2.8 Control valve with hydraulic hoses



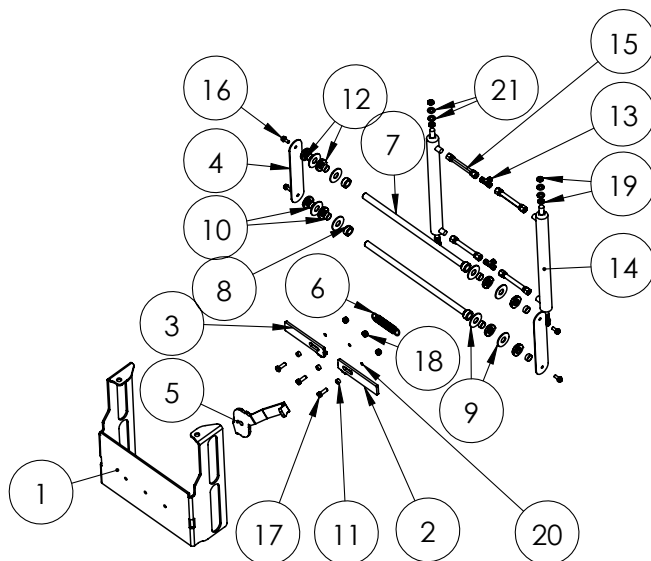
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	KT-00-00533	Steuerventil	control valve	1
2	KT-00-00032	Hebel Steuergerät	lever for control valve	2
3	HY-00-00052	Einschraubstutzen S-XGE 10-LR 3/8"	screw-in fitting S-XGE 10-LR 3/8"	1
4	HY-00-00117	Einschraubstutzen AGR3/8"-WD CEL 12	screw-in fitting AGR3/8"-WD CEL 12	2
5	HY-00-00024	Hohlschraube 3/8"	hollow screw 3/8"	4
6	HY-00-00069	Dichtring mit Gummi	sealing washer	8
7	HYS-00-00097	Hydraulikschlauch 360mm Anbaugerät 1	hydraulic hose 360mm accessory equipment 1	1
8	HYS-00-00104	Hydraulikschlauch 400mm Anbaugerät 2	hydraulic hose 400mm accessory equipment 2	1
9	HYS-00-00099	Hydraulikschlauch 940mm Anbaugerät heben	hydraulic hose 940mm elevate	1
10	HYS-00-00100	Hydraulikschlauch 1130mm Anbaugerät senken	hydraulic hose 1130mm drop	1
11	HYS-00-00101	Hydraulikschlauch 1490mm Druckleitung Pumpe	hydraulic hose 1490mm pressure line	1
12	HYS-00-00112	Hydraulikschlauch 1690mm Rücklauf Pumpe	hydraulic hose 1690mm return line to pump	1
13	HYS-00-00103	Hydraulikschlauch 1900mm Rücklauf Filter	hydraulic hose 1900mm return line to filter	1

20.2.9 Rear axle assembly



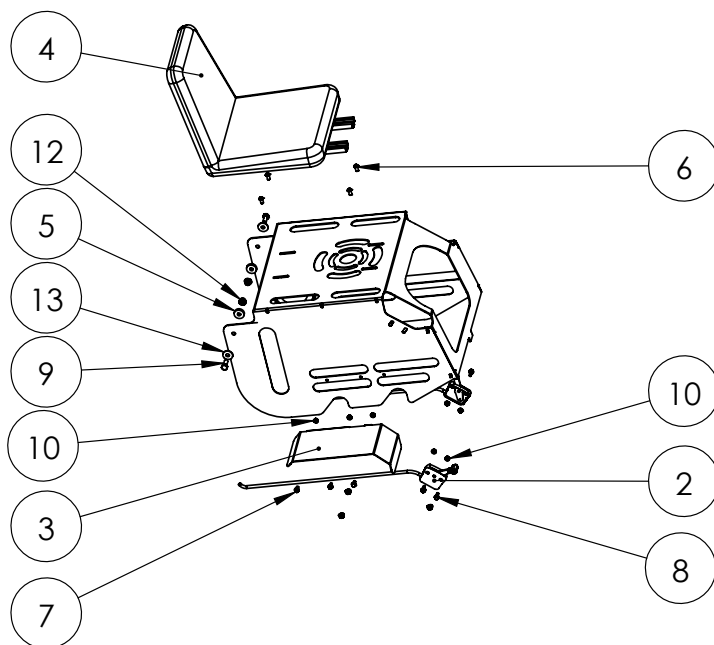
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00714	Lagerblech	bearing plate	1
2	LA-00-00715	Hinterradschwinge	rear swing fork	1
3	LA-00-00314	Kettenführungsscheibe	chain guide gear	2
4	LA-00-00286	Klemmblech Batterie	clamping plate	1
5	KT-00-00113	Druckkugellager DK-LS 200	ball thrust bearing DK-LS 200	1
6	DR-00-00155	Hinterradachse	wheel axle	1
7	DR-00-00154	Distanzbuchse	spacer rear wheel	2
8	KT-00-00407	Stellring 25mm	adjusting ring 25mm	2
9	RE-00-00019	Hinterrad	rear wheel with rim	1
10	DIN-SZ-M6x16	Sperrzahnsschraube M6x16	locking screw M6x16	2
11	DIN-603-M8x25	Flachrundschrabe M8x25	mushroom head srew M8x25	1
12	DIN-603-M10x25	Flachrundschrabe M10x25	mushroom head screw M10x25	8
13	DIN-603-M10x50	Flachrundschrabe M10x50	mushroom head screw M10x50	4
14	DIN-933-M10x60	Sechskantschraube M10x60	hexagon head screw M10x60	2
15	DIN-SZ-M6	Sperrzahnmutter M6	locking nut M6	2
16	DIN-SZ-M10	Sperrzahnmutter M10	locking nut M10	12
17	DIN-985-M10	Sechskantmutter M10 selbsts.	selflocking hexagon nut M10	3
18	DIN-9021-8,4	Kotflügelscheibe 8,4	fender washer 8,4	1
19	DIN-125-10,5	Scheibe 10,5	washer 10,5	24
20	KT-00-00101	Distanzstück 10,5x21x8	spacer 10,5x21x8	4

20.2.10 Lifting assembly



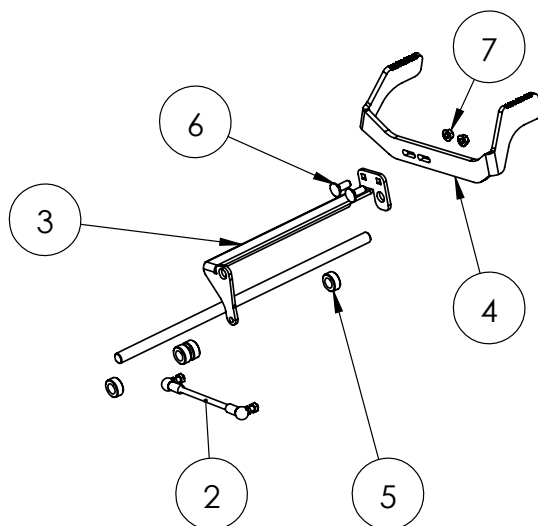
POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00848	Anbaugeräte Aufnahme	accessory equipment mount	1
2	LA-00-00851	Verriegelungsbolzen links	locking bolt left	1
3	LA-00-00850	Verriegelungsbolzen rechts	locking bolt right	1
4	LA-00-00903	Verbindungsblech	connection plate	2
5	LA-00-00849	Verriegelungshebel	locking lever	1
6	KT-00-00819	Zugfeder	extension spring	1
7	DR-00-00159	Welle Aushebung	lift shaft	2
8	KT-00-00167	Stellring 20mm	adjusting ring 20mm	4
9	LA-00-00854	Scheibe 20,5x52x3	washer 20,5x52x3	8
10	KT-00-00884	Gleitlager	sleeve bearing	8
11	DR-00-00179	Hülse	hull	3
12	DR-00-00190	Buchse 42mm	bush 42mm	8
13	HY-00-00147	T-Stück	T-fitting	2
14	KT-00-00710	Hydraulikzylinder 40/20/350mm	hydraulic cylinder 40/20/350mm	2
15	HYS-00-00096	Hydraulikschlauch 133mm	hydraulic hose 133mm	4
16	DIN-SZ-M8x20	Sperrzahnsschraube M8x20	locking screw M8x20	4
17	DIN-933-M10x30	Sechskantschraube M10x30	hexagon head screw M10x30	3
18	DIN-985-M10	Sechskantmutter M10 selbsts.	selflocking hexagon nut M10	3
19	DIN-4035-M16	Sechskantmutter M16 flach	hexagon nut M16 flat	6
20	DIN-9021-10,5	Kofflügscheibe 10,5	fender washer 10,5	3
21	DIN-125-17,0	Scheibe 17,0	washer 17,0	6
22	DIN-9021-17,0	Kofflügscheibe 17,0	fender washer 17,0	4

20.2.11 Engine hood assembly



POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	LA-00-00716	Motorhaube	engine cover	1
2	KT-00-00192	Bowdenzug incl. Hebel	bowden cable with lever	2
3	LA-00-00928	Auspuffabdeckung	exhaust cover	1
4	KT-00-00419	Sitz mit Schienen	seat with bars	1
5	KT-00-00495	Distanzstück 10,5x30x8	spacer 10,5x30x8	2
6	DIN-7380-M8x16	Linsenschraube M8x16	lens head screw M8x16	4
7	DIN-SZ-M8x16	Sperrzahnschraube M8x16	locking screw M8x16	3
8	DIN-SZ-M8x20	Sperrzahnschraube M8x20	locking screw M8x20	4
9	DIN-933-M10x30	Sechskantschraube M10x30	hexagon head screw M10x30	2
10	DIN-SZ-M6	Sperrzahnmutter M6	locking nut M6	7
11	DIN-SZ-M8	Sperrzahnmutter M8	locking nut M8	4
12	DIN-SZ-M10	Sperrzahnmutter M10	locking nut M10	2
13	DIN-9021-10,5	Kotflügelscheibe 10,5	fender washer 10,5	2

20.2.12 Accelerator pedal assembly

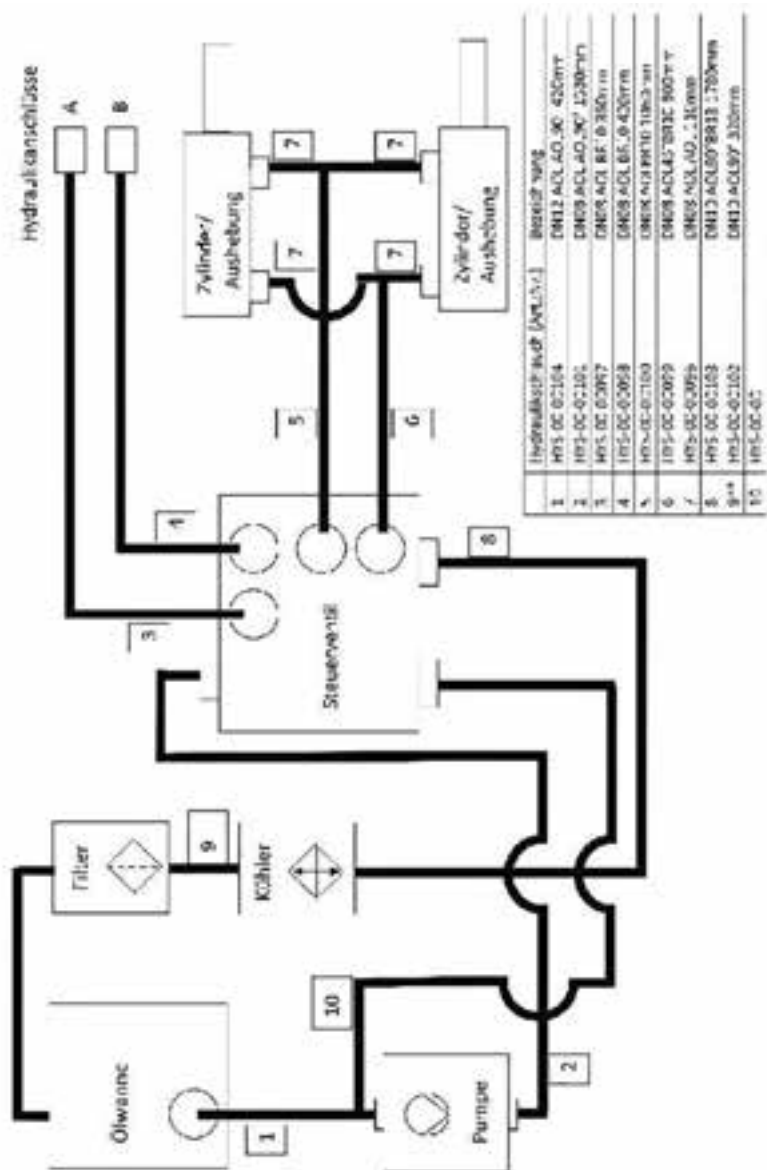


POS-NR.	Artikel	BENENNUNG	part name	Menge/ quantity
1	DR-00-00162	Welle Fahrpedal	pedal axle	1
2	DR-00-00165	Gewindestange Fahrpedal	threaded rod for pedal	1
3	LA-00-00730	Fahrpedalanbindung	pedal mount	1
4	LA-00-00731	Fahrpedal	pedal	1
5	KT-00-00164	Stellring 16mm	adjusting ring 16mm	4
6	DIN-603-M8x20	Flachrundschrabe M8x20	mushroom head screw M8x20	2
7	DIN-SZ-M8	Sperzahnmutter M8	locking nut M8	2

21 Plans and other information

21.1 Hydraulic plan

Hydraulikschaltplan
Cleanmeleon 2 Pro



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