

OPERATION AND MAINTENANCE MANUAL

LIST OF SPARE PARTS

TRANSFER DOCUMENT

Hoof trimming crush
RED Q



Serial number: _____

Purchase date: _____

*Please read carefully before initial commissioning!
Should be kept for future use!*



as of serial no. 00036

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1. INTRODUCTION

1.1. ABOUT THIS PRODUCT

Thank you for purchasing the Rosensteiner hoof trimming crush "Red Q", a piece of equipment with pioneering technology for trimming animal hooves. The hoof trimming crush serves for periodic, expert and economic hoof trimming in a posture which is ergonomical, functional and fatigue-proof for the carer.

The hoof trimming crush is generally referred to as work equipment in this operation manual.

The work equipment and its fittings are in accordance with the state of the art at the time of placing on the market. However, residual risks exist. Insofar as possible, we have constructively reduced the risks to health which are associated with these hazards.

This document contains important information and serves as a guideline for safe operation inclusive of all activities which are necessary for operation, such as handling, maintenance or service. Through its observance you will be able to avoid dangers and to increase the lifetime of the work equipment. It is prohibited for the customer to change it.



The documentation of the individual subcontractors, and especially the information and details contained therein, is fully valid and are to be observed.

The manufacturer does not accept any liability for damages that arise from failure to comply with details and information contained in the manuals, or from improper usage.

We compiled the documentation with great care. However, it may contain minor deviations. Please inform us of these.

CAUTION



Unauthorized modifications (structural, functional or procedural) and the use of components and auxiliary components on the work equipment exclude the liability of the manufacturer.

WARNING



Intended alterations, changes to the work equipment described, require a further analysis of the dangers and an evaluation of the risks! Original spare parts and accessories are designed specially for this work equipment. We particularly emphasize that original parts and accessories which are neither specified nor supplied by us are also neither tested nor released by us. The fitting and/or usage of such products may negatively change or influence the given constructive characteristics of your work equipment. The manufacturer accepts no liability whatsoever for damage caused by the use of non-original parts and accessories.

1.2. INTENDED USE

The Red Q hoof trimming crush is intended solely for trimming animal hooves.

The hoof trimming crush is suitable for bovine animals from 300 kg to 1000 kg maximum.

Any operation which deviates from "the intended use" is an improper use and therefore prohibited. This is also valid for components of this work equipment.

1.3. SELECTED EXAMPLES OF IMPROPER USE

- Any usage that deviates from the "intended use" or which goes beyond the defined scope of utilization.
- Operation of the work equipment that is not in compliance with the requirements of the safety and risk aspects and with full observance of the operation manual. This is also valid for malfunctions which arise as a result of defective, improper or unauthorized work on/with the work equipment.
- Each alteration, bypassing or shutting off of fittings on the work equipment which serve the proper functioning and the active and passive safety.
- Operation of the work equipment in a non-perfect condition technically.
- Failure to remedy faults that impair the safety before using the work equipment.
- Use of inappropriate auxiliary equipment and tools.

As a general principle, the manufacturer shall not be liable for damage resulting from improper use.

1.4. EU- DECLARATION OF CONFORMITY

Manufacturer and responsible for documentation:

ROSENSTEINER

Landmaschinenbau Ges.m.b.H.

Zehetner 26a

A-4596 Steinbach / Steyr

Phone +43(0)7257/7071

hereby declares that the machine described in the accompanying operation manual:

Type: Red Q

Description: Red Q Hoof Trimming Crush

Brand: Rosensteiner

is in accordance with the provisions of Directive 2006/42/EU (for Machinery).



Steinbach, 1st March 2013



Andreas Rosensteiner, owner

1.5. WARRANTY

The company Rosensteiner Landmaschinenbau GesmbH assumes warranty under the following terms and conditions:

- 1) The warranty includes the function and quality of the device. The warranty does not cover wear and tear.
- 2) Time of warranty is 1 year from the day of delivery to the customer. All warranty claims received within the warranty period by the retailer or in the plant, Zehetner 26a, A-4596 Steinbach, shall be processed.
- 3) Warranty claims must be submitted immediately to the retailer or manufacturer if defects appear in the material or in the workmanship during the warranty period.
- 4) The retailer must be shown the defective device or part. A subsequent repair or replacement may only take place in agreement with Rosensteiner. Expenses made without explicit consent will not be covered by the manufacturer. Defective parts are to be stored with the retailer as agreed upon, or sent to Rosensteiner. The customer must bring the device to the retailer free of carriage charges.
- 5) No warranty claims will be considered if the device is damaged or destroyed by force majeure. Note: Warranty claims will lapse in the case of damages as a result of improper handling, overload, attachment to oversized carrier vehicles or non-implemented maintenance and care!
- 6) Warranty claims shall only be processed when the contract of purchase, invoice or delivery note and the device number are submitted together with the device.
- 7) In fulfilling the warranty, the device will be repaired or exchanged for a functional equivalent.
- 8) Further claims, in particular damages and loss in any form whatsoever which are the result of device usage, are excluded.
- 9) If a replacement is made by us in accordance with this warranty, warranty claims against the retailer as the seller will be eliminated.

1.6. TECHNICAL DATA

Machine type	Red Q Hoof Trimming Crush
Dimensions	2050/2155/2095 (L/W/H)
Recommended animal size	300-1000 kg
Dead weight	960kg
Attachment	Three-point tractor hitch Cat II
Cushioning	Rubber mat Cow Comfort
Drive via	220V/2.2kw Electro-hydraulics
Finish	Galvanized/powder-coated

1.7. TYPE PLATE

The type plate is attached to the control lever near the main switch and shows the type designation and serial number!



1.8. STRUCTURE AND SCOPE OF THE OPERATION MANUAL

1.8.1. Structure

This operation manual was created in accordance with the Directive 2006/42/EU and the resulting regulation MSV 2010, implemented in Austria. The operation manual in its present form will support you in getting to know the technical details of the machine, in operating the machine properly and safely, in maintaining it and in using it in the intended fields of application.

1.8.2. Target group

The operation manual is aimed at those people who are familiar with a traction engine, with the attachment of additional devices, with the transport of attachment devices using a traction engine, the commissioning and operation of these, and who possess the appropriate qualifications for their jobs and functions, i.e. those people who can evaluate the jobs and possible dangers because of their professional training, knowledge and experience.

Each person who is involved with work on the machine – e.g. operation, maintenance, transport – must:

- have read and understood these operating instructions before working with the machine,
- observe the contained instructions and safety information.

1.8.3. Changes to this operation manual

The present operation manual describes the condition of the work equipment at the time of creation of the operation manual.

1.8.4. Storage of this operation manual

This operation manual must always be stored at the place of action of the work equipment and must be readily accessible for all people using the work equipment! If this operation manual gets lost, please request a replacement from your retailer. If you sell your machine, please remember to include the operation manual. It is a statutory component of your machine. You can also find the operation manual on our homepage www.rosensteiner.at

1.8.5. Spatial limits

This machine is designed for mobile operation at different places of use.

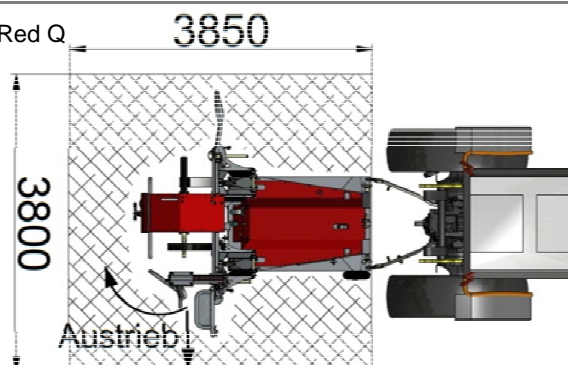
1.8.6. Time limits

Because of the stress on the work equipment, attention must be paid to the durability of the components used, with regards to reliability, breakdown susceptibility and their operating limits. The following service life phases are not dealt with in these operating instructions:



- Manufacture and transport (to the customer / user)
- Maintenance work on the work equipment and its components in workshops
- Work which requires the competence of the operator (welding work, electrical work,...)

1.8.7. Workplaces operation










Recommended space requirement for the Red Q



1.8.8. Explanation of the information and safety instructions


	Useful additional information in continuous text is marked with accompanying info button
SIGNAL WORD	Type and source of danger and the accompanying risks!
	Possible consequences for people, machine parts, tools and work piece – residual risk! – Measures to avoid danger to life and limb and to reduce the residual risk.
SIGNAL WORD	Explanation
NOTE	Warns against a potentially dangerous situation in which the unit or something in its environment could be damaged.
CAUTION	Warns against a potentially dangerous situation which could lead to light bodily harm or damage to property.
WARNING	Warns against a potentially dangerous situation which could lead to severe bodily harm or death.
DANGER	Warns against an imminent danger which will lead to severe bodily harm or death.

1.8.9. Pictograms in the operation manual and on the machine

	Never enter the danger zone between the attachment and the machine!
	Danger of crushing!
	Read and observe the operation manual and safety information before commissioning the machine!
	Turn the motor off before repair, maintenance and cleaning work and pull out the plug!
	Keep sufficient distance from the electric high voltage line!
	Machine with wheel chocks before uncoupling or setting down!
	Avoid uneven surfaces and slopes where the device could slip, tip or fall over!
	Before maintenance and repair work, switch off the motor and remove the key!
	Beware of fluid escaping under high pressure. Please observe the information in the technical manual!

2. TRANSPORTATION

2.1. ATTACHING A HOOF TRIMMING CRUSH TO A TRACTION ENGINE

WARNING  To transport the hoof trimming crush with the tractor, first mount the balls of the lower link on the quick coupling shaft. Then back the tractor up to the device and make sure that there is nobody in the danger zone, in particular between the tractor and the hoof trimming crush, lift the lower link until the balls engage at the lower link. Now hang in and secure the upper link.

To be observed while attaching:

- Before attaching the hoof trimming crush, make sure that the tractor has enough frontal weight.
- Never step between the tractor and the hoof trimming crush while coupling up, there is a danger of crushing.
- Use suitable security bolts to mount the hoof trimming crush with the lower / upper link support and check that there is a tight fit in the suspension.
- While operating the tractor hydraulics (upper link, lower link), ensure a secure position with sufficient distance from dangerous movements, under no circumstances stand on parts of the tractor (lower link,...) or on the hoof trimming crush.
- Do not step between the hoof trimming crush and the tractor when the traction engine is running.
- Check transportation position

2.2. TRANSPORTING A HOOF TRIMMING CRUSH USING A TRACTION ENGINE

WARNING



- Keep a sufficient distance from the electric high voltage line during transport.
- When transporting the device on public roads, please observe the road traffic regulations of your country and affix the lights or warning signs to the device as prescribed by law.
- For day use, two warning lights must be affixed on the left and right rear of the hoof trimming crush in such a manner that the rear lighting of the hauler is not covered. For night use, a light rail with complete element illumination (lights left and right as on the hauler) must be affixed to the rear of the hoof trimming crush.

2.3. REMOVING A HOOF TRIMMING CRUSH FROM A TRACTION ENGINE AND SETTING IT DOWN

WARNING

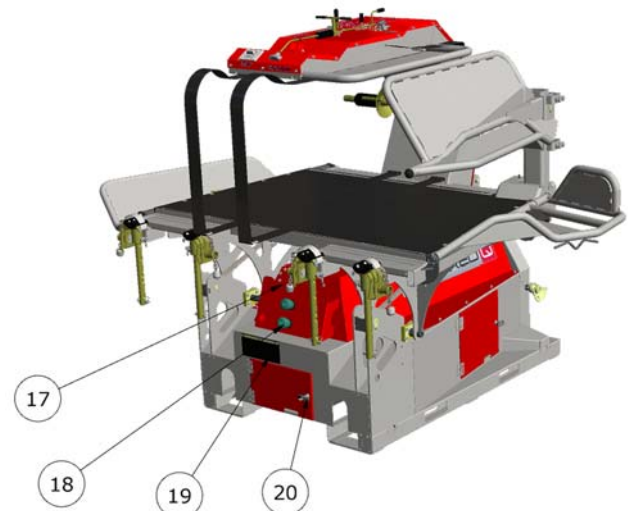
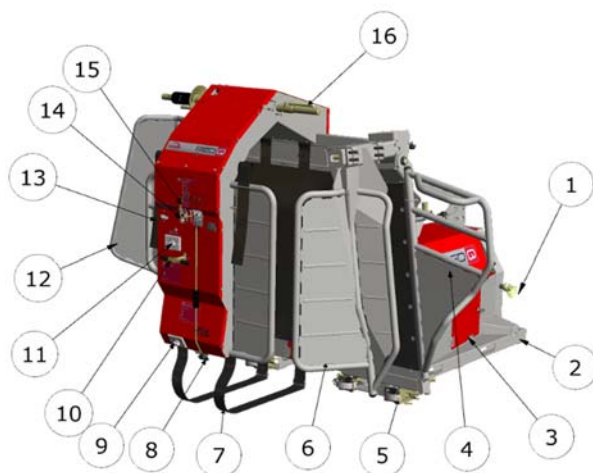


Proceed as follows for the set-down of the hoof trimming crush:

- Drive on to a level storage area.
- Secure the tractor against rolling (hand brake, brake wedge).
- Lower the hoof trimming crush. When setting down the hoof trimming crush, make sure that it is tip- and slip safe, especially when it is to be set down at an elevation on scales, pallets etc.
- Free the upper link chain first, then the lower link chain.

3. COMMISSIONING / OPERATION

3.1. DEVICE OVERVIEW / MAIN CONTROLS



Pos.	Designation	Item	Designation
01	Cat II 3-point hitch	02	Bracket for manual transport wheels
03	Switch cabinet	04	Head support
05	Foot holder	06	Head catching device
07	Belly strap	08	Lifting panel control
09	Motor switch	10	Belly belt roll-up control
11	Motor switch	12	Lead-in gate
13	Lead-in gate control	14	Catching device control
15	Catching device swivelling control	16	Belly belt roll-up
17	Angle grinder mount	18	Blade holder
19	Sockets 230 V	20	Toolbox

3.2. SAFETY INFORMATION BEFORE COMMISSIONING OF THE MACHINE

NOTE



- For the first commissioning you should be helped by a person who already has experience with the device and with the trimming of animal hooves.
- Do not carry out hoof trimming just after feeding!

WARNING

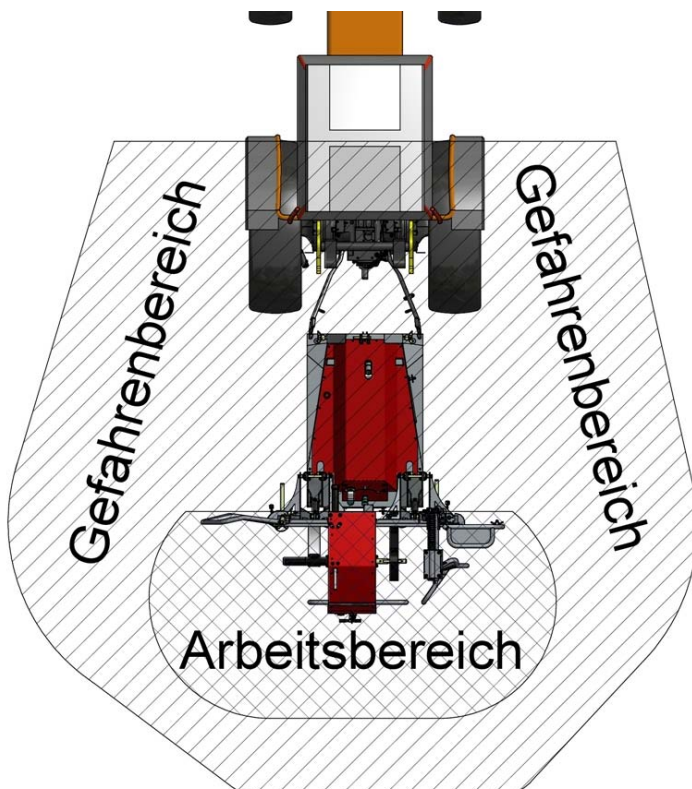


- The operation manual and the safety information must be carefully read and observed before commissioning and operating this work equipment.
- If the hoof trimming crush is not mounted on a towing vehicle, it must always be anchored in the base with a base console!
- Ensure sufficient ventilation when carrying out the work.
- When working on the hoof trimming crush with the tractor attached, switch off the tractor, lock it against starting up (remove the ignition key), and secure it against rolling off (parking brake, wheel chock).
- The device may only be operated by people who are familiar with the intended field of application and who are used to bovines.
- Before use, a general visual inspection of the hoof trimming crush must be carried out in case of possible changes.
- Check whether the hoof trimming crush is set down on level ground.
- Check of the hoof trimming crush for loose (especially screw connections) and hanging parts.
- Check of the hydraulic system for damages, especially the transmission lines / tubing.
- Check belts for wear and tear.
- Check the condition of all protection devices.
- Check screw connections and tighten if necessary.
- The device may only be operated with suitable protection measures against too high touch voltage. FI-switch 30mA trigger voltage.
- Visually inspect electrical equipment for damages.
- Check whether the electric inspection is within the year interval (yearly inspection of the electric installation by experts is required).
- During operation with the emergency program, the appliance must be disconnected from the power supply.
- Inspect the work space and make sure that no unauthorized person is in the work space - pay special attention to children.



- Use personal protective equipment!

3.3. DANGER AREA/WORKING AREA



- Access to the danger area (hoof crush installation space + 2 m clearance) is only permissible for trained persons
- The operator must keep any other persons clear of the danger area.



3.4. PROCEDURES FOR THE COMMISSIONING OF THE HOOF TRIMMING CRUSH



Please see device picture(s) for the following numerations:

- 1) Attach the hoof trimming crush Cat II three-point hitch (01) to the tractor's lower and upper links (see also Transport chapter).
- 2) Pull the power cable from the switch cabinet (3) and connect the Red Q to the power supply
- 3) Switch on the motor switch (9) and use the lift panel control (8) to tilt the lift panel to vertical position. Beware of fluid escaping under high pressure. Immediately consult a doctor in case of injury due to escaping hydraulics!
- 4) Use the pushing gate control (12) to swivel the pushing gate (13) to lead-in position.
- 5) Loosen the belly-belt roll-up (16) and move the belts (7) into position.
- 6) Swivel the catcher bar (6) up (lead-out position); move the head support (4) into working position, and secure with bolts.
- 7) Move the catcher bar (6) back down into catching position. Make sure there are no persons in the swiveling area (risk of injury)
- 8) Drive the cow into the stand, close the pushing gate (12) and lightly close the catcher bar (6) to hold the head in position.
- 9) Tighten the belly belt (7) at the rear (behind the hip bones) manually, until the belt rest lightly against the cow's body. Now tighten through half a revolution. Tighten the belly belt at the front manually, until the belt rest lightly against the cow's body.
- 10) Tighten the belt hydraulically up to the stop
- 11) Tip table 45°. To do so push up the lever (8) with your left hand (keeping out of the rear foot danger zone).
- 12) Tighten feet using foot holder (5).
- 13) To adjust the height of the foot holder, loosen the clamping screws; set the foot holder to a suitable height and fasten again with the clamping screw.
- 14) Tilt the lifting panel to horizontal position.
- 15) Perform hoof trimming. Wear goggles and safety gloves when using rotating tools.
- 16) Release the foot holder clamp, tilt the table back to 45° position, and unstrap the feet. Push back foot holder completely.
- 17) Lower the table to the stop, release the belts, open the catching device, and drive the animal out.



4. CLEANING

- NOTE**
- Observe the safety information in the safety data sheet for detergents/disinfectants
 - remove cleaning waste water in accordance with regulations in the country of use.
 - Wear protective goggles
 - Do not use detergents or disinfectants that attack paint, galvanization or rubber!



5. MAINTENANCE / SERVICE / REPAIRS

5.1. SAFETY INFORMATION

CAUTION



- Service work may only be carried out by qualified and trained personnel or by the manufacturer himself.
- Maintenance and service work may only be carried out when there is sufficient lighting present for the work to be carried out.

WARNING



- Maintenance work may only be carried out when fully set down.

5.2. ELECTRICAL HAZARDS

Contact with live parts.

Effects of electrical power on humans.

DANGER



- Compliance with the statutory regulations for installation, operation, service and inspection of electrical operating material.
- Only allow skilled electricians to carry out work.
- Skilled personnel must service damaged installations immediately!
- Use of suitable plugs, couplings
- Recurring inspections
- Ensure that the device is completely turned off and secured against restarting before opening the electrical device casing!

The service personnel must be acquainted with specialist standards and regulations.

INJURIES DUE TO UNEXPECTED CHANGE IN OPERATING STATES.

DANGER



- Check the loosened screw connection for a secure fit before starting up
- Loosening screw connections: When opening screw connections, slowly open these to reduce pressure in the line.
- Opening drain points with screw connections: Only remove threaded joints of drain points if system is depressurized!

The pressure must have fully dissipated before opening pipe connections and pressurized systems.

5.3. MAINTENANCE AND CARE

The following measures increase the operational safety and lifetime of your device:



- Regularly lubricate all pivot points and lubricating nipples after pressure cleaning.
- Check the hydraulic oil fill level from time to time and replenish, if necessary. Oil change 1 year after start-up. Further oil changes every 2 years (also empty the cylinder).
Original filling: Hydraulic oil HLP10, amount: 14 liters.
- Check screw connections (in particular also at the hydraulic system) and tighten again after every fifth start-up and as necessary.

NOTE



- Lubricate thread of the foot holder locking screwing.
- Oil rotating points of the foot holder.
- Repair or replace damaged parts immediately. Work with damaged parts can entail a risk for you and the animal.
- Even if stored properly and subject to permissible loads, hoses and hose lines will undergo a natural aging. Their service life is consequently limited. The service life of a hose line including a potential storage time for the hose line should not exceed six years. The storage time should not exceed two years for this. According to DIN 20 066.
- We recommend treating the working area including the foot holder guides with a biologically degradable form oil as this offers good corrosion protection and keeps all moving parts moving smoothly



6. SPARE PARTS

- Original parts are to be used to replace a component of the machine. Spare and wear parts for original components and accessories which are not supplied by the manufacturer of the machine are not tested and approved by the manufacturer.

NOTE



- The fitting and/or usage of such products may change the given constructive characteristics of the machine and endanger its' safety.
- The manufacturer accepts no liability whatsoever and the right to warranty will expire for damages or consequential damages caused by the use of non-original parts and accessories or the inappropriate fitting or replacement of original parts and accessories.
- Once the warranty terms have elapsed, we recommend the usage of original parts to ensure continuous performance of the machine. For warranty claims please contact your local sales and service partner.

7. RECURRING INSPECTIONS

NOTE



- The electric installation of the machine is to be inspected yearly by an expert.

8. SCOPE OF DELIVERY / ACCESSORIES

Standard equipment:

- Hydraulic pushing gate
- Hydraulic head catching device
- Hydraulic belly belt roll-up
- Hydraulic lifting panel
- Toolbox with toolholder and 3 sockets
- Cat II three-point hitch
- Fork lift bracket 3-part
- Quick-coupling foot holder: lowering – gentle on livestock and safe

Art. No.	Type	Description
70 000	Red Q	– According to standard equipment

Art. No.	Accessories
70 170	4 slot-in wheels with pneumatic tires for manual transport and loading on a trailer + lifting axle

LIST OF SPARE PARTS

Hoof trimming crush
RED Q



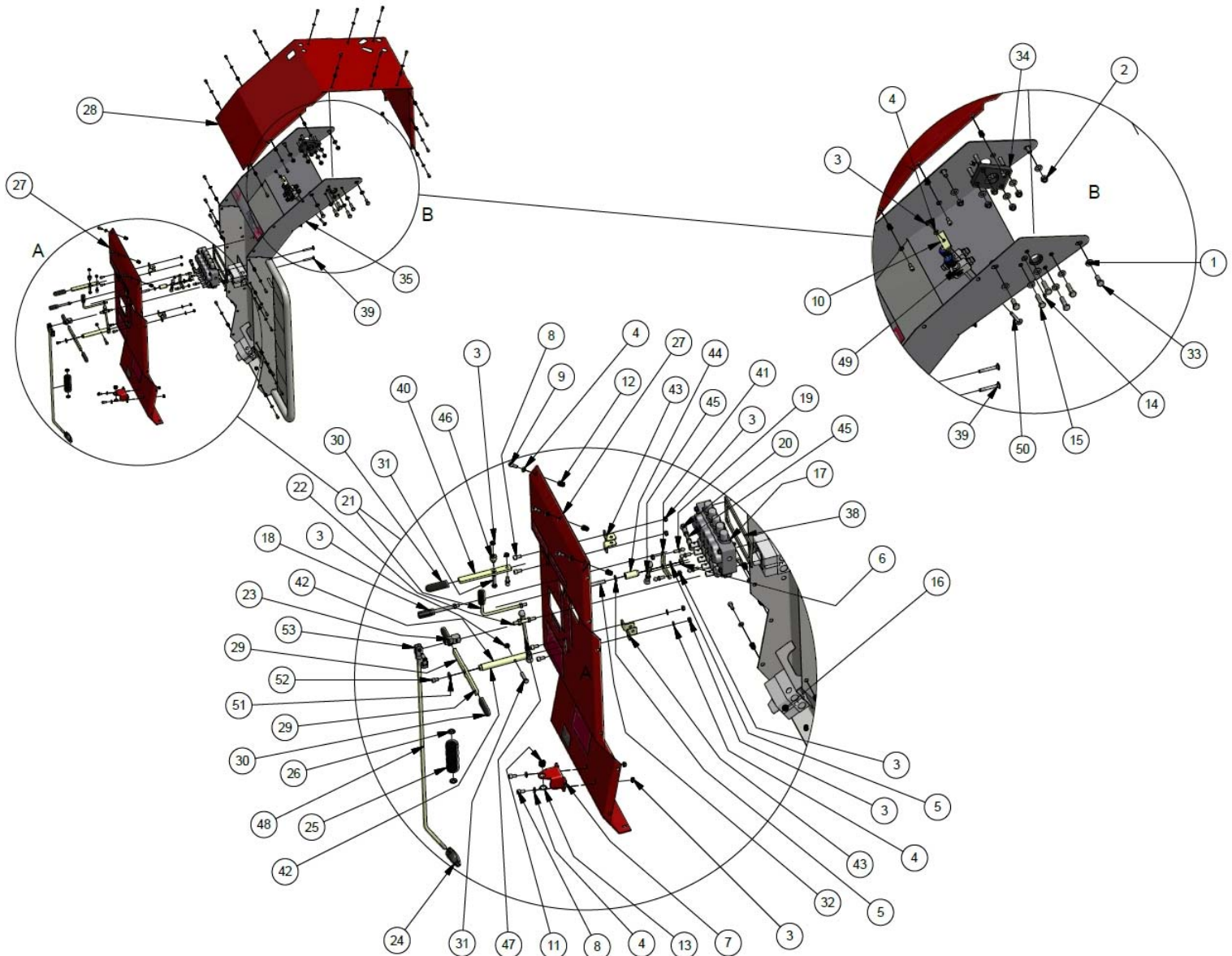
Serial number: _____

Purchase date: _____

*Please read carefully before initial commissioning!
Should be kept for future use!*



1. CONTROL LEVER



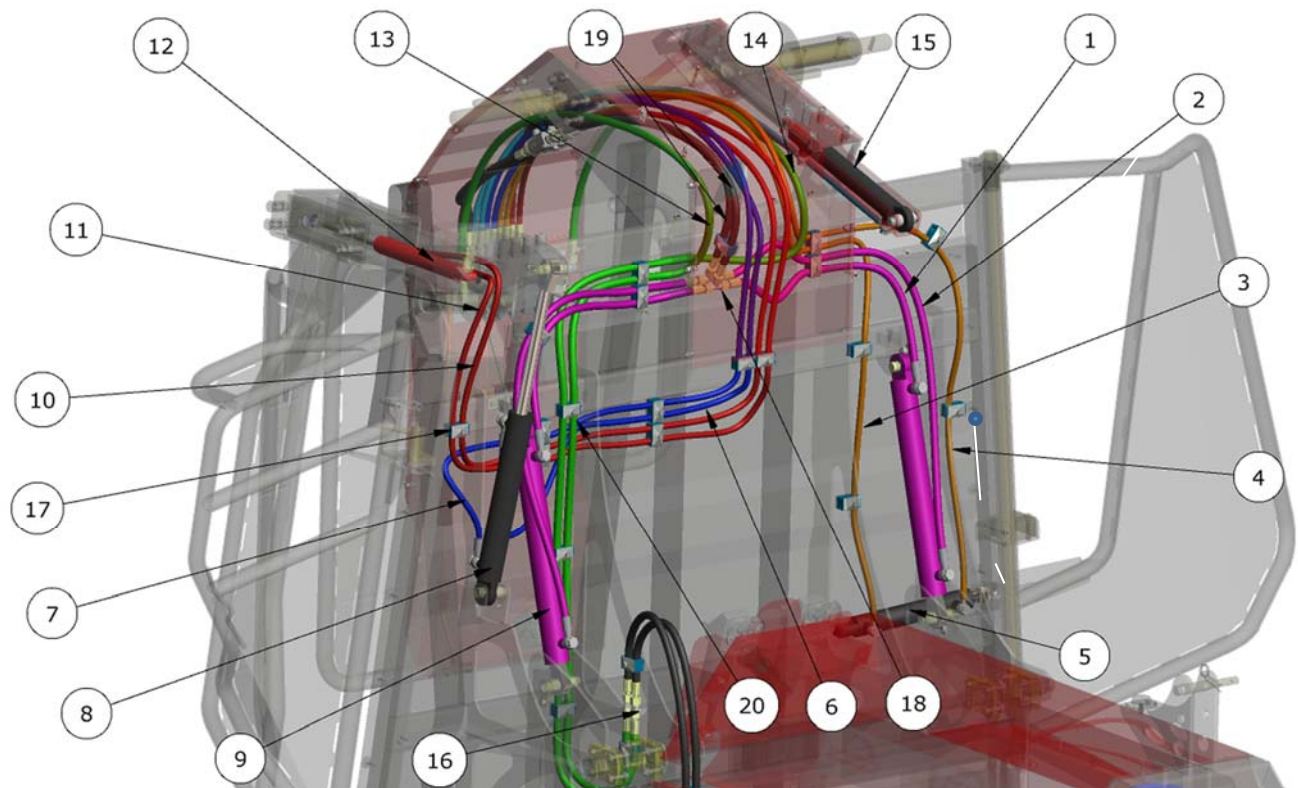
Pos.	Designation	Quantity	Art. No.
1	Washer M12	24	00830443
2	Lock nut M12	12	00830543
3	Lock nut M8	15	00811043
4	Washer M8	47	00811743
5	Washer M10	2	00821043
6	Lock nut M10	1	00820943
7	Red Q control lever guide lifting panel control	1	12106031
8	Allen screw ISK M8x16 DIN912	6	00811643
9	Allen screw ISK M8x20 DIN912	33	00812043
10	Lowering restrictor retainer plate	1	15261011
11	Red Q control lever guide Lifting panel linkage bushing	2	12501831-1.1
12	Plug-in nut M8 DIN7504-K zinc plated	32	12809543
13	Circlip ø18	1	00863647
14	Hydraulic-type lubricating nipple	2	82543
15	Hexagon head bolt M12x45	8	00833543
16	KN switch IP67 - hole centre distance 110	2	12801043
17	Manual control valve 5-way	1	15900263
18	Cylinder handle	1	12805043
19/20	Angle joint CS M8 galvanized DIN71802	6	00812443
21	Lever FVR swivel	1	12505131
22	Circlip ø18x1.2 DIN471	1	12503031

LIST OF SPARE PARTS RED Q

23	Clevis mating piece M10	1	12804643
24	T-handle	1	12804943
25	Red Q handle lifting panel control	1	12502031-1.1
26	Clamping washer ø10 for shafts without a groove	1	12805231
27	Cover plate control lever front	1	12159631
28	Cover plate control lever top	1	12159531
29	Lever winding rod control	1	12112031
30	Plastic handle	3	00885854
31	Hexagon head bolt DIN 933 - M8x40	1	00810343
32	Hexagon head bolt DIN 933 M10x65	1	00822745
33	Hexagon head bolt DIN 933 M12x30	4	00830143
34	Red Q winding rod bearing	2	12200231-1.2
35	Control lever steel part	1	12606200
36	Allen screw M8x25	2	00811843
37	Lock nut M8	2	00811043
38	Control unit support 5-way	1	12159731
39	Gate belt screw M8x65	3	00814345
40	Lead-in gate control lever	1	12159231
41	Lead-in gate actuator bracket	1	12159331
42	Winding rod control lever shaft	1	12503231-1.1
43	Lug bearing	2	12159431
44	Bushing bearing lead-in gate actuator bracket	1	12407731
45	Threaded rod lead-in gate actuator	2	12504931
46	Bushing lead-in gate lever bearing	1	12504831
47	Threaded rod winder actuator	1	12505031
48	Linkage lifting panel control	1	12503131-1.1
49	Lowering restrictor 3/8"	2	00894873
50	Gate belt screw M8x55	1	00814346
51	Shim M10	1	00821043
52	Allen screw M8x16	1	00811643
53	U head M10	1	12804743

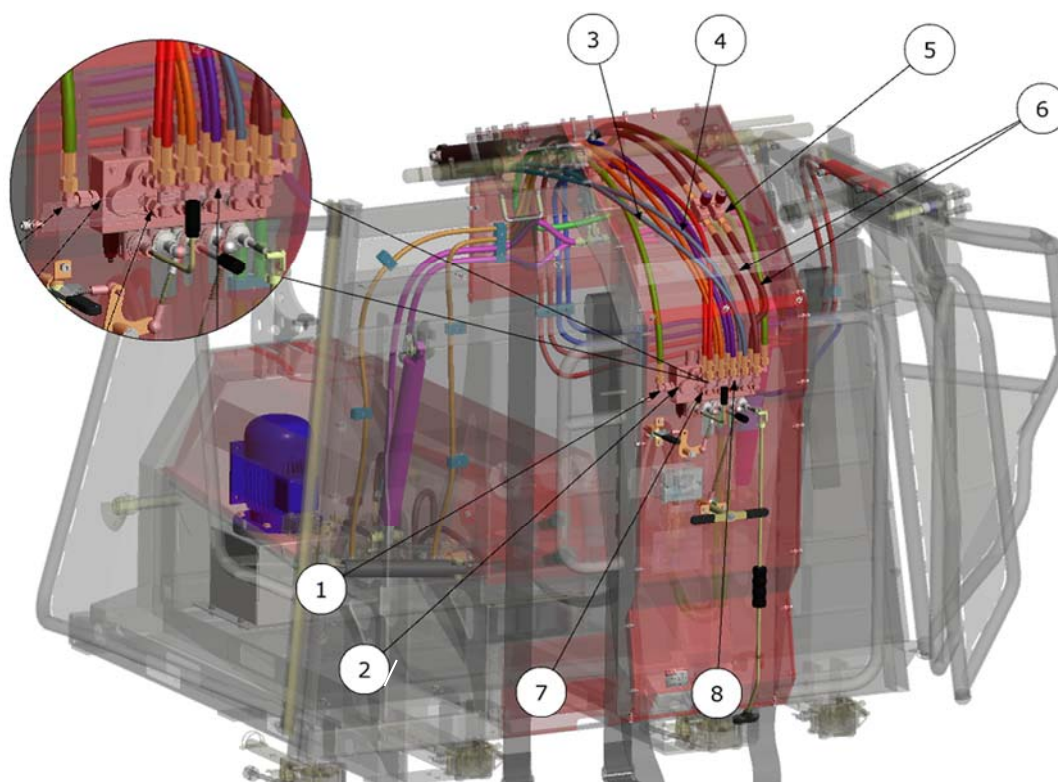
2. HYDRAULIC

2.1 Lifting panel



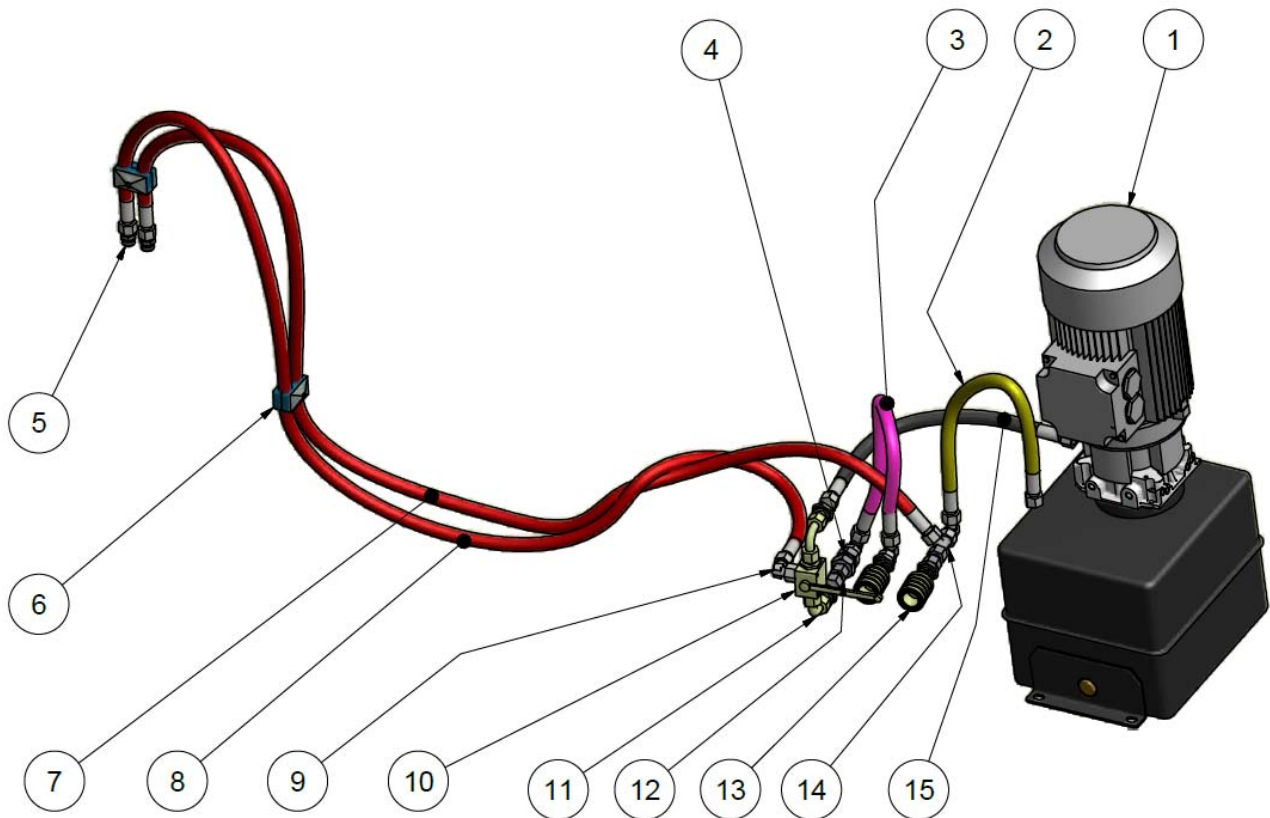
Pos.	Designation	Quantity	Art. No.
1	High pressure hose 2SK-10 BJ18/EF12L l=805 (Extend cyl. lifting panel)	2	12810243
2	High pressure hose 2SK-10 BJ18/EF12L l=1300 (Retract cyl. lifting panel)	2	12810343
3	High pressure hose 2SK-6 BJ3/8"/EF12L l=2660 (extend cyl. lead-in gate)	1	12810943
4	High pressure hose 2SK-6 BJ3/8"/EF12L l=2770 (retract cyl. lead-in gate)	1	12810843
5	High pressure cylinder dual action SL40/25x200	1	00996674
6	High pressure hose 2SK-6 BJ18/EF12L l=2880 (swiveling cylinder catcher)	1	12810643
7	High pressure hose 2SK-6 BJ18/EF12L l=2880 (swiveling cylinder catcher)	1	12810643
8	High pressure cylinder dual action SL50/28x300	1	00899663
9	Articulated lug for cylinder	1	00893163
10	High pressure cylinder dual action SL50/28x400	2	19913773
11	Articulated lug for cylinder	1	00893163
12	High pressure hose 2SK-6 BJ1/4"/EF12L l=3410 (retract cyl. catching device)	1	12810743
13	High pressure hose 2SK-6 BJ1/4"/EF12L l=3410 (extend cyl. catching device)	1	12810743
14	High pressure cylinder dual action SL32/20x200	1	10929163
15	High pressure hose 2SK-10 EFR12L/EF12L l=3280 (control unit return)	1	12811043
16	High pressure hose 2SK-10 EFR12L/EF12L l=3600 (control panel pressure line)	1	12811143
17	High pressure cylinder dual action SL40/22x300	1	12900943
18	Straight spigot 12L/12L	7	00991863
19	Hose holder half-shell ø14	22	00894263
20	T-piece 12L without nut	2	00991763
21	High pressure hose 2SK-10 EFR12L/EF12L l=900 (lowering restrictor T-piece)	2	12810143
22	Hose holder half-shell ø18	20	00892263

2.2 Lifting panel



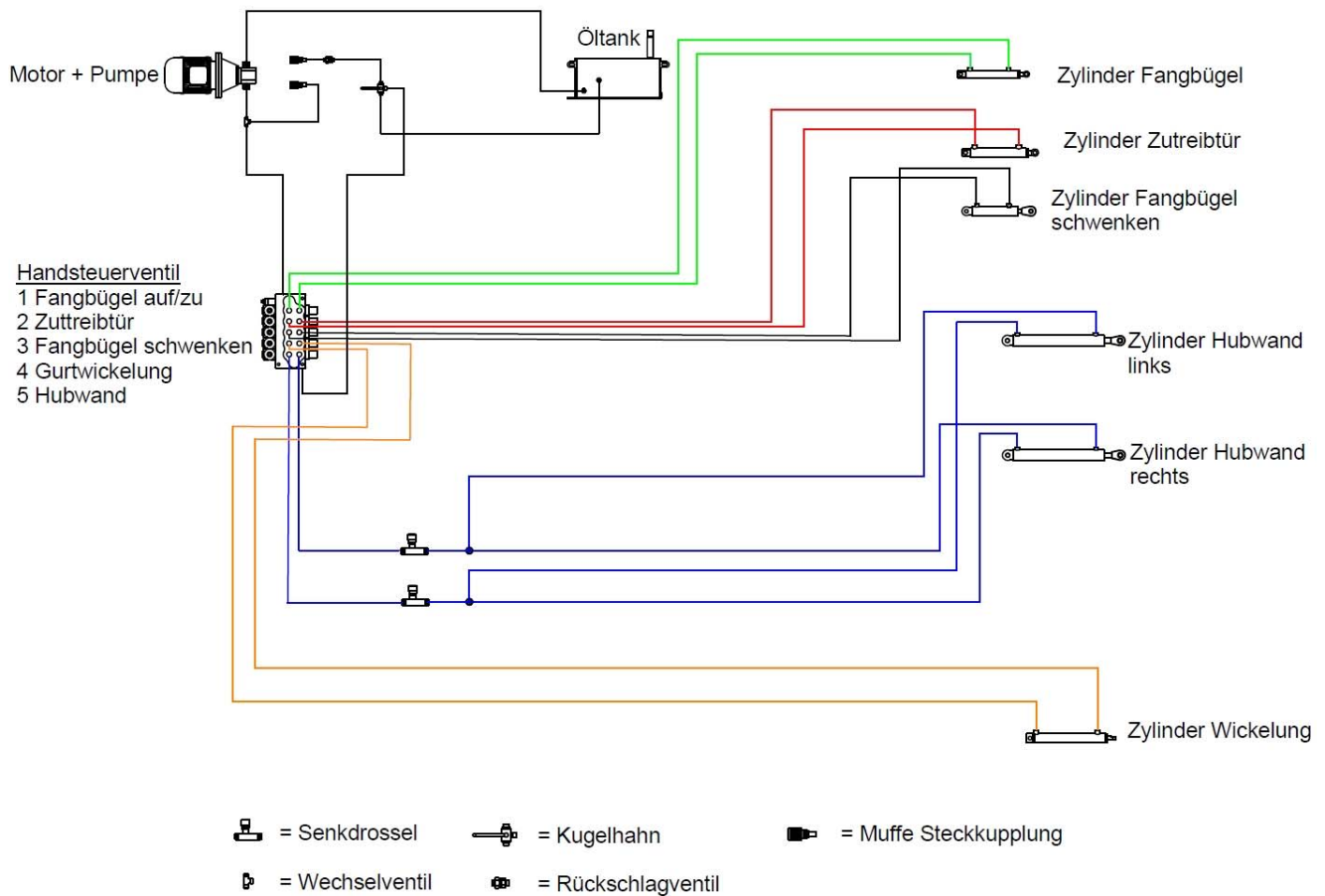
Pos.	Designation	Quantity	Art. No.
1	Threaded joint bracket EEL 12L	12	00899261
2	Screw-in part 3/8" without nut	12	00867543
3	High pressure hose 2SK-8 BJ16/EFR12L l=1260 (retract cyl. winding bar)	1	12810543
4	High pressure hose 2SK-8 BJ16/EFR12L l=1260 (extend cyl. winding bar)	1	12810443
5	Non-return needle choke valve 3/8"	2	00894873
6	High pressure hose 2SK-10 EFR12L/EFR12L l=530 (control unit lowering restrictor, lifting panel)	2	12810043
7	Adapter 12L	5	00894463
8	Straight spigot 12L/12L	7	00991863
	Banjo screw 1/4" DIN7623 + packing rings	2	00890543
	Banjo screw 3/8" DIN7623 + packing rings	2	12803943
	Banjo screw M18x1.5 DIN7623 + packing rings	6	00891363

2.3 Underbody

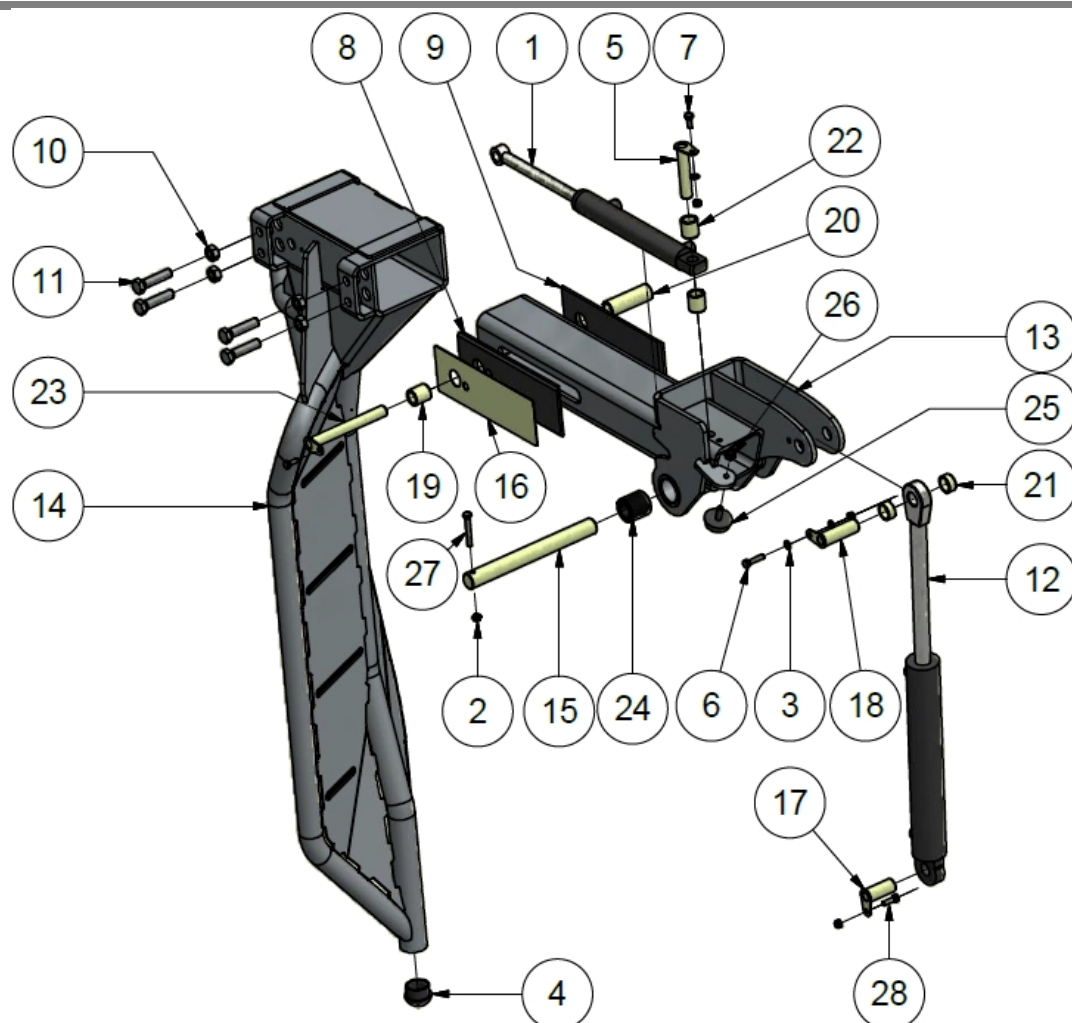


Pos.	Designation	Hose length	Quantity	Art. No.
1	Hydraulic unit 2.2 kW		1	00908866
2	High pressure hose 2SK-10 EFR12L/EFR12L / shuttle valve – bulkhead fitting	430mm	1	12809443
3	High pressure hose 2SK-10 EFR12L/EFR12L / return locking lever socket	545mm	1	12809843
4	Non-return valve RHD 12L		1	15905463
5	Hexagon nipple 12L		2	00991863
6	Hose carrier ø18		1	00894263
7	High pressure hose 2SK-10 EFR12L/EFR12L / pivot point – shuttle valve	2120mm	1	12803443
8	High pressure hose 2SK-10 EFR12L/EFR12L / pivot point – 3-way valve	2010mm	1	12803543
9	Threaded joint bracket EEL 12L		5	00899261
10	Three-way ball valve		1	00866564
11	Adapter 90°		2	00895643
12	Adapter 12L		1	00894463
13	Socket BG3 12L – bulkhead lead-through		2	00895277
14	Shuttle valve XTWV 12L		1	00895780
15	High pressure hose 2SK-10 EFR12L/EFR12L / return line shut-off lever tank	475mm	1	12809743
	Shim M10		4	00821043
	Lock nut M10 Din985		4	00820943
	Allen screw M10x20 Din912		4	00821243

3. HYDRAULIC CIRCUIT DIAGRAM



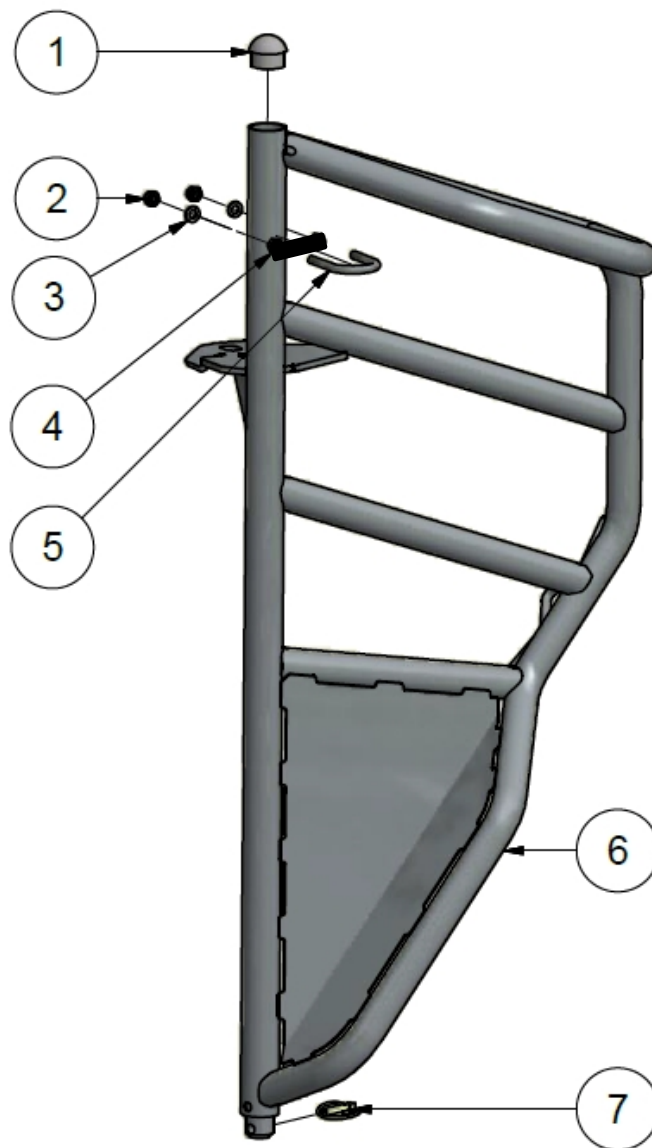
4. HEAD CATCHING DEVICE



Pos.	Designation	Quantity	Art. No.
1	High pressure cylinder 32/20 EL=360 stroke=200	1	10929163
2	Lock nut M8	3	00811043
3	Shim M8	4	00811743
4	Round pipe plug Ø6/4 inch	1	00881453
5	Red Q catcher bar bolt cylinder horizontal back	1	12601500
6	Hexagon head bolt M8x35	1	00813543
7	Hexagon head bolt M8x20	2	00813043
8	Red Q guide catcher bar right	1	12200331
9	Red Q guide catcher bar left	1	12200431
10	Nut M16 DIN934	8	00841743
11	SE screw M16x70 DIN933	4	00845743
12	High pressure cylinder 50/28 300mm stroke	1	00899663
13	Guide tube catcher bar Red Q	1	12605400
14	Catcher bar Red Q Jens with reinforcement	1	12605700
15	Bolts bearing CB	1	12504331
16	Catcher bar guide spacer 2mm	1	12110931-1.1
17	Bolt cylinder CB bottom	1	12605900-1.1
18	Spacer bushing CB bottom	1	12407831
19	Bearing bush short horizontal cylinder CB	1	12407231
20	Bearing bush long horizontal cylinder CB	1	12407331
21	Spacer bushing cylinder CB top	2	12407431
22	Spacer bushing cylinder CB horizontal	2	12407531
23	Bolt cylinder CB horizontal	1	12606000
24	Bearing bush catcher bar	2	12407631
25	Stop buffer 50x15 rubber metal	1	00881253
26	Lock nut M10 DIN985	1	00820943
27	SE screw M8x60 DIN933 zinc plated	1	00813643

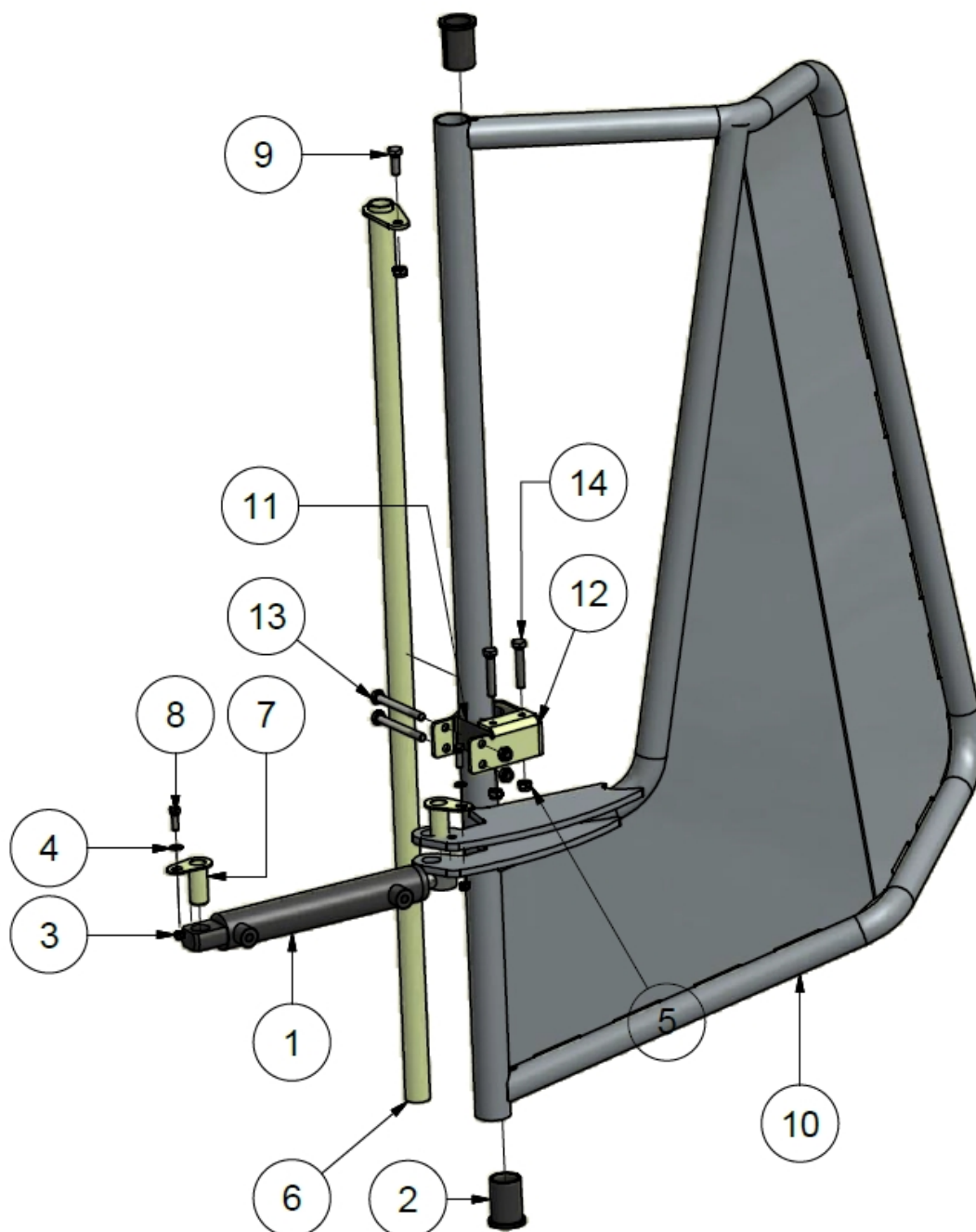
28	Hexagon head bolt M8x25	1	00812743
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5. HEAD BAR



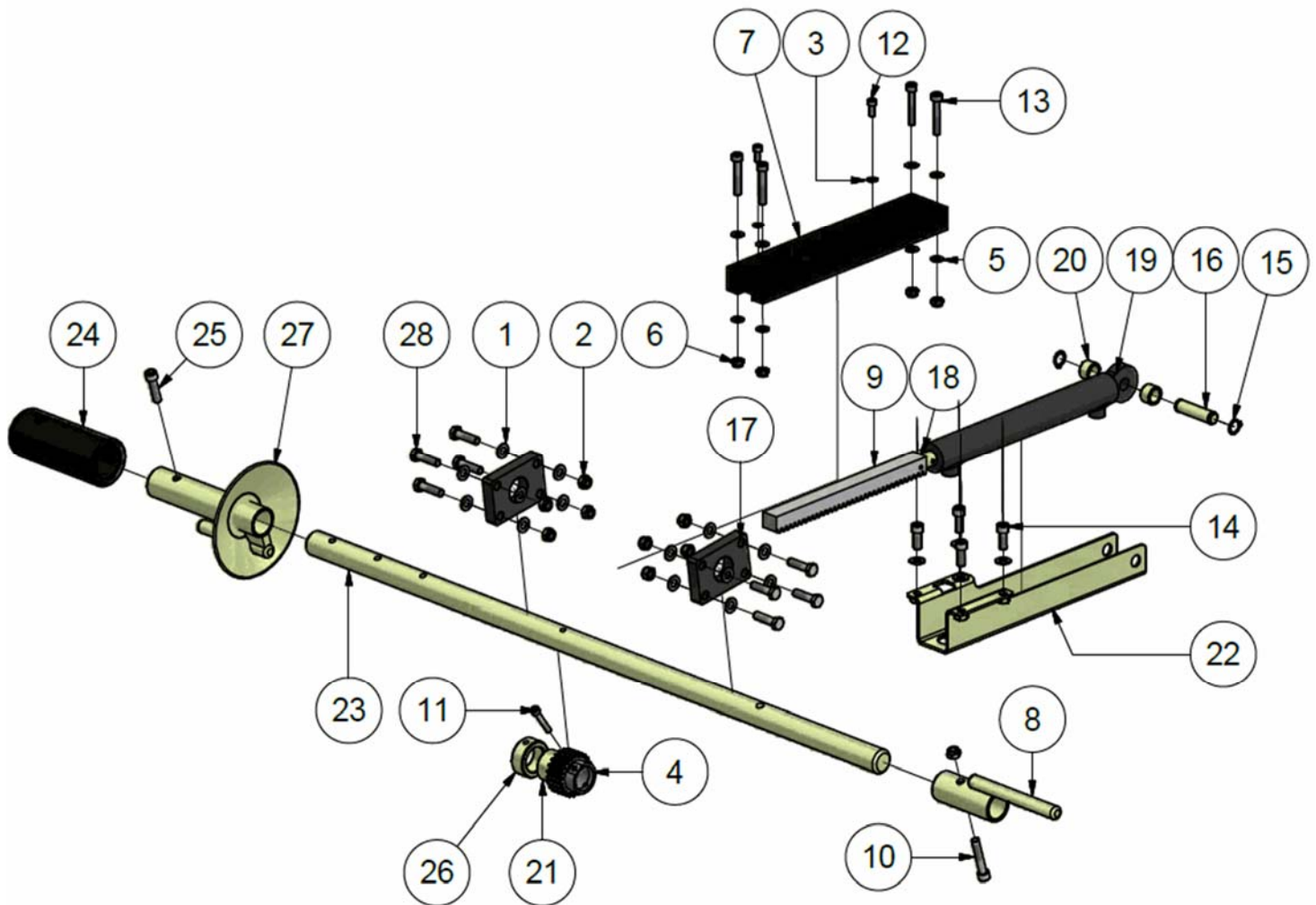
Pos.	Designation	Quantity	Art. No.
1	Round pipe plug Ø6/4 inch	1	00881453
2	Lock nut M10	2	00820943
3	Shim M10	2	00821043
4	Bearing shell plastic	1	12158931
5	U-bolt 6/4 inch	1	90909543
6	Red Q head bar	1	12602900-1.5
7	Split pin 10x45	1	00861843

6. PUSHING BAR



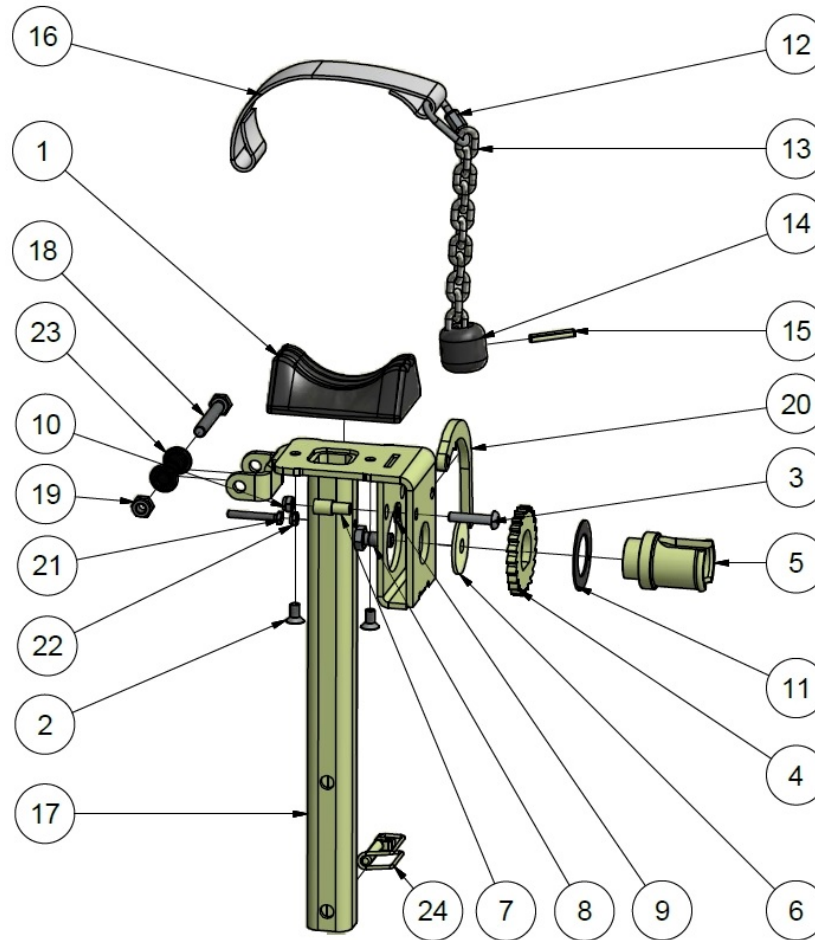
Pos.	Designation	Quantity	Art. No.
1	High pressure cylinder SL40/25x200 EL=385	1	00996674
2	Winch bearing bush l=65	2	80510111
3	Lock nut M8	2	00811043
4	Shim M8	2	00811743
5	Lock nut M10	5	00820943
6	Red Q lead-in gate bearing pipe	1	12601100-1.1
7	Red Q pushing gate cylinder bolt	2	12601600
8	SE screw M8x25 DIN933 zinc plated	2	00812743
9	SE screw M10x30 DIN933 zinc plated	1	00821443
10	Red Q lead-in gate	1	12600700-1.4
11	Plastic support pushing gate	1	12112631
12	Red Q 3. bearing pushing gate	1	12112631
13	SE screw M10x100 DIN931 zinc plated	2	00822044
14	SE screw M10x60 DIN933 zinc plated	2	00822743

7. HYDRAULIC WINDER



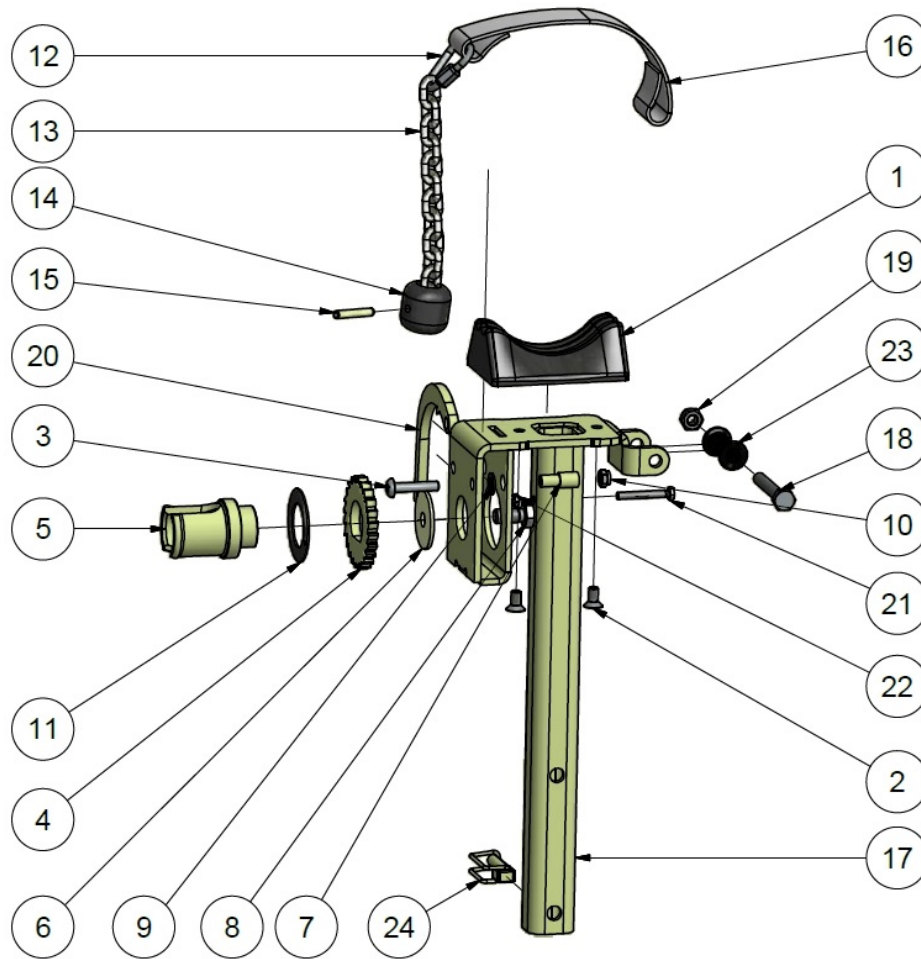
Pos.	Designation	Quantity	Art. No.
1	Shim M12	20	00830443
2	Lock nut M12	9	00830543
3	Shim M8	2	00811743
4	Spur gear Red Q	1	12403331
5	Shim M10	8	00821043
6	Lock nut M10	4	00820943
7	Red Q winding rod guide gear rack	1	12200031
8	Red Q winder front part	1	12601700
9	Red Q gear rack	1	12900343
10	Allen screw ISK M12x70 DIN912	1	12807931
11	Allen screw ISK M8x50 DIN912	1	00811143
12	Allen screw ISK M8x20 DIN912 zinc plated	2	00812043
13	Allen screw ISK M10x60 DIN912 zinc plated	4	00824943
14	Allen screw ISK M12x20 DIN912 zinc plated	4	00830943
15	Circlip Ø 20 x 1.75, DIN471-A	2	15890443
16	Red Q bolt cylinder winding rod	1	12502231
17	Red Q winding rod bearing	2	12200231
18	Adapter cylinder hydr. winder	1	12502731
19	High pressure cylinder DE 40/20x300 EL=465	1	00899371
20	Bushing cylinder HWSA	2	12404431
21	Spacer bushing HWA	1	12405831
22	Bracket cylinder winder bar	1	12603000-1.3
23	Red Q winder back part winding shaft	1	12501131-1.2
24	Plastic winding bolt back	1	12406531
25	Allen screw ISK M12x45 DIN912 zinc plated	1	00831744
26	Centring ring winder rod	1	12406731
27	Winder bolt back	1	12605300-1.1
28	SE screw M12x45 DIN931	1	00833543

8. FOOT HOLDER LEFT 70526



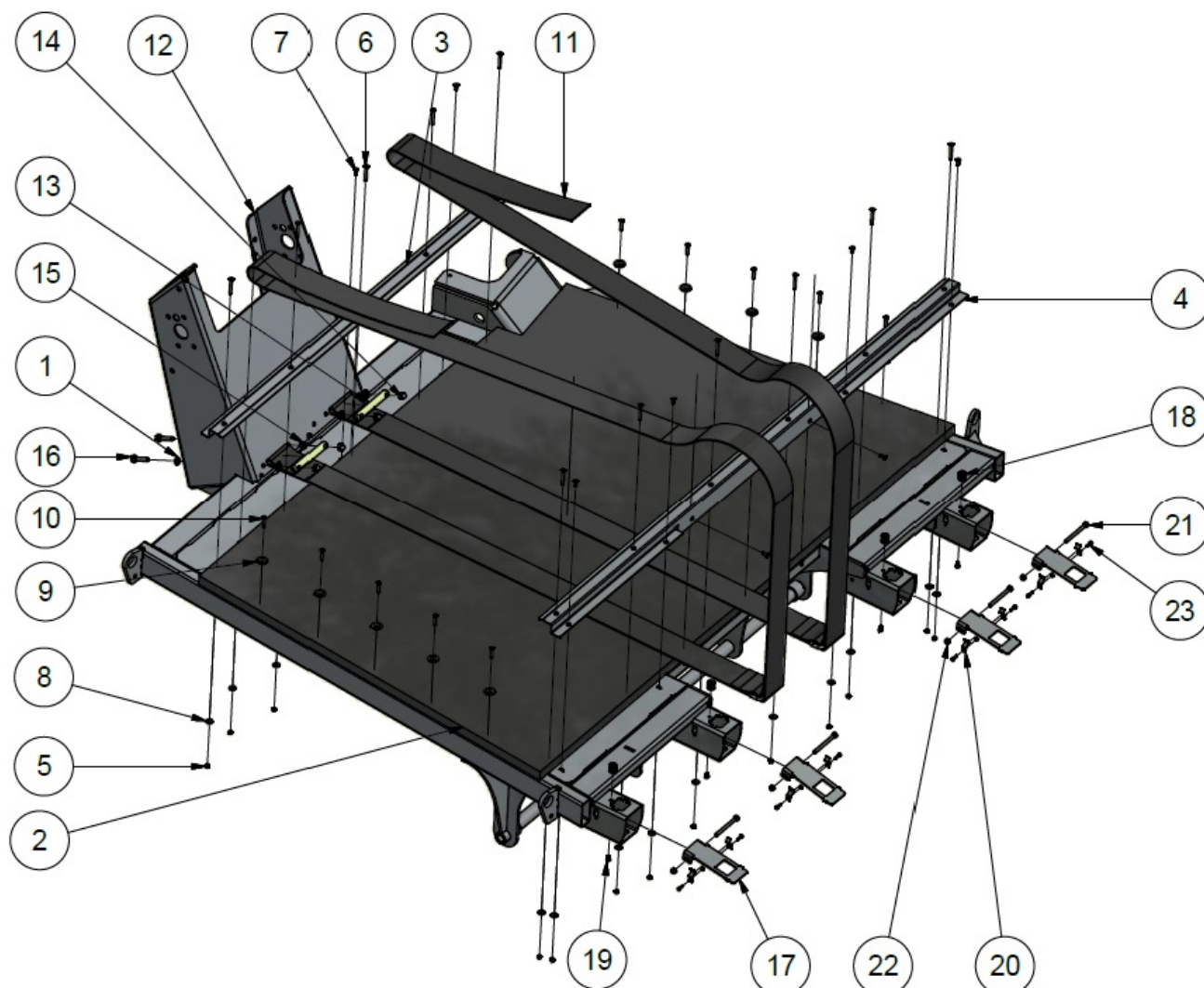
Pos.	Designation	Quantity	Art. No.
1	Rubber moulded part foot holder Epdm/SBR 40 Shore	1	00901943
2	Counter sunk screw ISK M8x16 DIN7991 10.9 zinc plated	2	00810547
3	Lens head screw M8x40 ISO7380	1	00814544
4	Foot holder Red Q with latches detent pawl	1	12155831
5	Foot holder shaft Red Q with latches rotating shaft	1	12503931-1.2
6	Foot holder shaft Red Q with latches washer	1	12155931
7	Foot holder Red Q with latches bearing pawl	1	12601700
8	SE screw M12x25 DIN933 zinc plated	1	00829943
9	Thrust washer d1=10; d2=18; s=1.5	1	00800149
10	Lock nut M8 DIN985 zinc plated	1	00811043
11	Thrust washer d1=38; d2=62; s=1.5	1	00800146
12	Chain emergency link Delta 6mm	1	00872844
13	Round link chain ø7	1	00873944
14	Handle chain foot holder Red Q	1	12402831
15	Clamping sleeve ø6x40 DIN1481	1	00814645
16	Foot belt for chain lock foot holder	1	12900843
17	Housing foot holder with tube and moulded part	1	12606500-1.1
18	SE screw M10x75 DIN931 zinc plated	1	00823543
19	Lock nut M10 DIN985 zinc plated	1	00820943
20	Pawl foot holder Red Q	1	12105231-1.3
21	SE screw M6x45 DIN933 zinc plated	1	00810144
22	Lock nut M6 DIN985 zinc plated	1	00800143
23	Belt save foot holder with rubber moulded part	2	12505431
24	Moulded clip FR 40x40 DIN11023	1	58910433

8. FOOT HOLDER RIGHT 70527



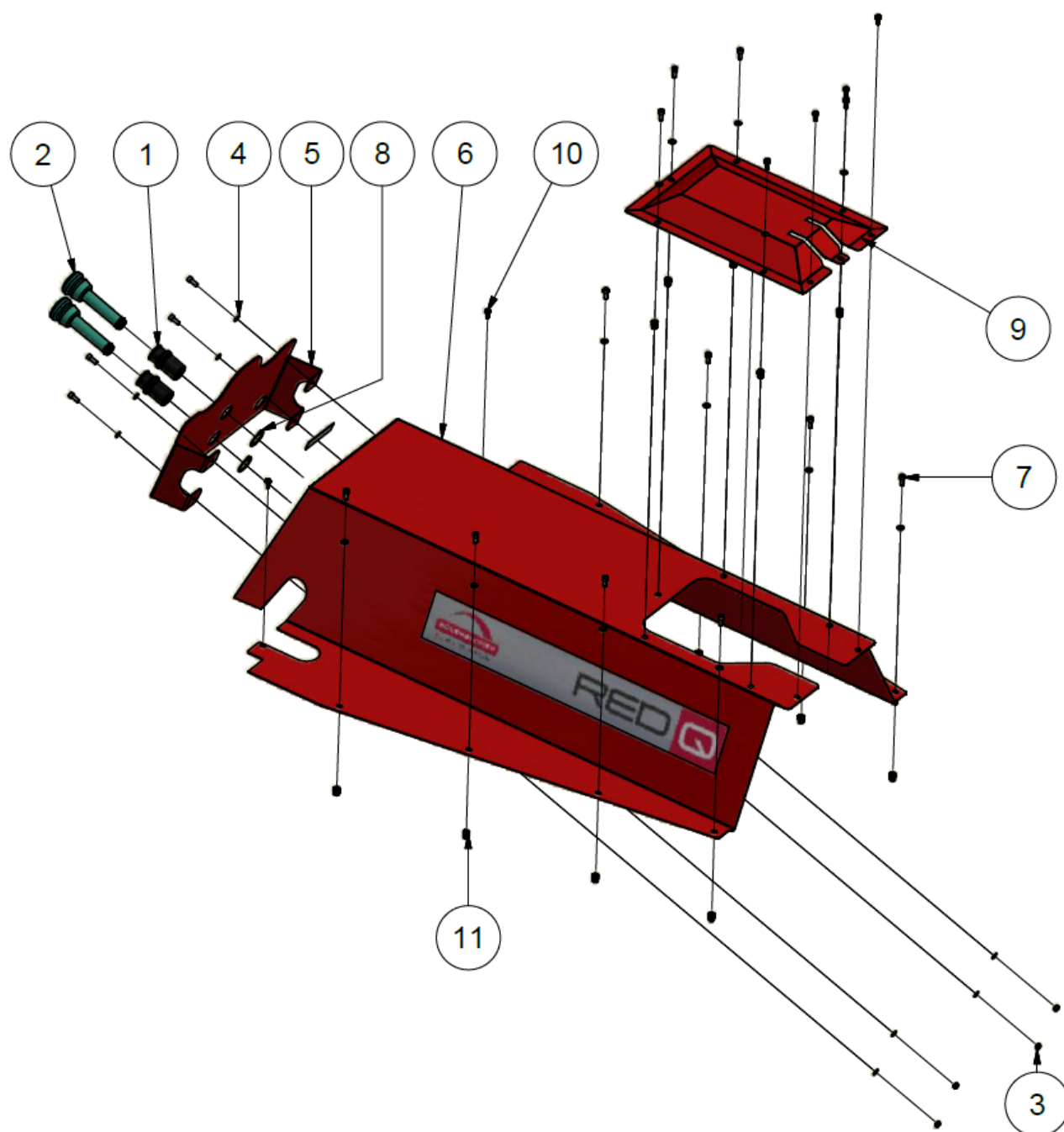
Pos.	Designation	Quantity	Art. No.
1	Rubber moulded part foot holder Epdm/SBR 40 Shore	1	00901943
2	Counter sunk screw ISK M8x16 DIN7991 10.9 zinc plated	2	00810547
3	Lens head screw M8x40 ISO7380	1	00814544
4	Foot holder Red Q with latches detent pawl	1	12155831
5	Foot holder shaft Red Q with latches rotating shaft	1	12503931-1.2
6	Foot holder shaft Red Q with latches washer	1	12155931
7	Foot holder Red Q with latches bearing pawl	1	12601700
8	SE screw M12x25 DIN933 zinc plated	1	00829943
9	Thrust washer d1=10; d2=18; s=1.5	1	00800149
10	Lock nut M8 DIN985 zinc plated	1	00811043
11	Thrust washer d1=38; d2=62; s=1.5	1	00800146
12	Chain emergency link Delta 6mm	1	00872844
13	Round link chain ø7	1	00873944
14	Handle chain foot holder Red Q	1	12402831
15	Clamping sleeve ø6x40 DIN1481	1	00814645
16	Foot belt for chain lock foot holder	1	12900843
17	Housing foot holder with tube and moulded part	1	12606500-1.1
18	SE screw M10x75 DIN931 zinc plated	1	00823543
19	Lock nut M10 DIN985 zinc plated	1	00820943
20	Pawl foot holder Red Q	1	12105231-1.3
21	SE screw M6x45 DIN933 zinc plated	1	00810144
22	Lock nut M6 DIN985 zinc plated	1	00800143
23	Belt save foot holder with rubber moulded part	2	12505431
24	Moulded clip FR 40x40 DIN11023	1	58910433

9. LIFTING PANEL



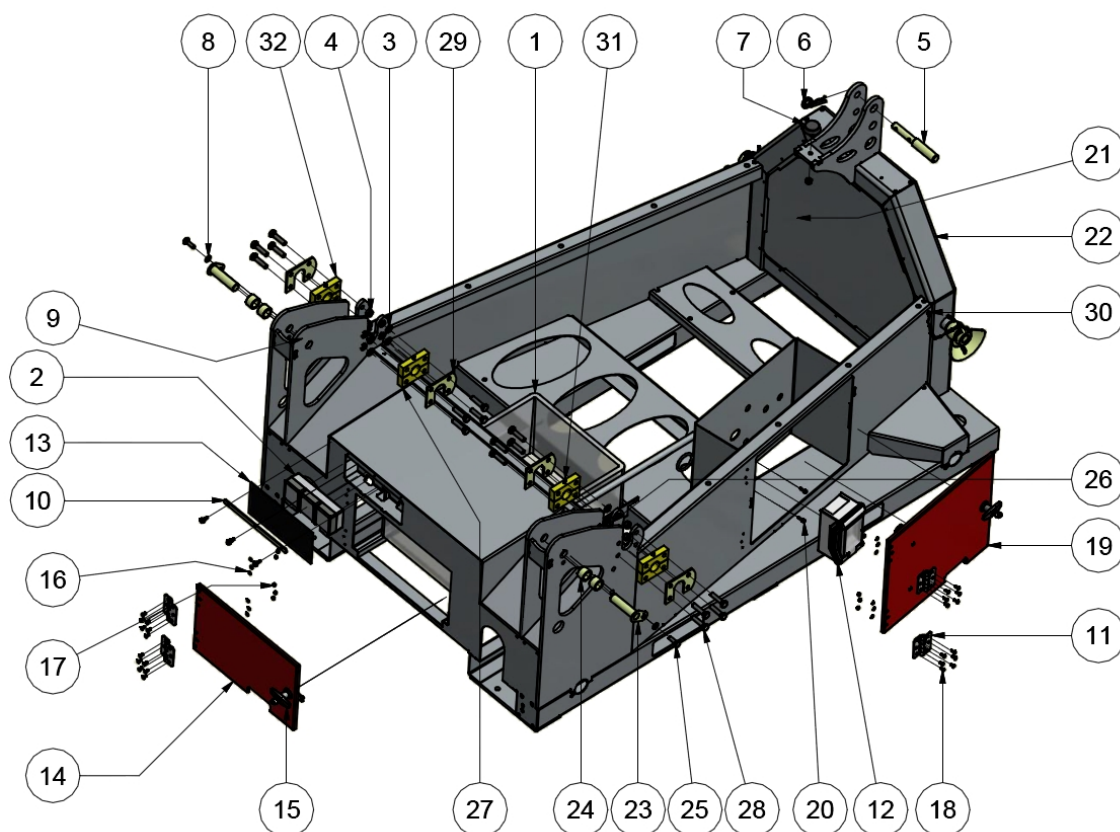
Pos.	Designation	Quantity	Art. No.
01	Shim M10	4	00821043
02	Cow comfort mat	1	00901673
03	Mounting plate rubber mat top	1	12161431
04	Mounting plate rubber mat bottom	1	12161531
05	Lock nut M6	28	00800143
06	Counter sunk screw M6x50	11	00800949
07	Counter sunk screw M6x16	9	00800943
08	Shim M6 Dm.18x1.6mm	20	00800444
09	Washer rubber mat fastener	10	00888943
10	Tapping screw Counters. ø6.3x50	10	12800143
11	Belly belt Red Q black with alum. joint	2	12906143
12	Lifting panel Red Q Jens	1	12600000-1.6
13	Bolt belt fastener lifting panel	2	12505331
14	Cap nut lock M10	4	00823443
15	Nut M10	4	00820243
16	SE screw M10x45	4	00821343
17	Trigger flap square foot holder	4	12162531
18	Rubber metal buffer	4	00880855
19	SE screw M6x10	4	00802344
20	Side spring	8	10pr1460-1.1
21	SE screw M8x90	4	00810246
22	Lock nut M8	4	00811043
23	SE screw M6x16	8	00802343

10. BASE FRAME COVER PLATES



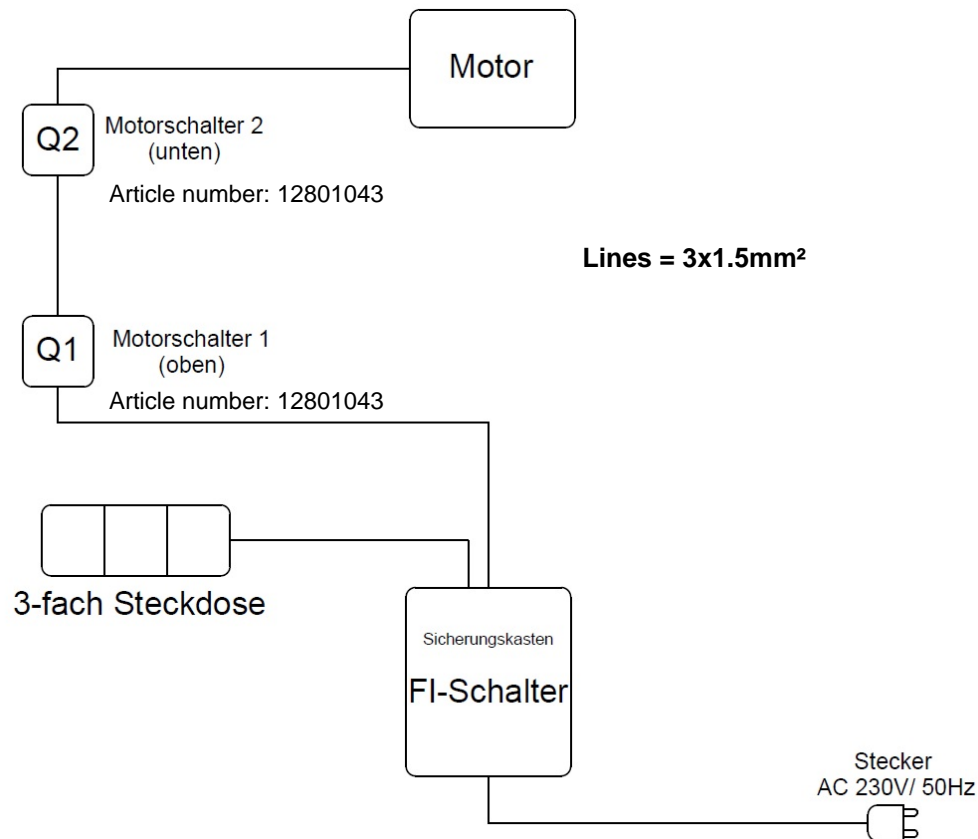
Pos.	Designation	Quantity	Art. No.
01	Plastic bushing teat rubber	2	15418231
02	Teat rubber Westfalia Ø21-27	2	00858743
03	Lock nut M8	4	00812043
04	Shim M8	16	00811743
05	Red Q flex holder	1	12109331-1.2
06	Red Q cover plate base frame	1	12109131-1.5
07	Allen screw ISK M8x20 DIN912 zinc plated	12	00812043
08	Circlip o42x1.75 DIN471	2	00863646
09	Motor cover	1	12162231
10	Tapping screw hex ø6.3x19	26	00874143
11	Plug-in nut M8 KVT CV 4828	13	12809543
12	Label Red Q base frame	1	10164

11. BASE FRAME

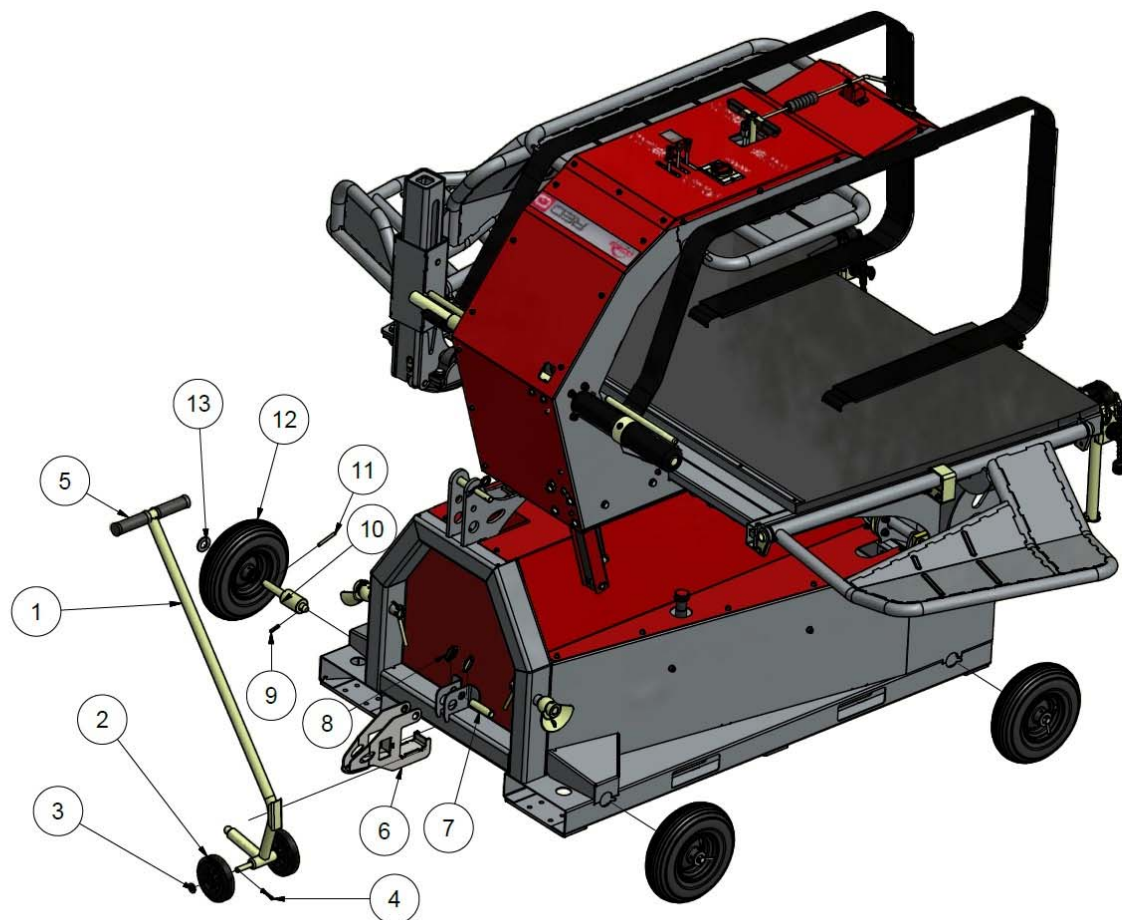


Pos.	Designation	Quantity	Art. No.
1	Euro Fix box EF 6221 grey	1	00960073
2	Socket 3-way Siemens	1	00954373
3	Shim M12	8	00830443
4	Lock nut M12	16	00830543
5	Top link pin 19-25	1	00867743
6	Dual spring cotter Ø4x100	1	00867243
7	Stop buffer rubber metal 50x18	1	00881253
8	Shim M10	2	00821043
9	Lock nut M10	3	00820943
10	Red Q rubberised sheet socket	1	12110031-1.1
11	Special hinge 76x66	4	GG0321
12	Residual current circuit breaker + housing	1	12800943
13	Rubber piece socket Red Q	1	12900743
14	Red Q cover toolbox	1	12107031-1.1
15	Rotating lock bar with toggle handle L18	2	15932181
	Lug L45	2	12900543
16	Shim M5	16	00800743
17	Lock nut M5	26	00800543
18	Counter sunk screw M5x12	24	12801243
19	Red Q door for switch cabinet	1	12602500-1.1
20	ISK screw M5x16	2	00801343
21	Lower link bolt Cat.2 l=175	2	00900845
22	Red Q base frame	1	12602600-1.5
23	Red Q bearing pin cylinder lifting panel	2	12602800
24	Red Q spacer bushing cylinder bearing lifting panel	4	12403531
25	SK screw M10x30	2	00821443
26	Clamp half shell 18 dual series	1	00892263
27	Bearing half-shell lifting panel bearing bottom	4	12200531
28	SK screw M12x50	16	00831843
29	Red Q reinforcement bearing lifting panel	4	12111131
30	Tapping screw hex ø6.3x19	4	00874143
31	Conical lubricating nipple 6x1 self-forming zinc plated	4	82543
32	Bearing shell top with lubricating nipple bore	4	12200831

12. SCHEMATIC

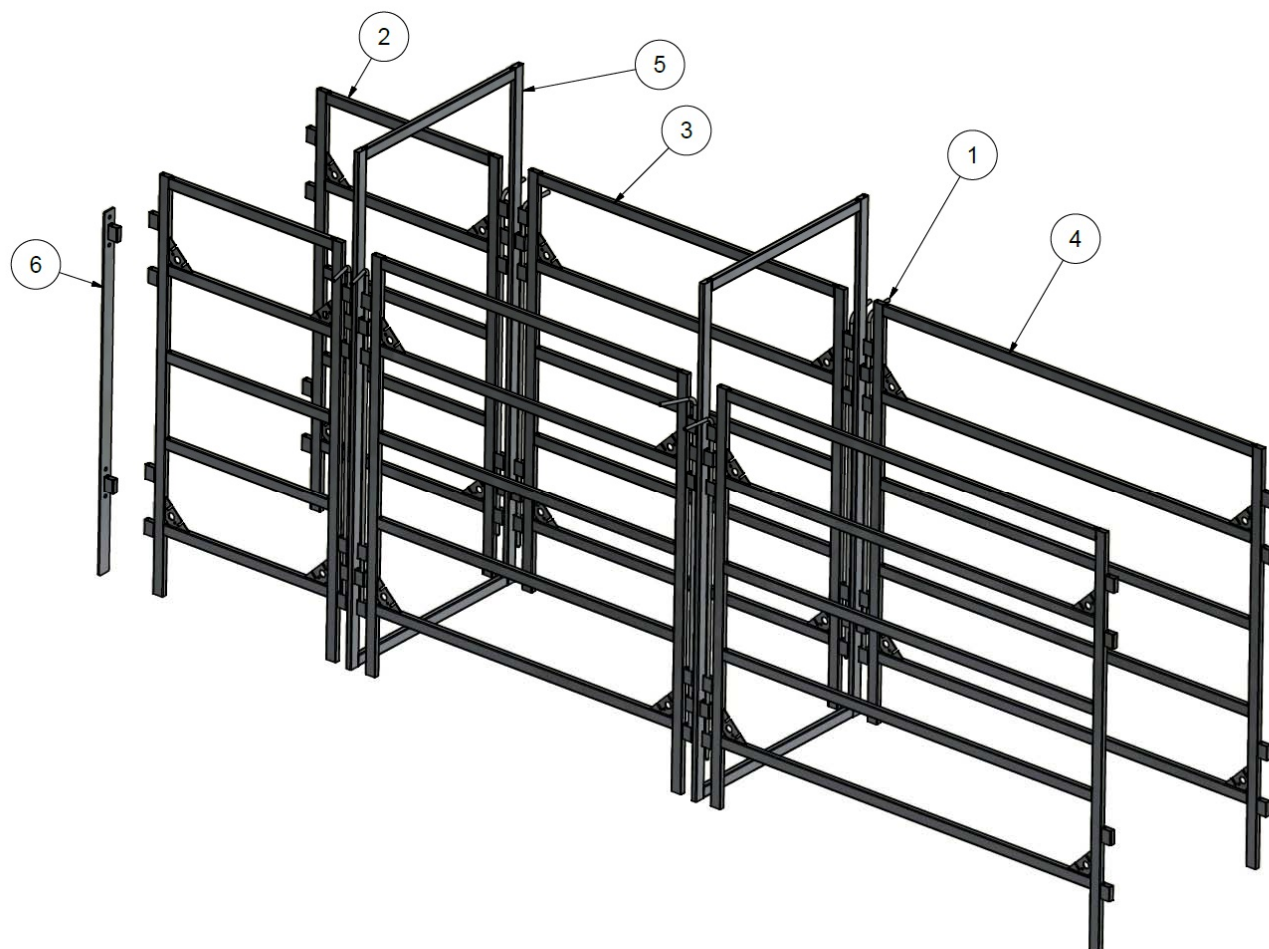


13. SLOT-IN WHEELS 4 PCS. WITH PNEUMATIC TIRES FOR MANUAL TRANSPORT (70170)



Pos.	Designation	Quantity	Art. No.
01	Transport cart for T5	1	90609100-1.1
02	LAG bonded tire wheel black	2	90900753
03	Shim M16	2	00840143
04	Split pin Ø5x40	2	00860143
05	Handle Øi = 33mm	2	90901053
06	Bracket lifting axle Red Q	1	12604000
07	Red Q bolt lifting axle	1	12502131
08	Split pin 10x45	2	00861843
09	Clamp sleeve Ø8x45	4	00866844
10	Plug-in wheel shaft clamp sleeve	4	90515311-1.1
11	Clamp sleeve Ø8x80	4	00866943
12	Wheel with pneumatic tire P340/25-90K	4	00904145
13	Shim M24	4	00850443

14. DRIFT FENCE SET "HOOF CARE COMFORT" (16400)



Pos.	Designation	Quantity	Art. No.
01	Drift fence connecting bolts	8	15524331
02	Drift fence 800mm	2	15670100-1.1
03	Drift fence 1300mm	2	15670000-1.1
04	Drift fence 1600mm	2	15669900-1.1
05	Drift fence set Comfort gate	2	15670200-1.1
06	Wall mount drift fence	1	15670900
	Cable chain Ø6 fig. 523 l=800mm	4	00873944
	Cable chain Ø6 fig. 523 l=1200	4	00873944
	SE screw M8x30	8	00811543
	Nut M8	8	00811343
	Lock nut M8	8	00811043
	Shim M8	16	00811743