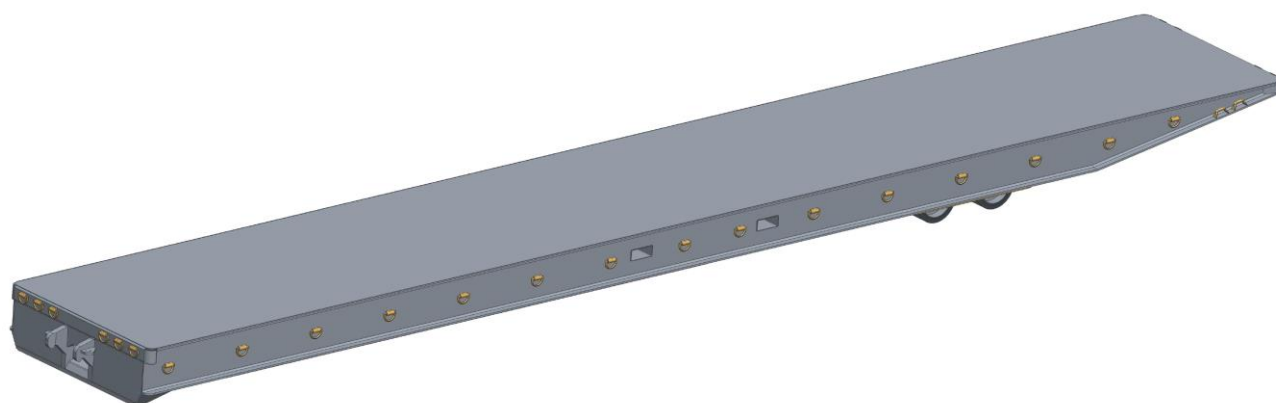


INSTRUCTIONS FOR USE

- Original -



Vehicle type: Rolltrailer 60' 120 t
18,5 x 2,8 x 0,82/0,90 m

Serial number: 80366-1 / 1-40

Year of manufacture: 2019

Customer: Grimaldi

Manufacturer: Seacom AG
Querstrasse 5
CH - 8212 Neuhausen

Tel. ++41 (0) 52 632 04 00

Fax ++41 (0) 52 632 04 09

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1 GENERAL INFORMATION



Please carefully read these instructions for use before taking the rolltrailer into operation!

Observe the safety instructions!

Keep these instructions for use for future reference!

1.1 Introduction

Read the following operating and maintenance instructions carefully before taking the rolltrailer into operation.

These instructions must be available to every person, operating the rolltrailer or carrying out maintenance or repair works on the rolltrailer.

The rolltrailer shall only be employed, operated and maintained according to the information given in these instructions for use.

1.2 Durability

SEACOM rolltrailers are robust and require only little maintenance. Please make sure that any damage is instantly remedied by qualified specialists in order to avoid failure of the rolltrailer.

To ensure that the rolltrailer can be operated safely, use only OEM-quality components.

1.3 Intended Use

SEACOM rolltrailers are vehicles to transport cargo on companies' premises, NOT on public roads. To use the rolltrailer for any other purpose is beyond the intended scope of application and can result in damage to people or to the rolltrailer.

1.4 Warranty

Failure to comply with these instructions for use shall invalidate the warranty.

This is particularly true for any damage caused by the following actions:

- If you use the rolltrailer for any other purpose than its intended use.
- If you overload the rolltrailer and/or exceed the maximum allowed speed.
- If you or a third party carry out any alterations on the rolltrailer without prior permission of SEACOM AG.
- If you fail to carry out the necessary tests and maintenance works or if you do not carry them out on schedule.

1.5 Contact details

Seacom AG
Querstrasse 5
CH - 8212 Neuhausen

Telefon ++41 (0) 52 632 04 00

Telefax ++41 (0) 52 632 04 09

Email: office@seacom.ch

2 SAFETY INSTRUCTIONS

2.1 General information

Always adhere to the current national safety regulations of the country in which the rolltrailer is operated.



Make sure that the rolltrailer is operated, maintained and repaired only by authorized and sufficiently trained and qualified personnel.

Check the rolltrailer for any defects or faults before and while using it.

Stop the operation instantly when you notice defects or faults.

2.2 Loading the rolltrailer

Never exceed the maximum capacity of the rolltrailer indicated on the data plate!



Make sure that the cargo is as evenly distributed over the load area as possible.

For concentrated loads on the load area, follow the load diagram or consult the supplier, especially when the cargo is heavy.

Fix the load on the rolltrailer securely. It shall be prevented from slipping or falling down.

It is not recommended to load cargo with dimensions much larger than the platform. If in doubt, consult the supplier.

2.3 Operating the rolltrailer

Make sure that the towing vehicle has an appropriate capacity.



Never exceed the maximum speed indicated in these instructions for use.

Never operate the rolltrailer with people sitting or standing on the rolltrailer.

Make sure that at no time people stand or walk underneath the gooseneck.

The rolltrailer shall be operated only on solid ground without obstacles.

The speed shall be adapted to the traffic, surface and weather conditions.

Be very careful when driving on ramps.

Reduce speed in curves.



Make sure that nobody is standing or walking in the danger area of the rolltrailer while it is in operation or during the process of coupling or uncoupling.

2.4 Parking the rolltrailer

Always prevent the rolltrailer from rolling when it is parked on slopes.



2.5 Maintenance works on the rolltrailer

Make sure that the rolltrailer is in a safe parking position and prevented from rolling before carrying out maintenance works on the rolltrailer.



Repair and maintenance works must only be carried out by trained and qualified specialists.

3 SPECIFICATIONS

| | | |
|------------------------------------|------------------------|--------------------------------|
| Weights and loads | | |
| Capacity | 120.000 kg | |
| Tare weight | 15.200 kg | |
| Axle load | 4x 25.000 kg | |
| 5th wheel load (without gooseneck) | 35.000 kg | |
| Dimensions | | |
| Overall platform length | 18.500 mm | |
| Platform width | 2.800 mm | |
| Platform height | 820 / 900 mm | front / rear |
| Platform cover | 6/8 mm | tear plate |
| Rear overhang | 5.000 mm | |
| Running gear | | |
| Number of axle lines | 2 | |
| Number of wheels | 8 | |
| Tyre size | 620/420 – 480 | solid rubber |
| Speed | | |
| Speed max. | 6 km/h | fully loaded |
| | 16 km/h | without load |
| Accessories | | |
| Hook-type coupling at front | | with eyelets for safety chains |
| Lashing, 32 t | 4(0+2+2+0) | |
| D rings, 50 t | 40 (6+15+15+4) | |
| Forklift pockets | | For empty handling |
| Paint finish | | |
| 2-layer coating | RAL 3011 (brown red) | |
| | RAL 1018 (zink yellow) | Around forklift pockets |

Deviations in weights and dimensions reserved.

4 OPERATING INSTRUCTIONS

4.1 Application

- The roll trailer shall only be used for internal transports in accordance with its intended use.
- The transport of persons is not allowed.
- Every day before the start of operation the driver of the towing vehicle has to check the rolltrailer for visible defects.
- During operation the driver has to observe whether any defects or faults occur.

4.2 Loading the rolltrailer

- Make sure that the rolltrailer is parked on horizontal ground.
- The weight of the cargo put on the rolltrailer shall not exceed the maximum capacity.
- The cargo that is to be transported shall be fixed and secured adequately.
- Always make sure to prevent the cargo from falling off the rolltrailer and from sliding.
- To avoid overloading always ensure that the centre of gravity of the load is within the area, marked in the load diagram.
- When point loads are applied to the platform, make sure that each load is supported by the trailer's longitudinal beams, e.g. use some support cross beams.
- Check loading diagram (on longitudinal beams) for correct positioning of load

Note: Center of gravity (CoG) for load: 9.450 mm from front end of trailer

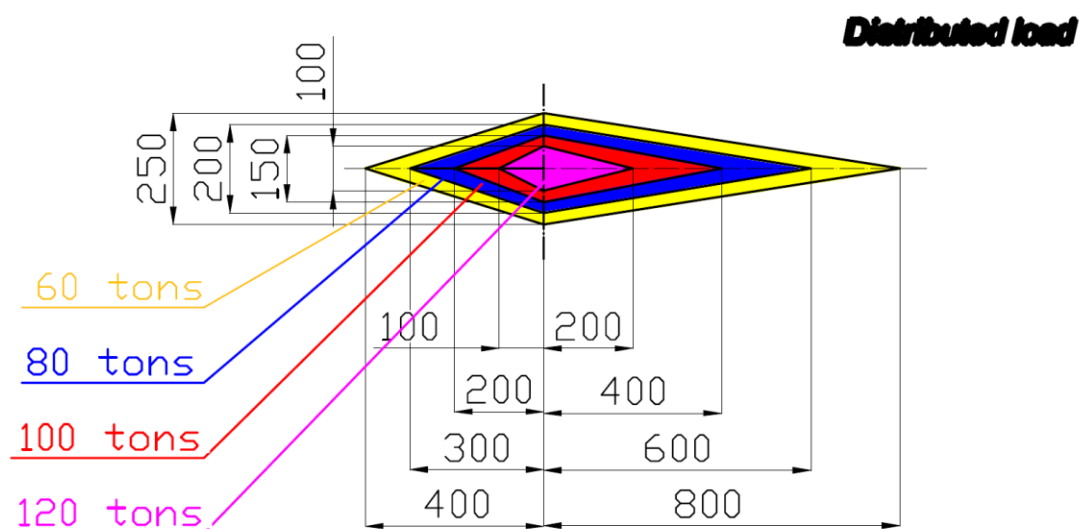
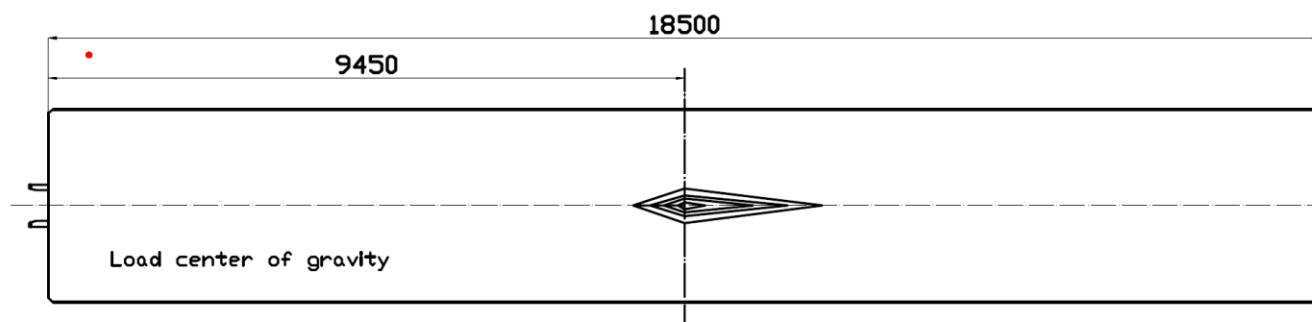
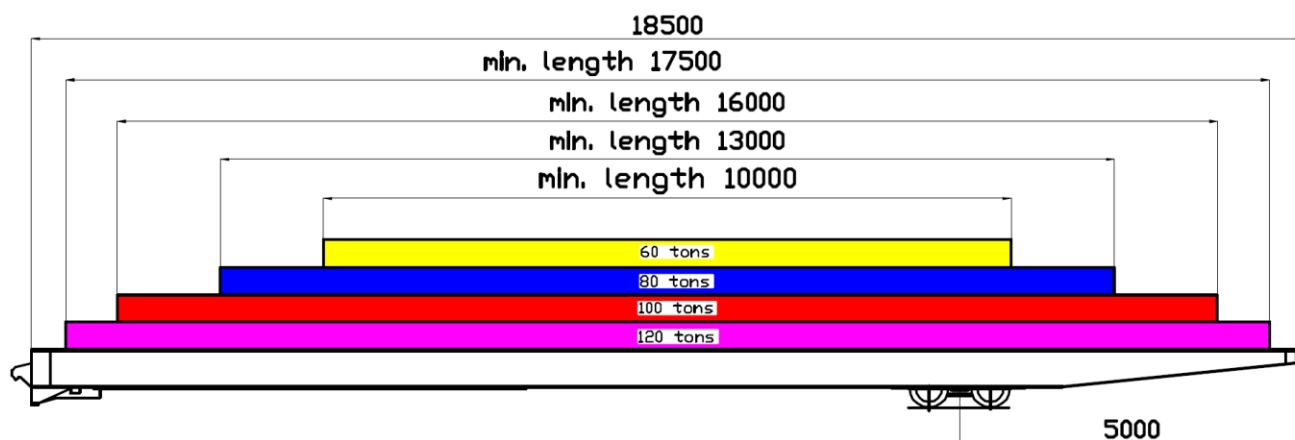
Distributed load

To avoid overloading, always ensure that the centre of gravity of the load is within the respective areas in the diagram (see the diagram for distributed load on page 10).

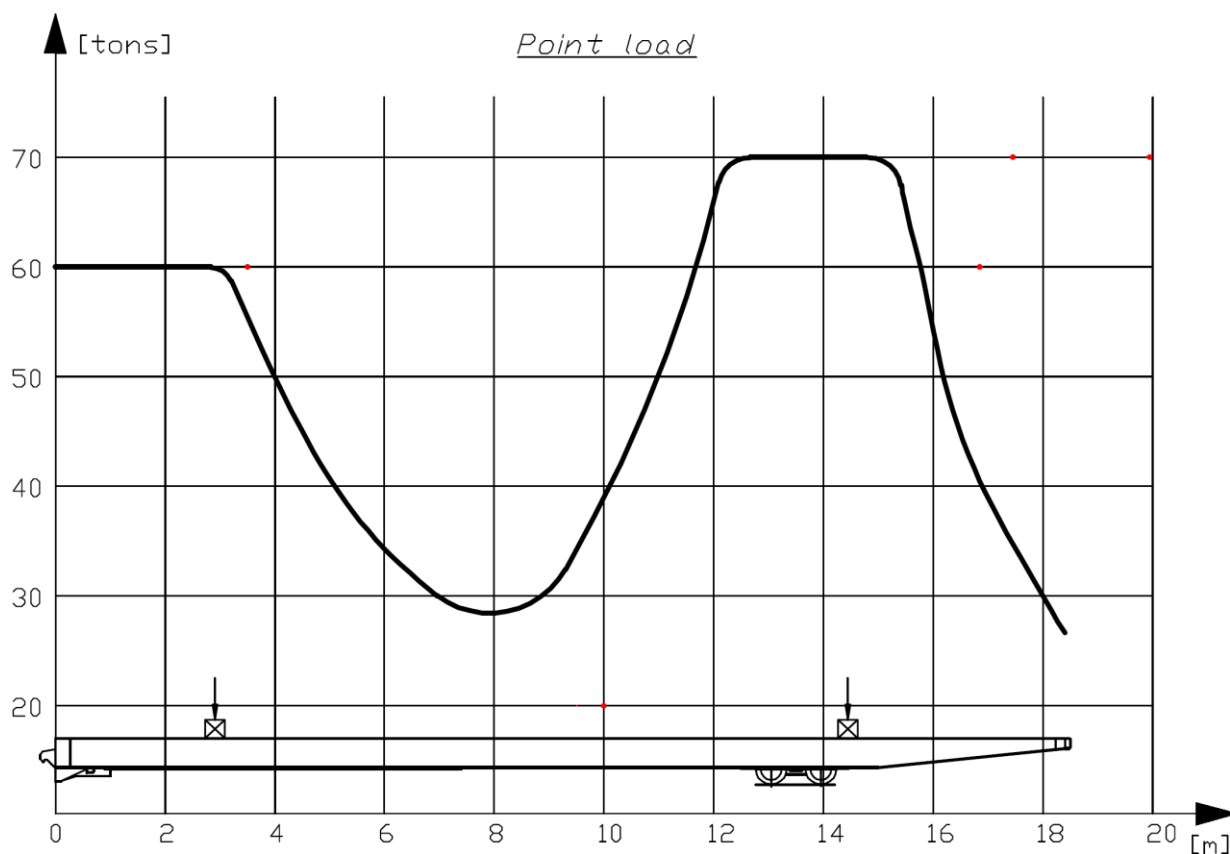
Point load

For loading point loads, see the diagram for point loads on page 11.

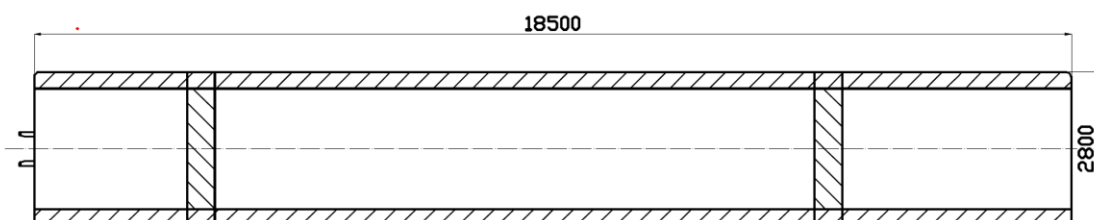
Distributed load



Load center of gravity must be within the areas, corresponding to the load

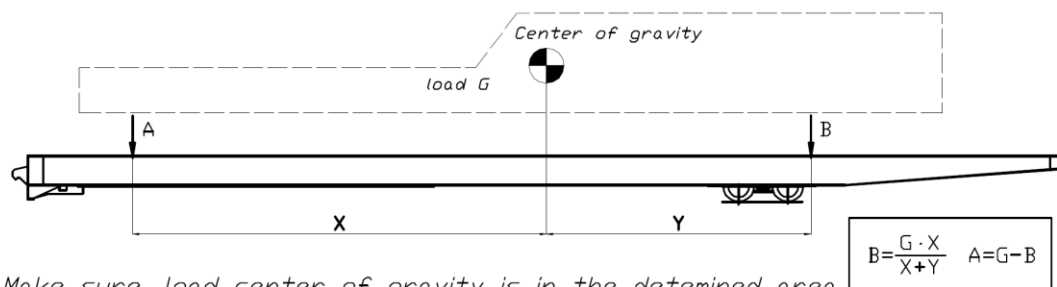


Point loads on the platform to be placed or transferred using transversal supports to the longitudinal beams



Loading instruction

- 1) Identify loads center of gravity
- 2) Calculate the loads, coming to the Rolltrailer platform acc to below scheme



- 3) Make sure, load center of gravity is in the determined area
- 4) Loads A and B shall not exceed the limit line in above diagram

4.3 Coupling the rolltrailer to the gooseneck

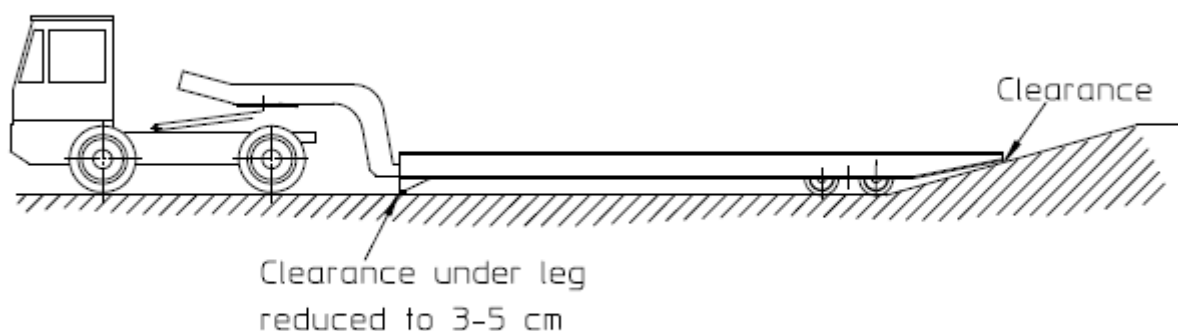
- Drive backwards with the towing vehicle and the gooseneck.
- Place the toe of the gooseneck exactly into the mouth of the rolltrailer.
- Lift the gooseneck with engaged reverse gear and unbraked towing vehicle
- Make sure that the gooseneck is hooked into the rolltrailer correctly and the safety chains are connected to the rolltrailer properly.
- Lift the rolltrailer via the lifting hydraulics of the towing vehicle until the front wall of the rolltrailer is approximately 100 – 150 mm over the ground.

4.4 Driving the towing vehicle with rolltrailer

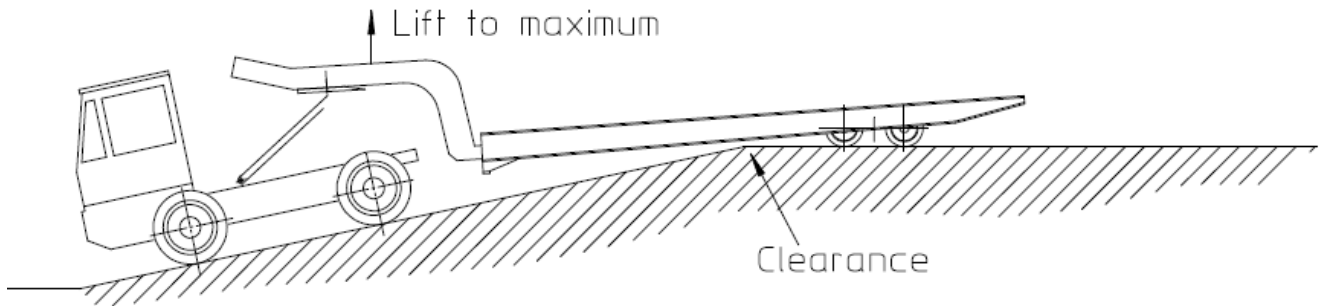
- The rolltrailer shall only be towed by an appropriate towing vehicle with a lifting capacity of at least 40 t and a lifting height of at least 750 mm in combination with an adequate gooseneck.
- The roads shall be solid and free from obstacles.
- The permitted speed and the current safety regulations shall in any case be complied with.
- The maximum speed under full load is 6 km/h.
- In curves the speed has to be reduced.
- When reversing and the rear view is insufficient or obstructed, the driver has to be supported by another person.

4.5 Driving over ramps

- When reversing towards an upgoing ramp as shown in below sketch, driver must lower the fifth wheel to maintain a ground clearance under the trailer front leg of 3-5 cm in order to achieve a maximum clearance rear.



- When the trailer wheels have passed the upper end of the ramp, driver must lift the fifth wheel to maximum height to achieve a sufficient ground clearance under longitudinal beams of the trailer (see sketch below).



5 MAINTENANCE INSTRUCTIONS

5.1 General information

The following tests and maintenance works have to be carried out at regular intervals to ensure that your rolltrailer is working reliably and securely. Defective parts have to be exchanged instantly. As spare parts you should use only OEM-quality components, which fulfil the specified requirements and correspond to the national safety regulations of your country.

5.2 First inspection

Wheel bearings have to be checked and if necessary readjusted after the first 10-20 operating hours.

How to readjust wheel bearings

- Make sure that the rolltrailer is in parking position.
- Lift the rear side of trailer so that the wheels can be rotated by hand.
- Put suitable supports under the lifted trailer.
- Check wheels: In case there is axial movement or the rotation is not smooth,
 - remove the hub cap.
 - remove the split pin from the castle nut.
 - tighten the castle nut until the wheel is blocked.
 - untighten the castle nut until the wheel rotates freely but so that there isn't any axial movement.
 - refit the split pin.
 - refit the hub cap.
- Make sure that you did not forget to refit any parts.
- Lower rear side of trailer.

5.3 Running gear

Carry out visual inspections of the running gears as per maintenance schedule:

- Check oscillation of the pendular axles and inspect pivot pins (bolts) and axle securing plates. Retighten (if necessary) axle guard screws.
- In case oscillation of axles is not smooth, demount pivot pin and check if there is insufficient grease or axle bushings are worn. Replace worn bushings.
- Check oscillation of the rocker beams and in case of not smooth movement, take actions as described above for the axles.
- Make visual inspection of axles and rocker beams. In case of cracks or damages report to the manufacturer and ask for repair instructions.

5.4 Tyres

Carry out visual inspections of the tyres as per maintenance schedule.

- Check rubber for cracks, damages or foreign material, sticking in the rubber.
- Check correct position of tyres on the rims.

In case of severe rubber damages or if the tyre sits incorrectly on the rim, replace tyre against a new one.

5.5 Wheels

Inspect wheels as per maintenance schedule:

1. Check how the wheel is rotating.
2. Check the sound. If the wheel is making any abnormal sounds, demount the wheel and check the roller bearing. Replace it if necessary.
3. Check the axial movement of the wheel. If you notice any axial movement readjust the roller bearings (see above "How to readjust wheel bearings")

In case of heavy or frequently use, please shorten the interval of inspection.

5.6 Frame

Carry out visual inspections of the frame and the welding joints as per maintenance schedule. The frame is made of structural steel. In case of damage it can be repaired by qualified staff. For questions, please contact the manufacturer.

5.7 Bolts (pivot pins) for axles and rocker beams

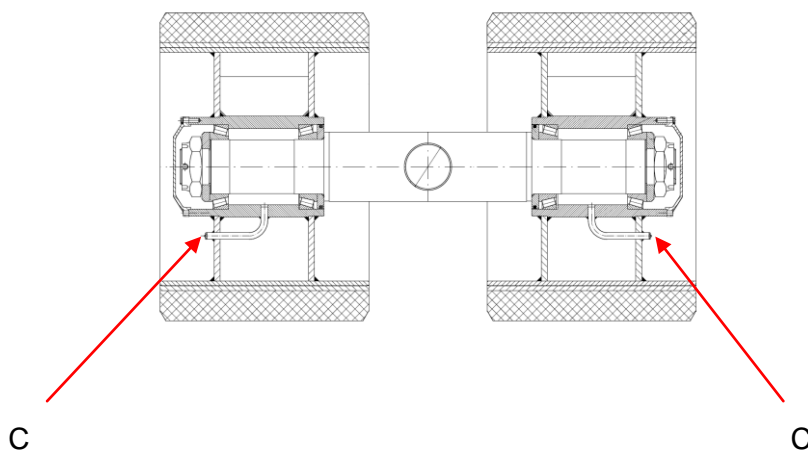
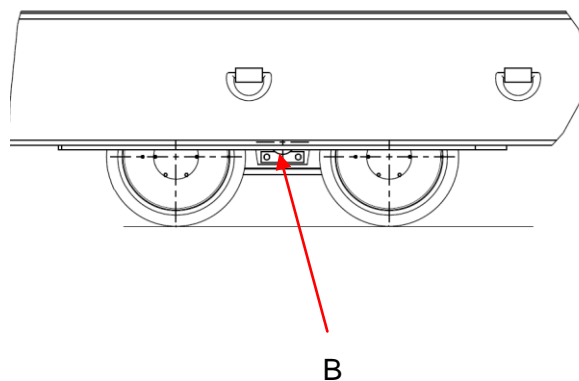
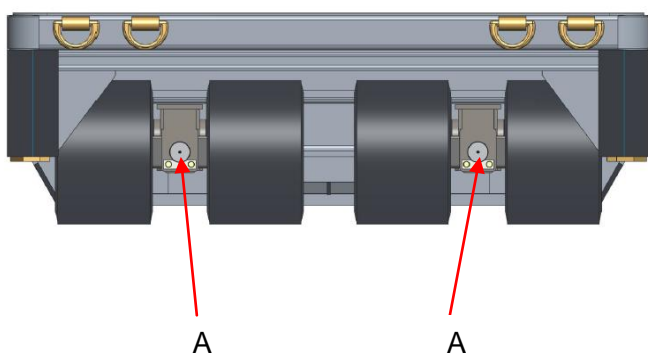
Inspect the bolts on the axles and rocker beams as per maintenance schedule. Check the securing (locking) plates for damages and adequate tightness.

5.8 Lubrication schedule

| Greasing point | | Number | Greasing interval |
|----------------|----------------|--------|-------------------|
| A | Axle bearings | 4 | 1 month |
| B | Rocker beam | 2 | 1 month |
| C | Wheel bearings | 8 | 6 months |

N.B.: The intervals at which greasing is necessary depend on the operating conditions of the rolltrailer. In case of heavy use, please shorten the greasing intervals.

Lubricant: Standard multi purpose grease
Viscosity class NLGI 2.



5.9 Maintenance schedule

| Scope of work | Weekly | Monthly | Every 6 months | Yearly |
|-------------------|--------|---------|----------------|--------|
| Visual inspection | X | | | |
| Running gear | | | X | |
| Tyres | | X | | |
| Wheels | | | X | |
| Frame | | | | X |
| Bolts | | X | | |

5.10 Tightening torque for screws and nuts

All screws and nuts have to be checked and tightened respectively **once a month**.

Friction value: $\mu_{\text{tot.}} = 0,12$ for screws and nuts without after-treatment as well as phosphated screws.
If not otherwise indicated the tightening torque can be taken from the following table:

Metric standard threads (ISO) DIN 13, sheet 13

| Dimension | 8.8 | | 10.9 | | 12.9 |
|-----------|------|--|------|--|------|
| M4 | 2,8 | | 4,1 | | 4,8 |
| M5 | 5,5 | | 8,1 | | 9,5 |
| M6 | 9,5 | | 14 | | 16,5 |
| M7 | 15 | | 23 | | 28 |
| M8 | 23 | | 34 | | 40 |
| M10 | 46 | | 68 | | 79 |
| M12 | 79 | | 115 | | 135 |
| M14 | 125 | | 185 | | 215 |
| M16 | 195 | | 280 | | 330 |
| M18 | 280 | | 390 | | 460 |
| M20 | 390 | | 560 | | 650 |
| M22 | 530 | | 750 | | 880 |
| M24 | 670 | | 960 | | 1100 |
| M27 | 1000 | | 1400 | | 1650 |
| M30 | 1350 | | 1900 | | 2250 |
| M33 | 1850 | | 2600 | | 3000 |
| M36 | 2350 | | 3300 | | 3900 |
| M39 | 3000 | | 4300 | | 5100 |

6 MAINTENANCE RECORDS

Serial number: _____

Date of commissioning: _____

Date of first inspection: _____

Carried out by: _____

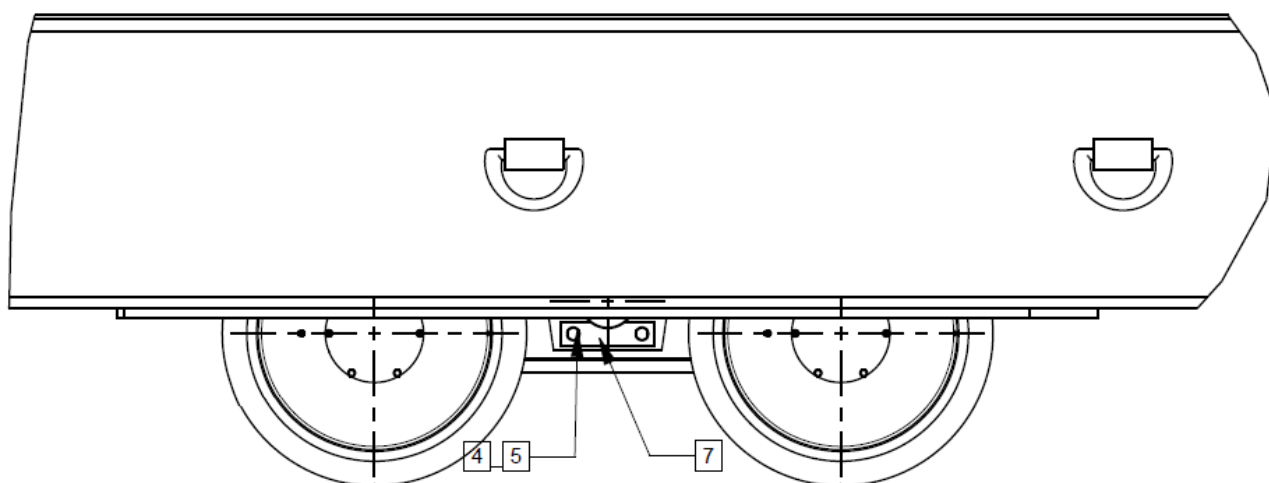
Periodic inspections / maintenance works

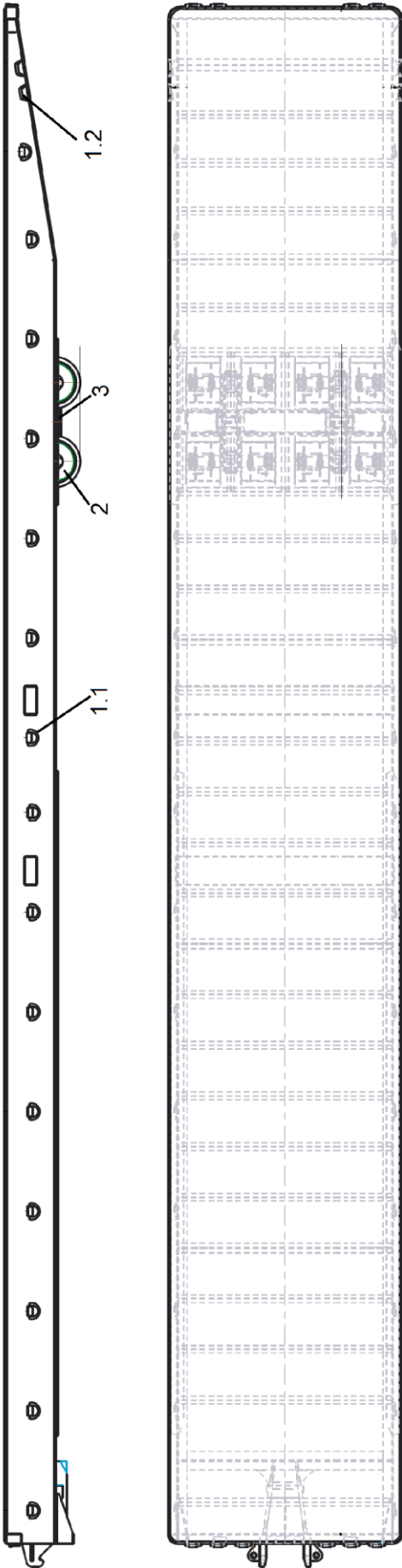
| Date | Result | Defects remedied on by | | Signature |
|------|--------|--|--|-----------|
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7 SPARE PARTS

7.1 GENERAL VIEW

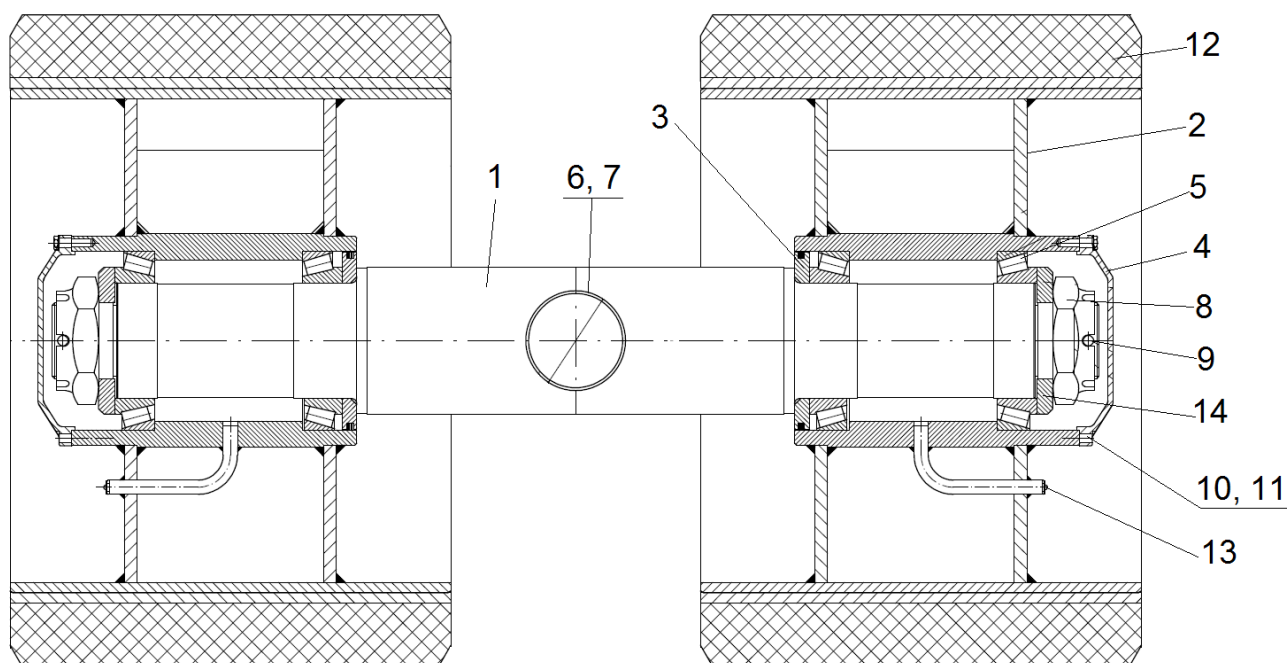
| Number of spare part list | | 80366-1 |
|---------------------------|-------------------------------------|----------------|
| Item | Description | Part no |
| 1.1 | D ring | 80366-1-1.1 |
| 1.2 | Lashing | 80366-1-1-2 |
| 2 | Wheel set 620/420-480 | 80366-1-2 →7.2 |
| 3 | Rocker beam | 80366-1-3 →7.3 |
| 4 | Washer A20,5 DIN127 | 80366-1-4 |
| 5 | Screw M20x50 DIN 933 | 80366-1-5 |
| 7 | Securing plate for rocker beam bolt | 80366-1-7 |





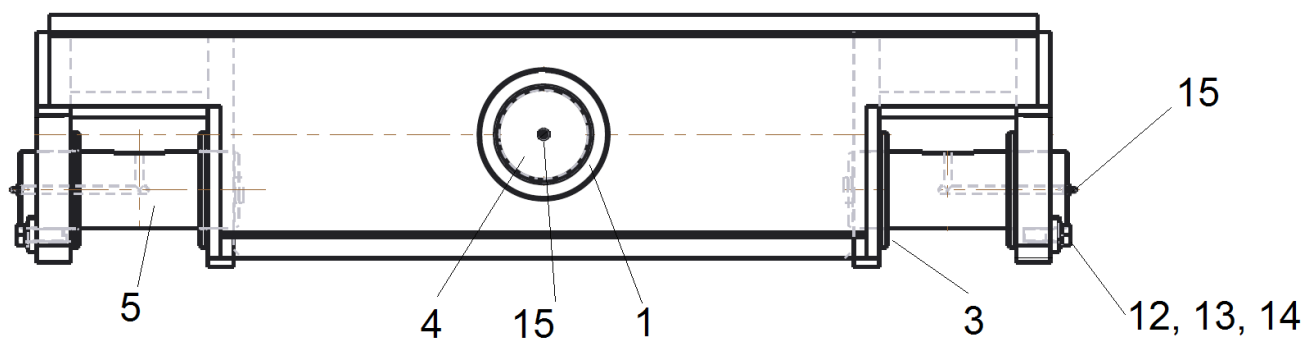
7.2 WHEEL SET

| Dwg. No. | | 80366-1-2 |
|----------|------------------------------------|-----------------|
| Item | Description | Part. No / Type |
| 1 | Axle | 80366-1-2-1 |
| 2 | Wheel body | 80366-1-2-2 |
| 3.1 | Washer for Fey ring d=169/110,2-14 | 80366-1-2-3.1 |
| 3.2 | Fey ring FK6 170 ASD | 1450.0204 |
| 4 | Hub cap | 80366-1-2-4 |
| 5 | Taper roller bearing 32022 | 1410.0009 |
| 6 | Bushing 95x90x40 | 1406.0008 |
| 7 | Distance tube | 80366-1-2-7 |
| 8 | Castle nut M72x2 | 80366-1-2-8 |
| 9 | Split pin 10x112 DIN94 | 80366-1-2-9 |
| 10 | Screw M8x35 DIN933 | 80366-1-2-10 |
| 11 | Washer A8,5 DIN127 | 80366-1-2-11 |
| 12 | Tyre 620/420-480 | 1605.1023 |
| 13 | Lubrication nipple AM10x1 DIN71412 | 80366-1-2-13 |
| 14 | Washer d=140-15 | 80366-1-2-14 |



7.3 ROCKER BEAM

| Dwg. No. | | 80366-1-3 |
|----------|------------------------------------|--------------|
| Item | Description | Part. No |
| 1 | Bushing 115x110x60 | 1406.0017 |
| 3 | Washer d=135/91-10 | 80366-1-3-3 |
| 4 | Bolt for rocker beam d=110 | 80366-1-3-4 |
| 5 | Bolt for axle d=90 | 80366-1-3-5 |
| 12 | Lock washer A16,5 DIN127A | 80366-1-3-12 |
| 13 | Hexagonal screw M16x40 DIN933 | 80366-1-3-13 |
| 14 | Securing plate for axle bolt 40x10 | 80366-1-3-14 |
| 15 | Lubrication nipple AM10x1 DIN71412 | 80366-1-3-11 |



8 LASHING EQUIPMENT

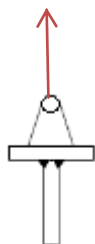
MBL: Minimum Braking Load

In case of deformation : The lashing or D-Ring has to be replaced!

Lashing

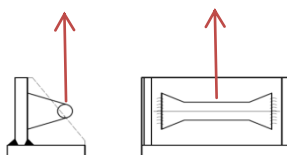
MBL = 320 kN

Pulling straight out



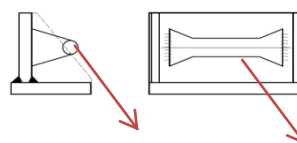
MBL = 280 kN

Pulling straight up



MBL = 300 kN

Pulling down at an angle



D-Ring

MBL = 500 kN

Proof load = 313 kN

SWL = 250 kN

