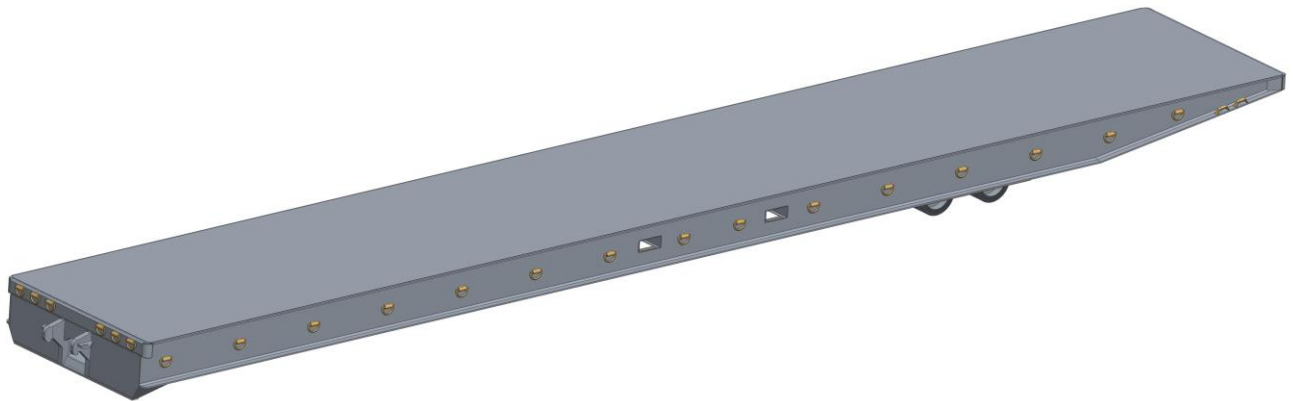


INSTRUCTIONS FOR USE

- Original -



Vehicle type: Roll trailer 60' 100 t
18,5 x 2,8 x 0,82/0,90 m

Serial number: 80507 / 1-26

Year of manufacture: 2021

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 roll trailer 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 roll trailer into operation.

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

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

1.2 Durability

SEACOM roll trailers 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 roll trailer.

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

1.3 Intended Use

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

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 roll trailer for any other purpose than its intended use.
- If you overload the roll trailer and/or exceed the maximum allowed speed.
- If you or a third party carry out any alterations on the roll trailer 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 roll trailer is operated.



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

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

Stop the operation instantly when you notice defects or faults.

2.2 Loading the roll trailer

Never exceed the maximum capacity of the roll trailer 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 roll trailer 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 roll trailer

Make sure that the towing vehicle has an appropriate capacity.



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

Never operate the roll trailer with people sitting or standing on the roll trailer.

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

The roll trailer 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 roll trailer while it is in operation or during the process of coupling or uncoupling.

2.4 Parking the roll trailer

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



2.5 Maintenance works on the roll trailer

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



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

3 SPECIFICATIONS

Weights and loads		
Capacity	100.000 kg	
Tare weight	12.000 kg	
Axle load	4x 22.000 kg	
5th wheel load (plus gooseneck)	28.000 kg	
Dimensions		
Overall platform length	18.500 mm	
Platform width	2.800 mm	
Platform height	820 / 900 mm	front / at running gear position
Platform cover	5/7 mm	tear plate
Rear overhang	5.000 mm	
Running gear		
Number of axle lines	2	
Number of wheels	8	
Tyre size	22x16x16	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)	
Paint finish		
2-layer coating	RAL 3011 (brown red)	

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 must check the roll trailer for visible defects.
- During operation the driver must observe whether any defects or faults occur.

4.2 Loading the roll trailer

- Make sure that the roll trailer is parked on horizontal ground.
- The weight of the cargo put on the roll trailer 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 roll trailer 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: 10.000 mm from front end of trailer

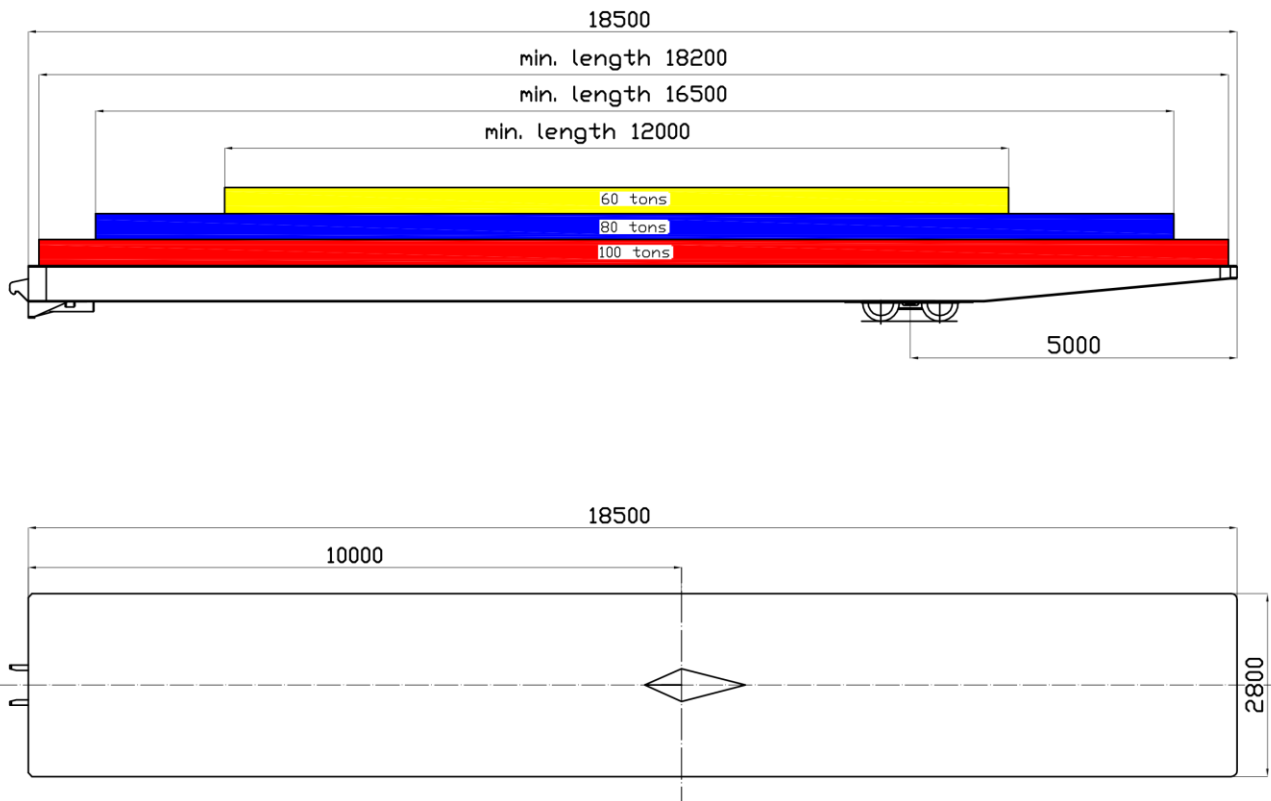
Distributed load

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).

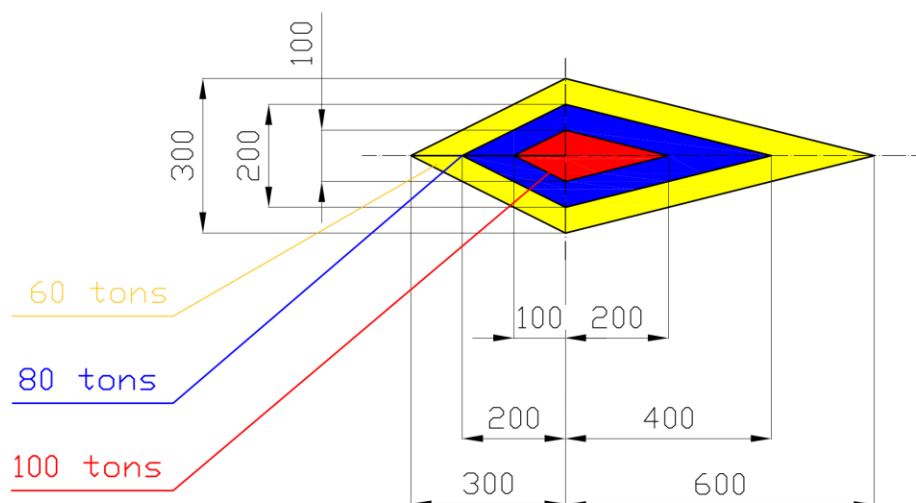
Point load

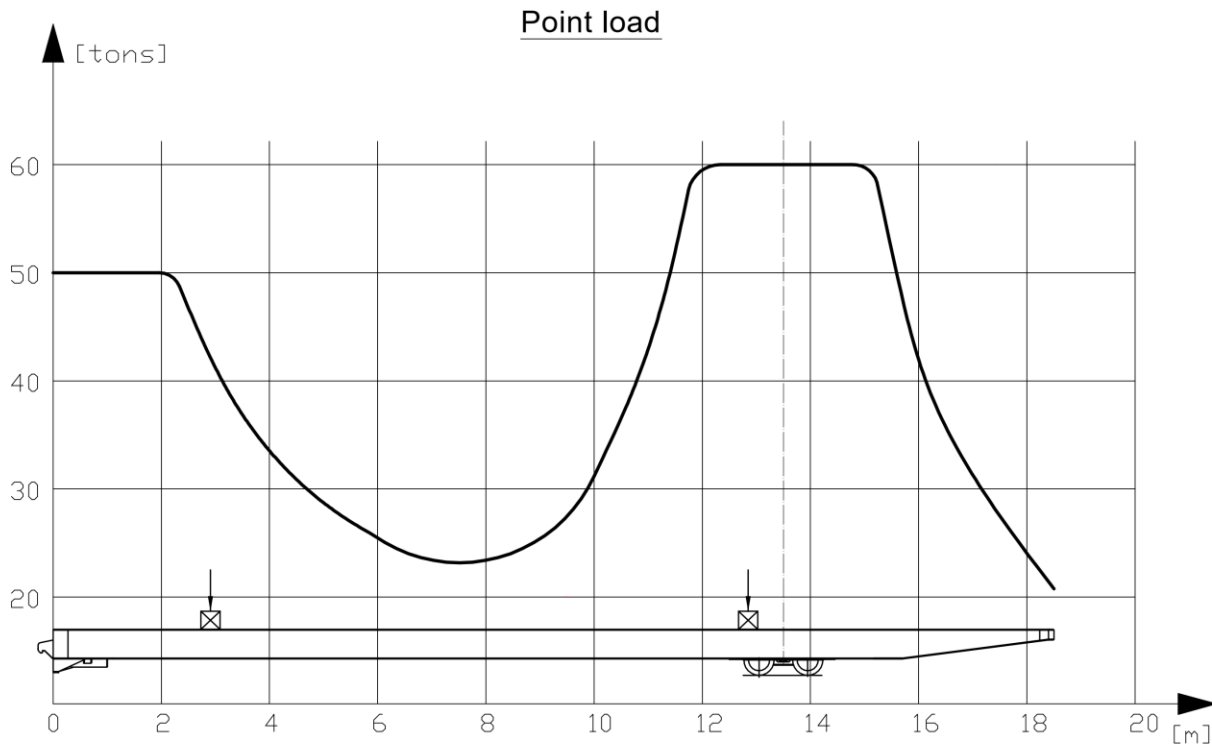
For loading point loads, see the diagram for point loads on page 11.

Distributed load

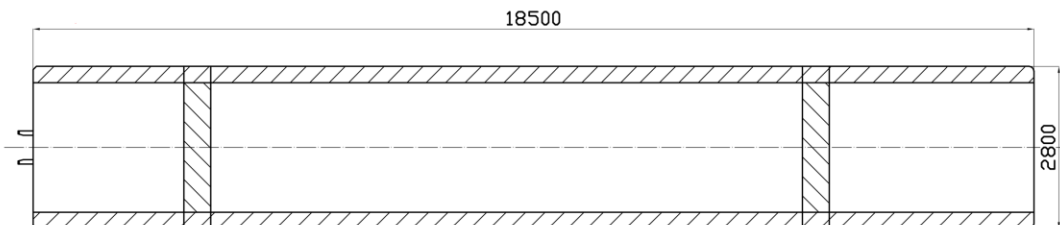


Load center of gravity must be within the areas, corresponding to the load



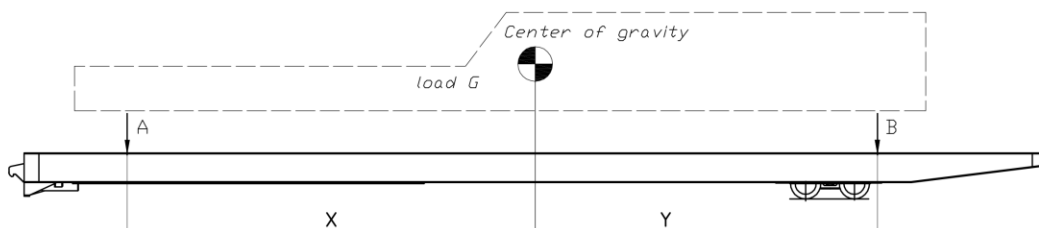


Point loads on the platform to be placed or transferred using transversal supports to the longitudinal beams



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 detemined area
- 4) Loads A and B shall not exceed the limit line in above diagram

$$B = \frac{G \cdot X}{X + Y} \quad A = G - B$$

4.3 Coupling the roll trailer to the gooseneck

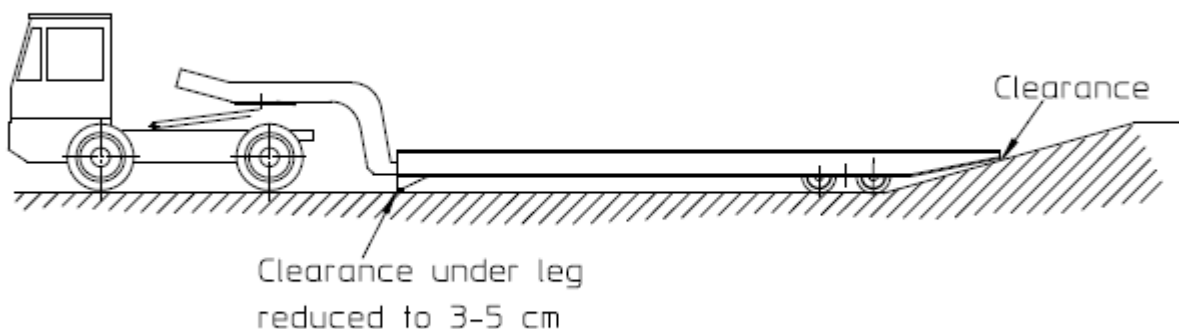
- Drive backwards with the towing vehicle and the gooseneck.
- Place the toe of the gooseneck exactly into the mouth of the roll trailer.
- Lift the gooseneck with engaged reverse gear and unbraked towing vehicle
- Make sure that the gooseneck is hooked into the roll trailer correctly and the safety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

4.4 Driving the towing vehicle with roll trailer

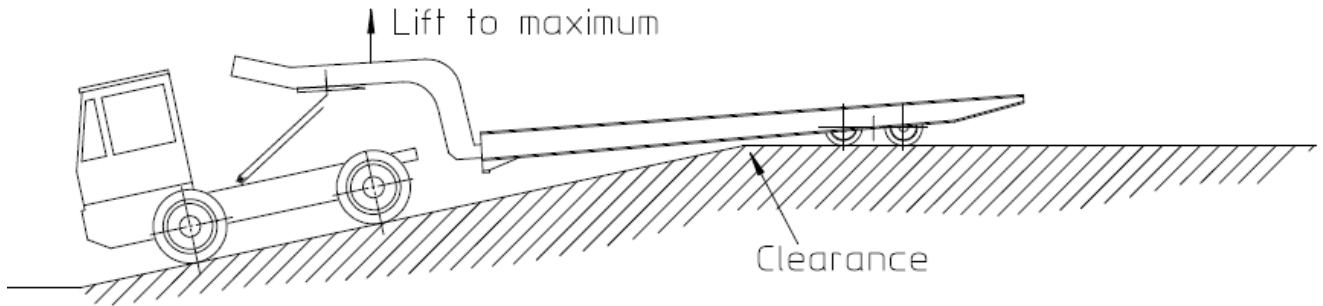
- The roll trailer shall only be towed by an appropriate towing vehicle with a lifting capacity of at least 32 t and a lifting height of at least 750 mm in combination with an adequate gooseneck.
- The roads shall be solid and free from obstacles.
- The permitted speed and the current safety regulations shall in any case be complied with.
- The maximum speed under full load is 6 km/h.
- In curves the speed must 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, the 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, the 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 must be carried out at regular intervals to ensure that your roll trailer is working reliably and securely.
Defective parts must 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 must be checked and if necessary readjusted after the first 10-20 operating hours.

How to readjust wheel bearings

- Make sure that the roll trailer 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
 - unscrew the slotted lock nut a bit to loosen everything up
 - tighten the lock nut until the wheel is blocked.
 - untighten the lock nut until the wheel rotates freely but so that there is no axial movement.
 - Secure the lock nut by bending over a tooth of the washer into one of the slots in the lock nut
 - refit the hub cap and secure it with the Seeger ring
- 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 read-just 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

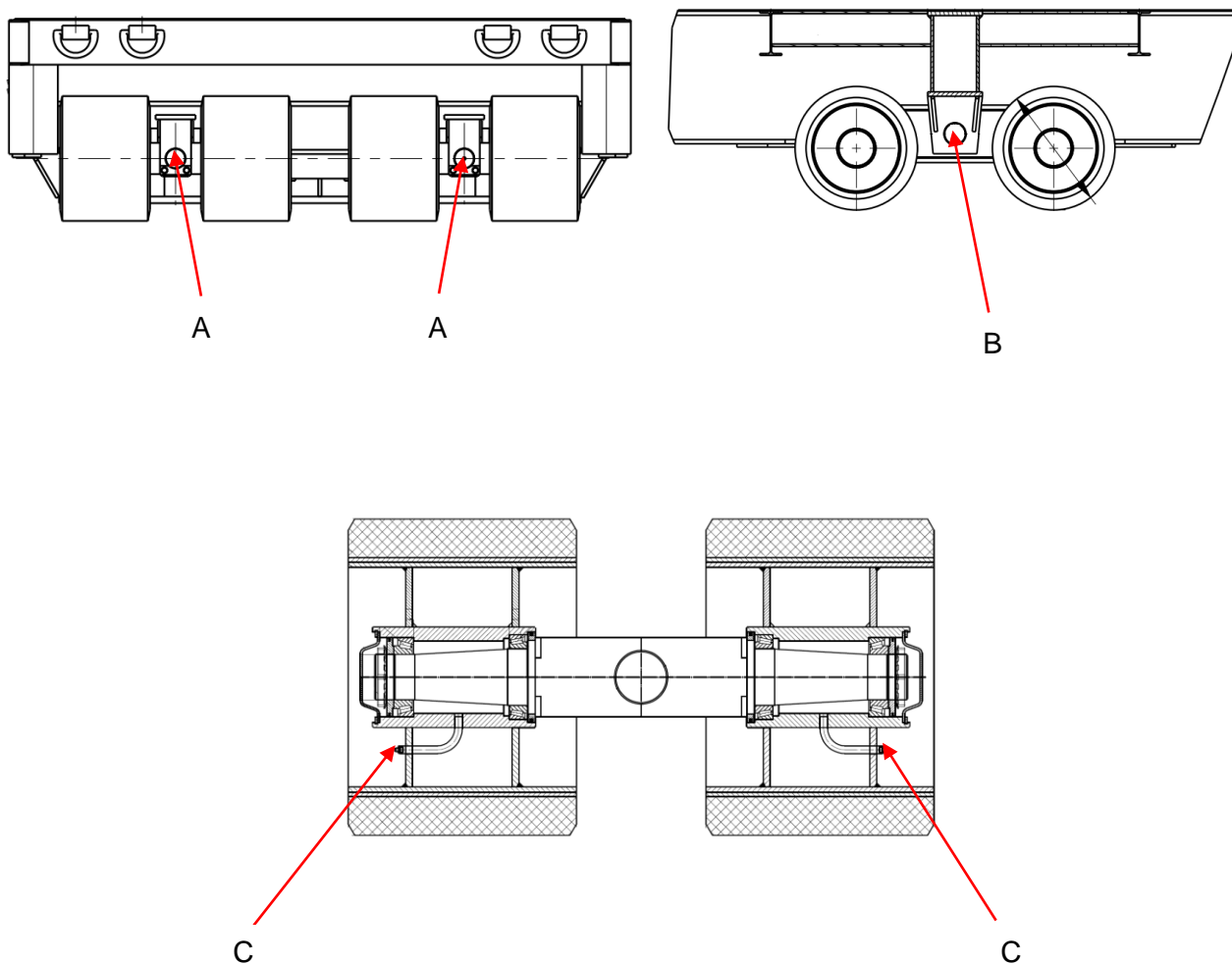
Inspect the bolts on the axles and rocker beams as per maintenance schedule. Check the securing (locking) plates for damages and adequate tightness.

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 roll trailer. 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

Production number: A 80507 No 1 to 26

Carried out by: _____

Periodic inspections / maintenance works

Date	Serial Number	Result	Defects remedied on by		Signature (printed letters)
	ELEM 600070 - 1				
	ELEM 600071 - 7				
	ELEM 600072 - 2				
	ELEM 600073 - 8				
	ELEM 600074 - 3				
	ELEM 600075 - 9				
	ELEM 600076 - 4				
	ELEM 600077 - 0				
	ELEM 600078 - 5				
	ELEM 600079 - 0				
	ELEM 600080 - 4				
	ELEM 600081 - 0				
	ELEM 600082 - 5				
	ELEM 600083 - 0				
	ELEM 600084 - 6				
	ELEM 600085 - 1				
	ELEM 600086 - 7				
	ELEM 600087 - 2				
	ELEM 600088 - 8				
	ELEM 600089 - 3				
	ELEM 600090 - 7				

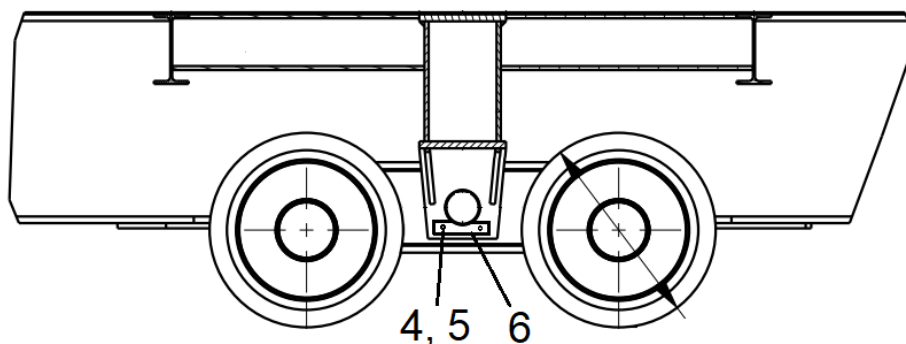
Date	Serial Number	Result	Defects remedied on by		Signature (printed letters)
	ELEM 600091 - 2				
	ELEM 600092 - 8				
	ELEM 600093 - 3				
	ELEM 600094 - 9				
	ELEM 600095 - 4				

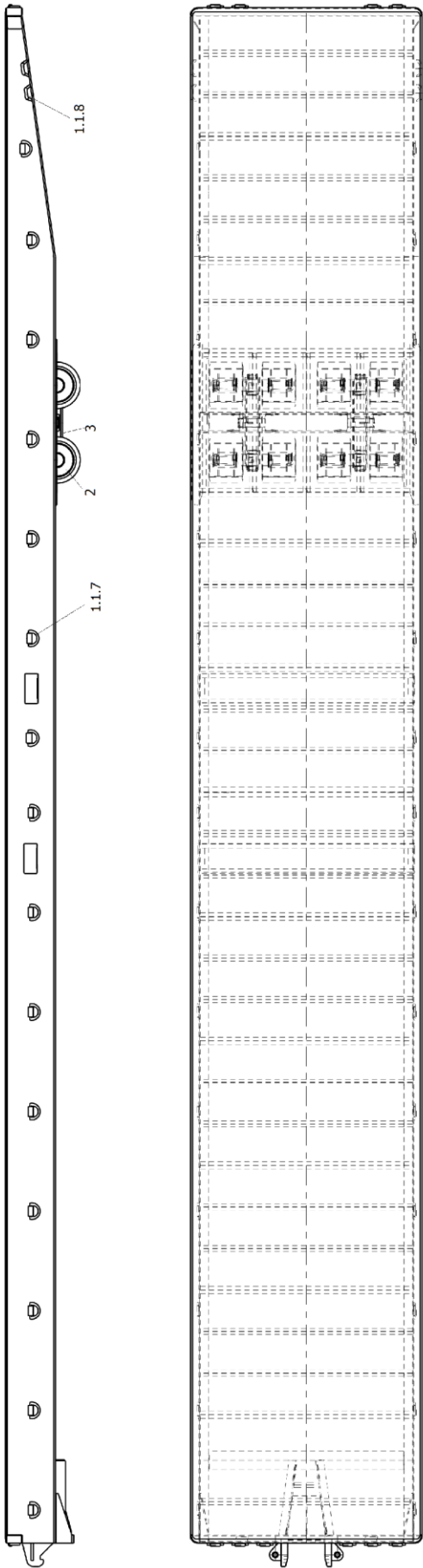
Signature: _____

7 SPARE PARTS

7.1 GENERAL VIEW

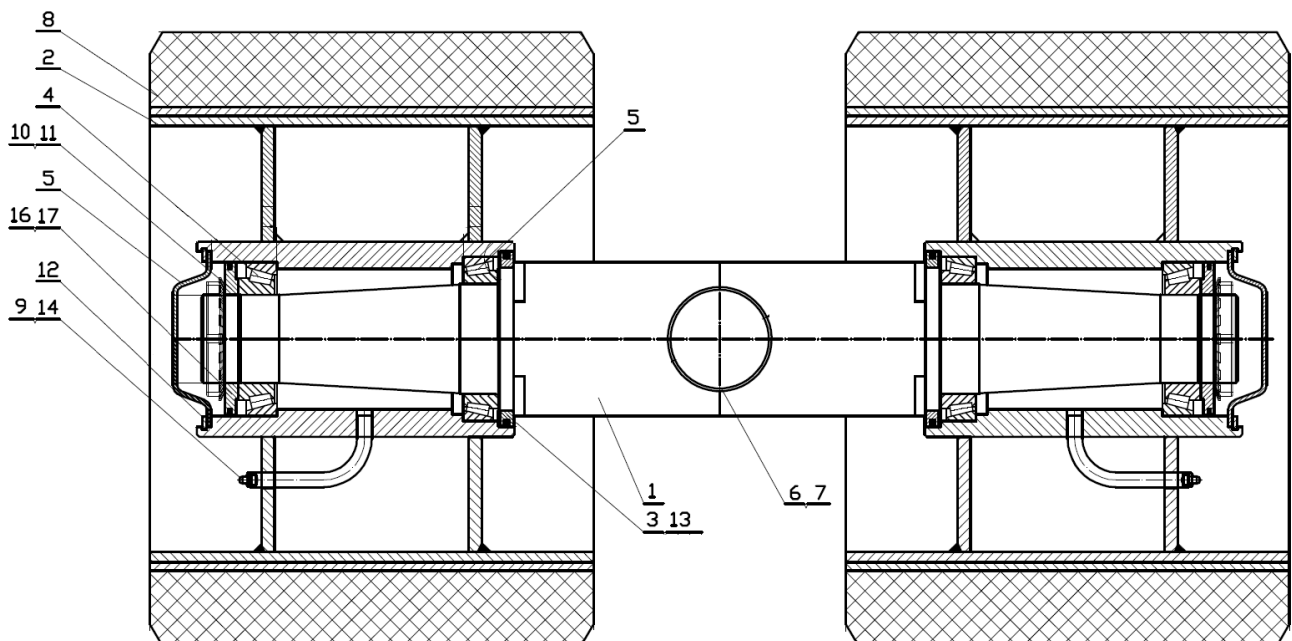
Dwg No		80507	
Item	Description	Part no	
1.1.7	D ring	80507-1.1.7	
1.1.8	Lashing	80507-1.1.8	
2	Wheel set 22x16x16	80507-2	→7.2
3	Rocker beam	80507-3	→7.3
4	Washer A16,5 DIN127	80507-4	
5	Screw M16x40 DIN 933	80507-5	
6	Securing plate for rocker beam bolt	80507-6	





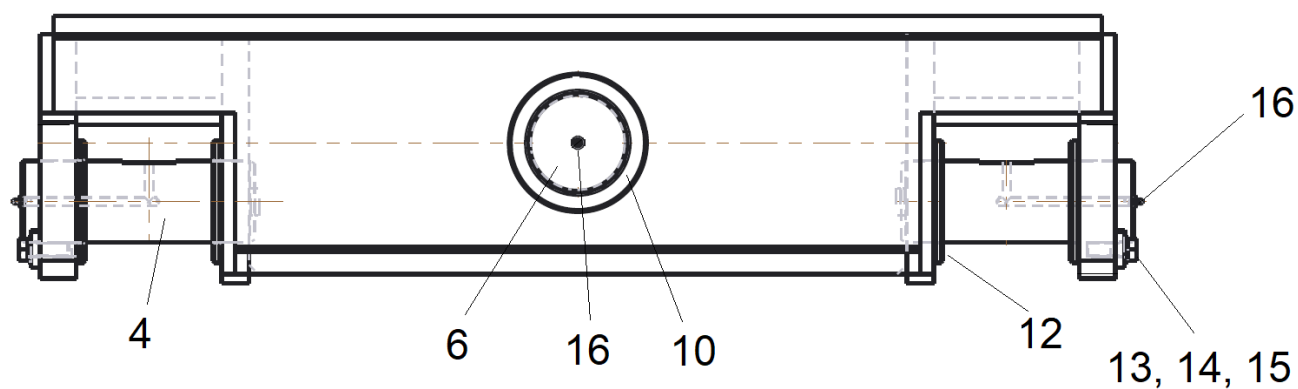
7.2 WHEEL SET

Dwg. No.		80507-2
Item	Description	Part. No / Type
1	Axle	80507-2-1
2	Wheel body	80507-2-2
3	Fey-ring carrier d=159/130-12	80507-2-3
4	Taper roller bearing 32216	1410.0030
5	Hub cap d=160	80507-2-5
6	Bushing 90x95x40	1406.0008
7	Distance tube	80507-2-7
8	Taper roller bearing 32020	1410.0008
9	Grease tube	80507-2-9
10	Slotted lock nut KM16	80507-2-10
11	Securing washer MB16	80507-2-11
12	Seeger ring W 160 DIN 472	80507-2-12
13	Fey-Sealing FK6 160 ASD	1450.0203
14	Lubrication nipple AM 10x1 DIN71412	80507-2-14
15	Tyre 559x406-406	1605.1007
16	Fey-ring carrier d=139/80-12	80507-2-16
17	Fey-Sealing FK6 140 ASD	1450.0201



7.3 ROCKER BEAM

Dwg. No.		80507-3
Item	Description	Part. No
4	Bolt for axle d=90	80507-3-4
6	Bolt for rocker beam d=100	80507-3-6
10	Bushing 105x100x60	1406.0010
12	Washer d=125/91-10	80507-3-12
13	Securing plate for axle bolt 40x10	80507-3-13
14	Hexagonal screw M16x40 DIN933	80507-3-14
15	Lock washer A16,5 DIN127B	80507-3-15
16	Lubrication nipple AM10x1 DIN71412	80507-3-16



8 LASHING EQUIPMENT

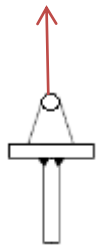
MBL: Minimum Braking Load

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

Lashing

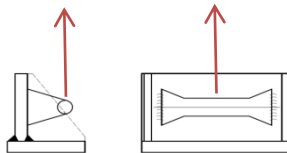
MBL = 320 kN

Pulling straight out



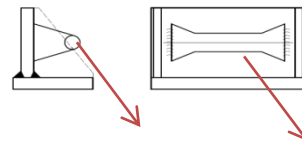
MBL = 280 kN

Pulling straight up



MBL = 300 kN

Pulling down at an angle



D-Ring

MBL	=	500 kN
Proof load	=	313 kN
SWL	=	250 kN

