

# **O P E R A T I N G M A N U A L**

**- Original -**

**Product**                      **Seacom Rolltrailer**  
**RT 60' 100t**

**Serial no.**                    **A 5526-4 / 1-33**

**Customer**                    **Grimaldi - Italy**

**Supplier**                    **Transport Systems Seacom AG**  
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# 1 CE DECLARATION OF CONFORMITY

<b>Transport Systems Seacom AG</b> Neuhausen, Schweiz	
<b>EG-Konformitäts-Erklärung</b> <b>EC Declaration of Conformity</b>  im Sinne der EG-Richtlinie Maschinen 2006/42/EG, Anhang II A <i>in the sense of EC Machinery Directive 2006/42/EC, annex II A</i>	
Produktbezeichnung: <i>Product:</i>	<b>Rolltrailer 60' 100t</b> <b>18,5x279x0,87/0,95m</b>
STS-Nummer: <i>STS-Number:</i>	<b>A 5526-4 / 1-33</b>
Hersteller: <i>Manufacturer:</i>	<b>Transport Systems Seacom AG</b> Berbiceweg 5 CH – 8212 Neuhausen
Der Hersteller deklariert, dass das bezeichnete Produkt in Übereinstimmung mit folgender Richtlinie entwickelt, konstruiert und gefertigt wurde:  <i>The manufacturer declares that the above mentioned product is developed, designed and manufactured according to:</i>	EG-Maschinen Richtlinien (2006/42/EG)  EC Machinery Directive (2006/42/EC)
Folgende harmonisierte Normen sind angewandt:  <i>The following national standards, directives and specifications have been applied:</i>	EN ISO 12100-1/ -2 (Sicherheit von Maschinen - Grundbegriffe, allgemeine Gestaltungsleitsätze) / (Safety of machinery - Basic concepts, general principles) EN ISO 14121-1 (Sicherheit von Maschinen - Risikobeurteilung) / (Safety of machinery - Risk assessment) EN 287-1 (Prüfung von Schweißern - Schmelzschweißen - Teil 1: Stähle) / (Qualification test of welders - Fusion welding - Part 1: Steels)
	
Neuhausen, 11. October 2011	Heinz Althammer <b>Trailer Systems Seacom AG</b>

## 2 PREFACE

Please read this documentation carefully in order to avoid accidents. This way you can make sure that all warranty conditions are complied with and the trailer will be working well at any time.

### HOW TO USE THE TRAILER CORRECTLY

- The trailer is produced for internal transport only.  
Please do not exceed the max. capacity stated on the type plate.  
Damages caused by overloading are not covered by warranty.
- Please observe the following operating instructions carefully.  
The trailer may only be operated, maintained and repaired by trained persons.
- Unauthorized modifications of the trailer will lead to expiry of warranty.
- All rules and regulations for accident preventions have to be adhered to.

### WARRANTY

- Any warranty claims can only be considered, if all service and maintenance works has been carried out on schedule. The operator has to keep records about all maintenance and repair works.

### 3 RESIDUAL RISK

**Danger**

of getting caught or crushed during the coupling by the trailer.  
Persons that are near the trailer during hitching and unhitching can get caught or run over.

- It needs to be ensured that no persons are in the danger area during the coupling operation.

**Warning**

Dangers from overloading.

An overload of the trailer can cause major damages to the trailer and endanger persons.

- The load limitations must be observed.

**Warning**

Dangers from collision.

Parts of the load that extend over the cargo bed can collide with the surroundings, cause damage and endanger persons.

- Before the transport, the driver must make sure that no collision is possible.

**Warning**

Danger of getting caught or crushed by the trailer.

Danger when driving on inclines: The trailer or the cargo can slide away or tip, especially when:

- the trailer is loaded to maximum
- the load has a high centre of gravity
- the road surface is uneven or slippery (dirt, ice)
- the speed is too high
- braking or accelerating suddenly

The road surface should be paved well enough. Speed should be reduced on inclines and driven with greatest caution. The cargo's centre of gravity should lie in the middle of the loading area if possible. Adapt the speed to the conditions.



**Danger**

of getting caught by the trailer.

Persons situated in front or close next to the moving trailer are in danger of being caught and crushed by it.

- As long as the trailer is moving, the driver must ensure that no persons are situated in the danger area of the trailer.



**Warning**

Danger during maintenance.

Danger of injury from improper operation and maintenance.

All specifications concerning operation, inspection and maintenance must be observed. In case of doubt, the supplier needs to be consulted.



**Danger**

during maintenance on a jacked up trailer.

The trailer needs to be sufficiently supported before maintenance and secured against rolling away.

## 4 SPECIFICATION

Load capacity		100 t
Dead weight	approx.	12,5 t
Maximum speed	fully laden empty	6 km/h 16 km/h
Platform length	approx.	18.500 mm
Platform width	approx.	2.790 mm
Platform height front/rear	approx.	870 / 950 mm
Rear overhang		5.000 mm
Axle load		4x 22 t
Fifth wheel load		26 t
Axle		2 pcs
Tyres	solid rubber	22x16x26
	number of tyres	8 pcs
Loading platform	tear plate	5/7 mm
Accessories	lashings	22 (2+10+10+0)
	D-Rings	26 (2+10+10+4)
	triangle marks	white
Finish	Primer:	Hempathane HS 55610 (2 component zinc phosphate paint)
	Top coat:	Hempadur Fast Dry 17410 (2 component epoxy paint)
	Colour:	brown red RAL 3011

Measurements and weight may vary slightly.



## 5 OPERATING INSTRUCTIONS

### Intended use

- The rolltrailer's intended use is for internal transport of any kind of general cargo.
- The driver of the tractor has to inspect the rolltrailer for detectable faults before the start of operation.

### Hitching of a rolltrailer with gooseneck

- Reverse the tractor with gooseneck coupled to the fifth wheel towards front side of rolltrailer.
- Adjust height of gooseneck to correct coupling height. Drive the toe of the gooseneck completely into the opening in the rolltrailer.
- Lift fifth wheel with engaged reverse gear until gooseneck is firmly coupled with rolltrailer.
- Disengage reverse gear and lift further until front leg of trailer has reached sufficient ground clearance ( 150 to 200 mm )

### Driving

- The rolltrailer shall only be towed by suitable towing vehicles with a lifting capacity of at least 32 t and a lifting height of at least 800 mm.
- The transport of persons is not permitted.
- The road surface should be in reasonable condition, and without obstacles.
- In any case, the prescribed speeds and safety regulations must be observed.  
The maximum permitted speed, straight ahead with full load of 100 t is 6 km/h.
- In curves the speed should be reduced appropriately.
- When reversing, seek a guide, if visibility is insufficient.

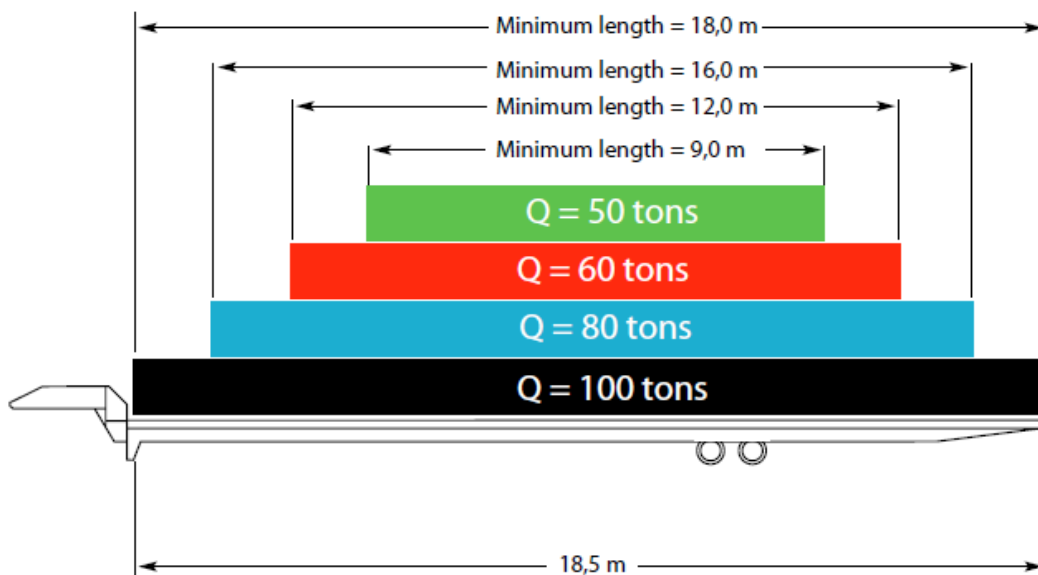
## Loading

- 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.

## Distributed load

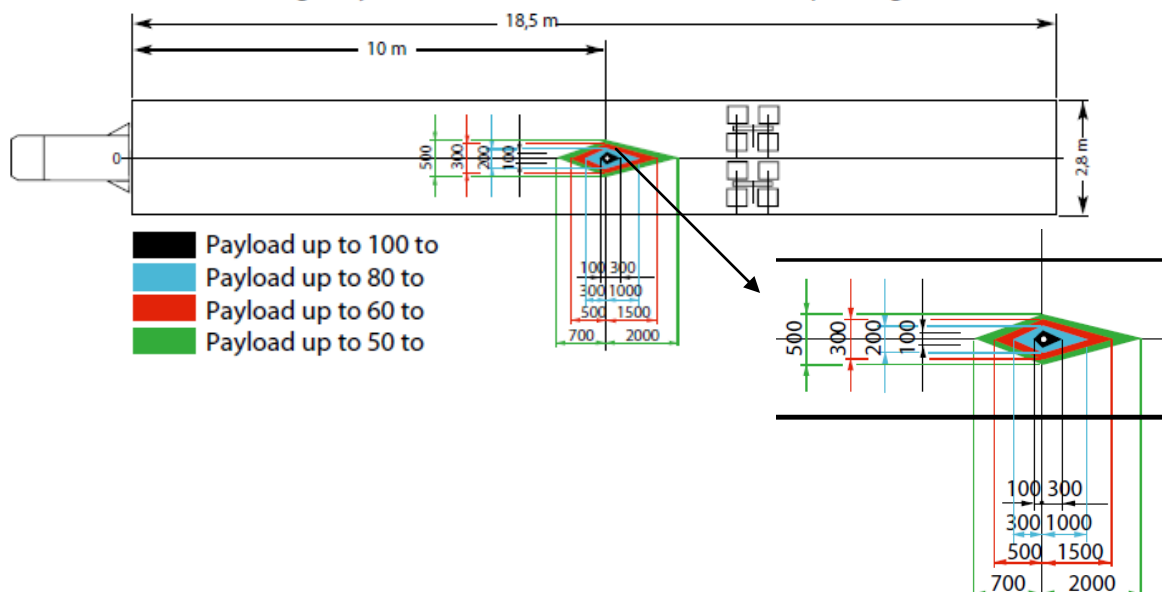
- To avoid overloading always ensure that the centre of gravity of the load is within the respective areas in the diagram (see the following loading scheme).

### Distributed loads



### Load center of gravity

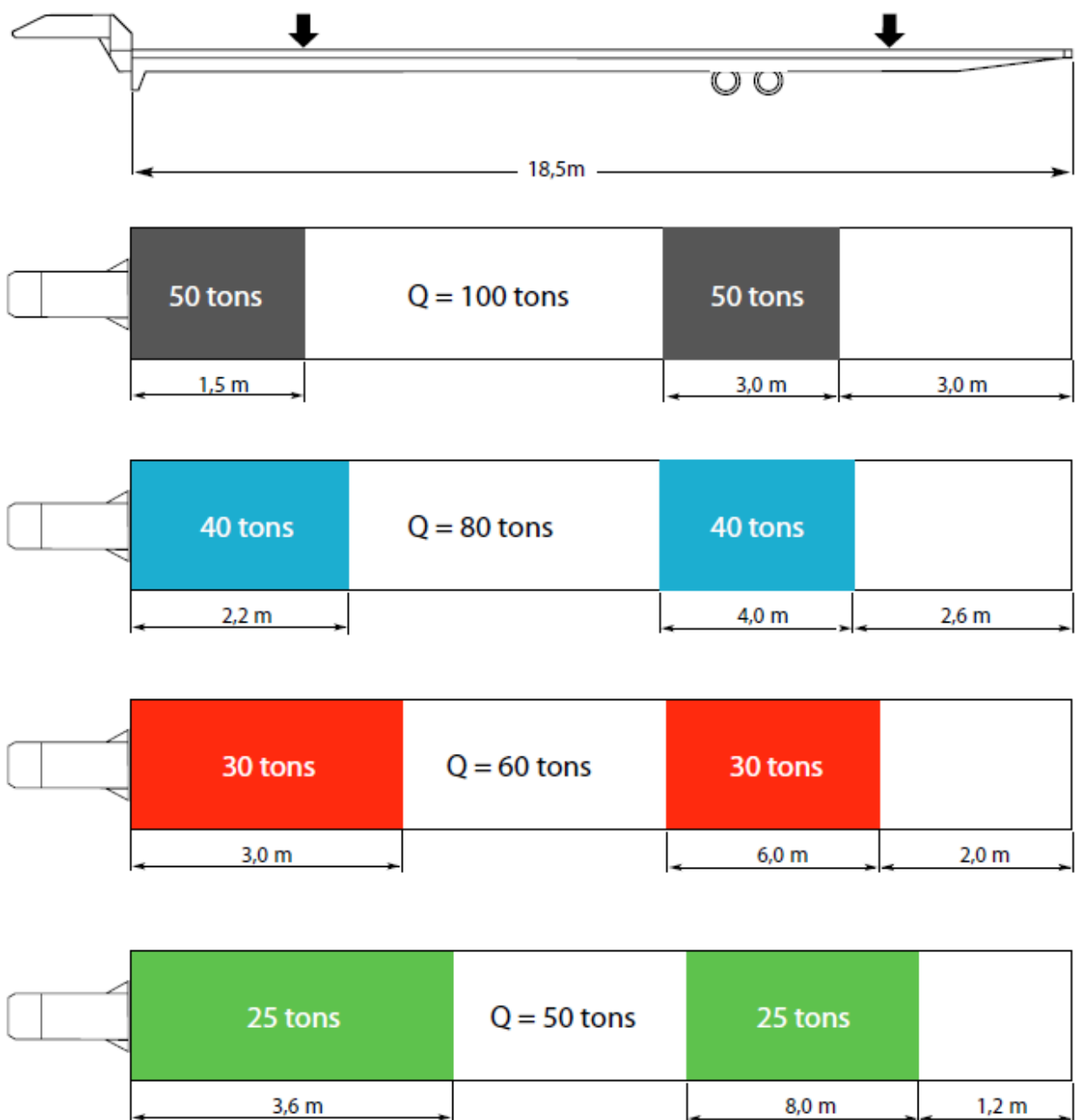
Load center of gravity must be within the colored areas corresponding to the load



### Point load

- For the distribution of the load see the following scheme.
- When point loads are applied to the platform make sure that each load is supported by the longitudinal beams of the trailer, e. g. use some support cross beams. Point loads can be applied only in the areas according to below diagram. The positions of cross beams are marked in the longitudinal beams with white triangles.

Point loads must be put on the platform within the marked areas



## 6 SERVICE MANUAL

### General information

The trailer is a simple and solid construction. The following inspections and maintenance tasks should be done at regular intervals in order to ensure a trouble free and safe operation. Faulty parts need to be replaced in time. They need to meet the specified requirements of the supplier and the pertinent safety regulations.

### Wheel set

Inspect the wheel sets regularly (in about 6-month intervals) for external damages.

### Tyres

Inspect the tyres for mechanical damages (about once a month).

### Wheels

Check the wheels regularly:

1. Does the wheel turn without noise and without axial movement?
2. If there is a noticeable noise, then dismount the wheel and check the taper roller bearings; if necessary replace them.
3. Check axial movement of wheel. In case of axial movement readjust taper roller bearing.

### How to readjust wheel-bearing

- Make sure that trailer is in parking position.
- Lift rear side of trailer with a forklift or hydraulic jack so that wheels can be rotated by hand. Take into account that the hydraulic will lower the wheels.
- Put suitable supports under lifted trailer.
- Check wheel: In case of axial movement or not smooth rotation
  - Remove hub cap (warm cap up to approx. 60 °C)
  - Remove split pin from horned nut
  - Tighten horned nut until wheel is blocked
  - Untighten horned nut until wheel rotates free but without any axial movement
  - Refit split pin
  - Refit hub cap (warm cap up to approx. 60 °C)
- No parts forgotten to refit?
- Lower rear side of trailer.

## Frame

The frame and the welding points should be checked regularly. The frame construction consists of structural steel and can be repaired by qualified repair technicians in case of damages. In case of questions, call your supplier.

## Lubrication

Greasing point	Greasing interval
Rocker arm bearing	3 month
Swivel axle bearing	3 month
Wheel set	3 month

The lubrication intervals depend on the operational conditions of the trailer: If the conditions are rough, then more frequent lubrication is needed.

### Tightening torque for screws and nuts

Screws and nuts need to be inspected regularly (monthly) or retightened.

Coefficient of friction:  $\mu_{\text{tot.}} = 0.12$  for screws and nuts without reworking, as well as phosphated nuts. Tighten by hand!

Tightening torques, if not specified otherwise, can be found in the following tables.

**Metric ISO standard thread DIN 13, sheet 13**

Size	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

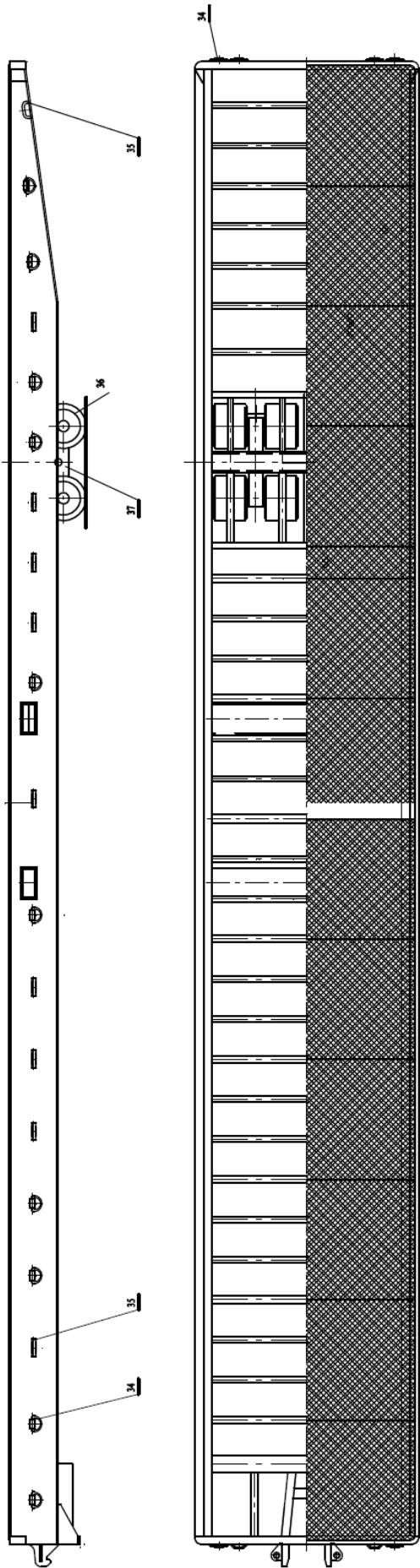
**Metric ISO fine thread DIN 13, sheet 13**

Size	8.8		10.9		12.9
M 8 x 1	24		36		43
M 9 x 1	36		53		62
M 10 x 1	52		76		89
M 10 x 1.25	49		72		84
M 12 x 1.25	87		125		150
M 12 x 1.5	83		120		145
M 14 x 1.5	135		200		235
M 16 x 1.5	205		300		360
M 18 x 1.5	310		440		520
M 18 x 2	290		420		490
M 20 x 1.5	430		620		720
M 22 x 1.5	580		820		960
M 24 x 1.5	760		1100		1250
M 24 x 2	730		1050		1200
M 27 x 1.5	1100		1600		1850
M 27 x 2	1050		1500		1800
M 30 x 1.5	1550		2200		2550
M 30 x 2	1500		2100		2500
M33 x 1.5	2050		2900		3400
M 33 x 2	2000		2800		3300
M 36 x 1.5	2700		3800		4450
M 36 x 3	2500		3500		4100
M 39 x 1.5	3450		4900		5700
M 39 x 3	3200		4600		5300

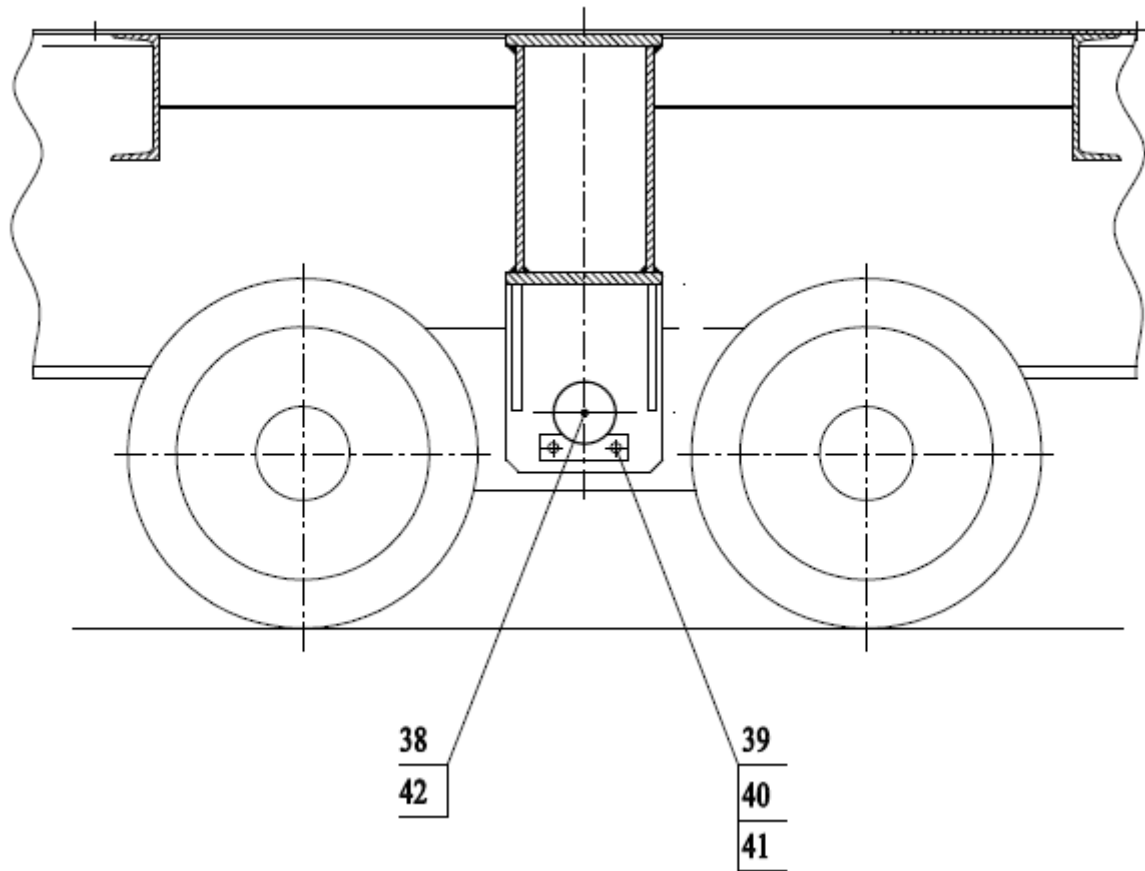
## 7 SPARE PARTS

### 7.1 GENERAL VIEW

Dwg. No. 5526-4		
Item	Description	Part. No
34	D-Ring	5526-4.34
35	Lashing	5526-4.35
36	Wheel set 559x406x1040	5526-4.36
37	Rocker beam	5526-4.37
38	Bolt for rocker beam	5526-4.38
39	Axle guard	5526-4.39
40	Screw M16x35 DIN933	5526-4.40
41	Washer B16,5 DIN127	5526-4.41
42	Lubrication nipple AM 10x1 DIN71142	5526-4.42

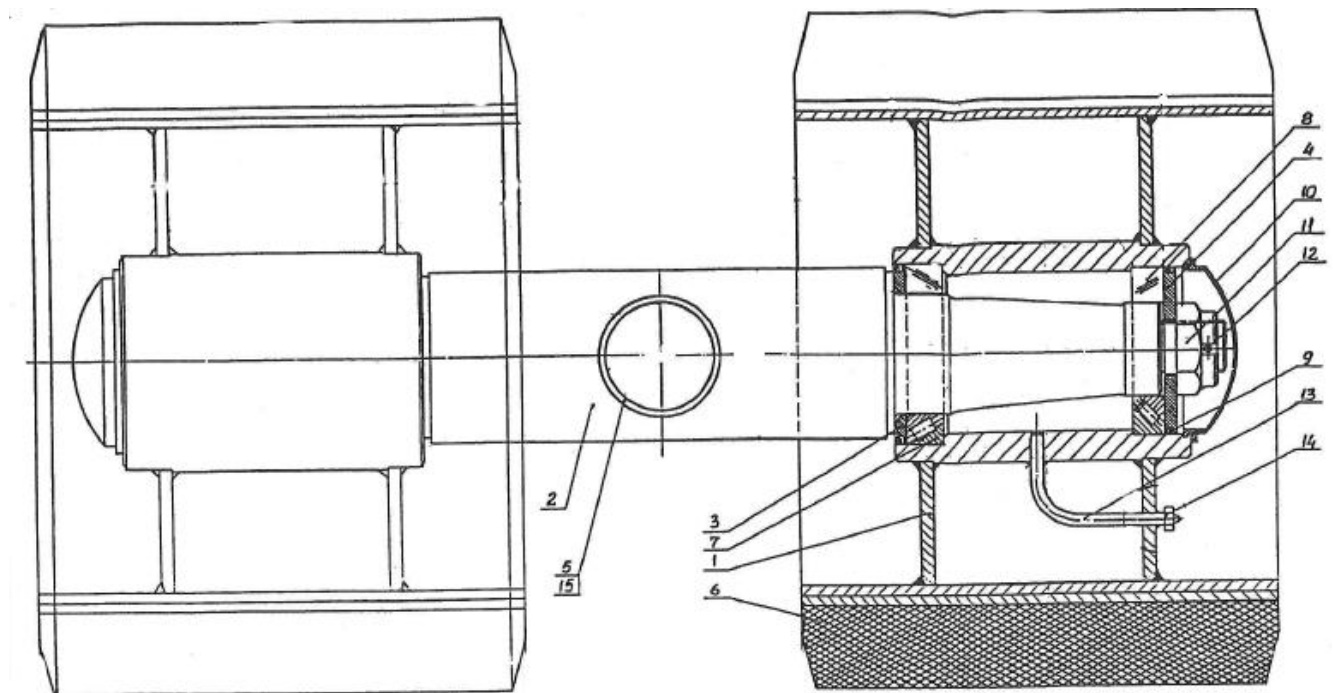






## 7.2 WHEEL SET 559/405-1040

Dwg. No. 5526-4.36		
Item	Description	Part. No
1	Wheel body	5526-4.36.1
2	Axle	5526-4.36.2
3	Sealing washer d=149/100	5526-4.36.3
4	Sealing washer d=139/48,5	5526-4.36.4
5	Plain bearing bush 95x90x40	5526-4.36.5
6	Tyre 22x16x16	5526-4.36.6
7	Taper roller bearing 32020	5526-4.36.7
8	Taper roller bearing 30216	5526-4.36.8
9.1	Fey ring FK6 d=140 ASD	5526-4.36.9.1
9.2	Fey ring FK6 d=150 ASD	5526-4.36.9.2
10	Hub cap d=140	5526-4.36.10
11	Hornet nut M48x1,5 DIN937	5526-4.36.11
12	Split pin 8x80 DIN94	5526-4.36.12
13	Lubrication tube	5526-4.36.13
14	Lubrication nipple AM10x1 DIN71412	5526-4.36.14
15	Distance tube	5526-4.36.15



### 7.3 ROCKER BEAM

Dwg. No. 5526-3.37		
Item	Description	Part. No
4	Bolt d=90	5526-4.37.4
6	Bolt d=100	5526-4.37.6
10	Bush 110/100x60	5526-4.37.10
12	Washer	5526-4.37.12
13	Axle guard	5526-4.37.13
14	Screw M16x30 DIN933	5526-4.37.14
15	Washer B16,5 DIN127	5526-4.37.15
16	Lubrication nipple AM10x1 DIN71412	5526-4.37.16

