MANUFACTURER **PRONAR Sp. z o.o.**

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SINGLE-AXLE AGRICULTURAL TRAILER REAR DUMPER

T681

OPERATION & MAINTENANCE MANUAL

Identification of the machine

Symbol /Type: T681

KTM Symbol: 1026-635-848-206

Serial:

The serial is stamped on the type plate and on the front of the trailer's frame. The type plate is riveted to the load-carrying body.

In the course of purchase check conformity of the serial stamped on the trailer with the serial given in the warranty card, in purchase documents and in the operation manual.

Hydraulic system is filled with HL32 hydraulic oil

Quality Inspection Sign.....

The manual and the spare parts catalogue are valid together with the annex No. ..... from the ..... .

The manufacturer reserves the right to introduce design modifications for the purpose of simplified maintenance and improved operation quality.

Remarks and notices about design and operation of the trailer should be submitted to the manufacturer. This information allows us to evaluate objectively manufactured machines and will be used as hints for further modernisation.

Information about major design alterations will be supplied to users in the form of enclosed information leaflets (annexes).

CAUTION!

The operation & maintenance manual is the substantial equipment of the trailer.

The user should read carefully the manual before operation and observe all recommendations given in the manual. This will ensure safe maintenance and failure-free operation of the machine.

The machine has been designed in accordance with generaly recognised standards, documents and currently binding legal regulations.

Product verified by the IBMER – the research lab authorised by the PCA

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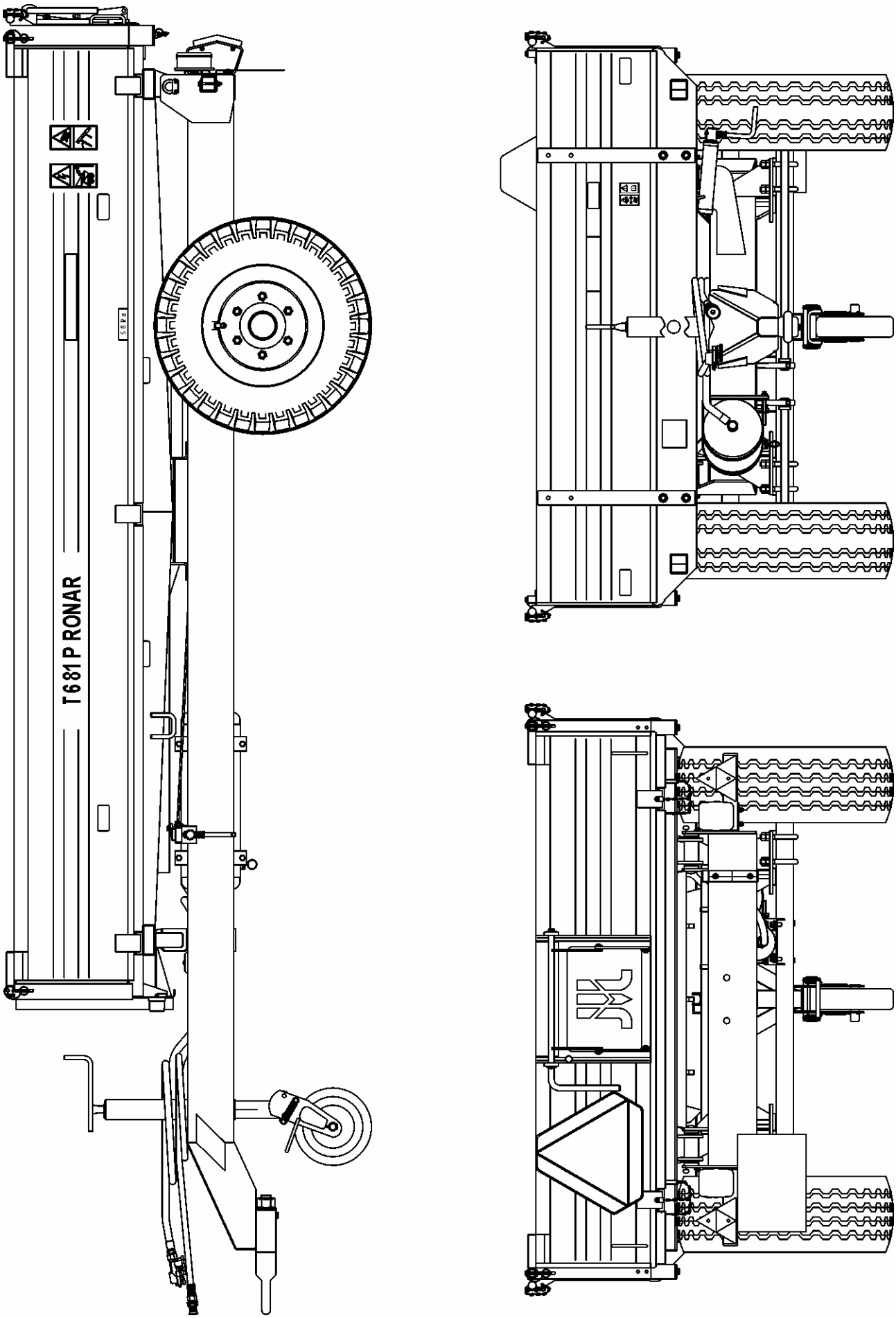


Fig. 1 Trailer T681

1 INTRODUCTION

1.1 General information

The manual describes basic rules of safe operation & maintenance of the agricultural trailer. If information contained within the manual will be not comprehensible for the user please do not hesitate to contact your dealer or directly the manufacturer.

Especially important are informations and recommendation marked in the text by bold characters or preceded by the word “CAUTION”.

Information, descriptions of danger and precautions as well as commands and orders concerning safe operations are marked with following sign:

and mentioned in the chapter „Safe operation ".

1.2 Application of the trailer

The trailer is designed for transportation of agricultural produce as well as loose and volume materials within farm limits and on public roads.

Brake, lighting and signalling systems fulfill all requirements of traffic regulations.

The trailer is adapted for coupling with agricultural tractors fitted with external hydraulic system and a hook for single-axle trailers.

CAUTION!

The trailer must not be used contrary to its proper application and especially:

- **for transporting of persons & animals,**
- **for transporting of loose, unprotected toxic materials if there is the possibility of environment contamination,**
- **for transporting of machinery & devices, which location of gravity centre may influence negatively on trailer’s stability,**
- **for transporting of loads, which may cause unequal load or overload of axles,**
- **for transporting of nonfastened loads, which may change their location on the trailer’s platform during drive.**

2 OPERATIONAL SAFETY

- The user should read carefully the manual before operation and observe all recommendations given in the manual during operation.
- If information contained within the manual will be not comprehensible for the user please do not hesitate to contact your dealer, who also provides repair & service or directly the manufacturer.
- Careless and improper operation & maintenance of the trailer as well as lack of observation of reccomendations given in present manual may endanger human health and life.
- Lack of observation of safe use rules may endanger health of operators and third persons.
- There is the risk of residual danger, thus application of safe operation rules should be the basic principle of trailer's use.
- Persons unauthorised for driving agricultural tractors including children and drunk persons have no right to use the trailer.
- It is prohibited to use the trailer contrary to its purposes. User, who utilise the trailer in other than prescribed manner, takes all responsibility for all consequences resulting from trailer's use.
- Any unauthorised modification absolves the PRONAR Narew from responsibility for resulting damage or health detriment.
- Prior to each trailer's use check its technical condition, especially coupling system, drive system, brakes and signalling lights.
- Check trailer's hydraulic system frequently; any oil leakage is inadmissible.
- Take special care while coupling trailer with tractor.
- For coupling with tractor use only hooks for single-axle trailers. Check safety device.
- In the course of coupling no-one is allowed to stand between trailer and tractor.
- Climbing on the trailer is allowed only if the trailer is completely stopped and tractor's engine off; the trailer should be also braked with its hand brake.
- Disconnection of the trailer while the load crate is lifted with the telescope cylinder is prohibited. Take special care by disconnecting the trailer.
- Disconnected trailer should be braked. If the trailer stands on a slope or an elevation it should be protected additionally with wedges or other blunt-edged objects placed under wheels.
- The load should be placed uniformly on the load crate surface.

- Admissible load must not be exceeded.
- Driving with lifted load crate and transporting of people & animals is prohibited.
- No-one is allowed to stand in the vicinity of lifted load crate and unloaded material.
- Keep safe distance from electric lines while lifting the load crate.
- If any operation failure or damage occurs, stop operation of the trailer and repair the damage.
- Maintenance & repair of the trailer with loaded and/or lifted load crate without proper support of the crate is prohibited.
- During trailer's operation use protection gloves and proper tools.
- All maintenance & repair works should be performed with observation of safety regulations. In the case of wound wash and disinfect wounded place immediately. In the case of serious injuries consult a physician.
- The trailer is marked with information / signalling stickers as described in the table 1 below. The user should take care of legibility and cleanliness of inscriptions & warnings for all time of trailer's operation. In the case of damage or destruction replace missing stickers with new ones – available at your dealer or manufacturer.

Table 1. Information & warning stickers

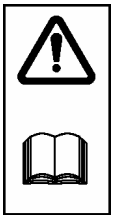
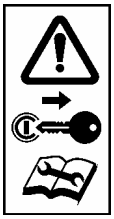
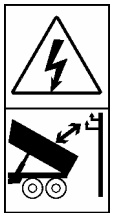
Safety sign or text	Explanation	Location
	Read operation manual	Front wall
	Prior to maintenance & repair stop the engine and remove the ignition key	Front wall
	Prior to maintenance & repair secure the load crate	Right & left wall

Table 1. Information & warning stickers, continued

Safety sign or text	Explanation	Location
	Take special precautions while operating near to energetic lines	Right & left wall
„Maintenance & repair of the trailer with loaded and/or lifted load crate without proper support of the crate is prohibited”		Front wall
„Couple with single-axle trailers hook only”		Front wall
„Maximum load 3000 kg”		Right & left wall
„8kN”	Minimum vertical load of tractor’s hook	Hitch bar
„550 kPa”	Tyre pressure 10.0/75-15.3 14PR	Above wheels, right & left wall

2.1 PRINCIPLES OF USE OF PUBLIC ROADS

- While driving public roads observe traffic regulations.
- Trailer’s overload may cause its damage and endanger traffic safety.
- Do not exceed the maximum speed of 30 kph. Adjust the speed to traffic conditions.
- The trailer can work on slopes up to 8°. Lift the load crate on level ground only.
- It is prohibited to leave unsecured trailer. Always activate the parking brake.
- While driving public roads the trailer should be equipped with certified or approved warning reflecting triangle.

Rear wall should be equipped with a triangular plate for slowly moving vehicles (if the trailer is the last vehicle in a set (Fig. 2)).

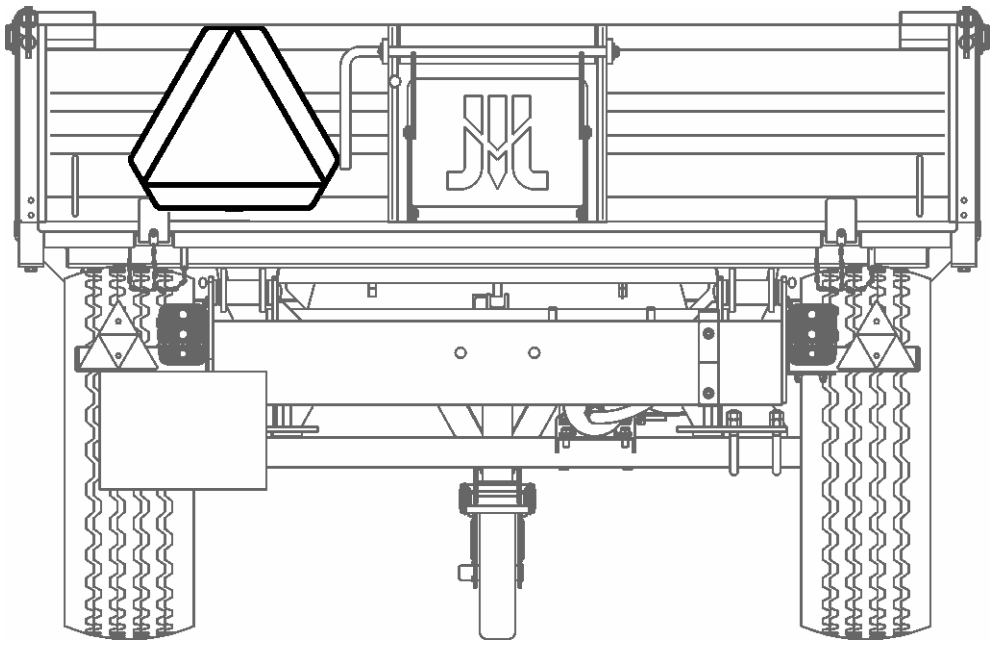


Fig. 2 Location of a triangular plate for slowly moving vehicles.

It is prohibited to leave unsecured trailer. Always activate the parking brake.

3 ADDITIONAL INFORMATION

3.1 TRAILER EQUIPMENT

Trailer equipment consists of:

- operation & maintenance manual + spare parts catalogue - 1
- warranty card - 1
- connection cable - 1

For user's order the trailer may be equipped additionally with:

- warning reflecting triangle
- triangular plate for slowly moving vehicles

3.2 WARRANTY CONDITIONS

"PRONAR" Sp. z o.o. guarantees efficient operation of the trailer if utilised according to technical & operation conditions described in the manual.

Failures detected wihin warranty period will be removed by the Warranty Service within no longer than 14 working days from the date of delivery to a repair station or within any other agreed period.

Normally wearing parts i.e. tyres, brake linings as well as mechanical damage, damage resulted from improper use, adjustment or maintenanance are not subject of warranty.

Detailed warranty conditions are mentioned in the warranty card supplied together with the newly bought trailer.

CAUTION!

Demand your dealer to fill the warranty card and complaint coupons exactly and completely. Lack of e.g. sale date or dealer's stamp may render your possible complaint void.

3.3 TRANSPORTATION

The trailer is delivered for sale fully assembled and requires no package. Packed are only: the manual, the connection cable and – if ordered – the warning triangle.

The trailer is supplied to the user with a truck or the user can take by himself with his own tractor.

CAUTION!

If the user takes the trailer by himself he should read present manual and observe all recommendations given in the manual. In the case of transportation with a truck the trailer is fastened on the load crate according to generally recognised safety rules. The truck driver should take special precautions while transporting the trailer, because the gravity centre of the loaded truck is shifted upwards.

4 OPERATIONAL INFORMATION

4.1 TECHNICAL DATA

Table 2. Basic technical data

No.	Data	Unit	T681
1	Overall length	mm	4578
2	Overall width	mm	2042
3	Overall height	mm	1287
4	Wheel base	mm	1500
5	Load crate intern. dimensions:		
	- length	mm	3320
	- width (front / rear)	mm	1860
	- height	mm	420
6	Load volume	m^3	2,6
7	Load surface	m^2	6,2
8	Load surface height above ground	mm	848
9	Weight	kg	1000
10	Admissible total weight	kg	4000
11	Admissible load	kg	3000
12	Load crate tilt angle	(°)	50
13	Wheel ring dia.		9.00x15.3''
14	Tyre dimensions & PR number		10.0/75-15.3 14PR 130A8
15	Tyre pressure	kPa	550
16	Rated voltage	V	12
17	Admissible speed	km/h	30
18	Hydraulic oil capacity	l	8

Table 3. Tyres – technical data

Tyre dimensions (+ PR number)	Load index & speed symbol	Tread	Ring	Rolling radius [mm]	Load [kg] at speed [kph]			Used pressure [kPa]	Notes
					30	40	other		
10.0/75-15.3 14PR	130 A8	TL	9.00x15.3	343	2033	1900		550	BFGoodrich

4.2 DESIGN & OPERATION PRINCIPLE

4.2.1 Undercarriage

Trailer's undercarriage consists of parts shown on the Fig. 3. The lower frame (3) is a welded structure made of steel profiles. Main carrying elements are two stringers connected each to other with cross-bars.

Fig. 3 Undercarriage & upper frame

1 – lower frame, 2 – hydraulic cylinder, 3 – hitch bar, 4 – upper frame, 5 – load crate support, 6 – supporting wheel, 7 - axle

The reart part of the frame is fitted with bolts for mounting the upper frame, the middle part – with a seat for a hydraulic cylinder (2). The rear part of the frame is fitted also with mountings for an axle (7) and for rear lighting elements. The axle (7) is made of a square rod with pivots on either end; on pivots are mounted conical bearings and on bearings – wheel hubs. The wheels are of single type, fitted with shoe brakes actuated with brake cams.

4.2.2 Load crate

The load crate consists of: upper frame welded together with floor and walls A, B and C.

The upper frame is mounted to the lower frame with bolts, which simultaneously are the axis for tiliting rearwards.

The wall locks (4) and the chute flap (3) are protected from spontaneous, undesirable opening.

Fig. 4 Load crate

A – side walls, B – rear wall, C – front wall, 1 – upper frame, 2 – rear stake, 3 – chute flap, 4 – wall locks

4.2.3 Hydraulic tilting system

Hydraulic tilting system is designed for automated unloading of the trailer through tilting the load crate backwards.

The hydraulic system is supplied with oil from tractor's hydraulic system. Tilting of the load crate is controlled with a distributor of tractor's external hydraulic system.

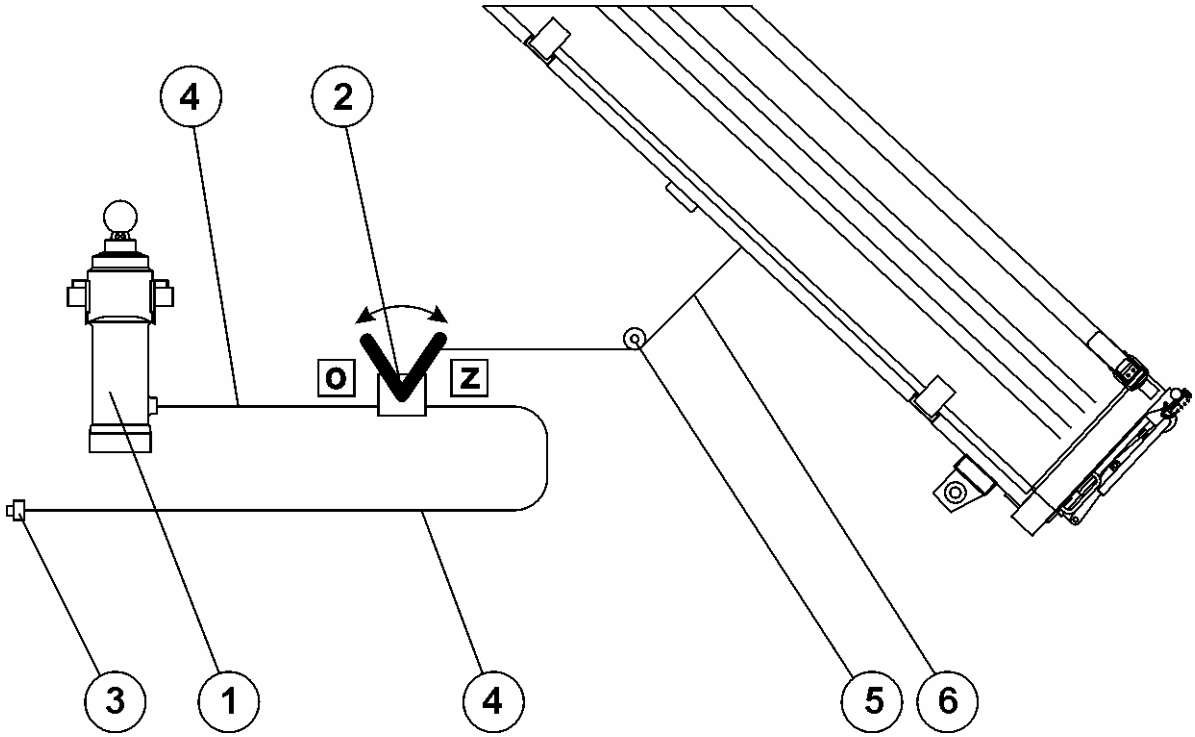


Fig. 5 Hydraulic system for tilting of the load crate

1 – hydraulic cylinder, 2 – cut-off valve, 3 – hydraulic connector, 4 – rubber hose, 5 - roller, 6 –steel rope for controlling the cut-off valve

CAUTION!

The cut-off valve 2 reduces load crate tilting angle. The lenght of the rope is adjusted by the manufacturer and must not be readjusted by the user.

4.2.4 Braking system

The trailer is fitted with a braking system, which consists of:

- pneumatically controlled operational brake
- manually operated (crank-operated) parking brake

The operational brake (pneumatic) is actuated from driver's seat with a brake pedal. In the case of disconnection from tractor's pneumatic system the brake is actuated automatically.

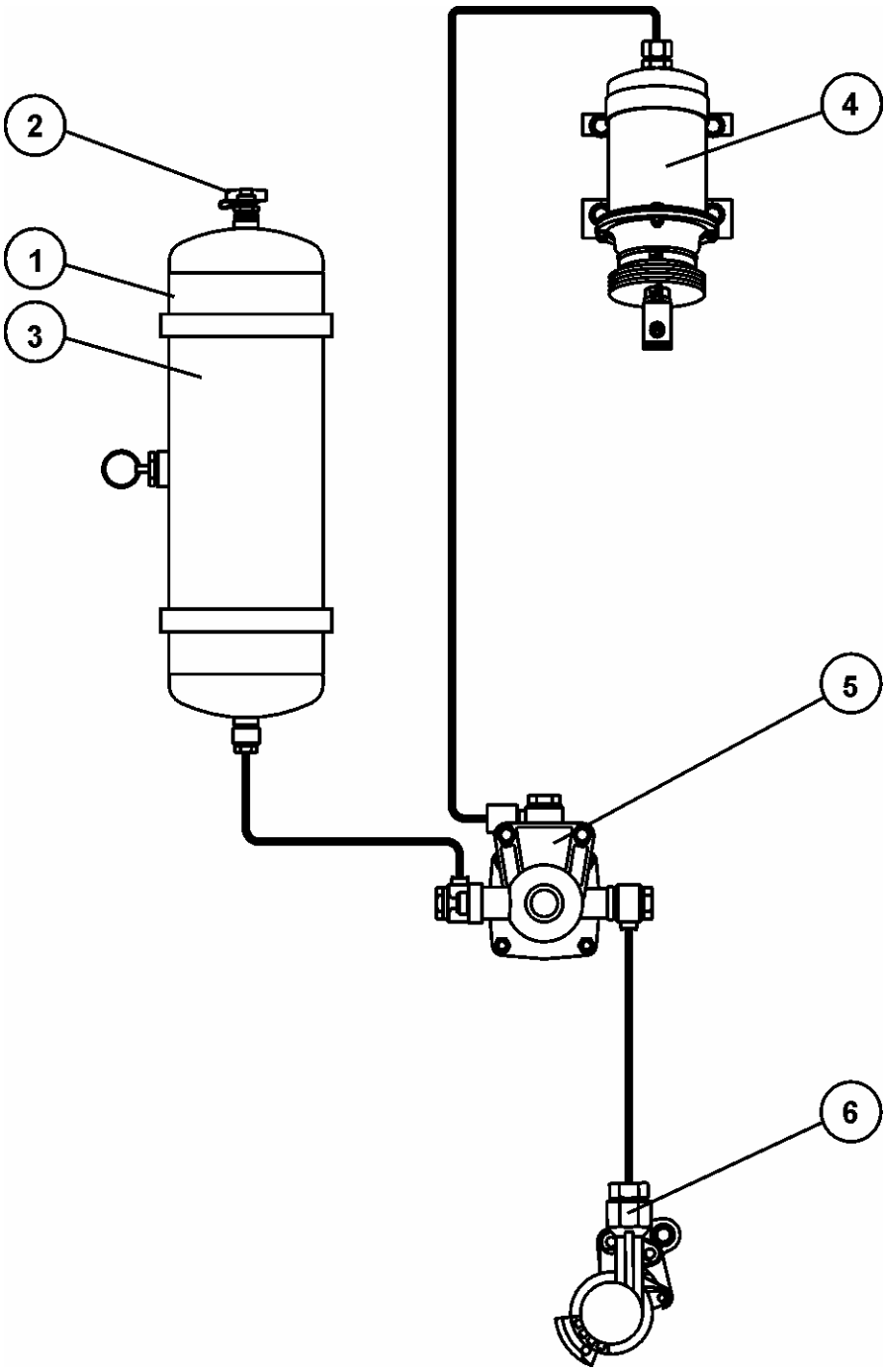


Fig. 6 Pneumatic braking system

1 - air reservoir, 2 - inspection connector, 3 - drain valve, 4 - pneumatic cylinder, 5 - control valve, 6 - conduit connector

4.2.5 Wiring, lighting, signalling

The wiring system is adapted for power supply with 12 V AC. Trailer and tractor electrical systems should be connected together with suitable connection conduit.

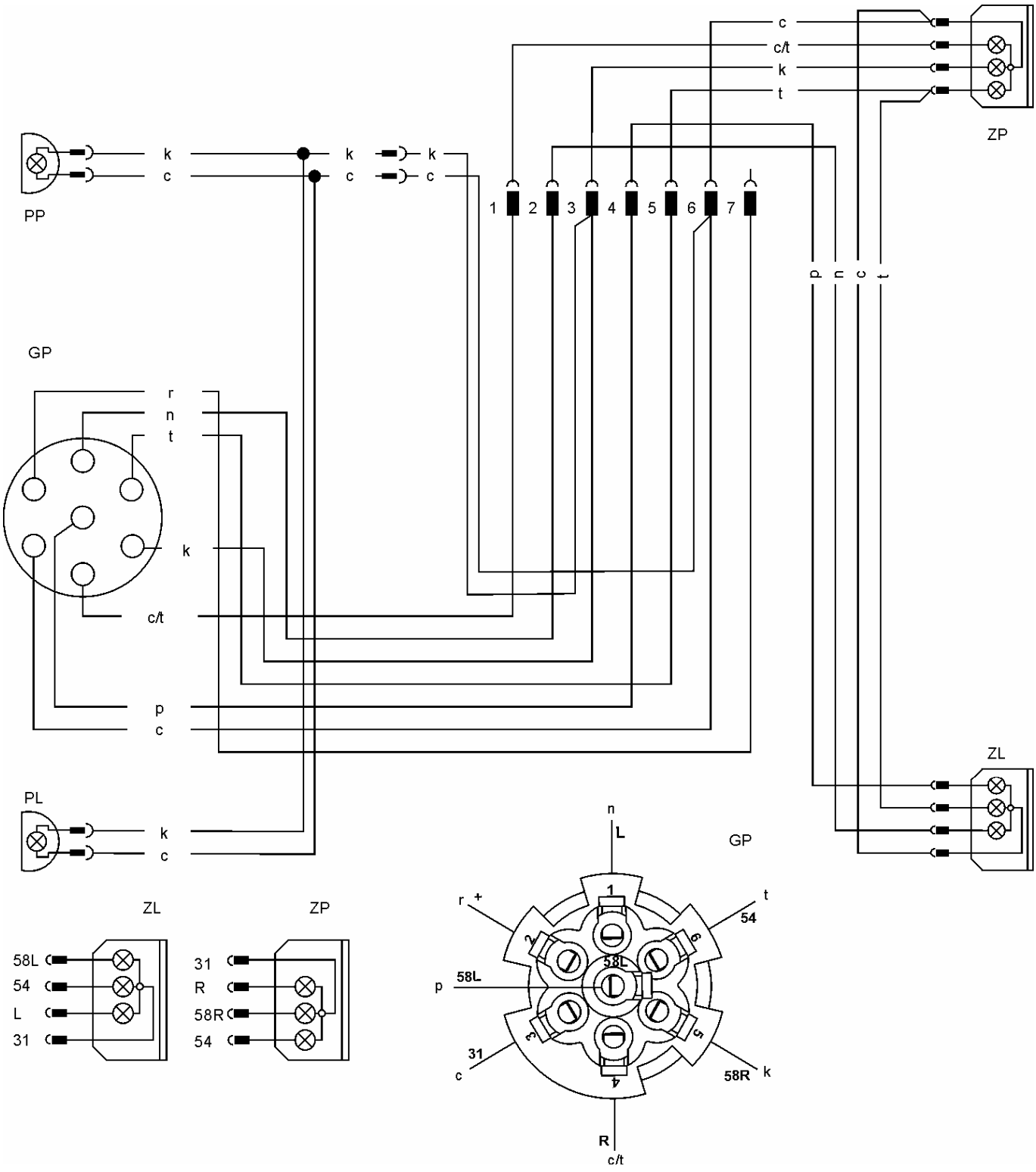


Fig. 7 Trailer wiring system

PP (PL) – right (left) front position light, GP – connection socket, ZP (ZL) - right (left) rear position light

Conduit colours

p – orange, c – black, k – red, r – rose, n – blue, c/t – black-green, t - green,
31 – frame, R (L) – right (left) blinker, 58R (58L) – right (left) position lamp, 54 - „STOP”, „+” – power supply +12V AC

4.3 PRINCIPLES OF TRAILER USE

4.3.1 Coupling with tractor

Prior to coupling with tractor check if the trailer is braked with the parking brake. The tractor should be fitted with a tow hook, which is able to carry min. 8 kN (800 kg) vertical load.

To couple trailer with tractor it is necessary to perform following operations:

- Position the hitch rod eye on suitable level. Precise adjustment of the rod can be achieved with use of the support wheel screw (fig. 8).
- Draw back the tractor, couple hitch rod eye **with a hook for single-axle trailers** on the tractor and check its fastening.
- With the screw raise the support wheel upwards. By pressing the pedal (2) loose the wheel and manually move it to the transport position as shown on the fig. 8b.
- Connect electrical, hydraulic and brake conduits to the tractor.
- Unlock the trailer parking brake.

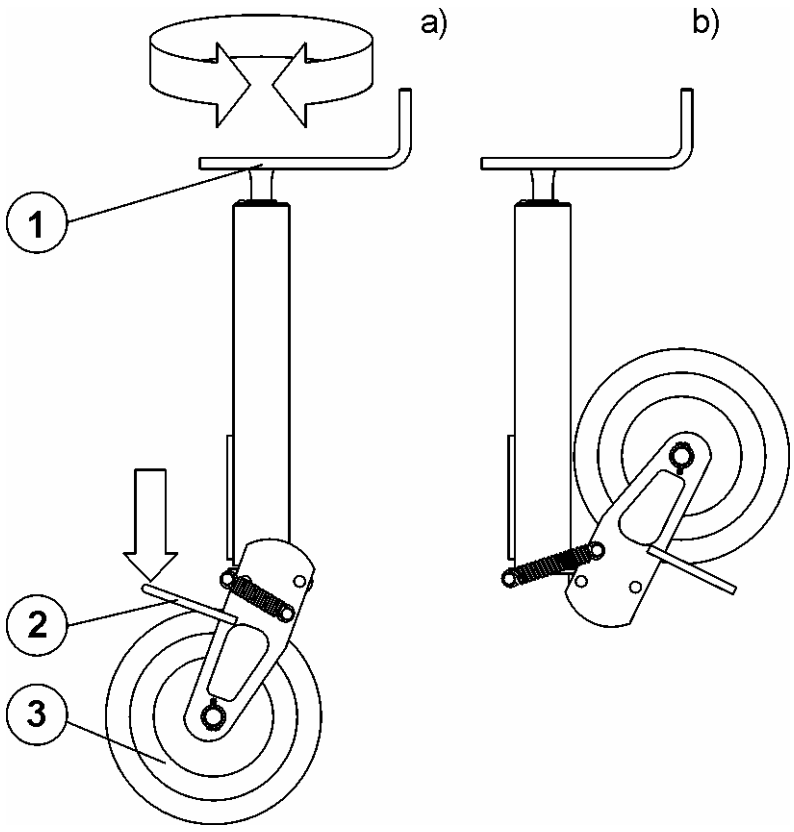


Fig. 8 Trailer support

1 – screw, 2 – pedal, 3 – support wheel

CAUTION!

In the course of coupling no-one except of operator is allowed to stand between trailer and tractor.

4.3.2 Preparation for work

During preparation for work it is necessary to check following items:

- **condition of tyres and tyre pressure**
- **fastening of nuts fixing wheels and hitch rod**
- **condition of other screw connections**
- **function of lighting & signalling systems**
- **function of braking system**
- **condition and function of wall locks and hinges**
- **function of hydraulic tilting system**

4.3.3 Loading of the load crate

It is allowed to load the crate only if it is coupled with a tractor and stands on the level ground. Loading should be arranged uniformly on the entire load crate floor, if possible.

It is recommended to use a crane, a loader or a conveyor for loading. Prior to loading check if wall locks & hinges and the chute flap are closed.

In the case of objects, which put pressure in a few points only use thick boards as separators. Table 4 contains admissible loading heights of various materials. **The table shows clearly that – in many cases – it is impossible to use the entire loading volume without exceeding the admissible load.** It is important not to overload the trailer during loading.

Lightweight materials of great volume may be loaded above wall height but the load should be properly secured from falling down and polluting the road.

Table 4. Loading height

Type of material	Loading height [m]
wet gravel, wet soil, clinker, stone	0,25
cement, dry gravel, soil, brick	0,32
manure, full brick, mineral fertiliser	0,4
rye, potatoes, maize, rape, wheat	0,4
barley, oats, peat, coke	0,4

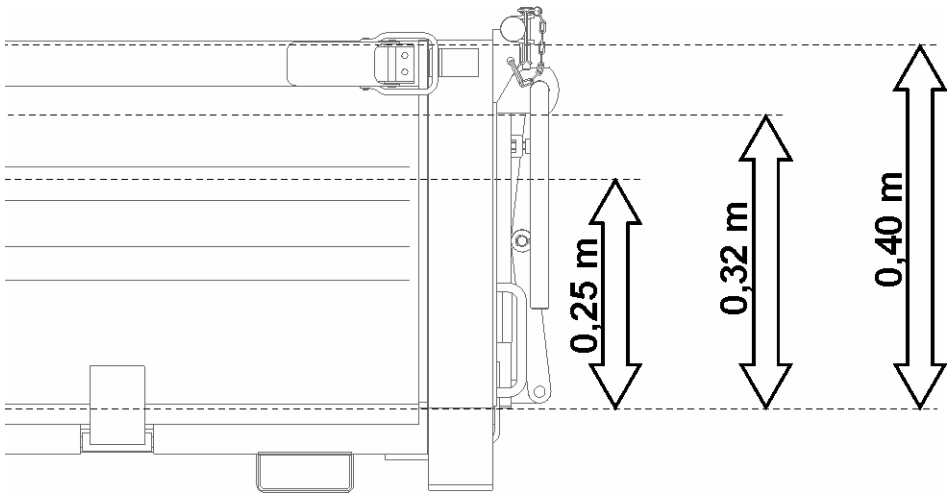


Fig. 9 Admissible loading height

CAUTION!

- **It is prohibited to exceed the admissible trailer load. Overload may endanger traffic safety and damage the trailer.**
- **Prior to drive with the trailer check if wall hinge bolts are secured from falling out.**

4.3.4 Transportation

- While driving public roads observe traffic regulations.
- Trailer's overload may cause its damage and endanger traffic safety.
- Do not exceed the maximum admissible speed. Adjust the speed to traffic conditions.
- The trailer can work on slopes up to 8°.
- While driving public roads the trailer should be equipped with certified or approved warning reflecting triangle.
- Rear wall should be equipped with a triangular plate for slowly moving vehicles (if the trailer is the last vehicle in a set).

4.3.5 Trailer unloading

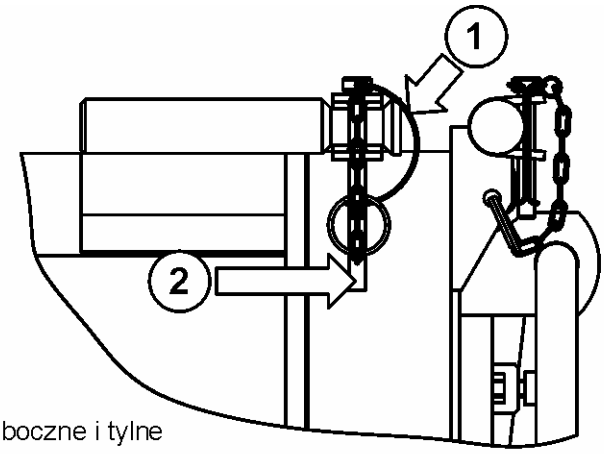
Unloading is performed throught tilting the load crate backwards. Automated unloading should be executed as follows:

- Place the trailer on flat ground, brake the tractor and the trailer with the parking brake. During unloading the tractor should be positioned as to drive forward.

CAUTION!

It is allowed to tilt the load crate only when the trailer stands on hard, flat ground.

- Open lower locks or rear wall locks.



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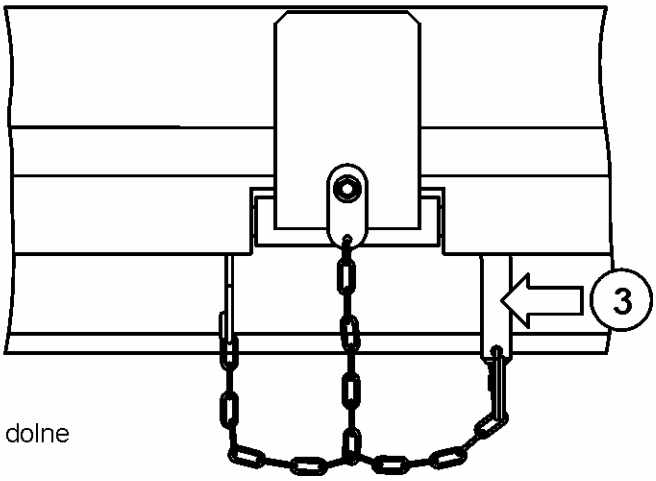

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Fig. 10 Wall locks

1- securing spring

2 – upper lock bolt

3 – lower lock bolt

- Tilt the load crate with help of the hydraulic cylinder.

CAUTION!

- **Take special precautions while opening wall locks due to load pressure on walls**
- **During unloading no-one is allowed to stand in the vicinity of tilted load crate.**
- **It is allowed to tilt the load crate only if the trailer is coupled with a tractor.**
- **It is prohibited to tilt the load crate during violent wind gusts.**

The rear wall is fitted with a chute, which opening can be adjusted resulting in slots of various heights. This enables adjustment of output of unloaded loose materials e.g. mineral fertilisers or cereal.

To open the chute, first loose the nut of the securing clamp. While using the chute do not open rear wall locks. After unloading:

- Lower the load crate
- Clean wall edges and floor from residues or impurities. Close walls. Close locks to make spontaneous opening impossible.

CAUTION!

- **Take special precautions while closing walls and chute to avoid crushing fingers.**
- **Do not move and/or drive with the load crate in upper position.**

4.3.6 Uncoupling the tractor

To uncouple the trailer perform following actions:

- Stop the tractor and stop the trailer with the parking brake.
- Disconnect electric, hydraulic and brake conduits; protect their ends from dirt.
- Place the support wheel in its lower position and with help of the screw lower it until touches the ground.
- Discouple the hitch rod and drive off the tractor.

4.3.7 Failures and defects

Frequently appearing failures & defects and troubleshooting are given in the chapter “MAINTENANCE MANUAL”.

5 MAINTENANCE MANUAL

CAUTION!

- **If any operation failure or damage occurs, stop operation of the trailer and repair the damage/ remove the failure.**
- **Maintenance & repair of the trailer with loaded and/or lifted load crate without proper support of the crate is prohibited.**
- **All maintenance & repair works should be performed with observation of safety regulations. In the case of wound wash and disinfect wounded place immediately. In the case of serious injuries consult a physician.**
- **If it is necessary to maintain the trailer with lifted load crate (e.g. replacement of the telescope cylinder) commission a specialised workshop to make repair.**

5.1 Adjustment of wheel bearings

After first 500 km and after every next 1500-2000 km check and – if necessary – adjust play of wheel bearings. For this purpose it is necessary to perform following actions:

- Couple the trailer with a tractor, brake the tractor, place locking wedges under trailer wheels and raise each wheel with suitable hoist. Place the hoist between bail screws, which fasten the suspension spring to the axle. Check the play.
- If the play is excessive, dismount the hub cover and remove the cotter pin of the crown nut.
- While turning the wheel screw the crown nut tight until the wheel stops.
- Unscrew the nut by 1/3 of turn until the next cotter pin groove will be aligned with the opening in the pivot.
- Secure the nut with the cotter pin and mount the hub cover.
  The wheel should turn smooth, without stops and perceptible resistance, which do not result from rubbing between brake shoes and the drum.

5.2 Adjustment of brakes

The brakes should be adjusted if:

- excessive play between shoe and drum appears due to wear of brake shoes; braking efficiency falls down
- Brakes operate uneven and not simultaneously.

If brakes are adjusted properly braking of both wheels should take place in the same moment.

Adjustment of brakes consists in adjustment of position of the brake cam arm (1) (Fig. 11) in relation to the cam shaft (2). For this purpose loose the nut (4) and change position of the arm on the multi-groove end of the shaft (2) towards proper direction i.e.:

- backward – if the brake brakes to late
- forward – if the brakes brakes to soon

Perform adjustment separately for each wheel. After proper brake adjustment cam arms should form the angle of 90° in relation to pneumatic cylinder push rod whilst the braking power is greatest. Parking brake should be adjusted if the brake cable is excessively stretched or if cable clamps are loosened. Cable lenght should be matched so that by fully loosened parking and working brakes the cable would be loose and hang down by 1 ÷ 2 cm.

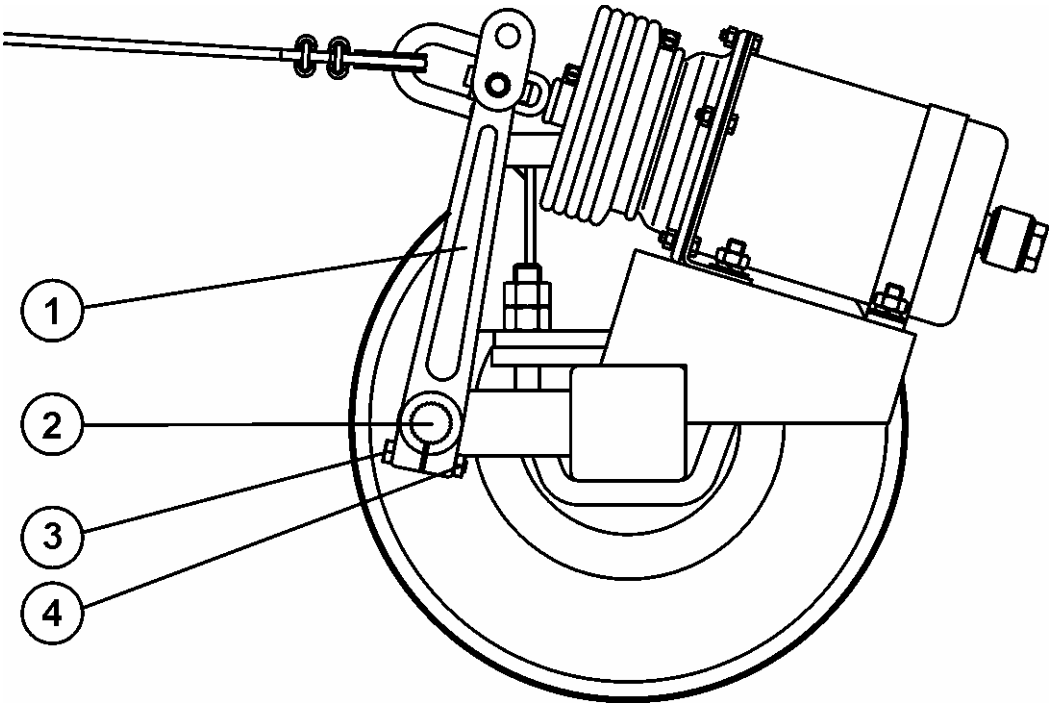

Fig. 11 Brake adjustment elements

1 – brake cam arm, 2 – brake cam shaft, 3 - screw, 4 - nut

CAUTION!

With properly adjusted brakes the braking force should be not lower than values given in the Table 5.

Table 5. Braking force

Trailer type	Main brake braking force (kN)	Parking brake braking force (kN)
T681	12	7,2

Difference between left and right wheel braking forces must not exceed 30% with assumption that the “100%” means the greater force.

CAUTION!

The trailer braking power is the sum of braking forces of both wheels.

5.3 Maintenance of pneumatic system

In the scope of maintenanace operations it is necessary to perform inspection of pneumatic system tightness, especially at all connections. Tightness test should be executed with system pressure rated at ca. 600 kPa (6,0 kg/cm2).

If conduits, sealings or other elements of the system are damaged, air will get out in points of damage with typical hiss or – in the case of small leakages – in the form of small air bubbles. Small leakage can be detected with soap water or washing agent. Damaged sealings or conduits replace with new ones. If the reason of leakage is the damaged pneumatic cylinder – regenerate it.

Periodically remove condensed water from the air tank. For this purpose pull out the drain valve arbour located in the upper part of the tank. Compressed air will push the water out. After loosening the arbor the valve should close automatically and stop airflow from the tank.

Once a year just before the winter unscrew the drain valve and clean it from accumulated dirt.

5.4 Maintenance of hydraulic system

It is necessary to take as the principle that the oil in the trailer hydraulic system and the oil in the external tractor hydraulic system is of the same type. Application of different oil types is prohibited.

New trailers are filled with HL32 hydraulic oil.

The hydraulic system of the trailer should be absolutely tight. Test of tightnes consists in coupling of the trailer with a tractor, activation of the hydraulic cylinder and keeping it in its maximally pulled out position for 30 s.

If oil leaks at connections of hydraulic conduits, screw the connection tightly; if leakage persists – replace the conduit or the connector with a new one. If oil leaks between connections, replace the damaged conduit. Each mechanical damage requires replacement of damaged element.

If the body of the hydraulic cylinder is polluted with oil check the reason of leakage.

While the cylinders are entirely pulled out check all sealings. Small leakage of “sweating off” type are admissible; if drops of oil are observed – stop the operation and repair the failure.

CAUTION!

Operation of the trailer with untight tilting hydraulic system is prohibited.

It is prohibited to operate a trailer with lenghtened (in relation to manufacturer’s adjustment) rope controlling the cut-off valve (2) (Fig. 5)

CAUTION!

Condition of the hydraulic system should be checked all time during trailer’s operation.

If the hydraulic systems is used very intensively (great number of tilts) replace hydraulic conduits every 4 years.

5.5 Lubrication

The trailer should be lubricated in points shown on figs. 12 and 13, and described in the Table 6 „Lubrication points of the T681 trailer”.

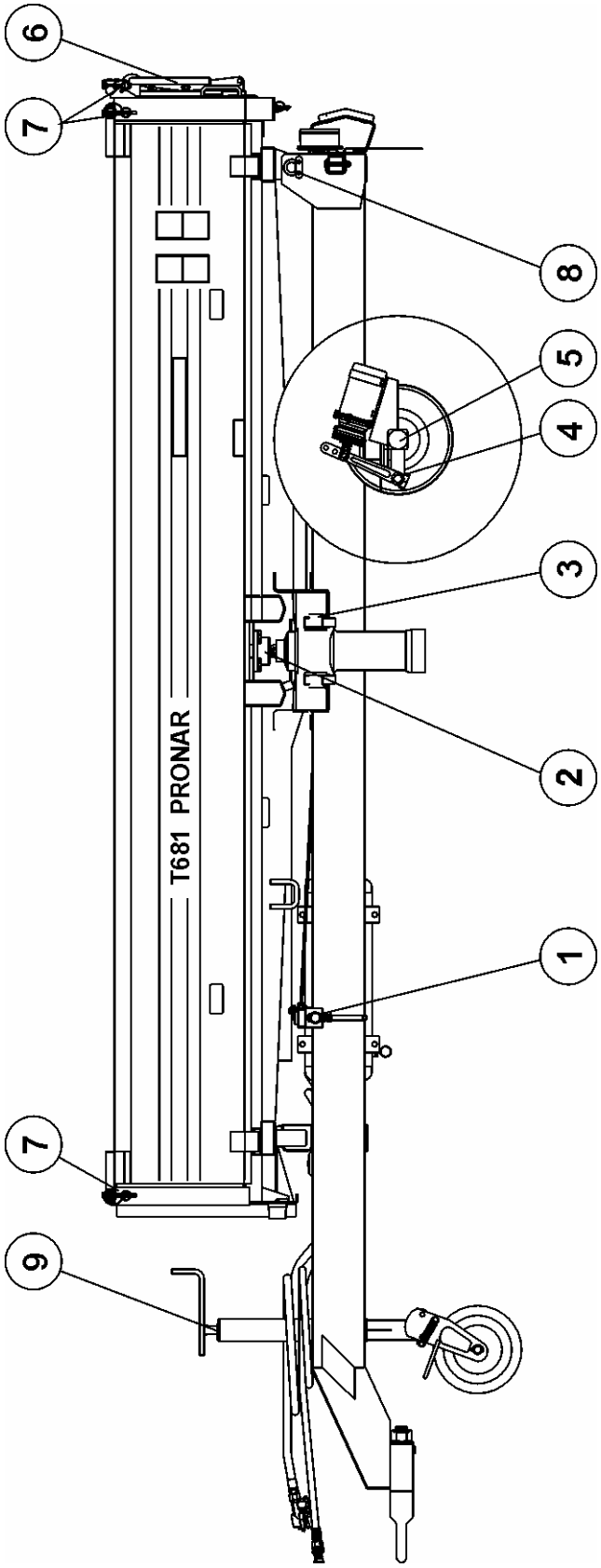

Fig. 12 Lubrication points

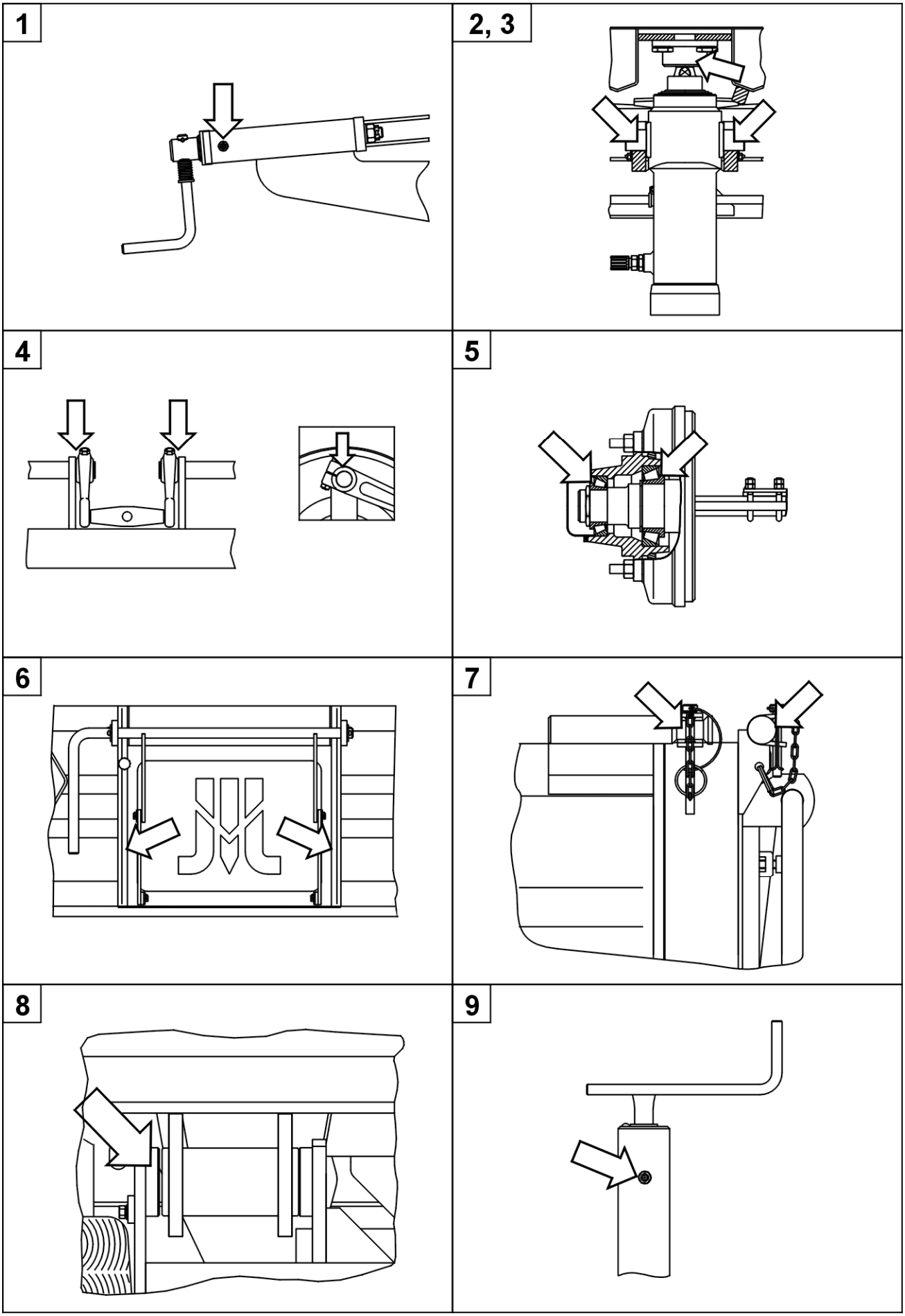

Fig. 13 Lubrication points, continued

Table 6. Lubrication points of the T681 trailer

No. at fig. 12	Lubrication point	Number of points	Grease type	Frequency & method of lubrication
1	Parking brake screw	1	solid	every 3 – 4 months
2	Upper ball articulation of the cylinder	1	solid	every 6 months
3	Bolts of lower mounting of the hydraulic cylinder	2	solid	every 6 months cover bolts with grease
4	Brake cam consoles	2	solid	every 6 months
5	Wheel bearings	4	solid	replace grease every 2 years
6	Chute guide	2	solid	every 3 - 4 months cover with very thin layer of grease
7	Locks of load crate walls	6	oil	once a month
8	Seats of load crate	2	solid	every 2 months cover surfaces with fresh grease
9	Support screw + wheel	1	solid	every 3 – 4 months

5.6 Storage & preservation

After work clean the trailer and wash with water stream. If the varnish coat is damaged, clean such place from rust and dust, degrease, and paint of the same colour and uniform layer thickness. If damaged places will not be painted immediately, cover them with thin layer of grease or anticorrosion agent.

It is recommended to store the trailer in a closed or roofed storage. If the trailer is stored outdoor for long period protect it from atmospheric influence, especially from agents causing corrosion and ageing of tyres.

SINGLE-AXLE AGRICULTURAL TRAILER
REAR DUMPER

T681

SPARE PARTS LIST

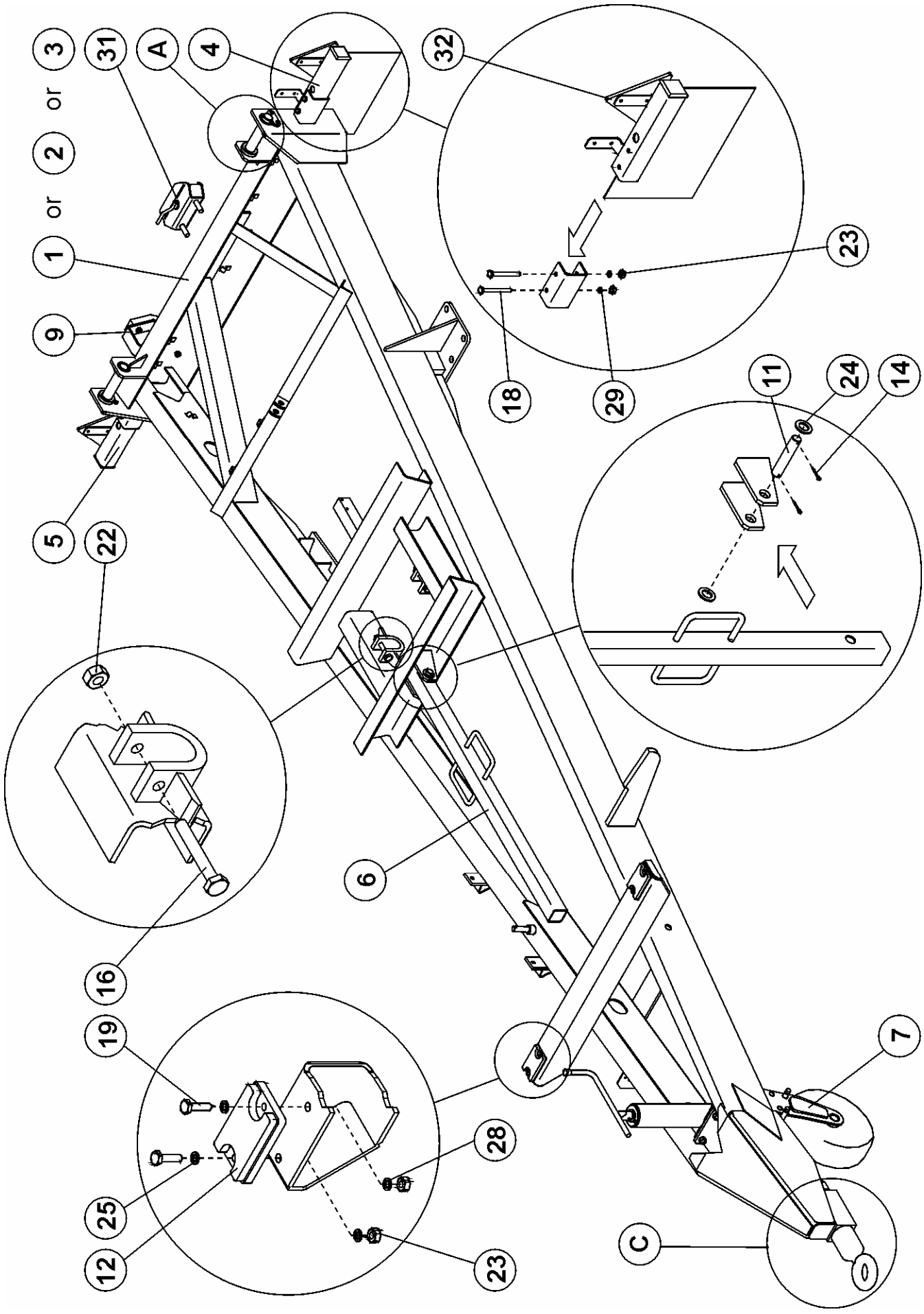

Fig. 14 Lower frame

Group name			Qty		
LOWER FRAME					
Drawing Nos.		No. of group/part			
14, 15		61RPN-01.00.000			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Lower frame	61RPN-01.00.000	1	-	-
2	Lower frame	61RPN-01.00.000-DK	-	1	-
3	Lower frame	61RPN-01.00.000-DK/N	-	-	1
4	Lamp console, left	61RPN-08.00.000	1	1	1
5	Lamp console, right	61RPN-09.00.000	1	1	1
6	Support	61RPN-13.00.000	1	1	1
7	Support + wheel, set	37RPN-16.00.000	1	1	1
8	Pull rod	45RPN-04.00.001	1	1	1
9	Bumper, set.	61RPN-00.00.300	1	1	1
10	Tilt bolt	61RPN-00.00.001	2	2	2
11	Support bolt	29RPN-00.00.009	1	1	1
12	Washer	29RPN-00.00.002	2	2	2
13	Cotter pin S-Zn 6.3x71	PN-76/M-82001	1	1	1
14	Cotter pin S-Zn 4x32	PN-76/M-82001	2	2	2
15	Securing plate	45RPN-47.00.004	2	2	2
16	Screw M12x85-5.8-B-Fe/Zn5	PN-85/M-82101	2	2	2
17	Screw M12x35-8.8-B-Fe/Zn5	PN-85/M-82105	4	4	4
18	Screw M8x75-8.8-B-Fe/Zn5	PN-85/M-82101	4	4	4
19	Screw M8x30-5.8-B-Fe/Zn5	PN-85/M-82105	4	4	4
20	Screw M5x16-5.8-B-Fe/Zn5	PN-85/M-82105	4	4	4
21	Crown nut Zm36x3-6-B	PN-86/M-82148	1	1	1
22	Nut M12-5-B-Fe/Zn5	PN-86/M-82144	6	6	6
23	Nut M8-5-B-Fe/Zn5	PN-86/M-82144	8	8	8
24	Washer 21-Fe/Zn5	PN-78/M-82005	2	2	2
25	Washer 8.4 Fe/Zn5	PN-78/M-82005	4	4	4
26	Washer 5.3 Fe/Zn5	PN-78/M-82005	4	4	4
27	Washer Z12.2 Fe/Zn5	PN-76/M-82008	4	4	4
28	Washer Z8.2 Fe/Zn9	PN-77/M-82008	4	4	4
29	Washer Z8.2 Fe/Zn5	PN-77/M-82008	4	4	4
30	Washer Z5.1 Fe/Zn5	PN-77/M-82008	4	4	4
31	Rear hook, set. ⊗	37RPN-00.09.000	1	1	1
32	Reflecting triangle DOB31, set		2	2	2

⊗ - special equipment for customer's order

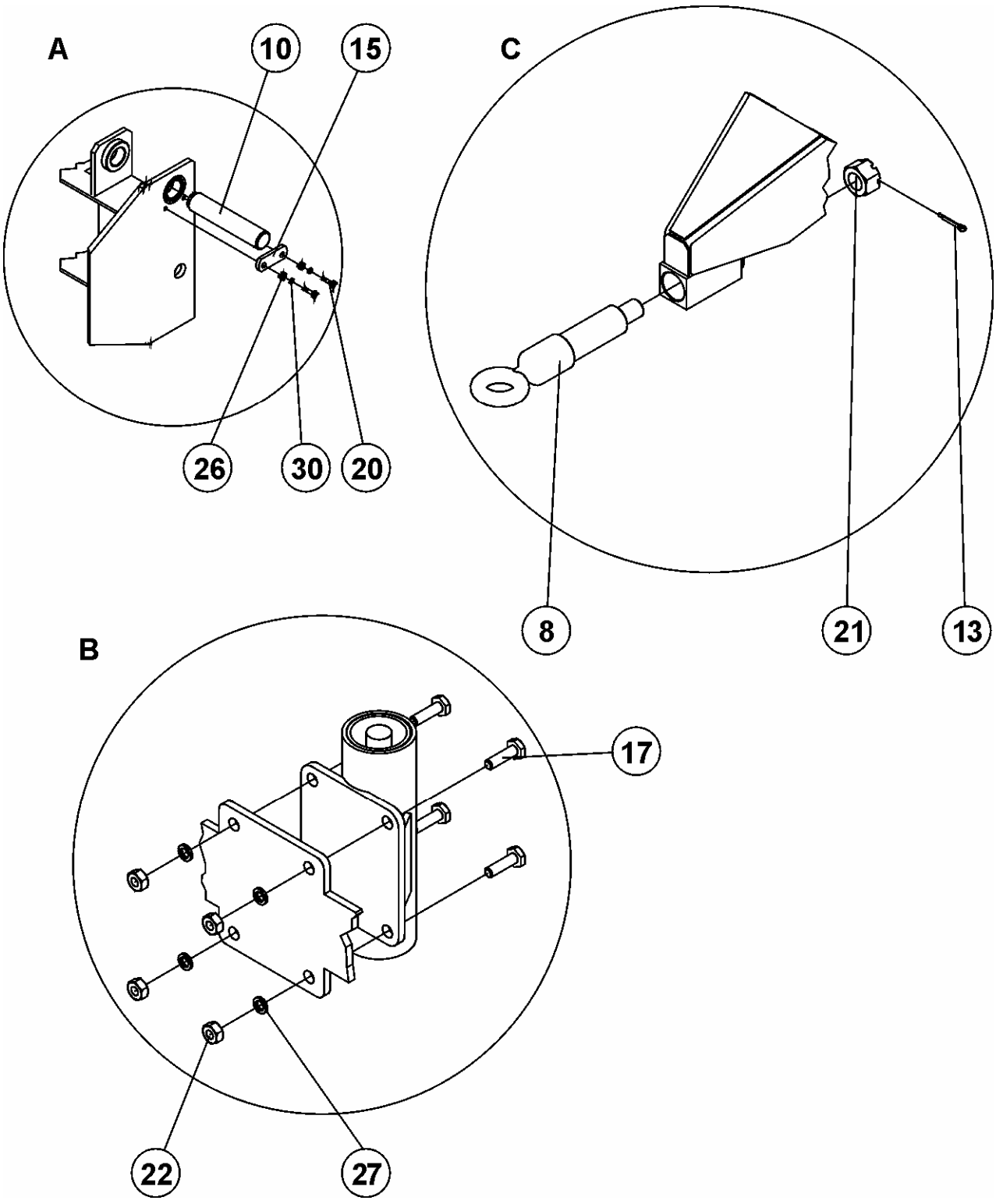

Fig. 15 Lower frame, contd.

Group name			Qty		
LOWER FRAME					
Drawing Nos.		No. of group/part			
14, 15		61RPN-01.00.000			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Lower frame	61RPN-01.00.000	1	-	-
2	Lower frame	61RPN-01.00.000-DK	-	1	-
3	Lower frame	61RPN-01.00.000-DK/N	-	-	1
4	Lamp console, left	61RPN-08.00.000	1	1	1
5	Lamp console, right	61RPN-09.00.000	1	1	1
6	Support	61RPN-13.00.000	1	1	1
7	Support + wheel, set	37RPN-16.00.000	1	1	1
8	Pull rod	45RPN-04.00.001	1	1	1
9	Bumper, set.	61RPN-00.00.300	1	1	1
10	Tilt bolt	61RPN-00.00.001	2	2	2
11	Support bolt	29RPN-00.00.009	1	1	1
12	Washer	29RPN-00.00.002	2	2	2
13	Cotter pin S-Zn 6.3x71	PN-76/M-82001	1	1	1
14	Cotter pin S-Zn 4x32	PN-76/M-82001	2	2	2
15	Securing plate	45RPN-47.00.004	2	2	2
16	Screw M12x85-5.8-B-Fe/Zn5	PN-85/M-82101	2	2	2
17	Screw M12x35-8.8-B-Fe/Zn5	PN-85/M-82105	4	4	4
18	Screw M8x75-8.8-B-Fe/Zn5	PN-85/M-82101	4	4	4
19	Screw M8x30-5.8-B-Fe/Zn5	PN-85/M-82105	4	4	4
20	Screw M5x16-5.8-B-Fe/Zn5	PN-85/M-82105	4	4	4
21	Crown nut Zm36x3-6-B	PN-86/M-82148	1	1	1
22	Nut M12-5-B-Fe/Zn5	PN-86/M-82144	6	6	6
23	Nut M8-5-B-Fe/Zn5	PN-86/M-82144	8	8	8
24	Washer 21-Fe/Zn5	PN-78/M-82005	2	2	2
25	Washer 8.4 Fe/Zn5	PN-78/M-82005	4	4	4
26	Washer 5.3 Fe/Zn5	PN-78/M-82005	4	4	4
27	Washer Z12.2 Fe/Zn5	PN-76/M-82008	4	4	4
28	Washer Z8.2 Fe/Zn9	PN-77/M-82008	4	4	4
29	Washer Z8.2 Fe/Zn5	PN-77/M-82008	4	4	4
30	Washer Z5.1 Fe/Zn5	PN-77/M-82008	4	4	4
31	Rear hook, set. ⊗	37RPN-00.09.000	1	1	1
32	Reflecting triangle DOB31, set		2	2	2

⊗ - special equipment for customer's order

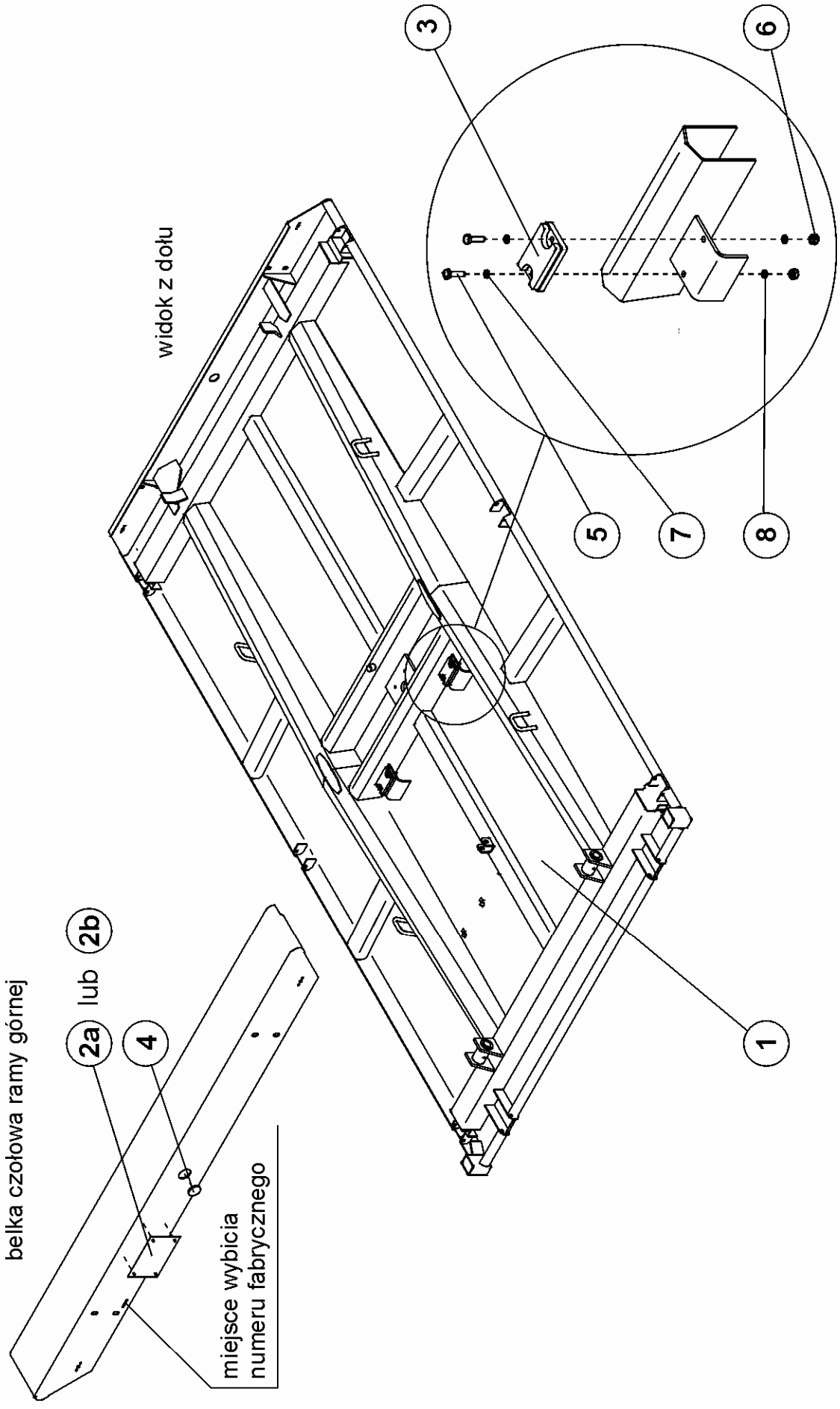

Fig. 16 Upper frame

Group name: UPPER FRAME			Qty		
Drawing Nos.: 16		No. of group/part: 61RPN-02.00.000			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Upper frame	61RPN-02.00.000	1	1	1
2a	Type plate	37RPN-00.00.009	1	1	1
2b	Type plate I	29RPN-00.00.025	1	1	1
3	Washer	29RPN-00.00.002	2	2	2
4	Stopper IKP45		1	1	1
5	Screw M8x30-5.8-B-Fe/Zn5	PN-85/M-82105	4	4	4
6	Nut M8-5-B-Fe/Zn5	PN-86/M-82144	4	4	4
7	Washer 8.4 Fe/Zn5	PN-78/M-82005	4	4	4
8	Washer Z8. Fe/Zn9	PN-77/M-82008	4	4	4

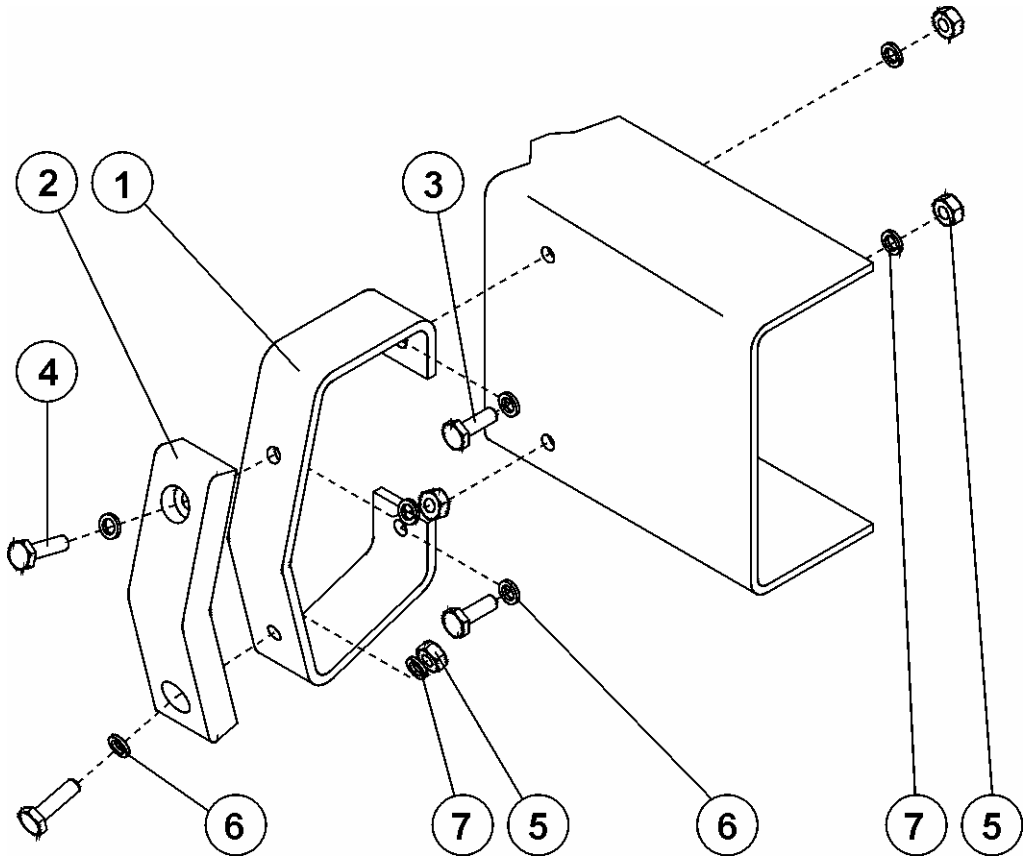

Fig. 17 Bumper

Group name: ODBOJNIK			Qty		
Drawing Nos.: 17		No. of group/part: 61RPN-00.00.300			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Bumper console	61RPN-00.00.301	1	1	1
2	Strap	29RPN-00.00.003	1	1	1
3	Screw M8x30-5.8-B-Fe/Zn5	PN-85/M-82105	2	2	2
4	Screw M8x25-5.8-B-Fe/Zn5	PN-85/M-82105	2	2	2
5	Nut M8-5-B-Fe/Zn5	PN-86/M-82144	4	4	4
6	Washer 8.5 Fe/Zn5	PN-78/M-82005	6	6	6
7	Spring washer Z8.2 Fe/Zn9	PN-77/M-82008	4	4	4

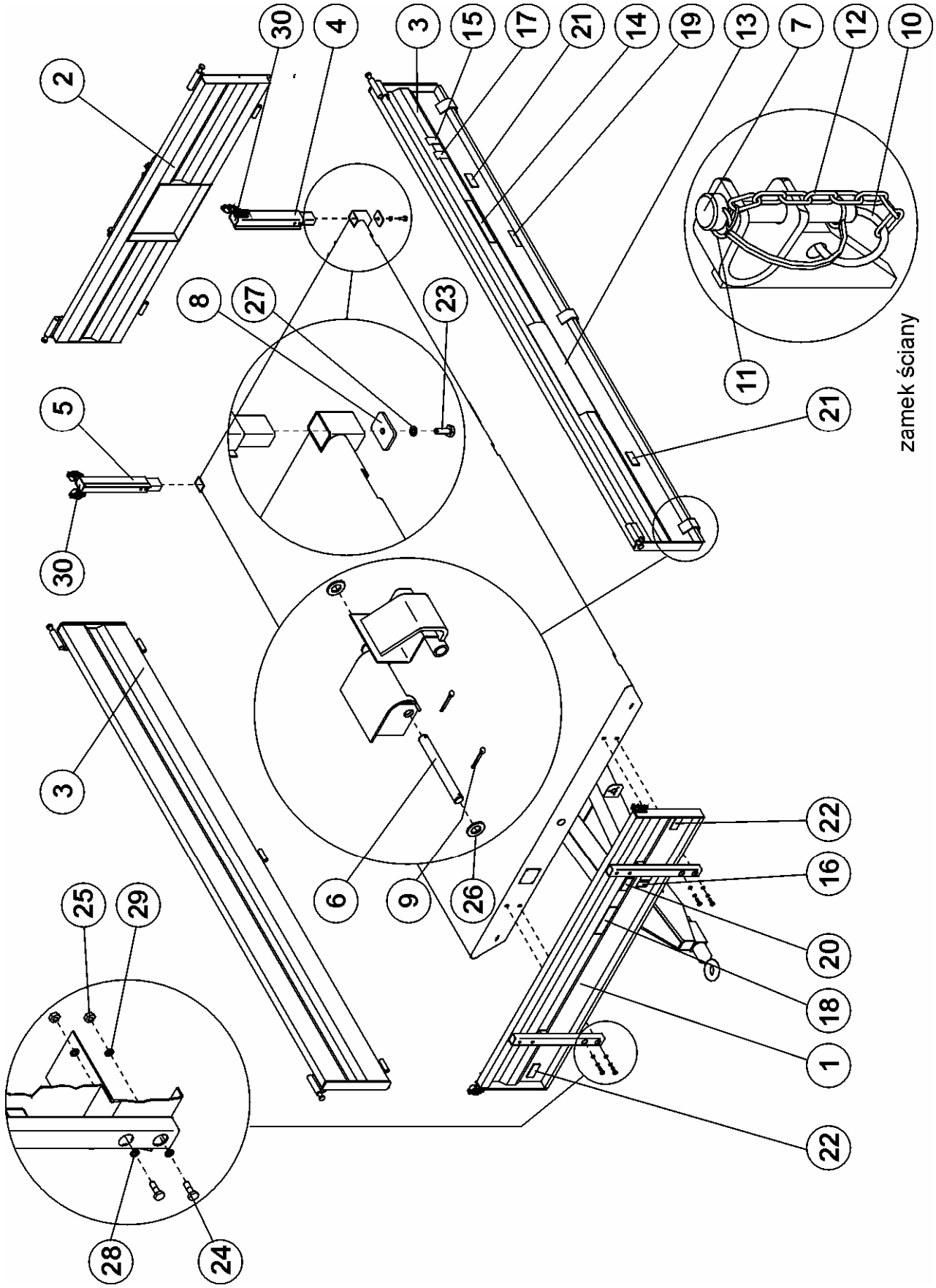

Fig. 18 Set of walls

Group name			Qty		
SET OF WALLS					
Drawing Nos. 18		No. of group/part			
No.	Description	No. of drawing/standard	T681	T681-DK	T681-DK/N
1	Front wall	61RPN-05.00.000	1	1	1
2	Rear wall, set	61RPN-06.00.000	1	1	1
3	Side wall	61RPN-07.00.000	2	2	2
4	Stake, left	61RPN-00.01.000	1	1	1
5	Stake, left	61RPN-00.02.000	1	1	1
6	Bolt	61RPN-00.00.004	6	6	6
7	Pin S.2266		6	6	6
8	Pressure plate	29RPN-00.03.001	2	2	2
9	Cotter pin S-Zn 3.2x25	PN-76/M-82001	12	12	12
10	Wheel I	29RPN-14.06.203	6	6	6
11	Wheel II	29RPN-14.06.204	6	6	6
12	Sanitary chain		6	6	6
13	Sticker „T681”	61RPN-00.00.002	2	2	2
14	Sticker „Load 3000kg”	61RPN-00.00.005	2	-	-
15	Warning sticker I	58RPN-00.00.012	2	2	2
16	Information sticker	58RPN-00.00.014	1	1	1
17	Information sticker III	58RPN-00.00.020	2	2	2
18	Information sticker II	37RPN-00.00.002	1	-	-
19	Sticker „550kPa”	37RPN-00.00.007	2	2	2
20	Information sticker III	29RPN-00.00.024	1	-	-
21	Reflection sticker, rectangular, white	DOB35 „Plastmet”	4	4	4
22	Reflection sticker, rectangular, yellow	DOB35 „Plastmet”	2	2	2
23	Screw M12x30-8.8-B-Fe/Zn5	PN-85/M-82105	2	2	2
24	Screw M10x30-8.8-B-Fe/Zn5	PN-85/M-82105	4	4	4
25	Nut M10-5-B-Fe/Zn5	PN-86/M-82144	4	4	4
26	Washer 13-Fe/Zn5	PN-78/M-82005	12	12	12
27	Washer 12.2 Fe/Zn5	PN-77/M-82008	2	2	2
28	Washer 10.5-Fe/Zn5	PN-86/M-82030	4	4	4
29	Washer Z10.2 Fe/Zn5	PN-77/M-82008	4	4	4
30	Stake blind plug	29RPN-00.00.010	2	2	2

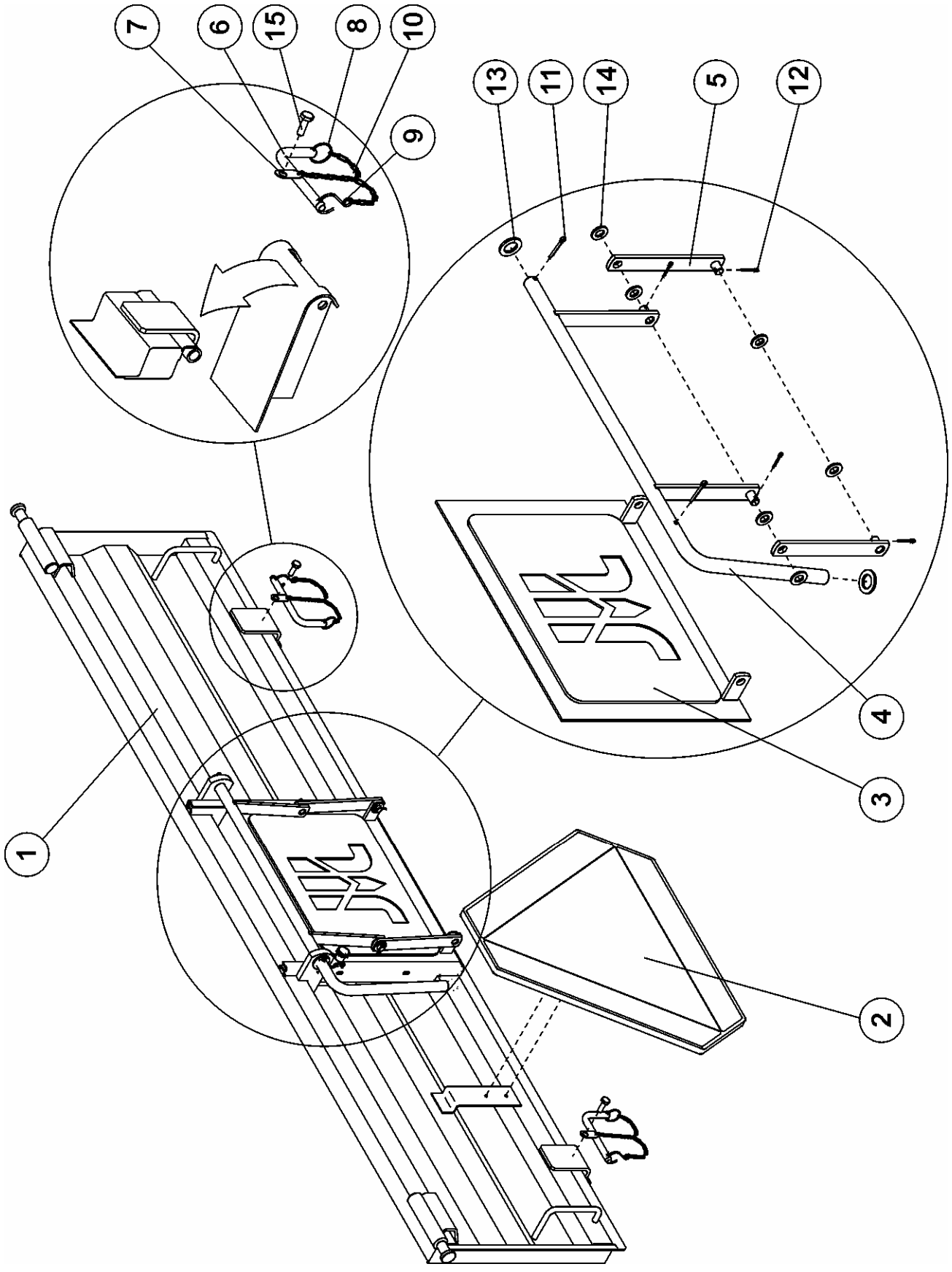

Fig. 19 Rear wall, set

Group name			Qty		
REAR WALL, SET					
Drawing Nos.		No. of group/part			
18		61RPN-06.01.000 61RPN-00.00.400			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Rear wall	61RPN-06.01.000	1	1	1
2	Triangular table for slow moving vehicles ⊗		1	-	-
3	Gate	29RPN-06.02.000	1	1	1
4	Lever	29RPN-06.03.000	1	1	1
5	Pull rod	29RPN-06.04.000	2	2	2
6	Rear bolt	61RPN-00.00.401	2	2	2
7	Fastening plate	29RPN-14.06.202	2	2	2
8	Wheel	29RPN-14.06.203	2	2	2
9	Cotter pin	29RPN-14.06.201	2	2	2
10	Sanitary chain		2	2	2
11	Cotter pin S-Zn 5x28	PN-76/M-82001	2	2	2
12	Cotter pin S-Zn 3.2x16	PN-76/M-82001	4	4	4
13	Washer 21Fe/Zn5	PN-78/M-82005	2	2	2
14	Washer 13 Fe/Zn5	PN-78/M-82005	6	6	6
15	Self-tapping screw 5.5x19	DIN-7504-K	2	2	2

⊗ - special equipment for customer's order

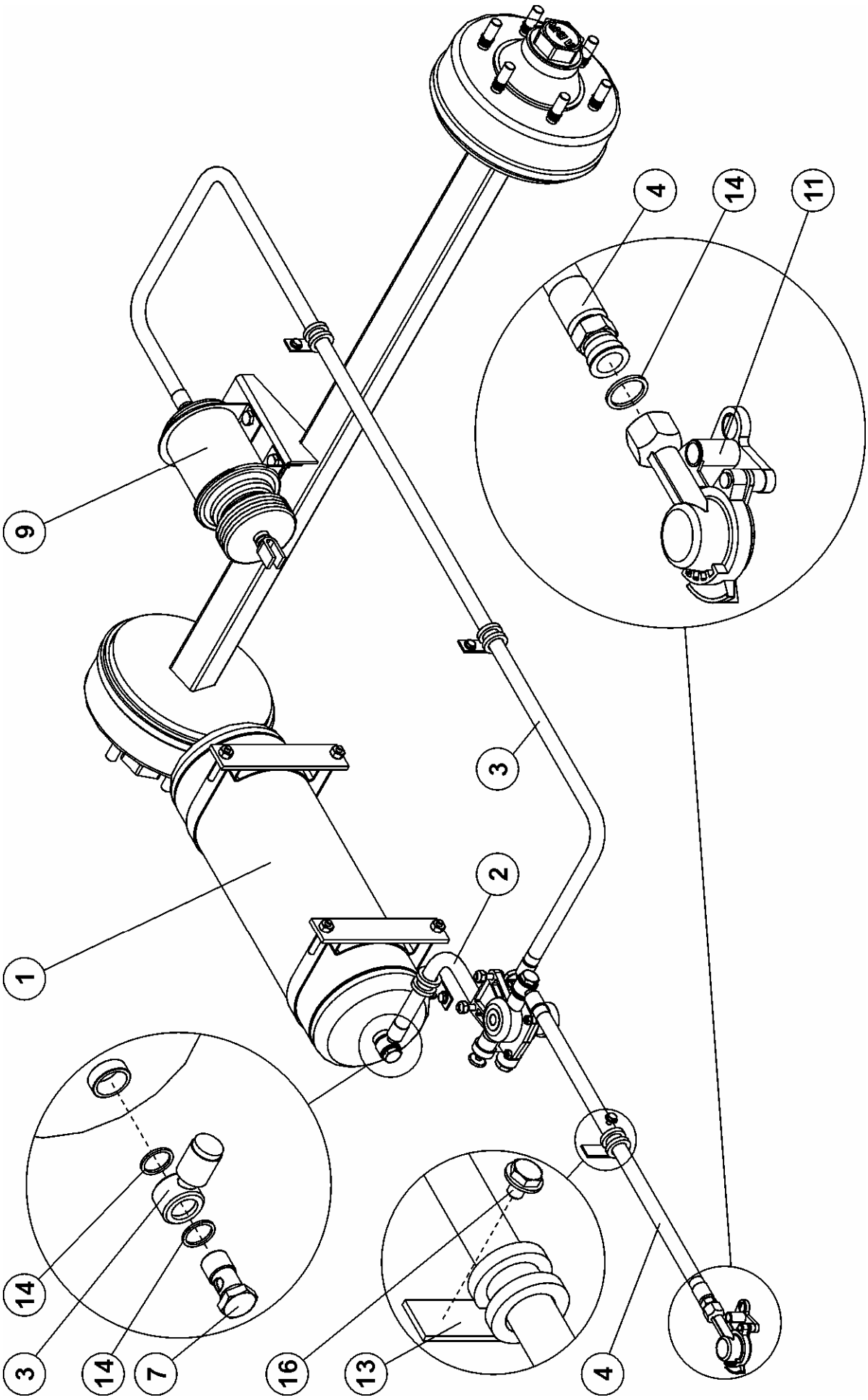

Fig. 20 Pneumatic system

Group name: PNEUMATIC SYSTEM			Qty		
Drawing Nos.: 20, 21		No. of group/part: 61RPN-17.00.000			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Air reservoir, 20 ltr	29RPN-11.01.000	1	-	-
2	Conduit O-O 500	61RPN-17.00.001	1	-	-
3	Conduit O-W 3400	37RPN-11.02.000	1	-	-
4	Conduit O-Z 2200	37RPN-11.03.000	1	-	-
5	Plug	29RPN-11.00.002	1	-	-
6	Air reservoir clip	29RPN-00.14.000	2	-	-
7	Connection screw	6RPN-01.00.10	4	-	-
8	Connector, short	6RPN-01.00.11	1	-	-
9	Pneumatic cylinder ∅100x53.22.00/A		1	-	-
10	Control valve 44.11.011.0		1	-	-
11	Conduit connector 87.30.010.0		1	-	-
12	Drain valve 83.10.012.0		1	-	-
13	Clip Ribenclip 22		4	-	-
14	Washer Cu 27/22/2		13	-	-
15	Washer Cu 20/12.5/1		2	-	-
16	Self-tapping screw	DIN-7504-K	3	-	-
17	Screw M12x30-5.8-B Fe/Zn5	PN-85/M-82105	4	-	-
18	Screw M10x35-5.8-B Fe/Zn5	PN-85/M-82105	2	-	-
19	Nut M12-5-B Fe/Zn5	PN-86/M-82144	4	-	-
20	Nut M10-5-B Fe/Zn5	PN-86/M-82144	6	-	-
21	Washer 12.5 Fe/Zn5	PN-78/M-82005	4	-	-
22	Washer Z10.2 Fe/Zn5	PN-77/M-82008	6	-	-
23	Spring washer Z12.2 Fe/Zn5	PN-77/M-82008	4	-	-

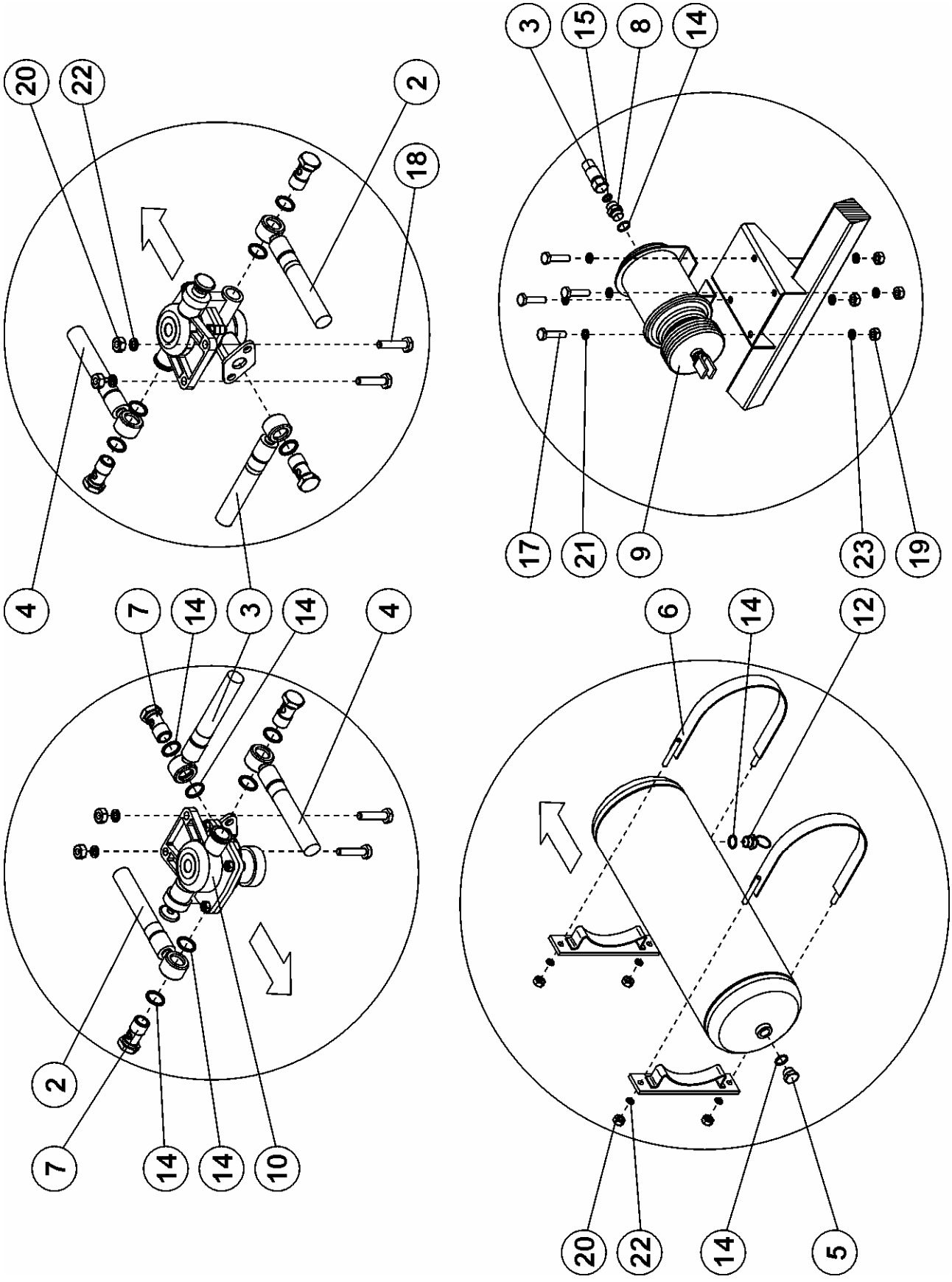

Fig. 21 Pneumatic system, contd

Group name			Qty		
PNEUMATIC SYSTEM					
Drawing Nos.		No. of group/part			
20, 21		61RPN-17.00.000			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Air reservoir, 20 ltr	29RPN-11.01.000	1	-	-
2	Conduit O-O 500	61RPN-17.00.001	1	-	-
3	Conduit O-W 3400	37RPN-11.02.000	1	-	-
4	Conduit O-Z 2200	37RPN-11.03.000	1	-	-
5	Plug	29RPN-11.00.002	1	-	-
6	Air reservoir clip	29RPN-00.14.000	2	-	-
7	Connection screw	6RPN-01.00.10	4	-	-
8	Connector, short	6RPN-01.00.11	1	-	-
9	Pneumatic cylinder ∅100x53.22.00/A		1	-	-
10	Control valve 44.11.011.0		1	-	-
11	Conduit connector 87.30.010.0		1	-	-
12	Drain valve 83.10.012.0		1	-	-
13	Clip Ribenclip 22		4	-	-
14	Washer Cu 27/22/2		13	-	-
15	Washer Cu 20/12.5/1		2	-	-
16	Self-tapping screw	DIN-7504-K	3	-	-
17	Screw M12x30-5.8-B Fe/Zn5	PN-85/M-82105	4	-	-
18	Screw M10x35-5.8-B Fe/Zn5	PN-85/M-82105	2	-	-
19	Nut M12-5-B Fe/Zn5	PN-86/M-82144	4	-	-
20	Nut M10-5-B Fe/Zn5	PN-86/M-82144	6	-	-
21	Washer 12.5 Fe/Zn5	PN-78/M-82005	4	-	-
22	Washer Z10.2 Fe/Zn5	PN-77/M-82008	6	-	-
23	Spring washer Z12.2 Fe/Zn5	PN-77/M-82008	4	-	-

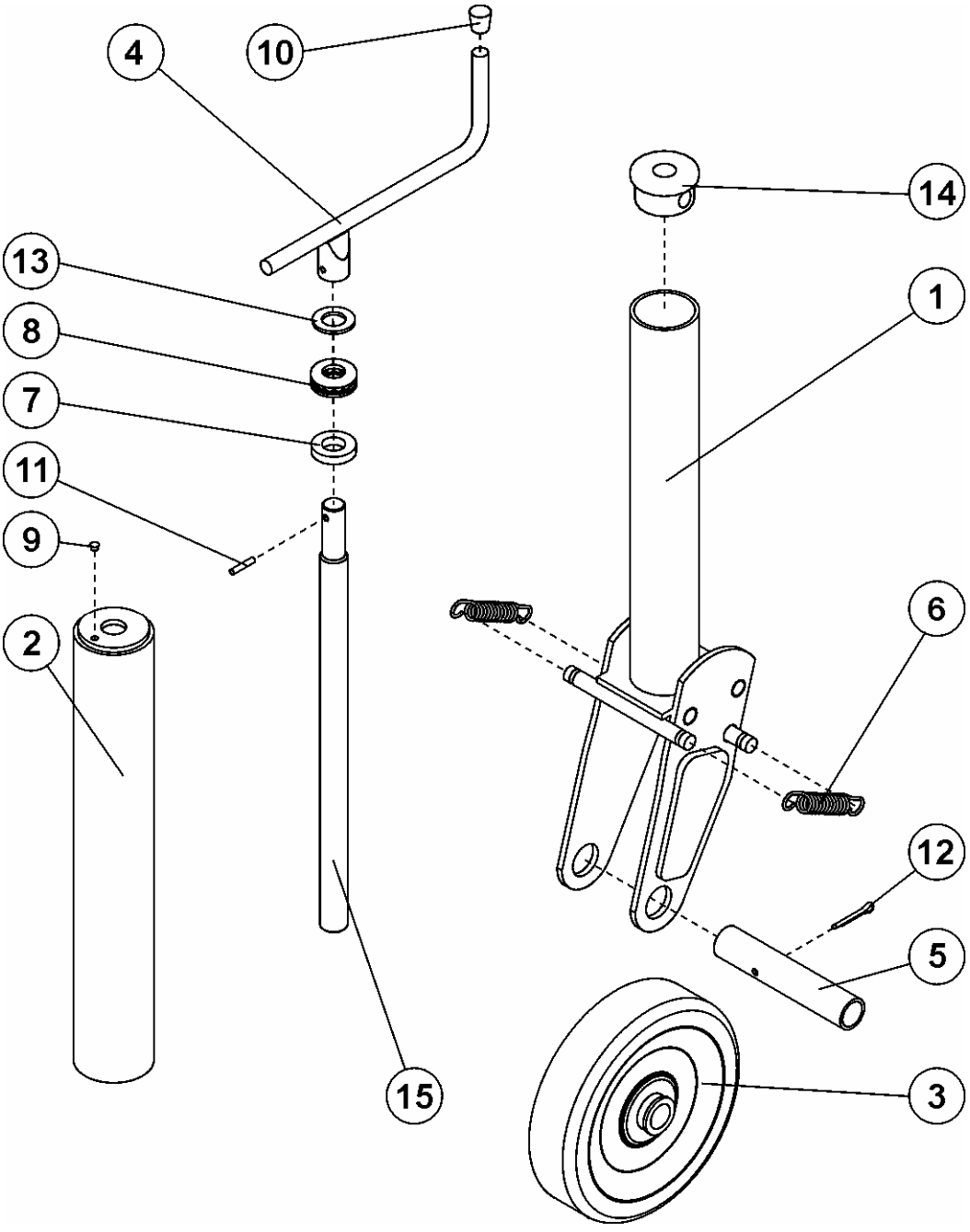

Fig. 22 Support + wheel

Group name			Qty		
SUPPORT + WHEEL					
Drawing Nos.		No. of group/part			
22		37RPN-16.01.100 37RPN-16.01.000			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Column, set	37RPN-16.01.100	1	1	1
2	Housing	37RPN-16.01.200	1	1	1
3	Wheel ∅270	37RPN-16.01.300	1	1	1
4	Screw	37RPN-16.01.400	1	1	1
5	Axle	37RPN-16.01.001	1	1	1
6	Spring	37RPN-16.01.002	2	2	2
7	Bearing washer	37RPN-16.01.003	1	1	1
8	Thrust bearing 51204		1	1	1
9	Opening plug IKPT8x6	PPHU Plast	1	1	1
10	Conical end 460869	MOSS	1	1	1
11	Spring stud 5x26		1	1	1
12	Cotter pin S-Zn 5x40	PN-76/M-82001	1	1	1
13	Washer 21 FE/Zn5	PN-78/M-82005	1	1	1
14	Nut	37RPN-16.01.102	1	1	1
15	Screw	37RPN-16.01.101	1	1	1

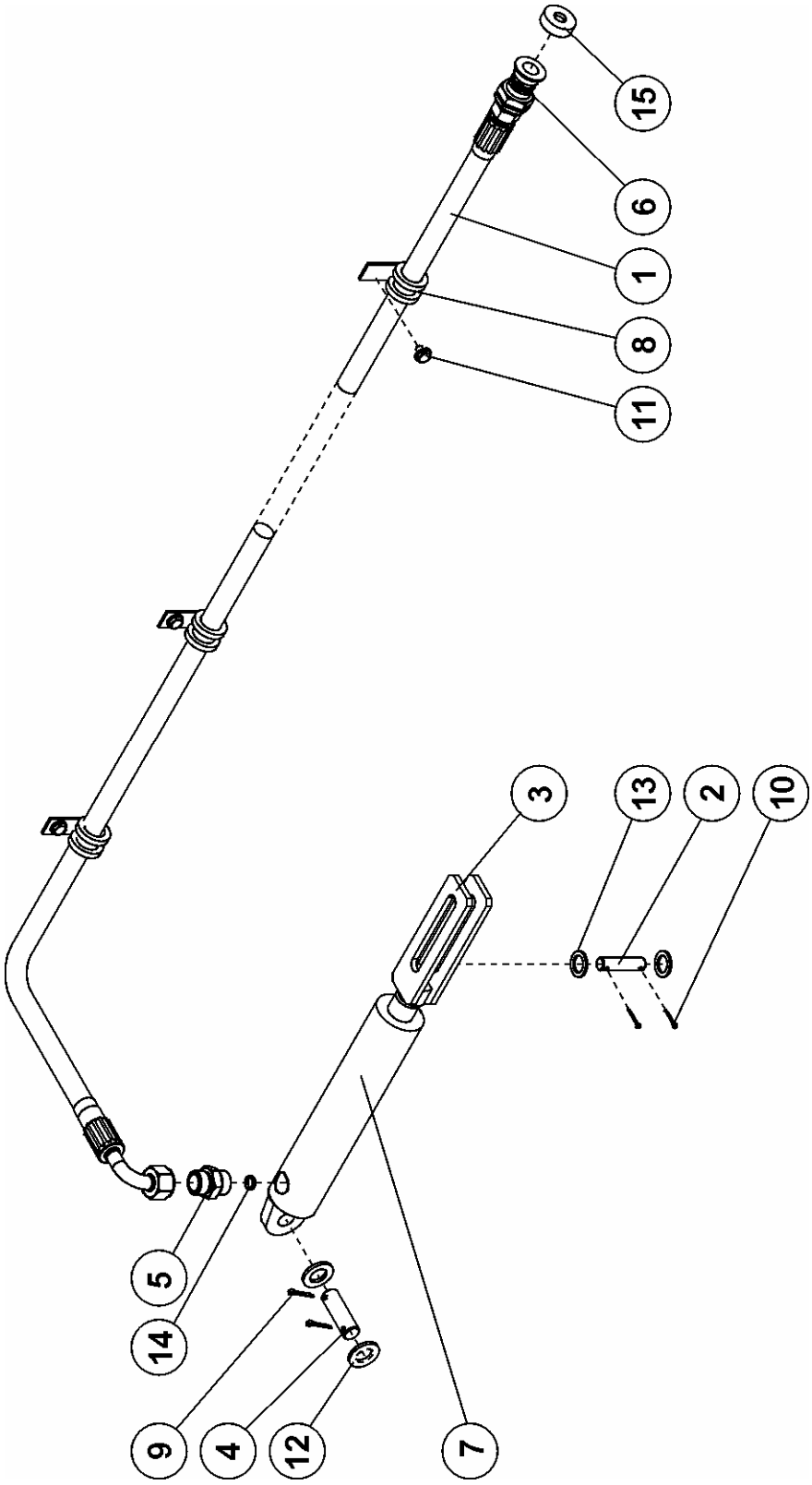

Fig. 23 Braking system (hydraulic)

Group name			Qty		
BRAKING SYSTEM (HYDRAULIC)					
Drawing Nos.		No. of group/part			
23		61RPN-16.00.000			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Conduit	37RPN-19.01.000	-	1	-
2	Bolt	29RPN-11.00.004	-	1	-
3	Fork tip	37RPN-19.02.000	-	1	-
4	Cylinder bolt	37RPN-19.00.003	-	1	-
5	Connector	37RPN-19.00.002	-	1	-
6	Quick release connector – plug ISO12.5	Sz12-W03	-	1	-
7	Plunge cylinder CN2D-16-25/140z		-	1	-
8	Clip Ribenclip 22		-	3	-
9	Cotter pin S-Zn 4x32	PN-76/M-82001	-	2	-
10	Cotter pin S-Zn 3.2x25	PN-76/M-82001	-	2	-
11	Self-tapping screw ∅5.5x19	DIN-7504-K	-	3	-
12	Washer 17 Fe/Zn5	PN-78/M-82005	-	2	-
13	Washer 12.5 Fe/Zn5	PN-78/M-82005	-	2	-
14	Sealing ring 11.3x12.4	PN-60/M-86961	-	1	-
15	Plug cap ISO 12.5		-	1	-

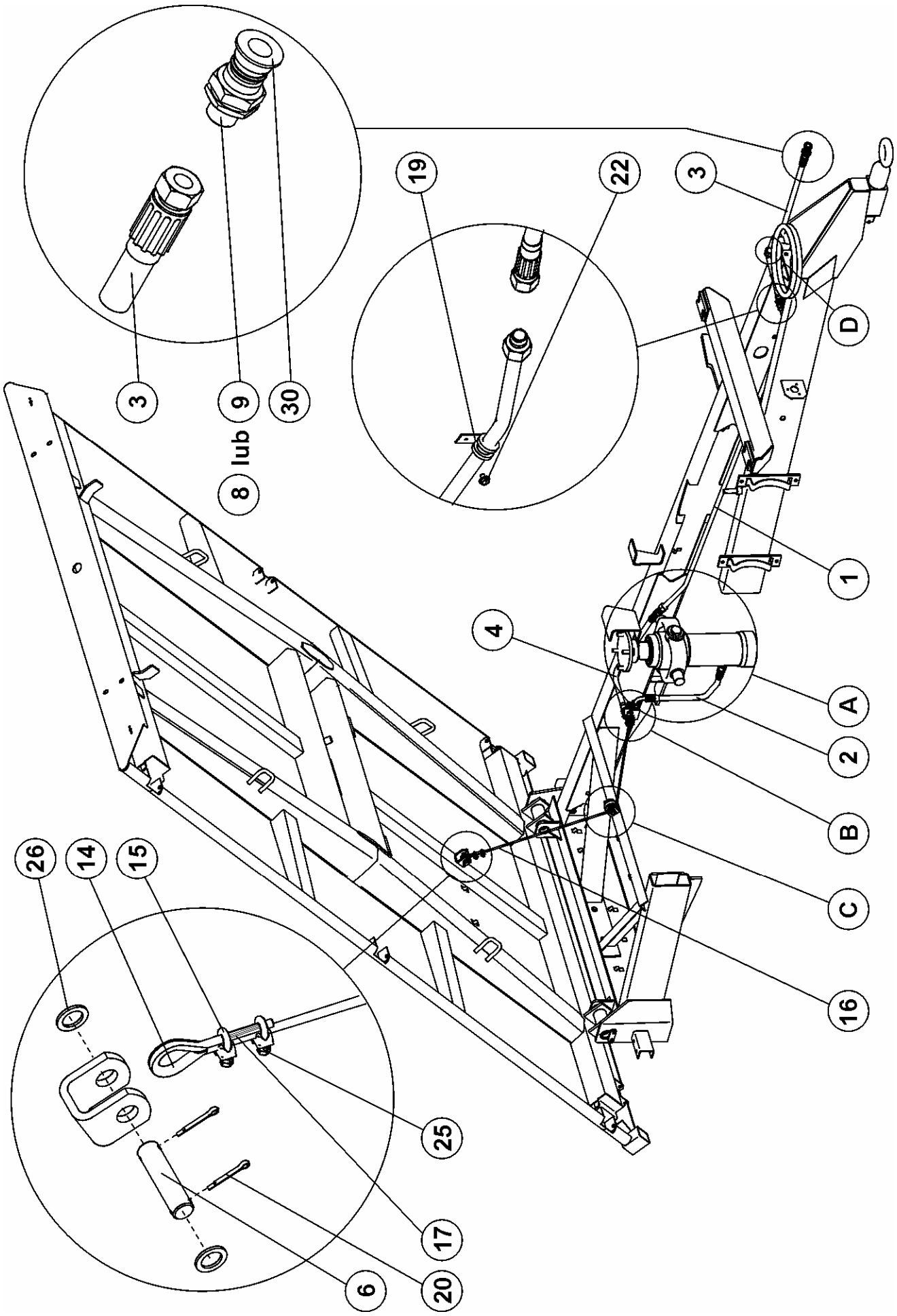

Fig. 24 Hydraulic system - tilting

Group name: HYDRAULIC SYSTEM - TILTING			Qty		
Drawing Nos.: 24, 25		No. of group/part: 61RPN-14.00.000			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Hydraulic pipe	61RPN-14.01.000	1	1	1
2	Conduit DN13 H17.8 H2.12 750	29RPN-13.02.000	1	1	1
3	Conduit DN13 H2.12 H4.13 2000	37RPN-12.02.000	1	1	1
4	Conduit DN13 H17.8 H4.13 700	37RPN-12.03.000	1	1	1
5	Rope wheel	29RPN-13.00.001	1	1	1
6	Wheel axle	29RPN-13.00.002	2	2	2
7	Connector	29RPN-13.00.004	1	1	1
8	Quick release connector – plug SZ12-W06		1	1	1
9	Plug ZSR32-W01	ZSR6-160-13/200	1	1	1
10	Telescop. cylinder CT-S224-16-60/4/1300		1	1	1
11	Cylinder hinge ZCT-105		1	1	1
12	Ball bearing 55 ŁK-55/0.00		1	1	1
13	Cut-off valve Pister	HBKH-15L-DN13	1	1	1
14	Clip A6 Zn.	PN-66/M-80247	1	1	1
15	Bail clip 6.5 oc.	PN-73/M-80241	4	4	4
16	Rope ∅6 6x19+P+p l=1350		1	1	1
17	Heat-shrinkable pipe PBF 12/6 l=30	BN-89/C-89209	2	2	2
18	Clip RIBENCLIP 22		2	2	2
19	Clip RIBENCLIP 16		3	3	3
20	Cotter pin S-Zn 4x32	PN-76/M-82001	4	4	4
21	Washer Cu 27/22/2		1	1	1
22	Self-tapping screw ∅5.5x19	DIN-7504-K	5	5	5
23	Screw M12x35-8.8-B-Fe/Zn5	PN-85/M-82105	4	4	4
24	Screw M6x45-5.8-B-Fe/Zn5	PN-85/M-82101	2	2	2
25	Nut M5-5-B-Fe/Zn5	PN-86/M-82144	16	16	16
26	Washer 17 Fe/Zn5	PN-78/M-82005	4	4	4
27	Washer Z12.2 Fe/Zn5	PN-78/M-82008	4	4	4
28	Washer 6.4 Fe/Zn5	PN-78/M-82005	2	2	2
29	Washer Z6.1 Fe/Zn5	PN-77/M-82008	2	2	2
30	Plug cap ISO 12.5		1	1	1

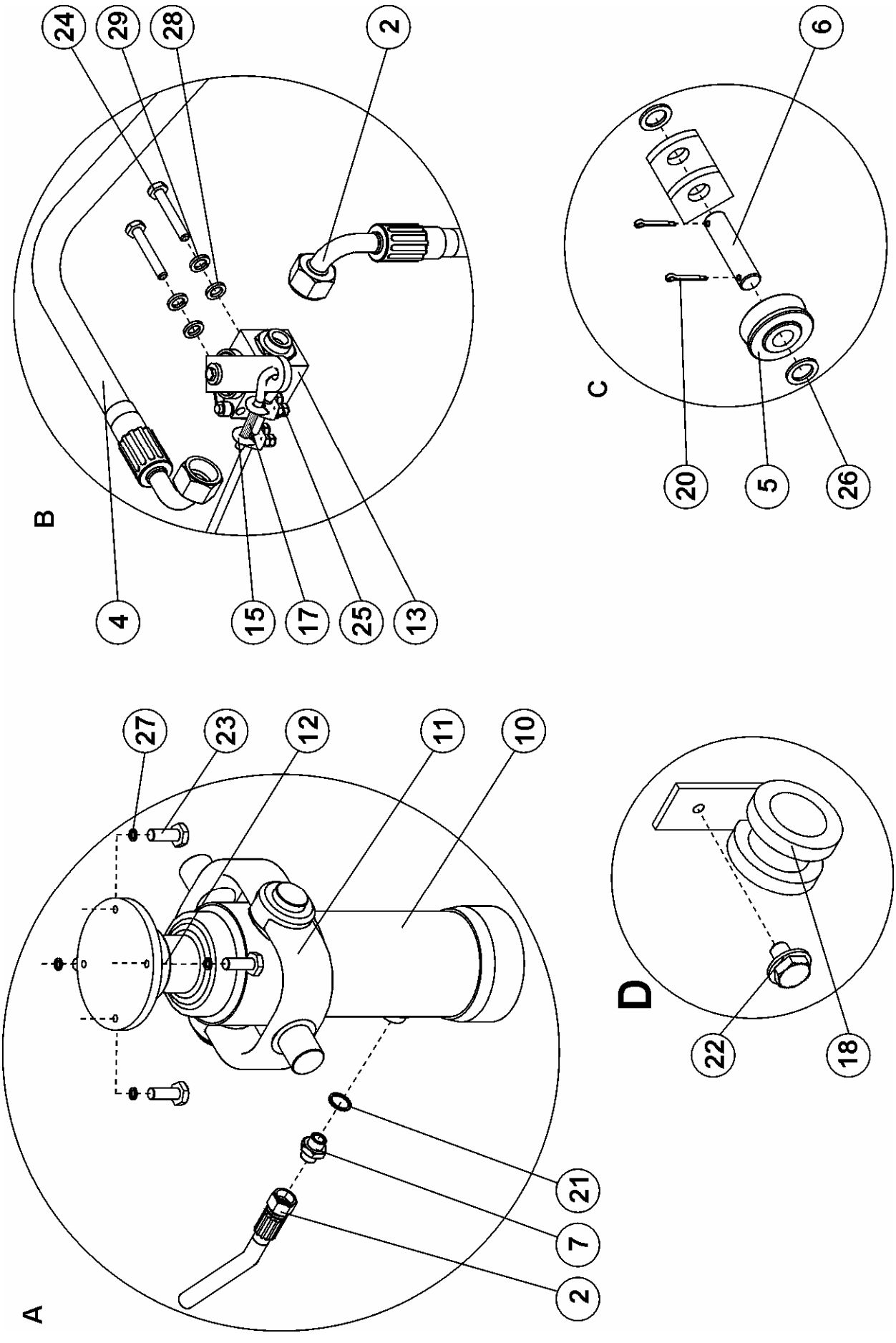

Fig. 25 Hydraulic system - tilting, contd.

Group name			Qty		
HYDRAULIC SYSTEM - TILTING					
Drawing Nos.		No. of group/part			
24, 25		61RPN-14.00.000			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Hydraulic pipe	61RPN-14.01.000	1	1	1
2	Conduit DN13 H17.8 H2.12 750	29RPN-13.02.000	1	1	1
3	Conduit DN13 H2.12 H4.13 2000	37RPN-12.02.000	1	1	1
4	Conduit DN13 H17.8 H4.13 700	37RPN-12.03.000	1	1	1
5	Rope wheel	29RPN-13.00.001	1	1	1
6	Wheel axle	29RPN-13.00.002	2	2	2
7	Connector	29RPN-13.00.004	1	1	1
8	Quick release connector – plug SZ12-W06		1	1	1
9	Plug ZSR32-W01	ZSR6-160-13/200	1	1	1
10	Telescop. cylinder CT-S224-16-60/4/1300		1	1	1
11	Cylinder hinge ZCT-105		1	1	1
12	Ball bearing 55 ŁK-55/0.00		1	1	1
13	Cut-off valve Pister	HBKH-15L-DN13	1	1	1
14	Clip A6 Zn.	PN-66/M-80247	1	1	1
15	Bail clip 6.5 oc.	PN-73/M-80241	4	4	4
16	Rope ∅6 6x19+P+p l=1350		1	1	1
17	Heat-shrinkable pipe PBF 12/6 l=30	BN-89/C-89209	2	2	2
18	Clip RIBENCLIP 22		2	2	2
19	Clip RIBENCLIP 16		3	3	3
20	Cotter pin S-Zn 4x32	PN-76/M-82001	4	4	4
21	Washer Cu 27/22/2		1	1	1
22	Self-tapping screw∅5.5x19	DIN-7504-K	5	5	5
23	Screw M12x35-8.8-B-Fe/Zn5	PN-85/M-82105	4	4	4
24	Screw M6x45-5.8-B-Fe/Zn5	PN-85/M-82101	2	2	2
25	Nut M5-5-B-Fe/Zn5	PN-86/M-82144	16	16	16
26	Washer 17 Fe/Zn5	PN-78/M-82005	4	4	4
27	Washer Z12.2 Fe/Zn5	PN-78/M-82008	4	4	4
28	Washer 6.4 Fe/Zn5	PN-78/M-82005	2	2	2
29	Washer Z6.1 Fe/Zn5	PN-77/M-82008	2	2	2
30	Plug cap ISO 12.5		1	1	1

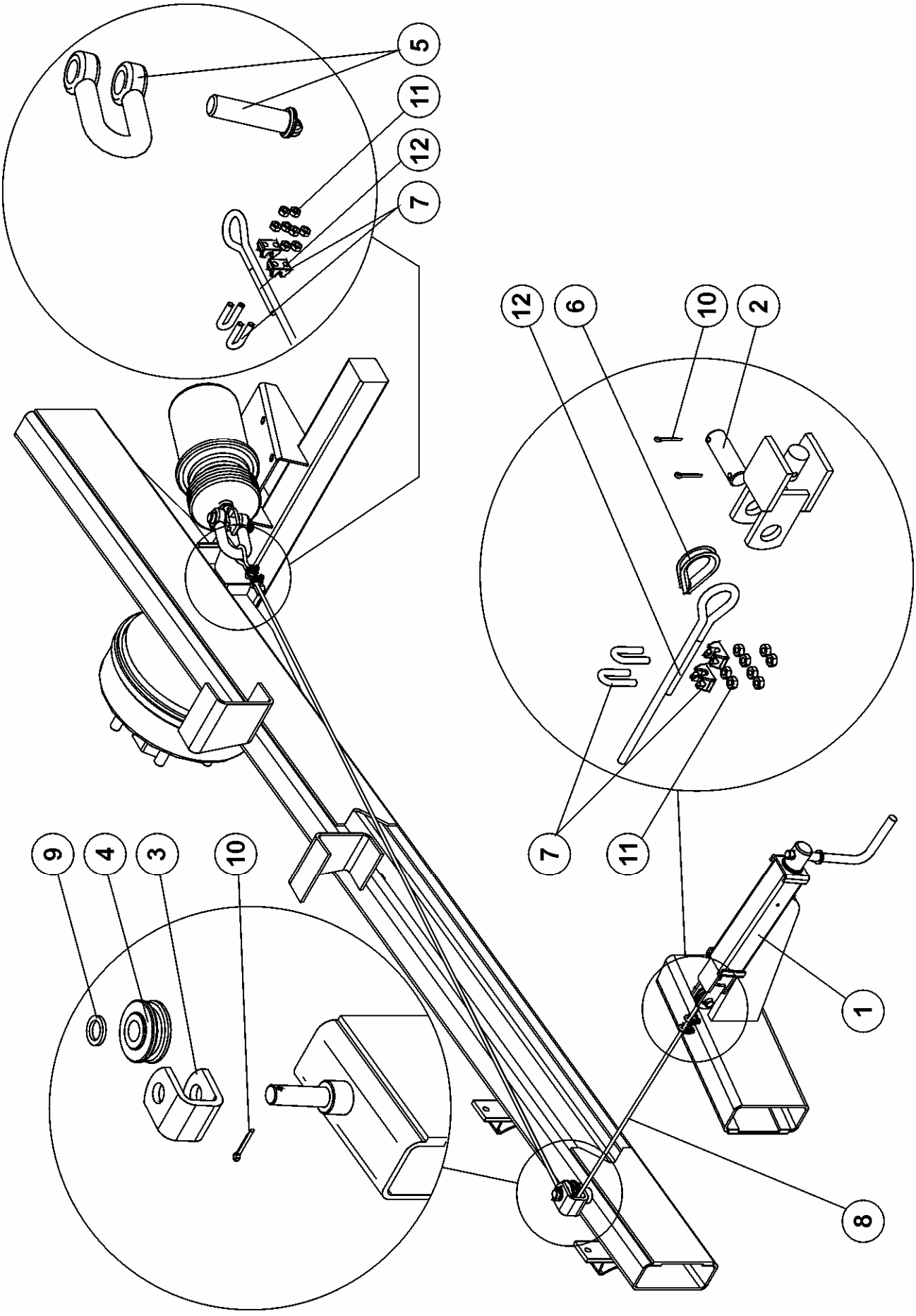

Fig. 26 Parking brake

Group name			Qty		
PARKING BRAKE					
Drawing Nos.		No. of group/part			
26		37RPN-17.00.000			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Brake mechanism	29RPN-12.01.000	1	1	1
2	Bolt	29RPN-12.01.001	1	1	1
3	Cable clip	29RPN-12.01.018	1	1	1
4	Cable wheel	29RPN-13.01.001	1	1	1
5	Screw shackle S.2768		1	1	1
6	Clip A6 oc.	PN-66/M-80247	2	2	2
7	Bail clip 6.5 oc.	PN-73/M-80241	4	4	4
8	Cable ∅6 6x19+P+p l=2400		1	1	1
9	Washer 17 Fe/Zn5	PN-78/M-82005	1	1	1
10	Cotter pin S-Zn 4x40	PN-76/M-82001	3	3	3
11	Nut M5-5-B F/Zn5	PN-86/M-82144	8	8	8
12	Heat-shrinkable pipe PBF12 l=30	BN-89/C-89209	2	2	2

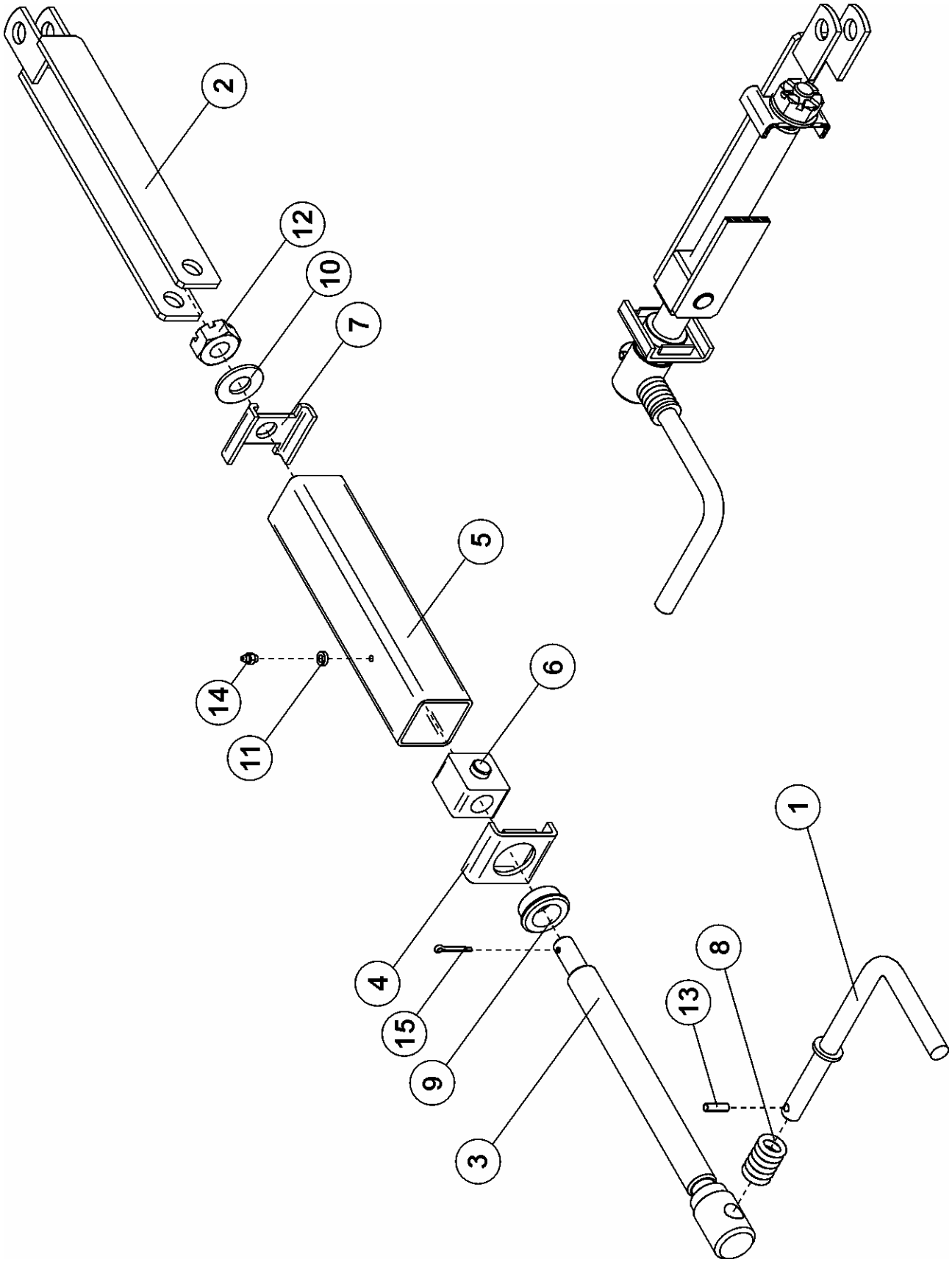

Fig. 27 Brake mechanism

Group name: BRAKE MECHANISM			Qty		
Drawing Nos.: 27		No. of group/part: 29RPN-12.01.000			
No.	Description	No. of drawing/standard	T681	T681-DK	T681-DK/N
1	Crank, set	29RPN-12.01.100	1	1	1
2	Pull rod, set	29RPN-12.01.200	1	1	1
3	Screw, set	29RPN-12.01.300	1	1	1
4	Blind plug, set	29RPN-12.01.400	1	1	1
5	Body	29RPN-12.01.001	1	1	1
6	Nut	29RPN-12.01.002	1	1	1
7	Stopper	29RPN-12.01.003	1	1	1
8	Spring	29RPN-12.01.004	1	1	1
9	Sleeve	29RPN-12.01.005	1	1	1
10	Washer 17 Fe/Zn5	PN-78/M-82005	1	1	1
11	Washer 6.4 Fe/Zn5	PN-78/M-82005	1	1	1
12	Crown nut K M16-5-C Fe/Zn5	PN-86/M-82148	1	1	1
13	Spring stud 6x24	PN-89/M-85023	1	1	1
14	Nipple M6	PN-76/M-86002	1	1	1
15	Cotter pin	PN-76/M-82001	1	1	1

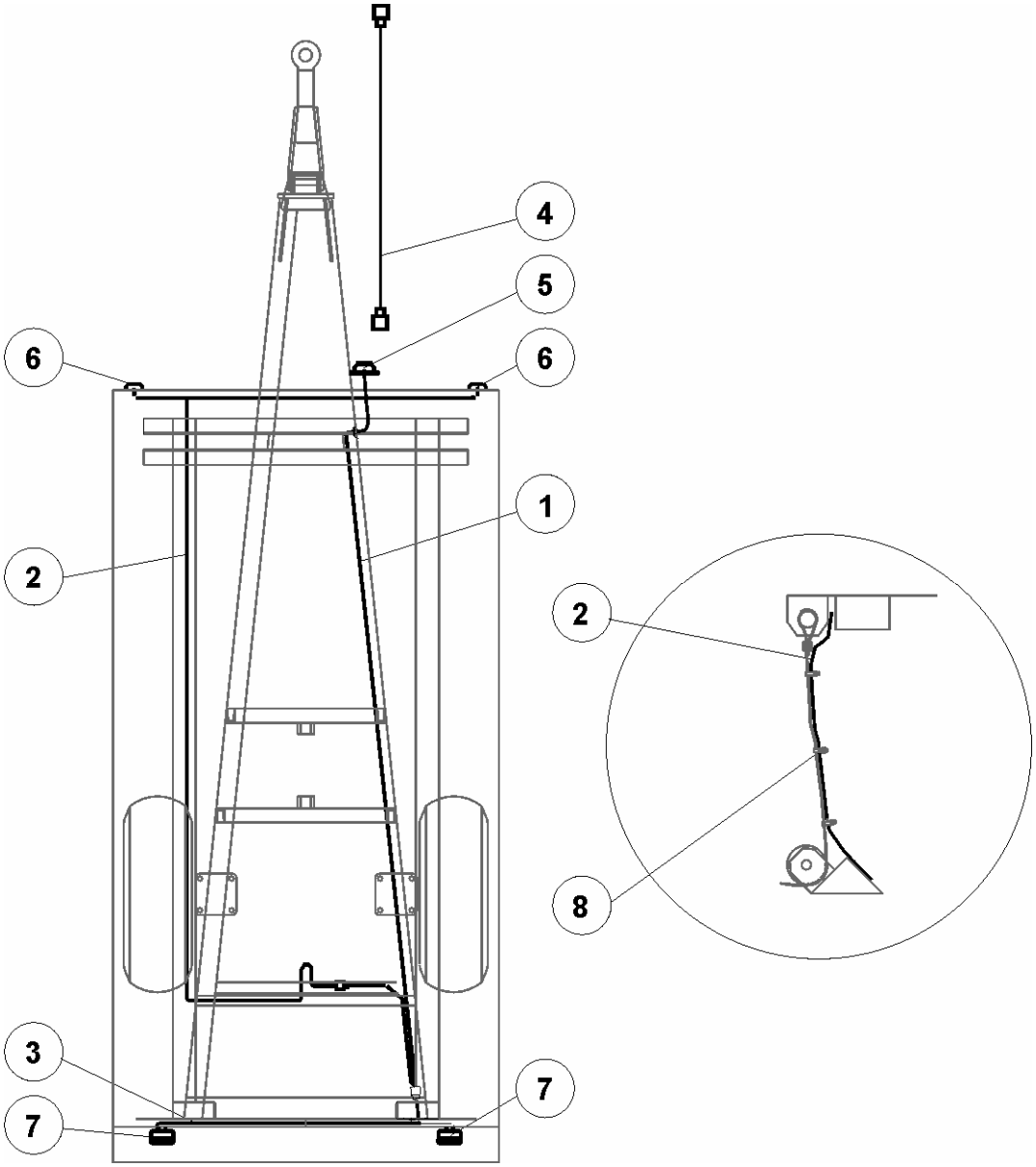

Fig. 28 Wiring

Group name			Qty		
WIRING					
Drawing Nos.		No. of group/part			
28		61RPN-10.00.00.00			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Central bundle	37RPn-10.01.00	1	1	1
2	Front bundle	37RPN-10.02.00	1	1	1
3	Rear bundle	61RPN-10.01.00.00	1	1	1
4	Connection cable	37RPN-10.04.00	1	1	1
5	Socket GN7 (X7)	8JB001941-002	1	1	1
6	Position lamp, front L0-110PP		2	2	2
7	Compact lamp, rear W18U		2	2	2
8	Tape clip 4.5x160	AC RX-46KT	4	4	4

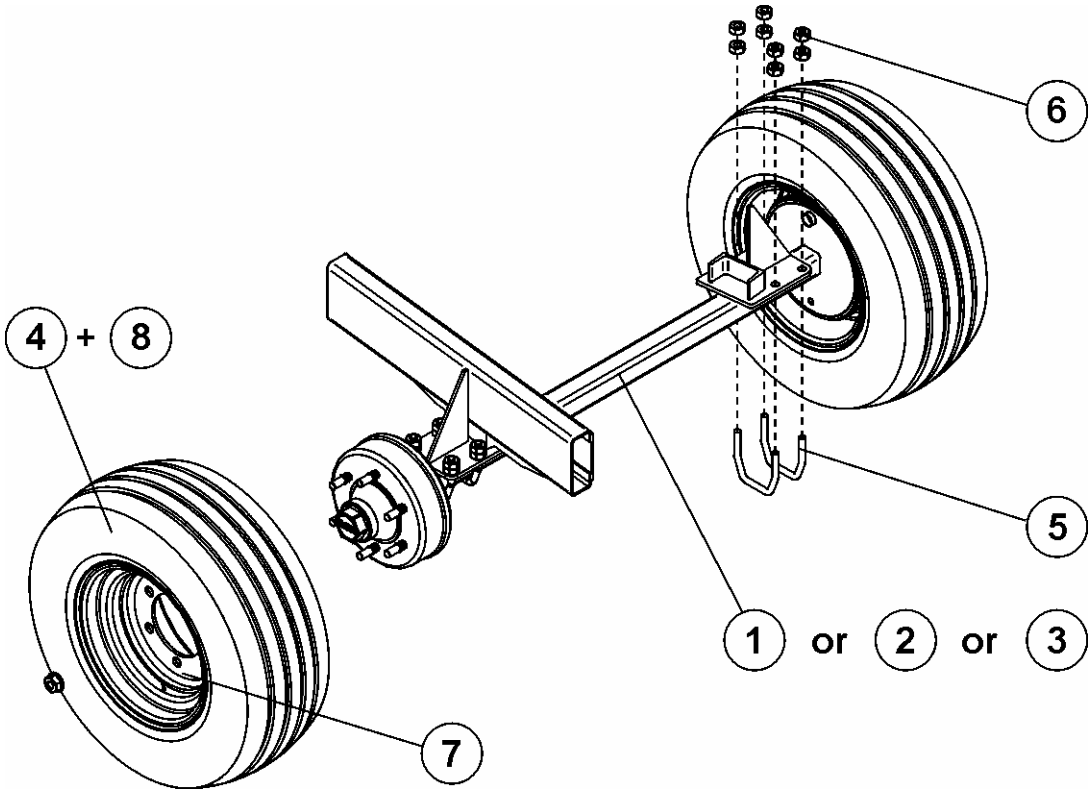

Fig. 29 Axle + wheel, set

Group name **AXLE + WHEEL, SET**			**Qty**		
Drawing Nos. **29**		**No. of group/part** **61RPN-00.00.000** **37RPN-00.06.000** **61RPN-00.00.100** **61RPN-00.00.200**			
No.	**Description**	**No. of drawing/standard**	**T681**	**T681-DK**	**T681-DK/N**
1	Axle, pneumatically braked	61RPN-12.00.000	1	-	-
2	Axle, hydraulically braked	61RPN-15.00.000	-	1	-
3	Axle, no braking	61RPN-11.00.000	-	-	1
4	Tyre	10.0/75-15.3 14PR	2	2	2
5	Bail screw	41RPN-00.00.001	4	4	4
6	Nut M16-5-B Fe/Zn5	PN-85/M-82144	16	16	16
7	Rim	9/15.3	2	2	2
8	Inner tube	10.0/75-15.3 with TR15 valve	2	2	2

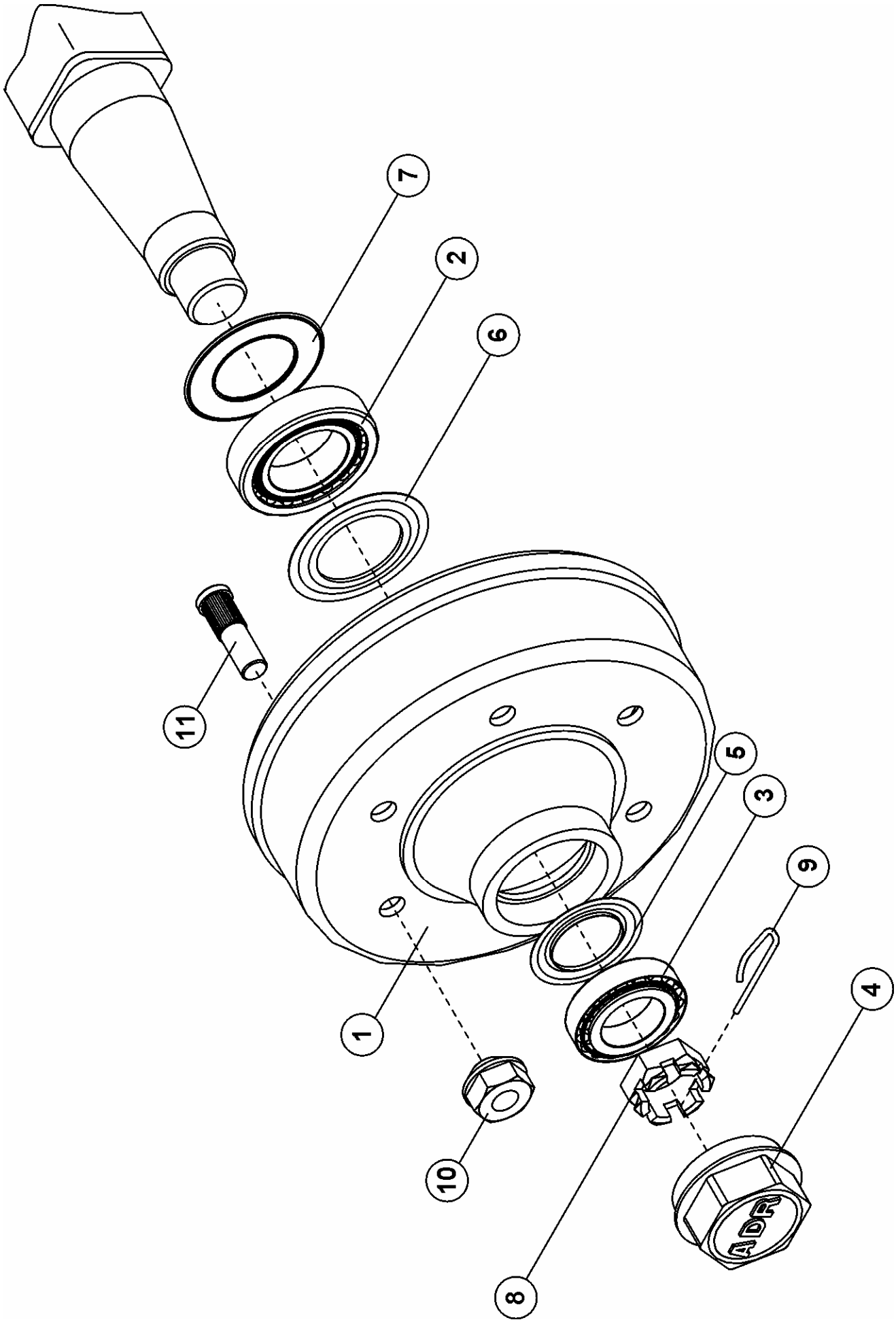

Fig. 30 Hub/drum + axle bearing

Group name HUB / DRUM + AXLE BEARING AXLE BRAKE			Qty		
Drawing Nos. 30, 31		No. of group/part			
No.	Description	No. of drawing/standard	T681	T681-DK	T681-DK/N
1	Hub/drum, cast iron 300x60	65LF08010010650	1	1	1
2	Bearing	902CC30211	1	1	1
3	Bearing	902CC30208	1	1	1
4	Wheel cover	912T80	1	1	1
5	Bearing cover	915N30208	1	1	1
6	Bearing cover	915N30211	1	1	1
7	Sealing ring	915PG55	1	1	1
8	Milled nut	908DF39/50	1	1	1
9	Spring cotter pin	914C39E	1	1	1
10	Nut M18x1.5	903D18GER	6	6	6
11	Pin M18x1.5	903C18	6	6	6
12	Brake shoe	6AFA400600C11	2	2	2
13	Cam shaft L1=400 mm	752026B400	1	1	1
14	Cam shaft L2=800 mm	752026B800	1	1	1
15	Brake lever	760E24004C0	1	1	1
16	Nut	914DF12	1	1	1
17	Washer	915RE16	1	1	1
18	Spring ring	915RES28	1	1	1
19	Spring	914M300/17S	2	2	2

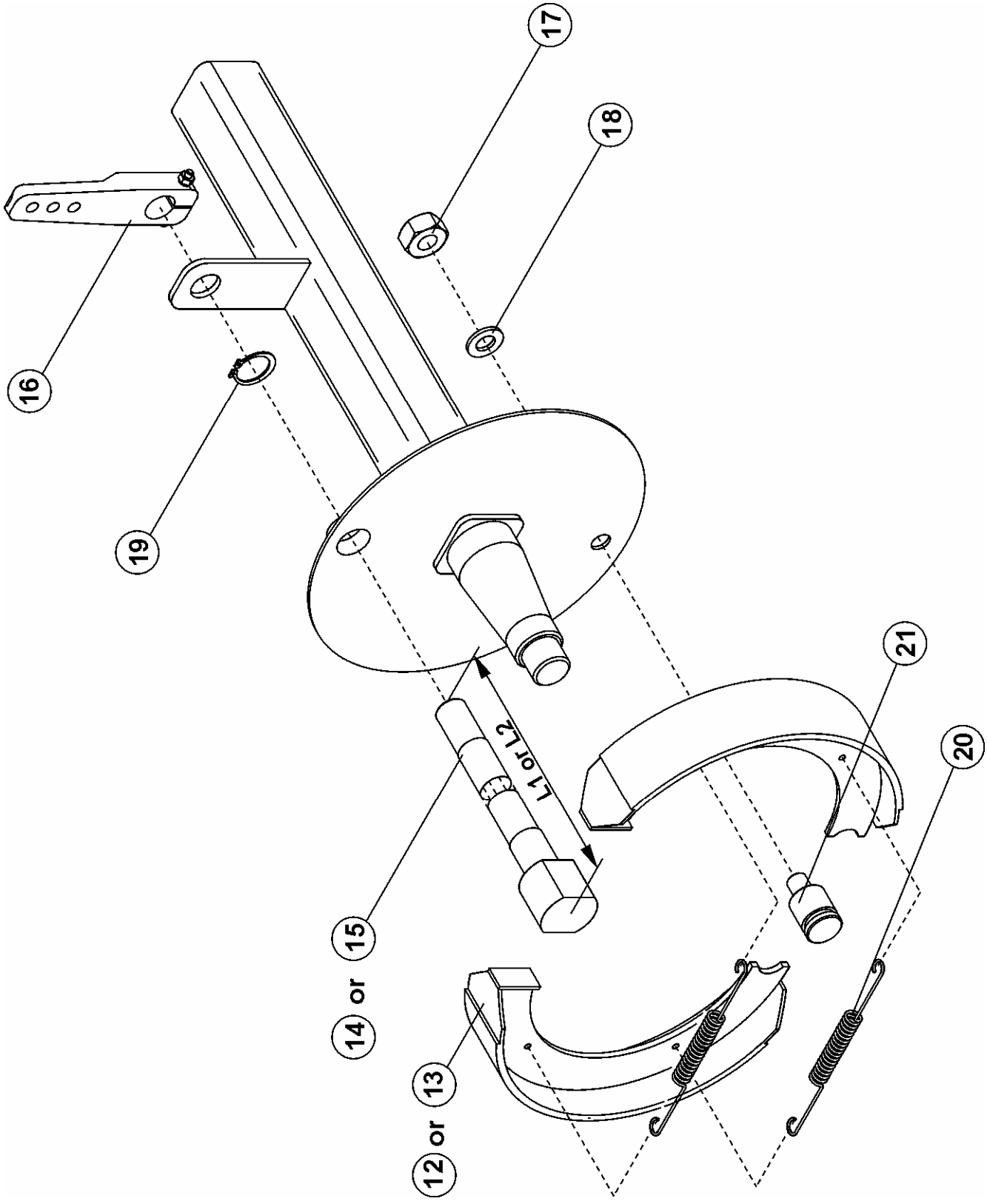

Fig. 31 Axle brake

Group name HUB / DRUM + AXLE BEARING AXLE BRAKE			Qty		
Drawing Nos. 30, 31		No. of group/part			
No.	Description	No. of drawing/standard	T681	T681-DK	T681-DK/N
1	Hub/drum, cast iron 300x60	65LF08010010650	1	1	1
2	Bearing	902CC30211	1	1	1
3	Bearing	902CC30208	1	1	1
4	Wheel cover	912T80	1	1	1
5	Bearing cover	915N30208	1	1	1
6	Bearing cover	915N30211	1	1	1
7	Sealing ring	915PG55	1	1	1
8	Milled nut	908DF39/50	1	1	1
9	Cotter pin sprężysta	914C39E	1	1	1
10	Nut M18x1.5	903D18GER	6	6	6
11	Pin M18x1.5	903C18	6	6	6
12	Brake shoe	6AFA400600C11	2	2	2
13	Cam shaft L1=400 mm	752026B400	1	1	1
14	Cam shaft L2=800 mm	752026B800	1	1	1
15	Brake lever	760E24004C0	1	1	1
16	Nut	914DF12	1	1	1
17	Washer	915RE16	1	1	1
18	Spring ring	915RES28	1	1	1
19	Spring	914M300/17S	2	2	2

NOTES