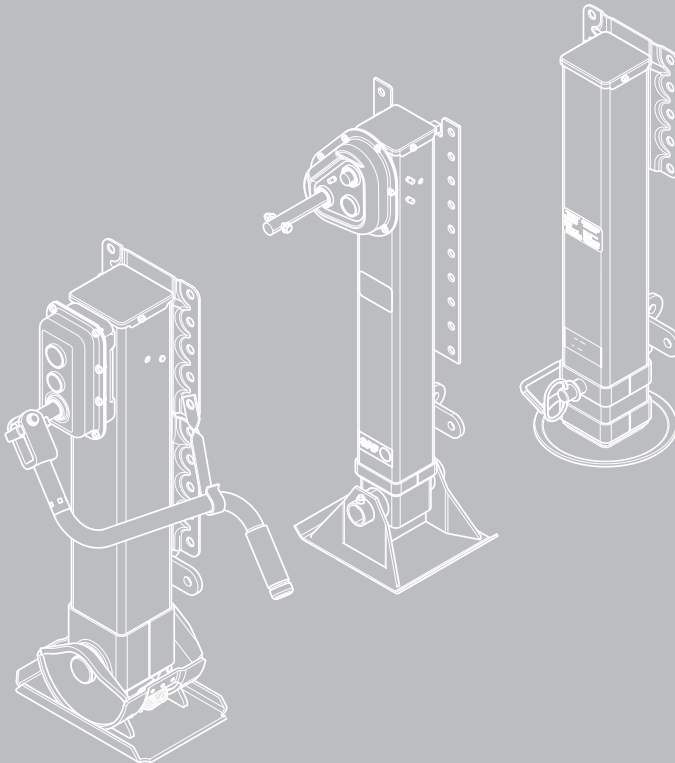


Owner's Manual

SAF support devices Titan/Titan PRO/SAF Atlas
SAF drop support



XL-LG11662UM-en-DE

Translation of the original owner's
manual

1.1 Dear customer,

This operating manual will help you to familiarise yourself with the SAF-HOLLAND product and use it for its proper use.

The operating manual contains important instructions on how to operate the product safely, properly and economically. Adherence to it helps prevent hazards, faults and reduce down times and increase the reliability and service life of the product. Read the operating manual through carefully and follow the instructions accurately.

It must be ensured that all personnel with responsibility for performing tasks on the vehicle are able to consult the operating manual at all times.

The operating manual must be kept in the glove compartment in the driver's cabin of the towing vehicle at all times.

1.1 Copyright

This operating manual is classified as in accordance with the law on unfair competition.

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SAF-HOLLAND GmbH
Hauptstraße 26
D-63856 Bessenbach

This operating manual contains text and drawings that without the express permission of the manufacturer cannot be either fully or partly

- duplicated,
- distributed or
- in any other way disclosed.

Any breach or infringement will result in liability for damages.

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en

1 Product data

1.1 Identification of the model

Please have the exact type designation of the product ready when ordering spare parts.

The 11-digit number (serial No.) can be found on the type plate.



Fig. 1 · Type plate

Hereinafter is listed the data for ordering original spare parts from SAF-HOLLAND.

Original spare parts order

| Product name | type | Serial No. |
|--------------------|-----------------------|------------------|
| SAF support device | LGT G 80-47 G | 20 09 259 0938 |
| SAF drop support | Mounting plate, upper | 1025 30 001250 0 |
| SAF drop support | Mounting plate, lower | 1025 30 001251 0 |

1.2 Position of the type plate

The type plate Fig. 1 is located at the positions indicated Fig. 2, –Pfeil–.

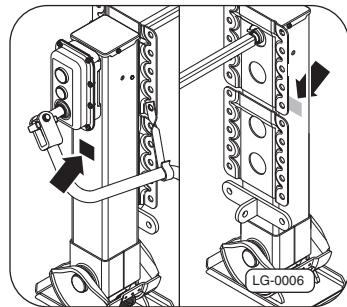


Fig. 2 · Type plate position

1.3 Technical data

Technical data for the SAF support devices

| Support devices | SAF Titan/Titan PRO | SAF Atlas | SAF drop support |
|------------------------|---------------------|-----------|------------------|
| Lifting capacity | 25,000 kg | 24,000 kg | — |
| Static proof load | 55,000 kg | 72,000 kg | — |
| Static load | — | — | 15,000 kg |
| Static load with wheel | — | 35,000 kg | — |
| Lift per crank turn | | | |
| high gear | 14.8 mm | 6.0 mm | — |
| low gear | 0.7 mm | 0.7 mm | — |

2 Ordering spare parts

When ordering original spare parts from SAF-HOLLAND, make sure that you pay attention to the assembly groups of the respective product.

Third party parts have a negative effect on the function of the product, have a shorter lifetime and cause risks and hazards which SAF-HOLLAND cannot evaluate. They also increase the testing requirement Page 10.

SAF-HOLLAND has a tight service network of partner companies for technical support for SAF-HOLLAND products and supply of parts (see back page or visit us on the internet at www.safholland.com).

For further information on identifying spare parts, refer to the "**Aftermarket**" section of our homepage www.safholland.com.

Updates are published as necessary on the internet at www.safholland.com.

3 General information

3.1 Liability

SAF-HOLLAND's "General Terms and Conditions" apply.

SAF-HOLLAND does not accept any liability claims for personal injury or material damage which are caused by one or more of the following:

- Improper use of the product Page 8;
- disregarding the operating manual or the safety notices contained therein Page 9;

- structural changes to the product not carried out by the company,
- insufficient inspection of parts subject to wear,
- maintenance and repair work carried out incorrectly or too latePage 20,
- the use of any spare parts other than original SAF-HOLLAND parts,
- the use of damaged parts,
- disasters due to external influences or force majeure.

3.2 Warranty and general terms and conditions of business

Refer to the "**Sales**" section of our home page www.safholland.com for information on our current warranties and general terms and conditions.

3.3 Environmental protection

All components and consumables used for maintenance and care must be disposed of in an environmentally friendly manner.

Recyclable components must be cleaned of oil and lubricants and recycled. When doing so, you must adhere to the disposal instructions for the respective consumables and the valid national and regional regulations.

4 Safety

4.1 Target group

The chapters **Operation** and **Inspection** in the owner's manual are restricted exclusively to use by the operator and personnel authorised and trained by the operator.

The user must ensure that the personnel authorised by him receive regular instruction on the content of the owner's manual and in particular the safety instructions it contains.

The chapter **Construction** is restricted exclusively to use by the original equipment manufacturer (OEM) and personnel authorised and trained by the OEM.

4.2 Proper use

The product has been constructed using state-of-the-art technology and in accordance with the recognised rules of technical safety. However, its use may result in hazards for the operator or third parties or damage to the device or other objects of material value.

The support device is designed for attachment to a vehicle trailer. It must only be put into circulation if it is fitted in accordance with the SAF-HOLLAND installation guidelines to an appropriate trailer vehicle which complies with the national regulations (e.g. articulated trailer or central axle trailer).

When fitted to a trailer vehicle, the SAF support device is designed for the following use:

- Adjusting the trailer vehicle to the coupling height of the towing vehicle for coupling or decoupling,
- Supporting the decoupled trailer vehicle.

Proper use also includes:

- Adherence to the owner's manual and implementation of the working steps stipulated in the owner's manual,
- adherence to the performance limits Fig. 1 of the product,
- Adherence to all information regarding checks and maintenance Page 18,
- The use of the auxiliary and operating materials listed Page 21 as well as the environmentally-friendly disposal of these Page 7.

Operationally safe functioning can only be guaranteed if all the instructions, setting and performance limits for the product are adhered to.

4.3 Improper use

Failing to comply with the following points can lead to damage to the product or fatal injuries:

- Use which exceeds the permitted lift, test and static load values for the fifth wheel or exceeds the technical values Page 6,
- The attachment of lifting devices.
- Applications other than those recommended.



Note:

The operator of the vehicle and not the manufacturer shall be responsible for all injuries to persons and property due to improper use.

4.4 Safety instructions and symbols used

The following symbols are used to denote particularly important information and sections of the text. Make sure that they are always read and adhered to before working with the product.



Danger!

This safety instruction with the exclamation mark warns of a possible safety risk or serious and fatal injuries.



Careful!

This safety instruction with the exclamation mark warns of possible damage to the product.



Note:

Marking for special user tips and other particularly useful and important information for efficient work and economical use.

4.5 Marking used for sections of text

- Marking for instructions for actions and information in safety instructions

1., 2., 3., ... Marking used for working steps

4.6 General safety instructions



Danger!

Risk of serious traffic accidents due to the loss of traffic safety and operational safety, which may lead to serious or fatal injuries!

It is imperative that you adhere to the following safety instructions in order to maintain the operational safety and traffic safety of your support device:

Operation

- The support devices must only be operated if they are in perfect and fully functional condition.
- Check the safety devices regularly to make sure they are fully functional.
- The required personal safety equipment and clothing for operating, maintenance and repair staff must be available and must be used.
- The SAF drop support may only be used if the tractor is equipped with an air-suspended rear axle.
- The SAF drop support is not suitable for driving.

General safety instructions

- The safety and warning signs attached to the support device must not be removed and must be kept in legible condition. Signs that have become damaged or illegible must be replaced immediately.
- No arbitrary modifications may be made to the support device.

5 Design

5.1 General mounting instructions



Danger!

Risk of serious traffic accidents due to the loss of traffic safety and operational safety, which may lead to serious or fatal injuries!

The General Safety Instructions must be observed prior to beginning mounting work Page 9.

- Use only original spare parts and accessories, as these parts were specially conceived for SAF support devices. That parts from third parties have been designed and manufactured to withstand the operational stresses and maintain safety cannot be guaranteed.
- We also do not approve parts and extra equipment that has not been supplied by SAF-HOLLAND for use on the support device.
- Before mounting work is carried out, check the support device and all accompanying parts for signs of damage sustained during transport.

5.2 SAF drop support component overview

SAF drop support component overview

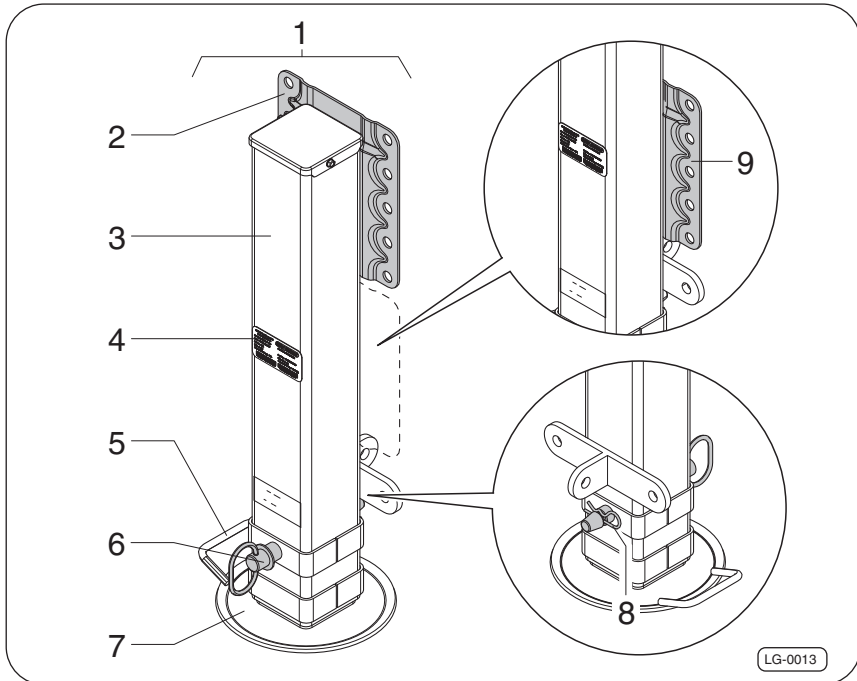


Fig. 3 · SAF drop support component overview

SAF drop support components

| Fig. 3, Item | Designation | Item | Designation |
|--------------|-----------------------|------|-----------------------|
| -1- | SAF drop support | -2- | Mounting plate, upper |
| -3- | Foot (steel) | -4- | Type plate |
| -5- | Handle | -6- | locking pin |
| -7- | Base plate | -8- | Safety splint |
| -9- | Mounting plate, lower | | |

5.3 SAF support device Titan/Titan PRO/SAF Atlas component overview

SAF support device Titan/Titan PRO/SAF Atlas component overview

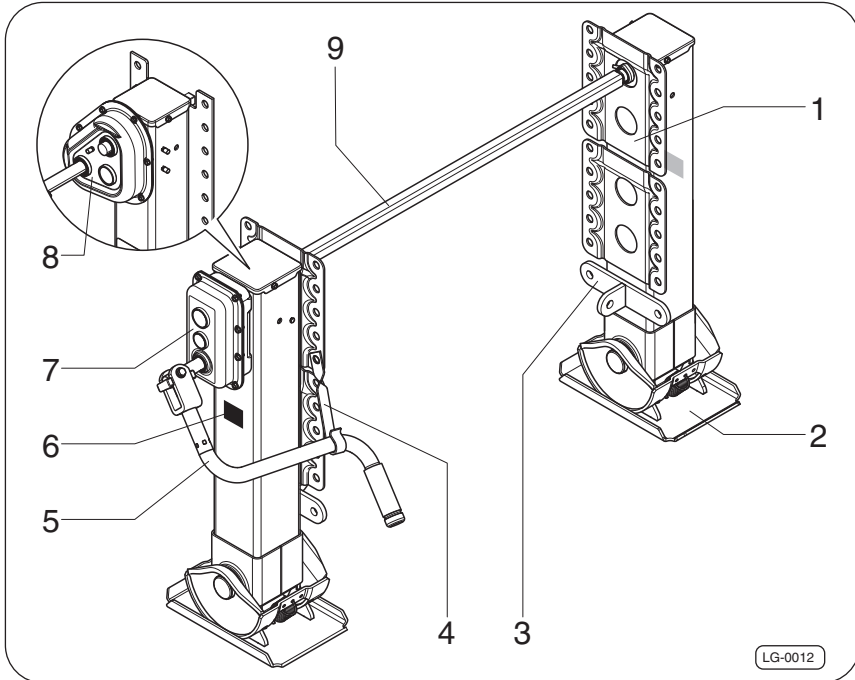


Fig. 4 · SAF support device component overview

SAF support device components

| Fig. 4, Item | Designation | Fig. 4, Item | Designation |
|--------------|--------------------|--------------|-------------------|
| -1- | Mounting plate | -2- | compensating foot |
| -3- | Holder for bracing | -4- | Crank holder |
| -5- | Crank handle | -6- | Type plate |
| -7- | Gearbox | -8- | SAF Atlas |
| -9- | connecting shaft | | |

SAF Titan/Titan PRO accessories

| Fig. 5, Item | Designation | Fig. 5, Item | Designation |
|--------------|-------------------|--------------|---------------|
| -1- | compensating foot | -2- | Sand shoe low |
| -3- | Sand shoe high | -4- | Rocking foot |

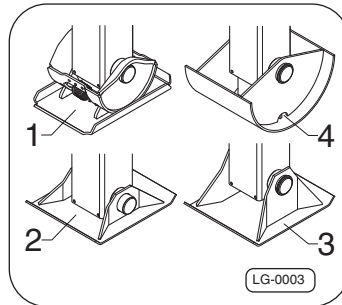


Fig. 5 · SAF Titan/Titan PRO accessories

SAF Atlas accessories

| Fig. 6, Item | Designation | Fig. 6, Item | Designation |
|--------------|-------------------|--------------|----------------|
| -1- | compensating foot | -2- | wheel |
| -3- | Rocking foot | -4- | Sand shoe high |

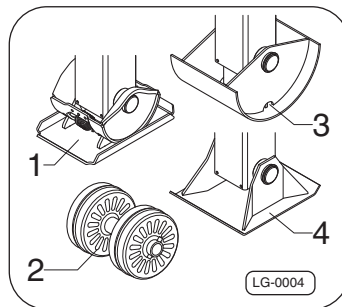


Fig. 6 · SAF Atlas accessories

6 Operation

6.1 General operating instructions



Danger!

- The support device must only be operated if the vehicle or vehicle combination is secured to prevent it rolling away.
- All components which are not in a serviceable condition must be replaced.
- When loading a parked trailer vehicle use additional supports as usual, otherwise there is a risk of toppling!
- The support device must be checked for damage before use. In case of damage the support device must be urgently repaired by an authorised workshop and appropriately trained staff.
- The crank handle for the SAF Titan PRO and SAF Atlas must always be mounted.
- Do not turn the SAF Titan PRO and SAF Atlas beyond the upper and lower limits.
- The wheel is not suitable for driving the trailer vehicle.
- The lifting capacity and drop height of the support devices must not be exceeded.

6.2 SAF drop support



Note:

- The SAF drop support may only be used on tractors with an air-suspended rear axle.
- Two drop supports must be mounted onto each vehicle.

The drop stroke can be variably adjusted in multiple steps. A special lock allows for simple height adjustment of the foot and at the same time prevents it falling out.

- The SAF drop support is suitable for all trailers, centre-axle trailers and semi-trailers.

- A mounting plate can be mounted above or below as an individual plate Page 11.
- Thanks to the upper sealing of the steel foot, the ingress of dirt and water is prevented.
- In the lower area the steel foot is welded to a base plate equipped with a handle, allowing for quick and easy handling.

6.3 Crank operation of the SAF support device Titan/ Titan PRO/SAF Atlas

The crank holder –item 1–, Fig. 7 is fastened either to the rear plate of the support device or to the vehicle frame (depending on how it is fitted) and is used to mount the crank handle –item 2–.

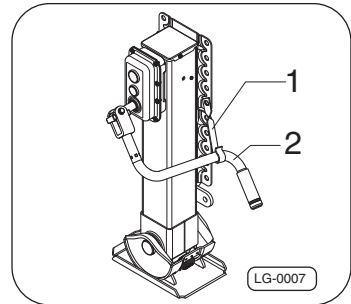


Fig. 7 · Crank function

"Standard" crank handle

The "Standard" crank handle is fastened to the input shaft on the gear unit with an elongated hole and a screw.

Comfort crank handle (speed crank)



Note:

The comfort crank handle –arrow–, Fig. 8 automatically clicks into place in the horizontal operating position.

1. Attach crank handle –arrow –, Fig. 8.

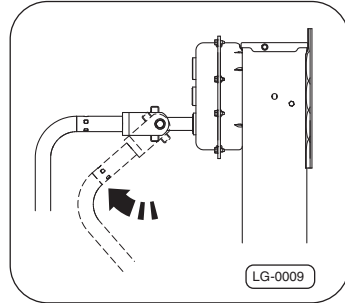


Fig. 8 · Engaging the crank handle

2. After cranking, release the crank handle –arrow 1–, Fig. 9 and fold it away –arrow 2–.

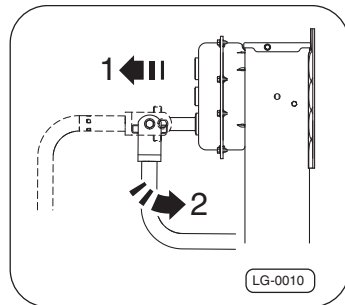


Fig. 9 · Releasing the crank handle

6.4 Gears and gear change of the SAF support device Titan/Titan PRO/SAF Atlas



Danger!

Beware of crank handle kick-back when releasing the crank handle!

high gear

The high gear –pos. A–Fig. 10 is used to bridge the passage between the drive position and the floor.

low gear

The low gear –pos. B–Fig. 10 is used to raise and lower the trailer vehicle.

Remove the crank handle from the crank holder and fold it out into the horizontal operating position.

Pull or push the crank handle –item 1– Fig. 10 into the desired gear The gear engages noticeably into place.

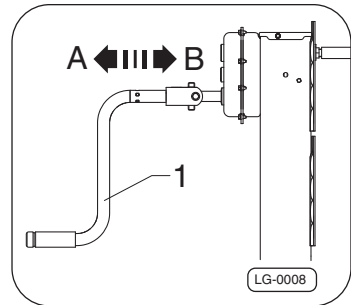


Fig. 10 · change gear

6.5 Decoupling and coupling a trailer vehicle



Danger!

Risk of serious traffic accidents due to the loss of traffic safety and operational safety, which may lead to serious or fatal injuries!

- Beware of crank handle kick-back when releasing the crank handle.
- When coupling and decoupling the trailer there must be nobody in the danger area.
- There must be nobody underneath the supported trailer vehicle.
- The General Safety Instructions must be observed Page 14.

Decoupling the trailer



Danger!

- **When supporting it must be possible to move the support feet freely/turn the wheels.**
- **The support surface for the support foot must be free and flat; the ground must have sufficient strength. If necessary, place a suitable base under the support surface.**
- **Do not shim the support device, e.g. for height adjustment.**



Danger!

- **Ensure freedom of movement.**
- **The SAF Atlas wheel is not suitable for driving the trailer vehicle.**

1. Remove the crank handle from the crank holder and fold it out into the horizontal operating position.
2. Select high gear or low gear and wind down the support device.
3. Switch to low gear before the support device touches the floor.
4. Wind the support device up to the required height.
5. Put the crank handle into the crank holder.

Coupling the trailer

1. Remove the crank handle from the crank holder and fold it out into the horizontal operating position.
2. Select low gear and wind the support device up to the required height.
3. Hitch the trailer vehicle and check the coupling to make sure it has engaged securely.
4. Fully retract the support device.
5. Put the crank handle into the crank holder.

7 Inspection

7.1 General test instructions



Careful!

- **Maintenance and repair work must only be carried out by authorised specialist workshops and by staff with the appropriate training.**
- **All components which are not in a serviceable condition must be replaced.**
- **Screws may only be used once.**
- **The general safety inspection must be performed as per legal regulations.**



Careful!

- **Daily inspection of the vehicle for traffic safety before starting the journey is part of the duty of the driver**Page 19.
- **SAF-HOLLAND support devices require continuous care, inspections and maintenance so that natural wear and faults can be detected in good time, and in order to maintain operational and traffic safety.**
- **SAF-HOLLAND recommends that you perform the inspections described in the service schedule "Page 20" In case of repairs you must always follow the SAF-HOLLAND repair instructions and directions.**

7.2 Before each journey

1. Carry out a general visual check of the support devices to make sure they are firmly fastened and to check for damage.
2. Remove any coarse soiling before starting the journey in order to prevent damage to the following traffic.
3. The crank handle must be firmly attached in the crank holder of the support device when the trailer is in drive mode.

7.3 Cleaning



Danger!

Risk of accidents and injuries.

Loose stones on the support device may soil the highways and put the following traffic at risk.

1. Any loose stones and coarse soiling must be removed from the support devices immediately.
2. Do not wash off any grease on the thrust pipe.

7.4 Service schedule



Danger!

Risk of serious traffic accidents due to the loss of traffic safety and operational safety, which may lead to serious or fatal injuries!



Note:

The specified maintenance intervals are reference values. They are the minimum requirements which have to be adhered to. External influences as a result of use or climatic conditions may make it necessary to shorten these intervals.

Maintenance work on support devices

| | before each usage | once per year | in case of stiffness of movement |
|---|-------------------|---------------|----------------------------------|
| Visual inspection of the support devices for cracks and deformation. | X | — | — |
| SAF drop support: | | | |
| Check the locking pin and foot for damage, cracks and deformation. Check that the locking pin is secure. | X | — | — |
| SAF support device Titan/Titan PRO/SAF Atlas | | | |

| | before each usage | once per year | in case of stiffness of movement |
|---|-------------------|---------------|----------------------------------|
| Lubricate spindle and spindle nut Page 21 . Initially after 3 years. | — | X | X |
| Lubricate SAF Atlas gearbox . | — | — | X |
| Functional testPage 22. | — | X | — |
| General safety inspection as per legal regulations. | | | |



Careful!

In case of stiffness of movement the spindle and spindle nut must be relubricated immediately .

7.5 Lubrication of the SAF support devices Titan/Titan PRO/SAF Atlas

Lubrication of the spindle



Careful!

Risk of damage to the spindle, spindle nut and gear unit.

- The recommended lubricant¹⁾ should be used, otherwise contact SAF-HOLLANDPage 6.
- Only lubricate the stipulated lubricating points.

¹⁾ SAF lubricating grease XB-LUB-035-08

Lubricate the spindle and spindle nut of the SAF Titan/SAF Atlas support device via lubrication point –A–Fig. 11.

When lubricating the spindle and spindle nut, **max. 100 g** of ¹⁾ from SAF-HOLLAND is to be used per leg.

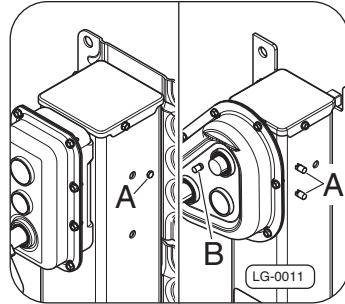


Fig. 11 · Lubricate the support device

Lubricating the gearbox



Careful!
Do not open the gear box.



Note:
Do not lubricate the SAF Titan PRO gearbox.

Lubricate the SAF Atlas gearbox with grease at lubrication point –B–, Fig. 11¹⁾.

7.6 Functional test

Support devices which are rarely used must be actuated regularly in order to test the function and redistribute the layer of grease over the spindle and spindle nut. To do so, extend and retract the support device.

7.7 Troubleshooting

| Problem | Possible cause | Solution |
|--|------------------|--|
| The support cannot be extended/retracted | Spindle faulty | Replace leg or gear unit leg ²⁾ |
| | Gear unit faulty | Replace the gear unit leg ²⁾ |

¹⁾ SAF lubricating grease XB-LUB-035–08

²⁾ Exchange by an authorised specialist workshop and appropriately qualified staff only.

| Problem | Possible cause | Solution |
|---|---|--|
| The support cannot be extended/retracted | Support tube or inner tube of the support bent | Replace the leg or gear unit leg ²⁾ |
| The support does not move freely | Too much friction between the spindle and spindle nut. | Lubricate spindle, Page 21. |
| | Support device soiled | Clean support device, Page 19 |
| No gear can be selected | Gear unit faulty | Replace the gear unit leg ²⁾ |
| The gear unit makes noises but moves freely | The gear unit has an intermediate shaft which may cause noises. | No measures necessary |
| The gear unit does not move freely | The grease has been used up or expelled | Test in a specialist workshop, in the case of Atlas, relubricate as necessary, Page 21 |

²⁾ Exchange by an authorised specialist workshop and appropriately qualified staff only.



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