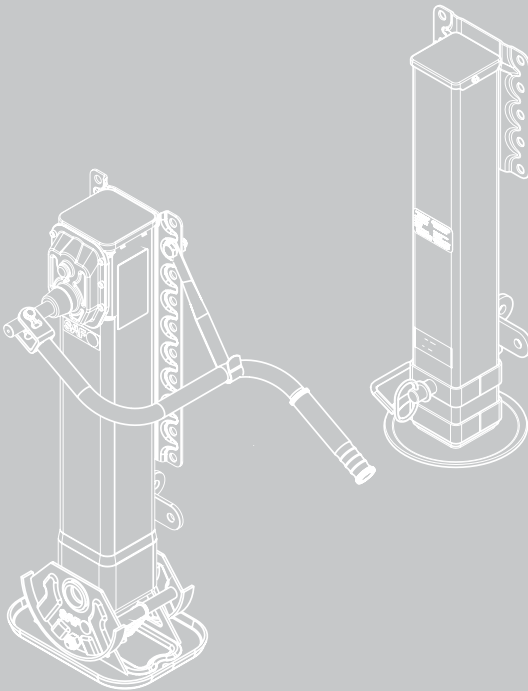


**Betriebsanleitung
Owner's Manual
Instructions de service
Istruzioni per l'uso
Instrucciones de uso
Руководство по эксплуатации**

**SAF Stützvorrichtung Hercules
SAF Fallstütze**



XL-LG40026UM-ms-DE Rev A
Original Betriebsanleitung

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Dear customer,

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

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

All personnel responsible for performing tasks on a vehicle must be 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.

en

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1 Product data

1.1 Model identification

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.

The information for ordering original spare parts from SAF-HOLLAND can be found below.

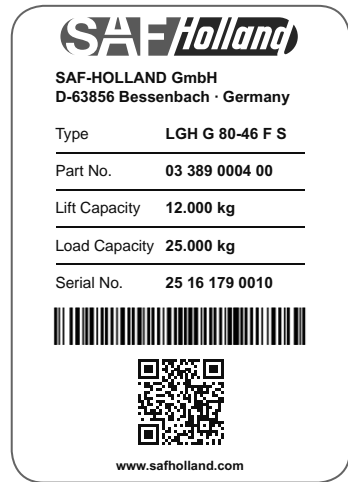


Fig. 1 - Type plate

Ordering original parts

Product name	Type	Serial no.
SAF landing gear	LGT H 80-45 FS	-
SAF drop leg	Upper mounting plate	1025 30 001250 0
SAF drop leg	Lower mounting plate	1025 30 001251 0

1.2 Location of type plate

The type plate ► Fig. 1 is located at the indicated positions

► Fig. 2, –arrow–.

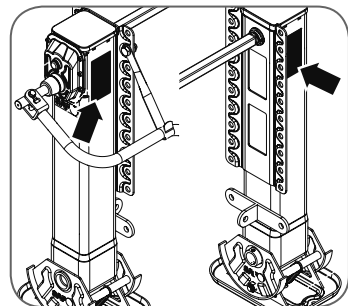


Fig. 2 - Type plate position

1.3 Technical data

Technical data for SAF landing gear

Support devices	SAF Hercules Information per set	SAF drop leg Information per leg
Lifting capacity	24,000 kg	—
Static load	50,000 kg	15,000 kg
Static load with wheel	35,000 kg	—
Lift per crank turn		
High gear	12 mm	—
Low gear	1 mm	—

2 Ordering spare parts

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

Imitations have a negative effect on the functionality of the product, have a shorter lifetime and pose risks and hazards that cannot be predicted by SAF-HOLLAND. They also increase the testing costs and efforts

► *Page 39.*

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

For further instructions on identifying spare parts, please refer to the “**Aftermarket**” section on our homepage **www.safholland.com**. Updates are published as necessary online at **www.safholland.com**.

3 General information

3.1 Liability

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

SAF-HOLLAND accepts no liability claims for personal injury or material damage due to one or more of the following reasons:

- Improper use of the product ► *Page 37*
- Failure to adhere to the operating manual and the safety instructions contained therein ► *Page 38*
- Arbitrary changes or modifications to the product
- Insufficient maintenance of parts that are subject to wear
- Improper maintenance work and maintenance work that is not performed in due course ► *Page 49*
- Use of any spare parts other than original SAF-HOLLAND parts
- Use of damaged parts
- Disasters due to external influences or force majeure

3.2 Warranty and general terms and conditions

Refer to the “**Sales**” section on our home page www.safholland.com for information on 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 as reusable material. When doing so, you must adhere to the disposal instructions for the respective consumables and any applicable national and regional regulations.

4 Safety

4.1 Target group

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

The operator must ensure that any authorised personnel authorised receive regular instruction in the content of the owner's manual and in particular the safety instructions contained therein.

The "Assembly" chapter is confined exclusively to use of the product by the original equipment manufacturer (OEM) and by 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 recognised rules on technical safety. However, hazards to the operator or third parties and damage to the device or other objects of material value may arise while using it.

The landing gear is solely intended for use as an attachment on a vehicle trailer. It must only be introduced into traffic if it is fitted in accordance with the SAF-HOLLAND installation guidelines to an appropriate trailer vehicle that complies with any relevant national regulations (e.g. articulated trailer or central-axle trailer).

When fitted to a trailer vehicle, the SAF landing gear is designed for the following use:

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

Proper use also includes:

- Adhering to the owner's manual and following the working steps stipulated in the owner's manual
- Adhering to the performance limits ► *Fig. 1* of the product

- Adhering to all information regarding checks and maintenance
▶ *Page 48*
- Using the listed auxiliary and operating materials ▶ *Page 51*, as well as disposing of them properly ▶ *Page 35*.

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

4.3 Incorrect use

Failure to comply with the following points can cause damage to the product or fatal injuries:

- Use in violation of the permitted values for the stroke, test and static load or in excess of the technical values ▶ *Page 34*
- Attaching 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 incorrect 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 an exclamation mark warns of a possible safety risk or serious and fatal injuries.



Caution!

This safety instruction with an 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 regarding 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 roadworthiness and operational safety, which can lead to serious or fatal injuries!

In order to ensure the operational safety and roadworthiness of your landing gear, please adhere to the following safety instructions:

Operation

- The landing gear may only be operated if it is in sound, fully functional condition.
- Check the safety devices regularly to make sure they are fully functional.
- Operators and maintenance/repair personnel must have access to and use the required personal protective equipment.
- The SAF drop leg can only be used if the tractor is equipped with an air-sprung rear axle.
- The SAF drop leg is not suited for ferry service.

General safety instructions

- The safety and warning instructions attached to the landing gear may not be removed and must be legible. Signs that have become damaged or illegible must be replaced immediately.
- No arbitrary modifications may be made to the landing gear.

5 Safety

5.1 General assembly instructions



Danger!

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

The general safety instructions must be observed prior to assembling the device ► *Page 38*.

- Only use original spare parts and original accessories — these parts have been specially designed for SAF support devices. Third-party parts are not guaranteed to be designed and manufactured to withstand the operational stress and meet safety demands.
- We also do not approve any parts or special equipment that have not been supplied by SAF-HOLLAND for use on the support device.
- Before mounting the support device, check the device and all accompanying parts for signs of damage caused during transport.

5.2 Overview of components for SAF drop leg

Overview of components for SAF drop leg

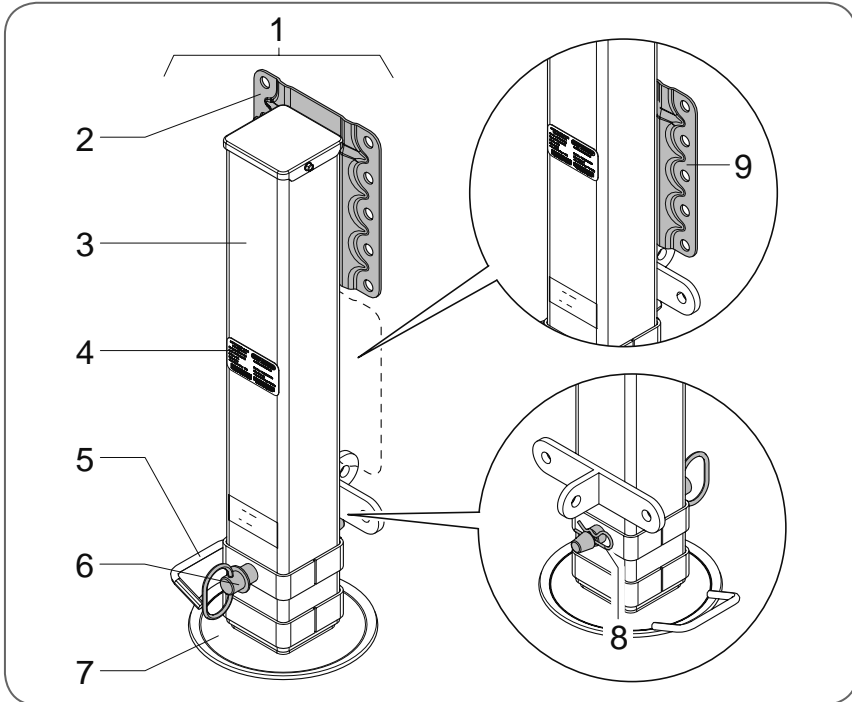


Fig. 3 - Overview of components for SAF drop leg

No.	Designation	No.	Designation
1	SAF drop leg	2	Upper mounting plate
3	Pedestal (steel)	4	Type plate
5	Pull handle	6	locking pin
7	Base plate	8	Cotter pin
9	Lower mounting plate		

5.3 Overview of components for SAF Hercules landing gear

Overview of components for SAF Hercules landing gear

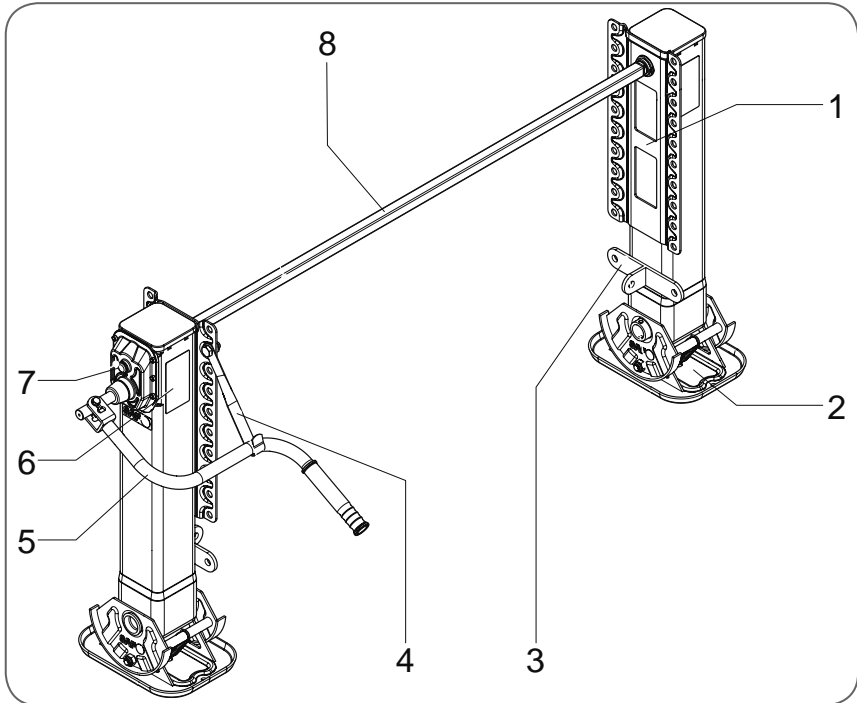


Fig. 4 - Overview of components for SAF landing gear

No.	Designation	No.	Designation
1	Mounting plate	2	Compensating foot
3	Strut mount	4	Crank holder
5	Crank handle	6	Type plate
7	Gearbox	8	Connecting shaft

SAF Hercules accessories

No.	Designation
1	Compensating foot
2	Rocking foot
3	Sand shoe low
4	Wheel
5	Disc base
6	Sand shoe high

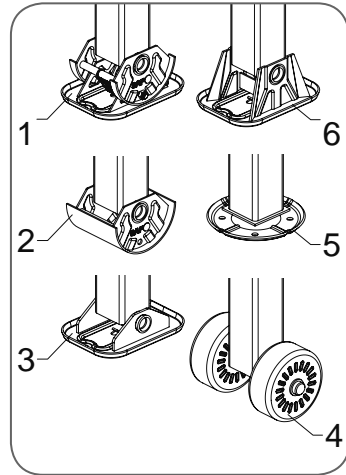


Fig. 5 - SAF Hercules accessories

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6 Operation

6.1 General operating instructions



Danger!

- The support device may only be operated if the vehicle or vehicle combination is secured from rolling away.
- All components that are not in sound condition must be replaced immediately.
- When loading a parked trailer vehicle, use additional supports as necessary — risk of tipping!
- The support device must be checked for damage before use. In the event of damage, the support device must be repaired immediately by an authorised workshop and properly trained personnel.
- The crank handle always has to be fitted on the SAF Hercules.
- Do not rotate the SAF Hercules beyond the upper and lower limits.
- The wheel is not suited for driving the trailer vehicle.
- The lifting capacity and dropping height of the support device must not be exceeded.

6.2 SAF drop leg



Note:

- The SAF drop leg can only be used on tractors with an air-sprung rear axle.
- Two drop legs must be installed for each vehicle.

The drop stroke of the support leg can be adjusted to variable degrees in several steps. A special safety catch makes it possible to adjust the height of the leg with ease and at the same time prevents it from falling out.

- The SAF drop leg is suited for all trailers, central-axle trailers and semi-trailers.
- A mounting plate can be fitted above or below as an individual plate
▶ *Page 40.*
- A steel pedestal is welded onto a base plate at the bottom and is equipped with a pull handle, which serves for quick and easy use.

6.3 Using the crank handle on the SAF Hercules landing gear

The crank holder –item 1– ▶ *Fig. 6* is fastened either to the rear plate of the landing gear or to the vehicle frame and is used to hold the crank handle –Pos. 2–.

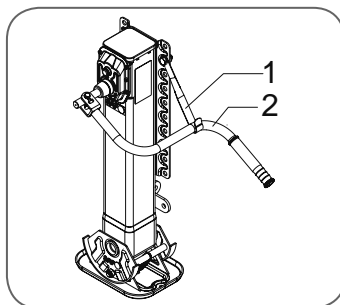


Fig. 6 - Crank function

"Standard" crank handle

The "Standard" crank handle is fastened to the input shaft on the gear-box by means of an elongated hole and a screw.

6.4 Gearbox and changing gears on the SAF Hercules landing gear



Danger!

Beware of recoil when releasing the crank handle!

High gear

The high gear –item A– ► *Fig. 8* serves to bridge the path between the drive position and the ground.

Low gear

The low gear –item B– ► *Fig. 7* serves to lift and lower the trailer vehicle.

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

Push or pull the crank handle –item 1– ► *Fig. 7* into the desired gear. The gear engages noticeably into place.

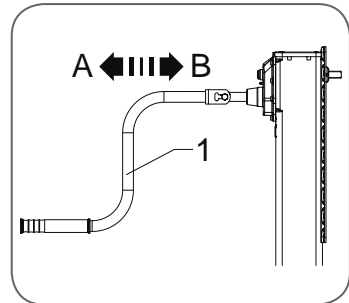


Fig. 7 - Gear change

6.5 Decoupling and coupling a trailer vehicle



Danger!

Risk of road accidents due to loss of roadworthiness and operational safety, which can lead to serious or fatal injuries!

- Beware of recoil when releasing the crank handle.
- Nobody is allowed to be in the danger zone when coupling and decoupling trailers.
- Nobody is allowed beneath the supported trailer vehicle.
- Please observe the general safety instructions for operation
 - ▶ *Page 43.*

Decoupling the trailer



Danger!

- When supporting, it must be possible to move the support legs freely / turn the wheels.
 - The contact area of the support leg must be free and flat; the ground must have sufficient strength. If necessary, place a suitable base under the contact area.
 - Do not shim the support device, e.g. to adjust the height.
 - Ensure freedom of movement.
 - The wheel is not suited for driving the trailer vehicle.
1. Remove the crank handle from the crank holder and fold it out into the horizontal operating position.
 2. Move into high or low gear and wind down the landing gear.
 3. Switch to low gear before the landing gear touches the ground.
 4. Adjust the landing gear to the required height.
 5. Hang the crank handle on 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. Switch to low gear and adjust the landing gear to the required height.
3. Attach the trailer vehicle and check the coupling to make sure it is engaged securely.
4. Fully retract the landing gear.
5. Hang the crank handle on the crank holder.

7 Inspection

7.1 General inspection instructions



Caution!

- Maintenance and repair work should only be carried out by authorised specialist workshops and personnel with the appropriate training.
- All components that are not in sound condition must be replaced immediately.
- Screws may only be used once.
- The general safety inspection should be performed in accordance with applicable legal regulations.
- The daily inspection of the vehicle for roadworthiness before starting the trip is one of the driver's duties ► *Page 48*.
- SAF-HOLLAND support devices require regular care, inspections and maintenance in order to detect normal wear and defects early on, and in order to maintain operational safety and roadworthiness.
- SAF-HOLLAND recommends performing the inspection in accordance with the service schedule described on ► *Page 49*. In case of repairs you must always follow the SAF-HOLLAND repair instructions and directions.

7.2 Before each trip

1. Carry out a general visual inspection of the support devices to make sure they are firmly fastened and to check for damage.
2. Remove any course dirt before starting the trip in order to avoid endangering following traffic.
3. The crank handle must be firmly attached in the crank holder of the landing gear when the trailer is in drive mode.

7.3 Cleaning



Danger!

Risk of accidents and injuries.

Loose stones on the landing gear can soil the road and endanger following traffic.

1. Any loose stones and coarse dirt must be removed from the landing gear immediately.
2. Do not wash off any grease on the thrust pipe.

7.4 Service schedule



Danger!

Risk of road accidents due to loss of road safety and operational safety that may lead to serious or fatal injuries.



Note:

The specified maintenance intervals are reference values. They must be adhered to as minimum values. 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
Visual inspection of the support devices for cracks and deformation	X	—	—
SAF drop leg:			
Inspection of the locking pin and pedestal for damage, cracks and deformation.	X	—	—
Inspection of the locking pin for the cotter pin.			
SAF Hercules landing gear:			
Lubricate spindle and spindle nut ▶ <i>Page 51.</i> Initially after 3 years.	—	X	X
Lubricate gearbox. Initially after 3 years.	—	X	X
Functional test ▶ <i>Page 52.</i>	—	X	—
General safety inspection as per legal regulations.			



Caution!

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

7.5 Lubricating the SAF landing gear

Lubricating the spindle



Caution!

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

- The recommended lubricants¹⁾ should be used; otherwise, contact SAF-HOLLAND ► *Page 34.*
- Only lubricate the indicated lubrication points.

Lubricate the spindle and spindle nut of the SAF Hercules landing gear via lubrication point –A–, ► *Page 51.*

Max. 100 g grease¹⁾ from SAF-HOLLAND should be used per leg to lubricate the spindle and spindle nut.

Use grease¹⁾ to lubricate the gearbox of the SAF Hercules landing gear at lubrication point –B–, ► *Fig. 8.*

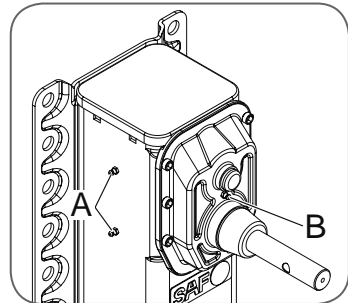


Fig. 8 - Lubricating support device

Lubricating the gearbox



Caution!

Do not open the gearbox!

¹⁾ SAF LiLube MoS2

7.6 Functional test

Support devices that are rarely used must be actuated regularly in order to test their functionality and to redistribute the layer of grease on the spindle and spindle nut. To do this, extend and retract the landing gear.

7.7 Troubleshooting

Problem	Possible cause	Solution
The support cannot be extended / retracted	Faulty spindle	Replace the leg or gearbox leg ¹⁾
	Faulty gearbox	Replace the gearbox leg ¹⁾
	Bent support tube or inner tube of the support	Replace the leg or gearbox leg ¹⁾
The support is stiff	Too much friction between the spindle and spindle nut.	Lubricate the spindle, ► <i>Page 51</i>
	Dirty support device	Clean the support device, ► <i>Page 49</i>
No gear can be selected	Faulty gearbox	Replace the gearbox leg ¹⁾
The gearbox is stiff	The grease has been used up or expelled	Inspection at a specialist workshop, lubricate gearbox

¹⁾ Can only be replaced by an authorised specialist workshop and properly trained personnel.



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