

REBS®



USER MANUAL

Giraffe Tracer

Document number: **M000375**
Revision: **-12**
Release date: **2020-06-12**

HENRIKSEN

Revision history

Rev.	Pages	Description	Approved by	Date
-10	8 19-20	Additional regulator details Relief valve adjustment details.	RF	2020-02-13
-11	8 - 10 14 23	More details for the hook attachment process Additional details for the hook disconnecting process Lubrication comment	RF	2020-04-29
-12	32 - 35	BE390983 Backup Release Harness added, see pos 21	RF	2020-06-12

Table of Contents

1 INTRODUCTION	5
2 ATTENTION!	5
3 TECHNICAL DATA	6
3.1 Description	6
3.2 Technical specifications	6
4 OPERATION	7
4.1 Before use.....	7
4.2 Preparations.....	8
4.3 Operation	13
4.4 After use.....	16
4.5 Filling the bottle with an external diving bottle (workaround).....	16
5 TRANSPORT	18
5.1 On pontoon	18
5.2 Between seat rows.....	19
5.3 On the deck.....	20
6 INSPECTION AND MAINTENANCE	21
6.1 User level	21
6.2 Maintenance personnel level	24
7 PARTS LIST.....	28
7.1 Inside	28
7.2 Top section	32
7.3 Middle section	36
7.4 Bottom section	40
7.5 Handlebar and hook.....	42
8 TOOLS	44
8.1 Maintenance Kit	44
8.2 Repair Kit	47
9 ACCESSORIES.....	48

Table of Figures

Figure 1: Bottle connection	7
Figure 2: Hook rope attached	8
Figure 3: Hook attached properly	9
Figure 4: Locking ball	10
Figure 5: Carabiners connected properly	11
Figure 6: Secured and unsecured carabiners	12
Figure 7: Preparation	13
Figure 8: Placing the hook	13
Figure 9: Releasing the hook	14
Figure 10: Retracting the pole	15
Figure 11: Filling with an external diving bottle	16
Figure 12: Relief valve removal	21
Figure 13: Relief valve removal	22
Figure 14: Inside parts 1/2	28
Figure 15: Inside parts 2/2	30
Figure 16: Top section parts 1/2	32
Figure 17: Top section parts 2/2	34
Figure 18: Middle section parts 1/2	36
Figure 19: Middle section parts 2/2	38
Figure 20: Bottom section parts	40
Figure 21: Handlebar and hook	42

1 INTRODUCTION

This use- and maintenance manual for this REBS product is prepared by the manufacturer to provide necessary information about the use and maintenance.

This REBS product is produced by H. Henriksen AS, in accordance with our SOCES standards. The company and its representatives provide service and training to make sure that your product has a safe and long life.

We are all committed to “Reducing Operational Risk”.

2 ATTENTION!

This manual and its content should be integrated into formats and systems that your professional unit use. The content of this manual will be given out digitally for free if you contact H. Henriksen AS.

Units using this REBS product must do a risk evaluation of the use of the product. Operational scenarios with corresponding risk evaluations must be well known for the operators.

Any tampering or modification of the product without the proper authorization from the manufacturer may reduce performance and is done at the sole risk of the user/owner.

Incorrect use of the product may cause serious harm or maybe death.

3 TECHNICAL DATA

3.1 Description

The Giraffe Tracer is a pneumatic powered extension and retraction pole for boarding and entering. The Giraffe Tracer provides an easy to use pneumatic system with push button control for precision up and down movements. The control handle is collapsible and adjustable to retain a slim profile when not in use.

3.2 Technical specifications

Part no.	BE003632	BE003345
Description	Giraffe Tracer 10 m	Giraffe Tracer 15 m
Tracing height	10 m	15 m
Storage height	3,3 m	4,4 m
Weight	10,9 kg	13,5 kg
Full extension time	6 s	8 s
Full retraction time	8 - 11 s	11 - 14 s
Capacity of the BE003431 bottle	Full extension / retraction 10 times	Full extension / retraction 7 times

4 OPERATION

Important:

The pole is designed to place a hook with a ladder on a height. It is **NOT** designed for climbing.

For proper usage and safety reasons we recommend using only original REBS accessories.

4.1 Before use

Preparation of the pneumatic system before use:

1. Connect the regulator to the bottle.
2. Connect the regulator to the Giraffe Tracer.
3. Open the valve on the bottle to provide the correct operation pressure in the system.

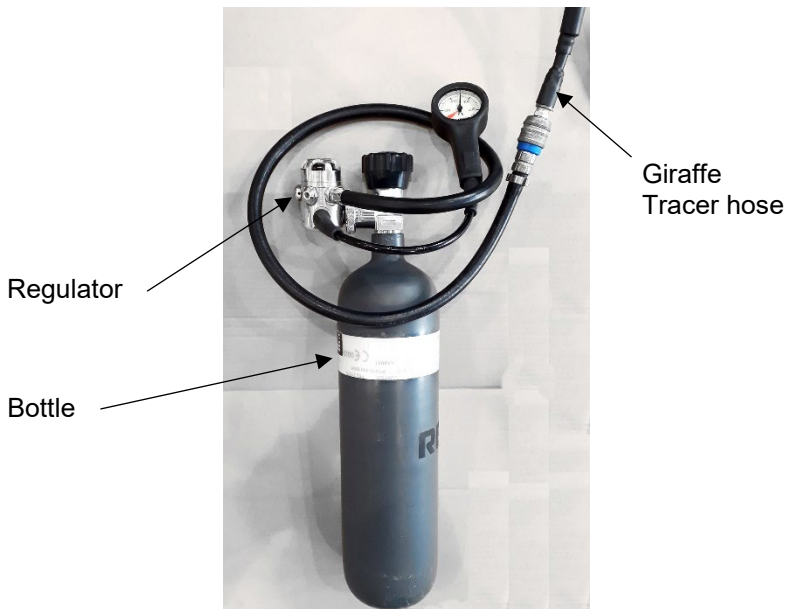


Figure 1: Bottle connection

Air regulator:

The air regulator is a pressure regulator for use with both 200 and 300 bar bottles. The default setting is approximately 6 - 7,5 bars outlet pressure. This can be adjusted only by a REBS service engineer.

This equipment follows the REBS service program: general service and recertification every 2nd year.

4.2 Preparations

1. Connect the **second** step of the wire ladder to the top mount of the pole with the backup release harness. Place the harness into the groove on the top mount as illustrated below.

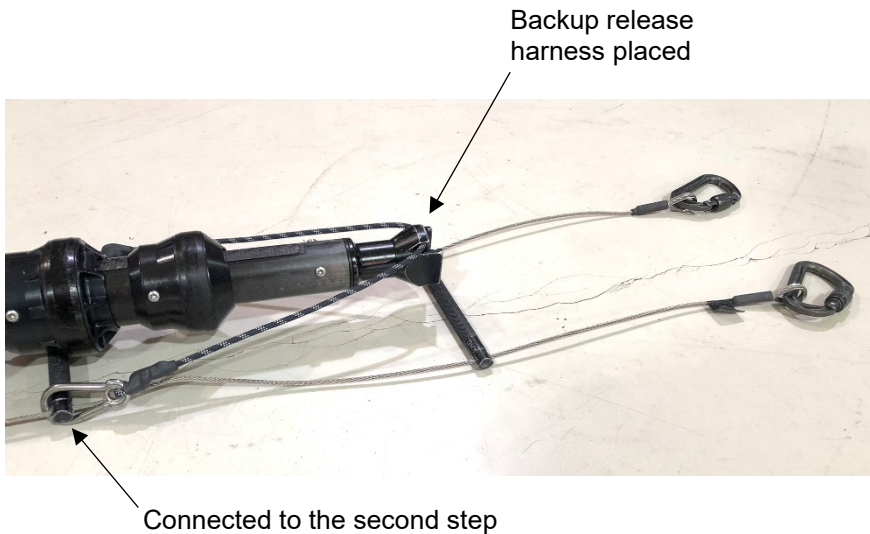


Figure 2: Hook rope attached

2. Insert the hook into the top mount on the pole. Make sure that the harness remains in the groove of the top mount.
The tip of the hook shall point downwards as the harness in the top mount is on the top side.

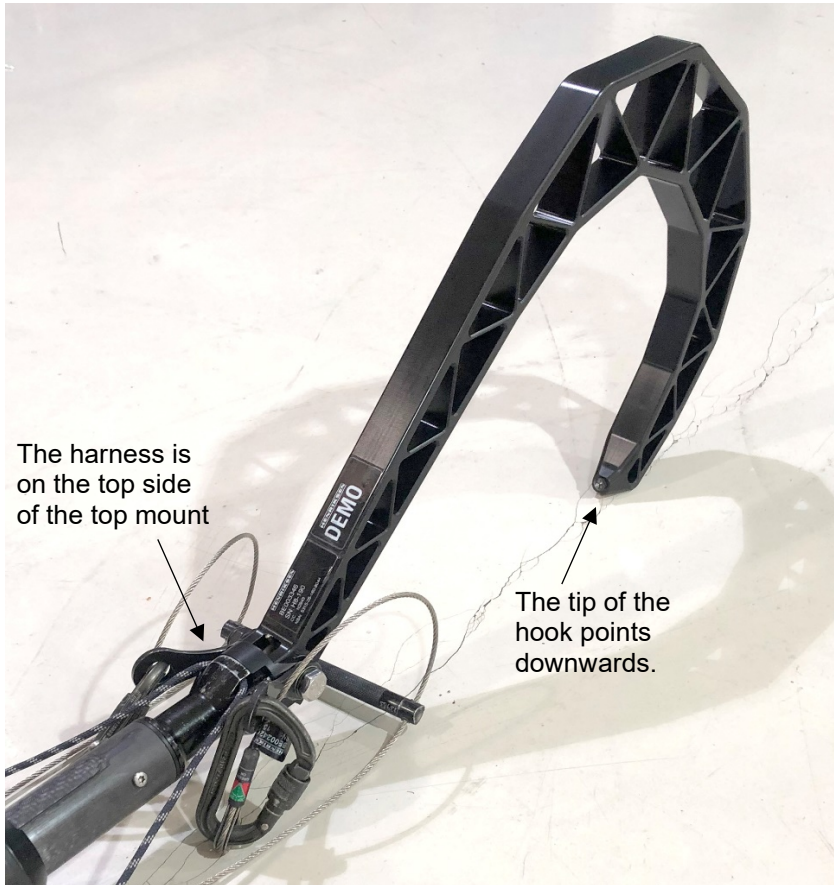


Figure 3: Hook attached properly

There is a spring-loaded locking ball installed in the shaft of the hook. This device locks the hook in the top mount in addition of the magnetic connection at the bottom of the shaft.



Figure 4: Locking ball

It is very important to make sure that the hook is attached in the right way into the top mount (see Figure 3) to ensure the proper locking functionality and to avoid damaging the connected parts.

Bend the hook at the shaft to unload the ball and unlock the hook. Check this function before moving on to the next step!

3. Connect the wire ladder to the joints on the hook.
Make sure that:
 - the nut at the joint is not fully tightened and the joints can rotate if they are loaded,
 - the carabiners are secured,
 - the carabiners are connected properly
 - the carabiners are in the correct position as shown below.



Figure 5: Carabiners connected properly

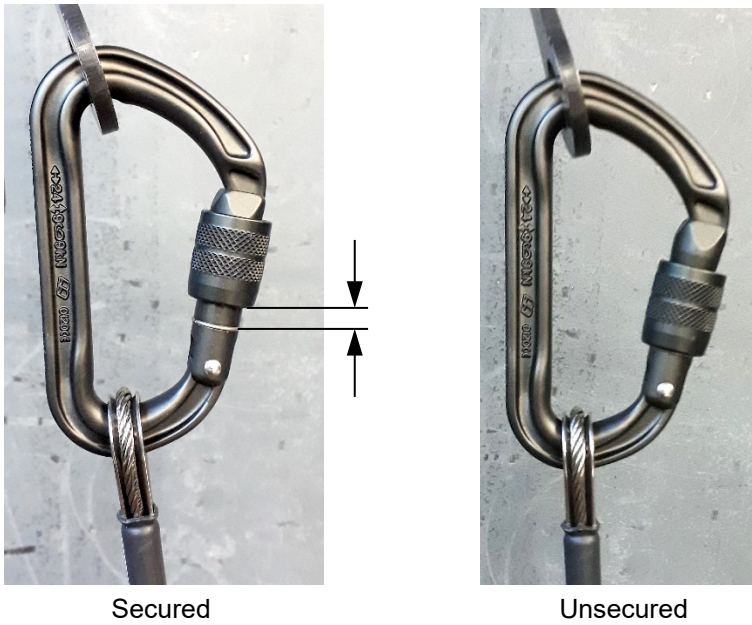


Figure 6: Secured and unsecured carabiners

4.3 Operation

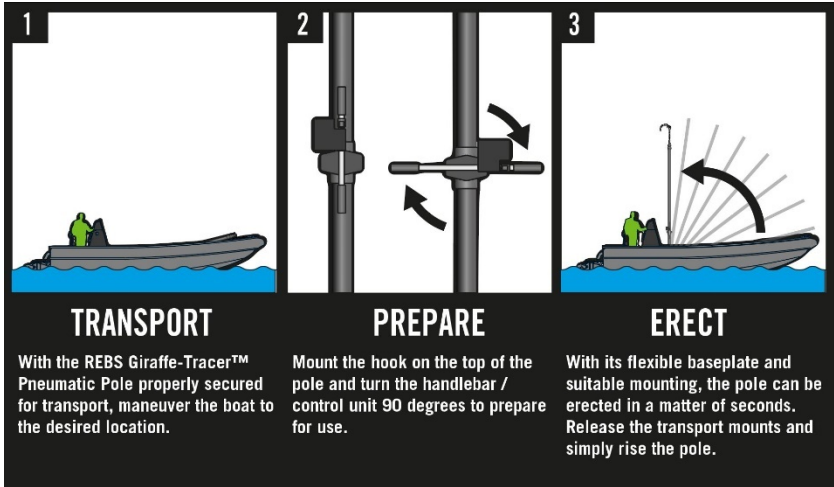


Figure 7: Preparation

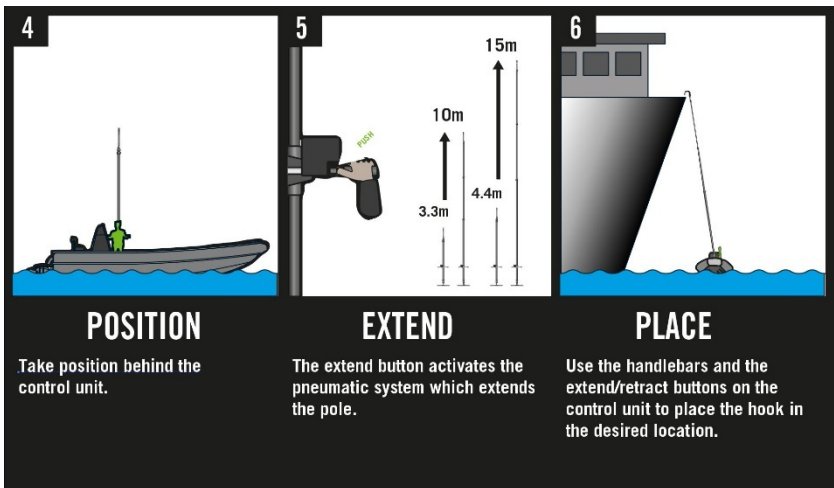


Figure 8: Placing the hook

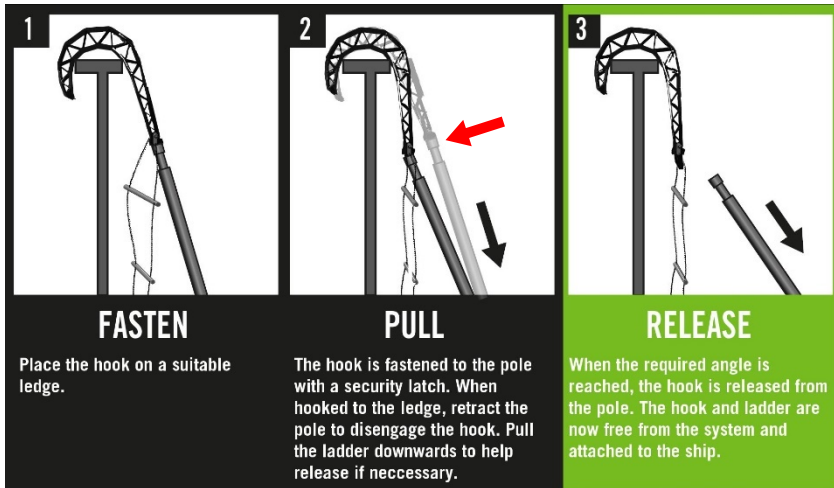


Figure 9: Releasing the hook

Bend the hook at the shaft by pressing the pole against the ledge (see the red arrow at step 2) to unload the locking ball in the shaft.

This will release the hook, and now pull the pole with the top mount downwards (retract) to disconnect the hook.

If there is not enough pressure in the system to retract the pole properly - pull the wire ladder firmly to disconnect the hook.

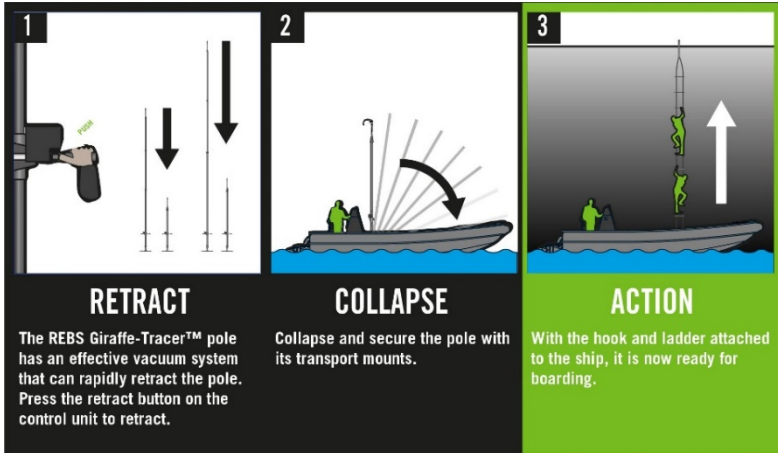


Figure 10: Retracting the pole

4.4 After use

Disassembly of the pneumatic system after use:

1. Close the valve on the bottle.
NOTE: The system is still under pressure.
2. Press the retract button to release the pressure completely from the system. Check the gauge on the regulator.
3. Disconnect the Giraffe Tracer from the regulator.
4. Disconnect the regulator from the bottle.

4.5 Filling the bottle with an external diving bottle (workaround)

The bottle can be filled with an external diving bottle if necessary.

You need the **BE004009** Fill line valve v.2 and the **BE003752** External air bottle system v.2 to connect the diving cylinder and the bottle.

NOTE: A YOKE adapter is needed for the fill line valve in case of 200 bar diving cylinders.



Figure 11: Filling with an external diving bottle

Connect and fill:

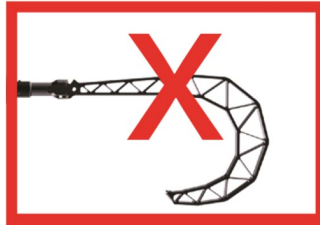
- Connect the bottles
- Open the fill line valve: rotate the wheel clockwise.
- Open the valve on the Giraffe bottle.
- Open the valve on the external bottle to start filling the Giraffe bottle. Check the gauge on the fill line valve.

Disconnect:

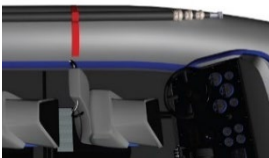
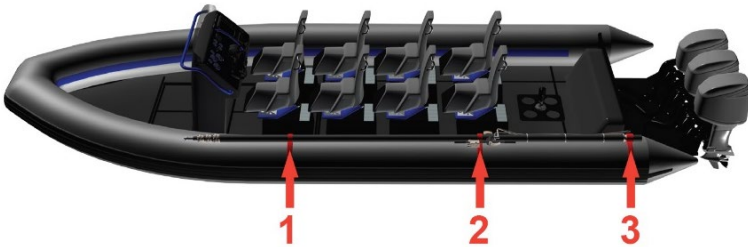
- Close the valve on the external diving bottle.
- Close the valve on the Giraffe bottle.
NOTE: The system is still under pressure.
- Rotate the wheel of the fill line valve slowly counterclockwise to release the pressurized air from the system completely. Check the gauge on the fill line valve.
- Disconnect the bottles.

5 TRANSPORT

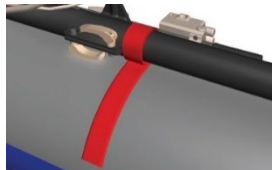
NOTE: Never transport the pole with hook attached!



5.1 On pontoon



1. The strap keeps the pole from moving sideways.

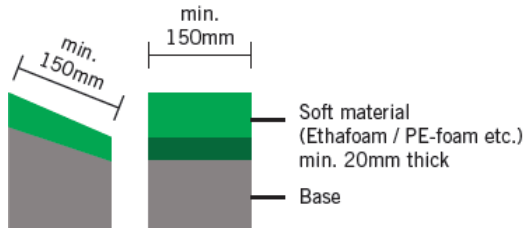


2. The middle strap keeps the pole from sliding forward.



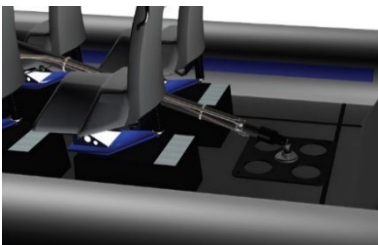
3. The back strap keeps the pole from moving backwards.

5.2 Between seat rows



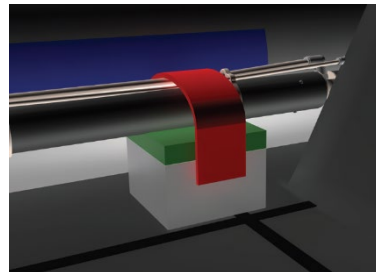
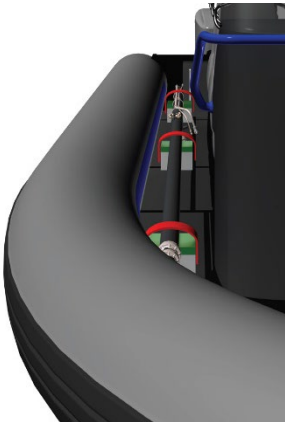
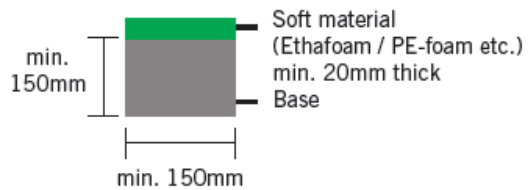
The base should have an angle so that the pole lies flush on the soft padding.

Secure the pole with a Velcro strap or similar



The base has a flexible adapter, so the pole can remain in the base plate ready for immediate use.

5.3 On the deck



Use Velcro straps to secure the pole to the three mounting bases.

6 INSPECTION AND MAINTENANCE

6.1 User level

6.1.1 Inspection before use

The relief valve on the bottom adapter opens when the pole is fully extended, and you keep pushing the UP button 2-3 seconds longer. You can hear when the valve opens and releases the air.

The default setting of the relief valve is approximately 1,3 bars.

Adjust this setting if the valve opens before the pole is fully extended (see chapter 7.4 on page 40 for part details):

- Remove the relief valve from the bottom sleeve.
Use tool BE007064.



Figure 12: Relief valve removal

- Use a circlip plier to adjust the valve setting, turning clockwise will increase the opening pressure level:



Figure 13: Relief valve removal

- Mount the valve back into the bottom sleeve and extend the pole and check the valve function.

Please contact the REBS service department if:

- The valve does not open at all
- The pressure increases above 2 bars during extending the pole

Do not open the valve, this is a 3rd line maintenance level (only for REBS service engineer).

6.1.2 Inspection after use

Make sure to inspect the product carefully, after every use. Check that everything works as it should. If you find any problems, please contact your dealer and get the product re-certified.

Drops from large heights onto hard surfaces might cause internal and external damage to the structure of the Giraffe Tracer. In such cases, stop using the Giraffe Tracer and contact your dealer for re-qualification.

6.1.3 Cleaning

After several uses or after training periods used in saltwater, the Giraffe Tracer and any external equipment should be washed thoroughly in fresh water, and to be disassembled and lubricated before storage.

6.1.4 Lubrication

All hinges and moving parts should be lubricated when needed. Use lubricants delivered with the maintenance kit.

Lubricate the locking ball at the shaft of the hook (Figure 4).

6.1.5 Disassembly

Only to be performed by qualified person.

6.1.6 Storage

Both the 10 m and the 15 m pole delivered with a storing bag.

The pole should be stored in the bag, or in a dry and dark place, preferably between 15-20°C.

We recommend lubricating all joints prior to storage.

6.2 Maintenance personnel level

The personnel who is performing maintenance, and assembling / disassembling the pole, must have the required competence in line with the maintenance procedures.

It is required that the maintenance personnel have the required courses from the manufacturer, or/and by own unit.

Caution!

- Do not use electric drill/tools! Fasten the bolts by hand with moderate hand force.
- The bolts to the swivel mount and the end bearings are 2 mm longer than the other bolts. It is very important that they are not used on the inside of the collar/end bearings.
- Do not use Loctite products on the bolts.

6.2.1 Correct use of lubricants:

- Use Quicksilver Marine Lubricants on all aluminum surfaces that is in contact with carbon fiber to prevent corrosion between aluminum, stainless steel bolts and carbon fiber.
- Use a thin layer of Super Lube Teflon oil on carbon fiber surfaces (pole) inside and outside.
- Molykote 111 is only to be used on O-rings.
- CRC 5-56 is to be used on nylon rolls to dissolve dirt.

6.2.2 Daily maintenance

Maintenance tasks after use in seawater:

- Disconnect the high-pressure coupling.
- Take of the end bearings, (3x) M4 x 8 mm bolts.
- Remove the relief valve (without adjusting or taking it apart) with the spark plug wrench. Put the relief valve into freshwater bath.
- Wash the inside of the pole with freshwater. Place the pole so that the lowest point is the hook coupling and wash it with fresh water 2-3 times.
- Extend the pole, section by section with the end bearings dismantled, and wash each section thoroughly on the outside with fresh water.
- Dry off each section on the outside with a clean cloth.
- Inspect the pole for damage and deformation. Check the guidance grooves, end bearings (collars) and the bolts to the swivel mount. (Experience shows that the bolts used in the collars can loosen during transport. Do not use Loctite!)
- Blow the pole dry with pressurized air and store the pole vertical until it is completely dry.
- Add a thin layer Quicksilver Marine Lubricants (grease) on the end bearings and then assemble the end bearings. Push the end bearings gently on, until the holes are in line. Use the guiding pin to verify the lining of the holes.
- Use new bolts and screw every bolt halfway in before tightening the bolts with moderate hand force.
- Change the bolts on the outside of the collar only!
- Apply a thin layer of Super Lube Teflon oil on tubes.

6.2.3 Periodic maintenance

Periodic maintenance tasks after prolonged use or before the equipment is stored:

The end bearings between the collars only have one small hole that will hamper the lavage of seawater. Experience from usage shows that prolonged use increases the risk of corrosion inside the collars produced in aluminum. It is therefore necessary to disassemble and lubricate the equipment immediately after use.

After assembly, do a test of the poles. Extend and retract 1-2 times with air before storing.

- Disconnect the high-pressure coupling.
- Disconnect the top mount assembly.
- Remove the bottom sleeve assembly.
- Remove the relief valve (without adjusting or taking it apart) with the spark plug wrench. Put the relief valve into freshwater bath.
- Disassemble the end bearings, (3x) M4 x 6 mm bolts.
- Disassemble all three sections, a total of 3x3 M4 x 6 mm external and internal bolts.
- Pull out the thickest pole first.
- Place the parts in a bucket of lukewarm freshwater.
- Inspect the end bearings (collars) with nylon rolls for damage. Blow them dry with pressurized air, spray with CRC 5-56 spray.
- Wash the pole sections both inside and outside with freshwater.
- Dry off the pole sections outside with a clean and dry cloth, and at the same time, inspect the poles for damage or deformation. Especially check the guiding grooves.
- Blow the inside of the poles dry with pressurized air.
- Use a lace which is longer than the pole lengths, attach a paint roller and attach x-number of cloths until the correct friction is achieved. Blow the lace through the pole with a high-pressure air-gun. Repeat the process 2-3 times on each pole section.
- Change cloth and add Super Lube Teflon oil on it. Pull the cloth through all sections.

- Add a thin layer of Super Lube Teflon oil on the outside of the pole, and clean/wipe the outside of the pole completely dry.
- Inspect the inside of the pole. Look for damage, marks and foreign objects.
- Inspect and lubricate the O-rings with Molykote 111. Replace the O-rings if they appear to be damaged.
- Assemble the poles. The guidance grooves must point to the guidance unit.
- Use new bolts (M4 x 6 mm) to attach the 3 internal collars.
- Always test (extend) manually - without the relief valve - that the sections are correctly assembled before testing with pressurized air. This to ensure that the guiding is working properly and that the poles are correctly assembled.
- Assure that the hook attachment is in line relative to the guidance unit. Use new bolt (M4 x 8 mm) when assembling.
- Add a thin layer of Quicksilver Marine Lubricants on the top mount assembly and the bottom sleeve assembly.
- Mount the end section. Push the outside bearings gently in until the holes are in line. Use the guiding pin to align the holes.
- Screw all bolts (M4 x 8 mm) halfway in before tightening with moderate hand force.

7 PARTS LIST

7.1 Inside

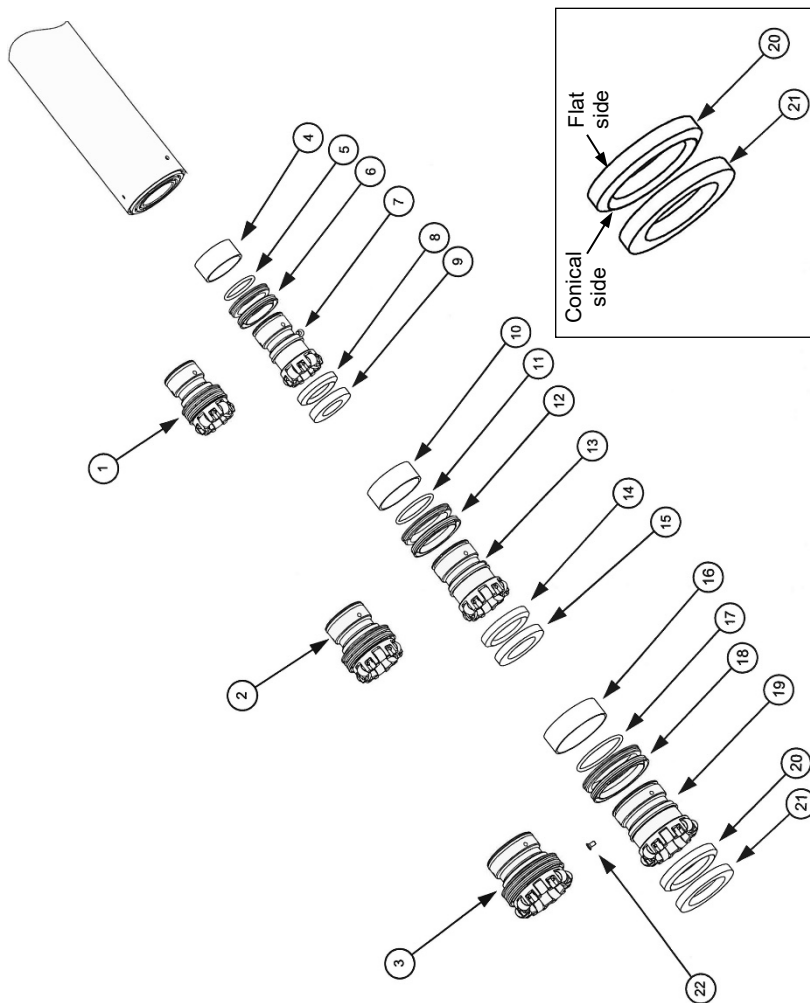


Figure 14: Inside parts 1/2

Item no.	Part No.	Qty.	Description	1st line	2nd line	3rd line
1	BE006370	1	Inside End Bearing Collar Assy.1 - PEEK		X	
2	BE006371	1	Inside End Bearing Collar Assy.2 - PEEK		X	
3	BE006372	1	Inside End Bearing Collar Assy.3 - PEEK		X	
4	BE006380	1	Stop Collar 1			X
5	BE216382	2	O-ring 31,5 x 3			X
6	BE006383	2	Tube Seals 1			X
7	BE006462	1	Inner End Bearing Collar 1 - PEEK			X
8	BE006385	1	Damping Ring 1			X
9	BE006386	1	Bottom Damper 1			X
10	BE006387	1	Stop Collar 2			X
11	BE216388	2	O-ring 39,2 x 3			X
12	BE006389	2	Tube Seals 2			X
13	BE006463	1	Inner End Bearing Collar 2 - PEEK			X
14	BE006391	1	Damping Ring 2			X
1st line: User on the field						
2nd line: Technician at the workshop						
3rd line: Specialist certified by H. Henriksen AS or at H. Henriksen AS						

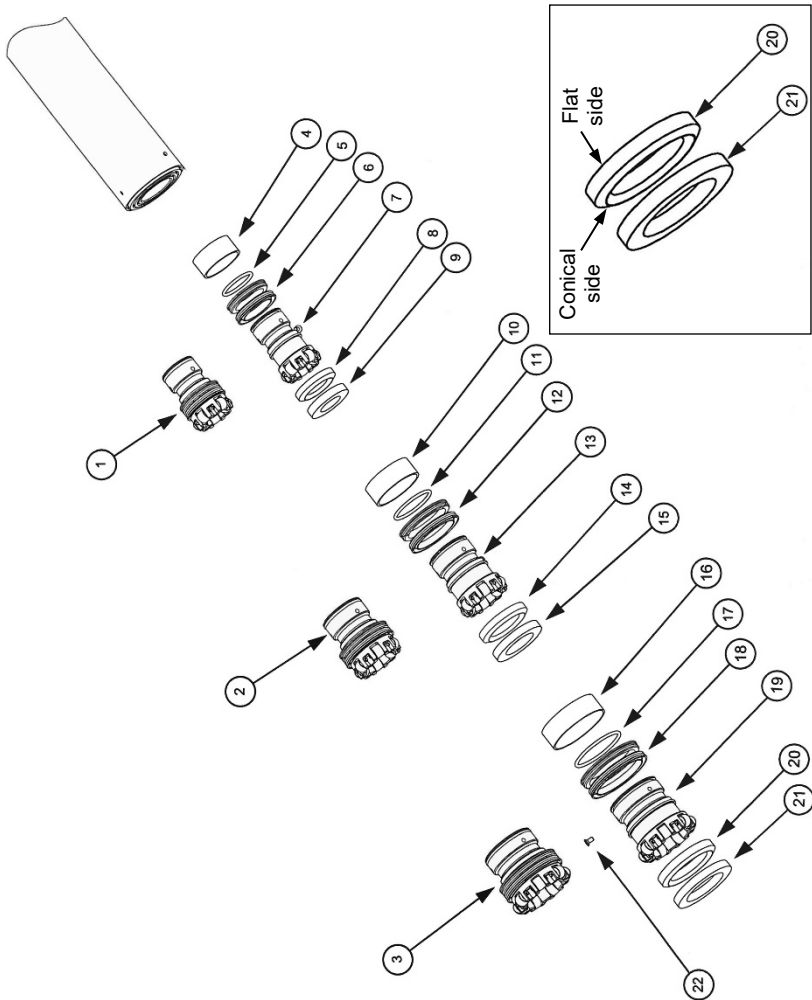


Figure 15: Inside parts 2/2

7.2 Top section

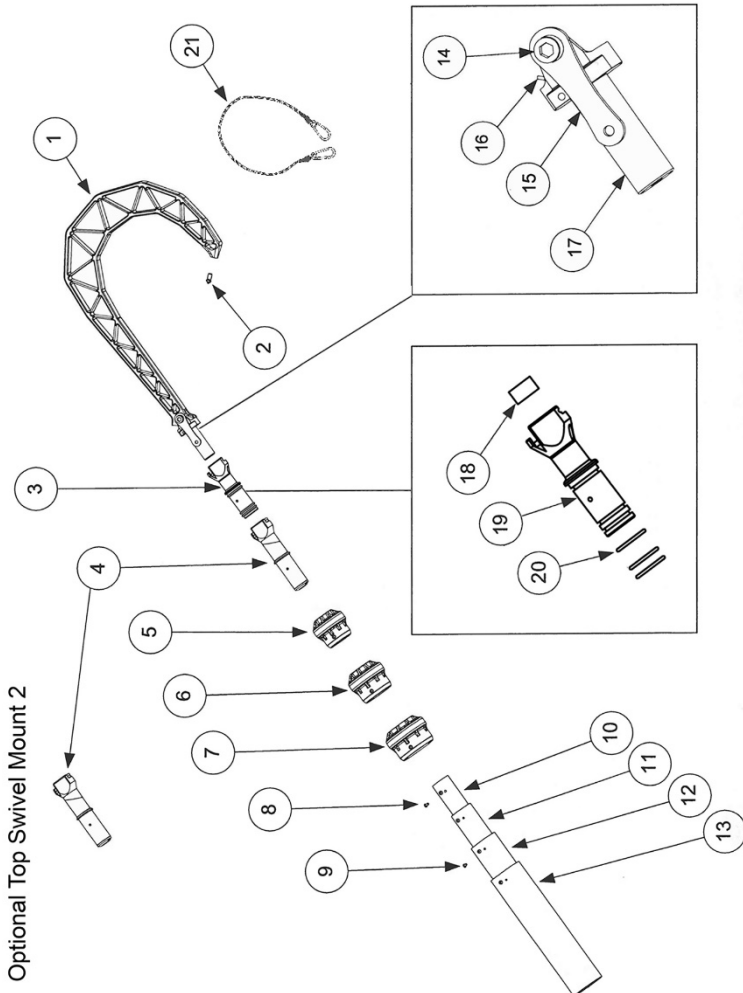


Figure 16: Top section parts 1/2

Item no.	Part No.	Qty.	Description	1st line	2nd line	3rd line
1	BE006451	1	Giraffe Hook without A4 pig	X		
2	BE006401	1	Hook Tip		X	
3	BE000225	1	Top mount assembly		X	
4	BE006422	1	Top Swivel Mount 2 (optional)		X	
5	BE006373	1	Outer End Bearing Collar 1 Assy. - PEEK		X	
6	BE006374	1	Outer End Bearing Collar 2 Assy. - PEEK		X	
7	BE006375	1	Outer End Bearing Collar 3 Assy. - PEEK		X	
8	BE006405	3	Bolt DIN7985 M4-8 A4 TRX		X	
9	BE006406	9	Screw DIN7985 M4-6 A4 TRX		X	
10	BE006407	1	Carbon Tube 1 - 10m			X
10	BE006408	1	Carbon Tube 1 - 15m			X
11	BE006409	1	Carbon Tube 2 - 10m			X
11	BE006410	1	Carbon Tube 2 - 15m			X
1st line: User on the field						
2nd line: Technician at the workshop						
3rd line: Specialist certified by H. Henriksen AS or at H. Henriksen AS						

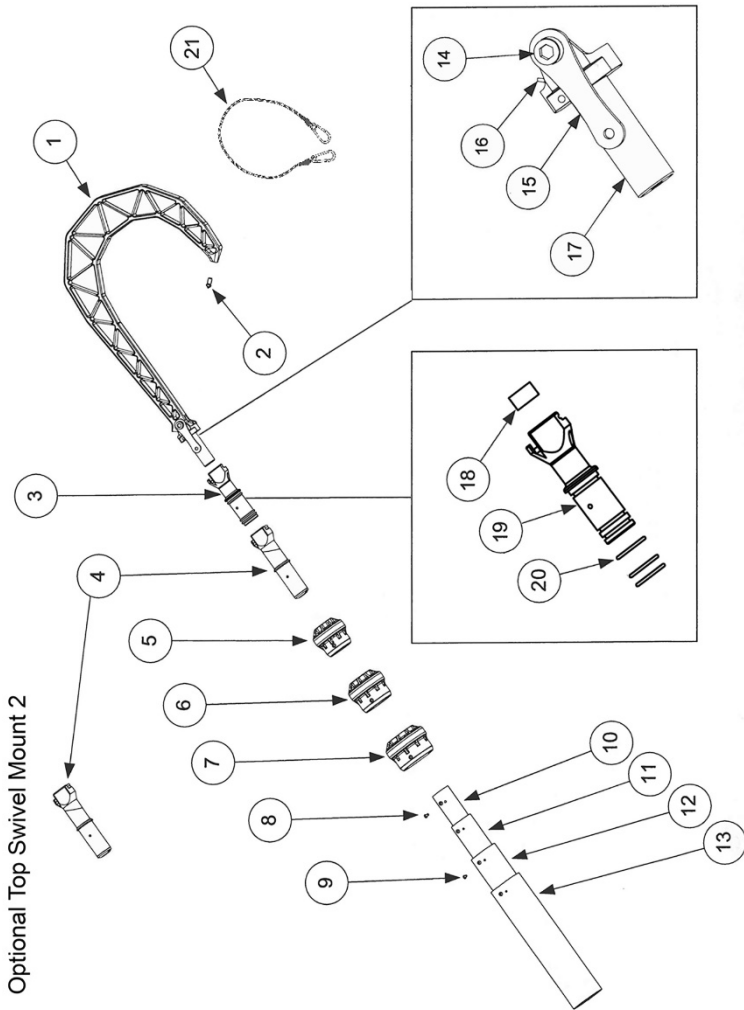


Figure 17: Top section parts 2/2

Item no.	Part No.	Qty.	Description	1st line	2nd line	3rd line
12	BE006411	1	Carbon Tube 3 - 10m			X
12	BE006412	1	Carbon Tube 3 - 15m			X
13	BE006413	1	Carbon Tube 4 - 10m			X
13	BE006414	1	Carbon Tube 4 - 15m			X
14	BE007547	1	Bolt with nut/washers	X		
15	BE007548	2	Hook/ladder joint (1 set of 2 pcs)	X		
16	BE007549	1	Hook spring	X		
17	BE007550	1	RELEASE MALE ASSY	X		
18	BE390087	1	Top mount magnet		X	
19	BE390086	1	Top Mount		X	
20	BE390088	3	O-ring 28 x 3 NBR90		X	
21	BE390983	1	Backup Release Harness	X		
1st line: User on the field						
2nd line: Technician at the workshop						
3rd line: Specialist certified by H. Henriksen AS or at H. Henriksen AS						

7.3 Middle section

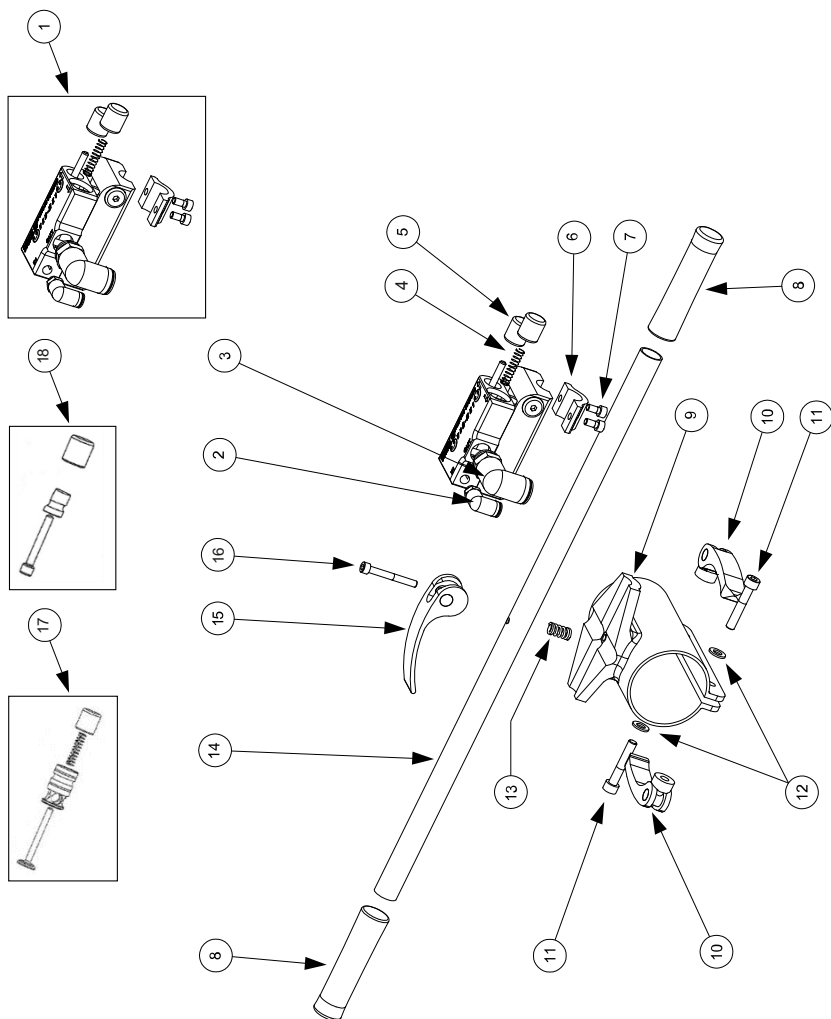


Figure 18: Middle section parts 1/2

Item no.	Part No.	Qty.	Description	1st line	2nd line	3rd line
1	BE006417	1	Maneuver Housing Assy.			X
2	BE006419	1	Hose Connection 90/8			X
3	BE006420	1	Hose Connection 90/16			X
4	BE006421	1	Button Spring			X
5	BE006423	2	Push Button			X
6	BE006424	1	Clamp		X	
7	BE006425	2	Bolt DIN912 M6-14 A4		X	
8	BE006426	2	Handlebar Grip	X		
9	BE006427	1	Handle Mount	X		
10	BE006428	2	Excenter Lock - Handle Mount	X		
1st line: User on the field						
2nd line: Technician at the workshop						
3rd line: Specialist certified by H. Henriksen AS or at H. Henriksen AS						

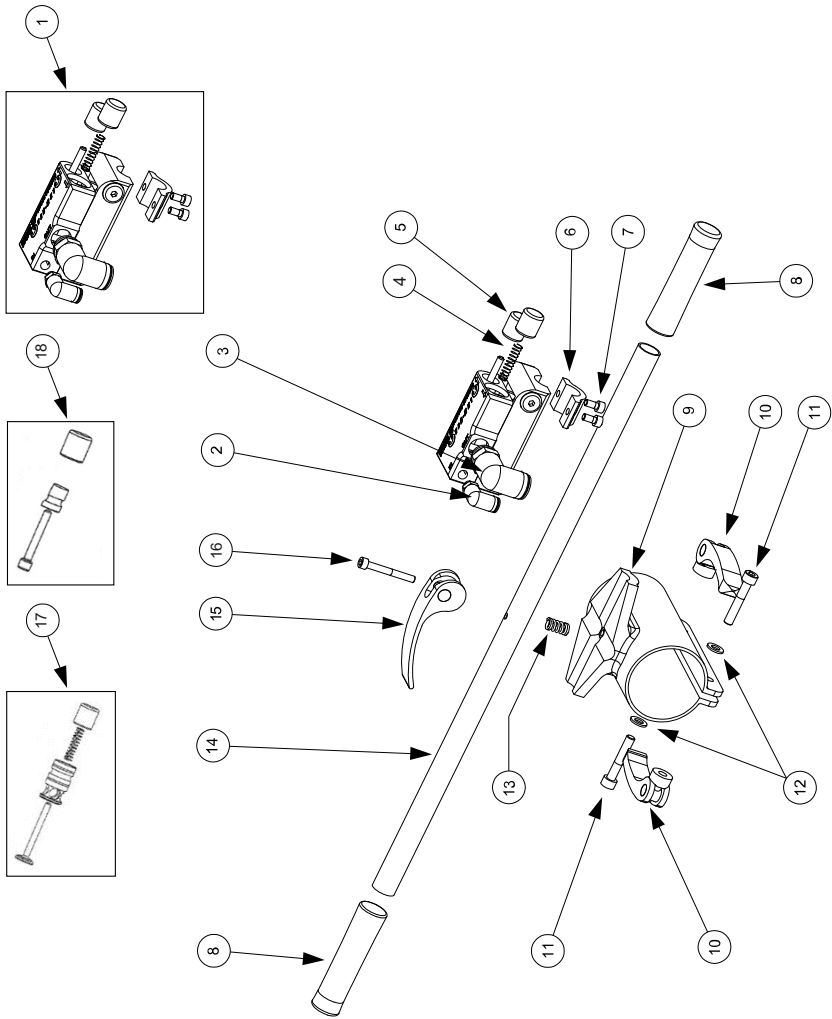


Figure 19: Middle section parts 2/2

Item no.	Part No.	Qty.	Description	1st line	2nd line	3rd line
11	BE006429	2	Bolt ISO 7380 M8-40 A4	X		
12	SR823320	2	Washer DIN125A M8 A4	X		
13	BE006431	1	Handle Spring	X		
14	BE006432	1	Handlebar Tube	X		
15	BE006433	2	Excentre Lock - Handlebar	X		
16	BE006434	1	Hexagon Screw DIN 912 M6x50 A4	X		
17	BE006460	1	Down Button Complete		X	
18	BE006461	1	Up Button Complete		X	
1st line: User on the field						
2nd line: Technician at the workshop						
3rd line: Specialist certified by H. Henriksen AS or at H. Henriksen AS						

7.4 Bottom section

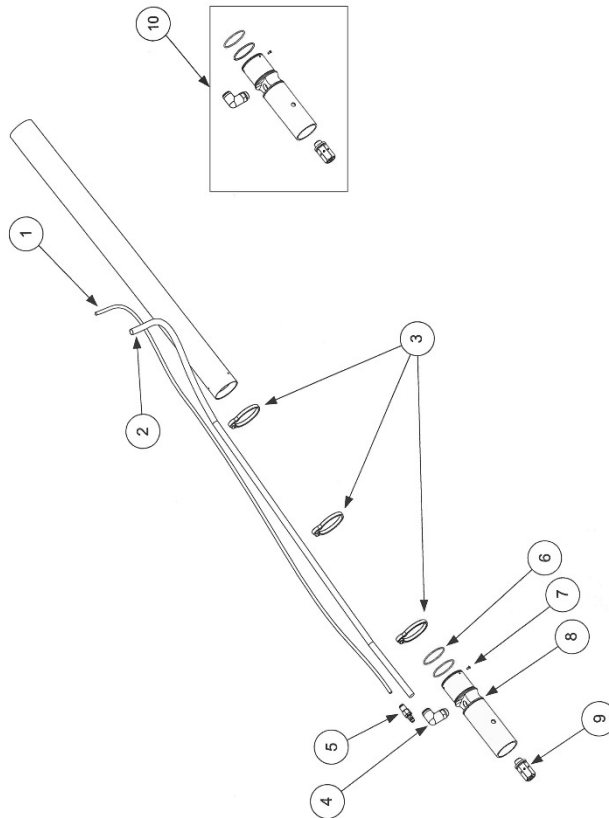


Figure 20: Bottom section parts

Item no.	Part No.	Qty.	Description	1st line	2nd line	3rd line
1	BE006435	1	Inlet Hose - 899 *		X	
2	BE006436	1	Outlet Hose - 16		X	
3	BE006437	3	Hose Holder		X	
4	BE006438	1	Hose Connection 90/16		X	
5	BE006439	1	Hose Connection 0/8		X	
6	BE216442	2	O-ring Nitrile		X	
7	BE006405	3	Bolt DIN7985 M4-8 A4 TRX		X	
8	BE006441	1	Bottom Sleeve		X	
9	BE006443	1	Relief Valve		X	
10	BE006444	1	Bottom Sleeve Assy.		X	
*	BE390266		Giraffe Air Supply Hose			
			Including: BE006435 + BE006439 + BE006419			
1st line: User on the field						
2nd line: Technician at the workshop						
3rd line: Specialist certified by H. Henriksen AS or at H. Henriksen AS						

7.5 Handlebar and hook

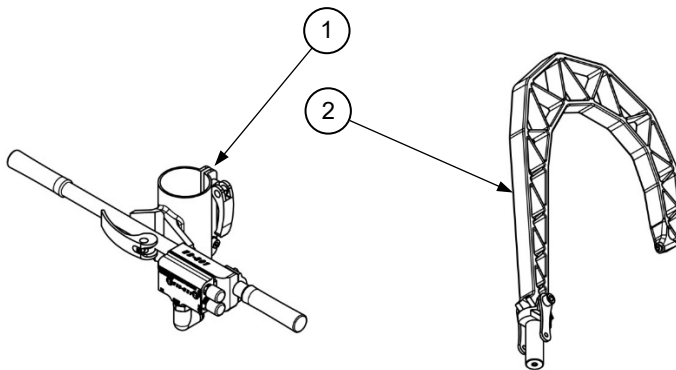


Figure 21: Handlebar and hook

Item no.	Part No.	Qty.	Description	1st line	2nd line	3rd line
1	BE006452	1	Giraffe complete handlebar	X		
2	BE003346	1	Giraffe release mechanism with hook	X		
1st line: User on the field						
2nd line: Technician at the workshop						
3rd line: Specialist certified by H. Henriksen AS or at H. Henriksen AS						

8 TOOLS

8.1 Maintenance Kit

The **BE008068** Giraffe Tracer Maintenance Kit contains the following tools and consumables:

BE000095

Screwdriver T20 TORX

**BE000096**

Screwdriver PZ2 STAR

**BE000093**

Allen key 2,5 mm

**BE004880**

Allen key 3,0 mm

**BE000094**

Allen key 4,0 mm

**BE110050**

Plastic wedge

**BE110090**

Brush flat 10 mm



BE000098

Guiding pin tool



BE110085

Guiding tool for gasket rings



BE007064

Spark plug wrench 25 - 28 mm



BE000097

Plastic / rubber hammer



BE145603

Lace polyester black 4 m / 3 mm



BE110089

Sponge 200x125x60



BE005064

MOLYKOTE 111-10G



BE110086

Quicksilver Anti-Corrosion
Marine Lubricant



BE110087

Super Lube - Synthetic lubricant
Syncolon (PTFE)



BE127026

Bag



8.2 Repair Kit

There are three types of repair kits available:

- **BE008085** Giraffe Tracer Repair Kit:
 - 1 x BE118089 Carbon fiber tube $\varnothing 40 \times \varnothing 37 \varnothing 300$
 - 1 x BE118088 Damping ring, flat
 - 1 x BE118087 Damping ring
 - 1 x BE118092 Marking jig
 - 1 x BE118091 Top sleeve
 - 1 x BE390268 Drill 4,1 mm
 - 1 x M000376 Manual

- **BE008097** Giraffe Tracer Handlebar Repair Kit Type A:
 - 1 x BE118101 Handlebar clamp
 - 1 x BE006431 Handle spring
 - 1 x BE110198 Handlebar plate Type A
 - 1 x BE390267 Drill 5,0 mm
 - 1 x BE390268 Drill 4,1 mm
 - 4 x SR942599 DIN 912 M5-16 A4
 - 8 x SR824001 DIN 125A M5 A4
 - 4 x SR816261 DIN 9021 M5 A4
 - 1 x M000377 Manual

- **BE157991** Giraffe Tracer Handlebar Repair Kit Type B:
 - 1 x BE006431 Handle spring
 - 1 x BE006428 Excenter Lock - Handle Mount
 - 1 x BE207832 Steel reinforcement for Giraffe handle
 - 1 x BE390267 Drill 5,0 mm
 - 1 x BE390268 Drill 4,1 mm
 - 4 x SR944622 DIN 912 M5-12 A4
 - 1 x SR942669 DIN 912 M6-50 A4
 - 1 x SR624002 DIN 934 M6 A4
 - 4 x SR824001 DIN 125A M5 A4
 - 1 x M000377 Manual

Please contact your dealer for more information.

9 ACCESSORIES

The Giraffe Tracer can be combined with a wide variety of Henriksen products: wire ladders, rope ladders, etc. Please refer to the latest REBS catalogue for our soft ladder assortment.

BE003431

Air bottle

**BE003352**

Air regulator

**BE003361**

Complete baseplate
200 x 200

BE006132

Complete baseplate
490 x 490



BE003349

Transportation bag

**BE004009**

Fill line valve v.2

**BE003752**External air bottle
system v.2

Notes

Notes

REBS®

Rapid Entering and Boarding Systems

H. Henriksen AS
Træleborgveien 15
3112 Tønsberg
NORWAY

www.henriksen.com

HENRIKSEN