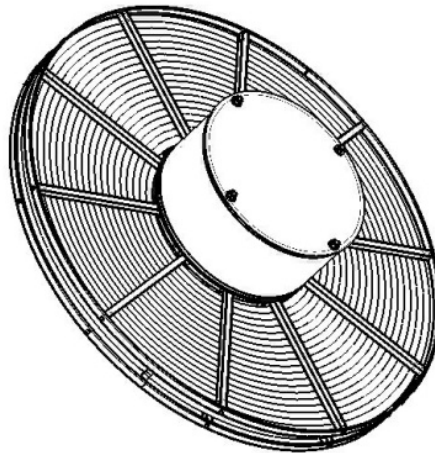


## Hose and Rotary Joint Replacement for Hose Reels Variant with Spokes

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## Hose and Rotary Joint Replacement

### for Hose Reels

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## 1 General Notes

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### 1.1 Information about these Installation Instructions

These Installation Instructions allow the safe and efficient handling of the equipment.

These Installation Instructions are part of the equipment and must be stored close to the equipment and always available to the personnel. The personnel must have carefully read and understood this document prior to starting any work. The basic prerequisite for safe work is compliance with all safety and operating guidelines in these Installation Instructions.

Local accident protection regulations and general safety guidelines for the application field of the device have to be observed as well.

Illustrations in this documentation are for basic comprehension and may deviate from the actual design of the equipment. Besides these Installation Instructions, the enclosed instructions for installed components have to be observed as well.

### 1.2 Limitation of Liability

All information and instructions in these Installation Instructions have been compiled with due regard to the standards and regulations in force, best engineering practice, and the findings and experiences we have accumulated over many years.

The manufacturer is in no way liable for damage resulting from:

- Failure to comply with the Installation Instructions
- Improper use
- Use by untrained personnel
- Unauthorized modifications
- Technical changes
- Use of unauthorized spare parts and accessories

The actual scope of delivery may differ from the explanations and illustrations described here for special designs, if additional order options are utilized, or due to the latest technical changes. The obligations agreed upon in the delivery agreement and our General Terms of Business apply, as do the delivery conditions of the manufacturer and all regulations applicable at the time the contract was concluded. All products are subject to technical modifications in the context of improvement of usage properties and further development.

### 1.3 Copyright

These Installation Instructions are subject to copyright and exclusively intended for internal use. Provision of the Installation Instructions to third parties, duplications in any form – even in part – as well as the reuse and/or disclosure of their content are not permitted without the written approval of the manufacturer, except for internal use. Violations will be subject to damages. This will not exclude additional claims.

## Hose and Rotary Joint Replacement

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### 1.4 Spare Parts



**WARNING!**

**Safety risk due to wrong spare parts!**

Wrong or faulty spare parts can impair safety and result in damage, malfunction or complete failure.

→ Use only original spare parts on the manufacturer!

→ Order the spare parts from your contracted dealer or directly from the manufacturer

### 1.5 Material Defects

The regulations about material defects are listed in the general terms and conditions of business.

### 1.6 Technical Support

For technical support please contact our staff from the Customer Support Department.

Our employees are also always interested in new information and experiences from the field that can be valuable for the improvement of our products.

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## Hose and Rotary Joint Replacement

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## 2 Safety Instructions

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### 2.1 Explanation of Symbols

Safety instructions in these Installation Instructions are marked by symbols. Signal words are used to indicate the degree of hazard. Always observe safety instructions and work carefully to avoid accidents, personal injury or property damage!



**DANGER!**

... indicates an imminent dangerous situation, which may cause deadly accidents or serious injuries, if not avoided.



**WARNING!**

... indicates a possibly dangerous situation, which may cause deadly accidents or serious injuries, if not avoided.



**CAUTION!**

... indicates a possibly dangerous situation, which if not avoided, may result in moderate or minor injury or property damage.

### 2.2 Specific Hazards

Follow the safety instructions listed here and the warnings in the following sections of these Installation Instructions in order to reduce health hazards and avoid dangerous situations.



**WARNING!**

#### **Danger to life due to suspended loads!**

Falling loads can lead to severe injuries or death.

- Never step below suspended loads
- Move loads only under supervision
- Put down the load when leaving the workplace



**WARNING!**

#### **Danger of injury from moving components!**

Incautiously moving the spring hose reel can lead to severe injury or damage to the device.

- Do not reach into moving parts while in motion. Particularly the interface between the crane and the spring hose reel is dangerous

## Hose and Rotary Joint Replacement

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#### **WARNING!**

#### **Risk of injury due to spring tension!**

When the spring hose reel is unwound, there is a danger due to the tensioned spring.

- Secure the spring hose reel against turning
- Never pull the hose off the spring hose reel manually

## 2.3 Protective Measures to be taken by the Operator/User

The equipment is used in the industrial sector. The operator of the device is thus subject to legal obligations for operational safety. In addition to the safety instructions in these Installation Instructions, all safety, accident protection and environmental regulations applicable at the place of operation of the device must also be observed. This particularly includes:

- The operator must be informed of applicable workplace safety guidelines and identify any additional hazards that result from the special working conditions at the site of operation of the device. These must be implemented in the form of operating instructions for the use of the device.
- The operator must verify during the entire operating time of the device, if the operating instructions provided still correspond to the current state of regulations, and adapt these instructions if necessary.
- The operator must clearly regulate and determine responsibilities for installation, operation, troubleshooting and maintenance.
- The operator must ensure that all employees involved in operating the device have read and understood these Installation Instructions. The operator must furthermore train personal at regular intervals and inform them of hazards.
- The operator must provide the personnel with all required safety gear.

The operator is furthermore responsible for ensuring that the device is always in a technically trouble-free condition. The following thus applies:

- The operator must have all safety systems regularly inspected for proper functioning and completeness.

## Hose and Rotary Joint Replacement

### for Hose Reels

#### Variant with Spokes

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## 3 Requirements to the Personnel

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### 3.1 Qualification



#### **Risk of injury due to insufficient qualification!**

Improper use can result in serious personal injury or property damage.

→ All activities may only be performed by qualified personnel!

#### **WARNING!**

The following qualifications have been mentioned in these Installation Instructions for different fields of operation:

- Trained personnel/operators  
Have been instruction in an instructed session by the operator with respect to the tasks assigned to them and the potential dangers arising from improper actions.
- Qualified specialists  
Due to their specialized training, knowledge, and experience, as well as knowledge of applicable regulations, are capable of carrying out works assigned to them, while independently recognizing and avoiding possible risks.
- Only those persons are authorized as personnel who can be expected to perform their work reliably. People whose capacity for reaction is influenced e.g. by drugs, alcohol or medications are not authorized.
- When selecting personnel, follow all-age and job related guidelines applicable at the place of operation.

### 3.2 Unauthorized Personnel



#### **Danger due to unauthorized personnel!**

Unauthorized personnel, who do not meet the requirements described here not understand the danger in the working area.

- Keep unauthorized personnel away from the working area
- In case of doubt, address these persons and direct them away from the working area
- Stop work as long as unauthorized personnel are in the working area

#### **WARNING!**

## Hose and Rotary Joint Replacement

### for Hose Reels

#### Variant with Spokes

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## 4 Disassembly and Assembly

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**CAUTION!**

The replacement of the hose and rotary joint must be carried out by qualified personnel!

### 4.1 Preparations

#### Spare Parts:

- 1x Twin Hose according to Spare Part List of the Hose Reel
- 2x Double sealing gasket

#### Tools:

- Hexagon socket wrench SW5
- 2x wrench SW13
- Hexagon Socket wrench SW6
- 2x wrench SW24
- Torque wrench SW24

#### Starting Situation:

- The reel must be removed from the crane.
- The reel must be safe against shift and drop.
- Spring is released.
- If a hose support is on the reel, the hose support must be demounted.
- Safe standing for the personnel must be ensured.

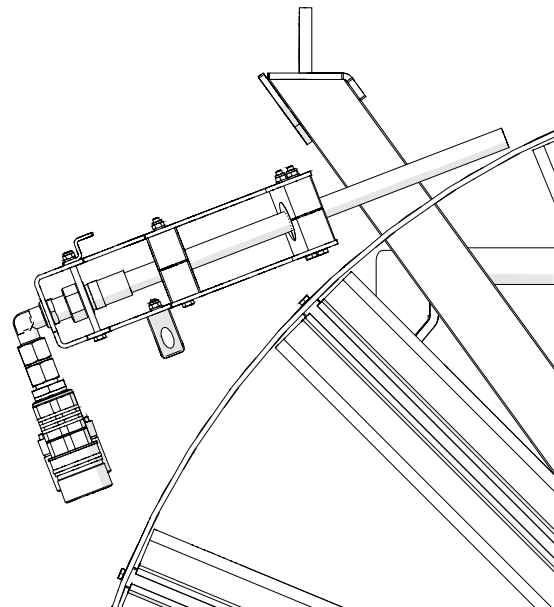


Fig. 1: Hose Support

## Hose and Rotary Joint Replacement for Hose Reels

### Variant with Spokes

#### 4.2 Dismantling



**DANGER!**

**Risk of injury due to spring tension!**

Due to clamped springs, there is a risk at spring reels.

→ Release spring-loaded hose reels

→ Follow the advice for handling springs (BAL6100-0001)

#### Work steps:

1. Release the spring.

→ Avoid a sudden release of the spring tension.  
 → When pretensioning, secure the hose against unwinding (with a cable tie, for example).

2. Remove the spring housing.

→ Loosen the nuts (Item 1) and the washers (Item 2).  
 → Remove the housing cap (Item 3), the double sealing gasket (Items 4 and 6) and the reel body (Item 5).

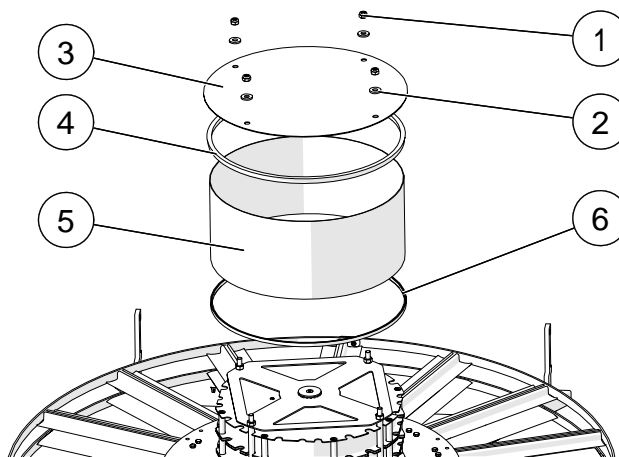


Fig. 2: Demount the Spring Housing

3. Remove the spring cassette.

→ Loosen the screw (Item 7).  
 → Loosen the hexagon nuts (Item 8).  
 → Remove the boss (Item 9), grove ball bearing (Item 10) and bearing plate (Item 11).  
 → Remove the spring cassette (Item 12) carefully.

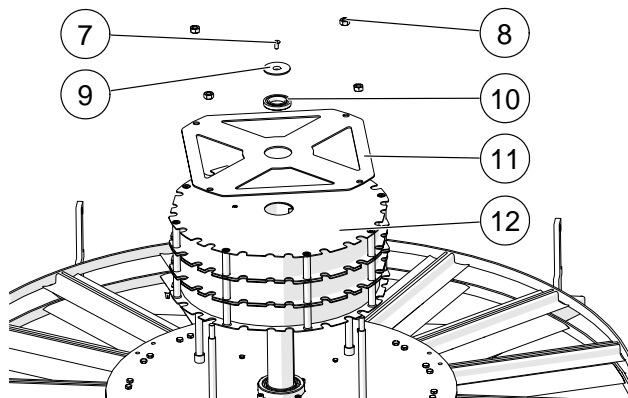


Fig. 3: Remove the Spring Cassette



## Hose and Rotary Joint Replacement

### for Hose Reels

#### Variant with Spokes



#### CAUTION!

Mark the installation position of the springs!

False re-assembly will damage the springs.

→ Mark the installation position of the springs before removing the springs

4. Disassemble the spoke wheel.
  - Loosen the screws (Items 13 and 14).
  - Remove the spoke wheel (Item 15) completely.
5. Dismantling.
  - Loosen the hose coupling and remove or rather change the hose.

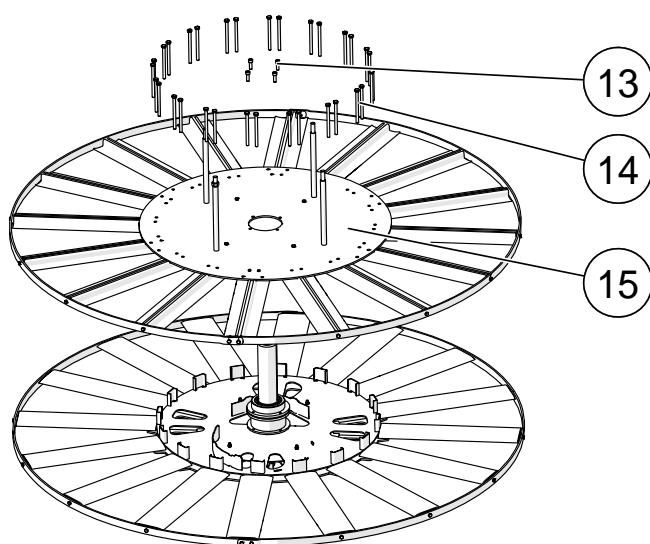


Fig. 4: Disassembly of the Spoke Wheel

The remaining work steps must be carried out from the other side (see Fig. 5).

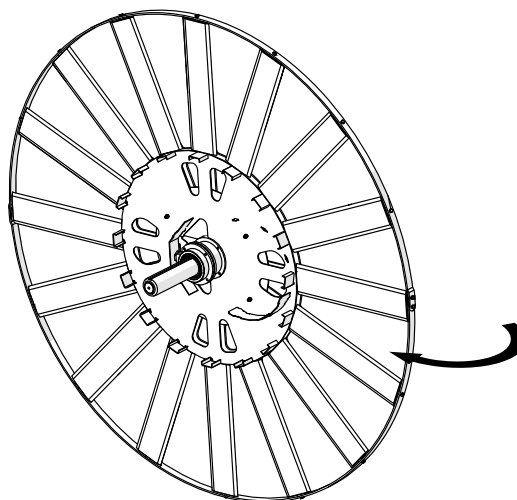


Fig. 5: Turning the Reel

## Hose and Rotary Joint Replacement

### for Hose Reels

#### Variant with Spokes

6. Dismantle the rotary joint.

- Remove the hydraulic screw fittings (Item 16).
- Remove the threaded pins (Item 17) and flange (Item 18).

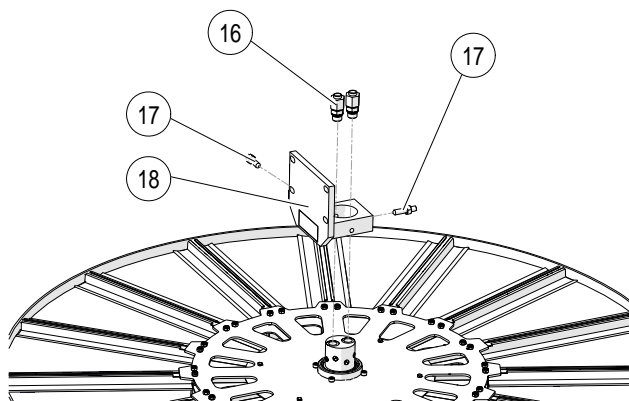


Fig. 6: Removing the Hydraulic Screw Fittings and Threaded Pins

7. Remove the 4 central cylindrical screws (Item 19).

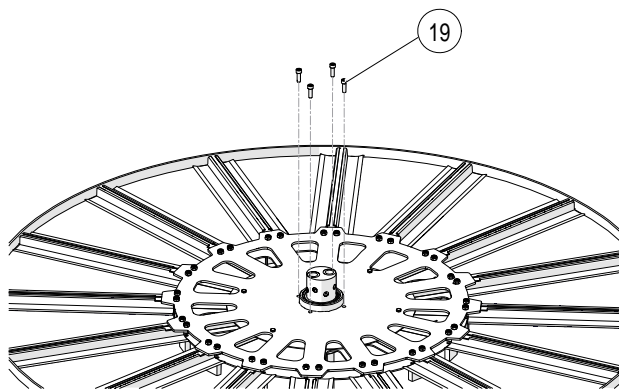


Fig. 7: Removing the 4 Cylindrical Screws

The remaining work steps must be carried out from the other side (see Fig. 8).

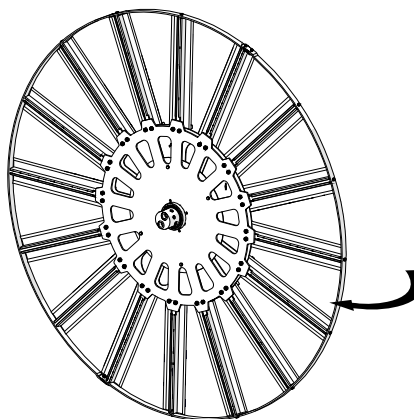


Fig. 8: Turning the Reel

## Hose and Rotary Joint Replacement for Hose Reels

### Variant with Spokes

8. Remove or replace the rotary joint (Item 20).

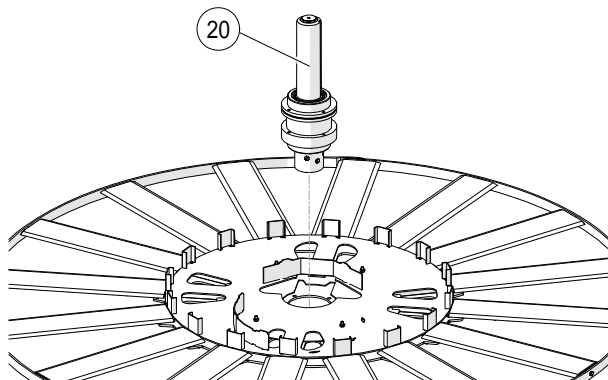


Fig. 9: Rotary Joint

### 4.3 Installation

1. Install the rotary joint
  - Change the rotary joint (see Fig. 9).
  - Tighten the 4 central cylindrical screws (see Fig. 7).
  - Install and stick the flange, hydraulic screw fittings and threaded pin (see Fig. 6).
2. Install the hose
  - Connect the hose to the screwed hose fitting (see torque table).

### Torques

Reel Type	Integral Thread	Pipe Thread
Hose reels 2R3/8" (NW10)	65 Nm	60 Nm
Hose reels 2R1/2" (NW12)	120 Nm	80 Nm
Hose reels 2R3/4" (NW16)	230 Nm	120 Nm

## Hose and Rotary Joint Replacement

### for Hose Reels

#### Variant with Spokes

3. Mounting the shell plates.

- Respect the take-off direction when mounting the shell plates (see Fig. 10 and Fig. 11). The details can be found on the type plate.

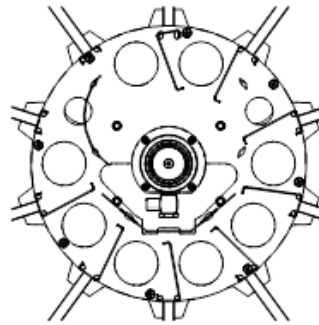


Fig. 10: For take-off on right

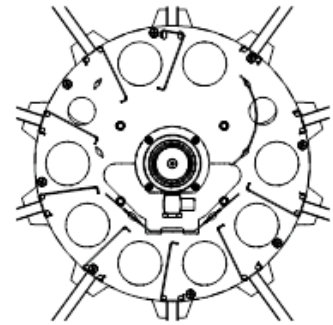


Fig. 11: For take-off on left

4. Mount the complete spoke wheel (use the correct slotted hole; see Fig. 12).

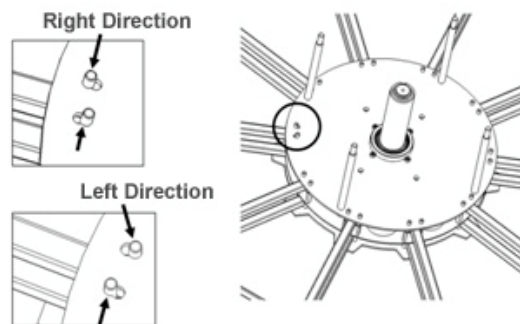


Fig. 12: Right take-off and left take-off

5. Roll up the entire hose.

- Tighten the hose during the wrapping procedure.
- Examine the hose for damage.
- Roll up the hose exactly.
- The reel must be free to move.

## Hose and Rotary Joint Replacement

### for Hose Reels

#### Variant with Spokes

6. Mount the complete spring loaded hose reel.
- Determine the correct installation position of the spring cassette (see notes on page 9).
  - Mount the spring cassette onto the reel as in step 3 in reverse order (see instructions on page 8) (see MV6100-0006).
  - Cut the right length of double sealing gasket material and apply adhesive (for example: with Loctite 406).
  - Mount the spring housing (replace the double sealing gaskets).
  - Load the spring according to the type plate (as described in the associated instructions).

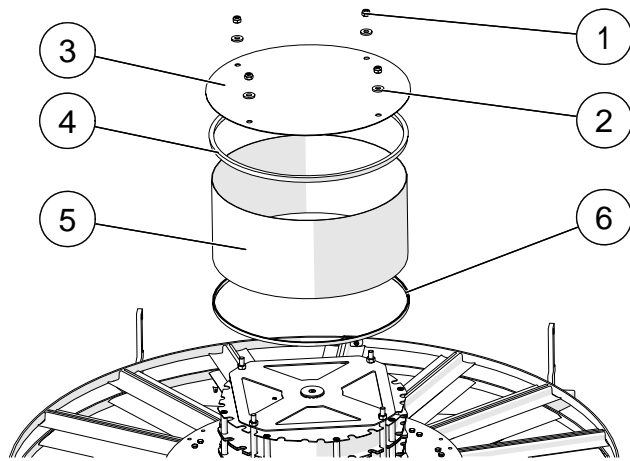
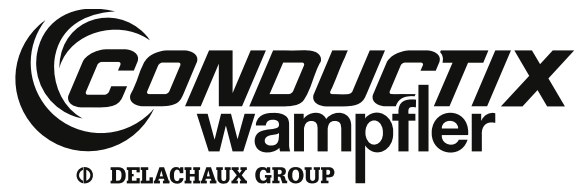


Fig. 5: Mounting the Spring Cassette

# Installation Instructions



## Hose and Rotary Joint Replacement

### for Hose Reels

#### Variant with Spokes

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