Overview

Application

Mounting instructions for replacing the spring package for cable pulls with a housing diameter of 130 mm such as ECN30PL* and cable-pull rotary encoders such as ECA30PL*.

Depending on the spare part, the delivery includes a single or double spring package. Details on the spare parts can be found in the relevant datasheet.

Note

Modifications and/or repairs carried out by the user will void the warranty and exclude the manufacturer from any liability.

Safety Notices

Warning!

Risk of injury when dismounting due to the pre-tensioned spring!

The removal and mounting of the spring package must only be carried out by trained and qualified personnel. This requires two people. Wear a safety helmet and safety goggles when performing the work. The installed spring package is under mechanical stress. It is essential to observe the safety measures described in the following steps when removing the device. The measuring rope must also be checked and retracted slowly after the spring package has been mounted. If the procedure is not correct, there is a risk of injury due to the measuring rope quickly retracting and also when removing a pre-tensioned spring package from the cable pull.

Necessary Aids/Tools

The following aids/tools are required for removing and mounting a spring package

- Safety goggles, safety helmet
- Measuring rope stopper, e.g., P+F accessory ACC-PACK-CS-SL*135
- Suitable pliers such as combination pliers
- Allen key 5 mm
- Medium-strength threadlocker, e.g., omniFIT® 100M

Removing the Spring Package

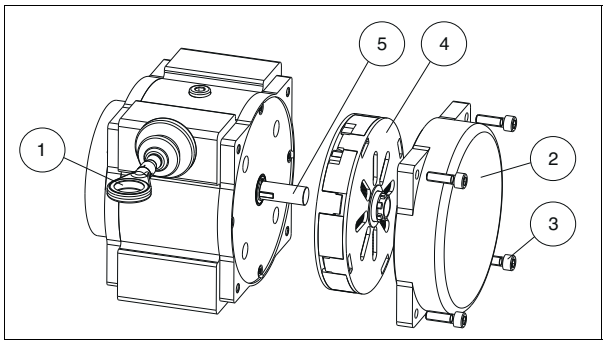

Figure 1

1. Pull out the measuring rope (1) as far as possible and then fix it in this position, e.g., with the measuring rope stopper from P+F.

Warning!

Risk of injury when dismounting the spring cover!

It is essential to observe the instructions in the following step for dismounting the spring cover (2). If this is not done correctly, there is a risk of the spring cover being flung away in an uncontrolled manner.

2. Carefully loosen and remove the screws (3) of the spring cover while pressing against the spring cover (2) with light pressure. It is essential that the spring cover turns back until the spring package (4) is fully relieved of tension.
3. Carefully remove the spring cover (2) and pull the spring package (4) off the shaft (5).

Mounting the Spring Package

Requirement: The measuring rope is pulled out as far as it will go.

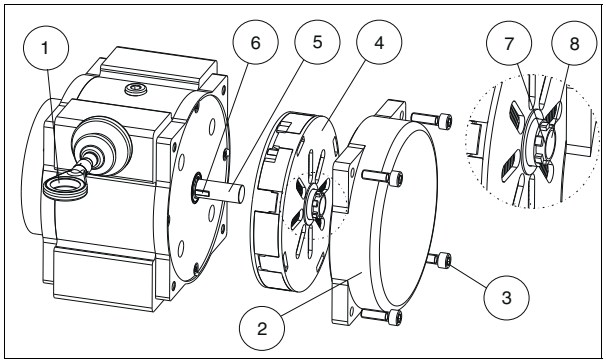

Figure 2

1. Slide the new spring package onto the shaft in such a way that on the first spring package, the feather key (6) of the shaft engages in the groove of the spring package (7).
2. Lightly grease the O-ring of the spring cover (2) with standard silicone grease.
3. Mount the spring cover (2), and ensure that the interlocks (8) of the spring package engage correctly with the grooves of the spring cover (2).

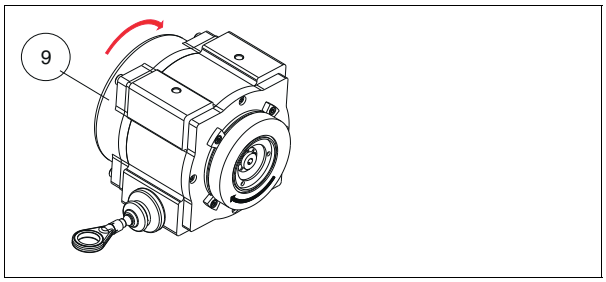

Figure 3

4. Now pre-tension the spring package again by turning the spring cover (9) counterclockwise with slight counterpressure as far as it will go (approx. 40–50 revolutions).
5. Then, depending on the measuring length, you must release the tension of the spring package slightly again according to the table below.
6. Turn the spring cover (9) back clockwise by X turns, depending on the measuring length.

Measuring Length	Revolutions X
5 m	6
10 m	2 (12 *)
15 m	8 (12 *)
20 m	4 (12 *)
25 m	12 (18 *)
30 m	6 (12 *)

* for spring package, double

Figure 4

7. Coat the four screws (3) for the spring cover with threadlocker (medium-strength).
8. On the spring cover, position the four screws (3) to be fastened, and tighten them each with 3 Nm.

Warning!

Risk of injury due to a quickly retracting measuring rope!

The cable pull is now pre-tensioned again. After removing the measuring rope stopper, always allow the measuring rope to retract slowly and in a controlled manner, otherwise there is a risk of injury due to uncontrolled retraction of the measuring rope.

9. Release the measuring rope stopper and allow the measuring rope to be retracted slowly and in a controlled manner.