



Hänel Setting Instructions Extractor alignment

Lean-Lift

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1. General instructions

Caution

These Installation Instructions are intended for specially trained and authorised technicians employed by the Hänel factory or by Hänel representatives.

All safety instructions and general instructions provided in the Operating Manual "MANL-LL" and in the Installation Instructions "INST-LL-S" or "INST-LW" must be observed at all times!

In addition, the "Safety Rules & Requirements" provided in the Memorandum for Technical Field Service "SICHA-__" must be observed at all times.



Intended use

These setting instructions are intended for adjusting the extractor for new lifts as well as existing lifts.

These setting instructions are only valid for Lean-Lifts with type width ≤ 3260.

Any other use shall be considered non-compliant use.



2. Installation Requirements

1. Before starting the installation, secure the extractor against descending or falling.



DANGER

The extractor is a suspended load that can fall.

Therefore, whenever working inside the lift, you have to lower it to ground level.

If this is not possible, you have to secure them using the locking device. (See operating manual "MANL-LL", work inside the lift by authorised personnel - Securing the extractor).

2. Switch off the main switch (Q2) and secure it from being switched on again using a padlock.



DANGER

Risk of electrocution!

SAFETY INSTRUCTION



The lift must be de-energised before work begins.

- Switch off main switch (Q2).
- Secure the main switch (Q2) from being switched on again
- Verify that the lift has been de-energised.
- Cover or block off neighbouring live parts. (External voltage source for multi-unit network)

3. Before entering the inside of the lift, lock the actuator of the safety switch on the service door (S3) with a padlock.

SAFETY INSTRUCTION



Secure the actuator latch!

Before all work, secure the actuator latch of the service door from being switched on again using a padlock.

To do so, use the mounting bracket as described in Chapter 4. (see Installation Instructions "INST-LL-S")

3. Overview

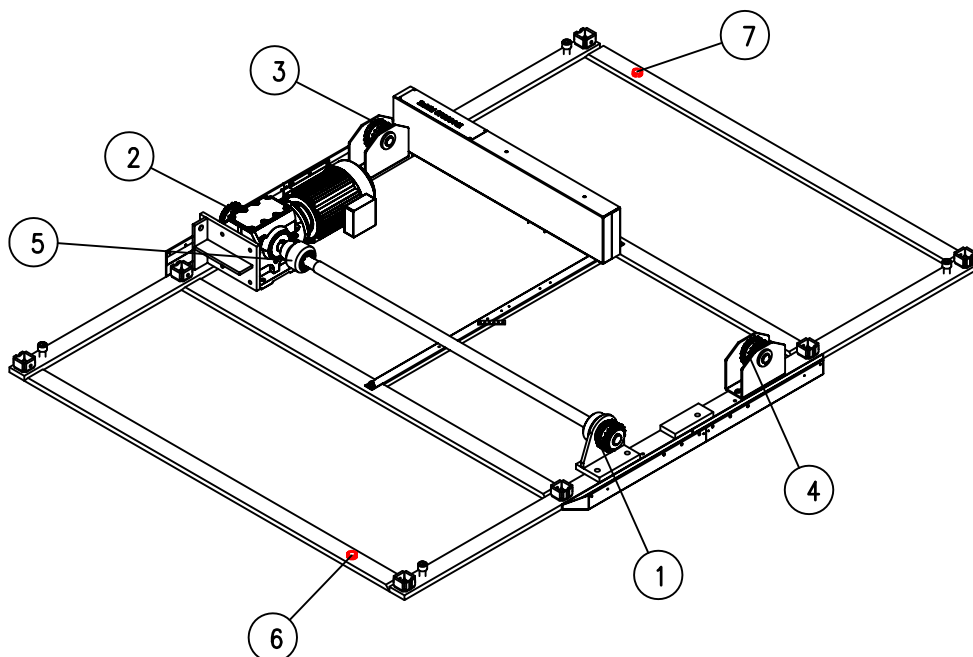


Fig. 1: Overview of vertical drive for left service door

Item	Description
1	Drive side H I
2	Drive side H II
3	Guide side V I
4	Guide side V II
5	Coupling element including clamping set
6	Mark on front side of the lift
7	Mark on front side of the lift for right service door



Note:

For the right service door (refer to item 7), the drive is on the right side as viewed from the front of the lift. The drive and guide side designations correspond to Fig. 1.

3. Overview (continued)

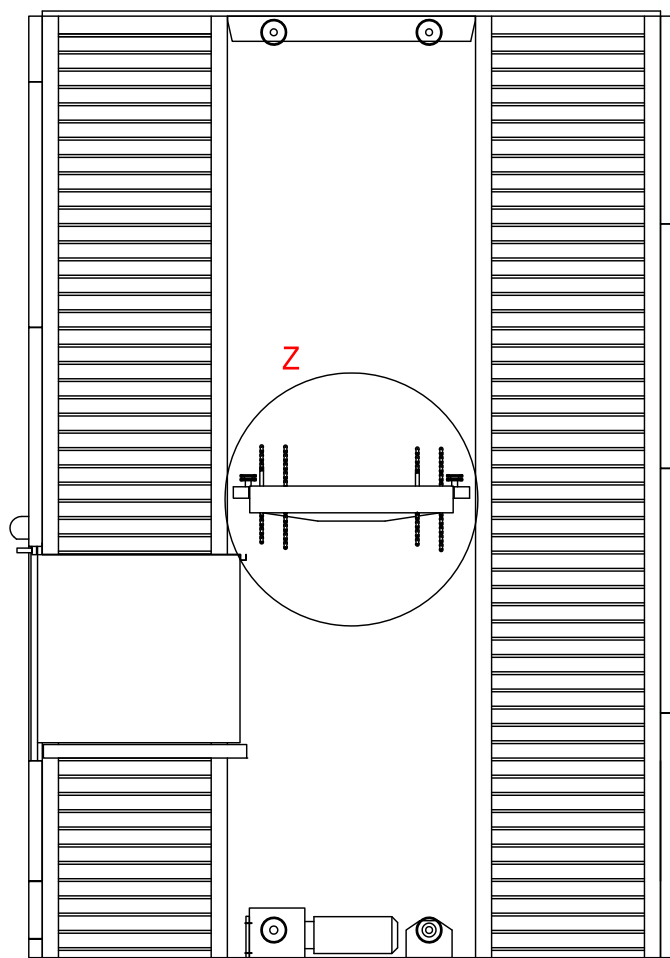


Fig. 2: Overview of extractor

Item	Description
8	Upper retaining pin
9	Lower retaining pin
10	Disc spring pack
11	Tensioning screws
12	Bearing shell
13	Spacer bushings
14	Clamping plate
18	Extractor

Item	Description
L1	Bolt length L1
L2	Bolt length L2

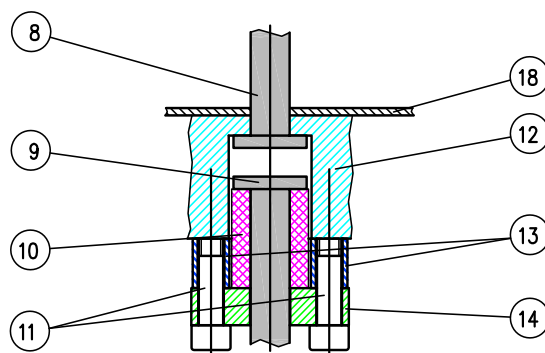


Fig. 3: Section A-A from Fig. 4

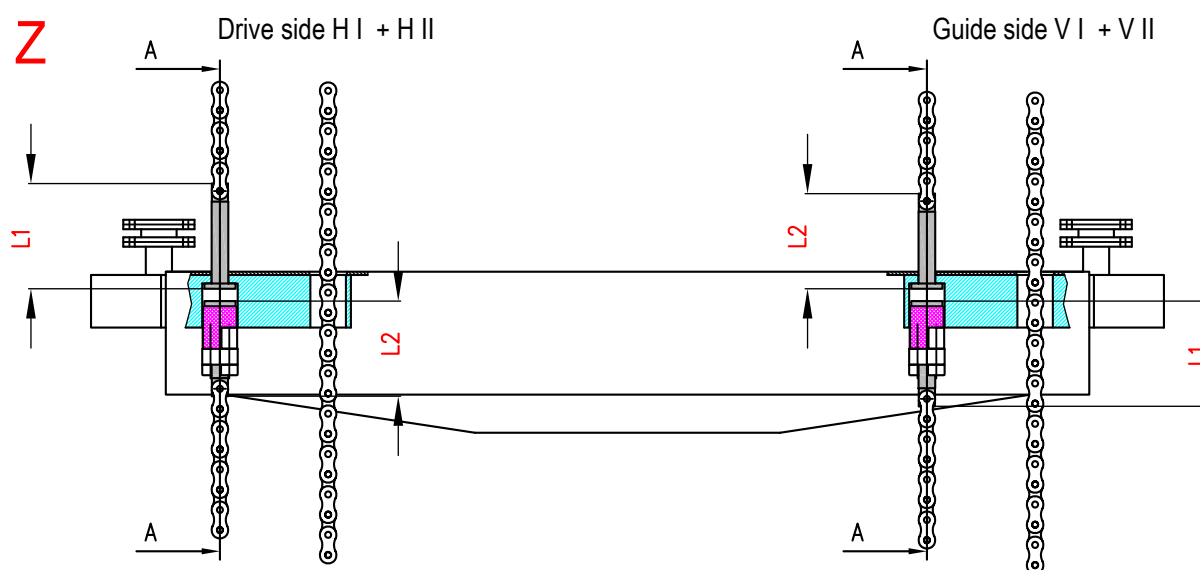


Fig. 4: Detail Z from Fig. 2

4. Extractor setting, drive side

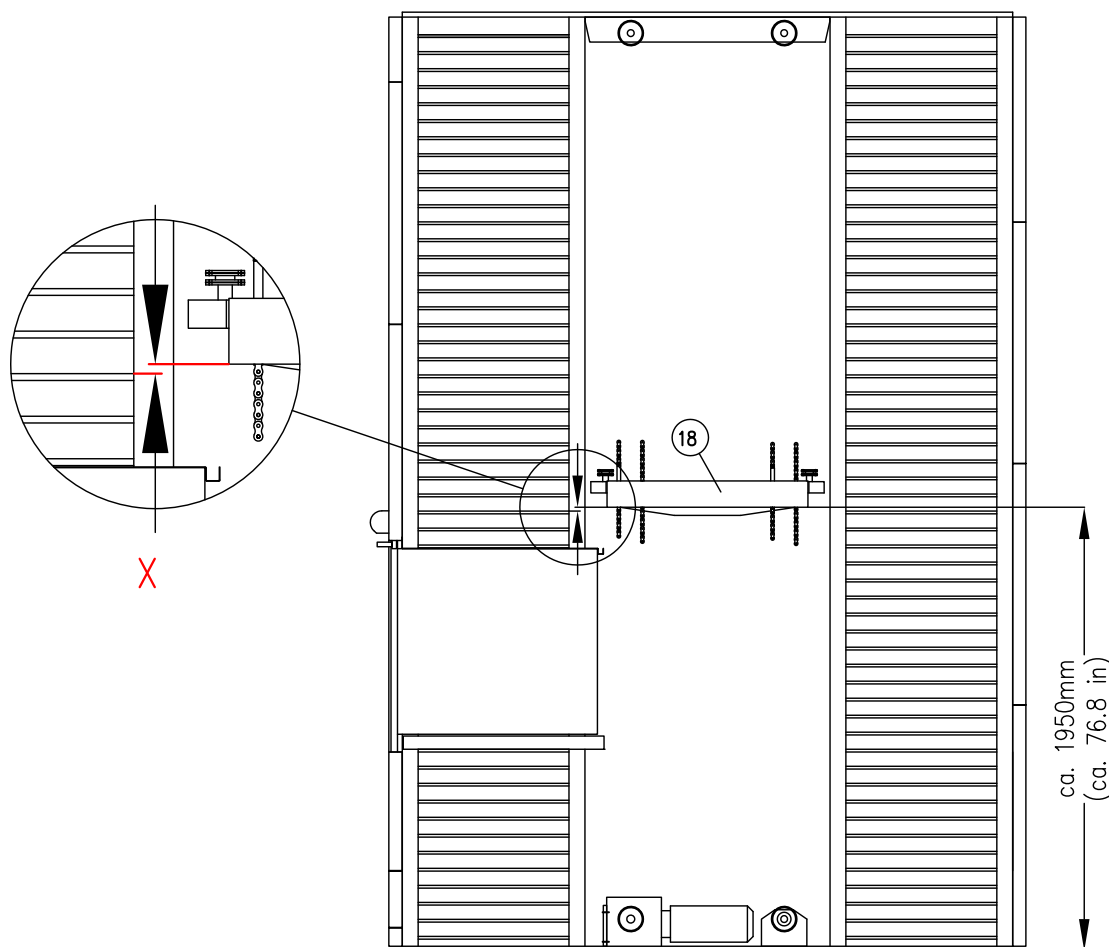
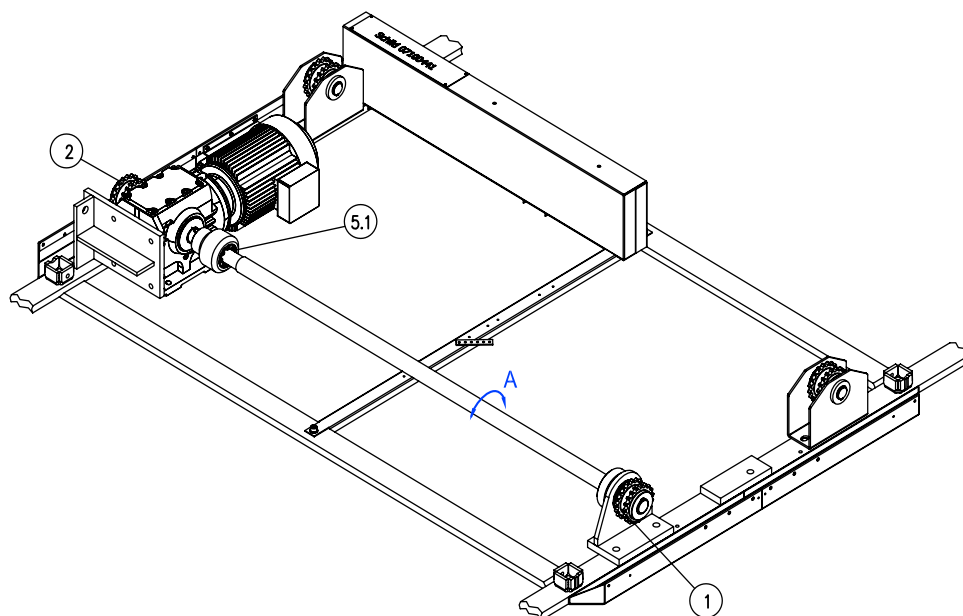


Fig. 5: Extractor setting, drive side

Measurement:

Step	Task	Notes / illustration
1	Position the unloaded extractor (item 18) above the standard access point (approx. 1950 mm [76.8 in]).	See Fig. 5
2	To secure the extractor, attach mounting brackets to all 4 rectangular tubes and secure them with a locking screw. The extractor must not rest on the adjusting screws of the mounting bracket.	(see Operating Manual "MANL-LL" , see Installation Instructions "INST-LL-S")
3	Unscrew the adjusting screw of the mounting bracket on drive side H I far enough that it touches the lower lip of the extractor.	See Installation Instructions "INST-LL-S"
4	Measure dimension X (distance between carrier and lower lip of extractor) on drive sides H II and H I.	See Fig. 5
5	Calculate the difference between the two dimensions X.	Note: Use a level for the measurement. Note: A setting is made only if the difference between the two dimensions X is greater than 0.5 mm (0.02 in).

4. Extractor setting, drive side (continued)



Item	Description
1	Drive side H I
2	Drive side H II
5.1	Clamping set

Fig. 6: Setting, drive side

Setting:

Step	Task	Notes / illustration
1.1	Unscrew the tensioning screws from the clamping set (item 5.1)	See Installation Instructions "INST-LL-S" See Fig. 6
1.2	Screw the tensioning screws into the forcing thread, tighten them incrementally and uniformly in diagonally opposite sequence until the clamping set is loose (item 5.1).	See Installation Instructions "INST-LL-S"
2	Unscrew the tensioning screws from the ejector thread and screw them into the fastening thread, but do not tighten them yet.	See Installation Instructions "INST-LL-S" Note: If tensioning screws have to be replaced, only use screws of the same strength class 12.9.
3	Transfer dimension X from drive side H II to drive side H I using the adjusting screw of the mounting bracket.	See installation instructions "INST-LL-S" Note: While doing so, the vertical shaft and the chain wheel of drive side H I (item 1) rotate with [A]. See Fig. 6
4	Tighten the tensioning screws in diagonally opposite sequence uniformly to the clamping set tightening torque of 17 Nm (12.5 ft-lb). Check of the tightening torque of all tensioning screws in the sequence of their arrangement.	See Installation Instructions "INST-LL-S"
5	Turn back the mounting bracket adjusting screw and recheck dimensions X on drive sides H I and H II.	Note: Do not exceed the max. tolerance ± 0.5 mm (± 0.02 in), correct if necessary.

5. Extractor setting, guide side

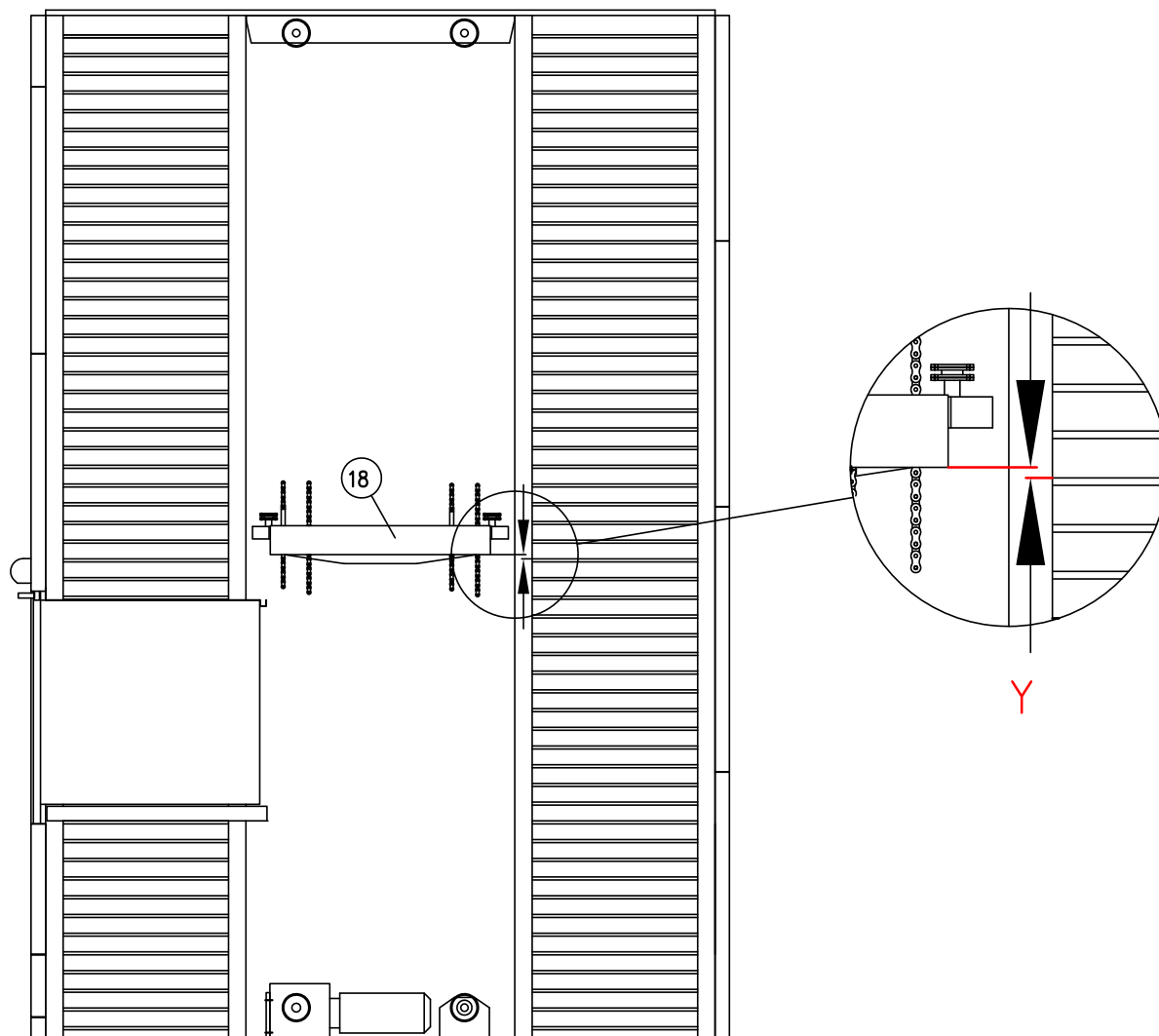


Fig. 7: Extractor setting, guide side

Measurement:

Step	Task	Notes / illustration
1	Check that both drive chains are taut, retighten if necessary. The extractor must not rest on the adjusting screws of the mounting bracket.	See Installation Instructions "INST-LL-S"
2	Measure dimension Y (distance between carrier and lower lip of extractor) on guide side V I and V II.	See Fig. 7
3	The extractor is set on the guide side with the smaller dimension Y .	Note: Use a level for the measurement. Note: A setting is made only if the difference between the two dimensions Y is greater than 0.5 mm (0.02 in).

5. Extractor setting, guide side (continued)

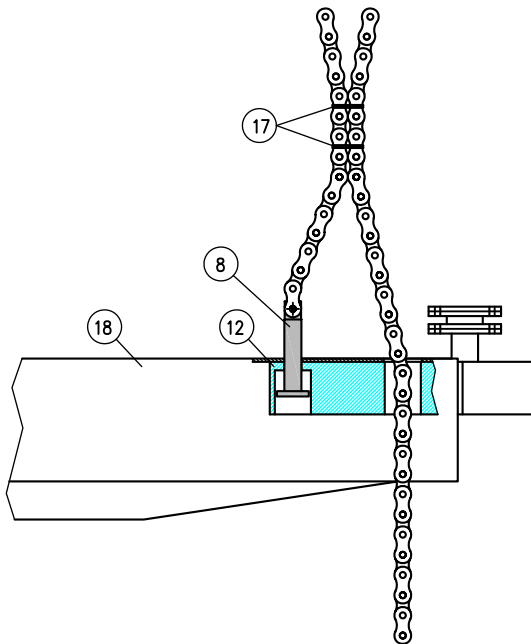


Fig. 8: Free-hanging upper retaining pin

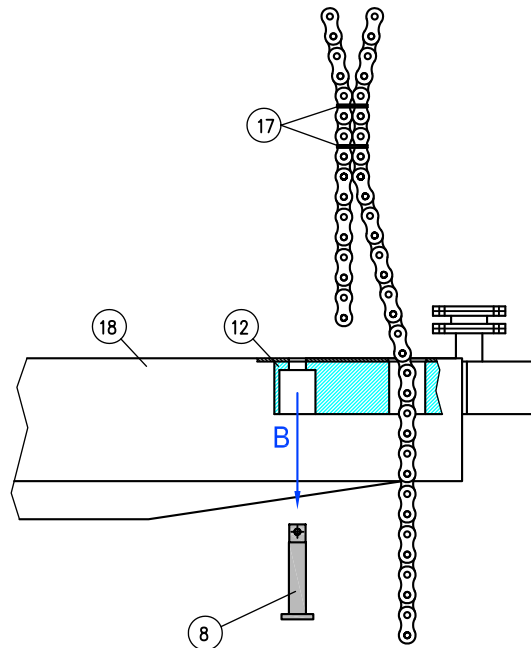
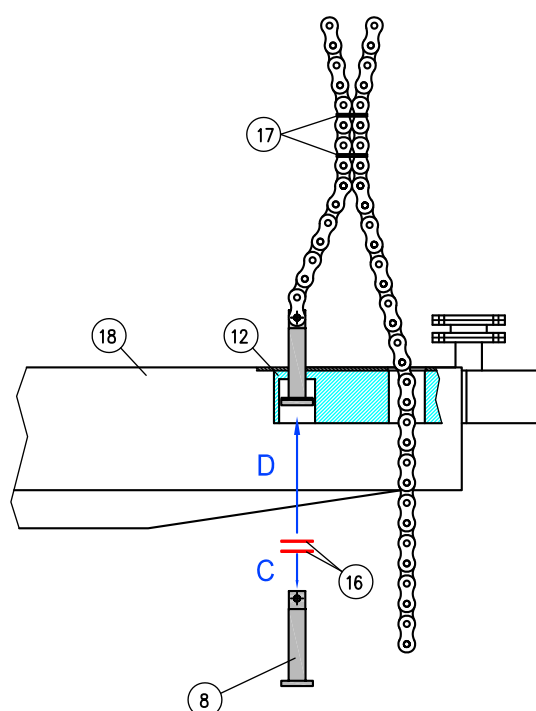


Fig. 9: Removed upper retaining pin

Setting

Step	Task	Notes / illustration
1	Calculate the difference between the two dimensions Y .	See Fig. 7
2	Prepare the washers (item 16) with a thickness that enables them to be placed between the upper retaining pin (item 8) and bearing shell (item 12) as well as between the clamping plate (item 14) and spacer bushings (item 13).	See Fig. 3, 11 and 12 Note: Use only spare part number LL-333 as washers (item 16). See Spare parts price list "SPARES"
3	Unscrew the mounting bracket adjusting screw on the guide side with the smaller dimension Y until it touches the lower lip of the extractor.	See Installation Instructions "INST-LL-S"
4	Loosen the tensioning screws (item 11) and unscrew them from the bearing shell (item 12); if necessary, use longer auxiliary screws to reduce the chain pre-tension slowly and in a controlled manner.	See Fig. 3 Note: The extractor is set on the guide side with the smaller dimension Y .
5	Remove the chain from the toothing of the lower sprocket so that it hangs freely and is no longer under tension.	
6	– Pull on the chain strand (above the extractor) whose end is fastened to the upper retaining pin (item 8), so that the upper retaining pin hangs freely on the chain. – Connect the two chain strands with at least two cable ties (item 17), so that the chain cannot roll off over the upper chain wheel.	See Fig. 8 See Fig. 8
8	Open the chain joint, remove the upper retaining pin (item 8) from the chain and remove it from the bearing shell (item 12) by pulling down.	See Fig. 9 see Installation Instructions "99900004"

5. Extractor setting, guide side (continued)



Item	Description
8	Upper retaining pin
12	Bearing shell
16	Washers spare part number: LL-333 Type 250 and lift height ≤ 15 m: shims DIN 988 15x21x1.0 (1x) shims DIN 988 8x14x1.0 (2x) Type 500, 700 and 1000 or lift height > 15 m: shims DIN 988 17x24x1.0 (1x) shims DIN 988 11x17x1.0 (2x)
17	Cable tie
18	Extractor

Fig. 10: Upper retaining pin with additional washers

Step	Task	Notes / illustration
9	Place washers (item 16) that have been prepared in advance onto the upper retaining pin (item 8). Install the upper retaining pin (item 8) from below into the bearing shell (item 12) and reconnect it with the chain.	See Fig. 10 see Installation Instructions "99900004"
10	Remove the cable ties (item 17); pull the chain down and lay it onto the chain wheel. If necessary, lift the extractor (item 18) a little so that the two carrying chains of guide sides V I and V II do not get out of sync by a tooth.	
11	Tighten the tensioning screws (item 11) of the chain tensioner until the clamping plate (item 14) rests on the spacer bushings (item 13) including washers (item 16). If necessary, use auxiliary screws with a longer length for positioning on alternating sides.	See Fig. 12

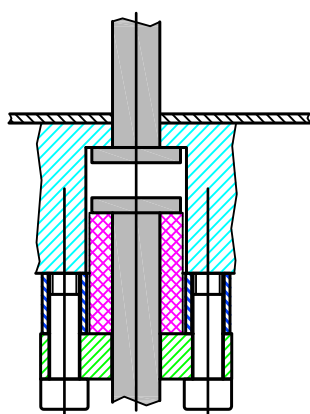


Fig. 11: Bearing shell before adjustment

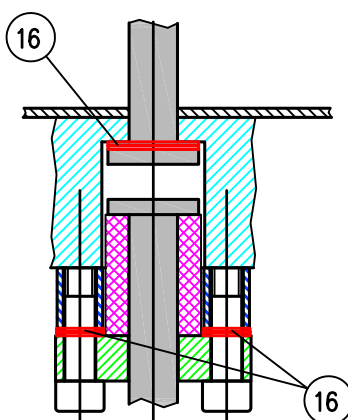


Fig. 12: Bearing shell after adjustment, with additional washers

6. Test run

Step	Task	Notes / illustration
1	Perform synchronisation run.	See Supplementary Description "Z-SERFKT"
2	Perform a "Test extractor connection" test run.	See Supplementary Description "Z-SERFKT"

Step	Task	Notes / illustration
1	Move the extractor to the access point height.	
2	Use the level again to check the alignment of the extractor to carrier	 The maximum tolerance may not exceed ± 0.5 mm (0.02 in), correct, if necessary
3	Carrying out test runs with shelves	

7. Removal

1. Before starting the removal, secure the extractor against descending or falling.



DANGER

The extractor is a suspended load that can fall.

Therefore, whenever working inside the lift, you have to lower it to ground level.

If this is not possible, you have to secure them using the locking device. (See operating manual "MANL-LL", work inside the lift by authorised personnel - Securing the extractor).

2. Switch off the main switch (Q2) and secure it from being switched on again using a padlock.



DANGER

Risk of electrocution!

SAFETY INSTRUCTION



The lift must be de-energised before work begins.

- Switch off main switch (Q2).
- Secure the main switch (Q2) from being switched on again
- Verify that the lift has been de-energised.
- Cover or block off neighbouring live parts. (External voltage source for multi-unit network)

3. Before entering the inside of the lift, lock the actuator of the safety switch on the service door (S3) with a padlock.

SAFETY INSTRUCTION



Secure the actuator latch!

Before all work, secure the actuator latch of the service door from being switched on again using a padlock.

4. Remove the extractor properly, reverse order of steps as that described in the Installation Instructions "INST-LL-S".

5. After removal, dispose of the structural components in an environmentally responsible manner (see installation instructions "INST-LL-S" or "INST-LW", Disposal instructions).



8. Annex

Revision notes

Last issue dated: 2010-03-19

- Washer type (item 16)

2016-05-19

- Page 4: Note on operating manual removed

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