



Operating Instructions

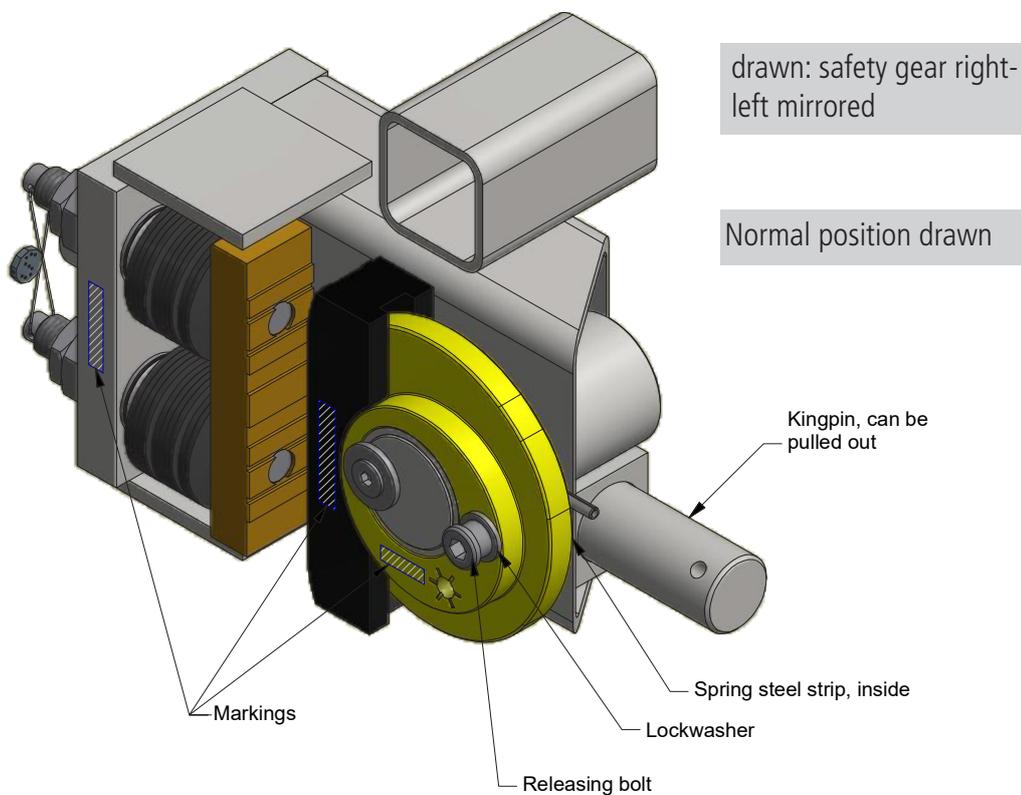
Safety module EB59D /EU-SG 488 , EB75 KD/EU- SG 490

General

Safety Module ↓ ↑

Progressive safety gear - upward/downward acting = payload + mass of lift car in FREE fall

Braking device = 1/2 payload + masses UPWARDS upon tripping the overspeed governor incl. UCM/A3



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General instructions

!Important!

Prior to commissioning:

1. Before commissioning and testing the guide rails must be cleaned thoroughly prior to installation! Whether „old“ or „new“, (due to dirt, old lubricant or protective agents in case of new rails!), they must be kept clean both before and after commissioning!!!
2. Should this not take place, negative changes in the braking force etc. can/will occur: In this case, any potential claim will be rejected.
3. Should „old“ guide rails show very long skid marks or many and deep marks (e.g. from safety gear), they have to be replaced by new guide rails – of the same type.
4. After recommended test check (only functional test - low speed/empty lift car) a safety test (engagement test) must be carried out according to the applicable guidelines (e.g. EN 81-20/50), also for „SRMs“ (conveyors), or according to the manufacturer's specifications.
Should none of the above provisions apply, the test must be executed in the „downward“ direction at least with nominal speed and nominal load without any braking of the drive unit (e.g. keep operational brake open!), otherwise no performance record! In the event of uncertainties, please contact us - as manufacturer - immediately.
Periodical tests (engagement tests) must also be carried out at regular intervals.
5. The brake power is assessed by persons with professional expertise (e.g. inspection bodies etc.).

Schmutz! So darf es nicht sein!

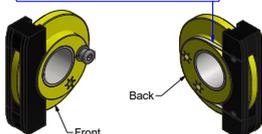


Dirt! This is not acceptable!

!Maintenance!

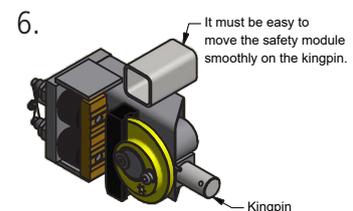
1. It must be possible to turn the actuating shaft manually until the gripping eccentric engages and the safety gear switch must be actuated. When pulled out from the braking position, the actuating shaft (gripping eccentric) must turn back into neutral position.
2. The guide rails must only be oiled with specified lubricants. (Observe EC-type examination certificate). No greases, oils which become resinous etc.
3. Maintenance at least once annually (or operating hours or contamination).
4. Avoid rust by cleaning and lubricating the moving parts.

Lubricate spring steel strip and eccentric



Lubricate all joints, in particular the spring and the gripping eccentric (if they are not moving smoothly).

5. It must be possible to move the safety gear/safety module smoothly on the kingpin (floating system).
6. Check the tractive force of the overspeed governor with required tractive force of the safety gear/safety module (at least statically).

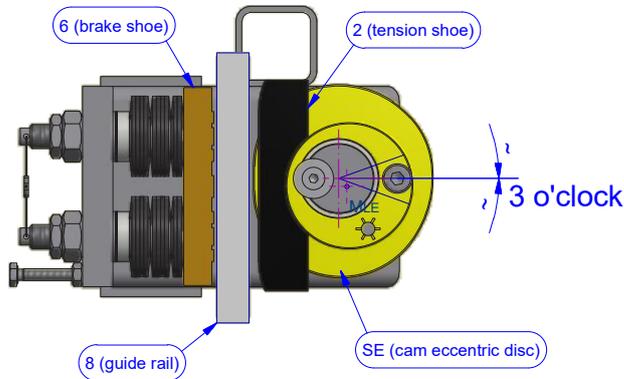


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Installation diagram - engagement downwards



Figur - 1

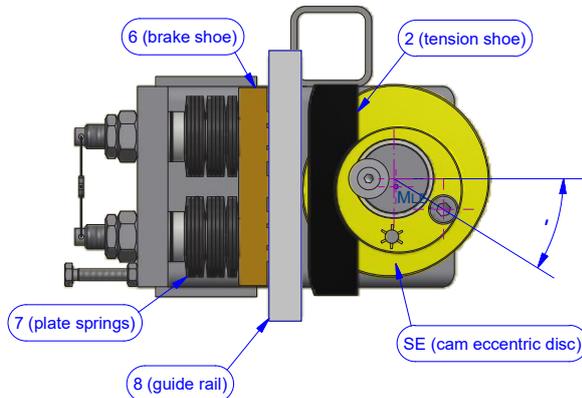


Figur - 1 (3 o'clock)

Rest position = free position

Guide rail (8) makes no contact with the brake shoe (6) or the jaw (2) or the cam eccentric disc (SE).

Figur - 2

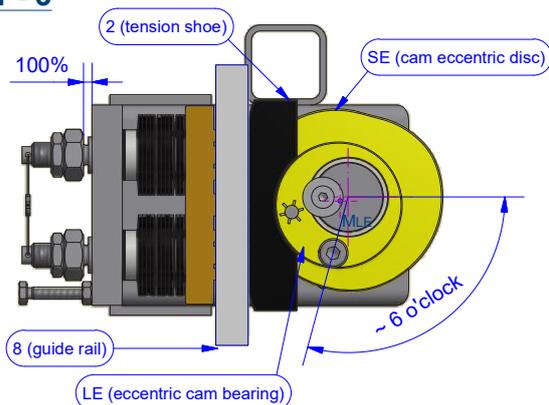


Figur - 2

Engaged position

SE is turned by the overspeed governor until the knurled circumferential surface of the SE and the brake shoe (6) get in contact with the rail (8) on both sides. From this moment on, the cam disk (SE) takes over the tensioning of the plate springs (7).

Figur - 3



Figur - 3 (6 o'clock)

Brake position

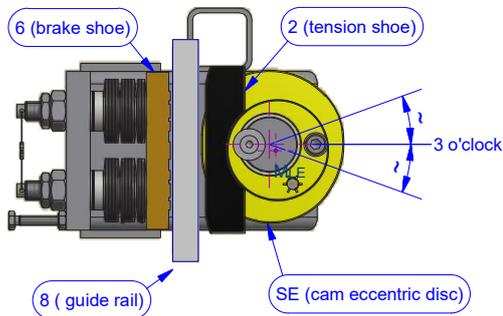
The following eccentric cam bearing EB brings the tension shoe (2) in contact with - 8 - SE now loosens its contact with the guide rail (8) and, as a result, the position of the SE doesn't change any more which stops the car by slowing down uniformly. Dead centre of the eccentric cam bearing prior to the brake position (CEB).



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Installation diagram - engagement upwards

Figur - 1

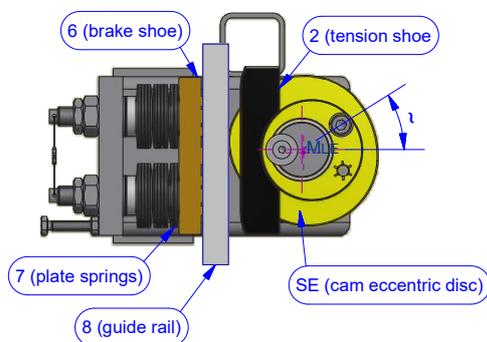


Figur - 1 (3 o'clock)

Rest position = free position

The guide rail (8) makes no contact with the brake shoe (6) or the tension shoe (2) or the cam eccentric disc (SE).

Figur - 2

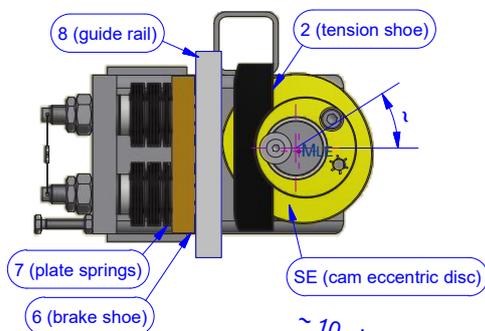


Figur - 2

Engaged position

The cam eccentric disc (SE) is turned by the overspeed governor until the knurled circumferential surface of the SE and the brake shoe (6) get in contact with the rail (8) on both sides. From this moment on, the cam disk (SE) takes over the tightening of the plate springs (7).

Figur - 3

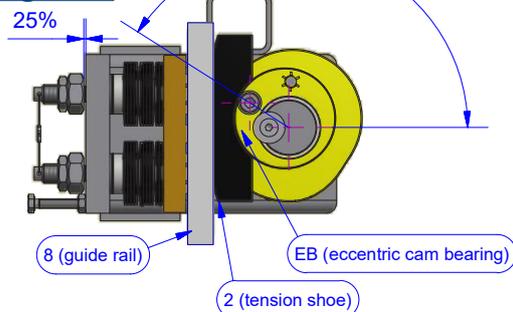


Figur - 3

Pre-brake position

The cam eccentric disc (SE) presses onto the rail (8), which tensions the plate springs (7) increasingly via the brake shoe (6) to overcome the long angle of rotation and to prepare the safe engagement with the brake shoe (6).

Figur - 4



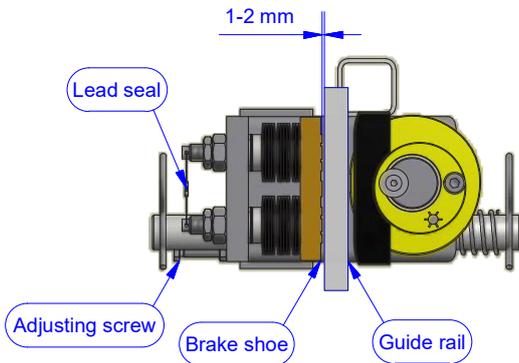
Figur - 4 (10 o'clock)

Brake position

The following eccentric cam bearing LE brings the tension shoe (2) in contact with - 8 - SE now loses its contact with the guide rails (8), and as a result the position (SE) doesn't change any more which stops the car by slowing down uniformly. Dead centre of the eccentric cam bearing prior to the brake position (CEB).

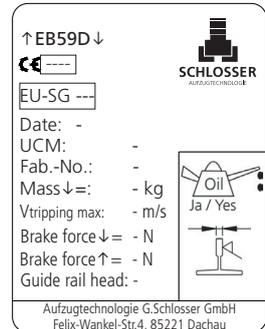
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Installation Basic

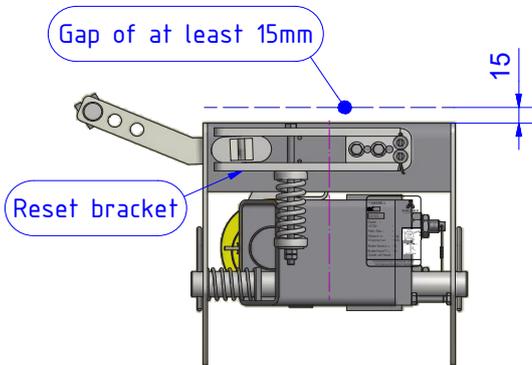


The safety module ↓ ↑ may only be installed if the values indicated on the type plate correspond to the lift data. Check that the lead sealing is undamaged.

Attach firm brake shoe to the rail using an adjusting screw with a gap between 1 and 2 mm.

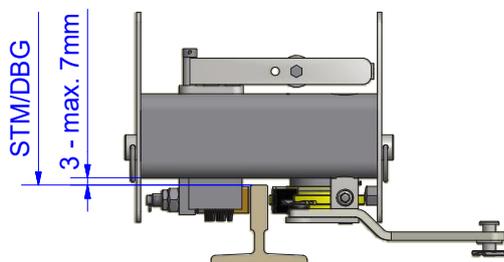


Attention: Strictly avoid any contact with the guide rail in case of spring-loaded guiding elements! (observe spring deflections!, otherwise unintended engagement etc!)



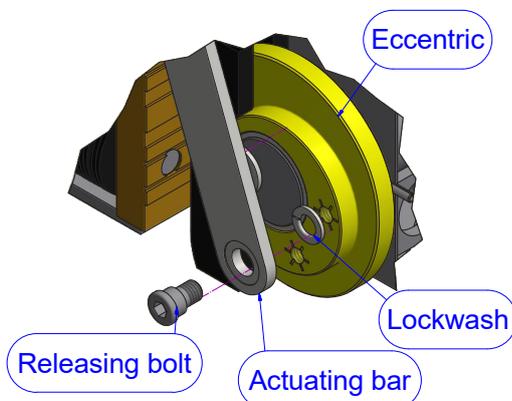
Please be sure to plan gaps.

- Keep a gap of 15 mm above the guiding profile. Work area of reset bracket.
- It must be possible to pull out the kingpin.



Please note the immersion depth of the guide rail.

- 3 - max. 7mm



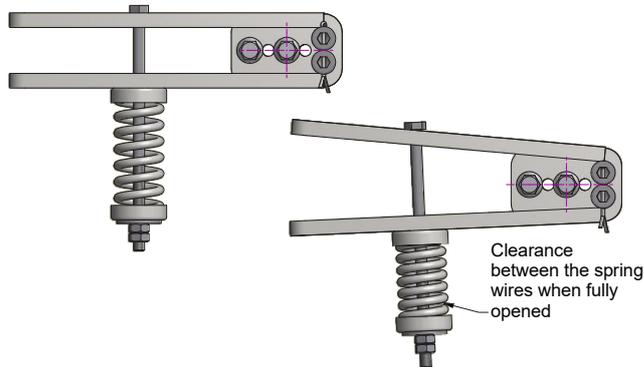
Attention:

When mounting the actuating bar onto the eccentric, strictly ensure that the lockwasher is **between** the actuating bar and the eccentric, no matter which actuating gear is used.



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Installation/testing



Attention:

Adjust the resetting spring in such a way that the pull-in forces are not too high and to ensure sufficient spring deflections.

Test in detail

Reading the knurling marks

DOWNWARDS:

- a) 1,25 times nominal load and nominal speed
- b) or nominal load and with tripping speed
- c) Keep brake open!

Note:

To make it easier to draw the car out of the engagement, it is recommended to carry out the test near a door so that the load from the car can be discharged there.

UPWARDS:

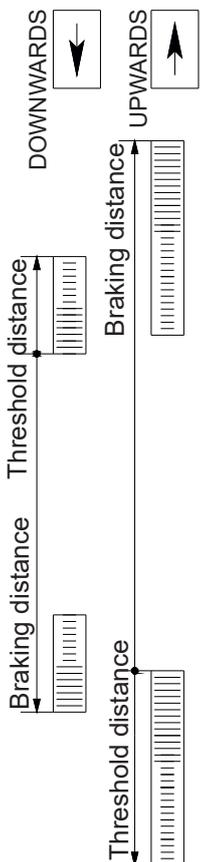
- a) Empty car with min. nominal speed without any braking aid (operational brake open, drive system switched off)

After the test, make sure that no damage has occurred that could impair the normal operation of the lift. If necessary, brake shoes can be replaced. Visual examination is considered sufficient.

The objective of the test prior to commissioning is to determine the proper assembly, the correct adjustment and the strength of the functional unit, comprising the car - safety gear - guide rails - rail mountings.

Tripping/ engagement forces:

at least 300N in both ↓ ↑ **but** at least double the **required** tractive force ↓ ↑ of the safety gear/safety module.



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Installation/test instructions



Pulling off the ↓ engagement ↑ brake position.

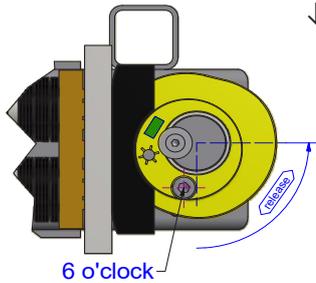
Please be aware that the pull-out force can be approximately half of the braking force.

Downwards

↓ Engagement position: The following M8 bore hole in the cam eccentric disc shows approx. 6 o'clock

Pull off the ↓ engagement position in steps:

- Start quickly in upward direction using the re-levelling control.
- Several repetitions = in principle: loosen and tighten ropes.
- Handwheel aid
- Empty the car
- Traction sheave clamp, lifting etc.

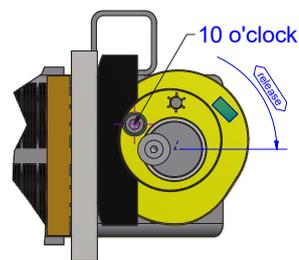


Upwards

↑ Brake position: The leading M8 bore hole in the cam eccentric disc shows approx. 10 o'clock

Pull off the ↑ brake position in steps:

- Start quickly in downward position using the re-levelling control.
- Several repetitions = in principle: loosen and tighten ropes.
- Handwheel aid
- Load the car
- Traction sheave clamp, lifting etc.



Note:

1. In the case of weightless testing downwards (electronic test device), the bouncing of the cabin can cause the brake to fall back or be pulled into the upwards braking position (bouncing counterweight!).
2. Also, a release from the upwards braking position can cause the brake to fall back or be pulled into the downwards direction (jerky release from above!)

Info: Please check eccentric position in the case of problems. See diagram upwards/downwards engagement!

Note:

The release of the cabin from the downwards braking position tends to be more difficult, the „lighter“ the cabin is in relation to the nominal load. (Heavy counterweight to light cabin!)

Liability and warranty:

For damages that result from improper handling or strange use of our product with respect to these operating instructions, Fa. Aufzugstechnologie Schlosser assumes no liability or warranty.