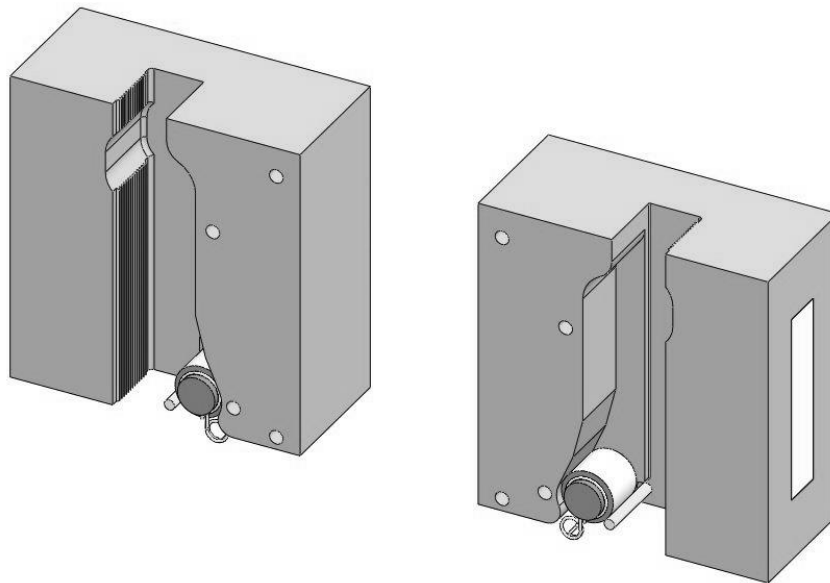


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INSTRUCTIONS**1.- GENERAL****1.1 NORMAL USE**

The SLC-IT140 PLUS instantaneous safety gear is a safety component as established by annex III of the directive 2014/33/UE and it is certified according to the said directive. It must therefore be used solely to this purpose. All other uses have not been analysed and are therefore not foreseen.

1.2 GUARANTEE

LUEZAR-ECO, S.L. guarantees, for the period established by the current legislation, the functioning of its product against any fault of the materials and assembly in its manufacturing.

This guarantee will not be valid in the following cases:

- *Inappropriate use of the safety gear.*
- *Faulty installation of the safety gear and its accessories.*
- *Superficial impacts.*
- *Inappropriate maintenance.*

And, in general, non-compliance with the instructions described in this handbook.

The sets of safety gears are supplied in accordance with the description of the installation provided by the customer. Under no circumstances may safety gears with different serial numbers be manipulated, combined, assembled or installed in installations with features different from the ones displayed on the plate of characteristics. Any action on the safety gears must be carried out by LUEZAR-ECO S.L.

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1.3 TRANSPORT AND STORAGE

The safety gears will be transported from the factory to their assembly in an appropriate packaging, so that they are protected from bumps, humidity, dirtiness and poor weather conditions at all times.

At reception of the safety gears and just before assembling them, it must be checked that the packaging has not been damaged and that the features of the product received coincide with the order and with the characteristics of the installation.

Safety gears do not have a limited operational life time, but they will be returned to the factory in order to be checked by LUEZAR-ECO, S.L., after agreement, if any superficial damaged caused by bumps or any beginning of rusting is detected when the product is unpackaged.

INSTRUCTIONS**1.4 GENERAL FEATURES**

The SLC-IT140 PLUS safety gears have been designed and certified to cover a large range of loads and various ranges of speeds. The features which have an impact on the adjustment of the safety gears are::

- $P+Q$ (Kg)
- Guide rail thickness.
- Type of guide rail (drawn, machined)
- Tripping speed of the overspeed governor V_d (m/s)

The minimum braking width is 24mm and its characteristics are as follows:

SLC-IT140 PLUS	
TOTAL MASS ALLOWED (P+Q)Kg	
V_d (m/s)	GUIDE RAIL 16 mm - 30mm DRAWN / MACHINED
0,5	10332
0,6	9942
0,7	9517
0,8	9069
0,9	8611
1,0	8150
1,1	7695
1,2	7251
1,32	6741
1,5	6025

According to section 5.3.4 of standard EN81-50, the declared mass of the lift must not exceed the total mass allowed.

The functioning temperature is comprised between -30°C & $+50^{\circ}\text{C}$.

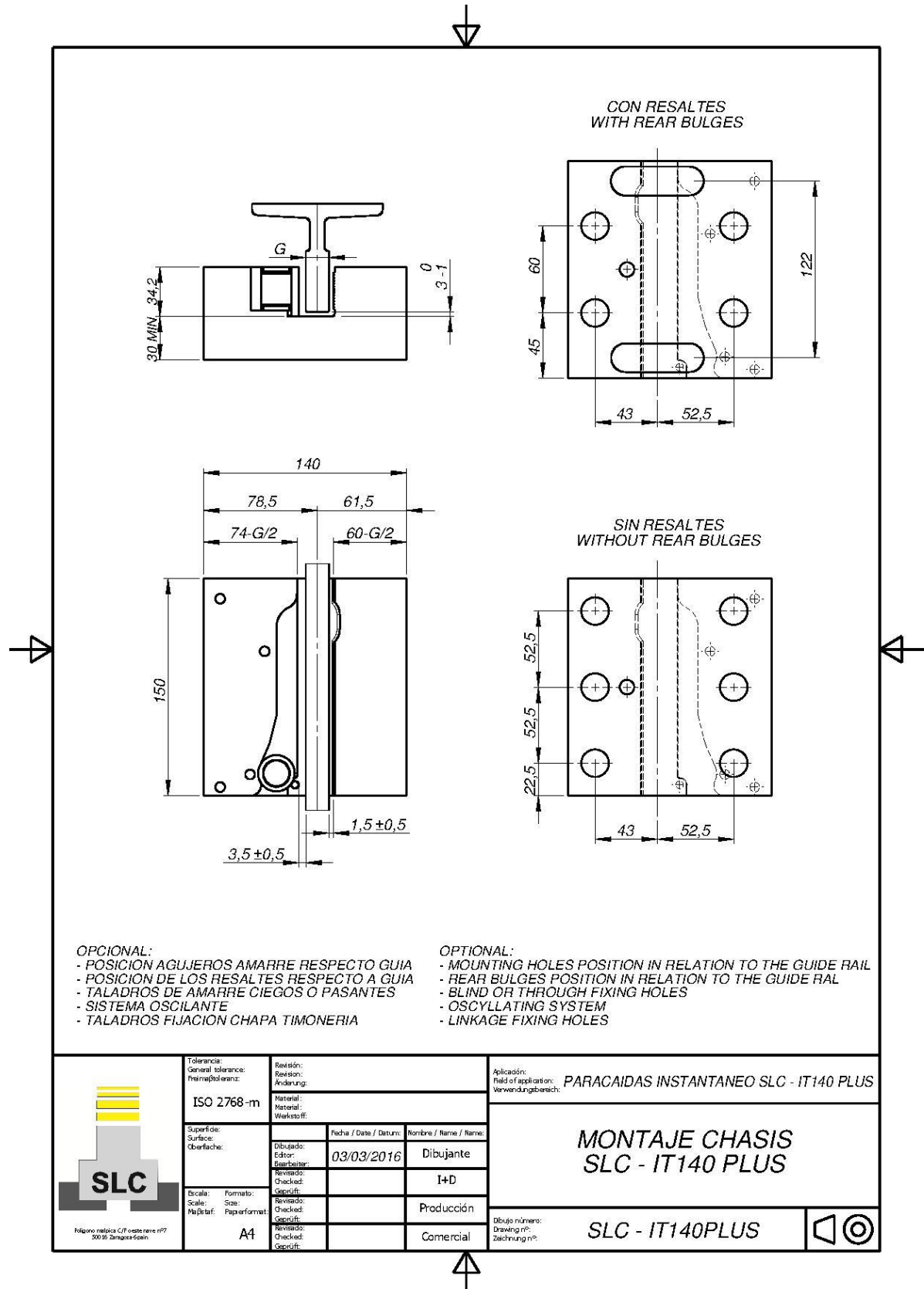
The tolerance of the guide rails will be as established by standard ISO 7465.

The maximum operating speeds depending on the use are as follows:

- Maximum nominal speed of car 0.63m/s
- Maximum nominal speed of counterweight 1 m/s
- Maximum tripping speed of the overspeed governor in car 1m/s
- Maximum tripping speed of the overspeed governor in counterweight 1.5 m/s

INSTRUCTIONS

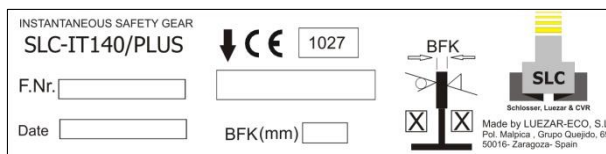
1.5 DIMENSIONS



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1.6 MARKING

In compliance with section 5.6.2.1.1.3 of standard EN81-20, the safety gear comes with an identifying label with the following details:



SLC-IT140 PLUS	Type of instantaneous safety gear
F. Nr	Manufacturing number
F. Date	Manufacturing date
BFK(mm)	Guide rail thickness
☒	Cold-drawn guide rail
☒	Machined guide rail

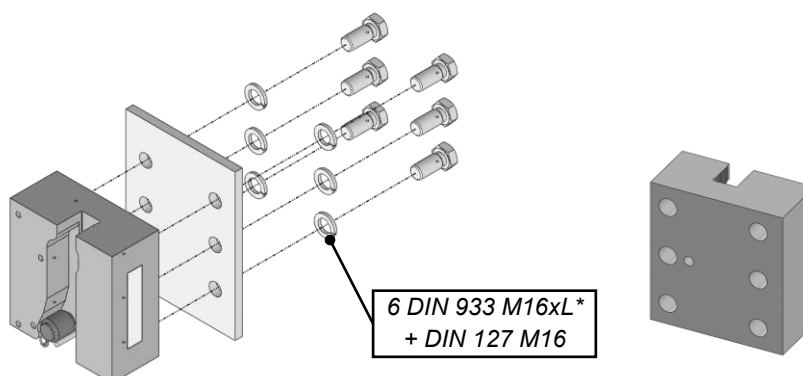
It is very important to check that the details reflected on the identifying label are in accordance with the characteristics of the installation.

2.- ASSEMBLY

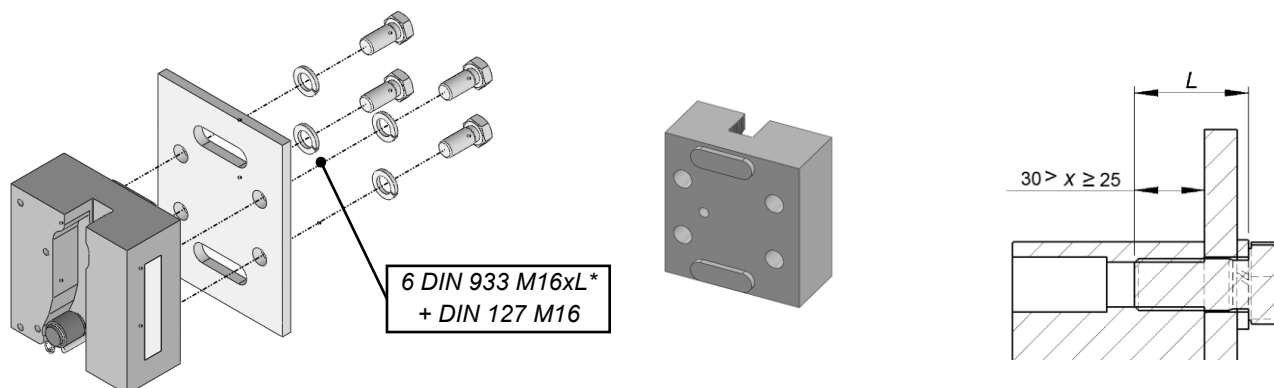
2.1 SAFETY GEARS

The SLC-IT140 PLUS set is made of two symmetrical safety gears, each of them is assembled on one side of the chassis and their positions cannot be exchanged.

There are two models of SLC-IT140 PLUS safety gears, as shown on the drawing below. One is fixed to the chassis by means of six M6 screws quality 8.8 DIN 933 and DIN 127 or similar grower washers in the threaded holes of the safety gears and the other by means of 4 screws and washers of the same kind. In the latter, the safety gear has two rear projections. In all cases, the length (L*) of the screws must be such that the threaded length in the safety gear is neither higher than 30mm nor lower than 25mm.

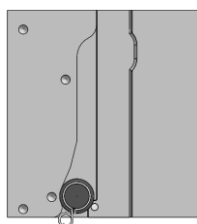


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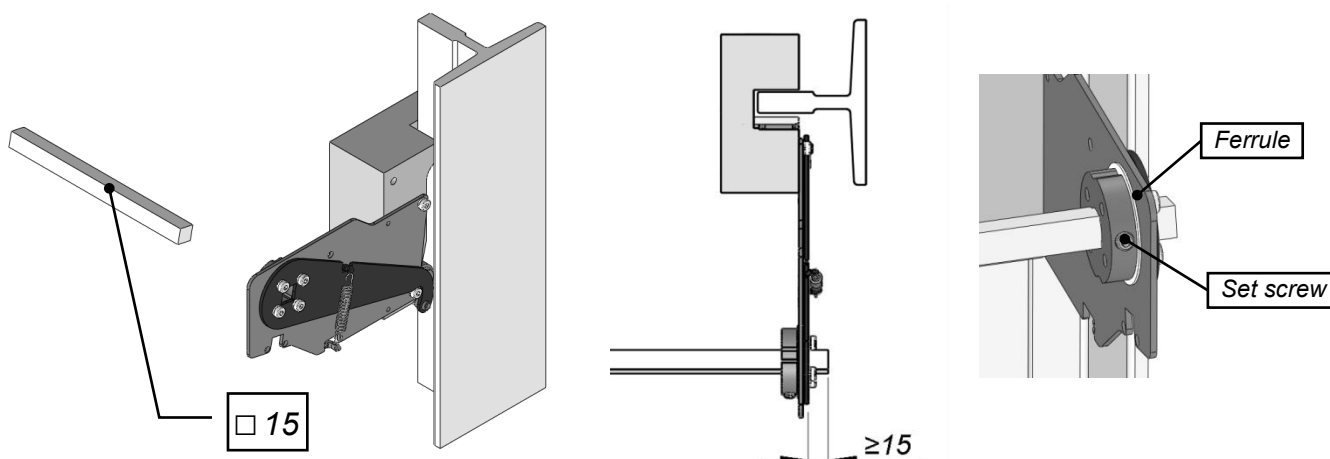
Once the safety gear is fixed to the car frame, the roller must be placed in the safety gear housing, by means of the linkage levers, as in the figure below or similarly.

It will then be checked that the linkage allows the roller to reach the final position of the ramp, that the said lever does not interfere with the guide rail and that the system returns to neutral position perfectly.



2.2 DRIVING BAR

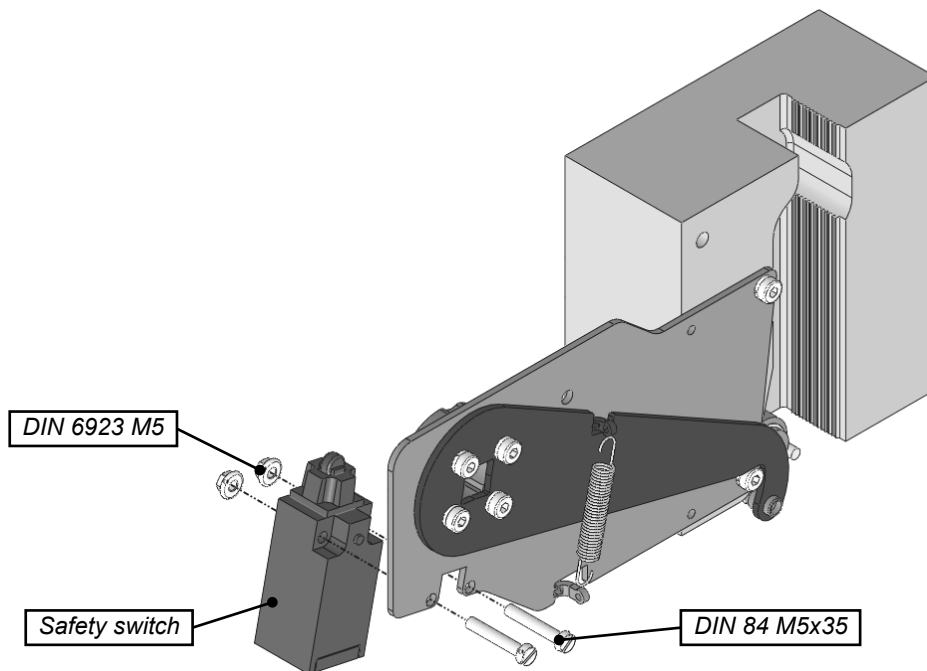
Once the safety gear is fixed, we must assemble the driving bar, which must be a square of 15x15mm at both ends. Loosen the set screws and insert the bar through the ferrules of both linkages. Place the bar so that it surpasses at least 15mm from each side and tighten the set screws to fix the bar.



INSTRUCTIONS**3.- CONNECTION**

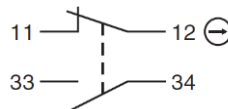
In compliance with section 5.6.2.1.5 of standard EN81-20, fix an electrical safety switch to the linkage of the safety gear or directly to the chassis, so that it can command the stop of the machine if the safety gear trips.

Fix the safety switch to the linkage or chassis by means of 2 DIN 84 M5x35 screws and DIN 6923 M5 nuts and then connect it to the series of safeties, in the position of normally closed.



The electrical safety switch is PIZZATO FR515-S18 (1NC, 1NO) or similar, and its features are as follows:

AC-15 6A/250Vac
DC-13 0,3A/250Vdc
IP67

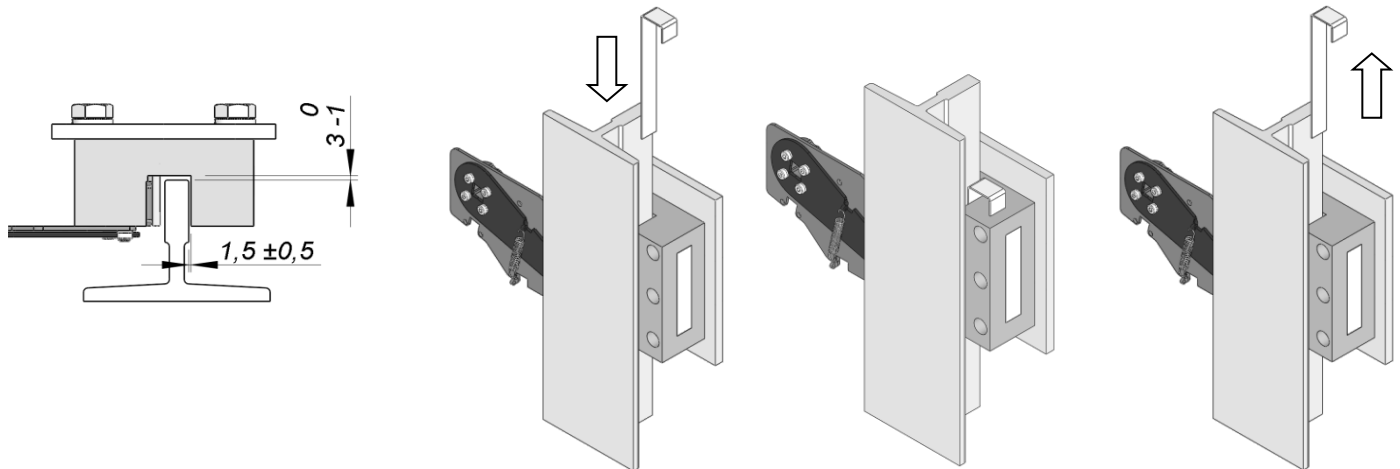


To check its correct functioning, act manually on the lever of the linkage and see that the lift cannot possibly work.

4.- ADJUSTEMENT**4.1 SAFETY GEAR**

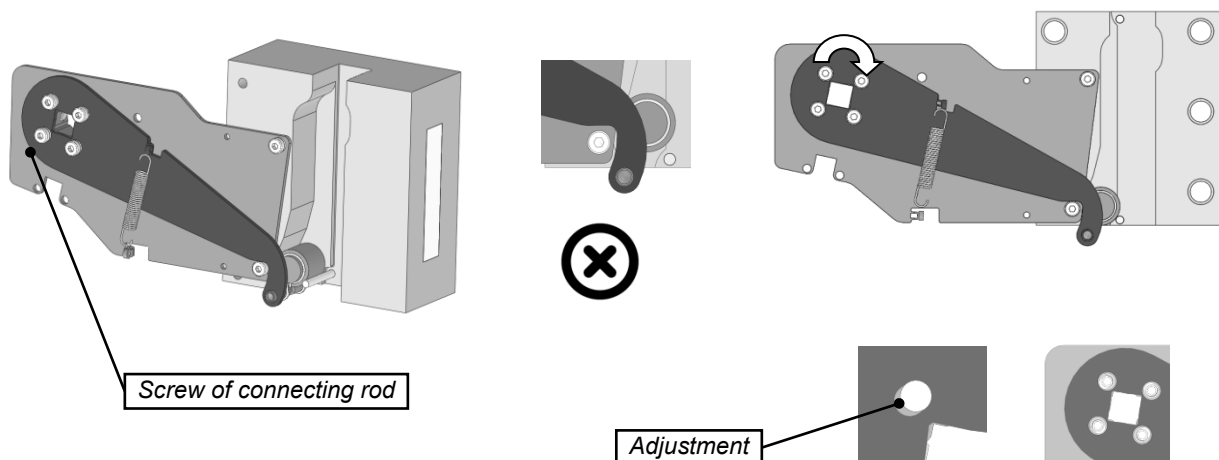
With the help of gauges, check the position of the safety gear and check the two measures shown in the drawing below. If the measures are out of tolerance in any of the directions, loosen the screws of the safety gear and, with the gauge placed as shown in the image, adjust the safety gear, tighten the screws again and remove the gauge. It is very important to check that the safety gear is lateral and frontally parallel to the guide rail.

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4.2 DRIVE

Check that the connecting rods in both linkages lie on the lower screw and that the rollers are located in the lower lodging. Otherwise, loosen the screws of the connecting rod, adjust their position and then tighten them again.



By manually acting on the linkage, check that the connecting rods turn correctly, that there are no interferences of the linkage with any element in the installation and that the linkage recoverer can return the roller to its neutral position.

5.- TESTS

The tests described in this document will be performed following the instructions of standard EN 81-20 Section 6.3 "Inspections and tests before the implementation", 6.3.4 "Car lift safety gears" and 6.3.5. "Counterweight safety gears".

That is to say, to do the tests of the car lift safety gear, the car must be loaded with 125% of the nominal load and it must move at nominal speed. For the tests of the counterweight safety gear, the car must be empty and it must move at nominal speed.

INSTRUCTIONS**5.1 BEFORE THE TEST**

Perform the following operations before the test:

- *Check that the guide rails and the safety gears are clean and free from foreign bodies.*
- *Check that the guide rails do not have marks from previous brakings.*
- *Check that the linkage rotates and returns to its original position correctly.*
- *Travel the lift several times at reduced speed and check that there is no noise produced by the friction of the safety gears with the guide rails.*

Otherwise, clean and oil the guide rails if required for the installation, grind down the braking marks until they are removed and adjust the linkage.

5.2 TEST

There will be nobody in the shaft, on or inside the car during the tests.

In order to unload the car more easily, the tests will be performed at the level of one of the landing doors.

The test itself will be performed as follows:

5.2.1 CAR LIFT SAFETY GEAR

- *Load the car lift uniformly with 125% of the nominal load.*
- *Command a full travel of the lift, from the upper floor to the lower one, so as to make sure that the nominal speed is reached.*
- *Open the brake of the machine.*
- *Activate the governor speed remotely when the car is at one of the lower floors, but never at the lowest.*

5.2.2 COUNTERWEIGHT SAFETY GEAR

- *Completely unload the car.*
- *Command a full travel of the lift, from the upper floor to the lower one, so as to make sure that the nominal speed is reached.*
- *Open the brake of the machine.*
- *Remotely activate the governor speed or the system that simulates the breaking of the suspension organs when the car is at one of the upper floors, but never at the highest.*

5.3 AFTER THE TEST

Check that the inclination of the car is not higher than 5%. If the inclination is higher, then the test will not be valid.

Perform the following operations after the test:

- *If the car safety gear has been tested, unload the car and travel it to the floor immediately above.*

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- *If the counterweight safety gear has been tested, travel the car to the floor immediately below.*
- *Check if the safety gear, the linkage or other components are damaged.*
- *Measure the braking mark and check that it is similar in both guide rails.*
- *Grind down and clean until the braking mark is erased.*
- *Return the manoeuvre-governor-linkage system to its original position and leave it ready for normal functioning.*

The existence of faults in the safety gears or a substantial difference in the braking marks will also make the test void.

5.4 BRAKING DISTANCE.

The maximum braking distance will not be higher than 40mm.

6.- MAINTENANCE

To guarantee the correct functioning of the safety gears all along their useful life, we must perform a functioning test of the safety gears annually. The test will be similar to the one described in section 5, but the car lift will be empty and it will move at inspection speed.

In addition, we shall annually perform the following maintenance tasks:

6.1 SAFETY GEAR AND GUIDE RAILS

- *Check that no foreign body is located between the safety gear and the guide rail or in the linkage and its accessories.*
- *Perform a visual inspection of all the equipment in order to detect possible superficial damage or the effects of corrosion.*
- *If the guide rails are oiled, lubricate them with oil type ISO VG 68 or similar.*
- *Look for any possible marks as a consequence of tripping. If any is found, grind them down, so as to restore the braking area of the guide rail.*

6.2 USEFUL LIFE

The useful life of the safety gear cannot be defined with regards to a specific period of time; the safety gear can work provided the results of the maintenance tests above are satisfactory.

After tripping or following periodic testing, it is not necessary to replace the braking elements Unless the braking distance is abnormally long or any of its elements appears to have deformation or damage. In case the roller spring is deformed and subsequently replaced, it will be tested. A low-speed, no-load test shall suffice to make sure it operates properly. In case of replacement of the roller or the safety gear block, the test must be carried out according to section 5.2.