INSTRUCTION MANUAL

HYDRA 3000

INSTRUCTION HANDBOOK
LANDING DOORS

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safety in motion™

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MOD.	DESIGNATION	DATE
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INDEX

The points that are important under the safety viewpoint and danger warnings are indicated with these symbols:


Danger general


Important warnings


Risk of personal injury (e.g. sharp edges, protruding parts)


Risk of damage to mechanical parts (e.g. incorrect installation)


Live parts

Congratulations on choosing a WITTUR product!
Before starting the installation of this product, read the information contained in this document.
Before installation work begins, it is in your own interests to clarify what structural and spatial conditions are available for installation work, so that you can see which installation procedures should/must be carried out. Therefore it is recommended that all circumstances be taken into consideration, and to mentally plan the installation sequence before any rash or badly planned work is carried out. Check the goods or parts for correct and full delivery upon receipt.
You will find important warnings on how to assemble and maintain your WITTUR product in good operating conditions and to get the maximum of your investment.
You will also find important information concerning the product care and maintenance which are an important factor to ensure safety at all times.
WITTUR has long been involved in research aimed at reducing noise level and in design that takes into due consideration the product quality and the conservation of environment.

☞ This document is an integral part of the supply and must be available in the lift power room at all times.
All products are provided with identification type label and in case with certification marks in accordance with the current rules.
In case of need concerning the product, the identification data on the label must be always communicated to us.
We hope you will get full satisfaction from this WITTUR product. Yours faithfully.

WITTUR

☞ WARNINGS

- WITTUR will not be held liable for any damage caused by tampering of the packing material by thirds.
- Before starting assembly, check that the product received corresponds to the order and to the packing list and that no damage has occurred in transit.
- Within its policy of continual research, WITTUR reserves to make changes to its products without notice. The figures, descriptions and data contained in this manual are intended as purely indicative and not binding.

⚠
- To ensure the safety of the product, avoid any alteration or tampering.
- WITTUR liability will be limited to the original components only.
- WITTUR product is intended for use in the lift sector only, therefore WITTUR liability shall be limited to such use.
- This product is intended for professional use. Any improper use, including for hobby or DIY, is prohibited.

- In order to prevent any injury to persons and damage to property, the handling, installation, adjustment and maintenance must be carried out by suitably trained personnel, using appropriate clothing and equipment.
- Any masonry work connected with the correct installation of the product must be executed in a workmanlike manner according to the applicable laws.
- The connection of the electric/electronic units to the local power supply must be executed in a workmanlike manner according to the applicable laws.
- All metal parts supporting the electric/electronic units must be connected to an earth system in a workmanlike manner according to the applicable laws.


- Before connecting the product to the power supply check that the product's requirement corresponds with the power supply available.
- Before starting any work on the electric/electronic components disconnect power from the system.
- WITTUR shall have no responsibility on the execution of masonry works or the connection of electric/electronic components to the power supply.

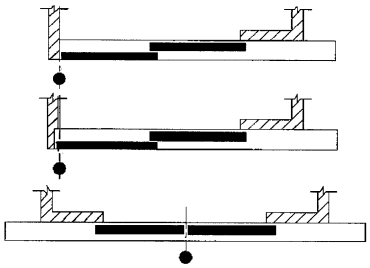

- WITTUR shall not be liable for damages/injury to property/persons caused by improper use of the emergency opening devices.

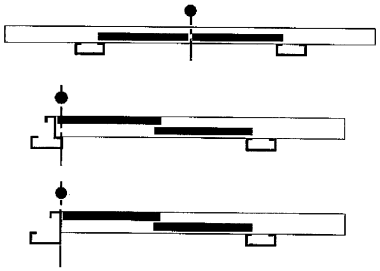
☞ SUGGESTIONS

- Keep the material in the original packing, protected from bad weather and direct exposure to sun during the storage period in order to avoid the accumulation of water/condensation inside the packing material.
- Never dispose of packing material in the environment.
- Once dismantled, the product should be conveniently disposed as provided for by the local laws; never dispose of in the environment.
- Whenever possible, re-cycling is preferable to disposal in dump sites.
- Before re-cycling check the nature of the various materials and re-cycle in the appropriate way.

1. LANDING DOOR ALIGNMENT WITH CAR DOOR

The red buffer on top track fixing screw, represents the vertical reference for the position of all the landing and car doors. While for the telescopic doors the red buffer indicates the door's clear opening line, runby excluded, for central opening doors it indicates the center of the clear opening.





2. ASSEMBLY OF PANEL FIXING BOLTS

Each panel must have at least two fixing points.
Type 01/C and DIN 18091 norms: place the panel (1) fixing bolts as shown on fig.1.
Type 41/C and Type 41/C according to DIN 18091 norms: place the panel (1) fixing bolts as shown on fig.2.

Ty.01/C and Ty.01/C DIN 18091

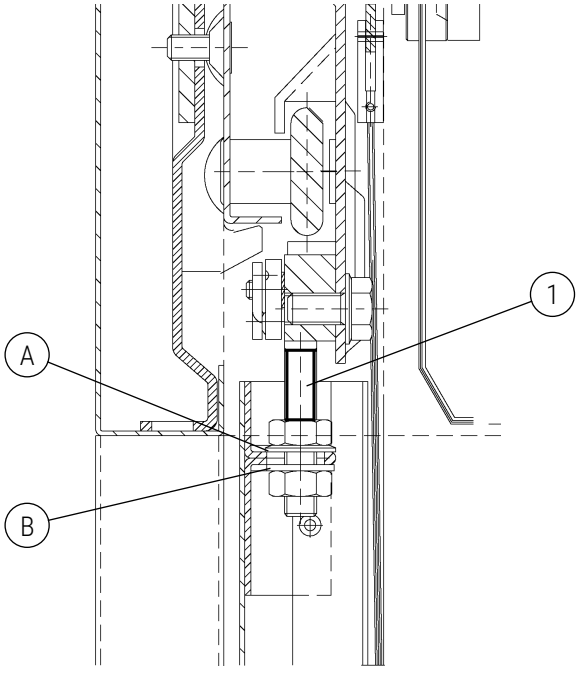


Fig. 1

Ty.41/C and Ty.41/C DIN 18091

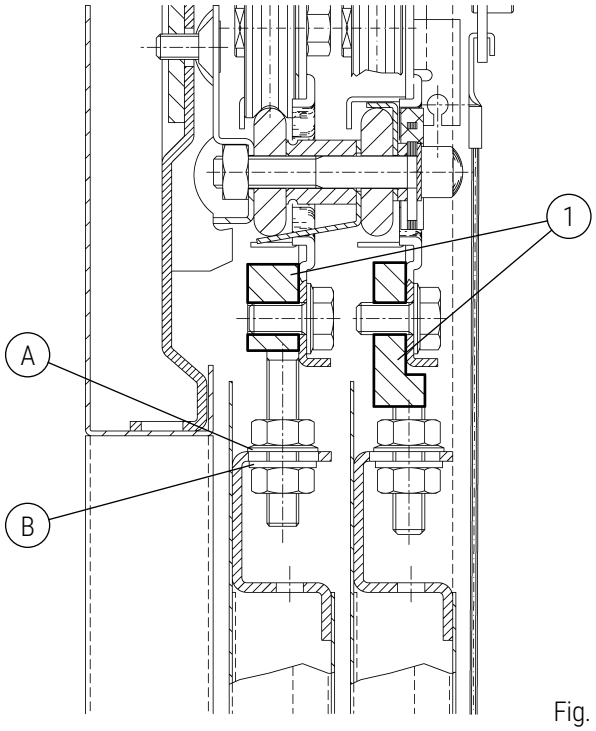


Fig. 2

Type 11/R-L Standard - not coated: place the panel (1) fixing bolts as shown on fig.3.
Type 11/R-L Standard - coated according to DIN 18091: place the panel (1) fixing bolts as shown on fig.4.
Type 11/R-L Fire test: place the panel (1) fixing bolts as shown on fig.5.

Ty.11/R-L Standard - not coated

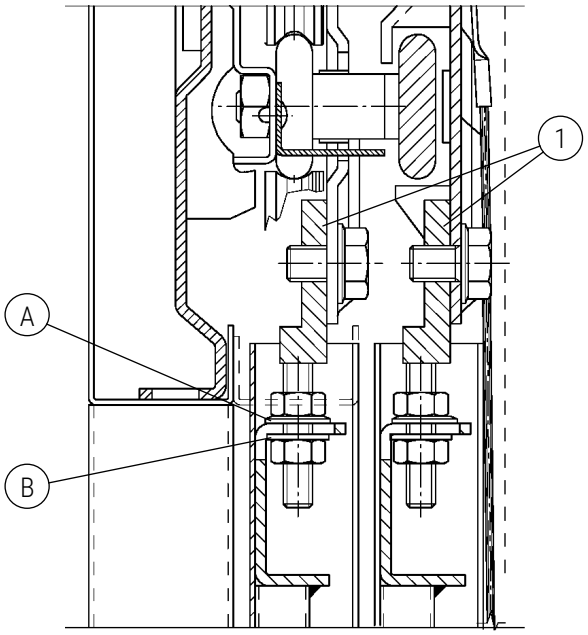


Fig. 3

Ty.11/R-L Standard - coated according to DIN 18091

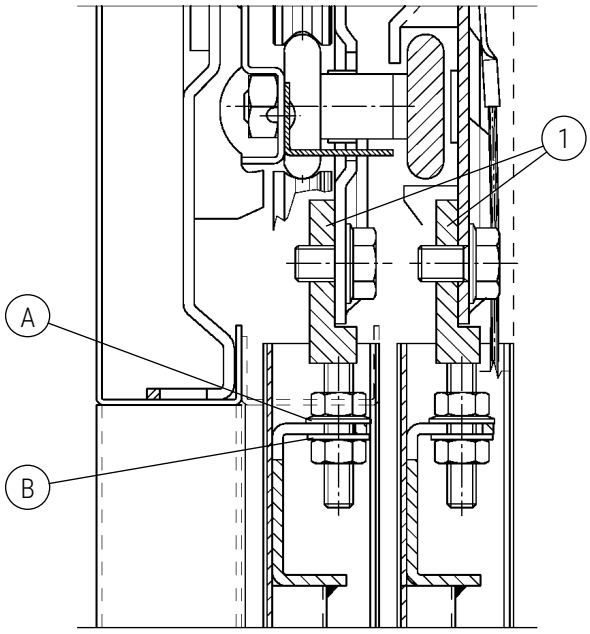


Fig. 4

Ty.11/R-L Fire test

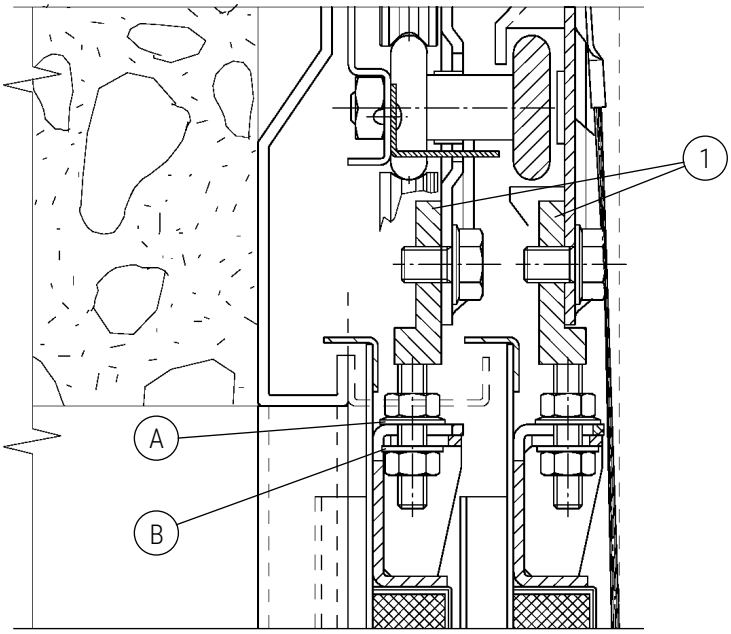


Fig. 5

Type 31/R-L: place the panel (1) fixing bolts as shown on fig.6.
Type 31/R-L according to DIN 18091 norms: place the panel (1) fixing bolts as shown on fig.7.
The "A" type conical washers should be placed on the top part of the door fixing profile. The "B" type flat washer beneath.
NOTE: To improve the adjustment of the fast panels use the "C" washers.

Ty.31/R-L

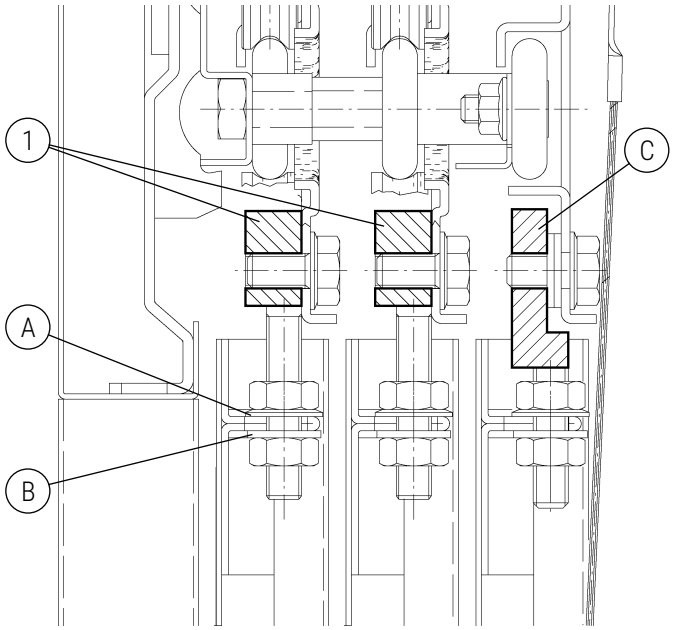


Fig. 6

Ty.31/R-L DIN 18091

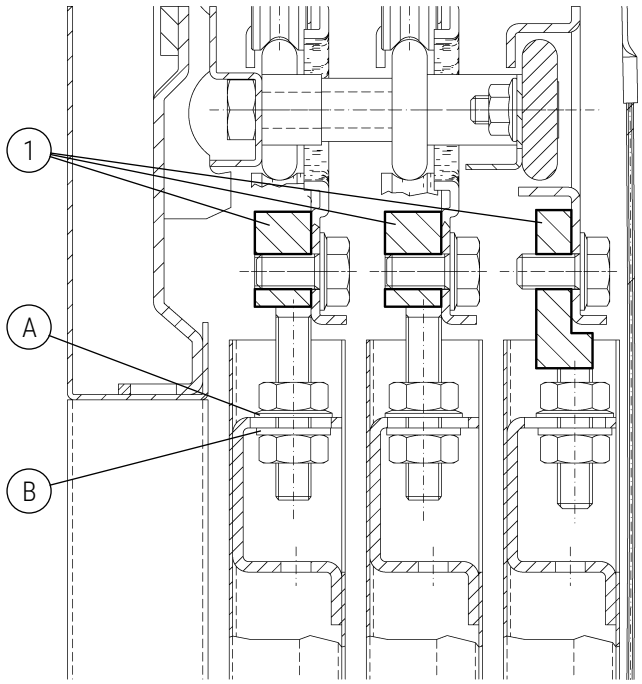


Fig. 7

3. GAP RECOVERY

When the panels are hung to the hanger tracks the fixing screws should be placed according to figure (1). For standard opening doors (up to 850 mm) the distance between the screws "B" is small compared to the clear opening height (at least 2 metres high). This means that the clearance "A" can be varied by means of adjusting panel hanger bolts, which permits up to 30 mm of adjustment. This can be avoided by installing panels as figure (2) during erection. The panel height adjustment must be made after having effected the clearance recovering.

Standard position for the fixing screws of panel hanger bolts at the time of assembling.

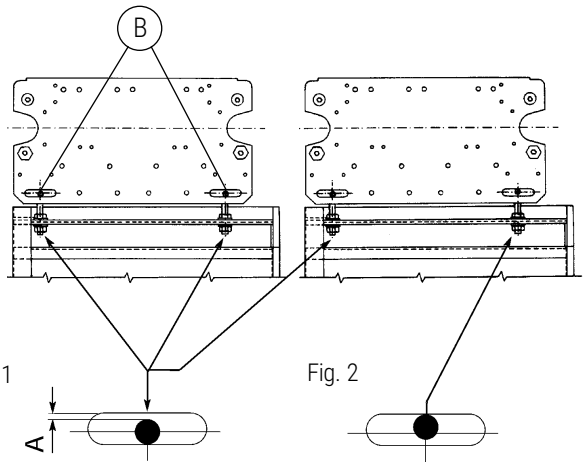


Fig. 1

Fig. 2

Position to be assumed by the fixing screws of panel hanger bolts; in order to get it, please push the panel in the direction of the opening.

For door types 31/R-L and 41/C it is necessary to mount a stiffening bracket to each panel.
Aim of this bracket is to avoid the excessive panel spread and has to be adjusted to a max distance of 1 mm from the guide rails as shown in Fig.4.
More details on their assembly and adjustment are available in the informative worksheet code 3201.32.0363.

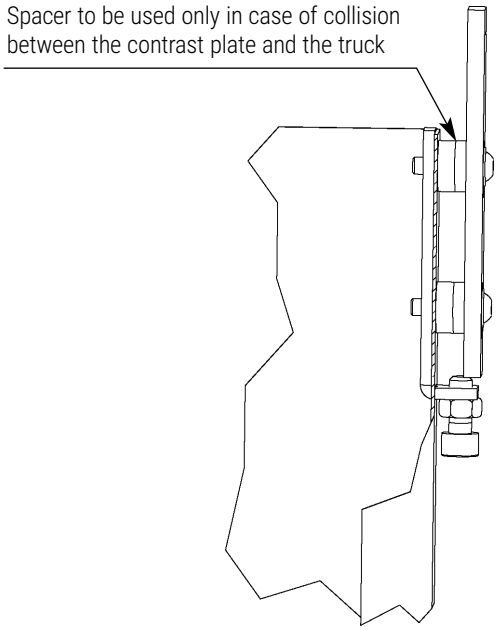


Fig. 3

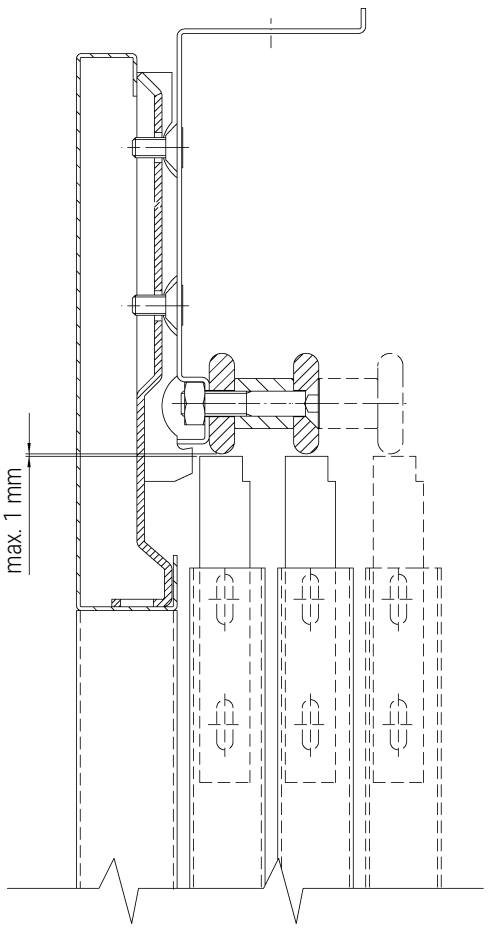


Fig. 4

4. BOTTOM SLIDING SHOES ASSEMBLY

The shoe on the retaining pin is mounted with slight pressure until the proper tongues fit inside the groove (figure 1).
For the disassembling it is sufficient to push it from the rear side and at the same time with a small screw-driver to, part the tongues (1) one after the other.
The shoe mounting and disassembling to the panel is very easy even with assembled panels: in fact it is enough to turn them 90 degrees, put them in a horizontal position (figure 2) and pull them towards the outside or push them into the sill's groove.
The pin's eccentricity and the presence of the slots allow considerable adjustment.
Fix bottom sliding shoes of the opening side as drawing Fig. 3, so that in case of breaking down of door panel the bottom shoe can't fall out from the sill channel.

☞ Each door must have at least two sliding blocks.

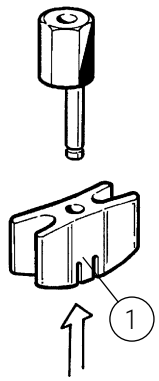


Fig. 1

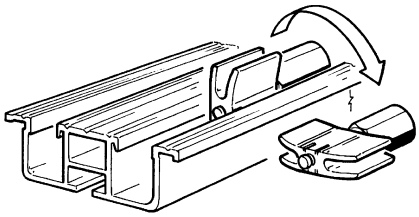


Fig. 2

SINGLE PLATED DOOR

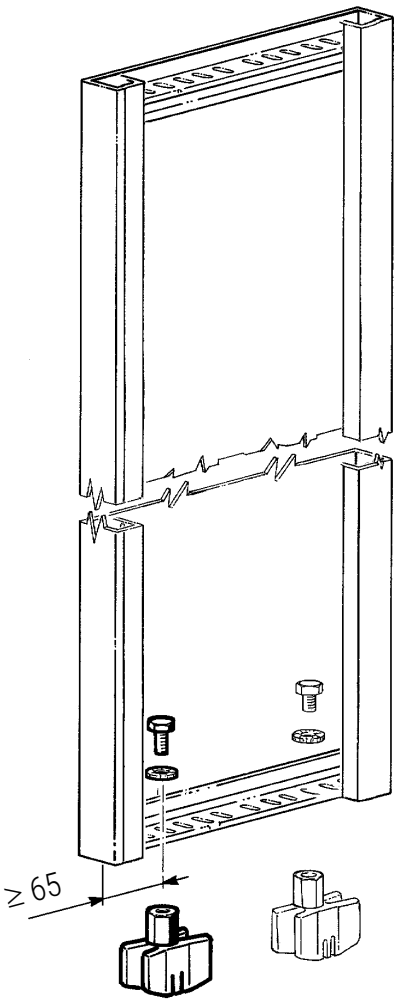
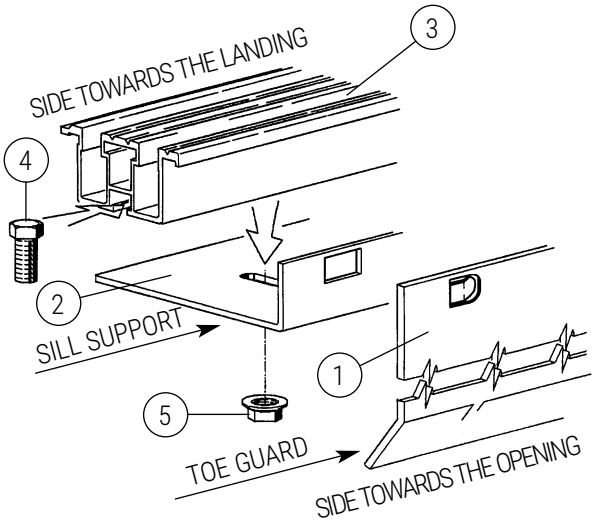


Fig. 3

5. ASSEMBLY OF SILL AND TOE GUARD TO SUPPORT

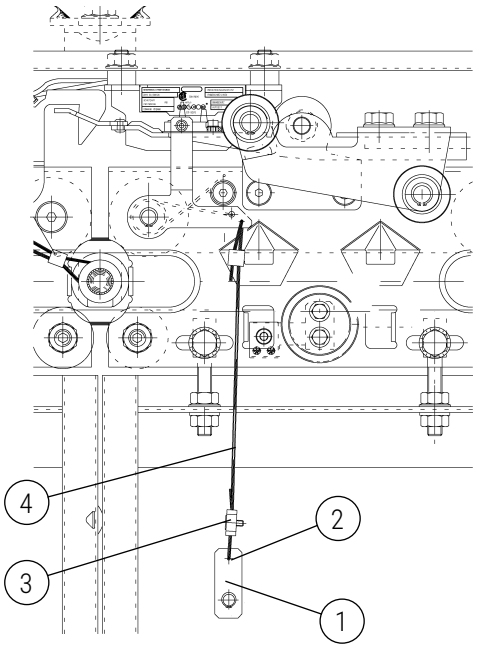
When screws (4) have been inserted into the groove, place the aluminium sill (3) and fix to the sill support by means of nuts (5). Place the toe guard (1) on the sill support (2) so that the toe guard tongues are inserted into the sill support slots. Push the toe guard towards the right to embed it.



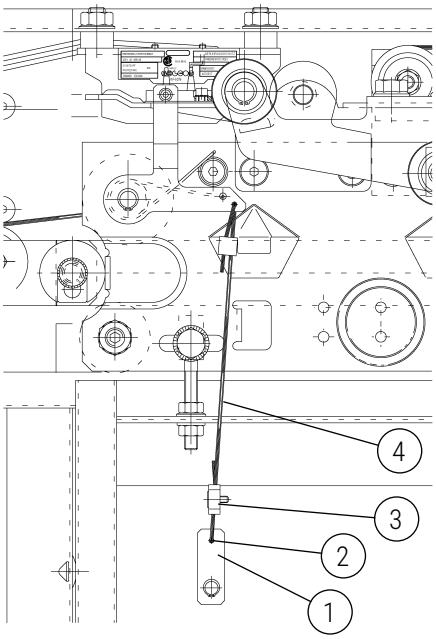
6. ROPE ASSEMBLY FOR EMERGENCY RELEASE ON DOOR PANEL

- Place the emergency release block 1 upwards.
- Let the rope 4 pass through the hole 2 and insert the clamp 3.
- Give tension to the rope 4 and tighten the clamp 3.

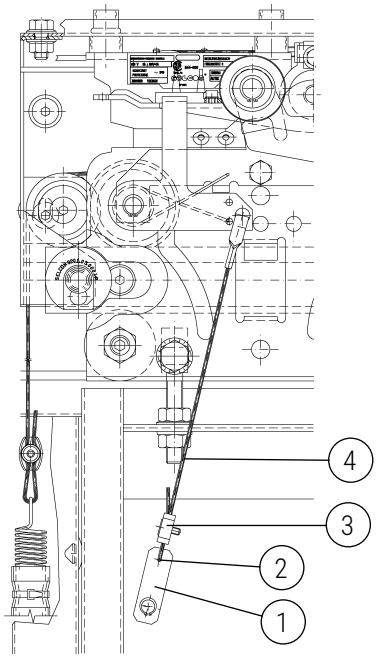
Ty.01/C



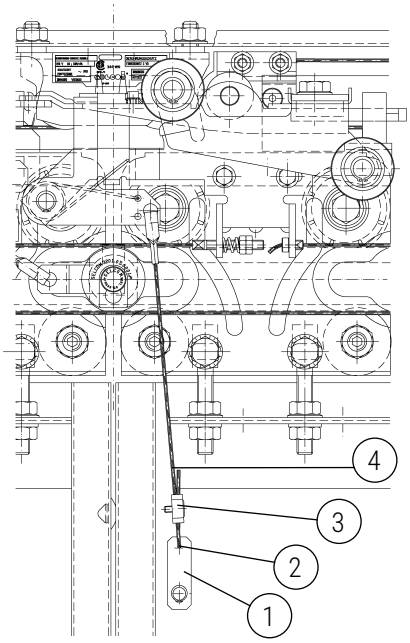
Ty.11/R-L



Ty.31/R-L



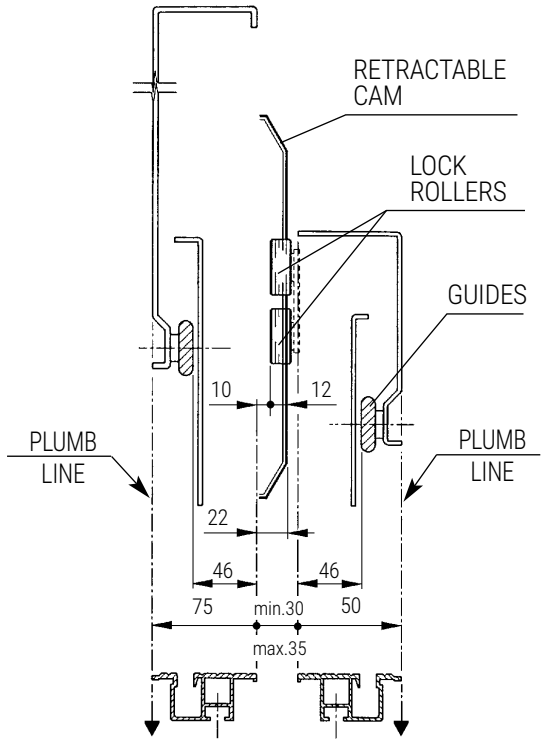
Ty.41/C



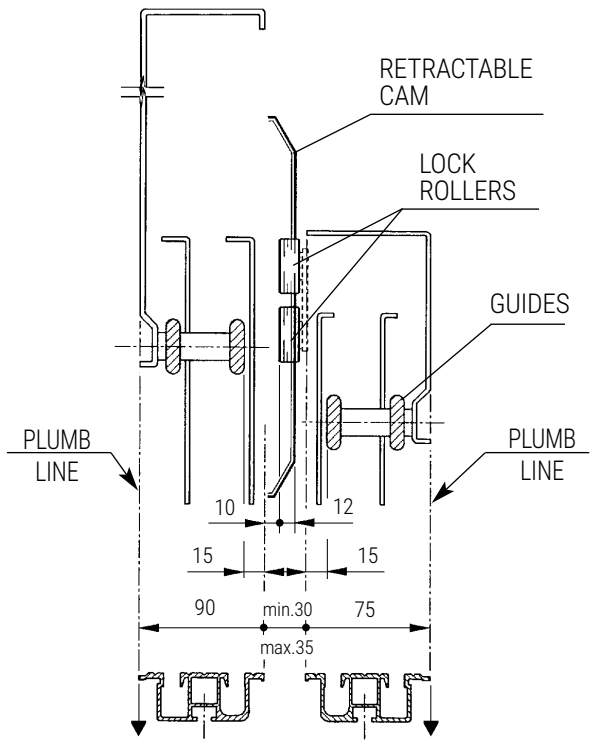
7. PLACING THE MECHANISMS ON THE THRESHOLDS

Align to plumb with reference to the internal edge of the thresholds.

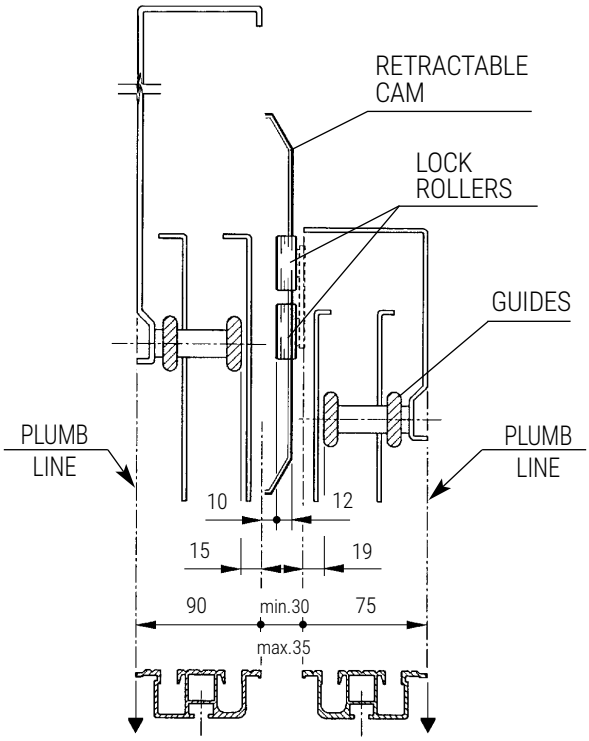
HYDRA PLUS Ty.02/C- HYDRA 3000 Ty.01/C



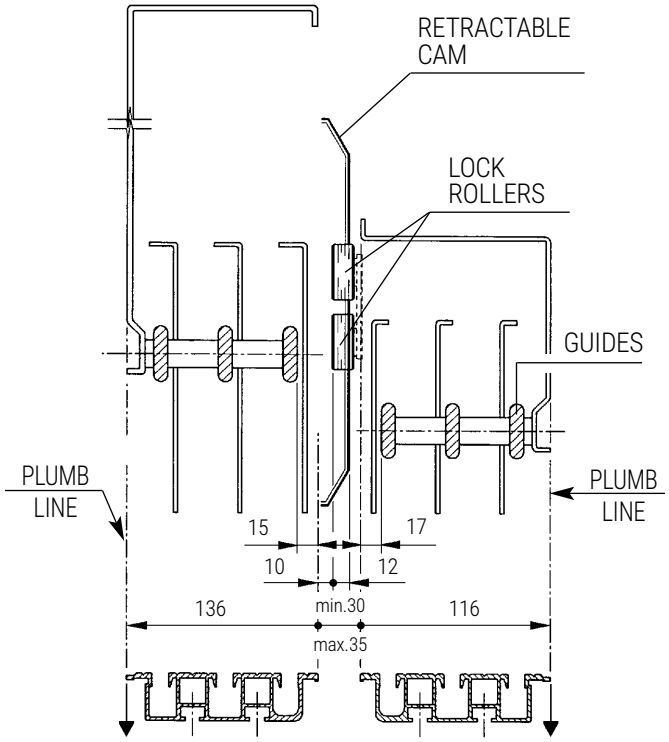
HYDRA PLUS Ty.12/R-L- HYDRA 3000 Ty.11/R-L



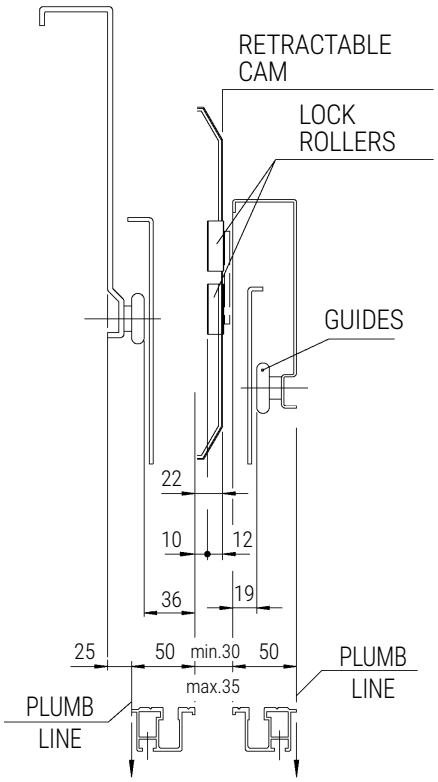
HYDRA PLUS Ty.44/C- HYDRA 3000 Ty.41/C



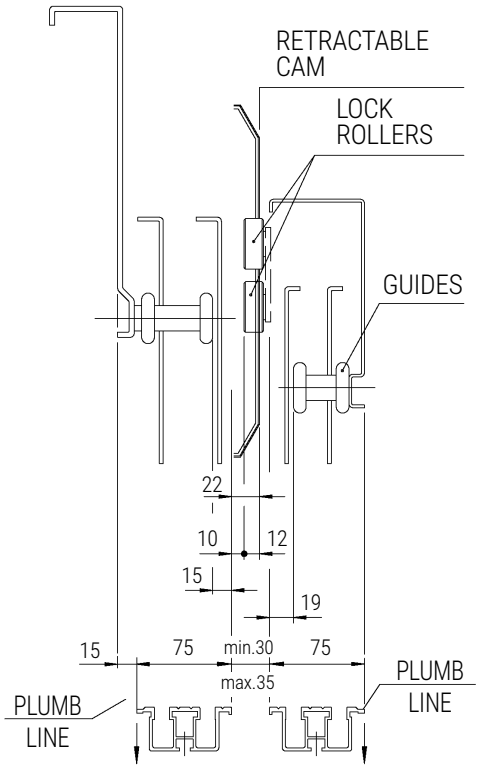
HYDRA PLUS Ty.32/R-L - HYDRA 3000 Ty.31R-L



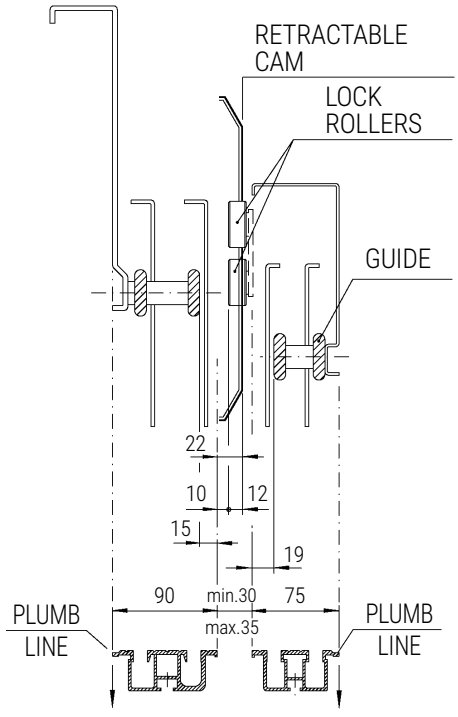
HYDRA 3000 Ty.02/C- HYDRA 3000 Ty.01/C



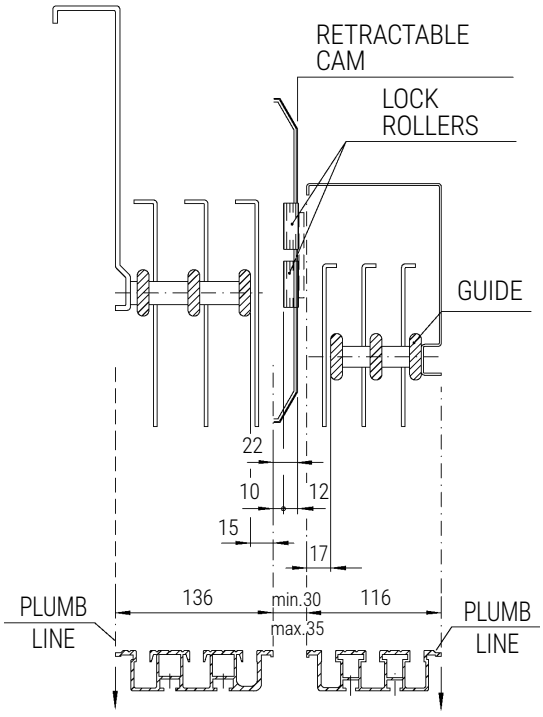
HYDRA 3000 Ty.12/R-L- HYDRA 3000 Ty.11/R-L



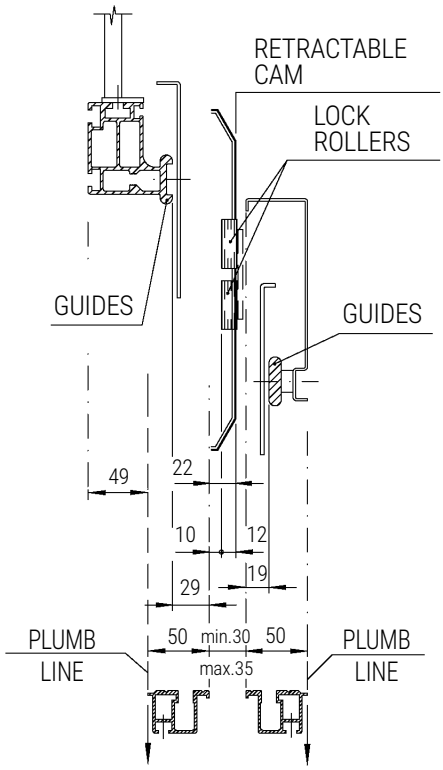
HYDRARM Ty.44/R- HYDRA 3000 Ty.41/C



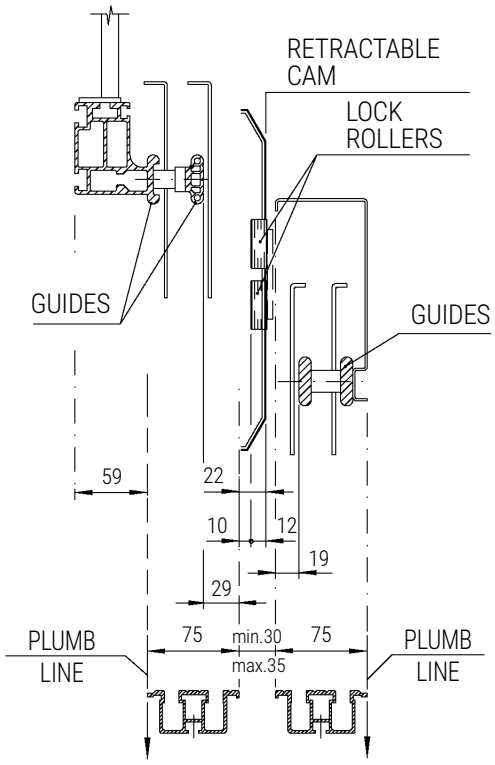
HYDRARM Ty.32/R-L - HYDRA 3000 Ty.31R-L



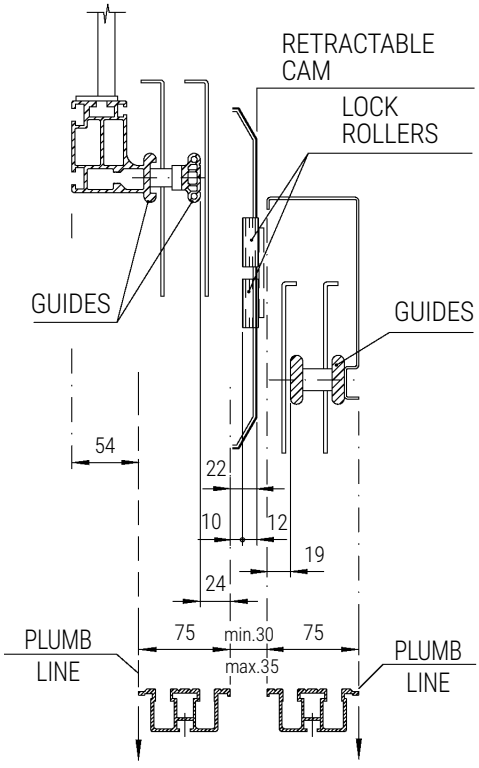
PIUMA Ty.02/C - HYDRA 3000 Ty.01/C



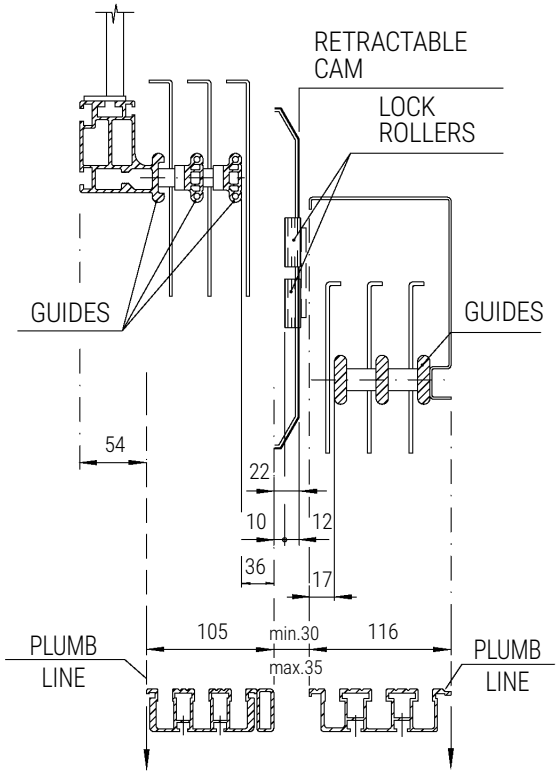
PIUMA Ty.12/R-L - HYDRA 3000 Ty.11/R-L



PIUMA Ty.44/C - HYDRA 3000 Ty.41/C



PIUMA Ty.35/R-L - HYDRA 3000 Ty.31/R-L

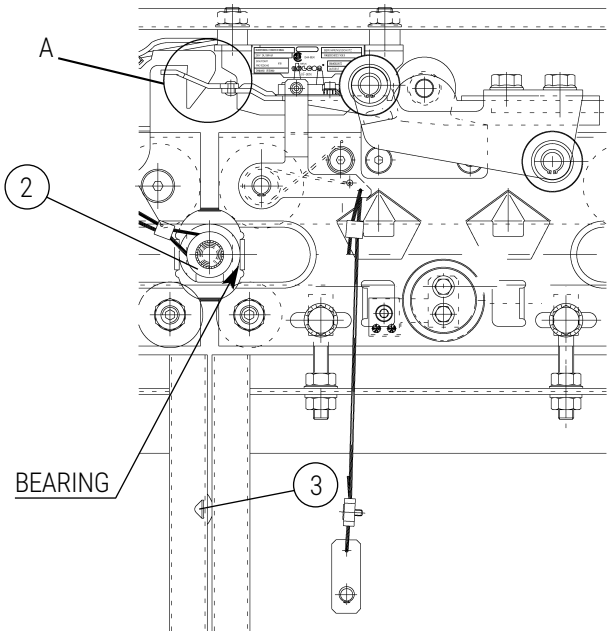


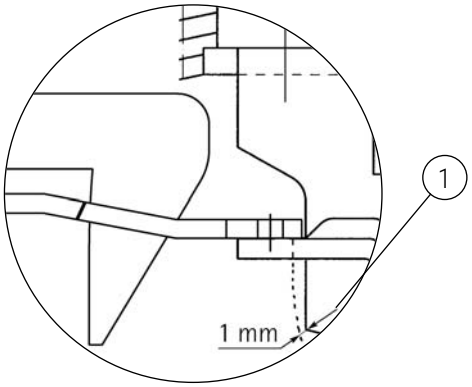
8. ADJUSTMENT OF DOOR CLOSING

To adjust, operate on the door fasteners only.
Place the door at 1 mm from the relevant rubber pad (3) when the trolley is facing the rubber pad (2).
In this situation, the hook must pass 1 mm away from the edge of the lock fixed part (1) during its rotation.

⚠ For safety reasons, only the fixed part of the lock can be adjusted transversally to the door movement.
No other operation is allowed.

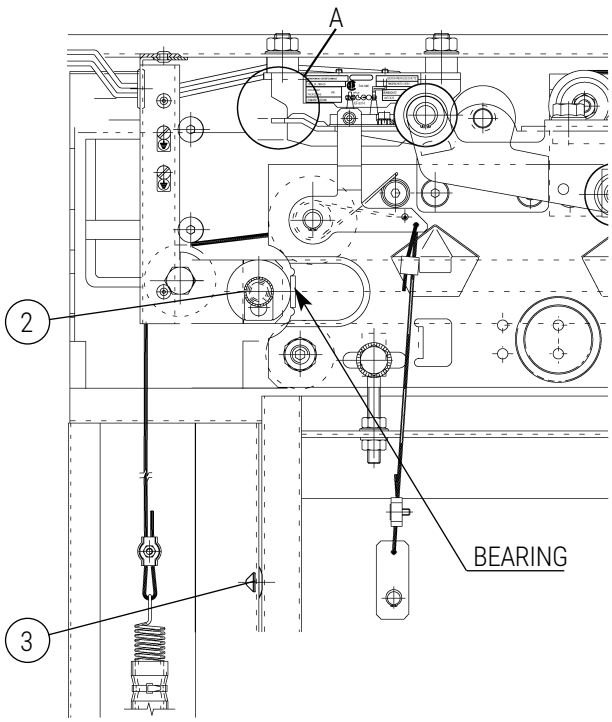
Ty. 01/C Ty. 41/C

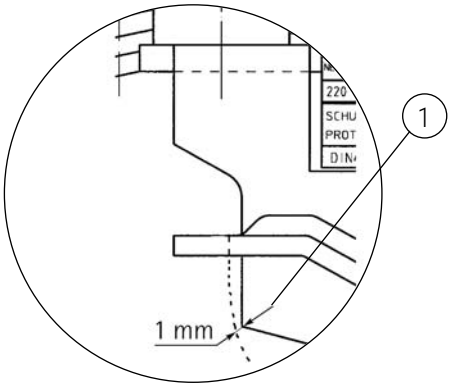




PART. A

Ty. 11/R-L Ty. 31/R-L

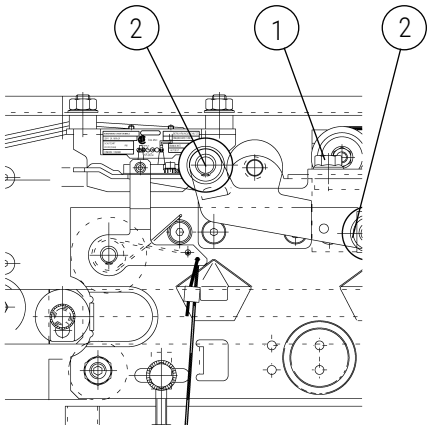


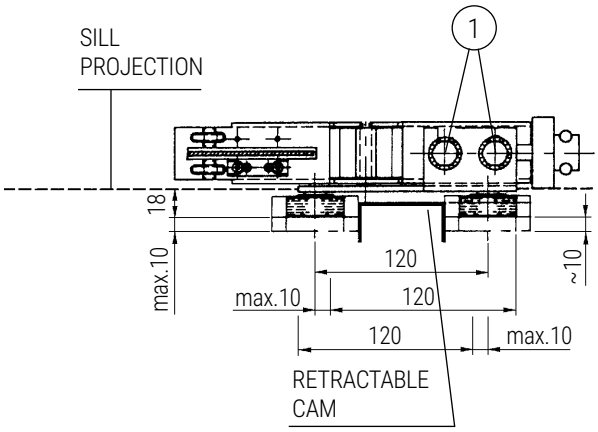


PART. A

9. ADJUSTMENT THE LOCK ROLLERS

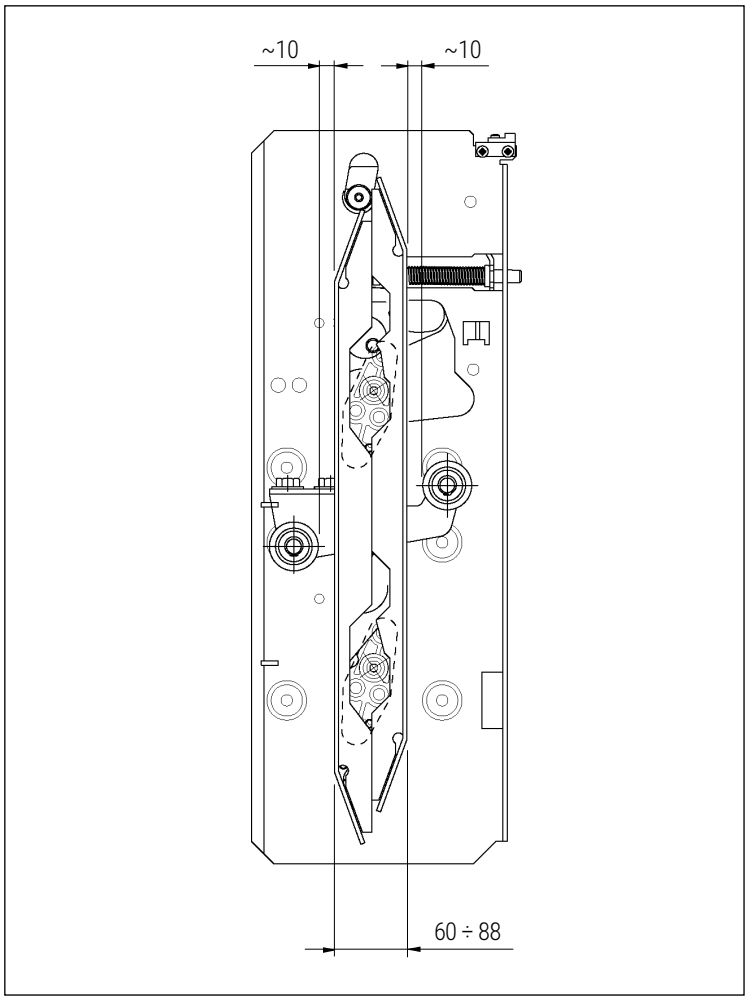
Using a CH-17 spanner, loosen screws (1) and set the alignment of the lock wheels (2), starting from the lowest level, as the car is operated upwards. Move the roller assembly so that it will be centred with the closed retractable cam (3), and have a 10 mm interference with said retractable cam.
Make sure that between the lock rollers and the car sill there is sufficient clearance to provide runby.





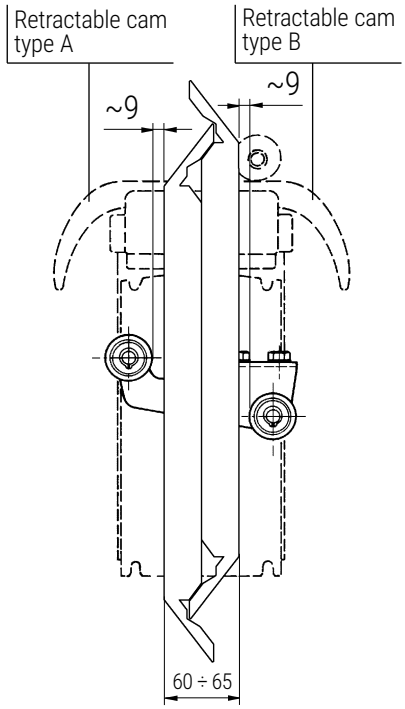
10. BELT-DRIVEN OPERATOR ECO-MIDI-SUPRA

Position of the retractable cam between the landing lock rollers.

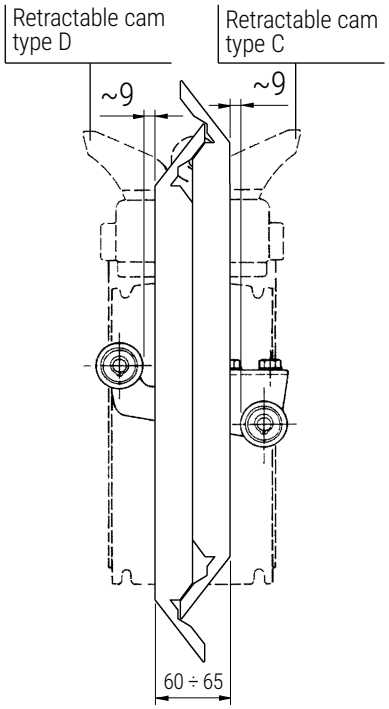


11. ARM DRIVEN OPERATOR

Position of the retractable cam between the landing lock rollers.



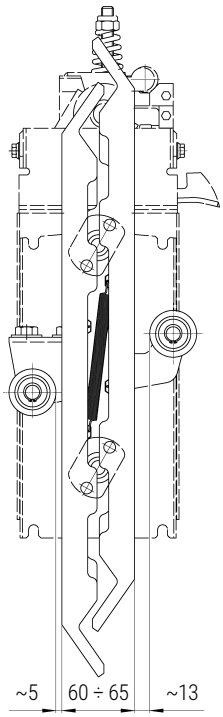
RETRACTABLE CAM TYPE **A/B** Fig. 1



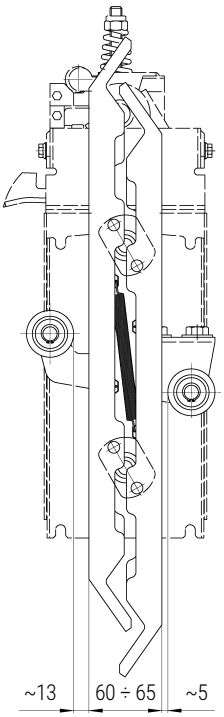
RETRACTABLE CAM TYPE **C/D** Fig. 2

12. BELT DRIVEN OPERATOR

Position of the retractable cam between the landing lock rollers.



RETRACTABLE CAM **L (LEFT)** Fig. 3



RETRACTABLE CAM **R (RIGHT)** Fig. 4

13. CLOSING CABLE REPLACEMENT

Type 01/C: take the rope and make a loop between the washers 1, tighten by means of an adjustable pincers the aluminium tube 2. Insert the other rope end through the roller 3 and through the eyelet of the spring 4. Stress the spring 4 to overcome the inertia of the panels , in each position they are placed, and fix the rope by tightening the nut of the clamp 5.
Type 11/R-L - 31/R-L - 41/C: insert the rope hook (1) as shown in Pict. 2-3-4. Insert the other rope end through the roller 2 and through the eyelet of the spring 3. Stress the spring 3 to overcome the inertia of the panels, in each position they are placed, and fix the rope by tightening the nut of the clamp 4.

Ty.01/C

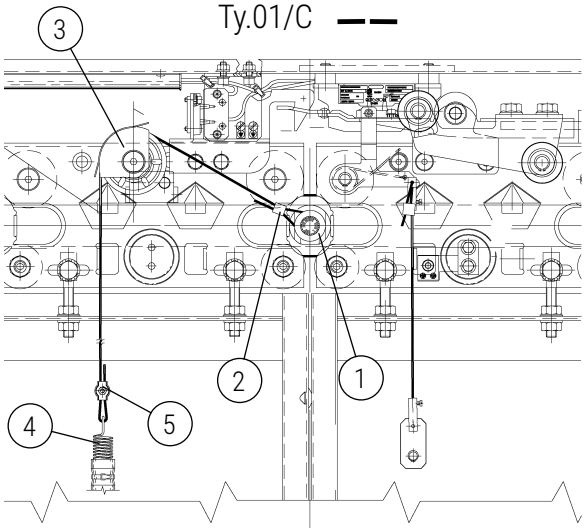


Fig. 1

Ty.11/R-L

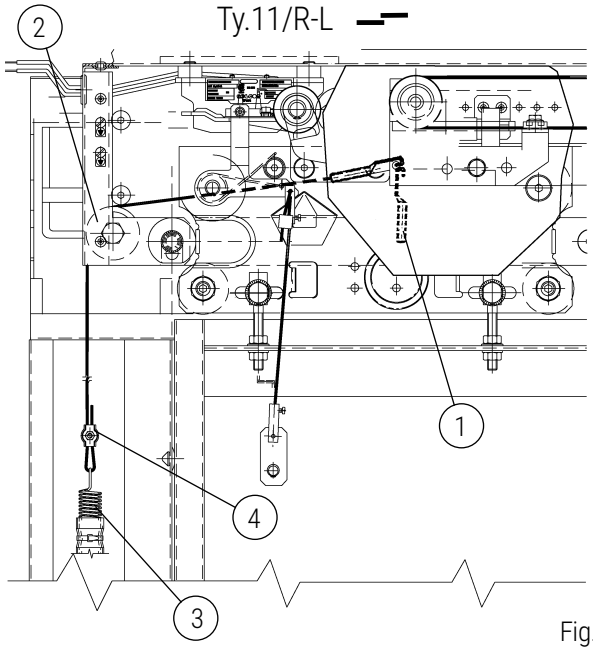


Fig. 2

Ty.41/C

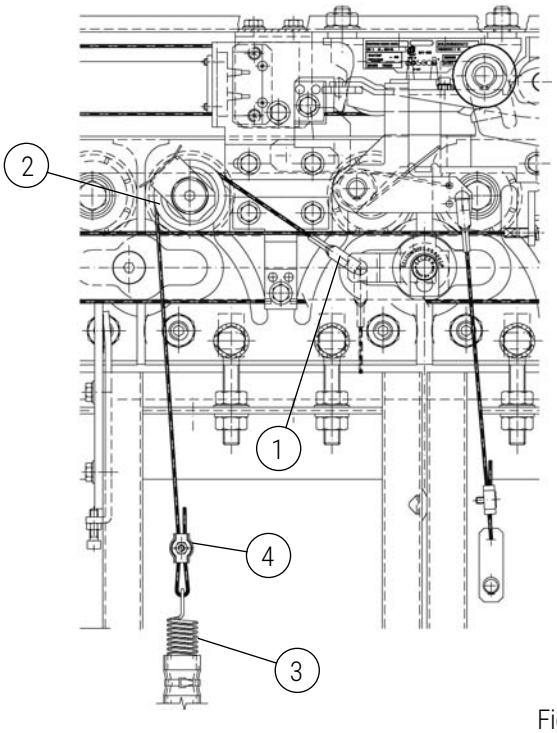


Fig. 3

Ty.31/R-L

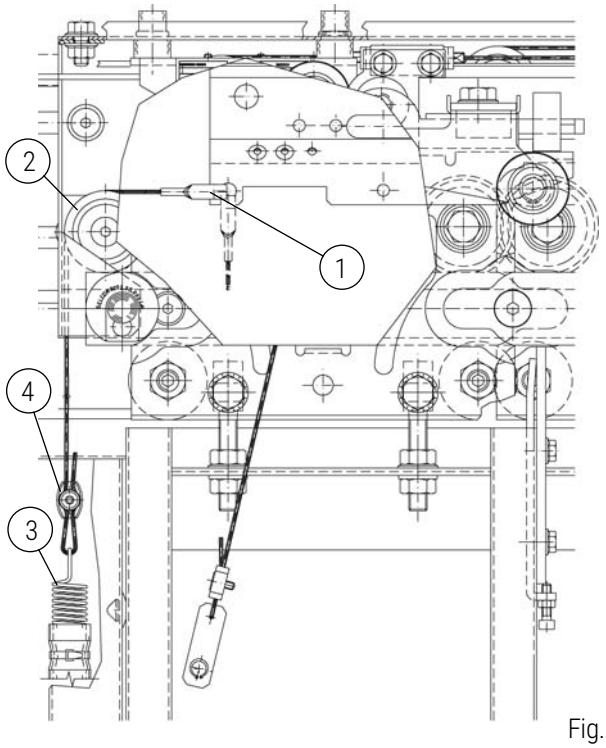


Fig. 4

14. SLIDING ROLLERS

The design of the top rollers race is different from the guide's so that they do not sit at the race centre (see figure 1).
These rollers should be replaced because worn out when a contact marking with the guide at the race bottom is noticed (See figure 2).
Other factors that indicate the need for wheel replacement are:

- Excessive noise of the bearing (caused by the penetration of dirt between the balls).
- Excessive noise due to eccentric deformation (normally this occurs when the doors stand still for long periods of time).

☞ Without any of the above listed problems we suggest to change the upper and lower rollers every 7 years.

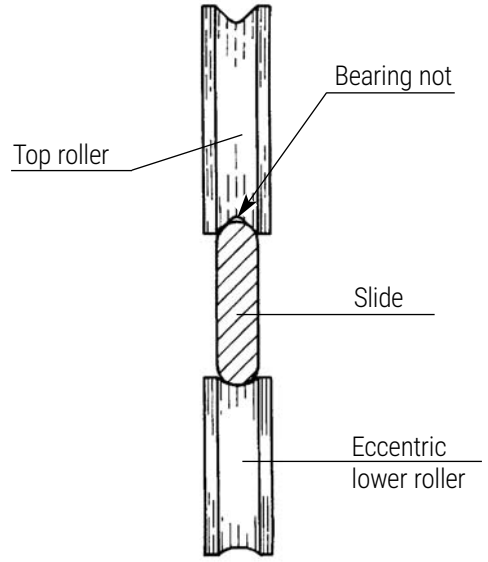


Fig. 1

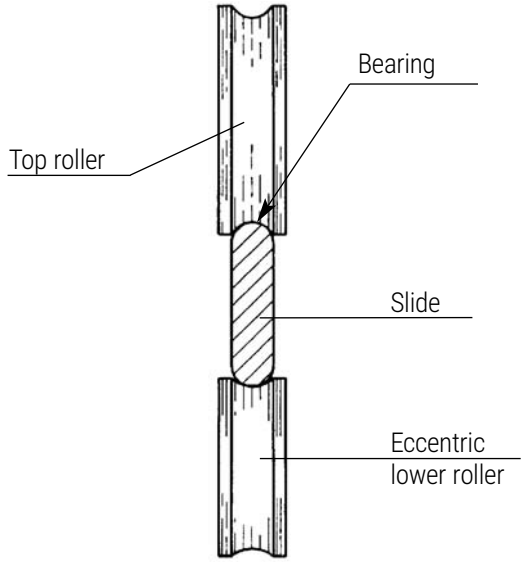
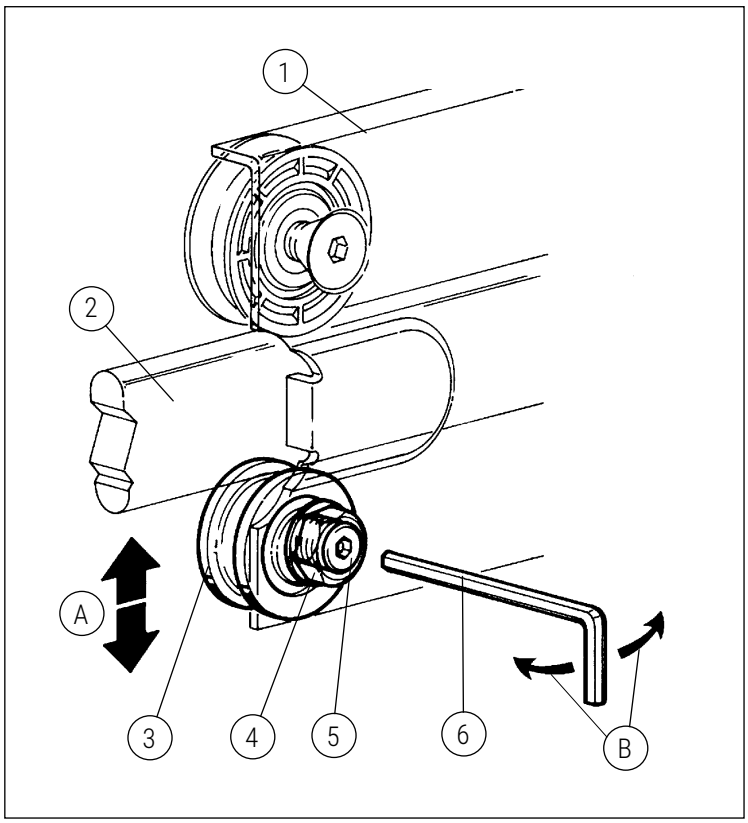


Fig. 2

15. SLIDING ROLLERS ADJUSTMENT

To get rid of the play between the hanger (1) and the sliding guide (2), adjust the excentric bolt on the bottom roller (3).
Unscrew the bolt (4) with a 19 mm spanner and turn the eccentric bolt (5) clockwise or anticlockwise, as indicated by the arrows (B) with a 6 mm allen-key (6) so as to get rid of the play between the guide and roller but leaving enough play to allow the roller to rotate freely.
After this adjustment, re-screw the roller stopping bolt (4).



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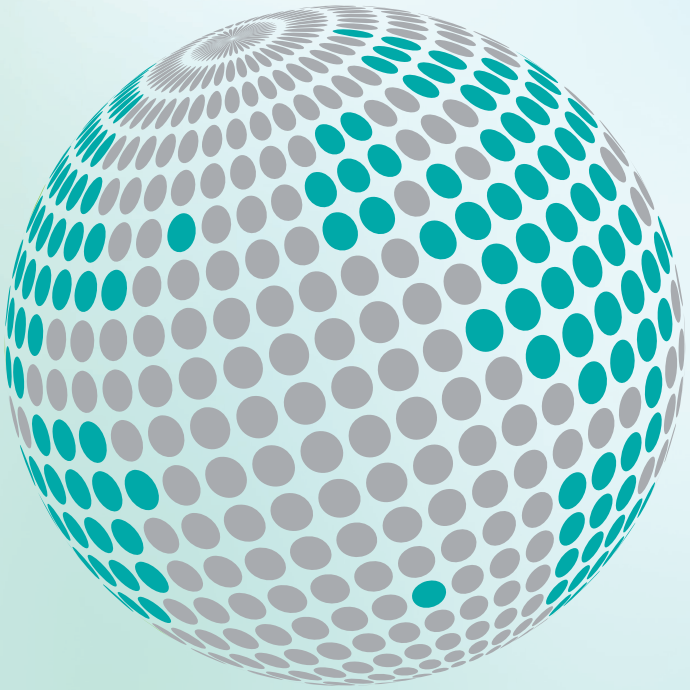

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WARNINGS ON HOW TO KEEP THE DOORS IN GOOD OPERATING CONDITIONS

In order to prevent failures or incorrect operation and to maintain the system in good conditions, the technical efficiency of the system should periodically be checked, to ensure compliance with the applicable laws.
The technical efficiency depends on various factors such as:

- Work load
- Years of operation
- Door weight
- Climatic and environmental conditions
- Cleanness of environment
- Correct maintenance
- Etc.

And it can affect:

- Clearance/interference between the doors, and between the doors and posts according to the applicable laws
- Clearance of coupling device
- Status/conditions of fixing and coupling elements
- Conditions of parts affected by wear
- Efficiency of the lock and relevant contacts
- Any other parts that may be affected by the type of application.

For these reasons it is not possible to establish a general part replacement programme beforehand.

All screws used for the assembly of our product are screwed by means of a tightening torque as shown on following table:

Screw	Max torque (Nm)	Min torque (Nm)
M3	1,1	0,9
M4	2,6	2,1
M5	5,1	4,1
M6	9	7
M8	21	17
M10	42	34
M12	71,4	57,1

In case of need please refer to above table.