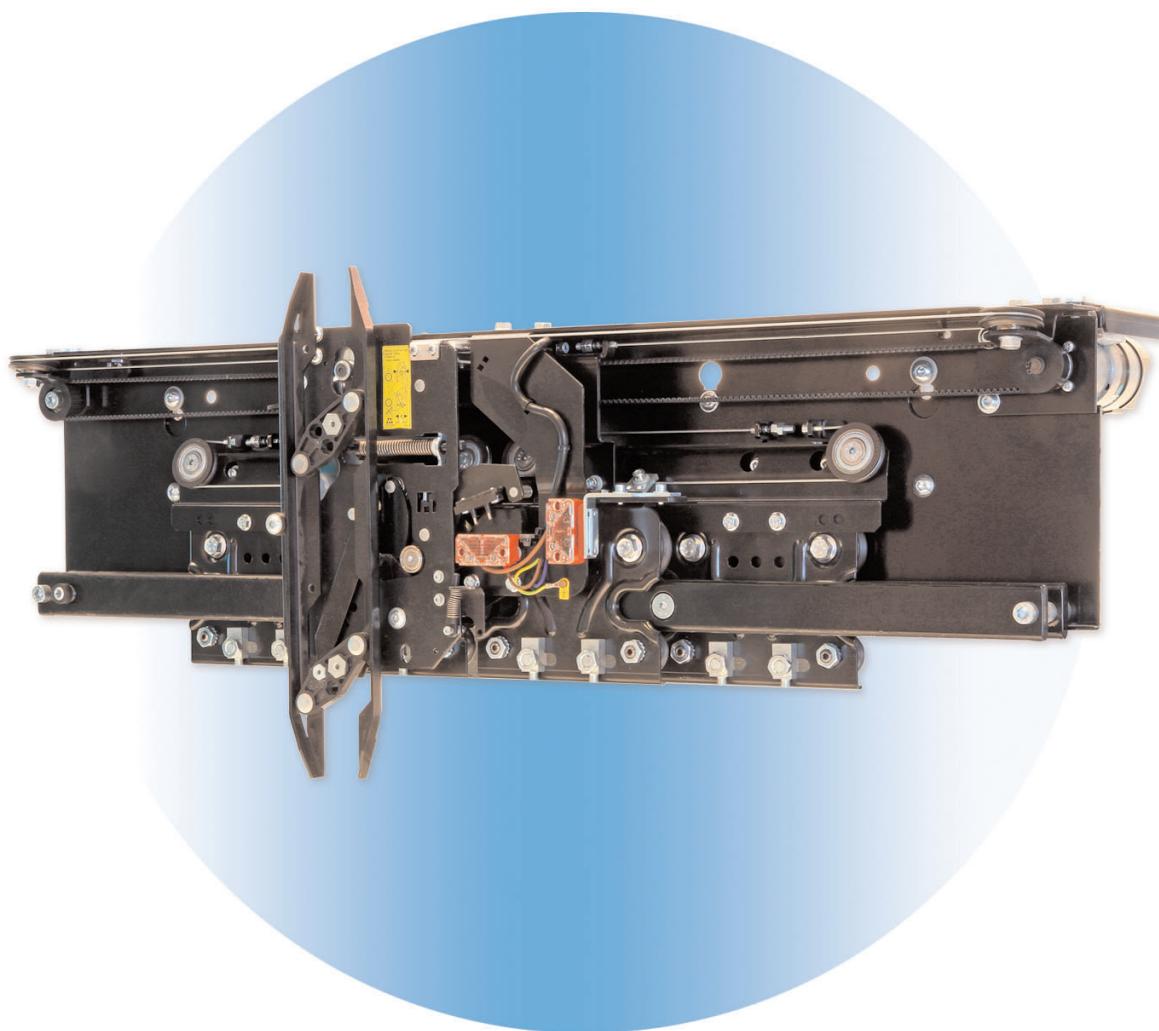


Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013

INSTRUCTION HANDBOOK

Hydra Plus UD300



No part of this publication may be reproduced or translated,
even in part, without prior written permission from WITTUR.

© Copyright WITTUR 2013

URL: <http://www.wittur.com>
e-mail: info@wittur.com

Subject to change without notice!

SELCOM®



HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013

B	Up-dated document's Lay-out and the following pages: 8; 14; 19; 25. Added pages: 13; 28; 29; 30; 31; 32; 33; 34; 35.	04/02/13
A	General up-dating	08/11/12
MOD.	DESIGNATION	DATE

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	1.37

INDEX

1. General description	Pag. 3
1.1 Operator fixing on car roof	Pag. 4
2. Fitting and adjusting brackets	Pag. 8
3. Landing door alignment with car door	Pag. 8
4. Assembly of panel fixing bolts	Pag. 9
5. Clearance recovering of the panel assembling bolts	Pag. 11
6. Bottom sliding shoes assembly, maintenance and replacement	Pag. 12
7. Fitting car sill brackets	Pag. 13
7.1 Assembly of sill and toe guard	Pag. 14
8. Placing the mechanisms on the thresholds	Pag. 15
9. Fixing of the coupler	Pag. 16
10. Car door lock	Pag. 17
10.1 Aspects that must be checked during installation and maintenance	Pag. 17
11. Adjustment the lock rollers	Pag. 19
12. Position of the coupler between the landing lock rollers	Pag. 20
13. Replacement of belts	Pag. 21
14. Adjustment of toothed belt tension	Pag. 22
15. Adjusting the clear opening	Pag. 23
16. Slow hanger synchronisation	Pag. 25
17. Sliding rollers	Pag. 26
18. Sliding rollers adjustment	Pag. 27
19. Mechanical release assembly Type 1118 - Side opening car doors	Pag. 28
19.1 Mechanical release assembly Type 1119 - Centre opening car doors	Pag. 29
20. Fitting fixed edge support WSE81 WSE155 for one-side opening doors Ty 12/R-L; Ty 32/R-L	Pag. 30
20.1 Fitting fixed edge support WSE81 WSE155 for centre- opening doors Ty 02/C; Ty 44/R	Pag. 31
21. Installation on car door of fixed support for WSE edge	Pag. 32

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

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	2.37

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

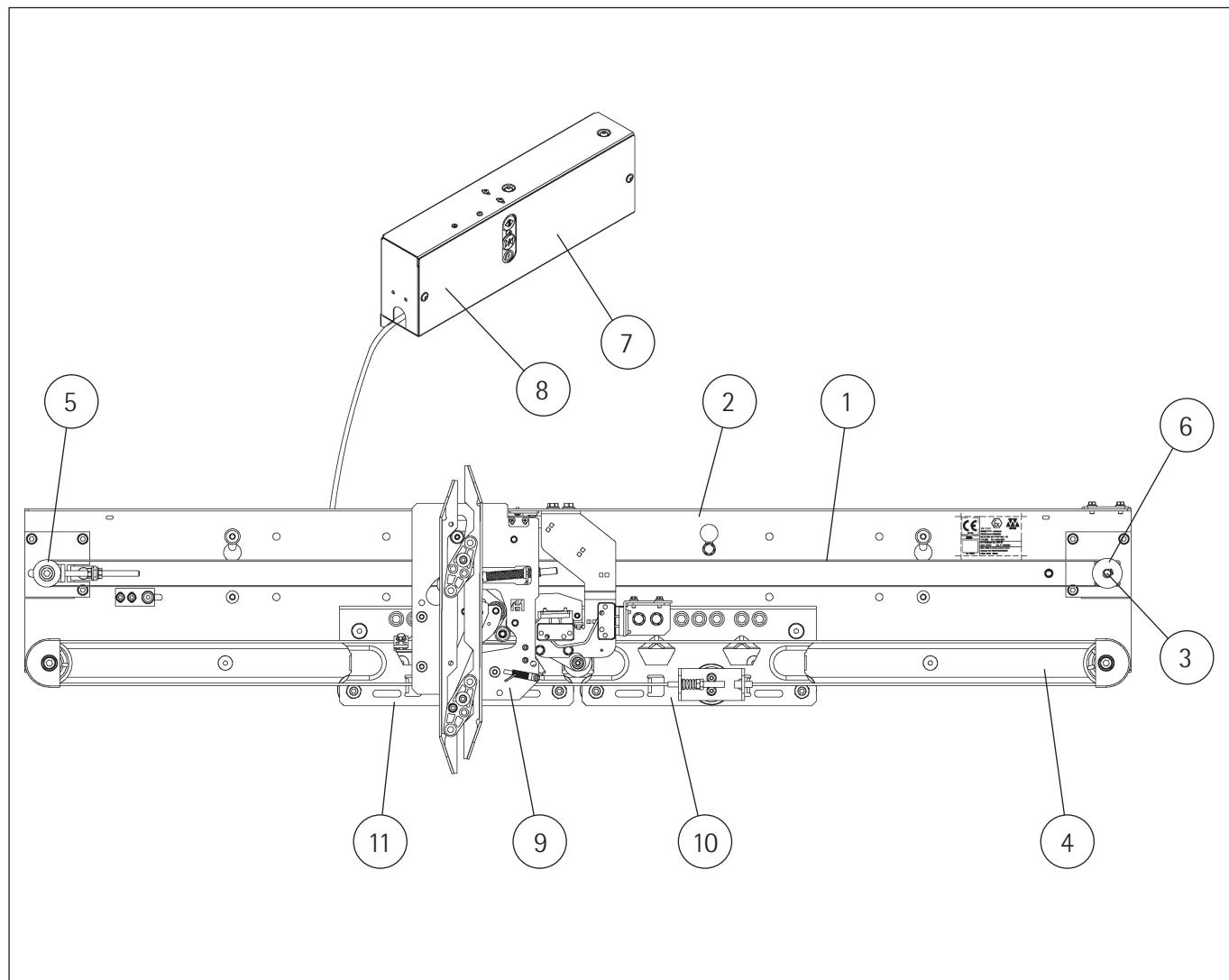
- Keep the material in the original packing, protected from bad weather and direct exposure to sun during the storage period in order to avoid the accumulation of water/condensation inside the packing material.
- Never dispose of packing material in the environment.
- Once dismantled, the product should 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.

HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	3.37

1. GENERAL DESCRIPTION

Linear car door 3201-Hydra Plus UD300 with toothed belt transmission (1) consisting in a plate (2) which supports the door drive (3) and mounting of top tracks (4), transmission pulleys (5-6), as well as electronic assembly layout (7) and transformer (8). The coupler (9) is attached to the toothed belt (1) for driving the door trucks (10-11) open and close.



HYDRA PLUS UD300 CAR DOOR

 Code
Version

GM.2.002668.EN

B

 Code
Version
Date
Page

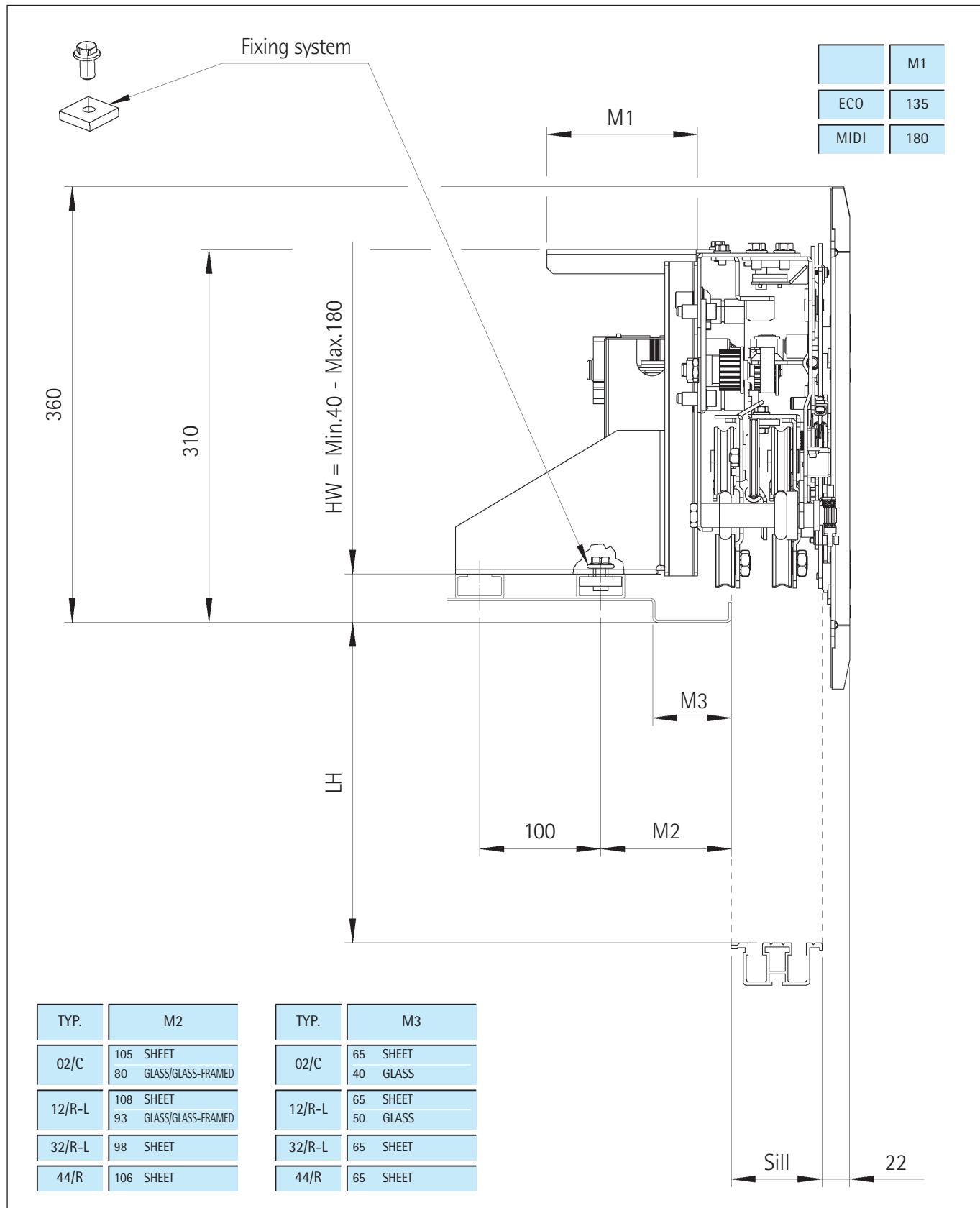
3201.32.0397

B

04.02.2013

4.37

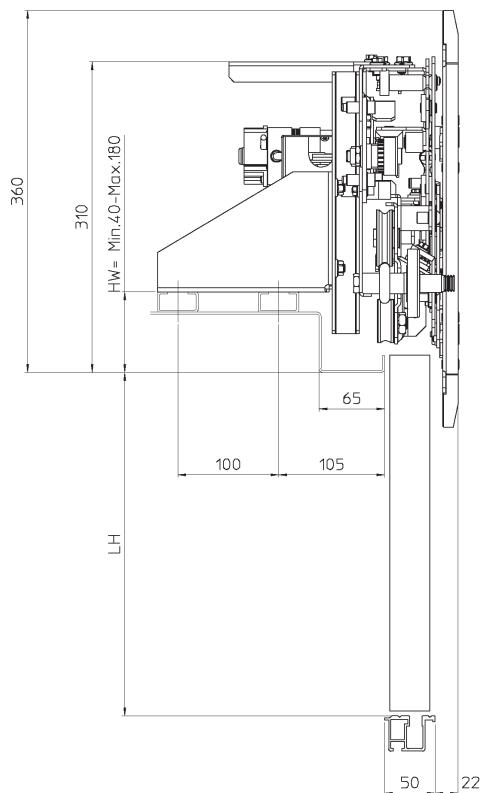
1.1 OPERATOR FIXING ON CAR ROOF



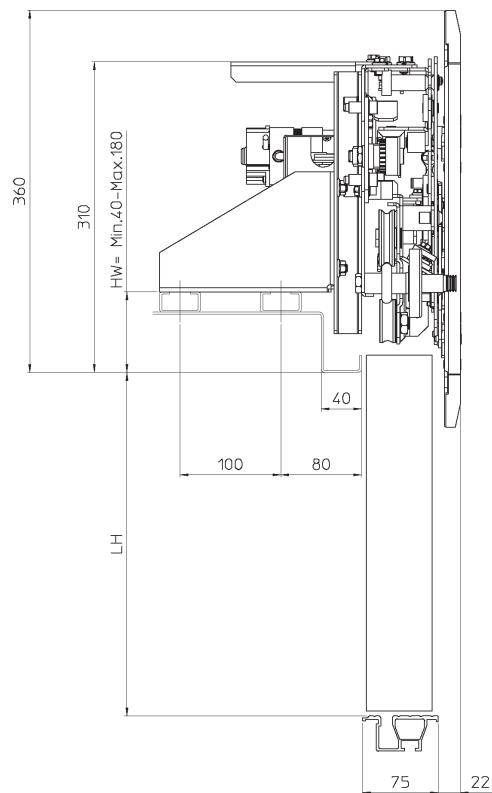
Subject to change without notice!

Ty. 02/C

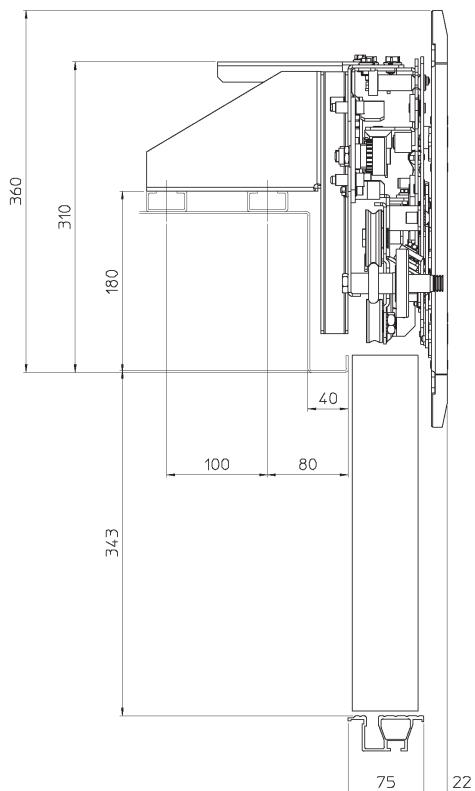
WITH SHEET PANELS



WITH GLASS-FRAMED PANELS

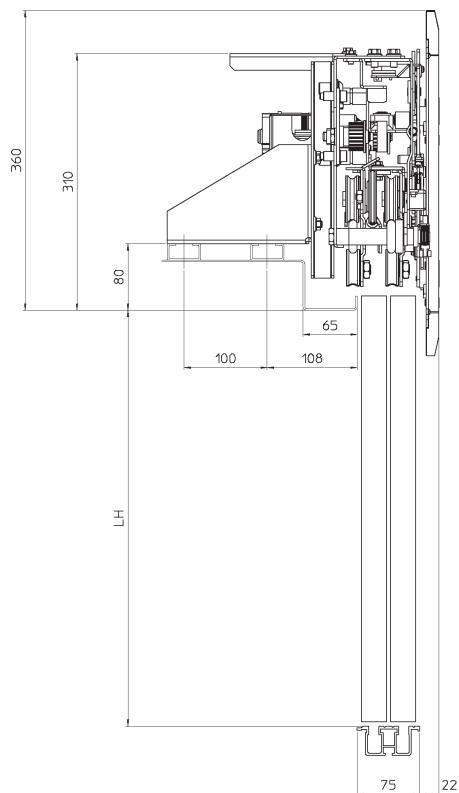
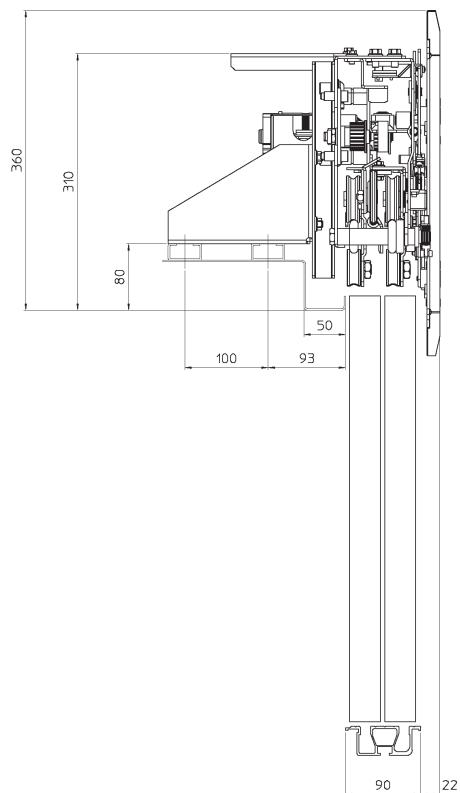
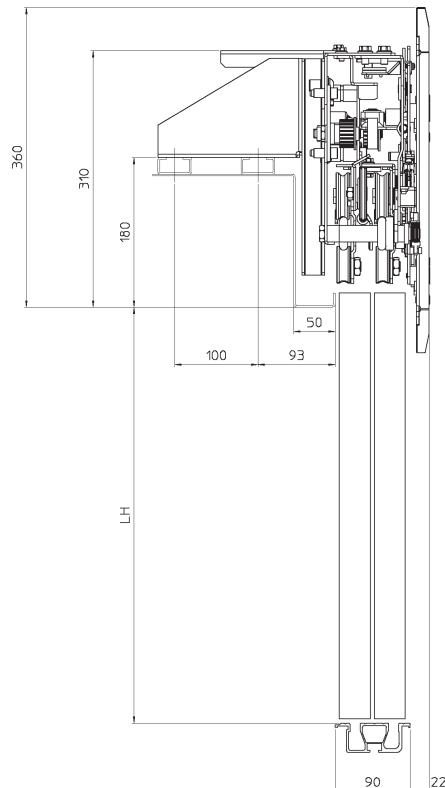


WITH GLASS PANELS



HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	6.37

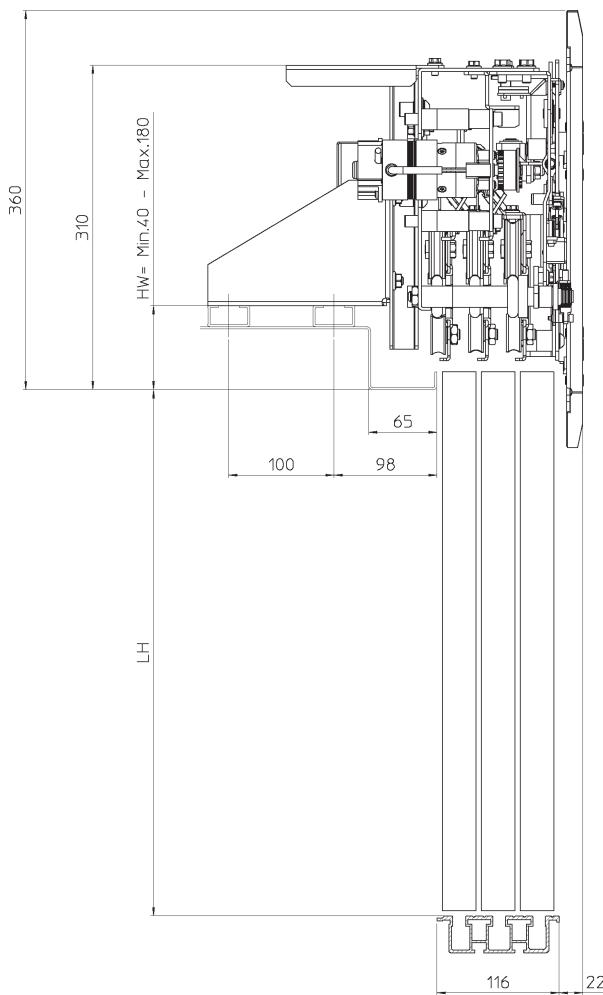
Ty. 12/R-L
WITH SHEET PANELS

WITH GLASS-FRAMED PANELS

WITH GLASS PANELS


HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	7.37

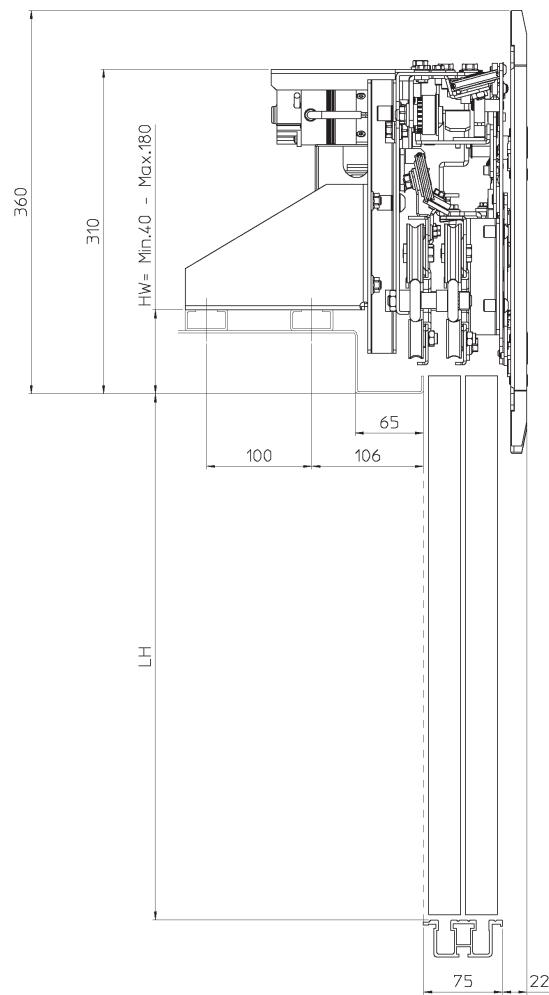
Ty. 32/R-L

WITH SHEET PANELS



Ty. 44/R

WITH SHEET PANELS



HYDRA PLUS UD300 CAR DOOR

 Code
Version

GM.2.002668.EN

B

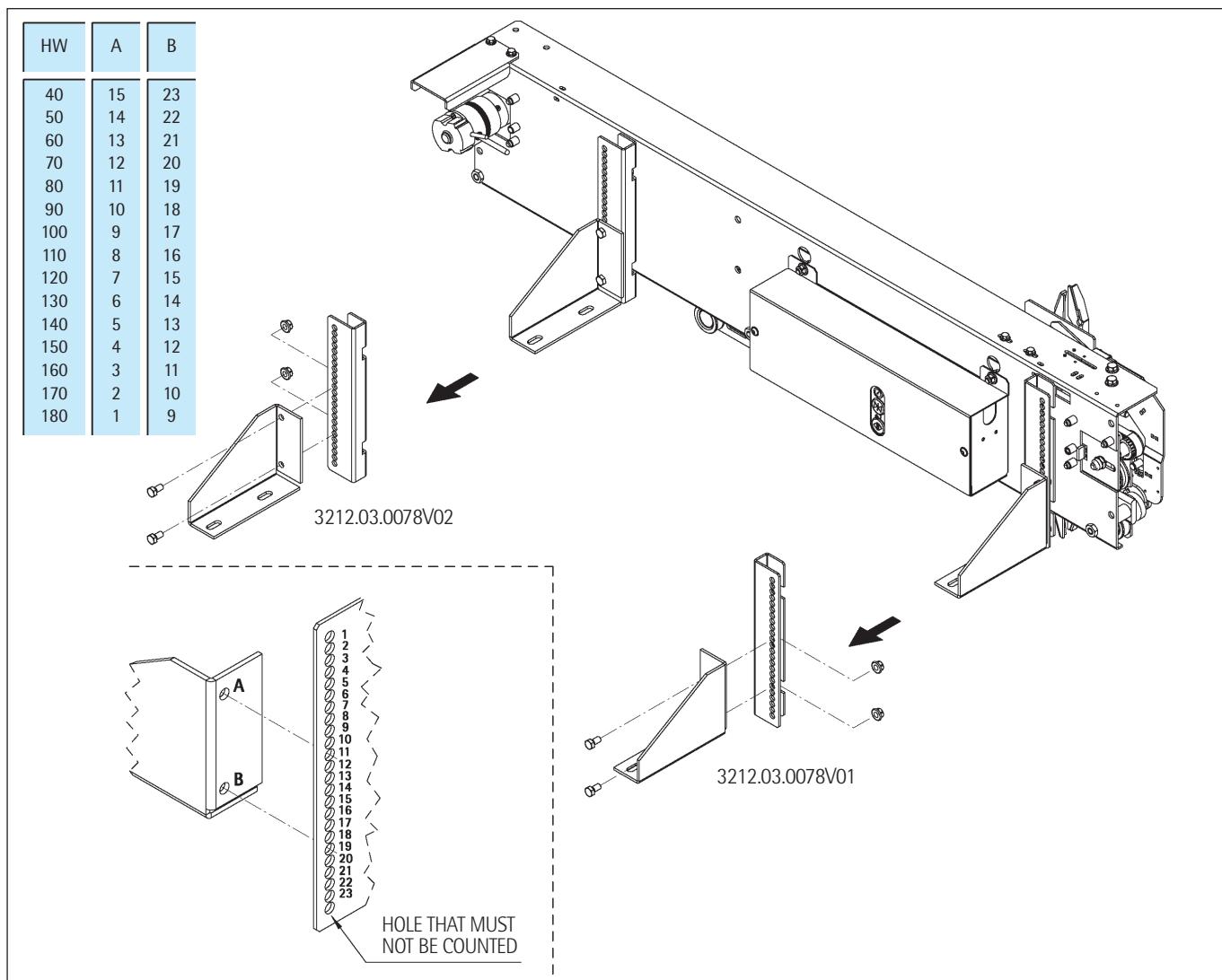
 Code
Version
Date
Page

3201.32.0397

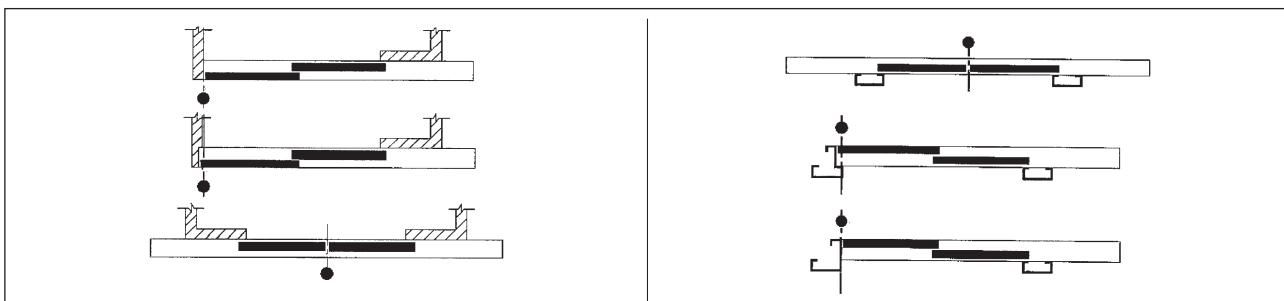
B

04.02.2013

8.37


 3. 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.



HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	9.37

 4. ASSEMBLY OF PANEL FIXING BOLTS

All panels must have at least two anchoring points.

For type 02/C, with rustproof panels, fit bolts as in figure 1, for panels with covering thicker than 1 mm fit bolts as in figure 2. The "A" type conical washers should be placed on the top part of the door fixing profile.

The "B" type flat washer beneath.

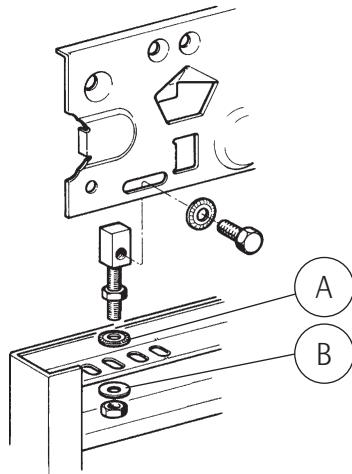
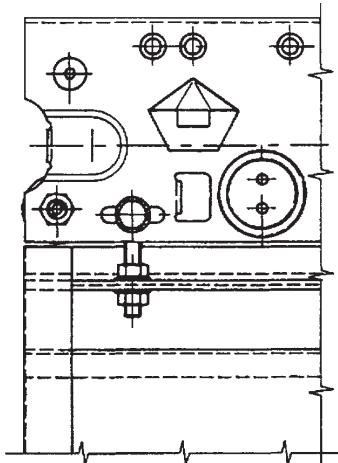
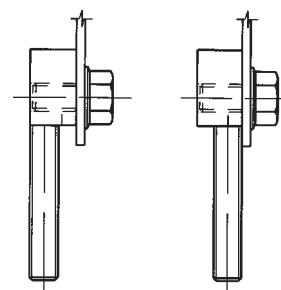


Fig. 1

Fig. 2



TY 02/C

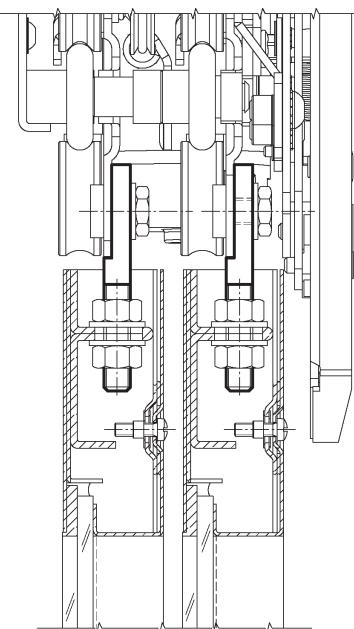
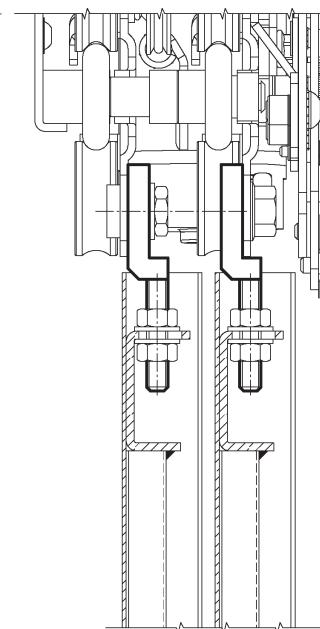
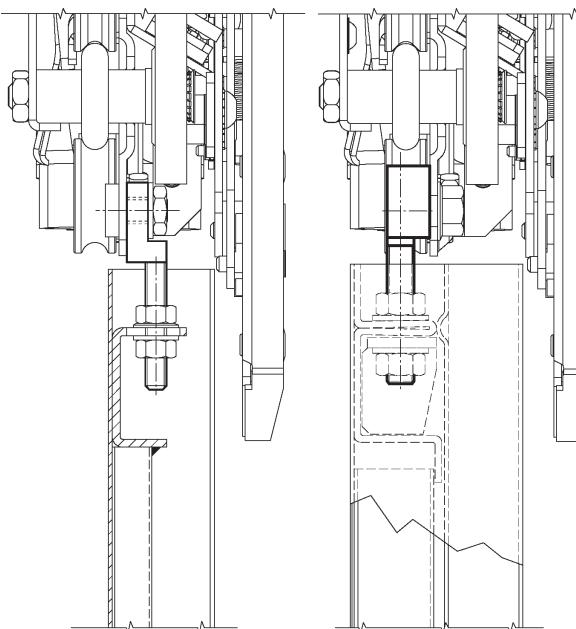
TY 12/R-L

WITH SHEET PANELS

WITH GLASS AND GLASS- FRAMED PANELS

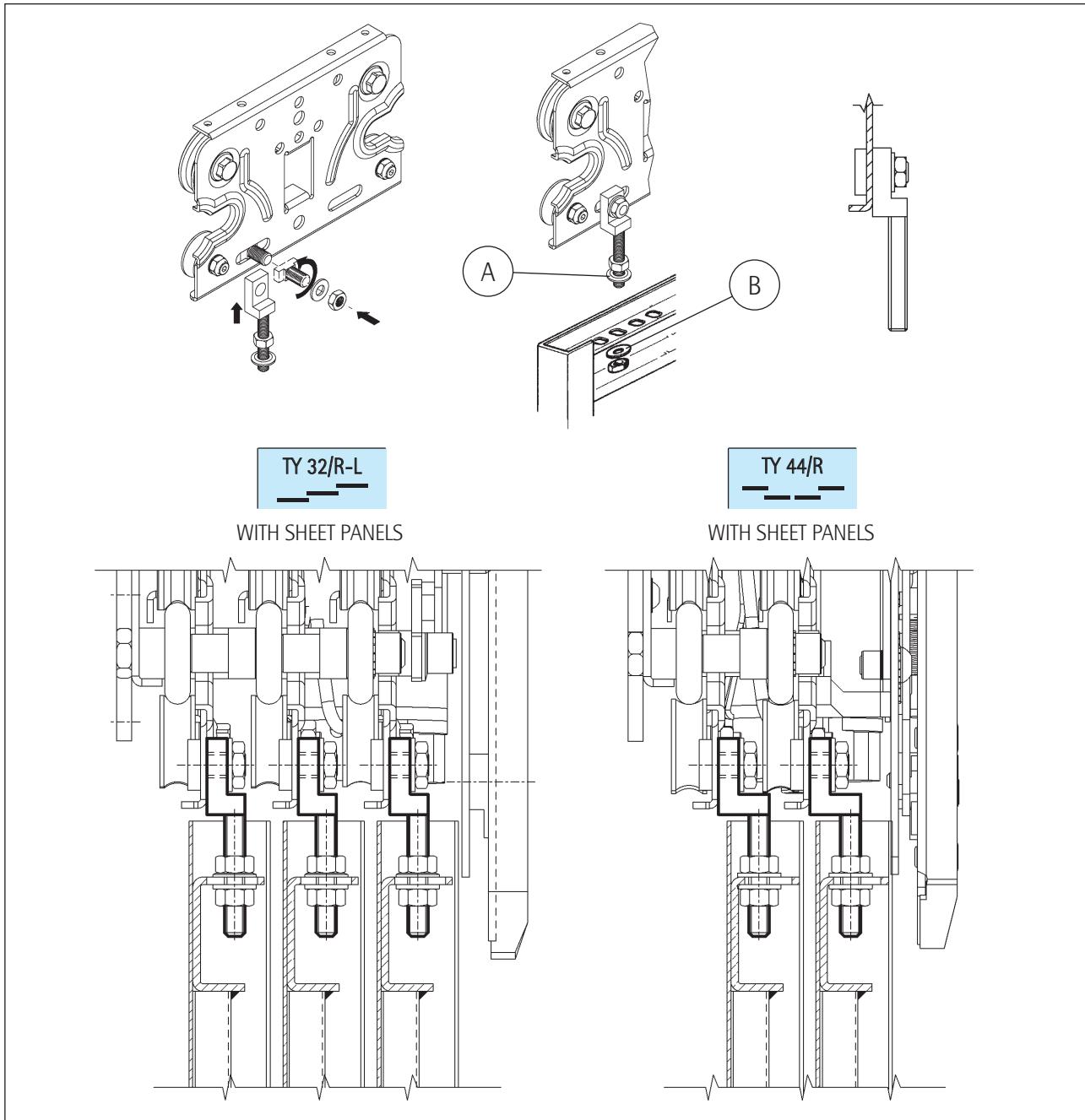
WITH SHEET PANELS

WITH GLASS AND GLASS- FRAMED PANELS



HYDRA PLUS UD300 CAR DOOR

Code Version	GM.2.002668.EN
	B
Code Version	3201.32.0397
	B
Date	04.02.2013
Page	10.37



Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	11.37

5. CLEARANCE RECOVERING OF THE PANEL ASSEMBLING BOLTS

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).

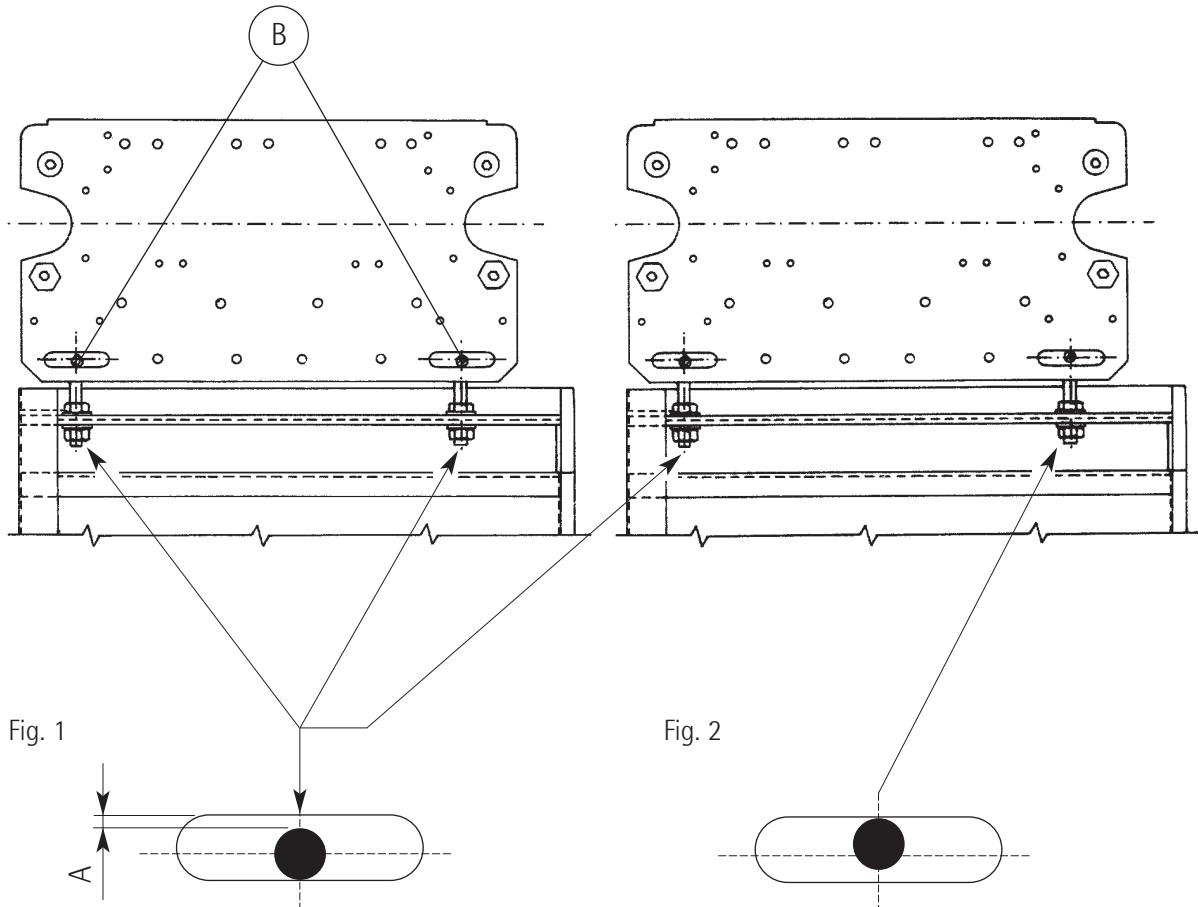
This means that the clearance "A" can be varied by means of adjusting panel hanger bolts, which permits up to 30 mm of adjustment.

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.

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.



HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	12.37

6. BOTTOM SLIDING SHOES ASSEMBLY, MAINTENANCE AND REPLACEMENT

The shoe on the retaining pin is mounted with slight pressure until the proper tongues fit inside the groove (Fig. 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 (Fig. 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.

 Check during maintenance that sliding guide shoes are present, securely fixed and have impermissible wear.

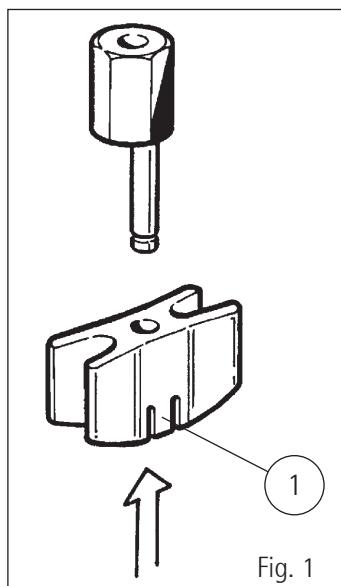


Fig. 1

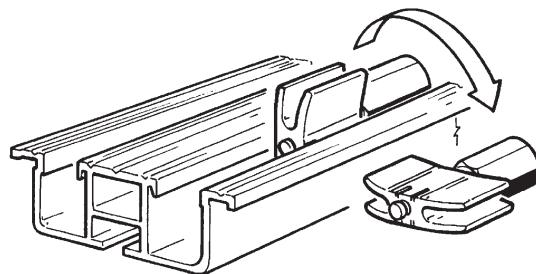


Fig. 2

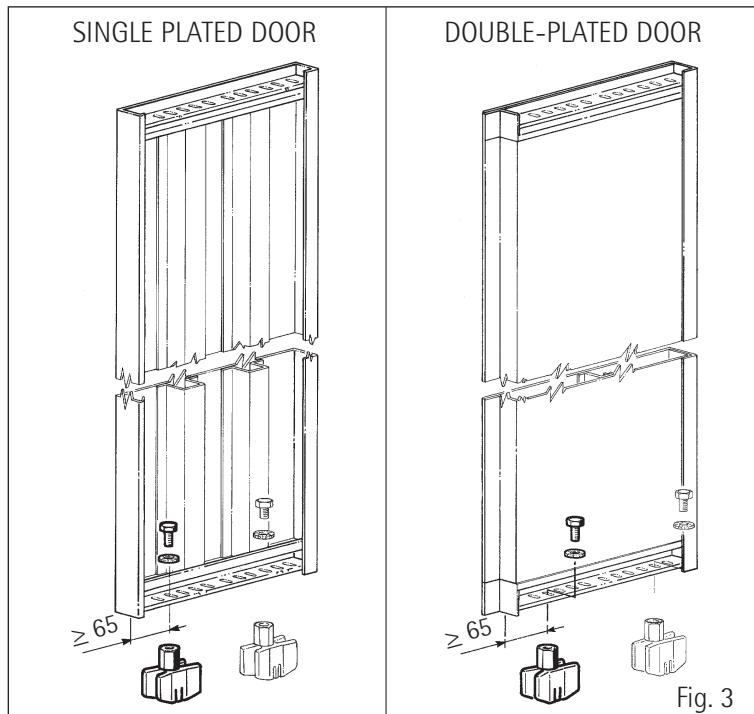
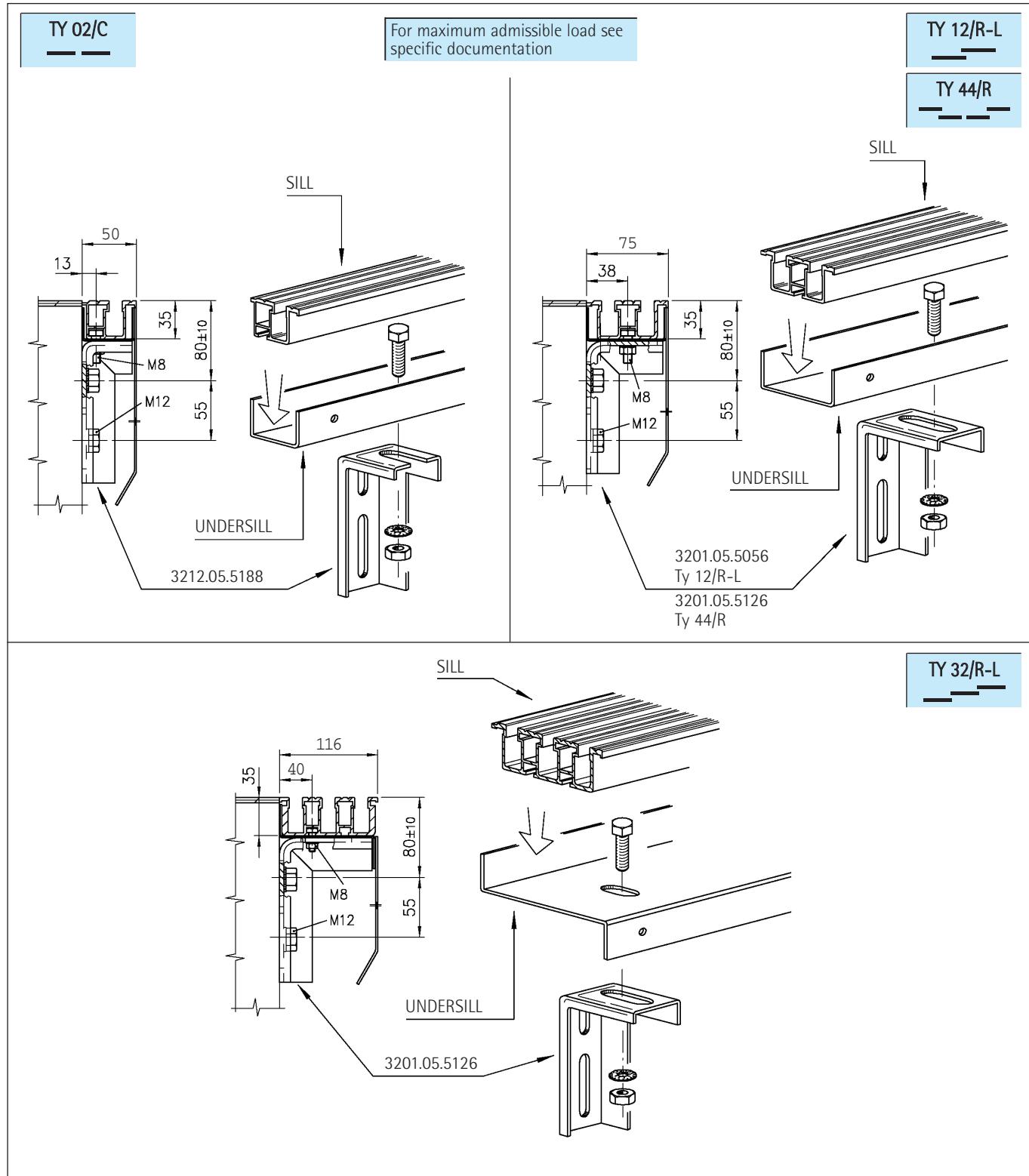


Fig. 3

HYDRA PLUS UD300 CAR DOOR

Code Version	GM.2.002668.EN
	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	13.37

7. FITTING CAR SILL BRACKETS

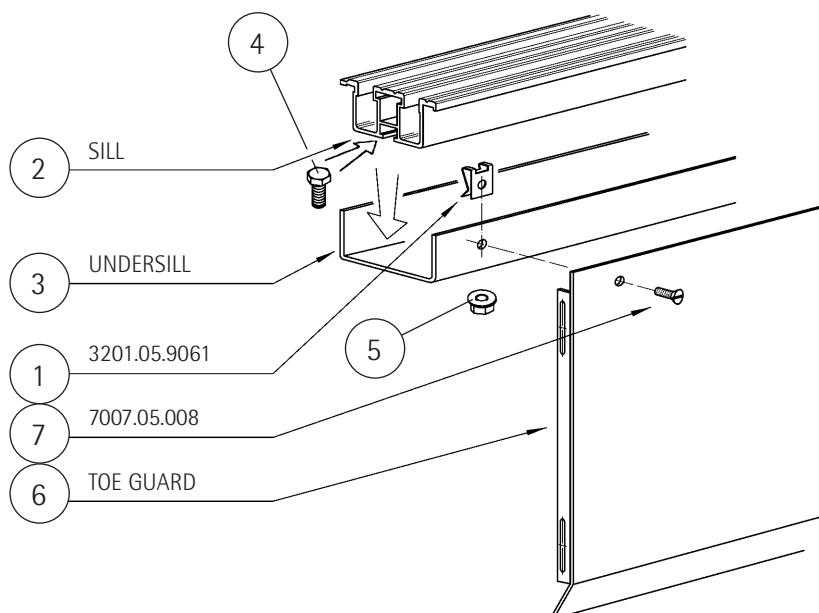


HYDRA PLUS UD300 CAR DOOR

Code Version	GM.2.002668.EN
	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	14.37

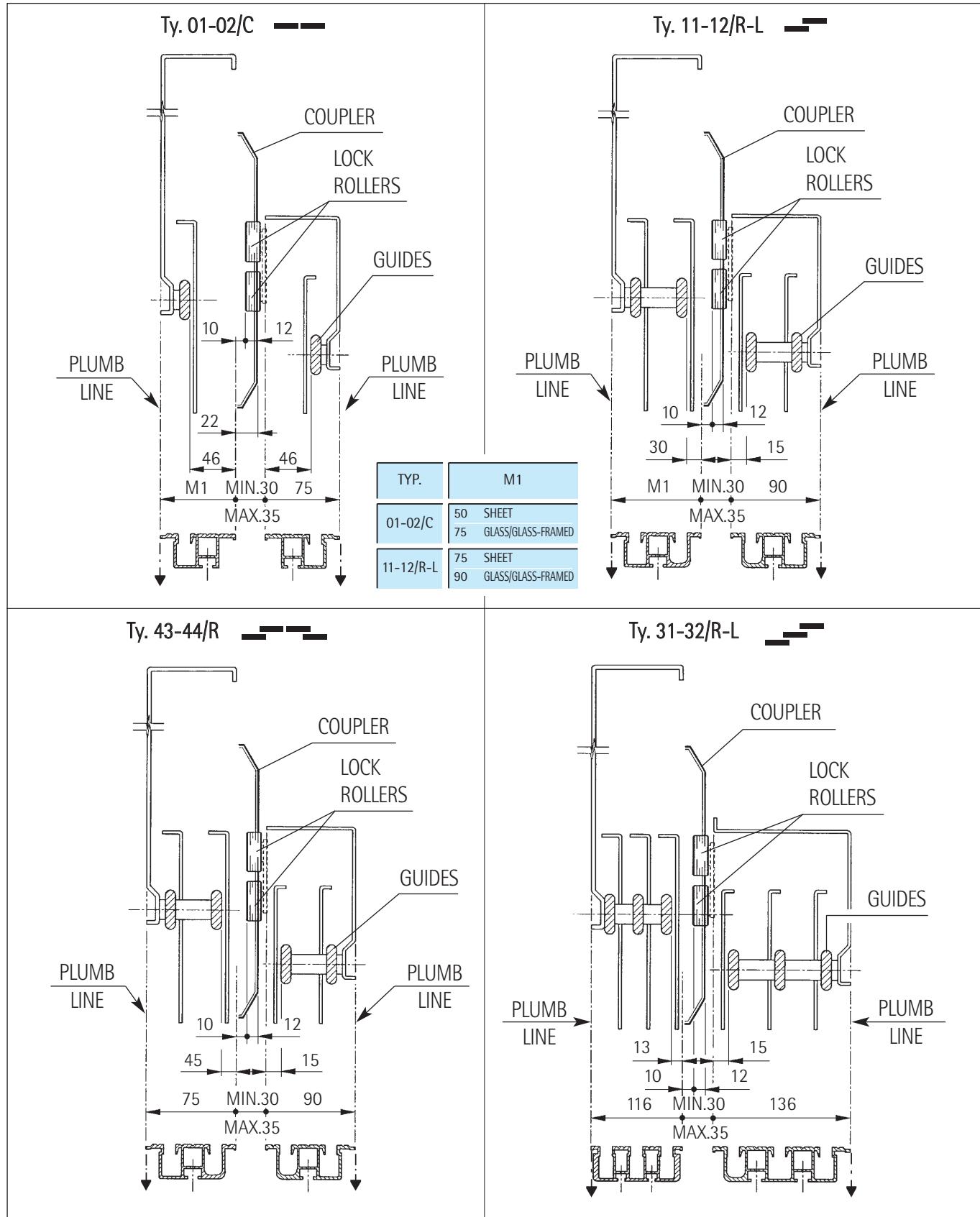
7.1 ASSEMBLY OF SILL AND TOE GUARD

Insert the spire nut (1) into the sill support (3). Fix the sill (2) to the sill support (3) with the screws (4) and the bolts (5). Rest the toe guard (6) on the undersill (3) and fasten by tightening screw (7).



 8. PLACING THE MECHANISMS ON THE THRESHOLDS

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

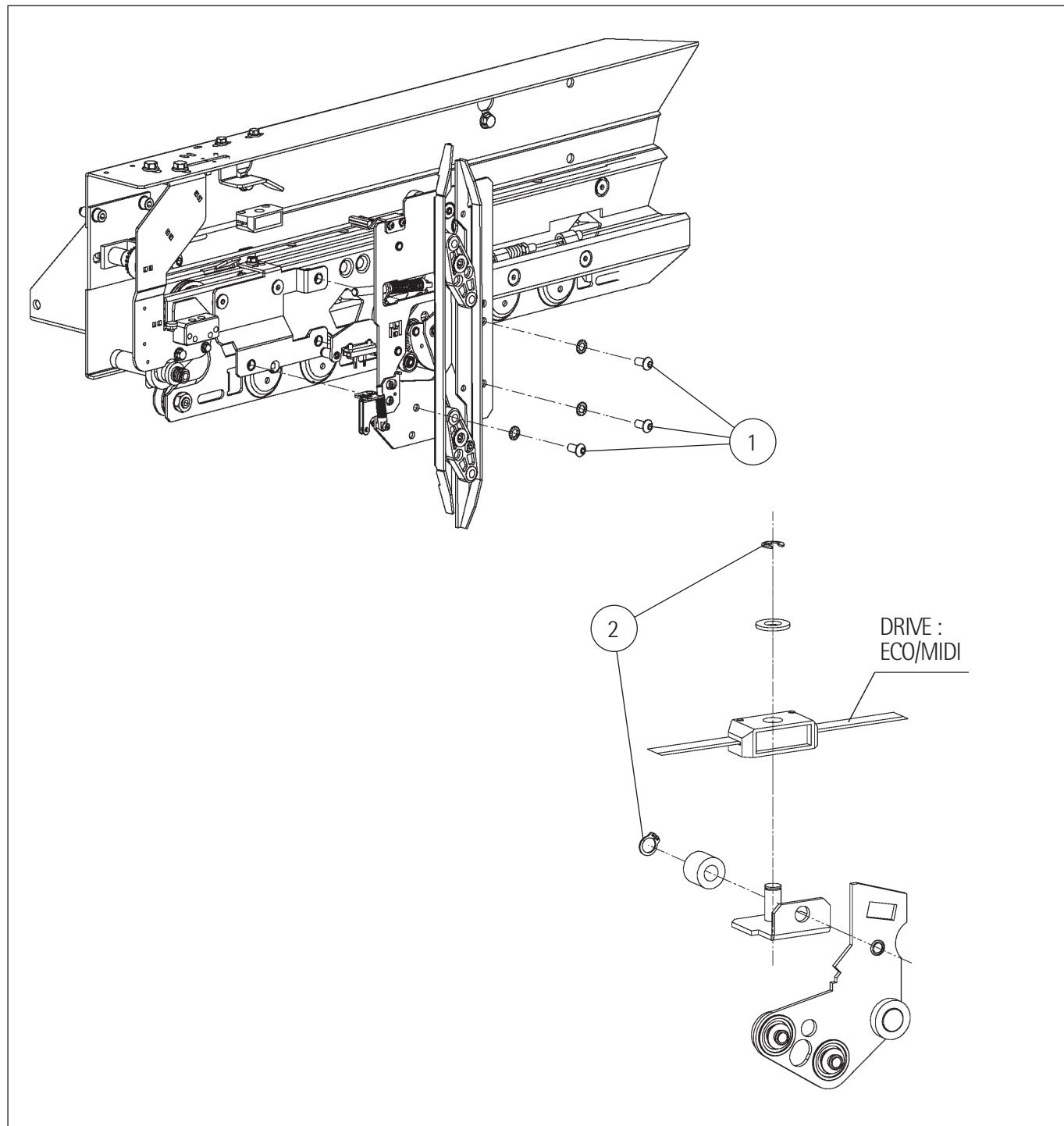


HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	16.37

 9. FIXING OF THE COUPLER

After the assembly of the door panels proceed by fixing the coupler using the 3 screws (1) and the relevant belt-fixing systems (2).



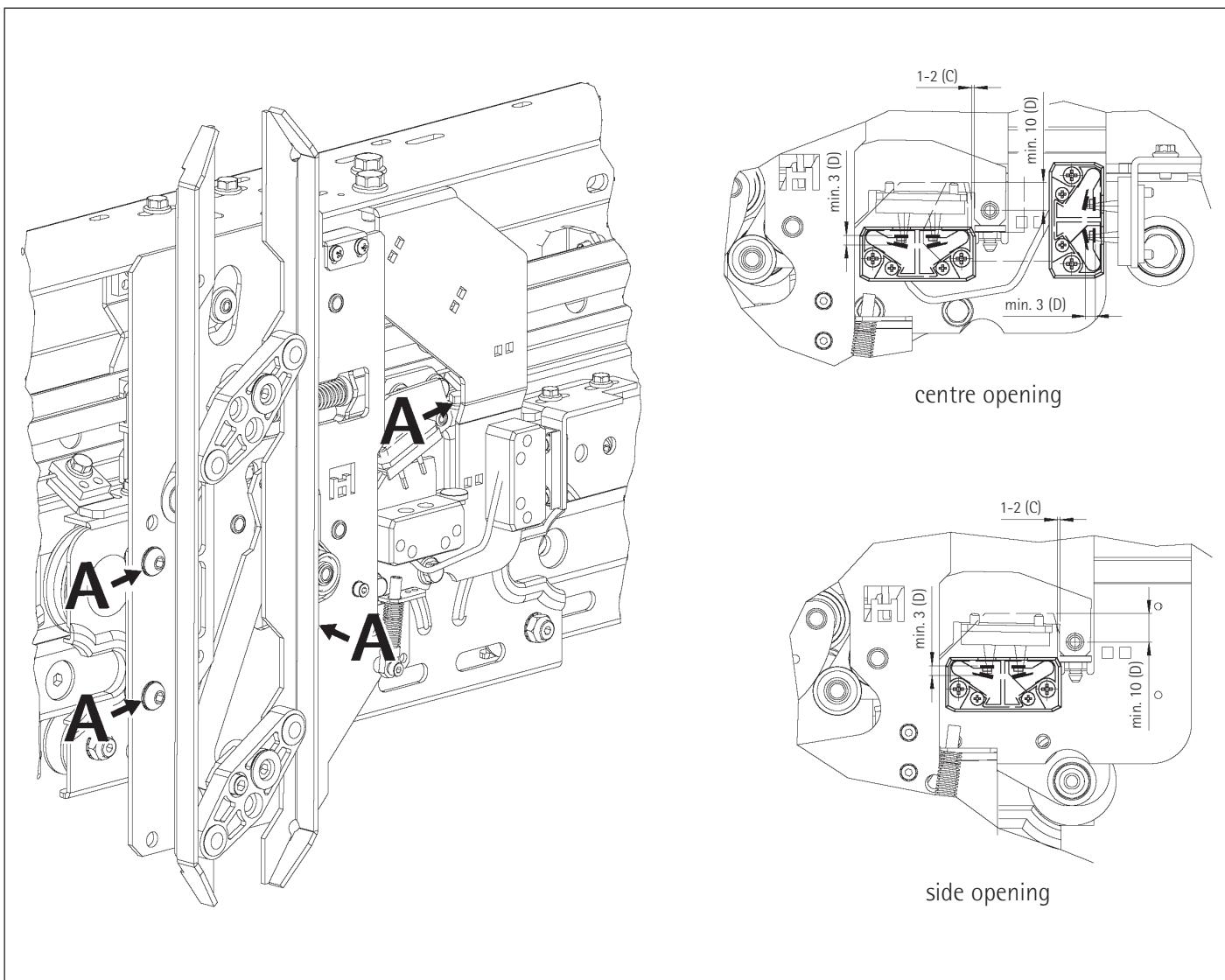
HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	17.37

10. CAR DOOR LOCK

10.1 ASPECTS THAT MUST BE CHECKED DURING INSTALLATION AND MAINTENANCE

- **Maintenance has to be done at least one time per year**
- The car door lock must lock door if the car is out of unlocking zone. Lock hook must touch buffer.
- All parts of lock coupler, lock notch and additional lock notch (only centre opening) must be securely fixed (A).
- Safety circuit must be interrupted if the door opens.
- Lock hook and beak overlap when lock is fully closed must be min. 10 mm (B)
- Gap between lock hook and notch should be 1-2 mm (C)
- Contacts should be clean and have minimal wear (metal visible)
- Lock hook and beak overlap when contact operates must be min. 7 mm
- The contact bridge should push the contact surface down min. 3 mm (D)
- Electrical terminations should be tight and secure.
- Contact bridge should be aligned to the middle of contact holes, not touching the hole edges.



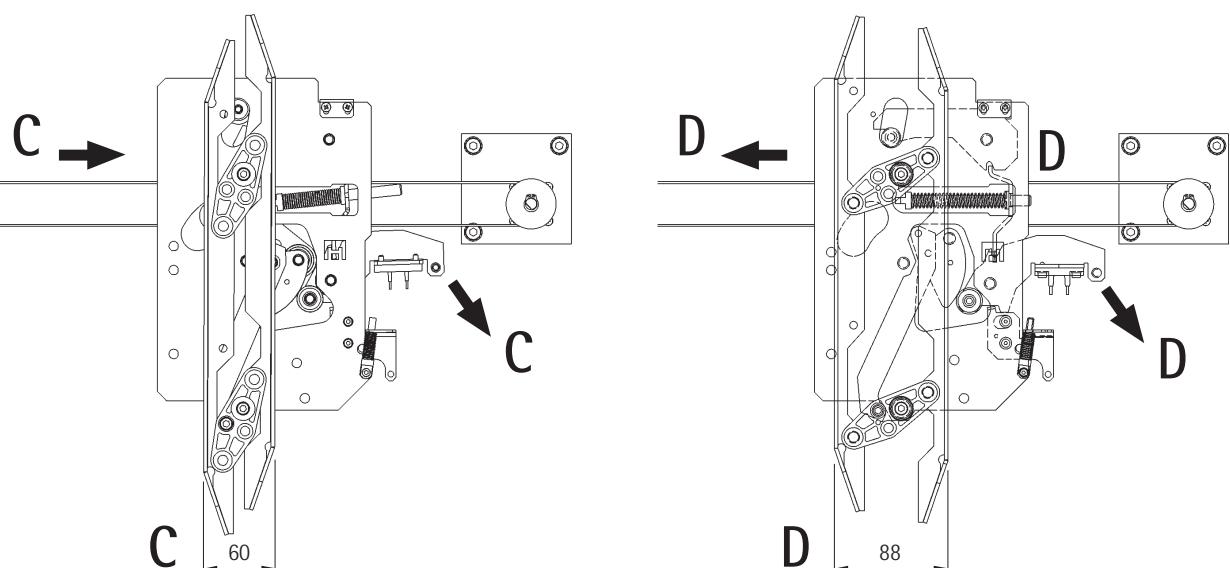
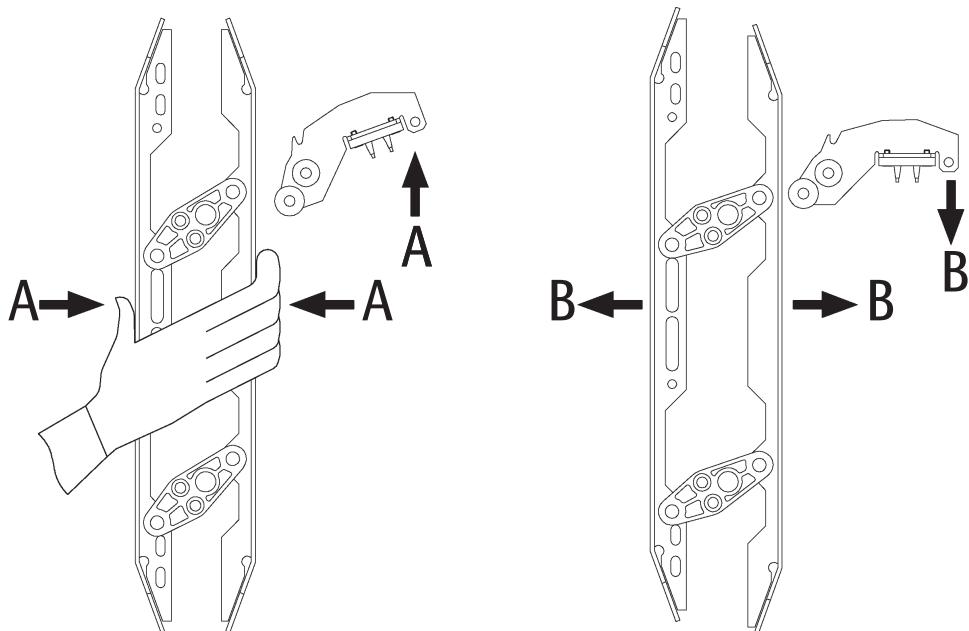
Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	18.37

Ensure proper function of car door lock

- Check that lock hook is moving freely when pressing the lock vanes (A, B)
- Check that all bearing points of the car door lock are running smoothly with following method:
 - Turn the POWER of the operator OFF !
 - Move the door by hand on the belt to the completely close position - coupler must be fully retracted (C).
 - Release the belt, and check that the coupler is running itself (by spring force) to the completely extracted position. The lock hook must remain during this operation in the fully locked position (D).
- If the above mentioned test criteria are no longer fulfilled, the car door lock must be replaced.

To ensure a reliable function, the car door lock must be also replaced latest after

- 1 Million cycles or 5 years



HYDRA PLUS UD300 CAR DOOR

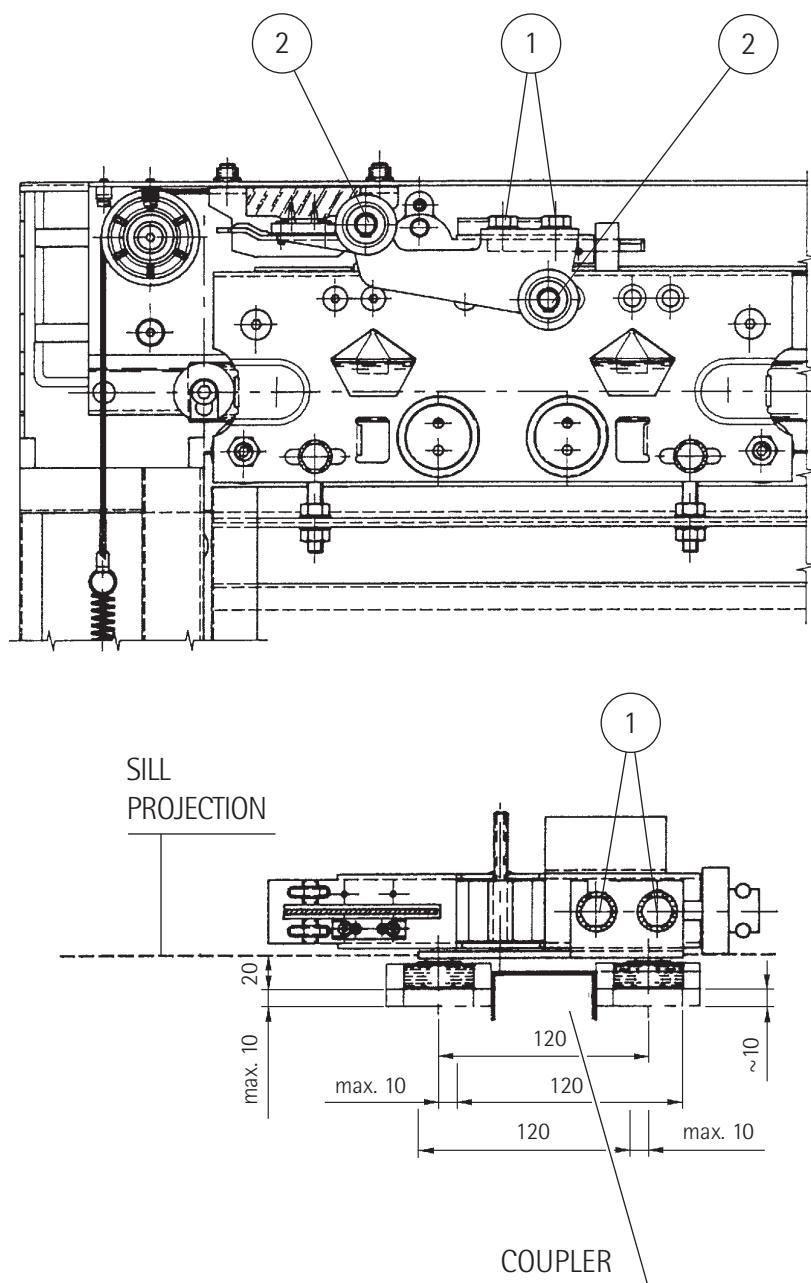
Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	19.37

11. 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.

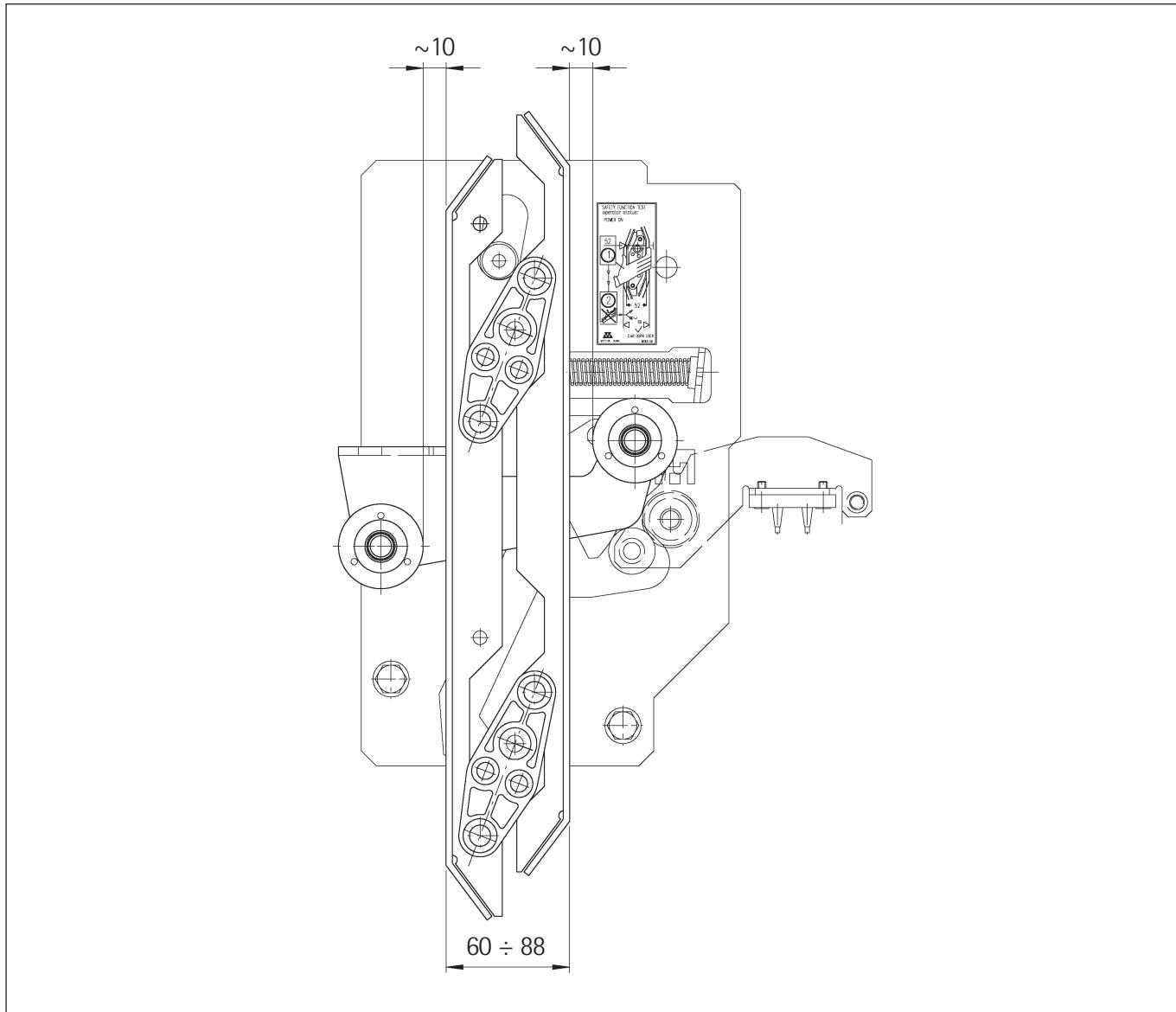
Move the wheel assembly unit and position it as shown on page 20.

Make sure that between the lock rollers and the car sill there is sufficient clearance to provide runby.



HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	20.37



HYDRA PLUS UD300 CAR DOOR

Code Version	GM.2.002668.EN
	B
Code Version	3201.32.0397
Date	04.02.2013
Page	21.37

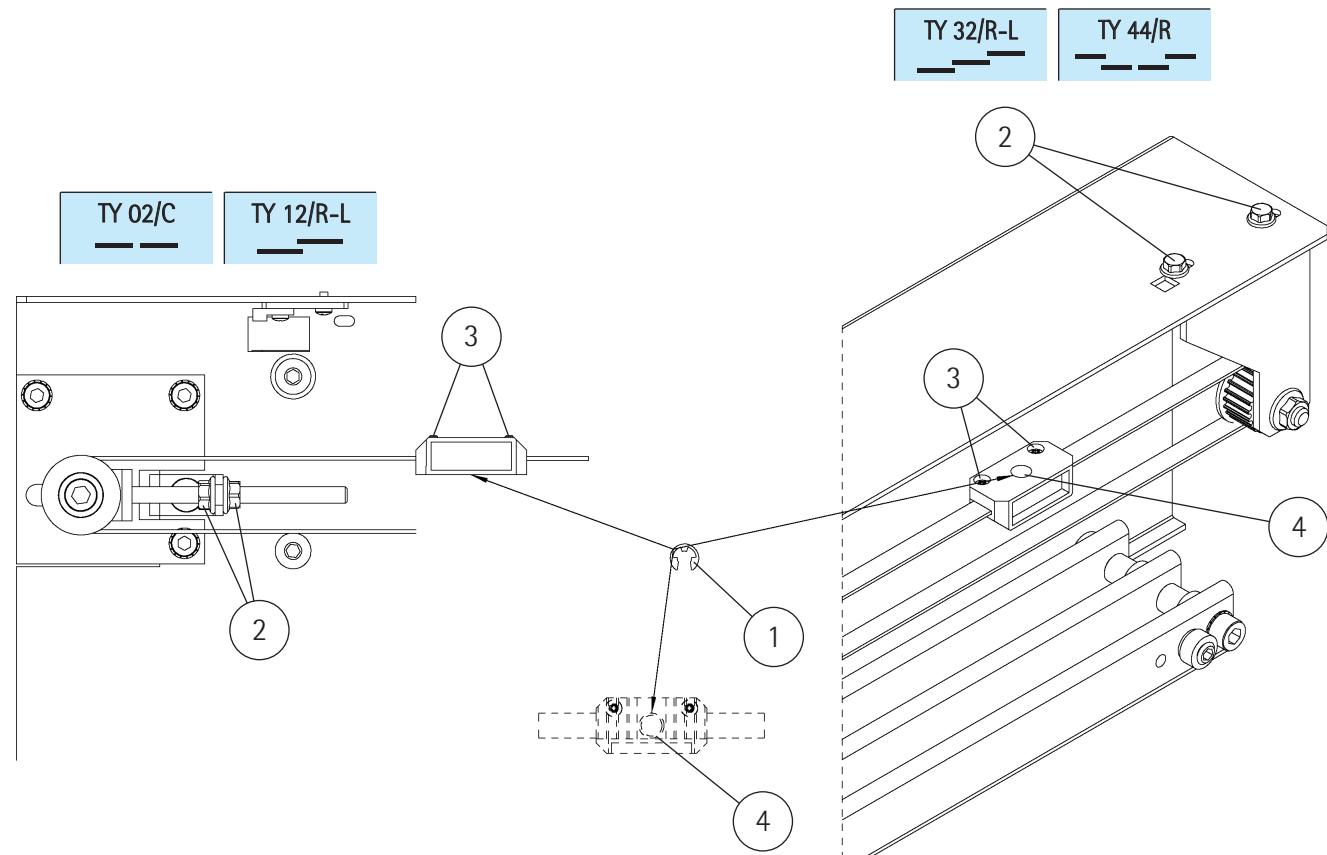
13. REPLACEMENT OF BELTS

ECO/MIDI

Remove the safety washer (1).

Loosen the screws (2) without removing them completely in order to loosen the belt.

Loosen the 2 screws (3) from the belt clamp (4) to loose the belt completely.



HYDRA PLUS UD300 CAR DOOR

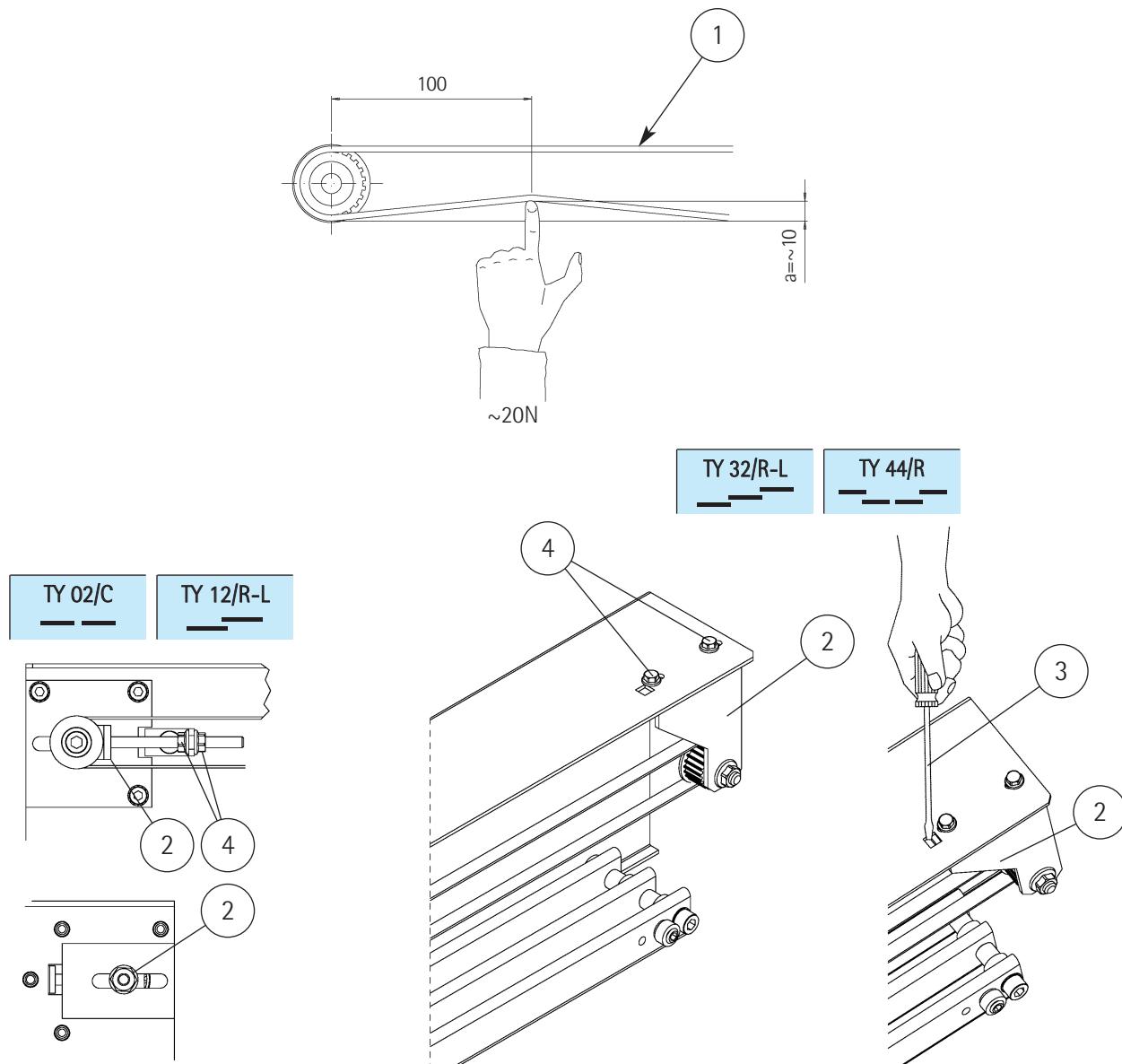
Code Version	GM.2.002668.EN
	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	22.37

14. ADJUSTMENT OF TOOTHED BELT TENSION

To adjust the toothed belt (1) tension, it is necessary to span the support (2) by using a screwdriver (3) and make sure size "a", then fix the position by tightening the screws (4).

ECO/MIDI

Toothed belt tension: 170N (+0/-10%)



HYDRA PLUS UD300 CAR DOOR

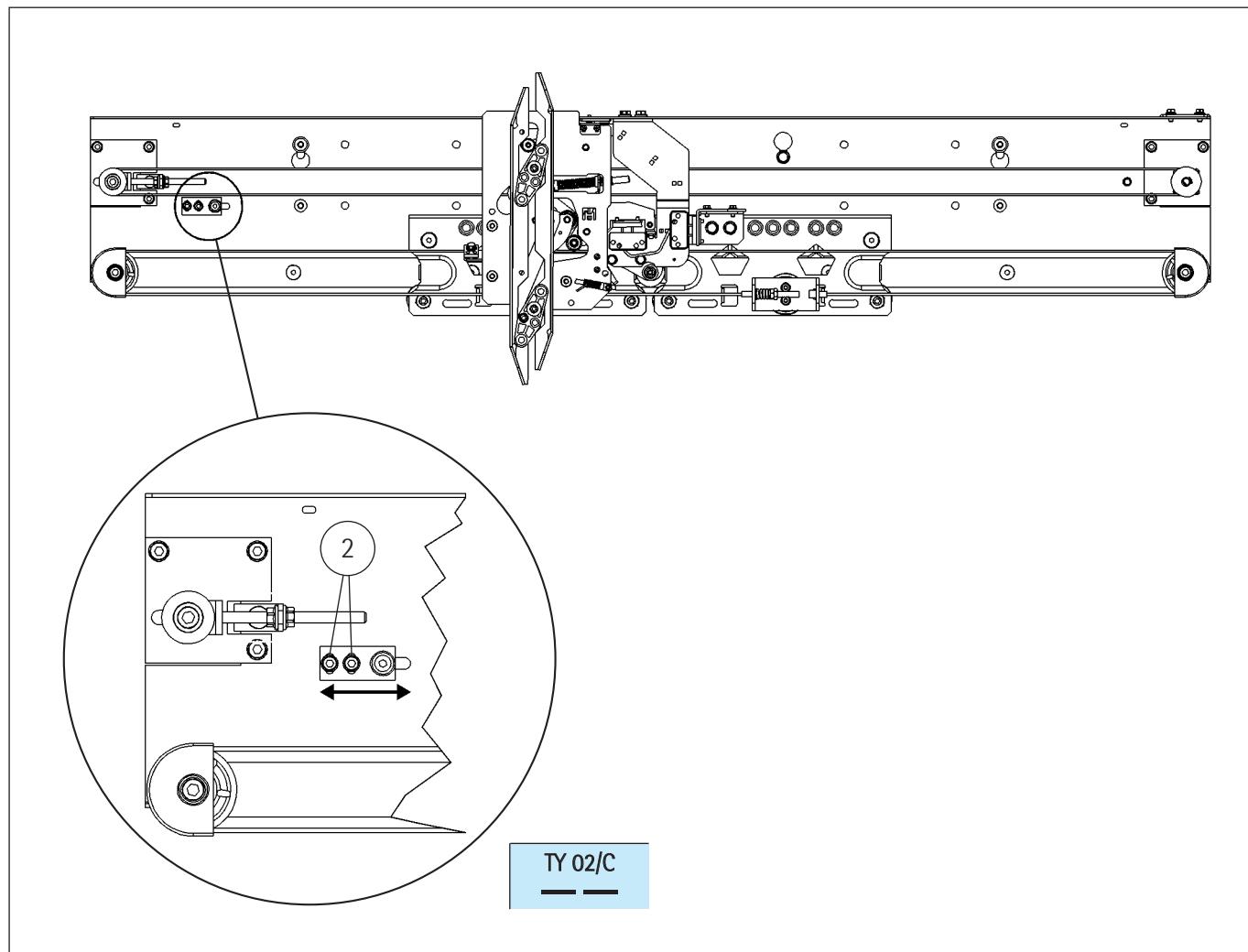
Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	23.37

15. ADJUSTING THE CLEAR OPENING

The method for adjusting freeway will change depending on the type of operator.

Ty. 02/C

Adjustment of freeway is obtained with an adjustable stop (2) mounted on the plate: loosen the screws (3), move the stop and tighten the screws.



HYDRA PLUS UD300 CAR DOOR

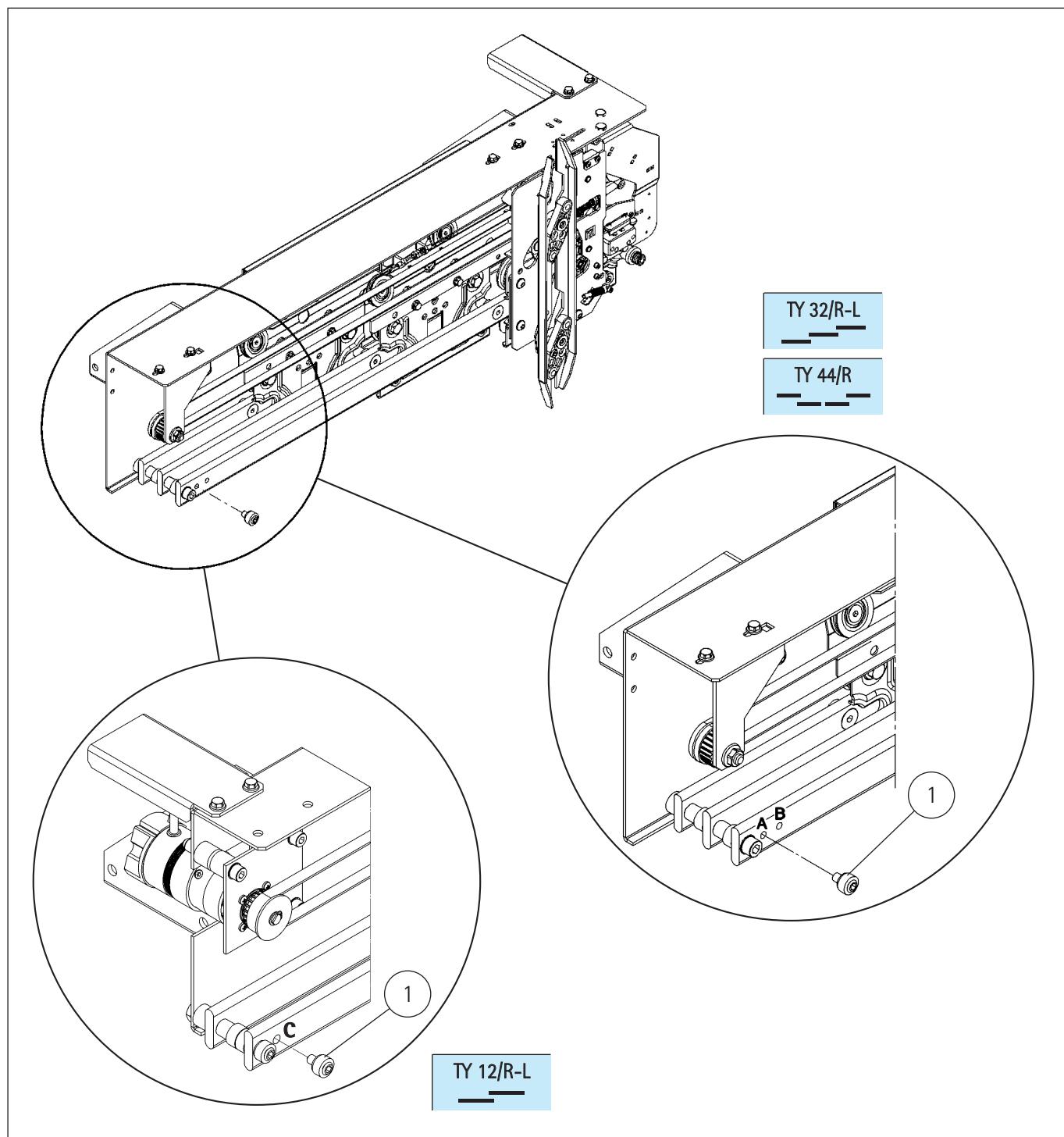
Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	24.37

Ty 12/R-L - 32/R-L - 44/R

Adjustment of freeway is obtained with a stop (1) mounted on the fast guide on the opening side, positioned in the correct hole and with its screw:

for ty 12/R-L position C (without overtravel), with stop (with overtravel);

for ty 32/R-L and 44/R position A (with overtravel), position B (without overtravel).

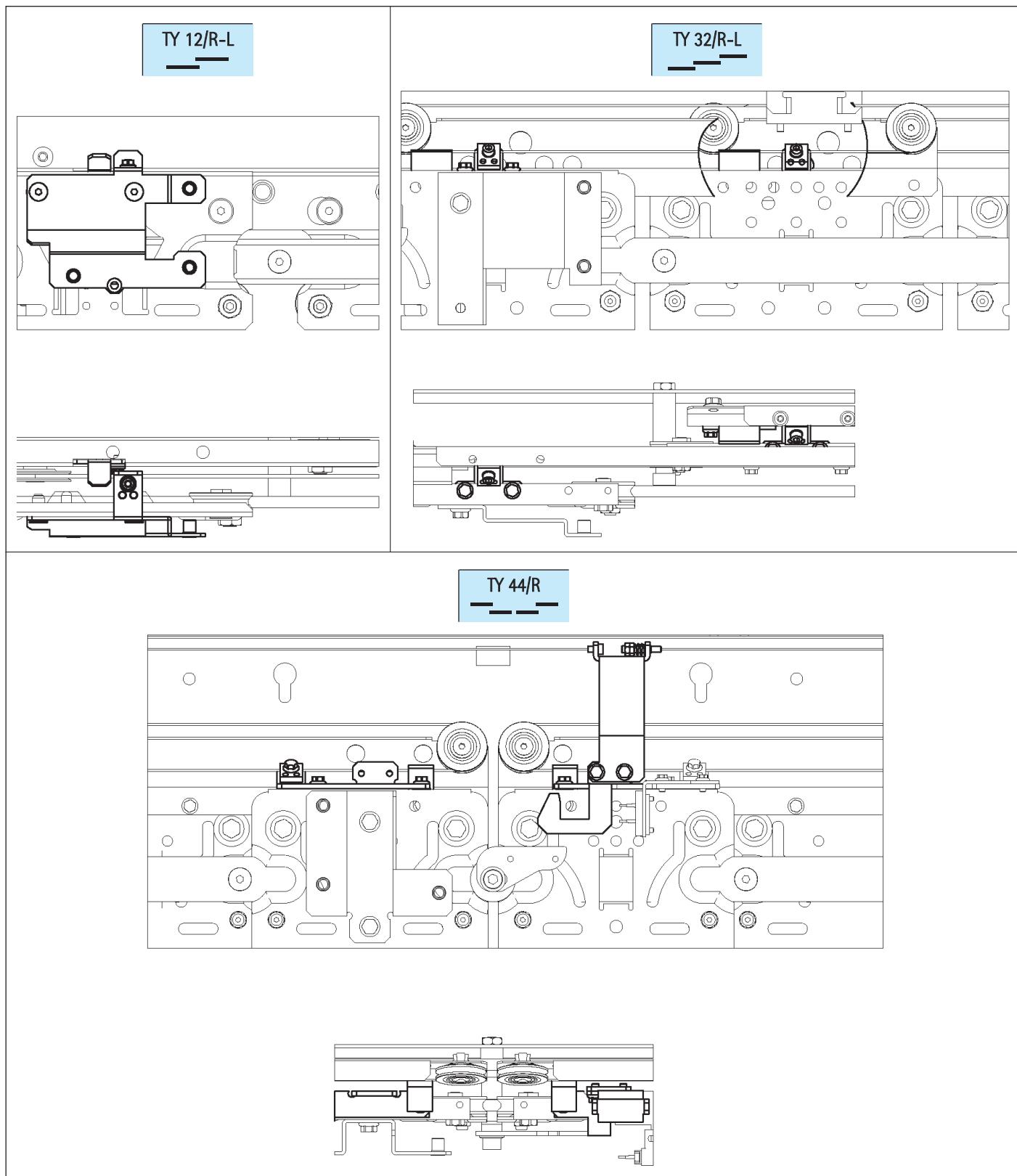


HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	25.37

16. SLOW HANGER SYNCHRONISATION

During maintenance operations ensure that the safety hooks are properly fitted.



Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	26.37

17. 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 Fig. 1). These rollers should be replaced because worn out when a contact marking with the guide at the race bottom is noticed (see Fig. 2). Other factors that indicate the need for roller 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

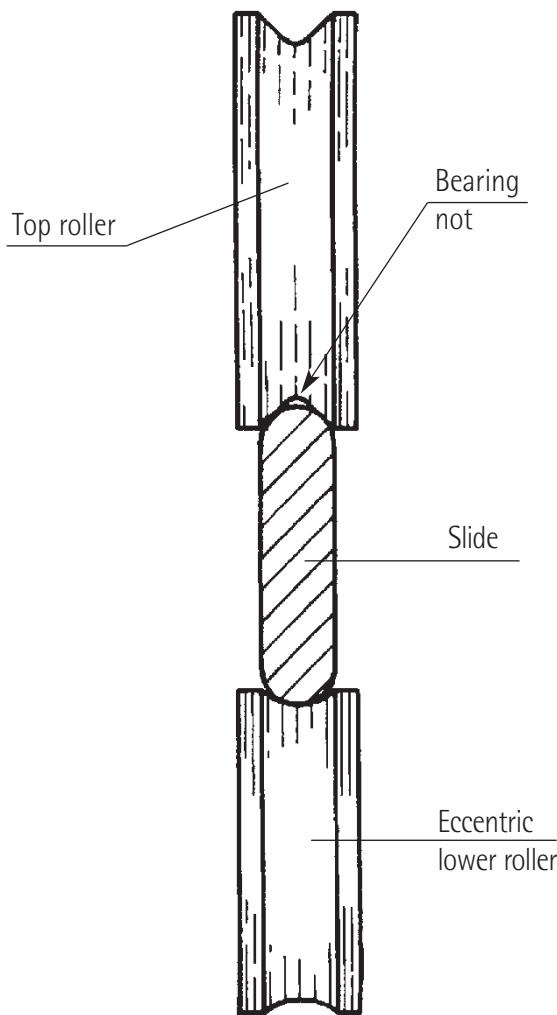
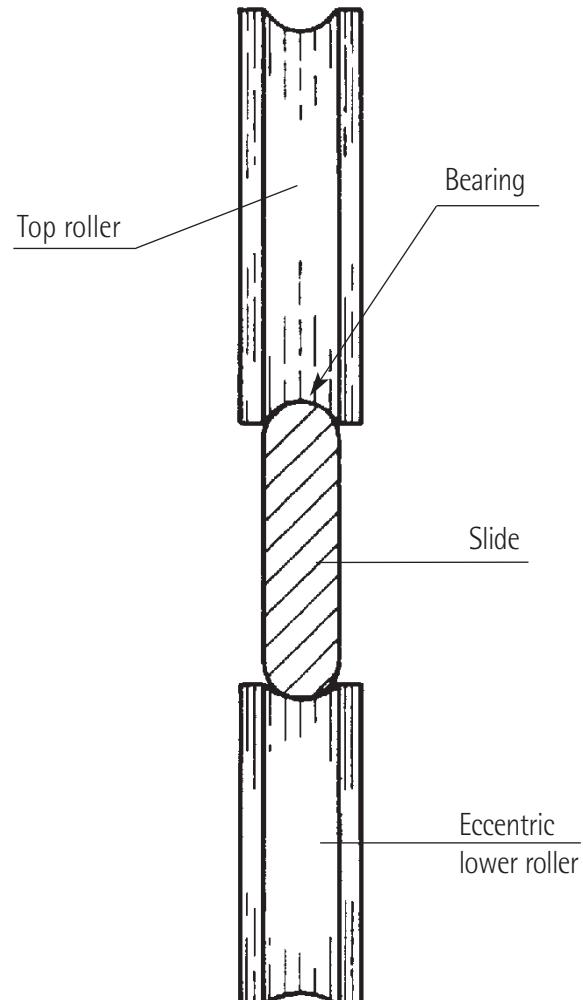


Fig. 2

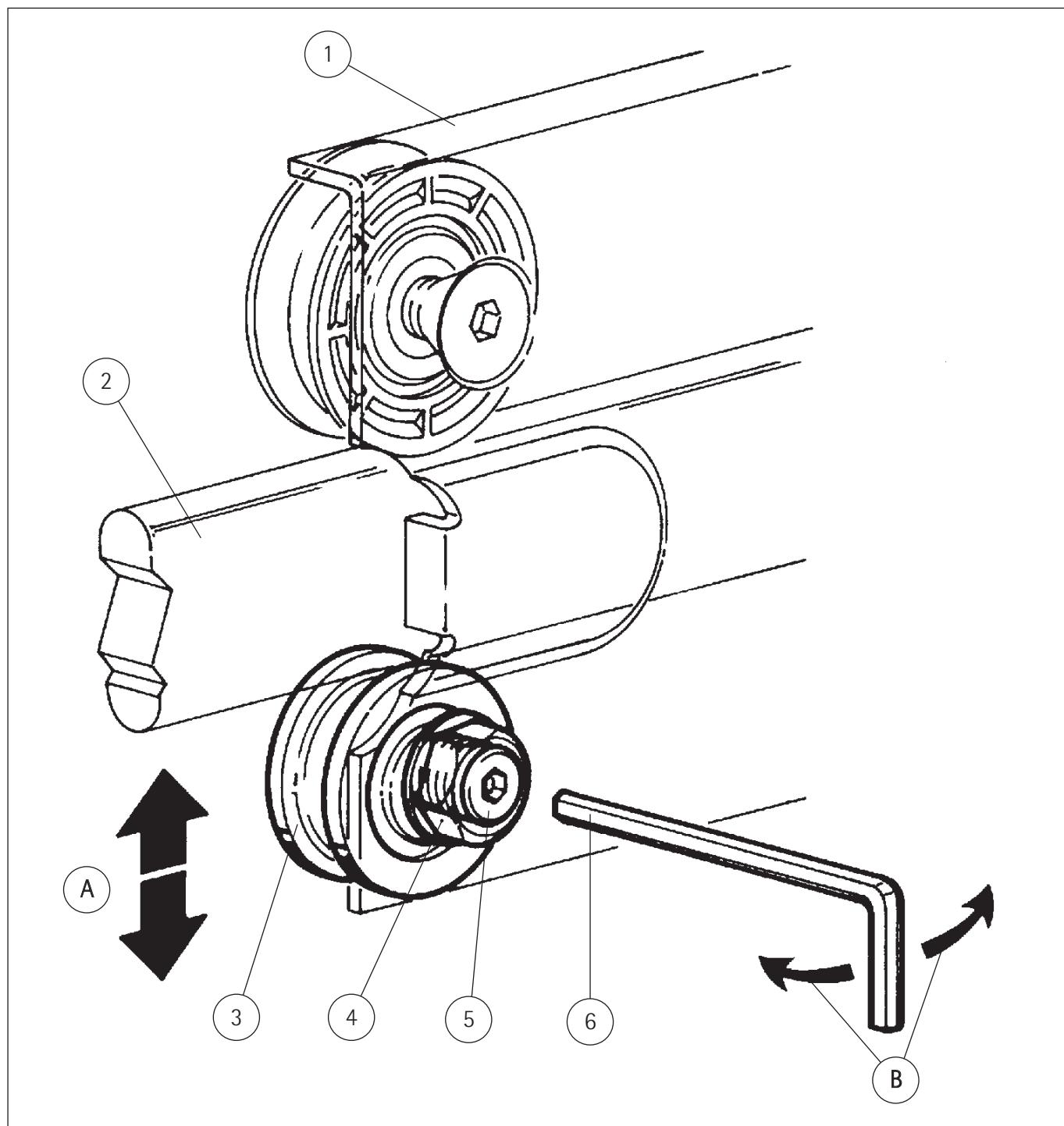


Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	27.37

18. SLIDING ROLLERS ADJUSTMENT

To get rid of the play between the hanger (1) and the sliding guide (2), adjust the eccentric 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, rescrew the roller stopping bolt (4).



HYDRA PLUS UD300 CAR DOOR

 Code
Version

GM.2.002668.EN

B

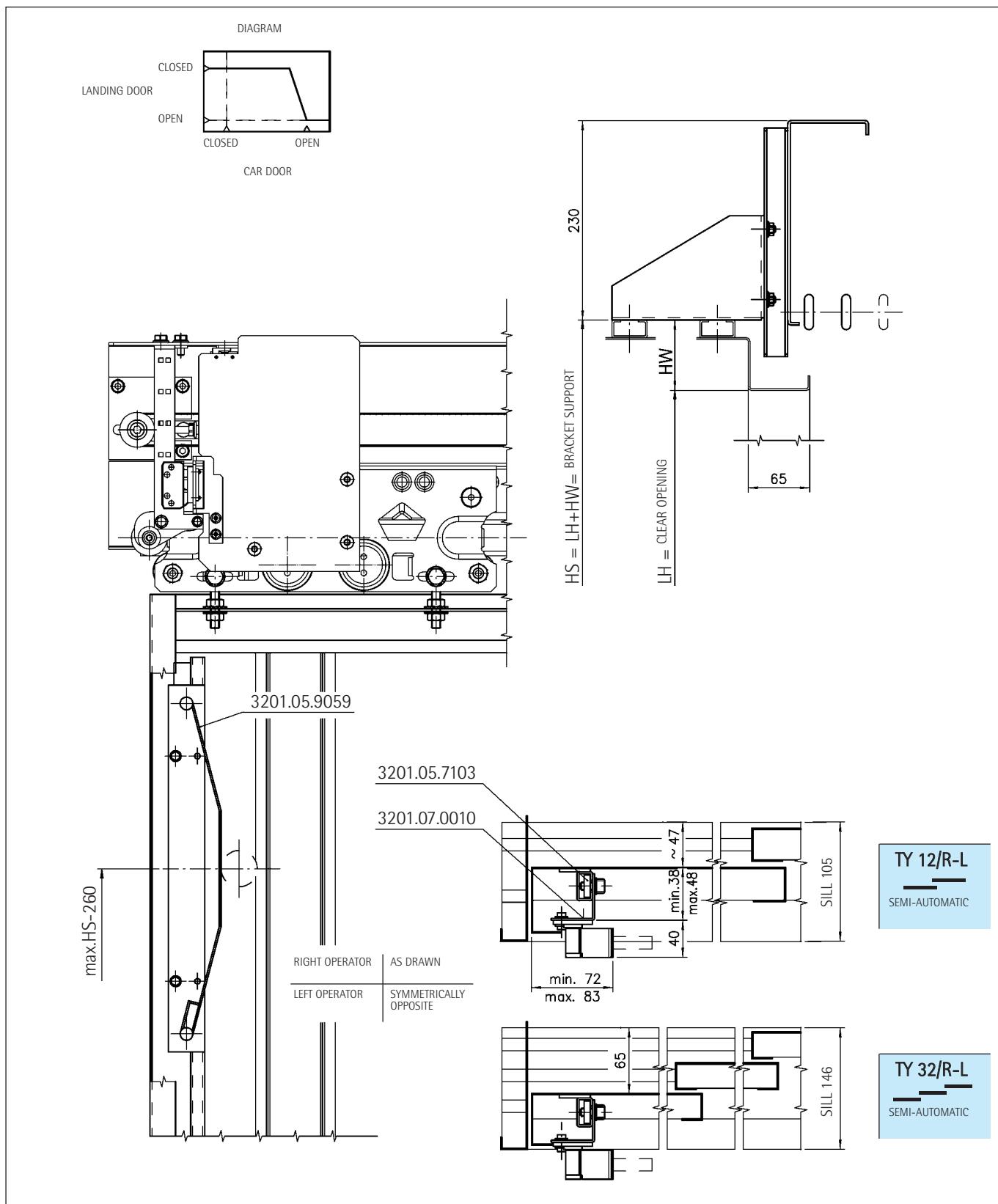
 Code
Version
Date
Page

3201.32.0397

B

04.02.2013

28.37



HYDRA PLUS UD300 CAR DOOR

 Code
Version

GM.2.002668.EN

B

 Code
Version
Date
Page

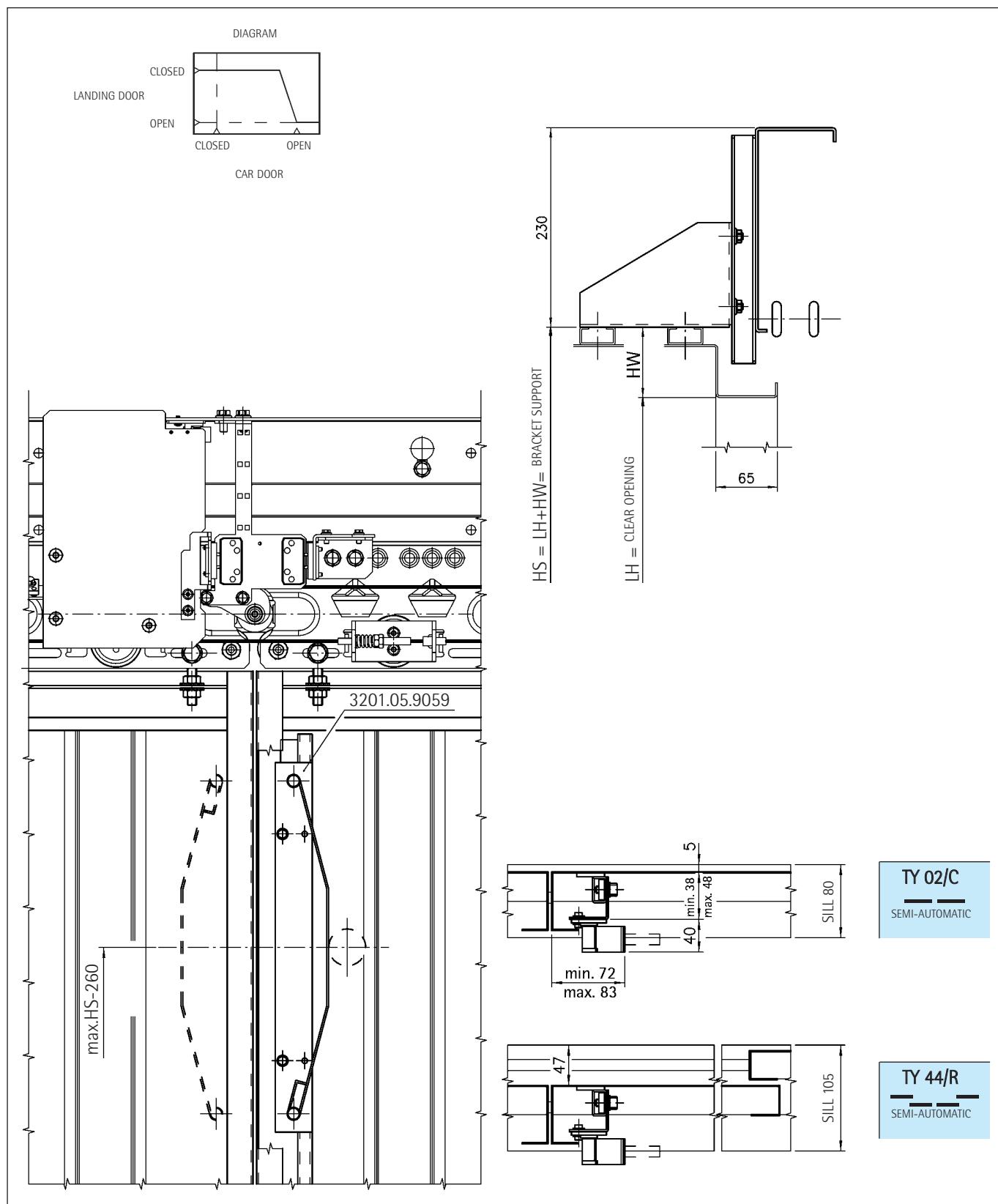
3201.32.0397

B

04.02.2013

29.37

19.1 MECHANICAL RELEASE ASSEMBLY TYPE 1119 - CENTRE OPENING CAR DOORS

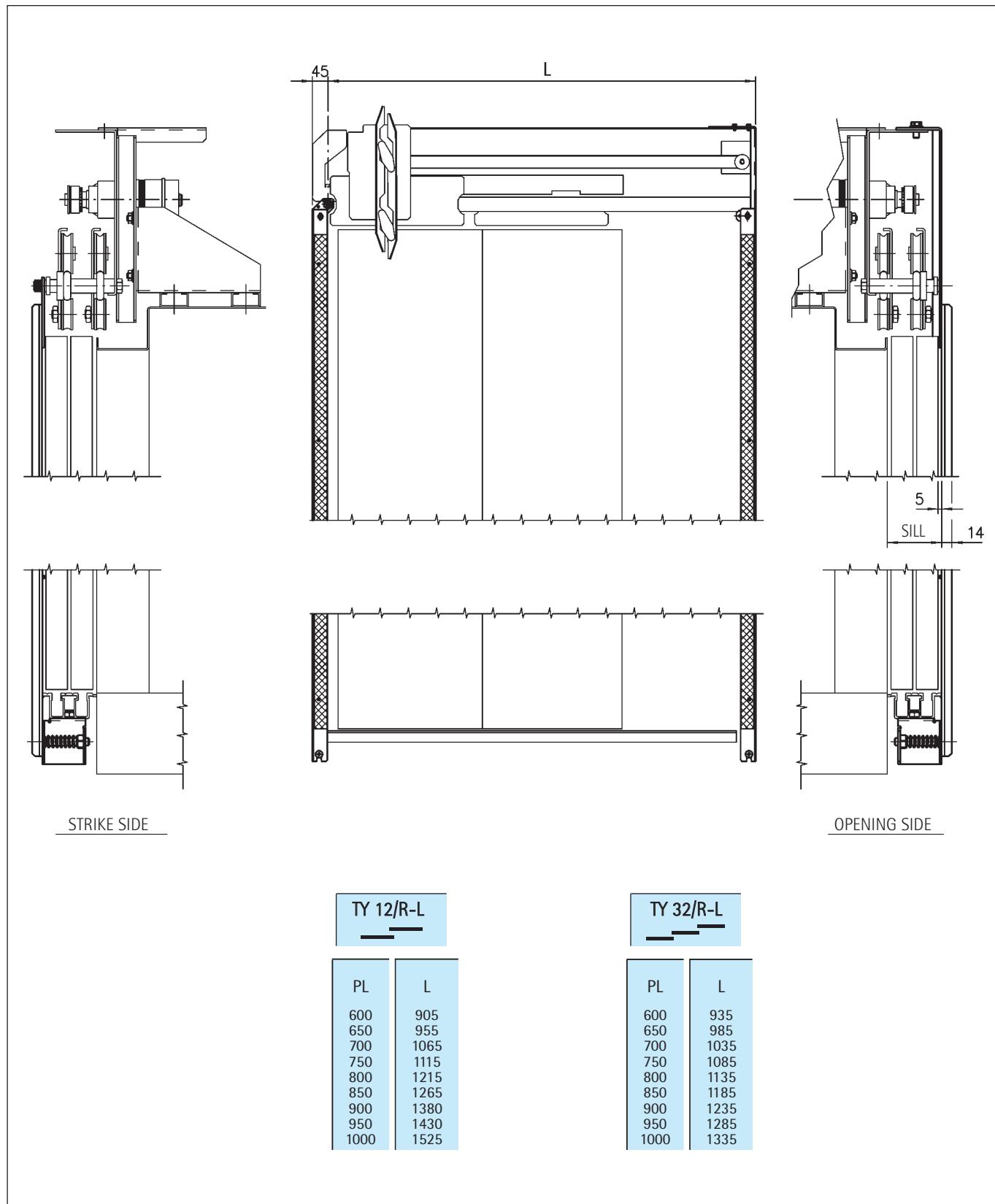


Subject to change without notice!

HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	30.37

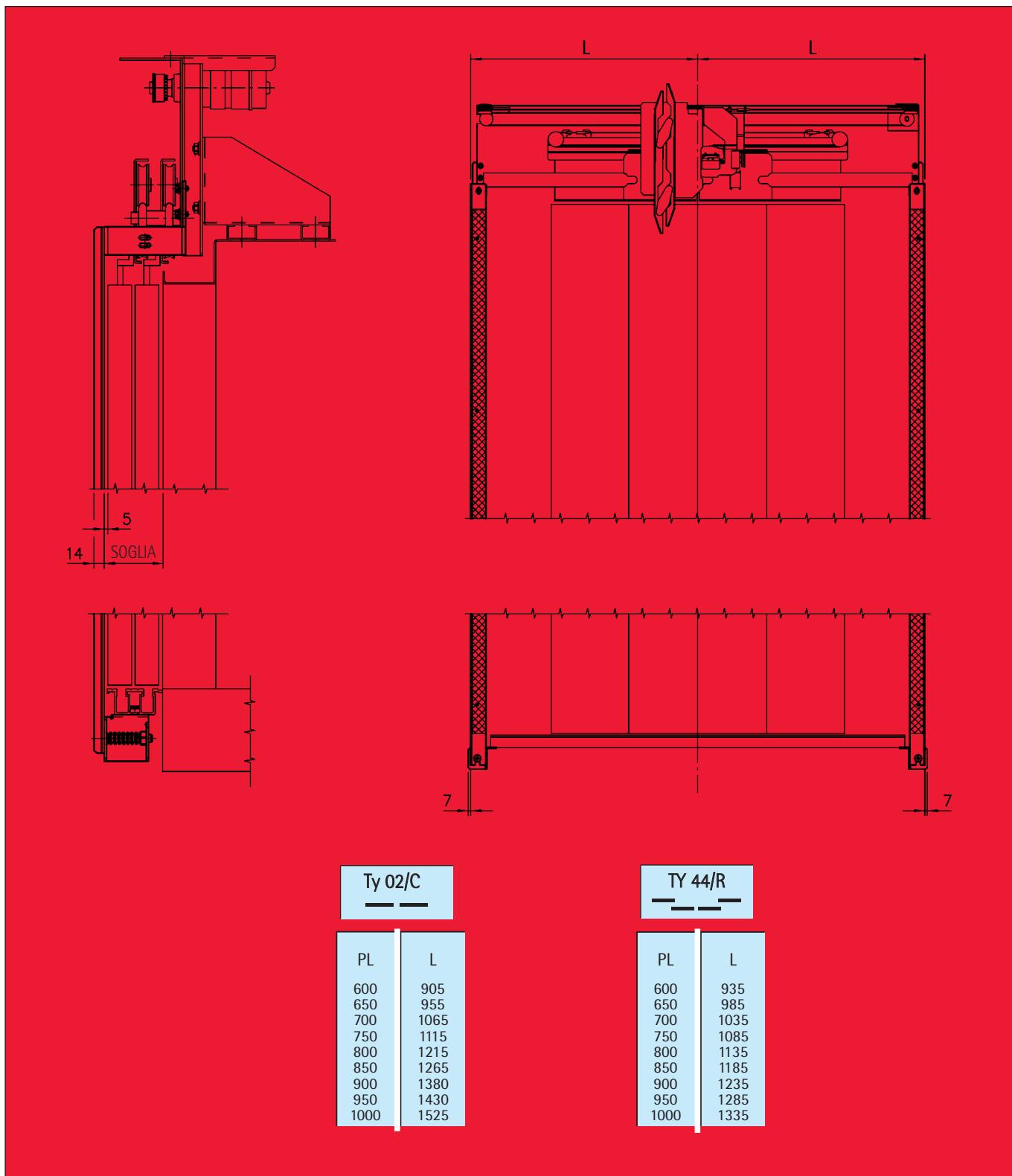
20. FITTING FIXED EDGE SUPPORT WSE81 WSE155 FOR ONE-SIDE OPENING DOORS TY 12/R-L;
TY 32/R-L



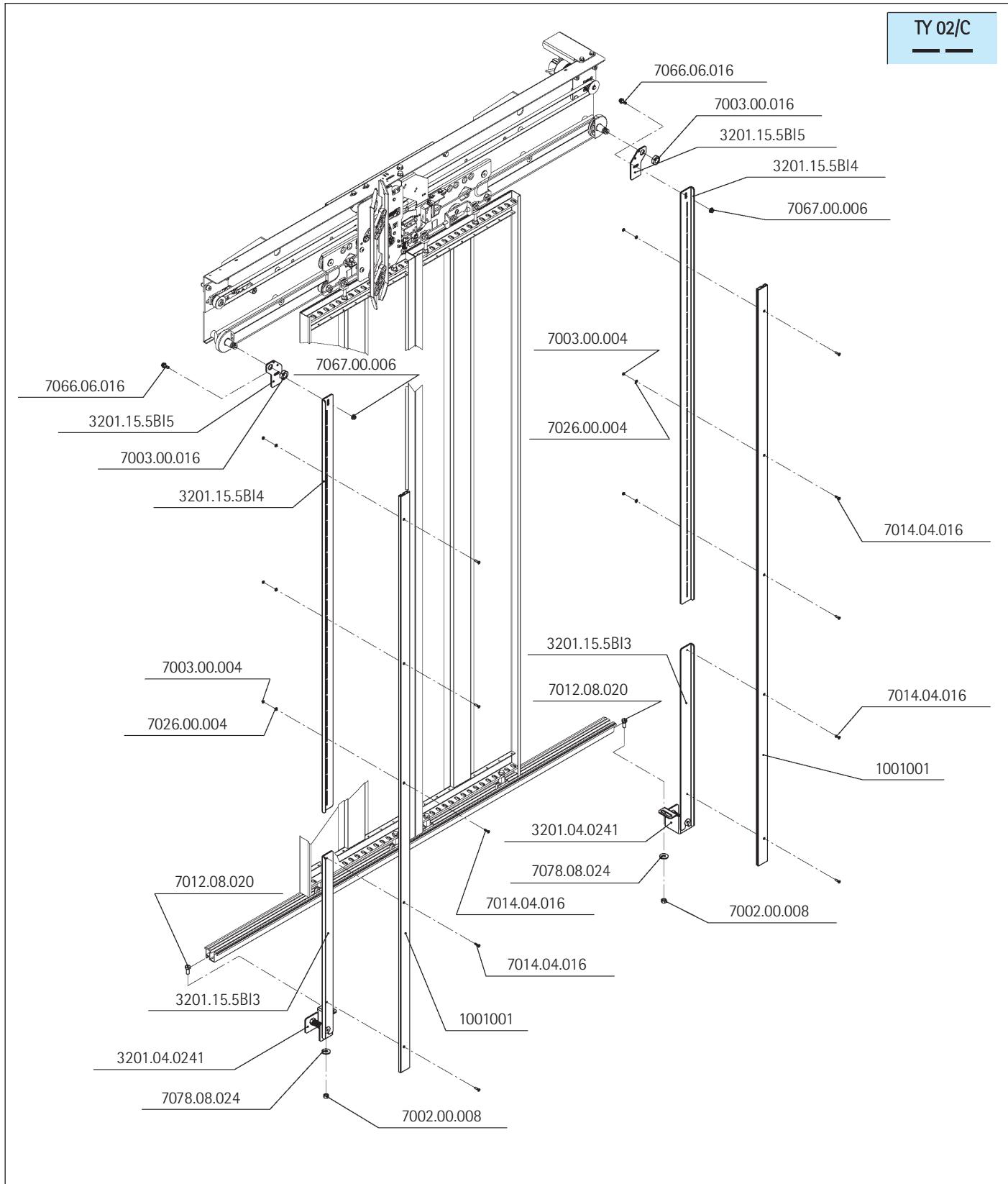
HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	31.37

20.1 FITTING FIXED EDGE SUPPORT WSE81 WSE155 FOR CENTRE- OPENING DOORS TY 02/C; TY 44/R

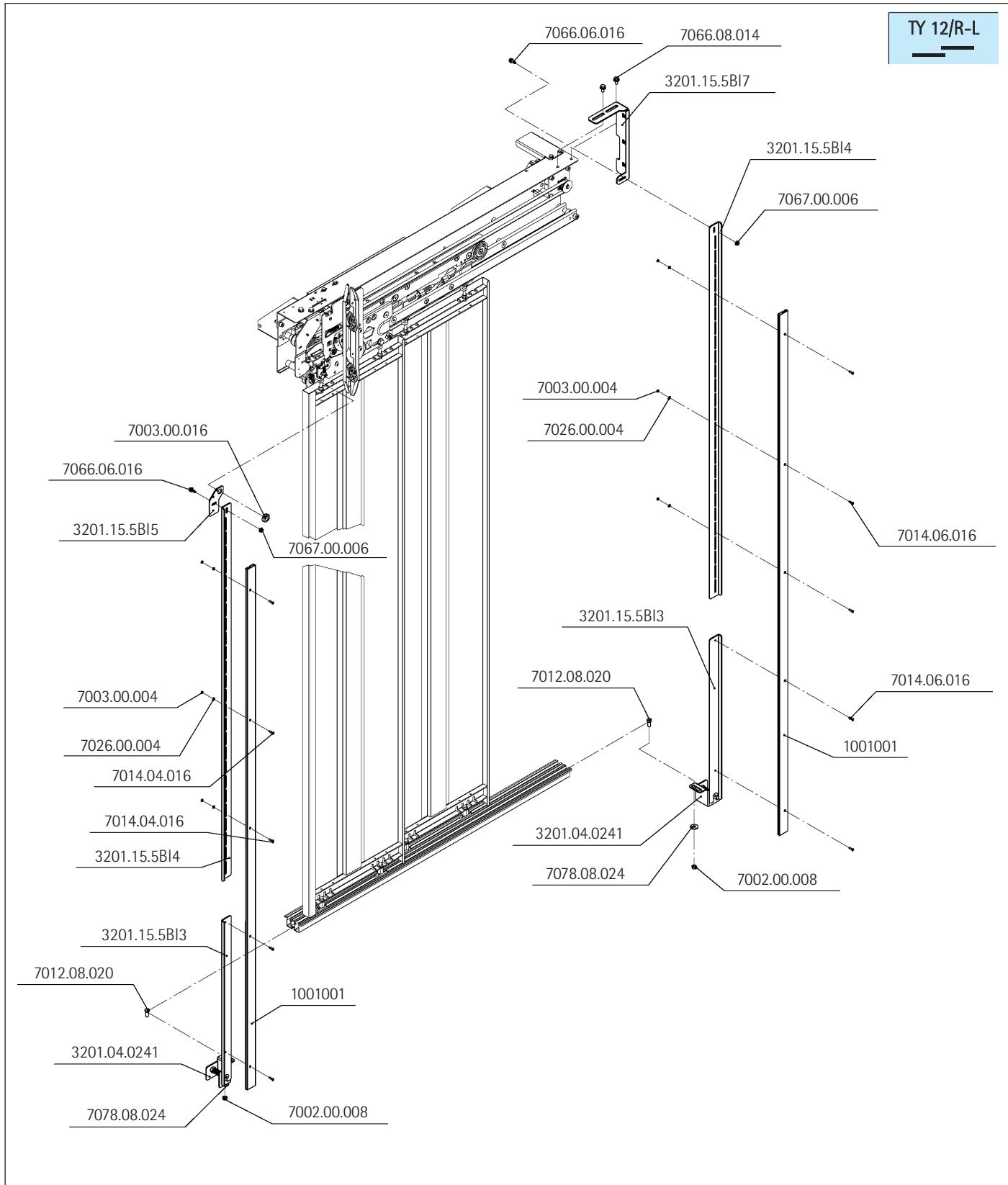


21. INSTALLATION ON CAR DOOR OF FIXED SUPPORT FOR WSE EDGE



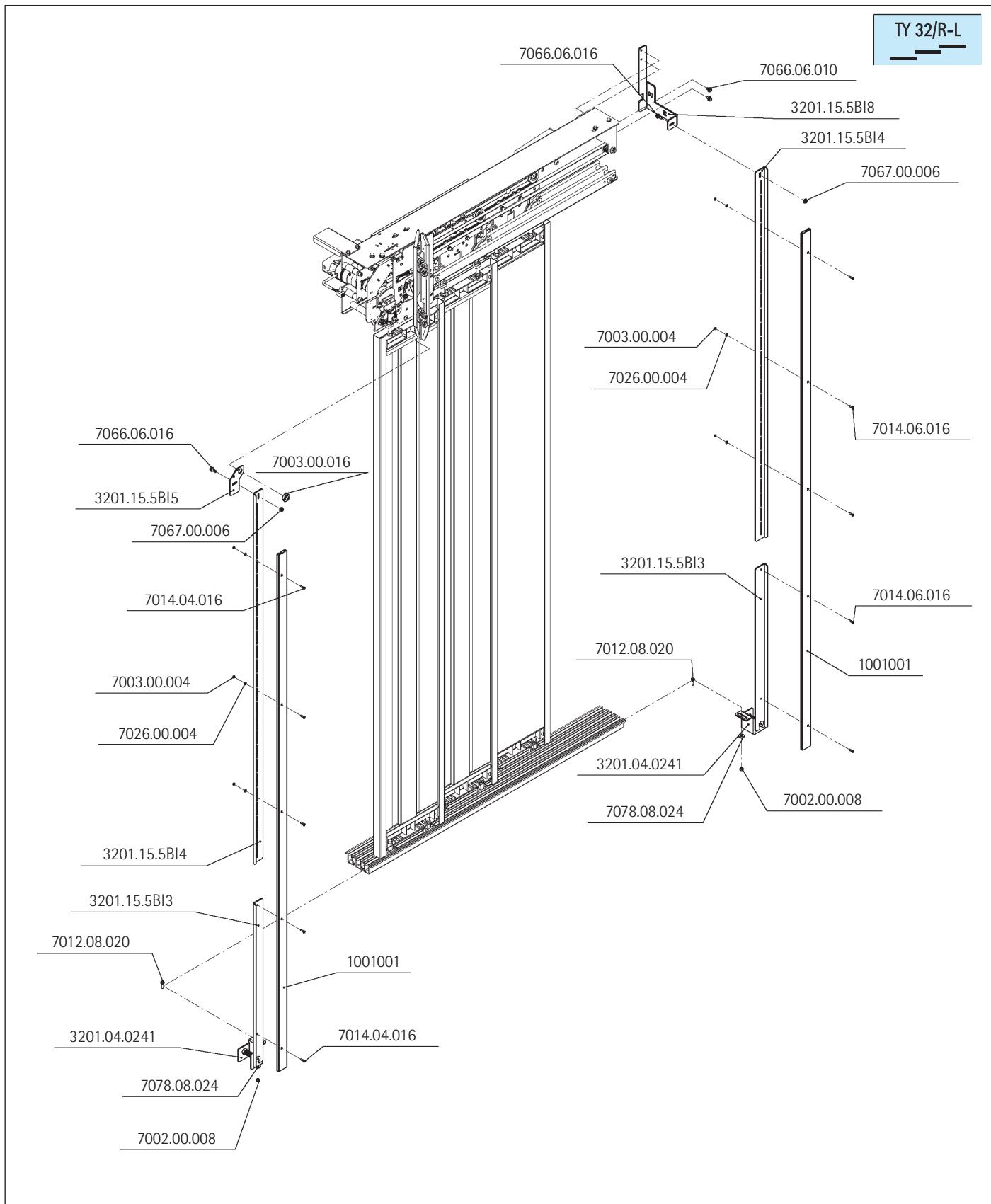
HYDRA PLUS UD300 CAR DOOR

Code Version	GM.2.002668.EN
	B
Code Version	3201.32.0397
	B
Date	04.02.2013
Page	33.37



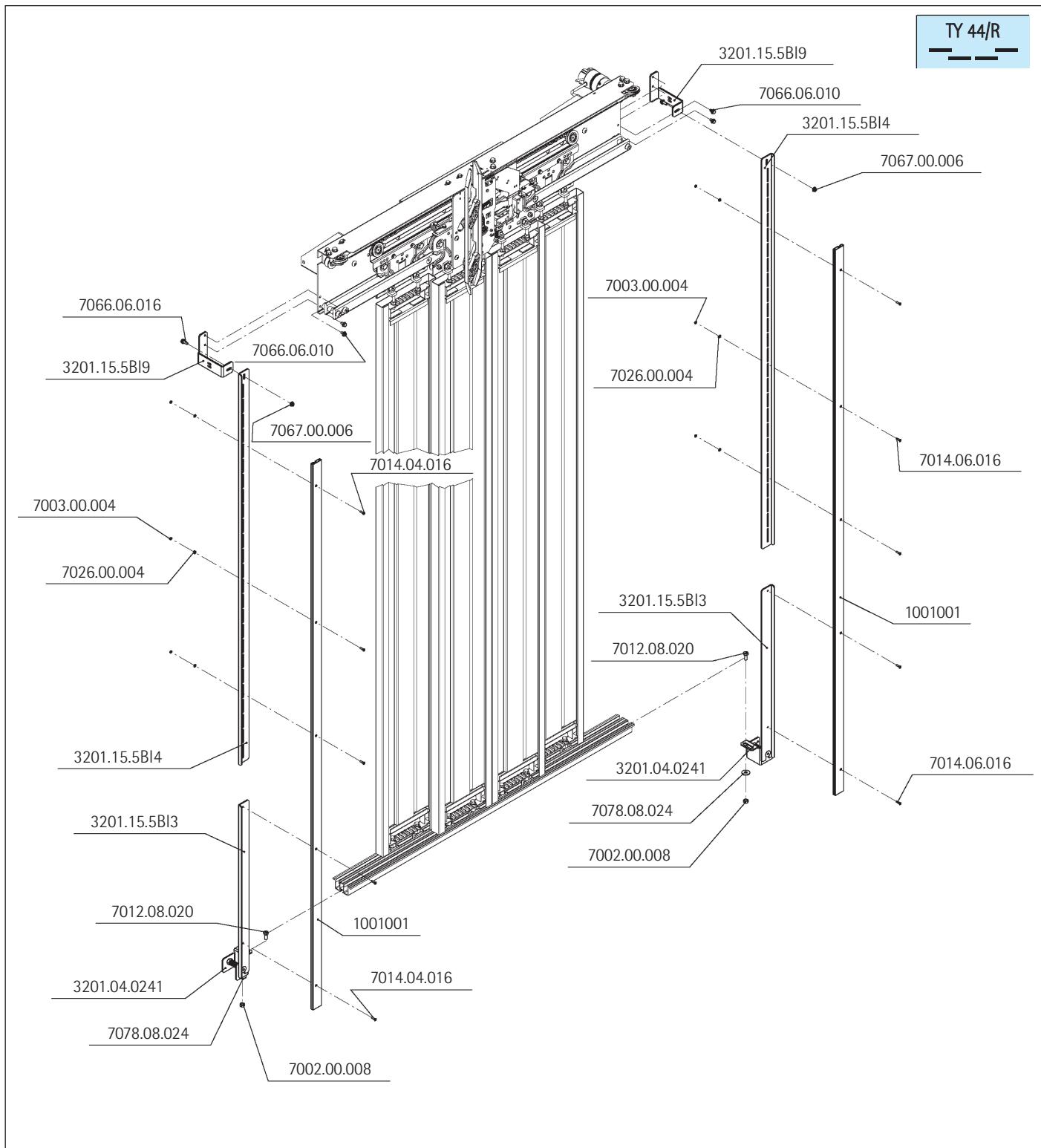
HYDRA PLUS UD300 CAR DOOR

Code Version	GM.2.002668.EN
	B
Code Version	3201.32.0397
	B
Date	04.02.2013
Page	34.37



HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	35.37



HYDRA PLUS UD300 CAR DOOR

Code Version	GM.2.002668.EN
	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	36.37

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.

HYDRA PLUS UD300 CAR DOOR

Code	GM.2.002668.EN
Version	B
Code	3201.32.0397
Version	B
Date	04.02.2013
Page	37.37



D 2 9 3 M E N b

