

Conversion instructions

Otis OVL

with device series

Door control unit

TSG

Documentation history

No.	Ver.	Date	Processed by
1	1.0	28.07.14	RAU
2	1.1	31.03.15	RAU
3	1.2	02.12.15	JE
4	1.3	30.12.19	CSA



Fordern Sie die Umbauanleitung **auf Deutsch** an, indem Sie den QR Code einscannen.

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File: 1.20.92255_Umbauanleitung_Otis_OVL_auf_TSG_V1.3_en.docx
Printing date: 12/30/2019 11:16:00 AM

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1 Essential information

1.1 Value of assembly instructions

The product assembly instructions are provided by the manufacturer or supplier to provide the information required by the customer or fitter to ensure proper, safe and reliable assembly. These brief assembly instructions serve to clarify the basic steps of mechanical assembly. The electrical connection, commissioning and settings of the TSG are explicitly not part of these instructions.

1.2 Copyright protection

We reserve all rights for this technical documentation. It may not be duplicated, made accessible to third parties or otherwise used in an unauthorised manner without our prior consent. Any changes require our explicit and prior written consent.

1.3 Instructions in the assembly manual

All instructions in the assembly manual must be followed without exception.

1.4 Informal activities performed by the fitter

The system fitter is personally responsible for participating in a training course. He or she must inform the manufacturer/supplier without delay of any missing or defective parts in the delivery.

1.5 Requirements for assembly personnel



Persons responsible for installation and maintenance must be instructed regarding generally applicable safety and labour health requirements. They must be familiar with Langer&Laumann products. Installation tools must be fully functional and measuring instruments must be subject to continuous monitoring.

2 Activity performed

Replacement of the Otis OVL door drive with a  **Langer & Laumann Ing. Büro GmbH TSG door drive.**

The purpose of the conversion is to replace the existing Otis OVL drive with a TSG drive.

3 Advantages

- Very economical package.
- Quick and easy replacement of the existing door drive with a TSG from  **Langer & Laumann Ing. Büro GmbH.**
- **Just a few** mechanical attachments are required.
- All necessary parts are included with delivery.
- Conversion can be performed **very quickly** and **easily**.
- The electrical wiring can also be performed by **less experienced fitters**.
- **No hand-held** terminal is required for setting parameters. All parameters can easily be adjusted on the device.
- **Measurements can be performed very easily.**
- The conversion kit is available from  **Langer & Laumann Ing. Büro GmbH** as **warehouse inventory**.

4 Tools required

Metal drill bits 6, 9, and 11 mm
Fork wrenches size 8, 10, 13, 17
Screwdriver
Side cutter

5 Conversion instructions



NOTE:

The order of assembly listed here is simply a recommendation. There is no claim of completeness.

1. Disassembly of the existing drive.
2. Assembly of the TSG drive on the hat-shaped combination bracket.
3. Assembly of the TSG counter roller with clamping station on hat-shaped combination bracket.
4. Assembly of the door panel carriers on the fast door panel and assembly of the TSG toothed belt lock on the TSG door panel carrier.
5. Assembly of the TSG drive unit and deflection roller unit on the door machine. The TSG drive can be mounted on the left or right side of the door machine (regardless of the opening direction of the door machine).
6. Set the TSG toothed belt in place. The toothed belt lock must be positioned at the height of the toothed belt or toothed wheels (must line up). Use the clamping station to tension the toothed belt.
7. Position the end stops or buffer stops. The door panel carrier must be able to reach the end stops when the door is completely closed or open.
8. Check the travel path.
9. A second safety circuit contact must be installed for a door that opens centrally so that both door panels can be queried.
10. Measure the TSG electronics unit. Make certain there is a fixed stop in both the open and closed positions. For the remainder of commissioning and electrical connection process, please refer to the TSG manual.
11. Supplementary motor mount and connect it to the lock

6 Illustrations



Fig. 1: Otis OVL before conversion



Fig. 2: TSG in Otis OVL, after conversion

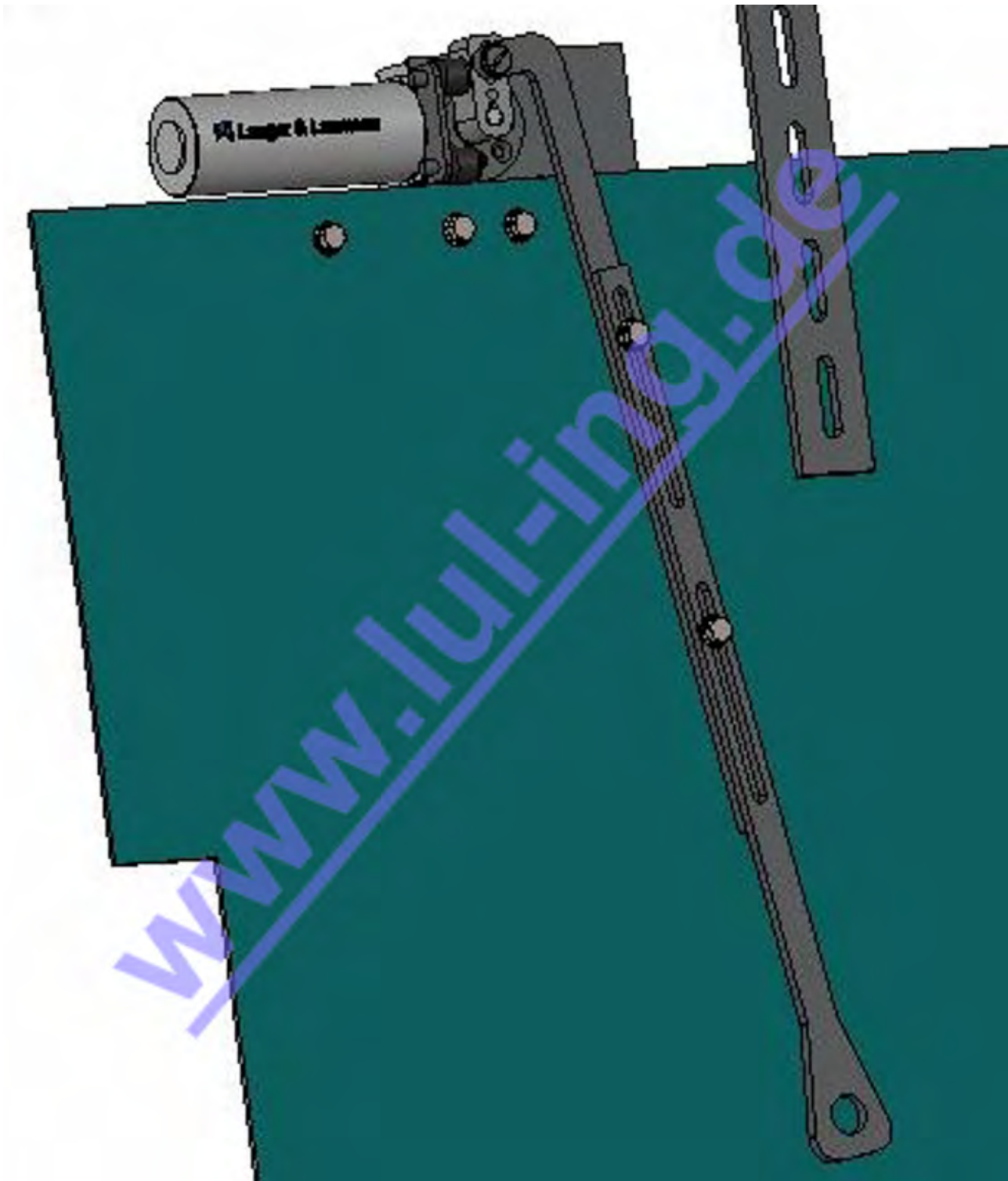


Fig. 3: TSG additional drive



Fig. 4: Original skate



Fig. 5: Otis OVL Central

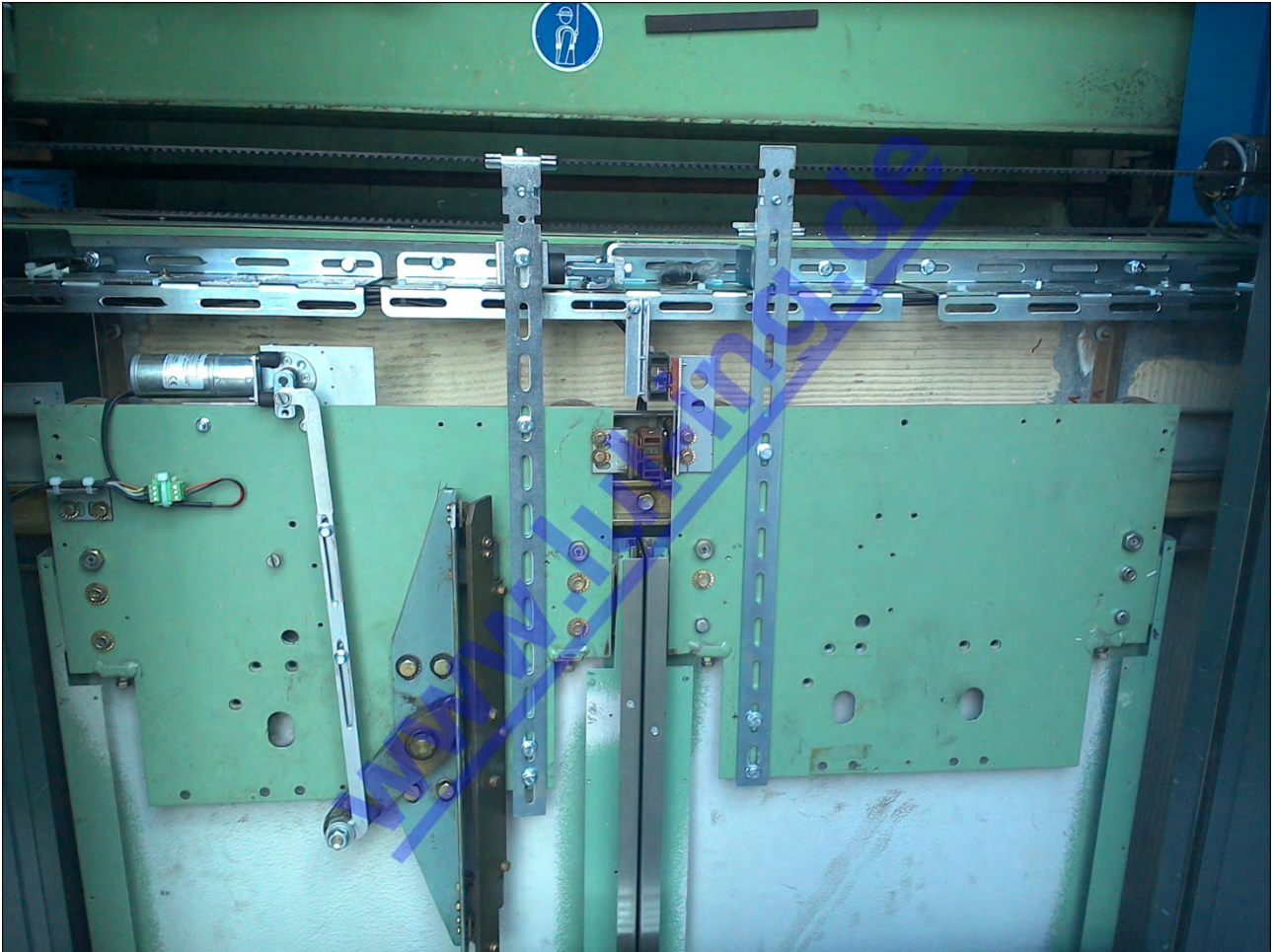


Fig. 6: Converted Otis OVL door

7 Short description additional drive

The TSG extension board for drive is able to activate and move at least two additional drives. It is connected with the control section of the TSG main board for this purpose. Parameters can be adjusted in the TSG main board for activating the function (**hA**), changing the opening and closing time of the drive (**hb / h7**) and setting the time delay between the opening of the drive and the opening of the door (**hC**).

7.1 Activation of the function

To be able to use the TSG drive expansion board function, activation must be set to **01** with parameter **hA**.



NOTE:

For additional information on parameter settings, see the TSG door control device manual.

7.2 Opening and closing time of drive

The opening and closing time of the drive can be adjusted with parameter **hb and h7**. Values can be changed in increments of 0.01 seconds. A time of 0.6 seconds can be applied as the default value for both the in and out travel of the drive. However, this value must be monitored and adjusted to specific local conditions as appropriate.



CAUTION:

The values must not be set larger than the time actually required to move the drive in or out. Otherwise the drive could fail!



NOTE:

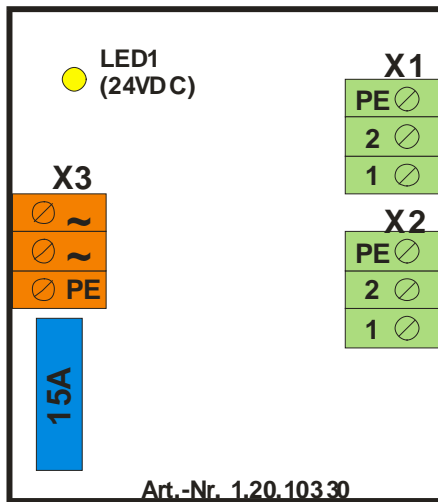
When a value is changed and confirmed, it is permanently stored. This means that the modified value is still available even after a power failure.

7.3 Time delay between door drive and drive

A setting can be made so that when an open command is sent from the elevator controller to the door control device, the drive first moves the skate apart and then the door moves up. Parameter **hC** can be adjusted for this purpose.

7.4 Technical data for TSG electronics

7.4.1 Overview of TSG drive expansion board



X1: Connection for drive 1

X2: Connection for drive 2

X3: Alternating voltage connection

LED 1: 24[VDC] ok



7.4.2 Terminal assignment for TSG drive expansion board

Table 1: TSG expansion board X1 – drive 1

X1 drive 1 (3-pin screw connector):		
1	Connection 1	
2	Connection 2	
PE	PE	

Table 2: TSG expansion board X2 – drive 2

X2 drive 2 (3-pin screw connector):		
1	Connection 1	
2	Connection 2	
PE	PE	

Table 3: TSG expansion board X3 – mains power connection

X2 drive 2 (3-pin screw connector):		
~	Connection 1	
~	Connection 2	
PE	PE	

8 Contact

If you have questions or are not certain about something, we can be reached at the following address:

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