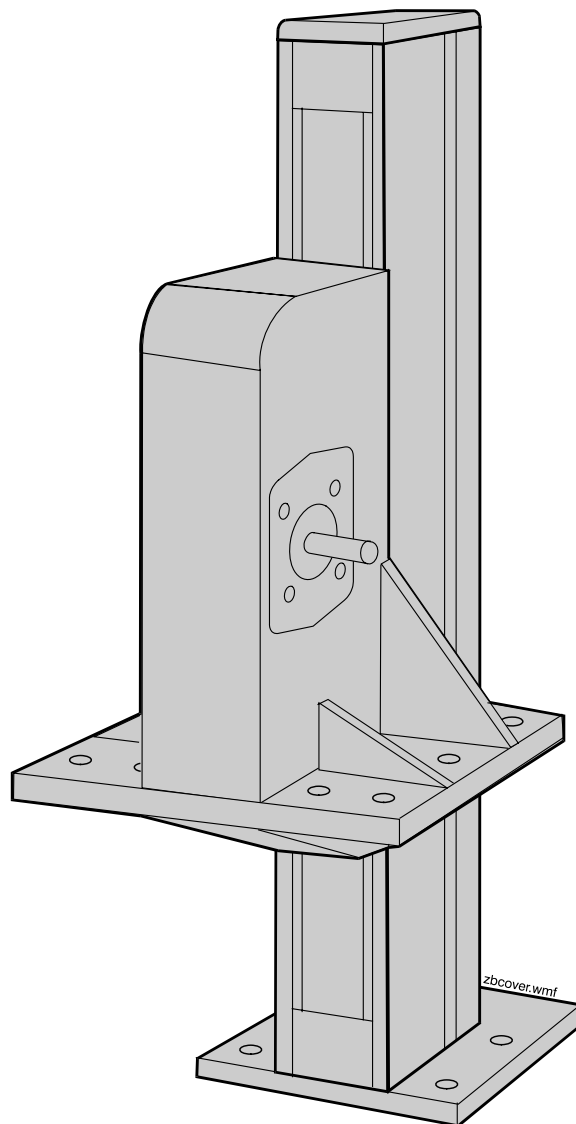


MovoZ ZB



Installation and Service Manual
Edition: 3
DW110428gb-0703

Version History

Edition Number	Edition Date	Reason for Revision
1	2001	Manual created
2	2002	Updated
3	2007-01-17	Lubrication instructions changed

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Section 1 Introduction

MovoZ ZB is a linear drive unit for lifting applications that only may be installed vertically. MovoZ ZB is built around a driving station, which is installed to the support, and the moving member, which consists of an extruded aluminium profile with a plate in the lower end to which the load is attached. A belt runs trough the profile and the drive station. The belt is driven by a motor, which is mounted to the drive shaft of the drive station. Thus the profile together with the load attachment plate can move along the ball guides which is installed in the drive station. MovoZ ZB is available in a number of different configurations, which are described in the type designation key on the next page.

In order to be able to use this manual properly, it is important to understand which type of MovoZ ZB you have. Feel free to contact Tollo Linear if there are any doubts as to the type or if you have any other questions. When you do so, please state the manufacturing number and the type designation of the MovoZ ZB, see figure 1.

Section 2 Type designation system

M	F	-Z	B	200	A	00	X	...
Metric.....M	Ball guide.....F	Profile size.....ZB.....-Z	Belt drivenB	Linear move / drive shaft revolution.....200 mm.....200	Single saddle.....A	Standard at single saddle.....00	Drive shaft on both sides.....X Drive shaft on left side.....Q Drive shaft on right side.....R or at MovoZ ZB with custom design.....M	Ordering length in cm (see measure L in figure 1).....00 – 999 or Sequential number at custom design.....000 – 999

Table 1: Type designations

Section 3 Installation

3.1 Mounting instructions

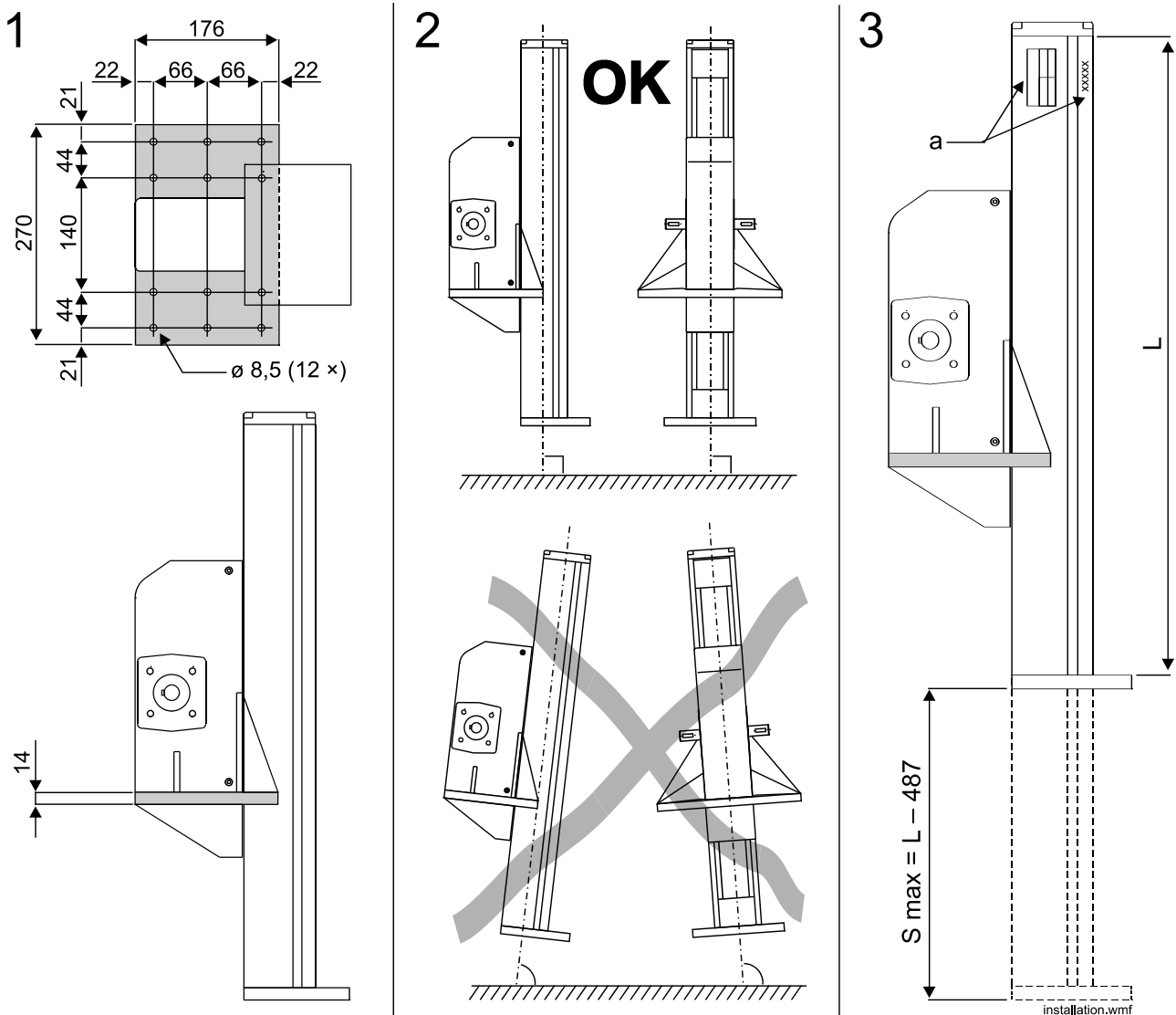


Figure 1: Mounting instructions

1. Mount the unit with the aid of the holes in mounting plate of the drive station.
2. The unit must only be mounted vertically.
3. Definition of the measures S max. and L. Place for type sign and manufacturing number (a). State the manufacturing number at spare part ordering.

3.2 Installation of brake

Important!

As MovoZ ZB is not self raking the load attachment plate together with the load immediately will fall down if the driving force is disconnected. This means that MovoZ ZB must be equipped with an electrically operated spring loaded brake, which can hold the load. This can be mounted in the motor or be installed separately.

3.2 Connection to motor flange

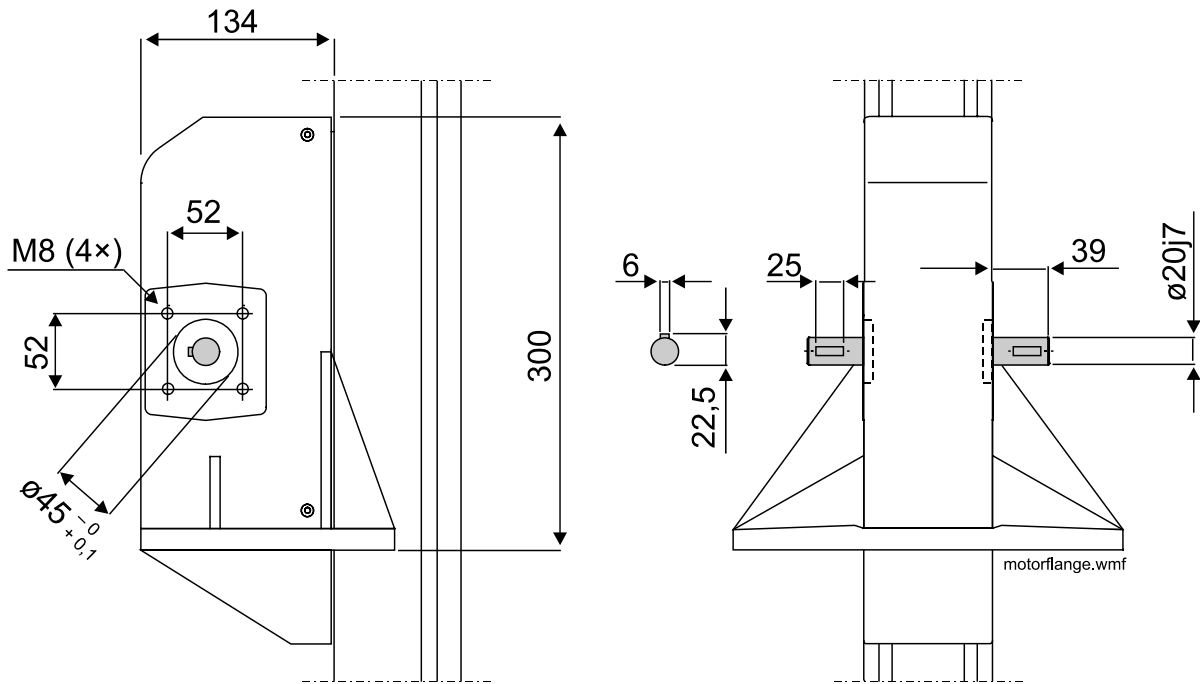


Figure 2: Connection to motor flange

3.3 Connection of load

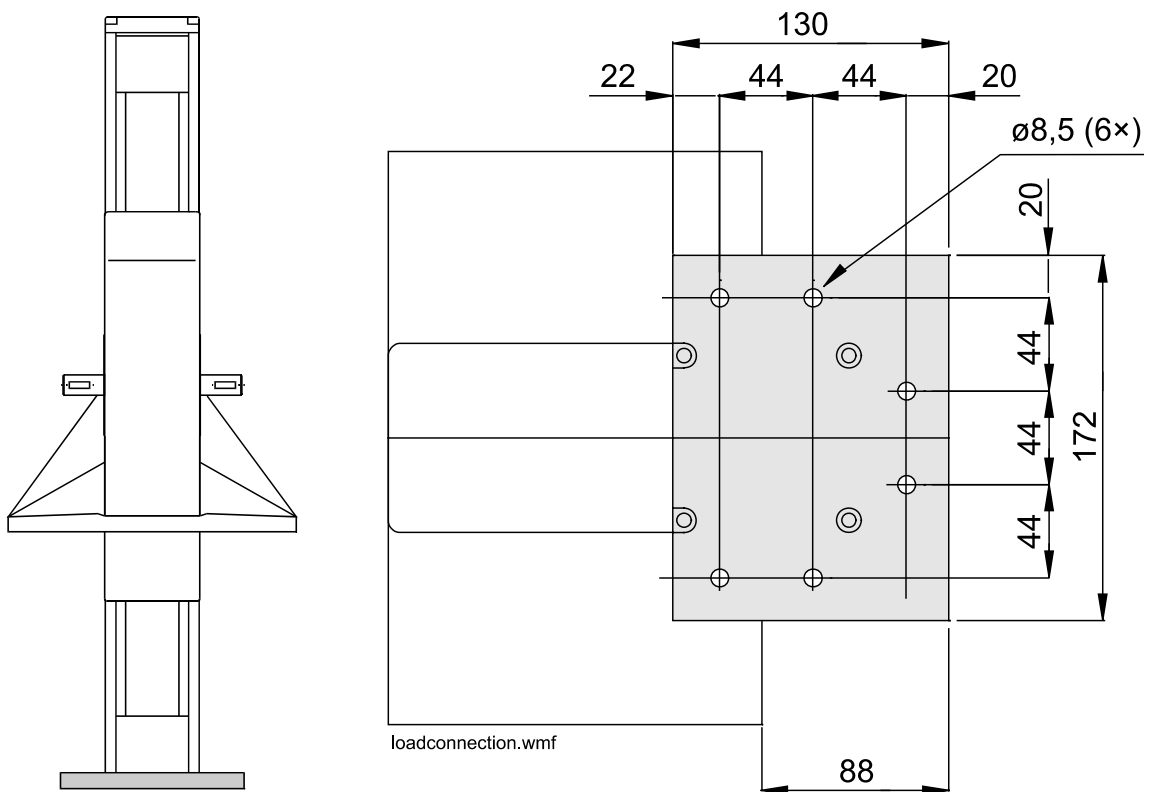


Figure 3: Connection of load

In order to minimise the load torque the load should be installed as close to the centre of the load attachment plate as possible

Section 4 Service and maintenance

4.1 General maintenance instructions

- The customer can perform the service and maintenance described in this manual. Other service ought to be performed by service personnel from Tollo Linear, either on-site or at a Tollo Linear Service Centre.
 - Follow the recommended service intervals. Replace defective parts immediately. Only use parts of the same make and type as original. Ordering data can be found in the spare part lists supplied with the unit. Also state the manufacturing number of the unit (embossed in the upper end of the profile).
 - MovoZ ZB is not self-braking. This means that the load attachment plate and the load immediately fall down to the lowest position if the brake is detached. Ensure therefore that the unit is secured or is placed horizontally before the brake is detached.
 - Check the unit regularly. Particularly check for wear or damage on the belt, the suspensions and the connection of the load. Also be attentive towards a changed level of noise. Replace, repair or adjust.
 - Keep the unit clean. Wipe it off as required. If cleaning fluid is required, use small amounts and see to it that none gets into MovoZ ZB, do not use strong cleaning agents. Dry it fully.
-

4.2 Lubrication

The unit is lubricated for life and does not require any additional lubrication.

4.3 Control and adjustment of belt tension

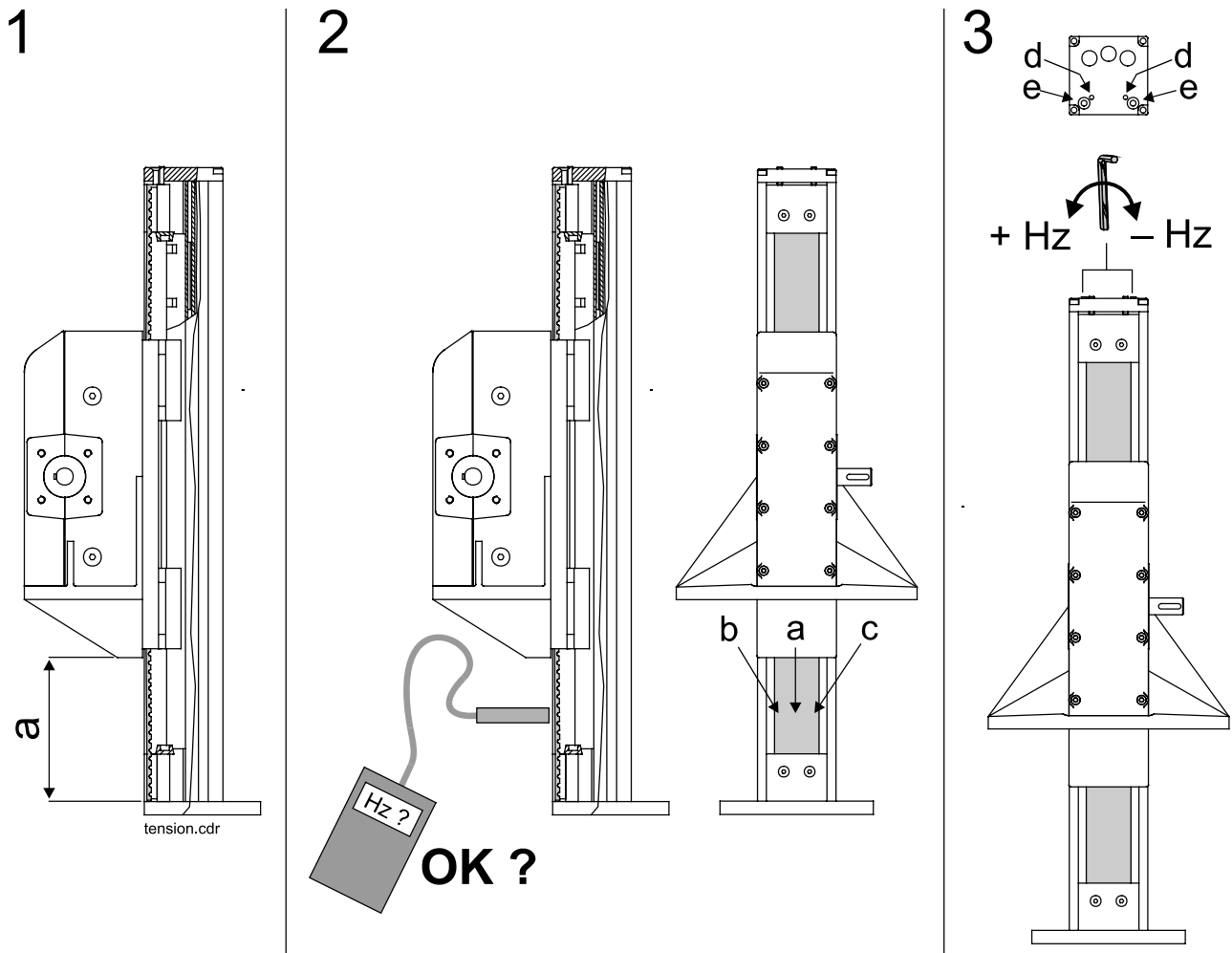


Figure 4: Adjustment of belt tension

1. Place the profile so that a = 192 mm.
2. Measure the belt frequency with a frequency meter according to the instruction of the frequency meter being used. Correct frequency is 130 Hz ± 10. Measure so that the frequency is correct both in the middle (a) and at the sides of the belt (b and c).
3. If the frequency is not correct, loosen the lock screws (d) and turn the adjustment screws (e) until the correct frequency is set in the points a, b and c. At last, lock the lock screws again.

Section 5 Technical data

MovoZ ZB		MF-ZB
Max. speed	(m/s)	3
Repeatability	(mm)	± 0,1
Ambient temperature	(°C)	-20 – +70
Linear move / drive shaft revolution	(mm)	200
Max. input speed	(rpm)	900
Weight	(kg)	15,5 + 8,6 × (L ^A – 0,487)

^A L in meters, see figure 1

Table 2: Technical data

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