

**KPM - ECO - ADVANCED**  
Description and mounting instruction

Kollmorgen Steuerungstechnik GmbH  
Broichstraße 32  
51109 Köln  
Telefon +49 (0) 221 89 85 0  
Telefax +49 (0) 221 89 85 30  
<http://www.kollmorgen.de>  
Email [info@kollmorgen.de](mailto:info@kollmorgen.de)

Kollmorgen Lift Controls Ltd.  
Unit 2, The Office Village  
Chester Business Park  
Chester, Cheshire, CH4 9QP  
Telephone + 44 (0) 1244-67 85 49  
Fax +44 (0) 1244-68 15 78  
Email [info@kollmorgen.co.uk](mailto:info@kollmorgen.co.uk)

**Contents**

<b>1</b>	<b>Introduction .....</b>	<b>3</b>
<b>2</b>	<b>Safety Instructions:.....</b>	<b>3</b>
2.1	General Explanations .....	3
2.2	Start up and Service.....	3
<b>3</b>	<b>Start-Up.....</b>	<b>4</b>
3.1	KPM ECO ADVANCED Version .....	4
<b>4</b>	<b>Service Instructions .....</b>	<b>8</b>

### 1 Introduction

The Kollmorgen Positioning System Mechanic Kit (KPM) type <<ECO ADVANCED>> is used for holding a transmitter for an absolute - shaft copying system.

**Mechanic-Kit construction:**



**toothed belt- mounting:**

**Encoder type:**

**Encoder assembly:**

**Shaft height:**

**Travelling speed:**

**Assembly works by:**

counterweight and cabin

absolute value

guide rail in the headroom

max. 80 m

max. 4.0 m/s

1 person

### 2 Safety Instructions:

#### 2.1 General Explanations



**HAZARD**

designates an immediately threatening danger for people's life and health.



**WARNING**

designates a possibly hazardous situation. There could be very serious injuries or death if this warning is ignored. It also warns about dangers to machines, materials or the environment.

#### 2.2 Start up and Service



**HAZARD**

You are exposed to the dangers of getting crushed or caught in machines, the dangers from clothing and body parts getting drawn into rotating equipment components and dangers from falling off of objects during start-up and service work. Please comply with all safety regulations for installing lifts and take the appropriate safety precautions.



**WARNING**

Start-up work may only be done by persons who have acquired the capability due to the expertise they have acquired by vocational education, professional experience and recent work in this area.

Please bear the fact in mind that two persons should do start-up work depending upon the mechanic kit used.

Only use original parts from the mechanic kit.

Please follow all of the steps listed on start-up work in the chapters of the mechanic kit used.

**3 Start-Up**

**3.1 KPM ECO ADVANCED Version**



**INSTRUCTIONS**

The following steps describe how to install and start up the mechanic kit at the end of the counterweight guide rail in the shaft headroom.

The mechanic kit should only be mounted in the shaft head with the ECO ADVANCED model.



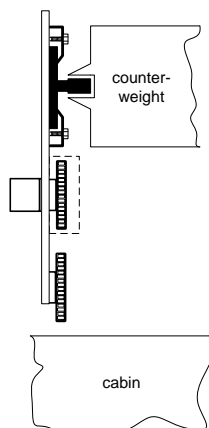
Please avoid mechanical shocks and vibrations for the alignment of the mechanics, that could damage or destroy the electronic equipment!

**steps for start up**

**remarks**

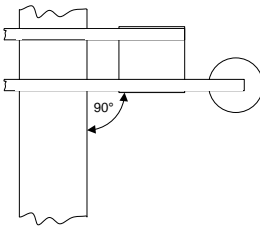
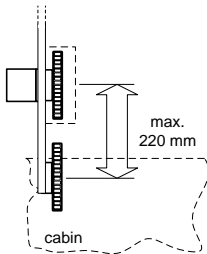
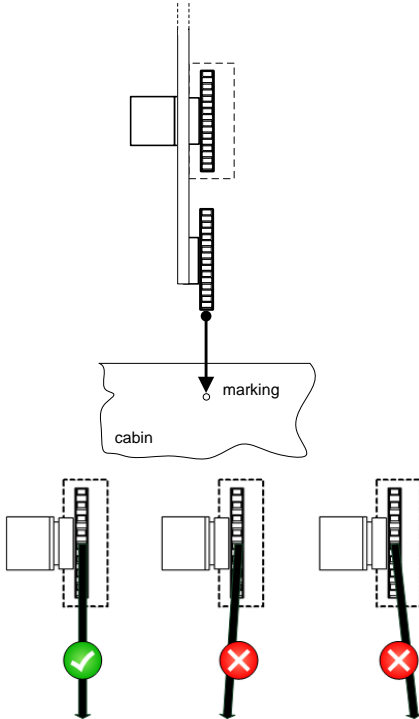
- 1 Check the material supplied against the parts list attached

- 2 Mount the mechanic kit at the end of the counterweight guide rail in the shaft headroom.



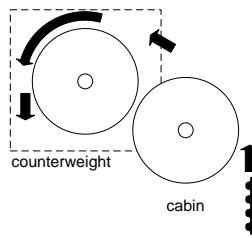
Please ensure the following when mounting the mechanic kit:

- the toothed belt pulley always points inwards to the counterweight.
- the position of the mechanic kit is as near as possible to the counterweight guide rail.
- the C profile rails do not project into the protective space (reduce the length of the C profile rails and make sure that the encoder and mechanic kit are not damaged by reducing its length).

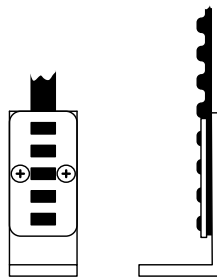
steps for start up	remarks	
<p>3 Align the mechanic kit at a 90° angle to the counterweight counterweight guide rail.</p>		
<p>4 Position the front roller of the mechanic kit over the cabin.</p>		<p>When positioning, please make sure:</p> <ul style="list-style-type: none"> <li>that the gauge for bore holes between the rollers is not in excess of 220 mm.</li> </ul>
<p>5 Transfer the plumb mass to the cabin.</p>		<p>Make sure that alignment is maintained between the two dimensional points and always measure from the middle of the belt disc.</p> <p>Very carefully transfer the marking onto the cabin because it will be the later fastening point for the toothed belt.</p> <p>Note that noise and vibration will be caused if the tooth belt is not mounted in line with the sheave!</p>
<p>6 Mount the restraining angle for the toothed belt on the cabin at the calculated fastening point.</p>	<p>Use the attached C profile rail for aligning in the vertical.</p>	
<p>7 Unroll the toothed belt into the shaft.</p>	<p>Do not guide the toothed belt in this step through the toothed belt pulley yet. Only roll out the belt in this step.</p>	

**steps for start up**

8 Guide the toothed belt from the cabin side over the toothed belt pulley and lower it to the counterweight side.



9 Fasten the end of the toothed belt on the cabin at the restraining angle.



**remarks**

We recommend putting a weight on the belt end on the counterweight side because it makes it easier to lower the belt.

Please make sure:

- to secure the end of the toothed belt before you put it into the fastening.
- that the teeth of the belt point in the direction of the counterweight.
- the belt is twist-free.

10 Travel with the cabin in the direction of the counterweight and check whether the toothed belt is twist-free during the trip.



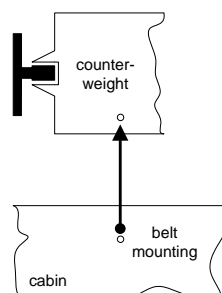
You may have to untwist the toothed belt during the trip. Follow the above safety instructions when doing this.

11 Stop the trip when you have reached the counterweight and fasten the twist-free toothed belt to prevent it from twisting again.

When you reach the counterweight, make sure that

- the toothed belt is twist-free.
- it is in a good position for subsequent mounting work.

12 Transfer the measure of belt fastening for the cabin to the counterweight.



Very carefully transfer the marking to the counterweight because it will be the later fastening point for the toothed belt.

#### steps for start up

#### remarks

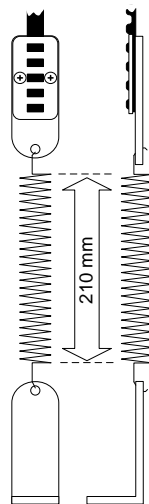
- 13 Mount the fastening for the spring on the marking on the counterweight.

You either have a retention sheet or restraining angle depending upon the fastening point.

Select the fastening point to make sure that the spring does not touch any other mounted components during lift operation.

- 14 Hang the spring into the fastening.

- 15 Guide the belt into the second fastening on the spring and tighten the spring to 210 mm.



Please remember:

- the spring's bearing distance of 210 mm refers to the measure WITHOUT the eyelets.
- the spring's bearing distance may not be any less than 200 mm

Mounting tip: Start off by guiding toothed belt at an angle through the fastening plate to ensure that the belt does not tilt when it is guided into the recesses of the plate.

- 16 Tighten the screws on the belt fastening and check the initial tension on the spring.

The spring's initial tension is correct when the spring's bearing distance is 210 mm.

- 17 Make a final control trip.

Check to make sure that:

- the belt is twist-free and properly aligned.
- the spring does not touch any other mounted components.
- the function of the mechanic kit is not impaired in the crossing paths

## 4 Service Instructions



### **INSTRUCTIONS for the tension springs**

Check the spring tension according to the specifications in the start-up instructions at least once a year because incorrect spring tension might damage the transmitter and toothed belt and it also has an impact on the availability and operational safety of the lift.



### **INSTRUCTIONS for the toothed belt**

The toothed belt is service-free, which means that you should neither oil the belt nor treat it with talcum powder or anything else.



### **INSTRUCTIONS for the roller on the transmitter and reversing gear**

The ball bearings on the rollers are service-free, which means that the rollers should not be oiled.