

## **MOUNTING INSTRUCTIONS**

### **PUNCH MARKING HEAD**

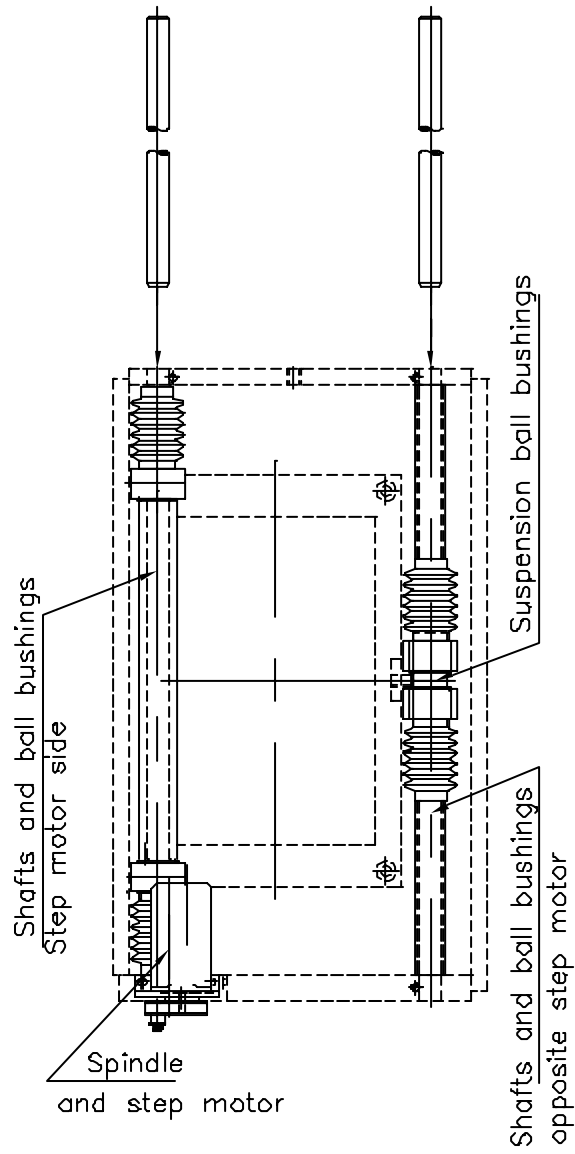
The stated tolerances must not be exceeded and the mounting instructions must be carefully followed in order to enable the punch marking head to apply marking of high quality.

If the specified tolerances are exceeded on account of wear, the worn parts should be replaced as soon as possible.

As loose bolts and screws can cause serious damage and break-downs it is important that the stated torque moments are observed and that the bolts are after tightened at regular intervals.

941121 KMo/cj

# MOUNTING INSTRUCTIONS PUNCH MARKING HEAD GUIDANCES AND SPINDLES





## **MOUNTING INSTRUCTIONS**

### **PUNCH MARKING HEAD**

Only original, approved and controlled components and parts must be used.

#### **Mounting of shaft and ball bushings - step motor side**

1. Protective pipes pos. 8 are kept in place and ball bushings pos. 6 are mounted at both ends and secured by locking rings pos. 7.
2. Retaining rings pos. 5 are mounted.
3. Ball bushings pos. 6 are lubricated with grease or oil.
4. Bellows pos. 4 and rings pos. 2 are kept in place.
5. Frame with shaft pos. 9 is placed.
6. Shaft pos. 9 is lubricated with a thin coating of oil and is carefully pressed in place.
7. Bolts pos. 1 are applied with LOCTITE type 222, then mounted and tightened 45 Nm.
8. Pointed screws in carrier pos. 2 are tightened.
9. Bellows pos. 4 are put in place and strips pos. 3 are thoroughly tightened.

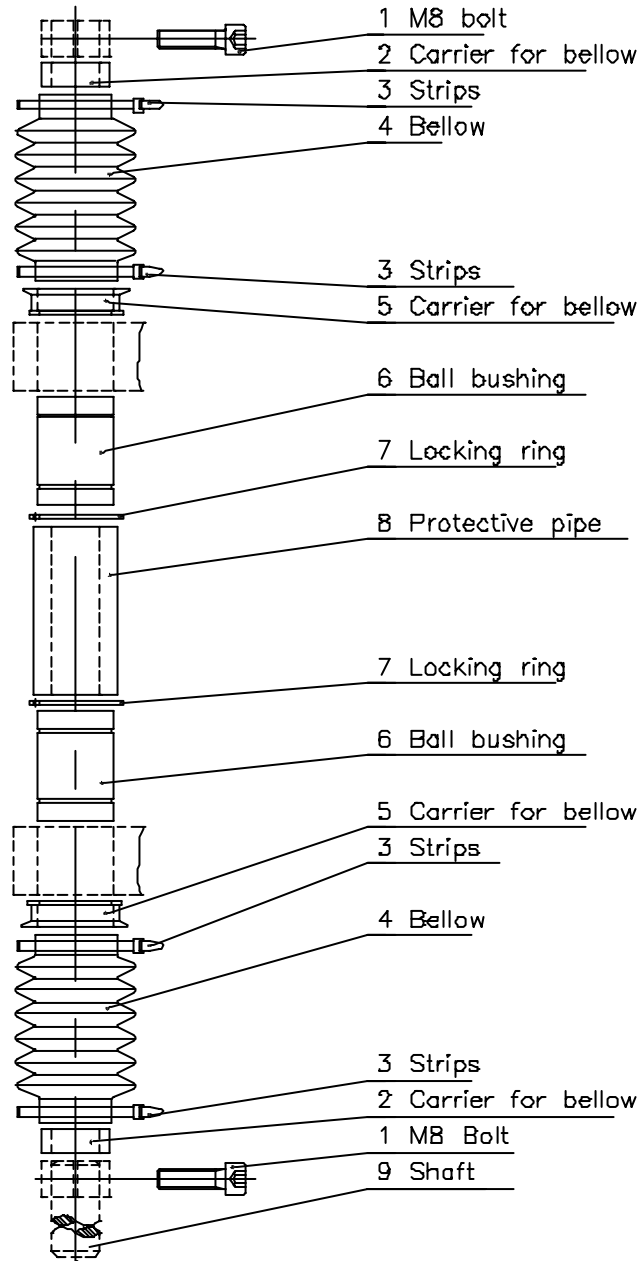
#### **Important**

**When both shafts and ball bushings have been mounted it must be controlled that:**

**The frame can move freely forwards and backwards in its entire travelling distance without any kind of clamping.**

**Radial play in the ball bushings is max.  $\pm 0.05$  mm.**

BALL TRACKS STEP MOTOR SIDE



## **MOUNTING INSTRUCTIONS**

### **PUNCH MARKING HEAD**

Only original, approved and controlled components and parts must be used.

#### **Mounting of shaft and ball bushings opposite step motor side**

1. Ball bushings pos. 6 are mounted and secured with locking rings pos. 8.
2. Retaining rings pos. 5 are mounted.
3. Ball bushings pos. 6 are lubricated with grease or oil.
4. Bellows pos. 4 and protective pipes pos. 2 are kept in place.
5. Shaft pos. 9 is lubricated with a thin coating of oil and carefully pressed in place.
6. Bolts pos. 1 is applied with LOCTITE type 22, mounted and tightened 45 Nm.
7. Pointed screws in protective pipes pos. 2 are tightened.
8. Bellows pos. 4 are placed and strips pos. 3 are thoroughly tightened.

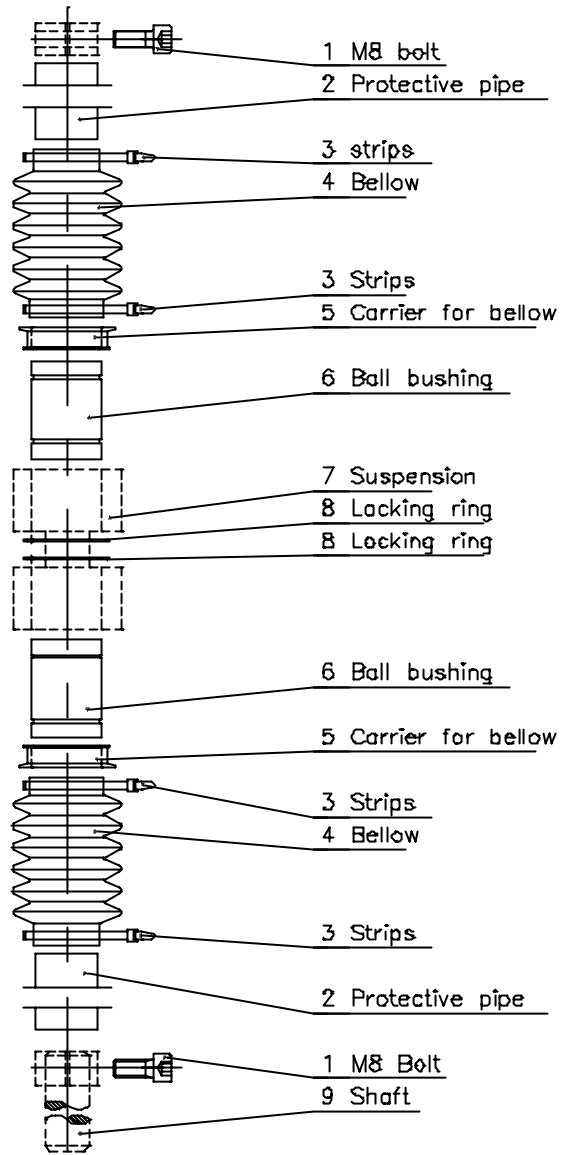
#### **Important**

**When both shafts and ball bushings have been mounted it must be controlled that:**

**The frame can move freely forwards and backwards in its entire travelling distance without any kind of clamping.**

**Radial play in ball bushings is max.  $\pm 0.05$  mm.**

BALL BUSHINGS OPPOSITE STEP MOTOR



## **MOUNTING INSTRUCTIONS**

### **PUNCH MARKING HEAD**

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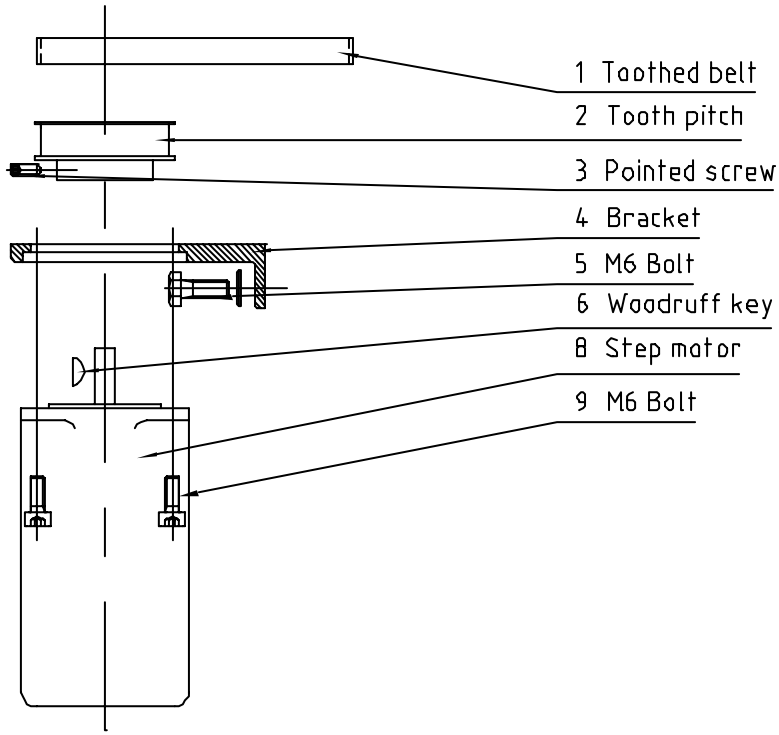
#### **Mounting of step motor**

1. Bracket pos. 4 f. step motor is mounted and bolts pos. 5 are slightly tightened.
2. Step motor pos. 8 is mounted in bracket and bolts pos. 9 are tightened 6.5 Nm.
3. Washer pos. 7 and tooth pitch pos. 2 are mounted.
4. Toothed belt pos. 1 is mounted and tooth pitch pos. 2 are adjusted axially so that the inlet of the toothed belt is correct on both sides.
5. Pointed screw pos. 3 is tightened 3.3 Nm.
6. Toothed belt is tightened and bolts pos. 5 is tightened 6.5 Nm.

#### **Important**

**The pitch belt must run in the middle of the tooth pitches and be correctly tightened.**

# STEP MOTOR



## **MOUNTING INSTRUCTIONS PUNCH MARKING HEAD**

Only original, approved and controlled components and parts must be used.

### **Mounting of Spindle**

1. Radial link bearing pos. 21 is pressed on to the protective pipe pos. 22.
2. One of the cir clips pos. 18 is mounted.
3. Radial link bearing pos. 21 is mounted and secured against axial play by adjusting the distance rings pos. 19.
4. The other cir clip pos. 18 is mounted.
5. Bolt pos. 20 is provided with LOCTITE type 222 and fastened until link bearing pos. 21 is free of play.

### **Important**

**Total axial clearance in the bearing must be max.  $\pm 0.05$  mm.**

6. Retainer pos. 10 for bellow is mounted.
7. Cir clip pos. 6 farthest away from the tooth pitch pos. 3 is mounted.
8. Spindle pos. 14 is put through bearing housing and ball screw pos. 16. is mounted by means of the accompanying mounting pipe. Take care that the ball screw does not lose any balls during mounting as the screw must then be discarded.
9. Bellow pos. 13 is put onto the spindle pos. 14.
10. Retaining ring pos. 17 is put onto the ball screw.
11. Provide the thread on the ball screw with LOCTITE type 222 and tighten in the bearing bushing pos. 21.
12. Spindle pos. 14 is mounted in bearing pos. 9.
13. Sealing ring pos. 8 is mounted.
14. Distance ring pos. 7 is adjusted and mounted.
15. Cir clip pos. 6 is mounted.
16. Distance ring pos. 5 and spring washer pos. 4 are mounted.
17. Tooth pitch pos. 3 and washer pos. 2 are mounted.

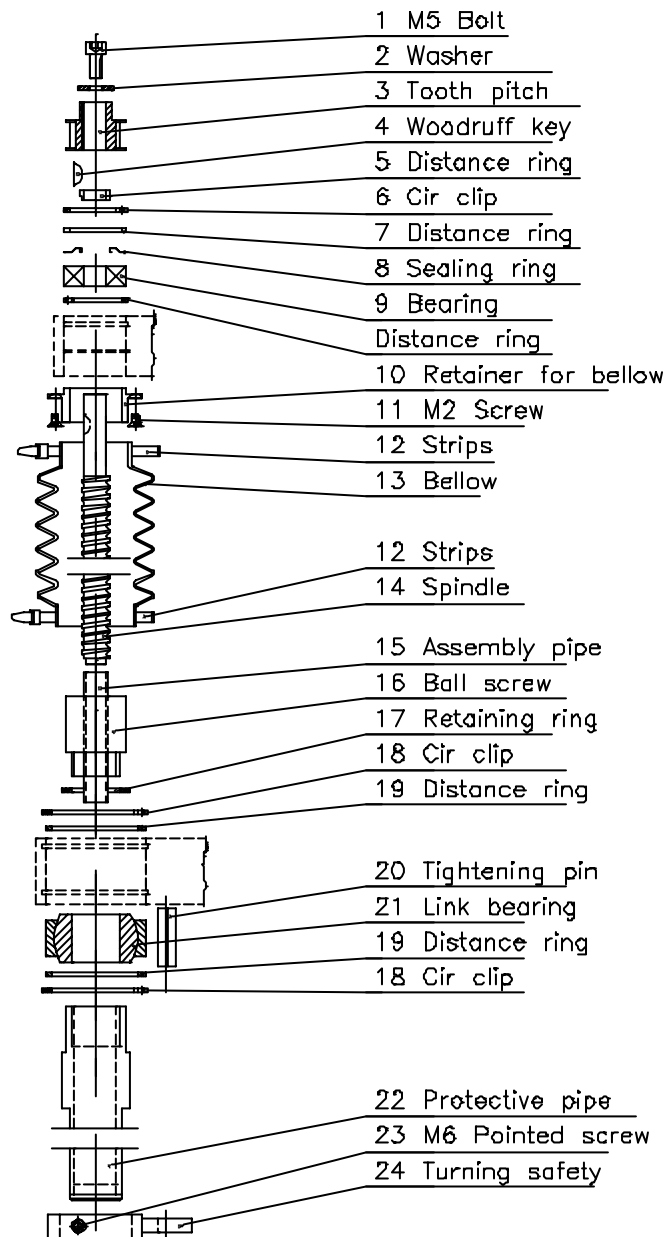
### **Important**

**Total axial play in bearing must be max.  $\pm 0.05$  mm.**

18. Bolt pos. 1 is provided with LOCTITE type 222 and tightened 9.1 Nm.
19. Turning safety pos. 24 is mounted and pointed screws pos. 23 are tightened.
20. Tension pin pos. 21 is mounted. It must be controlled that the tension pin is slightly clamping in the turning safety so that no angle turning is possible.

**Important: Total axial play in spindle must be max.  $\pm 0.1$  mm.**

# SPINDLE



## **MOUNTING INSTRUCTIONS**

### **PUNCH MARKING HEAD**

Only original, approved and controlled components and parts must be used.

#### **Mounting of suspension for ball bushing**

1. One of the cir clips pos. 3 is mounted.
2. Raidal link bearing pos. 5 is mounted and protected against axial play by adjusting distance rings pos. 4.
3. The other cir clip pos. 3 is mounted.

#### **Important**

**Total play in bearing must be max.  $\pm 0.1$  mm.**

4. Retaining rings pos. 2 and 6 are kept in place.
5. Fitted bolt pos. 4 is mounted and tightened 91 Nm.

# SUSPENSION

