

## DM 12 Calibration & Repair Instructions

Rev 1.0

### Preparatives for adjustment of the DM12

The following spare parts and tools are needed:

- New plastic windows
- Washers in several sizes
- Thin screwdriver for slotted head screws
- Recoilless hammer
- Black, thin Edding
- pencil



Make sure that the scale is turned down to the minimum setting. Strike the square of the primary (1) lever at a hard ground. At this the lid (2) will loosen automatically out of the plastic body (3). Remove the lid (2).

On opening the lid (2) the primary lever (1) including the wing spring (4) may loosen - please keep all parts! Swap the plastic windows (5) on the body (3) and lid (2) for new ones. Afterwards put the primary lever (1) including the wing spring (4) into the body (3). Put the wing spring (4) in right angle to the body. We recommend a thin screwdriver for slotted head screws to fix the wing spring (4) the right way. Close the lid (2) with help of a recoilless hammer.

See drawing on page 3.

### Adjustment of DM 12 Wrench

#### 1. First check the minimum setting:

Put down the scale to 2 Nm and check the readings by means of a torque tester. Modify the readings with help of the adjusting knob (6) (turning clockwise = increasing torque / turning anti-clockwise = reducing torque), until the readings are in the permissible deviation (+/- 4 %).

Mark the plastic body (3) by means of a pencil on the corresponding line where the scale shows 2 Nm. This marks the zero point!

#### 2. Check the maximum setting:

Put the scale up to the maximum setting and check the readings by means of a torque tester. Therefore put the 12 Nm scale mark onto the zero point on the body (3).

#### a) The readings are below the tolerance:

Put the scale down to the zero point. Open the wrench (see preparatives for adjustment of DM 12). Remove the primary lever (1) including the wing spring (4), the angle lever (7) inclusive the shank (8) and the compression spring (9). Only the scale unit (10) is now left in the plastic body (3).

Now grind the compression spring (9) a little bit shorter and put a washer onto the shank (8) to compensate the length.

THE REMOVAL OF ONE COIL OF THE COMPRESSION SPRING AND THE SUBSEQUENT UNDERLAY WITH A 1MM WASHER GENERATES AN AVERAGE PLUS OF 3-4 NM!

Reassemble the wrench (see preparatives for adjustment of DM 12). Please repeat the mentioned procedure 1. and 2. afterwards.

Do the repetition until the readings are in the permissible deviation (+/- 4%).

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Put the scale down to the minimum setting (1 Nm) and check the readings with help of a torque tester. Modify the readings with help of the adjusting knob (6) (turning clockwise = increasing torque / turning anti-clockwise = reducing torque), until the readings for 1 Nm are in the permissible deviation (+/- 4 %). Then mark the first scale line on the plastic windows (5) (lid (2) and body (3)) corresponding to the scale with a black, thin Edding.

### **Re-Calibration of DM 12**

The wrenches should be tested at minimum (20%), medium (60%) and maximum (100%) setting by means of a torque tester. The maximum permissible deviation of reading is +/- 4 % (see DIN EN ISO 6789). If the readings are out of tolerance the wrench first has to be adjusted as mentioned above.

Should an adjustment not be possible for the reason of a great shift of tolerance or a great wear and tear of the mechanical parts we recommend you to send the wrench back to the manufacturer.

### **Storing Wrench**

After being used, click wrenches should be turned back to minimum scale value. This helps to preserve the springs and ensures a longer product life cycle with high precision.

### **Testing & Servicing**

For testing the torque wrench either use a torque analyzer or torque transducer within the range of the torque wrench. Make sure you apply the torque slowly and smoothly.

In order to maintain accuracy, it is crucial that torque control measuring equipment be calibrated regularly.

We recommend a general once a year calibration interval. However, it is the user's organization that must determine suitable intervals based upon equipment performance, application, degree of usage and management objectives.

For calibration, re-adjustment or repairs, please send the tool to one of our 3 service locations.

### **Mountz Service Locations**

#### **Eastern Service Center**

19051 Underwood Rd.  
Foley, AL 36535  
Phone: (251) 943-4125  
Fax: (251) 943-4979

#### **Western Service Center**

1080 N.11th Street  
San Jose, CA 95112  
Phone: (408) 292-2214  
Fax: (408) 292-2733

#### **Mexico Service Center**

Mountz Mexico SA de CV Chihuahua  
Av. Cristobal Colon #15343  
Col. Paseos de Chihuahua  
Chihuahua, Chih. Mexico CP 31125  
Phone: (614) 481-0023  
Fax: (614) 481-0053

[www.ektorque.com](http://www.ektorque.com)

Download a "Service Form" and include a copy when you send the tools in to be serviced.

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