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|---------------------|-------------------------------------|-----------------|
| 1. Insulating Plate | 2. Frame | 3. Anvil |
| 4. Spindle | 5. Spindle lock | 6. Sleeve |
| 7. Thimble | 8. End Cap | 9. Ratchet Stop |
| 10. Spanner Wrench | 11. Calibration block (if supplied) | |

CLEANING

Wipe off oil, grease, and dust from all surfaces of the micrometer. Use care on the precision finished measuring faces of the spindle and the anvil.

CHECKING OPERATION

Inspection should be carried out particularly on the following points:

- Check if the ratchet mechanism functions properly.
- Turn the ratchet stop, ensure the spindle moves smoothly throughout the entire travel range.
- Check the measuring contact faces are in good condition.
- Check the locking clamp for its positive action.

CHECKING ZERO POINT

The zero point of each micrometer has been carefully set and tested. However, it should always be checked before use to ensure the accuracy of the measurements.

Turn the ratchet stop until the spindle touches the anvil lightly but tightly. Check that the zero point on the thimble coincides with the reference line on the sleeve.

For micrometers larger than 0-25mm (0-1"), the zero point is checked using the calibration block or a gage block.

WARNING

The safety information given must be understood by any person using or maintaining these products.

ADJUSTING ZERO POINT

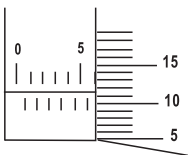
If any deviation is found from the above inspection, the zero point can be reset using the following procedures:

- (A) If the deviation is under 2 divisions on the thimble, turn the sleeve with the spanner supplied by an amount corresponding to the deviation and bring the reference line of the sleeve to coincide with the zero point.
- (B) If the deviation is more than 2 divisions on the thimble, it is corrected by the following procedure;
 - (1) Hold the frame and the thimble and loosen the ratchet stop with the spanner.
 - (2) Disconnect the coupling of the thimble and the spindle by giving a light tap to the thimble.
 - (3) Turn the thimble by an amount equal to the deviation, which will bring the zero point in-line with the reference base line of the graduation on the sleeve.
 - (4) Securely hold the thimble in position. Tighten the ratchet stop with the spanner.
 - (5) Confirm the zero point has been correctly set.
 - (6) If a small adjustment is needed, it can be adjusted on the sleeve using the spanner wrench.

CAUTION

- (1) When reading the micrometer, the user's line of sight must be directly above the graduated line to read the value accurately.
- (2) Temperature difference between the micrometer and the part will cause errors in the measurement.
- (3) Unscrew the spindle slightly before removing the workpiece from the micrometer. Not doing so can damage the faces of the anvil and spindle.
- (4) Handle the instrument with care. Do not subject the micrometer to misuse or shocks. Do not drop the micrometer or apply excessive force.

EXAMPLES FOR TAKING READINGS



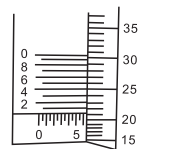
Example for division 0.01mm

Reading:

From Sleeve: 6mm

From thimble: 0.11mm

Final readings should be $6. + 0.11 = 6.11\text{mm}$



Example for division 0.001mm

Reading

From sleeve: 6mm

From thimble: 0.21 mm

From sleeve with 0.001mm graduation: 0.004mm

Final reading should be $6+0.21+0.004\text{mm} = 6.214\text{mm}$