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Ergonomics™

A RAM PRECISION Company

User's Guide

Impact Hammers UIH20, SIH10, SIH200

1. Description

The impact hammers are designed to cover the impact energies from 0.2 to 2.0 Joules (J). Another term that is sometimes used is the Newton-meter. The number is the same using either term. There are three impact hammer models. The SIH10 is set at the factory at any energy between 0.2 and 1.0 J. The value is specified by the customer. There is one more single energy hammer, and it is model number SIH200. The SIH200 is always set at 2.0 Joules. The third model is UIH20. It is a universal hammer that can be used for producing any energy between 0.2 and 1.0 joules. All hammer products are as defined in IEC 60068-2-75. This includes the accuracies of the energies.

2 Operating Procedure

The hammers are all used in the same manner. They are enabled by pulling the handle until the internal mechanism latches. The hammer is activated when it is placed against the unit to be tested. This is accomplished by firmly holding the hammer and pushing the hammer into the test sample slowly until the striking element hits the unit.

The procedures mentioned in this manual are general in nature. Refer to the applicable product standard for the required specific test procedures.

3 Setting the Proper Energy

The single energy hammers are factory set and there is no need to adjust them except for calibration. The universal hammer must be set for the energy as specified by the test standard. Normal energies are 0.2, 0.35, 0.5, 0.7 and 1.0 joules. If the calibration was performed by Ergonomics, refer to your calibration certificate for a convenient table of normal energies and the corresponding settings.

The energy of the universal hammer is set by rotating the barrel similar to the way a micrometer is moved. There is a set of numbers printed along the stationary tube (along the axis of the hammer) and a set of numbers on the handle that rotates. The tube numbers represent whole numbers and the barrel numbers the tenths. As an example - to dial the number 11.2 set the edge of the barrel to line up with the number 11. The number on the barrel should read zero (null). Next turn the barrel forward to the number two (2). (As a check, the barrel will cover the number 11 line.) The hammer is now set to deliver the energy that corresponds to the setting.

4 Calibration

All models should be calibrated annually or in accordance with company quality procedures using the procedures defined in IEC 60068-2-75. The hammer products should be treated as any fine instrument. Store in a clean dry place. No lubrication should be applied.