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Superseding J1638 MAY1993

Compression Set of Hoses or Solid Discs

1. **Scope**—This SAE Recommended Practice is used for establishing the compression set that could be expected to occur with a thermoset elastomeric hose under securing clamps. It seeks to reproduce the type of indentation caused by the clamps in the wall of a hose. An excessive compression set measured by this method may indicate a hose that could eventually allow leakage of fluid or gas past the clamps in service.
2. **References**
 - 2.1 **Applicable Publications**—The following publications form a part of this specification to the extent specified herein.
 - 2.1.1 **ASTM PUBLICATIONS**—Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.
 - ASTM D 3767—Practice for Rubber—Measurement of Dimensions
 - ASTM E 145—Specification for Gravity-Convection and Forced-Ventilation Ovens
3. **Apparatus Required**
 - 3.1 **Compression Fixture**—Refer to Figures 1 through 4.
 - 3.2 **Dial Micrometer**—For use in measuring thickness according to ASTM D 3767, Method A1. The measuring foot shall be flat with a diameter of 2.5 mm ± 0.1 mm and a load of 45 g.
 - 3.3 **Feeler Gages or Gage Blocks**—For setting the specified compression under the indicators.
 - 3.4 **Air-Circulating Oven**—Conforming to ASTM E 145, Type IIA.

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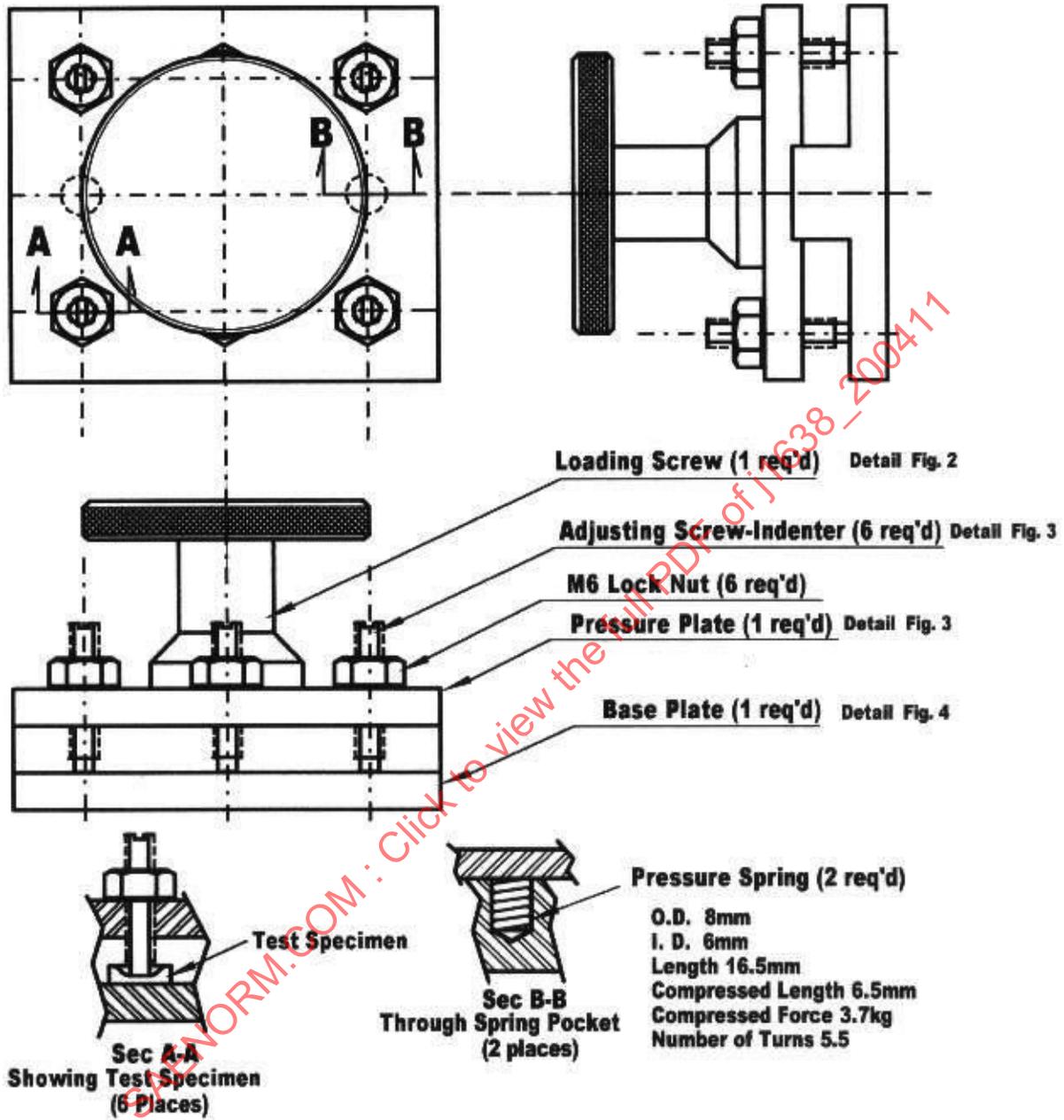
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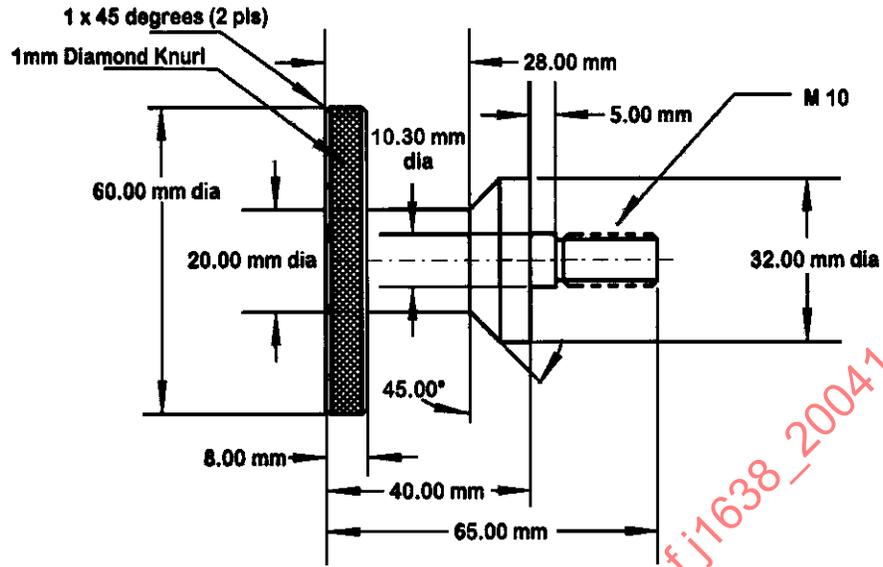
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Compression Set Fixture Assembly

1) All Items Stainless Steel

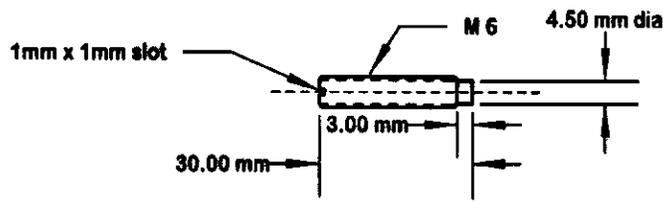
FIGURE 1—SECTIONAL VIEW OF COMPRESSION SET FIXTURES



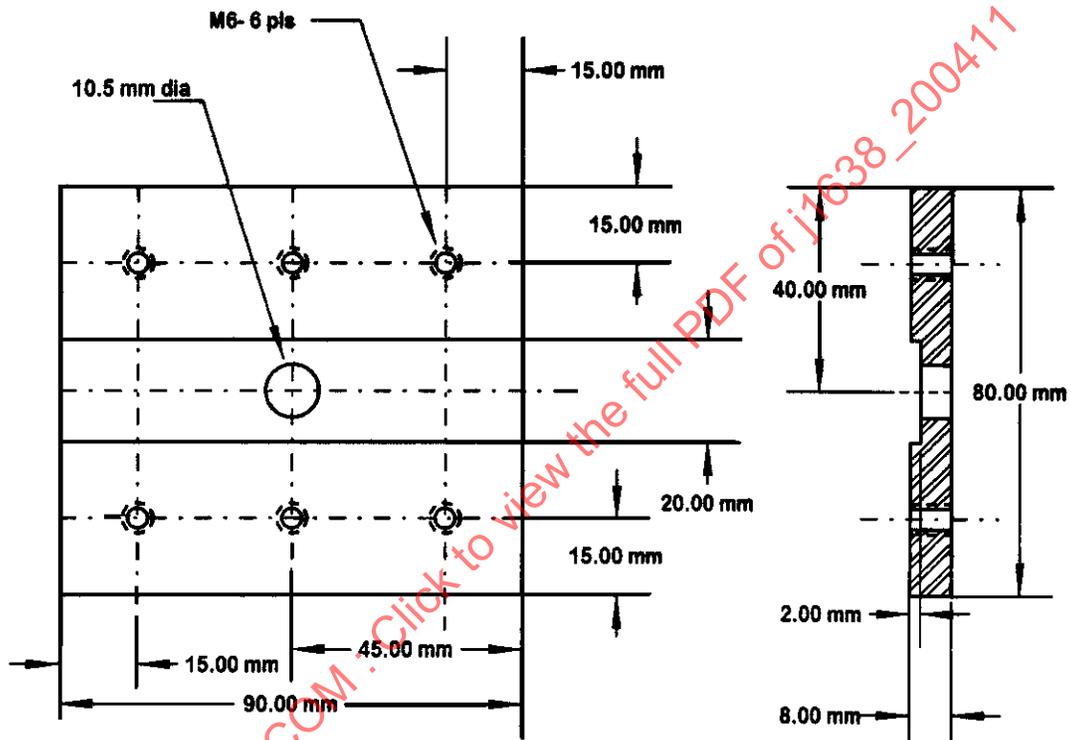
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FIGURE 2—LOADING SCREW

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Adjusting Screw



Pressure Plate

FIGURE 3—ADJUSTING SCREW AND PRESSURE PLATE

