stress distributions are also valid.

The stress distributions occurring in a radial direction across the top and mid-meridian surfaces of a compressed, unconfined 303 stainless steel wafer are shown in Figure 7. To aid in the identification of the type of compression test, a case number has been assigned to each of the stress distribution diagrams. The first character is a I or II, with the I meaning unconfined, and II represents a confined wafer. The second character is an A or B, where A indicates that the anvil lubricant is molybdenum disulphide, and B represents iron oxide. Since the stresses are symmetrical about the wafer axis, the second half of the diagram is reserved for showing the results of an increased load. In Figure 7, the stresses induced by the loads required to cause 16% and 32% increases in the inital radius are shown on the left and right sides, respectively. The axial stress σ_z and shearing stress τ_{rz} are obtained from equations (40) and (41), respectively, and the pressure P is found by taking the average of the normal stresses, equations (38), (39), and (40). The computer programs used in finding the appropriate displacement coefficients, stresses and applied forces are given in Appendix I. In order to better illustrate the use and operation of these programs, a single problem, namely, the one now in question , is presented in Appendix I, with the output being that required for the construction of Figures 6 and 7.

A comparison of Figures 7 and 8 illustrates the influ-