

sent to the inventor and DOE for review. The analysis was then finalized based on feedback from these reviewers.

7.2.2 Description of the Three ERIP Technologies

The three inventions examined in this chapter are described below.

Brandon Steam Turbine Packing Rings. The steam turbine packing rings developed by Ronald E. Brandon are a modification to existing turbine packing rings. Packing rings are installed at various locations between the turbine stationary parts and the rotating shaft to minimize steam leakages between stages and at places where the shaft protrudes out of the turbine cylinder (Fig. 7.1). The invention employs springs to keep the packing ring segments away from the turbine shaft during turbine start-up, when packing ring damage is most likely to occur.

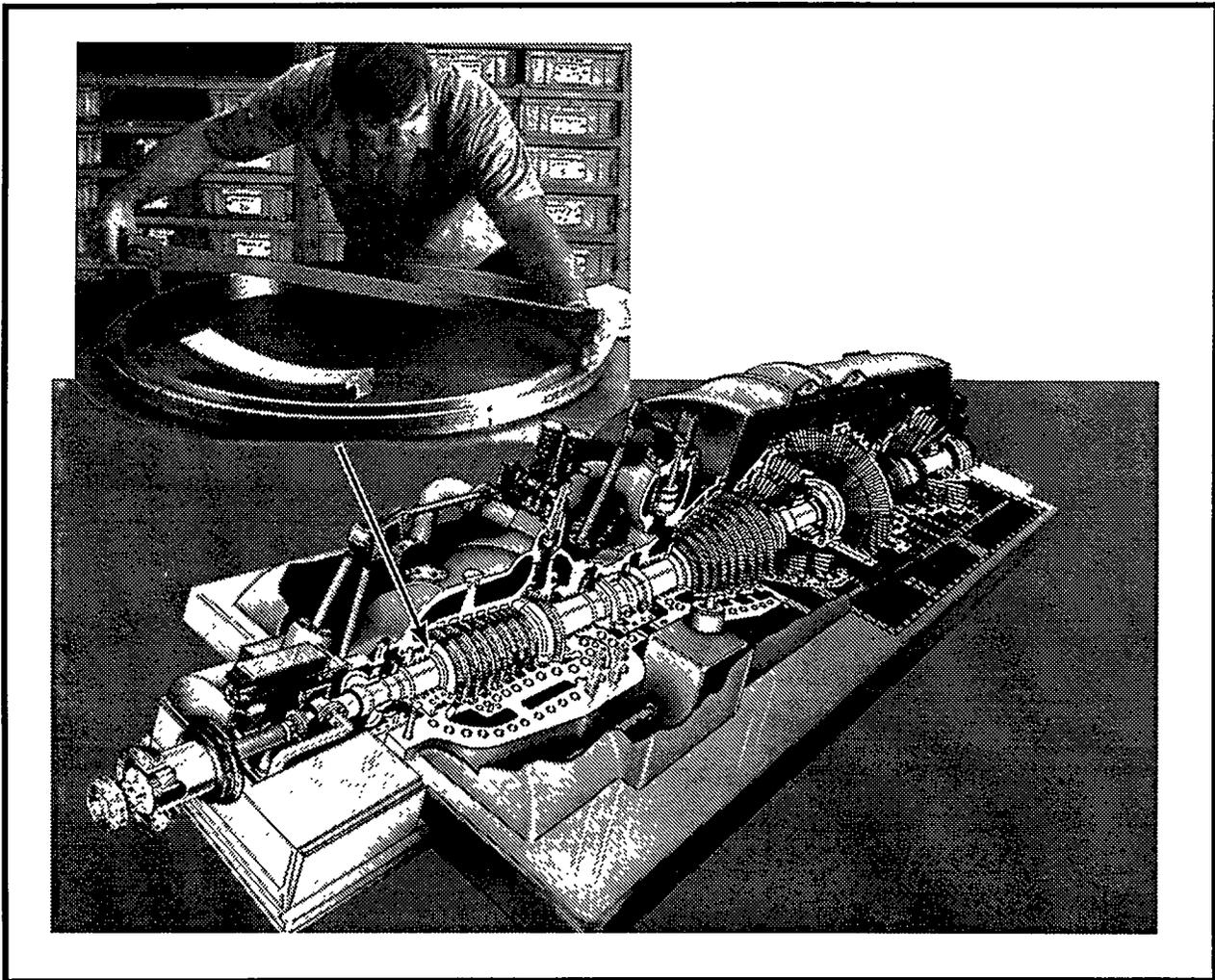


Figure 7.1 Illustration of Brandon Steam Turbine Packing Rings