PRECISE X-RAY INSPECTION SYSTEM UTILIZING MULTIPLE LINEAR SENSORS

ABSTRACT OF THE DISCLOSURE

An x-ray inspection is provided featuring a single x-ray source and a planar array of linear sensors aligned in parallel. An article to be inspected is moved between the x-ray source and the linear sensors in a series of passes parallel to the array of linear sensors and substantially perpendicular to the long axes of the linear sensors. Alternately, the x-ray source and the sensors are moved as a unit relative to a stationary article. As a result, a transmission image of the article is captured for each of the linear sensors. These transmission images are then combined mathematically to generate a layer image for each separate conceptual layer of the article. In some embodiments, these layer images may then be interpreted in order to determine the quality of the article.