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Improving Quality using Statistical Quality Control Tools in the Bearing Cage Manufacturing: A Case Study

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Abstract—*The present paper investigated use of seven quality control tools (7QC) in identification and defect reduction of bearing cages. The flowcharts, check sheets, pareto charts, histograms, cause-and-effect diagrams, control charts have been used to improve product quality and reduce defects. Three month data was used to assess and eliminate defects in bearing cages manufacturing. The pareto chart identified inner diameter (ID) oversize as major defect. By focusing on this defect, the root cause of the problem was identified using ishikawa diagram. After implementing corrective measures the defect level was significantly reduced. The present paper is a complete guide for implementing these technologies and emphasizes the significance of continuous improvement in the manufacturing business.*

Keywords: *7QC, bearing cages, productivity, cost, histogram.*