

Characterization of inspection errors and their effect on skip lot sampling plan. *

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Abstract

One of the basic assumptions in the attribute type inspection is that the inspection process is free of errors. In practice it is not so and errors occur in inspection. This leads to misclassification of good items into bad and vice versa. In this paper the theoretical behavior of type I and type II risks of misclassification have been modeled by using a truncated beta distribution. The effect of this distribution on single sampling plan (SSP) and the resulting skip–lot sampling plan (SkSP) are examined and analyzed. Numerical illustrations highlighting the utility of excel statistical functions are explained.

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