A COMPLETE INSPECTION PLAN FOR DEPENDENT MULTICHARACTERISTIC CRITICAL COMPONENTS

DUFFUAA, SO; NADEEM, IA

Summary

Here a complete inspection plan for critical components with several characteristics is designed for the case where the characteristics' defective rates are statistically dependent. The plan minimizes total expected cost resulting from type-I and II errors and the cost of inspection. A mathematical model and an algorithm for obtaining the optimal number of repeat inspections are developed and demonstrated by an example. The output of the model is an optimal inspection plan to control the quality of critical components.

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