

# **Impact Of Inspection Errors On The Performance Measures Of**

## **A General**

### **Repeat Inspection Plan**

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### **Summary**

Multi-characteristic critical components exist in many systems. Such components may be a part of an aircraft, space shuttle or a gas ignition system. An inspection plan for such components has been proposed in quality control that deals with several types of classification errors made by the inspector. In this paper, performance measures for this plan are defined and the statistical and economic impact of the several types of inspection errors on these measures is investigated. The impact of the errors is studied by conducting sensitivity analysis on the errors utilizing computer software which implements an algorithm that determines the optimal parameters of the model of the plan. The behaviour of the performance measures upon variation in the levels of errors is investigated. The results indicate that these errors have a considerable effect on the performance measures of the inspection plan.

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