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A Systematic Framework of Equipment Maintenance and Service with Application to Wire Bonder

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ABSTRACT

A systematic framework for the maintenance and service of equipment is developed and proposed. The framework consists of a system of equipment failure analysis, methods, process, and activities, and a procedure in maintenance and service. With axiomatic design mapping, the maintenance procedure is constructed by integrating value engineering, quality function deployment, mechatronics engineering, technique from R&D and supplier, and Taguchi method. The maintenance and service of a wire bonder machine, K&S (Kulicke and Soffa) Maxµm Plus, in the first bond failure is employed for illustration

KEYWORDS

Systematic Framework, Maintenance, Service, Wire Bonder, Failure Modes, Mechatronics, Axiomatic Design, Taguchi Method

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