

Optimum Ordering Policy under Random Lead Time for Equipment
with a Sensing Device Attached

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ABSTRACT -

A replacement model is presented for a single equipment with a sensing device attached, where two kinds of random lead times (one for regular order and the other for expedited order) are considered. Both the equipment and device can fail, and the state of the equipment (good or failed) is monitored by the device and also inspected manually at each ordering time (fixed). Our model shows, under certain conditions, that there exists a finite and unique ordering policy maximizing the cost effectiveness which is used as the criterion for optimality.