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	Titolo	Spare Parts Inventory Control under System Availability Constraints / / by Geert-Jan van Houtum, Bram Kranenburg
	Pubbl/distr/stampa	New York, NY : , : Springer US : , : Imprint : Springer, , 2015
	ISBN	1-4899-7609-4
	Edizione	[1st ed. 2015.]
	Descrizione fisica	1 online resource (227 p.)
	Collana	International Series in Operations Research & Management Science, , 0884-8289 ; ; 227
	Disciplina	658.787
	Soggetti	Production management
		Engineering economics
		Engineering economy
		Operations research
		Decision making
		Manufactures
		Quality control
		Reliability
		Industrial safety
		Operations Management
		Engineering Economics, Organization, Logistics, Marketing
		Operations Research/Decision Theory
		Manufacturing, Machines, Tools, Processes
		Quality Control, Reliability, Safety and Risk
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
	Nota di contenuto	Introduction -- Basic Multi-Item, Single-Location Inventory Model -- Multiple Machine Types with Commonality -- Service Differentiation -- Multi-Location System with Lateral Transshipments -- Two-Echelon System -- Multi-Echelon, Multi-Indenture System -- Static Repair Priorities.
	Sommario/riassunto	This book focuses on the tactical planning level for spare parts management. It describes a series of multi-item inventory models and

presents exact and heuristic optimization methods, including greedy heuristics that work well for real, life-sized problems. The intended audience consists of graduate students, starting scholars in the field of spare parts inventory control, and spare parts planning specialists in the industry. In individual chapters the authors consider topics including: a basic single-location model; single-location models with multiple machine types and/or machine groups; the multi-location model with lateral transshipments; the classical METRIC model and its generalization to multi-indenture systems; and a single-location model with an explicit modeling of the repair capacity for failed parts and the priorities that one can set there. Various chapters of the book are used in a master course at Eindhoven University of Technology and in a PhD course of the Graduate Program Operations Management and Logistics (a Dutch network that organizes PhD courses in the field of OM&L). The required pre-knowledge consists of probability theory and basic knowledge of Markov processes and queuing theory. End-of-chapter problems appear for all chapters, with some answers appearing in an appendix.