Gehring, H.; **Menschner, K.**; **Meyer, M.**

A computer-based heuristic for packing pooled shipment containers. (English) Zbl 0684.90084

Eur. J. Oper. Res. 44, No. 2, 277-288 (1990).

Summary: Subject of this paper is how to pack rectangular boxes of different size in a shipping container of known dimensions. The problem is to determine positions for placing the boxes in the container such that the inevitable waste of space is minimized. For this three-dimensional cutting-stock problem various suboptimal solutions are generated using the proposed computer-based heuristic. The number of solutions and the most suitable stowage plan are decided by the decision maker. The procedure is illustrated with numerical examples.

MSC:

90C27	Combinatorial optimization
65K05	Numerical mathematical programming methods
90B05	Inventory, storage, reservoirs
05C70	Edge subsets with special properties (factorization, matching, partitioning, covering and packing, etc.)
90C90	Applications of mathematical programming

Keywords:

logistics; packing; transportation; rectangular boxes; container; three- dimensional cutting-stock; heuristic

Full Text: DOI

References:

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