

Table of Contents

Introduction	5
1. Socio-economic and macroeconomic conditions for the development of intermodal transport 7	7
1.1. Transport in the socio-economic system of a country	7
1.2. Intermodal transport and its specificity	11
1.3. Intermodal transport terminals as concentration and distribution points for cargo streams	13
1.3.1. Types of transshipment points and their roles	13
1.3.2. The role of intermodal transshipment points in the integration of various branches of transport	15
1.4. Determinants of the intermodal transport development	19
2. Intermodal transport infrastructure	23
2.1. Components of the intermodal transport infrastructure	23
2.2. Intermodal transshipment terminals as elements of intermodal transport nodal infrastructure	25
2.2.1. Types of intermodal terminals	25
2.2.2. Maritime container terminals	27
2.2.3. Intermodal terminals located on a railway network	31
2.3. Technical requirements for intermodal transport terminals	34
3. Intermodal loading units	45
3.1. Classification of intermodal units	45
3.2. Containers	45
3.3. Swap bodies	53
3.4. Semi-trailers	55
4. Loading devices in intermodal terminals	57
4.1. Classification of loading equipment	57
4.1.1. Vertical transport equipment	58
4.1.2. Horizontal transport equipment	63
5. Shaping and dimensioning of intermodal terminals	68
5.1. The functional systems of intermodal transport terminals	68
5.2. Intermodal terminal load estimation	76
5.3. Estimating the percentage of individual types of intermodal units and the transition relations in the terminal turnover	80
5.4. Determination of the average static load for individual types of intermodal loading units	82
5.5. Determining the average storage time for individual types and kinds of intermodal loading units	83
5.6. The loading tracks system and its capacity	84
5.7. Efficiency of transshipment facilities	90

5.8. The workload of the loading unit flow process in an intermodal terminal and the number of transshipment facilities.....	93
5.9. Dimensioning of functional zones of an intermodal terminal	98
5.10. Evaluation of various design solutions for intermodal transport terminals	107
6. The procedure for calculating expenditures and costs in intermodal transport systems	116
6.1. Assumptions for calculating expenditures and costs for intermodal transshipment terminals	116
6.2. Calculation of expenditures and costs in an intermodal transshipment terminal.....	117
6.3. Rules for calculating the costs of maintaining transport and transshipment equipment as well as labour.....	119
7. Practical examples of an intermodal transport terminal design	124
7.1. Intermodal transport terminal	124
7.1.1. Assumptions for the design of an intermodal transport terminal	124
7.1.2. Dimensioning the terminal.....	124
7.1.3. Dimensioning of the terminal based on the expenditures and costs	139
7.2. Intermodal transport terminal - Rolling Highway	141
Literature	144