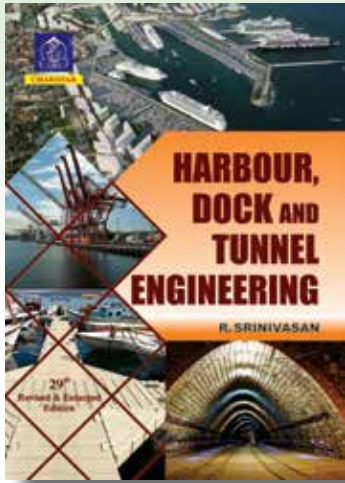


HARBOUR DOCK AND TUNNEL ENGINEERING



By
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& ENLARGED

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ABOUT THE BOOK

In the subject of Transportation Engineering, study of Harbour, Dock and Tunnel Engineering is essential. This well-known text-book now in its twenty-ninth thoroughly Revised and Enlarged edition, concisely formulates the basic principles of the subject matter in simple, lucid and easy language presented in two sections.

Section I – Harbour and Dock Engineering

is well-divided in twelve chapters. It discusses the topics on Harbour and Ports; Natural Phenomena: Tides, Wind and Waves; Protection facilities: Mound Breakwater, Wall Type Breakwater, Special Type Breakwater such as Floating Type, Hydraulic Type and Pneumatic Type Breakwater; Planning and Layout of Ports; Various other Facilities such as Docking Facilities; Repairing Facilities; Approach Facilities; Loading Unloading Facilities; Storing Facilities; Dredging Facilities and Guiding Facilities.

Section II – Tunnel Engineering

is also well-divided in twelve chapters. It discusses the topics on General Aspects of Tunnelling; Stages in Tunnel Construction; Shafts and Portals; Soil Classification and Various Tunnelling Methods for Soft Soils; Tunnelling in Water Bearing Soils; Tunnelling in Rock; The New Austrian Tunnelling Method (NATM); Tunnel Lining; Drainage of Tunnels; Lighting, Ventilation and Dust Control in Tunnels; and Safety in Tunnel Construction.

The Salient Features of this book are

243 Self explanatory neatly drawn sketches, photographs and more than
321 examination questions at the end of each chapter.

The book in the present form will prove to be extremely useful to the students preparing for the Degree examinations in Civil Engineering of all the Indian Universities, Diploma examinations conducted by various Boards of Technical Education, Certificate Courses as well as for the A.M.I.E., U.P.S.C., G.A.T.E., I.E.S., and other similar competitive and professional examinations. It should also be an immense use to practicing Civil Engineers.

CONTENT

SECTION I : HARBOUR AND DOCK ENGINEERING

- 1: HARBOURS AND PORTS
- 2: NATURAL PHENOMENA : TIDES, WIND AND WAVES
- 3: PROTECTION FACILITIES : MOUND BREAKWATER
- 4: PROTECTION FACILITIES : WALL TYPE AND SPECIAL BREAKWATERS
- 5: PLANNING AND LAYOUT OF PORTS
- 6: DOCKING FACILITIES
- 7: REPAIRING FACILITIES
- 8: APPROACH FACILITIES
- 9: LOADING UNLOADING FACILITIES
- 10: STORING FACILITIES
- 11: DREDGING FACILITIES
- 12: GUIDING FACILITIES

SECTION II : TUNNEL ENGINEERING

- 13: GENERAL ASPECTS TUNNELLING
 - 14: STAGES IN TUNNEL CONSTRUCTION
 - 15: SHAFTS AND PORTALS
 - 16: SOIL CLASSIFICATION AND TUNNELLING METHODS FOR SOFT SOILS
 - 17: OTHER METHODS OF TUNNELLING IN SOFT SOILS
 - 18: TUNNELLING IN WATER BEARING SOILS
 - 19: TUNNELING IN ROCK
 - 20: THE NEW AUSTRIAN TUNNELLING METHOD (NATM)
 - 21: TUNNEL LINING
 - 22: DRAINAGE OF TUNNELS
 - 23: LIGHTING, VENTILATION AND DUST CONTROL IN TUNNELS
 - 24: SAFETY IN TUNNEL CONSTRUCTION
- INDEX: HARBOUR AND DOCK ENGINEERING
INDEX: TUNNEL ENGINEERING

Catalogue Checklist

HARBOUR, DOCK AND TUNNEL ENGINEERING
DETAILED CONTENTS

SECTION I : HARBOUR AND DOCK ENGINEERING

Chapter 1 HARBOURS AND PORTS

- 1-1. Introduction
- 1-2. Water transportation
- HARBOURS**
- 1-3. Classification of harbours
- 1-4. Accessibility and size of harbours
- PORTS**
- 1-5. Ports
- 1-6. Indian Ports
- 1-7. Requirements of a good port
- 1-8. Facilities at a major port
- 1-9. Port Design
- 1-10. Ships – Ferry
- QUESTIONS 1

Chapter 2 NATURAL PHENOMENA: TIDES, WIND AND WAVES

- 2-1. General
- 2-2. Littoral drift
- 2-3. Sea water waves
- 2-4. Tide generation
- 2-5. Lunar tides
- 2-6. Solar Tides
- 2-7. Tides due to Moon and Sun
- 2-8. Total Number of Tides
- 2-9. Major tide
- 2-10. Water levels of sea during tides and tidal ranges
- 2-11. Uses of tides
- 2-12. Effect of tides
- 2-13. Age or establishment of tide
- 2-14. Tide prediction
- 2-15. Wind and waves
- 2-16. Dynamical effect of wave action
- 2-17. Modification of sea waves
- 2-18. Air compression
- 2-19. Water hammer
- 2-20. Shore protection works
- QUESTIONS 2

Chapter 3 PROTECTION FACILITIES: MOUND BREAKWATER

- 3-1. General
- 3-2. Classification of breakwaters
- 3-3. Heap or mound breakwater
- 3-4. Selection of type of breakwater
- 3-5. Details of energy dissipation in mound breakwater
- 3-6. Characteristics of mound breakwater
- 3-7. Rubble mound breakwater
- 3-8. Concrete block mound breakwater
- 3-9. Rubble Mound breakwater Supplemented by concrete blocks
- 3-10. Rubble mound breakwater supplemented by patented stones
- 3-11. Mound with superstructure or Composite breakwater
- 3-12. Mound construction
- QUESTIONS 3

Chapter 4 PROTECTION FACILITIES: WALL TYPE AND SPECIAL BREAKWATERS

- 4-1. Wall type breakwater
- 4-2. Types of wall breakwater
- 4-3. Causes of failure
- 4-4. Forces on upright wall breakwater
- 4-5. Essentials for wall type breakwater
- 4-6. Advantages of wall breakwater
- 4-7. Disadvantages of wall breakwater

- 4-8. Typical cross-section of wall breakwater
- 4-9. Method of construction – staging system
- 4-10. Bonds
- 4-11. Wall type breakwater of larger units
- 4-12. Breakwater height
- 4-13. Breakwater failures
- 4-14. Comparison of mound type and wall type breakwaters
- 4-15. Special breakwaters
- QUESTIONS 4

Chapter 5 PLANNING AND LAYOUT OF PORTS

- 5-1. General
- 5-2. Facilities at a port
- 5-3. Layout of ports
- Questions 5

Chapter 6 DOCKING FACILITIES

- 6-1. General
- 6-2. Classification of docks
- 6-3. Classification of wet docks
- 6-4. Advantages and Disadvantages of tidal wet docks
- 6-5. Advantages and Disadvantages of enclosed wet docks
- 6-6. River ports
- 6-7. Form and arrangements of basins and docks
- 6-8. Design and construction of basin or dock walls
- 6-9. Other aspects of construction details
- 6-10. Dock entrances
- 6-11. Sizes of dock entrances
- QUESTIONS 6

Chapter 7 REPAIRING FACILITIES

- 7-1. General
- 7-2. Classification of repairing facilities
- 7-3. Graving dry dock
- 7-4. Facilities to be provided at a graving dry dock
- 7-5. Method of dry docking
- 7-6. Size of graving dock
- 7-7. Forces acting on a graving dock
- 7-8. Conditions for design of graving dock
- 7-9. Scheme of constructing graving dock
- 7-10. Design of graving dock floor
- 7-11. Marine railway dry dock
- 7-12. Slipways
- 7-13. Lift dry dock
- 7-14. Floating type dry dock
- 7-15. Types of floating docks
- 7-16. Design considerations for floating docks
- 7-17. Advantages and disadvantages of floating dry dock
- QUESTIONS 7

Chapter 8 APPROACH FACILITIES

- 8-1. General
- 8-2. Direction of an entrance
- 8-3. Direction of entrance for river harbours
- 8-4. Dimensions of entrances
- 8-5. Types of entrances
- 8-6. Entrance locks
- 8-7. Lock foundations
- 8-8. Dimensions of entrances and locks
- 8-9. Construction of lock gates
- 8-10. Forces on the gates
- 8-11. Shape of gates
- 8-12. Support for dock gates
- 8-13. Working of gates
- QUESTIONS 8

HARBOUR, DOCK AND TUNNEL ENGINEERING
DETAILED CONTENTS

Chapter 9 LOADING UNLOADING FACILITIES

- 9-1. General
- 9-2. Design of quay walls
- 9-3. Types of quay walls
- 9-4. Other details of quay walls
- 9-5. Wharves
- 9-6. Piers
- 9-7. Types of piers
- 9-8. Additional points for piers
- 9-9. Pierheads
- 9-10. Dolphins
- 9-11. Jetties
- 9-12. Differences between wharf and jetty
- 9-13. Fenders
- 9-13-1. Types of fenders
- 9-13-2. Classification of fenders
- 9-14. Slip
- 9-15. Moles

QUESTIONS 9

Chapter 10 STORING FACILITIES

- 10-1. General
- 10-2. Aprons
- 10-3. Transit sheds
- 10-4. Design of transit shed
- 10-5. Warehouses
- 10-6. Cold storages
- 10-7. Guard houses

QUESTIONS 10

Chapter 11 DREDGING FACILITIES

- 11.1. General
- 11.2. Primary dredging
- 11.3. Maintenance dredging
- 11.4. Disposal of the dredged material
- 11.5. Types of dredging devices
- 11.6. Choice of dredger
- 11.7. Execution of dredging work

QUESTIONS 11

Chapter 12 GUIDING FACILITIES

- 12-1. Necessity for Guiding Facilities
- 12-2. Fixed and floating light stations
- 12-3. Lighthouse
- 12-4. Signals
- 12-5. Light signals
- 12-6. Fog signal
- 12-7. Audible signals
- 12-8. Moorings
- 12-9. Mooring accessories
- 12-10. Off-shore moorings

QUESTIONS 12

SECTION II : TUNNEL ENGINEERING

Chapter 13 GENERAL ASPECTS OF TUNNELLING

- 13-1. General
- 13-2. Categories of obstacles
- 13-3. Definitions
- 13-4. Comparison of bypassing Alternatives Tunnel, Open cut, bridge and surface road
- 13-5. Advantages and disadvantages of tunnels and open cuts
- 13-6. History of tunnels constructed
- 13-7. Developments in tunnelling methods
- 13-8. Important years in tunnel construction
- 13-9. Economics of tunnelling
- 13-10. Alignment of A tunnel

- 13-11. Classification of tunnels
 - 13-12. Tunnel approaches
 - 13-13. Shapes of tunnels
 - 13-14. Size of tunnels
 - 13-15. Problems in tunnelling
- Questions 13**

Chapter 14 STAGES IN TUNNEL CONSTRUCTION

- 14-1. Investigations at tunnel site
- 14-2. Setting out of tunnel
- 14-3. Methods of getting extra faces to work upon
- 14-4. Excavation
- 14-5. Blasting
- 14-6. Temporary supports
- 14-7. Permanent supports
- 14-8. Ventilation at the time of construction
- 14-9. Muck removal
- 14-10. Supplementary operations
- 14-11. Miscellaneous

QUESTIONS 14

Chapter 15 SHAFTS AND PORTALS

- 15-1. General
- 15-2. Advantages of shafts
- 15-3. Size of shafts
- 15-4. Location of shafts
- 15-5. Classification of shafts
- 15-6. Construction of shafts in rock
- 15-7. Construction of shaft in soft ground
- 15-8. Design of shaft supports
- 15-9. Precautions for shaft sinking work in soft soil
- 15-10. Protection round the shaft opening
- 15-11. Portals
- 15-12. Twin tunnels

QUESTIONS 15

Chapter 16 SOIL CLASSIFICATION AND TUNNELLING METHODS FOR SOFT SOILS

- 16-1. Soil classification
- 16-2. Choice of method
- 16-3. Methods of tunnelling (soft soils)
- 16-4. Forepoling method
- 16-5. Needle beam method
- 16-6. Army method or case method
- 16-7. American method
- 16-8. English method
- 16-9. Belgian method
- 16-10. German method
- 16-11. Austrian method
- 16-12. Timbering in soft soil tunnelling

QUESTIONS 16

Chapter 17 OTHER METHODS OF TUNNELLING IN SOFT SOILS

- 17-1. Liner plates method
- 17-2. Tunnelling with shield
- 17-3. Parts of shield
- 17-4. Terms commonly used with shield
- 17-5. Primary lining
- 17-6. General steps of tunnelling with shield
- 17-7. Shield tunnelling in different types of soils
- 17-8. Common Equipment with shield
- 17-9. Stages of using the shield
- 17-10. Mechanized shields

QUESTIONS 17

HARBOUR, DOCK AND TUNNEL ENGINEERING
DETAILED CONTENTS

Chapter 18 TUNNELLING IN WATER BEARING SOILS

- 18-1. General
- 18-2. Well points system
- 18-3. Equipment with plenum process of tunnelling or compressed air method
- 18-4. Various pipes and conduits
- 18-5. Compressors, generators and pumps
- 18-6. Methods of tunnelling in water bearing soils
- Questions 18

Chapter 19 TUNNELLING IN ROCK

- 19-1. General
- 19-2. Sequence of operations for tunnelling in rock
- 19-3. Faces of operation for tunnelling in rock
- 19-4. Methods of tunnelling in rock
- 19-5. Mucking
- 19-6. Mucking in steep grade tunnelling
- 19-7. Hauling
- 19-8. Other aspects
- 19-9. Drill-bits
- 19-10. Nipper cars
- 19-11. Explosives
- 19-12. Safety precautions in rock tunnelling
- QUESTIONS 19

Chapter 20 THE NEW AUSTRIAN TUNNELLING METHOD (NATM)

- 20-1. General
- 20-2. NATM Concept
- 20-3. Main features of NATM
- 20-4. Details of NATM at LOKTAK
- 20-5. Review of Rock bolt system
- 20-6. Conclusions
- Questions 20

Chapter 21 TUNNEL LINING

- 21.1. Necessity of lining
- 21.2. Objects of tunnel lining
- 21.3. Materials for lining
- 21.4. Design of thickness of lining
- 21.5. The sequence of lining a tunnel
- QUESTIONS 21 300

Chapter 22 DRAINAGE OF TUNNELS

- 22-1. General
- 22-2. Pre-drainage
- 22-3. Dewatering
- 22-4. Permanent drainage
- QUESTIONS 22

Chapter 23 LIGHTING, VENTILATION AND DUST CONTROL IN TUNNELS

- 23-1. Tunnel Lighting
 - 23-1-1. Spacing of lights
 - 23-1-2. Types of tunnel lights
- 23-2. Ventilation in tunnels
 - 23-2-1. Objects of tunnel ventilation
 - 23-2-2. Requirements of tunnel ventilation
 - 23-2-3. Volume of air required
 - 23-2-4. Methods of ventilation
 - 23-2-5. Equipment required for tunnel ventilation
 - 23-2-6. Permanent ventilation
- 23-3. Dust control
- QUESTIONS 23

Chapter 24 SAFETY IN TUNNEL CONSTRUCTION

- 24-1. General
- 24-2. Safety precautions in tunnelling
- 24-3. Health protection
- Questions 24

Index : HARBOUR AND DOCK ENGINEERING

Index : TUNNEL ENGINEERING



The tunnel engineering is one of the most interesting disciplines in engineering. The work is complex and difficult throughout its course, even though it is interesting. The tunnels are defined as the underground passages that are used for the transportation purposes. These permit the transmission of passengers and freights, or it may be for the transportation of utilities like water, sewage or gas etc. The operations and the constructions are carried out underground without disturbing the ground surface. Tunnel Engineering | Methods of Tunneling and Hazards. By: Haseeb Jamal / On: Jul 25, 2017 / Tunnels, Definition. Definition. Tunnel, passage, gallery, or roadway beneath the ground or underwater. Modern Tunneling Methods. Tunneling machines, sometimes called moles, make an initial cut into rock with a cutter-head. Individual disc-shaped cutters are set into the face of a powerful, rotating head, which may be more than 5.5 m (18 ft) in diameter. MSc Tunnel Engineering consists of four core modules totalling 105 credits, which includes the 60-credit research project, and five 15-credit optional modules. The programme begins in September each year and the taught elements are concluded by May. The research project, under the personal supervision of an expert in the chosen area, continues until September.