



INSTALLATION OF STEEL SHEET PILES



STEEL SHEET PILES

TESPA

**INSTALLATION
OF STEEL SHEET PILES**

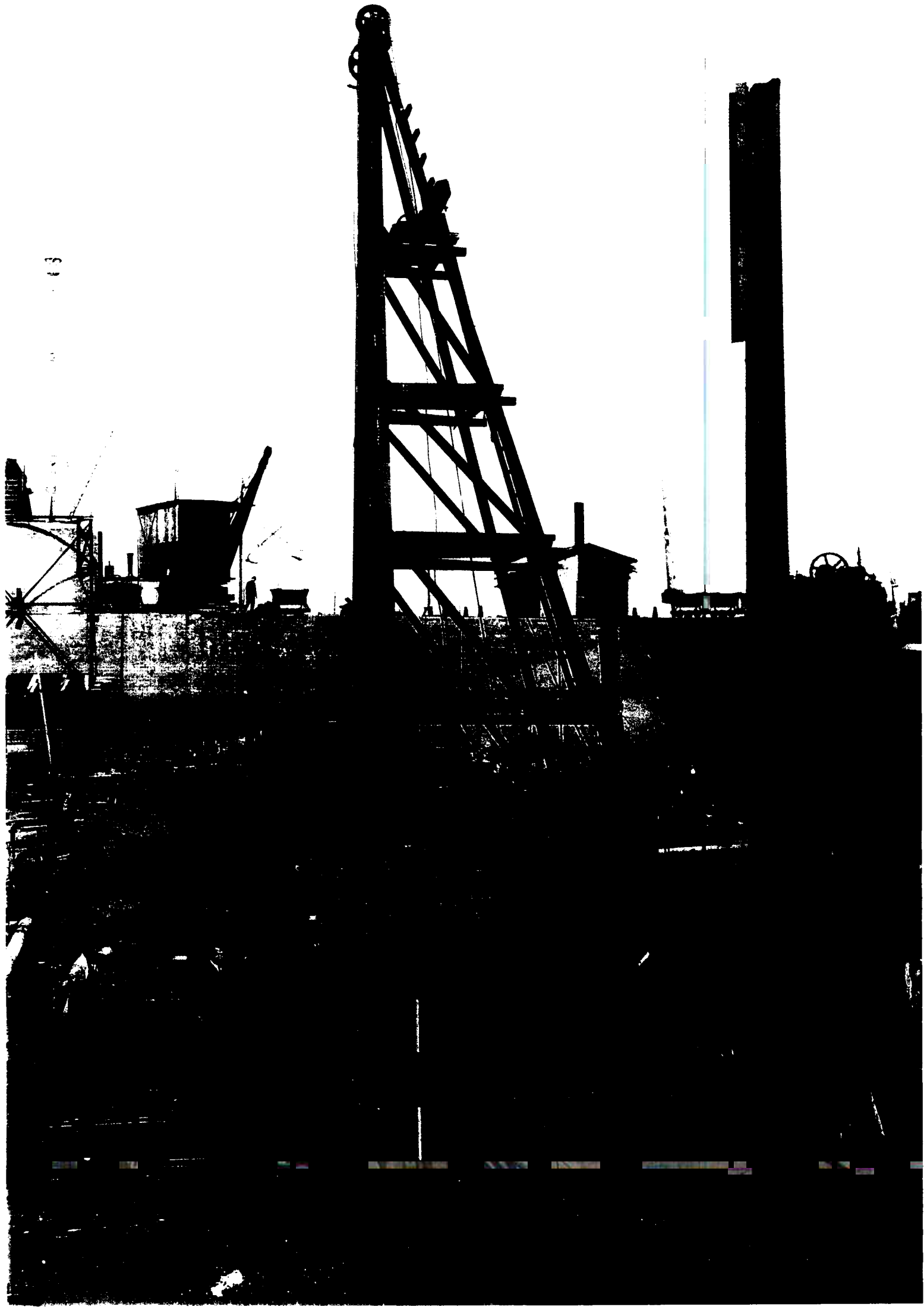
Edition 1995

TECHNICAL EUROPEAN SHEET PILING ASSOCIATION

Contents

1. General	5
2. The soil	8
2.1 Site conditions	
2.2 Soil characteristics	
2.3 Driving characteristics of various soils	
2.4 Choice of sheet pile section for driving	
3. Driving systems	16
3.1 General	
3.2 Diesel hammers	
3.3 Drop hammers	
3.4 Double-acting hydraulic hammers	
3.5 Double-acting air/steam hammers	
3.6 Vibratory pile drivers	
3.7 Sheet pile presses	
3.8 Special driving systems	
4. Driving methods	33
4.1 General	
4.2 Pitch and drive	
4.3 Panel driving	
4.4 Staggered driving	
4.5 Driving of combined walls	
5. Enclosed cofferdams	39
5.1 Rectangular	
5.2 Circular	
6. Pile-driving guides	43
6.1 General	
6.2 Upper pile guide	
6.3 Lower pile guide	
7. Ancillary equipment	52
7.1 General	
7.2 Prefabricated trestles and walkway walings	
7.3 Shackles	
7.4 Threaders	
7.5 Reinforcing shoes	
7.6 Steel handling shoes	
7.7 Driving caps	

13



1. General

This manual provides an introduction to the methods of installing sheet piling, based upon the common experiences of the European Sheet Piling Producers.

A knowledge of the characteristics of the steel and the section are not enough to guarantee good results prior to installation.

The aim of this document is therefore to briefly describe the practical information to be considered to ensure proper product installation.

It aims to show the importance of predicting the drivability of pile sections after full evaluation of the ground conditions.

This is followed by an inventory of the existing driving systems, from impact hammers to vibratory pile drivers and special systems.

The manual then provides a description of driving methods, ancillary equipment, including guide frames, and guideline procedures to assist in providing good practice when installing sheet piles.

Finally some common installation problems are illustrated and special aspects of driving briefly outlined.

Please note: Care has been taken to ensure that the contents of this publication are accurate but TESPAs does not accept responsibility for errors or for information which is found to be misleading. Suggestions for or methods of working are for information and guidance only and TESPAs accepts no liability in respect thereof.

