

泥岩持力层的管桩承载力试验研究

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摘要 对管桩竖向承载性能进行了试验研究和理论分析,结合某管桩基础工程大量施工资料和静载试验桩顶、桩底位移测量结果,探讨了桩端持力层的受力特性,给出了桩端轴力计算的修正公式。根据实测复打前后的静载试验资料,利用预制桩竖向承载性能优化反分析计算程序计算分析了桩周及桩端土阻力参数。最后,综合分析了软岩作为桩端持力层时管桩应用的局限性。

关键词 [岩土力学,管桩,承载力,桩底位移,持力层](#)

分类号

TESTING STUDY ON BEARING CAPACITY OF PIPE PILES WITH BEARING STRATUM OF MUDSTONE

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Abstract

Testing study is made on the bearing capacity of pipe piles socketed in softrock. On the basis of large amount of construction information of driven and redriven pipe piles with the bearing stratum of mudstone, the settlements of pile top and pile bottom under top vertical load are measured for piles subjected to axial loads. An improved formula is given to calculate the axial force of the pile at its bottom. The friction parameters of the soils around pile are calculated by back analyzing method on the basis of measured load-settlement information of static test. The testing study and analysis results indicate that the softrock such as mudstone layer should not be bearing stratum of pipe piles, before effective measures are adopted to eliminate the possible great settlement of buildings.

Key words [rock and soil mechanics, pipe pile, bearing capacity, pile bottom settlements, bearing stratum](#)

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