FEDERATION OF PILING SPECIALISTS

WORKING PLATFORM DESIGN SENSITIVITY

INTRODUCTION

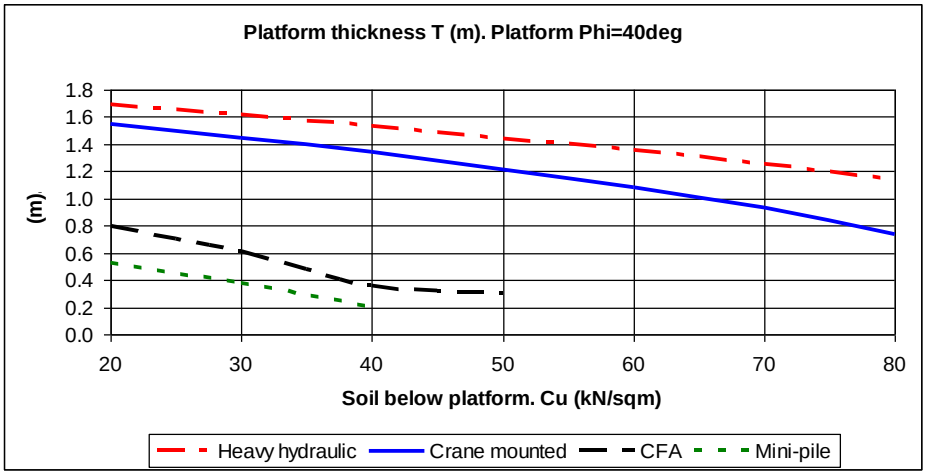
The recently published BRE design method for calculating the thickness of the working platform for tracked plant, e.g. piling rigs and cranes, requires the input of realistic parameters for the properties of both the platform material and the underlying stratum. Use of conservative parameters will result in the calculation of conservative, and hence uneconomic, platform thicknesses.

The plotted examples shown below demonstrate the sensitivity of the calculated platform thickness for a range of input parameters, for typical types of piling rigs.

The figures below are general examples. Platform designs must be based on the actual rig loadings supplied by the piling contractor and the FPS can take no responsibility for any use made of the example information shown.

RIG AND LOADING DATA

TYPICAL RIGS	Track width	Example Case 1 loading		Example Case 2 loading	
		Design pressure q1	Effective track length L1	Design pressure q2	Effective track length L2
	(m)	(kN/sqm)	(m)	(kN/sqm)	(m)
Heavy hydraulic	0.800	212	2.90	633	1.24
Crane mounted	0.915	347	1.73	365	1.09
CFA	0.700	103	3.15	206	1.85
Mini-pile	0.400	92	1.53	188	0.79



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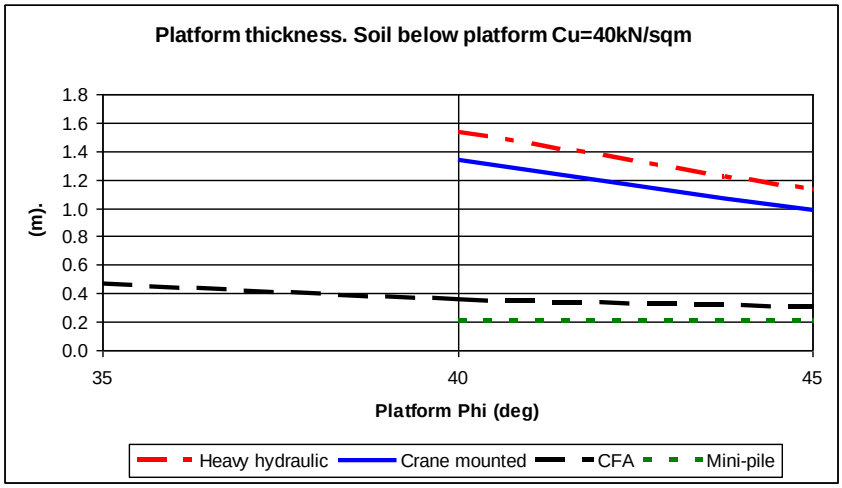

For further details refer to BRE Report 470, Working Platforms for Tracked Plant: good practice guide to the design, installation, maintenance and repair of ground-supported working platforms.

This guidance has been produced by the Federation of Piling Specialists It is not intended to be used as a design method. Platforms should be designed according to the actual rig loadings supplied by the piling contractor. If expert assistance is required, the services of a competent professional should be sought. Although every effort has been made to check the accuracy and validity of the above guidance, neither the authors nor the Federation of Piling Specialists accept any responsibility for mis-statements contained herein or misunderstandings arising herefrom.

September 2005
Last reviewed June 2013

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