

**Schedule of Piling Rig Component Weights, Dimensions, Forces and Pressures**

Rig Manufacturer :		SOILMEC		Rig Type :		CM-50	
		Operation mode:		CFA			
Completed by:	Bruno Bettini SOILMEC SpA	28/11/2006		Checked by:		0	
Item	Mass (kg)	Moment arm (m)		Moment (kNm)			
UPPER WORKS	7000	2.35		161.65			
LOWER WORKS	20300	-0.35		-69.06			
ROPE / KELLY / CHAIN SUSPENDED EQUIPMENT	9150	3.41		306.09			
COUNTERWEIGHT	4000	-2.45		-96.14			
OTHER	0	0.00		0.00			
TOTAL	40450	0.76		302.54			
Tracks							
Track bearing length (m)		3.86					
Track pad width (m)		0.7					
Distance between centrelines of tracks (m)		3.3					
Front Foot Pads							
Pad Bearing Area (m <sup>2</sup> )		1.50		Actual Dimensions		1200mmx1500mm	
Pad Maximum Loading (kN)		460.00		Actual Shape		rectangular cw front indent	
Pad Moment Arm (m)		2.66					
Rear Foot Pads							
Pad Bearing Area (m <sup>2</sup> )		0.00		Actual Dimensions		None	
Pad Maximum Loading (kN)		0.00		Actual Shape		None	
Pad Moment Arm (m)		0.00					
Forces							
Maximum Extraction Force (kN)		510.00					
Maximum Penetration Force (kN)		37.00					
Maximum Auxillary Force (kN)		41.00		Auxillary Force Moment Arm (m)		3.35	
Pressure Summary for Platform Design (unfactored)							
MODE	BRE LOAD CASE ( 1 or 2 )	Length (m)		Width (m)		UDL Pressure (kPa)	
Standing	1	2.54		0.7		137	
Travelling	1	2.54		0.7		137	
Handling	1	2.43		0.7		150	
Penetrating	2	3.33		0.7		69	
Extracting	2	1.45		0.7		218	
Other	NOT USED	N/A		0.7		N/A	
MODE	WARNING MESSAGES	ERROR MESSAGES FOR FORCES					
Standing	None	Auxiliary Line Force OK		Extraction Force OK		Penetration Force OK	
Travelling	None	Auxiliary Line Force OK		Extraction Force OK		Penetration Force OK	
Handling	None	Auxiliary Line Force OK		Extraction Force OK		Penetration Force OK	
Penetrating	None	Auxiliary Line Force OK		Extraction Force OK		Penetration Force OK	
Extracting	None	Auxiliary Line Force OK		Extraction Force OK		Penetration Force OK	
Other	None	Auxiliary Line Force OK		Extraction Force OK		Penetration Force OK	
MODE	ERROR MESSAGES FOR FOOT PADS			<u>Notes</u>			
Standing	Front Foot Pad Force OK	Rear Foot Pad Force OK		Only for rig operation on level ground with a vertical mast, unless noted below !			
Travelling	Front Foot Pad Force OK	Rear Foot Pad Force OK		Only for use where the rig is working on a ground supported platform !			
Handling	Front Foot Pad Force OK	Rear Foot Pad Force OK		Foot pad pressures are adjusted to equalise with the track pressures !			
Penetrating	Front Foot Pad Force OK	Rear Foot Pad Force OK		Rigs to be operated in accordance with manufacturer's & employer's instructions			
Extracting	Front Foot Pad Force OK	Rear Foot Pad Force OK		No limits on working practice.			
Other	Front Foot Pad Force OK	Rear Foot Pad Force OK		Weight of augers+auger extension should not exceed 7000kg according to Soilmecc User's Manual.			
				Weight of augers given here is the max allowed and may vary according to auger diameter.			
Note: The disclaimer on the first worksheet applies to all tables in this workbook							