

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

Rig Manufacturer :		ABI	Rig Type :		TM20
Operation mode:		VIBRO			
Completed by:	Ross MacMillan	15/04/2021	Checked by:		0
Item	Mass (kg)	Moment arm (m)	Moment (kNm)		
UPPER WORKS	33870	2.02	670.69		
LOWER WORKS	17800	0.00	0.00		
ROPE / KELLY / CHAIN SUSPENDED EQUIPMENT	4670	6.04	276.71		
COUNTERWEIGHT	15090	-3.42	-506.46		
OTHER	900	5.50	48.56		
TOTAL	72330	0.69	489.50		
Tracks					
Track bearing length (m)	4.3				
Track pad width (m)	0.9				
Distance between centrelines of tracks (m)	3.8				
Front Foot Pads					
Pad Bearing Area (m ²)	0.00	Actual Dimensions	None		
Pad Maximum Loading (kN)	0.00	Actual Shape	None		
Pad Moment Arm (m)	0.00				
Rear Foot Pads					
Pad Bearing Area (m ²)	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)	200.00				
Maximum Penetration Force (kN)	120.00				
Maximum Auxillary Force (kN)	50.00	Auxillary Force Moment Arm (m)	6.05		
Pressure Summary for Platform Design (unfactored)					
MODE	BRE LOAD CASE (1 or 2)	Length (m)	Width (m)	UDL Pressure (kPa)	
Standing	1	2.40	0.9	229	
Travelling	1	2.40	0.9	229	
Handling	1	2.40	0.9	229	
Penetrating	2	3.10	0.9	120	
Extracting	2	1.60	0.9	339	
Other	NOT USED	N/A	0.9	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		Notes		
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. Standing, Handling & Travelling tack loads based on a 6t pile at 6m radius (mast SWL 12 tonnes including attachment).		
Other	Front Foot Pad Force OK	Rear Foot Pad Force OK			
<p>Note: The disclaimer on the first worksheet applies to all tables in this workbook</p>					