

Schedule of Piling Rig Component Weights, Dimensions, Forces and Pressures				
Rig Manufacturer :		ABI		Rig Type : TM 14/17
		Operation mode:		VIBRO
Completed by:	Ross MacMillan	26/03/2021	Checked by:	0
Item	Mass (kg)	Moment arm (m)	Moment (kNm)	
UPPER WORKS	26952	1.79	474.41	
LOWER WORKS	12928	0.00	0.00	
ROPE / KELLY / CHAIN SUSPENDED EQUIPMENT	4100	5.61	225.64	
COUNTERWEIGHT	11235	-3.16	-347.88	
OTHER	1400	5.50	75.54	
TOTAL	56615	0.77	427.71	
Tracks				
Track bearing length (m)	4.2			
Track pad width (m)	0.9			
Distance between centrelines of tracks (m)	3.3			
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)	180.00			
Maximum Penetration Force (kN)	140.00			
Maximum Auxillary Force (kN)	50.00	Auxillary Force Moment Arm (m)	5.60	
Pressure Summary for Platform Design (unfactored)				
MODE	BRE LOAD CASE (1 or 2)	Length (m)	Width (m)	UDL Pressure (kPa)
Standing	1	2.41	0.9	177
Travelling	1	2.41	0.9	177
Handling	1	2.41	0.9	177
Penetrating	2	2.46	0.9	119
Extracting	2	1.29	0.9	348
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, travelling and handling track loads based on a 3t pile at 6m radius (mast SWL 8 tonnes including attachment)	
Other	Front Foot Pad Force OK	Rear Foot Pad Force OK		
Note: The disclaimer on the first worksheet applies to all tables in this workbook				