

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

Rig Manufacturer : JUNTTAN		Rig Type : PM20	
Operation mode: Driven Precast - 300sq			
Completed by: SH	25/09/2017	Checked by: DPM	
Item	Mass (kg)	Moment arm (m)	Moment (kNm)
UPPER WORKS	5000	5.65	277.13
LOWER WORKS	32500	-0.70	-223.18
ROPE / KELLY / CHAIN SUSPENDEE EQUIPMENT	8000	5.95	466.96
COUNTERWEIGHT	6000	-2.84	-167.16
OTHER	3200	5.95	186.78
TOTAL	54700	1.01	540.53

Tracks			
Track bearing length (m)	3.92		
Track pad width (m)	0.8		
Distance between centrelines of tracks (m)	3.3		

Front Foot Pads			
Pad Bearing Area (m ²)	0.00	Actual Dimensions	0
Pad Maximum Loading (kN)	0.00	Actual Shape	0
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)	150.00		
Maximum Penetration Force (kN)	50.00		
Maximum Auxillary Force (kN)	50.00	Auxillary Force Moment Arm (m)	5.95

Pressure Summary for Platform Design (unfactored)

MODE	BRE LOAD CASE (1 or 2)	Length (m)	Width (m)	UDL Pressure (kPa)
Standing	1	2.18	0.8	201
Travelling	1	2.18	0.8	201
Handling	1	1.55	0.8	270
Penetrating	2	2.02	0.8	226
Extracting	2	3.52	0.8	93
Other	NOT USED	N/A	0.8	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 ! Only for use where the rig is working on a ground supported platform ! Foot pad pressures are adjusted to equalise with the track pressures ! Rigs to be operated in accordance with manufacturer's & employer's instructions No limits on working practice
Travelling	Front Foot Pad Force OK	Rear Foot Pad Force OK	
Handling	Front Foot Pad Force OK	Rear Foot Pad Force OK	
Penetrating	Front Foot Pad Force OK	Rear Foot Pad Force OK	
Extracting	Front Foot Pad Force OK	Rear Foot Pad Force OK	
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

