The user of this spreadsheet shall input data into the relevant yellow boxes on this worksheet and on all of the other relevant worksheets

Note: The disclaimer on the first worksheet applies to all tables in this workbook

Rig Manufacturer :	TESCAR	Rig Type & Serial No.	CF6	#0051
Operation mode:	Hitachi ZX 130 / Supporto BASSO	Date:	23/07/2018	
Completed by:	AM	Checked by:	LF	

Main Components - Slewing:

Item		Mass (kg)	Weight (kN)	X - Coordinate	Y - Coordinate	Moment Mx (kNm)	Moment My (kNm)
UPPER WORKS (Slewing)	Mast Assembly+ Extension	2,800	27	0.00	2.13	-59	0
	Cathead	200	2	0.00	2.10	-4	0
	Support	2,000	20	0.00	1.10	-22	0
	Hydraulic Cylinders	300	3	0.00	1.80	-5	0
	Hydraulic Cylinders	300	3	0.00	1.80	-5	0
						0	0
LOWER WORKS (Slewing)	Base Machine	6,080	60	0.00	0.00	0	0
						0	0
						0	0
						0	0
						0	0
SUSPENDED EQUIPMENT CONNECTED TO CROWD SYSTEM (Slewing)	Kelly Drive Guide	120	1	0.00	2.90	-3	0
	Rotary Head	2,000	20	0.00	2.90	-57	0
	Kelly bar	2,200	22		2.90	-63	0
						0	0
						0	0
COUNTER-WEIGHT (Slewing)	Counterweight	3,000	29	0.00	-2.00	59	0
						0	0
						0	0
OTHER/OTHER SUSPENDED EQUIPMENT (Slewing)						0	0
	TOOL	1,000	10		2.90	-28	0
	SOIL	1,000	10		2.90	-28	0
UPPER WORKS		5,600	55	0.00	1.73	-95	0
LOWER WORKS		6,080	60	0.00	0.00	0	0
SUSPENDED EQUIPMENT CONNECTED TO CROWD SYSTEM		4,320	42	0.00	2.90	-123	0
COUNTERWEIGHT		3,000	29	0.00	-2.00	59	0
OTHER		2,000	20	0.00	2.90	-57	0
SLEWING TOTAL/RESULTANT (with θ=0)		21,000	206	0.00	1.05	-216	0

Foot Pads - Slewing :

Description	Bearing Area	Max. Pad Loading	X - Coordinate	Y - Coordinate	Actual Shape	Actual Dimension
	m^2	kN	m	m		
Front Pad 1					None	None
Front Pad 2					None	None
Rear Pad 1					None	None
Rear Pad 2					None	None

Forces - Slewing

		Force	X - Coordinate	Y - Coordinate	
		kN	m	m	
Crowd System - Maximum Extraction Force (kN)		70	0.00	2.90	Must be inline with suspended equip't.
Crowd System - Maximum Penetration Force (kN)		-200	0.00	2.90	-ve Must be inline with suspended equip't.
Maximum Auxillary Force (kN)		35	0.00	2.90	

Main Components - Non-Slewing:

Item		Mass (kg)	Weight (kN)	X - Coordinate	Y - Coordinate	Moment Mx (kNm)	Moment My (kNm)
Lower Works Non-Slewing (undercarriage/tracks etc)	Tracks & Undercarriage	4,000	39	0.00	0.00	0	0
				0.00	0.00	0	0
				0.00	0.00	0	0
NON-SLEWING TOTAL/RESULTANT (with θ=0)		4,000	39	0.00	0.00	0	0
TOTAL RIG MASS		25,000					

Foot Pads - Non-Slewing

Description	Bearing Area	Max. Pad Loading	X - Coordinate	Y - Coordinate	Actual Shape	Actual Dimension
	m^2	kN	m	m		
Front Pad 1						
Front Pad 2						
Rear Pad 1						
Rear Pad 2						

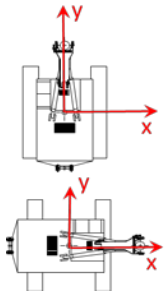
Tracks		Slewing		
Track bearing length (m)	2.89	Can the rig slew?	YES	
Track pad width (m)	0.50			
Distance between centrelines of tracks (m)	1.99			

Note: The disclaimer on the first worksheet applies to all tables in this workbook

Notes

1 TON OF TOOL + 1 TON OF SOIL IN STANDING MODE

TESCAR CF6	Weight / Force Applied (kN)	X - Coordinate	Y - Coordinate	Moment Mx	Moment My
SLEWING ACTIONS					
Upper Works (slewing)	55	0.00	1.73	-95	0
Suspended Eqpt. on Crowd	42	0.00	2.90	-123	0
Counterweight (slewing)	29	0.00	-2.00	59	0
Other (slewing)	20	0.00	2.90	-57	0
Lower Works (Slewing)	60	0.00	0.00	0	0
Net Extraction Force	0	0.00	2.90	0	0
Net Penetration Force	0	0.00	2.90	0	0
Applied Auxillary Force	0	0.00	2.90	0	0
Front Pad 1	0	0.00	0.00	0	0
Front Pad 2	0	0.00	0.00	0	0
Rear Pad 1	0	0.00	0.00	0	0
Rear Pad 2	0	0.00	0.00	0	0
Summary of Slewing Action	206	0.00	1.05	-216	0



	Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
Net Extraction Force	0	70		
Net Penetration Force	0	-200		
Applied Auxillary Force	0	35		
Front Pad 1	0	0	0	0.00
Front Pad 2	0	0	0	0.00
Rear Pad 1	0	0	0	0.00
Rear Pad 2	0	0	0	0.00
Max. Pad Pressure			0	

NON-SLEWING ACTIONS						Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
Lower Works Non-Slewing	39	0.00	0.00	0	0				
Front Pad 1	0	0.00	0.00	0	0	0	0	0	0.00
Front Pad 2	0	0.00	0.00	0	0	0	0	0	0.00
Rear Pad 1	0	0.00	0.00	0	0	0	0	0	0.00
Rear Pad 2	0	0.00	0.00	0	0	0	0	0	0.00
Summary of Non-slewing Actions	**39**	**0.00**	**0.00**	**0**	**0**	Max. Pad Pressure		0	
Total Rig Weight (kN)	245					Track Bearing Length (m)		2.89	
Resultant of all Actions (kN)	**245**	**0.00**	**0.88**	**-216**	**0**	Track pad width (m)		0.50	
						Track Centerline Dist. (m)		1.99	

Input Data Warning Messages	Notes
Auxiliary Line Force OK	
Extraction Force OK	
Penetration Force OK	
Slewing Footpad Forces OK	
Non-Slewing Footpad Forces OK	

Mode : Standing

Transformation from triangular or trapizoidal to an equivalent rectangular pressure distribution under track maintaining the load centriod

Relative Angle - Upper Body and Tracks (degrees)	Max bearing pressure L.H. track (kN/m^2)	Min pressure L.H. track (kN/m^2)	Max bearing pressure R.H. track (kN/m^2)	Min bearing pressure R.H. track (kN/m^2)	Max Track loading dimensions ecc (m)	Max Track loading dimensions Bearing Len. (m)	Equivalent Bearing L (m)	Equivalent Bearing Q (KPa)
0	289	0	289	0	0.880	1.696	1.131	217
15	212	0	338	0	0.850	1.786	1.191	253
30	134	0	345	0	0.762	2.050	1.366	259
45	74	0	323	0	0.622	2.469	1.646	242
60	38	2	287	13	0.440	2.890	2.010	215
75	18	7	232	83	0.228	2.890	2.435	187
90	10	10	160	160	0.000	2.890	2.890	160
105	18	7	232	83	-0.228	2.890	2.435	187
120	38	2	287	13	-0.440	2.890	2.010	215
135	74	0	323	0	-0.622	2.469	1.646	242
150	134	0	345	0	-0.762	2.050	1.366	259
165	212	0	338	0	-0.850	1.786	1.191	253
180	289	0	289	0	-0.880	1.696	1.131	217
195	338	0	212	0	-0.850	1.786	1.191	253
210	345	0	134	0	-0.762	2.050	1.366	259
225	323	0	74	0	-0.622	2.469	1.646	242
240	287	13	38	2	-0.440	2.890	2.010	215
255	232	83	18	7	-0.228	2.890	2.435	187
270	160	160	10	10	0.000	2.890	2.890	160
285	232	83	18	7	0.228	2.890	2.435	187
300	287	13	38	2	0.440	2.890	2.010	215
315	323	0	74	0	0.622	2.469	1.646	242
330	345	0	134	0	0.762	2.050	1.366	259
345	338	0	212	0	0.850	1.786	1.191	253
					Maximum Track Values		1.366	259
						Pad Area (m^)		
Max. Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing Leng						0.000	0.000	0
Max. Non-Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing						0.000	0.000	0
					Maximum Equivalent Design Values		1.366	259

Eccentricity index - X direction (sideways)	**0.88**
Eccentricity index - Y direction (forwards/backwards)	**0.61**
Track pressure distribution warning	**Track(s) lifting**
Slewing foot pad message	**Slewing Foot Pad Pressure OK**
Non-Slewing foot pad message	**Non-Slewing Foot Pad Pressure OK**
BRE LOAD CASE (1 or 2)	**1**

Notes on Using this Table

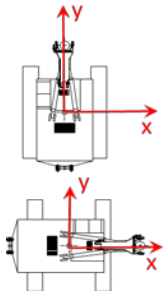
Auxilliary Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G11). Note the maximum design force in the adjacent box (H11).
Extraction Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G9). Note the maximum design force in the adjacent box (FH9).
Penetration Force -ve Z direction. Enter applied force (kN) in appropriate yellow box (G10) - must be negavtive as it imposes an upwards resultant force. Note the maximum design force in the adjacent box (H10).
Slewing Foot Pad Forces +ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G12 to G15). Note the maximum the machine can develop is given in the adjacent boxes.
Non-Slewing Foot Pad Forces -ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G20 to G23). Note the maximum the machine can develop is given in the adjacent boxes.

Fill in values in all yellow boxes appropriate for this mode -
Net extraction or penetration force is the applied value minus the weight of any rope / kelly / chain suspended equipment.
By trial and error, adjust Foot Pad Forces to eliminate "error" messages and equalise bearing pressures on both tracks and foot pads (highlighted in red boxes).
When applying Auxilliary or Extraction Line Pull, ensure that Penetration Force is zero.

ONLY A COMPETENT PERSON MAY USE THIS TABLE !

Note: The disclaimer on the first worksheet applies to all tables in this workbook

TESCAR CF6	Weight / Force Applied (kN)	X - Coordinate	Y - Coordinate	Moment Mx	Moment My
SLEWING ACTIONS					
Upper Works (slewing)	55	0.00	1.73	-95	0
Suspended Eqpt. on Crowd	42	0.00	2.90	-123	0
Counterweight (slewing)	29	0.00	-2.00	59	0
Other (slewing)	20	0.00	2.90	-57	0
Lower Works (Slewing)	60	0.00	0.00	0	0
Net Extraction Force	0	0.00	2.90	0	0
Net Penetration Force	0	0.00	2.90	0	0
Applied Auxillary Force	0	0.00	2.90	0	0
Front Pad 1	0	0.00	0.00	0	0
Front Pad 2	0	0.00	0.00	0	0
Rear Pad 1	0	0.00	0.00	0	0
Rear Pad 2	0	0.00	0.00	0	0
Summary of Slewing Action	206	0.00	1.05	-216	0



	Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
	0	70		
	0	-200		
	0	35		
	0	0	0	0.00
	0	0	0	0.00
	0	0	0	0.00
	0	0	0	0.00
Max. Pad Pressure			0	

NON-SLEWING ACTIONS	Weight / Force Applied (kN)	X - Coordinate	Y - Coordinate	Moment Mx	Moment My
Lower Works Non-Slewing	39	0.00	0.00	0	0
Front Pad 1	0	0.00	0.00	0	0
Front Pad 2	0	0.00	0.00	0	0
Rear Pad 1	0	0.00	0.00	0	0
Rear Pad 2	0	0.00	0.00	0	0
Summary of Non-slewing Actions	**39**	**0.00**	**0.00**	**0**	**0**
Total Rig Weight (kN)	245				
Resultant of all Actions (kN)	**245**	**0.00**	**0.88**	**-216**	**0**

	Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
	0	0	0	0.00
	0	0	0	0.00
	0	0	0	0.00
	0	0	0	0.00
Max. Pad Pressure			0	

Track Bearing Length (m)	2.89
Track pad width (m)	0.50
Track Centerline Dist. (m)	1.99

Input Data Warning Messages	Notes
Auxiliary Line Force OK	
Extraction Force OK	
Penetration Force OK	
Slewing Footpad Forces OK	
Non-Slewing Footpad Forces OK	

Mode : Travelling

Transformation from triangular or trapizoidal to an equivalent rectangular pressure distribution under track maintaining the load centriod

Relative Angle - Upper Body and Tracks (degrees)	Max bearing pressure L.H. track (kN/m^2)	Min pressure L.H. track (kN/m^2)	Max bearing pressure R.H. track (kN/m^2)	Min bearing pressure R.H. track (kN/m^2)	Max Track loading dimensions ecc (m)	Max Track loading dimensions Bearing Len. (m)	Equivalent Bearing L (m)	Equivalent Bearing Q (KPa)
0	289	0	289	0	0.880	1.696	1.131	217
15	212	0	338	0	0.850	1.786	1.191	253
30	134	0	345	0	0.762	2.050	1.366	259
45	74	0	323	0	0.622	2.469	1.646	242
60	38	2	287	13	0.440	2.890	2.010	215
75	18	7	232	83	0.228	2.890	2.435	187
90	10	10	160	160	0.000	2.890	2.890	160
105	18	7	232	83	-0.228	2.890	2.435	187
120	38	2	287	13	-0.440	2.890	2.010	215
135	74	0	323	0	-0.622	2.469	1.646	242
150	134	0	345	0	-0.762	2.050	1.366	259
165	212	0	338	0	-0.850	1.786	1.191	253
180	289	0	289	0	-0.880	1.696	1.131	217
195	338	0	212	0	-0.850	1.786	1.191	253
210	345	0	134	0	-0.762	2.050	1.366	259
225	323	0	74	0	-0.622	2.469	1.646	242
240	287	13	38	2	-0.440	2.890	2.010	215
255	232	83	18	7	-0.228	2.890	2.435	187
270	160	160	10	10	0.000	2.890	2.890	160
285	232	83	18	7	0.228	2.890	2.435	187
300	287	13	38	2	0.440	2.890	2.010	215
315	323	0	74	0	0.622	2.469	1.646	242
330	345	0	134	0	0.762	2.050	1.366	259
345	338	0	212	0	0.850	1.786	1.191	253
					Maximum Track Values		1.366	259
						Pad Area (m^)		
Max. Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing Leng						0.000	0.000	0
Max. Non-Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing						0.000	0.000	0
					Maximum Equivalent Design Values		1.366	259

Eccentricity index - X direction (sideways)	**0.88**
Eccentricity index - Y direction (forwards/backwards)	**0.61**
Track pressure distribution warning	**Track(s) lifting**
Slewing foot pad message	**Slewing Foot Pad Pressure OK**
Non-Slewing foot pad message	**Non-Slewing Foot Pad Pressure OK**
BRE LOAD CASE (1 or 2)	**1**

Notes on Using this Table

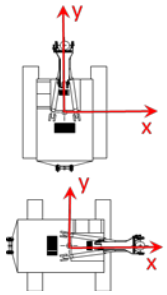
Auxilliary Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G11). Note the maximum design force in the adjacent box (H11).
Extraction Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G9). Note the maximum design force in the adjacent box (FH9).
Penetration Force -ve Z direction. Enter applied force (kN) in appropriate yellow box (G10) - must be negavtive as it imposes an upwards resultant force. Note the maximum design force in the adjacent box (H10).
Slewing Foot Pad Forces +ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G12 to G15). Note the maximum the machine can develop is given in the adjacent boxes.
Non-Slewing Foot Pad Forces -ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G20 to G23). Note the maximum the machine can develop is given in the adjacent boxes.

Fill in values in all yellow boxes appropriate for this mode -
Net extraction or penetration force is the applied value minus the weight of any rope / kelly / chain suspended equipment.
By trial and error, adjust Foot Pad Forces to eliminate "error" messages and equalise bearing pressures on both tracks and foot pads (highlighted in red boxes).
When applying Auxilliary or Extraction Line Pull, ensure that Penetration Force is zero.

ONLY A COMPETENT PERSON MAY USE THIS TABLE !

Note: The disclaimer on the first worksheet applies to all tables in this workbook

TESCAR CF6	Weight / Force Applied (kN)	X - Coordinate	Y - Coordinate	Moment Mx	Moment My
SLEWING ACTIONS					
Upper Works (slewing)	55	0.00	1.73	-95	0
Suspended Eqpt. on Crowd	42	0.00	2.90	-123	0
Counterweight (slewing)	29	0.00	-2.00	59	0
Other (slewing)	20	0.00	2.90	-57	0
Lower Works (Slewing)	60	0.00	0.00	0	0
Net Extraction Force	0	0.00	2.90	0	0
Net Penetration Force	0	0.00	2.90	0	0
Applied Auxillary Force	34	0.00	2.90	-99	0
Front Pad 1	0	0.00	0.00	0	0
Front Pad 2	0	0.00	0.00	0	0
Rear Pad 1	0	0.00	0.00	0	0
Rear Pad 2	0	0.00	0.00	0	0
Summary of Slewing Action	240	0.00	1.31	-314	0



	Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
Net Extraction Force	0	70		
Net Penetration Force	0	-200		
Applied Auxillary Force	34	35		
Front Pad 1	0	0	0	0.00
Front Pad 2	0	0	0	0.00
Rear Pad 1	0	0	0	0.00
Rear Pad 2	0	0	0	0.00
Max. Pad Pressure			0	

NON-SLEWING ACTIONS						Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
Lower Works Non-Slewing	39	0.00	0.00	0	0				
Front Pad 1	0	0.00	0.00	0	0	0	0	0	0.00
Front Pad 2	0	0.00	0.00	0	0	0	0	0	0.00
Rear Pad 1	0	0.00	0.00	0	0	0	0	0	0.00
Rear Pad 2	0	0.00	0.00	0	0	0	0	0	0.00
Summary of Non-slewing Actions	**39**	**0.00**	**0.00**	**0**	**0**	**Max. Pad Pressure**		0	
Total Rig Weight (kN)	245					Track Bearing Length (m)		2.89	
Resultant of all Actions (kN)	**279**	**0.00**	**1.13**	**-314**	**0**	Track pad width (m)		0.50	
						Track Centerline Dist. (m)		1.99	

Input Data Warning Messages	Notes
Auxiliary Line Force OK	USE 34 KN MAX IN HANDLING MODE
Extraction Force OK	
Penetration Force OK	
Slewing Footpad Forces OK	
Non-Slewing Footpad Forces OK	

Handeling

Mode : Handling

Relative Angle - Upper Body and Tracks (degrees)	Max bearing pressure L.H. track (kN/m^2)	Min pressure L.H. track (kN/m^2)	Max bearing pressure R.H. track (kN/m^2)	Min bearing pressure R.H. track (kN/m^2)	Max Track loading dimensions ecc (m)	Max Track loading dimensions Bearing Len. (m)	Transformation from triangular or trapizoidal to an equivalent rectangular pressure distribution under track maintaining the load centriod Equivalent Bearing L (m)	Equivalent Bearing Q (KPa)
0	583	0	583	0	1.126	0.958	0.639	437
15	368	0	673	0	1.087	1.073	0.715	505
30	172	0	620	0	0.975	1.410	0.940	465
45	57	0	516	0	0.796	1.947	1.298	387
60	4	0	418	0	0.563	2.647	1.764	313
75	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
90	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
105	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
120	4	0	418	0	-0.563	2.647	1.764	313
135	57	0	516	0	-0.796	1.947	1.298	387
150	172	0	620	0	-0.975	1.410	0.940	465
165	368	0	673	0	-1.087	1.073	0.715	505
180	583	0	583	0	-1.126	0.958	0.639	437
195	673	0	368	0	-1.087	1.073	0.715	505
210	620	0	172	0	-0.975	1.410	0.940	465
225	516	0	57	0	-0.796	1.947	1.298	387
240	418	0	4	0	-0.563	2.647	1.764	313
255	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
270	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
285	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
300	418	0	4	0	0.563	2.647	1.764	313
315	516	0	57	0	0.796	1.947	1.298	387
330	620	0	172	0	0.975	1.410	0.940	465
345	673	0	368	0	1.087	1.073	0.715	505
					Maximum Track Values		#VALUE!	#VALUE!
						Pad Area (m^)		
Max. Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing Leng						0.000	0.000	0
Max. Non-Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing						0.000	0.000	0
					Maximum Equivalent Design Values		#VALUE!	#VALUE!

Eccentricity index - X direction (sideways)	1.13
Eccentricity index - Y direction (forwards/backwards)	0.78
Track pressure distribution warning	#VALUE!
Slewing foot pad message	#VALUE!
Non-Slewing foot pad message	#VALUE!
BRE LOAD CASE (1 or 2)	1

Notes on Using this Table

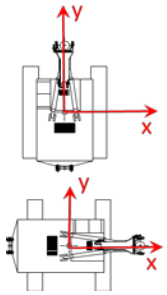
Auxilliary Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G11). Note the maximum design force in the adjacent box (H11).
Extraction Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G9). Note the maximum design force in the adjacent box (FH9).
Penetration Force -ve Z direction. Enter applied force (kN) in appropriate yellow box (G10) - must be negavtive as it imposes an upwards resultant force. Note the maximum design force in the adjacent box (H10).
Slewing Foot Pad Forces +ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G12 to G15). Note the maximum the machine can develop is given in the adjacent boxes.
Non-Slewing Foot Pad Forces -ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G20 to G23). Note the maximum the machine can develop is given in the adjacent boxes.

Fill in values in all yellow boxes appropriate for this mode -
Net extraction or penetration force is the applied value minus the weight of any rope / kelly / chain suspended equipment.
By trial and error, adjust Foot Pad Forces to eliminate "error" messages and equalise bearing pressures on both tracks and foot pads (highlighted in red boxes).
When applying Auxilliary or Extraction Line Pull, ensure that Penetration Force is zero.

ONLY A COMPETENT PERSON MAY USE THIS TABLE !

Note: The disclaimer on the first worksheet applies to all tables in this workbook

TESCAR CF6	Weight / Force Applied (kN)	X - Coordinate	Y - Coordinate	Moment Mx	Moment My
SLEWING ACTIONS					
Upper Works (slewing)	55	0.00	1.73	-95	0
Suspended Eqpt. on Crowd	42	0.00	2.90	-123	0
Counterweight (slewing)	29	0.00	-2.00	59	0
Other (slewing)	20	0.00	2.90	-57	0
Lower Works (Slewing)	60	0.00	0.00	0	0
Net Extraction Force	0	0.00	2.90	0	0
Net Penetration Force	-97	0.00	2.90	282	0
Applied Auxillary Force	0	0.00	2.90	0	0
Front Pad 1	0	0.00	0.00	0	0
Front Pad 2	0	0.00	0.00	0	0
Rear Pad 1	0	0.00	0.00	0	0
Rear Pad 2	0	0.00	0.00	0	0
Summary of Slewing Actions	109	0.00	-0.61	67	-0



	Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
	0.00	70		
	-55.00	-200		
	0.00	35		
	0	0	0	0.00
	0	0	0	0.00
	0	0	0	0.00
	0	0	0	0.00
Max. Pad Pressure			0	

NON-SLEWING ACTIONS						Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
Lower Works Non-Slewing	39	0.00	0.00	0	0				
Front Pad 1	0	0.00	0.00	0	0	0	0	0	0.00
Front Pad 2	0	0.00	0.00	0	0	0	0	0	0.00
Rear Pad 1	0	0.00	0.00	0	0	0	0	0	0.00
Rear Pad 2	0	0.00	0.00	0	0	0	0	0	0.00
Summary of Non-slewing Actions	**39**	**0.00**	**0.00**	**0**	**0**	Max. Pad Pressure		0	
Total Rig Weight (kN)	245					Track Bearing Length (m)		2.89	
Resultant of all Actions (kN)	**148**	**0.00**	**-0.45**	**67**	**0**	Track pad width (m)		0.50	
						Track Centerline Dist. (m)		1.99	

Input Data Warning Messages	Notes
Auxiliary Line Force OK	
Extraction Force OK	
Penetration Force OK	USE 55kN MAX IN PENETRATING MODE
Slewing Footpad Forces OK	
Non-Slewing Footpad Forces OK	

Mode : Penetrating

Transformation from triangular or trapizoidal to an equivalent rectangular pressure distribution under track maintaining the load centriod

Relative Angle - Upper Body and Tracks (degrees)	Max bearing pressure L.H. track (kN/m^2)	Min pressure L.H. track (kN/m^2)	Max bearing pressure R.H. track (kN/m^2)	Min bearing pressure R.H. track (kN/m^2)	Max Track loading dimensions ecc (m)	Max Track loading dimensions Bearing Len. (m)	Equivalent Bearing L (m)	Equivalent Bearing Q (KPa)
0	99	3	99	3	0.451	2.890	1.988	74
15	86	4	109	5	0.435	2.890	2.019	82
30	72	7	114	12	0.390	2.890	2.109	86
45	58	12	112	23	0.319	2.890	2.252	87
60	46	17	105	38	0.225	2.890	2.439	84
75	36	22	91	56	0.117	2.890	2.657	80
90	28	28	74	74	0.000	2.890	2.890	74
105	36	22	91	56	-0.117	2.890	2.657	80
120	46	17	105	38	-0.225	2.890	2.439	84
135	58	12	112	23	-0.319	2.890	2.252	87
150	72	7	114	12	-0.390	2.890	2.109	86
165	86	4	109	5	-0.435	2.890	2.019	82
180	99	3	99	3	-0.451	2.890	1.988	74
195	109	5	86	4	-0.435	2.890	2.019	82
210	114	12	72	7	-0.390	2.890	2.109	86
225	112	23	58	12	-0.319	2.890	2.252	87
240	105	38	46	17	-0.225	2.890	2.439	84
255	91	56	36	22	-0.117	2.890	2.657	80
270	74	74	28	28	0.000	2.890	2.890	74
285	91	56	36	22	0.117	2.890	2.657	80
300	105	38	46	17	0.225	2.890	2.439	84
315	112	23	58	12	0.319	2.890	2.252	87
330	114	12	72	7	0.390	2.890	2.109	86
345	109	5	86	4	0.435	2.890	2.019	82
					Maximum Track Values		2.252	87
						Pad Area (m^)		
Max. Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing Leng						0.000	0.000	0
Max. Non-Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing						0.000	0.000	0
					Maximum Equivalent Design Values		2.252	87

Eccentricity index - X direction (sideways)	**0.45**
Eccentricity index - Y direction (forwards/backwards)	**0.31**
Track pressure distribution warning	None
Slewing foot pad message	Slewing Foot Pad Pressure OK
Non-Slewing foot pad message	Non-Slewing Foot Pad Pressure OK
BRE LOAD CASE (1 or 2)	**2**

Notes on Using this Table

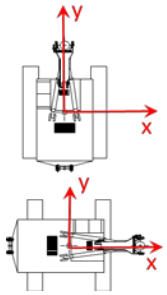
Auxilliary Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G11). Note the maximum design force in the adjacent box (H11).
Extraction Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G9). Note the maximum design force in the adjacent box (FH9).
Penetration Force -ve Z direction. Enter applied force (kN) in appropriate yellow box (G10) - must be negavtive as it imposes an upwards resultant force. Note the maximum design force in the adjacent box (H10).
Slewing Foot Pad Forces +ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G12 to G15). Note the maximum the machine can develop is given in the adjacent boxes.
Non-Slewing Foot Pad Forces -ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G20 to G23). Note the maximum the machine can develop is given in the adjacent boxes.

Fill in values in all yellow boxes appropriate for this mode -
Net extraction or penetration force is the applied value minus the weight of any rope / kelly / chain suspended equipment.
By trial and error, adjust Foot Pad Forces to eliminate "error" messages and equalise bearing pressures on both tracks and foot pads (highlighted in red boxes).
When applying Auxilliary or Extraction Line Pull, ensure that Penetration Force is zero.

ONLY A COMPETENT PERSON MAY USE THIS TABLE !

Note: The disclaimer on the first worksheet applies to all tables in this workbook

TESCAR CF6	Weight / Force Applied (kN)	X - Coordinate	Y - Coordinate	Moment Mx	Moment My
SLEWING ACTIONS					
Upper Works (slewing)	55	0.00	1.73	-95	0
Suspended Eqpt. on Crowd	42	0.00	2.90	-123	0
Counterweight (slewing)	29	0.00	-2.00	59	0
Other (slewing)	20	0.00	2.90	-57	0
Lower Works (Slewing)	60	0.00	0.00	0	0
Net Extraction Force	28	0.00	2.90	-80	0
Net Penetration Force	0	0.00	2.90	0	0
Applied Auxillary Force	0	0.00	2.90	0	0
Front Pad 1	0	0.00	0.00	0	0
Front Pad 2	0	0.00	0.00	0	0
Rear Pad 1	0	0.00	0.00	0	0
Rear Pad 2	0	0.00	0.00	0	0
Summary of Slewing Action	234	0.00	1.27	-296	0



	Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
	70.00	70		
	0.00	-200		
	0.00	35		
	0	0	0	0.00
	0	0	0	0.00
	0	0	0	0.00
	0	0	0	0.00
Max. Pad Pressure			0	

NON-SLEWING ACTIONS						Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
Lower Works Non-Slewing	39	0.00	0.00	0	0				
Front Pad 1	0	0.00	0.00	0	0	0	0	0	0.00
Front Pad 2	0	0.00	0.00	0	0	0	0	0	0.00
Rear Pad 1	0	0.00	0.00	0	0	0	0	0	0.00
Rear Pad 2	0	0.00	0.00	0	0	0	0	0	0.00
Summary of Non-slewing Actions	**39**	**0.00**	**0.00**	**0**	**0**	Max. Pad Pressure		0	
Total Rig Weight (kN)	245					Track Bearing Length (m)		2.89	
Resultant of all Actions (kN)	**273**	**0.00**	**1.08**	**-296**	**0**	Track pad width (m)		0.50	
						Track Centerline Dist. (m)		1.99	

Input Data Warning Messages	Notes
Auxiliary Line Force OK	
Extraction Force OK	EXTRACTNG USING THE ROTARY IS NOT TAKE INTO ACCOUNT
Penetration Force OK	
Slewing Footpad Forces OK	
Non-Slewing Footpad Forces OK	

Mode : Extracting

Relative Angle - Upper Body and Tracks (degrees)	Max bearing pressure L.H. track (kN/m^2)	Min pressure L.H. track (kN/m^2)	Max bearing pressure R.H. track (kN/m^2)	Min bearing pressure R.H. track (kN/m^2)	Max Track loading dimensions ecc (m)	Max Track loading dimensions Bearing Len. (m)	Transformation from triangular or trapizoidal to an equivalent rectangular pressure distribution under track maintaining the load centriod Equivalent Bearing L (m)	Equivalent Bearing Q (KPa)
0	504	0	504	0	1.084	1.082	0.722	378
15	328	0	586	0	1.047	1.193	0.796	440
30	164	0	555	0	0.939	1.518	1.012	416
45	62	0	475	0	0.767	2.035	1.357	356
60	11	0	392	0	0.542	2.709	1.806	294
75	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
90	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
105	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
120	11	0	392	0	-0.542	2.709	1.806	294
135	62	0	475	0	-0.767	2.035	1.357	356
150	164	0	555	0	-0.939	1.518	1.012	416
165	328	0	586	0	-1.047	1.193	0.796	440
180	504	0	504	0	-1.084	1.082	0.722	378
195	586	0	328	0	-1.047	1.193	0.796	440
210	555	0	164	0	-0.939	1.518	1.012	416
225	475	0	62	0	-0.767	2.035	1.357	356
240	392	0	11	0	-0.542	2.709	1.806	294
255	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
270	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
285	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
300	392	0	11	0	0.542	2.709	1.806	294
315	475	0	62	0	0.767	2.035	1.357	356
330	555	0	164	0	0.939	1.518	1.012	416
345	586	0	328	0	1.047	1.193	0.796	440
					Maximum Track Values		#VALUE!	#VALUE!
						Pad Area (m^)		
Max. Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing Leng						0.000	0.000	0
Max. Non-Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing						0.000	0.000	0
						Maximum Equivalent Design Values	#VALUE!	#VALUE!

Eccentricity index - X direction (sideways)	1.09
Eccentricity index - Y direction (forwards/backwards)	0.75
Track pressure distribution warning	#VALUE!
Slewing foot pad message	#VALUE!
Non-Slewing foot pad message	#VALUE!
BRE LOAD CASE (1 or 2)	2

Notes on Using this Table

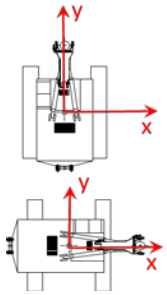
Auxilliary Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G11). Note the maximum design force in the adjacent box (H11).
Extraction Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G9). Note the maximum design force in the adjacent box (FH9).
Penetration Force -ve Z direction. Enter applied force (kN) in appropriate yellow box (G10) - must be negavtive as it imposes an upwards resultant force. Note the maximum design force in the adjacent box (H10).
Slewing Foot Pad Forces +ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G12 to G15). Note the maximum the machine can develop is given in the adjacent boxes.
Non-Slewing Foot Pad Forces -ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G20 to G23). Note the maximum the machine can develop is given in the adjacent boxes.

Fill in values in all yellow boxes appropriate for this mode -
Net extraction or penetration force is the applied value minus the weight of any rope / kelly / chain suspended equipment.
By trial and error, adjust Foot Pad Forces to eliminate "error" messages and equalise bearing pressures on both tracks and foot pads (highlighted in red boxes).
When applying Auxilliary or Extraction Line Pull, ensure that Penetration Force is zero.

ONLY A COMPETENT PERSON MAY USE THIS TABLE !

Note: The disclaimer on the first worksheet applies to all tables in this workbook

TESCAR CF6	Weight / Force Applied (kN)	X - Coordinate	Y - Coordinate	Moment Mx	Moment My
SLEWING ACTIONS					
Upper Works (slewing)	55	0.00	1.73	-95	0
Suspended Eqpt. on Crowd	42	0.00	2.90	-123	0
Counterweight (slewing)	29	0.00	-2.00	59	0
Other (slewing)	20	0.00	2.90	-57	0
Lower Works (Slewing)	60	0.00	0.00	0	0
Applied Extraction Force	0	0.00	2.90	0	0
Applied Penetration Force	0	0.00	2.90	0	0
Applied Auxillary Force	0	0.00	2.90	0	0
Front Pad 1	0	0.00	0.00	0	0
Front Pad 2	0	0.00	0.00	0	0
Rear Pad 1	0	0.00	0.00	0	0
Rear Pad 2	0	0.00	0.00	0	0
Summary of Slewing Action	206	0.00	1.05	-216	0



	Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
	0	70		
	0	-200		
	0	35		
	0	0	0	0.00
	0	0	0	0.00
	0	0	0	0.00
	0	0	0	0.00
Max. Pad Pressure			0	

NON-SLEWING ACTIONS						Applied Force (kN)	Max. Allowable (kN)	Applied Pressure (kPa)	Foot Pad Area (m2)
Lower Works Non-Slewing	39	0.00	0.00	0	0				
Front Pad 1	0	0.00	0.00	0	0	0	0	0	0.00
Front Pad 2	0	0.00	0.00	0	0	0	0	0	0.00
Rear Pad 1	0	0.00	0.00	0	0	0	0	0	0.00
Rear Pad 2	0	0.00	0.00	0	0	0	0	0	0.00
Summary of Non-slewing Actions	**39**	**0.00**	**0.00**	**0**	**0**	**Max. Pad Pressure**		0	
Total Rig Weight (kN)	245					Track Bearing Length (m)		2.89	
Resultant of all Actions (kN)	**245**	**0.00**	**0.88**	**-216**	**0**	Track pad width (m)		0.50	
						Track Centreline Dist. (m)		1.99	

Input Data Warning Messages	Notes
Auxiliary Line Force OK	
Extraction Force OK	
Penetration Force OK	
Slewing Footpad Forces OK	
Non-Slewing Footpad Forces OK	

Mode : Other

Relative Angle - Upper Body and Tracks (degrees)	Max bearing pressure L.H. track (kN/m^2)	Min pressure L.H. track (kN/m^2)	Max bearing pressure R.H. track (kN/m^2)	Min bearing pressure R.H. track (kN/m^2)	Max Track loading dimensions ecc (m)	Max Track loading dimensions Bearing Len. (m)	Transformation from triangular or trapizoidal to an equivalent rectangular pressure distribution under track maintaining the load centriod Equivalent Bearing L (m)	Equivalent Bearing Q (KPa)
0	289	0	289	0	0.880	1.696	1.131	217
15	212	0	338	0	0.850	1.786	1.191	253
30	134	0	345	0	0.762	2.050	1.366	259
45	74	0	323	0	0.622	2.469	1.646	242
60	38	2	287	13	0.440	2.890	2.010	215
75	18	7	232	83	0.228	2.890	2.435	187
90	10	10	160	160	0.000	2.890	2.890	160
105	18	7	232	83	-0.228	2.890	2.435	187
120	38	2	287	13	-0.440	2.890	2.010	215
135	74	0	323	0	-0.622	2.469	1.646	242
150	134	0	345	0	-0.762	2.050	1.366	259
165	212	0	338	0	-0.850	1.786	1.191	253
180	289	0	289	0	-0.880	1.696	1.131	217
195	338	0	212	0	-0.850	1.786	1.191	253
210	345	0	134	0	-0.762	2.050	1.366	259
225	323	0	74	0	-0.622	2.469	1.646	242
240	287	13	38	2	-0.440	2.890	2.010	215
255	232	83	18	7	-0.228	2.890	2.435	187
270	160	160	10	10	0.000	2.890	2.890	160
285	232	83	18	7	0.228	2.890	2.435	187
300	287	13	38	2	0.440	2.890	2.010	215
315	323	0	74	0	0.622	2.469	1.646	242
330	345	0	134	0	0.762	2.050	1.366	259
345	338	0	212	0	0.850	1.786	1.191	253
					Maximum Track Values		1.366	259
						Pad Area (m^)		
Max. Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing Leng						0.000	0.000	0
Max. Non-Slewing Foot Pads Bearing Pressure (kPa) & Equivalent Bearing						0.000	0.000	0
					Maximum Equivalent Design Values		1.366	259

Eccentricity index - X direction (sideways)	**0.88**
Eccentricity index - Y direction (forwards/backwards)	**0.61**
Track pressure distribution warning	**Track(s) lifting**
Slewing foot pad message	**Slewing Foot Pad Pressure OK**
Non-Slewing foot pad message	**Non-Slewing Foot Pad Pressure OK**
BRE LOAD CASE (1 or 2)	**0**

Notes on Using this Table

Auxilliary Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G11). Note the maximum design force in the adjacent box (H11).
Extraction Line Pull +ve Z direction. Enter applied force (kN) in appropriate yellow box (G9). Note the maximum design force in the adjacent box (FH9).
Penetration Force -ve Z direction. Enter applied force (kN) in appropriate yellow box (G10) - must be negavtive as it imposes an upwards resultant force. Note the maximum design force in the adjacent box (H10).
Slewing Foot Pad Forces +ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G12 to G15). Note the maximum the machine can develop is given in the adjacent boxes.
Non-Slewing Foot Pad Forces -ve Z direction. Enter applied total force (kN) in appropriate yellow boxes (G20 to G23). Note the maximum the machine can develop is given in the adjacent boxes.

Fill in values in all yellow boxes appropriate for this mode -
Net extraction or penetration force is the applied value minus the weight of any rope / kelly / chain suspended equipment.
By trial and error, adjust Foot Pad Forces to eliminate "error" messages and equalise bearing pressures on both tracks and foot pads (highlighted in red boxes).
When applying Auxilliary or Extraction Line Pull, ensure that Penetration Force is zero.

ONLY A COMPETENT PERSON MAY USE THIS TABLE !

Note: The disclaimer on the first worksheet applies to all tables in this workbook

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

Note: The disclaimer on the first worksheet applies to all tables in this workbook

Rig Manufacturer :	TESCAR	Rig Type & Serial No.	CF6 #0051
Operation mode:	Hitachi ZX 130 / Supporto BASSO	Date:	23/07/2018
Completed by:	AM	Checked by:	LF

Main Components - Slewing:

Item	Mass (kg)	Weight (kN)	X - Coordinate	Y - Coordinate	Moment Mx (kNm)	Moment My (kNm)
Slewing Components Totals/Resultant (with θ=0)						
UPPER WORKS	5,600	55	0.00	1.73	-95	0
LOWER WORKS	6,080	60	0.00	0.00	0	0
SUSPENDED EQUIPMENT CONNECTED TO CROWD SYSTEM	4,320	42	0.00	2.90	-123	0
COUNTERWEIGHT	3,000	29	0.00	-2.00	59	0
OTHER	2,000	20	0.00	2.90	-57	0
TOTAL/RESULTANT (with θ=0)	21,000	206	0.00	1.05	-216	0

Foot Pads - Slewing :

Description (Forces must be -ve)	Bearing Area	Max. Pad Loading	X - Coordinate	Y - Coordinate	Actual Shape	Actual Dimension
	m^2	kN	m	m		
Front Pad 1	0.00	0	0.00	0.00	None	None
Front Pad 2	0.00	0.00	0.00	0.00	None	None
Rear Pad 1	0.00	0.00	0.00	0.00	None	None
Rear Pad 2	0.00	0.00	0.00	0.00	None	None

Forces - Slewing

		Force	X - Coordinate	Y - Coordinate	
		kN	m	m	
Maximum Extraction Force (kN)		70	0.00	2.90	Must be inline with suspended equip't.
Maximum Penetration Force (kN)		-200	0.00	2.90	-ve Must be inline with suspended equip't.
Maximum Auxillary Force (kN)		35	0.00	2.90	

Main Components - Non-Slewing:

Item		Mass (kg)	Weight (kN)	X - Coordinate	Y - Coordinate	Moment Mx (kNm)	Moment My (kNm)
Lower Works Non-Slewing (undercarriage/tracks etc)	Tracks & Undercarriage	4000	39	0.00	0.00		
				0.00	0.00		
				0.00	0.00		
TOTAL/RESULTANT (with θ=0)		4,000	39	0.00	0.00	0	0
TOTAL RIG MASS		25,000					

Front Foot Pads - Non-Slewing

Description	Bearing Area	Max. Pad Loading	X - Coordinate	Y - Coordinate	Actual Shape	Actual Dimension
	m^2	kN	m	m		
Front Pad 1						
Front Pad 2						
Rear Pad 1						
Rear Pad 2						

Tracks		Slewing			
Track bearing length (m)	2.89		Can the Rig Slew?	YES	
Track pad width (m)	0.50				
Distance between centrelines of tracks (m)	1.99				

	Pressure Summary for Platform Design (unfactored)			BRE LOAD CASE (1 or 2)	Eccentricity Index		Winch Forces
MODE	Equiv. Track Length (m)	Equiv. Track Width (m)	Equiv. Uniform Bearing Pressure, q_{eq} (kPa)		Eccentricity index - X direction (sideways)	Eccentricity index - Y direction (forwards/backwards)	Algebraic sum of forces (kN)
Standing	1.37	0.50	259	1	0.88	0.61	0
Travelling	1.37	0.50	259	1	0.88	0.61	0
Handling	#VALUE!	0.50	#VALUE!	1	1.13	0.78	34
Penetrating	2.25	0.50	87	2	0.45	0.31	-55
Extracting	#VALUE!	0.50	#VALUE!	2	1.09	0.75	70
Other	Not Used	-	-	0	-	-	0

MODE	ERROR FOR TRACK	ERROR MESSAGES FOR LINE FORCES		
	Zero Pressure	Auxillary Line	Extraction Force	Penetration Force
Standing	Track(s) lifting	Auxiliary Line Force OK	Extraction Force OK	Penetration Force OK
Travelling	Track(s) lifting	Auxiliary Line Force OK	Extraction Force OK	Penetration Force OK
Handling	#VALUE!	Auxiliary Line Force OK	Extraction Force OK	Penetration Force OK
Penetrating	None	Auxiliary Line Force OK	Extraction Force OK	Penetration Force OK
Extracting	#VALUE!	Auxiliary Line Force OK	Extraction Force OK	Penetration Force OK
Other	Track(s) lifting	Auxiliary Line Force OK	Extraction Force OK	Penetration Force OK

MODE	ERROR MESSAGES FOR FOOT PAD FORCES		ERROR MESSAGES FOR FOOT PAD PRESSURES	
	INPUT DATA		OUTPUT DATA	
Standing	Slewing Footpad Forces OK	Non-Slewing Footpad Forces OK	Slewing Foot Pad Pressure OK	Non-Slewing Foot Pad Pressure OK
Travelling	Slewing Footpad Forces OK	Non-Slewing Footpad Forces OK	Slewing Foot Pad Pressure OK	Non-Slewing Foot Pad Pressure OK
Handling	Slewing Footpad Forces OK	Non-Slewing Footpad Forces OK	#VALUE!	#VALUE!
Penetrating	Slewing Footpad Forces OK	Non-Slewing Footpad Forces OK	Slewing Foot Pad Pressure OK	Non-Slewing Foot Pad Pressure OK
Extracting	Slewing Footpad Forces OK	Non-Slewing Footpad Forces OK	#VALUE!	#VALUE!
Other	Slewing Footpad Forces OK	Non-Slewing Footpad Forces OK	Slewing Foot Pad Pressure OK	Non-Slewing Foot Pad Pressure OK

Note: The disclaimer on the first worksheet applies to all tables in this workbook

Notes

1 TON OF TOOL + 1 TON OF SOIL IN STANDING MODE