



**Shargan**  
Consultant Engineers

**PARMAN POOYESH**  
شرکت پارمان پویش  
Engineering & Management Services Company

**NATIONAL IRANIAN COPPER INDUSTRIES COMPANY**  
**SARCHESHMEH SLAG CONCENTRATE PLANT**  
**PROJECT**



Class:	FA	Doc. No.:	3730-JP-D-MEDS-015	Rev. <b>04</b>	Date:	2021-01-25
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					BALL MILL DATA SHEET (37-2103-01)	

56 SHELL SPECIFICATION			
57	Thickness	mm	50
58	Material	--	Q355B
59	Number Of Sections	--	3
60	Number Of Manholes	--	2
61	Manhole Size	m2	760mmX520mm
62	Total Weight (Without Liner)	kg	70900
63 HEAD SPECIFICATION			
64	Feed Head Type	-	<input type="checkbox"/> Welded <input checked="" type="checkbox"/> Bolted
65	Discharge Head Type	-	<input type="checkbox"/> Welded <input checked="" type="checkbox"/> Bolted
66	Feed Head Thickness	mm	180~105
67	Discharge Head Thickness	mm	180~105
68	Material	--	ZG20Mn
69	Number Of Sections	--	2
70	Total Weight	kg	66000
71 LINERS SPECIFICATION			
72	Shell Liner Type	-	steel
73	Number Of Segment Of Shell Liner	-	320
74	Shell Liner Material	-	ZG120Mn13Cr2
75	Thickness Of Shell Liner	mm	90
76	Liner hardness		170-220HB
77	Head Liner Type	-	steel
78	Number Of Segment Of Head Liner	-	80
79	Head Liner Material	-	ZG120Mn13Cr2
80	Thickness Of Head Liner	mm	90
81	Feed End Trunnion Liner Type	-	Wear-resisting rubber
82			
83			



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84	<b>TRUNION SPECIFICATION</b>		
85	Discharge Trunnion Liner Type	-	Wear-resisting rubber
86	Rubber Sheet Thickness	mm	40
87	Liner Bolt Seal, Type	-	Seal ring
88	Type of Connection to Shell	-	<input type="checkbox"/> Welded <input checked="" type="checkbox"/> Bolted
89	Approximate Liner life time		1 year
90	<b>TROMMEL SCREEN SPECIFICATION</b>		
91	Dimension (L x D)	mm	2000 x $\phi$ 1800
92	Construction Of Material	-	AISI316
93	Spiral Type	-	Double spiral
94	Hole Size	mm	$\Phi$ 4
95	<b>RING GEAR SPECIFICATION</b>		
96	Type Of Gear	-	Helical gear
97	Guard	-	Labyrinth seal
98	Number Of Teeth	-	264
99	Pitch Diameter	mm	$\Phi$ 7423
100	Number Of Gear Section	--	2
101	Face Width	mm	900
102	Material	--	ZG42Cr1Mo
103	Hardness	HB	241-286HB
104	Weight	kg	39000
105	Lubrication Method	--	Grease lubrication
106	Compressed Air demand for grease spray (if any)	m <sup>3</sup> /min	0.8
107	<b>PINION GEAR SPECIFICATION</b>		
108	Guard	-	Oil slinger seal
109	Number Of Teeth	-	19
110	Pitch Diameter	mm	$\Phi$ 534



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111	Face Width	mm	910
112	Hardness	HRC	57-62HRC
113	Gear Material	-	17Cr2Ni2Mo
114	Shaft Material	-	17Cr2Ni2Mo
115	Bearing	-	Rolling bearing
116	Bearing Size & Type(For Constant Bearing)	-	Rolling bearing 23280CA/W33/C3
117	Bearing Size & Type(For floating Bearing)	-	Rolling bearing 23280CA/W33/C3
118	Life Hours	hours	Design life hours 100000
119	Bearing Temperature Sensor	-	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required
120	Lubrication Method	-	Oil lubrication
121	<b>CLUTCH SPECIFICATION</b>		
122	Vendor	-	Eaton
123	Dimension (LxWxH)	mm	Each station 7 boxes (for reference only) 1130*1130*680 1850*1790*700 1820*1770*1070 1340*1340*640 1340*1340*640 1130*500*340 2450*1000*1100
124	Guard Included	-	Safety valve
125	Air Required Flow Rate	m3/min	0.8
126	Air Pressure	kPa	700-1200
127	<b>GEARBOX SPECIFICATION (not include)</b>		
128	Reduction Ratio	--	No
129	Service Factor	--	By vendor
130	Dimension (LxWxH)	mm	By vendor
131	Oil Cooling System (If Required)	--	By vendor
132	<b>COUPLING SPECIFICATION (Connected The Drive Shaft And Pinion Shaft)</b>		
133	Type	-	No



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134	Vendor		
135	External Oil System		<input type="checkbox"/> Required <input checked="" type="checkbox"/> Not Required
136	Size & Model		
137			
138			
139			
140			
141	<b>INCHING DRIVE SPECIFICATION</b>		
142	Type	-	Motor and gearbox
143	Location	-	Connect with pinion
144	Quantity	-	1
145	Inching motor	kw	30
146	<b>TRUNNIONS SPECIFICATION</b>		
147	Bearing Vendor	-	NHI
148	Bearing Type	-	Sliding bearing
149	Bearing Size	-	φ 2100
150	Material	-	Babbitt metal
151	Seal Type	-	Three tongue seal
152	Trunnion Liner Material And Thickness	-	Wear-resisting rubber
153	Bearing Load	kPa	Depend on site situation
154	Bearing Area Surface	degrees	120
155	Bearing Lubrication (Oil / Grease)	-	Oil
156	Life Time	-	Design Life Time 20 years
157	Bearing Temperature Sensor	-	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required
158	<b>LUBRICATION SPECIFICATION</b>		
159	Type	-	Oil Lubrication
160	Lubrication Component	-	Hydrostatic lubrication
161	Cooling System	-	Water-cooling
162	<b>JACKING SYSTEM SPECIFICATION (If Applicable)</b>		
163	Type	-	Jack



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164	Quantity	-	4
165	Special Req.	-	Load 300t, stroke 200mm
166	<b>PAINTING SPECIFICATION</b>		
167	According to Approved Manufacturer Painting Specification – 3700-JP-B-MESP-001		
168			

**Notes:**

1. The motors shall be designed for installation at site. The correction factor shall be used for elevation and site temperature for full rated output at site without exceeding the design temperature rise and the correction procedure shall be approved.
2. Any deviation from the above data sheet of motor shall be mentioned by bidder in proposal.