

REFERENCE LIST - BLAST FURNACE REPAIR

#	Year	Country	Company	Plant	BF n°	BF Volume	Installation technique	Scope
						[m3]		
1	2011	Russia	Novolipetsk Iron & Steel	Lipetsk	7	4.200	Robotic installation	Capital relining
2		Russia	Novolipetsk Iron & Steel	Lipetsk	5	3.200	By lifting platform	Partial reprofiling
3	2012	Russia	EVRAZ - NTMK	Nizhny Tagil	5	2.200	Robotic installation	
		Russia	Tulachermet	Tula	1	1.386	Precasted pieces	
4	2013	Russia	Tulachermet	Tula	2	1.234	By lifting platform	Capital relining
5		Russia	Tulachermet	Tula	2	1.234	Robotic installation	
6		Russia	Tulachermet	Tula	2	1.234	By lifting platform	
7	2013	Ukraine	Alchevsk Metallurgical Kombinat	Alchevsk	1	2.100	Robotic installation	Partial repair
8		Ukraine	Alchevsk Metallurgical Kombinat	Alchevsk	4	1.386	By lifting platform	Partial repair
9	2014	Russia	Novolipetsk Iron & Steel	Lipetsk	5	3.200	From outside the furnace	Injection inside the furnace
10		Russia	Novolipetsk Iron & Steel	Lipetsk	5	3.200	Robotic installation	Partial repair
11		Ukraine	MMK Ilicha	Mariupol	5	2.300	Robotic installation	Partial repair
12		Russia	KMZ - Kosogorskiy Metallurgical	Tula	1	1.066	From outside the furnace	Injection inside the furnace

12	2015	Russia	KMZ - Kosogorskiy Metallurgical	Tula	1	1.066	From outside the furnace	Injection inside the furnace
13		India	JSW - Jindal South West	Vijanagar	1	1.250	From inside the hearth	Partial relining
14		Ukraine	JSC Zaporizhstal	Zaparozhye	2	1.503	From outside the furnace	Capital relining
15		Ukraine	MMK Ilicha	Mariupol	3	2000	Robotic installation	Partial relining
16		Russia	Tulachermet	Tula	3	2.200	By lifting platform	Partial repair
17		Ukraine	MMK Ilicha	Mariupol	2	1.720	Robotic installation	Partial relining
18	2016	Russia	MMK	Magnitogorsk	9	2.014	By lifting platform	Capital relining
19	2016	Russia	EVRAZ - ZSMK	Novokuznetsk	3	3.000	From outside the furnace	Injection inside the furnace
20		Russia	EVRAZ - ZSMK	Novokuznetsk	2	2.000	From outside the furnace	Injection inside the furnace
21		Russia	EVRAZ - ZSMK	Novokuznetsk	3	3.000	From outside the furnace	Injection inside the furnace
22		Russia	Novolipetsk Iron & Steel	Lipetsk	6	3.200	From inside the pipes and cyclone	Partial repair
23		Russia	MMK	Magnitogorsk	4	1.371	By lifting platform	Capital relining
							From outside the furnace	
							From outside the furnace	
24		Ukraine	PJSC Azovstal Iron & Steel Work	Mariupol	6	1.717	Robotic installation	Partial relining
25	Ukraine	MMK Ilicha	Mariupol	5	2.300	From outside the furnace	Partial relining	
26	Russia	Novolipetsk Iron & Steel	Lipetsk	6	3.200	By lifting platform	Capital relining	

39	2018	India	Essar Steel Ltd.	Hazira	Corex 1	2.260	From inside the hearth	Partial relining
							Robotic installation	
40	Ukraine	PJSC Dniprovsky Metallurgical Kombinat (DMK)	Dneproderzin	1M	1.500	By lifting platform	Partial relining	
						From outside the furnace		
						By lifting platform		
41	Ukraine	MMK Ilicha	Mariupol	5	2.300	By lifting platform	Partial relining	
42	Ukraine	PJSC Azovstal Iron & Steel Work	Mariupol	4	2.000	By lifting platform	Partial relining	
43	Ukraine	MMK Ilicha	Mariupol	4	2.000	Robotic installation	Partial relining	
44	Russia	NLMK	Lipetsk	6	3.200	From outside the furnace	Injection inside the furnace	
45	Russia	NLMK	Lipetsk	6	3.200	From outside the furnace	Injection inside the furnace	
46	Russia	NLMK	Lipetsk	7	4.200	By lifting platform	Partial relining	
						From outside the furnace		
						By lifting platform		
47	2019	India	Jayswal Neco (for DALMIA SEVE	Raipur	-	715	Robotic installation	Partial relining
48	Russia	Severstal	Cerepovec	5	5.580	Robotic installation	Partial relining	
49	Kazachstan	AM TEMIRTAU	Temirtau	3	3.800	Robotic installation	Partial relining	
50	Ukraine	MMK Ilicha	Mariupol	2	1.720	Robotic installation	Partial relining	
51	Ukraine	PJSC Azovstal Iron & Steel Work	Mariupol	2	1.719	Robotic installation	Partial relining	
52	Ukraine	MMK ILICHA	Mariupol	3	2.000	By lifting platform	Partial relining	
53	Russia	Tulachermet	Tula	3	2.200	By lifting platform	Partial relining	
54	Ukraine	MMK Ilicha	Mariupol	4	2.000	Robotic installation	Partial relining	
55	Russia	NTMK	Evrax	6	2.200	From inside the furnace	New lining	

68	Russia	TULACHERMET	Tula	2	1234	By lifting platform	Capital relining
						From outside the furnace	
						Monolithic Hearth Side-Wall & Taphole-Area Bottom Levelling	
69	Turkey	ERDEMIR CELIK	Eregli	2	1.707	Robotic installation	Partial relining
70	Columbia	Acerio PazDelRio	Sogamoso	Elena	850	Manually & Robotic installation	Partial relining
71	Kazachstan	AM TEMIRTAU	Temirtau	3	3.800	Robotic installation	Partial relining
72	Italy	Acciaierie d'Italia S.p.A.	Taranto	2	2.008	From inside the furnace	Full relining
73	Russia	MMK	Magnitogorsk	10	2.014	By lifting platform	Full Relining
						From outside the furnace	
74	Russia	MMK	Magnitogorsk	9	2014	By lifting platform	Capital relining
						From outside the furnace	
						By lifting platform	
						Modular Hearth Shield (MHS)	
75	Russia	MECHEL CHELIABINSK	Cheliabinsk	1	2.034	By lifting platform	Partial relining
						From outside the furnace	
76	Russia	TULA-CHEMET	Tula	3	2.200	By lifting platform	Capital relining
						From outside the furnace	