

ISO/TR 10809-2:2011-04 (E)

Cast irons - Part 2: Welding

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Metallurgy	1
3	Terms and definitions	2
4	Suitable welding processes	3
4.1	General	3
4.2	Oxy-acetylene gas welding (311)	3
4.3	Arc welding (1)	3
4.4	Gas-shielded metal arc welding (13/14)	5
4.5	Submerged arc welding (12)	5
4.6	Plasma arc welding with or without filler metal (15)	6
4.7	Electron beam welding (511)	7
4.8	Pressure welding processes (4)	7
4.9	Other welding processes	11
5	Suitable welding procedures	11
5.1	Welding with homogeneous filler metal	11
5.2	Welding with semi-homogeneous filler metal	13
5.3	Welding with non-homogeneous filler metal	13
5.4	Welding without filler metal	15
6	Examples of welding of cast irons	15
6.1	Welding of spheroidal graphite cast iron	15
6.2	Welding of grey cast iron	33
6.3	Welding of compacted graphite cast irons	34
6.4	Welding of malleable cast iron	34
6.5	Welding of abrasion resisting cast irons	36
6.6	Welding of austenitic cast irons	36
6.7	Welding of ausferritic spheroidal graphite cast irons	40
7	Summary data for the welding of cast irons	41
Bibliography		51