## **Contents**

Forward	iv
Preface	v
1. Introduction	1
2. Essentials of Shielded Metal-Arc Welding Technology	10
3. Heat Input and Distribution	14
4. Reperation of the Pipe Joint	21
5. Uphill Welding the Root Bead on Heavy-WallPipe (5GPosition)	31
6. Welding the Rood Bead by the Gas Tungsten Arc Welding Process	57
7. The Intermediate and Cover Passes	81
8. Welding Thin-Wall Pipe	100
9. Horizontal Pipe Welding (2G)	136
10. Welding Complicated Pipe Joints	158
11. Introduction to Welding Metallurgy	170
12. Distortion in Pipe Welding	198
13. Pipe Welding Defects	207
14. Fitting-UP Pipe	222
15. Qualification of the Welding Procedure & the Welder	237
16.General Welding Safety	243
Index	247