

DIN EN 14870-1:2011-09 (E)

Petroleum and natural gas industries - Induction bends, fittings and flanges for pipeline transportation systems - Part 1: Induction bends (ISO 15590-1:2009, modified); English version EN 14870-1:2011

Inhalt		Seite
Foreword		4
Introduction.....		5
1	Scope	7
2	Conformance	7
2.1	Units of measurement.....	7
2.2	Rounding.....	7
2.3	Compliance to standard.....	7
3	Normative references	8
4	Terms and definitions	9
5	Symbols and abbreviated terms	12
5.1	Symbols.....	12
5.2	Abbreviated terms	12
6	Designation	13
7	Pressure rating and design	13
8	Information that shall be supplied by the purchaser.....	13
8.1	General information	13
8.2	Additional information	14
8.3	Information on the mother pipe	15
9	Manufacturing.....	15
9.1	Mother pipe	15
9.2	Qualification test bend.....	15
9.3	Production bending.....	16
9.4	Post-bending heat treatment.....	16
9.5	Forming and sizing after bending.....	16
9.6	Strip/plate end welds.....	17
9.7	Jointers and girth welds	17
9.8	End preparation	17
10	Testing and inspection	18
10.1	General requirements	18
10.2	Extent of testing and inspection.....	18
10.3	Chemical composition	18
10.4	Physical testing	18
10.5	Non-destructive testing	25
10.6	Dimensions	27
10.7	Gauging	30
10.8	Hydrostatic testing	30
11	Inspection document	30
12	Marking.....	30

Annex A (normative) Manufacturing procedure specification	32
A.1 Introduction	32
A.2 Manufacturing procedure specification	32
Annex B (normative) PSL 2S bends ordered for sour service	34
B.1 Introduction	34
B.2 Additional information that shall be supplied by the purchaser	34
B.3 Manufacturing	34
B.4 Testing and inspection.....	35
B.5 Hard spots	37
B.6 Inspection	37
B.7 Non-destructive inspection	37
Bibliography	39