

# ISO 13533:2001-12 (E)

## Petroleum and natural gas industries - Drilling and production equipment - Drill-through equipment

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
Introduction .....		vi
1	Scope .....	1
2	Normative references .....	4
3	Terms and definitions .....	5
4	Abbreviated terms .....	12
5	Design requirements .....	13
5.1	Size designation .....	13
5.2	Service conditions .....	13
5.3	Equipment-specific design requirements .....	14
5.4	Design methods .....	31
5.5	Design verification testing .....	33
5.6	Documentation .....	33
5.7	Tests for BOP and hydraulic connector operational characteristics .....	34
5.8	Design temperature verification testing for non-metallic sealing materials and moulded sealing assemblies .....	38
5.9	Operating manual requirements .....	39
6	Material requirements .....	40
6.1	General .....	40
6.2	Written specifications .....	40
6.3	Pressure-containing members .....	41
7	Welding requirements .....	47
7.1	General .....	47
7.2	Weldment design and configuration .....	47
7.3	Welding controls .....	51
7.4	Welding procedure and performance qualifications .....	52
7.5	Other requirements .....	53
8	Quality control requirements .....	56
8.1	General .....	56
8.2	Measuring and testing equipment .....	57
8.3	Quality control personnel qualifications .....	57
8.4	Quality control requirements for equipment and parts .....	57
8.5	Quality control requirements for specific equipment and parts .....	58
8.6	Requirements for quality control records .....	70
9	Marking requirements .....	72
9.1	General .....	72
9.2	Types of identification stamping .....	72
9.3	Specific codification requirements of equipment .....	72
9.4	Product description code (PDC) .....	75
10	Storing and shipping .....	77

10.1	Storing for periods greater than 30 days .....	77
10.2	Shipping .....	77
Annex A (normative) Qualification of heat-treating equipment .....		78
Annex B (normative) Requirements for repair and remanufacture .....		81
Annex C (informative) Operational characteristics test procedure .....		86
Annex D (informative) Procedure for design temperature verification testing .....		94
Annex E (informative) Purchasing guidelines .....		98
Annex F (informative) Failure reporting .....		100
Annex G (informative) Conversion of US Customary units to the SI system (metric) .....		101
Annex H (informative) List of national/regional standards applicable in context .....		105
Bibliography .....		106