

DIN ISO 15787:2010-01 (E)

Technical product documentation - Heat-treated ferrous parts - Presentation and indications (ISO 15787:2001)

Contents		Page
National foreword		4
National Annex NA (informative) Explanatory notes		5
National Annex NB (informative) Bibliography		6
1 Scope		7
2 Normative references		7
3 Terms, definitions and abbreviations		7
4 Indications in drawings		8
4.1 General		8
4.2 Material data		8
4.3 Heat-treatment condition		8
4.4 Hardness data		8
4.4.1 Surface hardness		8
4.4.2 Core hardness		9
4.4.3 Hardness value		9
4.5 Marking of measuring points		9
4.6 Hardness depth		9
4.7 Carburization depth (CD)		10
4.8 Compound layer thickness (CLT)		10
4.9 Strength data		10
4.10 Microstructure		11
5 Graphical representation		11
5.1 General		11
5.2 Heat-treatment of the entire part		11
5.2.1 Uniform requirements		11
5.2.2 Areas with varying requirements		11
5.3 Local heat-treatment		11
5.3.1 General		11
5.3.2 Areas requiring heat-treatment		11
5.3.3 Areas that may be heat-treated		12
5.3.4 Areas that may not be heat-treated		12
5.4 Drawings providing specific indication of heat-treatment		12
6 Practical examples		12
6.1 General		12
6.2 Quench hardening, quench hardening and tempering, austempering		12
6.2.1 Heat-treatment of the entire part -- Allover uniform requirements		12
6.2.2 Heat-treatment of the entire part -- Areas with varying data		14
6.2.3 Local heat-treatment		14
6.3 Surface hardening		15
6.3.1 General		15
6.3.2 Specification of surface hardness		15
6.3.3 Specification of surface hardening depth (SHD)		15
6.3.4 Practical examples		15
6.4 Surface fusion hardening		21

6.4.1	General	21
6.4.2	Specification of surface hardness	21
6.4.3	Specification of fusion hardness depth (FHD)	21
6.4.4	Practical examples	21
6.5	Case hardening	23
6.5.1	Specification of surface hardness	23
6.5.2	Specification of case hardening depth (CHD)	23
6.5.3	Specification of carburization depth (CD)	23
6.5.4	Practical examples	23
6.6	Nitriding and nitrocarburizing	28
6.6.1	Specification of surface hardness	28
6.6.2	Specification of nitriding hardness depth (NHD)	28
6.6.3	Specification of compound layer thickness (CLT)	28
6.6.4	Practical examples	29
6.7	Annealing	31
Annex A (informative) Tables		32