

DIN EN ISO 17640:2019-02 (E)

Non-destructive testing of welds - Ultrasonic testing - Techniques, testing levels, and assessment (ISO 17640:2018)

Contents		Page
European foreword.....		3
Foreword.....		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	6
4	Symbols	6
5	General	7
6	Information required prior to testing	7
6.1	Items to be specified.....	7
6.2	Specific information required before testing.....	8
6.3	Written test procedure.....	8
7	Requirements for personnel and equipment	8
7.1	Personnel qualifications.....	8
7.2	Test equipment.....	8
7.3	Probe parameters.....	9
7.3.1	Test frequency.....	9
7.3.2	Angles of incidence.....	9
7.3.3	Transducer size.....	9
7.3.4	Adaptation of probes to curved scanning surfaces.....	9
7.3.5	Coupling media.....	10
8	Testing volume	10
9	Preparation of scanning surfaces	10
10	Parent metal testing	10
11	Range and sensitivity setting	11
11.1	General.....	11
11.2	Reference for sensitivity setting.....	12
11.3	Evaluation levels.....	13
11.4	Transfer correction.....	13
11.5	Signal-to-noise ratio.....	13
12	Testing levels	13
13	Testing techniques	14
13.1	General.....	14
13.2	Manual scan path.....	14
13.3	Testing for imperfections perpendicular to the testing surface.....	14
13.4	Location of discontinuities.....	14
13.5	Evaluation of indications.....	14
13.5.1	General.....	14
13.5.2	Maximum echo amplitude.....	14
13.5.3	Discontinuity length.....	14
13.5.4	Discontinuity height.....	14
13.5.5	Characterization of discontinuities.....	14

14	Test report	15
	Annex A (normative) Testing levels for various types of welded joints	17
	Bibliography	34