



# A Compendium of Creep Lifting Procedures for Boilers

(Acronym: **boiler-creep lifting**)

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## **Summary of the Four Parts of Boiler-Creep Lifting**

### **I. OVERVIEW**

- Review of life assessment principles and practices in operation.
- Introduction to design life of steam power plant components (international codes and standards)
- Introduction to the construction materials for boiler tubing, headers & steam pipework.

### **II. LIFE ASSESSMENT METHODOLOGIES & TOOLS**

- Analytical methods for creep life assessment
- Metallographic methods.
- Hardness measurement method.
- Strain measurement method.
- Post exposure (ex-service) creep rupture testing.
- Miniature specimen testing methods.
- Methods based on temperature estimation (oxide thickness, microstructures as a function of temperature and time).

### **III. COMPONENT LIFE ASSESSMENT –**

- Remaining Life Assessment (RLA) for boiler tubes and headers.
- RLA for HRSGs.
- RLA for steam pipework.

### **IV. MATERIALS DATA**

- Sourced from ETD database & international codes & standards.
- Low alloy steels including 2.25CrMo (T22), 1Cr0.5Mo (T12), CMV steels.

## CONTENTS

Page No

### *PART 1: Overview of Component Life Assessment & Damage Mechanisms (Sections 1 to 2)*

<b>SECTION 1: INTRODUCTION TO LIFE ASSESSMENT</b>	<b>10</b>
1.1 The need for remaining life assessment and how it is practised worldwide	11
1.2 Life Assessment Methods and Associated Codes	11
1.3 Life assessment methods and associated codes as used in the UK, Germany and elsewhere in Europe and USA	23
1.3.1 Life assessment codes in UK	24
1.3.2. Life assessment codes in Germany	25
1.3.1.1 Measurements to be provided for highly loaded components	26
1.3.3. Life assessment codes in USA	26
1.3.4. Life assessment codes in Europe	27
1.4 Life assessment principles	55
1.4.1. Definition of component life	55
1.4.2. Service degradation mechanisms and life assessment methods	56
1.5 The staged approach to life assessment as a standard practice (Stages I, II, III)	58
<b>SECTION 2: MATERIALS OF CONSTRUCTION</b>	<b>63</b>
2.1 Materials for Boiler Tubing and Headers	63
2.2 Metallurgy of Low Alloy Ferritic / Bainitic Steel Grades Used in Boilers and Pipework	68
2.2.1. General microstructural considerations	68
2.2.2. Role of major alloying elements	68
2.2.3. Role of non-specified / minor elements	73
2.2.4. Recent low alloy steel developments	74
2.2.5. Strength of low alloy steel grades	78
2.3. Weld Properties	82
2.3.1. General considerations	82
3.3.2. Weld crack types	84
3.3.3. Creep rupture and weld strength reduction factors	93

## **PART 2: LIFE ASSESSMENT METHODOLOGIES AND TOOLS (Sections 3 to 9)**

<b>SECTION 3: ANALYTICAL ASSESSMENT METHODS</b>	<b>106</b>
3.1. Creep Life Assessment	106
3.1.1. Creep life of components	106
3.1.2. Creep rupture strength values	107
3.1.3. Creep damage fraction	115
3.1.4. Level I creep life assessment	116
3.1.5. Mathematical modelling of creep strain and creep damage	117
3.1.6. Weldment issues	121
3.1.7. Creep rupture life assessment of ex-service materials	123
3.2 Worked Examples on Life Assessment of Defect-Free Components	125
3.2.1. Creep life assessment of tubes	125
3.2.1.1. Tube life assessment using stress rupture data	125
3.2.1.2. Use of time-temperature parameters	129
3.2.1.3. Assessment of tube temperature from oxide thickness measurements	130
3.2.1.4. Effect of tube wall thinning on remaining life	130
3.2.2. Creep life assessment of more complex / welded components	137
<b>SECTION 4: METALLOGRAPHIC METHODS</b>	<b>150</b>
4.1. Metallographic Replication and Interpretation	150
4.1.1. Why these methods are required and their benefits and limitations	150
4.1.2. Replication techniques	152
4.1.3. Damage measurement and assessment by replication techniques.	156
4.1.4. Application of metallographic methods for life assessment - Standard classifications compared and contrasted	169
4.2. Worked Examples - Cavitation and its use in life assessment.	180
4.2.1. Measuring the A-parameter	181
4.2.2. Calculation of remaining life	185
4.2.3. Comparison of life estimation methods	189
4.3. Microstructural Catalogue for Use in Life Assessment	191
4.3.1. ETD's metallographic atlas - The e-Atlas	196
4.4. Grain Boundary Etching Method	197
<b>SECTION 5: HARDNESS MEASUREMENT &amp; LIFE ASSESSMENT</b>	<b>199</b>
5.1. Introduction to Hardness Testing	199
5.2. Portable Hardness Testing Equipment	200
5.2.1 Limitations of Portable hardness Testing Equipment	200
5.2.2 New Developments in portable hardness Testers	200
5.2.3 Errors in Hardness measurement	202
5.3. Hardness - Life Relationship	204
5.4. The Importance of Hardness for Life Assessment	204
5.4.1. Hardness Changes and Testing	205
5.5. Hardness Models for Creep Life Assessment	207
5.5.1. T/P 22 Remaining Life Assessment Based on Hardness Data	207
5.5.1.1. Temperature Estimation from Hardness Measurements	208

5.5.1.2. Qualitative Life Prediction for 2¼ CrMo Steels	210
5.5.1.3. Quantitative Remaining Life Prediction	211
5.5.1.4. Weld Failure Location Prediction	212
5.5.2. Weld Failure Prediction Model for 2¼ Cr Steel	213
5.5.2.1. Rupture Life and Creep Rate for 2¼ CrMO Steel	213
5.5.2.2. Repair Welds	218
5.5.2.3. Post-Exposure Testing	219
<b>SECTION 6:    STRAIN-BASED LIFE ASSESSMENT</b>	<b>224</b>
6.1. Introduction	224
6.2. Global strain measurement techniques	225
6.3. Strain - remaining life relationship	227
6.4. Local strain measurement techniques	229
6.4.1. High Temperature Strain Gauges	229
6.4.1.1. Resistance strain gauges	229
6.4.1.2. Capacitance strain gauges	234
6.4.2. Speckle Image Correlation Methods	239
6.4.2.1. Speckle Pattern Image Correlation Analysis (SPICA)	239
6.4.2.2. Other speckle image correlation methods	242
<b>SECTION 7:    METHODS BASED ON TEMPERATURE ESTIMATION</b>	<b>244</b>
7.1. Average temperature from oxide thickness measurement	244
7.1.1. Introduction	244
7.1.2. Size and geometry effects on oxidation	245
7.1.3. Chemical process	245
7.1.4. Physical process	246
7.1.5. Modelling of creep-oxide interaction	246
7.1.6. Non-destructive examination of oxide scale	253
7.1.7. Remaining Life Assessment (RLA) summary	256
7.1.8. The use of oxide thickness measurements	257
7.2. Microstructure analysis - comparison with standard structures	259

<b>SECTION 8: POST-EXPOSURE (EX-SERVICE) CREEP RUPTURE TESTING</b>	<b>260</b>
8.1. Small-Scale 'Conventional' Creep Testing	260
8.1.1. Material Sampling	260
8.1.2. Specimens	260
8.1.3. Testing requirements	260
8.1.4. Testing Programme Set-up	262
8.1.5. Correlation with “Conventional” Creep Results	263
8.1.6. Advantages and disadvantages	263
8.1.7. Example - P22 interconnection pipe (3)	263
8.2. Material sampling (4)	266
8.2.1. Retrieval of Metallic Sample	266
8.2.1.1. Sampling process	267
8.2.1.2. Contour of sample	268
8.2.2. Preparation of Miniature Test Specimen from Boat Sample	271
8.3. Modelling of Test Process and Correlation with Conventional Tests	273
8.3.1. Tensile test	273
8.3.2. Fracture toughness test	274
8.3.3. Impact test	276
8.3.4. Fatigue test	276
8.4. Implications Involved in Miniature Specimen Technology	277
8.4.1. Surface sampling technique	277
8.4.2. Simulation of conventional testing	277
8.4.3. Specimen size effects	277
8.4.4. Reproducibility of results	278
8.5. Testing equipment for sub-size and miniature specimens	278
8.5.1. Creep testing machine	278
8.5.2. Alignment of the specimen	278
8.5.3. Gripping equipment	280
8.5.4. Strain measurement system	280
8.6. Remaining Life Prediction Based on Post-Exposure Creep Test Results	282
8.6.1. Worked Example	284
8.6.1.1. The ‘Wilshire Equations’ for Creep Rupture Data Assessment	287
8.6.2. ECCC concept of ‘comparability’	291
8.7. Stress Relaxation Testing	293

<b>SECTION 9: MINIATURE SPECIMENT TESTING TECHNIQUES</b>	<b>296</b>
191. Small Punch Creep Testing	296
9.1.1. Introduction	296
9.1.2. Background to the Small Punch test	296
9.1.3. Material sampling	301
9.1.4. Correlation of Small Punch creep test results with conventional uniaxial creep test data	303
9.1.5. Modelling the Small Punch test	307
9.1.6. Examples of applications to components and welds	310
9.1.7. Inter-laboratory comparison of Small Punch creep testing	318
9.1.8. Standardisation of the Small Punch creep test.	320
9.2. Small Punch <i>Toughness</i> Testing	326
9.3. Indentation Creep Testing	331
9.3.1. Introduction	331
9.3.1.1. Indentation creep	331
9.3.1.2. The equivalent stress and strain for flat ended Cylindrical indenter	333
9.3.1.3. Pyramidal, conical and hemispherical indenters.	334
9.3.1.4. Stress and strain distribution below the indenters.	335
9.3.1.5. The application of indentation creep	336
9.3.2. Indentation creep about metals	336
9.3.2.1. Indentation creep tests on metals performed using cylindrical and hemispherical indenters	336
9.3.2.2. Analysis of creep curves measured with hemispherical indenters	338
9.3.3. Application of indentation creep test.	339



**PART 3: COMPONENT LIFE ASSESSMENT (Section 10)**

<b>SECTION 10: BOILER &amp; HRSG COMPONENTS</b>	<b>349</b>
10.1. Tubing	349
10.1.1. Failure mechanisms and root causes in base load:control and prevention of failures	350
10.1.2. Staged approach to life assessment	358
10.1.3. Tube repairs	362
10.1.4. Monitoring FAC of economiser tubing and feedwater piping in HRSGs	364
10.1.5. Acid dew point corrosion of preheater and economiser tubing in HRSG's	372
10.2. Headers	374
10.2.1. Ligament cracking	374
10.2.2. Tube-to-header weld and branch weld cracking, header body and end-cap cracking	379
10.2.3. Standard flow charts for Level I/II/III life assessment (FFS)	388
10.3. Steam Drum	392
10.3.1. Engineering assessment of drum integrity	392
10.4. Steam Piping	394
10.4.1. Seamless and seam-welded pipes, typical damage at welds and bends, Type IV cracking	394
10.4.2. Effect of Ovality	396
10.4.3. Level I/II/III life assessment of pipework	398
10.5. Practical examples / Case studies	400
10.5.1. Cracked header	400
10.5.2. Example of FAC	404
10.5.3. Creep Calculation for Boiler (SH headers, piping, RH header)	404

**PART 4: MATERIALS DATA (Section 11)**

<b>SECTION 11: MATERIALS DATA SOURCED FROM ETD'S DATABASE &amp; INTERNATIONAL CODES &amp; STANDARDS</b>	<b>409</b>
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**APPENDICES**

**Appendix 1**

Remaining life assessment based on temperature estimation from measurement of steam-side oxide thickness- Examples for T11, T22 and Grade 91 Tube. 441 to 446