

# DIN EN 12082-1:2026-04 (E)

## Railway applications - Axleboxes - Part 1: Test procedures

---

<b>Contents</b>		<b>Page</b>
European foreword .....		4
1	Scope .....	5
2	Normative references .....	5
3	Terms and definitions .....	6
4	Symbols and abbreviations .....	8
5	Water tightness test .....	9
5.1	General .....	9
5.2	Test specification .....	9
6	Rig performance test .....	9
6.1	General .....	9
6.2	Test specification .....	10
6.3	Test execution .....	11
6.3.1	Test rig .....	11
6.3.2	Test parameters .....	11
6.4	Carrying out the test .....	13
6.4.1	Pre-test .....	13
6.4.2	Performance test .....	13
6.5	Acceptance criteria .....	14
6.5.1	Results obtained during the test .....	14
6.5.2	Results obtained after the test .....	14
6.6	Performance test report .....	14
7	Field test .....	15
7.1	General .....	15
7.2	Test specification .....	16
7.3	Carrying out the test .....	16
7.4	Test parameters .....	17
7.5	Results to be obtained during and after field test and field test report .....	17
Annex A (normative) Rig performance test .....		18
A.1	Schematic examples of test rigs .....	18
A.2	Temperature measurements .....	20
A.3	Grease sampling zones .....	21
A.4	Definition of forces .....	21
A.5	Definition of test cycles .....	22
A.5.1	Speed Classes and cumulative distances for testing .....	22
A.5.2	Conditions for sequenced tests .....	22
A.5.3	Rig performance tests with limited distance .....	23
A.6	Graphical presentation of test cycles .....	24
A.7	Temperature criteria .....	25
A.8	Mechanical and physico-chemical acceptance criteria .....	27
A.8.1	Mechanical criteria .....	27
A.8.2	Physico-chemical criteria .....	27
Annex B (informative) Sequenced performance tests .....		30

<b>B.1</b>	<b>General</b> .....	<b>30</b>
<b>B.2</b>	<b>High Speed Train example</b> .....	<b>30</b>
<b>B.3</b>	<b>Passenger train example</b> .....	<b>31</b>
<b>B.4</b>	<b>Freight train example</b> .....	<b>33</b>
<b>B.5</b>	<b>Peri-urban train example</b> .....	<b>34</b>
<b>Annex C (informative) Water tightness test</b> .....		<b>36</b>
<b>C.1</b>	<b>General</b> .....	<b>36</b>
<b>C.2</b>	<b>Test conditions</b> .....	<b>36</b>
<b>C.3</b>	<b>Test procedure</b> .....	<b>37</b>
<b>C.4</b>	<b>Pass/fail criterion</b> .....	<b>37</b>
<b>C.5</b>	<b>Test report</b> .....	<b>37</b>
<b>C.6</b>	<b>Sketches</b> .....	<b>38</b>
<b>C.6.1</b>	<b>Classic application</b> .....	<b>38</b>
<b>C.6.2</b>	<b>Application with dynamic seals on both sides of the axlebox</b> .....	<b>39</b>
<b>Annex D (informative) Temperature evaluation examples</b> .....		<b>40</b>
<b>D.1</b>	<b>General</b> .....	<b>40</b>
<b>D.2</b>	<b>Nomenclature</b> .....	<b>40</b>
<b>D.3</b>	<b>Criterion A</b> .....	<b>40</b>
<b>D.4</b>	<b>Criterion B</b> .....	<b>41</b>
<b>D.5</b>	<b>Criterion C</b> .....	<b>41</b>
<b>D.6</b>	<b>Criterion D</b> .....	<b>42</b>
<b>D.7</b>	<b>Criterion E1</b> .....	<b>42</b>
<b>D.8</b>	<b>Criterion E2</b> .....	<b>42</b>
<b>Bibliography</b> .....		<b>43</b>