

# 2014

# **Diving Standards**



Health & Safety Authority August 2014 This information is provided for reference only. As standards are under regular review, readers can validate the status of Irish standards on the National Standards Authority of Ireland's website at <u>www.standards.ie</u> and the status of British Standards at <u>www.bsigroup.com</u>

## Irish Standards

The following is a non exhaustive list of Irish standards relating to diving.

#### Air Quality

1. I.S. EN 12021: 2014 – Respiratory Equipment – Compressed Gases for Breathing Apparatus.

#### **Buoyancy Compensators**

- 1. I.S. EN 1809: 2014 Diving Equipment Buoyancy Compensators Functional and Safety Requirements, Test Methods.
- I.S. EN 12628: 1999 COR<sup>1</sup> 2000 Diving Accessories Combined Buoyancy and Rescue Devices – Functional and Safety Requirement, Test Methods.

#### **Cylinders and Valves**

- I.S. EN 144 1: 2000 AMD<sup>2</sup> 2 2005 Respiratory Protective Devices Gas Cylinder Valves – Part 1: Thread Connections for Insert Connector.
- I.S. EN 144 2: 1999 Respiratory Protective Devices Gas Cylinder Valves Outlet Connections.
- 3. I.S. EN 144 3: 2003 COR 1 2004 Respiratory Protective Devices Gas Cylinder Valves Part 3: Outlet Connections for Diving Gases Nitrox and Oxygen.
- 4. I.S. EN 1089 3: 2011 Transportable Gas Cylinders. Gas Cylinder Identification (excluding LPG) Part 3. Colour Coding.
- 5. I.S. EN 1802: 2002 Transportable Gas Cylinders Periodic Inspection and Testing of Seamless Aluminium Alloy Gas Cylinders.
- 6. I.S. EN 1920: 2000 Transportable Gas Cylinders Cylinders for Compressed Gases (excluding acetylene) Inspection at Time of Filling.
- I.S. EN 1964 3: 2000 Transportable Gas Cylinders Specification for the Design and Construction of Refillable Transportable Seamless Steel Gas Cylinders of Water Capacities from 0.5 Litre up to and including 150 Litres – Part 3: Cylinders Made of Seamless Stainless Steel with an R[M] Value of less than 1100MPa.
- 8. I.S. EN 1968: 2002 AMD 1 2005 Transportable Gas Cylinders Periodic Inspection and Testing of Seamless Steel Gas Cylinders.

<sup>&</sup>lt;sup>1</sup> COR = Correction

<sup>&</sup>lt;sup>2</sup> AMD = Amendment

- 9. I.S. EN ISO 7225: 2007 AMD 1 2012 Gas Cylinders Precautionary Labels.
- 10. I.S. EN ISO 7866: 2012 COR 2014 Gas Cylinders Refillable Seamless Aluminium Alloy Gas Cylinders Design, Construction And Testing.
- 11. I.S. EN ISO 9809 1: 2010 Gas Cylinders Refillable Seamless Steel Gas Cylinders Design, Construction and Testing Part 1: Quenched and Tempered Steel Cylinders with Tensile Strength less than 1100 MPa.
- 12. I.S. EN ISO 9809 3: 2010 Gas Cylinders Refillable Seamless Steel Gas Cylinders Design, Construction and Testing Part 3: Normalised Steel Cylinders.
- 13. I.S. EN ISO 11114-1: 2012 Gas Cylinders Compatibility of Cylinder and Valve Materials with Gas Contents Part 1: Metallic Materials.
- 14. I.S. EN ISO 11114-2: 2013 Gas Cylinders Compatibility of Cylinder and Valve Materials with Gas Contents Part 2: Non Metallic Materials.
- I.S. EN ISO 11114-3: 2010 Gas Cylinders Compatibility of Cylinder and Valve Materials with Gas Contents – Part 3: Autogenous Ignition Test for Non – Metallic Materials in Oxygen Atmosphere.
- 16. I.S. EN ISO 11621: 2005 Gas Cylinders Procedures for Change of Gas Service.
- 17. I.S. EN ISO 11623: 2002 Transportable Gas Cylinders Periodic Inspection and Testing of Composite Gas Cylinders.
- 18. I.S. EN ISO 12209: 2013 Gas Cylinders Outlet Connections for Gas Cylinder Valves for Compressed Breathable Air.
- 19. I.S. EN 12245:2009 + A1 2011 Transportable Gas Cylinders Fully Wrapped Composite Cylinders.
- 20. I.S. EN 12257: 2002 Transportable Gas Cylinders Seamless, Hoop-Wrapped Composite Cylinders.
- 21. I.S. EN ISO 13341: 2010 Gas Cylinders Fitting of Valves to Gas Cylinders.
- 22. I.S. EN ISO 13769: 2009 Gas Cylinders Stamp Marking.
- 23. I.S. EN ISO 22434: 2011 Transportable Gas Cylinders Inspection and Maintenance of Cylinder Valves.

#### **Diving Accessories**

- 1. I.S. EN 1972: 1998 Diving Accessories Snorkels Safety Requirements and Test Methods.
- 2. I.S. EN 13319: 2000 Diving Accessories Depth Gauges and Combined Depth and Time Measuring Devices Functional and Safety Requirements Test Methods.

#### **Diving Breathing Apparatus**

- 1. I.S. EN 250: 2014 Respiratory Equipment Open Circuit Self Contained Compressed Air Diving Apparatus – Requirements, Testing and Marking.
- I.S. EN 13949: 2003 Respiratory Equipment Open Circuit Self-Contained Diving Apparatus for use with Compressed Nitrox and Oxygen – Requirements, Testing, Marking.

- 3. I.S. EN 14143: 2013 Respiratory Equipment Self-Contained Re-Breathing Diving Apparatus.
- 4. I.S. EN 15333 1: 2008 COR 2009 Respiratory Equipment Open-Circuit Umbilical Supplied Compressed Gas Diving Apparatus Part 1: Demand Apparatus.
- 5. I.S. EN 15333 2: 2009 Respiratory Equipment Open-Circuit Umbilical Supplied Compressed Gas Diving Apparatus Part 2: Free Flow Apparatus.

#### **Diving Suits**

- 1. I.S. EN 14225-1: 2005 Diving Suits Part 1: Wet Suits Requirements and Test Methods.
- 2. I.S. EN 14225-2: 2005 Diving Suits Part 2: Dry Suits Requirements and Test Methods.
- 3. I.S. EN 14225-3: 2005 Diving Suits Part 3: Actively Heated or Cooled Suits (Systems) Requirements and Test Methods.
- 4. I.S. EN 14225-4: 2005 Diving Suits Part 4: One Atmosphere Diving Suit (ADS) Human Factors Requirements and Test Methods.

#### **Hyperbaric Welding**

- 1. I.S. EN ISO 15618-1:2002 Qualification Testing Of Welders for Under-Water Welding. Part 1: Diver-Welders for Hyperbaric Wet Welding.
- I.S. EN ISO 15618 2: 2002 Qualification Testing Of Welders for Under-Water Welding. Part 2: Diver-Welders and Welding Operators for Hyperbaric Dry Welding.

#### **Recreational Diving**

- 1. I.S. EN ISO 24801-1: 2014 Recreational Diving Services Requirements for the Training of Recreational SCUBA Divers Part 1: Level 1 Supervised Diver.
- 2. I.S. EN ISO 24801-2: 2014 Recreational Diving Services Requirements for the Training of Recreational SCUBA Divers Part 2: Level 2 Autonomous Diver.
- 3. I.S. EN ISO 24801-3: 2014 Recreational Diving Services Requirements for the Training of Recreational SCUBA Divers Part 3: Level 3 Dive Leader.
- 4. I.S. EN ISO 24802-1: 2014 Recreational Diving Services Requirements for the Training of SCUBA Instructors Part 1: Level 1.
- 5. I.S. EN ISO 24802-2: 2014 Recreational Diving Services Requirements for the Training of SCUBA Instructors Part 2: Level 2.
- 6. I.S. EN 14467: 2004 Recreational Diving Services Requirements for Recreational SCUBA Diving Service Providers.

### **British Standards**

The following is a non-exhaustive list of British Standards that are also relevant to diving and work tasks carried out underwater.

#### Air Quality Standard

1. BS 8478: 2011 – Respiratory Protective Devices. Breathing Gases for Diving and Hyperbaric Applications. Requirements and Test Methods.

#### **Diving Accessories**

- 1. BS 4532:1969 Specification for Snorkels and Face Masks.
- 2. BS 5883:1996 Specification for Surface Swimming Goggles.

#### **Diving Cylinders**

- 1. BS 341-1: 1991- Transportable Gas Container Valves: Specification for Industrial Valves for a Working Pressure up to and Including 300 bar.
- 2. BS 5045 6: 1987 Transportable Gas Containers Part 6: Specification for Seamless Containers of Less than 0.5 Litre Water Capacity.
- BS 5045 7:2000 Transportable Gas Containers Part 7: Specification for Seamless Steel Gas Containers of Water Capacity 0.5L up to 15L for Special Portable Applications.
- 4. BS 5045 8: 2000 Transportable Gas Containers Part 8: Specification for Seamless Aluminium Alloy Gas Containers of Water Capacity 0.5 L up to 15 L and up to 300 bar Charged Pressure at 15°C for Special Portable Application.

#### **Hyperbaric Welding**

1. BS 4515-1:2009 – Specification for Welding of Steel Pipelines on Land and Offshore Carbon and Carbon Manganese Steel Pipelines.

#### **Oxygen Cleaning Standard**

1. BS IEC 60877: 1999 – Procedures for Ensuring the Cleanliness of Industrial Process Measurement and Control Equipment in Oxygen Service.