

Service Description

Repair and/or Adjustments to pressure equipment

Warenwetbesluit Drukapparatuur 2016 – The Netherlands

Repair and/of Adjustments to pressure equipment is incorporated by '*Koninklijk Besluit* 387' of 22 July 2004 on adjustment of the 'Besluit drukapparatuur' for regulation on the use of pressure equipment, assemblies of pressure systems and inspection prior to taking in service of pressure equipment, pressure assemblies and pressure systems as well as amendment of other "besluiten" (decisions). Above mentioned legislation is changed in 2016 and is now called '[Warenwetbesluit drukapparatuur 2016](#)' (abbreviated WBDA 2016). Due to this legislation, Repair and/of Adjustment to pressure equipment is applicable in the Netherlands.

The Dutch legislation with respect to Pressure Equipment has been adjusted to let it fit with the European Pressure Equipment Directive PED 2014/68/EU, established on 15 May 2014 by the European Council and European Parliament. Mentioned Directive (PED) is covering a wide scope of industrial products and specifies requirements for manufacturers of pressure equipment w.r.t. relevant safety requirements for production and for the product itself that is placed on the market. Different from the PED, the legislation for Repair and/of Adjustments is meant for users of pressure equipment. Repair and/of Adjustments is not meant for new equipment, but for existing equipment. PED 2014/68/EU is still applicable for new pressure equipment where repairs and/of adjustments are needed.

The inspection organisation performing the "Repair and/of Adjustment" service has been appointed by the Dutch authorities as NL Conformiteitsbeoordelingsinstantie (NL-CBI) and is only valid within the Netherlands.

The legislation for the "Repair and/of Adjustment" service is based on Warenwetbesluit Drukapparatuur and is implemented since the 1st of August 2005. Last revision was in 2016 (19 July).

1. Repair and / or adjustments

During the in-service phase of pressure equipment, repairs or adjustments can occur. For pressure equipment where a Declaration of taking into Service (Verklaring van Ingebruikneming) or a Declaration of Entry Service and taking into Service (Verklaring van Intredekeur en Ingebruikneming) is issued, the user needs to comply with the above-mentioned legislation when repairs and / or adjustments are applicable.

Please note the legislation is also applicable to propane- and butane tanks and to tanks for oxygen, di-nitrogenoxide, nitrogen, argon, helium and carbonic acid, and to bottles for breathing equipment.

The user of pressure equipment is responsible for the integrity of the pressure equipment during the in-service phase. The role of the user during the in-service phase is equal to the role of the manufacturer during newbuilding phase. If the user does not have the expertise to perform repairs and/or adjustment to pressure equipment, external parties can be used or the work can be outsourced. Several parties can be used by the user for a repair and/or adjustment. An engineering company can be used for the design, a fabricator for the pre-fabrication, a contractor for the assembly, an inspection company for the non-destructive examination and an organization for preparing the inspection plan.

When a repair and/of adjustments are applicable, the user should involve a NL-CAB.

Distinction is made in:

- A. Pressure Equipment categorised by the Warenwetbesluit Drukapparatuur 2016 to be assessed by or under responsibility of an appointed authority (NL-CBI)
- B. Pressure Equipment not categorised by the Warenwetbesluit Drukapparatuur 2016 and falling under the Labour Act law, indicated by 'Zorgplicht' of the user

This service description is covering the pressure equipment mentioned under A.

2. Categorisation

The categorisation of which pressure equipment should be assessed by or under responsibility of an NL-CAB is described in the '[Warenwetregeling Drukapparatuur 2016](#)' (abbreviated WRDA 2016) and can also be found in the Dutch 'Praktijkregels voor Drukapparatuur' katern 1.3. In general, all pressure equipment which requires 'Keuring voor Ingebruikneming' (KvI), should also undergo Repair and/or Adjustments inspection as indicated under A. However, some other equipment which does not require KvI, will require Repair and/or Adjustments inspection.

3. Types of Pressure Equipment

The following types of pressure equipment are applicable:

- Pressure Vessels
- Boilers and other heated pressure equipment with risk of overheating
- Piping
- Pressure accessories
- Safety accessories
- Bottles for breathing equipment

4. Definitions

Operating conditions: all foreseen operating conditions like different processes at normal use, (de)commissioning, flushing and cleaning, regeneration. The operation conditions are described in the Declaration of taking into Service (Verklaring van Ingebruikneming).

Repair: restoring of a pressure equipment to its original state before the occurred damage. It is possible the restoration to the original state before the occurred damage is not possible anymore or it is not required. In this case, the restoration will be such that the pressure equipment can perform its function during the remaining operating period.

The repairs should take the following requirements into account:

- operating conditions will not change
- same design with:
 - similar grade of materials
 - similar construction

- equivalent permanent joining processes.
- Use of current design/construction standards as used during the newbuilding phase.
- User is responsible for the repair. Product liability is for the user.

Adjustments: change of pressure equipment or assembly where:

- change of operating conditions could be applicable
- change of maximum allowable pressure and temperature could be applicable
- location of the equipment could be changed
- Safety system could be changed

Construction adjustments: changes where operation conditions, safety systems and design conditions of pressure equipment will remain the same. Construction adjustments could be described as follows:

- Change of number of nozzles or size of nozzles
- Addition of a manhole
- Change of construction details
- Use of equivalent materials

Regular technical maintenance: mechanical activities to pressure equipment. Examples: cleaning, change of (identical) gaskets, change of (identical) valves, change of bolts and nuts.

5. Performing Repairs and/or Adjustments

The user / applicant prepares a repair/adjustment with the help of a 'Repair plan' and/or 'Adjustment plan'. These plans need to be reviewed and approved by DNV GL. A template is available in the Dutch 'Praktijkregels voor Drukapparatuur, katern 5.2'. Application form ISI-NL-PE-4-F1-RWY is to be used for the application.

The user of pressure equipment needs to take care for:

- Safe working area
- Pressure equipment is safe for internal inspection
- Enough and safeguarded lightning (safe voltage and ATEX certified if explosive atmosphere is applicable) for inspection
- Manhole guard
- Opportunity to use a shower when contaminated conditions are applicable

6. Reporting

Reporting will take place at the 'Aantekeningenblad' by the inspector.

Also, statement "Verklaring van Reparatie" and/or statement "Verklaring van Wijziging" will be issued.

For additional information on assessments on pressure equipment:

DNV GL Business Assurance B.V.*1

Product Assurance

I319 (ISO/IEC17020)

NL-CBI

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*1= DNV GL Business Assurance B.V. is notified by the Dutch authorities as NL-Conformity Assessment Body (NL-CBI) and accredited by the Dutch Council for Accreditation (RvA I319).