

Legal Information on Conformity Documentation for Pressure Vessels including Separator Vessels



Pressure Vessels, including separators and piston compressors, are regulated in terms of the Occupational Health and Safety Act (85/1993) and South African National Standards, SANS347. These regulations are in place for your and your employees' safety. The Department of Labor has the responsibility to check on pressurized equipment and has the authority to condemn non-compliant equipment.

Not all pressure vessels and air compressors imported into South Africa comply with the country's statutory legislation. This information leaflet provides you with the basic knowledge necessary to make informed choices when purchasing compressed air equipment. Your safety and that of any personnel working in close proximity to a compressor or pressure vessel depend on you making the right, informed choices.

Non-conforming goods will undoubtedly be at a lower price; meeting the required design criteria requires considerable financial investments in specialized equipment, intellectual property and a high-grade raw material. Below is a checklist that will help you to determine if the pressure vessel or compressor is compliant with the law.

It is the law that pressure vessels be supplied with the following mandatory documentation and data tags:

- 1: Conformity Assessment approved by an AIA (Authorized Inspection Authority) including;
 - a) Complete set of Design Drawings.
 - b) Certificates of Shop/Field Inspections (U1-A, U-3 or as applicable);
 - c) Manufacturers' Certificate of Authorization.
- 2: Data Tags, permanently attached to the vessel with ALL the following information:
 - a) Name of Manufacturer;
 - b) Country of Origin;
 - c) Year of Manufacture;
 - d) Manufacturers' Serial Number;
 - e) Reference Number, date and edition of the Health and Safety Standard;

- f) Design pressure in units of Pascal;
- g) Minimum and Maximum Design Temperature, in degrees C;
- h) Capacity in cubic meters;
- i) Unique mark of an AIA as applicable'
- j) The Hazard Category in accordance with SANS347;

FIVE TELL TALE SIGNS OF NON-CONFORMITY

An experienced and trained eye can easily pick out signs that a vessel does not meet the requirements of South African legislation.

Here is a quick list to refer to that will help you determine if a compressor will meet the mandatory requirements of South African legislation;

1. The absence of bungs on the dished ends of a vessel, required for inspection purposes, are a clear indication that the vessel was not made to a South African accepted design code.
2. Check the design standard shown on the data tag – it should read ASME, EN286-1, PD5500, EN13445, CODAP or AD-2000. Any other code should be questioned.
3. Look for the unique mark (stamp) of an AIA (Authorized Inspection Authority) on the data plate attached to the vessel, the absence of an AIA mark indicates that it has not undergone the required local Conformity Assessment.
4. Check that the vessel is supplied with the documentation listed in point 1 of the previous page.
5. Data plates must show all ten items shown in point 2 on the previous page, anything less indicates non-conformity.

The company selling the equipment must have this documentation readily available.

WHAT YOU NEED TO KNOW AFTER PURCHASING A COMPRESSOR/PRESSURE VESSEL:

Keep all pressure vessel documentation safe, it will be required when the vessel is commissioned and thereafter every three years during mandatory inspection undertaken by and AIA. The owner is responsible for arranging these mandatory inspections at the required intervals.

It is a requirement of the importer/manufacture to retain copies of conformity documentation for a period of 12 years from the date of manufacture. If you lose your documents, copies must be readily available from the importer/manufacture, at a cost due to this being legal documents. Remember to take note of this company's details in case you do require copies. The importer/manufacture is by no means obligated to supply duplicate documentation free of charge.

It is mandatory that an internal and external inspection takes place by and AIA on commissioning and every subsequent 36 months. Records of these inspections must be kept on file and made available when called for by an inspector from the Department of Labor.

LOOK AFTER YOUR EQUIPMENT:

To achieve optimal longevity and to ensure continued safety, keep your compressed and pressure vessel in good condition. Make use of qualified compressed air specialists to perform routine preventative maintenance to your compressed air equipment.

Educate your workers to be responsible for the following:

1. Drain any condensate accumulated in the pressure vessel daily to prevent excessive corrosion.
2. Make sure the equipment is not exposed to the weather or corrosive environments.
3. Service the compressor regularly, using qualified compressor professionals.
4. Have the vessels inspected by an AIA on commissioning and every 36 months.