



# **TRANSNET ENGINEERING**

## **PRODUCT SYSTEMS DEVELOPMENT**

### **WAGONS**

**80MM WAFER TYPE NON-RETURN VALVE**

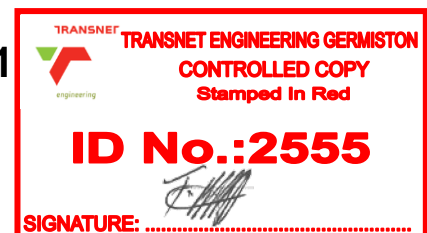
**FOR XB TANKERS**

**Revision 00**

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**EW\_NAT\_SPEC\_2011**



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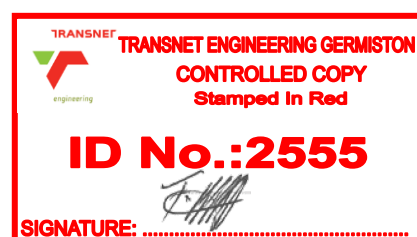
## SUMMARY OF REVISION

First issue – 13 February 2025

Document No. EW\_NAT\_SPEC\_2011

The following revisions have been made in this revision:

Change	Description



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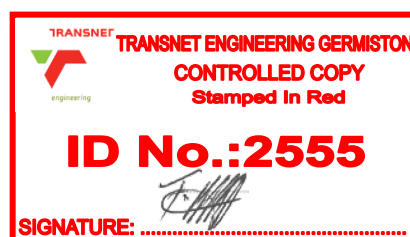
## 1.1 Scope of Specification

This specification covers the technical requirements for an 80mm wafer type non-return Valve (Item Number: 568660625), for XB-9 up to XB-14 wagons.

## 1.2 Design Standards

The valve shall meet the requirement mentioned in Pressure Equipment Regulations (PER), the latest, as issued by the Department of Labour, Occupation Health, and Safety Act, 1993. Where **no** PER applies or exists, the valve must meet all relevant International Railway Standards & European Norms which are:

- I. Association of American Railroads (AAR).
- II. American Society of Mechanical Engineers (ASME).
- III. American National Standards Institute (ANSI).
- IV. European standards (EN).
- V. British standards (BS).
- VI. International Standards Organisation (ISO).
- VII. International union of railways (UIC).



## 1.3 80mm wafer type non-return Valve Specification

Description	Parameters
Size:	80mm
Description:	Wafer type non-return Valve
Body material:	Cast Iron
Nominal Pressure:	PN16 (16 bar)
Pressure Rating:	16 bar
Disc material:	Ductile Iron (GGG40)
Seat	EPDM
Temperature (Max):	120 °C
Temperature (Min):	-10 °C
Body colour:	Blue
Specification example:	Figure 1
Diameter (A from Figure 1)	130 ±2 mm
Height (B from Figure 1)	64 ±2 mm
Height (C from Figure 1)	89 ±1 mm
Fully open position (D from Figure 1)	43 mm
Shaft	304 Stainless Steel
Spring	Stainless Steel

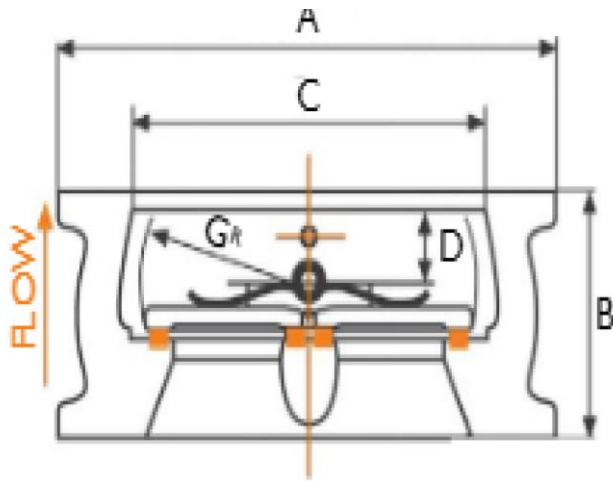


Figure 1: Example of wafer type non-return valve

#### 1.4 Certification and Guarantee

- All components are to be supplied with all relevant certificates as proof and guarantee.

#### 1.5 Documentation

The following documents are required for acceptance of the valve.

- Material specifications.
- ISO/SANS specifications for material and product compliance.
- Material and product compliance certificates (Test certificate).

#### 1.6 Test Certificate

The test certificate must include the following information

- Name of Company.
- Company Valve description or Item No
- Nominal Pressure.
- Seal and Body material.
- Test Date.
- Reference Number.

#### 1.7 Data Plate- Marking

The manufacturer must ensure that the data plate and/or body marking are permanently fixed and include the following information:

- Name of Manufacturer
- Seat material.
- Construction material



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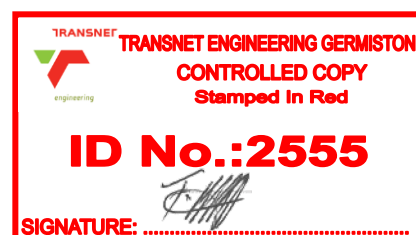
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- Size of the valve
- Pressure rating.
- Serial number on the valve.

### 1.8 Quality Assurance Provision

The supplier must be ISO accredited, however, if that is not the case the supplier must have a proper quality management system that is in line with the principles in the policy on the supplier quality management framework Doc No: OPS\_CQ\_KLP\_PP\_0001.



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