



# TRANSNET ENGINEERING

## PRODUCT DEVELOPMENT WAGONS

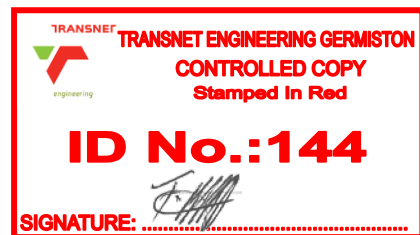
**SAFETY RELIEF VALVE WITH PCD 158.75MM**

**PRODUCTS: LPG AND AMMONIA (NH3)**

Revision 01

Date of Release:

28 October 2024



**PD\_PEW\_NAT\_SPEC\_102**

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## SUMMARY OF REVISION

First issued – 22 June 2022

Document No. PD\_PEW\_NAT\_SPEC\_102

The following revisions have been made in this revision:

Rev	Change	Description
Rev 00 to 01	Section 1.1.2 Table 1	ECN0003092: Updated wording from “should” to “must”

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# INTRODUCTION

## 1.1 Scope of Specification

1.1.1 The purpose of this specification is to specify the technical requirements for the purchase of the safety relief valve with a Pitch Circle Diameter (PCD) of 158.75mm, for a bigger PCD of 203mm refer PD\_PEW\_NAT\_SPEC\_1202. The safety relief valve is for pressurized rail tank cars with a variety of liquified gasses including but not limited to butane butadiene, propane, LPG, and anhydrous ammonia operating at 1930 kPa.

1.1.2 The following drawing number W221\_M002/Latest must accompany this specification for the supplier's attention to design mounting interface for compliance purposes for the procurement of item 768012544. The safety relief valve must be similar to Midland A-1284 and must meet all the requirements in Table 1 below.



**Table 1: SAFETY VALVE DATA SHEET**

CONNECTION TYPE:	BOLTED
PRESSURE RANGE:	1930 KPA
MEDIA FOR WHICH DESIGNED:	LIQUID PETROLEUM GAS AND ANHYDROUS AMMONIA WAGONS
START TO LEAK:	1910 KPA TO 1990 KPA
SEALS:	BUNA-N
EACH VALVE MUST BE LABELLED:	i.e., COMPANY NAME, DATE OF MANUFACTURE, PRESSURE RATINGS etc.
TEST CERTIFICATE TO BE SUPPLIED:	FOR EACH VALVE
THE VALVES MUST COMPLY TO:	THE "AAR MANUAL OF STANDARDS AND RECOMMENDED PRACTICES SPECIFICATIONS FOR TANK CARS".
PACKING:	THE VALVE MUST BE PACKED IN A CLEAR PLASTIC BAG WITH A TEST CERTIFICATE INCLUDED.
MATERIAL:	TO BE SUITABLE FOR ANHYDROUS AMMONIA AND LIQUID PETROLEUM GAS. (ALL MATERIALS TO BE SPECIFIED. i.e., STAINLESS STEEL, BRASS AND ALUMINIUM) .
TEMPERATURE RANGE:	-42.8 TO 73.9 °C
DISCHARGE RATE:	THE MINIMUM REQUIRED RATE OF DISCHARGE IS 3695 SCFM (105 M3/MIN) AIR
VALVE PCD:	158.75MM
HOLE SIZE:	4 HOLES x M22
SPRING COATING:	NON-CORROSIVE EPOXY COATING
HOUSING SIZE:	MAXIMUM 185 MM X 185 MM

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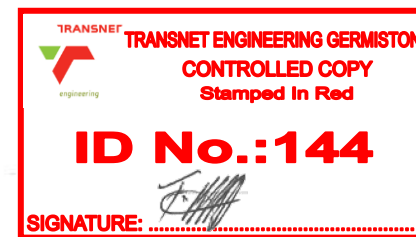
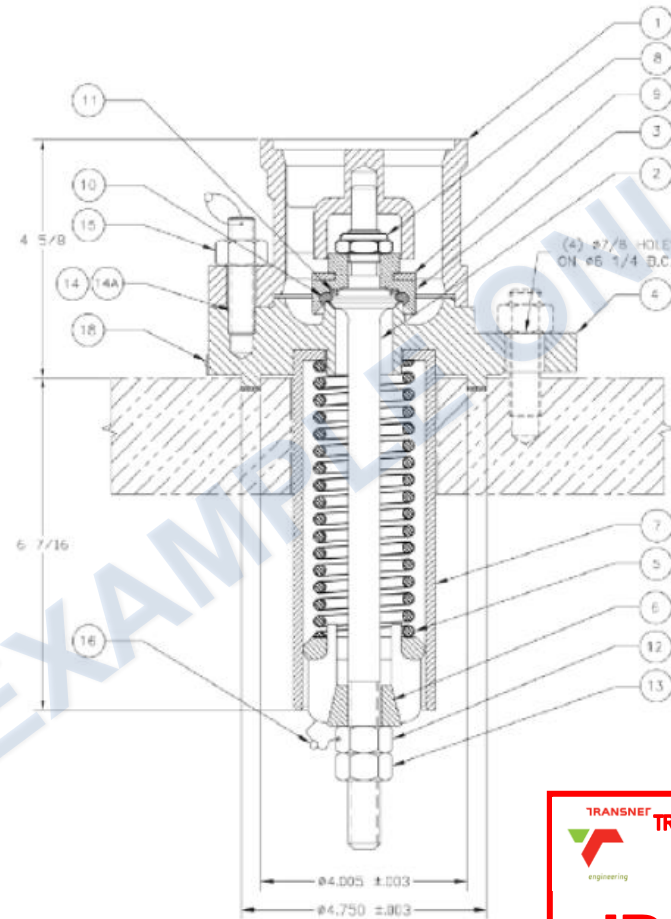
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## APPENDIX

### Appendix A – Safety Relief Valve (Example Only)



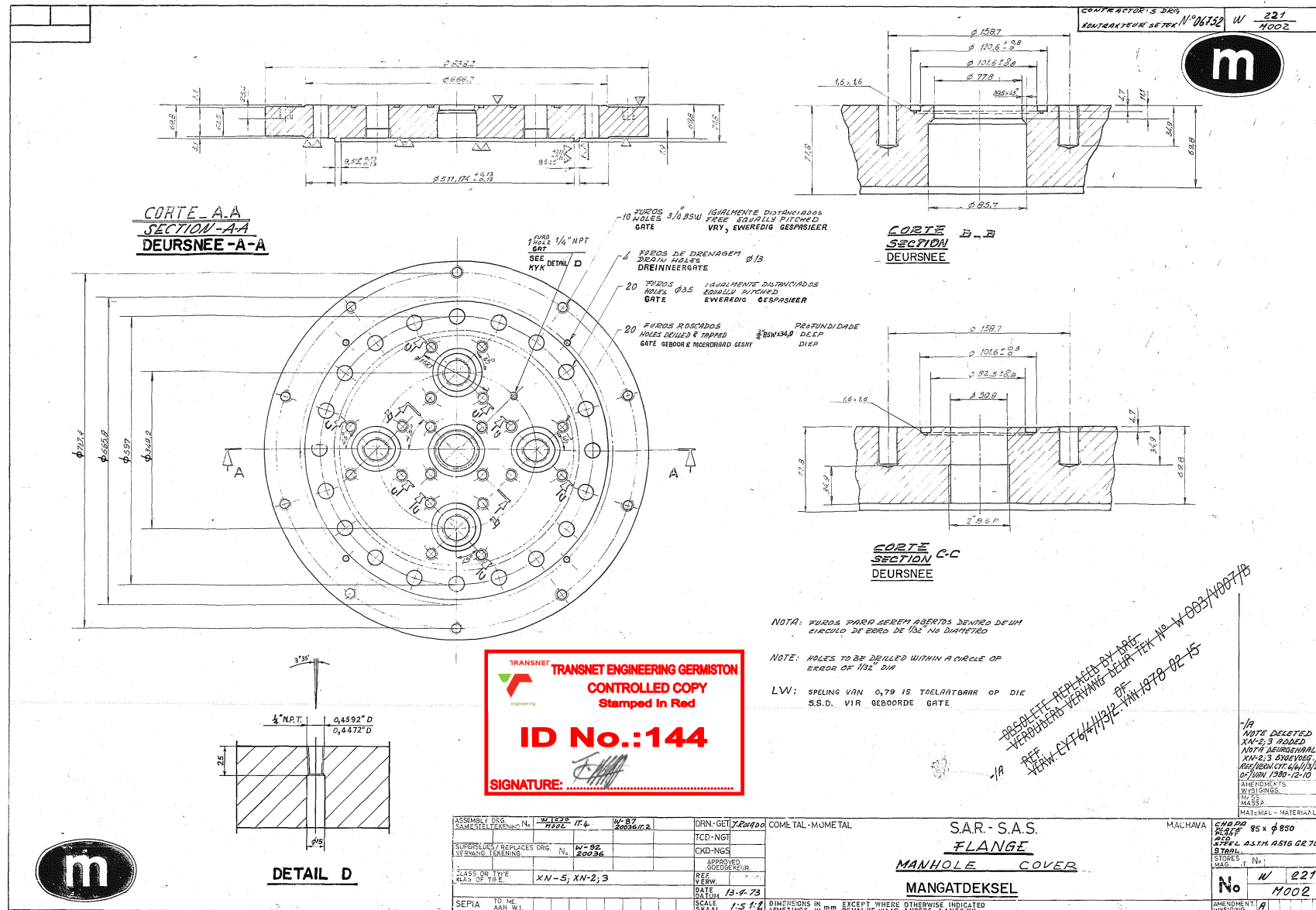
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# Appendix B – Drawing W221M002



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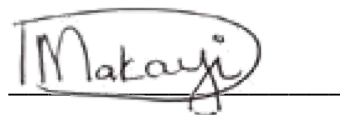
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**Signature**



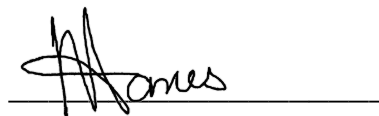
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**Approver**

**Willie Tones**

**Signature**



**Designation**

**Senior Product Engineer (Wagons)**

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