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# GOVERNMENT APPROVED TEST LABORATORY

IN TERMS OF ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"

# IA CERTIFICATE

Date Issued: 29 Nov 2018

\*Expiry date: 29 Nov 2028

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# Ex - Type Examination Certificate

Certificate Number: M-XPL/18.0943 X

Equipment: **Dewatering Submersible Pump** 

Model / Type: Jenny J4X

Amandla Pumps (Pty) Ltd Applicant:

10 Venda Road

Sebenza

Edenvale, 1609

Manufacturer: Amandla Pumps (Pty) Ltd

Serial No: All serial numbers of equipment covered by a valid report or acceptable

product certification mark.

The unit(s) as described in Explolabs File Number XPL/19867/18.0943 is hereby certified "Explosion Protected" Ex db I Mb, having been tested, examined and inspected in accordance with the relevant requirements of South African Standards:

SANS 60079-0: 2012 Ed 5

Explosive atmospheres Part 0: Equipment — General requirements IEC 60079-0: 2011 Ed 6

SANS 60079-1: 2015 Ed 5 Explosive atmospheres Part 1: Equipment protection by flameproof

IEC 60079-1: 2014 Ed 7 enclosures "d"

Risk of ignition provided:

Protection afforded	Equipment Protection Level (EPL) Group	Performance of Conditions of operation		T class or Max Surface Temp (°C)
High	Mb Group I	Suitable for normal operation and severe operating conditions	Equipment de-energized when explosive atmosphere present	T150°C

This certification indicates compliance with R10.1 of the Mines Health and Safety Act and/or EMR 9(2) of the Occupational Health and Safety Act, provided that the apparatus is used as relevant in accordance with:

SANS 10086 and IEC/SANS 61241-14 requirements as applicable;

Any relevant requirements and codes of practice enforced in terms of the Mine Health and Safety Act or Occupational Health and Safety Act

Any restrictions and conditions enforced by the Chief Inspector of Mines or the Principal Inspector or the Chief Inspector: Occupational Health iv) and Safety.

A revision certificate replaces all previous version of the certificate.

\* - Only covers equipment Imported between the "Issued" and "Expire" dates.

If and when your QAN (Quality Assurance Notification) Certificate for your equipment manufacturer expires during the valid period of the IA Certification (issued for your equipment) and a new certificate is not submitted the existing IA Certification will then be cancelled. It is thus the client's responsibility to always submit the updated and valid QAN certificate(s) to Explolabs (Ptv) Ltd





The South African National Accreditation System (SANAS) is a member of the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). This Arrangement allows for the mutual recognition of technical test and calibration data by the member accreditation bodies worldwide.

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## **DESCRIPTION OF EQUIPMENT**

The pump was manufactured by Amandla pumps and comprises of the following dimensions 432.0 mm x 304.0 mm. The pump comprises of a stator casing, bearing housing, bearing cover and top cover, and was manufactured from Grade 240-270 Cast Iron. The internal volume of approximately 2.04%.

The top cover was incorporated with one previously approved gland that forms part of the NDE shield.

## Flameproof joint

Table 1 The pump incorporated the following flameproof joints

Location of joint	Type of joint	Seals	
Stator housing and Top Cover	Spigot	O-ring	
Drawing # J4 FLP Sub			
Assembly Detail A			
Bearing Cover and Shaft	Cylindrical	N/A	
Drawing # J4 FLP Sub			
Assembly Detail B			
Bearing Cover and Bearing	Spigot	N/A	
Housing			
Bearing Housing and Stator	Spigot	O-ring	
Housing			

### **Fasteners**

Table 2: The pump consists of the following fasteners

Location	Qty	Size & Length	Pitch	Class
Glands Top Cover	2	M8x20 SS304 Cap	1.5	
		Screw		
Gland and NDE cover	4	M10x30 SS304	1.5	
		Cap Screw		
NDE Top Cover & Housing	4	M8x 25 SS304 Cap	1.5	
		Screw		
Bearing housing and Bearing	4	M8x20 SS304	1.5	
Housing		Counter Sunk Cap		
		Screw		

#### **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after certificate number) 2.

- The pump shall be used in a submerged fluid with a temperature not exceeding ambient temperature and the pump shall not be exposed to the atmosphere when running.
- The pump shall only be incorporated with fasteners listed in Table 2.
- The flamepath dimensions are difference than the relevance values given in Table 1 of SANS 60079-1. For repair work the Original Equipment Manufacturer must be consulted for information regarding the flamepath lengths

### INSTALLATION INSTRUCTIONS

It is the manufacturer's responsibility to supply installation instructions with each unit offered for sale as required by IEC/SANS 60079-0 Clause 30.

#### 4. **CONDITIONS OF CERTIFICATION**

All production units must be covered by a QAN (Quality Assurance Notification), Product Mark Scheme or batch evaluation.

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#### 5. **MARKING**

The following (or similar) information have to be clearly and permanently marked on all units:

: Amandla Pumps (Pty) Ltd Manufacturer : Amandla Pumps (Pty) Ltd : Dewatering Submersible Pump Equipment

Model/Type : Jenny J4X

Serial No.

Ex Rating : Ex db I Mb

IA Certificate No : M-XPL/18.0943 X

**Responsible Testing Officer:** 

Reviewed by:

**D** Maree

**SANAS Technical Signatory** 

K Malibe **Testing Officer** 

### **EXPLOLABS EXPLOSION PREVENTION SERVICES**

This report/certificate shall not be reproduced except in full without the written approval of the company Explolabs (Pty) Ltd shall not be liable for any losses or damages sustained on account of any failure or omission to properly perform our duties in terms of any contract undertaken by us. This disclaimer is immutable and automatically incorporated in any contract undertaken by us; notwithstanding anything to the contrary, save for the express written waiver of our managing director. By marking the equipment in accordance with the documentation/standard, the manufacturer attests on his own responsibility that the equipment has been constructed in accordance with the applicable requirements of the relevant standards and that the routine verifications and tests have been successfully completed and that the product complies with the documentation and standard(s). The contents of electronic reports/certificates cannot be guaranteed. Original certification documents will be kept on file at Explolabs (Pty) Ltd

DOCUMENT No: XPL0105

RELEASE DATE: 31/07/2015

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