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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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Issue: 0

Ex – Type Examination Certificate

Certificate Number: **M-XPL/18.0943 X**
 Equipment: **Dewatering Submersible Pump**
 Model / Type: **Jenny J4X**
 Applicant: **Amandla Pumps (Pty) Ltd**
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 enclosures "d"
- IEC 60079-1: 2014 Ed 7**

Risk of ignition provided:

Protection afforded	Equipment Protection Level (EPL)	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
	Group			
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:

- i) SANS 10086 and IEC/SANS 61241-14 requirements as applicable;
- ii) Any conditions mentioned in the above report;
- iii) Any relevant requirements and codes of practice enforced in terms of the Mine Health and Safety Act or Occupational Health and Safety Act; and
- iv) Any restrictions and conditions enforced by the Chief Inspector of Mines or the Principal Inspector or the Chief Inspector: Occupational Health and Safety.
- v) A revision certificate replaces all previous version of the certificate.
- vi) * - Only covers equipment Imported between the "Issued" and "Expire" dates.
- vii) 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 (Pty) 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. For more information on the Arrangement please consult www.ilac.org

1. 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 2.04ℓ.

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 Drawing # J4 FLP Sub Assembly Detail A	Spigot	O-ring
Bearing Cover and Shaft Drawing # J4 FLP Sub Assembly Detail B	Cylindrical	N/A
Bearing Cover and Bearing Housing	Spigot	N/A
Bearing Housing and Stator Housing	Spigot	O-ring

Fasteners

Table 2: The pump consists of the following fasteners

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

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

- 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 different 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

3. 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.

