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GOVERNMENT APPROVED TEST LABORATORY

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

IA CERTIFICATE

Date Issued: 13 Aug 2020 *Expiry date: 13 Aug 2030

Page 1 of 2

Issue: 0

Ex - Type Examination Certificate

Certificate Number: M-XPL/20.0666 X

Equipment: **Dewatering Submersible Pump**

Model / Type: Jenny J22HX/J22MX 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/21485/20.0666 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

IEC 60079-0: 2011 Ed 6

Explosive atmospheres Part 0: Equipment — General requirements

SANS 60079-1: 2015 Ed 5 IEC 60079-1: 2014 Ed 7

Explosive atmospheres Part 1: Equipment protection by flameproof

enclosures "d"

Risk of ignition provided:

STATE OF THE PERSON NAMED IN	Protection afforded	Equipment Protection Level (EPL) Group	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
Contract Party Contract	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

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.

ANNEX TO CERTIFICATE NO M-XPL/20.0666 X

PAGE 2 OF 2

1. **DESCRIPTION OF EQUIPMENT**

The pump was comprises of the DE sheild, terminal box mounted onto the NDE shield and cable gland with a cable. The pump was made of cast iron Grade 240-270 and was painted with 'king blue' epocy paint. The shaft was made of SS431 C/W Aluminium die cast rotor. Each cover was fitted with O –rings as a protection against ingress of foreign objects.

The terminal box had an internal volume of 5.4 \ell and the stator housing internal volume was 9.6 \ell.

Table 1: The table detailing the type of joints found one the pumps

Location	Type of joint	Seals
Terminal box cover to Stator housing	Spigot	Nirile 'O-ring'
DE cover to Stator housing	Spigot	Nirile 'O-ring'
Bearing cover to stator housing	Spigot	N/A
Bearing cover to shaft	Spigot	N/A
NDE cover to stator housing	Spigot	Nirile 'O-ring'

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

- Some flamepath dimensions are different than the relevant values given in Table 1 of SANS 60079-1. For repair work the Original Equipment Manufacturer must be consulted for information regarding the flamepath length
- The pump shall be used in a submerged fluid (clean or dirty water at normal ambient temperature) and shall not exposed to the atmosphere when running.

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.

CONDITIONS OF CERTIFICATION 4.

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

5. **MARKING**

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

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

Model/Type : Jenny J22HX/J22MX

Serial No.

Ex Rating : Ex db I Mb IA Certificate No : M-XPL/20.0666 X

Responsible Testing Officer: Reviewed by:

K Malibe

D Maree

Technical Signatory

Technical Specialist

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

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