

(Pty) Ltd

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GOVERNMENT APPROVED TEST LABORATORY

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

IA CERTIFICATE

Date Issued: 06 Nov 2019 *Expiry date: 06 Nov 2029

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Ex - Type Examination Certificate

Certificate Number: M-XPL/19.1269 X

Equipment: **Dewatering Submersible Pump**

Model / Type: Jenny J90HX

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/20795/19.1269 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:

The second second	Protection afforded	Equipment Protection Level (EPL) Group	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
Contract Spring	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.

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1. **DESCRIPTION OF EQUIPMENT**

The pump consists of stator housing incorporated with a terminal box, NDE cover and DE cover that were made of Grade 240-270 Cast Iron. The pump housing had the following approximate dimensions 651 mm (Height) x 696.5 mm (Diameter) and had the internal volume 38 595 cm³ and the terminal box had the internal volume of 5 733 cm3. The stator housing was incorporated with gland assembly.

The pump joints were fitted with nitrile O-ring seals to acts as a protection against ingress of foreign objects. The DE bearing cover made provision of shaft made from SS431 Aluminium Die cast rotor.

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	Nitrile 'O-ring'
DE cover to Stator housing	Spigot	Nitrile 'O-ring'
Bearing cover to stator housing	Spigot	Nitrile
Bearing cover to shaft	Spigot	Nitrile
NDE cover to stator housing	Spigot	Nitrile 'O-ring'

Table 2: The table detailing the type of fasteners using on the Dewatering Submersible pump

Location	Qty	Size & Length
Terminal box cover and stator	8	M10 x 30 mm SS304 Bolt
DE cover and Stator housing	12	M12 x 35 mm SS304 Bolt
NDE cover and Stator housing	12	M12 x 50 mm SS304 Stud, M12 Nut
		SS304 and M12 Spring Washer
Bearing cover and Stator	4	M12 x 60 mm Counter Sunk Cap Screw
housing		SS304 with M12 Spring washer

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

- 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.

4. CONDITIONS OF CERTIFICATION

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:

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

Model/Type : Jenny J90HX

Serial No.

Ex Rating : Ex db I Mb IA Certificate No : M-XPL/19.1269 X Germanis Certauris Certaur

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Responsible Testing Officer:

Reviewed by:

K Malibe Technical Specialist D Maree Technical Signatory

EXPLOLABS EXPLOSION PREVENTION SERVICES

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