

2024

Inspection of Automatic Sprinkler System

ASIB



Inspection of Automatic Sprinkler System

East London Industrial Development
Zone - ASP Pump House

Complete

Client/Site Name

East London Industrial Development Zone - ASP Pump House

Billing Address

East London Industrial Development Zone SOC Ltd P O Box 5458
GREENFIELDS
5208

Attention:

Mteteleli Zantsi
Camagwini Ngxokolo-Nomatye

Document No

UNC.9478

Prepared by

Keith van Onselen

Conducted on

08.05.2024 10:11 SAST

Site Location

East London IDZ
EC
5201
South Africa

Disclaimer

We have pleasure in attaching our inspector's report.

Whilst every care is taken in the preparation of the report which describes the conditions as found, such report is not a guarantee carrying responsibility for results and neither this Company nor any of its employees or agents shall be liable for any loss or damage of whatsoever nature and howsoever caused, (whether by actual or alleged negligence or otherwise), in any way arising out of the acts or omissions of the Company and/or its employees or agents aforesaid.

The report is based upon the visual inspection of the external condition of the equipment where accessible without having to provide scaffolding, ladders, staging, lighting and not requiring the removal or displacement of any temporary or permanent structure, fitting or fixture.

If there are any points arising on which you require clarification, kindly communicate with the undersigned. Assuring you of our best attention at all times.

Confidentiality

In order to maintain the integrity and credibility of the inspection processes and to protect the parties involved, it is understood that the inspectors will not divulge to unauthorized persons any information obtained during this inspection unless legally obligated to do so.

Yours faithfully,

THE AUTOMATIC SPRINKLER INSPECTION BUREAU (PTY) LIMITED



Nico van Loggerenberg
Managing Director

1. Report Summary

THE AUTOMATIC SPRINKLER INSPECTION BUREAU (PTY) LIMITED



REGISTRATION NUMBER: 1970/010833/07

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INDEPENDENT
THIRD PARTY
INSPECTION AND
ADVISORY
SERVICE SINCE
1970

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Code

B - Full Protection, Clearance
Certificate Issued

Please Note:

The Clearance Certificate is issued subject to the items in the report being attended to.

Standard

10th Edition

11th Edition

ASIB Contract No

UNC.9478

Client Order No

PO-004203

Was the sprinkler system design in order

Yes

Report forces response to this. Ignore it as this aspect of the report is not applicable. Design details (Hydraulics, Block Plans etc.) are not contemplated herein.

Was the water supplies in order

No

Refer to Water Supplies - Section 5.
Refer non compliance at the end of this section

Was the pump room in order

No

Was the installation control valves in order

Not Inspected

Refer to Pump Room - Section 6.

Was the storage in order

Yes

Report forces response to this. Ignore it as this aspect of the report is not applicable. Design details (Hydraulics, Block Plans etc.) are not contemplated herein.

2. Hand Fire Appliances

Hand Fire Appliances - One unit per 100 m² of floor area.

Hand fire appliances date of the last service:

02/2022

Clear access to the hand fire appliances must be maintained at all times.

3. Occupancy & Storage Guidance

Percentage Hazard.

% Ordinary Hazard	0 From 0 to 100
% High Hazard	100 From 0 to 100

Stack height signs not less than 500 mm by 500 mm in size must be prominently displayed at the maximum level of the allowable storage height in all storage and process risk areas.

5. Water Supplies

► Water Stored on Site.

Yes



Photo 1



Photo 2



Photo 3

Add Water Storage Tanks

Storage Tanks

Storage Tanks 1

Water Storage Tanks (Specify)

Pumped Water Supply - Suction Tanks

5.1 Inspection Hatches Accessible

Yes

5.2 Tank Infill

Recorded



Photo 4

5.3 Tank Information Plate Installed

Yes



Photo 5

Tank Detail

Name of Supplier

SBS Tanks

Name of Installer

SBS Tanks

► 50% or 100% Sub-Divided

50% Sub-Divided

Three tanks installed

► Tank Type	Bladder
Dimensions Circular	
7,36 x 8,43 high	
Vortex Inhibitor	
Yes	
Gross Storage Capacity (m³)	
355 x 2 = 710	
Effective Storage Capacity (m³)	
325 x 2 = 650	
Dedicated or Combined Tank	Dedicated
5.4 Foundation Type	Separate
Flexible Coupling Installed on Suction Line	Yes
5.5 Infill Valves Accessible	Yes
5.6 Suction Isolating Valves Secured in the Open Position	Yes
5.7 Tank Suction Piping Correctly Supported	Yes
5.8 Infill Isolating Valves Secured in the Open Position.	Yes
5.9 Drain valves secured in the Closed Position.	Yes
5.10 Flanges / Equipment Short Bolted	No
5.11 Loose / Missing Bolts, Nuts & Washers	No
Non - Compliance	
Item	
Item 1	
► Description	Other

Where a balance tank is retrofitted in order to make up the minimum amount of stored water, the feed from the tank may not be directly connected into the primary tanks suction line but shall connect directly into the primary suction tanks or subdivisions.

The feed pipe from the balance tank leading into the primary tanks shall be sized one diameter larger than

the suction line feeding the fire pumps.

The valves and flexible couplings shall be arranged so as to allow maintenance to be carried out without isolating the entire water supply.

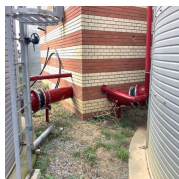


Photo 6

Item 2

► Description

Suction line inclines towards the pump. Suction lines must be laid truly horizontal or must fall towards the pump for pumps under positive head conditions. In order to prevent any air becoming trapped within this pipework, we recommend that an automatic air release valve be installed.

Recommendation

6. Pump Room

Pump Installed on Site

Yes



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11

Add Pump House

Pump House

Pump House 1

Pump House Location

ASP pump house next to Feltex

6.1 Pump House Signage

6.1.1 Pump House External Signage

Yes

6.1.2 Electrical DB Labeled

Yes

6.1.3 Jockey Control Panel Labeled

Yes

6.1.4 Diesel / Electric Pump Control Panel Labeled

Yes

6.1.5 Annunciator Panel Labeled

Yes

6.1.6 Pump House Remote Test Labeled

Yes

6.1.7 Auto Start Test Arrangement Instruction Chart Installed

Yes

6.1.8 Block Plan Installed - Correct Details

No

It is recommended that a block plan be provided with the following indicated thereon:

Particulars of the water supplies.

The occupancy of each building.

The hazard class of the system.

The extent of the protection.

The calculated flow and pressure requirements (remote and favorable areas) of the system.

A cross-section of the full height of the building or buildings indicating the height of the highest sprinkler with respect to a stated datum level.

12th Edition Requirement

The flows and pressures for the remote and favorable areas of operation recorded on the block plans must reflect the maximum pressure (Pmax) and the maximum flow (Qmax) respectively.

6.1.9 Diesel Engine Stop Lever Labeled	Yes
6.1.10 Isolating Valves Correctly Labeled	Yes
6.2 Pump House Equipment	
6.2.1 Electric Light Installed	Yes
6.2.2 Natural Light Installed	Recommendation

Sufficient natural lighting is recommended, where the pump house is located above ground. Access doors are not acceptable for providing natural lighting.

6.2.3 Mechanical Ventilation Installed	Yes
6.2.4 Hour Meters Installed	Yes
None on the electric pump	
6.2.5 Correct Pressure Gauges Installed	Yes
6.2.6 Correct Suction Pressure Gauge Installed.	Yes
6.2.7 Correct Gauge Cocks Installed	Yes
6.2.8 Specify Flow Measuring Device.	Direct Reading Flow Meter
6.2.9 Flanges / Equipment Short Bolted	Yes

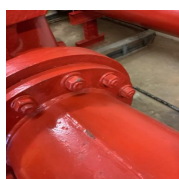


Photo 12



Photo 13

We recommend that the bolts for these flanges be removed and replaced with the correctly sized bolts so as to ensure that at least two full thread pitches past the chamfer protrude beyond the nut.

6.2.10 Loose / Missing Bolts, Nuts & Washers	No
6.2.11 Electrical cables positioned 300mm above the finished floor level.	No

Current carrying parts, regardless of voltage, shall be at least 300 mm above finished floor level.

6.2.12 Correct operating temperature sprinklers installed within the pump house.	Yes
6.3 Auto Start Test Arrangement	
6.3.1 Auto Start Correctly Piped and Supported	Yes
6.3.2 Auto Start Diaphragm Valves Operational	Yes
6.3.3 Pressure Switch 1 - Jockey Pump (90% of Churn Pressure)	
Cut-In Pressure (kPa)	
700	
Cut-Out Pressure (kPa)	
800	
6.3.4 Pressure Switch	
Switch	
Switch 1	
► Primary or Secondary Pump	Primary Pump
► Specify Diesel or Electric	Electric
Pressure Switch - Electric Motor	
Cut-In Pressure (kPa)	
670	
Switch 2	
► Primary or Secondary Pump	Secondary Pump
► Specify Diesel or Electric	Diesel
Pressure Switch - Diesel Primary	
Cut-In Pressure (kPa)	
500	

Pressure Switch - Diesel Backup (Not \leq 50 kPa Below Switch 1 - Not \geq 20 Below Switch 1)

Cut-In Pressure (kPa)

Not installed

The pressure switch settings are incorrect and must be set in accordance with the churn pressure.



6.4 Pumped Water Supply - Jockey Pump

Hour Meter

4514:72

6.4.1 Jockey Pump Correctly Piped

Yes

6.4.2 Jockey Pump Test

Passed

The pump run light is fused

Add Pump

Pump

Pump 1

► Pump Type

Electric

6.8 Pumped Water Supply - Electric Motor Driven Pump

► Primary or Secondary Pump

Primary Pump

6.8.1 ASIB Approval No

Yes

ASIB Approval Number Motor

1817

ASIB Approval Number Pump

1817

Flow Q (m³)

450
7500 l/min

Head (m)

96
960 kPa

Impeller Diameter (mm)

545

6.8.2 Electric Motor Make and Model

CMG SGAA315SMLB-4

6.8.3 ASIB Prime Mover Date Tag No

Yes

6.8.3.1 ASIB Prime Mover Overhaul Date Tag No

0166953

6.8.3.2 Last Service Date

16/02/2024

6.8.3.3 Next Service Date

16/02/2025

Service Overdue

No

6.8.4 Pump Make and Model

KSB Omega 200-520A

6.8.5 ASIB Pump Overhaul Date Tag No

Yes

6.8.5.1 ASIB Pump Overhaul Date Tag No

0166753

6.8.5.2 Last Overhaul Date

16/02/2024

6.8.5.3 Next Overhaul Date

16/02/2025

Service Overdue

No

6.8.6 Suction Pressure (kPa)

70

6.8.7 Base Grouted In




Yes

6.8.8 Base Painted

Yes

6.8.9 Delivery Piping Correctly Supported

Yes

6.8.10 Suction Piping Correctly Supported	Yes
6.8.11 Eccentric Reducer Piped Correctly	Yes
6.8.12 Cooling Line Correctly Aligned and Supported	Yes
6.8.13 Sight Glass Clean	Yes
6.8.14 Flexible Coupling Correctly Installed	Yes
6.8.15 Glands Condition	O.K.
6.9 Electric Motor Driven Pump - Test	
6.9.1 Panel Lamp Test	O.K.
6.9.2 Hour Meter Before Test.	
Not installed	
6.9.3 Emergency Start - Button Depressed	Motor Started
6.9.4 Test - Button Depressed	Motor Started
6.9.5 Churn Pressure (kPa)	
1160 kPa	
	
Photo 14	
6.9.6 Flow Test Recorded	
7500 l/min @ 1120 kPa	
 	
Photo 15 Photo 16	
6.9.7 Pump Flow Test	Passed
6.9.8 Hour Meter After Test	
Not installed	

The Electric motor driven pump must be tested for at least 10 minutes every week in accordance

with the minimum requirements.

6.10 Electric Motor Driven Pump Alarms	
6.10.1 Siren Alarm	Sounded
6.10. 2 Flashing Light	Operated
Pump 2	
► Pump Type	Diesel
6.5 Pumped Water Supply - Diesel Engine Driven Pump	
► Primary or Secondary Pump	Secondary Pump
6.5.1 ASIB Approval No	Yes
ASIB Pump Set Approval Number	
1818	
6.5.2 Diesel Tank Level	Full
6.5.3 Diesel Tank Bunded	Yes
6.5.4 Spare Fuel Kept on Site	No
This tank must be kept full at all times and sufficient fuel for an additional six hours running time, (on full load) must be kept within on site.	
6.5.5 ASIB Prime Mover Date Tag No	Yes
6.5.5.1 ASIB Prime Mover Overhaul Date Tag No	
0166954	
6.5.5.2 Last Service Date	
16/02/2024	
6.5.5.3 Next Service Date	
16/02/2025	
Service Overdue	No
6.5.6 Pump Make and Model	
KSB ETA 150-400	

6.5.7 ASIB Pump Overhaul Date Tag No	Yes
6.5.7.1 ASIB Pump Overhaul Date Tag No	
0166754	
6.5.7.2 Last Overhaul Date	
16/02/2024	
6.5.7.3 Next Overhaul Date	
16/02/2025	
Service Overdue	No
6.5.8 Flow	
450 7500 l/min	
6.5.9 Diesel Engine Make and Model	
John Deere R127721	
6.5.10 Head / Pressure	
96 960 kPa	
6.5.11 Impeller Diameter (mm)	
404	
6.5.12 Suction Pressure (kPa)	
70	
6.5.13 Base Grouted In	Yes
6.5.14 Base Plate Grouting Painted	Yes
6.5.15 Delivery Piping Correctly Supported	Yes
6.5.16 Suction Piping Correctly Supported	Yes
6.5.17 Eccentric Reducer Piped Correctly	Yes
6.5.18 Correct Fuel Lines	Yes
6.5.19 Oil Level	O.K.
6.5.20 Batteries Installed on Stillage	Yes

6.5.21 Batteries Locked	Yes
6.5.22 Water Level (Heat Exchanger)	O.K.
6.5.23 Exhaust Correctly Supported	Yes
6.5.24 Exhaust Alignment	Horizontal
6.5.25 Exhaust Lagged	Yes
6.5.26 Sprinkler Protection \geq 800mm From Exhaust	Yes
6.5.27 Cooling Line Correctly Aligned and Supported	Yes
6.5.28 Sight Glass Clean	Yes
6.5.29 Flexible Coupling Correctly Installed	Yes
6.5.30 Glands Condition	O.K.
6.6 Diesel Engine Driven Pump - Test	
6.6.1 Panel Lamp Test	O.K.
6.6.2 Hour Meter Before Test	
32:1	
6.6.3 Test - Button Depressed	Engine Started
6.6.4 Battery 1 - Button Depressed	Engine Started
6.6.5 Battery 2 - Button Depressed	Engine Started
6.6.6 Battery 1 & 2 - Button Depressed	Engine Started
6.6.7 RPM Recorded	
2300	
6.6.8 Churn Pressure (kPa)	
1200	
6.6.9 Flow Test Recorded	
7500 l/min @ 1040 kPa	



Photo 17



Photo 18



Photo 19

6.6.10 Pump Flow Test

Passed

6.6.11 Hour Meter After Test

332:1

The diesel engine driven pump must be tested for at least 30 minutes every week in accordance with the minimum requirements.

6.7 Diesel Engine Driven Pump - Alarms

6.7.1 Siren Alarm

Sounded

6.7.2 Flashing Light

Operated

6.7.3 Abortive Start Test Successful

Passed

6.7.4 Abortive Start - Number of Cranks

6
From 0 to 9

6.7.5 Abortive Start - Intermittent Siren

Sounded

6.7.6 Abortive Start - Flashing Light

Operated

6.11 Pump House Alarms

6.11.1 Power Failure - Electrical Isolator - Alarm Bell

Sounded

6.11.2 Power Failure - Electrical Isolator - Flashing Light

Operated

6.11.3 Pump House Protection - Terminal Test Valve Opened

Operated

Panel light did not illuminate

Non - Compliance Items.

• Item

• Item 1

► Description

Electric pump only

The suction line inclines slightly towards the pump.



Photo 20

- Item 2

► **Description**

It was noted that the plinth foundation is incorrectly sized



Photo 21



Photo 22

Recommendations

7. Installation Control Valve(s)

7.1 Sprinkler control valves accessible

No

Pumps and tanks inspection only

8. Storage

No storage was taking place at the time of inspection.



Pumps and tanks inspection only

9. Sprinkler System

Sprinkler System

Area

Area 1

Specified Area.

Other

Specify Area

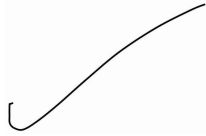
Pumps and tanks inspection only

System Issue

10. Proof of Inspection

Proof of inspection.

For and on behalf of client:



Camagwini Ngxokolo-Nomatye
09.06.2024 17:23 SAST

Proof of inspection.

ASIB Inspector:



Keith van Onselen
09.06.2024 17:23 SAST

WARNING

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The primary function of the ASIB is to protect the interests of the end user and as a result, we constantly update the list of registered suppliers and installing companies.

These companies have proven that they are capable of installing, extending and servicing fire sprinkler systems to the correct standards.

We have had occasion to remove companies for valid reasons which are not confidential and include, but are not limited to, poor workmanship, design, fabrication, incorrect advice, lack of skilled staff, fraudulent quotations and financial instability.

It is important to note that if a company is not listed with the ASIB and carries out work on a sprinkler system we will not be in a position to issue a Clearance Certificate for the premises which, in turn, may place you at risk.

In selecting your service provider, it is important to appreciate that the ASIB is not seeking to infer that a non-listed service provider is necessarily not capable of offering the required service to an appropriate standard. What the ASIB is saying, is that the ASIB is not in a position to give you the assurance that a non-listed provider concerned has demonstrated that it complies with the ASIB standards. In addition, because the ASIB is unable to fully inspect an installation (which by its nature has many inaccessible components), you will appreciate that the ASIB is also unfortunately not in a position to issue a Clearance Certificate in relation to an installation done by a non-listed company.

We advise you to check the listing status of the service provider you choose especially if there is any uncertainty.

You can access our website at <http://www.asib.co.za> which is current or phone our offices at 011 642 1703 for verification.

Email:

Email: 1

Recipient

Mteteleli@elidz.co.za

Email: 2

Recipient

camagwini@elidz.co.za

Media summary



Photo 1



Photo 2



Photo 3



Photo 4

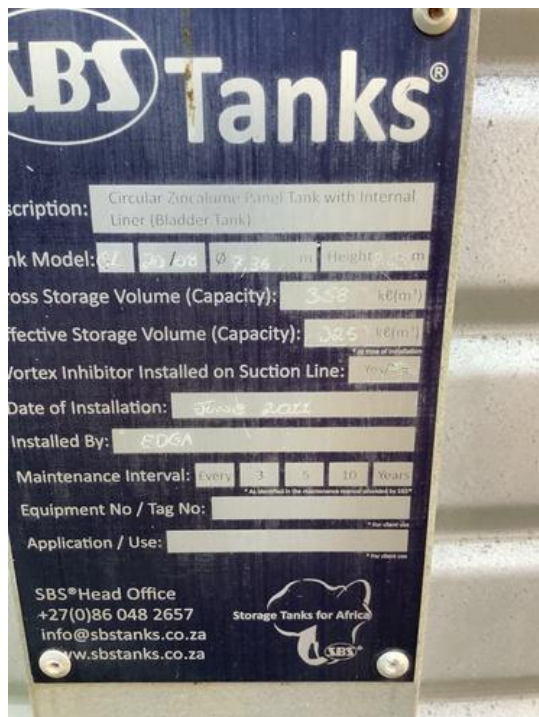


Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18



Photo 19



Photo 20



Photo 21



Photo 22