

## Annual Service, Maintenance and Repairs of the Pumps Fire Protection and, Maintenance and Repairs of the Automatic Sprinkler Valves on as and when required basis for Rosherville sites only for a duration of 4 years.

### **1. Requirements**

The supplier must be registered with A.S.I.B. as an approved installer of the OH and HH sprinkler systems and associated equipment. This assists in protecting the end users interests in that a listed company will comply with latest known and proven standards. All work to comply with (S.A.B.S. 0287; N.F.P.A. 15; A.S.I.B. 11th Edition Rule Book). An inspection of the completed work will be carried out by an A.S.I.B. inspector.

Generally, only equipment and components listed by the L.P.C. and F.M. are acceptable. The supplier must have at least one engineer who holds a numbered Certificate of competency as issued by the A.S.I.B.

Supplier should be available for any call out.

### **2. Scope**

The scope is Annual Service, Maintenance and Repairs of the Pumps Fire Protection and, Maintenance and Repairs of the Automatic Sprinkler Valves The scope entails the following:

### **Pumps Fire Protection (2 x Pump Rooms – TSS and TGS)**

#### **Pre-start system checks**

- Water tanks full
- Delivery Valves open
- Jockey Valves open
- Suction Valves open
- Valves chained/locked position
- Check all pressure gauges
- Delivery gauges fitted below non-return
- A.S.I.B. Labels fitted
- Check all nuts and bolts
- Check all terminations tight, correct
- Check battery cables, solenoids secure
- Battery wood fitted
- Inspect couplings
- Lagging installed on exhaust
- Diesel tanks fuel lever
- Check oil levels on all pumps, diesel engine
- Check all pump units clean/painted
- Bleed air- all pumps, diesel/electric/jockey
- Bleed engine fuel system
- Set jockey pump overload
- Check incoming power on at DB
- Check diesel engine coolant
- Engine stop label fitted
- Check engine sensor fitted correct/gap
- Inspect and clean Y strainer

#### **Jockey Pump**

Service the Jockey pump

Check rotation  
Pressurize the system

### **Jockey Pump Controller**

Check the manual mode  
Check the auto mode  
Ensure the facial indicators are functioning

### **Electric Pump Unit**

Check incoming power supply  
Start from emergency start  
Check Star/delta timer set correct  
Check rotation  
Check deliver line pressure & record  
Check suction line pressure & record  
Check pump gland leakage  
Start motor from test button  
Check pump run indication  
Check fire alarm indication  
Check mains fail indication  
Check lamp test  
Check all controller meters  
On completion install an A.S.I.B. service label

### **Diesel Pump Unit**

Service the Diesel engine (change oil, oil filter, air filter)  
Check diesel controller incoming 220V  
Annunciator batteries connected  
Check lamp test facilities  
Check all controller meters  
Check bells/beacons/siren  
Start engine, emergency start 1&2  
Set engine rpm/record  
Check cooling line gauge & record  
Check site glass Q  
Check exhaust for leaks  
Check deliver line for pressure & record  
Check suction line pressure & record  
Check pump gland leakage  
Check pump run indication  
Check Rhomberg relays operation/se  
Check high engine temperature indication  
Check low pressure indication  
Start engine from test push button  
Check fire alarm indication  
Check fire alarm siren  
Check fire alarm beacon  
Check pumps fail indication  
Check pumps fail siren  
Check extractor fan operating  
Check pump house protection  
Abortive start sequence  
On completion, install A.S.I.B. date tag

### **Once off**

Label the test assembly  
Install a block to indicate spray systems are being protected and their location  
Replace battery voltmeter  
Fix the pump house protection sequence  
Inspect the inflow meter for the incoming Town's Main to be installed correctly  
Mount an instruction chart adjacent to the test assembly.

## **SPRINKLER VALVES**

### **Item No: (1) TGS Balancing Plant – 4 x 80 mm Valves Stand 17**

Service 4 x diameter 80 mm deluge Valves c/w block pieces  
Service 4 x pressure gauges – 0 to 1600 Kpa  
Service 4 x solenoids c/w fittings and cabling  
Service the 2" drain pipe  
Service test valve  
Inspect the clapper  
Replace the old gaskets with new ones  
Grease all minor valves  
Inspect the diaphragm or replace

#### **Alarm Gong**

Service 4 sets of water motor alarm  
Open Y strainer and clean it  
Service 4 x 1" pipes from alarm gong  
Test the deluge system by discharging water  
Ensure high velocity sprayer are freely discharging water

#### **On Completion**

Install 4 x A.S.I.B. date tag  
Ensure no leaks on all Valves  
Ensure alarm sound is satisfactory  
Old seating must be left on site  
All Valves to be left in open position secured with chain and padlocks

### **Item No: (2) TGS Balancing Plant – 1 x 100 mm Valve – Stand 17**

Service 1 x diameter 100 mm deluge Valve c/w block pieces  
Service 1 x pressure gauge  
Service 1 x solenoid c/w fittings and cabling  
Inspect the diaphragm or replace it  
Inspect the clapper  
Grease minor valves  
Replace old gaskets with new ones  
Inspect drain valve  
Inspect all Velocity sprayers

#### **Alarm Gong**

Service 1 x motor alarm gong  
Open Y strainer and clean it  
Service the drainpipe 1"

#### **On Completion**

Install 1 x ASIB date tag  
Ensure no leaks  
Record the system pressure gauge  
All Valves to be left in an open position secured with chain and padlock  
Old gaskets must be left on site

**Item No: (3) T&SS Engineering Building 1 x 150 mm Alarm Valve Stand 18**

Service 1 x 150 mm butterfly Valve  
Service 2 x pressure gauges  
Service 2 x gauge cocks  
Grease minor valves  
Replace old gaskets with new ones  
Service the clapper  
Inspect the diaphragm or replace  
Service 2 x 65 mm boosters  
Inspect 1 x pressure limitation gauge

**Alarm Gong**

Service 1 x motor alarm gong  
Open Y strainer and clean it  
Service 1" pipe to drain water from the gong

**On Completion**

Install 1 x A.S.I.B. date tag  
Ensure no leaks on the valve  
Ensure the sound is satisfactory  
Old gaskets must be left on site  
Record the Town's main supply  
Record the system pressure gauge  
Valve to be left in open position secured with padlock

**Item No: (4) T&SS Receive & Dispatch 1 x 150 mm Alarm Valve**

Service 1 x 150 mm Valve  
Service 2 x gauges  
Service 2 x gauge cocks  
Inspect the clapper  
Replace old gaskets with new ones  
Inspect the diaphragm or replace  
Service 2 x diameter 65 mm boosters  
Service 1x pressure limitation gauge

**Alarm Gong**

Service 1 x motor alarm gong  
Open Y strainer and clean it  
Service 1 x 1" pipe to drain water from the gong

**On Completion**

Install 1 x A.S.I.B. date tag  
Ensure no leaks  
Old gaskets must be left on site  
Record the Town's main supply

**Item No: (5) Oil depot, 2 x 150 mm Valves**

Service 2 x 150 mm deluge Valves  
Service 4 x pressure gauges- 0 to 1600 Kpa  
Grease all minor Valves  
Replace old gaskets with new ones  
Inspect the clapper  
Inspect the diaphragm or replace  
Service 2 x solenoids c/w fittings and cabling

Service 2 x 65 mm boosters  
Service 1 x pressure limitation gauge

### **Alarm Gong**

Service 2 x water motor alarm  
Open 2 x Y strainers and clean them  
Service 2" drain pipe  
Test the deluge by discharging water system engaging AFFF Foam proportion

### **Sprinkler Heads**

Service 100 x 79 degrees Celsius

### **On Completion**

Install 4 x A.S.I.B. date tag  
Ensure no leaks on valves  
Old gaskets must be left on site  
Valves to be left in open secured with chain and padlock  
Ensure alarm sound is satisfactory

### **Item No: (6) T&SS New Test Bay 3 x INBAL Valves**

Service 3 x Inbal  
Inspect the clapper  
Grease minor valves  
Replace old gaskets  
Inspect 2" drainpipe  
Inspect and clean all velocity sprayers  
Service 3 x solenoids c/w cabling  
Service TEC 208 & 212 control panels

### **Alarm Gong**

Service 3 x motor alarm gong  
Open 3 x Y strainers and clean them  
Discharge deluge system to check water flow  
Ensure all Velocity sprayers are freely discharging water

### **On Completion**

Install 3 x A.S.I.B. date tag  
Ensure no leaks on valves  
Ensure alarm sound is satisfactory

### **Item No: (7), Rotek Warehouse – 1 x 150 mm Alarm Valve**

Service 1 x 150 mm Alarm valve  
Inspect the clapper  
Replace old gaskets with new ones  
Inspect the diaphragm or replace  
Inspect 2" drainpipe  
Service 2 x pressure gauges 0 to 1600 Kpa

### **Alarm Gong**

Service 1 x motor alarm gong  
Open 1 x Y strainer and clean it  
Service 1" pipe from alarm gong

### **On Completion**

Install 1 x A.S.I.B. date tag  
Ensure no leaks on the Valve

Alarm sound must satisfactory  
Old gaskets must be left on site  
Record the Town's main supply pressure  
Record the system pressure  
Valve must be left in the open secured with chain and padlock

**Deluge and Alarm Valve Overhaul**

Isolate the main supply valve  
Drain the remaining water from the system  
Strip open the alarm or deluge valve  
Remove the old gaskets  
Install the new gaskets in the alarm or deluge valve  
Only equipment and components listed by L.P.C. and F.M. approved are acceptable  
Ensure that all the old seatings are properly hanged visible next to the alarm or deluge valve  
Slowly open the I.C.V. to recharge the system while monitoring the pressure gauges  
On completion, install the new and valid A.S.I.B. date tag on the newly overhauled alarm valve  
Record the final system pressure gauge readings  
Valve must be left in the open position and secured with light chain and padlock.

Nyakallo Tema

Full Name

Designation

Project Manager



Signature