tptfire maintenance

SERVICE SPECIFICATION DOCUMENT

SERVICE & MAINTENANCE OF

FIRE PUMPS

IN ACCORDANCE WITH BS EN 12845 2015 AND TB 203

Certificated contractor IL 5359

Foreword

This specification has been developed in accordance with BS 12845:2015 and TB 203 A, minimum service levels for sprinkler fire pumps and associated equipment.

Please note that in addition to the requirement of this standard it may also be a legal requirement and a requirement of the fire risk assessment/strategy for the premises.

Failure to comply with legal requirements may result in civil or criminal prosecutions under The Regulatory Reform (Fire Safety) Order 2005.

The buildings insurer will also have a requirement for your automatic sprinkler system and associated pumping equipment to be serviced. Failure to do so may affect the premiums you are charged and level of cover offered.

Client Responsibilities

It is the client responsibility to ensure all connections with alarm systems and/or 3rd party monitoring systems are isolated while on site.

If required, it is also the client's responsibility to inform any 3rd parties that a maintenance visit is due to take place, this may include the insurer of the site or the local Fire Brigade.

Service Frequency

BSEN 12845 2015 Introduced new minimum service levels required in order to maintain pump-sets in compliance with the LPC Rules for Automatic Sprinkler Systems.

Two service visits are required per annum, one being a 'major' service visit. The six monthly visits are to be carried out alongside and does not replace the requirements contained within TB203 for weekly and monthly tests and checks.

Whilst the following specification serves as a general guide, not all the items will be applicable to some makes and models of pump-set. Reference should always be made to the original manufacturers O & M manuals.

Workforce

We will send suitably qualified, competent and capable engineers to the site to carry out the maintenance visit. This may include the use of specialised third party fire pump specialists.

Quality Assurance

As part of our commitment to quality and service, we will periodically carry out audits of service visits to ensure compliance to this specification.

Where compliance to this standard cannot be achieved due to site conditions or missing site information, we will record this on our service sheet and follow this up in writing.

Service Specification

General - Installation

- Confirm and record equipment details including pump-set serial numbers, equipment types and nameplated duty
- Visually check baseplate plinth fixing bolts/packer and re-torque bolts
- Visually check condition of all equipment guards and ensure correctly secured in place
- Visually check condition of installation wiring and confirm no discernible defects are present
- Visually check starter/control panel enclosure and confirm no discernible defects are present
- Check and record incoming mains supply voltage for electric motor starter and diesel control panel
- Check and confirm if pump-house heating is operational

Electric Firepump

- Carry out pump-set alignment check, record results and confirm if within tolerance
- Visually check and report on condition of pump gland/mechanical seal whilst stationary
- Visually check pump gland leakage rate at duty condition and adjust
- Visually check and if required top up pump bearing oil level
- Confirm if pump bearing grease nipples fitted and re-grease
- Check and clean by dismantling the pump differential bypass line valve
- Confirm and record motor manufacturers name plate details
- Confirm if motor bearing grease nipples fitted and re-grease

Diesel Firepump

- Carry out pump-set alignment check, record results and confirm if within tolerance
- Visually check and report on condition of pump gland/mechanical seal whilst stationary
- Visually check pump gland leakage rate at duty condition and adjust
- Visually check and if required top up pump bearing oil level
- Confirm if pump bearing grease nipples fitted and re-grease
- Confirm and record engine manufacturers name plate details
- Check and record hours run for diesel engine driven pump, before & after test
- Check and clean by dismantling diesel engine differential bypass valve cooling line valve
- Check, record and top up if necessary diesel engine battery liquid levels
- Confirm level of diesel fuel in tank and visually check condition of diesel fuel
- Visually check and if required top up the diesel engine oil (6 month)
- Replace diesel engine oil and filter (**Major Service**)
- Visually check and if required top up the diesel engine coolant mixture
- Visually check and report on condition of diesel engine heat exchanger electrodes **(Major Service)**
- Visually check, clean and report on condition of diesel engine air filter
- Visually check and adjust the drive belt tension
- Visually check and report on condition of diesel engine fuel lines and fuel filter
- Replace diesel engine fuel filter (**Major Service**)
- Check and clean diesel engine crank case vent system (**Major Service**)
- Visually check and report on condition of engine mounting isolators
- Where fitted, visually check and if required lubricate diesel engine drive shaft

Jockey Pumpset

- Carry out pump-set alignment check, record results and confirm if within tolerance
- Visually check and report on condition of pump gland/mechanical seal whilst stationary
- Visually check pump gland leakage rate at duty condition and adjust
- Confirm if pump bearing grease nipples fitted and re-grease
- Confirm if motor bearing grease nipples fitted and re-grease
- Check functionality of pump casing air vent
- Visually check and record pumpset start and stop pressure
- Check and confirm correct functionality and operation of starter

Remote Alarm Panel

- Confirm if dedicated RAP installed and its location
- Where possible check and confirm functionality of RAP

Firepump Site Performance Test

Electric –

- Record pump-set start/cut in pressure
- Conduct pump-set performance test including: -
    - Pump test to be conducted under load, minimum running time of 15 min's
    - Record results at CV and at least 5 additional flowrates between CV and name plate flowrate
    - Record pump suction pressure and discharge pressure, indicating the location of the pressure gauges
    - Check and confirm pump shaft speed and motor current at each flowrate
- Check and confirm correct functionality and operation of starter
- Complete a visual assessment of the pump-set during performance test, record any issues requiring further attention

Diesel –

- Record pump-set start/cut in pressure
- Conduct pump-set performance test including: -
    - Pump test to be conducted under load, minimum running time of 30 min's
    - Record results at CV and at least 5 additional flowrates between CV and name plate flowrate
    - Record pump suction pressure and discharge pressure, indicating the location of the pressure gauges
    - Check and confirm pump shaft speed and engine rev counter speed at each flowrate
    - Check and record engine oil pressure, engine water temperature and exhaust gas colour at nameplate flowrate
- Check and confirm correct functionality and operation of control panel
- Complete 6 attempt cranking sequence cycle and confirm correct operation
- Check and confirm if pump-house ventilation is adequate and functions correctly
- Visually check and confirm diesel engine exhaust system is installed correctly and functioning properly
- Complete a visual assessment of the pump-set during performance test, record any issues requiring further attention