

## **Operations Division**

### **Specification**

#### **Title: Specification for the Maintenance and Servicing of the Lift System**

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##### **Purpose**

This specification is to be used as the basis for the maintenance of a service, repair and emergency call out agreement to the Lift system.

The specification should be used as a minimum requirement, and any additional recommended works should be agreed between NIBSC and the service provider.

The specification will cover the entire system, and a current equipment list will be attached to this specification if applicable (Equipment List attached YES/NO, delete as necessary)

The Services required are:

- **Annual site/service visits** - to carry out routine and planned preventative maintenance (PPM), with at least 12 visits per year for each lift (Completed certificates/service sheets of examination to confirm this).
- **Emergency Call Outs** – Attendance on site for emergency repairs/fault diagnosis should be within 4 hours of notification of emergency, on a 24/7 basis
- **Trapped passenger release training** to ensure nominated NIBSC staff are safe and competent to release passengers from failed lifts. The period will be agreed with NIBSC and the cost should be included as part of a service agreement.

##### **Associated Documents**

External contractor general requirements [SN6598](#)

BS 7255:2012 Code of Practice for the safe working on Lifts

Workbench Document [SN 6721](#) Planned Preventive Maintenance and Calibration Administration

Workbench Document [SN 6719](#) Thorough Examination of Lifts Specification

##### **Planned Maintenance and Service**

All Lift systems will require a minimum of 12 visits a year (12 visits per Lift).

NIBSC maintains equipment to ensure it is in an efficient state and order, and also in good repair.

The frequency and type of maintenance carried out is assessed taking into account the following points:

- the manufacturer's recommendations
- the intensity of use
- Legal Requirements
- operating environment (e.g. the effect of temperature, corrosion, weathering)
- user knowledge and experience
- Industry practice
- the risk to health and safety from any foreseeable failure or malfunction
- the risk to institute work

The maintenance regime at NIBSC is not only to keep equipment safe to use, but also to maintain its reliability, and ensure it is running at its most efficient.

NIBSC has developed the service requirements, and service period using knowledge and experience of this type of equipment, and Industry good practice, as well as using the expertise of specialist contractors, to develop the specification that we work to.

The following checks must be carried out as a minimum, and a full scope of works and schedule must be supplied by the service contractor, and agreed by NIBSC.

The six monthly insurance inspection visits, will be organised by the Maintenance Supervisor independently of this service contract, and any recommendations or remedial work resulting from the inspection will be sent to the service provider for comment and/or progression.

There is only one traction lift in NIBSC all the others are hydraulic. There is no lift motor room for the traction lift as the motor, and associated gear is housed at the top of the lift shaft

### **Service Task and Frequency per Annum**

Machine Room (Five times a year)

- Clean Motor room and Machine

Hydraulic Machine (Five times a year)

- Clean Hydraulic Unit
- Check and Record Oil Level in tank
- Check Oil pressure on gauge
- Check for Oil Leaks
- Check Electrical Connections
- Check operation of oil cooler

Controller (Five times a year)

- Clean Controller
- Check Relay and switch connectors for tightness
- Check operation of overloads
- Check Electrical connections
- Check air gap switches
- Check correct fuse rating

Floor Selector (Five times a year)

- Clean, adjust and lubricate as necessary

Car Top (Five times a year)

- Clean Car Top

Car Frame Equipment/Safety Gear (Five times a year)

- Clean Car Frame equipment
- Check Emergency Stop Switch
- Check Load Weighting Switches
- Check Car Guide Shoes and liners
- Check Safety Gear for free operation

- Check Trailing flexes for wear
- Check guarding is secure (2:1 rope sheave, toe guards etc.)

Car Doors and Entrance Equipment (Three times a year)

- Clean Car entrance equipment
- Clean Car door tracks
- Check top track and hanger rollers
- Check kicking rollers for correct operation
- Check air-cords or chains for wear and tension
- Check bottom door guides and shoes
- Check leaves and pickets on manual gates
- Check Operator and Control Switches
- Check flexible cables
- Check Electrical interlocks
- Check Landing door pickup/clutch assembly

Lift Well/limits/Pit Equipment (Three times a year)

- Clean guides and brackets
- Clean limit switches and rollers
- Clean Ram seals
- Check and lubricate guides as necessary
- Check all hoist way limit switches
- Check guide fixing and vanes
- Check all pit emergency stop switches
- Check oil level on dissipation buffers
- Check buffer switch integrity
- Check Shaft screens and guards
- Check Trailing flexes and selector tape anchorages
- Check for worn ram seals
- Check overflow bottle and empty if necessary
- Check Well lighting
- Check hydraulic pipe/hoses
- Check access ladders
- Check Shaft lights
- Compensating rope sheave
- Overspeed governor idler in pit for tension
- Counterweight overrun (suspension rope stretch)
- Governor rope stretch

Lift Pit (Five times a year)

- Clean Lift Pit
- Check sump pump if fitted

Landing Entrance Equipment (Three times a year)

- Clean landing entrance equipment
- Clean landing door tracks
- Check top track and hanger rollers
- Check kicking rollers for correct operation
- Check air-cords or chains for wear and tension
- Check lock contacts for condition and follow up
- Check lock latching and emergency release mechanism
- Check Lock rollers for wear and clearance
- Check door closures/weights
- Check bottom guides
- Check leaves and pickets on manual gates

Signals/Pushes (Three times a year)

- Check operation of landing and car pushes
- Check indicators, hall lanterns and gongs
- Check Fireman's switch
- Check and replace lamps as necessary
- Check speech synthesiser

Car Alarm, Safety Edges, Car and Landing Door Gaps and Floor Levels (All Service Visits)

- Check clearance is less than 6mm between moving door and any stationary equipment
- Check operation of safety edge
- Check operation of alarm in lift car
- Check operation of emergency communication system
- Check accuracy of floor levels
- Check lift car light
- Check emergency lighting
- Check load plate

Rope/Chains and Diverter Top Wheels (Five times a year)

- Examine Rope/Chains for wear, broken wires, and un-equal tension
- Lubricate Ropes/Chains when necessary
- Check Rope/Chain hitches
- Check Top Wheel bearings and lubricate as necessary

Counterweight (Five times a year)

- Clean Counterweight
- Check guide shoes for wear
- 2:1 sheave and lubricate as necessary
- Safety Gear
- Buffer

Overspeed Governor (Five times a year)

- Clean and lubricate as necessary
- Check switches and operation
- Check Overspeed guard in place and secure
- Check Overspeed Governor sheave for wear
- Check Data Plate is fitted and legible

Electrical Machine Area (Five times a year)

- Clean Motor Brush gear
- Clean Brake
- Check Motor Clearances
- Check Electrical Connections
- Check Stop Switch
- Check Motor Bearings
- Check Oil Levels and top up as necessary
- Check Worm and Wheel bearings and gland packing
- Check all sheaves for wear and rope slip
- Check brake for correct adjustment
- Check brake couplings, linings, fixing bolts, and eyes
- Check Brake pins and lubricate as necessary

Lift Motor and Brushes (Three times a year)

- Clean lift motor brush gear
- Check brushes for wear and correct spring tension
- Check motor commutators for undercutting or burning
- Check armature and rotor clearances
- Check electrical connections
- Check bearings and lubricate

**Administration Process**

The procedure used to administer the service and documentation is detailed in a workbench document [SN6721](#)

END.