CONTENTS

TESTING AND EXAMINATION OF EQUIPMENT

These procedures define the activities and controls necessary to ensure that equipment on vessels owned or managed by the Company are maintained in accordance with defined and/or authorised instructions.

1. TESTING OF EMERGENCY AND CRITICAL EQUIPMENT

The testing emergency and critical equipment incl. battery packs such as emergency generator, emergency fire pump, emergency compressor, emergency lighting, fire detection and alarm system etc.is carried out weekly. The schedule for this can be found in Mespas[1].

Verification of the level gauging of the following equipment should be performed daily during rounds as per UMS Checklist. Fuel oil tanks, lube oil and sump tanks, cooling water tanks equipment.

2. EMERGENCY BILGE SUCTION. TESTING AND EXAMINATION OF EMERGENCY BILGE SUCTION

The below is a sample of on board procedures to be posted at the site of such equipment. This should include spaces such as steering gear and Bosun stores. The valves on these systems are to be overhauled at every routine docking, and exercised/operated every 6 (six) months. When operating these valves ensure full travel of valves is proven, and that expected surging of pressures etc. will be experienced, so ideally vessel to be at anchor for these tests and emergency generator is running. The emergency generator ON LOAD test can be done at the same time.

2.1. Engine Room (Sample)

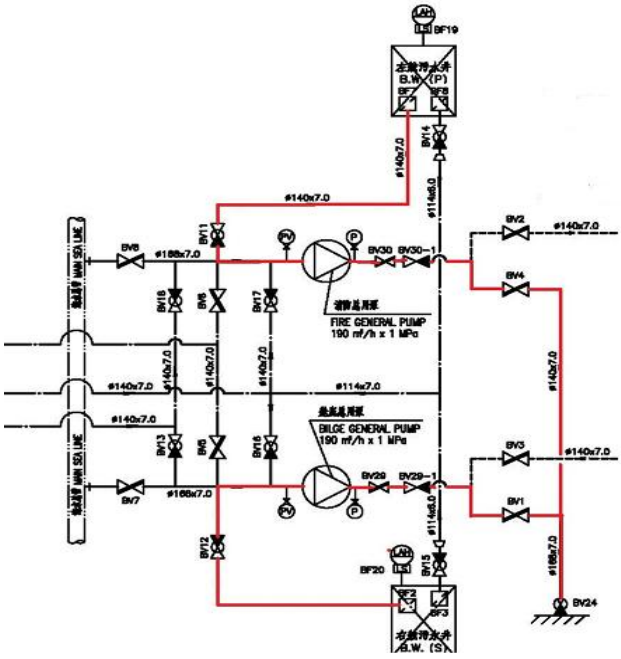
Emergency discharge of bilges from Engine Room can be performed by use of:

- Bilge & General Service Pump, 180 m3/h
- Fire & General Service Pump, 180 m3/h
- Main Sea Water Cooling Pump No.2., 350 m3/h

[1] W 03 / 2024

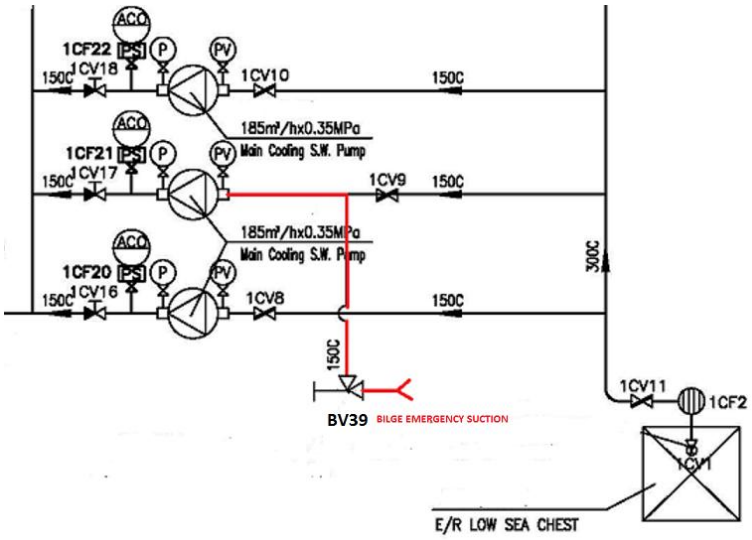
2.1.1. Use Bilge & General Service Pump or Fire & General Service Pump

- Close pumps suction valves BV7 and BV8
- Open overboard valve BV24, discharge BV1 and BV4, suction from fwd. bilge wells BV11 and BV12



2.1.2. Use of Main Sea Water Cooling Pump No.2.

- Close suction valve 1CV9
- Open valve BV39 bilge emergency suction
- Start Main Sea Water Cooling Pump No.2



Note: Use of emergency bilge suction only in "Emergency Situation" and in compliance to Company procedures. Normally the valves must be always in the closed position and secured by seals. Periodically these need to be tested to ensure easy operation and should be lubricated at the same time. This must be recorded in PMS, ORB and MARPOL log book.

3. LIFTING EQUIPMENT: TESTING, EXAMINATION AND STORAGE OF LIFTING GEAR

This applies to all lifting equipment including engine room cranes and equipment such as chain blocks, wire and nylon slings, eye bolts, eye pads and shackles that are not part of the ships standing rigging.

The requirements of CSWP, Chapter 19, Clause 19.4 "Thorough examination and inspection" and Clause 19.5 "Defect reporting and testing: advise to competent persons" for lifting equipment must be observed. The requirements are summarised as follows below.

Lifting Equipment; Lifting Plant	Any lifting appliance or lifting gear
Lifting Appliance	Any crane or derrick (e.g. cargo, stores, engine room), and all chain and hand lever hoists. (Excludes lifts and survival craft launching or recovery appliances).
Lifting Gear	Any gear used for attaching a load to the lifting appliance e.g. shackles or slings etc..

Competent Person	Any person over 18 years of age who has a practicable and theoretical knowledge of the examination and test of ships lifting plant i.e. CNO or 2EO.

3.1. Lifting Appliances
(To be load tested every 5 years by a competent person.)

3.1.1. This should include engine room gantries, bunker davits, and stores cranes.

3.1.2. Lifting appliances included in Class (e.g. cargo cranes) are to be tested in the presence of a Class surveyor. (Note: some Flag States require a load test every 4 years).

3.1.3. They are to be visually examined at least once per annum by a competent person. A Class surveyor is to visually examine items included in Class.

3.1.4. To be visually examined by a competent person after each test.

3.1.5. All loose gear i.e. wires, shackles, swivels, cargo hooks etc. that form an integral part of the lifting appliance must be traceable to a test certificate.

3.2. Lifting Gear
(Shackles, slings etc. used for attaching the load to the lifting appliance).

3.2.1. To be visually examined for general material defects such as cracks, distortion, corrosion and wear and tear that could affect SWL at least once every 12 months by a competent person as per the job description in Mespas[2]. This will be done by the Chief Engineer.

3.2.2. Each item of lifting gear must be traceable to a test certificate.

3.2.3. Shackles and eyebolts must be marked when delivered aboard. Unmarked shackles and eyebolts are not to be accepted aboard. A visual inspection must be made for any distortion. The pin must fit flush and the thread not damaged. Elongation must be looked for to ensure the shackle has not been overstressed. Eye bolts must be similarly checked and the thread checked for stressing and cracking.

3.2.4. Wire slings are to be marked. This may be on the ferrule, or as a steel washer on the eye, traceable to a certificate. They are to be checked for kinks, broken

[2] W 03 / 2024

strands, and flattening in the eyes. Particular attention must be given on either side of the ferrules for damage.

3.2.5. Nylon braided strops must be marked by label. They must be checked for chemical impregnation, chaffing or stitching damage.

3.2.6. Chain blocks are to be traceable to a certificate. They are also to be stencilled with a number for easy identification. Chain elongation, hook opening, housing damage and gear damage must be checked.

3.2.7. Any lifting gear that is not in compliance with the above is to be destroyed, cut up and removed from the ship.

3.3. Storage

3.3.1. Lifting Equipment will be under the Chief Engineer's control. A central storage area will be designated and the lifting gear will be stored in an ordered and structured manor. Lifting gear is not to be left lying around or stored in various locations. An inventory will be posted at the storage area to allow easy checking. This will be in the format of Form 6.6.20 (Inspection of Lifting Gear).

3.3.2. A quarterly [3] stock take will be undertaken (See Form 6.6.20) which includes a visual inspection.

3.3.3. All lifting gear should also be visually checked before and after use. Do not return damaged equipment to the store. Damage should be brought to the attention of the Chief Engineer, who will inspect it and take appropriate action (repair or scrap the item).

3.4. Records

Records of all lifting gear will be the Chief Engineer's responsibility. He may delegate some responsibility to the 2EO and CNO, in writing, but remains accountable.

A record of all tests of lifting equipment must be maintained and test certificates must be easily linked to the individual items of equipment.

Annual Inspections will be recorded in Mespas[4], and quarterly[5] Condition inspections will be recorded on Forms 6.6.20.

[3] W 35 / 2021
[4] W 03 / 2024
[5] W 35 / 2021

3.5. Inspection and Maintenance of Wire Ropes

As part of a continuous process of inspection for signs of general deterioration and damage, the general condition of all wire ropes used should be monitored on a daily basis when in use.

All wires on board are to be subject to a routine inspection by a responsible person as per planned maintenance schedule and these maintenance records must be recorded as per scheduled jobs on Mespas[6]. Internal examination of a wire is a vital component of any inspection regime and must be carried out as part of routine inspections. Wire ropes on board not to be covered with plastic sheathing, as this these covers do not allow for thorough inspections and lubricating of the ropes.

Special attention is to be paid when inspecting wires ropes used in deck cranes, life boats falls, rescue boat falls, accommodation ladder wires, davit launch life boat falls and cleaning cage strops.

Inspection and maintenance regime for all wire ropes on board as follows:

a. Daily inspection when wires are in use, as far as possible all visible parts of the wire to be observed with the object of detecting signs of deterioration and deformation.

b. Monthly wires ropes are to be inspected paying particular attention to the following, termination points including condition of thimble and shackle, parts of wire that passes over sheaves, parts of the wire that may be subject to abrasion, parts of wire exposed to heat, externally and internally for signs of corrosion and fatigue. At monthly interval wires are to be lubricated using appropriate lubricant to protect the wire and also penetrate to the core of the wire rope.

c. Quarterly all ropes to be removed from their storage drums, cleaned, inspected and lubricated.

d. All wire ropes on open decks, are to be replaced at a maximum 30-month interval.

e. Special attention to be paid to gangway wires, due to position of these wires they are exposed to the elements and are frequently in use.

f. Ship’s staff are to ensure that spare wires for gangways, deck cranes, provisions cranes, life boat davits and rescue boat davits are available on board at all times.

g. Prior replacement, wires are to be ordered and jobs planned in sufficient time not to exceed the maximum replacement interval.

h. All renewal dates are to be clearly stencilled in the vicinity of the wire.

[6] W 03 / 2024

4. INSULATION SYSTEMS AND EQUIPMENT

(Testing procedures for machinery installations and integrity of the system)

4.1. Insulated Rubber Gloves[7]

When working on switchboards, the only thing standing between you and a high-voltage jolt are your gloves. The importance of this protective equipment cannot be understated.

The company preferred insulated Glove is REGELTEX Class 0, maximum use voltage of 1,000 volts, AC/proof tested to 5,000 volts AC and 20,000 volts DC.

Periodic Inspection

REGELTEX insulating gloves have no expiry date and can be used as long as they pass periodic inspections. Recommend testing for the gloves in service is every six months and gloves in stock every 12 months; the recommended method of testing for Class 00 and 0 gloves is a visual inspection and air pressure test, which can be done onboard, this should be logged in the Company PMS System.

Recommendations before use:

Full visual inspection of each glove. Use a manual air pressure device for testing the glove by inflating it and thus detecting any defects. If a glove is defective, both the gloves of the pair must be taken out of service and disposed of.

4.1.1. Date Stamps[8]

All electrical gloves must be tested periodically and prior to being placed into service. All glove manufacturers incorporate some form of production code or date coding to indicate the date of initial testing. Rubber insulating gloves must be tested before first issue and every six months thereafter.

These testing requirements can sometimes be a little confusing to interpret. Here's an example: You're considering using your electrical gloves for the first time on March 1, 2017, and notice the date stamp is February 27, 2016. Would you need to get the gloves retested before use? Yes, because you haven't put the gloves into service within the allowable 12-month window. But, if the date stamp read March 2, 2016, you could use them and wouldn't need to retest them until six months after you put them into service on March 1, 2017.

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[7] W 12 / 2019
[8] W 12 / 2019

4.1.2. Glove Classification[9]

Electrical safety gloves are categorized by the level of voltage protection they provide and whether or not they are resistant to ozone. The company requires the use of:

- Class 0 — Maximum use voltage of 1,000 volts AC/proof tested to 5,000 volts AC and 20,000 volts DC

NOTE: **A leather protector should always be worn over a rubber insulating glove to provide protection from cuts, abrasions and punctures. However, there are some exceptions. If the voltage does not exceed 250 volts AC, or 375 volts DC, protector gloves need not be used with Class 00 or Class 0 gloves, under limited-use conditions, when small equipment and parts manipulation necessitate unusually high finger dexterity. It also states that any other class of gloves may be used without protector gloves, under limited-use conditions, when small equipment and parts manipulation necessitate unusually high finger dexterity but only if the employer can demonstrate that the possibility of physical damage to the gloves is small and if the class of gloves is one class higher than that required for the voltage involved.**

4.1.3. Glove Inspection[10]

Protective equipment be maintained in a safe, reliable condition. Gloves should be inspected for tears, holes, ozone cuts and other defects before each use. Also, gloves should be inspected for any swelling, which is generally caused by chemical contamination (specifically petroleum products). Even the slightest swelling can be an issue. If the electrical gloves show any signs of the defects discussed above upon inspection, they should be taken out of service (even if it hasn't met the six month “in-service” rule or the 12-month shelf life rule.

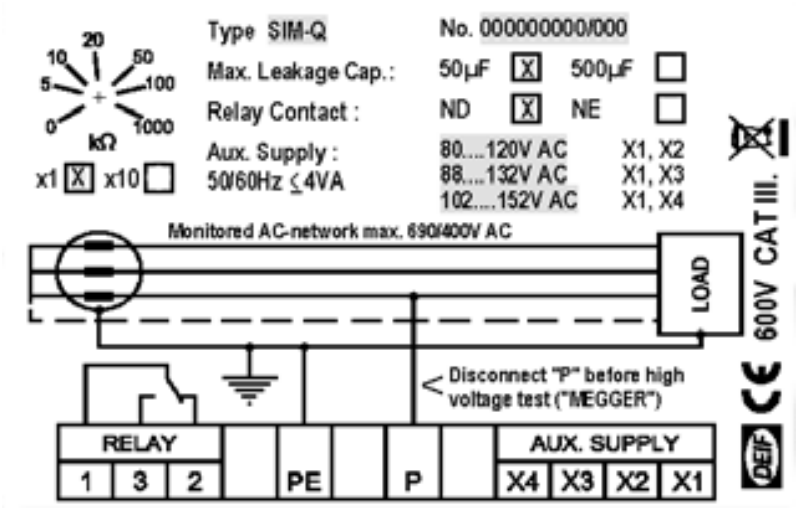
4.1.4. Glove Air Test[11]

An air test should be performed along with inspections for insulating gloves. Basically, the glove is filled with air (either manually or with a power inflator) and then checked for leakage.

[9] W 12 / 2019
[10] W 12 / 2019
[11] W 12 / 2019

4.2. Procedure for Carrying Out Routine Insulation Testing on Installations and Electric Motors Often Abbreviated to "MEGGER Test"

4.2.1. The below is to be carried out whilst carrying out any insulation testing with the use of a MEGGER tester. *If the installation is to be tested by means of a high-voltage meter "MEGGER Tester", the measuring leads to the SIM-Q/AAL-111Q96 at terminal "P" must be disconnected before testing is carried out. Omitting this may result in damage to SIM-Q/ AAL-111Q96. See Diagram below.



4.3. Procedure

a. Create a "permit to work" with SMT member's signatures, due to the fact that a safety device will be disconnected.

b. Disconnect measuring leads at terminal "P" on the earth monitoring relays. See Above drawing.

c. Carry out insulation testing with the use of a MEGGER tester, and make note of the results.

d. Reconnect measuring leads at terminal "P" on the earth monitoring relays.

e. Close out "permit to work".

4.4. Testing Procedure for Checking the Integrity of the 220V System Using the Earth Leakage Tester

(Instructions can be found inside the pouch)

a. Attach the European plug adapter that can be found inside the test kit

b. Plug the tester into any 220v socket on the vessel

c. Turn the dial and increase the mA

d. Check earth monitoring system for fault indication.

If no fault indicates on the earth monitoring system, investigate cause. Possible that monitoring relay has been tampered with.

4.5. Testing Procedure for Checking the Integrity of the 440V System Using the Earth Leakage Tester.

Note: You can test on any 440v supply to panel or motor. Preferably choose the safest option, i.e. not directly to main bus bar. You cannot test between two phases either as this will blow the tester. (Instructions can be found inside the pouch)

a. Plug the tester unit into the adapter socket with croc clips,

b. Clip the brown lead to a phase, and the green lead to earth

c. Turn the dial and increase mA

d. Check earth monitoring system on 440v for fault indication.

If no fault indicates on the earth monitoring system, investigate cause. Possible that monitoring relay has been tampered with.

Earth Meter Integrity Tester for Installation

5. ALARMS AND SHUTDOWNS, TESTING AND EXAMINATION OF ALARMS AND SHUTDOWNS

Testing procedures must make use of the on-board supplied “EO” Class equivalent notification process. The document describes the testing of the Temperature and Pressure sensors. The Company standard for the equipment supplied to carry out this procedure is listed below:

5.1. Auto Start of Standby Machinery

The auto start function of standby machinery is to be tested monthly taking into account the vessels operational requirements.

For generators the preferred method is to generate a high load around 90%, vessel dependent, the Power Management System should generate an auto start signal to the standby generator. The Generator should auto synchronise and go onto the board. Do this for each generator.

For pumps this should be done around the middle of the month. The preferred method for testing the pumps is to generate a low pressure on the running pump. The standby pump should auto start. The procedure for doing this is described below.

5.2. Pressure

5.2.1. Pressure Indication Alarm Low

a. Function Test Alarm: Close test valve to transmitter or adjust alarm limit higher than Indicated pressure. Check that alarm Engine Room/Bridge Group is activated.

b. Calibration check of transmitter:

Close the test valve and connect pressure test set (pressure calibrator FLUKE 718 300G or hydraulic pressure test pump SIKA P700/LR LPP30 or similar equipment). Use only the Fluke calibrator on transducers where only small pressures are required. Select the units of pressure you wish to use according to the type of pressure switch, transducer. I.e. KPa, Bars etc. Zero the calibrator. (With the hand pump, this is not possible) Select vacuum or applied pressure depending on whether you are checking for applied pressure or negative pressure. Check to see what the setting of the pressure switch or transducer should be set at. Pump up pressure above limit. Reduce pressure slowly and observe that alarm sounds at correct alarm limit. Check or correct reading on remote instrument at high, medium and low end of pressure range.

5.2.2. Pressure Alarm Low/high

a. Disconnect any interlocking functions.

b. Close the test valve and connect pressure test set. Simulate decreasing or increasing pressure by test set (pressure calibrator FLUKE 718 300G or hydraulic pressure test pump SIKA P700). Observe that alarm/bridge group sounds an alarm limit. Adjust if necessary.

5.2.3. Pressure Control Auto start/auto stop, Low/high.

a. This device starts a Stand-by Pump or Shut down the Engine and gives alarm. The testing and calibration has to be done carefully to avoid unexpected operations close test valve and connect pressure test set.

b. Simulate low or high pressure by slowly decreasing or increasing pressure.

c. Observe alarm activates/bridge Group Engine Slow Down/shut Down/electric motor Stop & St-by Pump start/stop at Pressure Switch Set Point.

d. Adjust If Necessary.

5.2.4. High Oil Mist Concentration Alarm or Alarm / Auto Stop.

Procedure 1:

a. Pull out the main supply plug, green READY LED will go off.

b. After about 15 seconds the GREEN READY LED and LED No.1 turn off simultaneously.

c. LED No. 14 is blinking (meaning: negative pressure in the measuring compartment is low)

d. Check that the alarm is activated on the AMS in Engine Room/Bridge Group.

e. Re-install main supply plug, LED No.1 is blinking for 15 seconds.

f. The green READY LED subsequently switches on.

g. Device is ready for operation.

Procedure 2: Test with Test Vapour

a. Open crankcase-cover of a compartment in order to access a suction pipe or sampling funnel.

b. Fill the bag with vapour.

c. Affix the plastic bag to suction pipe or sampling funnel.

d. Allow the oil mist detector to draw in the distillate vapour for a minimum of 20 seconds.

e. Check that the alarm is activated on the AMS in the Engine Room/Bridge Group.

5.2.5. Auto Stop Main Eng. /Aux Eng. at Low Lube Oil Pressure.

Test Instrument Used: Pressure Calibrator P 700.1L (SIKA); Fluke 718 Ex 300G

Procedure:

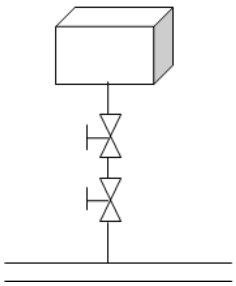
a. Close the Test Valve and Connect Calibration Test Pump to Test flange.

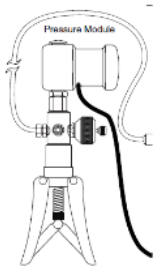
b. Increase pressure above Normal Pressure and reduce the pressure slowly.

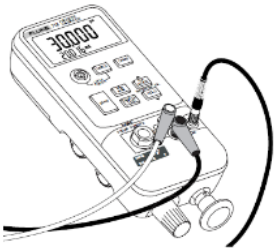
c. Observe that:

- Alarm activates
- Alarm is sounding on AMS in Engine Room/Bridge Group
- Engine stops automatically at Pressure Switch Set Point
- Lamp Auto Stop at Low L.O. Press. Lights
- Adjust the pressure at the Pressure Switch, if necessary
- Reset the System

5.2.6. Pressure Calibration Equipment







5.3. Temperature

5.3.1. Temperature Indicator / Alarm High.

a. Check for alarm sounding/bridge group by adjusting set-point below working temperature.

b. Check that instruments shows correct temperature.

c. Full calibration is done by using temperature calibration set (dry well calibrator FLUKE 9140 or similar / water pot or oil bath) or resistor for Pt 100 sensor.

d. Slowly increase the temperature to activate the set point alarm.

e. Check instrument reading at full, medium and low-end temperature scale.

f. Slowly increase the temperature to activate the set point alarm.

5.3.2. Temperature Alarm High / Low.

a. Simulate high or low temperature by using temperature test set.

b. Remove the temperature sensor from its sleeve and allow it cool down below its Low Temperature Set Point.

c. Check that Alarm is activated at the correct Temperature Set Point for the Low Temperature.

d. Place the temperature sensor in the Temperature Calibrator and slowly increase the temperature and check at which temperature the High Temperature Alarm Set Point is activated.

e. Observe that the alarm is activated on the AMS in the Engine Room/Bridge Alarm Group.

f. Adjust the set point of the temperature sensor, if necessary.

5.3.3. Temperature Control High / Low

a. Test with temperature test set and observe correct operation/set-point by

b. Increasing/decreasing Temperature.

c. Check diff. range if used. Overheat Protection/safety switch, observe system Shut Down,

d. Remember to reset after cooling down period.

5.3.4. Temperature Control Alarm and Temperature Control High / Low.

Check that the Alarm Activates and/or that the Unit starts/stops at correct Temperature Set Point. (This concerns on/off Alarms). Test instrument used: Temperature Calibrator Model~650H or similar

Procedure:

a. Remove the Temperature Sensor and place it into the Temperature Calibrator.

b. Use the Temperature Calibrator to check that the alarm/function is activated at correct Temperature.

Observe:

a. Alarm Activates.

b. Unit start/stop at Specified Temperature Set Point.

c. Alarm is activated on the AMS in Engine Room/Bridge Alarm Group.

d. Lamp Auto Stop is activated.

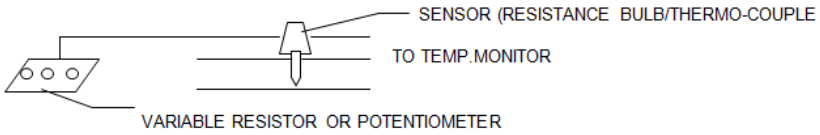
e. Adjust the temperature sensor, if necessary.

f. Put Sensor Back.

g. Reset System.

5.3.5. Test method with variable resistor or potentiometer.

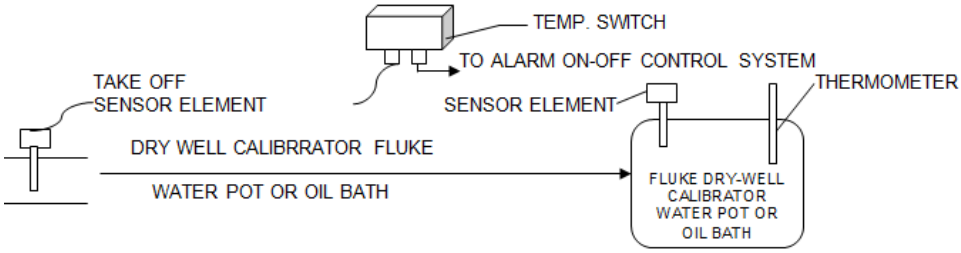
The analogue temperature monitoring system test such as indication and high/low alarm setting to be carried out by means of a below test method.



- The electric cabling, connection works and temperature monitoring
- In the case of resistance bulb, variable resistor to be used.
- Facilities in the circuit shall be confirmed by adjusting the variable resistor or the potentiometer in accordance with the resistance (or thermo electric voltage) or temperature comparison table.
- But, in case of thermo-couple type sensor, the potentiometer shall be used.

5.3.6. Test method with dry well calibrator FLUKE 9140, water pot or oil bath.

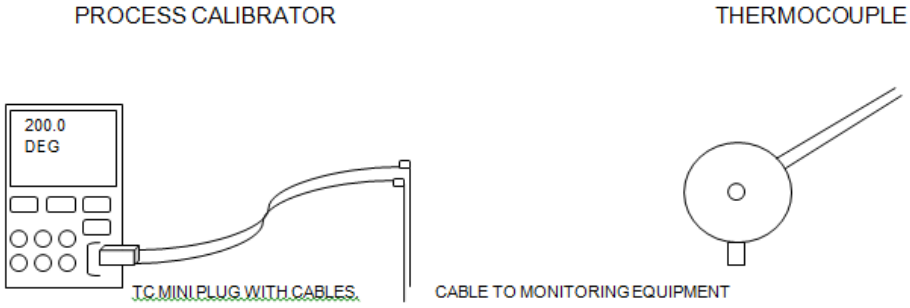
The test of temperature switches with its associated alarm or on-off control system to be carried out of the bellow test method.



The electric cabling, connection works and the temperature alarm or control facilities in the circuit shell be confirmed by using a dry well calibrator FLUKE 9140 / water pot or oil bath.

5.3.7. Thermocouples

Thermocouple temperatures can be simulated by using the Fluke 741B documenting process calibrator. Refer to the manual for detail instructions.



5.3.8. Test Method with Process Calibrator

You can leave the thermocouple inside the apparatus or equipment to which it is attached. Connect the leads as shown in the manual page 55 Figure 20, or directly to the cable going to the monitoring equipment. Follow the instructions on page 53 for simulating the thermocouple. This is done by entering the desired temperature into the Documenting Process Calibrator. (Refer to manual) Some alarms will sound both locally and in the ECR EAD or give a common alarm on the EAD in the ECR, or just sound on the EAD in the ECR. (Refer to the relative manual for the test equipment if you are not sure how to operate the test equipment)

5.4. Level

5.4.1. Level Alarm Low

a. Drain off tank below limit, or operate switch manually. Check alarm. Check delay and Bridge Alarm Group.

b. The switch should be inspected once a year.

5.4.2. Level Alarm High

a. Fill up tank until high level switch is activated, or operate switch manually. Check alarm.

b. Check delay and Bridge Alarm Group. The switch should be inspected once a year.

5.4.3. Level CONTROLLER Auto pump start/auto pump stop

a. Drain tank until pump starts at low level.

b. Fill up tank until pump stops (or operate manually).

c. Check indication lights.

d. Check alarm. Check delay and Bridge Alarm Group.

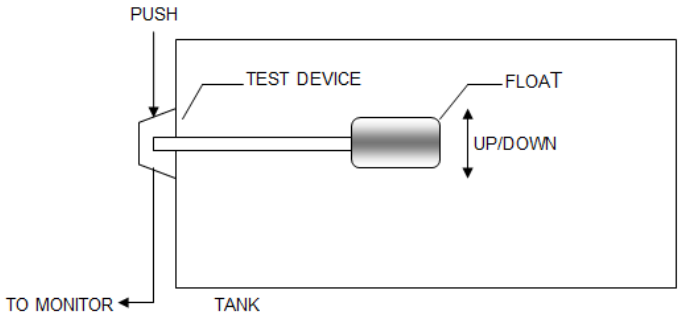
e. The switch should be inspected once a year.

5.4.4. Pressure transmitter/ level indicator

The system sensors to be checked/calibrated by use vacuum pumps. Adjust/replace sensor amplify in necessary. Calibrate sensors every year.

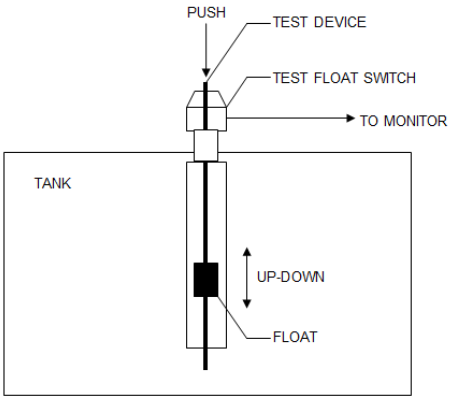
Test Method (1)

The test of the float type level switch its associated alarm of on off control system and facilities in the circuit to be carried out by means of the below test method.



Test Method (2)

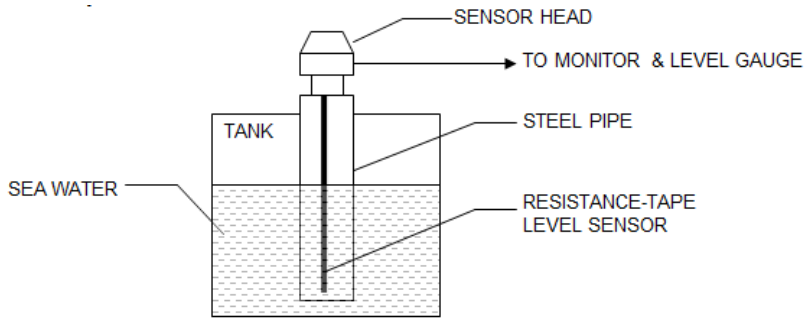
The test of top mounting type level switch with its associated alarm or on-off control system and facilities in the circuit to be carried out by means of the below test method.



- Push the test device of level switch
- If necessary the test of sensor shall be carried out by means of actual test such as immersion test in water before it is installed on the tank.

Test method (3)

The test of resistance-tape type level sensor with associated indication in the circuit to be carried out by means of the below test method.



- The test of sensor shall be carried out by actual test such filing water in to tank.

Test method (4)

In case of level indicating system to confirm the operating value of the pressure sensor for level measurements and alarms by operating the pressure regulating valve of pneumatic supply line or given actual pressure by means of hand pump as shown on the method (1) Pressure on previous page. Actual test to be carried out for items marked as (X...) as far as available. However, if the case of actual test is not available practically, remove wire from terminals of detector or circuit and confirm that alarm will be activated.

- Push the push button and confirm that alarm will be activated.
- Remove fuse in starter and confirm that alarm will be activated.
- Put salinity cell in salt water and confirm that alarm will be activated.
- Actuate over current in starter and confirm that alarm will be activated.
- By means of simulation methods increase the engine revolution value up to the setting value.

5.5. Over Speed Main Eng. / Aux. Eng.

By means of simulation methods (refer to machinery manual) increase the engine revolution value up to the setting value.

Some alarms are activated from sub centrals like:

a. Electric Main Switchboard.
b. Voltage and Frequency Controller.
c. Starter box for Auxiliary Engines.
d. Control box For Boiler.
e. Oil Mist Detector.
f. Hydraulic Power Packs.

Note: Because of the various manufacturers and systems, please see the separate instructions for the actual unit.

5.6. Cylinder Oil Flow Test

a. Build up cylinder oil flow/pressure by manually operating lubricator.
b. Release flow and watch alarm.

5.7. Flame Failure

a. When burner is firing, remove photocell and observe that the burner trips and alarm is released. Reset burner and alarm.

b. Increase set point of the burner and observe that burner trips out at +-90°C and that alarm is actuated.

c. Reset temp safety switch after cool down period.

d. Reset burner unit and alarm, decrease set point to normal units

5.8. Alarm Monitoring Systems / Communication Error.

a. Break/interrupt communication line(s) between units by:

b. Special "end of line" resistor plug or

c. Disconnect line or

d. Remove fuse and confirm warning/alarm will be activated.

5.9. Pressure Calibrator

Fluke 718 100G / 700P30 or CALOG Pressure II

5.10. Temperature Calibrator

Fluke 9140 or Thermal Fusion TF – 2T/C 230 – 450 – C

5.11. Hand held Pressure

LEINTENBERGER LPP 30 or SIKA HTP 1 – 700Bar

5.12. Electrical Calibration

Fluke Multi-tester DT 9917

5.13. Insulation Megger Tester

Major Tech