| **FAMILIARISATION QUESTIONNAIRE FOR JOINING ENGINEER OFFICERS**  **(including Chief Engineers)** | | | | |
| --- | --- | --- | --- | --- |
| **QUESTIONNAIRE No. 1** | | YES | NO | N/A |
| **1.0. PROPULSION ENGINE PARTICULARS** | | | | |
| 1.1. Manufacturer: WARTSILA  Type: VASA 6R46  2 engines 5850 KW 500 RPM  (Total 15690 HP) | |  |  |  |
| 1.2. THE MAIN ENGINE MAY BE STARTED:  - Locally  - From the Main Control Station  - From the Bridge | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 1.3. THE MAIN ENGINE CANNOT BE STARTED IF:  - The turning gear is engaged  - No Main Engine lube oil pump is started | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 1.4. THE MAIN ENGINE CLUTCHES CANNOT BE ENGAGED IF:  - No main gearbox oil pump is started | | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ |
| 1.5. THE SYSTEM CAUSING THE AUTOMATIC SHUT DOWN OF THE ENGINE IS POWERED:  - By electric power  - By hydraulic power | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| **2.0. BILGE SYSTEM** | | Cap. | Head | |
| 2.1. SPECIFY: MAX CAPACITY (TPH) AND HEAD OF BILGE PUMPS (FT):  - Pump No. 1 Piston Pump  - Pump No. 2 Bilge & Ballast Pump  - Pump No. 3 (Emergency) Bilge Pump | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_ | |
| 2.2. THE VALVES FITTED ON SUCTION PIPING FROM DIFFERENT COMPARTMENTS ARE OF TYPE:  - Hydraulic / electric  - Manually with special tool | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 2.3. ENGINE ROOM WATERS MAY BE TRANSFERRED TO:  - Dedicated Engine Room Tank(s)  - Reception ashore facilities or to barge, using a dedicated pump and piping system  - Directly overboard in case of emergency  - Overboard through a 15 ppm bilge water separator system fitted with an alarm, on allowed areas | | \_\_\_\_\_  \_\_\_\_\_  ­­\_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| **3.0. BALLAST SYSTEM** | | | | |
| 3.1. BALLAST PUMPS BILGE VALVES ARE LOCATED:  Where ? .......................................................................................................................... | | | | |
| 3.2. WHICH PUMPS ARE USED FOR TRANSFERRING BALLAST  SPECIFY MAX CAPACITY AND HEAD  - No. 1  - No. 2 | | Cap  \_\_\_\_\_\_\_\_\_\_ | Head  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
| 3.3. THE FORE PEAK IS USED FOR BALLAST | | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ |
| 3.4. THE AFTER PEAK IS USED FOR BALLAST | | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ |
| 3.5. WHICH DOUBLE BOTTOM TANKS ARE USED FOR BALLAST:  ......................................................................................................................................  .....................................................................................................................................  ..................................................................................................................................... | | | | |
| **4.0. SEA INLETS** | | | | |
| 4.1. MAIN SEA WATER INLETS ARE LOCATED:  - Main Engine room port fwd  - Evaporator room | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 4.2. SEA WATER INLETS FOR GENERATOR COOLING ARE LOCATED:  - Main Engine room port fwd  - Auxiliary room | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| **5.0. FUEL OIL SYSTEM** | | | | |
| 5.1. WHICH TANK FO BUNKER TANKS OVERFLOW TO:  No..................................................................................................................................  ................................................................................................................................…... | | | | |
| **6.0. WATER FIRE-EXTINGUISHING SYSTEM** | | Cap. | Head | |
| 6.1. SPECIFY CAPACITY AND HEAD OF FIRE PUMPS:  - Emergency Fire Pump No. 1  - Pump No. 2  - Emergency Fire Pump No. 3 | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_ | |
| 6.2. LOCATIONS OF THE VALVES ON FIRE PIPING DIVIDING THE PART OF THE FIREFIGHTING SYSTEM, WHICH PROTECTS THE ENGINE ROOM FROM THE PART WHICH PROTECTS THE OTHER VESSEL'S AREAS (so called fire isolating valves): | |  | | |
| 6.3. EMERGENCY FIRE PUMP  - Is located in the Propeller and Shaft Room  - Is supplied from the Emergency Switchboard  - The sea inlet valve is located in Main Engine Room  - The sea inlet valve is located in the Propeller and Shaft Room | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 6.4. FIXED WATER-BASED LOCAL APPLICATION SYSTEMS IN MACHINERY SPACES  - Specific use  - Simultaneous operations  - Operating modes (auto/manual)  - Activating detectors  - Limitations | | \_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_  \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_  \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_  \_\_\_\_\_\_ |
| **7.0. CO2 FIXED (LOCAL) FIRE EXTINGUISHING SYSTEMS** | | | | |
| 7.1. CO2 system protects the following spaces:  - Main Engine & Auxiliary Engine Room  - Paint Store  - ECR  - Incinerator Room  - Galley Exhaust Fan Trunking | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 7.2 Controls of Local CO2 are located:  - Main Galley  - Deck 7 fwd  - CO2 room deck 7 | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 7.3 Does the pre-alarm of existing local CO2 sound to the ER : | | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ |
| **8.0. MIST EXTINGUISHING SYSTEM** | | Cap. | Head | |
| 8.1 The Mist system protects the following compartments and machineries:  - Main and Auxiliary Rooms  - Boilers and Incinerator  - Purifiers and Main Engines | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 8.2 The system can be activated:  - Locally by the Mist system room  - Locally by compartments and machineries  - Automatically | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 8.3 The system extinguishing fluid is:  - Sea water and foam  - Fresh water  - Foam | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| **9.0. SPRINKLER FIRE EXTINGUISHING SYSTEM** | | Cap. | Head | |
| 9.1. The Sprinkler system protects the following compartments and machineries :  - Accommodation deck 2, 3, 4, 5, 6, 7, 8, 9  - Engine Rooms and Accommodation  - Bridge | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 9.2. The Sprinkler system operates with:  - Fresh water only  - Sea water only  - Filled with fresh water in case of big flow sea water is supplied | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 9.3. The Sprinkler system main alarm and indicator panel is situated on:  - Bridge  - Engine Control Room  - Sprinkler Station Fwd | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| **10.0. ELECTRIC POWER STATION** | | | | |
| 10.1. THE POWER OF EACH GENERATOR IS:  No. 1 DG .......... kW  No. 2 DG .......... KW  No. 1 Shaft Generator .......... KW  No. 2 Shaft Generator .......... KW  Emergency generator .......... KW | | | | |
| 10.2. IS THE AUTOMATIC PARALLEL BETWEEN DIESEL GENERATORS POSSIBLE? | | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ |
| 10.3. IN THE EVENT OF BLACK OUT THERE IS THE AUTOMATIC STARTING OF:  - A main stand-by generator  - An emergency generator | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 10.4. IN THE EVENT OF BLACK OUT THE MAIN SWITCHBOARD/ EMERGENCY SWITCHBOARD CONNECTION OPENS: | | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ |
| 10.5. THE GENERATORS AUTOMATICALLY STOP IN THE EVENT OF:  - Very low lube oil pressure  - Very high cooling water temperature  - Over speed | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 10.6. THE GENERATORS MAY BE STARTED:  - Locally  - From the Engine Control Room  - From the main switchboard | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| **11.0 WATERTIGHT DOOR SYSTEM** | | | | |
| Following watertight doors are located in the Engine Room:  - No. 7, 8, 9, 10, 11, 12, 13  - No. 1, 2, 3, 4, 5, 6, 14 | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 11.1. THE WATERTIGHT DOORS MAY BE OPERATED:  - From the navigating bridge  - From local control  - From damage control room | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 11.2. POWER OPERATED WATERTIGHT DOORS ARE ACTUATED BY:  - Electric power  - Hydraulic power | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 11.3. ARE THERE ANY VISUAL AND AUDIBLE ALARM IN WAY OF WATERTIGHT DOORS WHEN BEING OPERATED?  - By Bridge  - By local control  - By damage control room | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| **12.0. ELECTRIC POWER SUPPLY FAILURE TO THE ENGINE ROOM TELEGRAPH ACTIVATES:**  - An alarm ................................................................................... | | ­­­\_\_\_\_\_ | ­­­\_\_\_\_\_ | ­­­\_\_\_\_\_ |
| **13.0. LOCATION OF THE FOLLOWING CONTROLS TO BE OPERATED IN THE EVENT OF AN ENGINE ROOM FIRE:**  - To stop ventilation & exhaust fans: engine control room, damage control room: Deck 3   * To shut fire dampers on ventilation ducts: Deck 6   - To stop fuel oil pumps: engine control room, damage control room  - To shut off fuel oil quick closing valves, damage control room: Deck 3 | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| **14.0. POLLUTION PREVENTION APPLIANCES MANUFACTURER AND TYPE OF BILGE WATER SEPARATOR:**  **-** OWS Type SKIT 2,5 – Maker RWO Maschinenfabrik GmbH | | **\_\_\_\_\_** | **\_\_\_\_\_** | **\_\_\_\_\_** |
| 14.1. CHARACTERISTICS OF BILGE WATER SEPARATOR:  - 15 PPM (FOR OVERBOARD DISCHARGE)  - 100 PPM ( IF IN A CASCADE SYSTEM)  WHEN THE OIL CONTENT WITHOUT DILUTION BEING DISCHARGED AT SEA EXCEEDS 15/1 000 000:  - An alarm is given  - The sea discharge valve is automatically closed | | \_\_\_\_\_  \_\_\_\_\_    \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_    \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_    \_\_\_\_\_  \_\_\_\_\_ |
| 14.2. WHERE IS THE SEPARATED OIL COLLECTED AFTER PROCESS THROUGH THE OILY WATER SEPARATOR:  - TANK ................................................. | |  |  |  |
| 14.3. THE PUMP OF THE BILGE WATER SEPARATOR TAKING SUCTION FROM:  - Bilge water tank BLG 6P  - Directly from Engine Room bilge wells | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 14.4. MAINTENANCE OF OILY BILGE WATER SEPARATOR FILTERS IS TO BE CARRIED OUT  - Every three month  - Every three months but if in doubt about cleanness then more frequently as deemed necessary | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 14.5. WATER FLUSHING TO OCM HAS MEANS OF CONTROLLED USE TO PREVENT OPENING DURING OVERBOARD DISCHARGE OF OWS | |  |  |  |
| **15.0. ENGINE ROOM AUTOMATION SYSTEM** | | | | |
| 15.1. THE ENGINE ROOM BILGE LEVEL IS MONITORED BY:  - Oiler on duty during his watch  - By duty staff via alarms on Kongsberg system | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 15.2. ELECTRIC POWER STATION - IN THE EVENT OF A BLACK OUT :  - The emergency generator starts automatically and is linked to the emergency switchboard  - If the emergency generator fails to start automatically, it can be started using compressed air and air driven starter | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 15.3 The emergency generator will supply power to the following systems:  - Emergency lights  - Emergency fire pump  - Navigation equipment  - Fire doors  - Fire alarms  - Telephones  - Steering gear pump | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| **16.0. HYDRAULIC STEERING GEAR** | | | | |
| 16.1. STEERING GEAR CONTROL  - From the navigation bridge  - From steering gear room  REMARK IF ANY: | | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_ |
| 15.2. 16.2. PROCEDURES TO BE FOLLOWED FOR STEERING LOCALLY FROM STEERING GEAR RM: | | | | |
| 16.3. STEERING GEAR:  - The two hydraulic pump units can be operated independently  - Each hydraulic unit can be isolated manually  - Loss of hydraulic oil will activate an alarm in the engine control room and bridge  - Where is the hydraulic oil header tank?  .................................................................................. | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 16.4. STEERING GEAR POWER SUPPLY:  - The steering gear is powered directly fm the main switchboard  - The steering gear is powered directly fm the emergency switchboard  - The steering gear is powered from the switchboard through a substation | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| 16.5. STEERING MACHINERY LUBRICATION:  a) THE LUBRICATING SYSTEM APPLIES TO:  - The main power units and leverages  - The carrier bearing  - The rudder stock  b) THE LUBRICATING SYSTEM IS:  - Manual  - Automatic  - Oil type  - Grease type | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| **16.0. 17.0. ENGINE ROOM EMERGENCY DIRECT BILGE SUCTIONS.** State all the pumps and dedicated suctions:  - Which pumps are fitted with this possibility?:    - Where is located the relevant opening/closing valve?: | | | | |
| **18.0. DAMAGE CONTROL ARRANGEMENTS AND EQUIPMENT:**  - Assigned valves in piping  - Hatches or cross levelling valves  - Damage control locker | | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ | \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_ |
| **19.0. DAMAGE CONTROL ACTIONS AND COUNTERMEASURES:**  - boundaries of the watertight compartments \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - the openings therein with the means of closure and position of any controls thereof \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - actions to be taken in various damage control conditions \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - available equipment to be used as countermeasures \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | |
| Date questionnaire given to the joining Engineer Officer |  | | | |
| Officer's rank |  | | | |
| Signature of Officer |  | | | |
| Date questionnaire returned to the Chief Engineer |  | | | |
| Signature of Chief Engineer |  | | | |
| REMARK:  1. The questionnaire is to be completed, signed and returned to the Chief Engineer within two weeks.  2. The Chief Engineer or Staff Engineer must monitor the results of this questionnaire and discuss with the Officer any deficiencies noted. | | | | |