



**ECR. 9.1 - CRITICAL EQUIPMENT SAFE SPARES FOR INVENTORY**

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 Made by : QHSE  
 Approved by : MD  
 Rev. No : 0

|  |                            |
|--|----------------------------|
| Vessel: Bitu Atlantic                    | Date (dd/mm/yy) : 30/11/18 |
| Name Chief Engineer : ANDRIESANU Dumitru | Month : November           |

List applicable as per vessel equipment

| Sr No    | Sec | Description   | Unit | Min Qty. Reqd. | ROB |
|----------|-----|---|------|----------------|-----|
| <b>1</b> |     | <b>Main Propulsion Machinery</b>  |      |                |     |
|          | a   | Auto Air Staring Valve (Overhaul Kit)   | Set  | 1              | 1   |
|          | b   | Main Air Distributor - Air Piston / Bush & Spring)  | Set  | 1              | 1   |
| <b>2</b> |     | <b>Steering Gear (incl Emergency Steering Gear)</b>   |      |                |     |
|          | a   | Spare Electric Motor (one that receives supply from the ESB).   | Nos  | 1              | 1   |
|          | b   | Spare Directional Control Solenoid Valve Block  | Nos  | 1              | 1   |
|          | c   | Spare Oil Filter Cartridges   | Nos  | 2              | 2   |
|          | d   | Hydraulic Oil   | Ltrs | (Compl Charge) | 460 |
|          | e   | Oil Seals for 'Rams' and 'Pumps' as applicable.   | Set  | 1              | 1   |
| <b>3</b> |     | <b>Windlass &amp; Mooring Winches</b>   |      |                |     |
|          | a   | Spare Brake Lining and Screws for Windlass  | Set  | 2              | 2   |
| <b>4</b> |     | <b>Life Boat &amp; Davit</b>  |      |                |     |
|          | a   | Spares for the Davit Winch - rotor vanes for the pneumatic motor or spare electrical motor ( whichever is applicable) | Set  | 1              | 1   |
|          | b   | Spare Brake Lining for the Winch  | Set  | 1              | 1   |
|          | c   | Spare Lub Oil and Fuel Oil Filters for Engine   | Nos  | 1              | 1   |
|          | d   | Engine Oil  | Ltrs | 20             | 20  |
|          | e   | Spare Fuel  |      |                |     |
|          | e   | Injectors   | Nos  | 2              | 2   |
|          | f   | Spare set of gaskets for the engine   | Set  | 1              | 1   |
|          | g   | Gearbox Oil   | Ltrs | 20             | 20  |
| <b>5</b> |     | <b>Rescue Boat</b>  |      |                |     |
|          | a   | Pressure gauge for air filling  | Nos  | 1              | 1   |
|          | b   | Air Pump for filling Boat   | Nos  | 1              | 1   |
|          | c   | Standard Boat Repair Kit  | Set  | 1              | 1   |
|          | d   | Spark Plugs for Outboard Motor  | Nos  | 1              | 1   |
|          | e   | Brake Lining for Winch  | Set  | 1              | 1   |



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| <b>6</b>  | <b>Emergency Generator</b>                                |      |                |     |  |
| a         | Spare Lub Oil and Fuel Oil Filters                        | Nos  | 1              | 1   |  |
| b         | Engine Oil  | Ltrs | (Compl Charge) | 30  |  |
|           | Spare Fuel  |      |                |     |  |
| c         | Injectors   | Nos  | 2              | 2   |  |
| d         | Spare set of gaskets for the engine                       | Set  | 1              | 1   |  |
| e         | Spare Belt for Pulley - CW Pump                           | Nos  | 1              | 1   |  |
| f         | Spares for the starter motor                              | Set  | 1              | 1   |  |
| <b>7</b>  | <b>Emergency Fire Pump</b>                                |      |                |     |  |
| a         | Spare Mechanical Seal for Shaft                           | Nos  | 1              | 1   |  |
| b         | Spare Impeller  | Nos  | 1              | 1   |  |
| c         | Set of Gaskets  | Set  | 1              | 1   |  |
| d         | Spare Bearings / Bushes                                   | Set  | 1              | 1   |  |
| e         | Spare Wear Rings  | Set  | 1              | 1   |  |
| f         | Spare Electric Motor ( Prime Mover)                       | Nos  | 1              | 1   |  |
| g         | Spare Lub Oil and Fuel Oil Filters ( for Prime Mover)     | Nos  | 1              | 1   |  |
| h         | Engine Oil (for Prime Mover)                              | Ltrs | (Compl Charge) | N/a |  |
| i         | Spare Fuel Injectors (for Prime Mover)                    | Nos  | 2              | N/a |  |
| j         | Spare set of gaskets for the engine (for Prime Mover)     | Set  | 1              | N/a |  |
| k         | Spare Belt for Pulley - CW Pump (for Prime Mover)         | Nos  | 1              | N/a |  |
| l         | Coupling ( between Prime Mover and Pump)                  | Nos  | 1              | N/a |  |
| <b>8</b>  | <b>Emergency Switchboard</b>                              |      |                |     |  |
| a         | Spare set of Fuses  | Set  | 1              | 1   |  |
| b         | Spare set of Contactors                                   | Set  | 1              | 1   |  |
| c         | Spare Circuit Breaker                                     | Nos  | 1              | 1   |  |
| <b>9</b>  | <b>Emergency Air Compressor</b>                           |      |                |     |  |
| a         | Spare set of Gaskets / seals                              | Set  | 1              | 1   |  |
| <b>10</b> | <b>Cargo Pump Temperature Sensor</b>                      |      |                |     |  |
| a         | Temp Sensor   | Nos  | 1              | 1   |  |
| <b>11</b> | <b>Fixed Gas Detection System</b>                         |      |                |     |  |
| a         | Complete Set of Calibration Gases                         | Set  | 1              | 1   |  |
| <b>12</b> | <b>Personal Oxygen Monitors</b>                           |      |                |     |  |
| a         | Spare Monitor Complete (extra to the minimum requirement) | Nos  | 1              | 1   |  |
| b         | Calibration Gas   | Set  | 1              | 2   |  |



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| <b>13</b> |   | <b>Emergency Stops and Quick Closing Valves</b> |       |       |
|-----------|---|---|-------|-------|
|           | a | Actuator Overhaul Kit                           | Nos   | 2 2   |
| <b>14</b> |   | <b>Magnetic Compass</b>                         |       |       |
|           | a | Spare Compass Fluid                             | Ltr   | 1 1   |
| <b>15</b> |   | <b>Fire Detection System</b>                    |       |       |
|           | a | Spare Sensor Heads for Smoke Detectors          | Nos   | 2 2   |
|           | b | Spare Sensor Heads for Heat Detectors           | Nos   | 2 2   |
| <b>16</b> |   | <b>Oily Water Separator</b>                     |       |       |
|           | a | Filters / Coalescers                            | Set   | 1 2   |
|           | b | Pump Overhaul Set                               | Set   | 1 1   |
|           | c | Measuring Cell Cleaning kit                     | Kit   | 1 1   |
| <b>17</b> |   | <b>Oil Detecting Monitoring Equipment</b>       |       |       |
|           | a | Recording Paper                                 | Rolls | 2 N/a |
|           | b | Measuring Cell Cleaning Kit                     | Kit   | 1 1   |

ANDRIESANU Dumitru  
Name Chief Engineer



Signature