

# **Engine Room Simulator**

## **ERS M22 10 PC-IV Ferry**

### **ALARM LIST**

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Approved by:

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## **1        DIRECTORY LIST**

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| Page:0301 | MAIN ENGINE 1 FW/SW SYSTEM (2 pages)  |
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| Page:2201 | MAIN SW (BALLAST) SYSTEM (2 pages)    |
| Page:2301 | ELECTRIC POWER SYSTEM    (3 pages)    |
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| Page:2501 | STEAM SYSTEM                (1 page ) |
| Page:2601 | REFRIGERATION SYSTEM    (2 pages)     |
| Page:2701 | FRESH WATER GENERATOR    (1 page )    |
| Page:2801 | STEERING GEAR SYSTEM    (1 page )     |

**2 VARIABLE LIST PAGES****2.1 Page:0101 AG01\*\* MAIN ENGINE 1 CONTROL (1 - 1)**

|    |        |       |       |           |  |
|----|--------|-------|-------|-----------|--|
| A: | X01012 | <0-5> | L=--- | H=1.0     | ME 1 DAMAGE (serious)                  |
| B: |        |       |       |           |  |
| C: |        |       |       |           |  |
| D: | X01700 | <0-7> | L=--- | H=1.0     | ME 1 SLOW DOWN INDICATION              |
| E: | X01730 | <0-4> | L=--- | H=1.0     | ME 1 SHUT DOWN INDICATION              |
| F: | X03772 | <0-1> | L=--- | H=1.0     | STBD SHAFT BRAKE LOCAL SWITCH          |
| G: |        |       |       |           |  |
| H: | N01001 | rpm   | L=--- | H=420.0   | ME 1 SPEED                             |
| I: | E01002 | kW    | L=--- | H=11800.0 | ME 1 EFFECTIVE POWER                   |
| J: |        |       |       |           |  |
| K: | T01315 | degC  | L=--- | H=300.0   | ME 1 MEAN CYL LINER TEMP               |
| L: | T01316 | degC  | L=--- | H=400.0   | ME 1 MEAN PISTON TEMP                  |
| M: |        |       |       |           |  |
| N: |        |       |       |           |  |
| O: | T00762 | degC  | L=--- | H=40.0    | CONTROL ROOM AIR TEMP                  |
| P: |        |       |       |           |  |
| Q: | X01760 | <0-7> | L=--- | H=6.0     | ME 1 START/STOP LOGIC STATE            |
| R: | X01761 | <0-7> | L=--- | H=6.0     | ME 1 CONNECTION LOGIC STATE            |
| S: |        |       |       |           |  |
| T: | X07509 | <0-1> | L=--- | H=1.0     | BRIDGE CONTROL LOSS OF RESPONSE (ME 1) |

**2.2 Page:0201 AG02\*\* MAIN ENGINE 1 LO/RA SYSTEM (1 - 1)**

|    |        |      |        |        |                                       |
|----|--------|------|--------|--------|---------------------------------------|
| A: | L01077 | %    | L=30.0 | H=90.0 | ME 1 LO CIRCULATION TANK LEVEL        |
| B: | T01100 | degC | L=30.0 | H=75.0 | ME 1 LO CIRCULATION TANK TEMP         |
| C: |        |      |        |        |                                       |
| D: | P01073 | bar  | L=1.2  | H=---  | LO PRESS INLET ME 1                   |
| E: | T01076 | degC | L=50.0 | H=62.0 | LO TEMP INLET ME 1                    |
| F: |        |      |        |        |                                       |
| G: | P01075 | bar  | L=---  | H=1.5  | ME 1 LO DUPLEX FILTER DIFF PRESS      |
| H: |        |      |        |        |                                       |
| I: |        |      |        |        |                                       |
| J: |        |      |        |        |                                       |
| K: |        |      |        |        |                                       |
| L: | P01822 | bar  | L=---  | H=1.0  | ME 1 ROCKER ARM LO FILTER DIFF PRESS  |
| M: |        |      |        |        |                                       |
| N: | T01824 | degC | L=38.0 | H=---  | RA LO TEMP INLET ME 1                 |
| O: | P01823 | bar  | L=0.8  | H=---  | RA LO PRESS INLET ME 1                |
| P: |        |      |        |        |                                       |
| Q: | T01833 | degC | L=---  | H=75.0 | RA LO TEMP OUTLET ME 1                |
| R: |        |      |        |        |                                       |
| S: | L01802 | %    | L=30.0 | H=90.0 | ME 1 ROCKER ARM LO SUCTION TANK LEVEL |
| T: | T01803 | degC | L=30.0 | H=---  | ME 1 ROCKER ARM LO SUCTION TANK TEMP  |



### 2.3 Page:0301 AG03\*\* MAIN ENGINE 1 JW/SW SYSTEM (1 - 2)

|    |        |       |        |        |                              |
|----|--------|-------|--------|--------|------------------------------|
| A: | P01054 | bar   | L=0.7  | H=3.2  | JW PRESS INLET ME 1          |
| B: |        |       |        |        |                              |
| C: | T01056 | degC  | L=60.0 | H=---  | JW TEMP INLET ME 1           |
| D: | T01057 | degC  | L=---  | H=85.0 | JW TEMP OUTLET ME 1          |
| E: | T01373 | degC  | L=---  | H=85.0 | JW TEMP OUTLET ME 1, BLOCK 2 |
| F: |        |       |        |        |                              |
| G: | L01062 | m     | L=0.3  | H=0.9  | ME 1 JW EXPANSION TANK LEVEL |
| H: | G01372 | ton/h | L=---  | H=0.5  | ME 1 JW EX. TANK OVERFLOW    |
| I: |        |       |        |        |                              |
| J: |        |       |        |        |                              |
| K: |        |       |        |        |                              |
| L: | P01415 | bar   | L=---  | H=4.0  | ME 1 SW PUMP DISCHARGE PRESS |
| M: | P01416 | bar   | L=1.0  | H=3.5  | ME 1 SW MAIN LINE PRESS      |
| N: | T01400 | degC  | L=15.0 | H=35.0 | ME 1 SW TEMP OUTLET PUMP     |
| O: | T01401 | degC  | L=15.0 | H=35.0 | ME 1 SW TEMP INLET LOC       |
| P: |        |       |        |        |                              |
| Q: | P01413 | bar   | L=---  | H=0.5  | ME 1 SW FILTER DIFF PRESS    |
| R: |        |       |        |        |                              |
| S: |        |       |        |        |                              |
| T: |        |       |        |        |                              |

### 2.4 Page:0302 AG03\*\* MAIN ENGINE 1 INJ COOL W SYSTEM (2 - 2)

|    |        |       |        |        |                              |
|----|--------|-------|--------|--------|------------------------------|
| A: | L01570 | m     | L=0.3  | H=0.9  | ME 1 Inj CW TANK LEVEL       |
| B: | T01571 | degC  | L=---  | H=90.0 | ME 1 Inj CW TANK TEMPERATURE |
| C: |        |       |        |        |                              |
| D: | P01554 | bar   | L=1.9  | H=---  | ME 1 Inj CW INLET PRESSURE   |
| E: | T01552 | degC  | L=50.0 | H=---  | ME 1 Inj CW INLET TEMP       |
| F: |        |       |        |        |                              |
| G: | T01553 | degC  | L=---  | H=85.0 | ME 1 Inj CW OUTLET TEMP      |
| H: |        |       |        |        |                              |
| I: | G01574 | ton/h | L=---  | H=0.5  | ME 1 Inj CW TANK OVERFLOW    |
| J: |        |       |        |        |                              |
| K: |        |       |        |        |                              |
| L: |        |       |        |        |                              |
| M: |        |       |        |        |                              |
| N: |        |       |        |        |                              |
| O: |        |       |        |        |                              |
| P: |        |       |        |        |                              |
| Q: |        |       |        |        |                              |
| R: |        |       |        |        |                              |
| S: |        |       |        |        |                              |
| T: |        |       |        |        |                              |

**2.5 Page:0401 AG04\*\* MAIN ENGINE 1 EXHAUST  
TEMP (1 - 2)**

|    |        |      |       |         |                                 |
|----|--------|------|-------|---------|---------------------------------|
| A: | T01320 | degC | L=--- | H=510.0 | ME 1 MEAN CYL EXHAUST TEMP      |
| B: |        |      |       |         |                                 |
| C: | T01031 | degC | L=--- | H=520.0 | ME 1 CYL 1 EXHAUST TEMP         |
| D: | T01032 | degC | L=--- | H=520.0 | ME 1 CYL 2 EXHAUST TEMP         |
| E: | T01033 | degC | L=--- | H=520.0 | ME 1 CYL 3 EXHAUST TEMP         |
| F: | T01034 | degC | L=--- | H=520.0 | ME 1 CYL 4 EXHAUST TEMP         |
| G: | T01035 | degC | L=--- | H=520.0 | ME 1 CYL 5 EXHAUST TEMP         |
| H: | T01036 | degC | L=--- | H=520.0 | ME 1 CYL 6 EXHAUST TEMP         |
| I: | T01037 | degC | L=--- | H=520.0 | ME 1 CYL 7 EXHAUST TEMP         |
| J: | T01038 | degC | L=--- | H=520.0 | ME 1 CYL 8 EXHAUST TEMP         |
| K: | T01039 | degC | L=--- | H=520.0 | ME 1 CYL 9 EXHAUST TEMP         |
| L: | T01040 | degC | L=--- | H=520.0 | ME 1 CYL 10 EXHAUST TEMP        |
| M: |        |      |       |         |                                 |
| N: |        |      |       |         |                                 |
| O: | T01025 | degC | L=--- | H=550.0 | ME 1 TBCH EXHAUST INLET TEMP    |
| P: | T01026 | degC | L=--- | H=410.0 | ME 1 TBCH EXHAUST OUTLET TEMP   |
| Q: |        |      |       |         |                                 |
| R: | T01625 | degC | L=--- | H=550.0 | ME 1 TBCH 2 EXHAUST INLET TEMP  |
| S: | T01626 | degC | L=--- | H=410.0 | ME 1 TBCH 2 EXHAUST OUTLET TEMP |
| T: |        |      |       |         |                                 |

**2.6 Page:0402 AG04\*\* MAIN ENGINE 1 EXHAUST  
DEVIATION (2 - 2)**

|    |        |      |         |        |                              |
|----|--------|------|---------|--------|------------------------------|
| A: |        |      |         |        |                              |
| B: |        |      |         |        |                              |
| C: |        |      |         |        |                              |
| D: |        |      |         |        |                              |
| E: | T01321 | degC | L=-20.0 | H=20.0 | ME 1 CYL 1 EXHAUST DEV TEMP  |
| F: | T01322 | degC | L=-20.0 | H=20.0 | ME 1 CYL 2 EXHAUST DEV TEMP  |
| G: | T01323 | degC | L=-20.0 | H=20.0 | ME 1 CYL 3 EXHAUST DEV TEMP  |
| H: | T01324 | degC | L=-20.0 | H=20.0 | ME 1 CYL 4 EXHAUST DEV TEMP  |
| I: | T01325 | degC | L=-20.0 | H=20.0 | ME 1 CYL 5 EXHAUST DEV TEMP  |
| J: | T01326 | degC | L=-20.0 | H=20.0 | ME 1 CYL 6 EXHAUST DEV TEMP  |
| K: | T01327 | degC | L=-20.0 | H=20.0 | ME 1 CYL 7 EXHAUST DEV TEMP  |
| L: | T01328 | degC | L=-20.0 | H=20.0 | ME 1 CYL 8 EXHAUST DEV TEMP  |
| M: | T01329 | degC | L=-20.0 | H=20.0 | ME 1 CYL 9 EXHAUST DEV TEMP  |
| N: | T01330 | degC | L=-20.0 | H=20.0 | ME 1 CYL 10 EXHAUST DEV TEMP |
| O: |        |      |         |        |                              |
| P: |        |      |         |        |                              |
| Q: |        |      |         |        |                              |
| R: |        |      |         |        |                              |
| S: |        |      |         |        |                              |
| T: |        |      |         |        |                              |

## 2.7 Page:0501 AG05\*\* MAIN ENGINE 1 SCAV AIR SYSTEM (1 - 1)

|    |        |      |        |         |                                   |
|----|--------|------|--------|---------|-----------------------------------|
| A: | T01047 | degC | L=---  | H=220.0 | AIR TEMP INLET ME 1 AIR COOLER    |
| B: | T01050 | degC | L=20.0 | H=70.0  | AIR TEMP OUTLET ME 1 AIR COOLER   |
| C: | T01021 | degC | L=---  | H=65.0  | ME 1 SCAV AIR RECEIVER TEMP       |
| D: |        |      |        |         |                                   |
| E: | P01044 | mmWC | L=---  | H=200.0 | ME 1 TBCH AIR COOLER DIFF PRESS   |
| F: | P01043 | mmWC | L=---  | H=200.0 | ME 1 TBCH AIR FILTER DIFF PRESS   |
| G: | P01020 | bar  | L=---  | H=2.4   | ME 1 SCAV AIR RECEIVER PRESS      |
| H: |        |      |        |         |                                   |
| I: | N01022 | krpm | L=---  | H=19.0  | ME 1 TBCH SPEED                   |
| J: |        |      |        |         |                                   |
| K: |        |      |        |         |                                   |
| L: | T01647 | degC | L=---  | H=220.0 | AIR TEMP INLET ME 1 AIR COOLER 2  |
| M: | T01650 | degC | L=20.0 | H=70.0  | AIR TEMP OUTLET ME 1 AIR COOLER 2 |
| N: | T01621 | degC | L=---  | H=65.0  | ME 1 SCAV AIR RECEIVER 2 TEMP     |
| O: |        |      |        |         |                                   |
| P: | P01644 | mmWC | L=---  | H=200.0 | ME 1 TBCH AIR COOLER 2 DIFF PRESS |
| Q: | P01643 | mmWC | L=---  | H=200.0 | ME 1 TBCH AIR FILTER 2 DIFF PRESS |
| R: | P01620 | bar  | L=---  | H=2.4   | ME 1 SCAV AIR RECEIVER 2 PRESS    |
| S: |        |      |        |         |                                   |
| T: | N01622 | krpm | L=---  | H=19.0  | ME 1 TBCH 2 SPEED                 |

## 2.8 Page:0601 AG06\*\* MAIN ENGINE 1 BEARING SYSTEM (1 - 1)

|    |        |      |       |        |                          |
|----|--------|------|-------|--------|--------------------------|
| A: |        |      |       |        |                          |
| B: |        |      |       |        |                          |
| C: | T01301 | degC | L=--- | H=75.0 | ME 1 MAIN BEARING 1 TEMP |
| D: | T01302 | degC | L=--- | H=75.0 | ME 1 MAIN BEARING 2 TEMP |
| E: | T01303 | degC | L=--- | H=75.0 | ME 1 MAIN BEARING 3 TEMP |
| F: | T01304 | degC | L=--- | H=75.0 | ME 1 MAIN BEARING 4 TEMP |
| G: | T01305 | degC | L=--- | H=75.0 | ME 1 MAIN BEARING 5 TEMP |
| H: | T01306 | degC | L=--- | H=75.0 | ME 1 MAIN BEARING 6 TEMP |
| I: |        |      |       |        |                          |
| J: |        |      |       |        |                          |
| K: |        |      |       |        |                          |
| L: |        |      |       |        |                          |
| M: |        |      |       |        |                          |
| N: |        |      |       |        |                          |
| O: |        |      |       |        |                          |
| P: |        |      |       |        |                          |
| Q: |        |      |       |        |                          |
| R: |        |      |       |        |                          |
| S: |        |      |       |        |                          |
| T: |        |      |       |        |                          |

**2.9 Page:0701 AG07\*\* MAIN ENGINE 2 CONTROL  
(1 - 1)**

|    |        |       |       |           |  |
|----|--------|-------|-------|-----------|--|
| A: | X02012 | <0-5> | L=--- | H=1.0     | ME 2 DAMAGE (serious)                  |
| B: |        |       |       |           |  |
| C: |        |       |       |           |  |
| D: | X02700 | <0-7> | L=--- | H=1.0     | ME 2 SLOW DOWN INDICATION              |
| E: | X02730 | <0-4> | L=--- | H=1.0     | ME 2 SHUT DOWN INDICATION              |
| F: | X03672 | <0-1> | L=--- | H=1.0     | PORT SHAFT BRAKE LOCAL SWITCH          |
| G: |        |       |       |           |  |
| H: | N02001 | rpm   | L=--- | H=420.0   | ME 2 SPEED                             |
| I: | E02002 | kW    | L=--- | H=11800.0 | ME 2 EFFECTIVE POWER                   |
| J: |        |       |       |           |  |
| K: | T02315 | degC  | L=--- | H=300.0   | ME 2 MEAN CYL LINER TEMP               |
| L: | T02316 | degC  | L=--- | H=400.0   | ME 2 MEAN PISTON TEMP                  |
| M: |        |       |       |           |  |
| N: |        |       |       |           |  |
| O: |        |       |       |           |  |
| P: |        |       |       |           |  |
| Q: | X02760 | <0-7> | L=--- | H=6.0     | ME 2 START/STOP LOGIC STATE            |
| R: | X02761 | <0-7> | L=--- | H=6.0     | ME 2 CONNECTION LOGIC STATE            |
| S: |        |       |       |           |  |
| T: | X07508 | <0-1> | L=--- | H=1.0     | BRIDGE CONTROL LOSS OF RESPONSE (ME 2) |

**2.10 Page:0801 AG08\*\* MAIN ENGINE 2 LO/RA  
SYSTEM (1 - 1)**

|    |        |      |        |        |                                       |
|----|--------|------|--------|--------|---------------------------------------|
| A: | L02077 | %    | L=30.0 | H=90.0 | ME 2 LO CIRCULATION TANK LEVEL        |
| B: | T02100 | degC | L=30.0 | H=75.0 | ME 2 LO CIRCULATION TANK TEMP         |
| C: |        |      |        |        |                                       |
| D: | P02073 | bar  | L=1.2  | H=---  | LO PRESS INLET ME 2                   |
| E: | T02076 | degC | L=50.0 | H=62.0 | LO TEMP INLET ME 2                    |
| F: |        |      |        |        |                                       |
| G: | P02075 | bar  | L=---  | H=1.5  | ME 2 LO DUPLEX FILTER DIFF PRESS      |
| H: |        |      |        |        |                                       |
| I: |        |      |        |        |                                       |
| J: |        |      |        |        |                                       |
| K: |        |      |        |        |                                       |
| L: | P02822 | bar  | L=---  | H=1.0  | ME 2 ROCKER ARM LO FILTER DIFF PRESS  |
| M: |        |      |        |        |                                       |
| N: | T02824 | degC | L=38.0 | H=---  | RA LO TEMP INLET ME 2                 |
| O: | P02823 | bar  | L=0.8  | H=---  | RA LO PRESS INLET ME 2                |
| P: |        |      |        |        |                                       |
| Q: | T02833 | degC | L=---  | H=75.0 | RA LO TEMP OUTLET ME 2                |
| R: |        |      |        |        |                                       |
| S: | L02802 | %    | L=30.0 | H=90.0 | ME 2 ROCKER ARM LO SUCTION TANK LEVEL |
| T: | T02803 | degC | L=30.0 | H=---  | ME 2 ROCKER ARM LO SUCTION TANK TEMP  |

## 2.11 Page:0901 AG09\*\* MAIN ENGINE 2 JW/SW SYSTEM (1 - 2)

|    |        |       |        |        |                              |
|----|--------|-------|--------|--------|------------------------------|
| A: | P02054 | bar   | L=0.7  | H=3.2  | JW PRESS INLET ME 2          |
| B: |        |       |        |        |                              |
| C: | T02056 | degC  | L=60.0 | H=---  | JW TEMP INLET ME 2           |
| D: | T02057 | degC  | L=---  | H=85.0 | JW TEMP OUTLET ME 2          |
| E: | T02373 | degC  | L=---  | H=85.0 | JW TEMP OUTLET ME 2, BLOCK 2 |
| F: |        |       |        |        |                              |
| G: | L02062 | m     | L=0.3  | H=0.9  | ME 2 JW EXPANSION TANK LEVEL |
| H: | G02372 | ton/h | L=---  | H=0.5  | ME 2 JW EX. TANK OVERFLOW    |
| I: |        |       |        |        |                              |
| J: |        |       |        |        |                              |
| K: |        |       |        |        |                              |
| L: |        |       |        |        |                              |
| M: | P02415 | bar   | L=---  | H=4.0  | ME 2 SW PUMP DISCHARGE PRESS |
| N: | P02416 | bar   | L=1.0  | H=3.5  | ME 2 SW MAIN LINE PRESS      |
| O: | T02400 | degC  | L=15.0 | H=35.0 | ME 2 SW TEMP OUTLET PUMP     |
| P: | T02401 | degC  | L=15.0 | H=35.0 | ME 2 SW TEMP INLET LOC       |
| Q: |        |       |        |        |                              |
| R: | P02413 | bar   | L=---  | H=0.5  | ME 2 SW FILTER DIFF PRESS    |
| S: |        |       |        |        |                              |
| T: |        |       |        |        |                              |

## 2.12 Page:0902 AG09\*\* MAIN ENGINE 2 INJ COOL W SYSTEM (2 - 2)

|    |        |       |        |        |                              |
|----|--------|-------|--------|--------|------------------------------|
| A: | L02570 | m     | L=0.3  | H=0.9  | ME 2 Inj CW TANK LEVEL       |
| B: | T02571 | degC  | L=---  | H=90.0 | ME 2 Inj CW TANK TEMPERATURE |
| C: |        |       |        |        |                              |
| D: | P02554 | bar   | L=1.9  | H=---  | ME 2 Inj CW INLET PRESSURE   |
| E: | T02552 | degC  | L=50.0 | H=---  | ME 2 Inj CW INLET TEMP       |
| F: |        |       |        |        |                              |
| G: | T02553 | degC  | L=---  | H=85.0 | ME 2 Inj CW OUTLET TEMP      |
| H: |        |       |        |        |                              |
| I: | G02574 | ton/h | L=---  | H=0.5  | ME 2 Inj CW TANK OVERFLOW    |
| J: |        |       |        |        |                              |
| K: |        |       |        |        |                              |
| L: |        |       |        |        |                              |
| M: |        |       |        |        |                              |
| N: |        |       |        |        |                              |
| O: |        |       |        |        |                              |
| P: |        |       |        |        |                              |
| Q: |        |       |        |        |                              |
| R: |        |       |        |        |                              |
| S: |        |       |        |        |                              |
| T: |        |       |        |        |                              |

**2.13 Page:1001 AG10\*\* MAIN ENGINE 2 EXHAUST  
TEMP (1 - 2)**

|    |        |      |       |         |                               |
|----|--------|------|-------|---------|-------------------------------|
| A: | T02320 | degC | L=--- | H=510.0 | ME 2 MEAN CYL EXHAUST TEMP    |
| B: |        |      |       |         |                               |
| C: | T02031 | degC | L=--- | H=520.0 | ME 2 CYL 1 EXHAUST TEMP       |
| D: | T02032 | degC | L=--- | H=520.0 | ME 2 CYL 2 EXHAUST TEMP       |
| E: | T02033 | degC | L=--- | H=520.0 | ME 2 CYL 3 EXHAUST TEMP       |
| F: | T02034 | degC | L=--- | H=520.0 | ME 2 CYL 4 EXHAUST TEMP       |
| G: | T02035 | degC | L=--- | H=520.0 | ME 2 CYL 5 EXHAUST TEMP       |
| H: | T02036 | degC | L=--- | H=520.0 | ME 2 CYL 6 EXHAUST TEMP       |
| I: | T02037 | degC | L=--- | H=520.0 | ME 2 CYL 7 EXHAUST TEMP       |
| J: | T02038 | degC | L=--- | H=520.0 | ME 2 CYL 8 EXHAUST TEMP       |
| K: | T02039 | degC | L=--- | H=520.0 | ME 2 CYL 9 EXHAUST TEMP       |
| L: | T02040 | degC | L=--- | H=520.0 | ME 2 CYL 10 EXHAUST TEMP      |
| M: |        |      |       |         |                               |
| N: |        |      |       |         |                               |
| O: | T02025 | degC | L=--- | H=550.0 | ME 2 TBCH EXHAUST INLET TEMP  |
| P: | T02026 | degC | L=--- | H=410.0 | ME 2 TBCH EXHAUST OUTLET TEMP |
| Q: |        |      |       |         |                               |
| R: | T02625 | degC | L=--- | H=550.0 | ME 2 TBCH EXHAUST INLET TEMP  |
| S: | T02626 | degC | L=--- | H=410.0 | ME 2 TBCH EXHAUST OUTLET TEMP |
| T: |        |      |       |         |                               |

**2.14 Page:1002 AG10\*\* MAIN ENGINE 2 EXHAUST  
DEVIATION (2 - 2)**

|    |        |      |         |        |                              |
|----|--------|------|---------|--------|------------------------------|
| A: |        |      |         |        |                              |
| B: |        |      |         |        |                              |
| C: |        |      |         |        |                              |
| D: |        |      |         |        |                              |
| E: | T02321 | degC | L=-20.0 | H=20.0 | ME 2 CYL 1 EXHAUST DEV TEMP  |
| F: | T02322 | degC | L=-20.0 | H=20.0 | ME 2 CYL 2 EXHAUST DEV TEMP  |
| G: | T02323 | degC | L=-20.0 | H=20.0 | ME 2 CYL 3 EXHAUST DEV TEMP  |
| H: | T02324 | degC | L=-20.0 | H=20.0 | ME 2 CYL 4 EXHAUST DEV TEMP  |
| I: | T02325 | degC | L=-20.0 | H=20.0 | ME 2 CYL 5 EXHAUST DEV TEMP  |
| J: | T02326 | degC | L=-20.0 | H=20.0 | ME 2 CYL 6 EXHAUST DEV TEMP  |
| K: | T02327 | degC | L=-20.0 | H=20.0 | ME 2 CYL 7 EXHAUST DEV TEMP  |
| L: | T02328 | degC | L=-20.0 | H=20.0 | ME 2 CYL 8 EXHAUST DEV TEMP  |
| M: | T02329 | degC | L=-20.0 | H=20.0 | ME 2 CYL 9 EXHAUST DEV TEMP  |
| N: | T02330 | degC | L=-20.0 | H=20.0 | ME 2 CYL 10 EXHAUST DEV TEMP |
| O: |        |      |         |        |                              |
| P: |        |      |         |        |                              |
| Q: |        |      |         |        |                              |
| R: |        |      |         |        |                              |
| S: |        |      |         |        |                              |
| T: |        |      |         |        |                              |

## 2.15 Page:1101 AG11\*\* MAIN ENGINE 2 SCAV AIR SYSTEM (1 - 1)

|    |        |      |        |         |                                 |
|----|--------|------|--------|---------|---------------------------------|
| A: | T02047 | degC | L=---  | H=220.0 | AIR TEMP INLET ME 2 AIR COOLER  |
| B: | T02050 | degC | L=20.0 | H=70.0  | AIR TEMP OUTLET ME 2 AIR COOLER |
| C: | T02021 | degC | L=---  | H=65.0  | ME 2 SCAV AIR RECEIVER TEMP     |
| D: |        |      |        |         |                                 |
| E: | P02044 | mmWC | L=---  | H=200.0 | ME 2 TBCH AIR COOLER DIFF PRESS |
| F: | P02043 | mmWC | L=---  | H=200.0 | ME 2 TBCH AIR FILTER DIFF PRESS |
| G: | P02020 | bar  | L=---  | H=2.4   | ME 2 SCAV AIR RECEIVER PRESS    |
| H: |        |      |        |         |                                 |
| I: | N02022 | krpm | L=---  | H=19.0  | ME 2 TBCH SPEED                 |
| J: |        |      |        |         |                                 |
| K: |        |      |        |         |                                 |
| L: | T02647 | degC | L=---  | H=220.0 | AIR TEMP INLET ME 2 AIR COOLER  |
| M: | T02650 | degC | L=20.0 | H=70.0  | AIR TEMP OUTLET ME 2 AIR COOLER |
| N: | T02621 | degC | L=---  | H=65.0  | ME 2 SCAV AIR RECEIVER TEMP     |
| O: |        |      |        |         |                                 |
| P: | P02644 | mmWC | L=---  | H=200.0 | ME 2 TBCH AIR COOLER DIFF PRESS |
| Q: | P02643 | mmWC | L=---  | H=200.0 | ME 2 TBCH AIR FILTER DIFF PRESS |
| R: | P02620 | bar  | L=---  | H=2.4   | ME 2 SCAV AIR RECEIVER PRESS    |
| S: |        |      |        |         |                                 |
| T: | N02622 | krpm | L=---  | H=19.0  | ME 2 TBCH SPEED                 |

## 2.16 Page:1201 AG12\*\* MAIN ENGINE 2 BEARING SYSTEM (1 - 1)

|    |        |      |       |        |                          |
|----|--------|------|-------|--------|--------------------------|
| A: |        |      |       |        |                          |
| B: |        |      |       |        |                          |
| C: | T02301 | degC | L=--- | H=75.0 | ME 2 MAIN BEARING 1 TEMP |
| D: | T02302 | degC | L=--- | H=75.0 | ME 2 MAIN BEARING 2 TEMP |
| E: | T02303 | degC | L=--- | H=75.0 | ME 2 MAIN BEARING 3 TEMP |
| F: | T02304 | degC | L=--- | H=75.0 | ME 2 MAIN BEARING 4 TEMP |
| G: | T02305 | degC | L=--- | H=75.0 | ME 2 MAIN BEARING 5 TEMP |
| H: | T02306 | degC | L=--- | H=75.0 | ME 2 MAIN BEARING 6 TEMP |
| I: |        |      |       |        |                          |
| J: |        |      |       |        |                          |
| K: |        |      |       |        |                          |
| L: |        |      |       |        |                          |
| M: |        |      |       |        |                          |
| N: |        |      |       |        |                          |
| O: |        |      |       |        |                          |
| P: |        |      |       |        |                          |
| Q: |        |      |       |        |                          |
| R: |        |      |       |        |                          |
| S: |        |      |       |        |                          |
| T: |        |      |       |        |                          |

**2.17 Page:1301 AG13\*\* PORT PROPELLER GEAR SYSTEM (1 - 1)**

|    |        |       |        |        |                                    |
|----|--------|-------|--------|--------|------------------------------------|
| A: | X02723 | <0-3> | L=---  | H=1.0  | PORT GEAR SHUT DOWN INDICATION     |
| B: | X02774 | <0-5> | L=---  | H=1.0  | PORT PROP GEAR SLOW DOWN           |
| C: |        |       |        |        |                                    |
| D: | P03400 | bar   | L=---  | H=4.0  | PORT GEAR LO PRESS OUTLET PUMPS    |
| E: | P03402 | bar   | L=0.8  | H=---  | PORT GEAR LO PRESS INLET GEAR      |
| F: | P03403 | bar   | L=---  | H=1.0  | PORT GEAR LO FILTER DIFF PRESS     |
| G: | T03407 | degC  | L=---  | H=55.0 | PORT GEAR LO TEMP INLET GEAR       |
| H: |        |       |        |        |                                    |
| I: | L03411 | %     | L=30.0 | H=90.0 | PORT GEAR LO SUMP LEVEL            |
| J: |        |       |        |        |                                    |
| K: | X01277 | <0-1> | L=---  | H=1.0  | ME 1 CLUTCH FAILURE                |
| L: |        |       |        |        |                                    |
| M: | T03425 | degC  | L=---  | H=70.0 | PORT GEAR FORE BULL BEARING TEMP   |
| N: | T03426 | degC  | L=---  | H=70.0 | PORT GEAR AFT BULL BEARING TEMP    |
| O: |        |       |        |        |                                    |
| P: | T03428 | degC  | L=---  | H=70.0 | PORT GEAR FORE PINION BEARING TEMP |
| Q: | T03429 | degC  | L=---  | H=70.0 | PORT GEAR AFT PINION BEARING TEMP  |
| R: |        |       |        |        |                                    |
| S: | T03427 | degC  | L=---  | H=75.0 | PORT GEAR THRUST BEARING TEMP      |
| T: |        |       |        |        |                                    |

**2.18 Page:1401 AG14\*\* STBD PROPELLER GEAR SYSTEM (1 - 1)**

|    |        |       |        |        |                                       |
|----|--------|-------|--------|--------|---------------------------------------|
| A: | X01723 | <0-3> | L=---  | H=1.0  | STBD GEAR SHUT DOWN INDICATION        |
| B: | X01774 | <0-5> | L=---  | H=1.0  | STBD PROP GEAR SLOW DOWN              |
| C: |        |       |        |        |                                       |
| D: | P03500 | bar   | L=---  | H=4.0  | STBD PROP GEAR LO PRESS OUTLET PUMPS  |
| E: | P03502 | bar   | L=0.8  | H=---  | STBD PROP GEAR LO PRESS INLET GEAR    |
| F: | P03503 | bar   | L=---  | H=1.0  | STBD PROP GEAR LO FILTER DIFF PRESS   |
| G: | T03507 | degC  | L=---  | H=55.0 | STBD PROP GEAR LO TEMP INLET GEAR     |
| H: |        |       |        |        |                                       |
| I: | L03511 | %     | L=30.0 | H=90.0 | STBD PROP GEAR LO SUMP LEVEL          |
| J: |        |       |        |        |                                       |
| K: | X02277 | <0-1> | L=---  | H=1.0  | ME 2 CLUTCH FAILURE                   |
| L: |        |       |        |        |                                       |
| M: | T03525 | degC  | L=---  | H=70.0 | STBD PROP GEAR FORE BULL BEARING TEMP |
| N: | T03526 | degC  | L=---  | H=70.0 | STBD PROP GEAR AFT BULL BEARING TEMP  |
| O: |        |       |        |        |                                       |
| P: | T03528 | degC  | L=---  | H=70.0 | STBD GEAR FORE PINION BEARING TEMP    |
| Q: | T03529 | degC  | L=---  | H=70.0 | STBD GEAR AFT PINION BEARING TEMP     |
| R: |        |       |        |        |                                       |
| S: | T03527 | degC  | L=---  | H=75.0 | STBD PROP GEAR THRUST BEARING TEMP    |
| T: |        |       |        |        |                                       |



## 2.19 Page:1501 AG15\*\* PORT PROPELLER SERVO SYSTEM (1 - 2)

|    |        |      |        |           |                                      |
|----|--------|------|--------|-----------|--------------------------------------|
| A: | P03600 | bar  | L=14.0 | H=---     | PORT PROP SO PRESS OUTLET PUMPS      |
| B: | P03601 | bar  | L=14.0 | H=---     | PORT PROP SO PRESS OUTLET FILTER     |
| C: | P03603 | bar  | L=---  | H=1.5     | PORT PROP SO FILTER DIFF PRESS       |
| D: | P03626 | bar  | L=0.0  | H=---     | PORT PROP SO PRESS INLET SHAFT BEARN |
| E: |        |      |        |           |                                      |
| F: |        |      |        |           |                                      |
| G: | T03613 | degC | L=---  | H=50.0    | PORT PROP SO TANK TEMP               |
| H: | T03621 | degC | L=---  | H=70.0    | PORT PROP SO TEMP OUTLET SERVOC      |
| I: |        |      |        |           |                                      |
| J: |        |      |        |           |                                      |
| K: | L03612 | %    | L=30.0 | H=90.0    | PORT PROP SO TANK LEVEL              |
| L: | L03633 | %    | L=30.0 | H=90.0    | PORT PROP SO GRAVITY TANK LEVEL      |
| M: |        |      |        |           |                                      |
| N: |        |      |        |           |                                      |
| O: | T03650 | degC | L=---  | H=60.0    | PORT PROP FORE SHAFT BEARING TEMP    |
| P: | T03651 | degC | L=---  | H=60.0    | PORT PROP AFT SHAFT BEARING TEMP     |
| Q: |        |      |        |           |                                      |
| R: |        |      |        |           |                                      |
| S: | E03660 | kW   | L=---  | H=11600.0 | PORT PROPELLER SHAFT POWER           |
| T: | Q03663 | tonm | L=---  | H=95.0    | PORT PROPELLER TORQUE                |

## 2.20 Page:1502 AG15\*\* PORT STERN TUBE SYSTEM (2 - 2)

|    |        |       |        |        |                                    |
|----|--------|-------|--------|--------|------------------------------------|
| A: | T03452 | degC  | L=---  | H=60.0 | PORT STERN TUBE FORE BEARING TEMP  |
| B: | T03453 | degC  | L=---  | H=60.0 | PORT STERN TUBE AFT BEARING TEMP   |
| C: |        |       |        |        |                                    |
| D: | P03485 | mWC   | L=1.0  | H=5.0  | PORT STERN TUBE LO / SW DIFF PRESS |
| E: |        |       |        |        |                                    |
| F: |        |       |        |        |                                    |
| G: | L03472 | %     | L=40.0 | H=---  | PORT STERN TUBE GRAV TANK LEVEL    |
| H: |        |       |        |        |                                    |
| I: |        |       |        |        |                                    |
| J: |        |       |        |        |                                    |
| K: | T03473 | degC  | L=---  | H=60.0 | PORT STERN TUBE LO SUMP TEMP       |
| L: | L03470 | %     | L=30.0 | H=90.0 | PORT STERN TUBE LO SUMP LEVEL      |
| M: | G03496 | ton/h | L=---  | H=0.1  | PORT STERN TUBE LO SUMP OVERFLOW   |
| N: |        |       |        |        |                                    |
| O: | Z03455 | %     | L=---  | H=30.0 | PORT STERN TUBE LO CONTAMINATION   |
| P: |        |       |        |        |                                    |
| Q: | T03480 | degC  | L=10.0 | H=40.0 | PORT STERN TUBE LOC LO OUTLET TEMP |
| R: |        |       |        |        |                                    |
| S: | X03465 | <0-1> | L=---  | H=1.0  | PORT STERN TUBE SERIOUS DAMAGE     |
| T: |        |       |        |        |                                    |

**2.21 Page:1601 AG16\*\* STBD PROPELLER SERVO SYSTEM (1 - 2)**

|    |        |      |        |           |  |
|----|--------|------|--------|-----------|--|
| A: | P03700 | bar  | L=14.0 | H=---     | STBD PROP SERVO LO PRESS OUTLET PUMPS  |
| B: | P03701 | bar  | L=14.0 | H=---     | STBD PROP SERVO LO PRESS OUTLET FILTER |
| C: | P03703 | bar  | L=---  | H=1.5     | STBD PROP SERVO LO FILTER DIFF PRESS   |
| D: | P03726 | bar  | L=0.0  | H=---     | STBD SERVO LO PRESS INLET SHAFT BEARN  |
| E: |        |      |        |           |  |
| F: |        |      |        |           |  |
| G: | T03713 | degC | L=---  | H=50.0    | STBD PROP SERVO LO TANK TEMP           |
| H: | T03721 | degC | L=---  | H=55.0    | STBD PROP SERVO LO TEMP OUTLET LOC     |
| I: |        |      |        |           |  |
| J: |        |      |        |           |  |
| K: | L03712 | %    | L=30.0 | H=90.0    | STBD PROP SERVO LO TANK LEVEL          |
| L: | L03733 | %    | L=30.0 | H=90.0    | STBD SERVO LO GRAVITY TANK LEVEL       |
| M: |        |      |        |           |  |
| N: |        |      |        |           |  |
| O: | T03750 | degC | L=---  | H=60.0    | STBD PROPELLER FORE SHAFT BEARING TEMP |
| P: | T03751 | degC | L=---  | H=60.0    | STBD PROPELLER AFT SHAFT BEARING TEMP  |
| Q: |        |      |        |           |  |
| R: |        |      |        |           |  |
| S: | E03760 | kW   | L=---  | H=11600.0 | STBD PROPELLER SHAFT POWER             |
| T: | Q03763 | tonm | L=---  | H=95.0    | STBD PROPELLER TORQUE                  |

**2.22 Page:1602 AG16\*\* STBD STERN TUBE SYSTEM (2 - 2)**

|    |        |       |        |        |                                    |
|----|--------|-------|--------|--------|------------------------------------|
| A: | T03552 | degC  | L=---  | H=60.0 | STBD STERN TUBE FORE BEARING TEMP  |
| B: | T03553 | degC  | L=---  | H=60.0 | STBD STERN TUBE AFT BEARING TEMP   |
| C: |        |       |        |        |                                    |
| D: | P03585 | mWC   | L=1.0  | H=5.0  | STBD STERN TUBE LO / SW DIFF PRESS |
| E: |        |       |        |        |                                    |
| F: |        |       |        |        |                                    |
| G: | L03572 | %     | L=40.0 | H=---  | STBD STERN TUBE GRAV TANK LEVEL    |
| H: |        |       |        |        |                                    |
| I: |        |       |        |        |                                    |
| J: |        |       |        |        |                                    |
| K: | T03573 | degC  | L=---  | H=60.0 | STBD STERN TUBE LO SUMP TEMP       |
| L: | L03570 | %     | L=30.0 | H=90.0 | STBD STERN TUBE LO SUMP LEVEL      |
| M: | G03596 | ton/h | L=---  | H=0.1  | STBD STERN TUBE LO SUMP OVERFLOW   |
| N: |        |       |        |        |                                    |
| O: | Z03555 | %     | L=---  | H=30.0 | STBD STERN TUBE LO CONTAMINATION   |
| P: |        |       |        |        |                                    |
| Q: | T03580 | degC  | L=10.0 | H=40.0 | STBD STERN TUBE LOC LO OUTLET TEMP |
| R: |        |       |        |        |                                    |
| S: | X03565 | <0-1> | L=---  | H=1.0  | STBD STERN TUBE SERIOUS DAMAGE     |
| T: |        |       |        |        |                                    |

## 2.23 Page:1701 AG17\*\* START AIR SYSTEM (1 - 2)

|    |        |       |        |        |                                      |
|----|--------|-------|--------|--------|--------------------------------------|
| A: |        |       |        |        |                                      |
| B: | P04300 | bar   | L=22.0 | H=32.0 | START AIR RECEIVER 1 PRESSURE        |
| C: | Z04312 | %     | L=---  | H=50.0 | START AIR RECEIVER 1 WATER CONTENT   |
| D: | V04446 | <0-1> | L=---  | H=1.0  | START AIR RECEIVER 1 SAFETY VALVE    |
| E: |        |       |        |        |                                      |
| F: | P04301 | bar   | L=22.0 | H=32.0 | START AIR RECEIVER 2 PRESSURE        |
| G: | Z04313 | %     | L=---  | H=50.0 | START AIR RECEIVER 2 WATER CONTENT   |
| H: | V04450 | <0-1> | L=---  | H=1.0  | START AIR RECEIVER 2 SAFETY VALVE    |
| I: |        |       |        |        |                                      |
| J: | X04503 | <0-2> | L=---  | H=1.0  | START AIR COMPR 1 TRIP INDICATION    |
| K: | P04335 | bar   | L=1.5  | H=---  | START AIR COMPR 1 LO INLET PRESS     |
| L: | T04342 | degC  | L=---  | H=90.0 | START AIR COMPR 1 AIR OUTLET TEMP    |
| M: | Z04350 | %     | L=---  | H=80.0 | START AIR COMPR 1 AIRC WATER CONTENT |
| N: |        |       |        |        |                                      |
| O: | X04504 | <0-2> | L=---  | H=1.0  | START AIR COMPR 2 TRIP INDICATION    |
| P: | P04336 | bar   | L=1.5  | H=---  | START AIR COMPR 2 LO INLET PRESS     |
| Q: | T04343 | degC  | L=---  | H=90.0 | START AIR COMPR 2 AIR OUTLET TEMP    |
| R: | Z04351 | %     | L=---  | H=80.0 | START AIR COMPR 2 AIRC WATER CONTENT |
| S: |        |       |        |        |                                      |
| T: |        |       |        |        |                                      |

## 2.24 Page:1702 AG17\*\* SERV AIR SYSTEM (2 - 2)

|    |        |       |       |        |   |
|----|--------|-------|-------|--------|---|
| A: |        |       |       |        |   |
| B: |        |       |       |        |   |
| C: | P04306 | bar   | L=5.0 | H=8.0  | SERV AIR RECEIVER PRESS                     |
| D: | Z04314 | %     | L=--- | H=50.0 | SERV AIR RECEIVER WATER CONTENT             |
| E: | V04454 | <0-1> | L=--- | H=1.0  | SERV AIR RECEIVER SAFETY VALVE              |
| F: |        |       |       |        |   |
| G: | X04505 | <0-2> | L=--- | H=1.0  | SERV AIR COMPR TRIP INDICATION              |
| H: | P04337 | bar   | L=1.5 | H=---  | SERV AIR COMPR LO INLET PRESS               |
| I: | T04344 | degC  | L=--- | H=90.0 | SERV AIR COMPR AIR OUTLET TEMP              |
| J: | Z04352 | %     | L=--- | H=80.0 | SERV AIR COMPR AIRC WATER CONTENT           |
| K: |        |       |       |        |   |
| L: |        |       |       |        |   |
| M: |        |       |       |        |   |
| N: | P04311 | bar   | L=2.5 | H=4.5  | CONTROL AIR PRESSURE                        |
| O: |        |       |       |        |   |
| P: | Z04315 | %     | L=--- | H=50.0 | SERV AIR FILTER WATER CONTENT               |
| Q: |        |       |       |        |   |
| R: | X04481 | %     | L=--- | H=20.0 | START AIR COMP1 AUTO TIME ON (% of OFFTIME) |
| S: | X04482 | %     | L=--- | H=20.0 | START AIR COMP2 AUTO TIME ON (% of OFFTIME) |
| T: | X04483 | %     | L=--- | H=20.0 | SERV AIR COMP AUTO TIME ON (% of OFFTIME)   |

**2.25 Page:1801 AG18\*\* FUEL OIL SUPPLY SYSTEM  
(1 - 4)**

|    |        |      |        |         |                              |
|----|--------|------|--------|---------|------------------------------|
| A: |        |      |        |         |                              |
| B: | P00023 | bar  | L=6.0  | H=12.0  | FO PRESSURE AT ME            |
| C: | T00002 | degC | L=10.0 | H=140.0 | FO TEMP AT ME                |
| D: | W00011 | cSt  | L=11.0 | H=17.0  | FO VISCOSITY AT ME           |
| E: |        |      |        |         |                              |
| F: | P00021 | bar  | L=---  | H=1.5   | ME FO FILTER DIFF PRESSURE   |
| G: | T00003 | degC | L=---  | H=140.0 | ME FO HEATER 1 OUTLET TEMP   |
| H: | T00004 | degC | L=---  | H=140.0 | ME FO HEATER 2 OUTLET TEMP   |
| I: |        |      |        |         |                              |
| J: | P00024 | bar  | L=3.0  | H=6.0   | FO SUPPLY PUMP PRESSURE      |
| K: |        |      |        |         |                              |
| L: | T00043 | degC | L=---  | H=140.0 | FO SUPPLY PUMP 1 CASING TEMP |
| M: | T00044 | degC | L=---  | H=140.0 | FO SUPPLY PUMP 2 CASING TEMP |
| N: |        |      |        |         |                              |
| O: |        |      |        |         |                              |
| P: | P00056 | bar  | L=---  | H=2.0   | ME FO HEATER 1 PRESS DROP    |
| Q: | P00057 | bar  | L=---  | H=2.0   | ME FO HEATER 2 PRESS DROP    |
| R: |        |      |        |         |                              |
| S: |        |      |        |         |                              |
| T: |        |      |        |         |                              |

**2.26 Page:1802 AG18\*\* FO SERVICE TANKS (2 - 4)**

|    |        |       |        |        |                            |
|----|--------|-------|--------|--------|----------------------------|
| A: |        |       |        |        |                            |
| B: |        |       |        |        |                            |
| C: |        |       |        |        |                            |
| D: | L00300 | m     | L=1.8  | H=4.8  | HFO SERVICE TANK LEVEL     |
| E: | T00302 | degC  | L=60.0 | H=80.0 | HFO SERVICE TANK TEMP      |
| F: | G00305 | ton/h | L=---  | H=0.1  | HFO SERVICE TANK OVER FLOW |
| G: |        |       |        |        |                            |
| H: |        |       |        |        |                            |
| I: | L00340 | m     | L=1.5  | H=4.8  | DO SERVICE TANK LEVEL      |
| J: | T00342 | degC  | L=30.0 | H=50.0 | DO SERVICE TANK TEMP       |
| K: | G00345 | ton/h | L=---  | H=0.1  | DO SERVICE TANK OVER FLOW  |
| L: |        |       |        |        |                            |
| M: |        |       |        |        |                            |
| N: |        |       |        |        |                            |
| O: |        |       |        |        |                            |
| P: |        |       |        |        |                            |
| Q: |        |       |        |        |                            |
| R: |        |       |        |        |                            |
| S: |        |       |        |        |                            |
| T: |        |       |        |        |                            |

## 2.27 Page:1803 AG18\*\* HFO SETTLING TANKS (3 - 4)

|    |        |       |        |        |                             |
|----|--------|-------|--------|--------|-----------------------------|
| A: |        |       |        |        |                             |
| B: |        |       |        |        |                             |
| C: | L00400 | m     | L=2.0  | H=4.8  | SETTLING TANK 1 LEVEL       |
| D: | T00401 | degC  | L=60.0 | H=80.0 | SETTLING TANK 1 TEMPERATURE |
| E: | L00402 | m     | L=---  | H=0.8  | SETTLING TANK 1 WATER LEVEL |
| F: | G00404 | ton/h | L=---  | H=0.1  | SETTLING TANK 1 OVER FLOW   |
| G: |        |       |        |        |                             |
| H: |        |       |        |        |                             |
| I: | L00440 | m     | L=2.0  | H=4.8  | SETTLING TANK 2 LEVEL       |
| J: | T00441 | degC  | L=60.0 | H=80.0 | SETTLING TANK 2 TEMPERATURE |
| K: | L00442 | m     | L=---  | H=0.8  | SETTLING TANK 2 WATER LEVEL |
| L: | G00444 | ton/h | L=---  | H=0.1  | SETTLING TANK 2 OVER FLOW   |
| M: |        |       |        |        |                             |
| N: |        |       |        |        |                             |
| O: |        |       |        |        |                             |
| P: |        |       |        |        |                             |
| Q: |        |       |        |        |                             |
| R: |        |       |        |        |                             |
| S: |        |       |        |        |                             |
| T: |        |       |        |        |                             |

## 2.28 Page:1804 AG18\*\* SPILL OIL TANK / BUNKER TANKS (4 - 4)

|    |        |      |        |       |                           |
|----|--------|------|--------|-------|---------------------------|
| A: |        |      |        |       |                           |
| B: |        |      |        |       |                           |
| C: | L00263 | m    | L=---  | H=1.5 | SPILL OIL TANK LEVEL      |
| D: |        |      |        |       |                           |
| E: |        |      |        |       |                           |
| F: | L00202 | m    | L=---  | H=3.9 | AFT BUNKER TANK FO LEVEL  |
| G: | L00216 | m    | L=---  | H=3.9 | PORT BUNKER TANK FO LEVEL |
| H: | L00232 | m    | L=---  | H=3.9 | STBD BUNKER TANK FO LEVEL |
| I: | L00246 | m    | L=---  | H=3.9 | FORE BUNKER TANK FO LEVEL |
| J: |        |      |        |       |                           |
| K: | T00205 | degC | L=40.0 | H=--- | AFT BUNKER TANK FO TEMP   |
| L: | T00221 | degC | L=40.0 | H=--- | PORT BUNKER TANK FO TEMP  |
| M: | T00235 | degC | L=40.0 | H=--- | STBD BUNKER TANK FO TEMP  |
| N: | T00251 | degC | L=40.0 | H=--- | FORE BUNKER TANK FO TEMP  |
| O: |        |      |        |       |                           |
| P: |        |      |        |       |                           |
| Q: |        |      |        |       |                           |
| R: |        |      |        |       |                           |
| S: |        |      |        |       |                           |
| T: |        |      |        |       |                           |

**2.29 Page:1901 AG19\*\* PURIFIER SYSTEM (1 - 1)**

|    |        |       |        |         |   |
|----|--------|-------|--------|---------|---|
| A: | T04021 | degC  | L=90.0 | H=105.0 | HFO SEP 1 HEATER OUTLET TEMP            |
| B: | L04041 | m     | L=0.3  | H=0.9   | HFO SEP 1 OPERATING WATER TANK LEVEL    |
| C: | X04026 | <0-7> | L=---  | H=1.0   | HFO SEP 1 TRIP INDICATOR                |
| D: | Z04018 | %     | L=0.1  | H=0.8   | HFO SEP 1 OUTLET OIL FLOW WATER CONTENT |
| E: | T24021 | degC  | L=90.0 | H=105.0 | HFO SEP 2 HEATER OUTLET TEMP            |
| F: | L24041 | m     | L=0.3  | H=0.9   | HFO SEP 2 WATER TANK LEVEL              |
| G: | X24026 | <0-7> | L=---  | H=1.0   | HFO SEP 2 TRIP INDICATOR                |
| H: | Z24018 | %     | L=0.1  | H=0.8   | HFO SEP 2 OUTLET OIL FLOW WATER CONTENT |
| I: |        |       |        |         |   |
| J: | T04221 | degC  | L=80.0 | H=95.0  | LO PURIF HEATER OUTLET TEMP             |
| K: | L04241 | m     | L=0.3  | H=0.9   | LO PURIF OPERATING WATER TANK LEVEL     |
| L: | Z04216 | %     | L=---  | H=90.0  | LO PURIF SLUDGE FLOW OIL INDEX          |
| M: | X04256 | <0-1> | L=---  | H=1.0   | LO PURIF LOST SEAL (low pressure)       |
| N: |        |       |        |         |   |
| O: | T04121 | degC  | L=45.0 | H=70.0  | DO PURIF HEATER OUTLET TEMP             |
| P: | L04141 | m     | L=0.3  | H=0.9   | DO PURIF OPERATING WATER TANK LEVEL     |
| Q: | Z04116 | %     | L=---  | H=90.0  | DO PURIF SLUDGE FLOW OIL INDEX          |
| R: | X04156 | <0-1> | L=---  | H=1.0   | DO PURIF LOST SEAL (low pressure)       |
| S: |        |       |        |         |   |
| T: | P05266 | bar   | L=6.0  | H=---   | PURIF (HFO/DO/LO) STEAM SUPPLY PRESS    |

**2.30 Page:2001 AG20\*\* BILGE WELLS / SLUDGE TANK (1 - 2)**

|    |        |   |       |       |                           |
|----|--------|---|-------|-------|---------------------------|
| A: |        |   |       |       |                           |
| B: |        |   |       |       |                           |
| C: | L06400 | m | L=--- | H=0.5 | ER Aft bilge well level   |
| D: | L06405 | m | L=--- | H=0.5 | ER Port bilge well level  |
| E: | L06414 | m | L=--- | H=0.5 | ER Stbd bilge well level  |
| F: | L06422 | m | L=--- | H=0.5 | ER Fwd bilge well level   |
| G: |        |   |       |       |                           |
| H: |        |   |       |       |                           |
| I: |        |   |       |       |                           |
| J: | L06432 | m | L=--- | H=1.5 | SLUDGE TANK LEVEL (total) |
| K: |        |   |       |       |                           |
| L: |        |   |       |       |                           |
| M: |        |   |       |       |                           |
| N: |        |   |       |       |                           |
| O: |        |   |       |       |                           |
| P: |        |   |       |       |                           |
| Q: |        |   |       |       |                           |
| R: |        |   |       |       |                           |
| S: |        |   |       |       |                           |
| T: |        |   |       |       |                           |

## 2.31 Page:2002 AG20\*\* BILGE WATER SEPARATOR (2 - 2)

A:  
B:  
C: T06466 degC L=65.0 H=95.0 BILGE SEP OIL/WATER SETTLING TEMP  
D:  
E: L06465 % L=--- H=40.0 BILGE SEP OIL/WATER INTERFACE LEVEL  
F:  
G:  
H: Z06463 ppm L=--- H=15.0 BILGE SEP FLOW OIL PPM (measuring cell)  
I:  
J:  
K:  
L: X06496 % L=--- H=20.0 BILGE PUMP AUTO TIME ON (% of OFFTIME)  
M: L06490 m L=--- H=0.8 CLEAN BILGE WATER TANK LEVEL  
N:  
O:  
P:  
Q:  
R:  
S:  
T:

## 2.32 Page:2101 AG21\*\* FIRE DETECTION SYSTEM (1 - 1)

A:  
B:  
C: Z00570 <0-2> L=--- H=1.0 FIRE DETECTION (engine room)  
D:  
E: Z00571 <0-2> L=--- H=1.0 FIRE DETECTION (deck)  
F:  
G:  
H:  
I:  
J:  
K:  
L:  
M:  
N:  
O:  
P:  
Q:  
R:  
S:  
T:

**2.33 Page:2201 AG22\*\* MAIN SW (BALLAST)  
SYSTEM (1 - 2)**

A:  
B:  
C: P10001 bar L=4.0 H=--- MAIN SW LINE PRESSURE  
D:  
E:  
F: L10102 m L=--- H=3.9 AFT SW BALLAST TANK LEVEL  
G: L10112 m L=--- H=3.9 PORT SW BALLAST TANK LEVEL  
H: L10122 m L=--- H=3.9 STBD SW BALLAST TANK LEVEL  
I: L10132 m L=--- H=3.9 FORE SW BALLAST TANK LEVEL  
J:  
K:  
L:  
M:  
N:  
O:  
P:  
Q:  
R:  
S:  
T:

**2.34 Page:2301 AG23\*\* ELECTRIC POWER SYSTEM  
(1 - 3)**

A: V06140 Volt L=405.0 H=465.0 MAIN BUS BAR 1 VOLTAGE  
B: F06141 Hz L=56.0 H=64.0 MAIN BUS BAR 1 FREQUENCY  
C: V06144 Volt L=400.0 H=470.0 MAIN BUS BAR 2 VOLTAGE  
D: F06145 Hz L=54.0 H=66.0 MAIN BUS BAR 2 FREQUENCY  
E: V06191 Volt L=400.0 H=470.0 MAIN BUS BAR 3 VOLTAGE  
F: F06192 Hz L=54.0 H=66.0 MAIN BUS BAR 3 FREQUENCY  
G:  
H:  
I: X07077 <0-2> L=--- H=1.0 POWERCHIEF PUMP CONTROL (STBY start)  
J:  
K: E06000 kW L=--- H=650.0 DG 1 ACTIVE LOAD  
L: I06003 A L=--- H=940.0 DG 1 CURRENT  
M:  
N: E06020 kW L=--- H=650.0 DG 2 ACTIVE LOAD  
O: I06023 A L=--- H=940.0 DG 2 CURRENT  
P:  
Q: E06060 kW L=--- H=650.0 SG 1 ACTIVE LOAD  
R: I06063 A L=--- H=940.0 SG 1 CURRENT  
S: E06100 kW L=--- H=650.0 SG 2 ACTIVE LOAD  
T: I06103 A L=--- H=940.0 SG 2 CURRENT



**2.35 Page:2302 AG23\*\* ELECTRIC POWER SYSTEM  
 (2 - 3)**

|    |        |       |         |         |                              |
|----|--------|-------|---------|---------|------------------------------|
| A: | I06142 | mA    | L=---   | H=20.0  | EARTH LEAKAGE CURRENT - 440V |
| B: | I06143 | mA    | L=---   | H=20.0  | EARTH LEAKAGE CURRENT - 220V |
| C: |        |       |         |         |                              |
| D: | X06014 | <0-6> | L=---   | H=1.0   | DG 1 CIRCUIT BREAKER TRIP    |
| E: |        |       |         |         |                              |
| F: | X06034 | <0-6> | L=---   | H=1.0   | DG 2 CIRCUIT BREAKER TRIP    |
| G: |        |       |         |         |                              |
| H: | X06074 | <0-6> | L=---   | H=1.0   | SG 1 CIRCUIT BREAKER TRIP    |
| I: |        |       |         |         |                              |
| J: | X06114 | <0-6> | L=---   | H=1.0   | SG 2 CIRCUIT BREAKER TRIP    |
| K: |        |       |         |         |                              |
| L: | X06166 | <0-2> | L=---   | H=1.0   | SHORE CONNECTION TRIP        |
| M: |        |       |         |         |                              |
| N: | E06163 | kW    | L=-40.0 | H=180.0 | SHORE CONNECTION POWER       |
| O: |        |       |         |         |                              |
| P: |        |       |         |         |                              |
| Q: | X06220 | <0-2> | L=---   | H=2.0   | DG 1 AUTO CONTROL            |
| R: | X06224 | <0-2> | L=---   | H=2.0   | DG 2 AUTO CONTROL            |
| S: | X06234 | <0-2> | L=---   | H=2.0   | SG 1 AUTO CONTROL            |
| T: | X06240 | <0-2> | L=---   | H=2.0   | SG 2 AUTO CONTROL            |

**2.36 Page:2303 AG23\*\* ELECTRIC POWER SYSTEM  
 (3 - 3)**

|    |        |       |       |       |                           |
|----|--------|-------|-------|-------|---------------------------|
| A: |        |       |       |       |                           |
| B: | X06250 | <0-2> | L=--- | H=1.0 | PCHIEF NONE ESS LOAD TRIP |
| C: |        |       |       |       |                           |
| D: | X06861 | <0-1> | L=--- | H=1.0 | HIGH LOAD (LOW MARGINE)   |
| E: |        |       |       |       |                           |
| F: | X06247 | <0-1> | L=--- | H=1.0 | PCHIEF S/S REQUEST        |
| G: |        |       |       |       |                           |
| H: |        |       |       |       |                           |
| I: |        |       |       |       |                           |
| J: |        |       |       |       |                           |
| K: |        |       |       |       |                           |
| L: |        |       |       |       |                           |
| M: |        |       |       |       |                           |
| N: |        |       |       |       |                           |
| O: |        |       |       |       |                           |
| P: |        |       |       |       |                           |
| Q: |        |       |       |       |                           |
| R: |        |       |       |       |                           |
| S: |        |       |       |       |                           |
| T: |        |       |       |       |                           |

**2.37 Page:2401 AG20\*\* DIESELGENERATOR 1**

|    |        |       |        |          |                               |
|----|--------|-------|--------|----------|-------------------------------|
| A: | X03160 | <0-5> | L=---  | H=1.0    | DG 1 TRIP INDICATION          |
| B: |        |       |        |          |                               |
| C: | N03100 | rpm   | L=---  | H=1400.0 | DG 1 SPEED                    |
| D: | T03020 | degC  | L=---  | H=85.0   | DG 1 FW TEMP OUTLET DG        |
| E: | P03012 | bar   | L=0.7  | H=---    | DG 1 FW PRESS INLET DG        |
| F: |        |       |        |          |                               |
| G: | T03057 | degC  | L=---  | H=610.0  | DG 1 EXHAUST TEMP INLET TBCH  |
| H: | T03060 | degC  | L=---  | H=540.0  | DG 1 EXHAUST TEMP OUTLET TBCH |
| I: | T03051 | degC  | L=---  | H=80.0   | DG 1 AIR TEMP OUTLET AIRC     |
| J: |        |       |        |          |                               |
| K: | P03066 | bar   | L=---  | H=1.0    | DG 1 FO FILTER DIFF PRESS     |
| L: | P03032 | bar   | L=1.4  | H=---    | DG 1 LO PRESS INLET DG        |
| M: | T03037 | degC  | L=---  | H=---    | DG 1 LO TEMP INLET DG         |
| N: | L03045 | %     | L=30.0 | H=90.0   | DG 1 LO SUMP LEVEL            |
| O: |        |       |        |          |                               |
| P: | T03034 | degC  | L=---  | H=85.0   | DG 1 BEARING 1 TEMPERATURE    |
| Q: | T03035 | degC  | L=---  | H=85.0   | DG 1 BEARING 2 TEMPERATURE    |
| R: |        |       |        |          |                               |
| S: | L03026 | %     | L=30.0 | H=90.0   | DG 1 FW EX. TANK LEVEL        |
| T: | P04425 | bar   | L=15.0 | H=---    | DG 1 START AIR SUPPLY PRESS   |

**2.38 Page:2402 AG20\*\* DIESELGENERATOR 1**

|    |        |      |       |         |                           |
|----|--------|------|-------|---------|---------------------------|
| A: |        |      |       |         |                           |
| B: | T03081 | degC | L=--- | H=610.0 | DG 1 EXHAUST TEMP CYL 1   |
| C: | T03082 | degC | L=--- | H=610.0 | DG 1 EXHAUST TEMP CYL 2   |
| D: | T03083 | degC | L=--- | H=610.0 | DG 1 EXHAUST TEMP CYL 3   |
| E: | T03084 | degC | L=--- | H=610.0 | DG 1 EXHAUST TEMP CYL 4   |
| F: | T03085 | degC | L=--- | H=610.0 | DG 1 EXHAUST TEMP CYL 5   |
| G: | T03086 | degC | L=--- | H=610.0 | DG 1 EXHAUST TEMP CYL 6   |
| H: |        |      |       |         |                           |
| I: |        |      |       |         |                           |
| J: |        |      |       |         |                           |
| K: | T03091 | degC | L=--- | H=85.0  | DG 1 FW TEMP OUTLET CYL 1 |
| L: | T03092 | degC | L=--- | H=85.0  | DG 1 FW TEMP OUTLET CYL 2 |
| M: | T03093 | degC | L=--- | H=85.0  | DG 1 FW TEMP OUTLET CYL 3 |
| N: | T03094 | degC | L=--- | H=85.0  | DG 1 FW TEMP OUTLET CYL 4 |
| O: | T03095 | degC | L=--- | H=85.0  | DG 1 FW TEMP OUTLET CYL 5 |
| P: | T03096 | degC | L=--- | H=85.0  | DG 1 FW TEMP OUTLET CYL 6 |
| Q: |        |      |       |         |                           |
| R: |        |      |       |         |                           |
| S: |        |      |       |         |                           |
| T: |        |      |       |         |                           |

## 2.39 Page:2403 AG20\*\* DIESELGENERATOR 2

|    |        |       |        |          |                               |
|----|--------|-------|--------|----------|-------------------------------|
| A: | X03360 | <0-5> | L=---  | H=1.0    | DG 2 TRIP INDICATION          |
| B: |        |       |        |          |                               |
| C: | N03300 | rpm   | L=---  | H=1400.0 | DG 2 SPEED                    |
| D: | T03220 | degC  | L=---  | H=85.0   | DG 2 FW TEMP OUTLET DG        |
| E: | P03212 | bar   | L=0.7  | H=---    | DG 2 FW PRESS INLET DG        |
| F: |        |       |        |          |                               |
| G: | T03257 | degC  | L=---  | H=610.0  | DG 2 EXHAUST TEMP INLET TBCH  |
| H: | T03260 | degC  | L=---  | H=540.0  | DG 2 EXHAUST TEMP OUTLET TBCH |
| I: | T03251 | degC  | L=---  | H=80.0   | DG 2 AIR TEMP OUTLET AIRC     |
| J: |        |       |        |          |                               |
| K: | P03266 | bar   | L=---  | H=1.0    | DG 2 FO FILTER DIFF PRESS     |
| L: | P03232 | bar   | L=1.4  | H=---    | DG 2 LO PRESS INLET DG        |
| M: | T03237 | degC  | L=---  | H=---    | DG 2 LO TEMP INLET DG         |
| N: | L03245 | %     | L=30.0 | H=90.0   | DG 2 LO SUMP LEVEL            |
| O: |        |       |        |          |                               |
| P: | T03234 | degC  | L=---  | H=85.0   | DG 2 BEARING 1 TEMPERATURE    |
| Q: | T03235 | degC  | L=---  | H=85.0   | DG 2 BEARING 2 TEMPERATURE    |
| R: |        |       |        |          |                               |
| S: | L03226 | %     | L=30.0 | H=90.0   | DG 2 FW EX. TANK LEVEL        |
| T: | P04426 | bar   | L=15.0 | H=---    | DG 2 START AIR SUPPLY PRESS   |

## 2.40 Page:2404 AG20\*\* DIESELGENERATOR 2

|    |        |      |       |         |                           |
|----|--------|------|-------|---------|---------------------------|
| A: |        |      |       |         |                           |
| B: | T03281 | degC | L=--- | H=610.0 | DG 2 EXHAUST TEMP CYL 1   |
| C: | T03282 | degC | L=--- | H=610.0 | DG 2 EXHAUST TEMP CYL 2   |
| D: | T03283 | degC | L=--- | H=610.0 | DG 2 EXHAUST TEMP CYL 3   |
| E: | T03284 | degC | L=--- | H=610.0 | DG 2 EXHAUST TEMP CYL 4   |
| F: | T03285 | degC | L=--- | H=610.0 | DG 2 EXHAUST TEMP CYL 5   |
| G: | T03286 | degC | L=--- | H=610.0 | DG 2 EXHAUST TEMP CYL 6   |
| H: |        |      |       |         |                           |
| I: |        |      |       |         |                           |
| J: |        |      |       |         |                           |
| K: | T03291 | degC | L=--- | H=85.0  | DG 2 FW TEMP OUTLET CYL 1 |
| L: | T03292 | degC | L=--- | H=85.0  | DG 2 FW TEMP OUTLET CYL 2 |
| M: | T03293 | degC | L=--- | H=85.0  | DG 2 FW TEMP OUTLET CYL 3 |
| N: | T03294 | degC | L=--- | H=85.0  | DG 2 FW TEMP OUTLET CYL 4 |
| O: | T03295 | degC | L=--- | H=85.0  | DG 2 FW TEMP OUTLET CYL 5 |
| P: | T03296 | degC | L=--- | H=85.0  | DG 2 FW TEMP OUTLET CYL 6 |
| Q: |        |      |       |         |                           |
| R: |        |      |       |         |                           |
| S: |        |      |       |         |                           |
| T: |        |      |       |         |                           |

**2.41 Page:2501 AG25\*\* STEAM SYSTEM (1 - 1)**

|    |        |       |          |         |                                   |
|----|--------|-------|----------|---------|-----------------------------------|
| A: |        |       |          |         |                                   |
| B: |        |       |          |         |                                   |
| C: | X05050 | <0-4> | L=---    | H=1.0   | BURNER TRIP INDICATION            |
| D: |        |       |          |         |                                   |
| E: |        |       |          |         |                                   |
| F: | P05011 | bar   | L=6.0    | H=8.0   | BOILER STEAM PRESURE              |
| G: | L05010 | mm    | L=-150.0 | H=150.0 | BOILER WATER LEVEL                |
| H: |        |       |          |         |                                   |
| I: | L05143 | m     | L=0.5    | H=1.9   | FEED WATER TANK LEVEL             |
| J: |        |       |          |         |                                   |
| K: |        |       |          |         |                                   |
| L: | T05016 | degC  | L=---    | H=300.0 | BOILER EXHAUST OUTLET TEMPERATURE |
| M: |        |       |          |         |                                   |
| N: | P05024 | mmWC  | L=---    | H=200.0 | BOILER EXHAUST PRESSURE DROP      |
| O: |        |       |          |         |                                   |
| P: |        |       |          |         |                                   |
| Q: |        |       |          |         |                                   |
| R: |        |       |          |         |                                   |
| S: |        |       |          |         |                                   |
| T: |        |       |          |         |                                   |

**2.42 Page:2601 AG26\*\* REFRIGERATION SYSTEM (1 - 2)**

|    |        |       |         |         |                                 |
|----|--------|-------|---------|---------|---------------------------------|
| A: |        |       |         |         |                                 |
| B: | T06554 | degC  | L=-35.0 | H=-25.0 | REFRIG CARGO HOLD AIR TEMP      |
| C: | T16554 | degC  | L=2.0   | H=8.0   | REFRIG PROV STORE AIR TEMP      |
| D: |        |       |         |         |                                 |
| E: |        |       |         |         |                                 |
| F: | X06524 | <0-5> | L=---   | H=1.0   | REFRIG COMP TRIP INDICATION     |
| G: | E06533 | kW    | L=---   | H=230.0 | REFRIG COMP ELECTRIC POWER      |
| H: |        |       |         |         |                                 |
| I: | P06530 | bar   | L=0.7   | H=---   | REFRIG COMP SUCTION PRESS       |
| J: | P06527 | bar   | L=---   | H=16.0  | REFRIG COMP DISCHARGE PRESS     |
| K: | T06532 | degC  | L=---   | H=90.0  | REFRIG COMP DISCHARGE TEMP      |
| L: |        |       |         |         |                                 |
| M: | P06571 | bar   | L=1.5   | H=---   | REFRIG COMP LO INLET DIFF PRESS |
| N: |        |       |         |         |                                 |
| O: |        |       |         |         |                                 |
| P: |        |       |         |         |                                 |
| Q: |        |       |         |         |                                 |
| R: |        |       |         |         |                                 |
| S: |        |       |         |         |                                 |
| T: |        |       |         |         |                                 |

**2.43 Page:2602 AG26\*\* REFRIGERATION SYSTEM (2 - 2)**

|    |        |      |        |        |                                       |
|----|--------|------|--------|--------|---------------------------------------|
| A: |        |      |        |        |                                       |
| B: |        |      |        |        |                                       |
| C: | P06500 | bar  | L=---  | H=30.0 | REFRIG CONDENSER PRESSURE             |
| D: | P06511 | bar  | L=0.7  | H=---  | REFRIG CARGO HOLD EVAP PRESSURE       |
| E: | P16511 | bar  | L=3.0  | H=6.0  | REFRIG PROV STORE EVAP PRESSURE       |
| F: | L06501 | %    | L=---  | H=40.0 | REFRIG CONDENSER LEVEL                |
| G: | L06542 | %    | L=10.0 | H=80.0 | REFRIG RECEIVER LEVEL                 |
| H: | L06512 | %    | L=---  | H=50.0 | REFRIG CARGO HOLD EVAP LIQUID CONTENT |
| I: | L16512 | %    | L=---  | H=50.0 | REFRIG PROV STORE EVAP LIQUID CONT    |
| J: | L06537 | %    | L=20.0 | H=80.0 | REFRIG COMP OIL SEP OIL LEVEL         |
| K: | T06567 | degC | L=10.0 | H=55.0 | REFRIG COMP LO INLET TEMP             |
| L: | T06535 | degC | L=---  | H=80.0 | REFRIG COMP THRUST BEARING TEMP       |
| M: |        |      |        |        |                                       |
| N: | T06504 | degC | L=---  | H=40.0 | REFRIG COND SW OUTLET TEMP            |
| O: |        |      |        |        |                                       |
| P: |        |      |        |        |                                       |
| Q: |        |      |        |        |                                       |
| R: |        |      |        |        |                                       |
| S: |        |      |        |        |                                       |
| T: |        |      |        |        |                                       |

**2.44 Page:2701 AG27\*\* FRESH WATER GENERATOR (1 - 1)**

|    |        |       |        |         |  |
|----|--------|-------|--------|---------|--|
| A: |        |       |        |         |  |
| B: | Z06674 | ppm   | L=---  | H=15.0  | PRODUCED FRESH WATER FLOW SALINITY       |
| C: |        |       |        |         |  |
| D: |        |       |        |         |  |
| E: | T06710 | degC  | L=---  | H=100.0 | FRESH W GEN COOLING FLOW OUTLET TEMP     |
| F: | T06704 | degC  | L=40.0 | H=---   | FW GEN HEATING FLOW OUTLET TEMP          |
| G: | T06764 | degC  | L=40.0 | H=---   | FW GEN HEATING FLOW OUTLET TEMP, SECT. 2 |
| H: |        |       |        |         |  |
| I: | L06671 | %     | L=---  | H=90.0  | FRESH W GEN COOLER DISTILLATE LEVEL      |
| J: |        |       |        |         |  |
| K: |        |       |        |         |  |
| L: | P06661 | bara  | L=---  | H=0.5   | FRESH W GEN PRESSURE (total)             |
| M: |        |       |        |         |  |
| N: | P06660 | bar   | L=4.0  | H=---   | EJECTOR PUMP DISCHARGE PRESSURE          |
| O: |        |       |        |         |  |
| P: |        |       |        |         |  |
| Q: | X06676 | <0-2> | L=---  | H=2.0   | SALINITY CONTROL AUTO SELECT             |
| R: | L06648 | %     | L=30.0 | H=90.0  | FRESH W GEN STORAGE TANK LEVEL           |
| S: |        |       |        |         |  |
| T: |        |       |        |         |  |

**2.45 Page:2801 AG28\*\* STEERING GEAR SYSTEM  
(1 - 1)**

|    |        |      |        |        |                                       |
|----|--------|------|--------|--------|---------------------------------------|
| A: |        |      |        |        |                                       |
| B: | P15809 | bar  | =---   | H=1.5  | STEERING GEAR OIL FILTER 1 DIFF PRESS |
| C: | P15810 | bar  | L=---  | H=1.5  | STEERING GEAR OIL FILTER 2 DIFF PRESS |
| D: |        |      |        |        |                                       |
| E: | T15801 | degC | L=---  | H=50.0 | STEERING GEAR OIL SUMP 1 TEMP         |
| F: | T15802 | degC | L=---  | H=50.0 | STEERING GEAR OIL SUMP 2 TEMP         |
| G: |        |      |        |        |                                       |
| H: |        |      |        |        |                                       |
| I: | L15801 | %    | L=50.0 | H=95.0 | STEERING GEAR EXP TANK 1 LEVEL        |
| J: | L15802 | %    | L=50.0 | H=95.0 | STEERING GEAR EXP TANK 2 LEVEL        |
| K: |        |      |        |        |                                       |
| L: | L15803 | %    | L=30.0 | H=---  | STEERING GEAR OIL SUMP 1 LEVEL        |
| M: | L15804 | %    | L=30.0 | H=---  | STEERING GEAR OIL SUMP 2 LEVEL        |
| N: |        |      |        |        |                                       |
| O: |        |      |        |        |                                       |
| P: |        |      |        |        |                                       |
| Q: |        |      |        |        |                                       |
| R: |        |      |        |        |                                       |
| S: |        |      |        |        |                                       |
| T: |        |      |        |        |                                       |