AFLOAT

Main Propulsion (Steam)

(3PS)

Checklist

UPDATED April 2016

SAFETY REVIEW ITEMS - Main Propulsion (Steam)

01. Pumps and Auxiliary Machinery

1. (B4B2) ARE AUXILIARY MACHINERY GOVERNORS, CONTROLS AND LINKAGES OPERATIVE AND IN SATISFACTORY CONDITION IAW CURRENT IAW CURRENT DIRECTIVES?

REF: NSTM 503 -2.9

NSTM 502 -4.3 & -4.4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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02. Steam Turbines and Reduction Gears

2. (C1C0) ARE THE FLANGE SHIELDS OIL SOAKED?

REF: NSTM 505 -7.9.4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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3. (C1D0) ARE AHEAD AND ASTERN THROTTLES PADLOCKED WHEN THE TURNING GEAR IS ENGAGED?

REF: NSTM 241 -3.4.7.B

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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4. (C1E0) IS THERE A WARNING SIGN INDICATING THAT THE TURNING GEAR IS ENGAGED?

REF: NSTM 241 -3.4.7(B)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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03. Main Shafting/Spring Bearings

5. (D1B0) ARE THERMOMETERS INSTALLED?

REF: NSTM 244 -2.4.3.13,

GSO 244 B.3

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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6. (D1C0) ARE BEARING SUMP DRAINS PROPERLY INSTALLED?

REF: COMNAVSURFLANTINST/PACINST (EDORM) 3540.22 44O7

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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7. (D1F0) ARE BULKHEAD SEALS IN GOOD MECHANICAL CONDITION, SELF ALIGNING AND CAPABLE OF BEING ACTIVATED FROM EITHER SIDE OF THE BULKHEAD AND NOT IN CONTACT WITH THE SHAFT WHEN NOT IN USE?

REF: NSTM 244-6.6.2
GSO 244 B (9)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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04. Main Shaft Seal

8. (D2B0) ARE COOLING WATER PIPING/VALVES IN GOOD OVERALL CONDITIONS (NO SIGNS OF LEAKAGE, DENTS, GOUGES, CORROSION, ETC.)?

REF: NSTM 244 -6.4 (FIGURE 244-6-12)
GSO 244 B8
NSTM 505

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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9. (D2C0) ARE GUAGES INSTALLED/CALIBRATED?

REF: GSO 504 E, F, G,
NSTM 504 -3.7.1
PMS MIP 9802

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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10. (D2D0) IS PHYSICAL SECURITY IN PLACE FOR EQUIPMENT REQUIRING LOCKS OR LOCKING DEVICE?

REF: COMNAVSURFORINST 3540 Series 4407

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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11. (D2E0) IS THERE A MEANS FOR INFLATING SEAL?

REF: PMS MIP 2400 S-1

NSTM 244 -6.3.3

GSO 244 B.83.

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

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12. (D2F0) IS PMS BEING ACCOMPLISHED ON CO2/N2 BOTTLE FOR SEAL?

REF: PMS MIP 2431 24M-3

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

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13. (D2G0) IS THERE A SHAFT SEAL COOLING WATER SYSTEM OPERATING INSTRUCTION AND CASUALTY CONTROL PROCEDURES AVAILABLE FOR THE WATCHSTANDERS?

REF: NSTM 079 -46.1

EOSS/EOCC

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

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14. (D2I0) IS EMERGENCY PACKING / INFLATION HOSES STOWED IN VICINITY OF STERN TUBE SEAL?

REF: NSTM 244-6.5

GSO 244 B8 (2)

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

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05. Lube Oil System

15. (E1A0) ARE LUBE OIL STRAINER SHIELDS INSTALLED AND IN GOOD CONDITION?

REF: NSTM 505 -7.9.5

NAVSEA 0948-LP-102-2010

GSO 505 E7

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

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06. Ship Service Turbo Generators

16. (F1B0) ARE LUBE OIL STRAINER SHIELDS PROPERLY INSTALLED AND IN SATISFACTORY CONDITION?

REF: NSTM 505 -7.9.5

NAVSEA 0948-LP-102-2010

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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17. (F1D0) ARE PROPER FLANGE SHIELDS INSTALLED AND IN SATISFACTORY CONDITION?

REF: NSTM 505 -7.9.4.2

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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18. (F1E0) ARE THE LUBE OIL FLANGE SHIELDS SOAKED WITH OIL?

REF: NSTM 505 -7.9.4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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19. (F1F0) ARE AIR COOLER TELL TALE DRAINS VISIBLE AND PROPERLY INSTALLED?

REF: NSTM 231-2.7.1

GSO 534 C4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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07. Combined Exhaust Relief

20. (G2A0) ARE COMBINED EXHAUST RELIEF VALVES INSTALLED PROPERLY?

REF: NSTM 505 - 9.17.3

PMS MIP 5000 72M-1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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21. (G2B0) ARE OPERATING AND WARNING PLATES INSTALLED?

REF: NSTM 505 -9.16.3.2

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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08. Signs and Placards

22. (H3B1) DO SUPERHEATERS THERMOMETERS HAVE WARNING SIGNS INSTALLED AT SENSING POINT?

REF: GSO 602 H

NSTM 221 -3.6

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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23. (H3B2) ARE OPERATION/SAFETY PLACARDS POSTED AT EACH SAMPLE COOLER/TREATMENT TANK?

REF: NSTM 220 -27.12

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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24. (H3B3) IS FINE WIRE MESH SCREEN INSTALLED IN CHEMICAL INJECTION TANK FUNNEL?

REF: NAVSHIPS DRWG 803-1385735 REV G Sheet 2 of 3.

GSO 534 B

NAVSHIPS DWG 804-6397312

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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25. (H3C3) IS THERE A BOILER INSPECTION DEVICE AVAILABLE?

REF: NSTM 221 -4.2.6

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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26. (H3C4) IS THERE ONE 27 LB PORTABLE DRY CHEMICAL (PKP) FIRE EXTINGUISHER MOUNTED NEAR THE BURNER FRONT OF THE BOILER?

REF: EOCC MCBF

GSO 555 D

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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27. (H3C5) IS THERE A SHOCK HAZARD WARNING SIGN POSTED AT AUXILIARY BOILER CIRCUIT CONTROL PANEL?

REF: NAVSHIPS DRWG RE-2699757

GSO 070 H

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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09. Bottom Blow System

28. (H7A0) DO BOILERS HAVE GUARDING VALVES FOR EACH BOILER?

REF: NAVSHIPS DRWG 804-841733 BOILER BLOW SYSTEM DRAWING

NSTM 220 FIGURE 220-22-8

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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29. (H7A1) ARE WARNING PLATES POSTED AT EACH VALVE, STATING: "WARNING- THIS VALVE NOT TO BE OPENED WHILE BURNERS ARE IN OPERATION"?

REF: NAVSHIPS DRWG 804-841733 Rev J BOILER BLOW SYSTEM DRAWING Note 1

GSO 221 N.18

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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30. (H7A2) DOES BILGE GRAVITY DRAIN HOSE VALVE HAVE CAP INSTALLED, VENTED AND TETHERED TO THE VALVE?

REF: NAVSHIPS STD DWG 804-841733 Rev J BOILER BLOW SYSTEM DRAWING Note 3

NSTM 220 -22.23.1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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31. (H7A3) ARE IDLE BOILERS UNDER DRY OR WET LAY UP?

REF: NSTM 221 -2.3

NSTM 220 -30.28

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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10. Soot Blower System

32. (H8A0) IS SOOT BLOWER PIPING IN GOOD OVERALL CONDITION (NO SIGNS OF LEAKAGE, DENTS, GOUGES, CORROSION)?

REF: NSTM 221 -3.3.6.1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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33. (H8A1) ARE LAGGING ENDS SEALED ON FLANGED LINES?

REF: NSTM 635 -2.6.6
NAVSHIPS DWG 804-841336

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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11. Boiler Gauge Glasses

34. (H9A0) IS NORMAL STEAM LEVEL INDICATED ON GAUGE GLASS?

REF: NSTM 221 -3.4.2.1
GSO 221 K

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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35. (H9A1) ARE CHAINS INSTALLED ON GAUGE GLASS CUTOUTS?

REF: NSTM 221 -3.4.2.12

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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36. (H9A3) ARE GLASS AND MICA IN GOOD CONDITION?

REF: NSTM 221 -3.4.2.3
NSTM 221 -3.4.2.4
GSO 221 K

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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12. Deaerating Feed Tank

37. (I3A1) HAS VACUUM BREAKER BEEN TESTED?
REF: NSTM 255-7.2.3
PMS MIP 2550 60M-2

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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38. (I3A2) HAS DFT RELIEF VALVE BEEN PROPERLY TESTED?
REF: NSTM 255 -7.2.6
PMS MIP 2550 60M-2

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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13. Steam Smothering Systems

39. (I4A0) IS SYSTEM INSTALLED AND OPERABLE?
REF: NSTM 221-2.13.4
GSO 555 G

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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40. (I4A1) IS THE SYSTEM CONTROL VALVE OPERABLE FROM BOILER FRONT OR EOS?
REF: NSTM 221-2.13.4
GSO 555 G

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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41. (I4A2) IS THE TEST VALVE LOCKED OPEN BETWEEN THE CONTROL VALVE AND THE
BOILER CASING?
REF: NSTM 221-2.13.4
GSO 555 G

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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42. (I4A3) ARE WARNING PLATES INSTALLED ON CONTROL VALVE?
REF: NSTM 221-2.13.4
GSO 555 G

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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14. Drip Pans and Sliding Feet

43. (I5A0) ARE THERE DRIP PANS UNDER BURNER MANIFOLDS AND CONNECTIONS?
REF: GSO 541E
NSTM 221 -2.15

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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44. (I5A1) ARE SLIDING FEET LUBRICATED?
REF: NSTM 221 -2.15.1
PMS MIP 2210 M-1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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45. (I5A2) DO SLIDING FEET APPEAR TO BE MOVING?
REF: NSTM 221 -2.15

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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46. (I5A3) CAN SLIDING FEET BE LUBRICATED FROM OUTSIDE THE AIR CASING?
REF: NSTM 221 -2.15.3

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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15. Torch Pot

47. (I6A0) ARE TORCH POTS SECURED TO STRUCTURAL MEMBERS?
REF: NSTM 541 -4.4.5.1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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48. (I6A1) ARE TORCH POTS DRAINED WHEN SPACES ARE IN A COLD IRON STATUS?
REF: NSTM 221 -4.4.5.1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

16. Safety Valves

49. (I7A0) IS SAFETY VALVE HAND EASING GEAR INSTALLED AND OPERABLE FROM FIRING AISLE?
REF: NSTM 221 -3.2.13

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

50. (I7A1) ARE SAFETY VALVES PROPERLY PRESERVED?
REF: NSTM 221 -3.2.12.4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

17. Smokestacks and Uptakes

51. (I7A3) ARE SMOKESTACK COVERS USED ON IDLE BOILERS?
REF: NSTM 221 -2.13.8

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

52. (I7A4) ARE UPTAKE SPACES IN SATISFACTORY CONDITION (NO FOD, RUST, RAGS, TOOLS MISSING BOLTS / SCREWS ON FOD SCREEN)?
REF: NSTM 555
NSTM 221 -2.13.8

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

53. (I7A6) ARE BOILER PERISCOPES OPERATIVE?
REF: NSTM 221 -4.13.3.4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

18. Other Equipment Checks

54. (I7A8) ARE BOILER STOP VALVES WIRED AND TAGGED SHUT ON AN OPEN BOILER?
REF: NSTM 221 -2.2.4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

19. Fuel Oil Quick Closing Valaves

55. (I8A1) ARE COVERS INSTALLED OVER THE EXPOSED CLOSING MECHANISM?
REF: NSTM 505-12.1
GSO 505 b10

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

20. Burner Barrels and Sprayer Plates

56. (I9A1) ARE BURNER BARRELS STOWED PROPERLY?
REF: NSTM 221 -3.1.4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

21. Fuel Oil Strainers

57. (J1A0) DO STRAINERS DRAIN TO CONTAMINATED DRAIN TANK?
REF: NSTM 541-4-7.3
GSO 541 E

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

58. (J1A1) IS A DIFFERENTIAL PRESSURE GAUGE PROVIDED?
REF: GSO 541 E
NSTM 541 -9.12.4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

22. Hearing Conservation

59. (X1A0) ARE NOISE HAZARD SIGNS POSTED IAW THE INDUSTRIAL HYGIENE SURVEY?

REF: OPNAVINST 5100.19 Series B0406

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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60. (X1B0) ARE HEARING PROTECTION DEVICES AVAILABLE FOR PERSONNEL WORKING IN OR ENTERING DESIGNATED HAZARDOUS NOISE AREA OR UTILIZING HAZARDOUS TOOLS OR EQUIPMENT?

REF: OPNAVINST 5100.19 Series B0406

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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61. (X1B1) ARE PERSONNEL WEARING HEARING PROTECTIVE DEVICES WITH APPROPRIATE FOR THE DURATION OF THE EXPOSURE?

REF: OPNAVINST 5100.19 Series B0406

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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23. Heat Stress

62. (X1C0) ARE HEAT STRESS THERMOMETERS HUNG WITH A NON-HEAT CONDUCTING MATERIAL SUCH AS PLASTIC TIE-WRAP OR STRING (NEVER HUNG WITH METAL WIRE) AND POSITIONED TO MINIMIZE THE INFLUENCE OF ANY ADJACENT OR LOCAL HEAT OR COLD SOURCE?

REF: OPNAVINST 5100.19 Series B0204(B)(C).

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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63. (X1C1) ARE THERMOMETERS VALIDATED BY ALIGNING THE ETCH MARK WITH THE FREEZING POINT (32 DEGREES FAHRENHEIT)?

REF: OPNAVINST 3120.32 Series B0204 (B) (C)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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24. Sight Conservation

64. (X1D0) ARE PROPER EYE/FACE WASH UNITS AVAILABLE WHERE REQUIRED AS IDENTIFIED IN THE BASELINE AND/OR RECENT INDUSTRIAL HYGINE SURVEY?

REF: OPNVAINST 5100.19 SERIES B0508 (a) (9), appendix b5-a

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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65. (X1E0) ARE REQUIRED EYE WASH STATION LOCATION SIGNS POSTED?

REF: OPNVAINST 5100.19 SERIES B0508

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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66. (X1E1) ARE POTABLE WATER SUPPLY VALVES LOCKED OPEN WITH A METAL, TAMPER-PROOF LANYARD AND MARKED "W" OR "CIRCLE "W" FITTING?

REF: OPNAVINST 5100.19 Series B0508

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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25. Deck Plates and Grating

67. (X2A0) ARE DECK PLATES FIRMLY FASTENED WITH 1.25 FASTERNERS PER SQUARE INCH OF PLATE BUT NO LESS THAN TWO AND INSTALLED ON DIAGONALLY OPPOSITE SIDES?

REF: NAVSEA DWG 803-1340709 note (1)
GSO 622 (c) (d)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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68. (X2A1) ARE ACCESS LADDERS SECURELY FIXED IN PLACE?

REF: NAVSEA DWG 803-1340709 note (1)
GSO 622 (c) (d)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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69. (X2B0) ARE DECK PLATES AND LADDERS FABRICATED OF PROPER MATERIAL (ALUMINUM OR CRES STEEL 304)?

REF: GSO 622 (c) (d)

NAVSEA STD DWG 803-1340709

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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70. (X2C0) ARE ALL BILGE DRAINAGE SUCTION STRAINERS INSTALLED?

REF: NSTM 505 -10.7.3

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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26. Fasteners

71. (X3A0) ARE THREADED FASTERNERS, WHEN INSTALLED AND TIGHTENED PROTRUDE A DISTANCE OF AT LEAST ONE (1) THREAD BEYOND THE TOP OF THE NUT OR PLASTIC INSERT?

REF: GSO 075 (b)

NSTM 075 -7.5.1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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72. (X3B0) ARE THE NUMBER OF THREADS PROTRUDING BEYOND THE TOP OF THE NUT OR PLASTIC INSERT SHOULD NOT EXCEED FIVE (5) THREADS, IN NO CASE SHALL THE PROTRUSION EXCEED TEN (10) THREADS IAW NSTM 075?

REF: GSO 075 (b)

NSTM 075 -7.5.1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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73. (X3E0) ARE FERROUS (CARBON STEEL) FASTENERS PRESENT IN SEAWATER OR IN OTHER SYSTEMS (FRESH WATER OR FEED) WHERE NON-FERROUS PIPING IS INSTALLED?

REF: NSTM 075 -3.3.3.2 (warning note)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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27. Instructions and Safety Precautions

74. (X4A0) ARE REQUIRED WARNING, CAUTION, OPERATING, AND INSTRUCTION PLATES AND CHARTS POSTED TO MINIMIZE THE POSSIBILITY OF INJURY TO PERSONNEL OR DAMAGE MACHINERY, EQUIPMENT OR SYSTEMS DUE TO FAULTY OPERATION RESULTING FROM THE LACK OF POSTED INSTRUCTIONS OR WHEREVER SPECIAL SAFETY PRECAUTIONS MUST BE EXERCISED?

REF: NSTM 090 -2.4.1
GSO 602 (h)
NAVSHIPS DWG 805-1640412

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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75. (X4B0) ARE IDENTIFICATION PLATES INDICATING MAXIMUM ALLOWABLE LOADS
□
OR TEST DATA INSTALLED BY LIFTING PADS OVER HEAVY EQUIPMENT?

REF: NAVSHIPS DRWG S2803-980208
NAVSHIPS DRWG S2803-980209
GSO 602 (g)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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76. (X4B1) ARE CHAIN FALLS OR MONORAIL HOISTS WEIGHT TESTED AND TEST DATA TAGS ATTACHED TO EQUIPMENT?

REF: MIP 6645 A-1
MIP 6645 60M-1R

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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77. (X4C0) IS THE ENGINEERING OPERATIONAL SEQUENCE SYSTEM (EOSS) IN USE?

REF: EDORM

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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78. (X4D0) ARE CURRENT "TAG OUT" PROCEDURES IN USE?

REF: OPNAVINST 3120.32 SERIES 630.17
NAVSEA S0400-AD-URM-010/TUM (Tag Out User’s Manual), current revision.

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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28. Hazard Materials

79. (X5A0) ARE TOXIC OR HIGHLY FLAMMABLE MATERIALS (FLASH POINT 200 DEGREES AND BELOW) STOWED IN MACHINERY SPACES?

REF: NSTM 670-17.3.2.2.2

OPNAVINST 5100.19 Series c2302

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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80. (X5B0) ARE ALL HAZARDOUS MATERIAL CONTAINERS CLEARLY LABELED WITH MATERIAL NAME, MANUFACTURES NAME AND ADDRESS, STOCK NUMBER, HCC AND THE NATURE OF THE HAZARD PRESENTED BY THE HM INCLUDING THE TARGET ORGAN?

REF: NSTM 670 -3.2.3

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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81. (X5B1) ARE HAZARDOUS MATERIALS PROPERLY STOWED?

REF: NSTM 670 -3

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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29. System and Equipment Monitoring

82. (X6A0) ARE GAGES AND INDICATORS PROPERLY MOUNTED?

REF: GSO 504 (b) (d) (e) (g) (k) (l)

NSTM 504 -3.5.5

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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83. (X6B0) ARE LIQUID COLUMN SIGHT GLASS PROTECTIVE GUARDS PROPERLY INSTALLED?

REF: NAVSHIPS DRWG 803-2145532

GSO 504 (k)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

84. (X6C0) ARE CRITICAL AND NON-CRITICAL GAGES AND INDICATORS CALIBRATED AND IN GOOD CONDITION?

REF: PMS MIP 9802
SHIP CRL
GSO 504 (Q)
NSTM 504 -3.7.1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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30. Pumps and Auxiliary Machinery

85. (X7B0) ARE MACHINERY FOUNDATIONS IN SATISFACTORY CONDITION, FREE OF CRACKS AND BASE METAL DETERIORATION FROM CORROSION AND MECHANICAL JOINTS TIGHTENED?

REF: GSO 100 F
PMS MIP 6300/001 S-1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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86. (X7C0) ARE COUPLING GUARDS INSTALLED ON ROTATING MACHINERY?

REF: GSO 070(H)
OPNAVINST 5100.19 Series C1302(A)(16)
OPNAVINST 5100.19 Series C0104(A)(4)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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87. (X7C1) ARE COUPLING/BELT GUARDS PAINTED RED FOR ROTATING MACHINERY?

REF: OPNAVINST 5100.19 Series C1302(A)(16)
OPNAVINST 5100.19 Series C0104(A)(4)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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88. (X7D0) ARE EQUIPMENT OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS POSTED?

REF: NSTM 090 -2.4.1
GSO 602 (H)
NAVSHIPS DWG 804-1640412

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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31. Flexible Hoses

89. (X8A0) ARE FLEXIBLE HOSE ASSEMBLIES PROPERLY INSTALLED?

REF: PMS MIP 5000/009

NAVSEA S6430-AE-TED-010 VOL.1 (SECTION 9)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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90. (X8A1) ARE FLEXIBLE HOSE ASSEMBLIES FREE OF TWIST BETWEEN FITTINGS AND PROPERLY SUPPORTED AGAINST RESILIENTLY MOUNTED EQUIPMENT TO PREVENT CHAFING?

REF: NAVSEA S6430-AE-TED-010 VOL.1 (SECTION 9)

PMS MIP 5000/009

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

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91. (X8A2) ARE FLEXIBLE HOSE ASSEMBLIES FREE OF EXCESSIVE SAG OR STRESS?

REF: PMS MIP 5000/009

NAVSEA S6430-AE-TED-010 VOL.1 (SECTION 9)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

92. (X8B0) ARE FLEXIBLE HOSES PROPERLY IDENTIFIED WITH A NONCORRODIBLE METAL TAG?

REF: PMS MIP 5000/009

NAVSEA S6430-AE-TED-010 VOL.1 (SECTIONS 8.5 AND 9)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

93. (X8C0) ARE FLEXIBLE HOSES PAINTED (A FEW SPOTS INADVERTENTLY SPLASHED ON THE HOSE IS ACCEPTABLE AS LONG AS PAINTED AREA IS 10% OR LESS THAN THE HOSE SURFACE AREA)?

REF: NAVSEA S6430-AE-TED-010 VOL.1 (SECTION 9.J, 10.J)

PMS MIP 5000/009

NSTM 631 VOL. 3 (8.22.1.Z)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

94. (X8D0) ARE FLEXIBLE HOSES EXCESSIVELY SOFT?
REF: NAVSEA S6430-AE-TED-010 VOL.1 (SECTION 10. O
PMS MIP 5000/009

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

32. Rubber Expansion Joints

95. (X9A0) ARE RUBBER EXPANSION JOINTS PROPERLY INSTALLED AND ALIGNED?
REF: NSTM 505 -3.3 (table 505-3-1)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

96. (X9B0) ARE RUBBER EXPANSION JOINTS FREE OF CRACKS AND CUTS?
REF: NSTM 505 -3.3.3

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

97. (X9C0) ARE RUBBER EXPANSION JOINTS FREE OF PAINT?
REF: NSTM 631 VOL1 8.17.1.Z

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

33. Escape Trunks

98. (Y0A0) ARE THERE OBSTRUCTIONS AT THE ESCAPE TRUNKS?
REF: OPNAVINST 5100.19 Series c0102 (a)(3)
OPNAVINST 5100.19 Series c0102(a)(6)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

99. (Y0B0) ARE LADDER RUNGS CONTINUOUS AROUND TWO BULKHEADS?
REF: GSO 622 C
NAVSEA DWG 804-5184093

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

100. (Y0C0) DOES ESCAPE TRUNK BALANCE JOINER DOOR HAVE TWO CLOSING SPEEDS (DOOR SHOULD TRAVEL THROUGH INITIAL CLOSING ARC AT A REASONABLY FAST RATE AND SLOW DURING FINAL 8" to 10" OF CLOSING SO DOOR DOES NOT SLAM. THE NOMINAL SPEED RANGE IS 6 TO 8 SECONDS, HOWEVER DOOR CLOSING SPEED SHALL NOT BE LESS THAN 5 SECONDS AND NO GREATER THAN 10 SECONDS)?

REF: NAVSEA DWG 804-5184129
PMS MIP 6241/002 S-3
PMS MIP 6241/002 S-1
GSO 624 J
PMS MIP 6241/002 S-4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

101. (Y0D0) ARE ESCAPE TRUNKS WELL LIT AND HAVE EMERGENCY LIGHTING?

REF: NSTM 330-1.6.4.2
GSO 332 E
GSO 332 G

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

102. (Y0E0) ARE LABEL PLATES INSTALLED ON TOP OF ESCAPE SCUTTLES INSCRIBED WITH 1-INCH RED LETTERS THAT STATE "ESCAPE SCUTTLE DO NOT OBSTRUCT OR BLOCK"?

REF: NAVSHIPS DRWG 805-1640412
GSO 602 J

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

34. Lagging/insulation

103. (Y1A0) IS LAGGING/INSULATION ADEQUATE?

REF: GSO 508 (B)
NSTM 635 (SECTIONS 2 AND 3)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

104. (Y1B0) IS LAGGING/INSULATION TORN OR MISSING (SEAM INTACT AND TAPED / PIN / STUDS SECURE)?

REF: NSTM 635 -2.9.1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

105. (Y1C0) IS LAGGING/INSULATION OIL / WATER SOAKED?

REF: NSTM 635 -2.9.1(6)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

35. Reduction Gear Security

106. (Y2A0) ARE MEDIUM OR HIGH SECURITY PADLOCKS INSTALLED (ISEA ADVISORY NUMBER 006-01 VERIFY S&G MODEL 833 HIGH SECURITY LOCKS HAVE BEEN CHANGED OUT WITH ABLOY MODEL PL655 OR PL656)?

REF: ISEA ADVISORY NR 006-01
NSTM 241 -4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

107. (Y2B0) ARE ALL OTHER ACCESSES PROTECTED FROM UNAUTHORIZED ENTRY?

REF: NSTM 241 -4.2.4 c

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

108. (Y2C0) DO VENT FOG PRECIPITATORS APPEAR TO BE IN SATISFACTORY CONDITION?

REF: NSTM 241 -2.3.14
NSTM 262 -3.1.2 I
NAVSEA STD DWG 803-2145504
GSO 262 -C

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

109. (Y2C1) DO VENT FOG PRECIPITATORS HAVE A WARNING PLATE POSTED INSCRIBED WITH "WARNING HIGH VOLTAGE"?

REF: GSO 262 C
NSTM 241 -2.3.14
NSTM 262 -3.1.2 I
NAVSEA STD DWG 803-2145504

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

110. (Y2D0) ARE INSTALLED REDUCTION GEAR DEHUMIDIFIERS MAINTAINING AIR IN THE MRG CASING AT LESS THAN 35 PERCENT RELATIVE HUMIDITY?

REF: EOSS
NSTM 241 -3.5.2.4

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

36. Lube Oil System

111. (Y5A0) ARE THERE LATCHING DEVICES FOR ALL MAIN LUBE OIL PUMPS SUCTION AND DISCHARGE VALVES TO PREVENT SHUTING?

REF: EDORM SEC 4407 (b)(3)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

112. (Y5B0) ARE PURIFIER DRAINS PIPED TO CONTAMINATED OIL TANK?

REF: NSTM 541-4.7.3
GSO 262 (c)(3)
GSO 534 (C)(3)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

113. (Y5C0) DOES THE LUBE OIL STORAGE AND SETTLING TANKS HAVE OVERFLOW AND DRAIN CONNECTIONS LEADING TO THE OILY WATER DRAIN OR WASTE COLLECTING SYSTEM?

REF: NSTM 541-4.7.3
GSO 262 (C)(2)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

114. (Y5D0) ARE STRAINERS PROVIDED WITH PROTECTIVE COVERS?

REF: NSTM 079 -46.5.3.1
NSTM 505 -10.3.1.2
GSO 505 (E)(7)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

115. (Y5E0) ARE STRAINERS PROVIDED WITH VENT/DRAIN VALVES?

REF: NSTM 505 -10.3.1.6

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

116. (Y5F0) ARE STRAINERS PROVIDED WITH DRIP PANS?

REF: GSO 262 (C)(1)
NSTM 505 -10.3.1.6.1 (12)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

36. Oil Lab

117. (Z2E1) IS NAVI FLASH / APPROVED FLASH POINT TESTER IN WORKING ORDER AND CALIBRATED?

REF: NSTM 262-5.1.4.1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

37. Oil Piping Flange Sheilds

118. (Y6A0) ARE LUBE OIL AND FUEL OIL PIPING FLANGE SHIELDS OF CORRECT MATERIAL?

REF: NSTM 505 -7.9.4.1
GSO 505 E
NSTM 505 FIG 505-7-15
NAVSEA DRAWING 803-2145518
GSO 502 B
NSTM 233 -7.9

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

119. (Y6B0) ARE FLANGE SHIELDS PROPERLY INSTALLED?

REF: GSO 505 (E)(7)

NSTM 505 -7.9.4.2

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

---

120. (Y6C0) ARE ANY FLANGE SHIELDS MISSING?

REF: NSTM 505 -7.9.4.5

GSO 505 (e)(7)

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

---

38. Valves and Valve Operators

121. (Y7A0) ARE REMOTE OPERATED VALVES OPERATIONAL AND PROPERLY ATTATCHED?

REF: NSTM 505 -1.8.2

GSO 505 (e)(4)(b)

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

---

122. (Y7B0) ARE VALVE HANDWHEELS PROPERLY SECURED AND LABELED?

REF: GSO 507 F

NSTM 505 -7.8.2.2

NAVSEA S0400-AD-URM-010/TUM (TAG OUT USERS MANUAL) 1.6.4.a(1)

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

---

123. (Y7C0) ARE HANDWHEELS MADE OF PROPER MATERIALS?

REF: NAVSHIPS DWG 803-1385620.

GSO 505 C2

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

124. (Y7D0) ARE VALVE HANDWHEELS PROPERLY COLOR CODED?

REF: NSTM 505 -7.8.2.2

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

39. Sea Chest Blow Out

125. (Y8A0) ARE WARNING PLATES STATING "DO NOT PERMIT STEAM OR AIR PRESSURE TO EXCEED 35 POUNDS WHEN BLOWING-OUT SEA CHEST")AND OPERATING INSTRUCTIONS INSTALLED BETWEEN THE NEEDLE VALVE AND HOSE VALVE FOR THE SEA CHEST?

REF: GSO 253 (d)(2)
PMS 1631 18M-1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

126. (Y8B0) IS THERE A RELIEF VALVE SET AT 40 PSI AND A CONNECTION FOR BLEEDING STEAM/AIR PRESSURE ON THE SEA CHEST BLOW OUT SYSTEM.

REF: NSTM 505 -10.3.1.9
GSO 253 (d) (2)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

127. (Y8C0) IS THERE A PRESSURE GAGE INSTALLED IN THE STEAM OR AIR PRESSURE SUPPLY LINE FOR THE SEA CHEST BLOW OUT?

REF: NSTM 505 -10.3.1.9,
GSO 253 (D)(2)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

40. Piping Systems

128. (Y9A0) ARE PIPING SYSTEMS ADEQUATELY LABELED?

REF: NSTM 505 -7.8.3
NSTM 505 table 505-7-1

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

129. (Y9B0) ARE PIPING SYSTEMS PROPERLY COLOR CODED?

REF: NSTM 505 -7.8.2

NSTM 505 table 505-7

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

---

130. (Y9C0) ARE PIPING SUPPORT DEVICES PROPERLY MAINTAINED?

REF: GSO 505 (c) (4)

NAVSHIPS DWG 804-1385781

NSTM 505 -7.5

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

---

131. (Y9D0) ARE FLAMMABLE SYSTEMS LEAK TIGHT (NO VISIBLE EVIDENCE OF LEAK)?

REF: NSTM 505 -8.3.1.

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

---

132. (Y9E0) ARE NON-FLAMMABLE SYSTEMS LEAK TIGHT?

REF: NSTM 505 -8.3.

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

---

133. (Y9F0) ARE WARNING PLATES INSCRIBED "WARNING ENSURE THAT THE ISOLATION VALVES ON EACH SIDE OF THE PRESSURE REGULATOR ARE CLOSED BEFORE OPENING THE BY-PASS VALVE", INSTALLED ON REDUCER BYPASS VALVES?

REF: NSTM 505-9.18.6

GSO 505 -b7

C R NA UA

☐ Repeat

☐ Significant

☐ PMS

---

41. Relief Valves

134. (Z0A0) DO RELIEF VALVES APPEAR TO BE IN GOOD WORKING ORDER (FREE OF BROKEN SPRINGS, LEAKING, BENT STEMS OR CORRODED)?

REF: NSTM 505 -9.18.2.

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

135. (Z0B0) ARE RELIEF VALVES PROPERLY LABELED?

REF: PMS 5000 72M-3
GSO 505 (E)(1).

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

136. (Z0C0) ARE RELIEF VALVES EQUIPPED WITH A TAIL PIPE THAT DOES NOT STRESS THE VALVE BODY AND DISCHARGES WHERE IT DOES NOT CREATE A HAZARD TO PERSONNEL OR EQUIPMENT?

REF: NSTM 505 -9.17.3
GSO 505 (E)(1)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

137. (Z0D0) ARE METAL TAGS PROVIDED TO INDICATE SHIP NAME AND HULL NUMBER, DATE OF LIFT TEST, LIFTING PRESSURE, VALVE NUMBER OR IDENTIFICATION?

REF: GSO 505 (H)
NSTM 505 -9.17.5.2

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

42. Eductors and Bilge Drainage

138. (Z1A0) ARE SUCTION STRAINERS INSTALLED AND IN GOOD OVERALL CONDITION (NO SIGNS OF DENTS, GOUGES, CORROSION, BLOCKAGES)?

REF: GSO 529 (j)
NSTM 505 -10.7.3

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

139. (Z1B0) IS THERE A MINIMUM OF ONE SPACE SUCTION VALVE WHICH IS OPERABLE FROM THE DAMAGE CONTROL DECK?

REF: MILSPEC E-24127
GSO 529 (J)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

140. (Z1C0) ARE EDUCTORS AND BILGE DRAINAGE SYSTEM OPERATING INSTRUCTIONS POSTED?

REF: NSTM 505 -10.7.2
NSTM 505 -10.7.
GSO 529 (h)
NSTM 505 -10.7.6

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

141. (Z1D0) IS THE OIL POLLUTION ACT POSTED AT THE OVERBOARD DISCHARGE VALVES, DECK RISERS AND PUMPS CAPABLE OF DISCHARGING OILY WASTE?

REF: GSO 593 (D)
NSTM 593 -3.7.5

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

142. (Z1E0) ARE ACTUATING PRESSURE AND SUCTION PRESSURE GAGES INSTALLED AND PRESSURIZED?

REF: NSTM 505 figure 505-10.2
GSO 529 -H
MIP 5291 A-9

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

143. (Z1F0) ARE EDUCTOR SUCTION CUT-OUT VALVES PROVIDED WITH THE WARNING SIGN STATING, "DO NOT OPEN UNTIL VACUUM IS INDICATED ON GAGE"?

REF: MILSPEC E-24127
GSO 529 (H)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

144. (Z1G0) ARE EDUCTOR FIREMAIN ACTUATING CUT-OUT VALVES PROVIDED WITH THE WARNING SIGN STATING, "DO NOT OPEN UNTIL OVERBOARD DISCHARGE VALVE IS OPEN"?

REF: MILSPEC E-24127

GSO 529 (H)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

145. (Z1H0) ARE BILGES CONTAMINATED WITH OIL, FUEL OR TRASH?

REF: EDORM SECTION 4502

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

43. Oil Lab

146. (Z2A0) ARE REQUIRED NUMBER OF MARK II OIL SPILL CLEAN UP KITS ON BOARD?

REF: AEL 2-550024006

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

147. (Z2B0) ARE MARK II KITS FULLY STOCKED AND ACCESSIBLE FOR QUICK USE?

REF: NSTM 593 -3.6.6.2

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

148. (Z2C0) DOES THE SHIP HAVE AN OIL SPILL CONTINGENCY PLAN THAT HAS BEEN TAILORED TO THE SHIP?

REF: OPNAVINST 5100.19 Series b0304 (b) (1)

OPNAVINST 5100.19 Series b0304 (a) (1) (f)

OPNAVINST M 5090.1 Series chapter 35, para 35-3.15.h

OPNAVINST 5100.19 Series b0302 (4) (q)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

149. (Z2C1) ARE OIL SPILL KITS INSPECTED MONTHLY AND REPLENISHED AS REQUIRED?

REF: OPNAVINST M 5090.1 Series Ch. 35, para 35-3.15
OPNAVINST 5100.19 Series b0304 (b) (1)
OPNAVINST 5100.19 Series b0304 (a) (1) (f)
OPNAVINST 5100.19 Series b0302 (4) (q)

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

150. (Z2E0) ARE PORTABLE ELECTRICAL LABORATORY EQUIPMENT TESTED FOR ELECTRICAL SAFETY IN ACCORDANCE WITH PMS?

REF: PMS MIP 3000/001

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

151. (Z2F0) IS AN APPROVED CORROSIVE LOCKER, < 30 GAL, AVAILABLE TO STORE ACID IN APPROPRIATE CONTAINERS?

REF: NSTM 670 -13.3
NSTM 593 Appendix A and B
NSTM 220 -26

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

152. (Z2G0) HAVE CHEMICALS EXCEEDED THEIR SHELF LIFE?

REF: NSTM 220 -26

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

---

153. (Z2H0) ARE ALL CHEMICALS STORED IN APPROVED FLAMMABLE OR COOROSIVE LOCKERS, <30 GAL?

REF: NSTM 220 -26
NSTM 670 -12.3.1.B

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

154. (Z2I0) ARE MERCURIC NITRATE REAGENTS DISPOSED OF PROPERLY?

REF: NSTM 670-13.8
OPNAVINST 5100.19 Series APPENDIX B-3-B
NSTM 670-37.8

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

44. Underway Operations

155. (Z3A0) IS ORM APPLIED NOT ONLY TO OPERATIONAL MISSIONS, BUT AT THE DECK PLATE LEVEL FOR DAY TO DAY WORK UNIT OPERATIONS AS WELL?

REF: OPNAVINST 5100.19 Series A0402.C

C R NA UA
☐ Repeat
☐ Significant
☐ PMS

Main Propulsion (Steam)

COMMAND NAME:
LOCATION:
UIC:
DATE:
SURVEYOR(S):
NO. COMPLETE: NO. REQ ACTION: NOT APPLICABLE:

Q #	Question	Result	Sig	Rep	PMS
1	3PSB4B2	C R N U			
2	3PSC1C0	C R N U			
3	3PSC1D0	C R N U			
4	3PSC1E0	C R N U			
5	3PSD1B0	C R N U			
6	3PSD1C0	C R N U			
7	3PSD1F0	C R N U			
8	3PSD2B0	C R N U			
9	3PSD2C0	C R N U			
10	3PSD2D0	C R N U			
11	3PSD2E0	C R N U			
12	3PSD2F0	C R N U			
13	3PSD2G0	C R N U			
14	3PSD2I0	C R N U			
15	3PSE1A0	C R N U			
16	3PSF1B0	C R N U			
17	3PSF1D0	C R N U			
18	3PSF1E0	C R N U			
19	3PSF1F0	C R N U			
20	3PSG2A0	C R N U			
21	3PSG2B0	C R N U			
22	3PSH3B1	C R N U			
23	3PSH3B2	C R N U			
24	3PSH3B3	C R N U			
25	3PSH3C3	C R N U			
26	3PSH3C4	C R N U			
27	3PSH3C5	C R N U			
28	3PSH7A0	C R N U			
29	3PSH7A1	C R N U			
30	3PSH7A2	C R N U			
31	3PSH7A3	C R N U			
32	3PSH8A0	C R N U			
33	3PSH8A1	C R N U			

Q #	Question	Result	Sig	Rep	PMS
34	3PSH9A0	C R N U			
35	3PSH9A1	C R N U			
36	3PSH9A3	C R N U			
37	3PSI3A1	C R N U			
38	3PSI3A2	C R N U			
39	3PSI4A0	C R N U			
40	3PSI4A1	C R N U			
41	3PSI4A2	C R N U			
42	3PSI4A3	C R N U			
43	3PSI5A0	C R N U			
44	3PSI5A1	C R N U			
45	3PSI5A2	C R N U			
46	3PSI5A3	C R N U			
47	3PSI6A0	C R N U			
48	3PSI6A1	C R N U			
49	3PSI7A0	C R N U			
50	3PSI7A1	C R N U			
51	3PSI7A3	C R N U			
52	3PSI7A4	C R N U			
53	3PSI7A6	C R N U			
54	3PSI7A8	C R N U			
55	3PSI8A1	C R N U			
56	3PSI9A1	C R N U			
57	3PSJ1A0	C R N U			
58	3PSJ1A1	C R N U			
59	3PSX1A0	C R N U			
60	3PSX1B0	C R N U			
61	3PSX1B1	C R N U			
62	3PSX1C0	C R N U			
63	3PSX1C1	C R N U			
64	3PSX1D0	C R N U			
65	3PSX1E0	C R N U			
66	3PSX1E1	C R N U			
67	3PSX2A0	C R N U			
68	3PSX2A1	C R N U			
69	3PSX2B0	C R N U			
70	3PSX2C0	C R N U			
71	3PSX3A0	C R N U			
72	3PSX3B0	C R N U			
73	3PSX3E0	C R N U			
74	3PSX4A0	C R N U			
75	3PSX4B0	C R N U			
76	3PSX4B1	C R N U			

Q #	Question	Result	Sig	Rep	PMS
77	3PSX4C0	C R N U			
78	3PSX4D0	C R N U			
79	3PSX5A0	C R N U			
80	3PSX5B0	C R N U			
81	3PSX5B1	C R N U			
82	3PSX6A0	C R N U			
83	3PSX6B0	C R N U			
84	3PSX6C0	C R N U			
85	3PSX7B0	C R N U			
86	3PSX7C0	C R N U			
87	3PSX7C1	C R N U			
88	3PSX7D0	C R N U			
89	3PSX8A0	C R N U			
90	3PSX8A1	C R N U			
91	3PSX8A2	C R N U			
92	3PSX8B0	C R N U			
93	3PSX8C0	C R N U			
94	3PSX8D0	C R N U			
95	3PSX9A0	C R N U			
96	3PSX9B0	C R N U			
97	3PSX9C0	C R N U			
98	3PSY0A0	C R N U			
99	3PSY0B0	C R N U			
100	3PSY0C0	C R N U			
101	3PSY0D0	C R N U			
102	3PSY0E0	C R N U			
103	3PSY1A0	C R N U			
104	3PSY1B0	C R N U			
105	3PSY1C0	C R N U			
106	3PSY2A0	C R N U			
107	3PSY2B0	C R N U			
108	3PSY2C0	C R N U			
109	3PSY2C1	C R N U			
110	3PSY2D0	C R N U			
111	3PSY5A0	C R N U			
112	3PSY5B0	C R N U			
113	3PSY5C0	C R N U			
114	3PSY5D0	C R N U			
115	3PSY5E0	C R N U			
116	3PSY5F0	C R N U			
117	3PSY6A0	C R N U			
118	3PSY6B0	C R N U			
119	3PSY6C0	C R N U			

Q #	Question	Result	Sig	Rep	PMS
120	3PSY7A0	C R N U			
121	3PSY7B0	C R N U			
122	3PSY7C0	C R N U			
123	3PSY7D0	C R N U			
124	3PSY8A0	C R N U			
125	3PSY8B0	C R N U			
126	3PSY8C0	C R N U			
127	3PSY9A0	C R N U			
128	3PSY9B0	C R N U			
129	3PSY9C0	C R N U			
130	3PSY9D0	C R N U			
131	3PSY9E0	C R N U			
132	3PSY9F0	C R N U			
133	3PSZ0A0	C R N U			
134	3PSZ0B0	C R N U			
135	3PSZ0C0	C R N U			
136	3PSZ0D0	C R N U			
137	3PSZ1A0	C R N U			
138	3PSZ1B0	C R N U			
139	3PSZ1C0	C R N U			
140	3PSZ1D0	C R N U			
141	3PSZ1E0	C R N U			
142	3PSZ1F0	C R N U			
143	3PSZ1G0	C R N U			
144	3PSZ1H0	C R N U			
145	3PSZ2A0	C R N U			
146	3PSZ2B0	C R N U			
147	3PSZ2C0	C R N U			
148	3PSZ2C1	C R N U			
149	3PSZ2E0	C R N U			
150	3PSZ2E1	C R N U			
151	3PSZ2F0	C R N U			
152	3PSZ2G0	C R N U			
153	3PSZ2H0	C R N U			
154	3PSZ2I0	C R N U			
155	3PSZ3A0	C R N U			