

U.S.C.G. Merchant Marine Exam

QMED

Q805 Oiler – Part II

(Sample Examination)

Choose the best answer to the following Multiple-Choice Questions:

1. An acceptable method of temporarily sealing a crack formed in the hull of a vessel is to _____.
- A. apply a patch of sheet packing backed by a strongback or shoring
 - B. tack weld a doubler plate over the crack
 - C. shore up the crack with welded braces
 - D. drill holes at each end

Correct answer: A

2. With regard to the maintenance of electrical generating machines with insulated pedestal bearings, what practice should be avoided?
- A. touching the bearing shell while the machine is running
 - B. cleaning and removing grease from the insulated area
 - C. painting or allowing grease build up on the insulated area
 - D. using a megohmmeter with the machine disassembled to determine insulation values

Correct answer: C

3. In heavy seas the helmsman should steer the survival craft _____.
- A. into the seas
 - B. broadside to the seas
 - C. in the same direction as the seas
 - D. in a series of figure-eights

Correct answer: A

4. In the illustration shown, the sea painter is identified as item number _____. Illustration SF-0043
- A. 3
 - B. 6
 - C. 7
 - D. 9

Correct answer: C

5. In what remote temperature indicating system is a voltage generated by the magnitude of temperature difference between hot and cold junctions?
- A. Bimetallic sensor
 - B. Thermistor
 - C. Resistance temperature detector
 - D. Thermocouple

Correct answer: D

6. To properly install a new blade in a hand hacksaw frame, the _____.
- A. blade can be installed in any position for normal use
 - B. blade should be kept loose in the frame
 - C. teeth should point toward the handle
 - D. teeth should point away from the handle

Correct answer: D

7. Which of the following maintenance procedures would require a tag-out/lock-out to be performed?
- A. Draining compressed air system moisture separators of condensation
 - B. Adding makeup oil to a main engine while underway
 - C. Shifting and cleaning a duplex strainer
 - D. Changing the oil of an air compressor

Correct answer: D

8. When using a micrometer to measure a drill for size, you should measure across the drill _____.
- A. flutes
 - B. web
 - C. margins
 - D. shank

Correct answer: C

9. The sorting of accident victims according to the severity of their injuries is called _____.
- A. prioritizing
 - B. evaluation
 - C. surveying
 - D. triage

Correct answer: D

10. Which of the precautions listed should be observed when taking on diesel fuel?
- A. Prohibit smoking in the area
 - B. Display a black triangle during daylight hours
 - C. Provide a portable fan to blow away fumes
 - D. Secure all lighting to the main deck

Correct answer: A

11. A pipe coupling is a fitting having _____.
- A. a left-hand twist
 - B. outside threads on one end and inside threads on one end
 - C. outside threads on both ends
 - D. inside threads on both ends

Correct answer: D

12. Which of the following statements describes the characteristics of precision manufactured roller bearings?
- A. They have a relatively high-power loss due to friction.
 - B. Their lubrication is complicated and requires constant attention.
 - C. They are well adapted to variable speed operation.
 - D. They are not capable of maintaining alignment over long periods of time.

Correct answer: C

13. When drilling holes larger than 1/2 inch, drilling a smaller hole first is a good practice. This is called a pilot hole, and the pilot drill should have a diameter _____.
- A. smaller than the dead center of chisel edge of the larger drill
 - B. slightly larger than the web thickness of the larger drill
 - C. small enough to ensure the maximum cut by the larger drill
 - D. equal to at least 1/2 the diameter of the larger drill

Correct answer: B

14. Autotransformer starters, sometimes called starting compensators, are sometimes used with larger polyphase induction motors. What function do they perform?
- A. they allow the voltage to be either stepped up or down, depending on the application, to ensure full torque
 - B. they increase the voltage for "across-the-line starting"
 - C. they provide a backup means of voltage regulation for emergency starting
 - D. they reduce the voltage applied to the motor during the starting period

Correct answer: D

15. The main difference between a common lathe dog and a safety lathe dog is that the latter _____.
- A. has a headless set screw
 - B. is more easily centered
 - C. allows for misaligned center holes
 - D. has a spring-loaded catch

Correct answer: A

16. Which of the following measurements would be an example of total flow?
- A. cubic meters per hour
 - B. cubic meters
 - C. gallons per minute
 - D. pounds per hour

Correct answer: B

17. Back injuries are one of the most common injuries that result in lost work time. What is the proper technique for lifting an object?
- A. Bend over and grasp the object firmly. While keeping the legs straight, lift the object by straightening the back. Move the object while standing erect and keep object away from the body.
 - B. Bend the knees and grasp the object firmly. While keeping the back straight, lift the object by straightening the legs. Move the object while standing erect and keep object close to the body.
 - C. Bend over and grasp the object loosely. While keeping the legs straight, lift the object by straightening the back. Move the object while standing erect and keep object close to the body.
 - D. Bend the knees and grasp the object loosely. While keeping the back straight, lift the object by straightening the legs. Move the object while standing erect and keep object away from the body.

Correct answer: B

18. On US flag steam propulsion vessels, the main reason for having a low suction line on the fuel oil service or settling tanks is to accomplish which of the following?
- A. facilitate water removal
 - B. increase the amount of fuel available for use
 - C. prevent loss of suction during rough weather
 - D. decrease suction head on the pump

Correct answer: A

19. When using a chisel, you should _____.
- A. be certain it is a non-sparking type
 - B. hold the tool lightly
 - C. wear gloves
 - D. wear safety glasses

Correct answer: D

20. The rescuer can best provide an airtight seal during mouth-to-mouth resuscitation by pinching the victim's nostrils and _____.
- A. cupping a hand around the patient's mouth
 - B. keeping the head elevated
 - C. applying his mouth tightly over the victim's mouth
 - D. holding the jaw down firmly

Correct answer: C

21. For greater accuracy, some micrometers have a Vernier scale making it possible to read in increments of _____.
- A. five thousandths of an inch
 - B. ten thousandths of an inch
 - C. twenty-five thousandths of an inch
 - D. one fortieth of an inch

Correct answer: B

22. A thread chaser is a hand tool that should only be used for _____.
- A. restoring damaged threads
 - B. enlarging existing threads
 - C. cutting original threads
 - D. straightening tapered threads

Correct answer: A

23. To ensure adequate lubrication and to prevent a high operating temperature, the recommended amount of grease injected into a ball or roller bearing is approximately _____.
- A. 10-25% of the original void space in the bearing
 - B. 25-50% of the original void space in the bearing
 - C. 50-75% of the original void space in the bearing
 - D. 75-95% of the original void space in the bearing

Correct answer: B

24. Through which of the listed processes is sufficient heat produced to cause spontaneous ignition?

- A. Aeration
- B. Anaerobic decomposition
- C. Putrefaction
- D. Oxidation

Correct answer: D

25. If both the shell-and-tube lube oil cooler and shell-and-tube jacket water cooler of a diesel engine are sea water-cooled, what statement is true?

- A. Sea water flows through the tubes of the lube oil cooler and through the shell of the jacket water cooler.
- B. Sea water flows through the tubes of both the lube oil and jacket water coolers.
- C. Sea water flows through the tubes of the jacket water cooler and through the shell of the lube oil cooler.
- D. Sea water flows through the shells of both the lube oil and jacket water coolers.

Correct answer: B

26. When required to work in an area where explosive gases may accumulate, you should use hand tools which are _____.

- A. non-ferrous
- B. approved by the Coast Guard
- C. fixed with a ferrous cover
- D. high carbon steel

Correct answer: A

27. For a lubricating oil, what is the relationship between viscosity and temperature?

- A. As the temperature of a lubricating oil increases, the viscosity of the lubricating oil also increases.
- B. As the temperature of a lubricating oil varies in either direction, the viscosity of the lubricating oil remains constant.
- C. As the temperature of a lubricating oil increases, the viscosity of the lubricating oil decreases.
- D. As the temperature of a lubricating oil increases, the viscosity of the lubricating oil may increase or decrease, depending upon the lubricant.

Correct answer: C

28. Bottom blow valves are installed on auxiliary water-tube boilers to _____.

- A. completely drain the boiler in an emergency
- B. prevent sludge from forming in the steam drum
- C. remove floating impurities from the boiler water surface
- D. remove settled solids from the water drum

Correct answer: D

29. Which of the following conditions is a symptom of a person in shock?

- A. Cold and damp
- B. Warm and damp
- C. Cold and dry
- D. Warm and dry

Correct answer: A

30. By definition, which of the following is an example of a flammable liquid?

- A. biodiesel
- B. gasoline
- C. animal and vegetable oils
- D. caustic potash

Correct answer: B

31. Which of the following devices allows the user to remain in an oxygen deficient space for the longest period of time without interruption?

- A. Canister-type gas mask
- B. Pure oxygen breathing apparatus
- C. Direct compressed air supply
- D. Demand-type oxygen breathing apparatus

Correct answer: C

32. Before disconnecting a joint in a pipeline, you should _____.

- A. hang a bucket under the joint
- B. determine the size of the gasket
- C. be sure no pressure exists in the line
- D. have a first aid kit on hand

Correct answer: C

33. A tank has been sealed and unventilated for a long period of time. Which of the following statements is true?

- A. The tank is safe to enter.
- B. The tank is especially dangerous to enter.
- C. Carbon monoxide is present.
- D. Water vapor present when the tank was sealed has oxidized.

Correct answer: B

34. Which of the following statements is correct regarding the fog applicators used in conjunction with the combination nozzle?
- A. All cargo and miscellaneous vessels must be equipped with high velocity fog applicators for use with the required combination nozzle at each station.
 - B. In machinery spaces, the applicators should be 10 to 12 feet in length to ensure all portions of the bilge can be effectively reached.
 - C. On container ships, an applicator termed a bayonet or piercing type utilizes a sharp tip for cutting and penetrating the metal skin of a container.
 - D. On oil tankers, the applicators come furnished with foam nozzles.

Correct answer: C

35. Which health hazard term is listed on a Safety Data Sheet (SDS) to indicate that contact with the substance will freeze body tissue on contact?
- A. Cryogenic
 - B. Freeze hazard
 - C. Freon hazard
 - D. Cyanosis

Correct answer: A

36. You have found a person laying prone and not breathing. An electric wire is touching the victim. Which of the actions listed is the FIRST thing you should do?
- A. Immediately begin cardiac massage.
 - B. Shut off power or remove the wire from the victim.
 - C. Leave the accident scene and summon medical assistance.
 - D. Immediately begin artificial respiration.

Correct answer: B

37. The control of exhaust temperature on a solid waste/sludge incinerator is critical. How is this temperature normally controlled?
- A. The exhaust temperature is controlled by regulating the admission of combustion air into the combustion chamber.
 - B. The exhaust temperature is controlled by regulating the admission of relatively cool ambient air into the exhaust stream.
 - C. The exhaust temperature is controlled by regulating the admission of auxiliary fuel to the burner.
 - D. The exhaust temperature is controlled by regulating the exhaust gas flow.

Correct answer: B

38. A fire is considered "under control" when _____.
- A. all firefighting equipment is at the scene
 - B. the fixed systems are activated
 - C. the fire is contained and no longer spreading
 - D. all hands are at their fire stations

Correct answer: C

39. A metal scribe commonly found on a combination square measuring tool should only be used to _____.

- A. mark on metal
- B. clean file teeth
- C. remove packing
- D. punch gasket holes

Correct answer: A

40. The center head of a combination square set is used to _____.

- A. check degrees of angle
- B. locate the center on round stock
- C. find right angles
- D. check the angle of thread cutting tools

Correct answer: B

41. The use of a needle valve in a piping system is recommended when requiring _____.

- A. close regulation of flow
- B. no pressure drops
- C. no back flow
- D. high-pressure drops

Correct answer: A

42. Which of the following extinguishing effects for dry chemical extinguishing agents is considered the most prevalent?

- A. cooling the fuel below ignition temperature
- B. smothering and removing the oxygen from the fuel
- C. breaking up the molecular chain reaction
- D. removing the fuel by absorbing the heated vapors

Correct answer: C

43. As shown in the illustration, which brush holder would be appropriate to use in a bidirectional motor?
Illustration EL-0029

- A. trailing mount only
- B. both leading and trailing mount
- C. leading mount only
- D. radial mount

Correct answer: D

44. What is the purpose of the torque limit switch as fitted on an electric motor operated rising stem gate valve?
- A. The torque limit switch protects the valve from being damaged if a foreign object prevents the valve from fully closing.
 - B. The torque limit switch protects the motor from being damaged if a foreign object prevents the valve from fully closing.
 - C. The torque limit switch protects the motor from being damaged if a foreign object prevents the valve from fully opening.
 - D. The torque limit switch protects the valve from being damaged if a foreign object prevents the valve from fully opening.

Correct answer: A

45. What is a useful instrument for checking 3-phase AC motor performance by measuring possible unbalanced currents?
- A. D'Arsonval iron-vane probe
 - B. vibrating-reed frequency meter
 - C. clamp-on ammeter
 - D. hand or battery-operated megger

Correct answer: C

46. Which of the following voltage testers would be associated with high quality, be safe to use, and minimize the electric shock hazard?
- A. a voltage tester with a high input impedance and a voltage rating higher than any expected measured voltages
 - B. a voltage tester with a high input impedance and a lower voltage rating than any expected measured voltages
 - C. a voltage tester with a low input impedance and a higher voltage rating than any expected measured voltages
 - D. a voltage tester with a low input impedance and a lower voltage rating than any expected measured voltages

Correct answer: A

47. When shore power is being connected to a ship in drydock, what must be ensured, assuming that the ship's generators are rated at 450 VAC, 60 Hz with a total capacity of 5000 kW?
- A. shore power must be capable of delivering a total of 5000 kW
 - B. exactly 450 volts must be supplied from shore, as no tolerance is permitted
 - C. exactly 60 Hz must be supplied from shore, as no tolerance is permitted
 - D. shore power phase sequence must agree with that of the ship

Correct answer: D

48. At a minimum threshold, how many milliamps of current through the body produces a condition where most people would suffer ventricular fibrillation and could only be resuscitated with a ventricular defibrillator?
- A. 3 to 7 mA
 - B. 10 to 16 mA
 - C. 30 mA
 - D. 75 mA for 5 sec

Correct answer: D

49. What statement is true concerning the effect of elevating the temperature of the oily-water mixture associated with an oily-water separator?
- A. Heating the oily-water mixture increases the viscosity of the oil and decreases the specific gravity differential between the oil and water.
 - B. Heating the oily-water mixture decreases the viscosity of the oil and increases the specific gravity differential between the oil and water.
 - C. Heating the oily-water mixture decreases the viscosity of the oil and decreases the specific gravity differential between the oil and water.
 - D. Heating the oily-water mixture increases the viscosity of the oil and increases the specific gravity differential between the oil and water.

Correct answer: B

50. A centrifuge will satisfactorily remove which of the listed substances from lube oil?
- A. Diesel fuel
 - B. Gasoline
 - C. Fuel oil
 - D. Carbon particles

Correct answer: D

51. Universal motors will operate on AC or DC current. In what application is this type of motor generally?
- A. turbo-electric main motors
 - B. forced draft fans
 - C. large pump motors
 - D. portable tools

Correct answer: D

52. What type of respiratory protection provides the greatest protection from the various respiratory hazards, is specifically designed for emergency and rescue situations, but has time constraints associated with its use?
- A. Emergency escape breathing apparatus
 - B. Reusable full-mask respirator
 - C. Self-contained breathing apparatus
 - D. Powered air-purifying respirator

Correct answer: C

53. To prevent oil from escaping into the sea when ballasting through the cargo piping system, you should FIRST _____.

- A. start the cargo pump, then open sea suction valves
- B. open block valves, then start the cargo pump
- C. open sluice valves, then start the cargo pump
- D. open sea suction valves, then start the cargo pump

Correct answer: A

54. In preparing the surface of a metal for application of primers and finish coats, which of the listed hand tools would be best used to clean up welds and other areas where there is pitting?

- A. Chipping hammer
- B. Wire brush
- C. Hand scraper
- D. Sandpaper

Correct answer: B

55. When treating a person for third degree burns, you should _____.

- A. make the person stand up and walk to increase circulation
- B. submerge the burn area in cold water
- C. break blisters and remove dead tissue
- D. cover the burns with thick sterile dressing

Correct answer: D

56. Why should battery rooms be well ventilated during the charging process?

- A. to ensure removal of radiation being produced
- B. to ensure removal of corrosive gases being produced
- C. to ensure removal of heat being produced
- D. to ensure removal of explosive gases being produced

Correct answer: D

57. If a life raft should capsize, _____.

- A. climb onto the bottom
- B. swim away from the raft
- C. right the raft using the righting straps
- D. inflate the righting bag

Correct answer: C

58. On vessels exceeding 1600 GRT, who is responsible for the practical upkeep of machinery and the manning of the engine room?

- A. Chief mate
- B. Chief engineer
- C. First assistant engineer
- D. Officer in charge of the engineering watch

Correct answer: C

59. Fusible plugs are installed in fire-tube boilers to _____.

- A. provide a means of draining the boiler
- B. warn the engineer of low water level
- C. cool the crown sheet at high firing rates
- D. open the burners' electrical firing circuits

Correct answer: B

60. Which of the following direct reading pressure gauges is capable of measuring two pressures and displaying the difference between the two?

- A. Differential pressure gauge
- B. Compound gauge
- C. Simplex gauge
- D. Duplex gauge

Correct answer: A

61. Which of the gases listed is the poisonous gas most likely to be found in a closed compartment involved in a fire?

- A. Hydrogen
- B. Carbon dioxide
- C. Carbon monoxide
- D. Nitrogen

Correct answer: C

62. In figure 1 of the illustration, fire would spread to compartment "B" by _____. Illustration SF-0013

- A. impingement
- B. conduction
- C. convection
- D. radiation

Correct answer: B

63. When using the rainwater collection tubes on a life raft, the FIRST collection should be _____.

- A. passed around so all can drink
- B. poured overboard because of salt washed off the canopy
- C. saved to be used at a later time
- D. used to boil food

Correct answer: B

64. Which of the following direct reading pressure gauges is capable of measuring and displaying both positive and negative pressures?

- A. Duplex gauge
- B. Simplex gauge
- C. Compound gauge
- D. Differential pressure gauge

Correct answer: C

65. A pipe, or Stillson wrench functions best when _____.

- A. a maximum pull is exerted with one hand
- B. an extension is placed on the wrench handle
- C. the bite is taken midway up the jaw teeth
- D. the wrench jaws are at the widest open setting

Correct answer: C

66. Portable Halon extinguishers used on a class "B" fire should be directed _____.

- A. toward the upwind side of the fire
- B. in short, quick bursts
- C. at the base of the fire near the edge
- D. at the top of the flames

Correct answer: C

67. Aqueous Film Forming Foam (AFFF), commonly known as "light water", is especially suitable for fighting _____.

- A. any class D fire
- B. class C fires in paint lockers
- C. oil fires in the engine room bilges
- D. all of the above

Correct answer: C

68. Which practices should be followed at all times when using an electric grinding machine?

- A. Be properly trained in the use of this tool
- B. Wear goggles or face shield
- C. Be certain that the frame is properly grounded
- D. Each of the above practices

Correct answer: D

69. Which of the listed methods, is the most effective to fight a fire on the open deck of a vessel if using a dry chemical type fire extinguisher?

- A. Approach the fire from the windward side.
- B. Move the discharge stream back and forth in a rapid sweeping motion.
- C. Direct the extinguisher discharge at the base of the fire.
- D. All of the above.

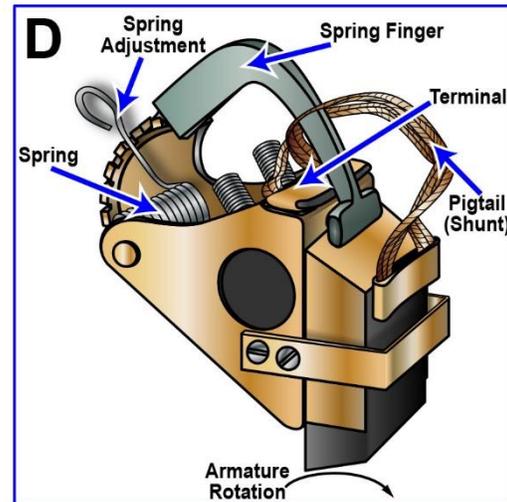
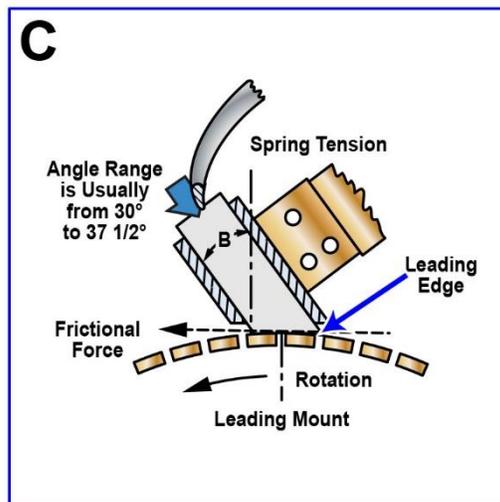
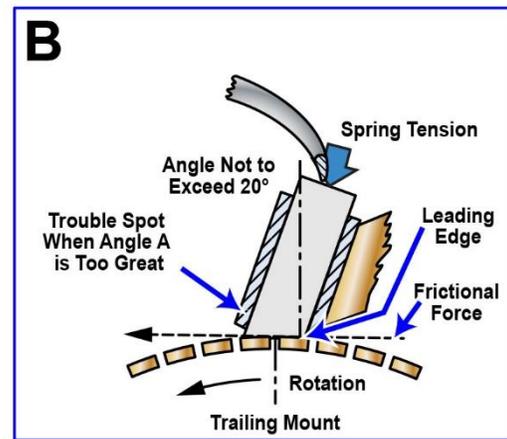
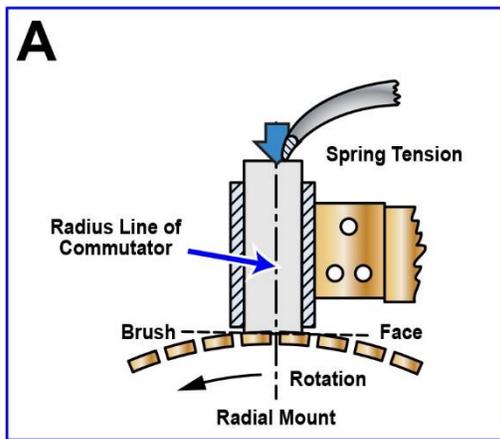
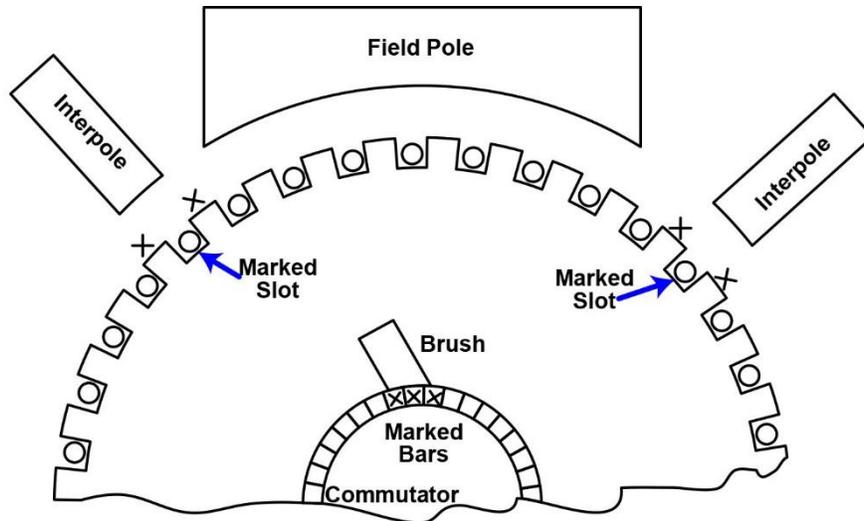
Correct answer: D

70. Remote valve operators are frequently fitted with a handwheel for local operation if the motor fails. If this is so, what is the procedure for local manual control?

- A. First move the lever to engage the motor clutch, then rotate the handwheel.
- B. Motor operated valves are generally not fitted with local handwheels.
- C. First move the lever to disengage the motor clutch, then rotate the handwheel.
- D. Just rotate the handwheel in the appropriate direction for valve operation.

Correct answer: C

EL-0029



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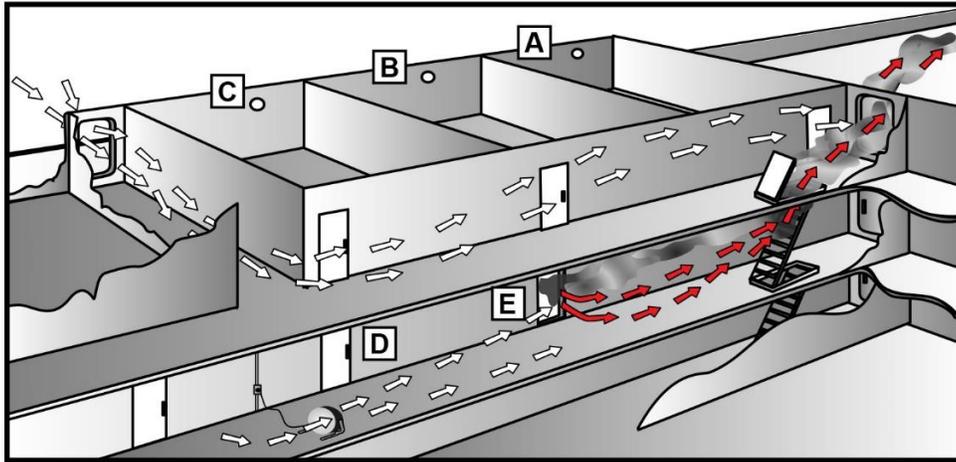


Figure 1

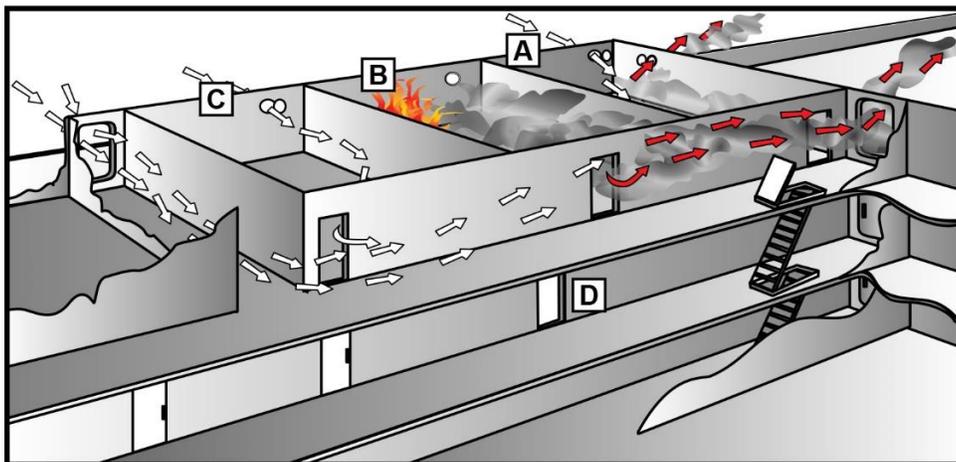


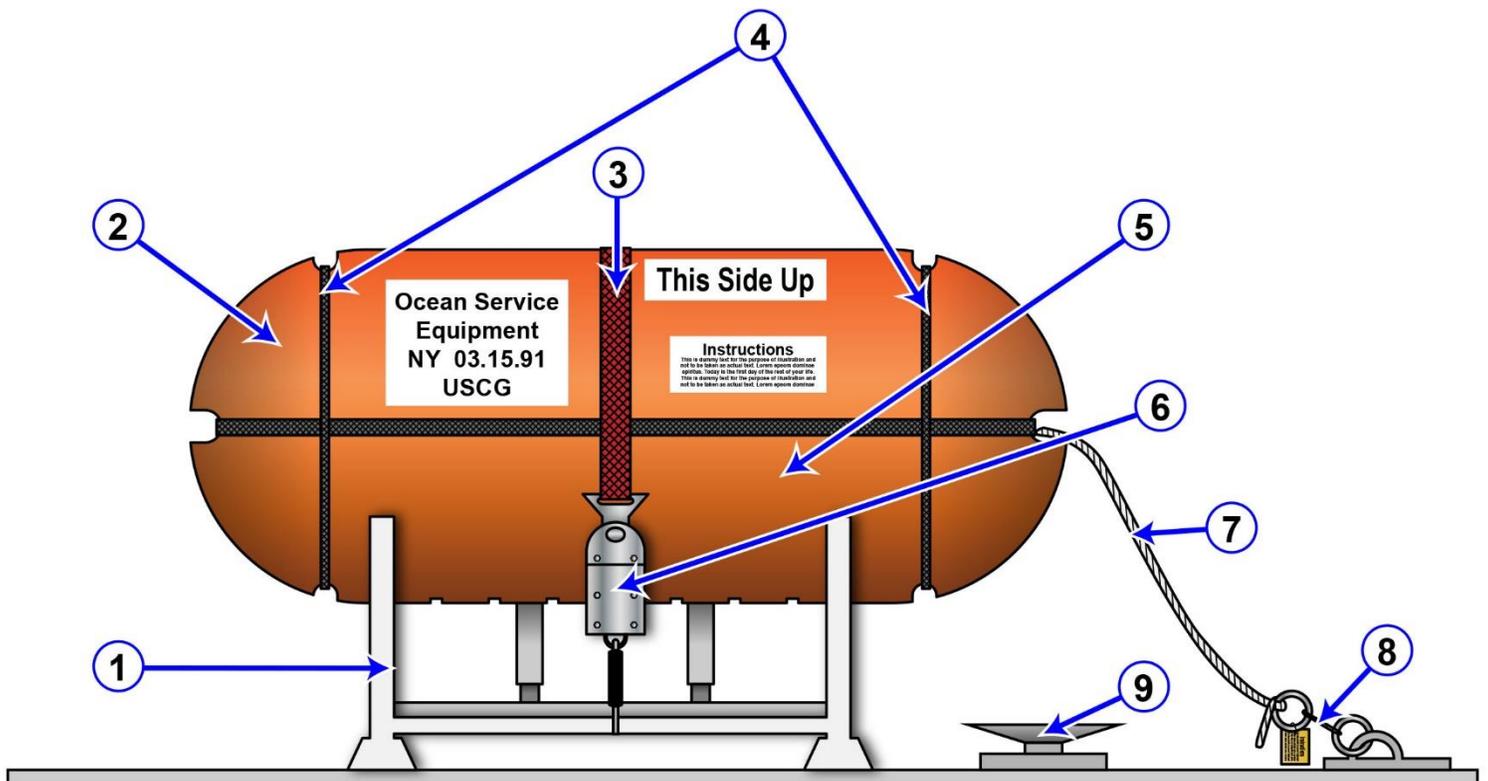
Figure 2



Figure 3

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SF-0043



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