

U.S.C.G. Merchant Marine Exam

Master Less than 100 Gross Registered Tons Rivers

Q401 Deck General – Safety

(Sample Examination)

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

1. Which of the following is the strongest way to join the ends of two ropes?

- A. Carrick bend
- B. Short splice
- C. Back splice
- D. Square knot

Correct answer: B

2. Which of the following describes a fid?

- A. A tapered wooden pin used when splicing heavy rope
- B. A mallet used when splicing wire rope
- C. A sharp pointed crowbar used to unlay wire rope
- D. A tapered steel pin used to separate wire rope

Correct answer: A

3. Which knot shown in illustration D030DG below represents a square knot?

- A. P
- B. H
- C. W
- D. R

Correct answer: C

4. What type of knot in illustration D030DG below is indicated by the Letter "J"?

- A. Plain whipping
- B. Becket bend
- C. Marline hitch
- D. Bowline

Correct answer: A

5. Which factor is most likely to impair the strength and durability of synthetic line?

- A. Dry rot
- B. Mildew
- C. Sunlight
- D. Washing with mild soap

Correct answer: C

6. Which rope has the greatest breaking strength?

- A. Polypropylene
- B. Polyethylene
- C. Manila
- D. Nylon

Correct answer: D

7. In illustration D044DG below, what is the mooring line labeled "A" called?

- A. Onshore stern line
- B. Offshore stern line
- C. After spring line
- D. After breast line

Correct answer: B

8. In illustration D044DG below, what is the mooring line labeled "G" called?

- A. Inshore bow line
- B. Forward spring line
- C. Offshore bow line
- D. Forward breast line

Correct answer: A

9. You have sent a visual signal to an aircraft. The aircraft then flies over your position on a straight course and level altitude. What should you do?

- A. Prepare for a helicopter pickup
- B. Repeat your signal
- C. Change course to follow the airplane
- D. Send more signals

Correct answer: B

10. What is the normal percentage of oxygen in air?

- A. 16%
- B. 18%
- C. 21%
- D. 25%

Correct answer: C

11. All of the following are part of the fire triangle EXCEPT _____.

- A. oxygen
- B. fuel
- C. heat
- D. electricity

Correct answer: D

12. Spontaneous ignition can result from _____.

- A. careless disposal or storage of material
- B. worn electrical wires on power tools
- C. smoking in bed
- D. an unprotected drop-light bulb

Correct answer: A

13. Which lines primary function is to reduce the fore and aft motion of a docked vessel?

- A. The quarter breast lines
- B. The bow cross spring lines
- C. The breast lines
- D. The bow and stern lines

Correct answer: D

14. The primary function of which line(s) is to hold the vessel snugly to the dock?

- A. The breast lines
- B. The quarter cross spring lines
- C. The stern lines
- D. The bow cross spring lines

Correct answer: A

15. What is the purpose of Sluicing or slushing wire rope?

- A. To reduce internal friction within the wire
- B. To prevent internal and external rust and corrosion
- C. To reduce chafing and increases its useful service life
- D. All of the above

Correct answer: D

16. A common class of wire rope is the 6X37 class. What does the 37 represent?

- A. Number of wires per strand
- B. Number of strands per wire rope
- C. Number of wires in the inner core
- D. Tensile strength of the wire

Correct answer: A

17. Which term describes the distance that a vessel travels from the time that the order to put engines full astern until the vessel is dead in the water?

- A. Surge
- B. Advance
- C. Head reach
- D. Transfer

Correct answer: C

18. In stopping distances of vessels, which defines the term "head reach"?

- A. The speed at which a vessel should proceed to ensure that she will run a predetermined distance, once her engines have been stopped
- B. The distance the vessel will run between taking action to stop her and being stationary in the water
- C. The difference between the vessel's speed through the water at any instant and the new speed ordered on the telegraph
- D. The distance the vessel has actually run through the water since a change of speed was ordered

Correct answer: B

19. In relation to the turning circle of a ship, which defines the term "transfer"?

- A. The distance gained at right angles to the original course
- B. The distance around the circumference of the turning circle
- C. The distance gained in the direction of the original course
- D. The distance the ship moves sidewise from the original course away from the direction of the turn after the rudder is first put over

Correct answer: A

20. When piloting a vessel, how are visual references used to establish a constant rate of turn?

- A. Visual references cannot be used to maintain a constant rate of turn.
- B. Keep the fixed object's relative bearing opening, for a constant rate of turn.
- C. Fixed objects that stay on the same relative bearing when the ship is turning indicate a constant rate of turn.
- D. Begin the turn when the fixed object is on the beam.

Correct answer: C

21. Which statement is TRUE concerning River currents?

- A. Currents cause the greatest depth of water on the outside of a bend
- B. The currents run slower in the center of the channel as opposed to the sides
- C. The currents pick up speed where the channel widens
- D. A current will hug the inside of a bend

Correct answer: A

22. You are making a sharp turn in a channel and using a buoy four points on the bow to gauge your rate of turn. If you observe the buoy moving aft relative to you, what should you do?

- A. Decrease the rate of turn
- B. Increase the rate of turn
- C. Decrease speed
- D. Maintain a constant rate of turn

Correct answer: B

23. Which is the root cause of wake damage to a vessel or structure in a narrow channel?

- A. Trim of the vessel
- B. Improper steering of the vessel
- C. Slack mooring lines
- D. Excessive speed

Correct answer: D

24. Who is responsible for any wake damage caused by a passing vessel?

- A. The owner of the damaged vessel
- B. No one is responsible for wake damage
- C. The person in charge of the passing vessel
- D. The person deemed competent to steer the vessel

Correct answer: C

25. Which is TRUE of paints and solvents on a vessel?

- A. They must be stored in a gear locker
- B. They should be stored safely at the work site until work is completed
- C. They must be covered at all times to protect from ignition sources
- D. They should be returned to the paint locker after each use

Correct answer: D

26. The hoods over galley ranges present what major hazard?

- A. Grease collects in the duct and filter and if it catches fire is difficult to extinguish.
- B. In order to effectively draw off cooking heat they present a head-injury hazard to a person of average or more height.
- C. They inhibit the effective operation of firefighting systems in combating deep fat fryer or range fires.
- D. They concentrate the heat of cooking and may raise surrounding flammable material to the ignition point.

Correct answer: A

27. Why is it necessary to secure the forced ventilation to a compartment where there is a fire?

- A. To allow the exhaust fans to remove smoke
- B. To protect firefighting personnel from smoke
- C. To extinguish the fire by carbon monoxide smothering
- D. To prevent additional oxygen from reaching the fire

Correct answer: D

28. Why do spaces containing batteries require good ventilation?

- A. Ventilation supplies extra oxygen for charging the battery
- B. Ventilation avoids flammable gas accumulation
- C. Less electrolyte is required to maintain the batteries' charge
- D. Ventilation avoids CO2 build up

Correct answer: B

29. What is the main advantage of a steady stream of water on a class "A" fire?

- A. It washes the fire away
- B. It breaks up and cools the fire
- C. It removes the oxygen
- D. It protects the firefighting crew

Correct answer: B

30. A burning pile of dunnage would be which classification of fire?

- A. A
- B. B
- C. C
- D. D

Correct answer: A

31. When choosing extinguishers to fight a Class "B" fire do NOT use which type of extinguisher?

- A. Carbon dioxide
- B. Water (cartridge-operated)
- C. Dry chemical
- D. Foam (stored-pressure type)

Correct answer: B

32. If ignited, which material would be a class B fire?

- A. Paper
- B. Diesel Oil
- C. Magnesium
- D. Wood

Correct answer: B

33. Which types of portable fire extinguishers are designed for putting out electrical fires?

- A. Foam and carbon dioxide
- B. Foam and water (stored pressure)
- C. Dry chemical and carbon dioxide
- D. Foam and dry chemical

Correct answer: C

34. What is the primary hazard, other than fire damage, associated with a class C fire?

- A. Flashover
- B. Explosion
- C. Electrocution or shock
- D. Possibility of reflash

Correct answer: C

35. Fires which occur in energized electrical equipment, such as switchboard insulation, are which classification?

- A. A
- B. B
- C. C
- D. D

Correct answer: C

36. While you are working in a space, the fixed CO₂ system is accidentally activated. Which action should you take?

- A. Retreat to fresh air and ventilate the compartment before returning
- B. Continue with your work as there is nothing you can do to stop the flow of CO₂
- C. Secure the applicators to preserve the charge in the cylinders
- D. Make sure all doors and vents are secured

Correct answer: A

37. Before using a fixed CO₂ system to fight an engine room fire, you must _____.

- A. evacuate all engine room personnel
- B. secure the engine room ventilation
- C. secure the machinery in the engine room
- D. All of the above

Correct answer: D

38. CO₂ mainly extinguishes a fire by which of the following?

- A. Cooling
- B. Chemical action
- C. Smothering
- D. All of the above

Correct answer: C

39. Which extinguishing agent is most likely to allow reflash as a result of not cooling the fuel below its ignition temperature?

- A. Water spray
- B. Water stream
- C. Foam
- D. CO₂

Correct answer: D

40. You have just abandoned ship and boarded a raft. After the raft is completely inflated you hear a whistling noise coming from a safety valve. Which action should you take?

- A. Do not become alarmed unless it continues for a long period of time
- B. Plug the safety valve
- C. Unscrew the deflation plugs
- D. Remove the safety valve and replace it with a soft patch

Correct answer: A

41. Your ship is sinking rapidly. A container containing an inflatable liferaft has bobbed to the surface upon functioning of the hydrostatic release. Which action should you take?

- A. Swim away from the container so you will not be in danger as it goes down.
- B. Take no action because the painter will cause the liferaft to inflate and open the container.
- C. Cut the painter line so it will not pull the liferaft container down.
- D. Manually open the container and inflate the liferaft with the hand pump.

Correct answer: B

42. If you are fighting a fire below the main deck of your vessel, which action is most important concerning the stability of the vessel?

- A. Pumping firefighting water overboard
- B. Maneuvering the vessel so the fire is on the lee side
- C. Removing burned debris from the cargo hold
- D. Shutting off electricity to damaged cables

Correct answer: A

43. When possible, what is the FIRST step in fighting an engine fuel-pump fire which results from a broken fuel line?

- A. Close the fuel line valve.
- B. Secure all engine room doors, hatches, and vents.
- C. Check the spread of the fire with foam.
- D. Cast the barge off the wharf.

Correct answer: A

44. A fuel line breaks, sprays fuel on the hot exhaust manifold, and catches fire. What should be your FIRST action?

- A. Apply carbon dioxide to the fire
- B. Start the fire pump
- C. Secure the fuel supply
- D. Batten down the engine room

Correct answer: C

45. You are picking up a conscious person that has fallen overboard in one of the vessels motorboats. Recovery is easier in a light breeze if you approach from which direction?

- A. Approach with the wind on your port side
- B. Approach with the wind on your starboard side
- C. Windward with the victim to leeward
- D. Leeward with the victim to windward

Correct answer: C

46. You are picking up an unconscious person that has fallen overboard in a fresh breeze. For safety reasons how should a small craft approach?

- A. With the victim to leeward
- B. With the wind on your port side
- C. With the victim to windward
- D. With the wind on your starboard side

Correct answer: C

47. Which is a major advantage of the round turn maneuver in a man overboard situation?

- A. It is the fastest method
- B. It can be used in reduced visibility
- C. It is easy for a single-screw vessel to perform
- D. It requires the least shiphandling skills to perform

Correct answer: A

48. Which maneuver will return your vessel to a person who has fallen overboard in the shortest time?

- A. Make two 180° turns
- B. A single turn with hard rudder
- C. A Williamson Turn
- D. Put the engine(s) crash astern, no turn

Correct answer: B

49. A situation has occurred where it becomes necessary for you to be towed. What action should be taken to prevent your vessel from yawing?

- A. Throw excess weight overboard
- B. Shift weight to the center of the boat
- C. Shift weight to the bow
- D. Shift weight to the stern

Correct answer: D

50. The vessel shown in illustration D025DG has broken down and you are going to take her in tow. The wind is on her starboard beam. Both vessels are making the same amount of leeway. Where should you position your vessel when you start running lines?

- A. A
- B. B
- C. C
- D. D

Correct answer: C

51. When cleaning up an oil spill in U.S. waters you must obtain the approval of the Federal On-Scene Coordinator before using which of the following?

- A. Straw
- B. Chemical agents
- C. Sawdust
- D. Skimmers

Correct answer: B

52. When a vessel violates the oil pollution laws, who may be held responsible?

- A. Any individual connected with the vessel involved in the operation
- B. Owners only
- C. Credentialed officers only
- D. Master only

Correct answer: A

53. Which vessel is NOT required to have a Pollution Placard posted on board?

- A. 215-foot naval auxiliary vessel
- B. 75-foot towing vessel
- C. 50-foot cabin cruiser used for pleasure only
- D. 150-foot unmanned tank barge

Correct answer: A

54. According to U.S. regulations, what vessels are required to have the "Discharge of Oil Prohibited" placard?

- A. Foreign vessels when engaged in noncommercial service
- B. U.S. vessels 26 feet or more in length
- C. Foreign vessels not in U.S. navigable waters
- D. U.S. vessels less than 26 feet in length

Correct answer: B

55. A mariner whose credential has been revoked shall not be issued another credential without which of the following?

- A. Approval of an administrative law judge
- B. Taking a new examination
- C. Approval of the Commandant
- D. Approval of the Officer-in-Charge, Marine Inspection

Correct answer: C

56. You operate a harbor craft on inland waters exclusively. If you regularly service or contact foreign flag vessels in the course of business, which statement is TRUE?

- A. Your vessel must be inspected.
- B. A customs official must be on board when contacting a foreign flag vessel.
- C. All contacts with a foreign flag vessel must be reported to the U.S. Coast Guard.
- D. Your crew must have identification credentials.

Correct answer: D

57. A change of a documented vessel's name can only be made by which organization?

- A. Coast Guard
- B. American Bureau of Shipping
- C. Treasury Department
- D. Commissioner of Customs

Correct answer: A

58. Which is TRUE concerning the official number of a documented vessel?

- A. It is not required to be marked anywhere on the vessel
- B. It is required to be permanently marked on the vessel's structure
- C. It is required to be painted on the vessel's stern
- D. It is required to be painted on the vessel's bow

Correct answer: B

59. Under federal regulations, what minimum level of Blood Alcohol Content (BAC) constitutes a violation of the laws prohibiting Boating Under the Influence of Alcohol (BUI) on commercial vessels?

- A. .10% BAC
- B. .06% BAC
- C. .18% BAC
- D. .04% BAC

Correct answer: D

60. Following a Serious Marine Incident, a mariner involved in the incident is prohibited from consuming alcohol until after being tested or which time frame?

- A. 2 hours following the incident
- B. 4 hours following the incident
- C. 8 hours following the incident
- D. 12 hours following the incident

Correct answer: C

61. Normally, which chemical is used to treat water in order to ensure its safety for drinking?

- A. Oxygen
- B. Chlorine
- C. Carbon
- D. Nitrogen

Correct answer: B

62. Normally, where is the potable water systems directly connected to?

- A. The potable water tank
- B. The feed-water system
- C. A freshwater sanitary system
- D. The vessel's fire-main system

Correct answer: A

63. The water in which a vessel floats provides vertical upward support. Which term is regarded as the point through which this support is assumed to act?

- A. The center of flotation
- B. The center of gravity
- C. The center of buoyancy
- D. The center of effort

Correct answer: C

64. Which term represents the weight (measured in tons) required to cause a change in mean draft of one inch?

- A. TPI
- B. MT1 inch
- C. MH1 inch
- D. ML1 inch

Correct answer: A

65. The effect of free surface on initial stability depends upon which item(s)?

- A. Only the length of the compartment
- B. The amount of liquid in the compartment
- C. The vertical position of the liquid in the vessel
- D. The dimensions of the liquid surface and the vessel's displacement

Correct answer: D

66. While underway, if you are required to have a radiotelephone, you must maintain a continuous listening watch on which of the following channels?

- A. 6 (156.3 MHz)
- B. 12 (156.6 MHz)
- C. 14 (156.7 MHz)
- D. 16 (156.8 MHz)

Correct answer: D

67. Which statement is TRUE concerning gasoline vapors on board a vessel?

- A. They should be vented into the wheelhouse.
- B. They should be vented into the engine to improve combustion.
- C. They are lighter than air and will settle in the highest part of the vessel.
- D. They are heavier than air and will settle in the lowest part of the vessel.

Correct answer: D

68. Which is TRUE of outlets in gasoline fuel lines of your small vessel?

- A. They are permitted for draining fuel from lines
- B. They are prohibited
- C. They are permitted for drawing fuel samples
- D. They are permitted for bleeding air from lines

Correct answer: B

69. Maintaining good working order of fuel pumps and injectors in auxiliary diesel engines requires the use of _____.

- A. fuel/water separators
- B. fuel filters
- C. an injector test stand
- D. day tanks

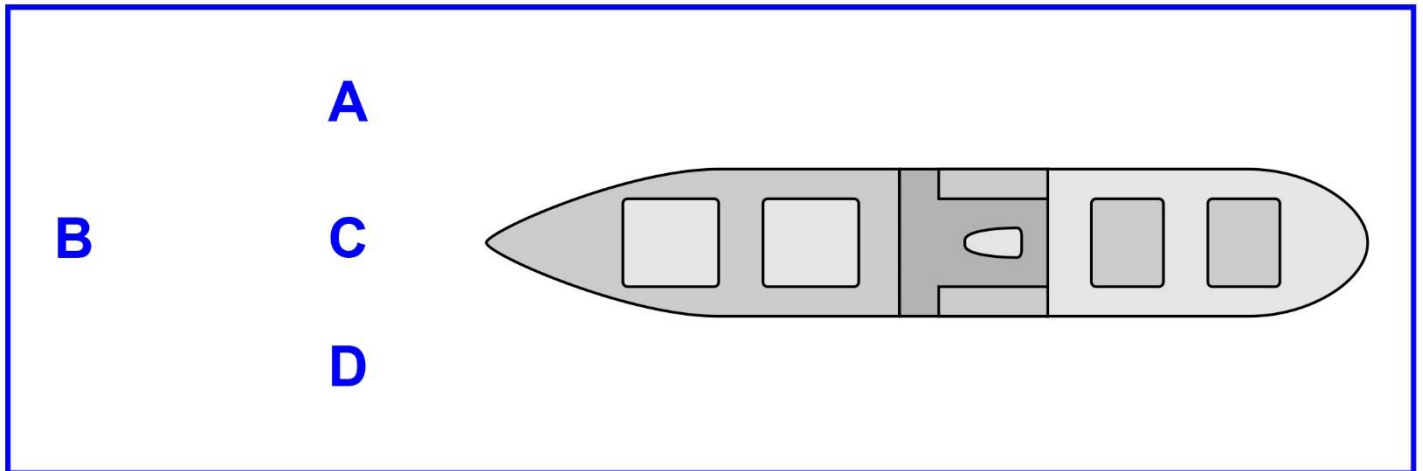
Correct answer: B

70. Which statement is FALSE concerning precautions during small craft fueling operations?

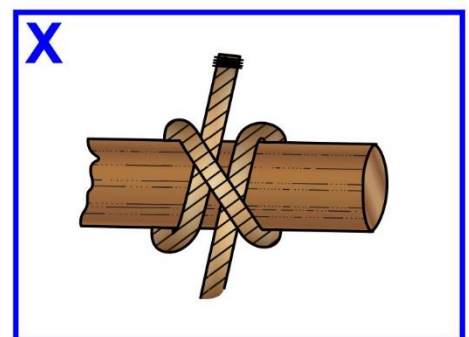
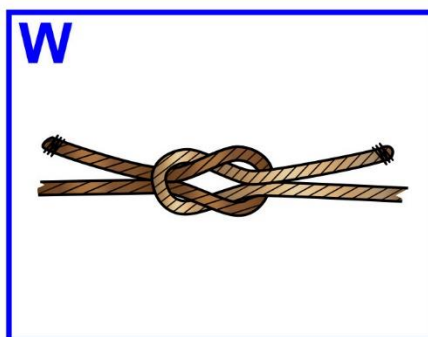
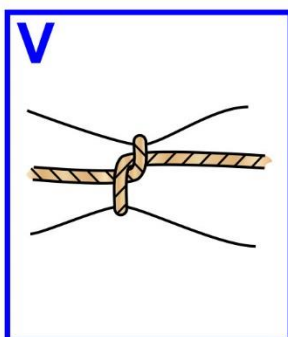
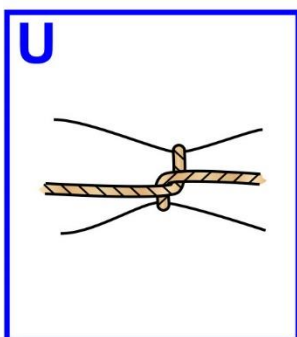
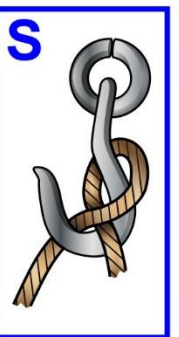
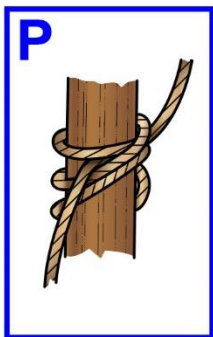
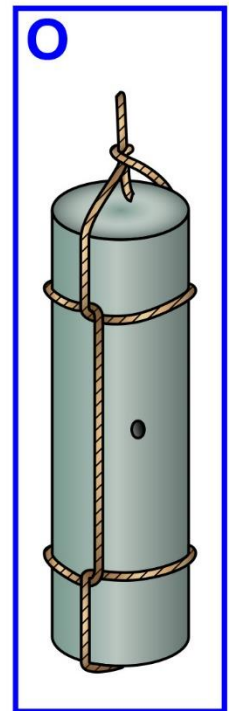
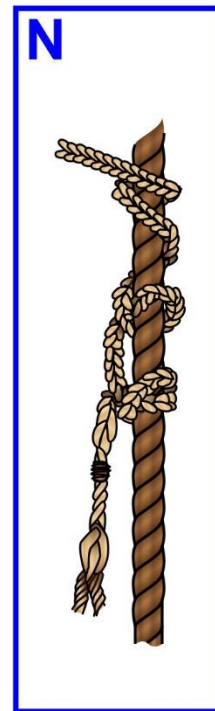
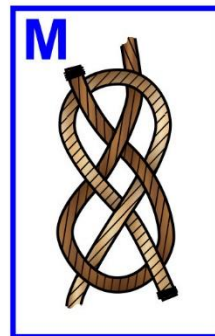
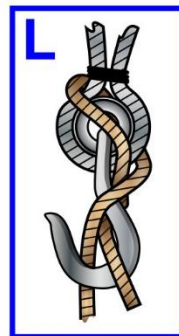
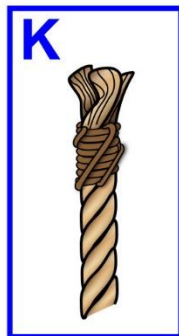
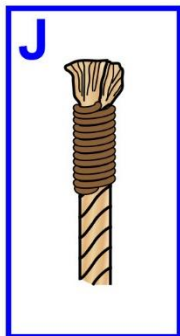
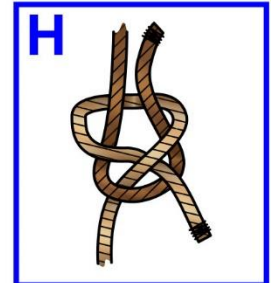
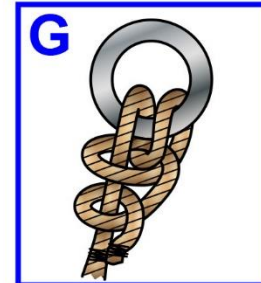
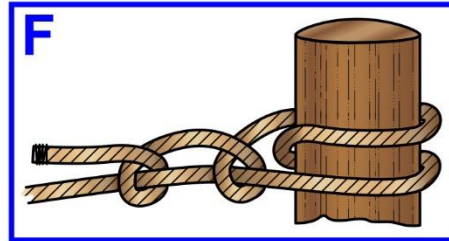
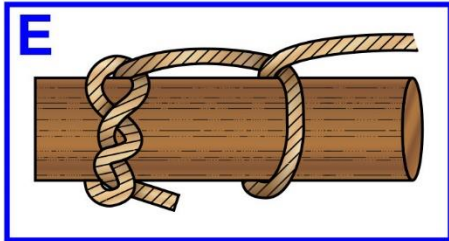
- A. A fire extinguisher should be kept nearby.
- B. All windows, doors, hatches, etc. should be closed.
- C. All engines, motors, fans, etc. should be shut down when fueling.
- D. Fuel tanks should be topped off with no room for expansion.

Correct answer: D

D025DG

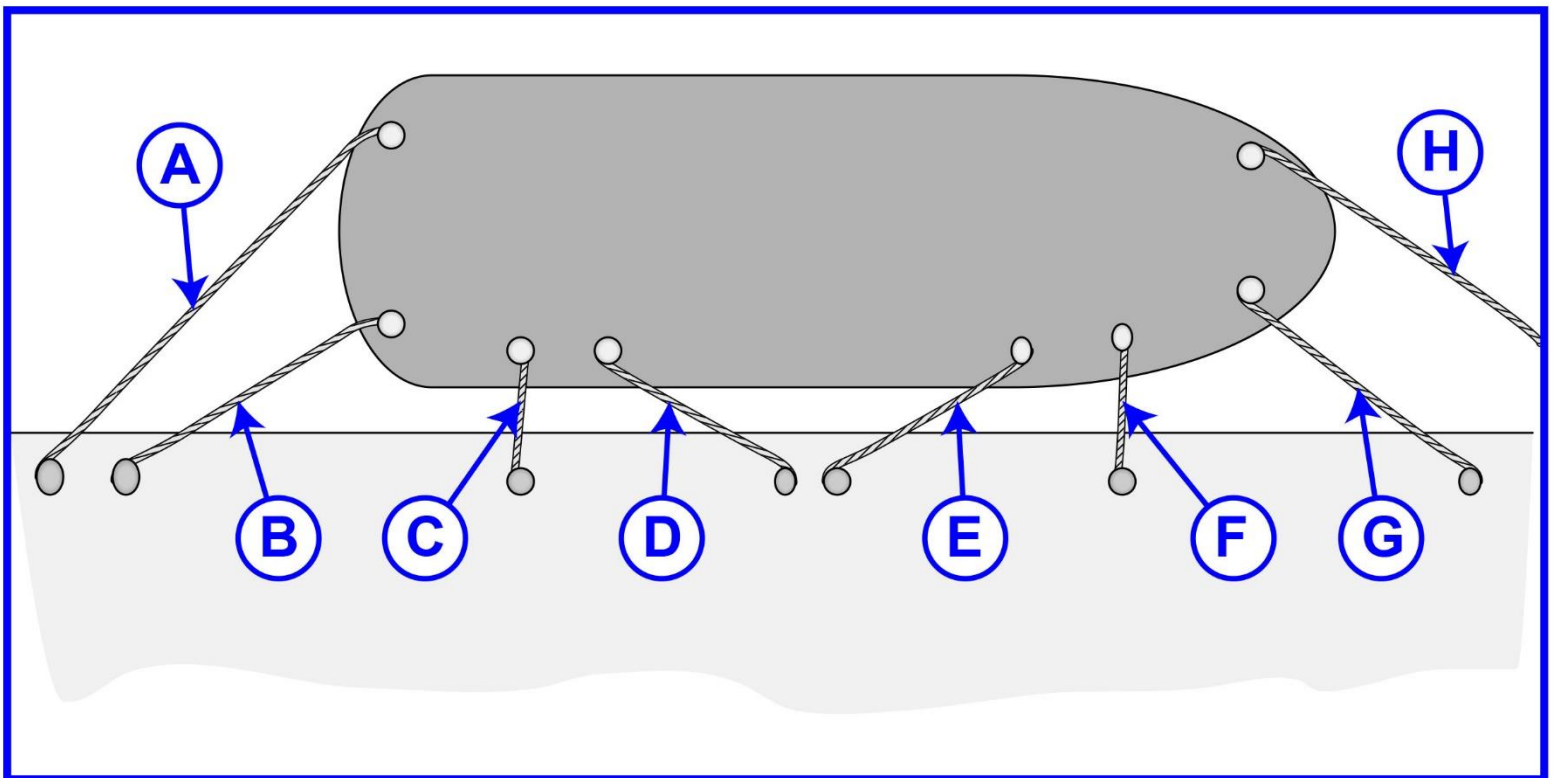


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