

U.S.C.G. Merchant Marine Exam
Second/Third Mate of Unlimited Tonnage
Q111 Deck General
(Sample Examination)

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

1. You are underway in heavy weather and your bow is into the seas. Which action should you take to prevent pounding?
- A. Secure all loose gear on your vessel
 - B. Increase the speed of the vessel
 - C. Decrease the speed of the vessel
 - D. Put the seas on a 85-degree angle from the bow

Correct answer: C

2. If your propeller is racing in rough weather, which action should you take?
- A. Stop your engine until the rough weather passes
 - B. Ignore it, this is acceptable in rough weather
 - C. Decrease your engine speed
 - D. Increase your engine speed

Correct answer: C

3. When the period of beam seas equals the natural rolling period of a vessel, what will most likely occur?
- A. Excessive rolling
 - B. Excessive yawing
 - C. Excessive pitching
 - D. No change should be evident

Correct answer: A

4. You are conducting trials to determine the maneuvering characteristics of your vessel. While making a turn, you take ranges and bearings of an isolated light with the results as shown. Based on this information, what is the advance for a turn of 45°? Illustration D034DG
- A. 590 yards
 - B. 635 yards
 - C. 690 yards
 - D. 740 yards

Correct answer: C

5. Which term describes the distance a vessel moves in the direction of the original course from the point where the rudder is put over to any point on the turning circle?
- A. Pivoting point
 - B. Transfer
 - C. Advance
 - D. Drift angle

Correct answer: C

6. Why is a VLCC (100,000 DWT+) with a 30,000 Shaft Horsepower Steam Turbine slow to respond to engine movements, and has less stopping power than normal ships?
- A. They have a bigger propeller
 - B. They have smaller power to weight ratio
 - C. They have larger power to weight ratio
 - D. They possess smaller propellers

Correct answer: B

7. When passing a moored vessel in a narrow channel which actions will help minimize wake damage?
- A. Go half astern when abeam of the moored vessel
 - B. Stay on outside of channel and make a notation in the logbook
 - C. Reduce speed and make a notation in the bell book
 - D. Check the rudder several times while passing the vessel

Correct answer: C

8. Which states the requirements for the access to a cargo pumproom in a tank vessel carrying grades C or D liquid cargo?
- A. The pumproom access shall only be from enclosed areas free from sources of vapor ignition
 - B. The pumproom access shall be from within the vessel
 - C. The pumproom access shall be from areas equipped with power ventilation
 - D. The pumproom access shall be from the open deck

Correct answer: D

9. Deck foam systems, designed to protect cargo areas on tank vessels built after January 1, 1975, must have a supply of foam-producing material to operate the system at its designed rate of foam production for _____.
- A. 15 minutes without recharging
 - B. 20 minutes without recharging
 - C. 25 minutes without recharging
 - D. 30 minutes without recharging

Correct answer: B

10. A tug should not come alongside a tank vessel in way of its cargo tanks while it is loading grade A, B, or C cargo without the permission of the _____.
- A. cognizant OCMI
 - B. person in charge of the transfer
 - C. superintendent of the shoreside facility
 - D. local fire department

Correct answer: B

11. Which international body is responsible for drafting the MARPOL convention prohibiting marine pollution?

- A. The Association of Seafaring Nations
- B. The International Maritime Organization
- C. The International Association of Shipping
- D. The Maritime Advisory Council

Correct answer: B

12. On an inspected vessel, when may a stability test be dispensed with?

- A. Coast Guard does not have a qualified inspector available
- B. Coast Guard has the approved stability test results of a sister vessel
- C. The projected cost is unreasonable
- D. The vessel is of a proven design

Correct answer: B

13. Who must approve the vessel's trim and stability booklet?

- A. Society of Naval Architects and Marine Engineers
- B. National Cargo Bureau
- C. International Maritime Organization
- D. United States Coast Guard

Correct answer: D

14. Which condition must be met during a stability test on an inspected vessel?

- A. Water under vessel must be deep enough to prevent grounding
- B. Each tank must be partially full to show it does not leak
- C. The vessel must be moored snugly
- D. All dunnage, tools, and extraneous items are secured

Correct answer: A

15. Every entry required to be made in the Official Logbook shall be signed. Who is required to sign this logbook?

- A. Mate on watch
- B. Master only
- C. Purser, one of the Mates, and some other member of the crew
- D. Master and Chief Mate or other member of the crew

Correct answer: D

16. Which is the proper way to correct a mistake in the logbook?

- A. Draw several lines through the entry, rewrite, and initial the correction
- B. Erase the entry and rewrite
- C. Completely black out the entry, rewrite, and initial the correction
- D. Draw a line through the entry, rewrite, and initial the correction

Correct answer: D

17. In safety and risk assessment, what two factors are used to evaluate a hazard's risk?

- A. Probability of getting disciplined and forbearance of failing to file a report
- B. Forbearance of the possible consequences and improbability of occurrence
- C. Improbability of being caught and forbearance of failing to file a report
- D. Severity of the possible consequences and probability of occurrence

Correct answer: D

18. A block and tackle is "rove to advantage". What does this mean?

- A. The blocks have been overhauled
- B. The hauling part leads through the standing block
- C. The hauling part leads through the movable block
- D. The hauling parts of two tackles are attached

Correct answer: C

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

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

Correct answer: A

20. To find the distance the strands should be unlaidd for a Liverpool eye splice, multiply the diameter of the wire in inches by which factor?

- A. 12
- B. 24
- C. 36
- D. 48

Correct answer: C

21. What should you inspect to be sure that it is safe to go aloft in a bosun's chair?

- A. The gantline
- B. The chair and bridle
- C. The tail block
- D. All of the above

Correct answer: D

22. A temporary wire eye splice made with three wire rope clamps will hold approximately what percentage of the total rope strength?

- A. 20%
- B. 50%
- C. 80%
- D. 99%

Correct answer: C

23. While the Pilot is maneuvering the vessel to a dock, what is the primary responsibility of the watch officer?

- A. Ensure that helm and throttle orders given by the Pilot are correctly executed
- B. Record the bells and their times in the bell book
- C. Judge the appropriateness of the Pilot's orders and countermand them if necessary
- D. Supervise the signaling and flag etiquette

Correct answer: A

24. How should a vessel spotted at 45° relative be reported?

- A. 4 points abaft the starboard beam
- B. On the starboard beam
- C. 4 points forward of starboard bow
- D. Broad on the starboard bow

Correct answer: D

25. How should a vessel that is being assisted by an icebreaker indicate that it is ready to cast off the towline (if one is used)?

- A. Display code numeral "5"
- B. Sound one prolonged blast of the whistle
- C. Sound five short blasts of his whistle
- D. Display the code letter "Y" (Yankee)

Correct answer: D

26. Your vessel is being assisted by an icebreaker. How should you indicate that you are ready to cast off the towline?

- A. Sound one prolonged blast on the whistle
- B. Sound five short blasts on his whistle
- C. Display code letter "Y" (Yankee)
- D. Display code numeral "5"

Correct answer: C

27. Your vessel is being assisted through an ice field in Thunder Bay by the Canadian Coast Guard icebreaker Alexander Henry. The starboard lookout reports that the icebreaker has run up the code flag "N" (November). Which action should you take?

- A. Reduce speed
- B. Reverse your engines
- C. Stop your vessel instantly
- D. Stop your engines

Correct answer: D

28. What is NOT required as special safety equipment on a tankship carrying hazardous cargoes in bulk?

- A. Equipment to lift an injured person from a pumproom
- B. Two portable vapor detectors suitable for the cargoes carried
- C. Shower and eyewash fountain
- D. A safety locker adjacent to the emergency shutdown station

Correct answer: B

29. Flammable liquids should have what kind of label?

- A. Skull and crossbones
- B. White
- C. Yellow
- D. Red

Correct answer: D

30. Which is a disadvantage of using chain lashing on heavy vehicles aboard Ro-Ro vessels?

- A. The chain does not absorb shock
- B. It can wrap around cargo
- C. The chain is affected by temperature
- D. It is easily damaged

Correct answer: A

31. What does item "K" refer to in illustration D045DG of a 30-ton pedestal crane?

- A. Rider block taglines
- B. Manual slewing cables
- C. Jib luffing cables
- D. Cargo snaking cables

Correct answer: A

32. Stress on the topping lift of a swinging boom can be reduced by _____.

- A. raising the boom
- B. rigging a back stay
- C. taking all slack out of the preventer
- D. increasing the mechanical advantage of the cargo purchase

Correct answer: A

33. When stowing hazardous materials on deck, lashing of such cargo is permitted if _____.

- A. the cargo is lashed to the adjacent guard rails
- B. a wooden bin is constructed of at least 2-inch dunnage and bolted together
- C. the lashings are secured to deck pad eyes
- D. there is at least 3 inches of dunnage on deck

Correct answer: C

34. What is the minimum standard for making an eye splice in a wire to be used as cargo gear?

- A. Make three tucks with full strands, remove half the wires from each strand, and make two more tucks.
- B. Make four tucks with each full strand.
- C. Make six tucks with each strand, removing a few wires from each strand as each additional tuck is made.
- D. Make four tucks in each strand, cut away every other strand, and make two more tucks with each remaining strand.

Correct answer: A

35. Which of the following is classified as a flammable liquid?

- A. Methyl alcohol
- B. Mineral spirits
- C. Bunker C
- D. Butane

Correct answer: A

36. Severe exposure to chlorine gas can be fatal. Chlorine gas is primarily a _____.

- A. respiratory irritant
- B. blood poisoning agent
- C. nerve paralyzing irritant
- D. skin burning agent

Correct answer: A

37. Sulfuric acid is a _____.

- A. colorless-to-brown liquid with a choking odor when hot
- B. whitish liquid with a faint, pleasant odor
- C. colorless liquid with a pleasant fruity odor
- D. clear syrupy liquid with no odor

Correct answer: A

38. According to the Chemical Data Guide, the flash point for the grade B flammable liquid piperylene is _____.

- A. -20°F
- B. 43°C
- C. 108°F
- D. not available

Correct answer: A

39. Which of the signals listed is required to be displayed at night while bunkering at a dock?

- A. One red light over a white light
- B. Two red lights
- C. One red light
- D. One red light over a yellow light

Correct answer: C

40. Which is a precaution you should take before bunkering?

- A. Plug the sounding pipes
- B. Close the lids on the vents
- C. Plug the vents
- D. Plug the scuppers

Correct answer: D

41. Your vessel is taking on fuel when a small leak develops in the hose. You order the pumping stopped. Before you resume pumping, you should _____.

- A. Repair the hose with a patch
- B. Notify the terminal superintendent
- C. Replace the hose
- D. Place a large drip pan under the leak and plug the scuppers

Correct answer: C

42. A tanker is loaded with 5,000 barrels of petroleum. The cargo was loaded at a temperature of 70°F, and the coefficient of expansion is .0004. What is the net amount in barrels of cargo loaded?

- A. 4800
- B. 4980
- C. 5020
- D. 5200

Correct answer: B

43. Flammable liquid means any liquid which gives off flammable vapors at or below _____.

- A. 40°F (4.4°C)
- B. 80°F (26.7°C)
- C. 110°F (43.3°C)
- D. 150°F (65.6°C)

Correct answer: B

44. With an increase in temperature the volume of flammable and combustible liquids _____.

- A. remains constant
- B. expands
- C. contracts
- D. remains constant if pressure remains constant

Correct answer: B

45. Grade E combustible liquids have a flash point of _____.

- A. 60°F to 100°F
- B. 80°F to 150°F
- C. 150°F or above
- D. 90°F to 120°F

Correct answer: C

46. What type of liquid is used in the liquid P/V breaker?

- A. Hydraulic oil
- B. Distilled water
- C. Water-antifreeze mixture
- D. Oil from the cargo

Correct answer: C

47. A purpose of inert gas systems aboard tank vessels is to _____.

- A. allow sufficient oxygen in the tank to sustain life
- B. provide increase in cargo discharge pressure
- C. comply with double hull pollution prevention regulations
- D. prevent outside air from entering the tank

Correct answer: D

48. A tank vessel transferring non-flammable hazardous cargo in bulk must display warning signs. These signs must _____.

- A. be displayed only while transferring cargo and fast to a dock
- B. indicate "NO SMOKING"
- C. be visible from both sides and from forward and aft
- D. use black lettering on a white background

Correct answer: D

49. How should cargo tank hatches be protected when the ullage opening is open and the tank NOT gas free?

- A. With warning signs
- B. With flame screens
- C. With gooseneck vents
- D. With pressure-vacuum relief valves

Correct answer: B

50. Static electricity may be built up by the _____.

- A. flow of petroleum through pipes
- B. spraying or splashing of petroleum
- C. settling of solids or water in petroleum
- D. All of the above

Correct answer: D

51. What best describes for how long a gas-free test is good?

- A. Until valves in line with the tank or compartment are reopened
- B. For the instant that it is made
- C. Until changes in temperature or pressure affect the vapor content in the space
- D. For as long as is indicated on the gas-free certificate

Correct answer: B

52. Which statement about entering into a tank which has been sealed for a long time is TRUE?

- A. The tank should be tested only once to ensure the oxygen content is at least 14% before entry.
- B. The tank must be tested at frequent intervals to ensure that hazardous gasses have not regenerated.
- C. The tank need not be tested for oxygen content if it is ventilated for more than 24 hours.
- D. If the oxygen content tests at less than 12% you should wear an approved gas mask.

Correct answer: B

53. Which item indicates the maximum draft to which a vessel can legally be submerged?

- A. The Muster List ("Station Bill")
- B. The load line mark
- C. The tonnage mark
- D. The Net Tonnage Certificate

Correct answer: B

54. In the United States, which organization sets the load line markings?

- A. American Bureau of Shipping
- B. Coast Guard
- C. IMO
- D. Federal Maritime Board

Correct answer: A

55. What is the group of markings shown in illustration D003DG below called?

- A. The loft mark
- B. The test mark
- C. The load line mark
- D. The water mark

Correct answer: C

56. Fueling results in the collection of waste oil in drip pans and containers. Which is an approved method of disposing of the waste oil?

- A. Mixing it with dispersants before draining it overboard
- B. Adding sinking agents and discharging it into the water
- C. Discharge to a proper reception facility
- D. Draining it overboard when the vessel gets underway

Correct answer: C

57. Which term(s) are in the category of "oil" as used in the Oil Pollution Regulations?

- A. Sludge
- B. Fuel oil
- C. Oil refuse
- D. All of the above

Correct answer: D

58. How long must a "Declaration of Inspection" be kept on board?

- A. One week
- B. Two weeks
- C. One month
- D. Three months

Correct answer: C

59. You are operating a 1,000 GT non-oceangoing tankship. It must be equipped with or capable of which of the following?

- A. Be capable of retaining all oily mixtures onboard in the ship's bilges or sludge tank
- B. A means on the weather deck to stop each pump used to discharge oily waste overboard
- C. Must maintain two pumps for discharging oily bilge slops
- D. Shall have a fixed piping system for bilge slops with one outlet on each side of the weather deck

Correct answer: A

60. What can be done to prevent small oil spills on deck from going overboard?

- A. Plugging the sounding pipes
- B. Plugging the drains and scuppers
- C. Closing the lids on the vents
- D. Driving wooden plugs into the vents

Correct answer: B

61. Who has the authority to grant an alternate procedure for oil transfer operations?

- A. The Captain of the Port
- B. The Officer-in-Charge, Marine Inspection
- C. The Area Commander
- D. The nearest Coast Guard office

Correct answer: A

62. How many months after its expiration date may a Coast Guard credential be renewed without retaking the complete exam?

- A. 1 month
- B. 6 months
- C. 12 months
- D. 24 months

Correct answer: C

63. What is the period of validity of a Merchant Mariner Credential?

- A. 1 year
- B. 2 years
- C. 3 years
- D. 5 years

Correct answer: D

64. Which document shows a vessel's nationality, ownership, and tonnage?

- A. Official Logbook
- B. Certificate of Documentation
- C. Manifest Certificate
- D. Bill of Lading Certificate

Correct answer: B

65. Which U.S. agency assigns an official number to a vessel?

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

Correct answer: C

66. Which is the requirement for the name and hailing port of a documented commercial vessel?

- A. It is required to be marked on the stern with the name of the vessel marked on both bows
- B. It is required to be marked on both bows and on the keel
- C. It is not required to be marked anywhere on the vessel
- D. It is required to be marked on the keel, stern, and both bows

Correct answer: A

67. Which is an example of an anchor which has a stock?

- A. Dunn anchor
- B. Hook anchor
- C. Danforth anchor
- D. Bruce anchor

Correct answer: C

68. In illustration D038DG below, which letter indicates the tripping palm?

- A. F
- B. G
- C. H
- D. J

Correct answer: B

69. On stud-link anchor chain, how much does the addition of the stud increase the strength of the link?

- A. 10%
- B. 15%
- C. 20%
- D. 50%

Correct answer: B

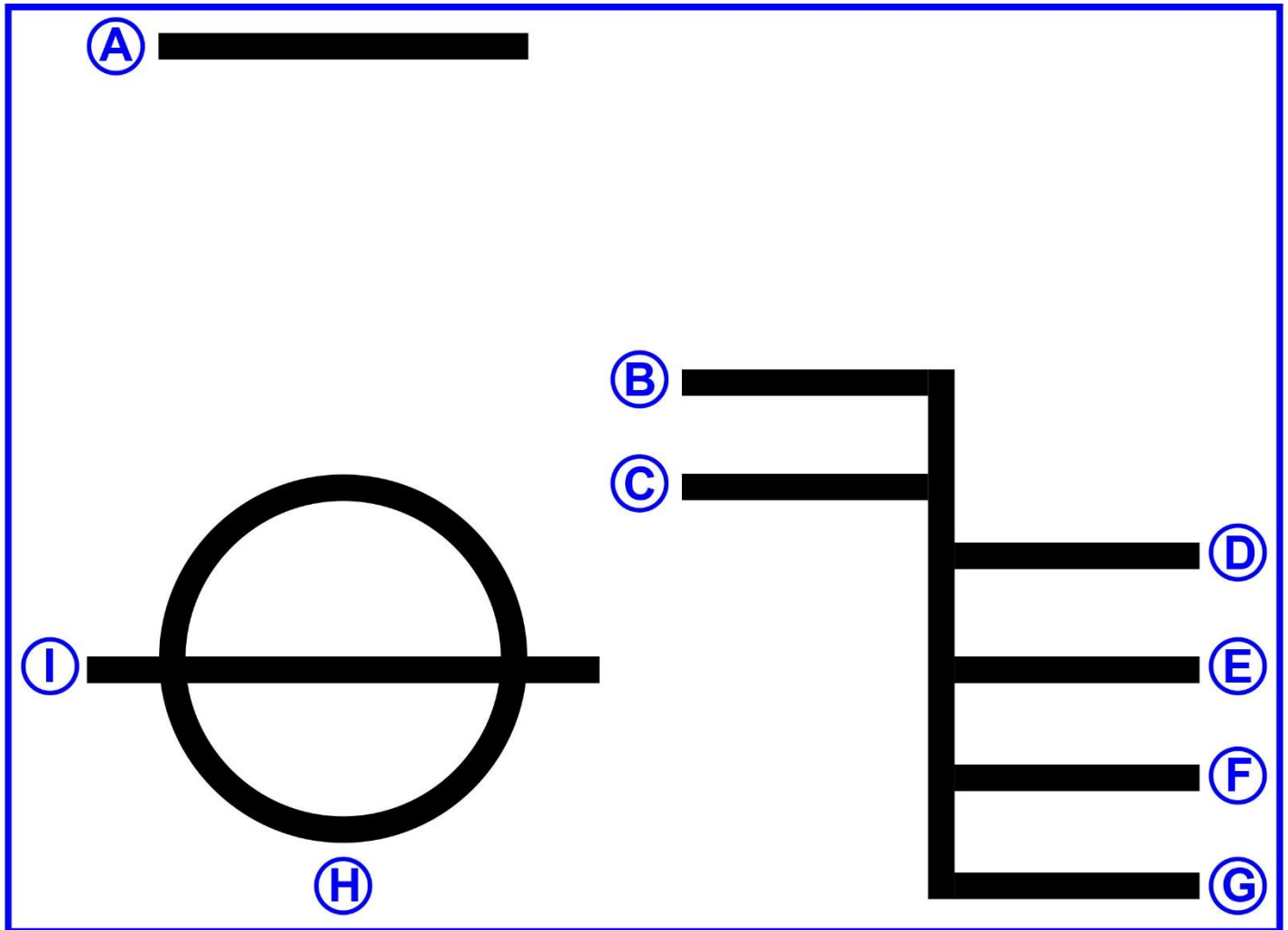
70. What provides little or no indication that a vessel is dragging anchor?

- A. Changing bearing to a fixed distant object abeam
- B. The cable alternates between slack and heavy tension
- C. Drift lead with the line tending forward
- D. Changing range to an object abeam

Correct answer: D



D003DG



United States Coast Guard National Maritime Center



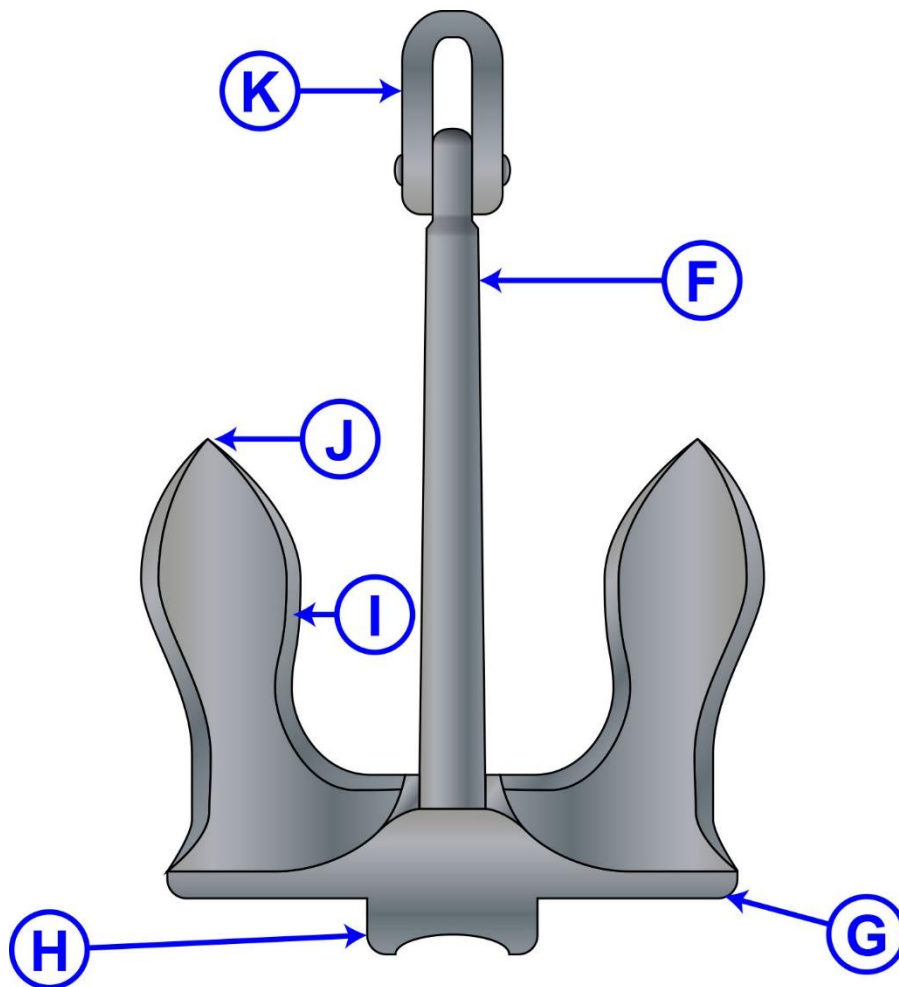
D034DG

HEADING (TRUE)	BEARING (TRUE)	RANGE (YDS)	REMARKS
228°			INITIAL HEADING
228°	232°	2260	ON INITIAL COURSE
228°	234°	1700	RIGHT FULL RUDDER ORDERED
230°	236°	1490	
252°	235°	1275	
275°	231°	1000	
316°	214°	850	
352°	198°	975	
022°	194°	1210	
053°	197°	1430	
087°	202°	1600	
115°	209°	1690	
151°	217°	1700	
183°	225°	1600	
218°	232°	1350	RUDDER AMIDSHIPS
228°	235°	1125	STEADY ON 228°

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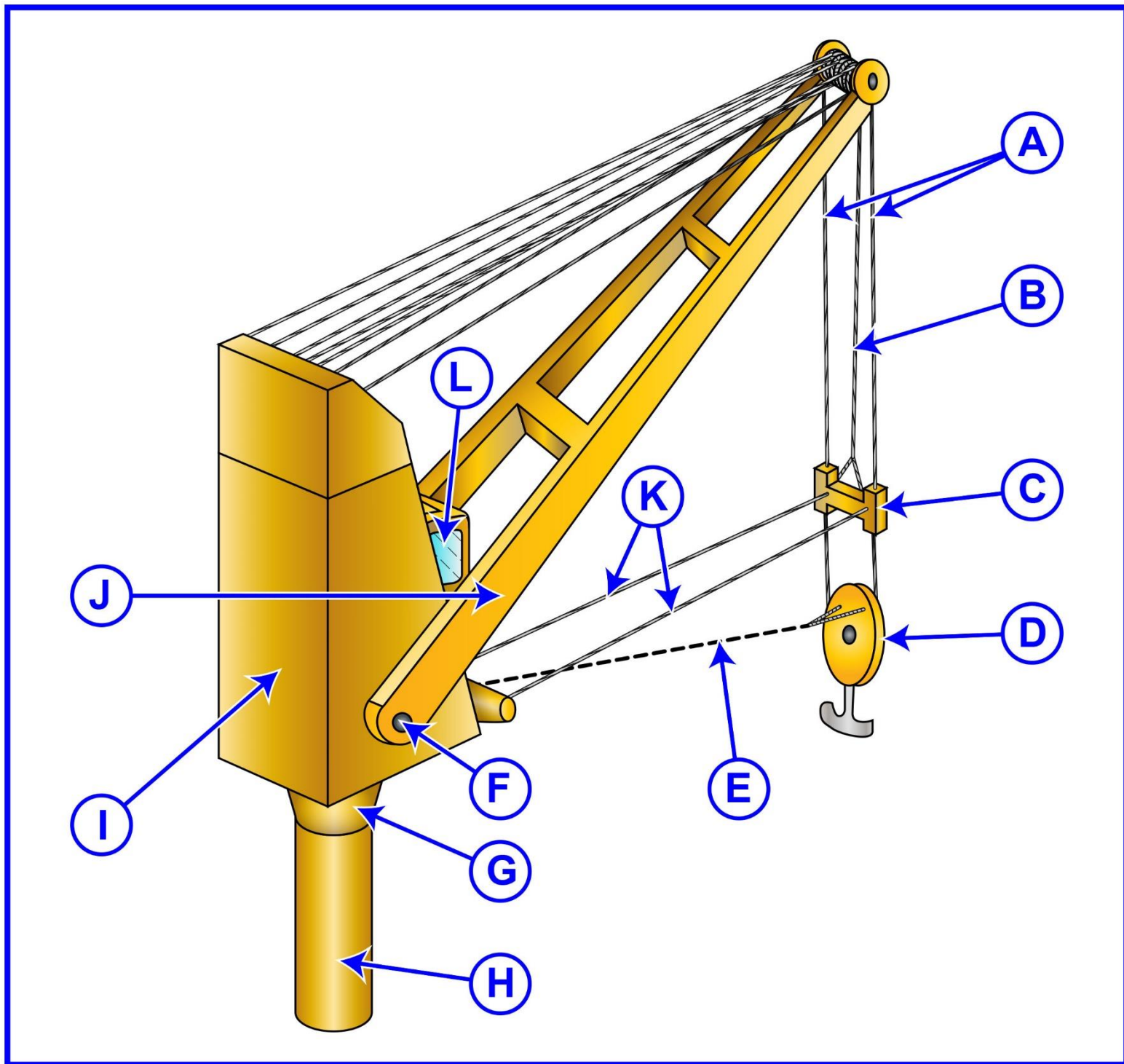
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