

## U.S.C.G. Merchant Marine Exam

### First Class Pilot

### Q370 Deck General – Safety

### (Sample Examination)

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

1. The possibility of wake damage can be reduced by following which action?

- A. Alternate engine speeds
- B. Apply rudder in both port and starboard directions
- C. Passing close aboard to the moored vessel
- D. Slow down when passing moored vessels

Correct answer: D

2. Your vessel must moor port side to a berth limited by vessels ahead and astern using a single tug. You are stemming a slight current and there is a light breeze off the dock. Where should the tug make up to the vessel?

- A. The vessel's quarter
- B. The stern on a hawser
- C. The vessels waist
- D. The bow

Correct answer: D

3. What is the average range of vessel-to-vessel VHF-FM radio communications?

- A. 15 to 20 miles
- B. 60 to 90 miles
- C. 90 to 120 miles
- D. 120 to 150 miles

Correct answer: A

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

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

Correct answer: A

5. The holding power of an anchor at a given scope of cable increases when which occurs?

- A. The amount of chain lying along the bottom decreases
- B. The amount of chain lying along the bottom increases
- C. The length of the catenary is reduced
- D. The shank is at a 50 degree angle

Correct answer: B

6. A galley grease fire on the stove may be extinguished using \_\_\_\_\_.
- A. water
  - B. fire dampers
  - C. foam
  - D. the range hood extinguishing system

Correct answer: D

7. Which will most likely occur when your vessel enters shallow water?
- A. An increase in speed will occur
  - B. The vessel's trim will change
  - C. Rudder action will become more effective
  - D. The vessel's list will decrease

Correct answer: B

8. A definite advantage of using water as a fire extinguishing agent is because of which characteristic?
- A. Rapid expansion as water absorbs heat and changes to steam
  - B. Absorption of smoke and gases as water is converted from a liquid to a vapor
  - C. Rapid contraction as water is converted from a liquid to a vapor
  - D. Alternate expansion and contraction as water in a liquid state becomes a vapor

Correct answer: A

9. When taking a Pilot from a pilot vessel in a seaway, which way should you head your vessel if the ladder is on the leeward side?
- A. Sea on the quarter with sternway on the ship
  - B. Bow to the sea and no way on your vessel
  - C. Sea on the weather bow and ship moving ahead slowly
  - D. Sea on the lee quarter with ship moving ahead slowly

Correct answer: C

10. You are docking an oceangoing single-screw vessel under normal circumstances with a single tug. Which is the usual function of the tug?
- A. To control the stern and is tied to the stern on the offshore side
  - B. To push the ship bodily alongside and is tied to the offshore side on the stern
  - C. To control the bow and is tied to the offshore bow
  - D. To pull the vessel into the slip and is tied to the bow

Correct answer: C

11. Which term defines the distance that a ship moves forward with each revolution of its propeller, if there is no slip?

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

Correct answer: D

12. Which is an advantage of nylon rope over manila rope?

- A. Can hold a load even when a considerable amount of the yarns have been abraded
- B. Can be used in conjunction with wire or spring-lay rope
- C. It gives an audible warning of overstress whereas manila does not
- D. Can be stored on decks exposed to sunlight

Correct answer: A

13. You are backing on twin engines with rudders amidships, when your port engine stalls. To continue backing on course, which action should you take?

- A. Apply left rudder
- B. Apply right rudder
- C. Increase engine speed
- D. Keep your rudder amidships

Correct answer: B

14. What is meant by the term "overhaul" in firefighting?

- A. Cover the fire with foam
- B. Slow down the spread of fire by cooling adjacent structures
- C. Break up solid objects to ensure that any deep-seated fires are extinguished
- D. Smother the fire with a blanket or similar object

Correct answer: C

15. Which of the following statements is/are TRUE in regard to Ro-Ro vessels' spaces which are "specially suitable for vehicles"?

- A. The spaces shall be fitted with an approved fire or smoke detecting system.
- B. The Commandant may permit the installation of an approved water sprinkler extinguishing system.
- C. The spaces shall be fitted with an approved fixed fire extinguishing system.
- D. All of the above

Correct answer: D

16. You are on a course of 000°T and put the rudder right 30°. In which direction will the transfer be measured?

- A. 000°T
- B. 090°T
- C. 180°T
- D. 270°T

Correct answer: B

17. What speed do most bow thrusters generally become ineffective?

- A. Over 3 knots headway
- B. At any speed ahead
- C. At any speed astern
- D. Over 1 knot sternway

Correct answer: A

18. The "Vessel Bridge-to-Bridge Radiotelephone Act" applies to which towboat?

- A. A 400 GT towboat anchored
- B. A 90-foot towboat tied to the pier
- C. A 100 GT towboat, 24 feet in length
- D. A 60-foot towboat pushing ahead

Correct answer: D

19. When using a Mediterranean Moor, how is the vessel moored?

- A. With both anchors crossed
- B. With the bow to the pier
- C. With the stern to the pier
- D. With anchor chains forward, side to the pier

Correct answer: C

20. You are on a 120,000 DWT loaded bulk carrier. What is a safe docking speed when approaching a berth?

- A. 5 knots
- B. Any speed in a following current
- C. Any speed in a head current
- D. Bare steerageway

Correct answer: D

21. Which is the easiest way to dock a right-hand, single-screw vessel?

- A. Port side to the wharf
- B. Either side to the wharf
- C. Starboard side to the wharf
- D. Stern to the wharf

Correct answer: A

22. 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. Fixed objects that stay on the same relative bearing when the ship is turning indicate a constant rate of turn.
- C. Keep the fixed object's relative bearing opening for a constant rate of turn.
- D. Begin the turn when the fixed object is on the beam.

Correct answer: B

23. You are anchoring in a river where the current is from one direction only. Which is the BEST way to lay out two anchors?

- A. So that their rodes form an angle
- B. On top of one another to increase weight and holding power
- C. Place them side by side with their rodes on the port and starboard side
- D. Place both anchors directly in line with the bow

Correct answer: A

24. Which statement about tunnel bow thrusters fitted to large vessels is TRUE?

- A. They are effective on most vessels at speeds up to 10 knots.
- B. They are fully effective at all drafts.
- C. Because of their location, most modern installations have as much power as a tug.
- D. When going astern at slow speed, they provide effective steering control.

Correct answer: D

25. When picking up your mooring at the buoy, which is the correct method?

- A. Approach the buoy with the wind and current astern
- B. Approach the buoy with the wind and current ahead
- C. Approach the buoy with wind and sea abeam
- D. Stop upwind and up current and drift down on the buoy

Correct answer: B

26. A tug placed at which location would have MINIMAL effect steering a large vessel?

- A. Secured on the vessel's quarter
- B. Placed approximately amidships of the vessel
- C. Placed forward on either bow of the vessel
- D. Attached by a tow line ahead of the vessel

Correct answer: B

27. What is the mechanical advantage of tackle number 7 as shown in illustration D029DG below?

- A. 0.0
- B. 0.5
- C. 1.0
- D. 2.0

Correct answer: D

28. An important step in fighting any electrical fire is to take which action?

- A. Stop the vessel
- B. Apply water to extinguish the fire
- C. Stop ventilation
- D. De-energize the circuit

Correct answer: D

29. You are conducting trials to determine the maneuvering characteristics of your vessel. While making a turn you take the ranges and bearings of an isolated light. The results are shown in illustration D034DG below. What is the transfer for a turn of 75°?

- A. 365 yards (306 meters)
- B. 320 yards (274 meters)
- C. 230 yards (207 meters)
- D. 190 yards (171 meters)

Correct answer: B

30. In illustration D036SA below, what does the solid arrow in the Crew Mess represent on the Fire Control Plans?

- A. Nearest door
- B. Path of forced ventilation
- C. Search and rescue route
- D. Primary means of escape

Correct answer: D

31. The maneuvering information required to be posted in the wheelhouse must be based on certain conditions. Which of the following is NOT one of these conditions?

- A. There must be no current.
- B. The hull must be clean.
- C. There must be calm weather-wind 10 knots or less and a calm sea.
- D. The depth of the water must be at least one and one-half times the draft.

Correct answer: D

32. You are going ahead on twin engines with rudder amidships. Your starboard engine stalls. To continue on course, which action should you take?
- A. Keep your rudder amidships
  - B. Apply left rudder
  - C. Apply right rudder
  - D. Increase engine speed

Correct answer: B

33. You are using tackle number 7 in illustration D029DG below to lift a weight of 100 lbs. If you include 10 percent of the weight for each sheave for friction, what is the pull on the hauling part required to lift the weight?
- A. 55 lbs.
  - B. 200 lbs.
  - C. 150 lbs.
  - D. 110 lbs.

Correct answer: A

34. When a vessel is entering or leaving a port, where is the record of engine speeds kept?
- A. The bell book
  - B. The Official Logbook
  - C. The deck rough log
  - D. The engine rough log

Correct answer: A

35. Your vessel is a single-screw ship with a right-hand propeller. There is no current. Which is the easiest way to make a landing?
- A. Either port or starboard side to, there is no difference in degree of difficulty
  - B. The vessel starboard side to
  - C. By dropping anchor and swinging the ship in to the pier
  - D. The vessel port side to

Correct answer: D

36. When are the conditions BEST for crossing a rough bar?
- A. At low water slack
  - B. At high water slack
  - C. During high water flood
  - D. At high water ebb

Correct answer: B



37. Your ship is in shallow water and the bow rides up on its bow wave while the stern sinks into a depression of its transverse wave system. What is this called?

- A. Broaching
- B. Fish tailing
- C. Squatting
- D. Parallel sinkage

Correct answer: C

38. In illustration D039SA below, which fire control plan symbol designates a space or compartment protected by Halon 1301?

- A. 10
- B. 11
- C. 12
- D. 44

Correct answer: B

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

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

Correct answer: C

40. How many turns of wire normally mark either side of the detachable link 45 fathoms from the anchor?

- A. 1
- B. 2
- C. 3
- D. 4

Correct answer: C

41. You are using the anchor to steady the bow while maneuvering. When do you know you have the proper scope of anchor cable out?

- A. When the cable enters the water at an angle between 60° and 85° from the horizontal
- B. If the scope is not more than 5 times the depth of the water
- C. When the bow is held in position with the engines coming slowly ahead
- D. When the anchor is just touching the bottom

Correct answer: C

42. You are anchoring your vessel. When should you release and payout the anchor?

- A. When the vessel is going full ahead
- B. When the vessel is dead in the water
- C. When the vessel is going full astern
- D. When the vessel has minimal sternway

Correct answer: D

43. Safety shackles are fitted with which items?

- A. A round pin, with a cotter pin
- B. A threaded bolt, locknuts, and cotter pins
- C. A threaded bolt
- D. Round pins and locknuts

Correct answer: B

44. When fighting a fire using a portable carbon dioxide extinguisher, where should the stream be directed to extinguish the fire?

- A. At the top of the flaming area, moving the horn from side to side
- B. At the bottom of the flaming area, moving the horn vertically to the top following the flames upward as they diminish
- C. At the center of the flaming area, moving the horn vertically from top to bottom
- D. At the base of the flames, moving the horn from side to side

Correct answer: D

45. Actuating the CO<sub>2</sub> fixed system causes which of the following to shut down?

- A. Fuel supply
- B. Electrical lighting
- C. Mechanical ventilation
- D. Natural ventilation

Correct answer: C

46. Which is a common occurrence when a vessel is running into shallow water?

- A. "Squat" will cause a decrease in bottom clearance and an increase in draft
- B. The vessel is more responsive to the rudder
- C. The wake is less pronounced
- D. All of the above

Correct answer: A

47. When anchoring, good practice requires 5 to 7 fathoms of chain for each fathom of depth. Which is TRUE when anchoring in deep water?
- A. Use less chain for each fathom of depth
  - B. Use two anchors with the same ratio of chain
  - C. Veer more chain for each fathom of depth
  - D. Use the same ratio

Correct answer: A

48. The galley on your cargo vessel has an area of 2,500 square feet. Which of the following would fulfill the minimum requirements for fire protection?
- A. One A-II extinguisher or post 2017 One 2-A extinguisher
  - B. One B-II extinguisher or post 2017 One 40-B:C extinguisher
  - C. One B-II and One C-II extinguisher or post 2017 One 40-B and One 40-C extinguisher
  - D. One B-V extinguisher or post 2017 One 160-B extinguisher

Correct answer: B

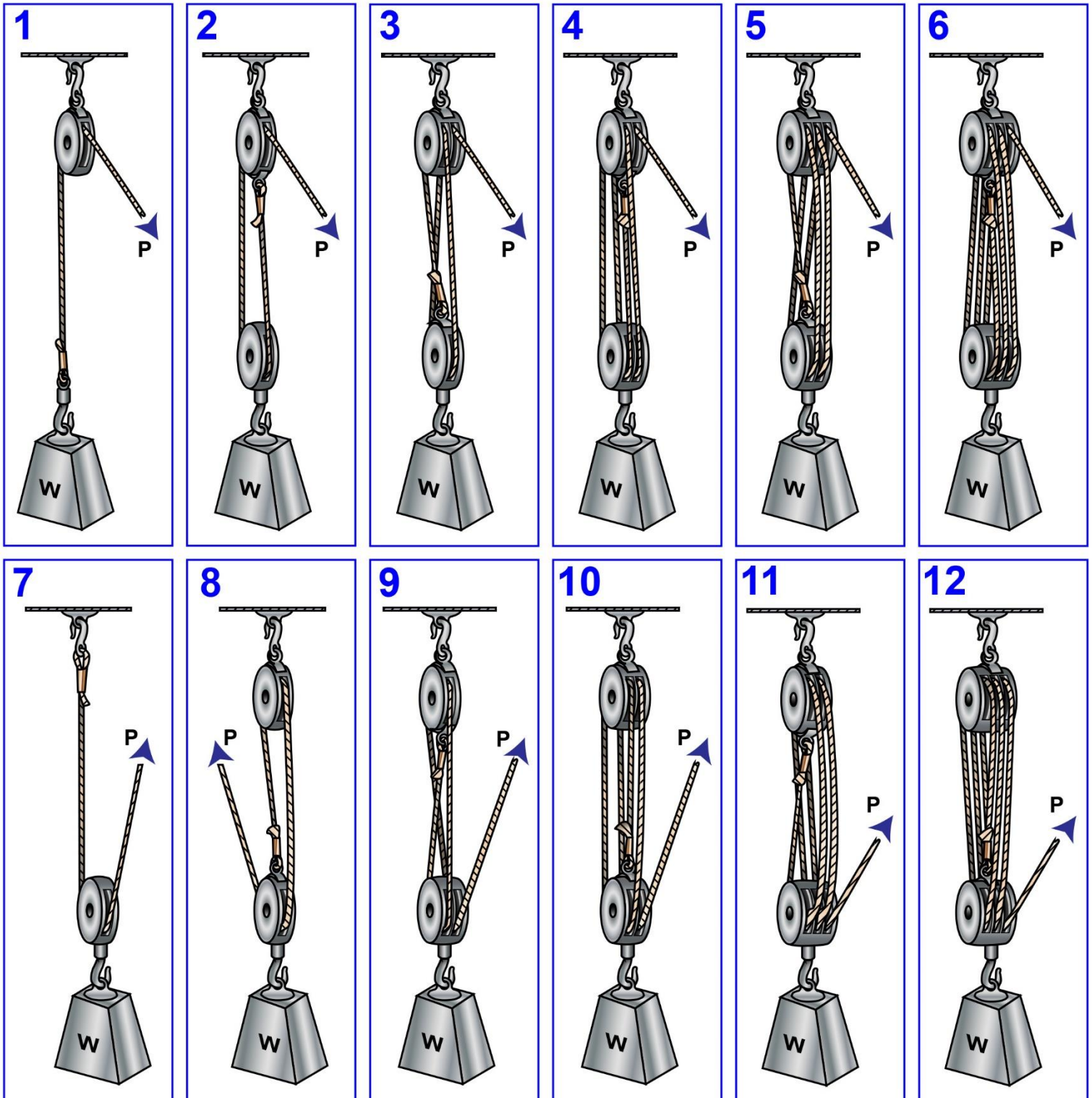
49. As compared to carbon dioxide, dry chemical has which advantage?
- A. Noncorrosive to metals
  - B. Greater range
  - C. Cleaner
  - D. Effective on metal fires

Correct answer: B

50. When approaching a fire from windward, you should shield firefighters from the fire by using which method?
- A. Low-velocity fog
  - B. High-velocity fog
  - C. A straight stream of water
  - D. Foam spray

Correct answer: A

## D029DG



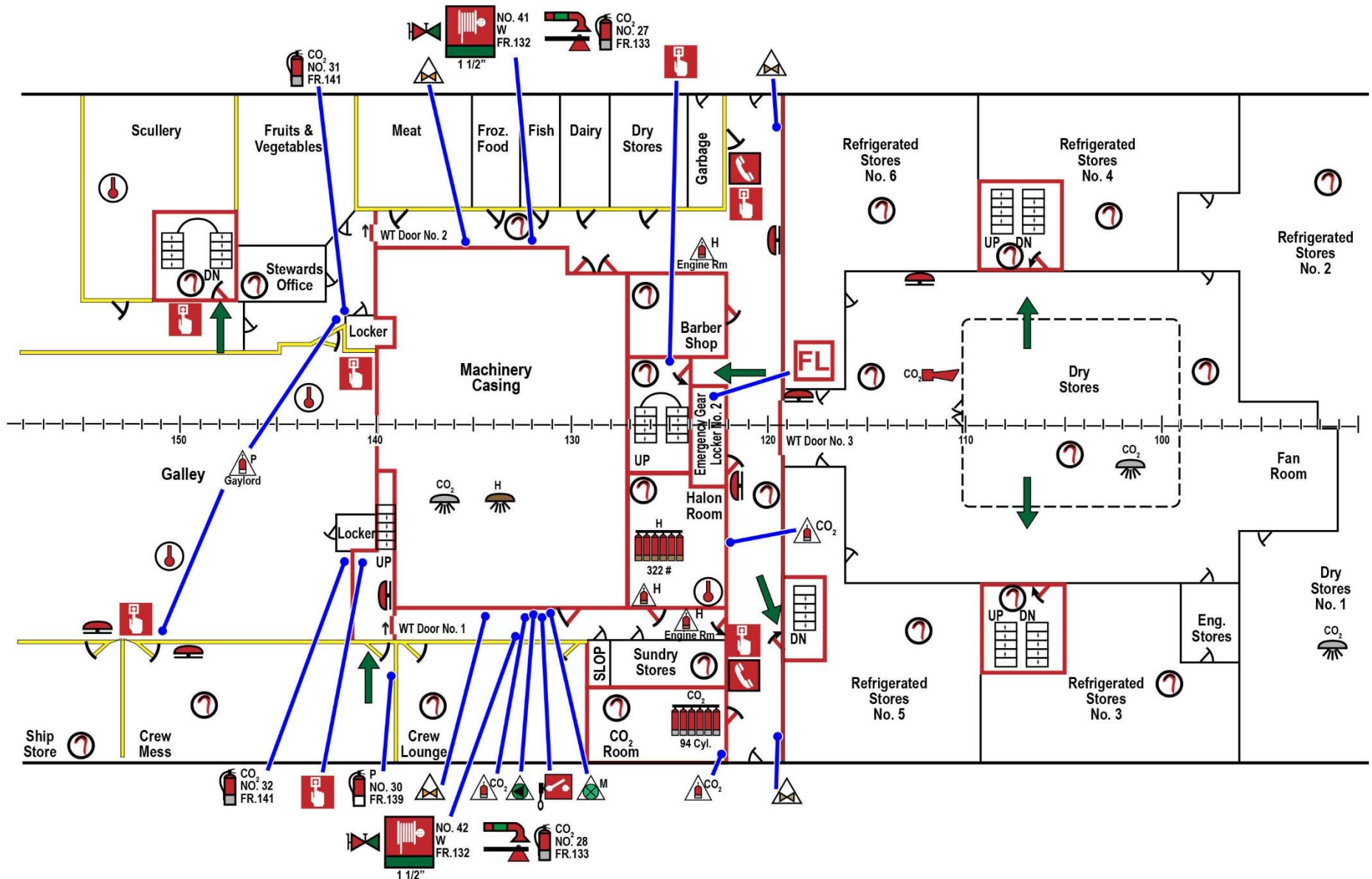
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## D034DG

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°

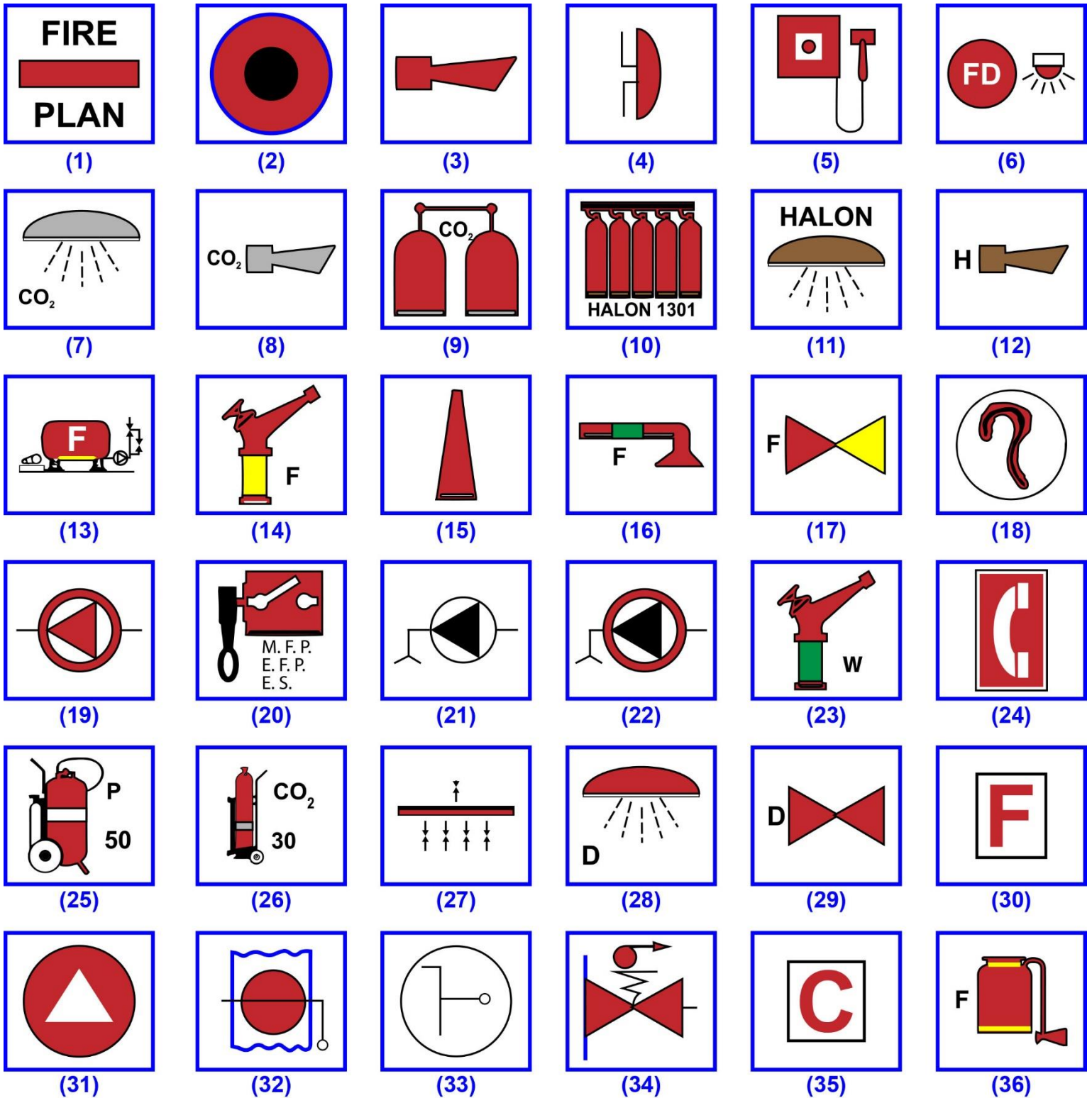
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## D036SA



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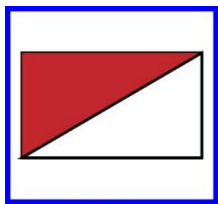


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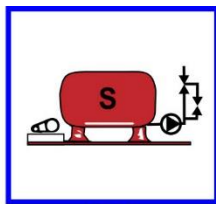
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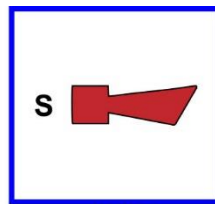
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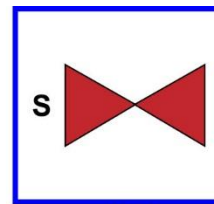
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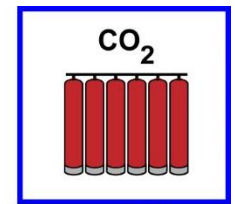
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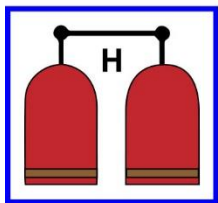
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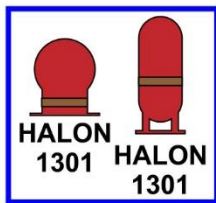
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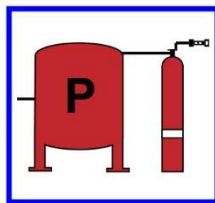
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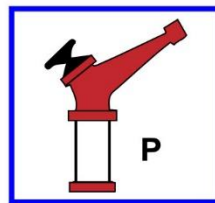
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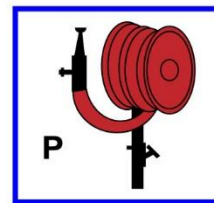
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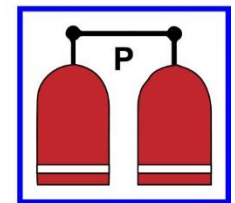
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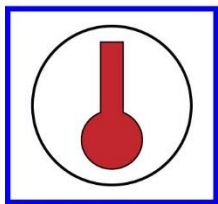
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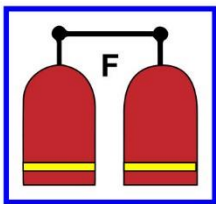
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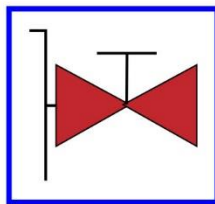
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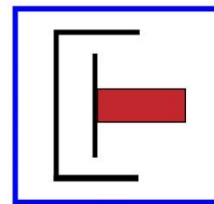
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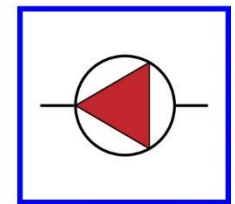
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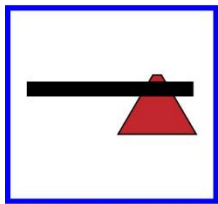
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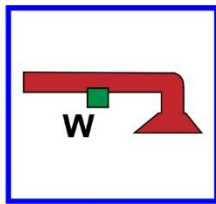
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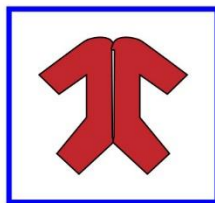
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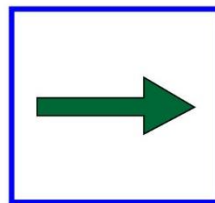
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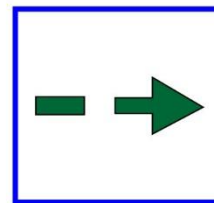
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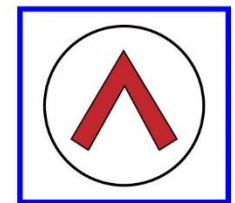
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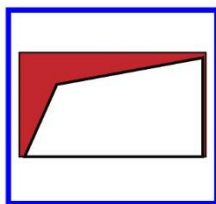
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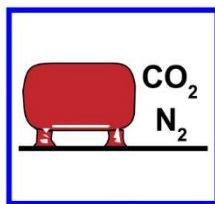
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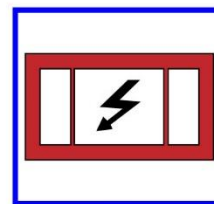
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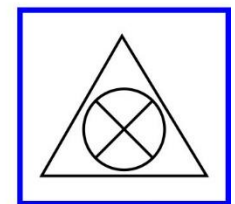
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