

# **National Marine Manufacturers Association**

## **Product Compliance Specialist Examination Anchoring, Mooring and Strong Points (2013 MY) ABYC H-40 (08)**

1. H-40 takes into account the loads that could be generated on strong points if the vessel is swamped and being towed.
  - a. True
  - b. False
  
2. Boat weight for inboard boats include:
  - a. full fuel tanks
  - b. heaviest production tolerances
  - c. batteries
  - d. all of the above
  
3. For the purposes of H-40, Maximum Designed Weight Capacity for boats 26' and greater shall be determined by:
  - a. Manufacturer's determination
  - b. USCG
  - c. ABYC H-5, Boat Load Capacity
  - d. Number of seating positions under ABYC H-31
  
4. Fitting or parts of the boat that may change the direction of an anchor rode or mooring line must:
  - a. have a minimum inside radius not greater than the diameter of the largest intended line
  - b. have a minimum inside radius not less than ½ the diameter of the largest intended line
  - c. include an allowance for fitting chafing gear equal to twice the diameter of the rode.
  - d. Sized according to the recommendations of the hardware manufacture
  
5. All boats under H-40 must be capable of:
  - a. being tied down to a trailer
  - b. contain suitable lifting points
  - c. anchored by the bow and secured to a dock or mooring
  - d. being towed by another vessel

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6. Boats over 20 ft (6 m) must:
  - a. contain provisions for the deployment of two anchor rodes over the bow
  - b. meet the requirements of H-8
  - c. contain a strong point to deploy a sea anchor from the stern
  - d. all of the above
  
7. If a windlass is installed on a boat:
  - a. the structure to which the windlass is fastened to shall withstand five times the anchor load
  - b. can be considered a strong point for securing an anchor or mooring line
  - c. must be able to be operated from all helm positions
  - d. shall be equipped with a device to transfer the load from the windlass
  
8. Capstans or windlasses must be fastened to withstand:
  - a. three times the permanent mooring load
  - b. ten times the anchor load
  - c. three times the rated capacity of the capstan/windlass
  - d. inadvertent side loads equal to two times the permanent mooring load
  
9. Anchor rollers must:
  - a. have a working surface radius of the roller, not less than three times the diameter of the maximum size rode
  - b. have a working surfaces and edges of the structure, not less than one-half the diameter of the maximum size rode
  - c. If intended for mooring, meet the mooring load requirements from Table 1
  - d. All of the above
  
10. Bow eyes are required for:
  - a. vessels under 26 ft (6m)
  - b. boats designed to be towed or winched onto a trailer
  - c. all boats
  - d. power vessels only, under 26 ft (8m)

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11. Vessels 20-feet and under shall be designed with a lifting system:
- True
  - False
12. For boats over 20 ft (6m) where one chock or roller is fitted:
- the chock/roller must be large enough to handle two anchor rodes
  - the chock/roller must be large enough to handle two anchor rodes and chafing gear
  - the chock must be separated as far as possible from the cleat, to minimize transverse loads
  - none of the above
13. A chain stopper is:
- A cleat used to secure the mooring lines to the vessel
  - A device to secure the anchor chain to the line rode
  - A device to secure to bitter end of the anchor chain to the vessel
  - A device to take the load from the windlass during anchoring
14. Strong points and their supporting structure shall:
- withstand the maximum designed weight capacity of the boat
  - withstand the breaking strength of the rode
  - withstand twice the permanent mooring loads in Table 1
  - withstand three times the permanent mooring loads in Table 1
15. Anchors stowed on deck:
- shall not move when subjected to vertical load equal to five times the weight of the anchor
  - shall not move greater than one inch when subjected to a ninety pound load in any direction
  - be fitted in chocks
  - shall be readily accessible and included in the owners manual

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16. Bow eyes must:

- a. meet the loads experienced when the vessel is being towed in a fully loaded and swamped condition.
- b. be large enough to accommodate two anchor rodes
- c. be large enough to have a minimum inside diameter of one inch
- d. be reachable from the deck

17. Bow eyes must be strong enough to withstand:

- a. two times the permanent mooring load
- b. five times the permanent mooring load
- c. direct tension pull of the sum of the boat weight and its maximum designed weight capacity
- d. direct tension pull of two times the maximum designed weight capacity of the boat

18. Lifting fitting must:

- a. be at least one inch in inside diameter
- b. be mounted parallel to the center line of the vessel
- c. have a Safety Factor of five times the ultimate strength of the material based on the resultant load
- d. have a Safety Factor of two times the yield strength of the material based on the resultant load

19. Lifting fittings should be designed:

- a. with a factor of safety of at least five times the yield strength
- b. to withstand a horizontal load of 60% of the vertical requirements
- c. minimum hole size of  $1\frac{1}{8}$  inches in diameter
- d. minimum hole size of 1 inch in diameter

20. All cleats on a boat, intended to be used while docking, are considered strong points:

- a. True
- b. False