

Examination questions from the “On-board ship equipment” course

Operative level							
On-board ship equipment							
Item	B/D	Question	Correct answer				
1.	B	Gate gantry cranes are used: A. on ships for transporting containers and bulk loads, B. on Ro-Ro vessels, C. on drilling platform supply vessels, D. are not used.	<table border="1"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
2.	B	A boom crane is: A. a device that loads, holds and moves a load using a boom and a system of lines and rigging fastened to masts, columns, decks, B. a loading device for moving loads, operating without a system of lines and rigging fastened outside the perimeter of its own structure, C. a loading device for moving loads along rigid guides inclined at an angle greater than 15 degrees from the horizontal plane, between specified levels, usually to large heights, D. a loading device intended for transport of materials vertically and horizontally in a space limited by the track length, lifting and lowering altitude and the bridge width.	<table border="1"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
3.	B	On-board boom crane side sill is: A. a place where the boom rests during travel, B. a rotating column where the boom is mounted, C. a non-rotating column welded to the deck, D. none of the above.	<table border="1"> <tr><td> </td></tr> <tr><td>B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B							
4.	B	The line that lifts a load is called: A. a topping lift, B. a guy, C. a schooner stay, D. a runner.	<table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>D</td></tr> </table>				D
D							

5.	B	<p>SWL marking on a crane means:</p> <ul style="list-style-type: none"> A. safe working load, B. maximum crane span, C. minimum crane span, D. permitted heel of the vessel. 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
6.	B	<p>Supply of boom cranes with hydraulic actuation takes place via:</p> <ul style="list-style-type: none"> A. a flexible hose, B. a cable with a relevant slack, C. slip rings and carbon brushes, D. a commutator. 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>C</td></tr> <tr><td> </td></tr> </table>			C	
C							
7.	B	<p>The most common means to supply on-board equipment is:</p> <ul style="list-style-type: none"> A. a pneumatic drive, B. a hydraulic or electric drive, C. sea water, D. a steam drive. 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td> </td></tr> <tr><td>B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B							
8.	B	<p>Gantries are a kind of lifting equipment:</p> <ul style="list-style-type: none"> A. where the load-bearing structure is a travelling column or frame along which the trolley moves, B. that moves on a track located at a single level, C. that moves loads vertically and horizontally in a single vertical plane, D. that helps move various loads both in horizontal and vertical motion on relatively short distances. 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>D</td></tr> </table>				D
D							
9.	B	<p>The device used to disable engine movement of a relevant actuation mechanism when the mechanism reaches the limit position is:</p> <ul style="list-style-type: none"> A. an automatic brake, B. an emergency stop switch, C. a limit switch, D. a load limiter. 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>C</td></tr> <tr><td> </td></tr> </table>			C	
C							

10.	B	<p>Lifting force moment limiter is used:</p> <ul style="list-style-type: none"> A. for cranes with constant lifting capacity, in the entire scope of crane operation characteristics, B. for heavy boom cranes, C. for rope winches, D. for cranes with load capacity changing in function of increasing span. 	<table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>D</td></tr> </table>				D
D							
11.	B	<p>Ro-ro vessels accept loads using:</p> <ul style="list-style-type: none"> A. loading hatches in the main deck, B. nose or stern gates, C. pipelines that connect a vessel with a manifold, D. gate gantry cranes. 	<table border="1"> <tr><td> </td></tr> <tr><td>B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B							
12.	B	<p>Neutral gas generator systems are used:</p> <ul style="list-style-type: none"> A. in container vessels, B. in gas carriers, C. in tankers, D. are not used. 	<table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>C</td></tr> <tr><td> </td></tr> </table>			C	
C							
13.	B	<p>Neutral gas shall be characterised by a low content of:</p> <ul style="list-style-type: none"> A. nitrogen, B. carbon dioxide, C. oxygen, D. water steam. 	<table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>C</td></tr> <tr><td> </td></tr> </table>			C	
C							
14.	B	<p>On tankers, a manifold is used as:</p> <ul style="list-style-type: none"> A. a place for connecting external pipelines, B. a landing place for helicopters, C. a place for controlling the capacity of loading pumps, D. a place for controlling load temperature. 	<table border="1"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
15.	B	<p>Cargo pump drives in a tanker with a pump room are located:</p> <ul style="list-style-type: none"> A. in the pump room, B. in the engine room, C. inside loading tanks, D. at the ship's deck. 	<table border="1"> <tr><td> </td></tr> <tr><td>B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B							

16.	B	<p>Remote control of cargo valves in a tanker takes place:</p> <p>A. from the ship's loading centre, B. from the bridge, C. from the engine control room in the ship's engine room, D. from the manifold.</p>	<table border="1"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
17.	B	<p>In order to measure the level of cargo tanks for transporting liquid sulphur or asphalt, the following is used:</p> <p>A. float sensors, B. pressure sensors, C. a hand lead, D. radar sensors.</p>	<table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>D</td></tr> </table>				D
D							
18.	B	<p>The medium flow regulation type in a hydraulic assembly (fig. 1.) is:</p> <p>A. a choke regulation, B. a capacity regulation, C. a gradual regulation, D. a synchronous regulation.</p>	<table border="1"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
19.	B	<p>Medium flow regulation type in a hydraulic assembly (fig. 2.) is:</p> <p>A. a choke regulation, B. a capacity regulation, C. a gradual regulation, D. a synchronous regulation.</p>	<table border="1"> <tr><td> </td></tr> <tr><td>B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B							
20.	B	<p>Sliding hold hatches operate in the following manner:</p> <p>A. the first panel has a built-in electric motor which causes individual panels to slide, via a gear that works with a sprocket, B. the first panel is lifted to a relevant height using hydraulic actuators, C. when opening, individual panels are "coiled" on one another, D. a drawing system is attached to the first panel, opening involves drawing the panels.</p>	<table border="1"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
21.	B	<p>An engine of an anchor windlass shall ensure that the anchor chain is hauled in accordance with the current regulations of the Classification Society:</p> <p>A. at a speed of 15 m/s for 30 mins, B. at a speed of 30 m/s for 15 mins, C. at a speed of 30m/s for 30 mins, D. at a speed of 5 m/s for 10 mins,</p>	<table border="1"> <tr><td> </td></tr> <tr><td>B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B							

22.	B	In the hydraulic system capacity regulation assembly (figure 5), the following is used: A. a pump with variable capacity and one pumping direction, B. a pump with constant capacity and one pumping direction, C. a pump with variable capacity and variable pumping direction, D. a pump with constant capacity and variable pumping direction.	<table border="1"> <tr><td> </td></tr> <tr><td>B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B							
23.	B	Starting an AC supplied mooring winch is carried out: A. gradually, by using a starter, B. at once, by changing the switch position, C. by increasing revolutions manually and then continuing using a starter, D. by regulating voltage.	<table border="1"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
24.	B	Automatic mooring devices: A. regulate mooring lines tensions, B. determine the vessel location, C. automatically select mooring lines lengths when mooring, D. none of the above.	<table border="1"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
25.	B	Mooring mechanisms should be equipped with: A. two brakes - one stopper brake and one at the drum, B. one brake at the drum, C. one stopper brake, D. none of the above.	<table border="1"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
26.	B	Figure 3 presents: A. a twin-drum mooring winch, B. a mooring capstan, C. a single-drum mooring winch, D. an anchor windlass.	<table border="1"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
27.		A mooring head in a mooring and anchor winch: A. rotates only with a disconnected line drum or anchor power take-off, B. rotates always, regardless of the type of work, C. does not rotate when hauling an anchor or winding a line on a drum, D. rotates only along the line drum.	<table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>B</td></tr> </table>			B	
B							

28.	B	Figure 4 presents the following type of hatch cover: A. lift-away, B. coiling, C. folding, D. stocking.	<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; flex-direction: column; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> <div style="border: 1px solid black; width: 100%; height: 100%; text-align: center;">C</div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> </div>
29.	B	AC squirrel-cage rotors for anchor windlasses, after 30 minutes of operation at rated load shall be able to withstand a standstill in a braked state at rated voltage for no less than: A. 15 s, B. 30 s, C. 50 s, D. 120 s.	<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; flex-direction: column; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> <div style="border: 1px solid black; width: 100%; height: 100%; text-align: center;">B</div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> </div>
30.	B	AC squirrel-cage rotors for mooring winch drives, after 30 minutes of operation at rated load shall be able to withstand a standstill in a braked state at rated voltage for no less than: A. 15 s, B. 30 s, C. 50 s, D. 120 s.	<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; flex-direction: column; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 100%; height: 100%; text-align: center;">A</div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> </div>
31.	B	If a winch is used for anchor and for mooring, the gear speeds intended for mooring which are not adjusted to raising the anchor should have: A. a relevant protection preventing engine overheat, B. an additional third brake, C. pneumatic emergency controls, D. an additional hydraulic drive.	<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; flex-direction: column; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 100%; height: 100%; text-align: center;">A</div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> <div style="border: 1px solid black; width: 100%; height: 100%;"></div> </div>

Appendices to examination questions

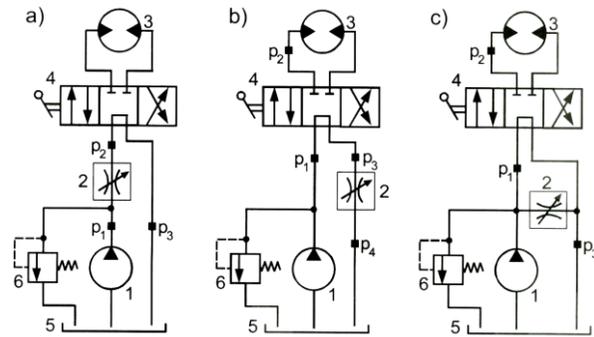


Fig.1. Medium flow regulation in a hydraulic assembly

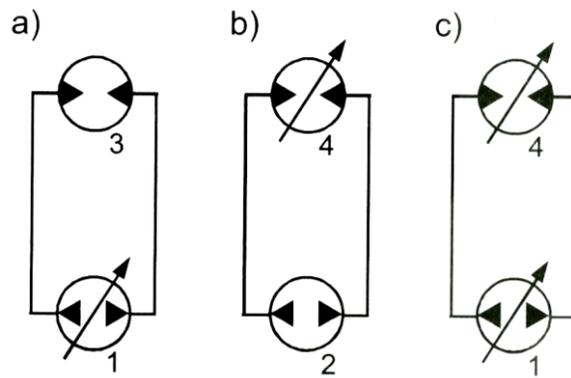


Fig.2. Medium flow regulation in a hydraulic assembly

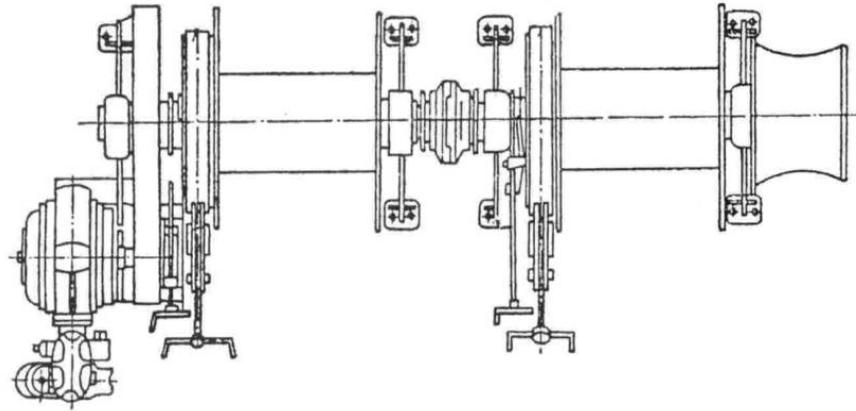


Fig.3. Mooring winch

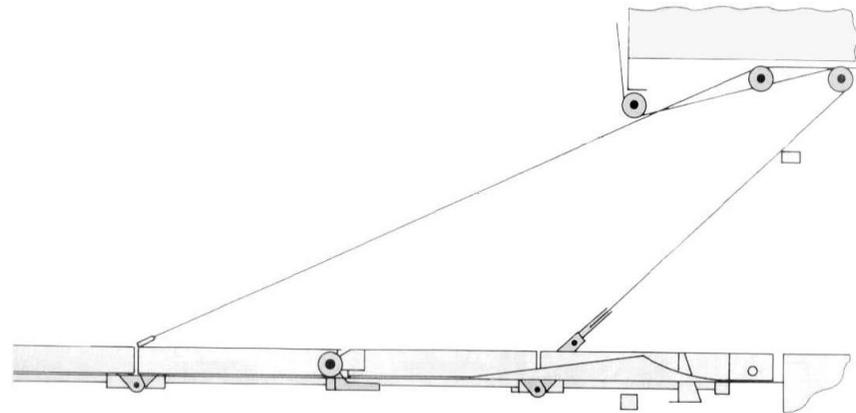


Fig.4. Types of hatch covers