

## **Questions for Young Officers** *The New Practical Navigator (1814)*

*The following Questions and Answers are recommended to the perusal of young Gentlemen belonging to the Sea, in order to refresh their Memories, previous to that Examination which they must pass through, before they are appointed to a Commission in the Royal Navy, or an Officer in the East India Service; as it is probable similar ones may be asked by those appointed to examine them, at the navy Office and the East-India House.*

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**Question:-** You are ordered to a ship, she is lying in dock; prepare to take her out of dock.

**Answer:-** I would take on board what kentledge was necessary, stream anchor and cable, kedge anchor, hawser and towline, with some spare ropes for guys, to keep her fair for the dock gates; buoy and buoy ropes for stream and kedge.

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**Question:-** When your ship is out of dock, what is first to be done ?

**Answer:-** I would secure her, then take on board the remainder of the kentledge, and level the hold, by laying the kentledge from the fore part of the fore hatchway to the after-part of the after hatchway.

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**Question:-** How would you moor your ship at Gravesend ?

**Answer:-** I would come-to with my small bower, veer the service into the hawse, and then hang my best bower anchor to the long boat, and with the tide drop her a-stern: when the cable is taut, let go the anchor, first letting go the shank rope, to keep the cable more taut.

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**Question:-** How would you hang the anchor to the long boat ?

**Answer:-** Take the buoy-rope over the roller (which is in the middle of the stern of the long boat), bring the bight round the main thwart, cockbill the anchor, hook the cat to the anchor, and lower away, until the flukes of the anchor are clear of the boat's bottom, then make fast the buoy-rope, have a shank-rope through the ring (which is at the boats stern post), pass it round the shank of the anchor; make it fast to the after thwart, lower away and unhook the cat, then veer away the cable; be careful to heave the buoy overboard and spare buoy-rope before you let go the anchor.

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**Question:-** How do you unmoor a ship as it is done in the navy?

**Answer:-** I would send for the master to see the hawse is clear, turn all hands up to unmoor ship, lay the capstan bars for shipping, call the mate to see the messenger passed for the best bower, rig the davit out, because I will take it up the first quarter flood, get the cat and fish to pass for the best bower, stretch along the fish-tackle: quarter-masters down in the tier, and stand by to veer away the small bower cable; ship the capstan bars, pin and swift them; clap on the stoppers before the bitts, and bring to the messenger. At the same time unbit the best bower, rowse aft the slack cable; heave taut, take off the stoppers, hold on the messenger, and heave away; veer away the small bower cable; clap on the nippers. Thick and dry for weighing, heave cheerly; the anchor's away, keep fast the small bower cable; quarter-master take hold of the helm; look out for the anchor; the anchor is in sight; heave and paul the capstan; hook the cat; haul taut, and take a turn; surge the messenger round the capstan; take off the nippers; out cable; cable enough; haul cat; belay the catfall; pass the stopper; hook the fish: try fish by hand, haul with the fish: belay the fish-tackle fall; pass the shank-painter; bowse to the stock with the tackle; belay the shank-painter; make fast the stopper and stock lashing; come up cat and fish; unhook both; haul buoy and buoy rope in; then shift the messenger for the small bower and bring to, clap on the stoppers before the bitts, and unbit the cable; rowse aft the slack cable; man the capstan; hold on the messenger; fore-castle-men rig out the davit for the small bower: when the anchor is a stay peek, send the top men to loose the sails; man the yards; stretch along the topsail sheets; let fall the topsails; overhaul reef tackles, bunt-lines and clue-lines; foot the sails out of the top; haul home the topsail-sheets; stretch along the topsail-halyards and man them; quarter-master and boatswain's mates attend the braces; hoist away the topsails; topsails atrip: belay the halyards; trim the sails; heave up the anchor; stow it as before, and haul the buoy and buoy rope in.

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**Question:-** How would you unmoor, with the wind S. E. or S. ?

**Answer:-** Veer on the best bower cable, and take the small bower-anchor up first; and proceed as before, then heave in to the short service on the best bower, &c. If the anchor has great hold and afraid of stranding the messenger, clear away the main capstan, and lash a block, or purchase blocks, on the cable, and one to the main-mast, or one to the two ports abreast of the main-mast; reeve a hawser through them, and heave on both capstans together.

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**Question:-** Suppose you are close upon a wind, in moderate weather, with all your sails set, how will you tack the ship ?

**Answer:-** I would stretch along the lee bow-lines and weather-braces, the weather-sheets and lee-tacks; then put the helm a-lee, let go the fore sheet, lee fore-top sail brace, and

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fore-top bow-line; jib and stay-sail sheets. When the fore-top sail touches, brace to and help her; when aback, brace up and help her; when the wind is out of the after sails, raise tacks and sheets; shift the stay-sail tacks, and haul over the stay-sail sheets; when the wind is rather 1/2 a point on the bow, if sure of coming about, haul the main sail. NB One watch of the top men on the quarter-deck and fore-castle, to set up the weather-breast back stays. If she has stern way, shift the helm and top the sprit-sail yard, haul on board the main tack and aft the main sheet. Brace up the main yard, when the after sails are full; haul off all; and haul on board the fore tack; keep in the weather braces forward, and let her come to, then brace up; haul aft the fore-sheet, jib and stay-sail sheets (set up the back-stays when the ship is head to wind), and haul the bow-lines, then haul taut the weather-braces, lee-tacks, and weather-sheets; have the braces let go at once; when the word is given to haul mainsail, (all the hands on the braces should keep hauling taut in for the run) the yards will swing of themselves.

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**Question:-** How would you tack a ship under her three top-sails ?

**Answer:-** I would put the helm a-lee, ease off the fore-top sail brace, keep fast the fore top bowline; when the top-sail touches, brace to and help her; when the wind is a-head, haul the main top-sail and shift the helm: then brace up the main yard, and haul the main-top bowline: when the after sails are full, let go and haul; keep in the weather-braces forward, and when she comes to brace sharp up, haul the main and fore-top bowlines, haul taut the weather braces, and top the sprit-sail yard.

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**Question:-** How do you veer, or wear a ship, with all her sails set ?

**Answer:-** I would haul the mizen up, and the mizen stay-sail down, or brail it up, hard a weather the helm, shiver the mizen top-sail, let go the main and main-top bowlines, ease off the main sheet, the lee main brace, and round in the weather brace. When the wind is abaft the beam, raise the main tack; when the wind is aft, square the head yards, and get the other tacks on board; haul aft the sheets; shift the jib and stay-sail sheets over the stays, and as she comes too, haul the mizen out; hoist the mizen stay-sail, and haul aft the sheet; brace the head yards up, haul the bowlines, and trim all sharp. If a fresh wind, and should be proper to shorten sail, in top gallant sails, down jib and stay-sails, take one or two reefs in the top-sails.

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**Question:-** It blows hard, how would you proceed to close reef the top-sails?

**Answer:-** I would let run the halyards, and haul the yards close down by the clew-lines and down-haul tackles; if the wind is large, man the clew-lines and bunt-lines, let go the

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sheets, and clew them close up; haul in the weather-brace; and spill the sail as much as possible; then haul out the reef tackles, send men up and haul out the weather earing first, then the lee one and reef away, hauling the other reefs up before the yard: if the ship is upon a wind when the top-sail yard is down, let go the bowline. It is mostly the way to man the clew-lines and the bunt-lines, ease off the lee-sheet and clew it up; hauling in the weather brace at the same time; when the sail is spilled, haul out the reef-tackles, and reef as before. But to keep the sail from splitting or shaking (especially if it be wet) it is the best way to man the clue-lines, bunt-lines, and weather brace, let go the lee brace, ease off the weather sheet, hauling up the clue-line, and in with the weather-brace at the same time; when in enough, ease off the lee-sheet, clew up, &c. NB To set a top-sail on a wind when it blows strong, always haul the lee-sheet home first, then the weather one, &c. as before.

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**Question:-** It blows harder, you must take in your top-sails ?

**Answer:-** I would take in the fore and mizen top-sails first, because it will ease the ship forward (for when it blows hard we generally have a-head sea, and she keeps to the better) let go the fore-top bowline, lower away the halyards, man the clue-lines and bunt-lines, clue close up, and haul out the reef-tackles, haul in the weather-brace, steady the lee-brace, haul taut the top-sail halyards; send the people up to hand the sail, and when up, before they go on the yard, I'll clap the rolling tackle on to steady it, and a piece of canvass abreast of the lee top-mast shrouds after the sail is handed (all the top-sails should be taken in the same way); after that, if squally, take in the main-top sail, and then the ship is under her courses.

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**Question:-** How would you veer a ship under her courses ?

**Answer:-** I would haul the mizen and main-sail up and down mizen stay-sail, square the after-yards, hard a weather the helm, man the weather fore-brace, and ease off the lee-brace and fore bowline; ease off the fore-tack, and haul on board the other: keep her large if room, until I get the tack on board and belay it: then luff up to the wind, haul aft the fore-sheet and brace up the fore-yard, set the after-sails, aboard main-tack: aft the main sheet, brace all up, and haul the bowlines; when my sails are trimmed, shift the rolling tackles on the top-sail yards.

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**Question:-** Suppose you are lying-to in a hard gale of wind, under a reefed main-sail, you want the ship's head the other tack; how will you veer in a great sea ?

**Answer:-** I will watch her falling off, and put the helm a-weather, when she does, ease

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off the main sheet; if that will not do, I'll man the fore-shrouds, and get tarpaulins and hammocks or spare canvass up, and spread it. If that will not do, I will haul aft the main sheet, and put the helm a-lee, then send hands out to the sprit-sail yard with hammocks and gaskets to stop the sprit-sail (called balancing) within the lee clew-line block; and loose the lee yard-arm, then haul aft the sheet clap the helm hard a-weather, ease off the main sheet, round in the weather-brace, gather aft the other sheet, haul the main tack on board; when she is before the wind, square the sprit-sail yard, clue the sail up and furl it; ease the helm down a-lee, brace the yards up, haul the main sheet aft, bowse the bowline up, lash the helm three parts a-lee and she will lay to as before.

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**Question:-** Suppose she will not veer after all you have done ?

**Answer:-** I will loose the goose-wings of the fore-sail; if that will not do, set the fore-sail and veer her under her courses, or haul the main-sail up; if by hauling the main-sail up and furling it she does not veer, lower down the mizen yard; if that will not do, lower down the cross-jack yard and mizen top-mast; if that will not do, cut away the mizen-mast.

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**Question:-** How do you cast a ship, when intending to get under weigh ?

**Answer:-** If I am to cast her to starboard, I would haul in my larboard braces forward, and let my after yards lay square; I may hoist the fore topmast stay-sail, and keep the sheet to windward to help her. If I am to cast her to port, I would haul in the contrary braces, when cast, fill the head sails and brace up as circumstances require. NB, If a ship is windrode, as soon as the anchor is right up and down, put the helm the way you would have her cast, setting in the same braces abaft, and the contrary forward: but if she is tide-rode, the helm must be put the contrary way to which you would have her cast, and set in the braces forward; which ever way the helm is, the braces abaft must be the contrary.

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**Question:-** It blows hard, and you split your top-sail ?

**Answer:-** I would let go the bowline, haul in the weather-brace, and lower away the hal-yards, clew up the lee-sheet, haul up the bunt-lines, start the weather-sheet, belay the clue-lines and bunt-lines, unbend the sail, bend another; then either furl or set it, as circumstances require.

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**Question:-** You are lying-to in a hard gale of wind, and split your main-sail ?

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**Answer:-** I will haul it up carefully, unbend the sail, and bend another, get on board the main-tack, and haul aft the sheet; when the sail is set get a tackle on the weather-leech to secure the tack, and a preventer sheet: but in small ships they get the lee-tack aft for a preventer sheet.

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**Question:-** Suppose you are on a wind, and let the ship come up in the wind, and are all aback, what will you do ?

**Answer:-** I will box her off; and suppose she will not box off, I will haul the mizen up, let go the main and main-top bowlines, the lee main and main-top-sail braces, and lay all square abaft, put the helm to leeward, if she has stern-way, when the wind is abaft the beam shift the helm; and, as she gets head-way, haul in a little of the after-braces, haul the mizen out brace up sharp abaft and haul the bowlines; and then I am on the same tack as before.

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**Question:-** Suppose you are on a wind, close upon the land, and standing on must run on shore, and you can clear the land on the other tack; but it blows hard and a head swell, that she will not stay: and should you veer you would be on shore, how would you get upon the other tack ?

**Answer:-** I would club-haul her, this is done by putting the helm a-lee, and letting go the lee-anchor, and bringing her head up to wind; then cut the cable and haul about the after-sails; and when they arc full, brace about the head-sails, haul on board the fore-tack, and brace up the other way.

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**Question:-** If by accident your ship is brought by the lee, what would you do?

**Answer:-** When a ship is brought by the lee, it is commonly occasioned by a large sea, and by the neglect of the helmsman. When the wind is two or three points on the quarter, the ship taking a lurch brings the wind on the other side, and lays the sails all dead to the mast; as the yards are braced up, she then having little way, and the helm being of little service, I would therefore brace about the head-sails the other way, and keep the main-top-sail shivering; when she gathers way, and brings the wind aft again, raise the fore-tack and square the head-sails; trim the sails as they were before, and bring her to her course again. NB It is dangerous to bring a ship by the lee in a gale of wind, for she is lying entirely against the sea, her sails can be of little service till they are braced about.

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**Question:-** Coming into soundings from a long voyage, I would have you prepare for going into port and anchoring.

**Answer:-** I'll order the cables to be bent; thus get their ends up, reeve, hawse and ring ropes to haul them out, the fore-castle men to clinch them, and quartermaster to clap the bends on, reeve the runners end tackles, unstow the anchors, bend the buoys and buoy-ropes, single the stoppers and shank-painters, bit the bower-cables with a long range, have the dog-stoppers to pass, see the tiers clear, have hand-leads and lines in the chains, send down the top-ropes, reeve the top-tackle falls, unslung the lower yards, when the cables are bent, &c. clap the hawse bucklers on.

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**Question:-** Suppose you are on a lee shore, and had neither room to veer or stay, nor any anchoring ground, how would you put the ship's head round the other way ?

**Answer:-** I would put my helm hard a-lee; when she comes head to wind, raise the fore and main tacks directly, make a run with my weather braces and lay all aback at once, then haul forward my lee-tacks and bow-lines as far as I can, that the ship may fall round on her heel, and when the main-sail begins to shiver; I would haul it up, fill my head sails, and shift the helm hard a-weather; when the wind comes on the other quarter, haul on board the main-tack, and bring her close to the wind.

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**Question:-** Suppose it blows hard, you cannot carry your courses, night coming on, and it is likely to blow harder, what will you do ?

**Answer:-** I will haul the fore-sail up and furl it, balance the mizen, haul it out to keep her to, then haul up the weather main clue-garnet and bunt-line then the lee clue-garnet bunt-lines and leech-lines, square the yards, and get strops round the mast above the booms to hook the yard tackles to for rolling tackles, then reef the sail; when reefed, haul on board the tack, get aft the sheet handsomely, tend the braces, bowse up the bow-line, and haul up the mizen.

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**Question:-** You are in a gale of wind, and split your fore-course, what will you do ?

**Answer:-** I'll man the weather fore clue-garnet, bunt-lines and leech-lines, ease off the fore-tack, and when clued up, man the lee clue-garnet and haul it close up; let go the lee-brace; when I let go the sheet and square the yard, haul taut the lifts and braces, send hands to unbend the sail; when another is bent, and I want to set it, I will haul on board the fore-tack and haul aft the fore-sheet, brace the yard up and haul the bow-line.

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**Question:-** It blows hard, and you want to reef your courses, how would you proceed ?

**Answer:-** I will let go the top-sail sheets and lifts, man the down-haul tackles, lower away the jeers, let go the bow-lines and clue the sails up, round in the weather-braces, haul taut the lifts, braces, and rolling tackles; then send hands up to reef the sails; when I want to set them, I will proceed with the sails as before.

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**Question:-** You are standing on a wind with all your sails set; your enemy is in sight, standing towards you, how do you clear your ship for action ?

**Answer:-** I will call all hands to quarters, up hammocks, the quartermasters to stow them in the netting, and on the gang-way; get the topmen's hammocks up in the top; down all chests in the hold; quartermasters stow them; take in all the small sails; sling the lower yard with top-chains, get the puddings and dolphins up, then sling the top-sail yards half mast or close up; stopper the top-sail sheets, stoppers on the jeers, or else rack them; gunners get the match-tubs between every two guns, matches, powder-horns, crows, and handspikes, sufficient for every gun; all hands to quarters, keep silence and mind the word of command, fire not a gun until the word of command is given; mind you do not fire a shot in vain. Now I have all the three masts in one, Fire!

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**Question:-** Suppose you are in chase of an enemy's ship of war, upon a wind, with all your sails set; she is right a-head, on which side will you engage her ?

**Answer:-** I will engage her to leeward, by reason she cannot put away before the wind, and if there is any thing of a sea, she may not be able to fight her lower tier of guns. If light breezes and hot weather it would be better to engage to windward, to let them receive the smoke and heat of the fire.

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**Question:-** You are chasing from the wind, and carry away your main-top-mast, how will you proceed ?

**Answer:-** I would haul up the main-sail, and send hands up into the top with a rope or hawser, to clap on that part of the mast that hangs down, then cut the lanyards of the main top-mast shrouds, and lower away, cast off the hawser, reeve it to send the stump down, clear away the rigging, unsling the main-yard, get the fore-tackle on it and bowse forward the yard, then lower the stump upon deck, and get the spare top-mast ready for the cross-trees; clap the hawser on, and sway it up high enough for the rigging.

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**Question:-** You are lying to in a hard gale of wind under your main course, you carry away your main-mast, how will you proceed to clear the wreck?

**Answer:-** I will clap my helm a-weather, brace my fore and fore-top sail yards full, then call all hands to get pole-axes, &c. to clear away the rigging.

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**Question:-** Why will you put the ship before the wind ?

**Answer:-** Because the mast will go a-stern clear of the rudder, and prevent its damaging the ship.

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**Question:-** You are going large and see a ship in the wind's eye, how will you proceed to chase her ?

**Answer:-** I will turn all hands up, get my tacks on board, brace up my yards and haul aft the sheets; haul the bow-lines, set the jib and stay-sails, keep her full, and by making short boards and turn directly to windward, which will prevent her putting away large.

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**Question:-** Suppose you were to carry away your bowsprit, what would you do ?

**Answer:-** I would immediately veer ship, and keep her before the wind; and then, for the security of the fore-mast, I would carry forward the fore-runners and tackles, and bowse them well taut, till I can get a hawser or sufficient rope, and clinch it round the mast-head, and secure it to the bits of the fore-castle or the cat-heads; then take the best spar I have and make a jury bowsprit of it.

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**Question:-** Having a fair wind, how will you set your fore-top-mast studding sail on the larboard side ?

**Answer:-** First haul taut the truss tackles, and bowse the fore-yard close to; then haul taut the larboard fore-lift, and starboard fore-top sail clue-line; on board his majesty's ships the top burtons are on the top-sail yards to keep them square when studding-sails are set (the top-sails, lifts and clue-lines not thought of): the fore-top men down on the fore-yard, and rig out the larboard studding-sail boom, first sending down the studding-sail-tack and outer halyards; up to the fore-topsail larboard yard-arm and reeve the halyards, send them

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down and bend them; the tack being bent and all ready, man the halyards and hoist away, haul out the tack, if the wind is on the beam or quartering, set it abaft the top-sail; if right aft, before the top-sail (which is done by a man standing on the fore yard-arm, with the leach of the studding-sail in his hands).

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**Question:-** How do you splice your cables ?

**Answer:-** I will put the whole strands of the best or small bower cables twice each way, and point each strand with a tail of three fathoms each; then seize them with quarter and end seizing to make them lie snug, which is the readiest way for clearing the hawse, they being soon spliced and unspliced when pointed.

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**Question:-** How would you mark the lead-line ?

**Answer:-** Black leather at 2 and 3 fathoms, white at 5, red at 7, black at 10, white at 13 (some seaman use black at 10 and 13), white at 15 as 5, red at 17 as 7, two knots at 20 fathoms, and so on, an additional knot at every 10 fathoms, with a single knot between each 10 fathoms to mark the line at every 5 fathoms.

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**Question:-** You are sent down in the dark for a top-sail, how do you know a main-sail from a fore-sail, or a main-top-sail from a fore-top-sail ?

**Answer:-** If it has three bow-line cringles it is a main-sail; if it has but two, it is a fore-sail: if it is marled abaft the foot rope, it is a main-sail; if before, it is a fore-sail: if a main-top-sail, it has four bow-line cringles, if a fore top-sail but three: all top-sails are marled to the rope, because the foot rope is served.

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**Question:-** The sheers are along side, how do you get them in ?

**Answer:-** Par-buckle them in with their heads aft on the poop, and get the fore and main runners on them for guys; lash on two four-fold blocks, reeve the masting-falls, get girt-lines on the head of the sheers to steady the mast-head, put heel-lashings on the sheers, with good oak planks under them, to transport them forward on; lash one of the four-fold blocks forward to the stem, and bring the fall to the capstan; heave the sheers high enough: when done, I'll take forward two runners and tackles to assist the sheers, take the mizen-mast first in, then raise the sheers erect, take in the main-mast, bouse the heels of the sheers forward, and keep them upright to take in the foremast.

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**Question:-** How do you rig a lower mast ?

**Answer:-** I will lash on the girt-line-blocks, put on the bolsters, parcel and tar them, put over the runner and tackle-pendants, then the foremost of the starboard-shrouds, then the larboard, and so on; then the stay and spring stay, seize in the dead eyes for the shrouds, and the harts for the stay, reeve the lanyards, set up the rigging, get the top over head, and bolt it, rattle down the shrouds, and seize on the cat-harpin legs, hook the futtock shrouds and hitch them, seize down the ends, lash the hanging jeer blocks under the top, with the strops under the stays, lead up and lash to the mast-head, get the cap into the top for the head of the top-mast, and lash the blocks on for the main lifts.

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**Question:-** How do you get a top and cap over ?

**Answer:-** Make fast a girt-line-block, on each side of the mast-head, reeve the girt-lines, and pass them under the top, and make them fast to the after part of the top, stop them to the bolt holes in the middle and fore-part of the top, then sway away; when high enough, cut the upper stops, having a guy on the after of the top brim, and the top will fall over the masthead, then lower away, and put it in its birth, haul upon the guy and bolt it, lay the cap steady over the trussel-trees for the top-mast head, to receive it; when the top-mast-head is through it, lash the cap to the top-mast till high enough, then place the cap on the mast-head, and drive it down.

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**Question:-** How do you rig a main-top-mast ?

**Answer:-** I will tar the mast-head, get the cross-trees over, fix the bolters and parcel them, put over burton-pendants, then the shrouds, and backstays, proper and spring-stay, and cap, sway up the mast and fid it, seize in the dead eyes, stay the mast, set up the shrouds, rattle them down, lash the bullock-blocks to the mast-head.

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**Question:-** How do you rig a top-gallant-mast ?

**Answer:-** I will send down the top-rope, reeve it through the sheave-hole, and make it fast round the hounds of the mast, and standing part of the rope, leaving enough end to make fast to the cap for doubling, put on a seizing about half way up, which done, sway away; when the head is through the cap, make fast the spare end or standing part of the top-rope to the cap, cut the seizing, clap on the grommet, then the shrouds, back-stays and stay, sway up the mast, fid it, and set the rigging up.

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**Question:-** How do you rig a bow-sprit ?

**Answer:-** I will lash the collar for forestay, the bob-stays and bowsprit shrouds, then the collar for the spring-stays, then the block for the top-mast stay, fix the man-rope, gammon the bowsprit. and set bob-stays and shrouds up.

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**Question:-** How do you rig a jib-boom ?

**Answer:-** I will put over the traveller, horses, and guys, the top-gallant stay-block, and lash on the blocks for the top-gallant bowline; and jib down-haul block to the traveller.

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**Question:-** How do you rig a lower yard ?

**Answer:-** I will get the yard athwart the gunwale, lash the jeers, clue garnets bunt-lines, leach-lines, and slab-line blocks, then put over the yard-arms the horses, brace-pendants, the yard tackle pendants, then the top-sail sheet and lift blocks, reeve the jeers, braces, lifts, and yard tackle falls, truss pannels, sway the yard up, haul all taut, and belay.

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**Question:-** How do you rig a fore-top-sail yard ?

**Answer:-**

I will reeve a hawser for the top-rope, through the bullock-block, and send it down, and having put over the horses, make the top-rope fast to the middle of the yard, stopping it to the yard-arm, sway it above the top, put over the brace-pendants and lift blocks, reeve the lifts and braces, cut the yard-arm seizing, and cross the yard, lash the tye, bunt-line, and clue-line block, reeve the tye and halyards, sway it up above the cap, and pannel it, reeve the clue-lines, bunt-lines, and reef tackles.

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**Question:-** How do you rig a top-gallant yard ?

**Answer:-** I will seize the clue-line blocks on, put the horses over the yard-arms, sway it up, on the cap, and rig the yard-arms, by putting on the brace pendants and lifts, then cross the yard and pannel it.

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## **Questions for Young Officers** *The New Practical Navigator (1814)*

**Question:-** You have lost your rudder at sea, what method will you take to steer the ship ?

**Answer:-** I will take a large spar, or part of a top-mast, and cut it flat in the form of a stern-post, bore holes at proper distances in that part which is to be the fore-part of the preventer, or additional stern-post then take the thickest plank I have on board, and make it as near as I can into the form of a rudder, bore holes at proper distances in the fore part of it, and in the after-part of the preventer stern-post to correspond with each other; and reeve rope grommets through those holes in the rudder and after-part of the stern-post, for the rudder to play upon. Through the preventer stern-post reeve guys, and at the fore-part of them fix tackles, and then put the machine over-board; when I get it in proper position, or in a line with the ship's stern-post, lash the upper part of the preventer-post to the upper part of the ship's stern-post, then hook tackles at or near the main chains, and bowse taut on the guys to confine it to the lower part of the stern-post; having holes bored through the preventer and proper stern-post, I will run an iron bolt through both, taking care not to touch the rudder, which will prevent the false stern-post from rising up or falling down. By the guys on the after-part of the rudder, and tackles fixed to them, I may steer the ship. I must take care to bowse taut the tackles on the preventer stern-post to keep it close to the proper stern-post.

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**Question:-** Your ship is leaky, you cannot keep her free by the pumps, what will you do ?

**Answer:-** I will take a spare top-sail, or some other sail, and spread it upon the deck, cover it all over with oakum, and bind it to the top-sail with a needle and twine in several places, to keep it fast to the sail, then take a hawser and cut it into proper lengths to go under the ship's bottom, and come in over the gunnel, put these hawsers about four feet distant under the sail, and make them rest with their middle to the middle of the sails, and each leach, beginning at the head and leaving off at the clues: then put the sail over-board, keeping the oakum side to the ship's bottom, and haul up the ends of the hawsers on the other side by a hauling line which I have swept the ship with, numbering each end fore and aft; then ease away on the hawser's ends on that side I have put the sail over, and keep hauling at the same time on the hawser's ends on the opposite side. When the sail is properly down, which is known by marking the hawser; I will then clap on tackles and bowse all taut, keeping the sail close to the ship's bottom, the oakum will be drawn in, and stop the leak. The sail may be covered with dung, or any filth I have on board, which will be drawn in and stop the leak.