

ISA Powerboat Instructor Pre-entry Assessment

Required by all participants on Powerboat Instructor courses;

- **Run after 1st January 2006.**
- **Registered with ISA after 1st November 2005**

In order to qualify for entry onto an ISA Powerboat Instructor-training course you must first successfully complete the Powerboat Instructor Pre-entry Assessment. This assessment ensures that you have the pre-requisite skills and knowledge necessary to teach the National Powerboat Certificate in the ISA National Powerboat Training Scheme.

The assessment itself reviews those skills and knowledge covered in The National Powerboat Certificate. The assessment has two parts. Part 1 - being an assessment of your boat handling skills, with Part 2 - being an assessment of your background knowledge.

The assessment must be conducted by an ISA Powerboat Instructor Trainer. Contact details for these Trainers are published on the ISA's website.

Part 1 - Skills Assessment

During the skills assessment you will be asked to complete the following tasks. While doing so you should demonstrate the ability to safely and competently manoeuvre the boat, organise the crew and complete the required tasks. As potential Instructors, candidates will be expected to undertake and successfully complete all of the manoeuvres in a variety of conditions some of which may be quite challenging. The Assessor is looking for well developed, innate boat handling skills and an awareness of the boating environment.

The assessment may be conducted in any planing powerboat listed with the ISA for powerboat tuition by an ISA Powerboat Training Centre.

The candidate must demonstrate competency in both console controls and tiller outboards.

Through this section the term "on the first attempt" should not be taken to mean that you cannot make a seamanlike decision to break off at a reasonably early stage and try again. It means that once you have become committed to a task, it should be successfully completed.

During all manoeuvres

Candidates will be expected to:

- Demonstrate a full knowledge of and practical adherence to the IRPCS
- Communicate effectively with your crew at all times
- Demonstrate appropriate awareness of their crew and other water users

Preparing the boat for use

You will be asked to prepare the boat for use.

During this you will be expected to:

- Determine the boats fitness for use and explain criteria used
- Determine what equipment should be carried and explain rationale used
- Stow equipment appropriately
- Fit and remove an outboard engine from a boat
- Conduct pre-start engine checks and explain criteria used
- Demonstrate appropriate knowledge of types of craft and engine configurations
- Ensure that your crew are properly briefed and equipped for the intended activity.

Launch & Recovery

You will be asked to launch and recover the boat from a road trailer. These tasks may be completed at the start and end of the session respectively.

When launching the boat you will be expected to:

- Launch the boat in safe and efficient manner
- Recover the trailer and park it appropriately

When recovering the boat you will be expected to:

- Recover the boat onto its road trailer in safe and efficient manner
- Prepare the boat & trailer for towing on the road

During either launch & recovery

- Demonstrate the appropriate use of engine tilt, shallow drive, engine jacks.

Start & stop the engine

During the course of the assessment you will need to start and stop the engine.

When starting the engine you will be expected to:

Check gear/throttle/choke before starting

Start engine successfully

Check engine is operating correctly after starting

Warn crew before moving off

Demonstrate appropriate use of engine kill cord

When stopping the engine you will be expected to:

Shift into neutral before stopping engine

Stop the engine

Low speed manoeuvring ahead and astern

You will be asked to manoeuvre the boat at low speed around figure of eight courses set both with and across the wind / current.

While manoeuvring ahead you will be expected to:

Complete the manoeuvre, keeping close to, but without touching the buoys and maintaining a figure of eight course.

Demonstrate an awareness of the effects of wind & current on the boat and compensate accordingly

While manoeuvring astern you will be expected to:

Complete the manoeuvre, keeping close to the buoys and maintaining a figure of eight course.

Demonstrate awareness of the effects of wind & current on the boat and compensate accordingly

Control the boat speed to avoid flooding over transom

Turn in a confined space

You will be asked to turn the boat in a confined space.

During this you will be expected to:

Turn the boat within a square equivalent to 2 boat lengths, using a combination of throttle and steering. (The size of this square may be extended where the assessor feels that local conditions dictate)

When undertaking this manoeuvre in a boat with twin engines, candidates must be able to complete the manoeuvre using engines independently and as one.

Holding off

You will be asked to maintain the boats position relative to a fixed object while manoeuvring against significant wind or current or both:

During this you will be expected to:

Maintain position to within 1/2 boat length of starting position for at least two minutes

Demonstrate effective use of helm and throttle

Pick up a mooring

You will be asked to pick up a mooring.

During this you will be expected to:

Demonstrate the correct direction and speed of approach

Stop the boat dead in the water next to the buoy

Pick up the mooring on the first attempt

Secure the boat to the mooring

Depart the mooring in a seamanlike manner

Man overboard

You will be asked to drop off and then pick up an MOB dummy. The dummy will be of sufficient weight so as to represent a person in the water.

During this you will be expected to;

Demonstrate the correct direction and speed of approach

Stop the boat dead in the water alongside the MOB at the first attempt and without the use of reverse gear

Make suitable contact with MOB

Stop engine before attempting retrieval

Recover the MOB into the boat

Coming alongside

You will be asked to come alongside a moored boat, jetty or pontoon. You may be asked to do so in a variety of conditions.

During this you will be expected to:

Prepare properly for the manoeuvre

Maintain complete control of the boat during the approach.

Stop alongside in the requested position at the first attempt.

Remain in control of the boat once you are alongside.

Secure the boat

Explain the name and specific function of each line used to secure the boat

Leave the berth in a seamanlike manner

Planing manoeuvres (if appropriate)

You will be asked to conduct a series of manoeuvres with the boat in planing mode

During this you will be expected to:

Choose a suitable area

Effectively bring the boat onto the plane

Trim the boat properly

Use appropriate, safe speed through the manoeuvres while;

- keeping the boat on the plane and
- avoiding propeller aeration.

Describe, and where possible demonstrate, the appropriate use of trim controls.

Anchoring

You will be asked to anchor the boat.

During anchoring you will be expected to;

Anchor in the area designated by the Assessor

Anchor successfully on the first attempt

Prepare and set the anchor correctly

Describe an appropriate method of identifying that the boat is holding its position

Raise the anchor and depart in a seamanlike manner

Part 2 – Assessment of Background Knowledge

This part of the Instructor Pre-entry assessment will assess the knowledge, understanding and skills necessary to become an Instructor teaching up to ISA National Powerboat Certificate.

Method:

The assessment may be in the form of;

- 1) Oral interview with the Assessor.
- 2) Written answers / calculations done during the assessment.

Original copies of ISA Training Chart 1 will be used for all of the assessment / calculations where a chart is required. Tables used will be the ISA Practice Navigation Tables. Candidates must be informed of this prior to the assessment to allow them to familiarize themselves with the chart.

The assessor will provide sufficient charts and PNTs. Candidates must provide their own stationary, calculators and navigation instruments.

Subject	Method	
General boat knowledge	The candidate must be able to identify the main characteristics from a selection of the following;	
	Hull Types	Displacement, Planing Shallow V, Deep V, Cathedral & Catamaran Inflatable, RIB, Hard hull
	Engine Types	Outboard, Inboard 4 stroke petrol, 2 stroke petrol & diesel
	Drive Types	Shaft drive, Leg drives, Water jet. Different propeller materials, Variations in propeller pitch, Counter rotating propellers, Surface piercing propellers
Basic engine fault-finding	Using an outboard engine, candidates will be asked to describe how they would attempt to resolve one of these basic engine faults.	Engine will not start. Engine starts but stalls when put into gear Engine runs but keeps cutting out Engine running but is rough & lacks power Engine alarming
Compass	The candidate will be asked to;	
	Take a bearing using a hand bearing compass.	
	Plot a position fix onto a chart from given compass bearings and transits.	Having been given a combination of three bearings (compass and transits) the candidate should be able to plot a position fix onto a chart.
	Plot a course to steer on the chart and, allowing for the action of wind and tide, determine the correct compass course to steer	Having been given two points on a chart the candidate should be able to plot a course to steer between the two points onto the chart, Convert this course to a course to steer by applying the appropriate variation and deviation from the compass card provided.
Chart symbols	The candidate will be asked to identify a number of common symbols and features from a chart.	Chart name, number & scale, Latitude & longitude, soundings, Depth contours, Tidal diamonds, Rocks, Drying areas, Port & Starboard Lateral marks, North, East, South & West Cardinal marks, Special marks, Isolated danger mark, Safe-water mark, Traffic separation schemes, WGS, Corrections.
	Know where to find description of any unrecognised symbols	Admiralty Chart # 5011

Ropework	The candidate will be asked to tie and describe the appropriate use for three knots from the following.	Reef Knot, Bowline, Clove hitch, Round turn & two half hitches, Sheet bent and Rolling hitch.
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Tides	<p>For a primary port, the candidate will be asked to either;</p> <ul style="list-style-type: none"> Predict the depth of water at a given time and place. Predict the time at which the water will reach a particular depth at any given time or place. 	<p>Given a position on a chart, a time and a set of tide tables for a primary port the candidates should be able to calculate the depth of water at that point.</p> <p>Given a required depth at a position on a chart and a set of tide tables for a primary port the candidates should be able to calculate the time at which the water will be at the depth given.</p>
	<p>For a position on the coast or in a channel adjacent to a primary port the candidate should be able to <i>estimate</i> the time and direction of maximum and minimum tidal flow.</p>	<p>Given a position on a chart, a set of tide tables and a set of tidal charts the candidate should be able to estimate the time and direction of maximum flow and time of minimum tidal flow.</p>
Buoyage & Pilotage	<p>Using either colour pictures or models the candidate will be asked to identify a number of common navigation day marks and describe their relevance.</p>	<p>Port & Starboard Lateral marks, North, East, South & West Cardinal marks, Special marks, Isolated danger mark & Safe-water mark</p>
Regulations	<p>Candidates will be asked to;</p>	
	<p>Identify how they would determine whether and what local regulations exist</p>	
	<p>To identify those relevant national regulations that apply to powerboat users.</p>	<p>Requirements on use of PFDs Requirements of Merchant Shipping (Mechanically Propelled Pleasure Craft) (Safety) Regulations, 2001</p>
	<p>To identify those relevant international regulations that apply to powerboat users.</p>	<p>SOLAS V</p>
International Regulations for the Prevention of Collisions at Sea	<p>Using either an oral interview, written questions or models the candidate will be asked to identify and explain the relevance of one example from each of the following headings from the collision regulations.</p>	<p>Application, Definitions, All conditions of visibility, lookout, safe speed, risk of collision, Obligations of stand on and give way vessel Narrow channel , separation schemes Vessels in sight of one another Day shapes Sound signals Correctly identify who has priority and correct action by stand on vessel in a number of simple scenarios.</p>
Weather	<p>During an oral interview;</p> <p>The candidate will be asked to describe the prevailing weather patterns and effects for a period of 2 days prior to the assessment.</p> <p>The candidate will be asked to provide a synopsis of the expected weather for the day of the assessment and describe how it might be expected to affect the operating area used for the assessment.</p>	
	<p>The candidate will be asked to describe the cause of, effects of and features of at least two common weather conditions / features.</p>	<p>Sea breeze, Radiation Fog, Sea Fog, Thunderstorms, Line squalls, Warm front, Warm sector, Cold front, Cold sector, Occluded fronts, Depressions, Anti cyclones.</p>

	The candidate will be asked to identify two types of cloud from colour photographs	Cirrus, Cirrostratus, Altostratus, Altocumulus, Stratus, Cumulus, Cumulonimbus, Nimbostratus, Fractostratus, Stratocumulus.
	The candidate will be asked to identify the prevailing wind speed and direction.	