When Is 'Rough' - Too Rough For Safety ?

Dear Peter

I recently read with interest your article in **Plate Alloy Boats of Australia (Book One)**, titled *"Rough Water Handling in a Plate Alloy Boat"*. Your article contained more useful, hands-on and realistic information than any other article I have read on this topic. I wonder if you would be so kind as to offer some feedback with regard to the information contained within this article and the related questions below.

1. My first query is with regard to lifting or lowering trim tabs and tilting outboard motors when operating a vessel in rough conditions:

As you mentioned, one of the primary actions a skipper should take when the going gets rough is to back off the throttle and slow down. Having said this, I would have thought that, because trim tabs and the trim of the outboards are designed to be most effective at planing speed, lifting the motors and the trim tabs at low speed would have little effect?

I appreciate that taking such action certainly wouldn't hurt, but I wonder how effective it is in actually having the desired effect of keeping the bow raised and the stern low, when the vessel is operating in displacement mode under rough conditions?

2. My second query is with regard to safe upper operating limits for plate alloy boats, in terms of weather and sea conditions.

I have dug around for a lot of information on this subject, and it all seems to fall short of the final mark in actually offering recommendations for safe upper operating limits for small boats in terms of wind speeds and wave heights.

Specifically, I am trying to find information which offers even a basic guide for the safe upper limits of operating small boats (up to 10 metres length), in terms of boat lengths ***vs*** wind speeds and wave heights. I realize that it is difficult to give any sort of reliable or accurate figures to such a question, which will hold fast in all circumstances, but without such information how are inexperienced skippers supposed to realize their vessel's safe limits without going too far, crossing the line and coming unstuck?

It would seem that the most important decisions a skipper makes are whether or not he should go to sea in marginal conditions. Indeed, a skipper may already find himself at sea as things turn nasty, and need to decide how best to run for safety.

Most of the organizations involved in promoting safe boating practices, offer information containing the advice: " . . *a skipper should know his boat's limits*?" But nowhere do they suggest how a skipper is to obtain this knowledge. Other responses I've heard when broaching this issue include comments such as *"... Oh mate, she'll handle anything!"*

Given the extremes of weather we can experience across our offshore waters, this is a ridiculous statement, and I wonder how experienced skippers make the correct judgement when it comes to the crunch?

I also realize that the answer to this query depends largely on the skipper's experience, as an experienced skipper will be able to bring a boat home safely under conditions which may cause a less experienced skipper to falter. But either way, there must be some sort of limit in terms of wind speeds and wave heights, versus a boat's length, beyond which a vessel would probably come to grief no matter who was at the helm.

I did come across one table, published by A.M.S.A. some years ago, recommending safe upper operating limits for boats up to 6.0 metres length, relative to wave heights.

I am interested to know of any further sources of information on this topic, specifically for plate alloy boats (outboard powered monohulls in particular) up to 10 or 12 metres in length.

Any information you can share on this topic would be very much appreciated.

Best regards,
Ed Smith
(email)

Case Study

Rough Water Boat Handling: Where Are The Limits ?

One of the reasons you haven't seen too much written on this subject Ed, is the fact that it's a highly complex, subjective subject. In this case, even narrowing the field down to deal mainly with plate alloy boats, doesn't actually help the situation all that much.

Why? Well, if you took 5 skippers to sea in 5 different boats, you'd come back with 5 different opinions as to which was the best handling boat, and 5 different descriptions of the sea state. (*"I didn't think it was very rough"* or "*Jeez, compared to my area, the sea here is a doddle . .*")

Here, you've raised the point that taking the advice of slowing the boat down in rough seas is good practice, but you've correctly raised the issue that if that happens, then surely the outboard motor's trim system and any trim tabs would have a lessened effect than they would in faster conditions in calmer water.

Your point is valid. Obviously, as a planing boat slows down, trim tabs and the trim itself on the outboard motor will become less and less effective.

On the other hand if the weather is getting rougher, the boat is going to be forced to slow down in any event, so the next question that comes up is this: will the boat's performance and handling be improved at the new safe (much slower) working speed with or without the trim tabs?

The answer? Listen up: As the boat slows down, the tabs and trim work/help whilst ever the boat remains on plane – especially into a head sea. And that could be as low as 7-10 knots in a good boat. And when the boat falls off the plane, the tabs won't work – but then, with the boat (then) working at displacement speeds (say 3-9 knots) it won't need them, either.

This then takes us to the second part of the question which is also very well crafted – and I compliment you on identifying these issues so carefully.

In particular, I believe your sentence *"I am trying to find information which offers even a basic guide for the safe upper limits of operating small boats (up to 10.0m in length), in terms of boat length versus wind speeds and wave heights"* - is very well considered. Ed continues *"I realise that it is difficult to give any sort of reliable or accurate figures . . ."*

And you've got that right. In the context of a letter to the Editor, it's just about impossible to be very specific about what sort of waves you can tackle with what sort of boat.

Let's go back to that original question – how do you know when it's too rough to put to sea, as distinct from being out at sea, and it becomes too rough to stay there and you have to return home?

This is the essential issue isn't it?

When is it too rough or potentially dangerous to go out in a boat, as distinct from what the hell do you do when it's too rough to stay out there and you have to make it back to shore?

At what point in time do you throw your hands in the air, say it's too rough, and reach for the EPIRB? Or do you just soldier on? Gamely hoping that you will have recovered the nerve to take on that white water maelstrom crashing across the mouth of the Tweed River by the time you get back there . . .?

These are bloody hard questions to answer, but we'll try.

Modern plate alloy boats, such as this Kiwi built Lazercraft 740 are very capable, safe blue water craft, and will easily handle any normal fishing conditions, let alone conditions as rough as these off the Gold Coast recently.

About Going Out In The Boat

Over the last 40 odd years I've been boating, there's been one rule of thumb I've always observed.

If the hairs on the back of my neck or the churning in my gut won't subside, then I won't launch the boat off the launchramp. Even if you're based somewhere like Narooma on the NSW Far South Coast, where you mostly have to go down through the walls to the entrance before you can make the decision about whether you're going or staying, exactly the same rules apply.

If I get around the 'corner', pause for 4 or 5 minutes and don't like what I see, or I feel uncomfortable in my gut about it, I don't care what my peers or fellow fishermen think, I'll turn round and go back to the launchramp.

One time in 1982, we turned around in our 23' SharkCat and went back to the launch ramp amid the quite open jeers of other fishermen – but we hadn't even got the cat back on the trailer when we heard the alarm siren go off as the 17' open runabout we'd passed going back to the ramp, was flipped over on the

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