

## Saildrive prop--rapid zinc erosion

[The Hallberg-Rassy Owners Association Discussion board: HROA's Web Site and Discus board: Saildrive prop--rapid zinc erosion](#)

By [Mark Dagele](#) on Thursday, November 01, 2001 - 07:52 pm:

Is anyone experiencing very rapid loss of the prop zincs (the 3-part one on the prop itself)? I have the Volvo 3-blade folding prop on the saildrive/MD2030 on my HR-34 (2001). The zincs last little more than a month before being completely gone down to the screws. The zinc on the saildrive leg itself, as well as on the fridge/sink skin fitting are fine. I've changed slips at the marina and added a galvanic isolator to the 110-volt ground wire to no avail.

By [peter slevin](#) on Saturday, November 03, 2001 - 05:58 pm:

There has been quite a bit of correspondence about this problem in Sailing Today and, as ever, opinions vary. My experience with a 31 in Haslar is that the main anode had little erosion after a year in the water but the smaller anodes wasted away after about six months. Your problem seems to be quite extreme and I wonder if it is due to your location?

By [John Copson](#) on Monday, November 05, 2001 - 05:12 pm:

I had the same problem with my 31 when it was new. When she first came out of the water there were no anodes left - just the screws! I have since added a hull anode, I have painted the prop (which I have been told reduces the surface metal area) and I never leave the shore power connected when I leave the boat. This year she went in late March and came out last Saturday (3rd November). The prop anodes still had some life in them but had gone a little soft. The hull anode was hardly worn.

By [Marco Thyssen](#) on Tuesday, November 06, 2001 - 05:57 pm:

Mark, I have the same experience as Peter and John on a Hallberg Rassy 29 with the "new" Volvo folding 3 blade propeller and this is in the Nieuwpoort (Belgium) marina. Main saildrive anode fine; the three littl'uns practically gone after 6-7 months in the water. This year was better than 2 years ago. From what I have heard it seems to be part of the 3-blade design. On the previous prop it was much less of an issue...

By [stuart tovey](#) on Sunday, February 17, 2002 - 11:23 am:

Previously I had a 36. The first anode disappeared in months (2 bladed) but subsequently would last all year. Now I have a 34, new in June (3 bladed). All 3 annular anodes went in 3 months. I got a diver to replace them in October. I have bought a black and white tv camera 25mm x 35mm and waterproofed it with sealant (it was a weather proof 'bullet' camera from [www.Maplins.com](http://www.Maplins.com) for 69 pounds. It is great. Works in almost dark conditions. I tie it to the boat-hook and plug it into the video input of my TV perched on the side deck.

Now I can view my prop regularly at close quarters. This time there is no sign of

wasting of any of the anodes after 4 months.

I leave my shore power on for the fan-heater and de-humidifier. The battery charger is on because Maxivolt say it should be. However, the water heater is unplugged always, except when I need the immersion. Plugging this in causes a leak of 3-400 milivolts to earth (?significance). I too have now fitted a galvanic isolator (from Adverc). To facilitate unplugging the immersion heater, I have moved the plug and socket to the sliding cupboard in the heads (easy job). This socket is used also for a 60w bar heater fitted permanently at the back of the engine, it is left on and has to be unplugged to heat water.

I don't believe that fitting extra hull anodes helps. The ones on the prop do all the work, come what may, and always go first. I think that extra anodes can set up their own 'cells' and destroy the most vulnerable one. Once I used to hang an extra one over the side and it was led back to the ground(-ve). All that happened was the anode on the leg went quicker, and disappeared on the side the extra anode was hung!!!! An extra hull anode on my 29 and my 36 did no good at all but maybe slowed me down.

If you do a lot of motoring, your prop anodes go quicker because of the induced electrolysis. One just has to replace them. But at least it can be done on a tide or by a diver.

Finally, test the polarity of all your sockets. My shore-power lead was wrong, as were half my sockets! Test also that there is no leakage from neutral to earth. There is a little commercial 3 diode tester that tests all 3 wires ( Maplins or Robert Dyas) just plug it in.

'swallow' HR 34 camper & nicholsons, gosport

By [Richard Chambers](#) on Monday, February 18, 2002 - 02:31 pm:

I too took delivery of a HR34 in June - and met with Stuart and Swallow [ hope all is OK? ]

I have experienced complete loss of prop anodes in less than 6 month, and had some noticeable reaction on the prop (3 bladed) itself - some pitting on the back of the hub. The leg anode was almost untouched and was a bit scaled up, so not working properly.

I have taken the prop to Volvo-Penta who are investigating. They want to check out the Earthing in the Boat and look for any stray currents in the Marina etc.

Their advise is to paint the prop with Volvo antifouling, but don't fit extra anodes or bond any of the skin fittings to the saildrive. The prop is completely insulated from everything by its internal rubber bush. I have done for the next season, so wait and see.

I shall continue watching this space, as I get the impression from Volvo's that there is a problem here and they don't know an effective solution. I would expect that the prop anodes should be large enough to protect the prop for 12 months under normal conditions, and this should be a 'requirement' that HR themselves are giving Volvo-penta.

Richard Chambers (HR34 347 - Myrica)

By [Bob Hadley](#) on Tuesday, May 28, 2002 - 10:09 pm:

More about prop anodes just to confuse the issue, I went into John Hawkins the other day and found that he had a new sail drive type three bladed prop on sale at the back of the counter. Being a nosy parker I asked to have a look at it and to my amazement it does not, repeat not, have any anodes at all! There isn't room to fit any collar anodes either. The normal anode fits at the back as usual and then comes into contact with the rubber bushing. For exact details look at 'The Volvo Accessories and Maintenance Parts' brochure for 2001/2002 on page 84 item 45.12. Does anyone have one of these newer props and if so have you had trouble with the blades pitting or in one case the folding mechanism gear teeth disappearing altogether!

By [John Copson](#) on Thursday, May 30, 2002 - 11:49 am:

Very confusing.... I have downloaded the Volvo Accessories page from the Volvo Penta site and the illustration for the 3 blade prop clearly shows a groove for the anodes plus an anode. Part no 45.12 appears to be a rubber bush which seemingly fits between the prop and the sail drive and absorbs any undue shock when you go from forward to astern quickly. (seems a good idea - I might get one!) I have a new HR34 on order for next season and have specified a three bladed prop. I had one on my HR31 and found it superb but it of course suffered from the usual disappearing anode saga. So if there is a new updated three bladed version out and Volvo have at last got over the problem, I will indeed be very pleased to know!

By [Mark Dagele](#) on Saturday, June 08, 2002 - 03:58 pm:

Here's a response I received from Roland Olsson of HR when I emailed HR about the zinc issue. Maybe Volvo's going back to the old zinc-less design?

From HR: "You have apparently done everything possible to avoid corrosion except for disconnecting the shore power plug. A favorable indication is that the anode on the sail drive is fine. I do not think you have a problem. My boat has the same propeller. It was built 1997. At that time the Volvo propeller had no zincs. The only zinc I have is the one on the sail drive. (The design changed after some years because the market was asking for zincs.) I launch my boat in March and haul it out in November. In this time I lose about 30-40 % of the zinc on the sail drive. The propeller does not have any zincs and has no signs of corrosion. I'm convinced that the zinc on the sail drive also protects the propeller. I think the explanation is that Volvo uses different types of zincs for the propeller and the sail drive. The ones on the propeller have most probably another alloy than the one at the sail drive and give up faster. Also there is not a lot of material around the screws. It does not take much corrosion before they fall off.

"Please note that this is not something I know for a fact. Only an assumption. You can also contact the local Volvo dealer and have their opinion. The propeller is a part of the Volvo warranty."

I would not worry to much about it, as long the zinc for the sail drive is OK.

By [Bruno](#) on Sunday, June 16, 2002 - 09:59 am:

Hi,  
I'd change my 2 blades prop, in Februar for the new 3 blades on my 31. I was anxious for my anodes and I just dive under the boat this morning (i'm cruising in Corsica).  
The small anodes of the prop are a little bit used (25%)but the saildrive anode(the most important) is quiet new.  
Before with the 2 blades, the saildrive anode was used around 30% by year, boat often on shore plug.  
I think it will not change a lot, according to Mark.

By [pslevin](#) on Saturday, September 14, 2002 - 05:21 pm:

I spoke to Volvo at the Boat Show regarding the disappearing anode saga and they showed me the latest three bladed folding prop which does not have three small anodes but only the large anode on the sail drive. Volvo explained that there had been changes made to the metal used in constructing the prop and they were confident that the sail drive anode would give adequate protection to the propellor.

By [Stuart Tovey](#) on Monday, December 16, 2002 - 11:00 pm:

Further to my message above: having fitted a galvanic isolator from Adverc, I lifted Swallow 6 months (July) after fitting 3 new anodes to the Volvo 3 bladed prop. They were in good condition and had only lost 10% by weight. New ones were fitted, just in case. Using my underwater tv camera, I inspected them last week when they appeared to be as the last ones were in July. So it looks like they are now going to last a full year (touch wood).

Stuart Tovey. HR 34 Camper & Nicholsons, Gosport

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