



To: Mark Gardner (Harken ProCare Manager)
From: Captain of J-Class Lionheart
Subject: Winch Service

Lionheart:

Hi, we are mid-Atlantic with an ETA of around 5 days to Palma. We have had a last-minute change to our schedule and now only have one week to turn the boat around before we need to head back out. Sorry for the late notice but could you organise a full winch service in this time?

ProCare:

Sure, see you in 5 days, safe trip!

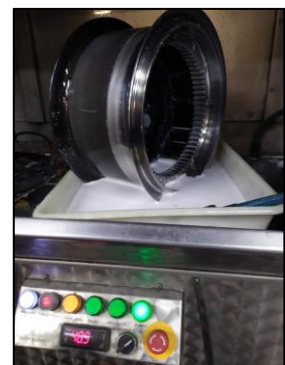
ProCare Winch Service

The next call goes out to our local authorised service agent, Winch Works and alongside Simon Botes from our ProCare Palma office, they start to plan for Lionheart's arrival.

As soon as the boat was on the dock ProCare and Winch Works were there to welcome Lionheart and are ready to take action; it was going to be tight but defiantly possible.

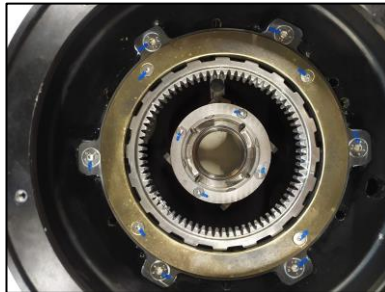
After a quick briefing with Captain and Engineer to find out about any issues during the trip; all 16 winches were removed from the yacht. They were then placed in individual transportation bins, and a ProCare Service report was assigned to each winch. This report stays with the winch throughout its journey, it is the key to the ProCare service and helps track the history of the winch and components throughout their life.

The winches were transported to the Winch Works facility where they were entirely stripped down. All metallic components are separated ready for cleaning. A specialised high-pressure heated fluid cleaning unit is used; after this process, the parts are 100% clean and importantly free of any residue. Each part is then given an in depth inspection and checked for any wear and or damage. Washers are measured to study the amount of wear they have seen, and highly loaded parts are inspected under the microscope to identify any cracks that may be present. While racing these winches are pushed to their maximum performance seeing loads of up to 14 tones and line speeds of over 200 m/min; this is why proactive service and maintenance is so necessary. We look at it very much like any mechanical component, for example, your car. Your car has set predetermined service intervals to ensure that everything is working correctly and at its optimum



performance, changing the oil, air filters, brake pads etc. A winch system is no different, if you look after it properly it will work at its best, if not you will have problems, and it could let you down.

After each component is inspected, anything seen is noted down within the winch report. This report was developed by Harken ProCare during the Volvo Ocean Race and utilises colour-coded to easily monitor the health of the parts. Green means the system is functioning at its peak, and amber means a part should be monitored closely but does not require replacement, red means replace immediately or action taken. This report makes it very easy for all involved to see quickly what work has been carried out and which areas may need monitoring more closely in the future. These reports, along with a photographic record are stored on the Yachts ProCare web portal. This allows not only the boat to access all data but the ProCare Team globally. Meaning no matter where Lionheart is in the world, the ProCare Network can see all historical data. The portal also creates a data share and communication platform between Harken ProCare and the yacht. Listing such items as product manuals, forthcoming service dates, spare stock lists and Harken contact information.



The winches were then ready to go back on the boat. The reassembly must be continuously done, making sure all fasteners are to the correct torque, and all lubrication is to the proper level. At this level, it's all in the detail, for example during a ProCare Service all fasteners are strike marked to give a visual sign if they are loosening over time. However, this strike mark also indicates what substance is used on the fastener in question. Blue strike means Blue Loctite 248, Green Strike means Green Loctite 2701. Why? Because each thread lock has a different breakout torque level so to remove without damaging the part, various methods of removal are required, so this acts as a clear indicator.

Once all winches are back in place, a full system test takes place, making sure all winches are operating correctly. The service reports are then completed and along with the photo record uploaded to the Yachts Portal. Much like your car, to get the best out of your equipment you need a good relationship with your mechanic. This is the idea behind Harken ProCare, ProCare offers a proactive service program with factory-trained Technicians. We give you one point of contact that allows the relationship to build between Harken and the boat, meaning we can help maintain the Harken equipment at its optimum!

"Harken ProCare have support Lionheart's racing and cruising programs for almost 10 years now. They have worked meticulously to ensure zero breakdowns, which has in no small part contributed to our success on the race course."

Toby Brand
Captain J-Class Lionheart

For more information contact Harken ProCare at: info.procarepalma@harken.it



WINCH
WORKS

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