Procedure: Rust Seeker Assembly

Cathodic Anodes Australasia

Purpose

To outline the parts, equipment and steps required to assemble the Rust Seeker.

Parts Required for Assembly

1 x Ag/AgCl reference electrode (from Ionode) having a 5, 15 or 30 Meter cable attached.
1 x Stainless Steel housing, supplied with the logo's etc.
1 x Stainless Steel circlip.
1 x Instruction Book
1 x Neoprene Bag – in its outer "clear" plastic bag. (Do not discard / destroy the outer.)
1 x Velcro "Strap"
1 x Spare "moisture cap"
1 x Lanyard (shoulder strap)
1 x sticker label which can be written on.

Tools Required for Assembly

A Multimeter (laboratory use)
Circlip pliers
Custom made nylon "ram" to suit assembly
IH10 Master Ag/AgCl
One steel "test pipe" with fresh (tap) water in a plastic container

Procedure

Assembly

1. Obtain the desired length (RS-05, RS-15, RS-30). After a quick visual inspection record the serial number.
2. Obtain a S/S outer casing, visually inspect to ensure it is of appropriate finish (scratches).
3. Determine the "head" and "tail" ends of the casing – the tail is that which has the circlip groove machined out. It is also the larger of the two ends (the pipe is tapered).
4. Remove the "keep damp" rubber cap from the end of the reference electrode.
5. Introduce the Ag/AgCl electrode (leading end) into the tail end of the tubular housing until only the rear portion is showing. Push it in by hand until it comes to rest.
6. Fit the "ram" over the cable and slide it up to the back of the reference electrode. Placing the "head" of the tubular housing "flat" on the bench push the "ram" down to push the electrode "home" in the housing, due to minor variation in the machining process this may require a decent push, or it may slip home easy, listen for a "click" when the ram hits the housing. Remove the ram and ensure that the circlip groove is completely visible.
7. Install the circlip, which stops the electrode from being pulled out of the housing by the cable, and/or stops the housing from sliding off the reference electrode when in use.
8. If you suspect damage may have been caused during installation, use the IH10 Master to check the potential. Follow the "Checking and Verification" steps below. If you do not suspect damage skip this step.
9. Attach the "keep damp" rubber cap, wetting the small interior sponge prior, thus keeping the tip of the reference electrode damp. Fresh water is sufficient, and better for long term storage.
10. Dry the outer housing to prevent any staining in storage.
11. Roll up cable about the size of the neoprene bag interior, attach the Velcro strap to hold the cable in the coil.

Putting the kit together

1. Place the assembled Rust Seeker in the bag, keep "CAA" visible in bag window.
2. Place one additional "keep damp" rubber cap in the bag.
3. Place one instruction booklet in the rear zipper compartment.
4. Attach the Lanyard to the neoprene bag.
5. Check that ALL components, Rust Seeker, velcro strap, book, and lanyard are included.
6. Package the bag inside the original clear plastic. Tape tightly in a presentable bundle.
7. Write the Rustseeker part no (RS-05, RS-15, or RS-30) on a sticker together with the serial number. Attach the sticker to the rear of the bag, so anyone can tell which length rustseeker is in a bag.
8. Record the date and Serial Number.

The component is ready to be shipped.

Checking and Verification

Every Rust Seeker does not need to be checked and verified. Rust Seekers only need to be verified against the Master Silver/Silver Chloride reference electrode if:

1. Electrodes that have been in stock for an excessive length of time. We sell the oldest stock first, so the likelihood of having very old stock is reduced.
2. If a Rust Seeker becomes damaged or is suspected of being damaged during assembly.
3. If a customer posts back their Rust Seeker to verify its accuracy.

To check and verify:

1. Attach the IH10 Master electrode to a multi-meter. Lower the IH10 Master into the water (inside the steel test pipe) and measure the potential (by grounding the common leg of the multi-meter on the steel pipe. Record the reading. Being in fresh water, expect between -600 & -800 mV.
2. Undertake the same process as (1.) above with the Rust Seeker.
3. The Rust Seeker is considered within tolerance if within +/-15mV of the master.

END OF DOCUMENT