

WIB

QUONSET POINT



GENERAL DYNAMICS
Electric Boat

March 11, 2024 | Volume 8 | Issue 5 | The Quonset Point Weekly Information Bulletin

Preheat - What is it and WHY Does it Matter?

I took the opportunity to write this month's WIB article to align with the surveillance focus for March – PREHEAT and ultimately Hydrogen Assisted Cracking (HAC) prevention. Before I dive into the technical aspects of the what and why, I want to focus on our product and the advantage it provides our Nuclear Navy.

In a world of aggressive technological advancements applied throughout the defense industry, the United States has our submarine force, the continued production of Virginia, and ultimately lead-ship Columbia as priority #1. But ask yourselves, why submarines? What makes the submarine such an important piece of our national defense? It's easy... Aside from being able to carry the nation's best nuclear deterrent all over the world, it can do so UNDETECTED. Between being extremely insulated, having advanced noise-cancelling technology, and careful engineering of the drive systems, we've been able to engineer an incredibly powerful yet seemingly invisible vessel to secure our nation's nuclear safety.

Ironically, the very feature that makes the submarine so lethal – being undetectable – is shared by one of the largest threats to submarine construction... Hydrogen Assisted Cracking or HAC. What's HAC? Like many of the new welders here, when I first started welding at Electric Boat I was fascinated at the amount of heat we applied to the base material prior to starting to weld. I can remember sharing confined spaces like the LOT and NFO next to my fellow welders and wearing heavy gloves and lining the floor with fiberglass protection as we worked around the radiant heat. While the hydrogen atoms embedded into the steel were invisible to the naked eye, the preheat process to ensure it was driven out of the work piece was apparent. That very hydrogen, when not evacuated from the heat-affected-zone of the base material PRIOR to welding operations, can be absorbed into the material and cause embrittlement – ultimately leading to cracks in the both the weld and the base material. If that wasn't enough, HAC doesn't always show up immediately after a weld is completed, nor is it reliably detected by NDT methods. Just like our product line, HAC can be a silent killer.

You've likely seen pictures of the USS San Francisco and USS Hartford after they were damaged in undersea collisions. Imagine taking a 6000-ton vessel to 25 knots and coming to an unplanned and immediate STOP. What makes our welding procedures and compliance so important? Both of these boats were able to take their crews back home due to the quality of workmanship and use of correct welding practices.

So, what's our best line of defense against HAC? You guessed it, PREHEAT. Since HAC can't always be detected after welding, we must be proactive and ensure we're building quality into every weld by driving out that damaging hydrogen and ensuring that we have a stable and through-soaking preheat PRIOR to striking an arc. Preheat should always be installed on the

backside of BOTH members (to provide a through-soaking preheat) and in the order of the below precedence. Sole-use torch preheat MUST be avoided when standard methods can be used IAW MDD-00234:

1. Standard Methods (strip, radiant, infrared or induction heaters)
2. Standard Methods + supplemental torch preheat
3. Primary (sole) use of torch preheat for materials 2.375 thick and less. Sole use of torch pre-heat of materials over 2.375 thick requires manager/D341 Weld Engineering approval

Verification of proper preheat is equally important. Having the correct temperature sticks on the job and understanding how to use them correctly is critical to ensuring you have a through-soaking preheat and REQUIRED by procedure. If you are unable to establish heat from the backside of the work piece and/or unable to verify a through-soaking preheat through the approved methods in MDD-00234 – ASK FOR HELP.

As always, the welding leadership committee and myself are here to support you and answer questions. Don't hesitate to reach out - and remember, every weld you deposit is a signature you leave for the service life of the vessel – ensure your signature is a reflection of your commitment to both quality and excellence in shipbuilding. See you on the deckplates!

Nick Rossi
Manager of Operatons, D916

FOLLOW ELECTRIC BOAT SOCIAL MEDIA CHANNELS

 Facebook:
General Dynamics Electric Boat

 YouTube: GD Electric Boat

 Twitter: @GDElectricBoat

 LinkedIn:
General Dynamics Electric Boat

 Instagram: gdelectricboat

 EB Landing:
www.EBLanding.com

The QP WIB is produced by EB Communications.

To submit ideas, contact rmarques@gdeb.com



Continuous Improvement

Why and How to Get Involved With Your Department's Continuous Improvement Effort

Why? What's in it for me?

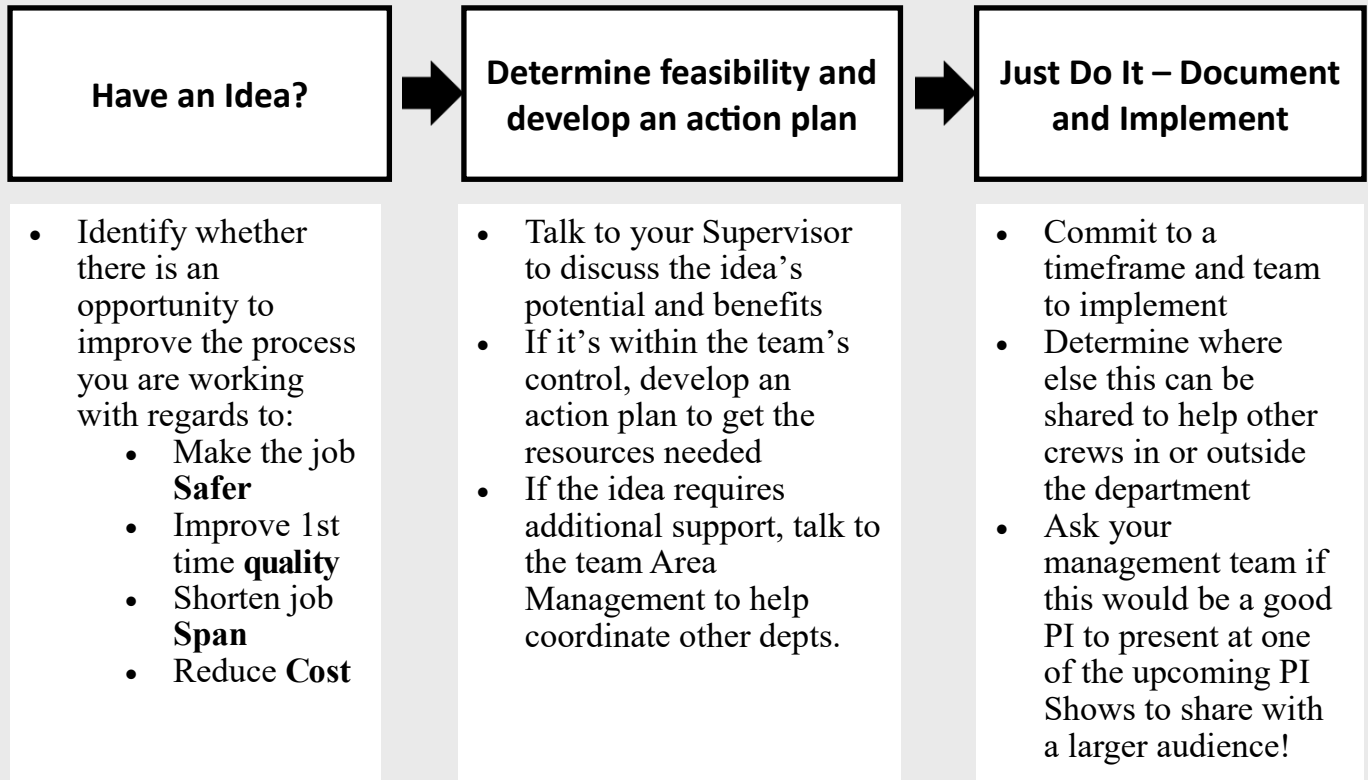
- Your job can become Safer / Easier – reducing aggravation and addressing pet peeves
- Help your crew and your department achieve their goals
- You can contribute to **your** company's success
- Personal satisfaction through mastery and leaving the process better for the next person
- Opportunity to collaborate with peers and supporting departments



How? How do I Successfully Participate?

- Challenge the Status Quo and ask yourself *"Why is the job done that way?"*
- Do not accept the answer *"That's how we always do it"*
- Learn to identify the 8 Types of Waste and defeat them!
- Generate new ideas that can make your job safer, improve 1st time quality, schedule, or cost
- Lead the implementation of at least one of your ideas per year?????
- Submit your idea through your Supervisor to get buy-in and to help get it documented

Together
Everyone
Achieves
More



Have a process improvement idea, or simply just want a board to bounce ideas off? Discuss your

Quonset Point Apprenticeship Program

Starts June 2024

Program Overview

Rotations offered in **Structural, Pipefitting, Electrical, and OSM**

This **accelerated program** will take **three years** to complete while **working full-time**.

- Graduates earn an Associate Degree in Applied Science in Technical Studies (A.A.S.-T.S.) from the Community College of Rhode Island.

Minimum Qualifications

1. Attend one of the info sessions (listed here) on your own time
2. Current Hourly QP Employee
3. One year experience in trade you are applying for
4. Must possess a high school diploma or GED

Info Sessions:

- 3/12/2024—9A Multipurpose Room 3:30pm
 - 3/13/2024—9A Multipurpose Room 7:30am
 - 3/14/2024—Employment Office 2:30pm, 3:30pm
 - 3/15/2024—Employment Office 7:30am
 - 3/19/2024—60 Side Cafeteria 7am
 - 3/20/2024—60 Side Cafeteria 2:30pm, 3:30pm
- Structural, Pipefitting, Electrical, and OSM trades only**

No Shop Order Provided

DEADLINE TO APPLY IS FRIDAY, MARCH 29TH

COMING SOON!

NEW WEB-BASED IWI AVAILABLE LATE MARCH 2024



WHAT'S NEW?

Web-based version of Interactive Work Instruction (IWI) to replace the current Java version

New and improved features, developed from user feedback that was captured during piloting efforts, including:

» Ease of access

Access via web browser from any desktop computer, laptop, or 2-in-1 tablet that is connected to the EB network

» Built-in 3D viewer

No more waiting for a .VFZ to load in JT2Go to reference ship model geometry

» Integrated Searchlight functionality

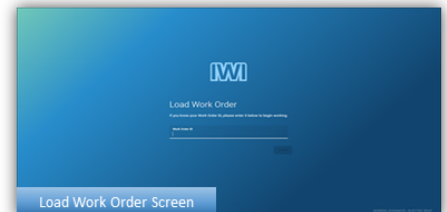
No need to manually search for components in Searchlight to identify the views where a part or joint appears

» Built-in WPDD sketch viewer

WPDD sketches can be opened within a built-in image viewer into a new browser tab

QUICK GLANCE

Same functionality users are familiar working with, packaged in a new look



NEXT UP

Keep a lookout for more updates in the coming weeks, including:

- » New features
- » User guide
- » Rollout specifics

Visit the "Web-based IWI Info" Page on the Build Authority and Deckplate Assistance Site for more information!

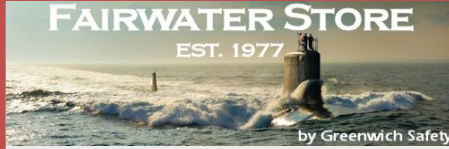


Call, email or submit a DARTS Support Request to connect with a DARTS representative:

Phone: Groton (860) 405-9883 | Quonset Point (401) 268-1386 | Email: ebdart@gdeb.com

For non-urgent matters, submit a DARTS Support Request (DSR) to request assistance

For urgent tool-related issues, please call the EBIT Help Desk at (860) 433-HELP



Years of Shipbuilding Excellence

- **Just In GDEB 125th Anniversary Shipbuilding Merchandise!! HURRY IN!!**
- **Back By Popular Demand!! USS Rhode Island Hoodies, Short & Long Sleeve T's!!**
- **USS Idaho Apparel Back In Stock!! Shop Our Selection Today!!**
- **Our EB Logo Joggers Are Soft & An Unbeatable Value!! Pick Up A Pair Today!!**

Hours of Operation

7:30 am to 4:00 pm

Pay Less For Your Prescription Medication

The EB Family Pharmacy is almost always going to be the most cost effective choice when filling your prescription medications. In addition to cost savings, the EB Pharmacy provides personalized medication advice and guidance.

Services include

- Free shipping of prescription medications directly to your home
- Specialty medication refills (Humira, Dupixent, Stelara, Skyrizi, Otezla etc)
- On-site pick up at certain locations at EB (CT only)
- Synchronizing your medication refills so you can get all your prescriptions in one stop
- Free diabetes medications and supplies when enrolled in the Dimensions program
- Significantly discounted over the counter items

Ready to switch?

The EB Family Pharmacy makes it simple to move your prescriptions over. Call your location's EB Pharmacy, provide them the name and number of the current pharmacy you use, and they will do the rest.

Quonset Point & NEO, RI - (800) 891-4235



QP Weekly Safety Briefing

03/10/2024 – 03/16/2024



Just because you see them, doesn't mean they see you. Pay attention to your surroundings.



GENERAL DYNAMICS
Electric Boat

EBP-02852: EB has established health and safety as the company's number one priority.

Week 11

EMPLOYEES' COMMUNITY SERVICES ASSOCIATION (ECSA) CAMPAIGN

Campaign 2024



Some Agencies The ECSA Supports >>>

ECSA Features:

- Catastrophic Fund*-Assist Qualifying Fellow Team Members
- Charitable Donations to various local non-profit organizations
- Donor Designations to specific agencies of your choice available

- > This year's campaign is paperless with the below team info to share:
 - > Existing ECSA members no need to fill anything out, contributions roll over
 - > Existing ECSA members can make deduction adjustments at **ANYTIME**
 - > NEW MEMBERS can enroll at **ANYTIME** by requesting a blank form **ANYTIME**- Contact Blake Laverdiere or Terrie Straight

Any questions about the ECSA; Contact a Committee Member

Blake Laverdiere	Patricia Roy	Dan Masood	Scott Foley
Terri Straight	Raymond Cormier	Erin Foster	David Rull
Patrick Pratt	Chris Levenseller	Tara Watters	Josh Wimpenny
	Mike Stauro	Carissa King	

Thank you for supporting the ECSA!

*Must be an ECSA contributing member at QP to apply for ECSA Catastrophic assistance consideration.

- Operation Scand Down
- Junior Achievement
- Secret Angels Society
- Welcome House of South County
- The Fairway Foundation
- Special Olympics of RI
- Friends Way
- DAV of RI
- Make a Wish of MA & RI
- Artist Exchange
- Girl Scouts of Southern New England
- Angel Charities
- Hope Hospice & Health Center
- Project Sweet Pass
- The Mitty Fund
- Mission 22
- Veterans Anglers Charters
- Ronald McDonald House
- March of Dimes
- South County Habitat for Humanity
- Children's Museum of Providence RI
- Gateway's to Change
- JohnMycale Center Providence RI
- Episcopal Foundation NE
- American Diabetes Association
- Middle Falls Foundation
- EMAT Organization for the Homeless
- The Phoenix House
- Children's Wishes
- Three Angels Fund
- Colorectal Cancer Alliance
- Wraths Across America TM
- Slack MS Ride the Rhode 2020
- Project Start Up
- The Tomorrow Fund
- American Cancer Society
- Bradley Hospital Mental Health Center
- Save The Mommies
- North Kingstown Food Pantry
- ALS of Rhode Island
- West Warwick Food Agency
- American Parkinson's Disease
- JDRF Juvenile Diabetes Research
- Realtor Foundation RI Troop Support
- Movetrip
- The Linda Sousa A Better Dream
- American Cancer Society
- Walking Riders of Rhode Island
- RI Food Bank
- The Providence Center