



DEPARTMENT OF THE NAVY

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IN REPLY REFER TO

3910
Ser W64/026
1 Nov 12

From: Commander, Dahlgren Division, Naval Surface Warfare Center
To: Naval Sea Systems Command, Program Executive Office Ships,
LPD 17 Program Manager
Via: Combat and Weapon Control Systems Integration Technical *MSR*
Warrant Holder - Surface Ships

Subj: AWARENESS OF PROPER SPLICE TRAY HOLDER INSTALLATION

1. This letter is intended to heighten awareness to proper installation of splice tray holder side arm brackets and lid. Proper installation steps are currently not explicitly defined in Method 2K1 contained in Naval Sea Systems Command (NAVSEA) Drawing (DWG) 8346971 or any other fiber optic installation method.

2. Splice tray holders, M24728/8-50 and M24728/11-01, are the primary mechanism for securing fusion splice tray holders inside of fiber optic interconnection boxes. The splice tray holder serves to protect the splice tray and the contained fusion splices from external hazards that could threaten to break the fusion splice and result in loss of system functionality. One of the key hazards the splice tray module protects against is a mechanical high impact shock event. In order to provide maximum protection in the event of a mechanical high impact shock, it is imperative that the side arm brackets and lid bracket are secured by utilizing all of the available bolts.

3. During recent fiber optic cable plant inspections a significant number of side arm brackets and lids have been observed with bolts loose. These inspections have covered multiple class platforms and multiple hulls within each class. The inspections have taken place after new construction is complete at shipbuilders and after in-service work has been completed by Alteration/Installation Teams during maintenance availability periods. In most cases, the installer has not taken the time to align the side arm bracket or lid resulting in only half of the bolts being able to be engaged and properly tightened.

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4. Fusion splicing qualification testing was completed with fully tightened splice tray holder side arms brackets and lids. Therefore, leaving splice tray holder side arm brackets or lids loose constitutes a non-compliant installation. The following method addendum is to be used when performing installation of fusion splices with splice trays and splice tray holders:

PROPOSED STEPS FOR ADDITION TO METHOD 2K1 SECTION 3.4.2:

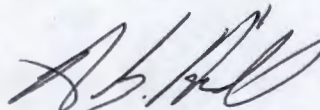
STEP 11: When all fusion splicing is complete and all trays have been returned into the splice tray holder module, replace both splice tray holder side arm brackets onto the splice tray holder module. Tighten both bolts on each splice tray holder side arm bracket.

NOTE: Aligning all of the bolts can be difficult as the side arm brackets intentionally fit tightly around the splice trays. The best known practice is to align and lightly tighten all bolts to insure all bolts are engaged before performing the final tightening of all bolts.

STEP 12: Replace the splice tray holder lid and fully tighten all four bolts.

NOTE: Aligning all of the bolts can be difficult at times as the lid intentionally fits tightly on the splice trays. The best known practice is to align and lightly tighten all bolts to insure all bolts are engaged before performing the final tightening of all bolts.

5. The proposed steps in this letter will be incorporated into the next revision of NAVSEA DWG 8346971 Method 2K1. The revised Method 2K1 will be incorporated into the next formal revision of MIL-STD-2042.



ROBERT G. HILL
By direction

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