

- (1) REMOVE LOOSE MATERIAL FROM JOINT
- (2) ENLARGE CRACK SLIGHTLY BY OPENING TO A 'V'
- (3) INSERT MARINE-TEX OR SIMILAR COMPOUND IN JOINT
- (4) TIGHTEN KEEL BOLTS PER SCHEDULE.
- (5) SAND JOINT FAIR
- (6) GLASS OVER (OPTIONAL)
- (7) PAINT.

NOTE: IMPROPER SUPPORT OF KEEL FROM AFT END CAN CAUSE FRACTURE OF TAPE BAND AT JOINT AT FRONT OF KEEL

CATALINA YACHTS  
21200 VICTORY BLVD.  
WOODLAND HILLS, CA

SCALE: NONE  
DATE: 7-12-85

APPROVED BY:

DRAWN BY SD

REVISED 5/20-96

KEEL CRACK REPAIR

DRAWING NUMBER



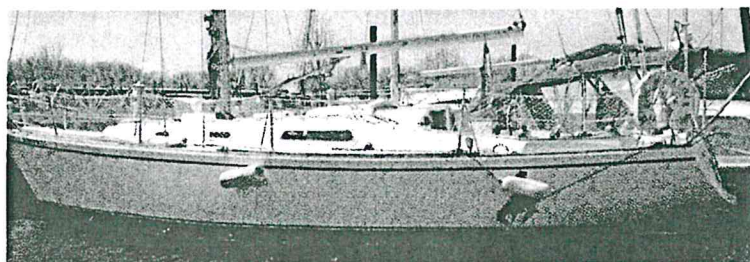


# New for January 2015 502 Black Pigment

Starting January 1, 2015 we will begin selling a new WEST SYSTEM Epoxy Pigment. In addition to our 501 White Pigment and 503 Gray Pigment, we will now be offering 502 Black Pigment. Just like the 501 and the 503, it alters the color of the epoxy mixture without affecting the cured physical properties. Similarly, the maximum acceptable loading is 3%. This is great for hiding a surface with a single coat of black epoxy. Adding more pigment will increase the opacity, but can skew the mix ratio because there is epoxy resin in the pigment. For more information, contact our technical staff at 866-937-8797.

## Smiles All Around

By Mike Barnard

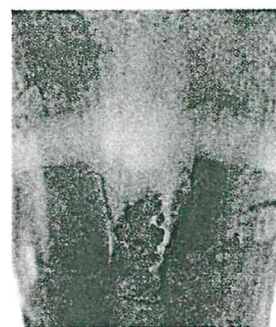


*Rough Rider, one of many boats successfully repaired*

In the years since G/flex was introduced, we have had many customers (and employees) inquire about using it in this application. Year after year we recommend it, and year after year more sailboats are repaired like this. Several customers have used our method and been happy with the results. None of these repairs have had to be redone.

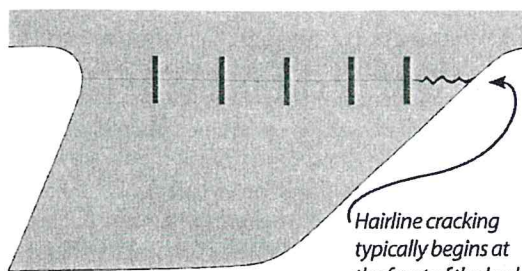
### Here is how we recommend fixing

Open up the joint a bit with a Dremel tool or metal cutting saw blade to expose bright metal and fiberglass laminate. Once the crack is cleaned and widened, bevel the opening generously into the surrounding fairing putty to provide a gentle transition. Dispense G/flex 655 Resin and Hardener in equal amounts on a plastic sheet (or 1.2:1 by weight) and mix by folding it over itself. Begin applying it into the crack then follow up by filling the trough formed by the shallow bevel on both sides of the crack. The pot life of G/flex is 45 minutes, so unless a huge batch is mixed, there should be enough time to dispense it, although mixing multiple batches would give even more time. G/flex 655 has 32% elongation before breaking, which helps to prevent cracks from reappearing in the joint. It can then be wet-sanded, dried and painted for a lasting repair.



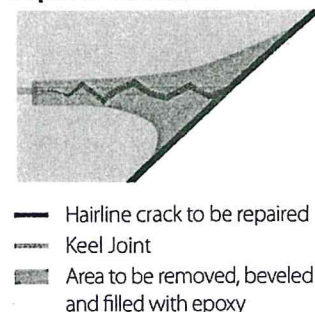
*The front of a keel repair in progress. The crack has been cleaned, widened and filled with G/flex 655.*

Many people try to fix this crack by fiberglassing over it, and it seems to work well... for about a year. After a fairly short amount of time, the crack comes back because there is so much flexing that the repair laminate cracks and breaks. Instead, this repair should be done with a structural, yet flexible, epoxy: G/flex 655 Thickened Epoxy Adhesive.



*Hairline cracking typically begins at the front of the keel.*

### Repair Cross Section



- Hairline crack to be repaired
- Keel Joint
- Area to be removed, beveled and filled with epoxy

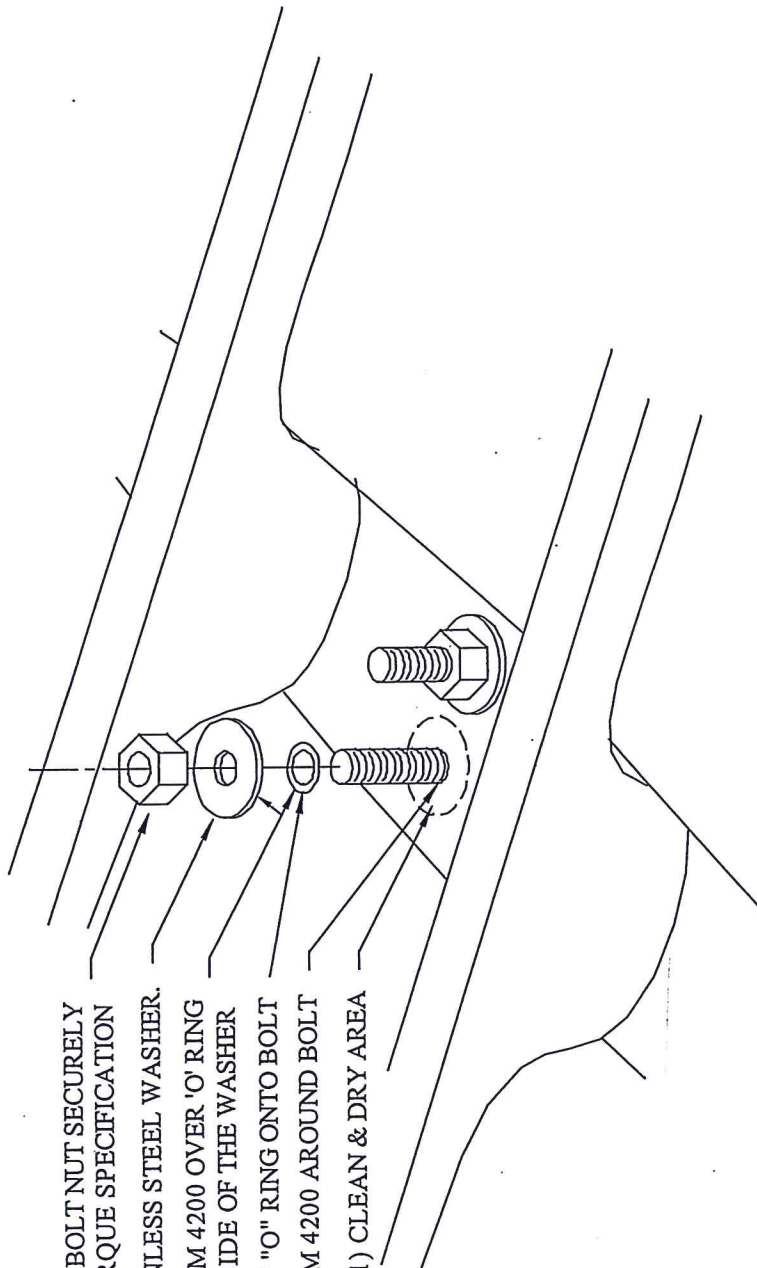


STEP 6) TIGHTEN KEEL BOLT NUT SECURELY  
TO TORQUE SPECIFICATION

STEP 4) INSTALL STAINLESS STEEL WASHER.  
STEP 3) PUT SOME 3M 4200 OVER 'O' RING  
AND ON THE UNDERSIDE OF THE WASHER

STEP 3) PUT "O" RING ONTO BOLT  
STEP 2) PUT SOME 3M 4200 AROUND BOLT

STEP 1) CLEAN & DRY AREA



**Catalina Yachts**

21200 VICTORY BLVD.  
WOODLAND HILLS, CA.  
91367 - (818) 884-7700

SCALE: NONE  
DATE: 4/12/05  
APPROVED BY:  
DRAWN BY: K.W.N.  
REVISED

LEAKY KEEL BOLT REPAIR

BOAT: TYPICAL  
DRAWING NUMBER  
CTY-20050-1

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GENERAL TOLERANCES  
ANGLES:  $\pm 0.5^\circ$   
X.X:  $\pm 0.1$   
X.XX:  $\pm 0.01$   
X.XXX:  $\pm 0.005$   
SURFACE FINISH  
DO NOT SCALE DRAWING