## 98036.FVS - Side shell failure on a tuna purse seiner



## 98036.FVS - March 10, 1998

In early 1996 the tuna purse seine fishing vessel Gold Coast suffered side shell failure with resultant serious flooding. Fortunately, she was able to proceed under her own power, but escorted by another fishing vessel, to the Marquesas Islands for temporary repairs. A brief description of the incident follows:

On February 2 during the night watch while at sea, the vessel appeared to have struck a submerged object. An inspection at the time revealed no damage. Approximately one month later on March 4, while in rough weather, the vessel began to list to port: water was found to be entering the engine room through the number 1 fish well. The vessel proceeded under escort to Nuku Hiva where it was found that a port side shell plate, approximately 3 m x 4 m in size, in way of number 1 fish well was missing, with the side shell plate on the starboard side being torn open, but remaining attached to the vessel. It has been hypothesized that the side shell failure was due, in fact, to the failure of the tubular steel longitudinal stiffeners.

The vessel is of typical tuna purse seine fishing vessel construction, commonly built on the US West Coast, constructed with rectangular section, tubular longitudinal stiffeners, welded on edge to the shell plating. During repairs subsequent to the plate loss, most of the tubular steel longitudinal stiffeners were replaced with 8 inch  $\times$  4 inch  $\times$  3/8 inch angle section stiffeners.

We call this incident to your attention as we have learned that vessels of similar construction may have suffered similar problems. Apparently, these tubular stiffeners appear to be in satisfactory condition right up to the moment of failure.

If your vessels are of similar construction, we strongly recommend non-destructive gauging of the tubular longitudinal stiffeners and their replacement, where indicated. If you have had problems or know of owners with these problems, please notify this office as soon as possible.

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