Ship Failures



After one day in service, the T2 tanker S.S. Schenectady failed in the harbor after just completing successful sea trials in January of 1943.

There were nearly five hundred T2 tankers built in US yards between 1942 and 1945, with average production time around 70 d.

"Without warning and with a report which was heard for at least a mile, the deck and sides of the vessel fractured just aft of the bridge superstructure. The fracture extended almost instantaneously to the turn of the bilge port and starboard. The deck side shell, longitudinal bulkhead and bottom girders fractured. Only the bottom plating held. The vessel jackknifed and the center portion rose so that no water entered. The bow and stern settled into the silt of the river bottom."

AME 60646: Failure of Materials (R.K. Roeder):

Ship Failures



Liberty Ships carried supplies across the U-boat infested Atlantic Ocean to Europe in World War II. 2700 ships were built from 1942 until the end of the war. These numbers were made possible, in part, by prefabricated all-welded steel construction. One vessel could be completed in less than five days! However, in the early days of the program 30% of Liberty Ships suffered catastrophic fracture.

Of course the most famous ship failure of all occurred near midnight on April 14, 1912, when the RMS Titanic struck an iceberg in the north Atlantic resulting the loss over 1500 lives.

Read the analysis in *JOM*, **50** [1] 12-18 (1998).



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