

M-168

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: July 23, 1981

Forwarded to:

Mr. William N. Johnston
Chairman and President
American Bureau of Shipping
65 Broadway
New York, New York 10006

SAFETY RECOMMENDATION(S)

M-81-71

About 0842 c.s.t., on January 22, 1980, the upbound Brazilian bulk carrier M/V FROTALESTE, with a New Orleans-Baton Rouge pilot aboard, collided with the anchored Portuguese freighter M/V CUNENE near Bonnet Carre Point, Louisiana, on the lower Mississippi River. As the FROTALESTE was overtaking the upbound U.S. registry tug-barge combination M/V ALICE ST. PHILIP/FAUSTINA, the tugboat's steering system failed. The ALICE ST. PHILIP turned to the right, which led the pilot to turn the FROTALESTE to the right and into a collision with the CUNENE. The hull of the CUNENE was damaged extensively and the bow of the FROTALESTE received moderate damage. Neither the ALICE ST. PHILIP nor the FAUSTINA was damaged. There were no deaths or injuries caused by the accident. 1/

Shortly after rounding Bonnet Carre Point, about 0840, the operator of the ALICE ST. PHILIP observed the rudder angle indicator moving to starboard, while the steering control lever was indicating "amidship." The chief engineer ran to the after steering compartment where he found the male threaded starboard hydraulic actuator rod had separated from the female threads of the rod eye connecting the rod to the rudder tiller arm.

The pilot of the FROTALESTE saw the ALICE ST. PHILIP starting to veer radically to the right and ordered the rudder of the FROTALESTE hard right. As the ALICE ST. PHILIP veered to the right, the FROTALESTE turned to the right. About 30 seconds after the hard right order, the pilot ordered the rudder hard left and, about 20 to 45 seconds later, ordered emergency full astern. The FROTALESTE struck the CUNENE at 0842 at about a 45° angle, measured from the stern to the port clockwise, at about 8 to 9 mph, according to the estimate of the pilot of the FROTALESTE.

1/ For more detailed information read "Marine Accident Report--Brazilian Bulk Carrier M/V FROTALESTE Collision with Portuguese Freighter M/V CUNENE, Lower Mississippi River, near Bonnet Carre Point, Louisiana, January 22, 1980" (NTSB-MAR-81-10).

There is no direct evidence indicating that the failure of the starboard hydraulic actuator rod to the rod eye connection on the ALICE ST. PHILIP occurred at the time of the right rudder excursion before the accident. However, the reaction of the rudders, when considered with the coupling failures discovered shortly after the subsequent reported excursions, indicates that the rod eye connection failed and some combination of that failure and rudder control manipulations resulted in the rudder moving to the right. The precise reason why the rudder moved to the right and did not streamline could not be determined.

The steering system of the ALICE ST. PHILIP had been repaired during a routine drydocking and repair period at Gulf-Tampa Drydock, Tampa, Florida, in November 1979. The invoice from Gulf-Tampa states:

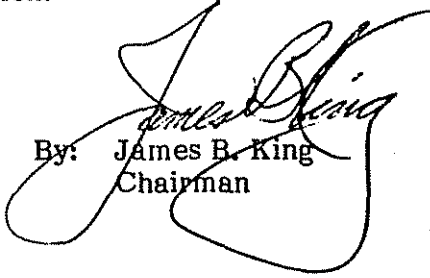
Steering gear rams disconnected and removed steering gear rams from ship to machine shop. Completely dismantled one (1) steering gear ram (port). Installed owner furnished new plunger rod, seals, etc. Reassembled as original and in good order. Owners furnished new and/or rebuilt ram for starboard side ram. Contractor furnished material and fabricated, fit, and installed new pins for each port and starboard steering gear ram. Upon completion of shop repairs, returned steering gear rams aboard vessel and reinstalled as original and in good order, connecting up new and/or existing flexible hydraulic hoses. Tested and proved rams and hoses tight to all parties concerned while under hydraulic pressure. Renewed pedestal holding down bolts on each port and starboard ram pedestal.

The starboard hydraulic actuator had been furnished to the drydock company by the owner of the ALICE ST. PHILIP and installed under the supervision of the chief engineer. While an American Bureau of Shipping surveyor is reported to have been present at the drydocking, the Safety Board could not determine his involvement in the steering system overhaul. The inspections of shipyard repair of the steering system by the surveyor and the chief engineer did not prevent the failure of the connection less than 2 months later.

Therefore, the National Transportation Safety Board recommends that the American Bureau of Shipping:

Direct its surveyors to place special emphasis on surveys of the steering systems of classed vessels to maintain design conditions and reliability, especially on vessels which are not subject to U.S. Coast Guard inspections. (Class II, Priority Action) (M-81-71)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, GOLDMAN, and BURSLEY, Members, concurred in this recommendation.

By: 
Chairman