M-79

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: December 29, 1978

Forwarded to:

Admiral John B. Hayes
Commandant
U.S. Coast Guard
Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

M-78-79 through -85

On July 28, 1977, the French tankship SS SITALA, fully loaded with crude oil, collided with a fleet of moored marine construction vessels on the Mississippi River near New Orleans, Louisiana, after she suffered a steering gear malfunction. There were no deaths or injuries as a result of the accident, but property damage was estimated to be $1,500,000. The Safety Board's analysis of the evidence developed in its investigation of this accident indicated that leaks had developed in the SITALA's hydraulic steering system because of inadequate maintenance. The loss of hydraulic oil from the system caused the steering gear to malfunction and direction control of the vessel was lost. 1/

The steering gear for oceangoing vessels is normally considered to be highly reliable; however, this equipment is usually classified as miscellaneous or deck machinery. This historical classification may cause the engineering personnel to assign less importance to the steering gear than is warranted. An awareness program to positively inform the maritime community of the importance of steering gear and to restate that its proper and reliable operation is vital to safe vessel operations could increase mariners' attention to this machinery. Increased reliability of steering gear operation would increase the level of safety of the waters of the United States.

The Safety Board's letter of August 22, 1977, to the Coast Guard commented upon the Coast Guard's notice of proposed rulemaking for Improved Steering Standards for Oil Tankers, CGD 77-063. The comments addressed the time delay between a failure of the steering gear and the sounding of an alarm, and also the time allowed for the regaining of rudder control. In general, the comments stated that the time between a failure and the regaining of steering control were considered to be excessive.

1/ For more detailed information about this accident, read "Marine Accident Report -- French Tankship SS SITALA Collision with Moored Vessels, New Orleans, Louisiana, July 28, 1977" (NTSB-MAR-78-10).

Current regulations in 33 CFR 164 require vessels to make maneuvering information available to pilots when they board vessels. There is no requirement that the pilot review this information before he begins navigating the vessel.

During testing of the SITALA's steering gear after the accident, a critical part of the differential controller failed. Subsequent laboratory tests indicated that this part was gray cast iron and that the quality was not good.

The current Coast Guard program for boarding foreign tankers navigating in U.S. waters could be expanded to more thoroughly check the condition of the steering gear. If abnormal conditions or questionable operating procedures are found, corrective measures could be initiated. The correction of defects in steering gear or its operation could measurably increase the level of safety on U.S. navigable waters and reduce the potential for pollution.

Therefore, the National Transportation Safety Board recommends that the U.S. Coast Guard:

Amend the proposed steering standards for tankships to reduce the time allowed for alarms to alert the crew of a failure and to reduce the time allowed to restore steering control, and make these requirements applicable to all sea-going vessels entering U.S. navigable waters. (Class II, Priority Action) (M-78-79)

Initiate action through the Inter-Governmental Maritime Consultative Organization to develop a program to insure that owners, operators, crewmen, and inspectors are made aware of the importance of a vessel's steering gear and the importance of proper maintenance of this equipment. (Class II, Priority Action) (M-78-80)

Amend 46 CFR 58.25 and 33 CFR 164 to require that all vessels be equipped with test devices which will indicate whether the steering gear is operating properly and to require that operating parameters, test procedures, and maintenance records be made available to crewmembers and inspectors during inspections and tests, including those required by 46 CFR 35.20-10, 78.17-15, and 97.15-3, and by 33 CFR 164.25, so that proper evaluations can be made regarding the machinery's operation. (Class II, Priority Action) (M-78-81)

Amend 33 CFR 164 to require that pilots review the maneuvering characteristics of the vessel, as discussed in 33 CFR 164.11(k), before they commence navigation of a vessel. (Class II, Priority Action) (M-78-82)

Determine which vessels entering U.S. waters are fitted with the same type steering gear installed on the SITALA. Require testing of the installed cast-iron differential controller foundation to determine if defects similar to those detected on the SITALA are present, and report the findings. (Class II, Priority Action) (M-78-83)

Expand the foreign vessel boarding program with respect to steering gear inspections to determine the adequacy of current maintenance practices and report the findings. (Class II, Priority Action) (M-78-84)

Expand the U.S. Government's effort through the Inter-Governmental Maritime Consultative Organization to obtain more comprehensive and more uniform annual surveys of merchant vessels of all types rather than just tankships. (Class II, Priority Action) (M-78-85)

KING, Chairman, DRIVER, Vice Chairman, McADAMS and HOGUE, Members, concurred in the above recommendations.

By: James B. King
Chairman