

October 22, 2024

# Collision of Fishing Vessel *Kathleen K* with Vessels Moored at Marina

On May 22, 2024, about 1024 local time, the fishing vessel *Kathleen K* was transiting from its berth to a fuel dock in Salmon Bay, Seattle, Washington (see figure 1 and figure 2).<sup>1</sup> While en route, the vessel lost engine control and subsequently collided with recreational vessels moored at a marina. A light oil sheen was observed in the water near the marina docks. There were no injuries. Damages to the moored vessels and the docks were estimated to exceed \$500,000.



Figure 1. Kathleen K on the day after the collision. (Source: US Coast Guard)

<sup>&</sup>lt;sup>1</sup> (a) In this report, all times are Pacific daylight time, and all miles are nautical miles (1.15 statute miles). (b) Visit <u>ntsb.gov</u> to find additional information in the <u>public docket</u> for this NTSB investigation (case no. DCA24FM041). Use the <u>CAROL Query</u> to search investigations.

Casualty Summary		
Casualty type	Collision	
Location	Salmon Bay, Seattle, Washington 47°39.69' N, 122°22.85' W	
Date	May 22, 2024	
Time	1024 Pacific daylight time (coordinated universal time -7 hrs)	
Persons on board	3	
Injuries	None	
Property damage	> \$500,000 est.	
Environmental damage	Light sheen in water near marina docks	
Weather	Visibility 10 nm, scattered clouds, winds northeast 4 kts, air temperature 54°F, water temperature 51°F	
Waterway information	Bay, width about 400 ft at casualty site, depth 12-25 ft	





#### **1** Factual Information

On May 22, 2024, the 73-foot-long fishing vessel *Kathleen K*, which had a crew of three, was moored at a dock on the south side of Salmon Bay in Seattle, Washington. Shortly after 1000, the crew got the vessel underway to move it to a fuel dock located about 0.25 miles to the northwest, on the opposite side of the bay. The captain was at the controls in the wheelhouse, while the vessel's two deckhands were on the main deck aft.

As the captain maneuvered the *Kathleen K* away from its berth, he had full control of the vessel's two propulsion engines and two rudders. However, as the vessel proceeded out into Salmon Bay, he noticed that the engines were no longer responding to his commands as he expected: When he shifted the engine control levers from ahead to the astern position to slow the vessel, the vessel continued to move forward, and when he increased power to the engines with the control levers still astern, the vessel's forward speed increased.

Realizing that there was an issue with engine control, the captain left the wheelhouse unattended and ran down to the engine room, two decks below. In the engine room, the captain discovered that the mechanical linkage between the control box and the port engine transmission was disconnected and the transmission was in the ahead position. The control box–which was electrically connected to the port engine control lever in the wheelhouse–sent speed signals to the port engine and directional signals (ahead, neutral, astern) to the port transmission via a mechanical linkage connected to a shifting lever on the transmission. (The starboard engine was configured in the same way.) The captain moved the port transmission from ahead to astern using the shifting lever and then immediately went back to the wheelhouse.

While the captain was in the engine room, the *Kathleen K* had moved toward docks at the CSR Marine boatyard across the bay.<sup>2</sup> The docks were occupied by recreational sail and motor vessels. A *Kathleen K* crewmember on the main deck aft, seeing that a collision with the moored vessels and the docks was imminent, deployed a fender over the side of the fishing vessel. Soon after, the *Kathleen K*'s bow struck a vessel moored at one of the floating docks. The *Kathleen K* continued moving forward, striking another vessel moored at a second floating dock and pushing that vessel into another vessel moored at a third dock. The *Kathleen K* then struck the second floating dock, severing a section of the dock and damaging several other moored vessels. In total, nine moored vessels were damaged (see figure 3).

<sup>&</sup>lt;sup>2</sup> The docks were owned by Ballard Mill Properties LLC and rented to CSR Marine.



**Figure 3.** The *Kathleen K*, a damaged sailing vessel, and a damaged dock following the collision. (Source: Coast Guard)

After returning to the wheelhouse, the captain saw the damage caused by the collisions. He then proceeded back to the engine room and moved the port engine transmission shifting lever from astern to neutral and reconnected the linkage. He returned to the wheelhouse again and directed his crew to make up to the severed section of dock, which had floated free. Once made up, he loitered the *Kathleen K* nearby until authorities arrived on scene.

The casualty voyage was the first time the Kathleen K had been underway since about November 2023. In the intervening period, the captain had conducted maintenance on the fishing vessel's main propulsion systems. During the maintenance work, he disconnected the transmission linkages at the ball and socket joints, which connected the mechanical linkage to the shifting lever on the transmission (see figure 4). The ball was held in place in the socket with a spring-loaded clasp. When the captain completed the maintenance, he reconnected the transmission linkages.



**Figure 4.** *Kathleen K* transmission mechanical linkage at ball and socket joint. (Source: Coast Guard)

The captain believed that when he reconnected the port transmission linkage, the ball did not fully seat in the socket and the securing clasp did not fully engage. The captain stated that, even when not fully seated, the joint could appear to be correctly seated. Following the casualty, the captain and Coast Guard investigators examined the mechanical linkage, including the ball and socket joint, for the port engine transmission and found no material deficiency.

## 2 Analysis

As the *Kathleen K* crossed Salmon Bay while en route to a fuel dock, the captain attempted to slow the vessel by moving the engine control levers for the vessel's twin propulsion systems from ahead to astern; however, the vessel continued to move ahead. When the captain pulled the levers farther in the astern direction, increasing engine speed (higher engine rpm), the vessel's speed increased in the forward direction. The captain went to the engine room to investigate the problem, leaving the wheelhouse unattended.

In the engine room, the captain found that the mechanical linkage from the port propulsion control box had disconnected from the port transmission shifting lever at the ball and socket joint. This disconnection prevented any direction changes from being transmitted from the wheelhouse control lever for the port engine to the shifting lever on the transmission, resulting in the port transmission remaining stuck in the ahead direction. Thus, when the captain had shifted the wheelhouse controls to astern, the port engine continued to push ahead.

Although the starboard engine was likely operating correctly in the astern direction, propellers tend to be more efficient in the ahead direction, and the port engine overpowered the starboard engine. When the captain increased power to both engines, the port engine's dominance over the starboard engine increased, and the *Kathleen K* continued forward until it struck vessels moored at a marina.

During propulsion system maintenance conducted in the months before the *Kathleen K* got underway for the casualty voyage, the captain had disconnected the linkage at the ball and socket joint. He reconnected the joint when the maintenance was completed; however, according to the captain, the ball may not have been fully seated in the socket with the securing clasp engaged when it was reconnected, even though it would have appeared to be seated correctly. A postcasualty examination found no material discrepancies with the transmission linkage, including the ball and socket joint. Therefore, disconnection of the port transmission linkage at the ball and socket joint was most likely due to the ball not being fully seated in the socket when the joint was reconnected after maintenance.

## 3 Conclusions

#### 3.1 Probable Cause

The National Transportation Safety Board determines that the probable cause of the collision of the fishing vessel *Kathleen K* with recreational vessels moored at a marina was the loss of directional control to one of the *Kathleen K*'s propulsion engines due to the disconnection of its transmission linkage, likely because the linkage's ball and socket joint was not fully reconnected after maintenance.

Vessel	Particulars
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Vessel	Kathleen K
Туре	Fishing (Fishing vessel)
Owner/Operator	Kathleen K Fisheries, Inc. (Commercial)
Flag	United States
Port of registry	Seattle, Washington
Year built	1987
Official number	914710 (US)
IMO number	8704822
Classification society	N/A
Length (overall)	73.3 ft (22.3 m)
Breadth (max.)	26.0 ft (7.9 m)
Draft (casualty)	9.3 ft (2.8 m)
Tonnage	148 GRT
Engine power; manufacturer	2 × 265 hp (198 kW); Cummins NT855 diesel engines

NTSB investigators worked closely with our counterparts from **Coast Guard Sector Puget Sound** throughout this investigation.

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation–railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable cause of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for any accident or event investigated by the agency. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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For more detailed background information on this report, visit the <u>NTSB Case Analysis and</u> <u>Reporting Online (CAROL) website</u> and search for NTSB accident ID DCA24FM041. Recent publications are available in their entirety on the <u>NTSB website</u>. Other information about available publications also may be obtained from the website or by contacting–

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