

UNITED STATES COAST GUARD

ADDRESS REPLY TO:
COMMANDANT
U. S. COAST GUARD
HEADQUARTERS
WASHINGTON 25, D. C.



MVI
26 February, 1952
FILE (FLYING ENTERPRISE
a-3 Bd.)

From: Chief, Merchant Vessel Inspection Division
To: Commandant
Via: Chief, Office of Merchant Marine Safety

Subj: Marine Board of Investigation: SS FLYING ENTERPRISE, foundering
10 January, 1952, position 49° 38' N 4° 07' W

1. Pursuant to the provisions of Title 46 C.F.R., Part 136, the record of the Marine Board convened to investigate subject casualty, together with its Findings of Fact, Opinions and Recommendations, has been reviewed and is forwarded herewith.

2. The FLYING ENTERPRISE of 6711 GT, built in 1944, by the Consolidated Steel Corporation of welded construction except shell seams and framing connections at shell, departed from Hamburg, Germany for New York on 21 December, 1951, loaded, among other things, with 762.6 tons of pig iron in No. 2 lower hold and 508 tons of pig iron in No. 4 hold. Inclement weather was encountered and after a night of pitching and rolling, the FLYING ENTERPRISE, on 27 December, 1951, in approximate position 50°41'N 15°26'W suffered a complete fracture of the weather deck which fracture terminated at the riveted seam at the lower edge of the sheer strake on both sides of the vessel. This fracture did not cause the FLYING ENTERPRISE to founder. On 28 December, 1951, the impact of a huge sea rolled the vessel about 50 to 70 degrees, caused cargo to shift and permanently listed the vessel about 25° to port. This impact also disabled the steering apparatus causing the FLYING ENTERPRISE to helplessly wallow in the trough of the sea. Various unsuccessful efforts were made to correct the list and steering gear failure. On 29 December, 1951, all 10 passengers and the crew left the vessel with a crew member jumping into the water with each passenger all of whom were picked up by rescuing vessels. The master did not permit any volunteers from the crew to remain on board with him. Vigorous efforts were made to tow the vessel to Falmouth, England under most adverse conditions. The vessel continued listing and on 10 January, 1952, she listed about 90° taking water in her stack and foundered in position 49°38'N 4°07'W. This casualty resulted in the loss of one passenger who was found in a drowned condition when picked up.

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3. The Board made the following Findings of Fact:

"1. SS FLYING ENTERPRISE suffered fracture of plating on 27 December, 1951, and heavy listing on 28 December, resulting in the removal of passengers and crew on 29 December and ultimately in the loss of the vessel on 10 January, 1952.

"2. SS FLYING ENTERPRISE, official number 245133 (ex-CAPE KUMUKAKI), is a type Cl-B, steam vessel of 6711 gross and 3931 net tons, 396.5 feet in length, 60.1 in breadth and 25.8 in depth, built in 1944 at Los Angeles, California, owned by the Isbrandtsen Co. of 26 Broadway, New York City. The home port is New York. [redacted] of [redacted] is master.

"3. FLYING ENTERPRISE, engaged on a foreign voyage, discharged and loaded cargo at several north European ports before departing Hamburg, Germany, on 21 December, 1951, bound for New York. At the time of departure from Hamburg, there were 10 passengers and 40 crew aboard, in addition to the master.

"4. At this time, the vessel's draft was 14' 3" forward, 22' 01" aft. Cargo loaded at the various ports was stowed as indicated on the stowage plan, Exhibit 4. Of particular note is the fact that general cargo was all secured by complete stowage, overstowage, and shoring where needed. 762.6 tons of pig iron were stowed #2 lower hold and 508 tons of pig iron in #4 atop the empty deep tanks. The iron pigs, loaded at Rotterdam, Holland, were approximately 18x6x4 inches in dimensions. In #2 the pigs were so loaded that the depth at the hatch square was about 8 feet, the level inclining downward to the wings where, at the skin of the ship, the depth was zero. In #4, dunnage was laid over the deep tanks and the pigs were hand stowed to an approximately equal depth all over. Peat moss and jute were distributed over the pigs but were insufficient to cover the entire area. There was clearance of about 2 feet above this cargo. No tonning was used in either #2 or #4 hold. The master and chief mate both approved the manner of stowage.

"5. From Hamburg to the English Channel the vessel encountered continuous heavy fog and the master deemed it impractical to hold boat drills. In the English Channel heavy weather was first encountered on 24 December. As the bad weather continued, the vessel was hoisted to at about 1500 on 26 December, on a heading of about 260°T., with the wind about two points on the starboard bow. At this time continuing gales were predicted. The wind increased in velocity during the night, reaching force 12.

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"6. After a night of moderate pitching and rolling, without pounding, the vessel, at about 0630 on 27 December, riding high up on a heavy sea, suffered fractures. The cracking was heard in all parts of the ship. Examination determined that there were two main fractures. One commenced at the after port corner of #3 hatch and ran across the deck and back to the accommodation ladder opening at the side; from there the crack ran down the skin of the ship to the longitudinal riveting at the base of the sheer strake. On the starboard side, the crack ran from the forward corner of the deck house straight across to the accommodation opening and from there down to the riveting as on the opposite side. These cracks were estimated at from 1/8" to 3/8" in width. A smaller crack, which did not open at all, ran from the after starboard corner of the #3 hatch toward the side of the ship. This crack was only about 18" long. At the time the fracture was sustained the seas were estimated as 40 feet from trough to crest and 300 yards from crest to crest.

"7. The #3 upper tween deck was entered to determine the extent of damage. The port side fracture was visible from within, daylight showing through the side, but the starboard side could not be examined because of the cargo. Relatively little water was observed to be entering. There was no sign of cargo disturbance.

"8. Efforts were made to reduce the strain by placing the wind and sea broad on the bow and later almost abeam. The cracks on deck were cemented. Cable was run from the bitts at #3 to the bitts aft and strain taken on them for the purpose of "binding" the deck. Soundings were taken in #3 at regular intervals and the water was pumped out. The greatest depth read in sounding was 36 inches, but the engineers reported that no more than 15 minutes of pumping were required at any time to empty the hold.

"9. Through this time, the vessel was heading almost southerly to keep the seas toward the beam. Noon position on 27 December was 50° 41' N., 15° 26' W. The master had concluded that he must put in, either to an English or French port or to the Azores, for repairs but at the time he believed that he could do no more than hold his own in the heavy seas.

"10. During the night of 27 December and the morning of 28 December, the winds and sea continued extreme with the vessel rolling up to 20 degrees to either side. At about 1130 on

28 December, the vessel rolled very heavily to port under the impact of a great sea, the degree of roll being estimated as from 50 to 70 degrees. From this roll the vessel returned only to a permanent list of about 25°, never again attaining an even keel. When the ship failed to return past 25° and failed to swing right in answer to a hard over wheel, the master attempted to restore the vessel's equilibrium to normal by coming around to the left, but still it refused to answer and lay wallowing in the trough. Immediate tests were made of the steering engine and rudder, which could not, of course, be seen itself. The chief engineer reported that nothing appeared to be out of order, the rudder angles indicated aft and on the bridge agreeing exactly.

"11. As the list gradually increased, the engine department experienced great difficulty in keeping the plant in operation. The angle of inclination caused loss of lubricating oil in the generators, resulting in complete loss of propulsion. Under natural draft a full head of steam was kept up on the boilers until a fire in the air heater of the starboard boiler required it to be secured in the late afternoon. The port boiler was kept in operation until 0100 on 29 December. By manual lubrication of the generator power was obtained on the main propulsion late in the afternoon but this was secured shortly after on advice from the bridge that the vessel was unmanageable. Thereafter only pumps were operated.

"12. At the time the vessel had about 4000 barrels of fuel aboard. The tanks were loaded as follows:

- #1 double bottoms - almost full - about 480 barrels each.
- #2 double bottoms - 900 barrels each with capacity for 1100.
- #3 double bottoms, port - 700 barrels, starboard - 300.
- #4 double bottoms, port - 100 tons (fresh water), starboard - 60 tons (water).
- #5 double bottoms (no figure available) very little fuel.
- #6 double bottoms - empty.
- afterpeak - 60 tons (fresh water).
- #3 hold domestic - 30 tons (fresh water).
- #4 deep - empty.
- #5 deep - empty.
- settling tanks - 200 barrels
- forepeak - 90 tons (fresh water).

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The #3 double bottoms were the tanks generally used for trimming. Prior to the taking of the list, fuel had been pumped from #3 starboard to #3 port, bringing about the condition shown above, to preserve the trim. After the list was taken, oil was pumped from port to starboard in #3 double bottom with no appreciable effect on the trim.

"13. As the fracture on the port side of #3 tween decks was now more exposed to the sea because of the increasing list, pumping of the #3 hold was continued up to the time that the boiler was finally secured at 0100. At this time the port steam pump, the only one remaining in operation, was completely submerged and could not be reached for the purpose of transferring suction. When the boiler was shut down, on orders of the chief engineer, all watertight doors in the engine room were secured and the personnel joined the passengers and the rest of the crew in the deck house.

"14. Immediately after the ship took the permanent list, the master ordered the steward to care for the passengers. Life jackets were secured on all persons and the passengers and steward department personnel gathered in the passageway on the cabin deck. On the morning of 29 December, when the master believed that a Dutch tug was on the way to assist, the master ordered all passengers to leave the ship as several other vessels had arrived on the scene. The crew was advised that anyone who wished to leave the ship might go, but that those who desired to might remain to await the tug. FLYING ENTERPRISE's own lifeboats could not be used as the starboard boat had been destroyed in the gale and the port boat was considered too dangerous to use because of the list and the rolling of the ship. The passengers were escorted to the boat deck where a ladder had been rigged for them to climb down to the port rail. A crew member jumped with each passenger. All persons who jumped at this time were picked up by boats of SS SOUTHLAND and USNS GEN. GREELY. In the recovery of the passengers it was found that Nikolai Bunjakowski, aged [redacted] a stateless unmarried male, was dead on being picked up by GREELY's boat. The cause of death was diagnosed as drowning by GREELY's medical officer. This was confirmed by an autopsy later performed at New York.

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"15. In the course of picking up the passengers and accompanying crew members, the GREELY's boat broke down and came alongside SOUTHLAND. There both the GREELY boat and the SOUTHLAND boat were damaged by rolling of the ship. Both boats were picked up by SOUTHLAND which then proceeded to Rotterdam, GREELY launched another boat which, later in the afternoon, approached FLYING ENTERPRISE from the stern. The master of FLYING ENTERPRISE then ordered all of his crew to leave. Volunteers offered to stay aboard but they were ordered off as the master did not wish to take responsibility for their safety. When all of the crew had been picked up, the master elected to remain aboard.

"16. All assisting ships left the scene except GREELY which was later relieved by USNS GOLDEN EAGLE. From this time until the ultimate loss of FLYING ENTERPRISE, the U. S. Navy provided an assisting ship as GOLDEN EAGLE was relieved by USS JOHN W. WEEKS (DD 701) which in turn was relieved by USS WILLARD KEITH (DD 775). The destroyers aided by passing food to the master and by communications over voice radio. At nightfall of 3 January, 1952 the British tug TURMOIL arrived on the scene, the position being about 47° 46' N., 11° 05' W. From daylight on 4 January, attempts were made to get a line to FLYING ENTERPRISE. The first effort failed because the messenger line parted. After seven unsuccessful attempts to get a line over, [REDACTED] mate of the TURMOIL, boarded the ship toward evening as the seas moderated. At daylight the next morning a line was secured and at 0937 TURMOIL commenced towing at the approximate position 47° 40' N. 10° 30' W.

"17. The tow proceeded toward Falmouth, England, in heavy seas, averaging about three knots from noon, 6 January, to noon, 8 January. On 9 January during winds of gale force, the towline parted when the vessels were about 45 miles from Falmouth. FLYING ENTERPRISE drifted eastward in the English Channel. Several more efforts were made to place another towline aboard but this could not be accomplished because of bad weather. At 1536 on 10 January, when FLYING ENTERPRISE had listed over to 90° and was taking water in the stack, the mate of the TURMOIL and the master jumped off and were almost immediately taken aboard the tug. The vessel sank stern first at 1609 at 49° 38' N., 4° 07' W., in 40 fathoms.

"18. As to the radio traffic of FLYING ENTERPRISE during its critical period, the dispatches show that the master reported the fracture to his owner at 1300 on 27 December. At 2205 on 28 December, he reported his hope that the vessel would float until

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daybreak. At 0553 he reported that the list was 60°, with rolling to 80°, that the plant was dead, that cargo had shifted, and that water was entering #3 hold. This message was sent via the British SS SHERBOURNE. Later, through the GREEELY, the master reported that all other persons were safely off the vessel, and, on 30 December, also through GREEELY, he indicated his intention of remaining aboard until port was reached or until the ship might go down, and requested that salvage terms be provided to him. Communication between the master and the assisting ship was by voice radio.

"19. The assisting vessels aside from those already named were SS WARHAWK, the German SS ARION, and the Norwegian WESTFALL LARSEN. Passengers and crew members were picked up in the following distribution:

| | |
|-------------------|--------------------------|
| USNS GEN. GREEELY | 32 plus one dead |
| SOUTHLAND | 15 |
| ARION | 1 |
| WESTFALL LARSEN | 1 |
| | <u>49</u> plus one dead. |

All persons aboard were accounted for.

"20. The volunteers who offered to remain aboard FLYING ENTERPRISE with the master were:

[REDACTED] 3rd assistant engineer.
[REDACTED], junior 3rd assistant engineer.
F/WT.
[REDACTED] plumber/mach."

4.

The Board expressed the following Opinions:

"1. It is evident that the damage, abandonment and subsequent loss of this vessel were caused largely by circumstances beyond the control of the master and crew.

"2. The fracture while hove to, head to sea, under reduced speed, is not considered to be a direct cause of the vessel's loss but merely an indirect contribution thereto. After the vessel was hove to with the sea about four points on the starboard bow and with speed reduced, it apparently did not labor to an extent which would aggravate or increase the fractures.

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"3. The master's decision to bring the wind and sea on the bow rather than head into it must be attributed to his apprehension of extended damage due to pitching and is in no way to be criticized. While the vessel was on such a heading, it is apparent that it fell off course to leeward, and, with the wind and sea about abeam, was subjected to excessive rolling which caused the cargo to shift and give the vessel a permanent list. While no efforts were made to examine the holds and cargo after the ship listed and while there was, likewise, no attempted restowage of cargo, the master's judgment in this respect is fully indorsed in view of the extreme danger to the crew that would have been involved under the prevailing conditions.

"4. The abandonment of the vessel was timely and well carried out. The master's decision to remain aboard alone was undoubtedly based on his own opinion of and his confidence in his vessel, that she would remain afloat and finally be brought into port. This was certainly an act which, under the circumstances, must be considered beyond the call of duty and an outstanding example of the best traditions of the sea. His refusal to accept the services of volunteers to remain on board with him is not entirely concurred with by the Board, especially since the only salvage operation possible would be towing into port, in which case heavy manual labor in connection with towing equipment is entailed. However, the master's decision, under such circumstances, is supreme and in no way to be criticized. His own conception of responsibility as to the safety of the lives of anyone who volunteered to stay aboard must also be respected. It appears as a matter of practical reason, nevertheless, that had the master been assisted by a few more men the first time, when his own almost superhuman efforts to connect the towing gear failed, approximately 24 hours before it was finally accomplished, the outcome might well have been different.

"5. As to the stowage and other particulars of the cargo which, with the exception of the pig iron, was light and bulky, it was secured by complete stowage and shoring and therefore considered safe on departure. The pig iron in #2 hold was not leveled out, overstowed or otherwise secured and therefore would constitute a certain hazard as to shifting. The same cargo in #4 hold, although somewhat leveled out and partially overstowed with light cargo (58 tons - bales of jute and peat moss), also would be liable to shift during excessive and continuous rolling. It is

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apparent that this commodity is carried in this manner as a matter of common practice at the present, and this was apparently sanctioned by the shipper, underwriter, owner and master. It is also believed that the empty condition of the double bottoms aft and of the deep tanks in #4 had an appreciable effect on the great degree of list which the vessel suddenly took."

5. The Board made the following Recommendations:

"1. Since the master, [REDACTED], has been cited for his outstanding performance in connection with the casualty by both government and civic organizations, no recommendations in this respect appear appropriate.

"2. As to the chief engineer and the other engineers and engine crew, namely:

[REDACTED] chief engineer, [REDACTED]
[REDACTED] 1st assistant engineer, [REDACTED]
[REDACTED] 2nd assistant engineer, [REDACTED]
[REDACTED] 3rd assistant engineer, [REDACTED]
[REDACTED] 3rd assistant engineer, [REDACTED]
[REDACTED] Oiler, [REDACTED]
[REDACTED] F/Am [REDACTED]
[REDACTED] F/WT [REDACTED] D2
[REDACTED] F/WT [REDACTED] D1
[REDACTED] plumber/mch., [REDACTED]

these men should be highly commended for their action in attempting to restore power to the vessel even after she had listed to a degree where positions in the engine and boiler rooms were untenable, with oil and water splashing all over. With no ventilation, these spaces were almost entirely unfit for human occupancy. They should also be commended for their willingness to have remained aboard with the master in an effort to salvage the vessel.

"3. With respect to the method of stowage of the pig iron, it is recommended that the potential hazard of such condition of stowage as existed in this case be brought to the attention of the industry through the medium of the Proceedings of the Merchant Marine Council. It is believed that attention might profitably be drawn at the same time to the relative effects on stability of full and empty double bottoms.

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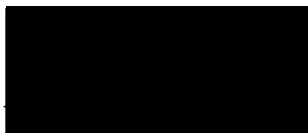
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"4. Beyond the publicizing of these suggestions, which should be effective because of the widespread interest in this casualty, it is recommended that no further action be taken."

REMARKS

6. This division will institute the action necessary to effectuate the Board's recommendations.

7. It is recommended that the Findings of Fact, Opinions and Recommendations of the Marine Board of Investigation be approved.



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4 March, 1952

From: Chief, Office of Merchant Marine Safety
To: Commandant

Forwarded, recommending approval.



H. C. SHEPHERD

APPROVED

MAR 10 1952



MERLIN O'NEILL
Vice Adm., U.S. Coast Guard
Commandant

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