LOSS OF M.T. "HILDINA" C.N. 185119

PREIDMINARY INQUIRY

Whers:
Subsidiary of Messrs. J. Marr & Sons Ltd.,

Fleetwood.

<u>Dimensions:</u> 128.2 x 26.6 x 12.2

Builders: Cook, Welton and Gemmell Ltd., Beverly 1952.

Tonnage: Gross 296 tons, Underdeck 236 tons, Net 102 tons.

Port of Registry: Hull.

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Material: Steel.

Type: Single screw motor trawler Raised forecastle 21.

Raised Quarterdeck 67' Break 9"
Steel deckhouse amidships and wheelhouse ever.

7' casing over engine room.
Steel deckhouse and poop.
Stem, raked. Stern, cruiser.

Bulkheads: Five watertight and two oil tight.

Compartments: Fore peak. Net and Chain Locker, fish room cofferdam, oil fuel tanks, machinery space,

accommodation aft, steering gear space.

Bilge pumps: 4" Copper hand pump, fore hold. 6" whale pump to fish hold.

Bilge and main engine pump in Engine Room and 4"

Copper hand pump.

Freeing Port Arrangements:
Forward Weil:

l wash port P. & S. 27" x 9" having sliding door and situated at fore side of break, and I wash port P. & S. 27" x 12" having semi balanced

shutter.

4 @ 27" x 12" wash ports P. & S. having semi balanced shutters. The sills of all wash ports are 8" above steel deck or 5" above line of wood deck.

Engines:

Makers: Description:

Side Deck Aft:

Cylinders:

Speed:

British Polar Engine Co. Ltd., Glasgow.
Internal combustion heavy oil, direct acting two
stroke cycle, single acting.
5, diameter 340 m/m.

Stroke 570 m.m. 11 knots.

Winch Unit:

Winch: Motor: Diesel Dynamo:

James Robertson & Sons, Fleetwood. Leurence Scett & Co. Mirrlees, Bickerton & Day.

Bar Keel 8" Masts 2

Hawsepipe 1 starboard Anchors 3

Rudder

Double plate semi balanced.

Steering Gear

Donkins Hydraulic Steering Gear with emergene

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Olassification: Hull Steam Trawlers Mutual Insurance & Protecting Co. Ltd. Surveys: Lloyds Register of Shipping. Hull Steam Trawlers Mutual Insurance & Protecting Co. Ltd. 1 Pole compass, 1 overhead type in wheelhouse, l spare in Captain's room. W/T Equipment etc.: Wireless (1) Marconi Trans Arctic/993. (2) Marconi CR 300/2 Receiver. Marconi 977/552. Echo Sounder (1) Marconi Seagraph. (2) Hughes MS/24 Type 2. Reder Decca. Sound Reproduction Marconi 1075A. L.S.A: 18.1 ft. Lifeboat, 19 persons. Carley Float, 20 persons. Distress Rockets etc. Total 15. Skipper, Mate, 3rd Hand, 6 Deckhands, 1st Engineer, 2nd Engineer, 2 Greasers, Cook, Wireless Operator. Presumed lost with ship: Skipper, Wireless Operator Lost from Carley Float: Deckhand Dell, Greaser Box Lost from lifebuoy: Deckhand Benson. Died on rescue ship: Cook. TOTAL: 5 lost, 9 rescued and 1 died later. Stability: Good, see documents and calculations. Time and Date of Casualty: 7.55 - 8.00 a.m. 1st December, 1953. Weather: Wind West force 5, Moderate sea and moderate to heavy swell. Rescue Ship: S.T. "VELIA". Search for Further Survivors: S.T. "MONIMIA" S.T. "MARGARET WICKS" Interpretation: "Warps" Wire ropes to which trawl is attached. "Came fast" Trawl caught on sea bed. "Pull out" Warps pull out against band brakes.

"Haul"

"Knock Out"

To release the pin of the towing block.

"Pay Away"

"All Square"

The trawl in position ready for fishing.

"Chop"

To cut the warps with an axe.

Archives

Draft:

F. 9' 6". A. 15' 0".

Fish Room Capacity:

7000 cu. ft.

History:

in 1952 and delivered to the City Steam Fishing Co. Ltd.,

Doc. 1
a subsidiary of Messrs. J. Marr & Sons Ltd., Fleetwood,
at Hull on 2nd May, 1952. The vessel then fished out

Doc. 16 of that port until November, 1953. During this period

Doc. 16 some 24 trips were made to Iceland, Farces and Rising

Grounds, and as far as can be ascertained no difficulties
arose either with the handling or management of the

vessel. In November, 1953, "Hildina" was transferred

to Fleetwood to be operated by Messrs. J. Marr & Sons,

Ltd., she arrived there on the 22nd November, 1953, and

Doc. 34 replenishing stores, fishing equipment, etc. Several minor items of running repairs were also carried out.

Last Voyage:

Docs. 23 30

The vessel sailed from Fleetwood at 2 a.m. on the 25th November and proceeded to Heysham where 34 tons of diesel oil was taken on board. The voyage to the fishing grounds commenced at 8 a.m. the same day. The Skipper had general instructions to fish off the West and North West coasts of Scotland and was stored for a voyage of 16 days. It would appear that on sailing the vessel was well equipped, not particularly heavily laden, and generally in a good seaworthy condition.

Doc. 33
with the firm for about 28 years, of this time some 20
years was served in the capacity of Skipper.

The draught of water is not known but as shown in the stability calculations must have been about F.9.6"

A. 15'0".

From Fleetwood the vessel proceeded to Culdeff Bay and lay there for some hours whilst the crew overhauled Doc. 23 the fishing gear. At about 1.30 p.m. on the 26th November a North Westerly course was set and maintained until the vessel reached the 100 fathom line: the time

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then being 10.30 p.m. and probably the approximate position Lat. 550 57 N. Long. 90 10 W. From that time until the afternoon of the 27th November the vessel was trawling, apparently three hauls were made, it then appears a fault developed on the motor generator which supplies power to the trawl winch. The Chief Engineer states that a joint on the lubricating oil pump of the motor generator blew and had to be replaced. As this repair entailed about five hours work during which time the trawl winch would be out of action the Skipper decided to proceed to the Northward. A course was taken roughly following the hundred fathom line and was maintained until about 3 a.m. on the 29th November although apparently some fishing was carried out on the Commencing at 3 a.m. on the 29th and until 8 p.m. four hauls were made, the first haul was without incident, on the second the trawl became fast on the Doc. 24 bottom and the Mate states that "after heaving to it" it came clear. Again on the fourth haul the trawl became fast, but this time shortly after commencing to heave a bridle parted and the trawl came clear. The wind was then freshening so the trawl was taken on board and secured.

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the 30th the vessel lay or dodged as the weather was

Doc. 25 bad. The Bosum states that the wind was of gale

force with the sea rough and heavy. However, it had

eased considerably by the time the Mate came on watch

at 11.30 p.m. as he stated the wind was then W x S

force 4, the sea now being moderate to heavy. The

Doc. 26 Wireless Operator reported that Sule Skerry was bearing

SE x S₄S but no distance was given. The Skipper had

left instructions to be called at 1 a.m. (1st) and

apparently came out at that time and decided to resume

Comment:

and payed out so that it was in position or "All square at about 3 a.m. At 6.30 a.m. the trawl was taken in and as the Skipper was not satisfied with the penmants, these were changed and the trawl then shot away again.

It was on this particular haul that the vessel turned over and the sequence of events as given in this report are, of course, taken from the statements made by the various survivors. Their statements, however are not always in agreement and so an endeavour has been made to accept only such evidence as can be corroborated.

been found very difficult. Two of the survivors only
were able to supply evidence of this kind and even then
it did not agree. The first, J.A. Gardner, Deckhand,

Doc. 26 stated that he was in the messroom listening to the
7.55 - 8.00 a.m. BBC weather report when the vessel
came fast and as he was quite positive on this point we
have accepted this time as being correct as against

Doc. 32 the other witness, the Chief Engineer, who gave times
of engine movements, etc.

A time table was worked out with the assistance of Deckhand Gardner and we are of the opinion that it is a fairly accurate account of that last estimated forty minutes before the vessel sank.

When the trawl was shot away at some time after 6.30 a.m. the Mate, Bosun and Deckhands were engaged in first gutting the fish on deck and then stowing it away in the hold. The first part of the job was completed and the men had gone aft to their quarters leaving the mate and two deckhands in the hold. It was at this time the trawl became fast on the bottom.

It would appear therefore that at 7.56 - 8.00 a.m. on the 1st December, 1953, in the approximate position

Actual Casualty

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Doc. 46

Lat. 59.48 N. Long. 50 14 W. the weather was wind West force 5 with a moderate sea and moderate to heavy swell the vessel was trawling down wind. were leading from the starboard side through the trawl block.

The length of each warp being 350 fathoms (2100'). The vessel was towing on the band brakes of the trawl winch when the trawl became fast on the sea bed.

At this time:

The Skipper was in charge of the bridge. The Radio Officer in the vicinity of the bridge. The Mate, D. Atkinson and G.A. Hayes were in the hold stowing fish.

Bosum and F. Dell were in the Drying Room aft. J.A. Gardner in Messroom listening to weather report.

J.E. Benson and W. Wilson, whereabouts, not known. Chief Engineer and Greaser, J. Bond, on duty in engine room.

National Archives' terms

Second Engineer and Greaser, Acton, in their bunks.

Cook, whereabouts, unknown.

The vessel was felt to check and a certain amount Doc. 25 of warp pulled out against the brakes. F. Dell being aware of what had happened due to the motion of the ship, etc., immediately went on deck. Bosun, via the port accommodation door, to the winch on the fore deck and F. Dell - it must be assumed - via the starboard door to the towing block. The Mate and the two deckhands in the hold also felt the ship check so they came up on deck, placed the hatch boards in position with the tarpaulin tucked into the cleats but not battened down. Both deckhands went aft to the accommodation and the mate to the lee of the deck house

The engines were stopped and the Skipper gave orders, to "knock out", when this was done the Bosum put the forward (port) warp drum in gear and commenced heaving on it, but the Skipper called out not to do so as the after warp had pulled a lot out. The Bosum then put in the clutch controlling the drum of the after warp and commenced heaving on both. At this time according to the evidence the vessel was stopped Doc. 25 and the forward warp was leading out at an angle of about 40 degrees abaft the beam. Twenty five fathoms (150') was hove in on both warps, at this moment the vessel took a heavy sea on the starboard side which filled the deck abreast of the bridge and engine casing and a considerable amount lodged on the fore deck, which caused a heavy list to starboard. The Skipper then ordered the winch to be reversed but the Bosum found that it would not do so and informed the Skipper to this effect. The Bosum was ordered to unship the clutches and let the warps run but neither he nor the Mate, who by this time had arrived at the winch were able to do so. The vessel had now a very heavy list to Docs. starboard, the Mate and Bosum state that the starboard rail was under water which reached as far as the hatches on the foredeck. At about this time the starboard door Doc. 27 to the accommodation came open and the alleyway began to fill up and the water poured down through the hatch leading to the sleeping quarters in the next deck below. Doc. 30 During this period according to the Chief Engineer, the engines had been put at half ahead (i.e., from the

initial stop) for a minute or two, stopped again for a

minute or two and then put to full ahead. The vessel

successful, consequently a considerable amount of water

continued to list to starboard. Efforts were made to

Doc. 29 close the starboard accommodation door but were un-

for a smoke.

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Archives

had entered the alleyway and also gone below. The companion leading below deck being 3 ft. x 2.5 ft. with no appreciable coaming.

The crew by this time gathered on the port side

Doc. 28 abreast the casing, two of them went to the port door

of the wheelhouse and one called in to the Skipper

that the starboard door was open and the accommodation

Doc. 30 full of water. Neither of these men saw the Skipper

nor heard any reply.

The Mate having found he could neither reverse
the winch nor unship the clutches called to the
Skipper asking permission to chop the warp, but
received no reply. As the list was increasing the
Mate decided to chop the warp but there was no axe
available. Both he and the Bosun then left the winch
and climbed up on the casing to assist other members
of the crew, who were already there in launching the
Carley Float.

An attempt had already been made to launch the
lifeboat by possibly three members of the crew but due
28
Bocs 31 to the heavy list, the seas washing over the boat deck
32
and some lack of skill the boat overturned, struck the
boat deck rails and floated away, bottom up, with the
planking damaged. At this time Deckhand Atkinson
stated that he decided to dive overboard as seas were
then washing down the funnel. Some time later, he
saw the lifeboat, still bottom up, swam to it, pulled
Doc. 28 himself on it and hung on to the keel until he was
picked up.

The Carley Float was eventually hauled down the ship's side and launched from the turn of the bilge as apparently the vessel was then on her beam ends.

Eleven men were hanging on to the float including the Chief Eigineer, who had climbed out of the engine room skylight whilst it was being launched.

It is difficult to estimate what period of time then elapsed before the vessel sank, from the evidence it would appear to be a matter of a few minutes only. The vessel went down stern first still laying on her starboard side until eventually the bows came out of the water before the final plunge.

Docs 29

Possibly some 45 minutes later the trawler "Velia"

arrived on the scene and took nine survivors from the

Docs. 38

39 Carley Float, two had been unable to hang on and were

lost. One man was rescured from the upturned lifeboat.

Another deckhand, J.E. Benson was floating supported by

a lifebuoy but he sank before he could be taken on

board.

The "Velia" stayed in the vicinity until 10.14 a.m. and during this time one of the survivors, the Cook, died and it appeared that another, the Chief Engineer was on the point of collapse. Contact was made with Wick Radio station and medical advice was eventually received. By this time two other trawlers the "Monimia" and the "Margaret Wicks" had arrived in the vicinity and it was agreed that they would continue to search for any other survivors whilst the "Velia" proceeded to Stornoway and landed those already rescued.

This arrangement was carried out and "Velia" landed nine survivors at Stornoway at 2.30 a.m. on the 2nd December, 1953. The body of Cook was taken ashore, put in a coffin and returned to the ship which sailed for Fleetwood and arrived there at 11.30 p.m. on 3rd December.

This vessel at the time of her loss was well found in all respects and adequately manned by an experienced Skipper and crew. The Skipper had fished with the ship for two voyages out of Hull and then brought her round to Fleetwood before sailing on the last voyage.

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Both the Mate and Bosun had previous knowledge and experience in a sister ship, the former having done two fishing trips and the latter four. The sister ship is fitted with an electric winch. The Chief Engineer had made about four fishing trips with "Hildina" out of Hull.

At 7.57 a.m. on the 1st December, 1953, the vessel was heading on an Ely course and trawling down wind, the engine speed was about 7-8 knots and the speed over the ground 3-4 knots, when the trawl became fast on the sea bed. It would appear that the trawl was held near to its port side, (on that side nearest to the ship), as the after warp "pulled out" a considerable amount.

Immediately on the trawl becoming fast the Skipper stopped the engines and gave the order to "knock out" which was done.

The effect of freeing the warps from the towing block was to bring the vessel to a position with her head possibly 40 degrees to starboard of the trawling course and cause a small list to starboard. It is suggested that this would be 5 degrees. The Bosun then began heaving on the forward warp which pulled the vessel's head more to starboard. Within a minute or two the after warp drum was put in gear and 25 fathoms was hove in on each, the vessel was then lying stopped with the forward warp leading about 40 degrees abaft the beam (i.e., in the direction of the wind and sea). Whilst heaving was in progress, a heavy sea came on board, filling the starboard deck space abreast the casing and also part of the fore deck. The weight of water is estimated to be in the region of 30 tons and had the effect of listing the vessel fairly quickly to starboard. The list being towards the seas, the freeing ports would not act so quickly in freeing the

Doc. 26

water from the deck and it is probable that the gunwale amidships was under water before the surplus water had cleared from the deck and the ship had regained positive stability at say approximately 20 degrees list.

It was during this period that the winch refused to function making it impossible for any strain on the trawl warps to be eased off.

It would appear from the evidence that at this point the main engines were going, or were put shead and, with the warps leading abaft the beam and in some tension, the vessel would be constrained to move along a circular track, the radius being the length of the warps. The fore and aft line of the vessel would however not be at a tangent to this track but at an angle of more than 90 degrees and if reference is made to the sketch, Document 15, it will be seen that if:

- (a) is the initial position of the vessel
- (b) would be the position of the vessel if not constrained by warps after a lapse of a period of time and
- (c) would be the actual position of the vessel after the lapse of the same period of time showing that the main engines moving the ship ahead, caused a serious upsetting moment to be produced owing to the constraining effect of the warps which could not be slacked away.

This moment would be proportional to the speed of the vessel. The estimated pull on the warps to produce an upsetting moment sufficient to capsize the vessel would be approximately 10 tons.

This upsetting moment, made by the engines going ahead would in our opinion cause the vessel to capsize or at the least hold the ship over at a large angle of heel long enough for sufficient water to find

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its way below deck aft so that the combined effect was sufficient to cause the ship to capsize.

In our opinion this is the main cause of the easualty and we suggest that when once it had been established that the winch had failed, the following action might have averted this casualty:-

- (1) Had an axe been readily available and used to chop the after warp or
- (2) Had the main engines been stopped or reversed.

We have no evidence regarding rudder movements but suggest that once the warps became taut a rudder movement either way would be ineffective as the after warp would prevent the stern moving to port and the forward warp the head to port. Thus the turning moment due to rudder action would become an additional upsetting moment due to the restriction.

The apparent failure of the winch appears to be the first of the sequence of events that resulted in the vessel capsizing. As neither the Bosum nor Mate who were handling it could offer any explanation for the failure it was thought necessary that a full investigation of this type of winch should be made, Mr. Evans, Engineer Surveyor, therefore carried out an investigation and his report is attached.

With regard to the loss of the Skipper, it will be noted that according to the "statements" he was neither

Docs. 26 seen nor heard of after he gave orders to the Bosun 27 30 to let the warps run. The suggestion has been made that he went down to the winch motor to release the magnetic brake and was trapped down there. This we feel is possible if not very probable but even so we are of the opinion that some effort should have been made to ascertain his whereabouts. The Mate, Bosun and a

Loss of Skipper:

number of the crew were all in the vicinity of the wheelhouse whilst launching the Carley Float. In fact it was hauled from the wheelhouse top within a foot or two of the wheelhouse door and the operation must have taken some few minutes to complete. In these circumstances it seems difficult to understand why the Mate in particular and possibly also the Bosun made no effort to find him. We feel that they did less than their duty.

Wireless Operator:

This report would not be complete without mention of the Wireless Operator, Robert Macdonald Robertson.

We are of the opinion that his conduct in staying at his post when he must have known that by doing so his chance of escape was practically nil was bravery of a very high order. He undoubtedly sacrificed his own life (as is clear from his last message) to send out an S.O.S. Had he not done so it is very doubtful if there would have been any survivors. We recommend that his name should go forward for posthumous repognition.

In the course of this Preliminary Inquiry, the owners of the vessel, the builders and everyone from whom we required assistance proved most helpful and we express our thanks to them.

(Sgd.) George D. Whitelaw.... Senior Ship Surveyor (Sgd.) W. Fritchard..... Nautical Surveyor

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