

Report of the Investigation into the Sinking
of the Fishing Vessel

GREY FLAMINGO

with the Loss of Life
of Two Crew Members

London: HMSO

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(All times in this Report are GMT)

1. SUMMARY

The 22.34 metre beam trawler GREY FLAMINGO capsized and sank in calm conditions at 0555 hrs on 24 November 1989 off Lamorna, near Land's End. Two crew members lost their lives.

The vessel snagged both her trawling gear nets during fishing. Whilst trying to free the nets a decision was made to transfer the tow wire from the head of the starboard derrick to the outboard side of the vessel, to enable the vessel to lift the heavy load without introducing excessive heel. However, both port and starboard wires were under load so that when the starboard quick release mechanism was operated to effect the transfer, a very heavy load came on to the port wire acting at the derrick head: the vessel heeled to port very quickly, capsized and then sank.

Two crew members were rescued from the sea by the F.V. FOUR SISTERS. Another member of the crew was rescued by helicopter but later died; it is believed that the fourth member of the crew, the Skipper, was trapped in the wheelhouse and went down with the vessel.

The Skipper and crew of the F.V. FOUR SISTERS are to be commended for the action taken in saving the survivors.

2. VESSEL DETAILS

2.1 GREY FLAMINGO

Fishing Vessel Type	:	BEAM TRAWLER
Official Number	:	361 263
Fishing Letters and Numbers	:	PW 251
Length registered	:	20.61m
Length overall	:	22.34m
Breadth registered	:	5.49m
Depth registered	:	2.20m
Depth	:	3.25m
Main engine	:	GARDNER 8L3B 230 HP
Built (Yard No 1244)	:	D & J BOOT,HOLLAND
Keel laid	:	1956
Port of Registry	:	PADSTOW
Gross tonnage	:	47.40
Net tonnage	:	28.15

(Figure 1 shows the FV GREY FLAMINGO at sea.)

2.2 CREW

The vessel carried Skipper, Mate and 2 Deckhands.

2.3 CERTIFICATES

The vessel held -

- (a) UK Fishing Vessel Certificate issued under Fishing Vessels (Safety Provisions) Act 1970 valid until 30 April 1990.
- (b) Report of Inspection Radio (SUR 69 Radio) dated 27 February 1986 and valid until February 1990.

The Skipper held a current Skipper Limited Certificate of Competency. The Mate held a Restricted Certificate of Competence in Radio telephony - VHF only.

3. NARRATIVE

- 3.1 GREY FLAMINGO sailed from Newlyn on 23 November 1989, at about 1430 hrs, for fishing grounds between 3 and 5 miles South of Tater-du lighthouse. She commenced fishing at 1545 hrs. Early the following morning she was beam trawling South East of Tater-du, as was another fishing vessel, the FOUR SISTERS. The Mate was on watch with one deckhand. There was a light easterly breeze (force 2), slight sea, moderate swell and good visibility. At about 0430 hrs both vessels were trawling on an easterly course, in about 25 fathoms of water some 3 miles SSE of Lamorna (see Figure 2), FOUR SISTERS being a half to three-quarters of a mile ahead of GREY FLAMINGO. Soon after that time FOUR SISTER'S gear became fouled and she was pulled round to port. GREY FLAMINGO altered course to starboard so as to pass clear of the other vessel but before she reached her, her own gear became fouled. At this time the two vessels were some 2 cables apart, and it was thought possible that their gear (both sets of GREY FLAMINGO gear and the port side gear of FOUR SISTERS) was entangled.
- 3.2 Several unsuccessful attempts were made to free the gear. At 0520 hrs GREY FLAMINGO'S Mate called the watch below (Skipper and the second deckhand) following which the Skippers of both vessels discussed the problem. They agreed that FOUR SISTERS would slack away and lay off while GREY FLAMINGO tried again to clear her nets. At 0545 hrs the Skipper instructed the Mate to operate the starboard quick release gear and to heave in on the starboard towing wire until the beam and net could be secured, so that the entangled nets could be freed.
- 3.3 Before the Mate released the gear, the vessel was in the upright condition. The port and starboard beams and nets had been partially lowered, but not to the sea-bottom, therefore there was still load on the towing wires port and starboard. The towing wires were running from the winch to the outboard end of the derricks and then downwards slightly inclined inward towards the keel.
- 3.4 The Mate operated the starboard quick release gear which transferred the towing wire from the outboard end of the derrick to an inboard block on the side of the vessel.
- 3.5 The vessel immediately heeled to port, to an angle of some 30° to 35°. The Skipper ordered the release of the locally operated brakes on the drums, but there was insufficient time for this to have any effect and within 30 seconds of the quick release gear being operated the vessel capsized. The Skipper was in the wheelhouse, and the other three crew members who were on deck were thrown into the sea.
- 3.6 FOUR SISTERS released her towing wire, transmitted a Mayday message, and proceeded towards the GREY FLAMINGO to rescue the survivors. By this time the three survivors were together in the water. The crew of the FOUR SISTERS managed to pick up two survivors using a rope and the trawl winch. However, the third crew member drifted away in the darkness. No crew member was wearing a life-jacket.
- 3.7 The Coastguard received the Mayday message at 0555 hrs. At 0600 hrs rescue helicopter assistance was requested, and the Royal National Lifeboat Institution Penlee life-boat launched. A broadcast to shipping was also made. At 0630 hrs FOUR SISTERS confirmed GREY FLAMINGO had since sunk.
- 3.8 The third crew member was recovered by Helicopter R193 (from Royal Naval Air Station Culdrose) and taken to Truro Hospital; all efforts were made to resuscitate him but he died of asphyxiation and drowning. The search continued with the addition of the Coastguard helicopter from Lee on Solent and many other fishing vessels. A diver from R193 dived to

a depth of 50 metres in an attempt to reach the vessel, but did not locate the wreck. The search units were all stood down at 1042 hrs. The FOUR SISTERS returned the two survivors to Newlyn later that morning.

4. COMMENTS

4.1 The wreck has not been located. However, the most probable position is that of the marker buoy, shown on Fig 2, which was dropped by the rescue helicopter and confirmed by Penlee life-boat as marking the spot where oil and debris were found on the surface.

4.2 It is not uncommon for trawlers to experience snagged gear: the cause may be any obstruction on the sea bed such as wreckage or a rock. In this instance, it will be seen from Fig 2 that there are a number of submarine cables - shown in dashed line - in the area, one of which (now out of service) passes close to the believed position of sinking. It seems probable that both sets of GREY FLAMINGO'S gear, and probably the port side gear of FOUR SISTERS also, were fouled by this cable. In support of this theory:

(a) It would explain the three sets of gear being fouled in close proximity;

(b) No wrecks or rocks are shown on the chart in the vicinity, and Hydrographer of the Navy has confirmed that he has no record of wrecks in the area.

The possibility of the gear of the two vessels being entangled cannot be ruled out, but in evidence given after they had time to consider the circumstances fully neither the Skipper of FOUR SISTERS nor the Mate of GREY FLAMINGO thought this likely, because in both their opinions the boats were too far apart.

4.3 GREY FLAMINGO had been subject to roll period tests, on 5 October 1977 and 20 March 1986, which demonstrated that she met the stability criteria laid down for a vessel of her type and size. However, the instantaneous effect of all load coming on the port derrick when the starboard quick release was operated will have led to a capsizing moment well in excess of that which could be resisted, despite her initial stability.

4.4 To attempt to quantify this statement, immediately before the quick release was operated both trawl wires were vertical in the water and the trawls themselves were, in the Mate's opinion, clear of the bottom. Whatever they had fouled is therefore likely to have been at least partially suspended, and may have added to the load. The total weight clearly cannot be known, but the winches - which had earlier been unable to lift the gear clear of the water - each had an operating load of 5 tons so it is likely to have been at least equal to that figure, on each side.

A load of 5 tons coming on the port side only, and at the derrick end, would produce a capsizing moment of 131 tons ft. This is 20% more than the vessel's estimated righting capability in her condition at the time of the accident. Further, the actual load with weight transferred instantaneously from the starboard side is likely to have been significantly more than 5 tons. The breaking strain of wire such as that used in GREY FLAMINGO approaches 20 tons.

4.5 The Skipper and crew of FOUR SISTERS acted most commendably when the accident occurred, taking prompt action which led to the saving of two lives. There was difficulty in recovering the men from the water; this problem has also arisen in other accidents and the provision of equipment to aid recovery, in vessels of relatively high freeboard, is presently under discussion within the Fishing Industry Safety Group. A further point made by the Skipper is that the search for survivors could have been helped if his boat had been provided with a search-light.

4.6 A full scale search was quickly initiated by HM Coastguard when FOUR SISTERS raised the alarm. Royal Naval Air Station and Coastguard helicopters from Culdrose and Lee-on-

Solent, the Penlee life-boat and many fishing vessels took a full part in the operation.

- 4.7 It is very possible that the deck-hand who died would have survived if he had been wearing a buoyancy garment. The provision of such aids as part of the required safety equipment for fishing vessels is under consideration by the Department and the Fishing Industry Safety Group.

5. FINDINGS

- 5.1 GREY FLAMINGO snagged both sets of her fishing gear while she was beam trawling in an approximate position 3 miles SSE of Lamorna, Cornwall. The obstruction which snagged the gear has not been positively identified, but it seems most probable that it was an out of service submarine cable.
- 5.2 In the course of efforts to free the gear, the quick release on the starboard side was operated with the aim of transferring the load inboard from the derrick head. The object of this was to enable the starboard gear to be secured to the vessel's side, thus reducing the heeling effect while further attempts were made to free the obstruction.
- 5.3 At the time the quick release was operated, a load probably of at least 5 tons was on the towing wire of each set of gear. On operating the release, all weight came on the port side, acting at the derrick head. As a result a capsizing moment was exerted which exceeded that which the vessel could withstand. The vessel rapidly capsized and subsequently sank.
- 5.4 Three members of the crew were thrown into the water. Two were quickly recovered by FOUR SISTERS and survived; the third was recovered later by helicopter but was unconscious and could not be resuscitated. The Skipper was not recovered; it is almost certain that he was trapped in the wheelhouse and went down with the vessel.
- 5.5 GREY FLAMINGO was well-found and properly equipped, and her crew were properly certificated. Her inherent stability was in excess of that required by the appropriate Regulations.
- 5.6 A search and rescue operation was quickly begun and efficiently conducted, in particular by FOUR SISTERS whose prompt action led to the saving of two lives.

**RECOMMENDATIONS MADE
AND ACTION TAKEN**

1. **The training of fishermen in stability should be improved particularly in relation to practical operational hazards such as snagged gear.**

Instructions are being issued by the Department's Chief Examiner for candidates for Fishing Certificates to be closely examined on stability and the hazards associated with beam trawling.

2. **Merchant Shipping Notice No M.699 "Safety of Beam Trawlers and other Fishing Vessels" should be revised and re-issued.**

The production of an updated Notice is in hand.

3. **Consideration should be given to requiring light-weight buoyancy garments to be carried by all fishing vessels and worn at all times by fishermen working on deck.**

Such a requirement is under discussion with the Industry. Meanwhile, the availability of suitable garments (which can be worn while a man is working) has been given wide publicity in the Fishing Press and elsewhere.

4. Fishermen should make themselves aware of:

- 4.1 **The positions of submarine cables which cross the grounds which they fish.**

Fishermen are reminded that information on both cables in use and out of service can be obtained from Ministry of Agriculture Food and Fisheries Offices and local offices of the Sea Fish Industry Authority.

- 4.2 **The action which should be taken if they snag a submarine cable.**

The established practice is that if a vessel suspects it has become entangled in a cable then the Coastguard should be informed. They will contact either British Telecom International or Cable and Wireless (Marine) Limited who, if the position is near or reasonably near to a cable, request the Coastguard to ask the vessel to slip gear. The fisherman is subsequently reimbursed for the sacrificed gear.

A NOTE ON "BEAM TRAWLING"

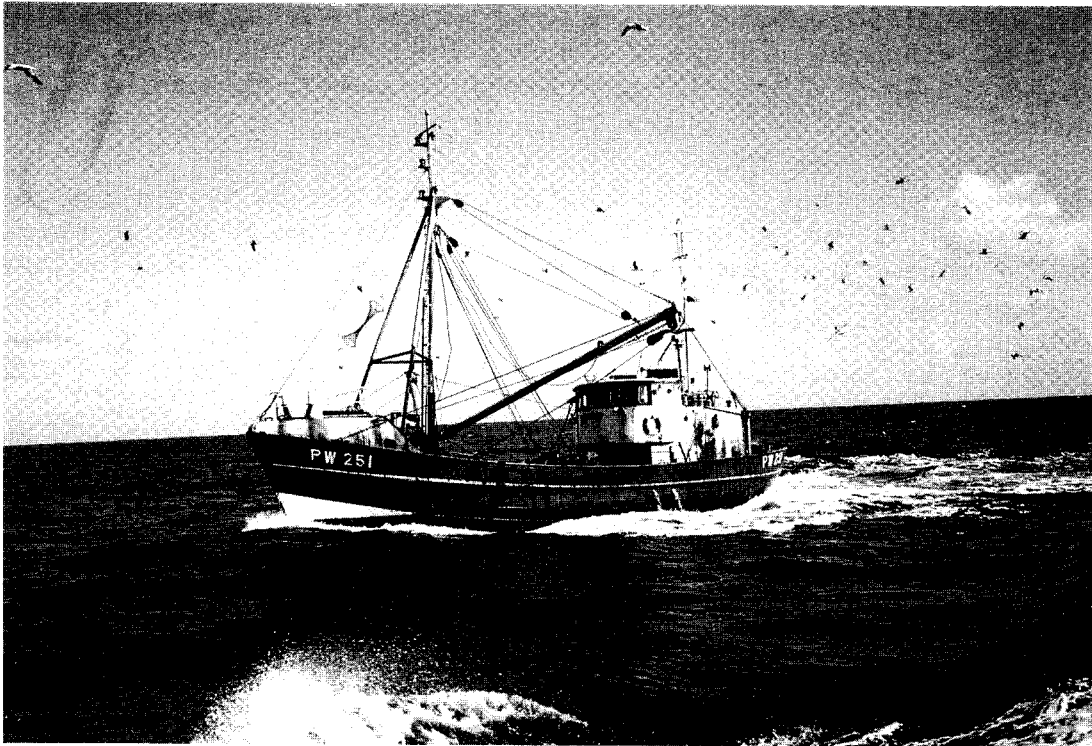
Beam trawling is a fishing method specifically for the catching of flat fish that live on the sea bed, buried in the sand, that have in effect to be 'raked' out. The target species are usually sole and plaice which fetch high prices and make the fishery quite profitable despite the high fuel and gear costs involved.

The net is towed from a wide beam which holds the net open and carries the chain mat. The object of the chain mat is to disturb the sea bed causing the fish to lift out of the sand to be caught by the net. Short lengths of chain shackled together to form approximately 300mm (1 ft) squares, make up the chain mat. It is attached across the full width of the beam and has a catenary shape where it attaches to the ground rope of the net. The headline of the net is attached at each end of the beam such that the top of the net extends over the chain mat. Large shoes at the ends of the beam act as runners to carry the structure over the sea bed (see Figures 3 and 4).

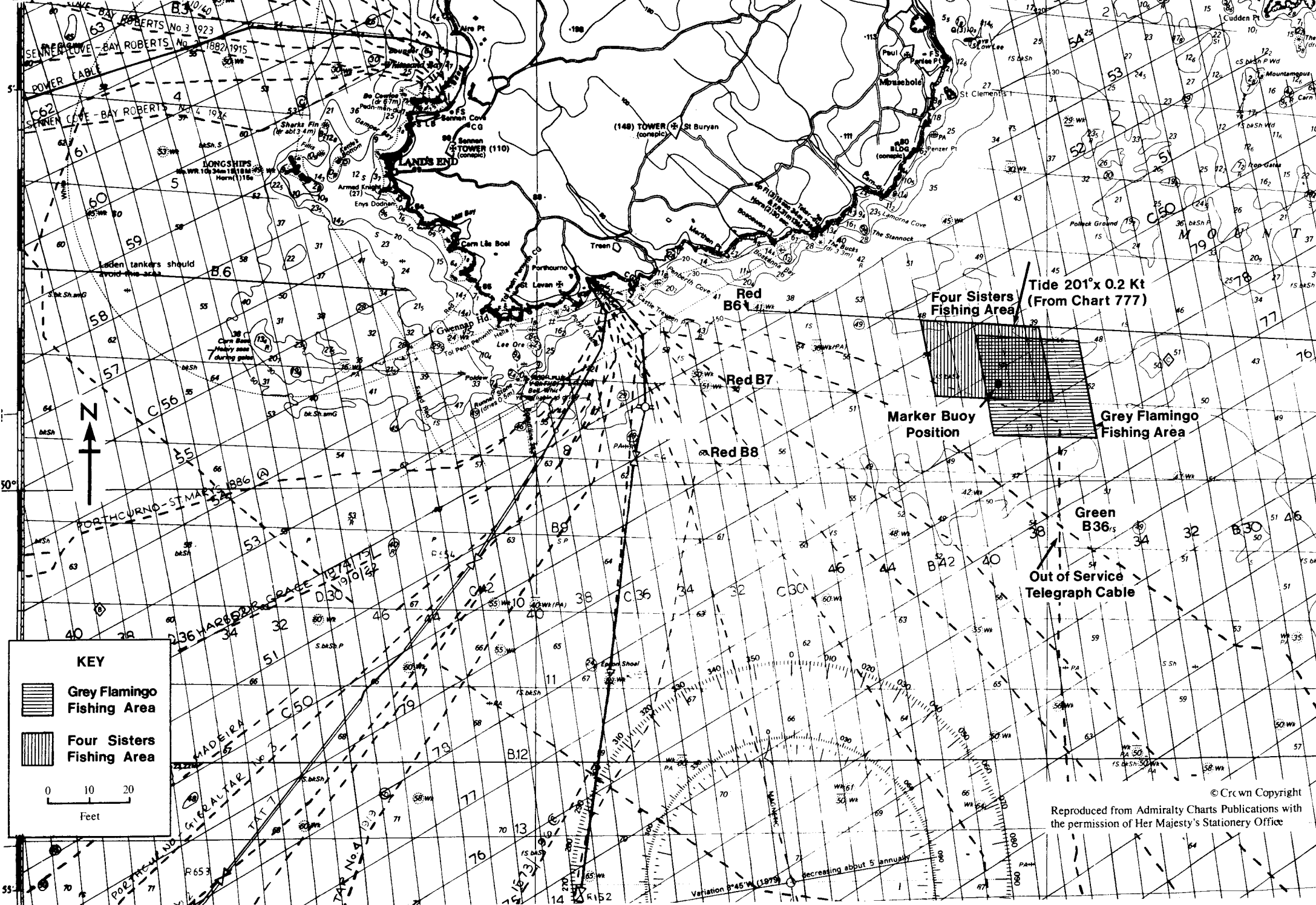
To handle the beam assembly it is necessary that the vessel is equipped with derricks or booms which can be lowered outboard to accommodate the width of the beam normal to the vessel. Two beams are worked, one each side of the vessel, each beam being towed from the end of the derrick. The derricks are mounted from a mast or a gantry and can be pivoted upwards to a near vertical position in order to be able to bring the beams in board. Stays attached to the end of each derrick and anchored fore and aft on the vessel restrain the derricks at 90 degrees to the vessel, in a normally horizontal position, while towing the fishing gears.

Efficient beam trawling requires wide beams to give a wide fishing area and heavy chains in the mat to ensure that contact is maintained with the sea bed. The faster the towing speed, the greater the area covered; but the faster the speed, the greater the weight of gear that is required to maintain ground contact. Thus catching ability is largely dependant on engine power.



F.V. GREY FLAMINGO at sea



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KEY

-  Grey Flamingo Fishing Area
-  Four Sisters Fishing Area

0 10 20
 Feet

Four Sisters / Tide 201' x 0.2 Kt
 Fishing Area (From Chart 777)

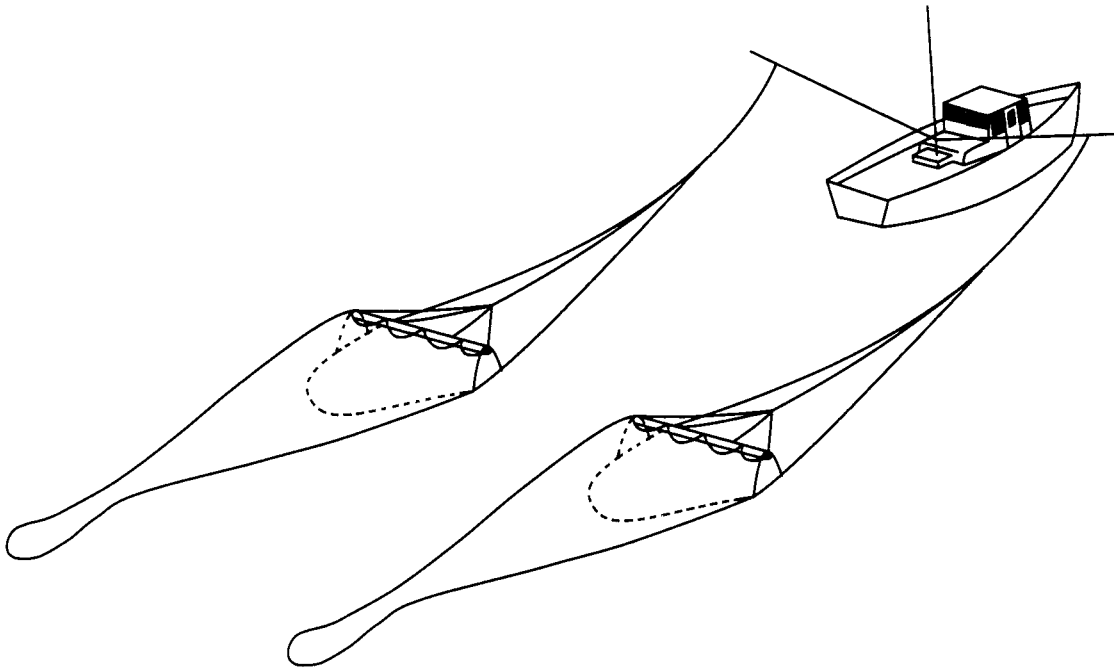
Marker Buoy
 Position

Grey Flamingo
 Fishing Area

Green
 B36
 Out of Service
 Telegraph Cable

Figure 3

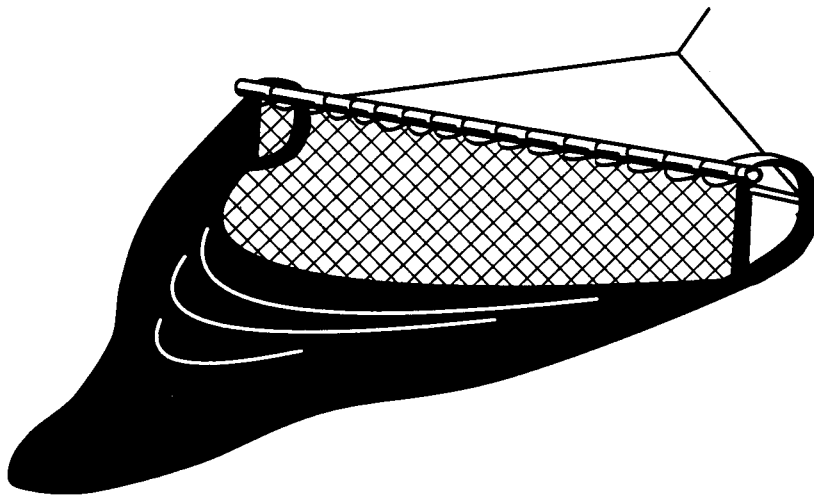
Typical Double Rig Trawling with Beam Nets



Courtesy of the Publishers of
"Commercial Fishing Methods" who are Fishing News Books Ltd.

Figure 4

Typical Beam Trawl



Courtesy of the Publishers of
"Commercial Fishing Methods" who are Fishing News Books Ltd.