

S.S. "CUBADIST" and "MIELERO".

These vessels were two of a group of three built by The Fore River Shipbuilding Co. for the Cuba Distilling Co. and were classed 100 A.1. "Carrying Petroleum in bulk", although presumably the main purpose was to carry molasses.

The "CUBADIST" was completed in May 1916 and the "MIELERO" in February 1917.

The dimensions of the vessels are - 389 ft. length; 54'6" Breadth, and 32'6" Depth to Upper Deck, and they carried about 8,000 tons deadweight.

The plans of the vessels were approved by the New York Surveyors and copies of the approved plans were sent to this office.

The vessels are built on the transverse system of construction, but, unlike the usual oil tanker, are fitted with a double bottom throughout the length, these double bottom tanks being separated from the main cargo tanks. They have 9 oil tanks, one of which is 25'5" long and the others 27'6" long, while in addition oil fuel is carried in the after peak tank for the boilers. Machinery is separated from the oil tanks by a cofferdam and the summer tanks are arranged to carry cargo if desired. Scantlings are generally equivalent to the rules, and in some respects are in excess thereof.

On January 26th 1920, while on voyage from Cuba to Philadelphia, the "MIELERO" broke in halves in the Gulf Stream about the latitude of Savannah, Georgia, during a north-east gale and short heavy seas. One of the boats with the Chief Officer and 17 men was rescued, but another boat containing the Master and 22 men was missing.

The "CUBADIST" was lost reported 111 miles south of Cape Hatteras on the 29th February 1920, and no further news of this vessel has been received.

The circumstances as to the loss of the "MIELERO" are explained at some length in a private and confidential letter from New York dated 26th April 1920. It appears from the evidence of the Officer of the watch that the vessel shipped three seas in quick succession; that the deck went down amidships and a heavy crack was heard. The vessel was seen by the crew on leaving the vessel to break in halves in the neighbourhood of No. 6 tank which is directly amidships.

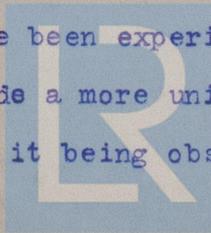
Freeboards were assigned to this vessel in March 1917 in this office which gave a draft of 25'0½" in the summer season, the corresponding winter draft being 24'6½". No report as to freeboard being marked was received.

The information received from New York states that for the 9 voyages previous to the last one, there was an average draft of 26'1½" giving an overload on summer draft of 1'1", or if the last three voyages were made under winter conditions, the overload would be 1'10".

The cargo carried was molasses amounting to about 7,600 tons, the whole of which was concentrated in the amidships tanks covering a length of about 180 ft, with the result that the vessel was practically empty at both ends, namely, about 82 ft. from the stem and 126 ft. from the stern, it being observed that the machinery is fitted aft.

The experts who conducted the investigation on behalf of some American Underwriters stated that in their opinion the continuous overloading of the vessel and the fact that the deadweight was all carried amidships and not evenly distributed over the length is largely responsible for the breaking of the vessel when the undue and very heavy strain, occasioned by the seas which are said to have prevailed, came upon it.

An investigation has been made in this office as to the stresses which would have been experienced had the vessel been ^{loaded} designed so as to provide a more uniform distribution of weight in respect of length, it being observed that the



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specific gravity of molasses is about 1.25, whereas that of oil fuel may be taken as about .95. This examination shows that the effect of concentration of the load as existing at the time of the vessel's loss, combined with an overloading of something like 7 ins. from the statutory draft was sufficient to increase the stress on the structure by about 140% beyond that which would obtain if the loading had been done evenly.

It would therefore appear that the opinion of the experts consulted in New York is confirmed.

As regards the "CUBADIST", no information has ever been received as to the details of the condition of the vessel at the time of her loss, but in view of the practice followed by the same owners in regard to the "MIFLERO" it is presumed that there was overloading and that there was concentration of load in this vessel also.

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