

LIFEBOAT WINCHES FITTED WITH A ROLLER RATCHET MECHANISM**Notice to Shipowners, Masters, Safety Officers and Shiprepairers**

In 1981 a seaman was injured whilst assisting in the recovery of a lifeboat/passenger launch on a passenger cruise liner. The boat was also badly damaged. The incident occurred as the boat was being hoisted on board the liner by an electric boat winch. When the boat reached Boat Deck level the launching crew began fitting the tricing pendants as the winch operator stopped the winch. The brake apparently failed to hold the boat and although one of the tricing pendants had been connected to the lower block it could not hold the boat in position. The pendant parted causing the boat to swing violently and drop on the falls into the sea. As the boat swung one of the launching crew was thrown into the sea and injured; fortunately the Chief Officer and the other seamen in the launching crew jumped clear and were not injured.

When the brake was opened up for examination it was found to be in good condition and working satisfactorily; the roller ratchet mechanism within the winch was then suspected as being the principal cause of this incident, but upon subsequent examination it too was found to be in an apparently satisfactory condition.

Examination of our records then showed that a number of similar winch failures had occurred in recent years but fortunately in none of these cases had anyone been injured or any of the boats damaged. In each case however, it was noted that the failure occurred to a winch which had been used for the launching and recovering of a lifeboat/passenger launch, a type of boat which is in frequent use on most cruise liners.

In view of these past failures and the knowledge that they could have led to disastrous results, an extensive programme of winch testing was carried out by one of the country's leading winch manufacturers. As a result of this work it has been concluded that the most probable cause of these winch failures was the weakening of the springs used to retain the rollers in position within the ratchet. The weakening was due to the frequent use of these particular winches on passenger cruise liners.

Consequently, Shipowners, Masters and Safety Officers are strongly recommended to ensure that winches used for the launching and recovery of any boat are regularly checked. In addition:—

- (a) Any winch used for any lifeboat/passenger launch fitted on a UK passenger ship or any other highly worked survival craft or work

boat shall be opened up and thoroughly examined every two years. In addition, it is recommended that on those winches which are fitted with roller ratchets the opportunity should be taken to renew the roller retaining springs at these biennial examinations;

- (b) Any winches used for a traditional lifeboat fitted on any ship (which is likely to be used less frequently than a lifeboat/passenger launch) should be opened up for thorough examination at intervals not exceeding 4 years as indicated in paragraph 3.11.2 of "Survey of Life Saving Appliances—Instructions for the Guidance of Surveyors". If roller ratchets are fitted to these winches then the roller retaining springs should be renewed during such examinations;
- (c) Winches used for any type of survival craft, work boat or launch should, if fitted with a roller ratchet mechanism, have such mechanisms regularly maintained. The ratchet mechanisms should never be packed with grease; a light non-solidifying grease or light oil should be lightly smeared on the mechanisms to assist easy movement and to prevent the onset of corrosion.

It is also recommended that ships fitted with winches incorporating a roller ratchet mechanism carry an adequate supply, or at least one complete set, of spare roller retaining springs.

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