

SWEDEN **COPY** FLAMEPROOF FITTINGS

Motor Tanker - ZELOS.

Cargo Vessel - AKKA.

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RETAIL

Since the issue of the new Rules for Electrical Equipment in 1939 correspondence with Gothenburg has taken place from time to time on two Clauses affecting tankers:-

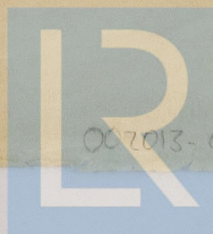
1. On the requirement that Pump Rooms are to be lit by lamps fitted wholly outside the compartment.
2. On the construction of flameproof fittings.

Under the old Rules electrical fittings were permitted in Pump Rooms provided they were gas-tight, but this is now prohibited. As a result of one or two explosions in Tankers the Board of Trade asked the I.E.E. to consider the matter and a special Committee, which included a representative of the Tanker Committee of The Chamber of Shipping, was set up which produced a revised set of requirements which are now embodied in the Society's Rules. Whereas no difficulty is experienced in this country, trouble is encountered in Sweden because they do not manufacture fittings which are flameproof according to the latest standards and because the shape of their Pump Rooms is such that they cannot be adequately lit from outside the compartment. To overcome the latter difficulty they were given permission to fit lamps in the Pump Rooms provided they were flameproof.

As a result of their inability to provide suitable flameproof fittings, the vessel's Class was made subject to circuits being disconnected until such time as they can do so.

A further point was that motor starters were not provided with overload devices and the Class was also made subject to these being fitted.

The Builders now complain of these endorsements in the Certificate and state that they prevent the vessel being used for her designed purpose as a Tanker.



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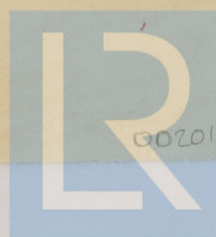
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IT IS SUBMITTED the Gothenburg Surveyors be informed as follows.

In order that they may appreciate the reasons for the alterations in the Society's Rules for Electrical Equipment as affecting Tankers, it might be pointed out that they arose from several accidents and explosions occurring in Tankers which indicated a need for tightening up the requirements. As is usual in such cases there is rarely any conclusive evidence of the cause of the explosion and inferences must be drawn and action based on experience obtained under similar conditions in coal mining and petrol stores. One of the reasons for requiring that lighting of Pump Rooms should be from fittings wholly outside the compartment was that in one case it was evident that a mechanic had removed the well glass from a fitting and used a wandering lead to provide a portable light to examine a pump. The explosion killed him. Modern flameproof fittings require special tools to remove the lamp.

In the U.K. research has been going on under Government auspices for the past 25 years or more into the causes of explosion in coal mines arising from electrical appliances and the present standard requirements are a result of an expenditure of many thousands of pounds in this research. Every single accident is investigated and the circumstances and causes recorded. It must, therefore, be acknowledged that British practice in regard to flameproof requirements is based on years of experience and research and it is with this background that the Swedish designs were rejected.

to Swedish Builders
A concession has already been made to permit electrical fittings in Pump Rooms provided they are flameproof. In the U.K. there are scores of firms manufacturing fittings to comply with the Society's requirements and it is regretted these are not available to Swedish Shipbuilders at the present time. Information on British designs was forwarded to the Gothenburg Surveyors on 30th October for the guidance of Swedish Manufacturers.



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The main objection to the Asea design was that it relied on a rubber gasket to keep it gas-tight. Gaskets are not permitted in flameproof fittings as their flameproof qualities are lost when the gasket perishes. It is considered however that if the Owners undertake to replace the fittings not later than the first periodical Survey they might be accepted in this instance and this might be recorded in the special reasons list.

With regard to the fitting of overloads to the Starters, it is considered in view of the Builder's undertaking to fit these as soon as they are available this condition on the vessel's Class might be withdrawn and this applies to M.S. AKKA, M.S. SAREK and M.S. ZELOS.

With regard to the case of M.S. JUND mentioned in the correspondence, it might be pointed out that this was built under the 1938-39 Rules which did not require flameproof fittings.

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