Does She have Class?

by Hans Joachim Försterling

First of all it's really a good question, but from the view point of an owner the question could be modified as follows "Why should she have Class?"

As a representative of Germanischer Lloyd, a member of the IACS, I have to raise the question "Does she have an IACS-class?"

Before I go into details just a short reminder concerning the difference between IACS and Non IACS-Members

1. Difference between IACS and Non-IACS Members

1.1 Basic requirements for IACS Members:

- Fleet not less than 1500 ocean-going vessels over 100 gt with an aggregate total of not less than 8 mill. Gt
- Professional staff of 150 exclusive Surveyors and 100 technical specialists
- Possession of a valid IACS Quality System Certificate of Conformity

1.2 Regular Audits according to ISCS, annual intervals, every second is a renewal audit

1.3 IACS Members for the time being

ABS	American Bureau of Shipping
BV	Bureau Veritas
CS	China Classification Society
GL	Germanischer Lloyd
KR	Korean Register of Shipping
LR	Lloyd's Register of Shipping
NK	Nippon Kaiji Kyokai
DNV	Det Norske Veritas
RINA	Registro Italiano Navale
RS	Maritime Register of Russia
HV	Croatian Register of Shipping
IR	Indian Register of Shipping

1.4 Non-IACS Members

Bulgarian Register of Shipping
China Corporation Register of Shipping
Hellenic Register of Shipping
Biro Klasifikasi Indonesia
Polski Rejestr Statkow
Registrul Naval Roman
Registro Internacional Naval SA (RINAVE)
Turk Lloydu Register

Vietnam Register of Shipping

and many others

1.5 IACS Societies

cooperate in so-called working parties in the field of

– research

– developing of rules

– exchange of experience concerning damage and repair

– environmental protection

a.s.o.

In addition an early warning system (EWS) exists, which means that all IACS Societies are obliged to give immediate information about damage caused by structural failures in order to avoid similar incidents with other vessels / or components. IACS stands for concentrated knowledge for safety at sea and environmental protection.

1.6 Non-IACS Societies

Basic requirements as for IACS-Societies do not exist. These might be organisations run by a single person guided by commercial interests only.

On the other hand there are organisations, operating locally on a limited basis or with a smaller fleet and a network of stations not fulfilling the demands of an international operating owner.

1.7 Conclusion:

Only a certificate issued by an IACS Society, such as Germanischer Lloyd, is based on expertise supported by a powerful organisation of thousands of naval architects, marine engineer captains and scientists, using the most modern electronic equipment and programmes.

If you are really interested to reduce the risk for a floating and towed object, then ask for a certification by an IACS Society.

2. Why should she have Class

Despite some published statistics showing a downward trend in vessel casualties involving towboats and their towed objects, it is still a fact that the proportion of incidents occurred with towing vessels is rather high (e.g. in U.S. since 1994 the highest before fishery vessel. Prior to 1994 fishing vessels ranked number one).

Since long the maritime community is aware that guidelines for safe ocean towage should be developed and come into force as soon as possible.

The IMO published with MSC / Circ. 884 in 1998, 21st December 1998 such Guidelines for Ocean Towage

The IMO-Guidelines are dealing with

– the responsibilities

- manning of towing vessels and towed objects
- planning and preparation
- survey
- weather forecast and environmental conditions
- requirements for towing vessels and the towed object

But these are guidelines and not regulations. The responsibility for the operation is delegated to the towing master, who of course can not have the knowledge covering all the demands and provisions stated in the guidelines.

Under article 7 "Preparation" is written: The tow should not proceed to sea until a satisfactory inspection of the tow has been carried out by the towing master and, if requested or for any reason considered necessary, by any other competent person.

Who is any other competent person?

Article 9 Design Environmental Conditions:
"The towed object, including cargo and securing arrangements, should be capable to withstand the loads caused by the most adverse environmental conditions expected for the season and areas in question". Beside all his knowledge and experience as towing expert one talks about assessment of

- the global and local strength of the towed object
- the stability of the towed object
- the stability of towed object possibly damaged during towing
- local strength with regard to water- and weathertightness

We believe that responsible guidelines would recommend the towing master to ask for the assistance of a third party (e.g. a Classification Society) where it seems to be necessary and in order to minimize the risk.

The assessment of the global and local strength and the stability of a towed object is in many cases a task which could be performed by a team of experienced engineers / naval architects / masters only and not by the limited ability / competence of a one-man-company. We as a Classification Society are of course prepared to assist the towing company / insuring company to assess both the towing tug boat and the towed object.

3. Does she have Class?

3.1 SOLAS requires a Safety Construction Certificate for all self propelled ships over gt 500 in international trade, except fishing vessels, war and troopships, pleasure yachts and wooden ships. The Safety Construction Certificate will be issued on the basis of a valid class certificate That means all towing vessel having not more than 500 gross tons could have no class certificate.

Please remember the high proportion of incidents involving fishery vessels. Vessels without any Class.

3.2 The towing vessel

A towing vessels operates under extreme conditions and therefore must be free of any deficiencies and in an excellent overall condition.

She must be constructed in accordance with international requirements and the rules of an IACS Society and under the supervision of this Society. In addition to that it is absolutely mandatory that since the newbuilding stage she has maintained a valid class. Only under such circumstances can one be sure that repairs and alterations have been performed under controlled conditions and with the approval of and to the satisfaction of the Class Society.
Hence from our point of view independent from the size of the vessel

She must be classed

by an IACS Society; the class must be valid and free of any recommendation. Before the towing object starts with the ocean towage a survey within the scope of an annual class survey should be carried out, with special regard to the towing equipment.

3.3 The towed object

The towed object is to be surveyed in order to meet the requirements for a "Conveyance Certificate" (e.g. Ocean Towage Guidelines of Germanischer Lloyd) dealing with

- closing appliances
- lights, shapes, sound signal appliances
- anchoring equipment
- points for towing gear
- securing of rudder and propeller
- bilge arrangements
- fire protection and extinguishing appliances
- equipment for crews on manned tows
- fuel reserve
- stability, freeboard, trim
- global and local strength for objects normally not fit for ocean-going voyages (e.g. inland water vessels)

The certificate will be issued after the resp. survey afloat or in dry dock (example see annex. . . .)

3.4 Towing vessel and towed object

Provided both the towing and the towed object have been surveyed before starting the voyage with satisfactory results an extended "Certificate of Conveyance" may be issued (see annex ....)

3.5 Controlled transport

When transporting goods especially sensitive to conditions at sea it is necessary that the planning and execution of the operation should meet the special requirement set out in GL guidelines. This applies especially to cases of unusual configuration and/or loading or where the dimensions of the towed vessel or transport vessel are not suitable (without restriction) for the route to be followed. In these circumstances a special investigation is needed into motion behaviour and into the dynamic loads generated by a seaway.

Fulfilment of the conditions applicable to "controlled transport" is certified by Germanischer Lloyd by the issue of an appropriate Certificate, which may by backed up by an expert appraisal.

The following topics will be assessed and dealt with

- route planning
- motions and loads
- essential boundary conditions concerning the seaway
- global and local strength
- securing of cargo, lashing components
- forces acting athwartships

Most of these investigation are highly sophisticated and need years of experience and experts of different faculties

4. Final conclusion

The following is highly recommended for ocean going towages:

- Towing vessels should be classed by an IACS Society, independent of the size of the vessel.
- The towed object should be surveyed in order to receive a "Conveyance Certificate"
- Both towing vessel and towed object should be finally surveyed just before starting the voyage.
- A controlled transport should be asked for in order to avoid circumstances at sea endangering the towage

Ladies and gentlemen please make up your mind whether in future you will rely on a "so-called" certificate issued by a "no-name" company or you will trust a certificate issued by one of the leading classification societies, Germanischer Lloyd.

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