Questionnaire on the fraction of time for each loading condition of bulk carriers

Dear Madams and Sirs:

As you may know, the International Association of Class Societies (IACS) has developed the Common Structural Rules for Bulk Carriers and Oil Tankers (CSR) which entered into force 1st July 2015.

IACS is investigating possible improvements to the Rules in areas identified by the IMO GBS audit panel. In connection with this investigation IACS is carrying out a survey. For ships under your management, please fill in the most representative fraction of loading condition in the operation of each route area (please refer to the figure below) to the best of your knowledge. An example according current rules is given for a BC-A. Please note that this survey excludes ships engaged in inland navigation such as the Great Lakes of North America.

Please return the attached questionnaire by email to (technicalsupport@iacs.org.uk).

All information will remain confidential and anonymous.

IACS is grateful for your input into improving the Rules which will contribute to making ships safer.

GUIDANCE NOTES FOR BULK CARRIER VESSELS IN YOUR FLEET

Please fill the attached form in reflecting the operational profile of your fleet and differentiate between the ship size (below or above 200m in length) and between the type of the ship (BC-A or BC-B / BC-C, as explained below).

REFERENCE

a) BC-A: For bulk carriers designed to carry dry bulk cargoes of cargo density 1.0 t/m^3 and above with specified holds empty at maximum draught in addition to BC-B conditions.
b) BC-B: For bulk carriers designed to carry dry bulk cargoes of cargo density of 1.0 t/m^3 and above with all cargo holds loaded in addition to BC-C conditions.
c) BC-C: For bulk carriers designed to carry dry bulk cargoes of cargo density less than 1.0 t/m^3.

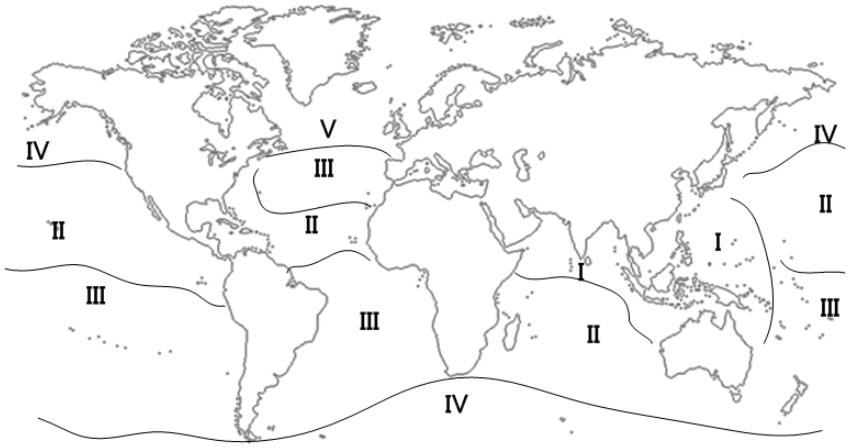
FURTHER CLARIFICATION FOR DESIGNATING BULK CARRIER VESSELS TO BC-A, BC-B OR BC-C CATEGORIES

For Ship Owners/Operators/Managers of pre-CSR Bulk Carrier vessels (with a contract date prior to April 2006) or non CSR BC vessels (below 90m in length), look at the Class Notation of the vessel (and/or the permitted loading conditions in the approved Loading Manual, if necessary) and designate these vessels as follows:

- under BC-A if the vessel is able to carry dry bulk cargoes of cargo density 1.0 t/m^3 and above with specified holds empty at maximum draught in addition to BC-B conditions
- under BC-B if the vessel is able to carry dry bulk cargoes of cargo density 1.0 t/m^3 and above with all cargo holds loaded in addition to BC-C conditions
- under BC-C if the vessel is able to carry dry bulk cargoes of cargo density less than 1.0 t/m^3.

Company Name: _____

BC-A	Number of ships in operation in your fleet
$L_{bp} < 200m$	
$L_{bp} \geq 200m$	
BC-B, BC-C	
$L_{bp} < 200m$	
$L_{bp} \geq 200m$	
L_{bp}	Length between perpendiculars



Note: Area **V** is North Atlantic

Classification of Route Area

NOTES:

1. Please treat vessels in your fleet with L_{bp} less than 200 m separately from those with L_{bp} greater than 200 m.

2. For each category of L_{bp} give percentage of operation under the specified loading condition and geographical areas please. The total should add up to 100%.

BC-A	route area	Full load condition		Ballast condition	
		Homogeneous	Alternate	Normal ballast	Heavy ballast
	Example	60%	10%	15%	15%
$L_{bp} < 200m$	I				
	II				
	III				
	IV				
	V				
	Other areas				
$L_{bp} \geq 200m$	I				
	II				
	III				
	IV				
	V				
	Other areas				

Note: Other areas: e.g. Mediterranean, Red Sea, Irabian Gulf

BC-B, BC-C	route area	Full load condition		Ballast condition	
		Homogeneous	Alternate	Normal ballast	Heavy ballast
$L_{bp} < 200m$	I		N/A		
	II		N/A		
	III		N/A		
	IV		N/A		
	V		N/A		
	Other areas		N/A		
$L_{bp} \geq 200m$	I		N/A		
	II		N/A		
	III		N/A		
	IV		N/A		
	V		N/A		
	Other areas		N/A		

FURTHER CLARICATIONS AND ASSISTANCE FOR FILLING IN THIS QUESTIONNAIR

The operation of the vessels over the last year (one year) would be sufficient for the purpose of this exercise. No strict adherence to this guideline is required.

It is fully appreciated that Bulk Carrier vessels typically are involved in tramp trade and thus transit over many areas even during a single voyage and it is suggested calculating the percentage time spent in each area over selected time duration and for a particular loading condition.

The first step in the process is to identify number of voyages during the selected time (say circa one year). Then identify for those voyages what was the loading condition of the vessel for each voyage. The total for all loading conditions would add up to 100%.

As an example for a BC-A vessel, say the vessel sailed 20 voyages during the selected time. 12 voyages in homogeneous condition, 2 voyages in alternate condition, 3 voyages in normal ballast and 3 voyages in heavy ballast. If all the voyages were of equal length then you would know straight away that the percentage of time spent in each loading condition was 60%, 10%, 15% & 15% respectively as shown in the example. If the voyage lengths were not equal then sum up the time taken for all voyages in a particular loading condition and divide by the total period, etc. to derive the percentage of time in each loading condition.

Once you have derived the percentage for each loading condition, then you will need to look at all the voyages under each category (i.e. Homogeneous, Alternate, Normal ballast & Heavy Ballast) and evaluate the time spent in each area. Then, calculate the percentage spent in each area for that loading condition.
For example, let us look at the two voyage in Alternate condition. Let us say both alternate loading condition voyages for the vessel were from Brazil to P.R. China and they took 33 days for each voyage at say at 14 Knots (circa 11,000 Nautical Miles). Now in those 66 days the

vessel transited through the following areas and spent the corresponding days

Area	**III**	10 Days x 2 voyages =	20 Days
Area	**IV**	2 Days x 2 =	4 Days
Area	**II**	13 Days x 2 =	26 Days
Area	**II**	8 Days x 2 =	16 Days
		Grand total =	66 Days

Therefore the percentage for the **Alternate Loading condition** is

Area	**III**	(20x100)/(66x10) = 3.03%	
Area	**IV**	(4x100)/(66x10) = 0.61%	
Area	**II**	(26x100)/(66x10) = 3.94%	
Area	**II**	(16x100)/(66x10) = 2.42%	*Note: These figures can be rounded up/down.*

Grand Total for Alternate = 10%

For other loading conditions a similar evaluation for time spent in each area can be carried out.

Note 1: the example above is fictitious and the number of voyages for the worked example are arbitrary.

Note 2: It is appreciated that a time in port for loading and discharging is not accounted for. This will be taken into account when feedback is utilised.