

International Regulations

There are two different aspects which noise related regulations focus on:

1. Airborne noise levels on a ship (independent of recipient)
2. Exposure of crew members to noise and vibration

DW-ShipConsult is experienced in assisting its customers to successfully meet the acoustic demands of any of those regulations.

General Regulation regarding noise on board: The MSC 337

The MSC 337 (Resolution No. 337 of the Maritime Safety Committee: ADOPTION OF THE CODE ON NOISE LEVELS ON BOARD SHIPS) defines mandatory limits for airborne noise levels on board and for acoustic insulation inside accommodation spaces. [see Table 1 and 2]

Table : Overview of airborne noise limits given in dB(A). Changed values are shaded grey

	IMO 468 ships > 1.600 GT	MSC.337 Ships > 1.600 < 10.000 GT	MSC.337 ships > 10.000 GT
Work spaces			
Machinery spaces	110	110	110
Machinery control rooms	75	75	75
Workshops	85	85	85
Non-specified workspaces	90	85	85
Navigation spaces			
Bridge and chartroom	65	65	65
Look-out posts, bridge wings	70	70	70
Radio rooms	60	60	60
Radar rooms	65	65	65
Accomodation spaces			
Cabins and hospital	60	60	55
Messrooms	65	65	60
Recreation rooms	65	65	60
open recreation areas	75	75	75
Offices	65	65	60

Table : Minimum requirements for acoustic insulation between cabins

weighted sound reduction Index R'w	IMO 468	MSC.337
	recommended	mandatory
Cabin to cabin	30	35
Public spaces to cabin	45	45
Corridor to cabin	not defined	30
cabin to cabin with communication door	not defined	30

Limits for noise exposure are also defined but these remain recommendatory in this regulation. Nevertheless there are other international mandatory regulations regarding the noise exposure level which set the MLC 2006 into force (see below).

The resolution MSC.337 is effective since 1st July 2014 for all newly built vessels. It applies also when a ship has been significantly changed, e.g. the type of ship is modified or propulsion power is significantly in- / decreased.

The significance of this resolution is resulting from their implementation into the SOLAS framework.

Therefore the contained limit values are not only checked by the shipowner but also supervised by the administration.

DW-ShipConsult will help you during concept, design and construction process and ensure the compliance of your ship with respect to the MSC 337. An early participation of us in the project phase will reduce costs significantly for a sophisticated arrangement of noise sources and recipients will reduce the need for expensive insulation and mitigation measures.

Regulations concerning noise and vibration exposure:

Directive 2003/10/EC – noise and Directive 2002/44/EC - vibration

Both mandatory directives quantify and specify the general statements of the MLC (Maritime Labour Convention) from 2006. They set maximum levels for noise and vibration exposure of crewmembers. Therefore every shipoperator has to ensure that these limits are not exceeded. This can be done partially by organizational measures like good hearing protection or limitation of certain works. But most root causes for exceeded levels lie in structural shortcomings which result in excessive noise.

DW-ShipConsult conducts measurements on board and files reports relevant for MLC inspections. Furthermore we help you find causes for exceeded noise levels and give advice how to root them out.