

The American Club

Now Hear This Noise Protection Awareness



Hearing conservation is important for the health and wellbeing of all people. Hearing conservation is especially important for mariners to:

- provide for safe working conditions by considering the need for speech communication and for hearing audible alarms, and to an environment where clear-headed decisions can be made in control stations, navigation and radio spaces and manned machinery spaces;
- protect the mariners from excessive noise levels which may over time progress hearing loss; and
- provide the mariners with an acceptable degree of comfort in rest, recreation and other spaces and also provide conditions for recuperation from the effects of exposure to high noise levels.

Noise is measured in units of sound pressure levels called decibels using A-weighted sound levels (dB(A)). The A-weighted sound levels closely match the perception of loudness by the human ear. Decibels are measured on a logarithmic scale which means that a small change in the number of decibels results in a huge change in the amount of noise and the potential damage to a person's hearing.

Noise level examples are as follows:

- 85 dB(A) a passing diesel truck
- 90 dB(A) using a lawn mower, or arc welder
- 95 dB(A) using a belt sander
- 100 dB(A) riding a motorcycle or using a handheld drill
- 105 dB(A) using a table saw or attending a crowded sporting event
- 110 dB(A) using a jackhammer or attending a rock-and-roll music concert
- 115 dB(A) emergency vehicle siren passing by
- 130 dB(A) jet plane taking off 100 feet (30 meters) away
- 140 dB(A) pain threshold

International and national standards are normally expressed in terms of the decibel level and the time exposure to that decibel level.

Best Practices

Personnel entering spaces with noise levels greater than 85 dB(A) should be required to wear hearing protection while in those spaces. Personnel exposed to noise levels greater than 85 dB(A)



outside of enclosed spaces should also be required to wear hearing protection. As a general rule, if you need to raise your voice to speak to someone 3 feet (1 meter) away, the noise level is likely above 85 dB(A).

Hearing protection should be worn in the following spaces:

- the engine room when the main engine or generators are running (engine rooms have been found to be as high as or higher than 100 dB(A);
- other machinery spaces in which internal combustion engines are running; and
- other machinery spaces with "HIGH NOISE AREA" signs or similar signs that require hearing protection to be worn.

Hearing protection should also be worn while performing the following:

- using a deck scaler, needle gun, or portable grinder;
- working in the vicinity of any internal combustion engine that is running;
- working in the vicinity of hydraulic motors;
- working in the vicinity of high volume fans including vent fans, exhaust fans, air supply fans, etc.;
- performing work that involves loud impact noises, especially metal on metal impact noises; and
- during any work in which the noise levels become uncomfortable.

Wherever it is not feasible to reduce the noise levels, reduce the duration of noise exposure, or change the location of the work, ear protection should be provided and used to bring noise to an acceptable level below 85 dB(A).

When properly worn, ear plugs can reduce





the noise level by 15-30 dB(A) and earmuffs can reduce the noise level by 20-30 dB(A). The combination of ear plugs and earmuffs can add a further 5-10 dB(A) reduction to the noise level.

When noise levels exceed 115 dB(A) in a steady state, ear plugs and earmuffs together should be required.

Everyday Tips

Signage:

Ensure signs are posted boldly in areas requiring hearing protection, including signs for required hearing protection use.

Type of ear plugs:

Disposable ear plugs can be comfortably worn for long periods of time but shouldn't be used more than once, particularly in dusty or dirty working environments. Non-disposable ear plugs including custom fit or moldable ear plugs can be washed and reused for months.

Correctly inserting disposable ear plugs:

Firmly roll the disposable ear plugs between your fingers. Reach over your head with your arm and gently pull the top of your ear upward, so that the ear canal is straight.

Insert rolled ear plugs and briefly hold them in place while they expand in the ear canal. If the ear plugs cannot be seen from the front, they are in the correct position.

Remember, good hearing is vital. Practice smart personal protection measures by fostering a company culture where noise protection practices become habits.





American Steamship Owners Mutual Protection & Indemnity Association, Inc. American Steamship Owners Marine Insurance Company (Europe), Ltd

Shipowners Claims Bureau, Inc., Manager

New York

| tel | +1 212 847 4500 | fax | +1 212 847 4599 |
|-------|------------------------|-----|-----------------------|
| email | info@american-club.com | web | www.american-club.com |

Houston

tel +1 346 223 9900 email <u>claims@american-club.com</u>

Shipowners Claims Bureau (UK) Ltd.

London

tel +44 20 7709 1390 email <u>claims@scb-uk.com</u>

Shipowners Claims Bureau (Hellas), Inc.

Piraeus

tel +30 210 429 4990 fax +30 210 429 4187 email <u>claims@scb-hellas.com</u>

SCB Management Consulting Services, Ltd.

Hong Kong

tel +852 3905 2150 email <u>hkinfo@scbmcs.com</u>

SCB Management Consulting (China) Co., Ltd.

Shanghai

tel +86 21 3366 5000 fax +86 21 3366 6100 email claims@scbmcs.com

Shipowners Claims Bureau (Cyprus), LTD

Limassol

tel +357 25 584545 fax +357 25 584641 email info@asomic.eu

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