

Synchrophasing

MAN Asset+

Synchrophasing is a solution for vibration control targeted at twin propulsion design. Synchrophasing has been shown to reduce vibration by 50-70%.

Highly effective vibration reduction

Besides effectively reducing the vibration levels and, thereby the fatigue loading of vessel structures, the system eliminates so-called vibration beating, known to cause discomfort for the crew.

performance, keep your equipment up to date, and help you comply with environmental regulations, advancing your operations further towards energy transition and decarbonization.

Synchrophasing is one of many MAN Asset+ solutions to raise ship



Reduces vibration levels

The average vibration reduction in normal sea conditions is in the range of 50 – 70 % depending on sea state and vessel roll/pitch. Synchrophasing thereby reduces the fatigue loading of vessel structures.



Compliance

Synchrophasing contributes to ISO 6954 2001. Compliance is a simple and 100% maintenance free way.



Eliminates vibration beating

Vibration beating is an interference pattern between the two engines where starboard and portside shaft speeds are slightly different (non-synchronized). The synchrophasing system prevents vibration beating. Vibration beating is known to cause discomfort for the crew.

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ISO standards on ship vibration have become stricter and particularly affect the design of large cargo vessels. Synchrophasing can help comply with the requirements.

Synchrophasing helps make your engine more ...



Safe

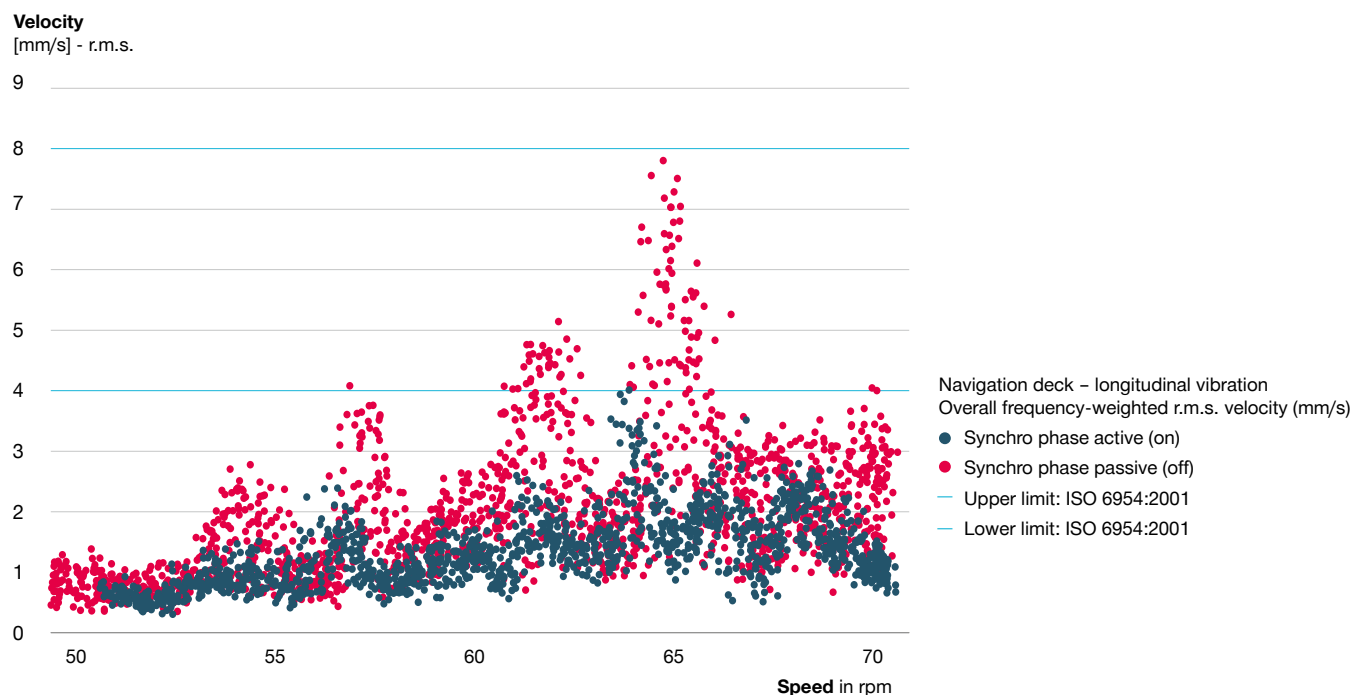


Efficient



Available

Vibration reduction by synchrophasing for 5G70ME-GI engines on an LNG carrier



Engine Synchronization for Vibration Control

The vibration reduction is achieved by synchronizing the port and starboard shafts' speeds, thereby out-balancing forces/moments from the starboard engine/propeller with the same forces/moments from the portside engine/propeller. Basically, the opposite engine is transformed into a highly effective vibration compensator.

Availability

Synchrophasing is available for all MAN B&WW ME-C engines used in a twin-engine configuration.

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