



Presentation of

Methanol Dual Fuel Vessel Training Program

Presentation for

Methanol Institute



About the Program

- The program has been formulated based on actual facts and experience from the pioneers involved with methanol fueled vessels from design, ship building, operation, and management with over 60,000 running hours experience collectively. These are the same dedicated professionals on the ground that spearheaded and proved that methanol is indeed a viable alternative fuel.
- Intended for training seafarers, superintendents/technical managers, ship owners or anyone with direct responsibility for the operation and management of ships fueled by methanol.
- Specifically formulated over and above the statutory Basic and Advance IGF Courses which provides the minimum knowledge and understanding of the low flash fueled vessels, however the generic content of these courses focused mainly on LNG lacks specific vital content for other low flash.
- Methanol although similarly a low flash fuel like LNG, both are totally different in physical, operational and safety aspect, as such the need for Methanol Specific Training is a must for in depth Knowledge Understanding and Proficiency to operate and manage Methanol Powered Vessels within acceptable industry safety standards.



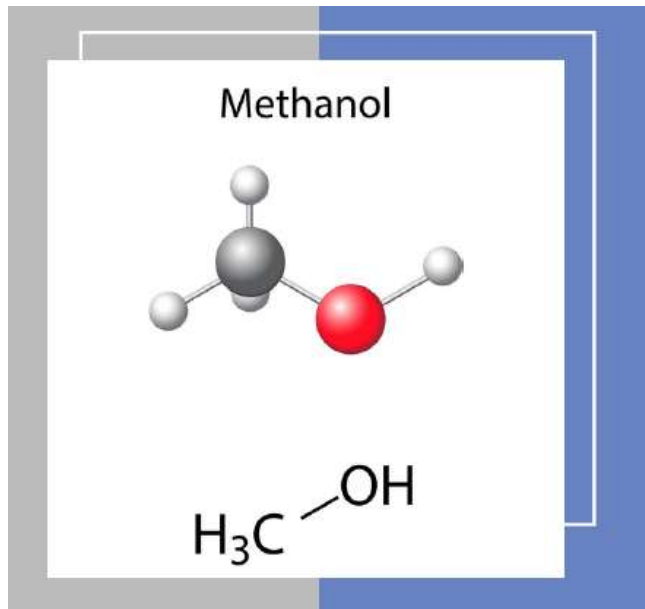


Program Objectives



Program Objectives

At the end of the training program, the trainees will have an in-depth knowledge understanding proficiency of:



1. Methanol Introduction

- Physical and Chemical properties of Methanol.
- Production and Types of Methanol
- Methanol Usage



Program Objectives

Trainees will be able to identify, avoid, and mitigate risks and hazard associated with methanol



2. Methanol Safety and Hazards

- Health Hazards
- Environmental Hazards
- Fire Hazards
- Occupational Hazards
- Risk Management



Program Objectives

Trainees will have the ability to facilitate emergency response associated with methanol.



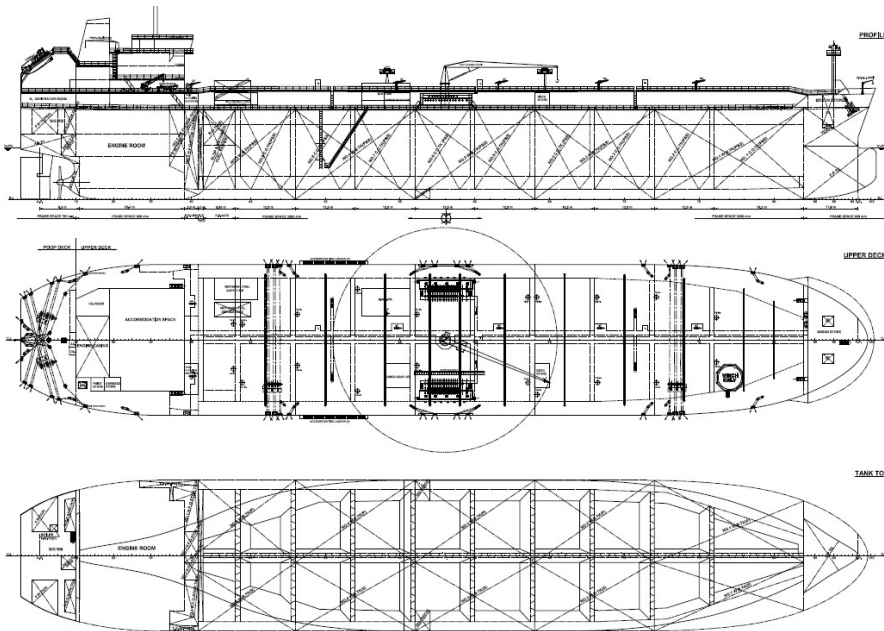
3. Methanol Emergency Response

- Medical Treatment
- Pollution / Spill
- Fire Fighting
- Contamination



Program Objectives

Trainees will have an overview of the vessel design and associated methanol auxiliary systems.



4. Methanol Ship Design and Systems

- Ships Design Philosophy
- Methanol Transfer and Supply System
- Nitrogen Generating/Supply System
- Hydraulic Supply System
- Ventilation System



Program Objectives

Trainees will be guided on all methanol fuel related operations



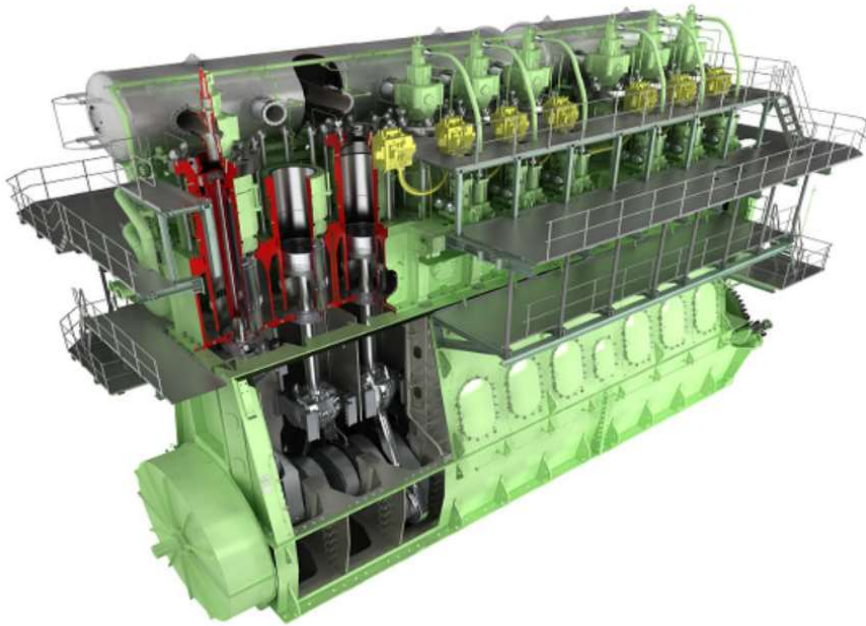
5. Methanol Operations

- Legislative Requirements and Compliance
- Operational Guidelines and Checklists
- Bunkering / Internal Transfer
- Handling, Storage and Disposal



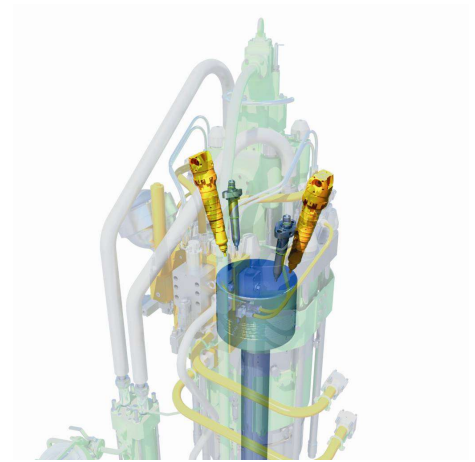
Program Objectives

Trainees will have an in depth understanding of the methanol engine based on actual experience.



6. Main Propulsion

- Introduction to ME LGI Engine
- Safety
- Operations
- Maintenance
- Troubleshooting
- Drydock and Surveys





 **Scope**

Scope

- Physical and Chemical Properties of Methanol
- Occupational Health and Safety
- Legislative Requirements and compliance
- Environmental Protection
- Emergency Response
- Hazard Control and Risk Management
- Methanol Operations and Procedures
- Methanol Bunkering Operation
- Methanol-Powered Vessel and ME-LGI Engine Design.
- Main Propulsion (ME-LGI) System
- Methanol Auxiliary Systems
- Maintenance and Troubleshooting
- Case Studies





Training Facilities and Materials



Training Facilities



Classroom with AV setup /
Computer Based
Supervised Learning



Fire fighting
Simulation/Laboratory



Hands-on machinery
workshop



Training Materials



Presentations and Videos will be used during lecture. Handouts, both hard and electronic copy will be provided to all participants.

PPE, Laboratory Equipment and Instruments including actual Methanol Engine Components will be utilized for the trainees.



Facilitators



Facilitators

- The program has been developed and will be facilitated by Professionals who have been involved from design, ship building, operations and management of methanol fueled vessels, they are the pioneers of this technology and are at the forefront of with regards to actual experience backed up by **60,000 hours** of methanol running experience collectively.
- To date the developers and facilitators are still actively involved serving as Technical managers, Site Team Managers, Masters and Chief Engineers for methanol vessels.
- All facilitators are Certified Instructors, Assessors and Course Developers.



Course Duration



Course Duration Estimated

- 1 Day Lecture
- 1 Day Laboratory
- 1 Day Machinery Module

Total of 3 days





THANK YOU!



CONTACT US

Donnie Bagang

Senior Vessel Manager / Chief Engineer



donnie.bagang@thome.com.sg



+6592970922

