Green Week 2013

METHANOL - ONE WAY TOWARDS ZERO EMISSION FOR WATERBORNE TRANSPORT

Claes Berglund
Shipping has used many different sources of energy

Oil has dominated the last century, it’s now time to look for new types of fuel. Driven by:
1. Environmental concerns – new regulations
2. Increased oil prices
3. New technologies
We have looked at many different ways of meeting the challenge including two new fuels

Four ways
- Marine gas oil with 0.1 % sulphur
- Heavy fuel oil and exhaust gas cleaning
- New fuel
- Reduce operations and adjust to new situation

Two new fuel options
- LNG
- Methanol

The solution will in the end be a combination of all
By adding one oxygen atom to natural gas (LNG), a much more suitable fuel is created.
Methanol could be a solution for green shipping

- Similar positive reductions as LNG in terms of Nox & Sox and particles (and no methane slip)
- Bio degradable
- Can be produced from natural gas, biomass, waste and much more
- Easy and cheap distribution (similar to oil)
- Big commodity (55 million ton/year)
- Conversion of engines of existing vessels possible at low cost
- 5% diesel as pilot fuel to ignite – dual fuel engine
- Renewable sourcing possible - Green energy source for the future?

First Methanol Ferry planned for 2104
- Stena Germanica on Kiel - Gothenburg