
Economic and Social Council

Inland Transport Committee

19 January 2024

Working Party on the Transport of Dangerous Goods

Original: English

Joint Meeting of Experts on the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) (ADN Safety Committee)

Forty-third session

Geneva, 22-26 January 2024

Item 4 (b) of the provisional agenda

Implementation of the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN): special authorizations, derogations and equivalents

Presentation on the planned conversion of the MTS "Chicago" for the use of methanol as fuel

Submitted by the Government of the Netherlands

Introduction

1. The Dutch delegation has so far tabled four requests for derogations in the framework of the energy transition towards the use of sustainable energy. Recently we received information on yet another project. The company Unibarge has planned to convert the existing tanker vessel "Chicago" into a ship with dual-fuel propulsion with diesel / methanol.
2. As a first step, we propose that the project is presented during this meeting of the ADN Safety Committee. The Safety Committee could take note of the project during this presentation.
3. The presentation is attached as an annex.
4. The Dutch delegation expects that the project will mature enough before the next session of the ADN Safety Committee that a formal request, including the required documentation, can be expected for the August 2024 meeting.
5. We request the ADN Safety Committee to take note of the project presentation and to take action as it deems appropriate.

Annex



Retrofitting mts Chicago to Methanol propulsion

ADN Safety Committee, January 23th 2024

Content

1. Introduction Unibarge
2. Scope of project
3. Design Mts Chicago
4. Managing Risks
5. Timing
6. Q&A

UNIBARGE GROUP

UNIBARGE is a leading supplier of logistics services for liquid cargo in bulk to customers operating in the international oilproducing and trade industry.

HISTORIC OVERVIEW:

- Barging as of 1976, started as container barge company
- Development Jowi class
- 2004 Switch from dry cargo barging to tank barging

OPERATING AREA: ARA region, River Rhine, German Canals,

SUBSTANCE Unibarge developed to a company managing a fleet of 70 barges, with a total transport capacity of 260,000 metric tons. A key player in transportation of mineral oils in Europe

UB Strategy

- Maintaining preferred supplier status by
 - Providing full service concept (bunkerplanning, ship waste handling)
 - Transparant operations management (Shipping Technology)
- Focus on selective growth
 - Alternative Business Models – Ship Waste Collection
 - Growth through offering sustainable solutions:
 - Stage V/ SCR installation /Green Tip propellor / BioFuels
 - Entry into Gas Market
 - Developing Methanol bunker services:
 - Bio-Methanol bunker services to seagoing vessels
 - Retrofitting Chicago to Methanol propulsion



Scope of project

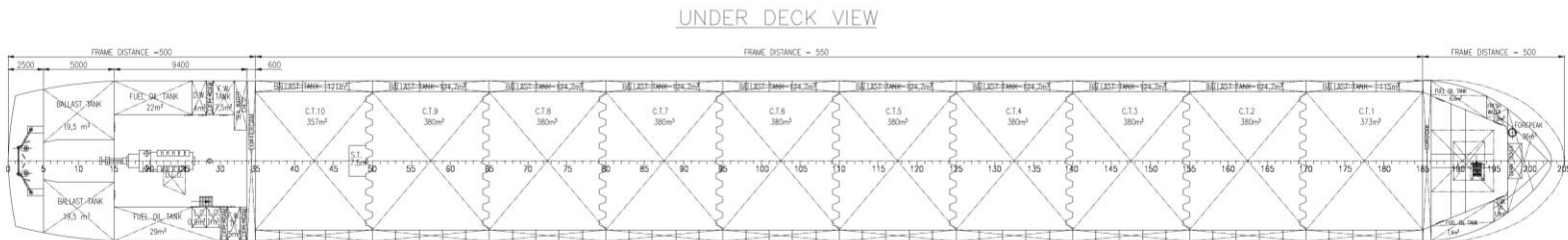
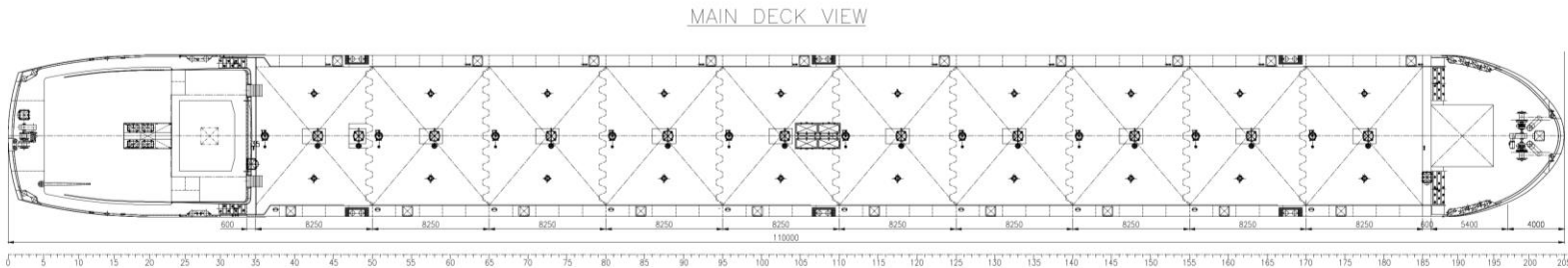
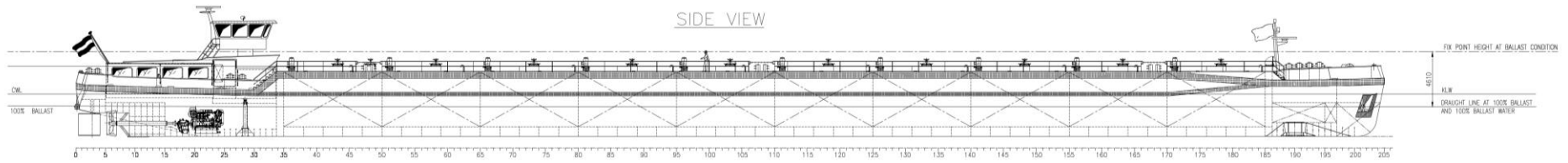
- Retrofitting mts Chicago to methanol propulsion
- Existing engine C3512
- Impact on layout, engineroom design & safety systems
- Installing bunkerboom
- The first methanol propelled bunkerbarge

Retrofit project team

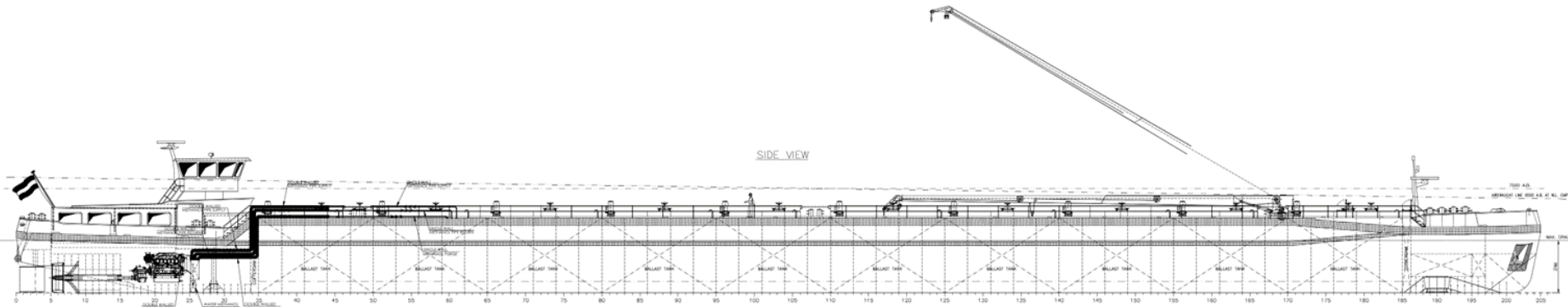


Project team	Company	Contact	E-mail	
Shipowner	Unibarge	Alexander Wanders Marc Tieman	awanders@unibarge.com mtieman@unibarge.com	
Designer	Rommerts Ship Design	Ubbo Rommerts	urommerts@rsdbv.nl	
Engine converter	Arenared	Paul Nooijen Jeroen Feijs	info@arenared.nl j.feijs@arenared.nl	
Piping systems	Willems Piping & Equipment BV	Dirk Boekhorst	dboekhorst@willems.nl	
Methanol supply system	Cryonorm	Guillaume Salomons Jos Glorie	gsalomons@cryonorm.com jglorie@cryonorm.com	
System integrator	van Tiem Elektro BV	Maarten Soetekouw	ms@vantiem.nl	
Ventilation systems	Windex Engineering BV	Peter de Ruijter	PR@windex.net	
Pump supplier	EPS	Coen van der Linden	coen.van.linden@epsbv.com	
Class	Lloyd's Register EMEA	Bas Joormann	Bas.Joormann@lr.org	
Shipyards	de Gerlien van Tiem	Marcel van Tiem Eric Rietveld	marcelvantiem@gerlien.van.tiem.com ericrietveld@gerlienvantiem.com	
Global Fuel Excellence Center Senior Manager/BDM Gas/LNG Safety Expert Marine Senior Surveyor	RINA Netherlands b.v.	Piet van den Ouden	pieter.vandenouden@rina.org	

MTS CHICAGO, before conversion

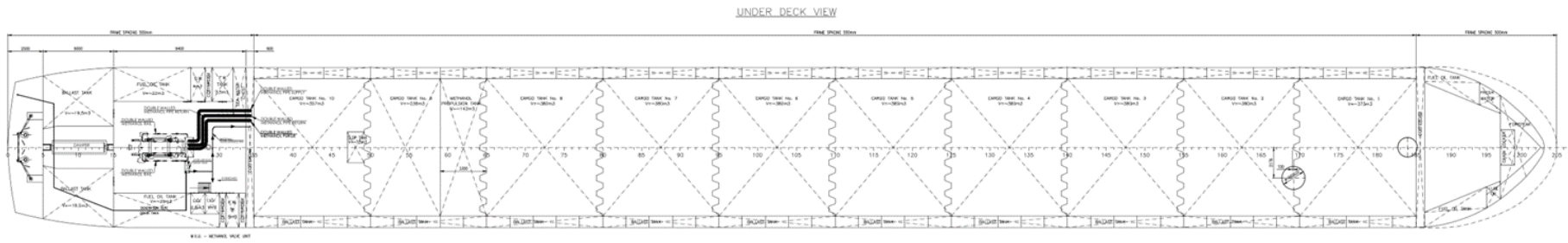
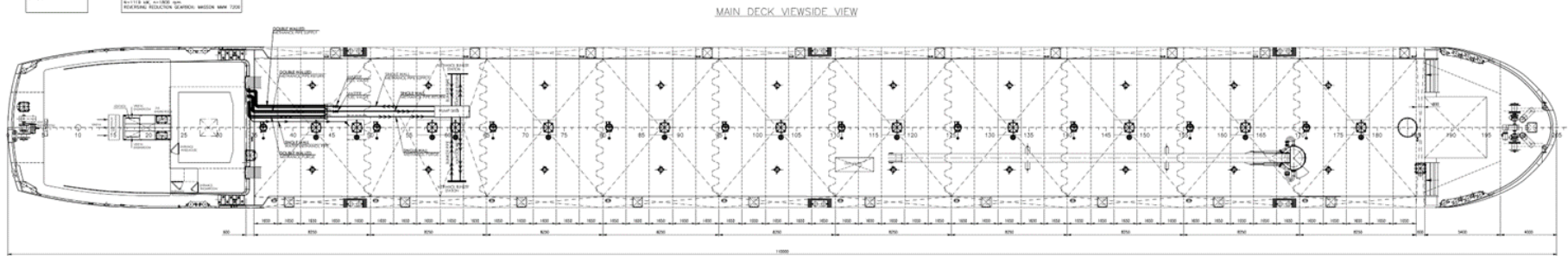


MTS CHICAGO, after conversion



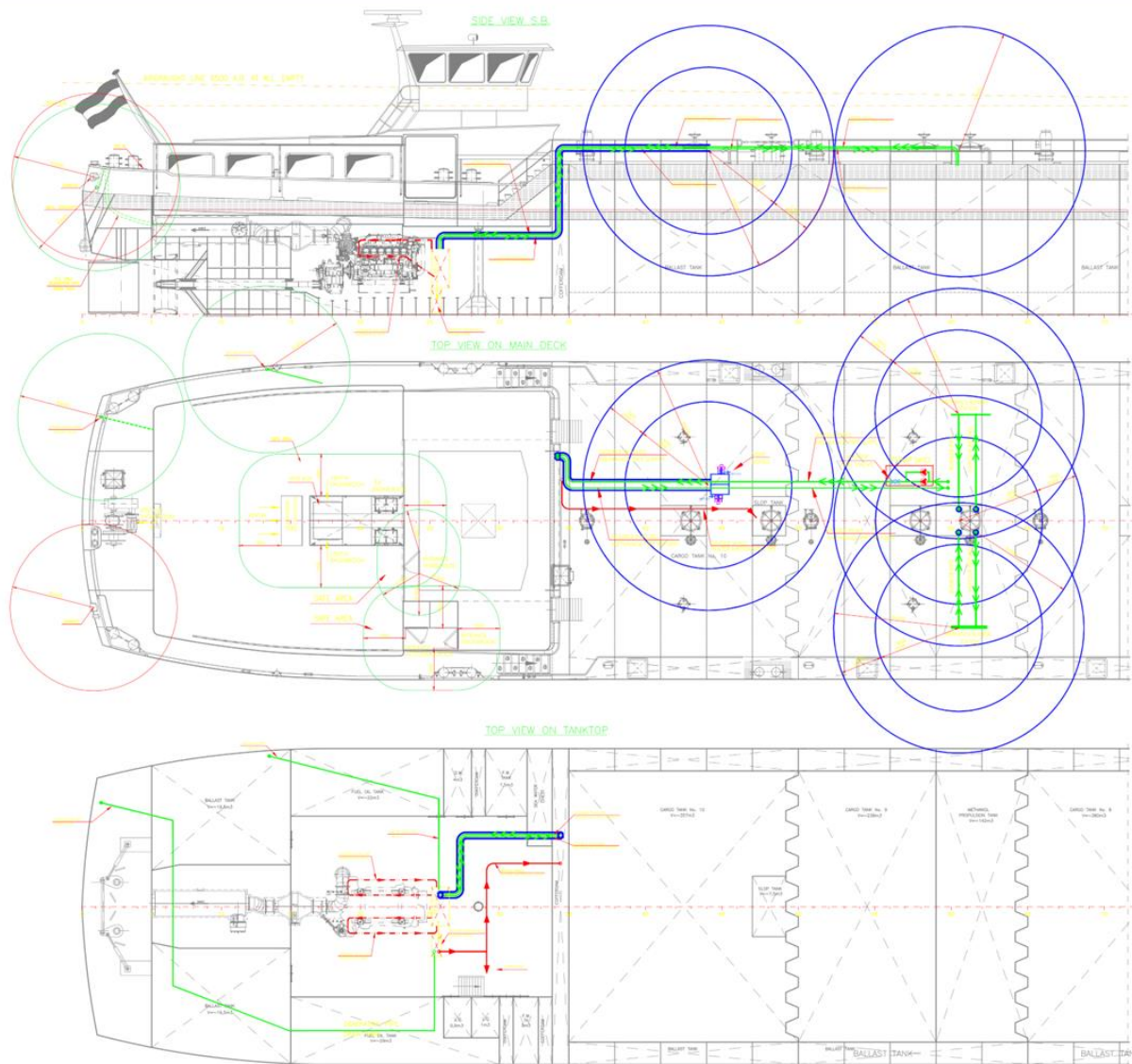
PROFILE:
247' 15" H.

MAIN PROPULSION:
NEW ENGINE OF 20,000
HP @ 1,800 RPM
REARWARD REDUCER SERVICE MOTOR NEW 1000



412 - METAL WORK SHIP

MTS CHICAGO, after conversion



NO.	DATE	STATUS	DESCRIPTION
  			
AFTSHIP			Project: A0+
2018-069			Scale: 1:50
			Number: 2
			Sheet No: 1

Managing risks

- Use of methanol as fuel impacts safety systems
- Safety measures
 - Cargo area, implementing fuel tank
 - Engine room, double walled piping, purging fuel lines
 - Bunkering (own consumption)
 - Crew
- Detailed 1st HAZID completed successfully
- Installing bunkerboom
- The first methanol propelled bunkerbarge

Managing risks

- Potential risk of handling cargo and carrying methanol as bunker fuel
- Bunker tank adjacent to cargo tank
 - Actual cargo
 - Cargo list
- Mitigation via limitation to existing Cargo list
 - Cargo Compatability Chart as per US Coast Gard (USCG_46-CF)

People are key

- Crew of Mts Chicago is involved in conversion
- Extensive knowledge on methanol handling:
 - Chicago is a time charter barge deployed in methanol transportation for years
 - OCI & terminal involved in conversion
 - Longterm contract ensuring continuity
- Bunker procedures developed in consultation with crew:
 - Bunker operations will take place at customer terminal
 - Bunker connection in cargo area (liquid&vapor)
 - Similar tank alarm system for bunker tank

Expected timeline

- Feasibility study methanol refit by ArenaRed completed
- Hazid report on methanol conversion completed
- Approval by Authorities methanol as fuel expect Q3 /24
- Barge to shipyard for conversion/preparation 20/05/24
- Completion conversion planned 08/24
- The first methanol propelled bunkerbarge Q3/24 !

Questions



Alexander Wanders
Founder & Business Development
awanders@unibarge.com



Marc Tieman
Fleetmanager
mtieman@unibarge.com