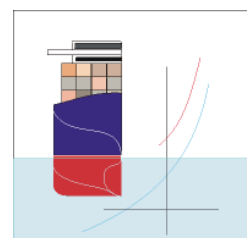


### Specialist Course for EEDI Verifiers

## Ship Propulsion, Model Tests & Speed/Power Trials



This course is intended for professionals applying for EEDI Verifier, Class, Ship Owners and Operators, Designers, Yards. A BSc-level in Marine Engineering or Naval Architecture is required for this course.

**When:** June 16 – June 20, 2014 (32 hours divided over 5 days)  
**Where:** MARIN, Wageningen, The Netherlands  
**Costs:** € 5.000,- (including lunches and course dinner on Monday)  
€ 3.000,- STA-group member (max. 3 trainees per member)  
€ 5.500,- (after June 1)  
**Hotel:** Hof van Wageningen, Wageningen, € 90,62 per night ([www.hofvanwageningen.nl](http://www.hofvanwageningen.nl))  
De Wageningsche Berg, Wageningen, € 105,80 per night ([www.hoteldewageningseberg.nl](http://www.hoteldewageningseberg.nl))  
**Registration:** [www.marin.nl/courses](http://www.marin.nl/courses)

For further assistance contact: [courses@marin.nl](mailto:courses@marin.nl)

For conditions and tentative program 2014 see pages 2, 3 and 4



## Teachers & Instructors

The team of teachers and instructors consists of MARIN specialists in the relevant fields such as Jan Holtrop, Frits Mennen, Henk van den Boom, Klaas Kooiker, Martin van Hees, Michiel Verhulst, Thijs Hasselaar, Geerhard Janse, Bram Starke, Christian Veldhuis, Rik Kerkhof and Martijn van Rijsbergen.

## Who should attend

Professionals applying for EEDI Verifier, Class, Ship Owners and Operators, Designers, Yards.

The course assumes knowledge/experience in marine engineering/ naval architecture at BSc-level.

## Venue

The course will be held at MARIN, Haagsteeg 2, Wageningen, the Netherlands or nearby MARIN (5 minutes walk from MARIN).

## Accommodation

Hotel accommodation is not included in the course fee. However, MARIN intends to make reservations at a special course rate. Hotel Hof van Wageningen is 10 minutes walk from MARIN. Hotel Wageningsche Berg is 20 minutes by bike or 10 minutes by taxi or car (transfers are not included in the course fee).

## Documentation

The course notes contain the full set of information as presented during the course. The course notes will be made available on paper. Strict copyrights apply to the course notes and they shall not be available or sold to other parties.

## Number of participants

The course is subject to a minimum of participants (12) and a maximum (20). Admittance to the course will be on first come first served basis.

## Cancellations

In case of a cancellation by the participant, the following rules apply:

- Cancellation within 2 weeks of the start of the course: 100 % of the course fee;
- Cancellation within 1 month of the start of the course: 30 % of the course fee;
- In other cases the cancellation is free of charge.

In case MARIN has to cancel the course in view of insufficient participation, the entire fee will be refunded.

## Payment

Fee to be paid upon receipt of invoice or by creditcard through our webshop, at least two weeks before the first day of the course concerned. Payment must be by cheque or international money order, made payable to: MARIN, The Netherlands; Account number 53 93 39 156, ABN-AMRO Bank N.V., Amsterdam.

## Application

To ensure your participation (number of participants is limited), please fill in the registration form on [www.marin.nl/courses](http://www.marin.nl/courses)

Upon receipt you will receive an invoice for payment.

Deadline for early registration: June 1, 2014



## Background

As from the 1st of January 2013, ships newly delivered or converted will obtain an Energy Efficiency Design Index as defined by the IMO MEPC. The determination of the EEDI includes the model testing of the vessel, the design, construction and the delivery trials where the speed/power characteristics are finally assessed. According to IMO MEPC for each vessel an EEDI Verifier appointed by the flag state has to verify that the EEDI procedure is compliant with the IMO MEPC EEDI regulations. In these regulations special reference is made to the required procedures for the model tests and for the speed/power trials. MARIN via ITTC and STA-Group has contributed to the IMO regulations and guidelines in both fields. This course is given in close co-operation with STA-Group (see [www.marin.nl](http://www.marin.nl) or [www.vesseloperatorforum.com](http://www.vesseloperatorforum.com))

This 5 day specialist course will make the participants conversant with ship propulsion theory, design practice, resistance and propulsion model tests, extrapolation procedures and coefficients and the conduct and analysis of speed/power trials all within the frame work of the EEDI.

Besides the theoretical background during the course practical instruction will be given in MARIN model test basins as well as on board a vessel undergoing speed/power trials. Evaluation of model test results and the analysis and corrections of trial results will be practiced in afternoon session.

## Information

Saskia van de Peppel  
Asst. Course Coordinator  
[courses@marin.nl](mailto:courses@marin.nl)  
+31(0)317-49 32 89

## Tentative Program Specialist Course for EEDI Verifiers 2014

Time	MONDAY 16 June	TUESDAY 17 June	WEDNESDAY 18 June	TUESDAY 19 June	FRIDAY 20 June
8:45		Coffee 8:45-9:00 am	Coffee 8:45-9:00 am	Coffee 8:45-9:00 am	Coffee 8:45-9:00 am
9:00		Still Water Model Experiments 9:00 - 10:00 am	Case study Model test 9:00 - 10:30 am	Speed Trial Analysis <i>Full Scale Speed/Power Trials</i> 9:00 - 10:30 am	Computational Fluid Dynamics 9:00 - 10:00 am
9:15					
9:30					
9:45					
10:00		Break 10:00 -10:15 am			Break 10:00-10:15 am
10:15		EEDI Power Prediction at MARIN 10:15 - 11:15 am	Break 10:30-10:45 am	Break 10:30-10:45 am	Computational Fluid Dynamics 10:15 - 11:15 am
10:30					
10:45			Speed Trial Practise 10:45 am - 12:15 pm	Speed Trial Analysis <i>Full Scale Speed/Power Trials</i> 10:45 am - 12:15 pm	
11:00		Uncertainty in Measurement and Prediction 11:15 am - 12:15 pm			Course Lessons Learnt 11:15 am - 12:15 pm
11:15					
11:30					
11:45					
12:00					
12:15	Lunch 12:15-13:15 pm	Lunch 12:15-13:15 pm	Lunch 12:15-13:15 pm	Lunch 12:15-13:15 pm	Lunch 12:15-13:15 pm
12:30					
12:45					
13:00					
13:15	Introduction 13:15 - 14:15 pm	Model Test Practise in basin (DT) 13:15 - 14:45 pm	Bus to Rijnhaven Wageningen	STAIMO 13:15 - 15:00 pm	Closing 13:15 pm
13:30					
13:45			Trial demonstration on Board 13:45 - 15:30 pm		
14:00					
14:15	Course picture 14:15 – 14:30 pm				
14:30	Resistance & Propulsion				
14:45	<i>Still Water Ship Hydrodynamics</i>	Break 14:45-15:00 pm			
15:00	<i>Propulsors</i>	Model Test Practise in basin (DT) 15:00 - 16:30 pm		Break 15:00-15:15	
15:15	14:30 - 15:30 pm			Case study Trials 15:15 - 16:30 pm	
15:30	Break 15:30-15:45 pm		Break 15:30-15:45 pm		
15:45	Resistance & Propulsion		Trial demonstration on Board 15:45 - 17:00 pm		
16:00	<i>Still Water Ship Hydrodynamics</i>				
16:15	<i>Propulsors</i>				
16:30	15:45 - 16:45 pm			Free time	
16:45					
17:00			Bus to hotel Hof van Wageningen	Farewell Event Drink 17:00 – 19:00 pm	
17:15					
17:30			Free time		
17:45					
18:00					
18:15					
18:30	Bus Hof van Wageningen to				
18:45	Restaurant 't Veerhuis				
19:00	Course Dinner				
19:15	19:00 - 23:00 pm				
19:30					