



MARINE ENGINEERING



TWD designs are often deployed in projects involving inland, near or offshore marine installations. TWD therefore has its own in-house department dedicated to Marine Engineering.

Having both the structural design team and marine engineering specialists under one roof creates an environment of seamless cooperation and quick response time. Whether the works require practical analyses such as barge stability calculations or more theoretical motion analyses serving as input for your structural designs, our team has the tools and expertise available to get the job done quickly and efficiently, engineered to function.

OUR EXPERTISE

- STABILITY ANALYSIS & BALLAST PLANS
- MOORING ANALYSES
- MOTION ANALYSES
- MARINE OPERATIONS SUPPORT

STABILITY ANALYSIS & BALLAST PLAN

Our team is highly experienced in designing ballast plans for a wide range of floating structures, such as barges, jack-up vessels and ships. Serving as starting point for any voyage or marine operation, our clear ballast drawings and to the point stability reports are well received by Marine Warranty Surveyors and easy to use by your on-site teams.

OUR SERVICES INCLUDE:

- LIFTING CAPACITY ANALYSES FOR CRANES ON FLOATING STRUCTURES
- BALLAST AND LOADOUT (RoRo) DESIGNS
- INTACT AND DAMAGE STABILITY ANALYSES FOR CLASS AND AUTHORITY APPROVAL
- STABILITY BOOKLET RENEWALS AND CREATION

MOORING ANALYSIS

Safeguarding the position of barges or vessels is of high importance for getting a marine operation done efficiently, accurately and safely. Our in-house Marine Engineering team is equipped with years of practical experience and all needed software to design and verify mooring spreads from quay mooring to near/offshore solutions.

OUR SERVICES INCLUDE:

- QUAY MOORING DESIGN AND VERIFICATION
- ANCHOR SPREAD MOORING DESIGN AND VERIFICATION
- SPUD PILE MOORING DESIGN AND (STRUCTURAL) VERIFICATION



MOTION ANALYSIS

We are specialized in determining wave induced motions and accelerations for all types of floating structures, including barges, ships and other structures such as caissons. Our services range from calculating design accelerations during sailing or motion analyses of multiple moving bodies such as lifting studies.

OUR SERVICES INCLUDE:

- MOTION ANALYSES FOR LOAD CASE DETERMINATION OF STRUCTURAL DESIGN
- MULTIBODY MOTION ANALYSES FOR WORKABILITY DETERMINATION



MARINE OPERATIONS SUPPORT

The practical side of your project is also safe in the hands of our Marine Engineering team. We have years of experience in materializing our designs into practical easy to use solutions on site. From vessel selection to outfitting, we are ready to assist, in the preparation phase or on site during your operation.

OUR SERVICES INCLUDE:

- BARGE/VESSEL SELECTION AND MOORING OUTFITTING
- BOLLARD PULL CALCULATION AND TUG SELECTION
- COMPONENT SELECTION AND DESIGN
- METHOD STATEMENT COMPOSITION
- ON SITE OPERATIONAL ASSISTANCE

GET IN TOUCH

TEMPORARY WORKS DESIGN

T +31 10 294 03 74

W www.twd.nl

E info@twd.nl

Rotterdam Science Tower - Marconistraat 16

3029 AK Rotterdam

The Netherlands

