



This FRAMO course is designed for deck and engine officers directly tasked with the overall operation and maintenance of FRAMO CARGO PUMPING SYSTEM. The course practically provides extensive lectures and practice on the technical design & principles and working & operating mechanics of the system including its key maintenance tasks and troubleshooting techniques.

COURSE AIMS & OBJECTIVES: Upon completion of the course, participants should be able to gain technical understanding and acquire practical know-how in the proper operation and maintenance of FRAMO Cargo Pumping System during *loading, cargo sampling, heating/cooling, discharging, stripping, emergency pumping, tank cleaning, purging routines* and *cargo pump performance*. Troubleshooting efforts are given high emphasis to inculcate safe and sound system operation.

COVERAGE / PROGRAM FOCUS: Emphasis of instruction and hands-on activities deal with the operational principles and technicalities of the following:

- Basic Hydraulic System Design
- Purging Instruction
- Pumping Theories
- FRAMO Cargo Pump SDS5
- FRAMO Cargo Pump SD125
- FRAMO Portable Pumps and Cargo Pumps
- Hydraulic Principles
- FRAMO Hydraulic Control Systems
- Control Valves
- Oil Cleanliness / Filtration
- Ballast Pumps
- Service Bulletins

For practical exercises, the participants will be involved in the operation of Full-Scale Diesel-hydraulic Powerpack FRAMO Cargo Pump Types SDS5, SD125, TK8, TK4 and Tank Cleaning Pump Type 4 VF-1 (also used as firefighting pump) - Control Panel for Remote Operation, Quick Couplings, Pipes and Tank Arrangement for Full Scale Pumping Arrangement.

METHOD: The course is conducted employing:

- Extensive lectures and presentation with cooperative-learning discussions.
- Guided hands-on practice and exercises providing participants' sufficient practice to test run, inspect, disassemble/assemble and operate the various components of the system.
- Knowledge-based and skill-based assessment of trainees' performance
- For maximum teaching-learning conduciveness, class size is limited to ten (10) participants.

ENTRY REQUIREMENT / TARGET GROUP: Entry to this course is open to all deck and engine officers duly endorsed for FRAMO training, preferably going onboard vessel equipped with FRAMO Cargo Pumping System.

COURSE CERTIFICATE: A Certificate of Completion is given to each participant who satisfactorily fulfills the Course.

DURATION:

2 Weeks

(10 days: 0830H – 1630H)

2011 DATES:

1. Jan 10-14 / 17-21
2. Jan 24-28 / Jan 31-Feb 04
3. Feb 14-18 / 21-25
4. Mar 07-11 / 14-18
5. Mar 21-25 / Mar 28-Apr 01
6. Apr 04-08 / 11-15
7. Apr 25-29 / May 02-06
8. May 16-20 / 23-27
9. Jun 06-10 / 13-17
10. Jun 20-24 / Jun 27-Jul 01
11. Jul 11-15 / 18-22
12. Aug 01-05 / 08-12
13. Aug 22-26 / Aug 29-Sep 02
14. Sept 12-16 / 19-23
15. Oct 10-14 / 17-21
16. Oct 31-Nov 04 / Nov 07-11
17. Nov 21-25 / Nov 28-Dec 02
18. Dec 05-09 / 12-16

COURSE

CONTRIBUTION:

USD 709.00

(NSA Member)

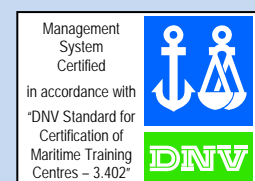
USD 788.00

(Non-NSA Member)

Inclusive of course materials/handout

NOTE:

Ship's Ratings/Crew and other shipboard personnel intending or required to have extensive FRAMO training, both theories and application, may as well take this course provided they possess the same requirements as above.



Register

ADDRESS: Norwegian Training Center-Manila Gate 2 TESDA Complex, East Service Road, Taguig City, Philippines 1634

TRUNKLINE NO: (632) 812-07-42 | **FAX NO:** (632) 812-67-28 | **WEBSITE:** www.ntcm.com.ph | **EMAIL:** ntcm.registrar@ntcm.com.ph