

Maritime Pipefitting

L1 MARITIME PIPEFITTING



LEVEL 1

Curriculum Notes

- 185 hours (Includes 100 hours of *Maritime Industry Fundamentals*, which is a prerequisite for Level 1 completion and must be purchased separately. See above for ordering information.)
- Published: 2013
- Instructor's Guide includes access code to download TestGen software, module exams, PowerPoint® slides, and performance profile sheets from www.nccerirc.com.

PAPERBACK

ISBN

Trainee Guide: \$67
Instructor's Guide: \$67

978-0-13-340475-3
978-0-13-340476-0

MODULES

All of the modules listed below are included in the Trainee Guide and the Instructor's Guide. The following ISBN and pricing information is for ordering individual modules only.

Orientation to the Maritime Pipefitting Trade (5 hours)

Trainee \$20 ISBN 978-0-13-340590-3
Instructor \$20 ISBN 978-0-13-340606-1
(Module ID 85101-13) Provides an overview of the maritime pipefitting trade and its career opportunities. Trade safety principles are introduced, as well as the responsibilities and characteristics of a good pipefitter.

Maritime Pipefitting Trade Math (15 hours)

Trainee \$20 ISBN 978-0-13-340591-0
Instructor \$20 ISBN 978-0-13-340607-8
(Module ID 85102-13) Explains how to solve a wide variety of maritime pipefitting math problems, including those related to common geometrical figures. The process of determining lengths in pipe offsets for general and rolling offsets is also presented.

Pipefitting Hand Tools (20 hours)

Trainee \$20 ISBN 978-0-13-340592-7
Instructor \$20 ISBN 978-0-13-340608-5
(Module ID 85103-13) Covers hand tool safety, as well as procedures for selecting, inspecting, using, and maintaining pipefitting hand tools. Includes pipe wrenches, pipe stands, pipe vises, levels, and pipe fabrication tools and aids.

Pipefitting Power Tools (15 hours)

Trainee \$20 ISBN 978-0-13-340593-4
Instructor \$20 ISBN 978-0-13-340609-2
(Module ID 85104-13) Covers power tool safety and procedures for selecting, inspecting, using, and maintaining power tools that are common in the maritime environment. Procedures for threading pipe are provided in a step-by-step format. Guidelines for both electrical and pneumatic tools are provided.

Oxyfuel Cutting (17.5 hours)

Trainee \$20 ISBN 978-0-13-340594-1
Instructor \$20 ISBN 978-0-13-340610-8
(Module ID 85105-13) Describes the procedures and safety requirements related to oxyfuel cutting. Detailed instructions for setting up, lighting, and using oxyfuel cutting torches is provided. Common techniques, such as straight line cutting, beveling, washing, and gouging are reviewed. Oxyfuel gas supply arrangements from both cylinders and manifolds are also presented.

Ladders and Scaffolds (12.5 hours)

Trainee \$20 ISBN 978-0-13-340595-8
Instructor \$20 ISBN 978-0-13-340611-5
(Module ID 85106-13) Explains how to identify various types of ladder and scaffold systems and describes their safe use. The pre-use inspection requirements for both ladders and scaffolds are presented.

L2 MARITIME PIPEFITTING

LEVEL 2

Curriculum Notes

- 147.5 Hours
- Published: 2013
- Instructor's Guide includes access code to download TestGen software, module exams, PowerPoint® slides, and performance profile sheets from www.nccerirc.com.

PAPERBACK

ISBN

Trainee Guide: \$97
Instructor's Guide: \$97

978-0-13-340478-4
978-0-13-340479-1

MODULES

All of the modules listed below are included in the Trainee Guide and the Instructor's Guide. The following ISBN and pricing information is for ordering individual modules only.

Piping Systems (5 hours)

Trainee \$20 ISBN 978-0-13-340596-5
Instructor \$20 ISBN 978-0-13-340612-2
(Module ID 85201-13) Identifies and explains basic types of piping systems found in the maritime environment and the materials used for various applications. Explains how thermal expansion in piping systems can be accommodated. Includes coverage of common insulation types and installation practices.

Butt Weld Pipe Fabrication (37.5 hours)

Trainee \$20 ISBN 978-0-13-340598-9
Instructor \$20 ISBN 978-0-13-340614-6
(Module ID 85202-13) Describes the pipe fittings used for maritime butt welded piping systems and how to determine the lengths of pipe between points of connection. Explains how to prepare and fit both pipe and fittings, and how to select backing rings when required.

Socket Weld Pipe Fabrication (25 hours)

Trainee \$20 ISBN 978-0-13-340599-6
Instructor \$20 ISBN 978-0-13-340615-3
(Module ID 85203-13) Describes the pipe fittings used for maritime socket welded piping systems and how to determine the lengths of pipe between points of connection. Explains how to prepare and fit both pipe and fittings.

Brazing (12.5 hours)

Trainee \$20 ISBN 978-0-13-340600-9
Instructor \$20 ISBN 978-0-13-340616-0
(Module ID 85204-13) Describes the procedures for preparing various types of pipe and tubing for brazing, as well as the brazing process. Discusses the selection of brazing filler metals for various applications.

Threaded Pipe Fabrication (15 hours)

Trainee \$20 ISBN 978-0-13-340601-6
Instructor \$20 ISBN 978-0-13-340617-7
(Module ID 85205-13) Describes the pipe fittings used for maritime threaded piping systems and how to determine the lengths of pipe between points of connection. Explains how to prepare and fit both pipe and fittings, and how to assemble threaded pipe components.

Fiberglass and Plastic Pipe (12.5 hours)

Trainee \$20 ISBN 978-0-13-340602-3
Instructor \$20 ISBN 978-0-13-340618-4
(Module ID 85206-13) Introduces various types of fiberglass and plastic pipe and their maritime applications. Explains how fiberglass and plastic piping materials are measured, cut, and joined.

Identifying Valves, Flanges, and Gaskets (20 hours)

Trainee \$20 ISBN 978-0-13-340603-0
Instructor \$20 ISBN 978-0-13-340619-1
(Module ID 85207-13) Describes and identifies various types of valves, flanges, and gaskets used in the maritime environment. Factors related to valve selection as well as their storage, handling, and installation are presented. The various flange styles and related gasket materials are described, as well as their common installation procedures.

Drawings and Detail Sheets (20 hours)

Trainee \$20 ISBN 978-0-13-340604-7
Instructor \$20 ISBN 978-0-13-340620-7
(Module ID 85208-13) Identifies the types and parts of drawings commonly used by maritime pipefitters. Explains how to interpret the information contained in pipe drawings to create the desired piping system.