ROYAL CANADIAN SEA CADETS

PHASE ONE

INSTRUCTIONAL GUIDE

SECTION 3

EO M121.03 – COIL AND HEAVE A LINE

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-601/PG-001, *Phase One Qualification Standard and Plan*, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

An interactive lecture was chosen for TP 1 to introduce the cadets to coiling and heaving a line.

A demonstration and performance was chosen for TPs 2 and 3 as it allows the instructor to explain and demonstrate the skill the cadets are expected to acquire while providing an opportunity for the cadets to practice the skill under supervision.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the cadet shall have coiled and heaved a line.

IMPORTANCE

Coiling a line is a traditional way of completing line-handling tasks in the navy, as well as being an important aspect of maintaining equipment in a good state of repair. Heaving a line is a skill that will be useful in several sea cadet activities.

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Bight

A bight is any curved section, slack part, or loop between the ends of a rope, string, or yarn.

Standing end

The standing end is the end of the rope not involved in the knot.

Standing part

Section of line between knot and the standing end.

Working end

The active end of a line used in making the knot.

Working part

Section of line between knot and the working end.

Teaching point 1 **Describe the characteristics and uses of a heaving line.**

Time: 5 min Method: Interactive Lecture

CHARACTERISTICS AND USES OF A HEAVING LINE

The characteristics and uses of a heaving line include:

- It is a lightweight flexible line, in order to facilitate throwing.
- There must be a heaving knot, or some weighted device, at the end of a heaving line.
- It can be used to start the transfer of equipment or personnel between ships or from a ship to a jetty.
- It is used to throw a line to a jetty or another boat.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS:

Q1. What are the characteristics of a heaving line?

Q2. What are some uses of a heaving line?

Q3. What is the name of the knot used to weight the end of a line?

ANTICIPATED ANSWERS:

A1. Possible answers for this question:

- It is a lightweight line, to facilitate throwing.
- There must be a knot or something weighted at the end of a heaving line.
- It is used to throw a line to a jetty or another boat.

A2. It can be used to throw a line to a jetty or another boat, or transfer equipment or personnel between ships.

A3. A heaving knot.

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Teaching point 2 **Explain, demonstrate and have the cadets coil a line.**

Time: 15 min Method: Demonstration and Performance

IMPORTANCE OF COILING A LINE



Demonstrate and have the cadets practice coiling a line.

Explain the importance of coiling a line, to include:

- Proper storage of the line will ensure ease of use for the next person.
- Increases the distance a line can be thrown.
- Allows a line to feed smoothly through a block.
- Allows a line to be tossed cleanly.
- It keeps a line from tangling.

CONFIRMATION OF TEACHING POINT 2

SUGGESTED QUESTION:

Q1. What is the importance of coiling a line?

ANTICIPATED ANSWERS:

A1. Proper storage of the line will ensure ease of use for the next person, it keeps a line from tangling, increases the distance a line can be thrown, allows a line to be tossed cleanly, and allows a line to feed smoothly through a block.

Teaching point 3 **Explain, demonstrate and have the cadets tie a heaving knot and throw a heaving line.**

Time: 30 min Method: Demonstration and Performance

TIE A HEAVING KNOT

Tie a heaving knot using the following steps:

1. Form a bight (a loop) about 1.5 m long at the end of the line.

2. Start wrapping the end of the line around both parts of the bight at about 20 cm from the actual bend of the bight, and continue until the running end is all but expended.

3. Pass the end through the small loop that is left and haul on the standing part.

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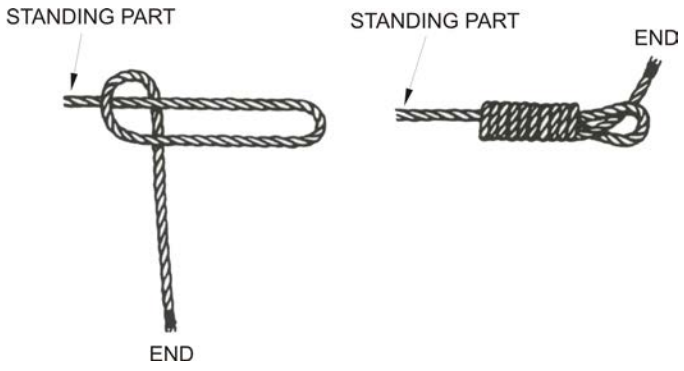


CFCD 105 Seamanship Rigging and Procedures Manual

Figure 1 Heaving Knot

HEAVING A LINE

Use the following technique to throw a heaving line:

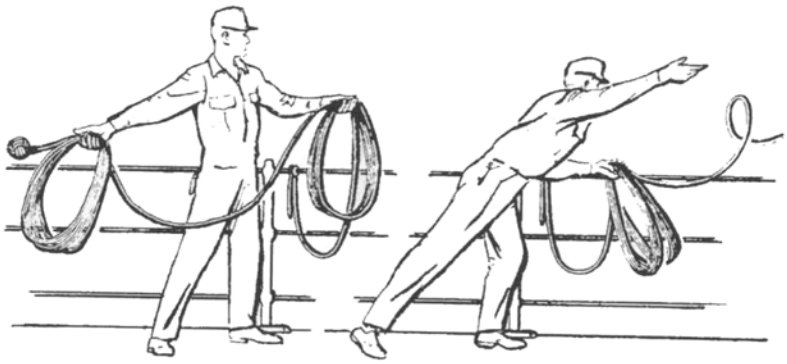
1. The line is first coiled into the hand in bights about three to four feet in circumference.

2. Separate this group of coils in half, keeping the half with the heaving knot in the heaving hand, and allow approximately five feet of line to hang in the space between the hands.

3. Turn the body sideways to the target, and hold the other hand palm-open facing the target.

4. Heave the weighted end, including the coiled rope, towards the target and allow as much of the rest of the line to go out as necessary.

5. Retain the end of the line in the other hand, or secure it to a guardrail.



Royal Canadian Sea Cadets Manual Volume 2, 1983

Figure 2 Throwing a Heaving Line

Time: 15 min

OBJECTIVE

The objective of this activity is to have the cadets tie a heaving knot and coil and heave a line towards a target.

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RESOURCES

- Heaving line, one per five cadets.
- Heaving line targets (rings hanging from a ceiling or a circle taped to the deck).
- Diagram of how to properly tie a heaving knot.

ACTIVITY LAYOUT

Layout the activity as per Diagram 3.

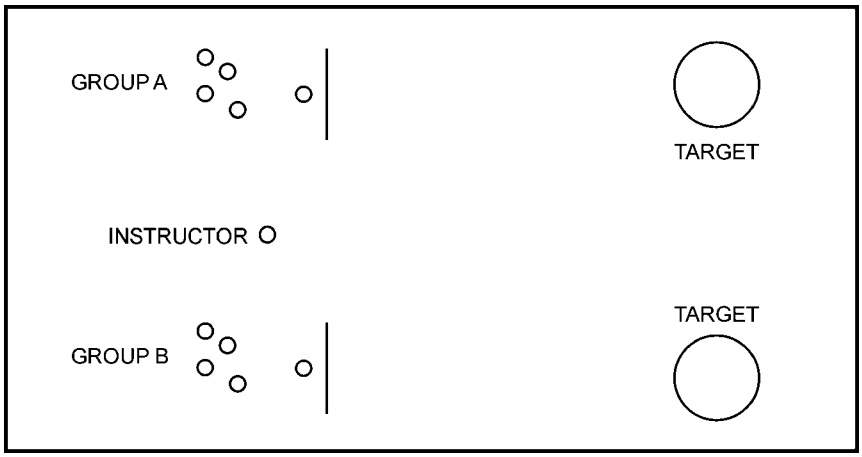

Figure 3 Activity Layout

ACTIVITY INSTRUCTIONS

1. Divide the cadets into groups of five.

2. Provide each group with a heaving line, diagram and an area in which to heave towards a target.

3. Have each cadet practice tying a heaving knot.

4. Have each cadet toss the heaving line towards their group's target focussing on the amount of line in the heaving hand and the power required to toss it.

SAFETY

Ensure a safety zone is put in place around the heaving line targets.

END OF LESSON CONFIRMATION

The cadets' participation in the activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

The cadets should be encouraged to practice coiling and heaving a line on their own time.

METHOD OF EVALUATION

Nil.

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CLOSING STATEMENT

Coiling and heaving a line will be used in a variety of cadet training activities so it is important that the cadets become proficient in these skills.

INSTRUCTOR NOTES/REMARKS

Nil.

REFERENCES

A1-004 B-GN-181-105/FP-E00 Maddison, G.R., Chief of Maritime Staff (1997). CFCD 105 Fleet Seamanship Rigging and Procedures Manual. Ottawa, ON.

C1-002 ISBN 0-7858-1446-9 Pawson, D. (2001). *Pocket Guide to Knots and Splices*. Edison, NJ: Charwell Books, Inc.

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