SEAFARER TRAINING RECORD BOOK

FOR

SKIPPER RESTRICTED LIMITS (SRL)
Certificate of competency

Table of contents

General overview ..... **ix**

Section 1 Navigation **1**

Function: Navigational watchkeeping 2

Function: Electronic navigation 4

Section 2 Vessel operations **11**

Function: Manage vessel operations 12

Section 3 Vessel safety and compliance **14**

Function: Manage vessel safety and compliance 15

Section 4 Legal compliance **18**

Function: Manage legal compliance on a restricted limits vessel 19

Section 5 Vessel machinery and systems – operation **20**

Function: Manage operation of the vessel machinery and systems 21

Section 6 Vessel machinery and systems – maintenance **26**

Function: Manage maintenance of vessel machinery and equipment 27

APPENDICES **29**

APPENDIX 1: VESSEL FAMILIARISATION TASK SHEET 29

APPENDIX 2: COLLISION PREVENTION TASK SHEET 31

APPENDIX 3: PASSAGE PLANNING TASK SHEET 34

APPENDIX 4: STABILITY TASK SHEET 36

APPENDIX 5: SAFETY MANAGEMENT TASK SHEET 38

APPENDIX 6: FIRE FIGHTING AND FIRE PREVENTION TASK SHEET 41
APPENDIX 7: LIFE-SAVING APPLIANCES TASK SHEET 43
APPENDIX 8: FUEL SYSTEMS TASK SHEET 44
APPENDIX 9: OIL LUBRICATION SYSTEMS TASK SHEET 46
APPENDIX 10: AIR SYSTEMS TASK SHEET 47
APPENDIX 11: COOLING SYSTEMS TASK SHEET 48
APPENDIX 12: ELECTRICAL SYSTEMS TASK SHEET 50
APPENDIX 13: DRIVE SYSTEMS and STEERING GEAR TASK SHEET 52
APPENDIX 14: OUTBOARD MOTORS TASK SHEET 53
APPENDIX 15: SCHEDULED MAINTENANCE TASK SHEET 54
APPENDIX 16: BILGE AND FIRE MACHINERY SYSTEMS TASK SHEET 55
EXTRA TABLES 57
NOTES 60

PERSONAL DETAILS

Family name……..

Attach passport photo

Given name(s)……

Date of birth……..

Place of birth……

Home address……

……

Telephone……Mobile……..

Email address……..

Signature……..
Date……..

The information recorded in this book is a true and correct account of the matters referred to. I understand that knowingly providing false information, or withholding relevant information, is an offence under section 406 of the Maritime Transport Act 1994 and a conviction may result in fines or imprisonment, and may have consequences for the maritime documents that I hold or apply for.

SKIPPER RESTRICTED LIMITS Certificate of competency

Skipper Restricted Limits (SRL) is a command certificate of competency designed to facilitate entry into the maritime industry. It has been introduced to address some of the barriers to entry, such as long periods of sea service required to gain an entry certificate and the lack of means to ensure quality sea service is gained.

Short name	**Skipper Restricted Limits (SRL)**
Replaces	ILM and LLO
Operational limit	Enclosed and inshore (restricted limits)
Privileges	• Skipper of a vessel operating in enclosed and inshore limits • Vessels less than 12m • Carrying 19 or fewer passengers
Minimum age	18 years
Minimum service	Duration: 200 hours Vessel type: Any powered vessel (this can be a recreational vessel, except for section 4 which must be completed on a NZ commercial vessel). Conditions: Recreational sea service must be as skipper
Training and supplementary certificates	• Completion of training record book • Practical assessment if sea service obtained aboard non-commercial vessel • Attendance at a training course • Safety oral examination • Current first aid certificate

	• Maritime Restricted Radiotelephone Operator certificate
Career progression	After six months' sea service while holding SRL, an endorsement may be obtained to command vessels 12 to 24m. A passenger endorsement may be gained to carry more than 19 passengers after six months' sea service required as a part of SRL, as appropriate or necessary, eg high-speed or square-rigged endorsements

SRL privileges and career pathways

The entry path to a command certificate within restricted limits (enclosed and inshore limits) is through completion of an evidence-based training record book within a minimum sea service of 200 hours aboard any type of vessel. This is followed by a practical assessment aboard a vessel if sea service has been acquired aboard a non-commercial vessel (to verify that the tasks covered in the task book have been satisfactorily achieved). A training course is also required to achieve the knowledge components of the competency framework. This will be followed by a safety oral examination. The training provider and the safety oral examiner will all have access to the training record book.

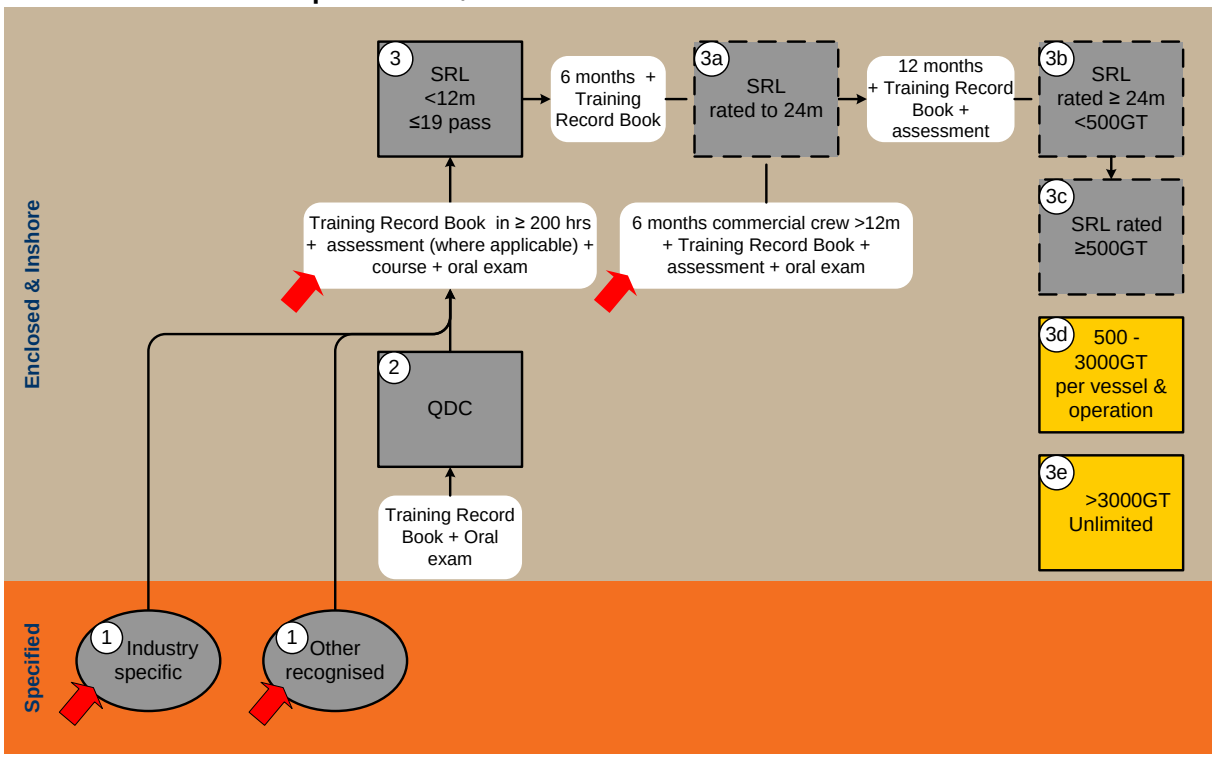
SRL is a combined command/engineering certificate that covers passenger, non-passenger and fishing vessels. Attaining this certificate of competency initially allows the holder to operate: a vessel of less than 12m carrying 19 passengers or less; a non-passenger vessel within restricted limits; or a fishing vessel less than 12m in restricted limits and within the Inshore Fishing limit.

After six months' commercial sea service, a passenger endorsement can be sought to carry more than 19 passengers. An endorsement to operate vessels of less than 24m can also be achieved through six months' sea service while holding an SRL Certificate.

A further 12 months' sea service aboard a vessel less than 24m, along with an evidence-based training record book and an assessment, enables an SRL <24m holder to have their certificate endorsed to be in command of a vessel of 24m or more (but less than 500GT) operating within restricted limits.

12 months' sea service while holding an SRL endorsed to 24 metres is required to be eligible for a Skipper Coastal Offshore <24m Certificate.

Certificates for specified, enclosed and inshore limits



See http://www.maritimenz.govt.nz for more information on career progression from SRL.

General overview

Introduction to this training record book

This training record book has been developed to assist candidates for a Skipper Restricted Limits (SRL) certificate of competency to obtain practical skills and competencies in a workplace environment to complement shore-based training that must be undertaken prior to the Maritime New Zealand (MNZ) MNZ safety oral examination. The format is similar to that of the training record books for other MNZ certificates, such as Qualified Deck Crew, Advanced Deck Hand-Fishing and Marine Engineer Class 6. It also closely follows the format of Australian STaRS books for equivalent certificates. The focus of the book is on attaining and demonstrating some of the practical competencies required to be master of a passenger or non-passenger vessel within restricted (enclosed and inshore) limits, and a fishing vessel within the inshore fishing limit.

All of the competencies required for SRL can be attained through a combination of completion of the tasks in this training record book (these tasks can be completed while serving aboard a commercial vessel, non-commercial vessel or warship except for Section 4, which must be completed on a NZ commercial vessel.) and attendance at a recognised seafarer training course. The training record book should be completed before commencing a block training course and may be completed before or during a modular training course.

The completed training record book and accompanying evidence will be made available to a practical assessor (recreational vessels), training providers, and the approved MNZ examiner for a safety oral examination (which must be passed before a certificate of competency as SRL can be issued by MNZ).

Benefits of using a training record book

This training record book will:

- allow for the accrual of high-quality experience aboard commercial or recreational vessels
- provide for the delivery of competency-based training and assessment
- provide employers with qualified crew of high standards through a skills acquisition process
- provide the candidate with a greater exposure to a variety of tasks with flexibility in gaining experience
- allow candidates to gain hands-on experience required for issue of an SRL certificate and gain employment
- enable new entrants to the maritime industry to gain certification as a possible first step in their career progression.

On receipt of the training record book:

- familiarise yourself with the layout of the book
- read all the instructions carefully
- fill out the personal details section of the book
- establish a plan on how to complete the book in a timely manner.

Responsibility

The primary responsibility for completion of the tasks detailed in this book rests with the holder of the book. You should treat the training seriously and responsibly. You should take all opportunities to visit other vessels, shipyards and workshops, in order to gain as much knowledge and exposure to the maritime industry as possible, to enable you to complete all the tasks listed. Please keep this book in a safe place. It is highly recommended that you keep a copy of the sections you have completed, along with the associated evidence as appropriate.

Completion of tasks

MNZ requires the candidate to complete **ALL** of the tasks listed in this training record book for SRL. The training record book documents an evidenced-based training programme. Successful completion depends on the availability of satisfactory evidence to support completion of tasks. This evidence can be in the form of photos, drawings, diagrams and copies of log book entries. Some tasks are required to be done more than once to gain adequate experience. These are indicated **in bold**.

ALL tasks required by this training record book must be satisfactorily completed aboard a vessel and signed off. If equipment required to complete these tasks is not available, the task must be completed on an alternative vessel with the equipment. The signatory must verify that the trainee has personally completed the task, has completed it satisfactorily, followed best practice, and is able to repeat the task. Primary tasks must not be signed off until all tasks on the associated task sheet (in appendices where applicable) have been completed and verified by the signatory. Extra templates are included for recording tasks that may be completed either on board or ashore.

Task sheets 1 to 16 require the candidate to produce their own **original** written work, drawings or diagrams as indicated. (For example, if a description or explanation is asked for, this may be produced in handwritten or printed form, but the words must be the candidate's own.) Each section of the assignment sheet must be signed off by the signatory to verify that the work is that of the candidate (verification). These assignments may still be supported with photographs or copies of vessel documentation and manuals, to assist explanations or descriptions.

Where the term **demonstrate** is used, this task can be achieved in the workplace (aboard a vessel) or in a simulated environment (eg a training establishment).

SAFETY FIRST – IF YOU HAVE ANY DOUBT ABOUT THE SAFETY OF ANY ACTIVITY WITH WHICH YOU ARE INVOLVED:
SEEK GUIDANCE IMMEDIATELY – NEVER TAKE RISKS!

Record of sea service

Table 1 – Information about the vessels on which you completed the training record book

Vessel's name	MNZ number	Dates		Hours logged	Type of vessel (passenger, non-passenger, fishing, pleasure)	Area of operation (enclosed, inshore, near-coastal*)	Skipper's name	Skipper's signature
		From	To					

* The terms enclosed, inshore and near-coastal have the same meaning as in Maritime Rule Part 20.

It is important that you complete tables accurately. MNZ may carry out random checks to verify the truth of the entries made in this book. Under section 406 of the Maritime Transport Act 1994, it is an offence to knowingly provide false information, or withhold relevant information. Conviction can result in imprisonment or fines for individuals, and fines of up to $30,000 for corporations. There may also be consequences for the maritime documents held or applied for by those providing false information or withholding relevant information.

Table 2 – Information about signatories

Signatory's name*	Certificate held	Date of issue	Number of certificate	Telephone contact / email address	Postal address	Signature

*A signatory must either the skipper of the vessel, another crew member holding a maritime certificate of competency, or a maritime lecturer from a training provider.

The signatories who have supervised the required tasks in this book hereby certify that the information in this book is to the best of their knowledge true and accurate in all respects. Under section 406 of the Maritime Transport Act 1994, knowingly providing false information or withholding relevant information may constitute an offence. Conviction of an offence under this section may result in fines, imprisonment, and may have consequences for any maritime documents held currently or applied for in the future.

Signing off tasks

The tasks in the training record book have been carefully selected to ensure that candidates get effective practical experience in a variety of fields under different conditions, and demonstrate a satisfactory level of achievement and ability in performing those tasks. There must be evidence, where required, of completion of tasks. MNZ requires that all tasks be signed off as they are completed. The examples below explain how these tasks are to be signed off. If tasks are unable to be done on the vessel, it should be noted. These must be completed on another vessel or on the training course and signed by a maritime qualified person.

Self-declaration **(S)**

Some of the tasks contained in this training record book are quite simple and can be done by someone with limited experience. Completion of these tasks **does not require assistance** from someone with extensive maritime experience or a certificate. For example, one task might require you to list the location of the lifejackets on board. Such tasks require a self-declaration. When you complete such tasks, marked **(S)**, you must initial/sign the box opposite that task in the table. An example is shown below.

You are to complete of the tasks below. Sign and date tasks in the corresponding columns. If you have documentary evidence of task completion, keep it with your training record book.

MANAGE VESSEL SAFETY AND COMPLIANCE **(S)**				
Task		Listing	Signature	Date
3.16	Identify three hazards in the register and state how they are managed on the vessel	1. Unguarded belts on machinery 2. Burns from galley stove 3. Slipping on wet decks (plus information on management of these hazards)	XXXXXXXXXX	12 August 2014

Confirmation (C)

Some tasks will **require some assistance** from experienced crew members. In these cases, you will need to get them to confirm that you have completed the tasks marked with **(C)**.

In the example below, the skipper or another certificated crew member has confirmed that you satisfactorily carried out the assigned task.

You are required to complete the tasks listed below and have them signed off and dated by your supervisor. If you have documentary evidence of task completion, keep it with your training record book.						
OPERATION OF VESSEL'S PROPULSION AND AUXILIARY MACHINERY AND SYSTEMS (C)						
Task		Name of signatory	Signature	Date	Evidence provided Yes (list)	No
Appendix 13	Trace and sketch the drive train components, including: • gear box • propeller shaft • intermediate bearings • flexible couplings • stern glands	XXXXXXXXXX		15.08.14	Drive train systems identified on location, and their functions described and supported by drawings	

Guidance (G)

The third type of task involves **assistance and guidance** from a crew member who holds a maritime certificate and has good knowledge and expertise in the task that you are required to complete. The person providing assistance and guidance is required to sign off on tasks marked **(G)**, once you have completed those under their supervision and guidance.

Under the supervision of the skipper, engineer or other marine-qualified person, the tasks listed below are to be completed and signed off in the corresponding columns				
FUEL SYSTEMS **(G)**				
	Task	Signatory's comment	Name of signatory	Date
1.20	Set up the radar correctly to give the best display for the prevailing conditions. Demonstrate correct use of the following controls: • anti-sea clutter • anti-rain clutter		XXXXXXXXX	30 July 2014

In the example above, the person who provided guidance and assistance and signed off the tasks will have his/her name and certificates entered in Table 2 above (Information about signatories). MNZ may contact the signatories and make queries about the tasks you completed under their guidance and supervision.

Task summary chart

To assist you in the management of training record book tasks, a task summary chart is included below.

Task	Date	Task	Date	Task	Date	Task	Date	Task	Date	Task	Date
Section 1		1.17		**Section 2**		**Section 3**		**Section 5**		**Section 5**	
1.1		1.18		2.1		3.10		5.5		5.21	
1.2		1.19		2.2		3.11		5.6		5.22	
1.3		1.20		2.3		3.12		5.7		5.23	
1.4		1.21		2.4		3.13		5.8		5.24	
1.5		1.22		2.5		3.14		5.9		5.25	
1.6		1.23		2.6		3.15		5.10		5.26	
1.7		1.24		**Section 3**		**Section 4**		5.11		5.27	
1.8		1.25		3.1		4.1		5.12		**Section 6**	
1.9		1.26		3.2		4.2		5.13		6.1	
1.10		1.27		3.3		4.3		5.14		6.2	
1.11		1.28		3.4		4.4		5.15		6.3	
1.12		1.29		3.5		**Section 5**		5.16		6.4	
1.13		1.30		3.6		5.1		5.17		6.5	
1.14		1.31		3.7		5.2		5.18		6.6	
15		1.32		3.8		5.3		5.19		6.7	
1.16		1.33/1.34		3.9		5.4		5.20			

Section 1 Navigation

Function: Navigational watchkeeping

Under the supervision of the skipper, or other maritime qualified person, the tasks listed below are to be completed and signed off in the corresponding columns				
PLAN AND CONDUCT A VESSEL PASSAGE (G)				
	Task	Signatory's comment	Name of signatory	Date
1.1	Vessel familiarisation – complete the tasks on Appendix 1: Vessel familiarisation task sheet			
1.2	Locate a copy of Maritime Rule Part 22 (collision prevention rule) on the vessel. Using the rule, complete Appendix 2: Collision prevention task sheet			
1.3	Undertake lookout duties on **10 separate occasions**			

1.4	Participate in the planning of a safe passage – complete Appendix 3: Passage planning task sheet			
1.5	Fix the vessel's position using compass bearings on **at least three separate occasions**			
1.6	Identify visually and on the chart, **at least three separate transits** that would be useful for monitoring the vessel's position			
1.7	Identify visually and on the chart, **three IALA navigational marks** that can be used to assist in monitoring the vessel's position.			
1.8	Demonstrate use of DR positions and determination of an ETA			

Function: Electronic navigation

Under the supervision of the skipper or other maritime qualified person, the tasks listed below are to be completed and signed off in the corresponding columns.

ELECTRONIC NAVIGATIONAL SYSTEMS (G)				
	Task	Signatory's comment	Name of signatory	Date
	GPS (if fitted)			
1.9	Locate the GPS unit and its operation manual in the wheelhouse			
1.10	Identify the positional datum the GPS receiver is using			
1.11	Identify how the GPS receiver would indicate that it is operating in DR mode			
1.12	Identify the following functions of the GPS: • latitude and longitude display • course and speed indicators • man overboard function • event marker			
1.13	Identify whether the GPS receiver is displaying • log or ground speed • true or magnetic courses			
1.14	Fix the vessel's position using GPS on **at least three separate occasions**			

	CHART PLOTTER (if fitted)			
1.15	Locate the chart plotter unit and its operation manual in the wheelhouse			
1.16	Identify three hazards on the paper chart and compare them to the chart plotter display			
1.17	List the precautions you would use when using a chart plotter to assist you in monitoring the vessel's position			
1.18	Enter safety margins for the vessel on the chart plotter			
1.19	Plan a passage of two hours' duration on a paper chart. Using the chart plotter: • enter way points obtained from a paper chart to compile a route • monitor the vessel's position while on passage • demonstrate the MOB and event marker functions • transfer positions **obtained every half hour** to a paper chart			
	RADAR			
1.20	Locate the radar and its operation manual in the wheelhouse			
1.21	Set up the radar correctly to give the best display for the prevailing conditions. Demonstrate correct use of the following controls: • anti-sea clutter • anti-rail clutter			

1.22	Identify approaching targets on the radar display and visually on **at least 10 occasions**			
1.23	Identify coastal features suitable for assisting in confirming the vessel position			
1.24	Demonstrate use of the following functions: • EBL • VRM • cursor (if fitted) • range up/range down • display brilliance/colour • IR/IC • display off-centre • Selection of pulse length			

1.25	Fix the vessel's position on **at least five separate occasions** using: • three radar ranges • a range and bearing to a single point			
1.26	Use radar to determine vessel's position when in restricted visibility on **at least two occasions**			
1.27	Use the radar to assist in determining risk of collision on **at least 10 occasions**			

1.28	Use the radar to assist in determining whether the action taken to avoid collision is effective on **at least 10 occasions**			
1.29	Use the radar's parallel index function to assist in monitoring the vessel's position			
	ECHO / DEPTH SOUNDER			
1.30	Locate the echo sounder unit and its operation manual in the wheelhouse State if the echo sounder displays: • depth below the surface • depth below the transducer • depth below the keel			
	State if the echo sounder displays:			

	• depth below the surface • depth below the transducer • depth below the keel			
1.31	Set up the depth and shoal alarms to suit vessel draught and position of the transducer			
1.32	Compare the echo sounders displayed depth with that stated on the chart for your position on **at least 10 occasions**			
	MAINTAINING A SAFE TRACK			
1.33	On **three of the above separate occasions**, compare the vessel's fixed position with the planned track: • state possible reasons for the difference • state the action required to bring the			

	vessel back to the planned track			
	MAINTAINING A SAFE NAVIGATIONAL WATCH			
1.34	Demonstrate safe navigational watchkeeping practices under different weather conditions and during hours of darkness or restricted visibility			

Section 2 Vessel operations

Function: Manage vessel operations

Under the supervision of the skipper, engineer or other marine qualified person, the tasks listed below are to be completed and signed off in the corresponding columns				
MANAGEMENT OF VESSEL OPERATIONS **(G)**				
	Task	Signatory's comment	Name of signatory	Date
	STABILITY			
2.1	Locate the vessel's stability data and complete Appendix 4: Stability task sheet			
	MANOEUVERING THE VESSEL			
2.2	Identify the following operational procedures from the Safe Ship Management manual: • berthing/mooring • anchoring • rigging a gangway (if applicable) • fishing operations (if applicable) • towing operations (if applicable)			
2.3	Identify the mooring lines used on the vessel, including bow line, stern line, forward spring and aft spring (as applicable)			
2.4	Identify the hazards of the anchoring operation from the Safe Ship Management manual and state actions taken as skipper to minimise these on the vessel			
2.5	Vessel handling techniques are demonstrated on **at least three occasions** including: • stopping and turning the vessel, in confined spaces using transverse			

	thrust (propeller walk) • approaching a buoy or object in the water • berthing the vessel • departure from the berth • use of back-up engine and steering controls system (if fitted) • anchoring the vessel			
2.6	Tie common knots, bends and hitches for marine applications including: • single sheet bend • double sheet bend • round turn and two half hitches • bowline • clove hitch • figure of eight knot • reef knot Coiling rope and securing to a cleat or bollard and use of a heaving line is demonstrated			

Section 3 Vessel safety and compliance

Function: Manage vessel safety and compliance

You are required to complete the tasks below and have them signed off and dated by your supervisor. If you have documentary evidence of task completion, keep it with your training book.

SAFETY AND COMPLIANCE (C)						
Task		Name of signatory	Signature	Date	Evidence provided Yes (list)	No
3.0	Using the Safe Ship Management manual, complete Appendix 5: Safety management task sheet					
	ENCLOSED SPACE ENTRY					
3.1	Identify enclosed and confined spaces on your vessel					
	FIRE FIGHTING AND FIRE PREVENTION					
3.2	Complete Appendix 6: Fire fighting and fire prevention task sheet					
	LIFE-SAVING APPLIANCES					
3.3	Identify all methods for signaling distress on your vessel					
3.4	Complete Appendix 7: Life-saving appliances task sheet					
	MAN OVER-BOARD					
3.5	Identify the precautions taken to prevent a man overboard situation on your vessel					

3.6	Conduct **two man overboard drills** under supervision of the skipper					
	EMERGENCIES					
3.7	Participate in **at least two** of the following emergency drills: • collision • grounding • water Ingress					
3.8	Identify the methods used to control the ingress of water on the vessel					
	DRILLS					
3.9	Participate in **at least three fire drills** held in accordance with the vessel's safety management plan					
3.10	Participate **in at least three** man overboard drills held in accordance with the vessel's safety management plan					
3.11	Participate in **at least three abandon ship drills** held in accordance with the vessel's					

	safety management plan					
3.12	Participate in **at least two other safety drills** held in accordance with the vessel's safety management plan, including grounding, collision, loss of steering and loss of engine propulsion					
	HAZARDS					
3.13	Locate the hazard register aboard your vessel					
3.14	Identify **three hazards** in the register and state how they are managed on the vessel					
3.15	State the procedure for recording a newly detected hazard aboard the vessel					

Section 4 Legal compliance

Function: Manage legal compliance on a restricted limits vessel

- This section is to be completed on a New Zealand commercial vessel or at a recognised seafarer training provider.
- You are to demonstrate completion of the tasks below. Sign and date tasks in the corresponding columns. If you have documentary evidence of task completion, keep it with your training record book.

LEGAL REQUIREMENTS FOR OPERATION OF A COMMERCIAL VESSEL (S)				
Task		Listing	Signature	Date
4.1	State the location of the Safety Ship Management manual			
4.2	Describe the procedure to update and make improvements to the manual aboard your vessel			
4.3	Complete Appendix 5: Safety management task sheet			
4.4	Describe **two examples** of operating procedures from your vessel's safety management system			

Section 5 Vessel machinery and systems – operation

Function: Manage operation of the vessel machinery and systems

You are required to complete the tasks listed below and have them signed off and dated by your supervisor. If you have documentary evidence of task completion, keep it with your training record book.

OPERATION OF VESSEL'S PROPULSION AND AUXILIARY MACHINERY AND SYSTEMS (C)						
Task		Name of signatory	Signature	Date	Evidence provided Yes (list)	No
5.1	Complete Appendix 8: Fuel systems task sheet					
	BUNKERING PROCEDURES					
5.2	Participate in bunkering operations on a**t least two occasions**					
5.3	Demonstrate the process for bleeding air from the fuel system					
5.4	Demonstrate the process for changing fuel filters (primary or secondary)					
5.5	Complete Appendix 9: Oil lubrication systems task sheet					
5.6	Carry out daily oil lubrication checks on **at least 5 occasions**					

5.7	Participate in, or demonstrate, a lubrication oil change					
5.8	Complete Appendix 10: Air systems task sheet					
5.9	Complete Appendix 11: Cooling systems task sheet					
5.10	Carry out engine pre-start cooling system checks on **at least five occasions**					
5.11	Carry out engine cooling system checks on **at least five occasions** while vessel is underway					
5.12	Demonstrate the replacement of a flexible impeller in a cooling system					
5.13	Complete Appendix 12: Electrical systems task sheet					
5.14	Conduct vessel battery checks as described in your vessel manual					

5.15	Demonstrate the process of adjusting an alternator drive belt					
5.16	Replace electrical fuses on **at least one occasion**					
5.17	Complete Appendix 13: Drive systems and steering gear task sheet					
5.18	Gear box checks are conducted on **at least five occasions**					
5.19	Steering gear checks are conducted on **at least five occasions**					
5.20	Use the emergency/back-up steering gear on **at least one occasion**					
5.21	Complete Appendix 14: Outboard motors task sheet					
5.22	Conduct pre-start checks of the					

	outboard motor on **at least two occasions**					
5.23	Monitor the running of the outboard motor to maintain efficiency of operation on **at least two occasions**					
	MACHINERY OPERATION					
5.24	Demonstrate safe working practices when monitoring machinery during operation on **at least five occasions**					
5.25	Vessel is prepared for sea on **at least five occasions**. Checks are to include: • spares • tools • lubricants • fuel • fresh water • completion of documentation in accordance with the vessel's safety management plan					

5.26	Engine alarms are tested on **at least three occasions** in accordance with the manufacturer's operating instructions					
5.27	Engines and auxiliary equipment are shut down in accordance with the vessel's safety management plan on **at least five occasions**					

Section 6 Vessel machinery and systems – maintenance

Function: Manage maintenance of vessel machinery and equipment

Under the supervision of the skipper, engineer or other marine qualified person, the tasks listed below are required to be completed and be signed off in the corresponding columns

MAINTAIN PROPULSION AND AUXILIARY MACHINERY, AND SYSTEMS (G)						
Task		Name of observer	Signature	Date	Evidence provided Yes (list)	No
	SCHEDULED MAINTENANCE					
6,1	Complete Appendix 15: Scheduled maintenance task sheet					
6.2	Conduct machinery maintenance checks and complete the check sheets on **at least five occasions**					
	FIRE BILGE SYSTEMS					
6.3	Complete Appendix 16: Bilge and fire machinery systems task sheet					
6.4	Bilge pumping equipment is operated according to vessel operating procedures on **at**					

	least five occasions					
6.5	Operate the emergency or back-up bilge system on **at least two occasions**					
6.6	Fire-fighting pumps (if fitted) are operated according to vessel operating procedures on **at least five occasion**s					
6.7	Operate the emergency or back-up fire main system (if fitted) on **at least two occasions**					

APPENDICES

APPENDIX 1: VESSEL FAMILIARISATION TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
LOCATE THE FOLLOWING DOCUMENTS:			
Safe Ship Management Certificate			
Safe Ship Management manual or MOSS manual			
Chart portfolio			
NZ204 Nautical Almanac			
Radio handbook			
Vessel log book			
LOCATE THE FOLLOWING NAVIGATION EQUIPMENT (if fitted)			
Compass			
Compass certificate & table of deviations			
Radar			
Radio/s – VHF & SSB			
GPS			
Echo sounder			
Other – list			
LOCATE THE FOLLOWING SAFETY EQUIPMENT:			
Distress-signalling equipment • EPIRB • pyrotechnics • VHF radio			

Life-saving appliance (LSA) • lifejackets • buoyant apparatus • lifebuoys • vessel plans			
Fire-fighting appliances • fire detection system • fixed fire-fighting installation • fire blankets • fire extinguishers • fire pump(s) • hydrants and hoses • fire outfits • vessel plans / fire plans			
EMERGENCY PREPAREDNESS			
Locate the muster stations			
State the procedures on the vessel for: 1. Abandon ship 2. Fire 3. Man overboard 4. General muster			

APPENDIX 2: COLLISION PREVENTION TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
LOOKOUT DUTIES			
On **at least 15 occasions** when vessels are in sight of one another, identify a target vessel visually and determine: 1. If risk of collision exists 2. Who is responsible to keep out of the way 3. What action is required by your vessel 4. What action would you expect the other vessel to take 5. The action required if the other vessel does not take the expected appropriate action 6. The rule reference (in Maritime Rule Part 22: Collision Prevention) that the above actions are in compliance with			

TASK	DETAILS	DATE	VERIFICATION
On **at least five occasions** when vessels are in sight of one another, identify a target vessel on radar and determine: 1. If risk of collision exists 2. Who is responsible to keep out of the way 3. What action is required by your vessel 4. What action would you expect the other vessel to take 5. The action required if the other vessel does not take the expected appropriate action 6. The rule reference (in Maritime Rule Part 22: Collision Prevention) that the above actions are in compliance with			
On **at least five occasions** when vessels are not in sight of one another, identify a target vessel visually or by radar and determine: 1. If risk of collision exists 2. Who is responsible to keep out of the way 3. What action is required by your vessel 4. What action would you expect the other vessel to take			

TASK	DETAILS	DATE	VERIFICATION
5. The action required if the other vessel does not take the expected appropriate action The rule reference (in Maritime Rule Part 22: Collision Prevention) that the above actions are in compliance with			

APPENDIX 3: PASSAGE PLANNING TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
SINGLE-LEG PASSAGE PLANNING			
Identify and list **three sources of information** you would use to plan a safe passage. State their use			
What is the NZ chart number and the title of the chart you will use?			
Plot your start and finish position			
Lay off a safe track			
Identify and **list three dangers to navigation** close to this track			
What is the variation for this area?			
State the compass course you will steer to get to your finish position			
State how you plan to monitor your vessel's position so you know it remains on the safe track			
Record the times of the tides			
What effect do you predict the tidal stream will have on your course?			
Record the weather forecast for the area			
What effect do you predict the weather forecast will have on your course and vessel safety?			
WHEN ON PASSAGE			
Fix the vessel's position **at least three times**			

TASK	DETAILS	DATE	VERIFICATION
State the action you took to bring the vessel back to the safe track when the plotted position indicated the vessel had been taken off the track			

APPENDIX 4: STABILITY TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
Locate the vessel stability data book and identify the following: • watertight doors and closures • weather tight doors and closures			
Describe the specific loading requirements the vessel has in order to maintain stability over the time of your voyage			
Describe any fuel or water tank usage order			
ON THE VESSEL			
Demonstrate the correct closure of the weather tight doors			
Demonstrate the correct closure of the watertight doors			
Inspect the freeing ports and scupper drains on the vessel			
Identify and list areas of likely water ingress, free-surface effect and down-flooding on the vessel			
State the procedures to monitor and prevent this from happening			
Conduct inspection of the above in one heavy weather event, to monitor and prevent free-surface effect developing			

Describe and record the handling techniques that maintain the stability of the vessel in moderate and rough weather			
Take the helm of the vessel in moderate weather and demonstrate techniques that contribute to the maintenance of stability			

APPENDIX 5: SAFETY MANAGEMENT TASK SHEET

Use the Safe Ship Management manual or MOSS manual complete the following task sheet:

TASK	DETAILS	DATE	VERIFICATION
EMERGENCY PROCEDURES AND EQUIPMENT			
List the emergency procedures that are in the vessel's safety manual			
Describe the procedure to update these procedures as equipment and / or situations change			
Locate the Safety Equipment Sheet			
List the LSA and Man Overboard (MOB) equipment			
List the fire detection and fire-fighting equipment			
Using the above sheet, conduct inspections of safety equipment on **two occasions**			
Describe the process undertaken if a defect is found with any safety equipment on the vessel			
HAZARD MANAGEMENT			
Describe the procedure for reporting a new hazard on your vessel			
Describe how the hazard is recorded			
Describe the action to be taken after a new hazard is discovered			
List **two examples** of hazards recorded in your on-board register and the steps that have been taken to manage them			

TASK	DETAILS	DATE	VERIFICATION
GARBAGE MANAGEMENT			
Describe the procedure used to manage garbage on your vessel			
SEWAGE MANAGEMENT			
Describe the procedure to manage sewage (black water) on your vessel			
BUNKERING / FUELLING			
Describe the fuelling procedure on your vessel			
List the contents of the spill kit on board your vessel			
Describe what is done with waste engine oil and contaminated bilge water waste from your vessel			
State the action to take in event of a fuel spill on your vessel			
State the reporting and recording that is required in the event of a fuel or oil spillage into the sea			
ACCIDENT RECORDING AND REPORTING			
Using the guide in the manual, fill in an MNZ Accident and Incident Report form about an imaginary occurrence and file the report with this sheet			
Read and discuss with the vessel master two of the reports held in this section (placing emphasis on future prevention of this type of occurrence)			

DOCUMENTATION			
List the documentation and certificates contained in the manual that are not listed above and state their purpose			
Loadline Certificate			
Manning Certificate			
Fit for Purpose Certificate			
Safe Ship Certificate			
DUTIES OF THE MASTER			
State the duties and responsibilities of the master on this vessel			
OPERATING LIMITS			
State the operating limits of the vessel and demonstrate the limit area on a chart			
EMERGENCY PREPAREDNESS			
Using manual, identify and describe the following emergency procedures: • abandon ship • MOB • fire • collision • grounding • water ingress • engine failure • steering gear failure			

APPENDIX 6: FIRE FIGHTING AND FIRE PREVENTION TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
FIRE PREVENTION			
Describe the process for prevention of fire on your vessel			
List three fire hazards and state the actions taken to prevent these becoming a fire			
State the methods for detecting fire on your vessel in each separate compartment			
State the procedure upon discovery of fire on your vessel			
Locate all fire-fighting equipment on your vessel			
Participate in the inspection of fire-fighting equipment on **at least five occasions**			
FIRE FIGHTING			
Describe the fire-fighting equipment on your vessel			
List the types of extinguishers found on your vessel and describe:			

TASK	DETAILS	DATE	VERIFICATION
• how they are deployed • what type of fires are they suitable for use on • the precautions to take in their use			
Extinguish a small fire using portable extinguishers **on at least three occasions** Extinguishers to include: • dry powder • CO_2 • foam type			
Extinguish a fire using a fire blanket on **at least two occasions**			
Describe the hazards you predict there will be when fighting a fire on a vessel			

APPENDIX 7: LIFE-SAVING APPLIANCES TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
LIFE-SAVING APPLIANCES			
Locate all life-saving appliances (LSA) and Man Overboard (MOB) equipment on your vessel			
Participate in the inspection of LSA equipment on **at least five occasions**			
Don a lifejacket			
Enter the water from a low height while wearing a lifejacket correctly			
Launch Carley floats and other buoyant apparatus (if available)			
Launch an inflatable life raft and board			
Take correct initial actions when aboard the life raft			
Operate distress flares			
Send a mock mayday message			

APPENDIX 8: FUEL SYSTEMS TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
FUEL SYSTEM			
Trace the fuel system through your vessel then draw a sketch to illustrate its path. Make sure you label and include: • tank fittings • fuel lines • primary filters • secondary filters • lift pump • HP fuel pump • HP fuel lines • injectors • spill return lines If you have a common rail fuel system (such as General Motors Detroit), then draw your system			
Describe the checks and maintenance done on the fuel system. These should be in the vessel's maintenance manual			
Describe the most likely places for water contamination to take place in the fuel on your vessel. What has been done to prevent this?			
State the spares and tools carried to support the fuel system			

Describe in detail the bunkering procedure on you vessel. This is designed to prevent pollution to the environment and minimise the risk of fire. It should be detailed in the safety management system			
State the location and contents of the spill kit			
Describe the procedure for an accidental spill of fuel while bunkering			
When you have completed bunkering, where do you record the amount of fuel that you have taken on board?			
What could you do if you suddenly found your vessel short on fuel while at sea?			

APPENDIX 9: OIL LUBRICATION SYSTEMS TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
OIL LUBRICATION SYSTEMS			
Trace the path oil takes through your vessel's engine. Draw this as a diagram. State the engine running hours at which the lubrication oil and filters are changed			
List the daily checks that are done before start up on the oil lubrication system			
When you start the engine, state the initial oil pressure, the idling oil pressure when the engine is up to temperature, and the oil pressure when hot at full RPM			
State the engine running hours at which the lubrication oil and filters are changed			
List the possible causes of a drop in lubricating oil pressure, and next to these any actions that may prevent or minimise these occurrences			
What are the dangers of fuel contaminating the lubrication oil?			
State what is done with waste lubrication oil and oily rags to prevent fire hazard and pollution to the environment			
State the spares and tools carried to support the oil lubrication system			

APPENDIX 10: AIR SYSTEMS TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
AIR AND EXHAUST SYSTEMS			
Air systems components (if fitted) are traced and sketched and their purpose described, including: • exhaust system • exhaust colour diagnosis			
Trace the air induction system on your vessel. Sketch this system and describe the purpose of the parts including (if fitted): • engine room fans • engine air filters • airbox drains • turbo charger • blowers			
State the spares and tools carried to support the air and exhaust system			
Trace the exhaust system on your vessel. Sketch this system and describe the purpose of the parts including (if fitted): • manifold cooling • water injection points • mixing boxes • anti-siphon devices • expansion joints • dry stack			
State the relationship of engine exhaust colour to the engine running efficiency			

APPENDIX 11: COOLING SYSTEMS TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
COOLING SYSTEMS			
Trace the cooling system on your vessel and draw a diagram to represent it, including (if applicable): • sea strainers • sea valves • raw water pump • impeller • drive belts • heat exchanger • header tank • thermostat • zinc anodes • overboard discharge • exhaust injection arrangement • anti-siphoning valve. • keel cooling fins • keel cooling circulation pump • enclosed circuit (freshwater) water pump			
Describe the function of the parts in your system, including (if applicable): • sea strainers • sea valves • raw water pump • impeller			

TASK	DETAILS	DATE	VERIFICATION
• drive belts • heat exchanger • header tank • thermostat • zinc anodes • overboard discharge • exhaust injection arrangement • anti-siphoning valves • keel cooling fins • keel cooling circulation pump • enclosed circuit (freshwater) pump			
List the daily checks that you do before starting the engine and the checks once the engine is running. (Refer to your safety management maintenance sheet.)			
List the maintenance required by your system. This could be monthly, six-weekly, six-monthly or even annual			
Describe two problems that could occur in your vessel's cooling system and state what you are able to do about them when at sea			
List the spares and tools carried to support the cooling system on your vessel			
State the process for inspecting and topping up the cooling water in the enclosed circuit (FW), including the procedure for mixing the corrosion inhibitor additive			

APPENDIX 12: ELECTRICAL SYSTEMS TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
ELECTRICAL SYSTEMS			
List the components of the electrical system on board your vessel including: • batteries • starting systems • glow plugs (if applicable) • alternators • charging system • distribution boards • circuit breakers • fuses			
State the function of each of the following components: • batteries • starting systems • glow plugs, (if applicable) • alternators • charging system • distribution boards • circuit breakers • fuses			
List the types of batteries you have on your vessel and describe what they power			
When operating or checking batteries, state the precautions that you take. These should be listed in the SSM or MOSS maintenance manual under			

TASK	DETAILS	DATE	VERIFICATION
battery checks, or in the hazard section			
Describe that checks done on your vessel to keep the electrical system safe and serviceable. Note: these may be done by a qualified person, but you must have knowledge of the checks as you may be the person booking the maintenance			

APPENDIX 13: DRIVE SYSTEMS and STEERING GEAR TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
DRIVE AND STEERING SYSTEMS			
Trace and sketch the drive train components including: • gear box • propeller shaft • intermediate bearings • flexible couplings • stern glands			
State the function of each of the components: • gear box • propeller shaft • intermediate bearings • flexible couplings • stern glands			
Describe the checks made to the system before starting			
Describe the checks to be made to the system while the vessel is underway			
Describe the maintenance required by your drive system			
Trace and then sketch the steering system on board the vessel			
Describe the checks to be made to the steering system			
Sketch and describe the back-up steering system			
Describe the maintenance required by the steering system			

APPENDIX 14: OUTBOARD MOTORS TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
OUTBOARD MOTORS AND SYSTEMS			
Identify and describe outboard motor fuel systems and components including: • integral/portable/built-in fuel tanks • 2-stroke fuel mixtures • venting • effects of stale fuel, filters • carburettor (jets and floats)			
Describe outboard motor lubrication systems for 2- and 4-stroke engines. Describe how gearbox and engine oil levels are checked and replenished			
Describe outboard motor water cooling systems in terms of: • impellor overheating • salt build up • flushing • cooling tell tale			
Identify and describe battery and electrical installations for outboard motors in terms of: • safety and maintenance • ignition systems and spark plugs • electrolysis and sacrificial anodes • salt water corrosion • trim tabs • starter motor • emergency starting • kill switch and kill-cord • stop button			

APPENDIX 15: SCHEDULED MAINTENANCE TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
PLANNED MAINTENANCE			
Describe the document that outlines the scheduled or planned maintenance on the vessel			
Participate in the inspection and maintenance of the following systems (if applicable): • refrigeration plant • hydraulic system (pumps and motors, piping, control and other valves, filters, header tanks and piping) • deck machinery (trawl winches, anchor windlass and anchors, deck cranes)			
Describe how equipment is tested prior to return to service			
Describe the recording procedures after completing checks and maintenance on the vessel			

APPENDIX 16: BILGE AND FIRE MACHINERY SYSTEMS TASK SHEET

TASK	DETAILS	DATE	VERIFICATION
BILGE SYSTEMS			
Trace the bilge system on the vessel. Draw a diagram of the system and describe the function of the parts of the system. Do not forget to include the back-up system			
Describe your back-up system			
Look at the vessel compartment by compartment and identify where water may enter. You may find vents, hatches, stern tubes or skin fittings. List what you find under the different compartment headings. It is important to know where the risks lie as you can then monitor them			
List the possible reasons for a loss in suction in the system. It is good to predict these, as it may assist in quicker fault-finding in an emergency. Remember the pump will draw air before it sucks water			
Describe the planned maintenance of the bilge system			
FIRE SYSTEMS			
Trace and sketch a fire main system on a vessel including: • sea valves and strainers • fire pumps • hydrants • hoses • nozzles			

Describe the operation of the system			
Describe the checks and maintenance of the system			

EXTRA TABLES

Self assessment (S)

You are to complete of the tasks below. Sign and date tasks in the corresponding columns. If you have documentary evidence of task completion, keep it with your training record book.				
Insert heading here (S)				
Task		Listing	Signature	Date

You are to complete of the tasks below. Sign and date tasks in the corresponding columns. If you have documentary evidence of task completion, keep it with your training record book.				
Insert heading here (S)				
Task		Listing	Signature	Date

Confirmation (C)

You are required to complete the tasks listed below and have them signed off and dated by your supervisor. If you have documentary evidence of task completion, keep it with your training record book.						
Insert heading here (C)						
Task		Name of signatory	Signature	Date	Evidence provided Yes (list)	No

You are required to complete the tasks listed below and have them signed off and dated by your supervisor. If you have documentary evidence of task completion, keep it with your training record book.						
Insert heading here (C)						
Task		Name of signatory	Signature	Date	Evidence provided Yes (list)	No

Guidance (G)

Under the supervision of the skipper, engineer or other marine qualified person, the tasks listed below are to be completed and signed off in the corresponding columns.				
FUEL SYSTEMS (G)				
	Task	Signatory's comment	Name of signatory	Date

Under the supervision of the skipper, engineer or other marine qualified person, the tasks listed below are to be completed and signed off in the corresponding columns.				
FUEL SYSTEMS (G)				
	Task	Signatory's comment	Name of signatory	Date

NOTES