



Tripartite Alliance for
Workplace Safety and Health

Staying Afloat: Selection, Inspection, Use, and Maintenance of Life Jackets



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Key takeaways

- **Selection:** Choose life jackets suited to different work environments.
- **Inspection:** Conduct a pre-use visual inspection to ensure the life jacket is in good condition and can be relied upon in the event of an emergency.
- **Use & Maintenance:** Apply good practices for proper life jacket usage and upkeep.

Case Study 1

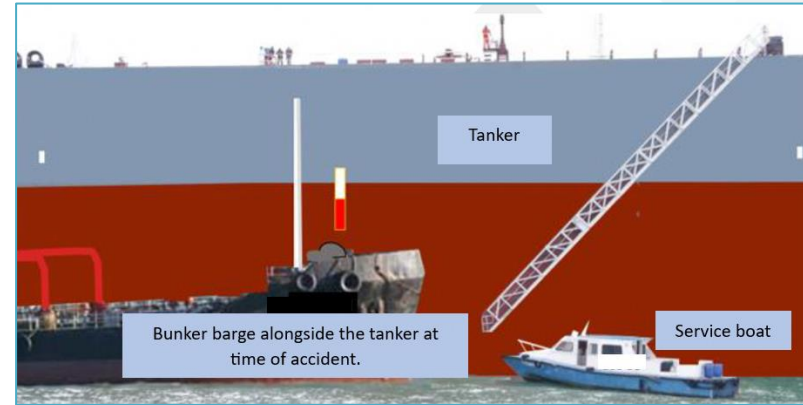
Technician fell into the sea while crossing from tanker to service boat using an accommodation ladder

Accident Description

- On 17 May 2022, a technician fell overboard when he disembarked from a tanker to a service boat.
- He went out of sight and his body was recovered four days later.

Accident Findings

- The technician was wearing a manually inflated life jacket, but it was not inflated at the time of accident.
- It is unclear if the technician was disoriented or in a state of panic, unfamiliar with how to manually inflate the lifejacket, or influenced by the misleading label, which included instructions for both manual and automatic activation lifejacket.



*Profile view of the vessels involved (not to scale)
(Photo source: Transport Safety Investigation Bureau)*

Case Study 2

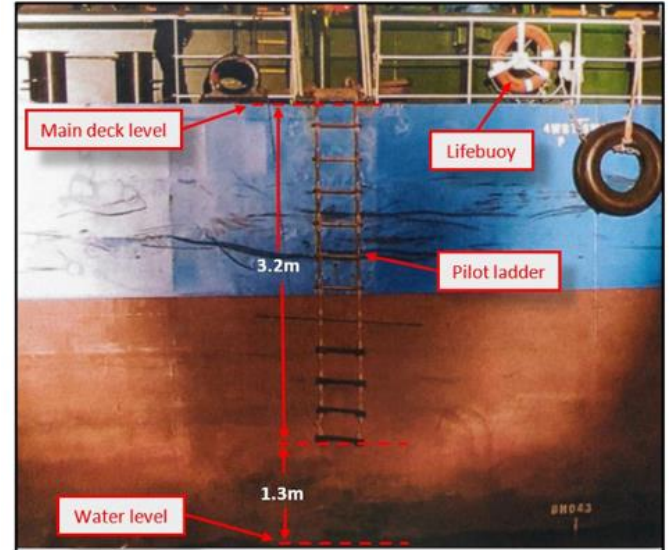
Shore technician fell into the sea when disembarking a vessel to board a launch boat using a pilot ladder

Accident Description

- On 16 February 2021, while disembarking from a vessel to board a launch boat via a pilot ladder, a Shore Technician (ST) fell into the sea.
- The ST was brought out of the water after some time and was sent to the hospital where he was pronounced dead.

Accident Findings

- The lifejacket worn by the ST may have been equivalent to life jacket of performance level 100, meant for sheltered or calm waters.
- The life jacket was unsuitable for non-swimmers, stated in the manual.
- The ST carried a backpack of about 8kg, which might have affected the ST's ability to stay afloat.



View of port side pilot ladder rigged for disembarkation
(Photo source: Transport Safety Investigation Bureau)

Case Study 3

Worker drowned after falling into river

Accident Description

- On 12 March 2019, two river cruise workers were on night shift duty to berth and charge the electric boats at the jetty.
- One of them was found missing and his body was found floating on the water 16 hours later.

Accident Findings

- The worker did not know how to swim and was **not wearing a life jacket**.
- The worker likely exited the work area through an unsafe path.

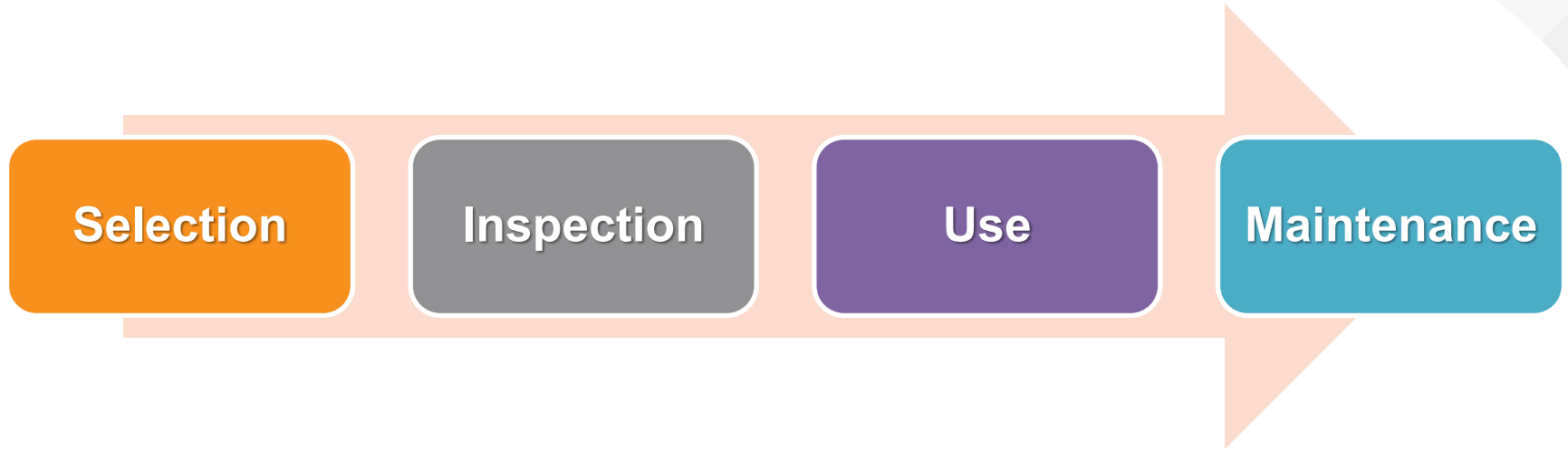
Ropes used to secure the boats.



Ladders

Managing Life Jackets

Systematic Approach



Selection

Introduction

- Personal Flotation Device (PFD), when correctly worn and used, provides buoyancy and increases the likelihood of survival should a person fall into water.
- Life jacket is a type of PFD.
- The life jacket maintains the user in a face-up flotation position, with various levels of performance suitable for sheltered and non-sheltered waters.

Selection

Types of Life Jacket

Foam Type



Automatic/ Manual Gas Inflation Type



Selection

Performance Level

- Employers and life jacket users are advised to conduct a thorough risk assessment that is specific to their nature of their work before selecting a life jacket of appropriate performance level for the work activity.

Performance level <i>(determined using risk assessment)</i>	100	For use in sheltered or calm waters (e.g., swimming pools, reservoirs, or ponds). Not suitable for rough water condition or when there is wave splash.
	150	For use in non-sheltered (e.g., anchorages), rough or offshore waters.
	275	For use in offshore under severe weather or sea conditions.

Selection

Mandatory ISO 12402 life jacket accessories

Performance Level	Reflective Material	Whistle	Lifting Loop
			
100	✓	✓	✗
150	✓	✓	✓
275	✓	✓	✓

Inspection

Examples of defective or worn life jackets

Damaged stitches on an inflatable life jacket



Discoloured and torn foam life jacket

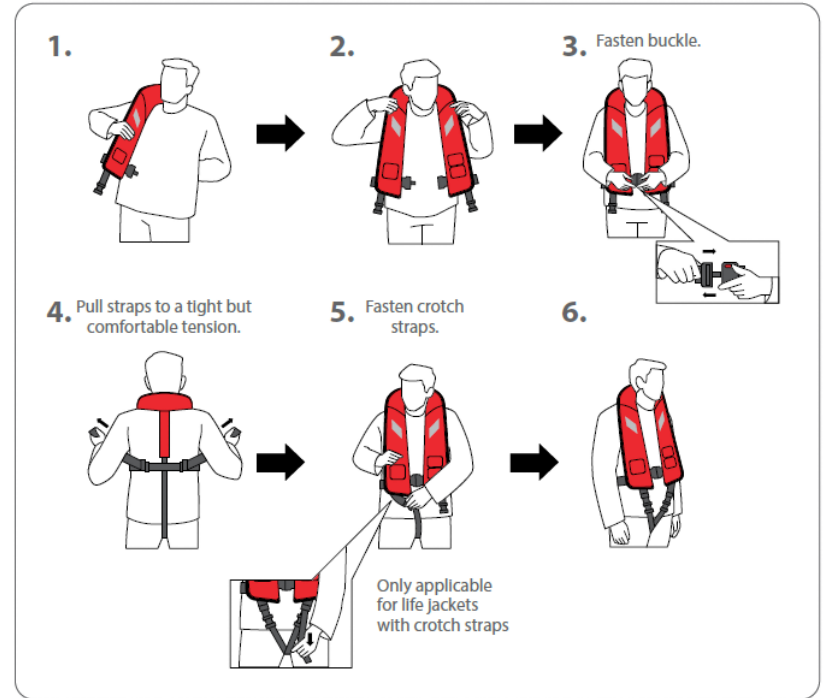


Corroded gas cartridge

Use

Ensure Life Jacket is of a Good Fit

- Choose the right size life jacket
- Follow the manufacturer's instructions to put it on
- Adjust the straps for a snug fit
- Ensure no more than a fist's width between your body and the buckle.



Maintenance

- To prolong the lifespan of a life jacket, clean it before storage and to store it in an environment that does not cause the life jacket material(s) to degrade; e.g., to air-dry the life jacket in a well-ventilated area.
- To ensure that the life jacket is reliable and functions properly during emergencies, regular life jacket maintenance (specified by the manufacturer) is crucial.
- Inflatable life jackets typically need yearly servicing at an authorized service station.

Example of a service tag

NEW	☐	SERVED	☐
INSPECTED	☒	CHECK WEIGHT	☐
RECHARGED	☐	HYDROTESTED	☐
DATE: 23 2024 2025			
JAN	FEB	MAR	APR
MAY	JUN	JUL	AUG
SEP	OCT	NOV	DEC
NEXT SERVICE: 24 2025 2026			

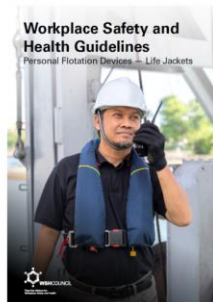
Example of a service badge



WSH Guidelines on Personal Flotation Devices - Life Jackets

06 JUL 2025 | PUBLICATIONS > WSH GUIDELINES | ENGLISH | MARINE

This set of Guidelines helps users select suitable life jackets for different work environments, in line with international standards. It also recommends good practices for their proper use and maintenance.



LOOK. THINK. DO.

Look out for danger. Think of how you can protect yourself. Do your work safely.

6

Basic Workplace Safety and Health (WSH) Rules for Use of Life Jackets

Life jackets are essential personal protective equipment for workers exposed to the risk of drowning. Wearing a life jacket increases your chances of survival should you fall into the water. Do your risk assessment and put on a life jacket before you work near or on water.

Report to your supervisor if you feel unwell.	Put on a certified life jacket that fits you well.
Check that the life jacket is in good condition.	Ensure its performance level is suitable for the task.
Check that the life jacket has been serviced according to manufacturer's instructions.	Know how your life jacket works.

Learn more about the selection, use, and maintenance of life jackets in the [WSH Guidelines on Personal Flotation Devices - Life Jackets](#).



For more information, refer to:

- Workplace Safety and Health Act
- WSH (General Provisions) Regulations
- WSH (Risk Management) Regulations
- Code of Practice on Workplace Safety and Health Risk Management
- Code of Practice for Working Safely at Heights
- ISO 12402: 2020 Personal Flotation Devices (Life jackets and Buoyancy Aids)
- International Convention for the Safety of Life at Sea (SOLAS), 1974
- LSA Code - International Life-Saving Appliance Code – Resolution MSC.48(66)
- Maritime And Port Authority's Guidelines for Safe Transfer of Persons Between Vessels at Anchorages
- WSH Council's Guide to WSH for Service Providers on Safe Working on Ships at Anchorages
- WSH Council's Guide to WSH Obligations for Shipmasters and Contractors for Anchorage Works
- WSH Council's Case Studies on Working in and Around Water
- SS 701:2023 Code of Practice for inland and open water sporting activities

Thank you

