

White Paper: Dynamic Motion Sailing Apparel Range

Executive Summary

The Dynamic Motion Sailing Apparel Range by Henri-Lloyd is a breakthrough in professional-grade racing apparel, designed specifically for competitive sailors.

Launched in July 2024, this integrated range includes jackets, spray tops, salopettes, and shorts for both men and women, all engineered for optimal performance in high-stakes, multi-day racing events.

Key priorities in development were identified as breathability and temperature control, unencumbered freedom of movement, minimalist design with considered key functional features (i.e. storage, ability to team/boat brand), UV protection, 100% waterproofness, easy to care for, fast-drying, longevity and sustainability.

By researching other industries and fabric technologies, such as those used in running shoes and cycling, and studying body ergonomics, Henri-Lloyd embarked on creating a new advanced fabric technology and product design features to create the Dynamic Motion range that provides a comprehensive solution, marrying together style, comfort, and high-performance functionality.

Through extensive research, prototyping, and testing with world-class sailors, Henri-Lloyd has developed industry-first high-performance sailing gear to incorporate 100% recycled fabrics, PFOA-free membranes and PFC-free double DWR coatings as well as 4-way panel stretch for ultimate manoeuvrability, pushing the boundaries of what's possible in marine apparel.

PFOA - perfluorooctanoic acid, a synthetic chemical, part of the per- and polyfluoroalkyl substances (PFAS) class of chemicals.

PFC - perfluorinated compound (also known as fluorocarbons)

DWR – Durable Water Repellent

Problem Definition: The Need for High-Performance and Sustainable Sailing Apparel

Feedback from competitive sailors highlighted their unique set of challenges; extreme weather conditions, physical exertion, and the need for swift, unhindered movement. Traditional sailing gear often falls short, being too heavy, restrictive, or lacking in durability and breathability. Additionally, the marine apparel industry has lagged in adopting sustainable practices, relying on materials and chemicals that harm the environment. The absence of gear that provides high performance, comfort, flexibility, and sustainability creates a gap in the market.

Innovative Solution: The Dynamic Motion Sailing Apparel Range

Henri-Lloyd's Dynamic Motion range directly addresses these challenges with apparel that offers superior stretch, breathability, waterproofing, environmental sustainability and is lightweight.

This range is the first in its industry to combine high-performance features such as a 4-way stretch back panel, ergonomic design, and cutting-edge fabric technology with market-leading sustainability credentials.

The Dynamic Motion range offers seamless integration between items (Jacket, Smock, Dry Top, Salopette, and Shorts) to suit all weather and onboard positions. The design focuses on essential functionality without unnecessary features, ensuring performance is maximized and each item complements the others, ensuring that sailors can focus on their tasks without being hindered by their gear.

Development Process

The development of the Dynamic Motion range was a year-long collaboration between Henri-Lloyd's in-house design team, experts in ergonomics and body movement, and fabric suppliers. Over 100 fabrics were reviewed globally, but only Japan's Asahi Kasei's materials met the strict criteria of waterproofing, breathability, stretch, and sustainability. Four rounds of prototyping followed, incorporating feedback from professional sailors like Nick Hutton and Sigmund Hertzberg. Henri-Lloyd's designers went sailing with teams (e.g. TP52 circuit), watching their motions and requesting design input in real-time sailing conditions to ensure the final product met the demands of elite athletes.

Key Features and Innovations

Manoeuvrability

4-Way Stretch Panel: A key innovation is the 4-way stretch panel, integrated into the back of jackets. This unique feature, made possible by rotating the fabric at a 45-degree angle, and using texturised yarn instead of elastane, which offers extreme flexibility and uninhibited movement without compromising durability.

Orthopaedic Elastic Straps: Cuffs and waistbands incorporate medical-grade elastic that provides a secure yet comfortable fit, reducing the risk of blood circulation issues.

Ergonomic Design for Comfort and Protection

Articulated Knees & Pre-Shaped Seat: The salopettes feature pre-shaped knee and seat panels for added comfort and flexibility, particularly useful during extended periods of crouching or kneeling.

Reinforced Knees: Knee patches are reinforced with stretch Cordura and cushioned with 2mm padding, providing both protection and comfort during physically demanding manoeuvres.

Lightweight Design

At just 650gsm, the Dynamic Motion Jacket is lighter than any comparable product on the market, enhancing sailors' agility and reducing fatigue during long races.

Durability and Waterproofing

Waterproofness & Breathability: With a waterproof rating of +20k mm and breathability of +20k g/m²/24hr, the range offers superior protection against the elements while maintaining optimal comfort during physically demanding activities.

Fabric Strength: The 3-layer Dri Pro fabric, developed in partnership with Asahi Kasei in Japan, offers 33% more tear resistance compared to other fabrics of similar weight, ensuring long-lasting durability.

Sustainability

Recycled Materials: 100% recycled polyamide fabrics - the face fabric and back tricot layers are sourced from pre-consumer recycling, including recycled yarn which is certified by the Global Recycled Standard (GRS).

Environmental Impact: The use of a PFOA-free membrane and PFC-free double DWR coatings makes this range the most sustainable option in the high-performance sailing apparel market.

Product longevity: Dynamic Motion is supported by Henri-Lloyd's repair service. From its own factories, all repairs come with a free wash, DWR reinforcement and 2 years warranty. UK repair services are also available.

Design & Styling

The Dynamic Motion range blends minimalist, elegant aesthetics with the technical functionality required by professional sailors. Inspired by performance sportswear and trail running, the apparel is slimline and athletic in fit, incorporating key styling features such as tone-on-tone reflective strips for safety and embossed branding for a sleek look.

Notable Design Features

Innovative “Breeze Clip”: This allows for full ventilation in hot conditions while keeping the jacket securely in place, reducing drag.

Reflective Elements: Subtle reflective strips and logos enhance visibility without detracting from the streamlined design.

Detachable Hood: Jackets feature a detachable, two-way adjustable hood with a glued peak and hidden hood-collar zip for streamlined waterproof protection.

Secure Fastening System: The jacket’s bottom adjusters and tunnel-sewn cords prevent snagging on boat parts while ensuring a secure fit.

Fabric & Construction

The apparel’s core is Henri-Lloyd’s proprietary 3-layer Dri Pro fabric, engineered in collaboration with a leading Japanese fabric mill to create a market-leading sustainable waterproof fabric that also offers superior tear resistance, industry-leading sustainability properties and exceptional stretch. This fabric combines strength, flexibility, and environmental consciousness in a revolutionary way.

Key Construction Features

Lightweight but strong: At 650gsm for the jacket, the fabric is robust yet extremely lightweight, providing 33% more tear resistance than other fabrics of similar weight.

Recycled Polyamide: Both the face fabric and back tricot layers are sourced from pre-consumer recycled materials, contributing to the range’s sustainability goals.

Double DWR Coating: The outer fabric is treated with PFC-free DWR coatings, offering exceptional waterproofing without the environmental impact of traditional treatments.

Environmental Impact and Sustainability

The Dynamic Motion range is a leader in the marine apparel industry, minimizing environmental impact while maintaining superior design and quality standards. The 3-layer Dri Pro fabric is made from 100% recycled polyamide and recycled yarn, certified by the Global Recycled Standard (GRS), with the face fabric and back tricot layers sourced from pre-consumer recycling.

The membrane is a hydrophilic PU (polyurethane) 4-way stretch material, free from harmful PFOA and PFOs, and the double DWR treatment is PFC-free, further reducing environmental impact. With this approach, Henri-Lloyd is setting standards in the sailing apparel market, offering much more sustainable features than the competition.

This combination of sustainability and performance ensures that sailors can minimize their environmental footprint without compromising on quality.

PFOS - Perfluorooctane sulfonate (PFOS) is a chemical that can be found in textiles and can be released into the environment.

User Experience: Designed for Professional Sailors

This range is tailored for professional sailors who need integrated gear that adapts to their movement, provides weather protection, and reduces fatigue during high-stress, multi-day events. Every detail, from the adjustable shoulder straps on the salopettes to the inner brushed collar fabric in the jackets, was designed with user comfort in mind.

Notable User Features

Orthopaedic Design: High-grip tab adjusters on cuffs and waistbands prevent discomfort while providing a secure fit.

Integrated Protection: The salopettes' ergonomic design includes pre-shaped seat and knee areas for better movement and cushioning during impact.

Ease of Care: The range is easy to clean, fast-drying, and resistant to wear and tear, making it ideal for long-term use in tough conditions.

Evidence and Validation: User Testimonials

The Dynamic Motion range has been rigorously tested in real-world conditions by elite sailors. Their feedback highlights the range's exceptional performance, comfort, and durability.

Nick Hutton (SailGP GBR): *“You can experience unparalleled performance with the Dynamic Motion Range – it is innovatively designed for optimal movement, comfort and durability and engineered to power through, no matter the conditions.”*

Tim Sandberg (ORC World Champion): *“Not too heavy but still robust—this gear is thoughtfully designed, with a lot of attention to functional details.”*

Louise Clayton (Offshore Co-Skipper): *“The material is super-tough, yet soft to the touch, and it adapts perfectly to temperature changes. The kit is lightweight and compact, a game-changer when I sail on multiple boats in one week.”*

Matt Cornwell (Professional Sailor, Bowman): *“It’s great to find, in Henri-Lloyd’s Dynamic Motion Kit, sailing waterproofs that have the stretch and flexibility to match the needs of modern yacht racing, whilst retaining excellent protection against the elements, plus much needed knee protection which is added in a subtle but effective way.”*

Price versus Performance: Delivering Exceptional Value

Though positioned as a premium product, the Dynamic Motion range offers exceptional value, delivering advanced technology and sustainability at a fair price. Henri-Lloyd ensures the longevity of the product, reducing environmental impact by offering a repair scheme through its own factories and partnerships with Scottish Mountain Gear in the UK. This further strengthens the range’s value proposition by emphasizing long-term durability over disposable fashion.

Commercial Viability and Market Reception

The Dynamic Motion range has been met with overwhelmingly positive feedback from those who have tested it in real conditions, and from its initial reveal to the market, with particular praise for its lightweight, flexibility, and sustainable design. The range is available globally through Henri-Lloyd’s retail channels, specialized marine stores, and online platforms, ensuring accessibility for professional sailors worldwide.

Unique Selling Points

First in the industry to combine 4-way stretch fabric with a PFOA-free membrane and PFC-free DWR coatings.

Unmatched balance of performance and sustainability, tailored for professional use.

Conclusion: Why the Dynamic Motion Range Deserves the DAME Award

The Dynamic Motion range is a testament to Henri-Lloyd's innovation and commitment to sustainable design. By incorporating cutting-edge fabric technology, superior ergonomic features, and sustainable practices, this range sets a new standard in sailing apparel. Its combination of high performance, comfort, and environmental responsibility makes it a leading contender for the DAME Award 2024, showcasing the future of marine clothing.

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Company Background

Company Name: Henri-Lloyd

Company History: Founded in 1963, Henri-Lloyd has a storied history of innovation in sailing apparel, blending cutting-edge technology with timeless design. Known for setting industry standards in performance and style, the company continues to push the boundaries of what's possible in marine clothing.

Design Team: The Dynamic Motion range was created and developed by Henri-Lloyd's in-house design team based in Italy and developed in the UK, in close collaboration with world-class sailors, ensuring that the final product meets the exacting standards of professional athletes.

Supporting Materials

Images: High-quality images showcasing the full Dynamic Motion range from multiple angles, highlighting key features such as the ergonomic design, flexible taping and premium fabric details.

Videos: Video demonstrations of the Dynamic Motion range in action, as well as content showing the development of the range with our design director, featuring professional sailors discussing what they are looking for, key features needed, their experiences with similar products and how it can help enhance their performance.

Testimonials/Reviews: Positive feedback from elite sailors and industry experts, emphasizing the range's superior performance, comfort, and sustainability.