



Maritime &
Coastguard
Agency

MERCHANT SHIPPING NOTICE

MSN 1870 (M+F) Amendment 1

The Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999

Notice to all shipowners, employers, masters, seafarers, safety officers, and safety representatives

This notice should be read with The Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999 (S.I. 1999/2205) and The Merchant Shipping (Maritime Labour Convention)(Health and Safety)(Amendment) Regulations 2014 (S.I.2014/1616.)

This notice replaces MSN 1731 (M+F) and MSN 1870 (M+F)

Summary

This notice provides updated safety standards applicable to Personal Protective Equipment covered by the Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999 (S.I. 1999/2205) (“the PPE Regulations”).

This notice also reflects the Merchant Shipping (Maritime Labour Convention) (Health and Safety) (Amendment) Regulations (S.I. 2014/1616) (“the MLC Health and Safety amendments”) and the Merchant Shipping (Work in Fishing Convention) (Consequential and Minor Amendments) Regulations (S.I. 2018/1109) (the “Work in Fishing Consequential Amendments”).

MSN 1870 (M+F) took into account the MLC Health and Safety amendments, which do not apply to fishing vessels and extended the duties to protect “workers” in health and safety legislation, including the PPE regulations, so that they protect all seafarers, regardless of their employment status, and duties on employers also apply to shipowners. On 31 December 2018, the Work in Fishing Amendments came into force and further extended the protection of health and safety legislation to fishermen regardless of their employment status and applied the duties on employers also to fishing vessel owners. References in this notice to “shipowners and employers” and “seafarers and other workers”. Therefore now include fishing vessel owners and fishermen.

Annex 1 gives the design standards for personal protective equipment in use on board ships, for specified work activities and situations, in order to comply with regulation 5(2)(a) of the PPE regulations.

Amendment 1 reflects the changes in regulations since the publication of this MGN and updates the PPE standards quoted from the British Standards and EU Commissions Harmonised Standards websites.



1. Introduction

- 1.1 The Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999 (the “PPE regulations”) require shipowners and employers to ensure that personal protective equipment (PPE) is provided for seafarers and other workers who are engaged in, or at risk from a hazardous work activity on board a United Kingdom ship. They also apply to non-UK ships in UK waters.
- 1.2 The PPE regulations are subject to the general rule that use of PPE is always a last resort, to be used where risks cannot be avoided or reduced to a safe level by means of collective protection, or safe systems of work.

2. Provision of PPE

- 2.1 PPE must be provided to the seafarer free of charge, except that where use of the equipment is not exclusive to the workplace, seafarers and other workers may be required to contribute towards the cost.
- 2.2 The equipment issued must be “suitable” which is defined as:
- 2.2.1 in relation to any work process described in this Merchant Shipping Notice, of the kind and to the standard specified in this Notice, in relation to that work process;
 - 2.2.2 appropriate for the risks to which the seafarer or other worker is exposed and to the task which they are performing without itself leading to any increased risk;
 - 2.2.3 correctly fitting the seafarer or other worker, or capable of being adjusted to fit;
 - 2.2.4 taking into account ergonomic requirements and the seafarer’s or other worker’s state of health; and
 - 2.2.5 compatible with any other equipment the seafarer or other worker has to use at the same time, so that it continues to be effective against the risk.
- 2.3 Where seafarers and other workers provide or choose to supply their own PPE it must meet the appropriate standard and be used when engaged in work of the types outlined in Annex 1. This will not exempt the shipowner and/or employer from their duty to supply PPE free of charge and they will remain responsible for ensuring that seafarers and other workers are correctly equipped with suitable PPE.

3. Storage and Maintenance of PPE

- 3.1 In addition, the shipowner and employer must ensure that the PPE supplied is easily accessible, properly stored and maintained, and where appropriate, instructions are available to seafarers and other workers who are required to carry out any maintenance. The equipment must be regularly inspected in accordance with the manufacturer’s instructions, and its operation checked. Respiratory protective equipment must always be checked before and after use.

4. Use of PPE by seafarers and other workers

- 4.1 The shipowner and employer must ensure so far as practicable that PPE is used as instructed – e.g. that it is only used for the purpose for which it is designed, and that it is put on and worn correctly.
- 4.2 Seafarers and other workers should receive adequate and appropriate training so that they are aware of the risks against which the PPE is designed to protect them, how and when to use it, and how to look after it correctly.
- 4.3 Seafarers and other workers are required to wear and use the PPE which has been issued to them when appropriate, and to comply with any instruction provided.



5. Standards, Design and Manufacture

- 5.1 The specifications for PPE are set out in Annex 1. The list covers the PPE most commonly used on ships, but is not exclusive or exhaustive.
- 5.2 The prefixes “EN” and “BS” stand for “European Norm” and “British Standard” respectively. If there is not “EN” standard available, a “BS” standard is quoted. The standards are those to which the clothing and equipment should comply and the date which appears will be the date on which the latest revision of the relevant standard was published. When referencing the standard, it should be checked that there have been no subsequent amendments.
- 5.3 Any reference to an EN or BS standard or other standard contained in the Annex, means that standard or an alternative standard which provides equivalent levels of safety, suitability and fitness for purpose when in use.
- 5.4 The standards of equipment given in this Merchant Shipping Notice do not apply to Life Saving Appliances or other equipment which is subject to the Merchant Shipping (Marine Equipment) Regulations 1999 (S.I. 1999/1957).

- 5.5 Publications mentioned in Annex 1 are available from:

BS and EN Specifications

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STANDARDS OF PERSONAL PROTECTIVE EQUIPMENT

Note: All protective clothing should conform to BS EN 13688:2013 'Protective Clothing General Requirements.'

	Work Activity	Personal protective equipment and clothing to be provided	Full title of Standard
1	Any process or activity involving a reasonably foreseeable risk to the head from falling objects.	Head Protection to: EN 397:2012 + A1: 2012	Industrial safety helmets
2	When working in areas where circumstances involve a reasonably foreseeable risk to the head from bruising or abrasion	Scalp protection to: BS EN 812:2012	Industrial bump caps
3	When working in small, fast craft	PAS 028:2002	Marine safety helmets
4	When entering or working in a space or working with machinery or equipment where the noise level exceeds 85dB(A)	Ear Protection to: BS EN 352-1:2002 BS EN 352-2:2002 BS EN 352-3:2002 BS EN 458:2004 Hearing protection should be provided with consideration to appropriate guidance such as Section 7 of the MCA Code Of Practice for Controlling Risks Due to Noise on Ships published by TSO and MIN 588.	Hearing protectors. Safety requirements and testing. Ear muffs Hearing protectors. Safety requirements and testing– Ear plugs Hearing protectors. Safety requirements and testing. Ear muffs attached to an industrial safety helmet Hearing protectors Recommendations for selection, use care and maintenance. Guidance document
5	Welding and gas cutting	Eye and face protection BS EN 175:1997 EN 166:2001 BS EN 379:2003+A1:2009 BS EN 169:2002	Personal Protection Equipment for eye and face protection during welding and allied processes Personal eye protection – Specifications Personal eye protection Automatic welding filters. Personal eye protection. Filters for welding and related techniques. Transmittance requirements and recommended use

		<p>Body protection to BS EN ISO 11611:2015 <i>Replacing BS EN 470-1:1995 & BS EN ISO 11611:2007</i></p> <p>Additional protection may be required in some situations (e.g. for particularly intense welding/cutting operations).</p>	<p>Protective clothing for use in welding and allied processes. General requirements</p>
6	Any work activity in which there is reasonably foreseeable risk of injury to the eye from particles, fragments or injurious substances	<p>Eye protection to: EN 166: 2001</p>	As above
7	Any work activity involving working in an atmosphere which is likely to be hazardous	<p>Note: The following items should be selected and maintained according to BS EN 529:2005 <i>Replacing BS 4275:1997</i></p> <p>Disposable respirators conforming to BS EN 149:2001+A1:2009</p> <p>General purpose respirators conforming as appropriate to one of the following:</p> <p>BS EN 136:1998</p> <p>BS EN 140:1999</p> <p>BS EN 12083:1998</p> <p>BS EN 143:2000</p> <p>BS EN 14387:2004+A1:2008</p> <p>BS EN 1827:1999+A1:2009</p>	<p>Guide to implementing an effective respiratory protective device programme</p> <p>Respiratory protective devices. Filtering half masks to protect against particles. Requirements, testing, marking</p> <p>Respiratory protective devices: Full face masks. Requirements, testing, marking</p> <p>Respiratory protective devices: half masks or quarter masks. Requirements, testing, marking</p> <p>Respiratory protective devices. Filters with breathing hoses (non-mask mounted filters) Particle filters, gas filters and combined filters. Requirements, testing, marking</p> <p>Respiratory protective devices. Particle filters. Requirements, testing, marking</p> <p>Respiratory protective devices, Gas filter(s) and combined filter(s). Requirements, testing, marking</p> <p>Respiratory protective devices. Half masks without inhalation valves and with separable filters to protect against gases or gases and particles or particles only. Requirements, testing, marking</p>
(a)	Protection against nuisance dust, mist, particles and dust of low toxicity.		

(b)	Protection against toxic dusts and gases of low toxicity	<p>Respirators conforming as appropriate to one of the following:</p> <p>BS EN 136:1998</p> <p>BS EN 140:1999</p> <p>BS EN 143:2000</p> <p>BS EN 14387:2004+A1:2008 <i>Correction</i></p> <p>BS EN 405:2001+A1:2009</p> <p>Note: Particulate filters may be incorporated for some applications.</p>	<p>As above</p> <p>As above</p> <p>As above</p> <p>As above</p> <p>Respiratory protective devices. Valved filtering half masks to protect against gases or gases and particles Requirements, testing, marking</p>
(c)	Protection against toxic dust	<p>Powered dust respirators, powered dust hoods conforming as appropriate to one of the following:</p> <p>BS EN 136:1998</p> <p>BS EN 143: 2000</p> <p>BS EN 12942: 1998+A2: 2008</p> <p>BS EN 12941: 1998+A2:2008</p> <p>Protection against highly toxic atmospheres; or where there is oxygen deficiency; or where there is an alternative to the items above where suitable</p>	<p>As above (note: this only applies to the mask)</p> <p>As above</p> <p>Respiratory protective devices. Power assisted filtering devices incorporating full face masks, half masks or quarter masks. Requirements, testing, marking</p> <p>Respiratory protective devices. Powered particle filtering devices incorporating a helmet or hood. Requirements, testing, marking</p>
(d)	Protection against highly toxic atmospheres; or where there is oxygen deficiency; or where there is an alternative to the items above where suitable	<p>Breathing apparatus conforming to:</p> <p>BS EN 1146: 2005</p> <p>BS EN 137:2006</p> <p>BS EN 138: 1994</p>	<p>Respiratory protective devices. Self-contained open circuit compressed air breathing apparatus incorporating a hood for escape. Requirements testing, marking</p> <p>Specification for respiratory protective devices. Self-contained open-circuit compressed air breathing apparatus with full mask. Requirements, testing, marking</p> <p>Respiratory protective devices. Fresh air hose breathing apparatus for use with a full face mask, half mask or mouth piece assembly. Requirements, testing, marking</p>

		<p>BS EN 14593-1:2005 <i>Replacing: EN 139:1995</i></p> <p>BS EN 14593-2:2005 <i>Replacing: EN 139:1995</i></p> <p>BS EN 14594:2005 <i>Replacing: EN 139:1995</i></p> <p>BS EN 269: 1995</p> <p>BS EN 402: 2003</p>	<p>Respiratory protective devices. Compressed air line breathing apparatus with demand valve. Apparatus with a full mask. Requirements, testing marking</p> <p>Respiratory protective devices. Compressed air line breathing apparatus with demand valve. Apparatus with a half mask at positive pressure. Requirements, testing, marking</p> <p>Respiratory protective devices. Continuous flow compressed air line breathing apparatus. Requirements, testing, marking</p> <p>Respiratory protective devices. Specification for powered fresh air hose breathing apparatus incorporating a hood</p> <p>Respiratory protective devices. Lung governed demand self-contained open-circuit compressed air breathing apparatus with full face mask or mouthpiece for escape. Requirements, testing, marking</p>
8	Any process or activity involving working in an area where there is a foreseeable risk of injury from substances which are corrosive or likely to be absorbed through the skin	<p>Protective overalls, gloves or head gear, whichever is appropriate:</p> <p>BS EN ISO 13688:2013 <i>Replacing EN 340:2003</i></p> <p>BS EN 14605:2005+A1:2009 <i>Replacing: EN 465:1995; EN 466:1995 & EN 467:1995</i></p>	<p>Protective clothing general requirements</p> <p>Protective clothing against liquid chemicals. Performance requirements for chemical protective clothing with liquid tight (Type 3) or spray-tight (Type 4) connections including items providing protection to parts of the body only (Types PB [3] and PB [4])</p>
9	Any process or activity involving a reasonably foreseeable risk of injury to the hands unless the use of hand protection would increase the risk	<p>Hand protection conforming as appropriate to:</p> <p>BS EN 374-1:2016 <i>Replacing: EN 374-1:2003</i></p> <p>BS EN 374-2:2014 <i>Replacing: EN 374-2:2003</i></p> <p><i>BS EN 374-3:2003 Withdrawn</i></p>	<p>Protective gloves against chemicals and micro-organisms. Terminology and performance requirements for chemical risks</p> <p>Protective gloves against chemicals and micro-organisms. Determination of resistance to penetration</p> <p>Protective gloves against chemicals and micro-organisms. Determination of resistance to permeation by chemicals</p>

		<p>BS EN 374-4:2013</p> <p>BS EN ISO 374-5:2016</p> <p>BS EN 388:2016 <i>Replacing EN 388:2003</i></p> <p>BS EN 407:2004</p> <p>BS EN 420:2003+A1:2009</p> <p>BS EN 511:2006 <i>Replacing EN 511:1994</i></p>	<p>Protective gloves against chemicals and mirco-organisms. Determination of resistance to degradation by chemicals.</p> <p>Protective gloves against dangerous chemicals and micro-organisms. Terminology and performance requirements for micro-organisms risks.</p> <p>Protective gloves against mechanical risks</p> <p>Protective gloves against thermal risks (heat and or fire)</p> <p>Protective gloves. General requirements and test methods</p> <p>Protective gloves against cold</p>
10	Any process or activity involving particular risk of injury to the feet	<p>Foot protection conforming to:</p> <p>BS EN ISO 20345:2011 <i>Replacing BS EN ISO 20345:2004</i></p> <p>BS EN ISO 17249:2013</p> <p>BS EN ISO 15090:2012</p> <p>BS EN ISO 20346:2014</p> <p>BS EN ISO 20347:2012</p>	<p>Personal protective equipment. Safety footwear</p> <p>Safety footwear with resistance to chain saw cutting</p> <p>Footwear for firefighters</p> <p>Personal protective equipment. Protective footwear</p> <p>Personal protective equipment. Occupational footwear</p>
11	Work at height or in any other area where there is a reasonably foreseeable risk of falling	<p>Safety harness and associated lanyard conforming to the following:</p> <p>EN 353—1:2014+A1:2017 <i>Replacing EN 353-1:2014</i></p> <p>BS EN 353-2:2002</p> <p>BS EN 354:2010</p> <p>BS EN 355:2002</p> <p>BS EN 360: 2002*</p>	<p>Personal fall protection equipment. Guided type fall arresters including an anchor line. Guided fall type arresters including a rigid anchor line</p> <p>Personal protective equipment against falls from height. Guided type fall arresters including a flexible anchor line</p> <p>Personal fall protection equipment. Lanyards</p> <p>Personal protective equipment against fall from a height. Energy absorbers</p> <p>Personal protective equipment against falls from height. Retractable type fall arresters</p>

		<p>BS EN 361:2002*</p> <p>BS EN 362:2004*</p> <p><i>*See BS EN 365:2004 for marking requirements.</i></p> <p>BS 8437:2005+A1:2012</p> <p><i>Or where the use of portable ladders is necessary, such ladders to be used in conjunction with the guidance contained in Chapter 17 in the Code of Safe Working Practices for Merchant Seafarers.</i></p>	<p>Personal protective equipment against falls from height. Full body harnesses</p> <p>Personal protective equipment against falls from height. Connectors</p> <p>Code of Practice for selection, use and maintenance of personal fall protection systems and equipment for use in the workplace</p>
12	Any work carried out from an overside position or in an exposed position where there is a reasonably foreseeable risk of falling or being washed overboard or any work carried out in or from a ship's boat	<p>Either a MCA approved lifejacket or a personal flotation device conforming as appropriate to one of the following, taking into account the area of operation.</p> <p>BS EN ISO 12402-8:2006+A1:2011 and SOLAS <i>Replacing EN 12402-8:2006</i></p> <p>BS EN ISO 12402-3:2006+A1:2010 <i>Replacing EN 12402-3:2006</i></p> <p>BS EN ISO 12402-2:2006+A1:2010 <i>Partially inherent lifejackets must have at least 89 N of inherent buoyancy; and with the inflatable sections relying on automatic inflation</i></p> <p><i>MGN 588 (F) 7.3 Other types of PPE may be accepted where determined on the basis of a risk assessment.</i></p>	<p>Personal flotation devices. Accessories. Safety requirements and test methods</p> <p>Personal flotation devices. Lifejackets, performance level 150. Safety requirements</p> <p>Personal flotation devices. Lifejackets, performance level 275. Safety requirements</p>
13	Any work activity where it is necessary to carry out repair or maintenance work on or near exposed live electrical equipment, and there is a reasonably foreseeable risk of injury	<p>Rubber gloves conforming to:</p> <p>BS EN 60903:2003</p> <p>Protective sleeves conforming to:</p> <p>BS EN 60984:1993 <i>Correction</i></p> <p>An insulating mat (except where specially insulated flooring is installed) conforming to:</p> <p>BS EN 61111:2009 <i>Withdrawn BS 921:1976</i></p> <p>Rubber soled footwear (no standard necessary)</p> <p>Note: gloves, sleeves and mats should protect against the appropriate voltage.</p>	<p>Live working. Gloves of insulating material</p> <p>Specification for sleeves of insulating material for live working</p> <p>Live working. Electrical insulating matting</p>

14	Any work activity involving a reasonably foreseeable risk of injury from vehicle movement e.g. during ro-ro operations	BS EN ISO 20471:2013+A1:2016 <i>Replacing: BS EN ISO 20471:2013</i>	High visibility clothing. Test methods and requirements
15	Any work process involving exposure to heat	BS EN ISO 11612:2015 <i>Replacing BS EN 531:1995</i>	Protective clothing. Clothing to protect against heat and flame. Minimum performance requirements
16	Any work process involving exposure to cool or cold conditions	BS EN 14058:2017 <i>Replacing BS EN 14058: 2004</i>	Protective clothing. Garments for protection against cool environments
17	Work in engine rooms, machinery spaces or anywhere there is a foreseeable risk of fire or explosion.	BS EN ISO 14116:2015 index 2	Overalls made of fabric of low flammability (e.g. natural fibres, high cotton content) and with Flame retardant finishes. Cotton or cotton polyester clothing with flame-retardant finishes are available to protect against sparks and flame