

SCHEDULE 8

Regulations 2(3), 5, 6, 8 and 9

PYROTECHNIC SIGNALS AND LINE-THROWING APPLIANCES

PART I

ROCKET PARACHUTE FLARES

Construction

1

1.1 A rocket parachute flare shall:

- (1.1.1) be constructed with proper workmanship and materials;
- (1.1.2) be contained in a water-resistant casing;
- (1.1.3) have integral means of ignition which can be readily operated with wet, cold or gloved hands in adverse conditions and require the minimum of preparation;
- (1.1.4) be so designed that it shall not cause discomfort to the person holding the casing when used in accordance with the manufacturer's operating instructions;
- (1.1.5) be so constructed that any sealing shall not depend on adhesive tapes, or plastic envelopes;
- (1.1.6) be so constructed that the end from which the rocket is ejected can be positively identified by day or night;
- (1.1.7) be so constructed that all components, compositions and ingredients of the signal and the means of igniting it shall be of such character and quality to enable the signal to maintain its serviceability under good average storage conditions in the marine environment for a period of at least 3 years; and
- (1.1.8) be so constructed that if it is intended to be stowed in a liferaft it can function effectively after being subjected to a drop test appropriate to the height at which the liferaft is to be stowed, when the signal is packed in the equipment container.

Performance

2

2.1 A rocket parachute flare shall not be damaged in stowage throughout the air temperature range of -30°C to $+65^{\circ}\text{C}$.

2.2 A rocket shall, when fired vertically, reach an altitude of not less than 300 metres. At or near the top of its trajectory, the rocket shall eject a parachute flare, which shall:

- (2.2.1) burn with a bright red colour;
- (2.2.2) burn uniformly with an average luminous intensity of not less than 30,000 candela;
- (2.2.3) have a burning period not less than 40 seconds;
- (2.2.4) have a rate of descent of not more than 5 metres/second; and
- (2.2.5) not damage its parachute or attachments while burning.

2.3 The rocket shall in addition be capable of functioning when the rocket is fired at an angle of 45° to the horizontal.

Status: This is the original version (as it was originally made). This item of legislation is currently only available in its original format.

Marking

3

3.1 A rocket parachute flare shall have brief instructions or diagrams clearly illustrating the use of the rocket parachute flare printed on its casing.

3.2 The date of manufacture and the date of expiry shall be marked indelibly on the casing.

3.3 The words “DOT (UK) APPROVED” shall be marked indelibly on the casing.
Regulations 2(3) and 20 Schedule 1, Part I and Schedule 4, Part II and IV

PART II

HAND FLARES

Construction

1

1.1 A hand flare shall:

(1.1.1) be constructed with proper workmanship and materials;

(1.1.2) be contained in a water-resistant casing;

(1.1.3) have a self-contained means of ignition which can be readily operated with wet, cold or gloved hands in adverse conditions and require the minimum preparation;

(1.1.4) be so designed as not to cause discomfort to the person holding the casing with an uncovered hand and not endanger a lifeboat or liferaft by burning or glowing residues when used in accordance with the manufacturer’s operating instructions;

(1.1.5) be so constructed that any sealing shall not depend on adhesive tapes or plastic envelopes;

(1.1.6) be so constructed that the end from which the light is emitted can be positively identified by day and night;

(1.1.7) be so constructed that all components, compositions and ingredients of the flare and the means of igniting it shall be of such character and quality to enable the flare to maintain its serviceability under good average storage conditions in the marine environment for a period of at least 3 years; and

(1.1.8) be so constructed that if it is intended to be stowed in a liferaft it can function effectively after being subjected to a drop test appropriate to the height at which the liferaft is to be stowed, when the signal is packed in the equipment container.

Performance

2

2.1 A hand flare shall not be damaged in stowage throughout the air temperature range of -30°C to $+65^{\circ}\text{C}$.

2.2 A hand flare shall:

(2.2.1) burn with a bright red colour;

(2.2.2) burn uniformly with an average luminous intensity of not less than 15,000 candela;

(2.2.3) have a burning period of not less than 1 minute; and

(2.2.4) after ignition continue to burn after having been immersed for a period of 10 seconds under 100 mm of water.

Marking

3

3.1 A hand flare shall have brief instructions or diagrams clearly illustrating the use of the hand flare printed on its casing.

3.2 The date of manufacture and the date of expiry shall be marked indelibly on the casing.

3.3 The words “DOT (UK) APPROVED” shall be marked indelibly on the casing.
Regulations 2(3) and 20, Schedule 4, Part IV

PART III

BUOYANT SMOKE SIGNALS

Construction

1

1.1 A buoyant smoke signal shall:

(1.1.1) be constructed with proper workmanship and materials;

(1.1.2) be contained in a water-resistant casing;

(1.1.3) have an integral means of ignition which can be readily operated with wet, cold or gloved hands in adverse conditions;

(1.1.4) be so designed to enable the signal to be released from a survival craft without harm to the occupants;

(1.1.5) be so designed that it shall not ignite explosively when used in accordance with the manufacturer’s operating instructions;

(1.1.6) be so constructed that all components, compositions and ingredients of the signal and the means of igniting it shall be of such character and quality to enable the signal to maintain its serviceability under good average conditions in the marine environment for a period of at least 3 years;

(1.1.7) be so constructed that any sealing shall not depend on adhesive tapes or plastic envelopes; and

(1.1.8) be so constructed that if it is intended to be stowed in a liferaft it can function effectively after being subjected to a drop test appropriate to the height at which the liferaft is to be stowed, when the signal is packed in the equipment container.

Performance

2

2.1 A buoyant smoke signal shall not be damaged in stowage throughout the air temperature range of -30°C to $+65^{\circ}\text{C}$.

2.2 It shall be capable of satisfactory operation in a seaway.

2.3 A buoyant smoke signal shall:

(2.3.1) emit smoke of a highly visible colour at a uniform rate for a period of not less than 3 minutes when floating in calm water;

(2.3.2) not emit any flame during the entire smoke emission time;

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(2.3.3) not be swamped in a seaway; and

(2.3.4) continue to emit smoke when submerged in water for a period of 10 seconds under 100 mm of water.

2.4 It shall be safe to operate in water covered by a low flash point liquid.

Marking

3

3.1 A buoyant smoke signal shall have brief instructions or diagrams clearly illustrating the use of smoke signal printed on its casing.

3.2 The date of manufacture and the date of expiry shall be marked indelibly on the casing.

3.3 The words “DOT (UK) APPROVED” shall be marked indelibly on the casing.
Regulations 2(3), 5, 6 and 20

PART IV

LINE-THROWING APPLIANCES

Construction

1

1.1 A line-throwing appliance shall:

(1.1.1) be constructed with proper workmanship and materials;

(1.1.2) in the case of an integral rocket and line, be contained in a water-resistant casing; in the case of a pistol fired rocket, the rocket shall be contained in a water-resistant casing;

(1.1.3) include not less than four projectiles;

(1.1.4) include not less than four lines each having a breaking strength of not less than 2 kilonewtons;

(1.1.5) be so designed that the end from which the rocket is ejected can be positively identified by day or night.

1.2 Rockets, cartridges and igniters shall be so constructed that all components, compositions and ingredients shall be of such character and quality to maintain serviceability under good average storage conditions in the marine environment for a period of at least 3 years.

1.3 Rockets, cartridges and igniters shall be so constructed that any sealing shall not depend on adhesive tapes or plastic envelopes.

Performance

2

2.1 A line-throwing appliance shall not be damaged in stowage throughout the air temperature range of -30°C to 65°C .

2.2 A line-throwing appliance shall be capable of throwing a line minimum of 4 mm in diameter a distance of at least 230 metres in calm weather.

2.3 A line-throwing appliance shall be capable of throwing a line in such a manner that the lateral deflection on either side of the direction of firing does not exceed 10% of the length of flight of the rocket in calm weather.

Marking

3

3.1 A line-throwing appliance shall be marked with brief instructions or diagrams clearly illustrating the use of the appliance.

3.2 The date of manufacture and the date of expiry shall be marked indelibly on the rockets, cartridges and igniters.

3.3 The words “DOT (UK) APPROVED” shall be marked indelibly on the casing.
Schedule 11, Part I

PART V

INSTRUCTIONS, INFORMATION AND STOWAGE

1. Instructions and information for the pyrotechnic signals specified in Parts I to III and for the line-throwing appliance specified in Part IV of this Schedule and required for inclusion in the training manual specified in Part I of Schedule 11 shall be in a form suitable for inclusion in such a training manual. Instructions and information shall be in English in a clear and concise form and shall include the following:

- 1.1** description of item;
- 1.2** method of use including any precautions or warnings;
- 1.3** stowage;
- 1.4** guidance on when to use; and
- 1.5** instructions for replacing rockets, cartridges or strikers (integral line-throwing appliance).