



**IRATA International code of practice  
for industrial rope access**

**Part 3: Informative annexes**

**Annex H: Equipment inspection checklist**

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IRATA International  
First Floor, Unit 3  
Eurogate Business Park  
Ashford  
Kent  
TN24 8XW  
England

Tel: +44 (0)1233 754600

Email: [info@irata.org](mailto:info@irata.org)

Website: [www.irata.org](http://www.irata.org)

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## **Annex H (informative)**

### **Equipment inspection checklist (non-exhaustive)**

#### **Introduction**

Annex H gives advice and other information that could be relevant to users of rope access methods and is one of a number of informative annexes in Part 3 of this code of practice. This informative annex should be read in conjunction with other parts of this code of practice, should not be used in isolation and is not intended to be exhaustive. For further advice, readers should refer to relevant specialist publications.

#### **H.1 General**

Annex H aims to supplement manufacturer's information provided with the item of equipment. Specific notices, inspection forms and particular points to verify, e.g. wear indicators, provided by the manufacturer should be understood and adhered to. Users of Annex H should be aware that different inspection regimes and use limitations (including lifetimes) may exist for similar products from different manufacturers.

#### **H.2 Inspection of equipment**

**H.2.1** An equipment inspection checklist is given in **Table H.1**. The table may be copied and used during inspections. However, the table is non-exhaustive and additional checks may need to be added, depending upon circumstances, e.g. equipment type and method of use; work task; environmental conditions.

**H. 2.2** It is recommended that each check box is marked appropriately after carrying out the inspection procedure, e.g. a tick  to show the check is satisfactory or a cross  to show the check is not satisfactory. Notes can be made in the left-hand column. See **Part 2, 2.10** for more information on the inspection, care and maintenance of equipment.

**H. 2.3** It is also recommended that the completed inspection checklist is filed and used as part of the next inspection. Comments marked against any piece of equipment can then be taken into consideration during the new inspection.

**H. 2.4** The equipment inspection checklist given in **Table H.1** is not intended to be a substitute for formal training in inspection. Detailed and interim inspections (see **Part 2, 2.10.1**) should only be carried out by competent persons.

**Table H.1 — Equipment inspection checklist**

Equipment	Inspection procedure
<p><b>All equipment manufactured from man-made fibres</b></p>	<p><i>These general checks apply to all equipment manufactured from man-made fibres</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I have read the information supplied by the manufacturer</li> <li><input type="checkbox"/> The equipment is within the manufacturer's recommended lifespan</li> <li><input type="checkbox"/> The equipment has not been subjected to loads in excess of the manufacturer's limitations</li> <li><input type="checkbox"/> The equipment has not been reported as having arrested a fall</li> </ul> <p>Carry out a visual and/or tactile check for:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Excessive wear to any part</li> <li><input type="checkbox"/> Abrasion, particularly to load-bearing parts</li> <li><input type="checkbox"/> Any abrasion protection intended to be fitted is in place</li> <li><input type="checkbox"/> Furry webbing or rope (This usually indicates abrasion)</li> <li><input type="checkbox"/> Stitching: abraded, broken or cut</li> <li><input type="checkbox"/> Cuts, particularly to load-bearing parts</li> <li><input type="checkbox"/> Dirty webbing or rope (Dirt accelerates abrasion, both externally and internally)</li> <li><input type="checkbox"/> Legibility of marking for identification</li> <li><input type="checkbox"/> Evidence of unauthorized modification</li> <li><input type="checkbox"/> Damage by chemicals, e.g.                         <ul style="list-style-type: none"> <li><input type="checkbox"/> a powdery surface</li> <li><input type="checkbox"/> discolouration</li> <li><input type="checkbox"/> hardened areas</li> </ul> </li> </ul> <p>all of which can signify chemical contamination</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Damage by heat, e.g. glazed areas</li> </ul> <p>Actions:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Equipment is beyond recommended lifespan: remove from service</li> <li><input type="checkbox"/> Equipment has been subjected to loads in excess of manufacturer's limitations: remove from service</li> <li><input type="checkbox"/> Equipment has been reported as having arrested a fall: remove from service</li> <li><input type="checkbox"/> Excessive wear to any part: remove from service</li> <li><input type="checkbox"/> Abrasion: if excessive, remove from service. A small amount of abrasion is permissible</li> <li><input type="checkbox"/> Intended abrasion protection is not in place: remove from service</li> <li><input type="checkbox"/> Stitching cut, broken or abraded: remove from service</li> <li><input type="checkbox"/> Cuts: remove from service</li> <li><input type="checkbox"/> Dirty: clean according to the manufacturer's instructions</li> <li><input type="checkbox"/> Marking for identification is not legible: ensure legibility before allowing the product into service</li> <li><input type="checkbox"/> Evidence of unauthorized modification: remove from service</li> <li><input type="checkbox"/> Chemical contamination: remove from service</li> <li><input type="checkbox"/> Heat damage: remove from service</li> </ul> <p>If in doubt on any point, remove from service</p>

Equipment	Inspection procedure
<p><i>Working lines and safety lines</i></p>	<p><input type="checkbox"/> Carry out all the appropriate general checks listed under the heading <i>All equipment manufactured from man-made fibres</i></p> <p>Additionally:</p> <p>Carry out a visual check on:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Ends of anchor lines for excessive wear</li> <li><input type="checkbox"/> Inside and outside of any terminations, e.g. attachment-point loops, for wear</li> </ul> <p>Carry out a visual and tactile check:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> For contamination by grit, externally and internally, if possible</li> <li><input type="checkbox"/> For external and internal damage. On cable-laid ropes used as anchor lines (unusual), open up the lay and inspect as above. On kernmantel ropes, feel for unusually soft or hard areas, both on the sheath and the core. (This signifies damage.) Check particularly the ends of ropes</li> <li><input type="checkbox"/> That all knots are secure</li> <li><input type="checkbox"/> That knot overlaps are sufficient</li> </ul> <p>Actions:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Excessive wear to any part of the anchor line: remove from service</li> <li><input type="checkbox"/> Excessive external and/or internal grit: clean in accordance with the manufacturer's instructions. If it is not possible to remove the grit, inspect the rope for damage by abrasion more frequently than normal</li> <li><input type="checkbox"/> Unusually soft or hard areas: remove from service. (Sometimes, the damage is only local, so damaged areas can be cut out.)</li> <li><input type="checkbox"/> Knots: if in doubt, remove from service. Knots may be retied by a competent person. Tension knots with body weight and ensure that there is sufficient overlap (minimum 100 mm). If the knots in an anchor line appear to be very tight, either retie the knots or replace the anchor line</li> </ul> <p>If in doubt on any point, remove from service</p>

Equipment	Inspection procedure
<p><i>Harnesses</i></p>	<p><input type="checkbox"/> Carry out all the appropriate general checks listed under the heading <i>All equipment manufactured from man-made fibres</i></p> <p>Additionally:</p> <p>Carry out a visual and tactile check:</p> <p><input type="checkbox"/> Inside and outside any terminations, e.g. textile attachment-point loops, for all the points listed under the general checking procedure</p> <p><input type="checkbox"/> on fastening and adjustment buckles for:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Correct assembly</li> <li><input type="checkbox"/> Correct functioning</li> <li><input type="checkbox"/> Excessive wear</li> <li><input type="checkbox"/> Corrosion</li> <li><input type="checkbox"/> Cracks</li> <li><input type="checkbox"/> Other damage</li> </ul> <p>Actions:</p> <p><input type="checkbox"/> Textile terminations: treat in accordance with the general checking procedure</p> <p><input type="checkbox"/> Fastening and adjustment buckles, other safety critical metal or plastics components:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Incorrect assembly: correct assembly</li> <li><input type="checkbox"/> Incorrect functioning: remove from service</li> <li><input type="checkbox"/> Excessive wear: remove from service</li> <li><input type="checkbox"/> Corrosion: remove from service</li> <li><input type="checkbox"/> Cracks: remove from service</li> <li><input type="checkbox"/> Other damage: remove from service</li> </ul> <p>If in doubt on any point, remove from service</p>

Equipment	Inspection procedure
<i>Lanyards and slings</i>	<p><input type="checkbox"/> Carry out all the appropriate general checks listed under the heading <i>All equipment manufactured from man-made fibres</i></p> <p>Additionally:</p> <p>Carry out a visual and tactile check:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Inside and outside any terminations, e.g. textile attachment-point loops, for all the points listed under the general checking procedure</li><li><input type="checkbox"/> All knots for security</li><li><input type="checkbox"/> That knot overlaps are sufficient</li><li><input type="checkbox"/> That knots in anchor lanyards and device lanyards are not too tight (i.e. that they would still provide some energy absorption)</li></ul> <p>Actions:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Textile terminations: treat in accordance with the general checking procedure</li><li><input type="checkbox"/> Knots: if in doubt, remove from service. Knots may be retied by a competent person. Tension knots with body weight and ensure that there is sufficient overlap (minimum 100 mm). If the knots in an anchor lanyard or device lanyard appear to be very tight, either retie the knots or replace the lanyard.</li></ul> <p>If in doubt on any point, remove from service</p>

Equipment	Inspection procedure
<i>Energy absorbers</i>	<input type="checkbox"/> Carry out all the appropriate general checks listed under the heading <i>All equipment manufactured from man-made fibres</i>  Additionally:  Carry out a visual and tactile check:  <input type="checkbox"/> Inside and outside any terminations, e.g. textile attachment-point loops, for all the points listed under the general checking procedure <input type="checkbox"/> That there are no signs of any deployment (i.e. partial activation) of the energy absorber  Actions:  <input type="checkbox"/> Textile terminations: treat in accordance with the general checking procedure <input type="checkbox"/> Any sign of deployment: remove from service  If in doubt on any point, remove from service



Equipment	Inspection procedure
<p><b>All metallic equipment</b></p>	<p><i>These general checks apply to all equipment manufactured from metal</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I have read the information supplied by the manufacturer.</li> <li><input type="checkbox"/> The equipment is within the manufacturer's recommended lifespan.</li> <li><input type="checkbox"/> The equipment has not been subjected to loads in excess of the manufacturer's limitations</li> <li><input type="checkbox"/> The equipment has not been reported as having arrested a fall</li> </ul> <p>Carry out a visual and/or tactile check for:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Build up of foreign matter, e.g. grit; grease; sealant; paint</li> <li><input type="checkbox"/> Wear, particularly to friction-inducing surfaces, e.g. bobbins, and wear indicators, where present</li> <li><input type="checkbox"/> Cuts</li> <li><input type="checkbox"/> Heavy marking or scoring and crazing of surface finish (crazing often indicates distortion)</li> <li><input type="checkbox"/> Burring</li> <li><input type="checkbox"/> Cracks</li> <li><input type="checkbox"/> Corrosion, e.g. rusting; stress corrosion cracking; galvanic corrosion</li> <li><input type="checkbox"/> Contamination by chemicals</li> <li><input type="checkbox"/> Deformation, e.g. twisted</li> <li><input type="checkbox"/> Evidence of unauthorized modification</li> </ul> <p>Actions:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Equipment is beyond recommended lifespan: remove from service</li> <li><input type="checkbox"/> Equipment has been subjected to loads in excess of manufacturer's limitations: remove from service</li> <li><input type="checkbox"/> Equipment has been reported as having arrested a fall: remove from service</li> <li><input type="checkbox"/> Remove any foreign matter</li> <li><input type="checkbox"/> Excessive wear: remove from service. Some wear is permissible: refer to manufacturer's information</li> <li><input type="checkbox"/> Cuts, heavy burring, marking or scoring, crazing of surface finish: remove from service</li> <li><input type="checkbox"/> Cracks: remove from service</li> <li><input type="checkbox"/> Bad corrosion: remove from service</li> <li><input type="checkbox"/> Contamination by chemicals: remove from service</li> <li><input type="checkbox"/> Deformation: remove from service</li> <li><input type="checkbox"/> Evidence of unauthorized modification: remove from service</li> </ul> <p>If in doubt on any point, remove from service</p>

<b>Equipment</b>	<b>Inspection procedure</b>
<i>Descending devices</i>	<p><input type="checkbox"/> Carry out all the appropriate general checks listed under the heading <i>All metallic equipment</i></p> <p>Additionally:</p> <p>Carry out a visual and tactile check to ensure:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Moving parts function correctly, e.g. handles; locking devices; cams; springs; locking catches</li><li><input type="checkbox"/> Hinge pins are in good condition</li><li><input type="checkbox"/> Threaded assemblies are fully tightened and correctly secured</li></ul> <p>Actions:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Incorrect functioning: remove from service. If any moving parts do not function correctly, remove from service</li><li><input type="checkbox"/> Hinge pins not in good condition: remove from service</li><li><input type="checkbox"/> Threaded assemblies not properly tightened or are unable to be tightened if it is the intention that the user may do so: remove from service and correct the problem</li></ul> <p>If in doubt on any point, remove from service</p>

Equipment	Inspection procedure
<p><i>Ascending devices/Back-up devices</i></p>	<p><input type="checkbox"/> Carry out all the appropriate general checks listed under the heading <i>All metallic equipment</i></p> <p>Additionally:</p> <p>Carry out a visual and tactile check to ensure:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Moving parts function correctly, e.g. cam; springs; locking catch</li> <li><input type="checkbox"/> There is no damage to cams, e.g. broken teeth</li> <li><input type="checkbox"/> Hinge pin is in good condition</li> <li><input type="checkbox"/> Threaded assemblies are fully tightened and correctly secured</li> </ul> <p>Actions:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Incorrect functioning: remove from service. If any moving parts do not function correctly, remove from service</li> <li><input type="checkbox"/> Hinge pin not in good condition: remove from service</li> <li><input type="checkbox"/> Threaded assemblies not properly tightened or are unable to be tightened if it is the intention that the user may do so: remove from service and correct the problem</li> </ul> <p>If in doubt on any point, remove from service</p>

Equipment	Inspection procedure
<i>Connectors</i>	<input type="checkbox"/> Carry out all the appropriate general checks listed under the heading <i>All metallic equipment</i>  Additionally:  Carry out a visual and tactile check to ensure:  <input type="checkbox"/> Moving parts function correctly, e.g. keeper locates in body correctly; spring returns the keeper correctly; keeper locking mechanism operates correctly (screw gate, twist-lock); any threaded parts run correctly <input type="checkbox"/> Hinge pin is in good condition <input type="checkbox"/> Catch pin is not bent  Actions:  <input type="checkbox"/> Incorrect functioning: if any moving parts do not function correctly, remove from service <input type="checkbox"/> Hinge pin not in good condition: remove from service <input type="checkbox"/> Catch pin bent: remove from service  If in doubt on any point, remove from service

Equipment	Inspection procedure
<p><i>Lanyards and slings made from metal, e.g. wire strops</i></p>	<p><input type="checkbox"/> Carry out all the appropriate general checks listed under the heading <i>All metallic equipment</i></p> <p>Additionally:</p> <p>Carry out a visual check for:</p> <p><input type="checkbox"/> Wear or damage to wire strands inside and outside the attachment-point loops and that the attachment-point loop terminations are undamaged and secure</p> <p><input type="checkbox"/> Excessive wear to any other part, especially load-bearing parts, e.g. broken wire strands</p> <p>Carry out a visual and tactile check to ensure:</p> <p><input type="checkbox"/> Any abrasion protection intended to be fitted is in place</p> <p><input type="checkbox"/> Any moving parts function correctly</p> <p>Actions:</p> <p><input type="checkbox"/> Wear or damage to wire strands inside and outside the attachment-point loops: remove from service</p> <p><input type="checkbox"/> Excessive wear or damage to any other part: remove from service. Some wear is permissible: refer to manufacturer's information</p> <p><input type="checkbox"/> Any abrasion protection intended to be fitted is not in place or is damaged: remove from service</p> <p><input type="checkbox"/> Incorrect functioning: if any moving parts do not function correctly, remove from service</p> <p>If in doubt on any point, remove from service</p>

Equipment	Inspection procedure
<b>Helmets</b>	<p> <input type="checkbox"/> I have read the information supplied by the manufacturer.  <input type="checkbox"/> The helmet is within the manufacturer's recommended lifespan.  <input type="checkbox"/> The helmet has not been subjected to loads in excess of the manufacturer's limitations                 </p> <p>Carry out a visual and tactile check for:</p> <p> <input type="checkbox"/> Cracks, deformation or other damage to the shell  <input type="checkbox"/> Damage to the cradle/chinstrap assembly  <input type="checkbox"/> Excessive wear to any part  <input type="checkbox"/> Evidence of unauthorized modification                 </p> <p>Check that:</p> <p> <input type="checkbox"/> The chin strap adjusts fully and easily to achieve a correct fit  <input type="checkbox"/> The headband adjusts fully and easily to achieve a correct fit  <input type="checkbox"/> Labels, e.g. self-adhesive labels ('stickers'), placed on helmets not by the manufacturer are in accordance with the helmet manufacturer's instructions                 </p> <p>Actions:</p> <p> <input type="checkbox"/> Helmet beyond recommended lifespan: remove from service  <input type="checkbox"/> Helmet has been subjected to loads in excess of manufacturer's limitations: remove from service  <input type="checkbox"/> Any cracks, deformation or other damage, including scoring or cuts to the shell: remove from service  <input type="checkbox"/> Damage to the cradle/chinstrap assembly: remove from service  <input type="checkbox"/> Excessive wear to any part: remove from service  <input type="checkbox"/> Evidence of unauthorized modification: remove from service  <input type="checkbox"/> No chin strap, or chin strap does not adjust fully and easily: remove from service  <input type="checkbox"/> Headband does not adjust fully and easily: remove from service  <input type="checkbox"/> Headband adjustment does not stay in position: remove from service  <input type="checkbox"/> Labels placed on helmets that are not in accordance with the helmet manufacturer's instructions: remove from service                 </p> <p>If in doubt on any point, remove from service</p>