Introduction.
This guide is aimed at manufacturers, distributors and users of lifting equipment within the European Economic Area. It has been developed as a quick reference guide to ensure that lifting equipment is supplied with the correct documentation and marking as required by current legislation, standards and best practice guidance.

LEEA 059-6 is one of a series of guides related to documentation and marking of a range of generic forms of lifting equipment as listed below:

Part 1 – Manual Lifting Machines  
Part 2 – Powered Lifting Machines  
Part 3 – Lifting Machine Supporting Structures  
Part 4 – Lifting Accessories, Non-fixed load lifting attachments.  
Part 5 – Lifting Accessories, Slings  
Part 6 – General accessories and Components for slings.
<table>
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<tr>
<th>Item &amp; Standard</th>
<th>Required Information</th>
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<tr>
<td><strong>Short Link Chain</strong></td>
<td>Documents to be supplied in accordance with the relevant legislation &amp; relevant standard:</td>
</tr>
</tbody>
</table>
| Only short link chain allowed for lifting purposes. Fine tolerance for use in lifting machines, medium tolerance used generally in the manufacture of lifting slings. | - EC Declaration of Conformity (guidance LEEA 080.1)  
- Manufacturers Certificate  
- Manufacturer’s instructions for use. |
| **BS EN 818-2 (grade 8)**  
**BS EN 818-3 (grade 4)**  
**BS EN 818-7 (grade 8 machine chain)** | **Note:** the EC Declaration of Conformity & Manufacturers Certificate can be issued as a single document.  
**Manufacturers Certificate**  
The certificate of test & examination shall give at least the following information: |
|  | - The name & address of the manufacturer or his authorized representative, including date of issue of the certificate & authentication;  
- Number & Part(s) of EN 818 (2)(3)(7);  
- Quantity & description of the chain of which the test sample is representative;  
- Identification of the chain of which the test sample is representative;  
- Nominal size of chain, in millimetres;  
- Manufacturing proof force, in kilo-Newton;  
- Breaking force, in kilo-Newton (i.e. confirmation that the specified minimum breaking force was met or exceeded);  
- Total ultimate elongation at fracture, as a percentage (i.e. confirmation that the specified minimum total ultimate elongation has been met or exceeded).  
**Manufacturer’s instructions for use**  
The instructions for chain should contain the following general information: |
|  | - The intended use  
- The limits of use.  
- Instructions for handling, storing, cutting, assembly, use and maintenance |
Marking requirements.

- Grade mark stamped or embossed on every 20th link, or links at intervals of 1m whichever is the lesser distance.
- Manufacturers trade mark or symbol in the same manner and intervals as the grade.
- Any lot or other marking in the same manner as the grade.

Additional marking that can be affixed to the drum of the bulk supply or by means of a tag:

- CE mark
- Business name and address of the manufacturer
- Reference to the manufacturers certificate
- Year of manufacture

<table>
<thead>
<tr>
<th>Steel Wire Rope for general lifting</th>
<th>Documents to be supplied in accordance with the relevant legislation &amp; relevant standard:</th>
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<tr>
<td>Wire</td>
<td>- EC Declaration of Conformity (guidance LEEA 080.1)</td>
</tr>
<tr>
<td>Strand</td>
<td>- Manufacturers Certificate</td>
</tr>
<tr>
<td>Core</td>
<td>- Manufacturer's instructions for use.</td>
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<tr>
<td>Rope</td>
<td></td>
</tr>
</tbody>
</table>

BS EN 12385 Parts 1 to 4

Note: the EC Declaration of Conformity & Manufacturers Certificate can be issued as a single document.

Manufacturers Certificate

A certificate shall confirm conformance to the appropriate part of EN 12385-1:2008

NOTE This is equivalent to inspection document 2.1 or 2.2 as described in EN 10204.

The certificate shall give at least the following information:

- certificate number;
- name & address of the manufacturer or his authorized representative;
- quantity & nominal length of rope;
- standard to which the rope conforms, e.g. EN 12385-4;
- rope designation in accordance with EN 12385-2;
- minimum breaking force (parts 4, 5, 6, 7, 8, 9 & 10) or minimum aggregate breaking force (part 6);
- date of issue of the certificate & authentication;
- an example of the maximum working load to which the rope shall be subjected in service at a given factor of safety or working load limit when the intended use is known.

The certificate number shall enable traceability of the rope.

**Test results**

When test results are given the certificate shall additionally give either or both of the following:

a) Measured dimension(s) of rope - measured diameter of rope (mm); or measured width & thickness (mm x mm).

b) Measured breaking force of rope - measured breaking force of rope $F_m$ (kN); or measured aggregate breaking force of rope $F_{e.m}$ (kN); or calculated measured (post-spin) breaking force of rope $F_{m.c}$ (kN).

*NOTE Together with the information as given in above, this is equivalent to inspection document 2.3 or 3.1B as described in EN 10204.*

*Note for other applications such as for Stranded hauling & carrying-hauling ropes for cableway installations designed to carry persons or for locked coil carrying ropes for cable way installations for carrying persons, additional information will be required & reference to the specific part of the standard should be made.*

**Manufacturer's instructions for use**

The instructions for rope should contain the following general information:

- The intended use
- The limits of use.
### Instructions for handling, cutting, storing, assembly, use and maintenance

**Marking requirements.**

*Note: Marking can be affixed to the reel of the bulk supply or by means of a tag:*

- CE mark
- Business name and address of the manufacturer
- Reference to the manufacturers certificate
- Batch number
- Year of manufacture

### Sling Components

*Designed to be incorporated as a terminal fitting as part of a sling for attaching a load to a lifting machine.*

![Master link and intermediate link.](image)

### Documents to be supplied in accordance with the relevant legislation & relevant standard:

- **Manufacturers Certificate** (guidance BS EN 1677 parts 1-6)
- **Manufacturer's instructions for use.** (guidance BS EN 1677 parts 1-6)

**Manufacturers Certificate**

The certificate shall include at least the following information:

- Business name & address of the manufacturer or authorised representative, including the date of issue of the certificate & authentication.
- The number and relevant part of the European standard, eg EN 1677-1.
- Code number
- The quantity & description of the component.
- The grade number
- The working load limit in tonnes
- The manufacturing proof force in accordance with the relevant part of the European standard in kilonewtons.
- Confirmation that the minimum proof force was met or exceeded.
- An identification of the quality system to EN ISO 9002 when in place & operating.

**Manufacturer’s instructions for use**

The instructions for sling components should contain the following general information:
### Hook with safety catch

Note: chain slings will have the same end fittings, but more commonly than a welded connector link and mechanically assembled connector will be used instead.

### ‘C’ Hook

- The intended use
- The limits of use.
- Instructions for handling, storing, assembly, use and maintenance

### Additional information for self-locking hooks:

- How to close the latch manually by the operator
- How to use the locking mechanism

### Marking requirements:

- Code number that identifies the WLL
- The grade number
- Manufacturers, name, symbol or mark
- Traceability code

### Additional markings for load bearing pins:

Each removable load bearing pin of 13mm diameter and above must be legibly and indelibly marked with the relevant grade number and manufacturers symbol.

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**BSEN 1677 Parts 1-6**
### SHACKLES

**Bow Shackle**

- Designed for use with more than one attachment to the body to allow freedom of movement. Two main types – screw pin, & bolt, nut & split pin.

**Dee Shackle**

- Designed to enable connection of 2 pieces of equipment in a straight line.

### Documents to be supplied in accordance with the relevant legislation & relevant standard:

- EC Declaration of Conformity (guidance LEEA 080.1)
- Manufacturers Certificate (guidance BS EN 13889)
- Manufacturer’s instructions for use. (guidance LEEA SI.6.3)

*Note: the EC Declaration of Conformity & Manufacturers Certificate can be issued as a single document.*

### Manufacturer’s certificate.

The certificate shall include at least the following information:

- Name and address of the manufacturer.
- The number of the standard to which it was made
- Traceability code
- Quantity and description
- The grade number
- The working load limit in tonnes (t)
- Confirmation that the minimum breaking load was met or exceeded.
- Identification of the quality system to EN 9001 when in place an operating

### Marking requirements

- **CE Mark**
- **Working load limit in tonnes**
- **Grade number**
- **Manufacturers name, symbol or code**
- **Traceability code.**

### Additional marking for Shackle pins.

All shackle pins, 13mm diameter and above, must be marked with the relevant grade number, traceability code and manufacturers symbol. Pins below 13mm must be marked with at least the grade number or traceability code.
**BS EN 13889**

**LEEA COPSULE Section 18**

**Information Which Should Be Exchanged Between the User & the Designer or Supplier**

As shackles are frequently used for multi-purpose applications, precise details of the load to be lifted are not always available. In these circumstances, only a general specification can be given but should, as far as possible, include the following information:

1. Type of shackle.
2. Type of pin and locking requirements if any.
3. Safe working load required.
4. Any exceptionally hazardous conditions of use.
5. Any limiting dimensions, such as pin size, opening in jaw, diameter of eye.
6. If required to be to British or other standard dimensions, give standard and table number or other relevant reference.
7. Any special marking requirements.

**Eyebolts:**

Designed for lifting or suspending a load. 3 Types:

<table>
<thead>
<tr>
<th>Collar eyebolts</th>
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**Documents to be supplied in accordance with the relevant legislation & relevant standard:**

- EC Declaration of Conformity (guidance LEEA 080.1)
- Manufacturers Certificate (guidance BS EN ISO 3266)
- Manufacturer’s instructions for use. (guidance LEEA SI.7.4 and BS EN ISO 3266 annex A)

*Note: the EC Declaration of Conformity & Manufacturers Certificate can be issued as a single document.*

**Manufacturers certificate**

The manufacturer shall provide a declaration with each consignment of eyebolts giving the following information for the consignment:

- the business name & the full address of the manufacturer & where applicable his authorized representative;
- the number of the International Standard, i.e. ISO 3266;
- the quantity & description of the eyebolt;
- the traceability code to enable any particular eyebolt or batch of eyebolts to be identified
- the working load limit, expressed in tonnes;
The proof force applied, expressed in kilonewtons;

The declaration shall declare that each eyebolt complies with BS EN ISO 3266 & is within the manufacturer’s specification of the type tested eyebolt(s). It shall also state the name & address of the testing establishment if different from the manufacturer.

The declaration shall be authenticated by a signature & shall state the name & status of the signatory.

NOTE: within Europe it is necessary to add regulatory mandatory marking, e.g. CE marking as defined in the Machinery Directive & issue the EC Declaration of conformity in addition to the above. Both the EC DoC & the manufactures certificate above can be supplied as a single document.

In addition to the information required by EN ISO 3266, BS 4278 requires the following information:

- the distinguishing mark or symbol (as marked on the eyebolt)
- the form & size of the screw thread
- proof load applied
- the safe working load.

The certificate shall declare that each eye bolt was proof load tested in accordance with clause 9 of BS 4278 & was subsequently examined by a competent person & that it complies with the standard. It shall state the name & address of the testing establishment & the status of the signatory.

Marking requirements

- CE Mark
- Manufacturer’s identification mark or symbol
- Nominal size and diameter of thread
- Axial working load limit
- Traceability code.

Information Which Should Be Exchanged Between the User & the Designer or Supplier
As eyebolts are frequently used for multi-purpose applications, precise details of the load to be lifted are not always available. In these circumstances, only a general specification can be given but should, as far as possible, include the following information:

2. Maximum load to be lifted.
3. Type required.
4. Number required.
5. If non axial loading is involved give details.
6. Thread form and diameter.
7. Any exceptionally hazardous conditions of use.
8. Special identification marks if required.

### Rigging Screws & Turnbuckles

Generally used to facilitate tensioning and fine adjustment of length in lifting assemblies where chain, wire rope or textile elements form the main component of the assembly. Also used for cargo restraint and suspension etc.

Documents to be supplied in accordance with the relevant legislation & relevant standard:

- EC Declaration of Conformity (guidance LEEA 080.1)
- Manufacturers Test Certificate (guidance BS 4429 clause 1.12)
- Manufacturer’s instructions for use.

Note: the EC Declaration of Conformity & Manufacturers Test Certificate can be issued as a single document.

**Manufacturer’s certificate.**

The manufacturer shall provide a certificate with each consignment giving at least the following information for each:

- The number & date of this British Standard, i.e. BS 4429: 1987
- A distinguishing mark to enable the particular rigging screw or turnbuckle to be identified with the test certificate;
- The proof load applied (see clause 1.10 of BS 4429:1987);
- The safe working load (SWL);
- The date of test;
- The quantity tested & covered by one certificate.

The certificate shall state that each rigging screw or turnbuckle was proof loaded in accordance with clause
1.10 of BS 4429 & was subsequently examined by a competent person & that it complies with the requirements of BS 4429.

The certificate shall state the name & address of the testing establishment, & the status of the signatory.

The certificate may be an appropriate statutory form, provided the required information is given.

**Marking requirements**

- CE mark
- Working load limit in tonnes (t)
- Business name and address of the manufacturer
- Identification mark
- Traceability code on all load bearing components, i.e. body, eyes, hooks, forks, etc.

**Information Which Should Be Exchanged Between the User & the Designer or Supplier**

The purchaser should ensure that any order includes the following information:

1. Type of component required, ie rigging screw or turnbuckle.
2. Finish required, ie self-colour or hot-dip galvanized.
3. Type of terminal fittings required.
4. Whether locknuts are required.
5. Thread diameter and/or WLL required.
6. Maximum and minimum length required or range of adjustment required.
8. State that the item is to be used for a lifting application and should be verified and certified accordingly.
9. Details of the application if known.