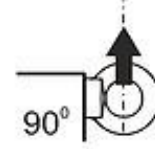


WLL¹
(Working Load Limit)
Axial pull
working load limit



WLL²
(Working Load Limit)
45° working
load limit



WLL³
(Working Load Limit)
90° working
load limit

SOME INSTRUCTION ON HOW TO USE LIFTING EYE BOLTS AND LIFTING EYE NUTS CORRECTLY

Always read all instructions before using.



Lifting eye bolts and lifting eye nuts must be screwed until their bearing surface perfectly adheres to the surface of the object that needs to be lifted. Lifting eye bolts and lifting eye nuts must not be used unless they are screwed tightly.



Lifting eye bolts and lifting eye nuts must not be used with the ring's side pull.



Lifting eye bolts and lifting eye nuts must not be used with the ring's side pull.

What you need to know about Lifting Eye Bolts/Nuts to use them safely

Lifting Eye Bolts and Nuts have always been used in all industries when the need arises for something to be lifted: machines, moulds, equipment, engines and control cabinets, building form-works, bridges, railway installations, wind farms as well as in many other applications. Unfortunately all too often security is disregarded and accidents reveal a shocking truth: Lifting eyebolts and lifting eye nuts are not to be found among commercial hardware but are classified by Directive 2006/42/EC as lifting accessories. The Machinery Directive and the technical standard of reference (for example DIN580:2010 and DIN582:2010) in fact prescribe a series of technical specifications and tests which must be complied with and documented. The mandatory documentation guaranteeing the product's suitability and safety must also accompany Lifting Eye bolts/nuts through all stages of the supply and sales chain to the end user.

One of the key elements specified by Directive 2006/42/EC and by the technical standard is the product's traceability should a manufacturing defect or an abnormality in the material used is found or if a product does not comply with regulations.

Ask these questions to your supplier:

Is your Lifting Eyebolt/nut traceable throughout the entire supply and sales chain should a manufacturing defect or abnormality in the material be found or does not comply with regulations?

Is the steel used for the construction by hot forging C15E with added aluminium (DIN 580/582)? The standard chemical composition of steel C15E does not provide for such addition of aluminium and therefore must be proven and certified by the manufacturer.

Is your Eyebolt/Eyebolt marked with the:

- ▶ CE Marking?
- ▶ Manufacturer?
- ▶ Batch number?
- ▶ Type of steel?
- ▶ Thread size?
- ▶ Working Load Limit (WLL) in kgs for axial pull as well as an arrow showing the direction such working load refers to (DIN 580/582)?

Does it have the correct Working Loads?

Safety factor on table working loads is 6. This means that the manufacturer must carry out the tensile strength tests for each production batch and certify the integrity of the piece up to six times the maximum working load rates specified in the axial pull table, for 45 degree angle pull and for an orthogonal 90 degree angle pull (DIN 580/582).

Does your Eyebolt/Eyebolt come with Mandatory documentation?

- ▶ A manufacturer-signed EU Declaration of Conformity with relation to the CE marking
- ▶ User instructions
- ▶ Certificate 3.1 EN 10204. This states all the chemical and mechanical laboratory tests carried out on the production batch, the maximum WLL in the three main directions, the country of origin and the legal references of the Manufacturer issuing the certificate. Also includes the EU certification relative to the CE marking.

Is your lifting eyebolt/eyebolt packaged?

- ▶ with the mandatory accompanying documentation?
- ▶ labelled in compliance with the regulations?
- ▶ bear the main information for the product's safe use (CE marking, Max WLL, 3 main directions of pull, the batch number, type of material, thread size and other information deemed useful by the manufacturer?

EU Directives on Lifting Eye Bolts and Lifting Eye Nuts Safety

EU Directive EN 2006/42/CE defines lifting eye bolts and lifting eye nuts as lifting accessories. This means that the manufacturer/importer must respect all requirements outlined by EU Directives relative to marketing lifting eye bolts and lifting eye nuts in the EU. Compliance with all EU norms and specifications is guaranteed by the CE marking of the lifting eye bolts and lifting eye nuts.

Note: Pursuant to the laws and regulations on safety in the workplace, the user is also obliged to ensure that lifting eye bolts and lifting eye nuts, given that they are considered lifting accessories, possess all the characteristics required for the purpose of CE marking and that they comply with the reference tables before they are put into use.

The EU Directive and the reference tables outline the mandatory requirements for the sale and use of lifting eye bolts and lifting eye nuts within the EU, specifically:

- ▶ Lifting eye bolts and lifting eye nuts must be supplied with certificate 3.1 EN 10204.
- ▶ Lifting eye bolts and lifting eye nuts must bear the CE marking in the prescribed format.
- ▶ Lifting eye bolts and lifting eye nuts must be marked indelibly with the manufacturer's brand.
- ▶ The lot number must be marked indelibly on the part (Traceability in case of product fault).
- ▶ The straight lifting Working Load Limit (WLL) must be marked indelibly on the part, together with an arrow indicating the lifting direction relative to the specified working limit.
- ▶ The steel grade employed by the manufacturer must be marked indelibly on the part.
- ▶ The threading size must be marked indelibly on the part.
- ▶ Packaging must include instructions for use.

In addition:

The manufacturer/importer must carry out 2 tests on different lifting eye bolts and lifting eye nuts for each manufactured lot: 2 straight pull tests and 2 orthogonal pull tests. The result of these tests must not be lower than 6 times the working load limit (WLL) marked on the lifting eye bolts and lifting eye nuts.

The manufacturer/importer must carry out the chemical analysis and the mechanical tests (or possess the relevant certification) on the type of steel used for each lot. The chemical composition and the mechanical values of these tests must be in accordance with the provisions outlined by the reference standard.

The manufacturer/importer must be able to trace at all times all the buyers of a lot of lifting eye bolts and lifting eye nuts in the event that an anomaly in the material and/or in the mechanical processing is found. To this end, the manufacturer/importer must state the lot number for each type of eye bolt and eye nut sold on the delivery note or on the sales invoice.

The manufacturer/importer must issue certificate 3.1 EN 10204 (2.2 EN 10204 for previous version of the tables) for each lot. Users who are not in possession of the certificate must request it from the dealer before using the lifting eye bolts and lifting eye nuts, or from the manufacturer/importer if the dealer is no longer traceable. Said certificate must be provided free of charge, as it forms an integral part of the regulations and reference tables.

Pursuant to the laws and the regulations on safety in the workplace, failure to comply with the above-mentioned requirements results in both the manufacturer/importer who has not observed the EC regulations and the reference standards and the user who has not ensured compliance with all requirements necessary for the use of the lifting eye bolts and lifting eye nuts being jointly liable under civil and criminal law.