

# Eye Bolts/ Eye Nuts

## Information

Full details and safety information about our range of Eye Bolts/ Eye Nuts

### Applications

Eye bolts and eye nuts are used for lifting machines, appliances or any other objects which cannot be lifted by hand or by forklift truck.

### Range

George Taylor offers a wide range of lifting eye bolts and eye nuts, from M6 up to M72, with Working Load Limits from 0.07 tons up to 25 tons. Larger sizes can be supplied on request.

### Design

The eye bolts and eye nuts are manufactured from C15, C45 or C15E steel, drop forged and with metric thread. Each eye bolt and eye nut is individually stamped with:

- Working Load Limit valid for in-line pull
- thread diameter
- material identification symbol e.g. C15, M
- manufacturer's symbol
- CE.

### Finish

The eye bolts and eye nuts can be either self coloured, electro-galvanised or hot dipped galvanised.

### Certification

Test certificates can be supplied upon request.

### Instructions for use

Eye bolts and eye nuts should be inspected before use to ensure that:

- all markings are legible;
- eye bolts and eye nuts are free from nicks, gouges and cracks;

- make sure the thread is undamaged and clean;
- an eye bolt or eye nut with the correct Working Load Limit has been selected with respect to load to be lifted;
- eye bolts or eye nuts may not be heat treated as this may affect their Working Load Limit;
- never repair or reshape an eye bolt or eye nut by welding, heating or bending as this may affect the Working Load Limit;
- never grind, machine or cut an eyebolt or eye nut;
- when used as lifting devices, the eye bolt or eye nut should always be screwed into the object to be lifted in such a way that they fit properly against the object to be lifted;
- Working Load Limits are valid for in-line pull only and have to be reduced for non-axial loading, for further details please refer to the standard, DIN 580 for eye bolts or DIN 582 for eye nuts.

It is required that the products are regularly inspected and that the inspection should take place in accordance with the safety standards given in the country of use. This is required because the products in use may be affected by wear, misuse, overloading etc. with a consequence of deformation and alteration of the material structure.

Inspection should take place at least every six months and even more frequently when the products are used in severe operating conditions.

# Safety Instructions - Eyebolts

## for BSW and metric coarse thread

- Standard : B.S. 4278 Tables 1 and 4 - 1984
- Note : maximum recommended working loads for British standard eyebolts imperial and metric coarse threads when used in pairs for inclined working conditions

### SWL for a single eyebolt in vertical lift

### angle of lift between sling legs

| tonnes | 0° > 30°<br>tonnes | 30° > 60°<br>tonnes | 60° > 90°<br>tonnes |
|--------|--------------------|---------------------|---------------------|
| 0.25   | 0.32               | 0.20                | 0.13                |
| 0.40   | 0.50               | 0.32                | 0.20                |
| 0.50   | 0.63               | 0.40                | 0.25                |
| 0.80   | 1.00               | 0.64                | 0.40                |
| 0.90   | 1.13               | 0.72                | 0.45                |
| 1.00   | 1.30               | 0.80                | 0.50                |
| 1.25   | 1.60               | 1.00                | 0.63                |
| 1.40   | 1.76               | 1.12                | 0.70                |
| 1.60   | 2.00               | 1.25                | 0.80                |
| 2.00   | 2.50               | 1.60                | 1.00                |
| 2.50   | 3.20               | 2.00                | 1.25                |
| 2.75   | 3.47               | 2.20                | 1.38                |
| 3.20   | 4.00               | 2.50                | 1.60                |
| 3.50   | 4.41               | 2.80                | 1.75                |
| 4.00   | 5.00               | 3.20                | 2.00                |
| 4.50   | 5.67               | 3.60                | 2.25                |
| 5.00   | 6.30               | 4.00                | 2.50                |
| 6.30   | 8.00               | 5.00                | 3.20                |
| 8.00   | 10.00              | 6.30                | 4.00                |
| 9.00   | 11.34              | 7.20                | 4.50                |
| 10.00  | 12.50              | 8.00                | 5.00                |
| 12.00  | 15.12              | 9.60                | 6.00                |
| 12.50  | 16.00              | 10.00               | 6.30                |
| 15.00  | 18.90              | 12.00               | 7.50                |
| 16.00  | 20.00              | 12.50               | 8.00                |
| 20.00  | 25.20              | 16.00               | 10.00               |

# Safety Instructions - Eyebolts and Eyenuts

## metric coarse thread

- Standard : Eyebolt DIN 580 - Eyenut DIN 582
- Note : maximum recommended working loads when used in pairs for inclined working conditions

### SWL for a single eyebolt in vertical lift

0°

kg

140

230

340

700

1200

1800

3600

5100

7000

8600

11500

16000

### angle of lift between sling legs

45°

kg

95

170

240

500

830

1270

2600

3700

5000

6100

8300

11000