Safety Information

Lifting Points

Full details and safety information about our range of lifting points

Applications

Eyebolts & Eyenuts are used for lifting machines, appliances or any other object which cannot be lifted by hand or by forklift truck.

Range

George Taylor Lifting Gear offers a wide range of lifting eyebolts and eyenuts, in sizes from M6 up to M72. Larger sizes available upon request.

- Collared Eyebolt
- Dynamo Eyebolt
- DIN 580 Eyebolt
- DIN 582 Eyenut
- Grade 80 Eyebolt
- Grade 80 Eyenut

ALWAYS

- Store and handle eyebolts/eyenuts correctly.
- Inspect eyebolts/eyenuts before use and before placing into storage.
- Select the correct pattern eyebolt for the application.
- Ensure that the eyebolt and tapped hole threads are compatible and strong enough for the load.
- Correctly align the plane of the eye using shims where necessary.
- Ensure that the collar is fully seated when hand tight.

NEVER

- Use tommy bars, grips or wrenches to tighten eyebolts.
- Use dynamo eyebolts for angular loading.
- Use a single eyebolt to lift a load that is free to rotate.
- Reeve slings through the eyes, links or shackles fitted to pairs of eyebolts
- Force hooks or other fittings into the eye; they must fit freely.
- Shock load eyebolts.
- Repair or reshape an eyebolt/eyenut by welding, heating or bending as this may affect the WLL.

Finish

Eyebolts & Eyenuts can be supplied self coloured, electro galvanised, hot dipped galvanised or painted depending on type.

Instructions for use

Do not attempt lifting operations unless you understand the use and limitations to use of the equipment, the slinging procedures and the mode factors to be applied.

Do not use defective eyebolts. Eyebolts shall be free from nicks, gouges & cracks. Check the thread of both the eyebolt and hole, ensure they are compatible, fully formed, of sufficient length, undamaged and clear of any debris which may prevent proper engagement.

Ensure the contact surface around the hole is flat, clean and perpendicular to the thread axis. Tighten the eyebolt down firmly by hand. The eye must be in the correct plane and the collar must sit evenly on the contact surface. Use shims but do not machine the collar or over tighten to achieve this.

A hook may be engaged directly into the eye of a dynamo eyebolt or the link of an eyebolt with link. Collar eyebolts must be fitted with a shackle or link to accept hooks. The hooks must fit freely so do not wedge or force them into position.

Never reeve a sling through the eyes, links or shackles fitted to eyebolts used in pairs as this will impose a severe resultant load to the eyebolts.

Dynamo eyebolts must only be used for axial loading. When using eyebolts with multi-leg slings use eyebolts with links or collar eyebolts taking care to de-rate them correctly for angular loading conditions.

Where a single eyebolt is used, use a swivel or swivel hook to prevent the eyebolt unscrewing.

Working Load Limits are applicable to in-line pull only, reductions have to be applied for non-axial loading. For further details please see the tables in this document.

Storage and Handling

Never return damaged eyebolts/eyenuts to storage. They should be dry, clean and protected from corrosion. Care must be taken to protect threads from damage whilst in store.
Where possible use removable plugs to exclude debris from tapped holes.

In-service Inspection and Maintenance

Maintenance requirements are minimal. Keep eyebolts/eyenuts clean, protect from corrosion and protect threads from damage.
Do not attempt to straighten bent eyebolts or re-cut threads.

Regularly inspect eyebolts and, in the event of the following defects, refer the eyebolt to a Competent Person for thorough examination:

- Illegible markings,
- Distorting,
- Worn or bent shanks and threads,
- Incomplete or incorrectly formed threads,
- Damaged eyes, nicks, gouges, cracks, corrosion or other defects.

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

Metric Coarse Thread

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

Table 1

WLL for a single Eyebolt in vertical lift	Angle of lift between sling legs
0°	45°
tonne	tonne
0.14	0.095
0.23	0.17
0.34	0.24
0.70	0.50
1.20	0.83
1.80	1.27
3.60	2.60
5.10	3.70
7.00	5.00
8.60	6.10
11.50	8.30
16.00	11.00

Safety Instructions

For BSW and Metric Coarse Thread

- Standard: BS4278-1 & 4
- Note: maximum recommended working loads for British standard eyebolts

Imperial and metric coarse threads when used in pairs for inclined working conditions.

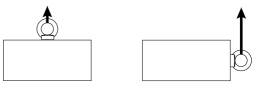
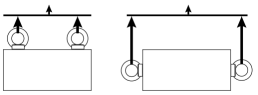
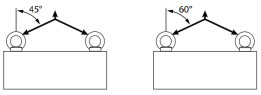
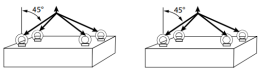
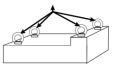
Table 2

WLL for a single Eyebolt in vertical lift	Angle of lift between sling legs		
	0° > 30°	30° > 60°	60° > 90°
tonne	tonne	tonne	tonne
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

Working Load Limit Chart

Type: Grade 80 Eyebolts & Eyenuts

Table 3

Safety Factor	1 Leg		2 Legs		2 Legs		3 or 4 Legs		3 or 4 Legs
4									
Angles	0°	90°	0°	90°	0°<ß<45°	45°<ß<60°	0°<ß<45°	45°<ß<60°	Asimm
Dia mm	Working Load Limit t								
M6	0.40	0.15	0.80	0.30	0.21	0.15	0.32	0.23	0.15
M8	0.80	0.40	1.60	0.80	0.56	0.40	0.84	0.60	0.40
M10	1.00	0.40	2.00	0.80	0.56	0.40	0.84	0.60	0.40
M12	2.00	0.75	4.00	1.50	1.05	0.75	1.58	1.13	0.75
M14	3.00	1.00	6.00	2.00	1.40	1.00	2.10	1.50	1.00
M16	4.00	1.50	8.00	3.00	2.10	1.50	3.15	2.25	1.50
M18	5.00	2.00	10.00	4.00	2.80	2.00	4.20	3.00	2.00
M20	6.00	2.30	12.00	4.60	3.22	2.30	4.83	3.45	2.30
M22	7.00	2.80	14.00	5.60	3.92	2.80	5.88	4.20	2.80
M24	8.00	3.20	16.00	6.40	4.48	3.20	6.72	4.80	3.20
M27	10.00	4.00	20.00	8.00	5.60	4.00	8.40	6.00	4.00
M30	12.00	4.50	24.00	9.00	6.30	4.50	9.50	6.80	4.50
M36	16.00	7.00	32.00	14.00	9.80	7.00	14.70	10.50	7.00
M42	24.00	9.00	48.00	18.00	12.60	9.00	18.90	13.50	9.00
M48	32.00	12.00	64.00	24.00	16.80	12.00	25.20	18.00	12.00

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