Care & Use

1. Observe WLL (Working Load Limit) and ensure proper planning before lifting operation. Do not exceed the WLL

2. Before use, it is important that the user observes relevant standards and other statutory regulations. Inspections shall only be carried out by competent persons.

3. Townley eyenuts are designed for use exclusively with threaded studs or bolts that are rated to a minimum quality class of 10.9 in order to achieve the full Working Load Limit. The structure to which the lifting point is secured, needs to possess sufficient strength to handle the required lifting forces without experiencing any deformation.

4. Before installation and every use, visually inspect the Lifting Point and discard if there is evidence of corrosion, wear, weld cracks and deformation.

5. The Lifting Point must be positioned on the load in such a way that movement is avoided during lifting

a) For single leg lifts the lifting point must be vertically above the centre of gravity of the load

b) For two leg lifts, the lifting points must be equidistant to/or above the centre of gravity of the load

c) For three and four leg lifts, the lifting points must be arranged symmetrically around the centre of gravity and in the same plane.

6. For multi-leg sling assemblies, allowance should be made for the angle between the sling legs. Please refer to the Working Load Limit guidelines and other relevant standards e.g. AS3775 or AS3776 for requirements on reduction of Working Load Limit.

The lifting points should be mounted in a way that allows easy access for inspection and for ease of assembly / disassembly with a slinging arrangement.

The working load limit shall depend on the sling angles and should be calculated using the following formula:

$$WLL = \frac{W}{N \times \cos\beta}$$

W = Load weight in kg
N = number of legs on lifting points
β = angle of inclination of the leg to the vertical

7. Matching Of Threads: Extreme care should be taken to ensure that Eyebolts are not screwed into threaded holes of different size or thread type.

8. Where an Eyebolt is used in an untapped hole, the thread should engage a nut with a thread length of at least the full thickness of a standard nut.

9. Where an Eyebolt is used in a tapped hole. Drill and tap the work piece so that the Eyebolt is installed perpendicular to the surface of the work piece. The work piece must be flat, providing complete contact for the under-surface collar of the Eyebolt.

10. The swivel lifting point is adjustable 360°. Adjust to the direction of pull before engaging in a lift.

Warning: Never rotate the Eyebolt / Eyenut whilst under a load.

11. The lifting point should be fitted with the correct Hexagon socket tool.

12. Excessive tightening of the Eyebolt / Eyenut should be avoided. Tighten to recommended torque and periodically check torque as bolts could loosen in extended service.

13. Where 90°perpendicular loading is applied, the eye of the lifting point must be aligned in the vertical plane.

14. Continuous slings must never be used with pairs of Eyebolts or Eyenuts.

15. Effects of Temperature: The strength of the Lifting Point is adversely affected by excessively elevated temperatures. Where the temperatures are likely to exceed 100°C, the WLL has to be reduced accordingly:

Temperature °C	Reduction of WLL, percent (%)
-10 to 100	No reduction
100 to 200	10
200 to 350	25
Above 350	Not permitted

16. Do not use under chemical influences such as acids, alkaline solutions and vapours. I.e. in or around pickling baths, hot dip galvanizing plants.

17. After fitting, a periodic inspection should be undertaken by a competent person to examine the continued suitability.

Inspection Criteria

- Ensure the Eyebolt or Eyenut thread and the tapped hole are compatible.
- Ensure the Eyebolt or Eyenut is tight, but not excessively tightened during fitting.
- Check that the under face of the collar of the Eyebolt or Eyenut and the contacting surface of the load are smooth, flat and at right angles to the axis of the tapped hole.
- The Working Load Limit and manufacturers markings must be clearly visible
- The thread of the Eyebolt or Eyenut has not been damaged in a manner likely to reduce the strength of the joint assembly.
- Deformation of any part of the component.
- Visible damage such as notches, particularly in high stress areas.
- Wear should be no more than 5% of cross sectional diameter.
- Evidence of any cracks.
- Evidence of any corrosion.
- Damage to the bolt and/or the thread.

Subject to technical modifications