For when you don't want to be seen.

Introducing Townley's new lifting and rigging range designed for the entertainment industry.

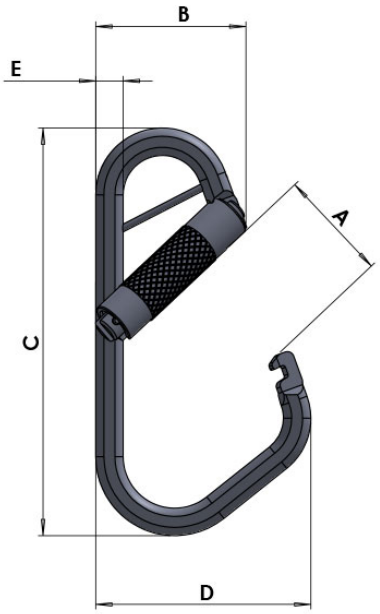
TOWNLEY
ENTERTAINMENT RIGGING

Entertainment Carabiner

Product Description

- Working Load Limit (WLL): 800kg
- Certified to AS4991-2004 (Lifting Devices)
- Individually proof-loaded to 1600kg in accordance with AS4991-2004
- Minimum Breaking Load (MBL) 4000kg (5:1)
- Unique Serial Number marked on each Carabiner
- Fully marked in accordance with AS4991-2004
- Test certificates supplied with all carabiners
- Cold-formed steel construction
- Black finish (minimum 50-hour salt spray corrosion resistance)
- Dual-action locking gate
- Removable captive bar supplied with every carabiner for securing carabiner to sling
- Note: To be used in major axis only

Townley Drop Forge is both NATA Accredited (Test Lab No. 13554) and AS/NZS ISO9001 Certified (Certificate number FS 604897).



Model	WLL (kg)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
CLA-801	800kg	16.5mm	57mm	113mm	62mm	12.5mm
CLA-802	800kg	47mm	65mm	178mm	94mm	12mm

Subject to technical modifications

Entertainment Rigging Screw

Product Description

- Designed for the entertainment industry
- Working Load Limit (WLL): 700kg
- Fully Tested and Certified to the Load Requirements of AS 2319
- Manufactured using only heat certified Australian Steel (AS1442/AS1444)
- 10:1 Safety Factor
- Black Zinc Low Sheen Matt Finish for low visibility applications
- Clearly marked for easy identification of working load limit and safety factors
- Perfect for theatre rigging applications

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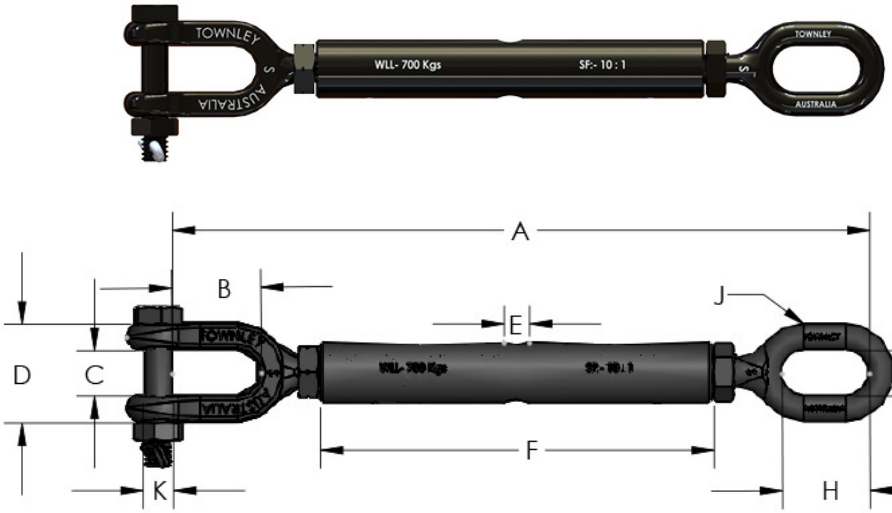


Model	WLL (kg)	A Closed (mm)	A Open (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	K (mm)	J (mm)
ER-RSCE12S	700kg	250	320	36	15	35	8.5	140	14	30	9	10

Subject to technical modifications

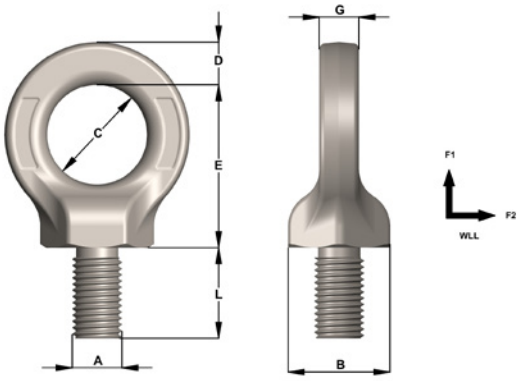
Entertainment Grade-8 Eyebolts

Product Description

- Designed for the entertainment industry
- Forged From High Tensile Alloy Steel
- Tempered
- Black Zinc Low Sheen Matt Finish for low visibility applications
- Manufactured exclusively from Australian Made Steel
- 100% electromagnetic crack testing to AS 1171
- Special thread forms made to order

Please ensure that all information contained in this user guide has been read and understood prior to the safe use of the Grade-8 Lifting Eyebolt. Failure to follow this guide may result in serious injury and/or property damage. Failure to follow this user guide voids the manufacturer's warranty.

This document may refer to the Eyebolt as the Lifting Point



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A Imperial	A Metric	WLL F1	WLL F2	B	C	D	E	G	L	Weight (kg)
3/8"	M10	1t	0.25t	27	30	12	48	10	21	0.17
1/2"	M12	1.6t	0.4t	27	30	12	48	10	21	0.17
5/8"	M16	4t	1t	34	34	15	56	14	28	0.37
3/4"	M20	6t	1.6t	41	40	17	70	16	35	0.6
7/8"	M22	7t	2t	50	50	20	85	18	42	1.1
1"	M24	8t	2.5t	50	50	20	85	18	42	1.1

WLL (WORKING LOAD LIMIT)

Each eyebolt is clearly stamped with the permitted F2 WLL.
F2 WLL - indicates safe use for non-axial lifts.
F1 WLL - indicates loads which are in line with the axis of the threaded end of the eyebolt. F1 WLL allows up to four (4) times higher lifting capacity whilst maintaining a 4:1 design factor of safety.

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. The material construction to which the Eyebolt will be attached shall be of adequate strength to withstand forces during lifting without deformation.

The following recommendations should be observed for minimum thread engagement of a tapped hole.

- 1.50 D in Steel (minimum AS3678 G250)
- 1.75 D in Cast Iron (minimum T250)
- 3.00 D in Aluminum alloys (only available in longer shank versions)

(D = Eyebolt thread diameter, eg. M20)

When lifting light metals, nonferrous heavy metals and grey cast iron, special consideration should be given to the choice of thread and respective Working Load Limit to ensure that the thread corresponds to the requirements of the respective base material.

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.

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. Never rotate the Eyebolt whilst under a load.

11. Excessive tightening of the Eyebolt shall be avoided.

12. It should not be possible to enter a 0.04mm feeler gauge at any position between the collar and its seating.

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

14. Correct Eye alignment of the Eyebolt is required at all times. If this cannot be achieved use a shim washer under the collar. A shim washer should not be less in diameter than the diameter of the collar.

15. Continuous slings must never be used with pairs of Eyebolts Effects of Temperature: The strength of the Eyebolt is adversely affected by excessively elevated temperatures. Where the temperatures are likely to exceed 200°C, the WLL has to be reduced accordingly:

Temperature °C	Reduction of WLL, percent (%)
-10 to 200	No reduction
200 to 300	10
300 to 400	25
Above 400	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 thread and the tapped hole are compatible
- Ensure the Eyebolt is tight, but not excessively tightened during fitting
- Check that the under face of the collar of the Eyebolt 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 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

Entertainment Grade-8 Eyenuts

User Guide

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Please ensure that all information contained in this user guide has been read and understood prior to the safe use of the Grade-8 Lifting Eyenut. Failure to follow this guide may result in serious injury and/or property damage. Failure to follow this user guide voids the manufacturer's warranty.

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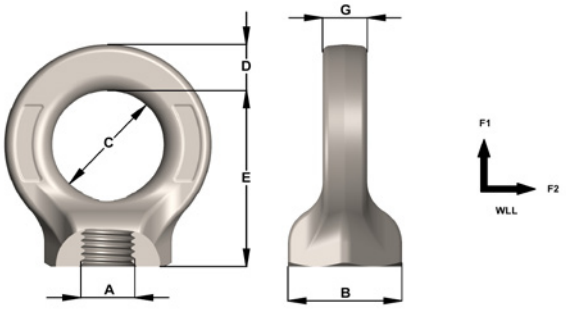

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Each Eyebolt is clearly stamped with the permitted F2 WLL.
F2 WLL - indicates safe use for non-axial lifts.
F1 WLL - indicates loads which are in line with the axis of the threaded end of the eyebolt. F1 WLL allows up to four (4) times higher lifting capacity whilst maintaining a 4:1 design factor of safety.

Care & Use

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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.

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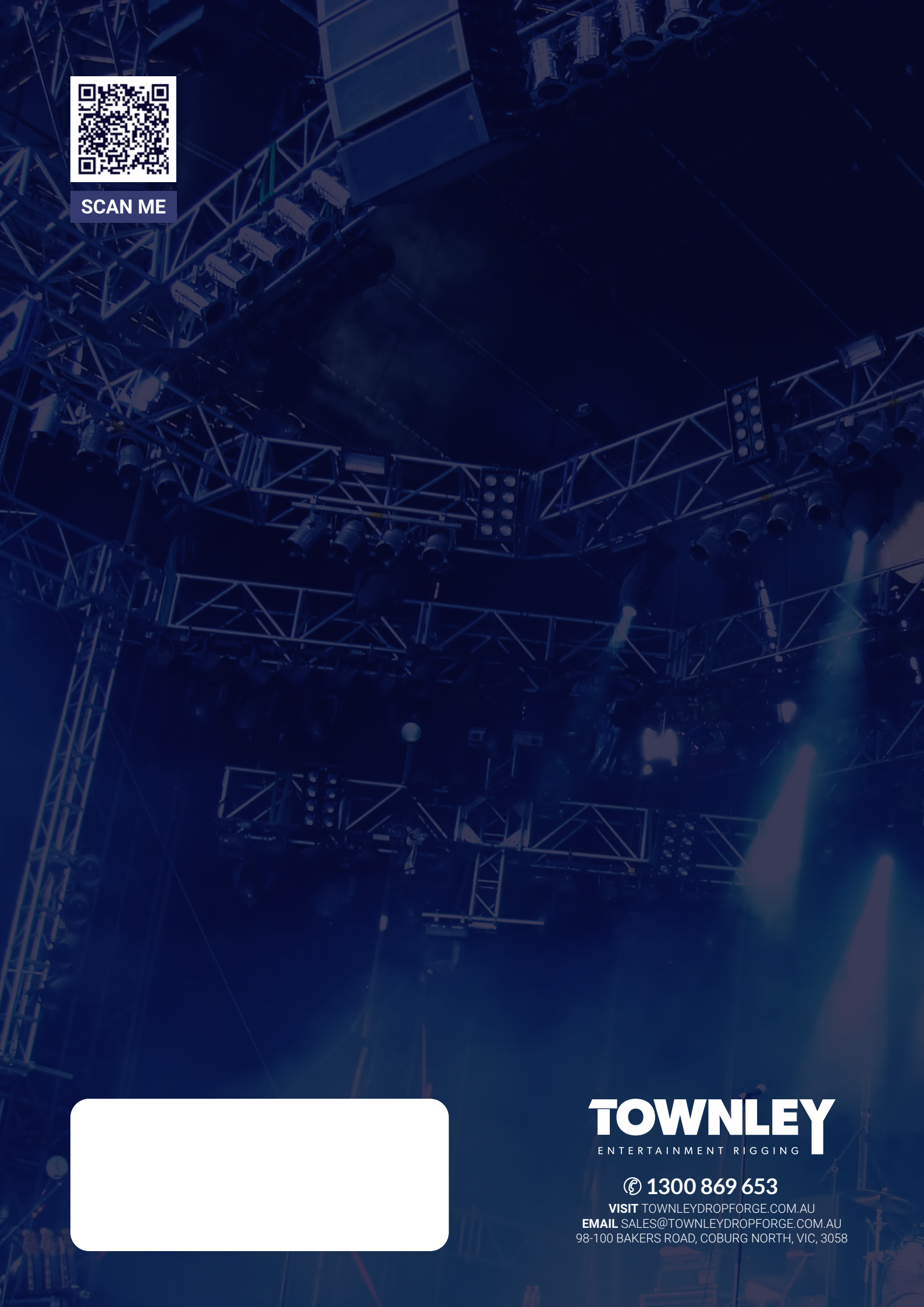

SCAN ME

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