

Operation Guide

custom

5.3t counterweight beam

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User Notes

Design Capacity

This device has a **MAXIMUM** working load limit of **5.3 TONNE**

This device is supplied with a **912kg** & a **2795kg** counterweight.

Consult load chart on page 9 & 10 prior to use with the relevant counterweight configuration.

This device is fitted with a transport stand (marked on page 8) that shall be stowed during lifts.

This device is fitted with lashing points (marked on page 8) for use during transport of the device.

Permissible Uses

This device is designed to handle items for installation below an overhead obstruction.

This device shall **NOT** be used in the carriage of personnel cages or any other device in which personnel can travel.

This device shall **NOT** be used if during the course of operation, transport or storage damage is sustained. Consult Maxirig or an authorised distributor prior to continued use.

Prior to Use

1. All aspects of use including crane, crane operator and dogging must comply with accepted good practice, AS4991 Lifting Devices Code, AS2550 Crane Safe Use Code and other relevant publications.
2. This device must be competently inspected prior to each use. A recommended pre-use checklist is included after these notes.
3. Conduct site specific Job Safety Analysis (JSA) and Hazard Identification & Risk Assessment Controls (HazOp).
4. Ensure the crane or hoist designated to perform the lift is sufficiently load rated and maintained to accepted industry standards.
5. Ensure rigging is fitted securely without twists or kinks to each of the device's lifting lugs and is sufficiently load rated.
6. Ensure rigging is securely fitted to designated lifting points on the load to be lifted.

WARNINGS

Top Lifting Slings

This device shall be used with a 2 leg top sling only.

The device may be used with 2 differing front sling length configurations:

High headroom/Low tilt: 7000mm front sling - will tilt rearward up to 23° in unloaded state.

Low headroom/High tilt: 4000mm front sling - will tilt rearward up to 35° in unloaded state.

Leg lengths shall be set as per the load chart on page 9 with regard to the top lift lugs used.

Ensure tilt between loaded and unloaded state is allowed for when discharging a load.

Adjustable counterweight

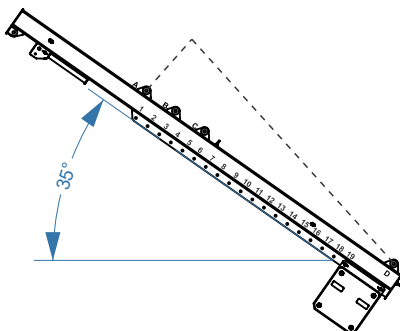
The position of the counterweight shall be adjusted so as to minimize the degree to which the beam will tilt between loaded and unloaded states.

For loads of 5.3 TONNE, the counterweight shall be set at the furthest setting to the rear of the beam.

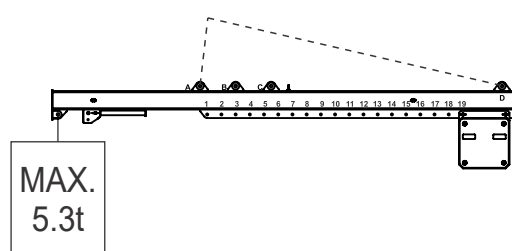
For loads under 5.3 TONNE, the counterweight can be moved toward the middle (refer to load chart on page 9 & 10 depending on your counterweight configuration) to minimize the amount of tilt between loaded and unloaded states.

The beam shall not be used with any forward tilt - the counterweight shall be set so that the beam comes to a level position when loaded.

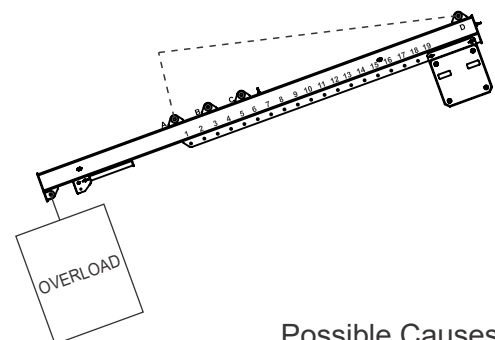
✓ UNLOADED STATE



✓ LOADED STATE



✗ OVER-LOADED STATE



Possible Causes

- Excessive load
- Incorrect sling lengths
- Incorrect counterweight position

User Notes

General Operation

1. Ensure all connections are secure.
2. Ensure pins attaching counterweight to beam are secured with accompanying lynch pins.
3. Stow transport stand into its upright position.
4. Ensure all hand/limbs are well clear of rigging connections prior to conducting any lifts - pinch points can occur around rigging connections.
5. Slowly raise the device and it's load ensuring no shock loads are applied.
6. At approximately 300mm above ground level visually re-check all connections.
7. Ensure all personnel are cleared to a safe distance prior to continuation of the lift.
8. Proceed with lift.
9. When lowering to ground level ensure the device and it's load are gently positioned on the discharge area to prevent any shock loading.

Discharging load

As a load is discharged, the device will return to its preset, neutral attitude (up to 35° negative angle).

Ensure no part of the device makes contact with an obstruction or other obstacle that will prevent it achieving this neutral attitude.

After Use

1. A post-use inspection should be conducted with any damage or indentations outside normal wear conditions reported to site supervisors for assessment and rectification prior to reuse or storage.
2. When storing the device, ensure it is kept dry and protected from weather.

General Arrangement

Maximum WLL 5.3t

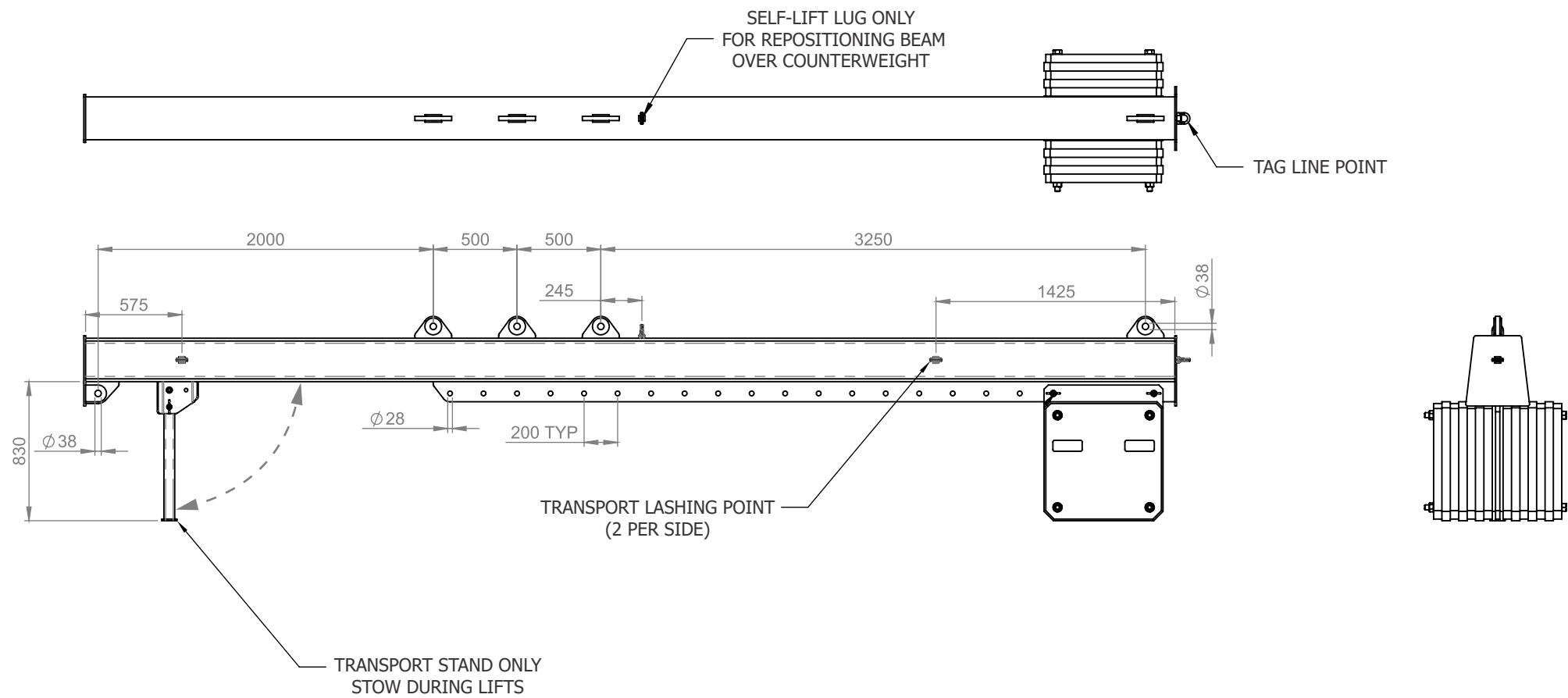
Lift lugs suit 12t Gr.S safety bow shackle

Load lug suits 12t Gr.S safety bow shackle

Counterweight: 2.795t

Tare: 3.475t

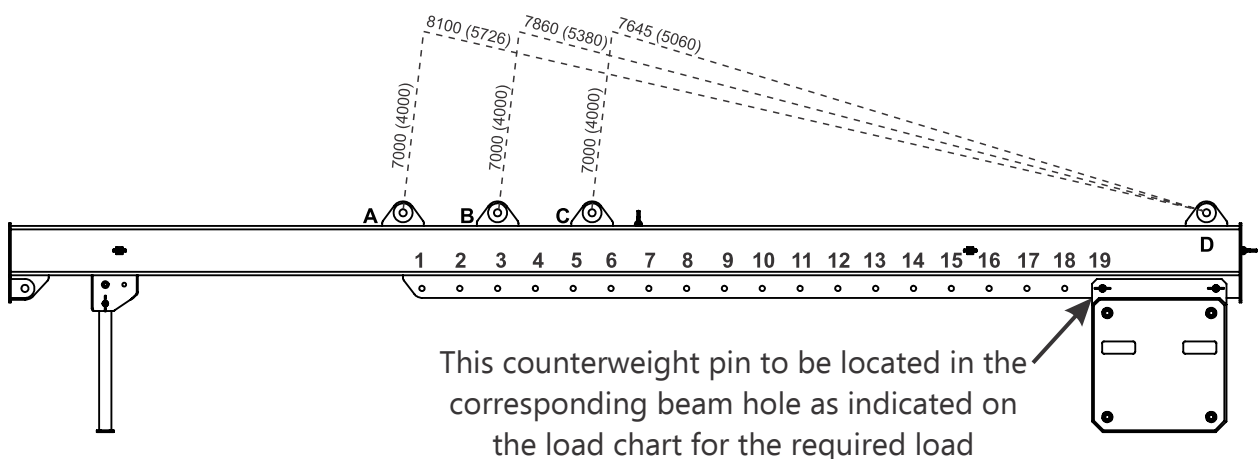
Maximum Hoisted Load: 8.775t



Load Chart - 2795kg counterweight configuration

LOAD CHART (2.795t COUNTERWEIGHT CONFIGURATION)

COUNTERWEIGHT POSITION	LUG A SLINGS AT 7000 & 8100 OR 4000 & 5726	LUG B SLINGS AT 7000 & 7860 OR 4000 & 5380	LUG C SLINGS AT 7000 & 7645 OR 4000 & 5060
19	5.300t	2.990t	2.515t
18	5.045t	2.825t	2.340t
17	4.790t	2.660t	2.165t
16	4.530t	2.495t	1.990t
15	4.275t	2.335t	1.815t
14	4.020t	2.170t	1.640t
13	3.765t	2.005t	1.465t
12	3.510t	1.840t	1.290t
11	3.250t	1.675t	1.115t
10	2.995t	1.510t	0.940t
9	2.740t	1.350t	0.765t
8	2.485t	1.185t	0.590t
7	2.230t	1.020t	0.415t
6	1.970t	0.855t	NOT USED
5	1.460t	0.690t	NOT USED
4	1.460t	0.525t	NOT USED
3	1.206t	NOT USED	NOT USED
2	0.950t	NOT USED	NOT USED
1	0.690t	NOT USED	NOT USED



7000mm Sling Leg Lengths

Lug A - Front 7000mm & Rear 8100mm
 Lug B - Front 7000mm & Rear 7860mm
 Lug C - Front 7000mm & Rear 7645mm

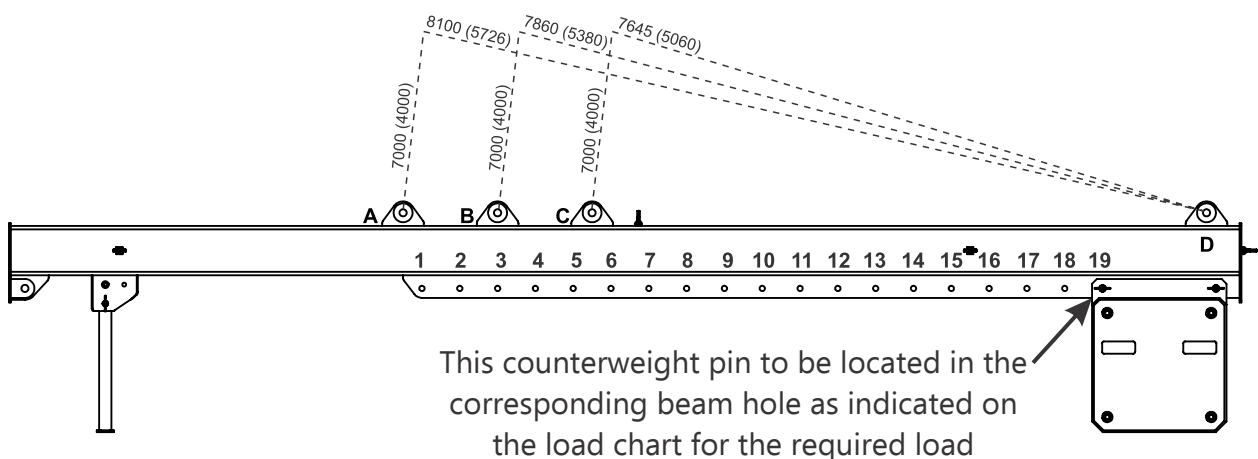
4000mm Sling Leg Lengths

Lug A - Front 4000mm & Rear 5726mm
 Lug B - Front 4000mm & Rear 5380mm
 Lug C - Front 4000mm & Rear 5060mm

Load Chart - 912kg counterweight configuration

LOAD CHART (912KG COUNTERWEIGHT CONFIGURATION)

COUNTERWEIGHT POSITION	LUG A SLINGS AT 7000 & 8100 OR 4000 & 5726	LUG B SLINGS AT 7000 & 7860 OR 4000 & 5380	LUG C SLINGS AT 7000 & 7645 OR 4000 & 5060
19	2.005t	1.320t	0.850t
18	1.920t	1.250t	0.790t
17	1.835t	1.180t	0.735t
16	1.750t	1.115t	0.675t
15	1.665t	1.045t	0.620t
14	1.580t	0.975t	0.560t
13	1.495t	0.905t	0.505t
12	1.410t	0.835t	0.445t
11	1.325t	0.770t	0.385t
10	1.240t	0.700t	0.330t
9	1.155t	0.630t	0.270t
8	1.070t	0.560t	0.215t
7	0.985t	0.490t	0.155t
6	0.900t	0.425t	NOT USED
5	0.815t	0.355t	NOT USED
4	0.730t	0.285t	NOT USED
3	0.645t	NOT USED	NOT USED
2	0.560t	NOT USED	NOT USED
1	0.475t	NOT USED	NOT USED



7000mm Sling Leg Lengths

Lug A - Front 7000mm & Rear 8100mm
 Lug B - Front 7000mm & Rear 7860mm
 Lug C - Front 7000mm & Rear 7645mm

4000mm Sling Leg Lengths

Lug A - Front 4000mm & Rear 5726mm
 Lug B - Front 4000mm & Rear 5380mm
 Lug C - Front 4000mm & Rear 5060mm

Periodic Maintenance & Testing

Inspection & Testing

This device must be regularly subjected to an inspection and maintenance regime in accordance with AS4991-2004 and the points listed below.

Inspection intervals shall not exceed 12 months. Shorter inspection intervals shall be adopted where the device is used frequently or in harsh conditions such as near salt water.

Major inspections shall only be conducted by an authorised Maxirig distributor or by competent persons with suitable training and experience.

1. The device shall be cleaned prior to inspection and in a location with sufficient lighting to enable a detailed examination of all components and welding.
2. A visual inspection shall be conducted noting nicks, gouges, cracks and corrosion in all welds.
3. A visual inspection shall be conducted noting nicks, gouges, cracks, corrosion and deformation in the lift lugs.
4. Ensure the body is straight and free of indentation or damage.
5. Check that the bolts assemblies attaching the beam to the counterweight are tight.
6. NDT of welds may be undertaken in accordance with relevant standards.
7. A Maxirig compliance sign must be attached and remain legible.
8. Check any associated rigging gear in accordance with relevant standards.
9. Consider suitability of inspection frequency and amend if required. Where the correct inspection frequency is unknown, guidance may be obtained from AS2550.1

Repairs

Minor repairs required to the device that affect surface finishing or coatings may be conducted in accordance with AS4991-2004.

Repairs that may affect the structural integrity of the device may only be performed in consultation with Maxirig or an authorised distributor.

Pre Use Checklist

Prior to use we recommend the following components of the device be checked as a minimum. This checklist is not a substitute for a Job Safety Analysis (JSA) or Hazard Identification & Risk Assessment Control.

If "NO" is answered to any of the checkpoints, refer to site supervisor, Maxirig or an authorised distributor for assessment prior to use.

	YES	NO
Are all lugs free of damage?	☐	☐
Is the weld securing each lifting lug complete and undamaged?	☐	☐
Is the beam and counterweight free of indentation or damage?	☐	☐
Is the device free of excessive rust or corrosion?	☐	☐
Are the bolt assemblies securing beam to counterweight secure?	☐	☐
Is a Maxirig compliance sign attached to the device and legible?	☐	☐
Is a Maxirig load chart sign attached to the device and legible?	☐	☐
Is the device subject to a current inspection?	☐	☐
Is each operator of the device properly trained and competent to use?	☐	☐
Are all associated rigging connections of sufficient WLL and maintained?	☐	☐

Manufactured & Tested in Australia

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