

Safelift Spreader Beams

Selection
Specification
Safe Use



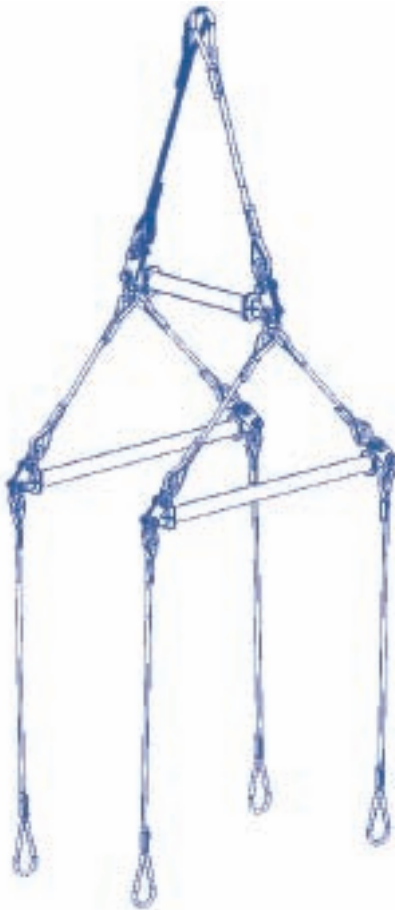
RD339

rossendalegroup
LIFTING EQUIPMENT ENGINEERS



Safelift Spreader Beam Type A

- Used when a vertical non-compressive force is to be applied to the load via the drop slings when lifting.
- Ideal for 'package lifting' where a 4 x vertical sling lift from an underbase is required.
- Achieves a level, horizontal lift, with the crane hook directly above the load centre of gravity.
- Disassembles into easily handled and transportable components.



Safelift Spreader Beam Type B

- Achieves a level, horizontal lift, with the crane hook directly above the load centre of gravity.
- Ideal for 'reel and shaft' lifting where a 2-sling lift is required.



Safelift Spreader Beam Type C

- Achieves a level, horizontal lift, with the crane hook directly above the load centre of gravity.
- Ideal for 'package lifting' where a 4-sling lift from an underbase of a load that can accept some compressive force is required.



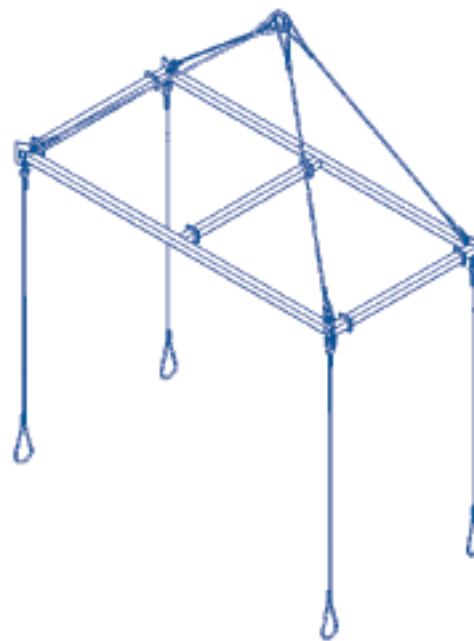
Safelift Adjuster Plate

- The Safelift Adjuster Plate allows adjustment of the effective sling length of the top slings.
 - Safelift Adjuster Plates can be fitted to one or both ends of the beam.
 - Turnbuckles can be fitted to the drop wires.
 - The Safelift Adjuster Plates and turnbuckles allow for fine adjustment of the lifting arrangement to give a level, horizontal lift, with the crane hook directly above the load centre of gravity.
- The Safelift Adjuster Plate is available on all Safelift Spreader Beams.



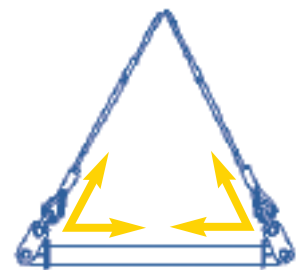
Safelift Spreader Frame Type F

- Used when a vertical non-compressive force is to be applied to the load via the drop slings.
- Achieves a level, horizontal lift, with the crane hook directly above the load centre of gravity.
- Disassembles into easily handled and transportable components.



Swivel End Fittings

- Sling lengths can be adjusted to put the crane hook directly over the centre of gravity of the load without putting any bending forces into the spreader beam.
- Different length tubes can easily be fitted.



Colour Coding

To ensure that Safelift Spreader Beam and sling arrangements are correctly assembled –

- Slings and sling attachments are colour coded.
- A colour code GA drawing is issued to the user.

All Safelift Spreader Beams

- Can be reused, with different slings, to lift different loads.
- Are of modular build, allowing beam lengths to be easily adjusted.
- Have swivel beam end assemblies to ensure correct alignment of slings and beams.
- Are available from 1t to 300t SWL as a standard, short delivery product and up to 1600t SWL as a special.
- Are designed to international standards.
- Are available from 1m drop centres to 18m drop centres as a standard, short delivery product and up to 30m drop centres as a special.
- Are designed using DriveWorks and SolidWorks knowledge based engineering software and issued with 2-D or 3-D AutoCAD or E-Drawings and full calculations for client approval when required.

Unique Design Features

Safelift Spreader Beams include integrated swivel spreader end-fittings which guarantee that the imposed loads travel along the horizontal axis of the beams, which are thus subject to zero bending moment.

Safelift Spreader Beams are manufactured in a modular format. The span can be adjusted by fitting new centre tubes.

The result of these design features is a safer, lighter, lower cost structure which can be used for different lifting applications by simply changing the slings and/or centre tubes.

Quality Plan

The quality plan is part of the rigorous quality control program applied to the design, manufacture and testing of all Safelift Spreader Beams. The customer is provided with opportunity to apply second and third-party control to all stages of production. Rossendale Group welcomes customer and third-party inspectors and has arrangements with Lloyds Register, DNV and other inspection bodies.

Documents issued with Safelift Spreader Beams include –

- General arrangement and sling colour code drawings in 2-D and 3-D.
- Design calculation set.
- Report of Thorough Examination under LOLER.
- Declaration of Conformity under the Machinery Regs.
- Pre and Post-test MPI reports and procedures.
- Load test calibration certification, traceable to national standards.
- Welder qualifications and weld procedures.
- Steel and weld consumable certificates.
- Safe Use Instructions for the beams, shackles and slings.

Product Description

Safelift Spreader Beams provide a safe, easy to use, flexible and lightweight solution for lifting applications where a crane is to be attached via slings to a load and a balanced, level load is to be raised without sling compression of the beam and when specified, the load. Safelift Spreader Beams are available in a range of capacities from 10t to 300t as standard, up to 1600t as specials, and in a range of spans from 1m to 18m. Sling lengths and angles are calculated to suit the specific centre of gravity of the loads and the headroom available.

The beams are designed as modern, lightweight and compact systems, yet are heavy duty for hard working in all industrial, transport, construction, warehousing and manufacturing environments.

Safelift Spreader Beams are designed to suit a range of use conditions including offshore. Criteria such as shock loading, wind loading, temperature ranges and duty factors are taken account of in the design process.

Properly used and maintained, Safelift Spreader Beams will give long life in arduous industrial environments, and will allow the user to carry out lifting operations efficiently and safely.

Safelift Spreader Beams are designed with the Rossendale Group automated parametric design system using SolidWorks™ 3D CAD design software. The design utilises standardised, stocked components which provides rapid delivery and the facility to extend or modify systems with ease and at low cost. The design process takes account of the centre of gravity of the load and produces a spreader beam and sling system that puts the crane hook directly above the C of G for a safe, balanced and level lift.

Product Finish

Standard paint finish is two covers of paint to a minimum of 75 micron finish, RAL1016. Other finishes are available on request.

Testing/ Certification

- Safelift Spreader Beams are proof load tested to an overload in excess of standard requirements, usually 25% over SWL. The test is witnessed and approved by Lloyds Register (or other agreed third-party authority). Test instruments are calibrated to national standards.
- All welds are subject to magnetic particle inspection (or other agreed weld NDE) both before and after the proof load test. The NDE is carried out by qualified inspectors working to approved procedures.



Above
Safelift Spreader
Beam Testing

Standard Compliance/ Quality Control

Safelift Spreader Beams are designed to BS2573:1983 Rules for the Design of Cranes, and Recommended Practice for Planning, Designing and Constructing Fixed Offshore Platforms – Working Stress Design, API Recommended Practice 2A-WSD (RP 2A-WSD). They withstand operating stresses and deflect within the tolerances allowed in the standard. Construction uses hot finished structural hollow section to EN 10210 Grade S355J2H (50D) for the main tubes, hot finished structural hollow section to DIN 17121 ST52.3N for the sleeves and steel plates and sections to BS4360 and BS4.

All fixings are grade 8.8. All materials used are traceable through manufacturer certification.

As with all Safelift products, Safelift Spreader Beams comply with the Supply of Machinery (Safety) (Amendment) Regulations 1994 and the EC Machinery Directive 98/37/EC. They are marked with the CE mark and issued with a Declaration of Conformity.

Safelift Spreader Beams are manufactured in our ISO9001 approved quality control facilities which cover design, material sourcing, manufacture and testing.

All welds are carried out to Lloyds Register approved welding procedures to EN ISO 15614-1:2004. All welders are qualified by Lloyds Register under BS EN 287-1:2004. All welds are subject to MPI before and after the proof load test.

Safelift Spreader Beams are subject to proof load testing and are certified accordingly. Testing follows the requirements of the Lifting Operations and Lifting Equipment Regulations 1998 and the Report of Thorough Examination is issued.

Exceptional Hazards

When using Safelift Spreader Beams in exceptionally hazardous conditions, the degree of hazard should be assessed by a competent person. Examples of exceptional hazards include lifting of potentially dangerous loads such as molten metals, corrosive materials or fissile material, loads which can move and loads with a high centre of gravity, and certain offshore activities.

Maintenance

- Safelift Spreader Beams should be examined by a competent person at least every 6 months. This is a legal requirement under LOLER (for full details see 'RD177 – Lifting Equipment and the Law', and 'RD294 – Statutory Inspection' available from your Rossendale Group branch or on-line at www.rossendalegroup.co.uk).
- Once a Safelift Spreader Beam has been overloaded it should be taken out of service and advice, inspection and repair sought from your Rossendale Group branch.

Rossendale Group offers a full lifting equipment maintenance and testing service.



Above
Safelift Spreader
Beam Type C
with Adjuster Plate

Safe Use

Overhead lifting presents a very real danger of severe injury or loss of life if equipment is not used properly. Safelift Spreader Beams should only be used by properly trained and qualified persons who understand equipment selection, inspection and use.

All Safelift lifting equipment is issued with Safe Use Instructions. The Rossendale Group provides Safe Use of Lifting Equipment training courses.

Users of Safelift Spreader Beams are referred to the following documents, available from your Rossendale Group branch or on-line at www.rossendalegroup.co.uk

RD455 – Instructions for the Safe Use of Lifting Beams and Spreaders.

RD452 – Instructions for the Safe Use of Wire Rope Slings.

RD465 – Instructions for the Safe Use of Shackles.

RD470 – General Purpose Slinging Practice.

Safelift Spreader Beam users should read and understand these Safe Use Instructions and take particular note of the following –

- Never load in excess of the rated capacity for the application.
- Always inspect the spreader beam, shackles and wires for damage or wear before use.
- Always use the correct size and type of equipment for the load, allowing for load increases due to load movement, shock loading and unequal loading.
- Ensure the load is in balance before lifting.

The customer is reminded of his legal responsibility to provide operator training (under PUWER and MHSWR). Safe Use of Lifting Equipment training courses, tailored to your specific needs, are available from Rossendale Group.

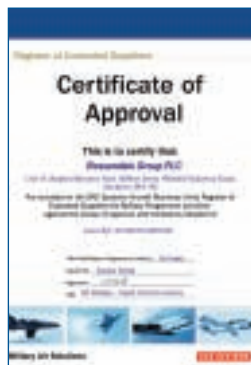
If in doubt, ask for advice at your Rossendale Group branch – it's free!

Qualifications

Rossendale Group operates a quality management system in accordance with ISO 9001 : 2008. The system is audited and approved by BVQI, certificate number 19317.



Rossendale Group is a full member of the Lifting Equipment Engineers Association, who set, maintain, audit and approve our technical standards and train and qualify our lifting equipment engineers.



Safelift lifting equipment is manufactured by or exclusively for Rossendale Group. It is designed for heavy duty industrial applications and is backed by the 'Safelift Guarantee'.



Safelift lifting equipment complies with the Supply of Machinery (Safety) (Amendment) Regulations 1994 and the EC Machinery Directive 98/37/EC. The equipment is marked with the CE mark and issued with a Declaration of Conformity.



Welding

Welding is carried out to Lloyds Register approved procedures to EN ISO 15614–1. Welders are qualified by Lloyds Register to EN 287–1:2004. Welds are subject to magnetic particle inspection both before and after the proof load test.



Safe Use of Lifting Beams and Spreaders

This important safety information should be passed to the user of the equipment.

This document is issued in accordance with the requirements of Section 6 of the Health and Safety at Work etc Act 1974, amended March 1988. It outlines the care and safe use of Lifting Beams and Spreaders and is based on Section 5 of the LEEA Code of Practice for the Safe Use of Lifting Equipment. * It should be read in conjunction with the requirements for General Purpose Slings Practice RD470, given overleaf, which form an integral part of these instructions.

This information is of a general nature only covering the main points for the safe use of lifting beams and spreaders, including lifting frames. It may be necessary to supplement this information for specific applications.

Always

- Store and handle lifting beams correctly.
- Refer to the safe use instructions for slings and attachments used with the beam.
- Include the self weight of the beam and attachments when calculating the load imposed on the crane hook.
- Ensure the load will remain stable when lifted.
- Ensure that no one lifting point becomes overloaded by the slinging or handling methods.
- Use tag lines to control long loads.

Never

- Use lifting beams to handle loads other than those for which they are designed.
- Fit lifting beams to a hook other than those for which they are designed.
- Use damaged or distorted lifting beams and attachments.
- Unevenly load lifting beams.
- Allow lifting beams to alter attitude during use.
- Allow lifting beams to foul the underside of the crane or any other obstructions in the area.

Selecting the correct lifting beam

Lifting beams, frames and spreaders are usually designed and built for a specific purpose. The range of designs and capacities is therefore only limited by practicality. Select the beam to be used and plan the lift taking the following into account: Application requirements – to reduce headroom, provide multiple lift points, to provide adjustable lifting centres, to handle out of balance loads, to remove or control inward or crushing forces, to allow for special load attachments. Capacity, both of the overall beam and of the individual lift points. Accessories and attachments – slings, grabs, shackles, hooks etc.

Storing and handling lifting beams

- Never return damaged lifting beams to storage. They should be clean and, where necessary, protected from corrosion.
- Lifting beams should be stored in a manner that will provide protection from damage whilst in store. Stands or packing should be provided where this is not built into the beam. Ensure the beam is stable and cannot topple over.

Using lifting beams safely

- Lifting beams may incorporate various loose and detachable items of lifting gear. Refer to the separate requirements for the safe use of those items.
- Do not use defective or distorted beams or attachments.
- Lifting beams are generally designed for a specific purpose and should not be used for other purposes without consulting the supplier. This will include the size of crane hook from which they are suspended. On no account should lifting beams be suspended from unsuitable size hooks.
- The weight of the beam, together with its attachments, must be added to the weight of the load when calculating the total load that will be imposed on the crane hook.
- Ensure that the SWL on the individual lift points is not exceeded. Extra care is needed where these are adjustable.
- Ensure the load is stable and that the beam remains at its intended attitude during use. Particular care is needed when lifting and setting down as not only may the load become unstable but individual lift points may become overloaded.
- Use tag lines to control long loads.
- Do not allow the beam to foul the underside of the crane, or any other obstructions, when raising or transporting loads.
- Refer to the requirements of BS 7121: Part 1 when using beams with cranes in tandem.

In-Service Inspection and Maintenance

- Maintenance requirements are minimal for lifting beams. Ensure that bolted joints are sound and that corrosion damage is prevented. Refer to the individual maintenance requirements for associated loose gear and attachments.
- Regularly inspect lifting beams and, in the event of the following defects, refer the beam to a Competent Person for thorough examination: beam distorted, damaged or corroded; worn, loose or missing bolts; cracked welds; attachment points worn, damaged or distorted, holes and eyes worn or elongated; any other visible defects.

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Further information is given in:

The Code of Practice for the Safe Use of Lifting Equipment, published by: Lifting Equipment Engineers Association

Copies available from your Rossendale Group Branch or our web site: www.rossendalegroup.co.uk

Safe Use of Wire Rope Slings

This important safety information should be passed to the user of the equipment.

This document is issued in accordance with the requirements of Section 6 of the Health and Safety at Work etc Act 1974, amended March 1988. It outlines the care and safe use of Wire Rope Slings and is based on Section 17 of the LEEA Code of Practice for the Safe Use of Lifting Equipment*. It should be read in conjunction with the requirements for General Purpose Slings Practice RD470, given overleaf, which form an integral part of these instructions.

This information is of a general nature only covering the main points for the safe use of wire rope slings. It may be necessary to supplement this information for specific applications.

Always

- Store and handle wire rope slings correctly.
- Inspect wire rope slings and accessories before use and before placing into storage.
- Follow safe slinging practices, as given overleaf.
- Fit slings carefully, protect them from sharp edges and position hooks to face outward from the load.
- Apply the correct mode factor for the slinging arrangement.
- Back hook free legs to the master link.

Never

- Attempt to shorten, knot or tie wire rope slings.
- Force, hammer or wedge slings or their fittings into position.
- Lift on the point of the hook.
- Use wire rope slings in acidic conditions without consulting the supplier.
- Use wire rope slings at temperatures above 100°C or below minus 40°C without consulting the supplier.
- Shock load wire rope slings.

Selecting the correct sling

Wire rope slings are available in a range of sizes and assemblies, select the slings to be used and plan the lift taking the following into account:

Type of sling to be used – endless, single, two, three or four leg.
Capacity – the sling must be both long enough and strong enough for the load and the slinging method.

Apply the mode factor for the slinging method.

For use at temperatures exceeding 100°C or below minus 40°C refer to the suppliers instructions.

Where slings may come into contact with acids or chemicals consult the supplier.

In the case of multi-leg slings the angle between the legs should not be less than 30° or exceed the maximum marked. Multi-leg slings exert a gripping force on the load which must be taken into account, this increases as the angle between the legs increases.

Due to the possibility of sparking, the use of aluminium is restricted in certain classified atmospheres, so ensure the ferrule is suitable for such conditions.

Storing and handling wire rope slings

- Never return damaged or contaminated slings to storage. They should be dry, clean and protected from corrosion.
- Store wire rope slings on a rack and not lying on the ground. The storage area should be dry and free of any contaminants which may harm the sling.
- Do not alter, modify or repair a wire rope sling but refer such matters to a Competent Person.

Using wire rope slings safely

- Do not attempt lifting operations unless you understand the use of the equipment, the slinging procedures and the mode factors to be applied.
- Do not use defective slings or accessories.
- Do not force, hammer or wedge slings or fittings into position. They must fit freely. Check to ensure correct engagement of fittings and appliances.
- Position hooks of multi-leg slings facing outward from the load. Do not lift on the point of a hook.
- Ensure that the wire rope is not twisted or knotted.
- Ensure the effective diameter of pins, hooks etc upon which soft eyes fit is at least 2 x the wire rope diameter.
- Position the splices of endless slings in the standing part of the sling away from hooks and fittings.
- Never join wire rope slings made from different lays of rope together as this will cause them to un-lay thus seriously affecting their capacity.
- Back hook free legs to the masterlink to avoid lashing legs which might accidentally become engaged or otherwise become a hazard.
- Take the load steadily and avoid shock loads.
- Do not leave suspended loads unattended. In an emergency cordon off the area.

In-Service Inspection and Maintenance

Maintenance requirements are minimal. Keep wire rope slings clean and protect from corrosion. Use non-acidic lubricants. Regularly inspect wire rope slings and, in the event of the following defects, refer the sling to a Competent Person for thorough examination: illegible markings; distorted, worn or damaged fittings; broken or cut wires; kinks; protrusion of core; corrosion; heat damage or discolouration; signs of movement at splices and ferrules; any other visible defect to the wire rope, thimbles or fittings.

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Further information is given in:

The Code of Practice for the Safe Use of Lifting Equipment,
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Copies available from your Rossendale Group Branch or our
web site: www.rossendalegroup.co.uk

Safe Use of Shackles

This important safety information should be passed to the user of the equipment.

This document is issued in accordance with the requirements of Section 6 of the Health and Safety at Work etc Act 1974, amended March 1988. It outlines the care and safe use of Shackles and is based on Section 4 of the LEEA Code of Practice for the Safe Use of Lifting Equipment.* It should be read in conjunction with the requirements for General Purpose Slings Practice RD470 given overleaf, the principles of which may be applied to the use of shackles with or without slings.

This information is of a general nature only covering the main points for the safe use of shackles. It may be necessary to supplement this information for specific applications.

Always

- Store and handle shackles correctly.
- Inspect shackles before use and before placing into storage.
- Select the correct pattern of shackle and pin for the application.
- Allow for the full resultant imposed load.
- Fully tighten the pin.
- Ensure the load acts through the centre line of the shackle using spacers if necessary to meet this requirement.

Never

- Use shackles with bent pins or deformed bodies.
- Force, hammer or wedge shackles into position.
- Eccentrically load shackles.
- Replace the pin with a bolt.
- Fit pins in contact with moving parts which may loosen or unscrew them.
- Shock load shackles.

Selecting the correct shackle

Shackles are available in a range of material grades, sizes and designs. Select the shackle to be used and plan the lift taking the following into account:

Type of shackle to be used – dee or bow, British Standard or other design.

Type of pin – screwed with collar and eye are suitable for general purposes; with countersunk head for where clearance is limited; bolt and nut for where the pin may be out of sight or subject to movement.

Full resultant imposed load – when using shackles with multi-leg slings remember that as the included angle increases and so does the load in the leg and any attachment to the leg.

When used to suspend pulley blocks account must be taken of the imposed load due to operating effort.

CAUTION: BS and ISO Standard shackles are designed and rated for the pin to accept a central point load. Other, commonly available, types are designed and rated for the load to be evenly distributed over the full width of the pin. Unless the basis for rating is clearly stated it should be assumed that the jaw must be fully filled and the load evenly spread across the shackle pin width.

Storing and handling shackles

- Never return damaged shackles to storage. They should be dry, clean and protected from corrosion.
- Do not alter, modify or repair shackles and never replace missing pins with unidentified pins, bolts etc, but refer such matters to a Competent Person.
- Never galvanise or subject a shackle to other plating processes without the approval of the supplier.

Using shackles safely

- Do not attempt lifting operations unless you understand the use of the equipment, the slinging procedures and the mode factors to be applied.
- Do not use defective shackles or unidentified pins.
- Shackles should be fitted so that the body takes the load along its centre line and is not subjected to side bending loads. When connecting a number of sling legs, and similar applications, position them so that they do not impose a side load on the shackle jaws. Use spacers to position them if necessary.
- Ensure the pin is correctly screwed into the shackle eye. Tighten by hand, use a small bar to lock the collar to the shackle eye. Check that the thread is fully engaged with the body but is not too long so that tightening causes the body to deform.
- With bolt and nut pins ensure the nut jams on the inner end of the thread and not on the eye of the shackle. The bolt should be free to rotate with minimal side float. The split cotter pin must be fitted before making a lift.
- When using shackles with slings in choke hitch, or in other applications where there may be movement, place the pin through the eye or link of the sling and never in contact with the bight of the choke or moving parts which may cause the pin to unscrew.

In-Service Inspection and Maintenance

Maintenance requirements are minimal. Keep shackles clean, the threads free of debris and protect from corrosion. Regularly inspect shackles and, in the event of the following defects, refer the shackle to a Competent Person for thorough examination: illegible markings; distorted, worn, stretched or bent body; bent pin; damaged or incomplete thread forms; nicks, gouges, cracks or corrosion; incorrect pin; any other defect.

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Copies available from your Rossendale Group Branch or our web site: www.rossendalegroup.co.uk

General Purpose Slings Practice

This important safety information should be passed to the user of the equipment.

The following information is based on Section 1 – Appendix 1.5 of the LEEA Code of Practice for the Safe Use of Lifting Equipment. It should be read in conjunction with the instructions for the safe use, of the specific equipment, of which it forms an integral part and with any instructions issued by the supplier.

This information is of a general nature only covering the main points for the safe use of various types of slings for general lifting purposes.

Always

- Plan the lift, establish the weight of the load and prepare the landing area ensuring that it will take the weight.
- Check slings and equipment are free of damage, use slings/ slinging methods suitable for the load and protect slings from sharp edges and corners.
- Attach the sling securely to the load and appliance and position hooks to face outwards.
- Ensure the load is balanced and will not tilt or fall.
- Keep fingers, toes etc clear when tensioning slings and when landing loads.
- Ensure that the load is free to be lifted.
- Make a trial lift and trial lower.

Never

- Use damaged slings or accessories.
- Twist, knot or tie slings.
- Hammer slings into position.
- Overload slings due to the weight of the load or the mode of use.
- Trap slings when landing the load.
- Drag slings over floors etc or attempt to pull trapped slings from under loads.
- Allow personnel to ride on loads.

Sling configuration and rating

Slings are available in single, two, three and four leg or endless form. In practice it will be found that chain, wire rope and fibre rope slings are available in any of these configurations but that flat woven webbing is limited to single leg and endless whilst roundslings are only supplied in endless form. The maximum load that a sling may lift in use will be governed by the slinging arrangement (mode of use) and may vary from the marked SWL. In the case of textile slings the SWL for the various modes of use is usually given on the information label. In other cases it is necessary to multiply the marked SWL by a mode factor.

The following three simple rules will ensure that the sling is not overloaded. In some cases this will mean that the sling will be under utilised although this is unlikely to hinder the user unduly. Where the maximum utilisation is required reference should be made to a Competent Person who understands the factors involved and who can perform the necessary calculations.

- (1) For straight lift never exceed the marked SWL and in the case of multi-leg slings the specified angle or range of angles.
- (2) When using slings in choke hitch multiply the marked SWL by 0.8 to obtain the reduced maximum load the sling may lift ie reduce the safe working load by 20%.
- (3) With multi-leg slings, when using less than the full number of legs, reduce the maximum load in proportion to the number of legs in use. Simply multiply the marked SWL by the number of legs in use expressed as a fraction of the total thus: one leg of a two leg sling = 1/2 marked SWL, three legs of a four leg sling = 3/4 marked SWL and so on.

Operative Training

Slings should only be used by trained operatives who understand the methods of rating and application of mode factors.***

Safe Use of Slings

- Good slinging practice must ensure that the load is as safe and secure in the air as it was on the ground and that no harm is done to the load, lifting equipment, other property or persons.
- Establish the weight of the load, ensure the lifting method is suitable and inspect the sling and attachments for obvious defects. Prepare the landing area making sure the floor is strong enough to take the load. Follow any specific instructions from the supplier.
- Ensure the lifting point is over the centre of gravity. Any loose parts of the load should be removed or secured. Secure the sling firmly to the load by hooks onto lifting points or shackles etc. The sling must not be twisted, knotted or kinked in any way.
- Use packing to prevent damage to the sling from corners or edges and to protect the load.
- Do not exceed the SWL or rated angle. Any choke angle must not exceed 120° and any basket 90°
- Do not hammer, force or wedge slings or accessories into position; they must fit freely.
- When attaching more than one sling to the hook of the appliance use a shackle to join the slings and avoid overcrowding the hook.
- Use an established code of signals to instruct the crane driver.
- Ensure the load is free to be lifted and not, for example, bolted down.
- Check that there are no overhead obstacles such as power lines.
- Keep fingers, toes etc clear ensuring they do not become trapped when lifting, lowering or controlling loads.
- Make a trial lift by raising the load a little to ensure it is balanced, stable and secure and if not lower it and adjust the slinging arrangement.
- Where appropriate use tag lines to control the load.
- Except where special provision is made, do not allow anyone to pass under or ride upon the load. The area should be kept clear.
- Make a trial set down, ensure the sling will not become trapped and the load will not tip when the slings are released. Use supports which are strong enough to sustain the load without crushing.
- Never drag slings over floors etc or attempt to drag a trapped sling from under a load.
- Never use a sling to drag a load.
- Place the hooks of free legs back onto the master link and take care to ensure that empty hooks do not become accidentally engaged.
- Never use slings in contact with chemicals or heat without the manufacturers approval.
- Never use damaged or contaminated slings.
- On completion of the lift return all equipment to proper storage.

Further information is given in:

LEEA Code of Practice for the Safe Use of Lifting Equipment.
BS 6166 Part 1 – Lifting Slings, Methods of Rating.
BS 6166 Part 3 – Selection and Safe Use of Lifting Slings for Multipurposes.
HSE Guidance Note GS39 – Training of Crane Drivers and Slings.
Various British Standards covering individual products.

Copies available from your Rossendale Group Branch or our web site: www.rossendalegroup.co.uk

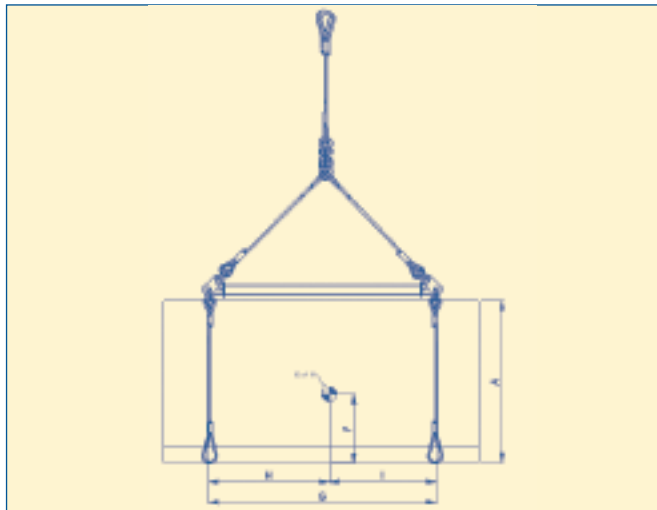
RD342/SBA Safelift Spreader Beam Type A Input Sheet

Complete as many of the yellow boxes as you can and return to Rossendale Group for a quotation, drawings and specifications.

Fax to your Rossendale Group branch or Email to sales@rossendalegroup.co.uk

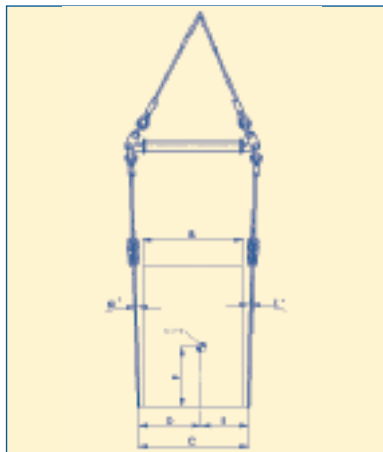
Customer
Address
Customer Ref

Customer Contact Name
Customer Contact Email
Customer Contact Tel
Customer Contact Fax
Customer Project Location



The following information is required to specify this product -

Safe Working Load (SWL) =	tonnes	
Weight Inaccuracy Factor (default for this product is 1.1) =		
Dynamic Amplification Factor (standard for onshore lift = 1.15; standard for offshore lift = 1.35) =		
Design Factor over Yield* (see below for details. Default for this product is 2) =		
Grade of Steel 43C or 50D (default for this product is grade 50D) =		
(Height of Package) Dim A =	mm	
Overall Height of Crane =	mm	
(Package Width) Dim B =	mm	
(Distance between the inside of lifting bollard cap plates) Dim C =	mm	
If bollards are at different centres on end view, mark C ₁ on side view and enter dimension here Dim C ₁ =		
Dim D =	mm	
Dim E =	= Dim C - Dim D	mm
Dim F =	mm	
Dim G =	mm	
Dim H =	mm	
Dim I =	= Dim G - Dim H	mm
Min. Angle M =	degrees	
Min. Angle L =	degrees	



Safelift Adjuster Plate Required

Yes / No
Quantity Required =
Max. Angle M =
Max. Angle L =

* The 'Design Factor over Yield' is a Total Applied Factor to all load-bearing steel members. It can be used as an alternative to the WIF and DAF and can be used to apply a greater factor to the steel members than that applied by the product of WIF and DAF. Default for 'Design Factor over Yield' is 2, which provides a greater factor than standard requirements for WIF and DAF.

This product will be quoted and specified in accordance with Rossendale Group specification 'RD339 Specification for Safelift Spreader Beams'. If you want any other specifications to be considered, detail or refer to them here.

--

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Date	Job No.
Date	TD Input Ref

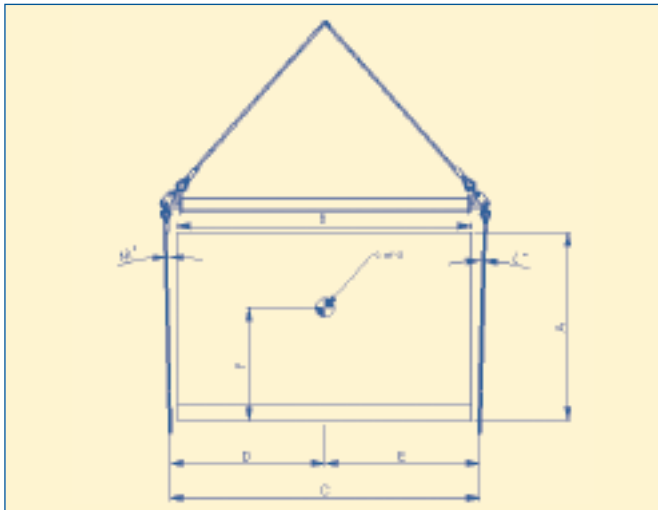
RD342/SBB Safelift Spreader Beam Type B Input Sheet

Complete as many of the yellow boxes as you can and return to Rossendale Group for a quotation, drawings and specifications.

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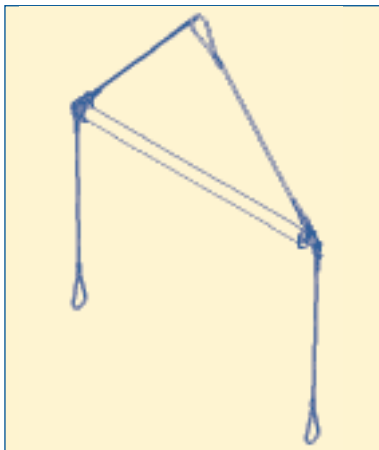
Customer
Address
Customer Ref

Customer Contact Name
Customer Contact Email
Customer Contact Tel
Customer Contact Fax
Customer Project Location



The following information is required to specify this product -

Safe Working Load (SWL) =	tonnes	
Weight Inaccuracy Factor (default for this product is 1.1) =		
Dynamic Amplification Factor (standard for onshore lift = 1.15; standard for offshore lift = 1.35) =		
Design Factor over Yield* (see below for details. Default for this product is 2) =		
Grade of Steel 43C or 50D (default for this product is grade 50D) =		
(Height of Package) Dim A =	mm	
Overall Height of Crane =	mm	
(Package Width) Dim B =	mm	
(Distance between the inside of lifting bollard cap plates) Dim C =	mm	
If bollards are at different centres on end view, mark C ₁ on side view and enter dimension here Dim C ₁ =		
Dim D =	mm	
Dim E =	= Dim C - Dim D	mm
Dim F =	mm	



Safelift Adjuster Plate Required

Yes / No
Quantity Required =

Max. Angle M =

Max. Angle L =

Min. Angle M =	degrees
----------------	---------

Min. Angle L =	degrees
----------------	---------

* The 'Design Factor over Yield' is a Total Applied Factor to all load-bearing steel members. It can be used as an alternative to the WIF and DAF and can be used to apply a greater factor to the steel members than that applied by the product of WIF and DAF. Default for 'Design Factor over Yield' is 2, which provides a greater factor than standard requirements for WIF and DAF.

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Date
Date

Job No.
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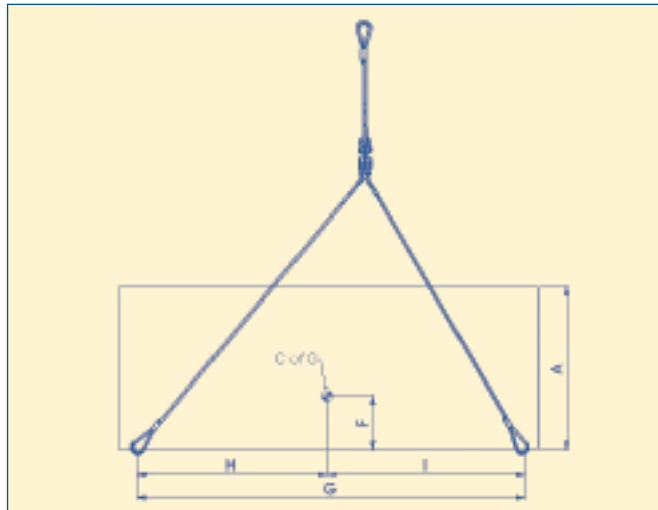
RD342/SBC Safelift Spreader Beam Type C Input Sheet

Complete as many of the yellow boxes as you can and return to Rossendale Group for a quotation, drawings and specifications.

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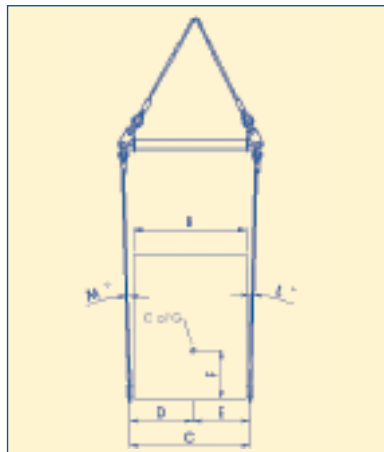
Customer
Address
Customer Ref

Customer Contact Name
Customer Contact Email
Customer Contact Tel
Customer Contact Fax
Customer Project Location



The following information is required to specify this product -

Safe Working Load (SWL) =	tonnes	
Weight Inaccuracy Factor (default for this product is 1.1) =		
Dynamic Amplification Factor (standard for onshore lift = 1.15; standard for offshore lift = 1.35) =		
Design Factor over Yield* (see below for details. Default for this product is 2) =		
Grade of Steel 43C or 50D (default for this product is grade 50D) =		
(Height of Package) Dim A =	mm	
Overall Height of Crane =	mm	
(Package Width) Dim B =	mm	
(Distance between the inside of lifting bollard cap plates) Dim C =	mm	
If bollards are at different centres on end view, mark C ₁ on side view and enter dimension here Dim C ₁ =		
Dim D =	mm	
Dim E =	= Dim C - Dim D	mm
Dim F =	mm	
Dim G =	mm	
Dim H =	mm	
Dim I =	= Dim G - Dim H	mm
Min. Angle M =	degrees	
Min. Angle L =	degrees	



Safelift Adjuster Plate Required

Yes / No

Quantity Required =

Max. Angle M =

Max. Angle L =

* The 'Design Factor over Yield' is a Total Applied Factor to all load-bearing steel members. It can be used as an alternative to the WIF and DAF and can be used to apply a greater factor to the steel members than that applied by the product of WIF and DAF. Default for 'Design Factor over Yield' is 2, which provides a greater factor than standard requirements for WIF and DAF.

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Date	Job No.
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RD342/SBCA Safelift Spreader Beam Type C Adjustable Input Sheet

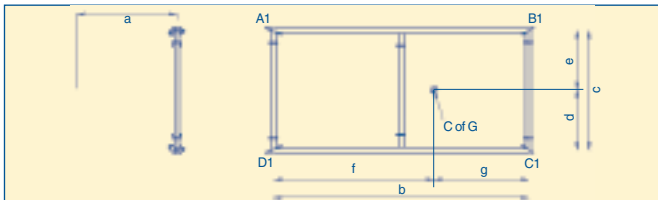
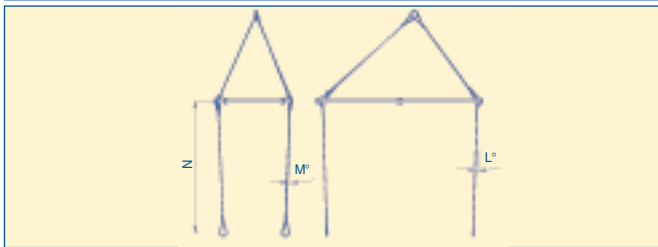
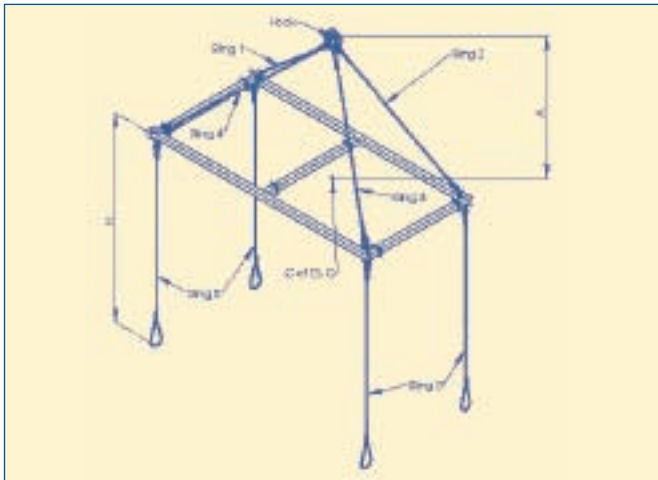
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Fax to your Rossendale Group branch or Email to sales@rossendalegroup.co.uk

Customer
Address
Customer Ref

Customer Contact Name
Customer Contact Email
Customer Contact Tel
Customer Contact Fax
Customer Project Location

The following information is required to specify this product -



Quantity Required =

Safe Working Load (SWL) =	tonnes	
Weight Inaccuracy Factor (default for this product is 1.1) =		
Dynamic Amplification Factor (standard for onshore lift = 1.15; standard for offshore lift = 1.35) =		
Design Factor over Yield* (see below for details. Default for this product is 2) =		
Grade of Steel 43C or 50D (default for this product is grade 50D) =		
(Height of top slings, from c/l beam to crane hook) Dim A =	mm	
Overall Height of Crane =	= Dim A + Dim H	mm
(Bollard centres) Dim B =	mm	
(Distance between the inside face of lifting bollard cap plates) Dim C =	mm	
If bollards are at different centres on end view, mark C ₁ on side view and enter dimension here Dim C ₁ =		
Dim D =	mm	
Dim E =	= Dim C - Dim D	mm
Dim F =	mm	
Dim G =	= Dim C B Dim F	mm
Dim H =	mm	
Max. Angle M =	= Dim G - Dim H	mm
Max. Angle L =	mm	
Min. Angle M =	degrees	
Min. Angle L =	degrees	

* The "Design Factor over Yield" is a Total Applied Factor to all load-bearing steel members. It can be used as an alternative to the WIF and DAF and can be used to apply a greater factor to the steel members than that applied by the product of WIF and DAF. Default for "Design Factor over Yield" is 2, which provides a greater factor than standard requirements for WIF and DAF.

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Job No.
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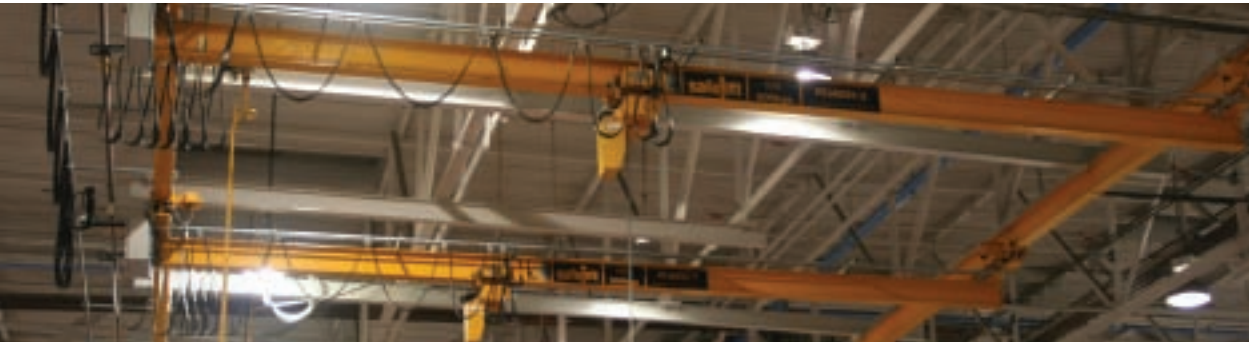




Above
Safelift Overhead Crane

Opposite
Special Design Lifting Beam

Rossendale Group Products



Above clockwise
Industrial Process
Safelift Underslung
Cranes

Safelift Jib Crane

Heavy Duty Machinery
Lifting Beam

Safelift Manipulator

Opposite
Special Design Process
Overhead Lifting Equipment



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F +44 (0)161 476 3315



Above
Two Safelift Spreader Beams
Type B in Tandem-Lift Arrangement