

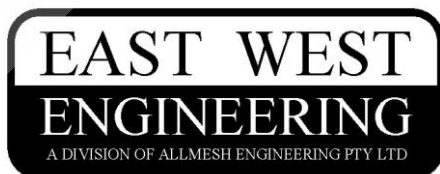
EAST WEST ENGINEERING
INSTRUCTION MANUAL

Type CFM-2439
CRANE & FORKLIFT SPREADER BEAM

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ALL EAST WEST SPREADER BEAMS CONFORM TO
AS/NZS 1554.1:2014, AS 1418.1 – 2004, AS 2550.1 – 2011,
AS 2359.1 – 1995 & AS 2359.2 – 2013



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1) QUALITY POLICY STATEMENT

East West Engineering is an Australian Owned company in the Sydney suburb of Brookvale. We are Australia's leading manufacturer of forklift attachments, storage, waste containers and environmental protection equipment.

East West Engineering's products are a result of extensive market research into our customer's needs. From the first concept to engineering certification and finally, CAD/CAM manufacturing, all our designs have been rigorously researched and developed.

2) GENERAL DESCRIPTION OF PRODUCT

The type CFM-2439 Crane & Forklift Spreader Beam ('Spreader Beam') has been designed to be lifted and used with a Crane or Industrial Truck with a central Crane Lifting Lug (for 'Lifting Beam' use), Crane Dual Hook Plates each end of the extendable Inner Jibs (for 'Spreader Beam' use) and Slippers (for 'Forklift Attachment' use) provided on the Beam. The Spreader Beam is designed to spread the Crane's or Industrial Truck's lifting force across a flexible or long product. The Spreader Beam has a maximum lifting span of 3900mm with three (3) lift positions and is supplied with a 8 Tonne safety swivel hook each end.

The maximum Rated Capacity (RC) of the type CFM-2439 Crane & Forklift Spreader Beam is 10,000kg with a unit weight of 260kg. An enamel paint finish (colour: "Mandarin X14"), is standard for all model Spreader Beams.

Crane & Forklift Spreader Beams¹ are designed in accordance with AS 2550.1 and AS1418 where relevant. The type CFM-2439 Crane & Forklift Spreader Beam is also designed in accordance with AS 2359.1 where relevant. The uses of specific Crane and Forklift attachments should also be in conformance with the relevant statutory authorities.

Use of the Spreader Beam is restricted to the purpose for which it is designed. EAST WEST ENGINEERING is not liable if this restriction is breached.

Note: The use of the words 'Forklift' & 'Industrial Truck' throughout these instructions both refer to 'Powered Industrial Truck' as defined in AS 2359.1.

Type Data

To accurately identify the Spreader Beam and when ordering parts, please quote the *Type* and *Serial Number*. This information can be found on the compliance plate situated on the Crane Spreader Beam. Please refer *Fig. 8.1* and *Table 8.2*, codes 'A' and 'B' for more information.



WARNING: These Instructions **MUST be READ in FULL by the Crane/Forklift Operator & all Crane Personnel** and all Operational & Safety Procedures and Risk Control Measures complied with before the use of this attachment.

¹ Crane attachments cover the following Crane, Hoists and Winches: Bridge, Gantry and Portal cranes, Tower static and mobile Cranes, Hoists of the Chain, Cylinder, Scaffolding and Wire rope types, Winches of the Creeper, Drum, and Trolley type.

3) METHOD OF ATTACHMENT

Forklift attachment procedure

Before handling the Spreader Beam with a forklift, ensure that the fork arms are suited to the Spreader Beam slippers and set to a width that ensure stability of the load.

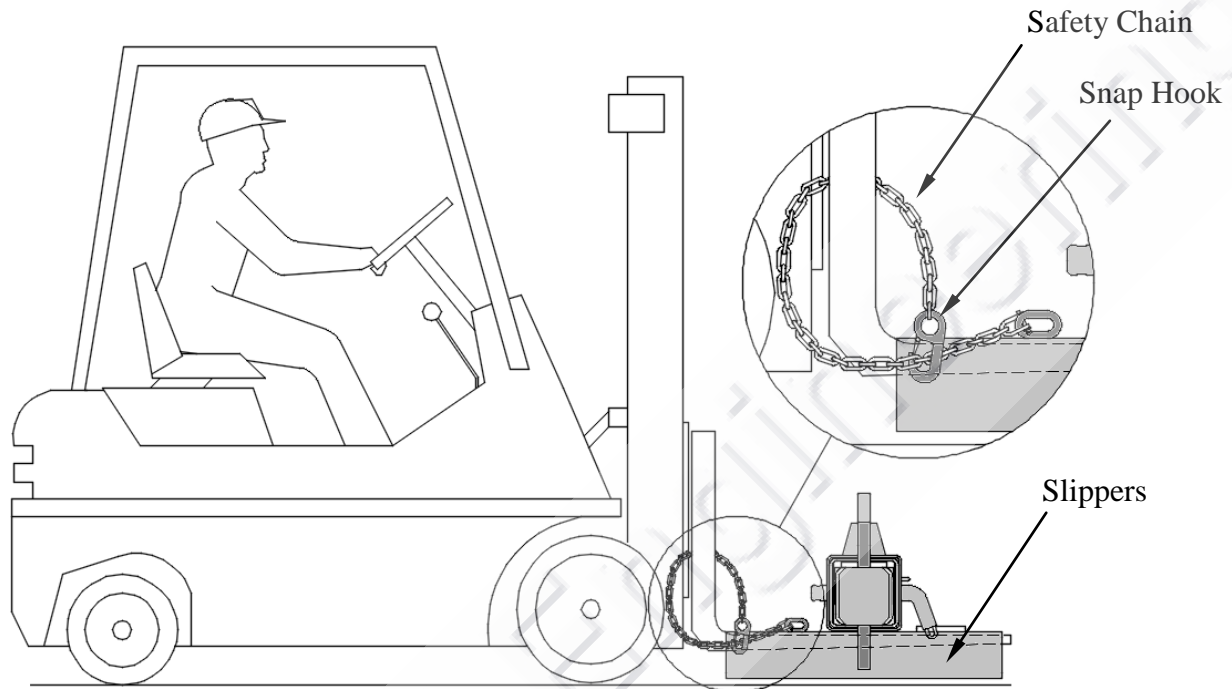


Fig. 3.1

To install the Spreader Beam, engage the Forklift arms into the slippers as shown in Fig 3.1. With the fork arm positioned as far as possible into the slippers, run the safety chain provided around the carriage or tower. Re-attach the chain to itself with the snap hook.

Crane attachment procedure

A qualified person shall operate the Crane and the Spreader Beam shall be hoisted in a safe manner. When using the Spreader Beam as a **Lifting Beam**, engage the single Chain Sling Hook/Shackle through the Spreader Beam centre Lifting Lug ensuring it is correctly fitted before hoisting. When using the Spreader Beam as a Spreader Beam, engage the multi Chain Sling Hooks/Shackles through the Dual Hook Plate at the top of the Beam ensuring they are correctly fitted before hoisting.



WARNING – WHEN USING A CHAIN SLING:

Ensure the angle between the Chain Sling legs is no greater than 60 degrees.

When engaging or disengaging the Crane Hook/Shackle, ensure that the hoist used to lift the Spreader Beam is not twisted or tangled. If a single fall rope is used to hoist the Spreader Beam, the hook may spin and create a dangerous situation. Do not allow the Crane Hook to rest on top of the Spreader Beam.

4) OPERATIONAL and SAFETY PROCEDURES

Preliminary Safety Checks

A “Competent Person” shall check the following;

- (1) that the extension Inner Beam Locating Pins are correctly positioned and are in safe working order,
- (2) that the Locating Pin safety chains are in good working condition and correctly fitted,
- (3) that the extension Inner Beam assembly is correctly fitted evenly about the Spreader Beam centre Lifting Eye and in safe working order,
- (4) that the Forklift safety chain is in good working condition,
- (5) that the shackles securing the swivel hooks are correctly installed and tightened.

A “Competent Person” shall inspect all components on the Spreader Beam to ensure they are in safe working order. Do not use the Spreader Beam if any of the components are damaged or not in safe working condition.

All operating checks as stated in Section 5 below and as stated in AS 2550.1 and/or AS 2359.2 are to be carried out at the start of shifts or immediately prior to the lifting of the Spreader Beam.

The Operator shall check that the Spreader Beam has been correctly fitted in accordance with these Instructions (refer Section 3), and/or the relevant Crane or Industrial Truck Operator’s Manual.

All signage must be strictly adhered to and checked to ensure that the compliance plate and Load Chart are not damaged and are legible.

General Operating and Safety Procedures

The use of the Spreader Beam shall be limited to those situations for which it is specifically designed and in accordance with AS 2550.1 and AS 2359.2. All lifting equipment used must meet the relevant Australian Standards including AS 3990.1, AS 3775 and AS 3776.

Forklift attachments can alter load centres and reduce the load capacity. The type of load to be handled in addition to the operating conditions must be considered when determining the actual working capacity for each application.

The Operator to ensure that the load ‘Centre of Gravity’ is positioned directly under the Spreader Beam centre Lifting Eye so that the Spreader Beam maintains a horizontal position when hoisted. When hoisting by Crane, the Operator must account for the combined factors of tilt, speed of travel, and the pendulum effect from the drop of the Crane hook.

Do not exceed the recommended Crane or Forklift ratings. Refer to the Load Chart indicating the Rated Capacity (RC) for all positions when using the Spreader Beam as a Forklift Attachment, Lifting Beam or Spreader Beam.



WARNING: Any Rated Capacity noted on the Spreader Beam is a structural rating of the Spreader Beam only and makes no claim to the suitability of the Crane/Forklift. Actual load may be restricted to the suitability of the Crane/Forklift. Actual rated working load limits of the Crane must be obtained from the Crane manufacturer. Actual lift truck capacities must be obtained from the lift truck manufacturer.

Before the Spreader Beam lifts any load, the Operator shall lift it to the required working height to confirm that all systems function correctly.

Ensure all Risk Control Measures, as outlined in Section 5 and detailed in Appendix A, are complied with before hoisting the Spreader Beam by Crane or before lifting the Spreader Beam using an Industrial Truck.

East West Engineering Spreader Beams shall not be modified in any way which affects the operation or performance except with the prior approval of East West Engineering. After any changes have been effected, appropriate alterations shall be made on the relevant nameplate and markings prior to placing the attachment back into service. East West Engineering must be notified of the changes to nameplates and markings with reference to the attachment serial number.

5) RISK CONTROL MEASURES – SUMMARY

When handling loads, the Risk Control Measures outlined below in Sections 5.1 (for Crane Operations), 5.2 (for Forklift Operations) and 5.3 are to be observed by the Crane/Forklift Operator and Crane Personnel to ensure all identified hazards relative to using this equipment are eliminated or controlled – refer Appendix A for a detailed analysis;

5.1 Risk Control Measures – Crane Operations

- A) The Crane Operator’s qualifications must conform to the requirements of the relevant regulatory authority. Where applicable, the Crane Operator shall hold a certificate of competency. To operate a particular Crane, the Operator must be authorised by a responsible representative of the Crane used or hiring contractor. Training in the safe use of the attachment shall be undertaken before usage. The Crane Operator must not work the Crane unless they are physically and mentally capable. This is in accordance with AS 2550.1 clause 6.2.
- B) Authorised personnel must perform the following pre-checks on the Crane in accordance with the operating manual before the Crane is placed into service. Typically, Crane pre-checks as stated in AS 2550.1 Appendix G covers the following;
- Oil level, fuel levels and lubrication,
 - Condition of ropes, rope terminals, fittings & anchor points, rope drums and sheaves,
 - Condition and pressure of tyres where applicable,
 - Drain all water from air reservoirs,
 - Structural checks for loose, damaged or cracked components that may be indicated by rust marks, flaking or marked paint,
 - Check the security and application of counter weights,
 - Load moment system, where fitted is correctly set,
 - Indicator appropriate to the boom or fly-jib length is correctly fitted,
 - Cleanliness of cabin – is it free from grease, oil, rags, tools etc.,
 - Pneumatic and hydraulic systems and their safety devices operate correctly,
 - Operation of the Crane through all motions with particular attention to brakes,
 - Operation of all limit switches, cut out and safety devices.
 - Communications equipment is working correctly and clearly loud enough to be heard,
 - All fire extinguishers are placed in the correct position and are suitable for the particular application and are in working order.
- C) In conformance with AS 2550.1 clause 6.1, the operator shall review the logbook where applicable and be satisfied about the presence of unauthorised personnel on the crane, safe working condition of the crane and safe operation of each of the crane movements. Authorised personnel must carry out any adjustments or alteration needed for safe operation.
- D) Any stabilisers shall be engaged prior to lifting.
- E) **DO NOT** exceed the Rated Capacity of the Crane.
- F) Ensure that all movements of the Crane are carried out under power.
- G) When engaging or disengaging the Crane hook, ensure the hoist being used is not twisted or tangled.

- H) **Do NOT** allow the Crane Hook to rest on top of the Spreader Beam.
- I) The Operator to be aware of the Crane hook spinning when using a single fall rope as this may create a dangerous situation.
- J) The Operator shall check the Spreader Beam is securely attached to the Crane in accordance with these Instructions.
- K) **Do NOT** move the Crane/Spreader Beam/Load unless the safety of persons in the vicinity of the Crane is assured. Be alert to the possibility of trapping or injuring persons in the vicinity of the Crane when handling loads or moving the Crane.
- L) Unless a dangerous situation occurs, follow directions and signals given by an authorised person. Cease any Crane movement if a dangerous situation occurs.
- M) The Operator shall hoist the Spreader Beam/Load vertically and in a smooth manner at slow speeds with minimum acceleration and deceleration.
- N) Sudden stops, jerky or other movements that may cause the load to swing unduly must be avoided. Ensure minimum impact when Crane engages 'end stops'.
- O) Movement of Spreader Beam/Load when out of sight is only permissible when directed by an authorised person such as a dogman, Crane chase, spotter or rigger.
- P) The Spreader Beam/Load must be raised sufficiently to avoid collision during horizontal movement. Only when the load is freely suspended is horizontal movement permissible.
- Q) When landing the Spreader Beam /Load, avoid developing rope slack.
- R) The Operator must know the location of the main isolation switch and Fire fighting equipment.

5.2 Risk Control Measures – Forklift Operations

- A) The Industrial Truck Operator requires a suitable forklift licence to cover both the Industrial Truck being operated and any attachment that has been fitted. Training in the safe transport of the Spreader Beam and Load shall be undertaken before usage.
- B) Authorised personnel must perform the following pre-checks immediately prior to the use of the Industrial Truck in accordance with AS 2359.2 Clause 3.1 and 6.4 and corrective action initiated where applicable;
 - Nameplate and markings regarding the Industrial Truck and Attachment capacities are to be read and acknowledged,
 - Condition of lift and tilt systems on the Industrial Truck to be checked,
 - Inspect all tyres for wear, condition and pressure if applicable,
 - Liquid levels of battery cell electrolyte, oils (hydraulic, engine, transmission and brake), cooling water and fuel to be checked,
 - All steering and brake controls, warning devices and lights to be checked for effective operation.
- C) **DO NOT** exceed the Rated Capacity of the Industrial Truck to handle the load.
- D) The Operator shall check the Spreader Beam is securely attached to the Industrial Truck in accordance with these Instructions.

- E) The Industrial Trucks shall be used on a hard level surface. The area in which the Spreader Beam is to be used shall be assessed as suitable for the task to be undertaken. There should be suitable clear space to safely transport the Spreader Beam and Load and a system developed for handling the load.
- F) Manoeuvre slowly and cautiously when the Spreader Beam/Load is elevated.
- G) Transport the Spreader Beam/Load positioned as low as practicable.
- H) The mast if adjustable shall be back tilted.
- D) Never drag the Spreader Beam or Load horizontally along the ground.
- J) The Operator shall keep hands and feet clear of controls other than controls in use.
- K) Ensure safety features are provided, visible and working effectively.

5.3 Risk Control Measures – General Operations

- A) Gain assurance from a responsible person that the Spreader Beam and/or load may be handled safely and that person has provided all information necessary to ensure that risks are eliminated or controlled.
- B) The Operator to ensure that the load ‘Centre of Gravity’ is positioned directly under the Spreader Beam Lifting Eye so that the Spreader Beam maintains a horizontal position when hoisted. This to be achieved by moving the “Extendable Inner Beam Assemblies” to suit spreading the load evenly either side of the Lifting Eye.
- C) **DO NOT** exceed the Rated Capacity (RC) of the Spreader Beam in all configurations.
- D) While lifting in an area subject to passing traffic, barriers or warning signs shall be used to prevent any interference.
- E) **NO PERSONNEL shall “ride” on the Spreader Beam at any time.**
- F) The Operator shall stay with the Crane/Industrial Truck controls at all times.
- G) The Operator shall keep clear of overhead obstructions and in particular **MAINTAIN RELEVANT CLEARANCE OF ELECTRICAL CONDUCTORS.**
- H) Before any load is hoisted by the Spreader Beam, the Operator shall lift the Spreader Beam unladen to the required working height to confirm that all systems are functioning correctly.
- D) Ensure there has been no unauthorised interference or alteration to the equipment that may cause risk.
- J) Ensure regular maintenance, testing and inspections are carried out and recorded in accordance with the relevant Crane and/or Industrial Truck Manuals and these instructions (refer Section 7), and corrective action initiated where applicable.
- K) Ensure the instructions of East West Engineering are followed.
- L) If any of the equipment becomes unsafe, stop all usage until the risk is eliminated or controlled



WARNING: Failure to observe the above **Risk Control Measures** and those outlined in **Appendix A** could result in **SERIOUS INJURY or DEATH.**

6) PARTS LIST

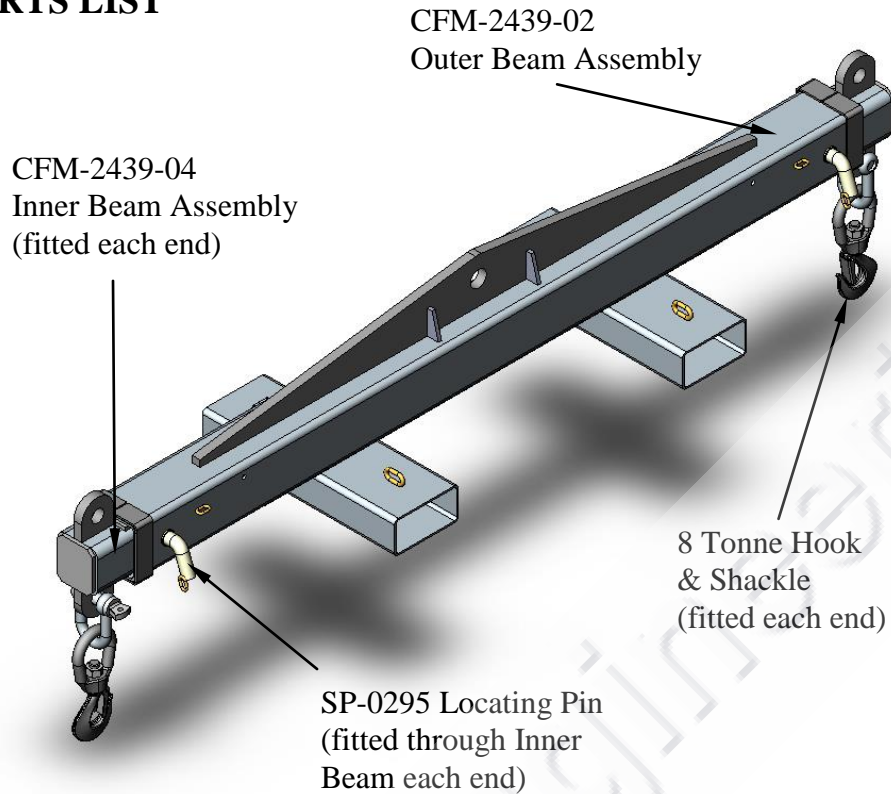


Fig. 6.1

7) MAINTENANCE

Regular maintenance including Testing, Inspection and Cleaning should be carried out on the Spreader Beam to reduce the risk of potential hazards arising. The Spreader Beam should be cleaned and visually inspected by a “Competent Person” under adequate lighting conditions, before each shift, to ensure all components are functioning correctly and are free from any noticeable wear or damage, particularly at any load bearing or highly stressed points. If components are considered worn or damaged, or if safety charts or labels are damaged or illegible, the Spreader Beam should be taken out of service and East West Engineering or an “Authorised Person” contacted for advice. Periodic testing may be required if any damage is noted as this could be an indication of abuse or overloading. Regular cleaning makes identification of damage easier. Keep maintenance records to ensure safety checks are carried out.

Maintenance Schedule

Description	Maintenance Period					
	Daily or 8 Hrs	Weekly or 40 Hrs	Monthly or 160 Hrs	3 Months or 500 Hrs	Annually or 2000 Hrs	Other
Outer Beam	CI					N ₁
Inner Beams	CI					
Swivel Hooks	CI			GS,G		

Table 7.1

Maintenance to be carried out		
Maintenance Codes		Lubricant to be used
GS = Grease smear	D = Drain	G = Grease, Shell Alvania R2 or equivalent
GN = Grease at nipple	R = Replace	H = Hydraulic Oil Shell Tellus
CI = Clean and inspect	T = Tighten	Ot = Oil, Shell 20W/40W or equivalent
C = Check & fill oil to level	N = Note below	Oa = Oil, Shell Turbo T32 or equivalent

Table 7.2

Notes:

N₁ The Spreader Beam shall be inspected regularly and the extent of each inspection shall be consistent with the design and usage of the attachment. The minimum design requirement is a visual inspection to be carried out at the start of each shift for signs of wear or general damage.

8) COMPLIANCE PLATE INFORMATION

Compliance Plate

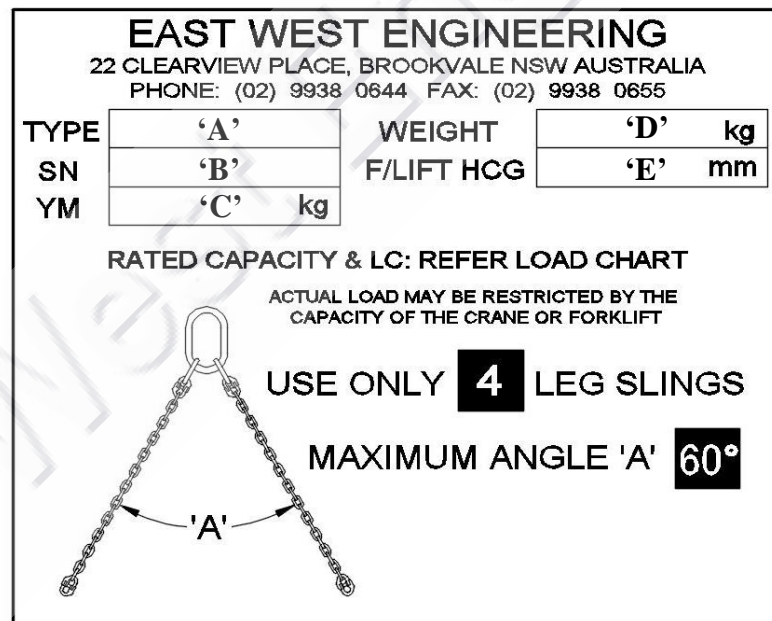


Fig. 8.1

A	Product Type	Refer 'A', Table 8.2
B	Serial Number	Individually stamped
C	Year of Manufacture	Individually stamped
D	Dry Weight of the Unit	Refer 'D', Table 8.2
E	Forklift Horizontal C of G	Refer 'E', Table 8.2

Note: for Rated Capacity (RC) & Load Centres (LC) refer Load Chart below – Fig. 8.3.

COMPLIANCE PLATE MARKING					
Type	'A'	'B'	'C'	'D'	'E'
CFM-2439	CFM-2439	Serial No.	YM	260	300

Table 8.2

Load Chart

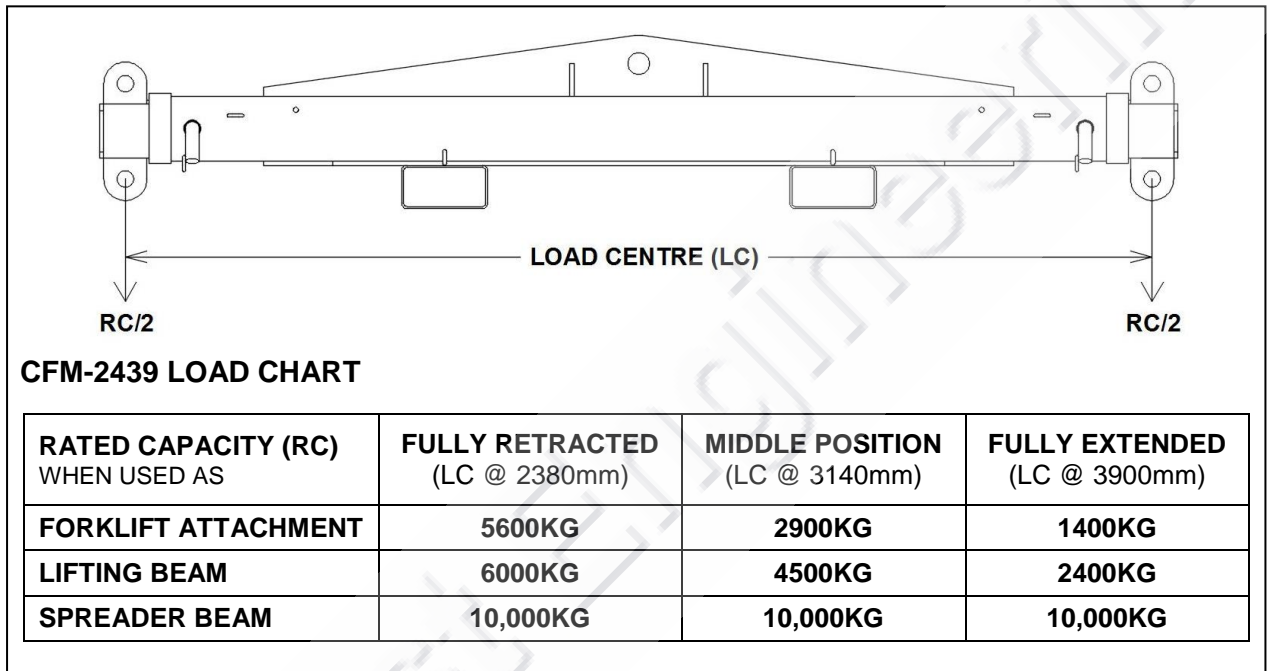


Fig. 8.3

The Load Chart (refer Fig. 8.3) and Compliance Plate (refer Fig. 8.1) must be legible and clearly visible on the Spreader Beam. If damage occurs, contact East West Engineering for a replacement part.

9) CERTIFICATION INFORMATION

Certificate

Type CFM-2439 CRANE & FORKLIFT SPREADER BEAM

We certify that the type CFM-2439 Crane & Forklift Spreader Beam has a Rated Capacity (RC) at various Load Centres for 'Forklift Attachment', 'Lifting Beam' & 'Spreader Beam' configurations in accordance with the Load Chart shown in Figure 8.3 in these Instructions and is designed and fabricated strictly in accordance with relevant Australian Standards including those listed below –

AS/NZS 1554.1: 2014	Structural Steel Welding – Welding of Steel Structures
AS 1418.1 – 2004	Cranes – General Requirements
AS 2550.1 – 2011	Cranes – Safe Use, General Requirements
AS 2359.1 – 1995	Powered Industrial Trucks – General Requirements
AS 2359.2 – 2013	SAA Industrial Truck Code – Operation
AS 3990 – 1993	Mechanical Equipment – Steelwork
AS 4991 – 2004	Lifting Devices

Also refer to letter of Certification dated 18 February, 2015 from T & S Bates Pty. Ltd., a copy of which is attached to these Instructions.

Signed on behalf of **EAST WEST ENGINEERING,**



Ron King
MANAGING DIRECTOR

10) TERMS of TRADE, CONDITIONS of SALE and WARRANTY STATEMENT

1. East West Engineering (EWE) products are to be used only as indicated. Misuse or misapplication may cause failure resulting in possible property damage or bodily injury.
2. It is the obligation of the user to ensure EWE products are used in accordance with appropriate Codes and System requirements.
3. All liability for EWE products performance is disclaimed and the warranty will be voided if any of the following conditions exist:
 - 3.1) the product is used beyond the published or stated Working Load Limit (WLL) or Rated Capacity (RC). Note: **ALL** ratings are for static conditions and do not account for dynamic loading such as wind, water or seismic loads,
 - 3.2) the product is not properly installed per published or stated instructions,
 - 3.3) the loading to the product is not vertical,
 - 3.4) the product is deformed or stressed in any way during fitting or installation,
 - 3.5) the product is used in a corrosive environment.
4. All safety regulations required by the user must be observed.
5. Custom builds cannot be cancelled after order placement.
6. EWE products at the time of dispatch are warranted to be free of defects in material or workmanship. **NO OTHER WARRANTY EXPRESSED OR IMPLIED SHALL EXIST IN CONNECTION WITH THE SALE OR USE OF EWE PRODUCTS.** Claims for errors, shortages, defects or non-conformities ascertainable upon inspection must be made in writing within 15 days after buyer's receipt of products. All other claims must be made to EWE within 12 months. Products claimed nonconforming or defective must upon EWE's request promptly be returned for inspection. Claims not made as provided above and within the applicable time period will be barred. EWE shall in no event be responsible if the products have not been used in accordance with the specifications and/or recommended procedures. EWE will, at its option either repair or replace nonconforming or defective products for which it is responsible or return to buyer their purchase price. The foregoing states buyer's exclusive remedy for any breach of EWE warranty and for any claim, whether sounding in contracts, tort or negligence for loss or injury caused by the sale or use of any product. Without limiting the generality of the foregoing EWE shall in no way be responsible for any loss of business or profits, downtime or delay, labour, repair or material cost or any similar or dissimilar consequential loss or damage incurred by the Buyer.
7. Examine goods immediately upon receipt and advise any damage or shortage to carriers and ourselves within 15 days, otherwise no claim whatever will be considered. Provided advice is given within the prescribed time, we will make good any shortage and will repair or replace free of charge goods damaged in transit where we are responsible for delivery of the goods.
8. Returning of goods within 2 months of the EWE dispatch date, will be accepted only upon issue of a Return Goods Form (RGF). Goods must be unused and undamaged, restocking fees may apply. Special builds and freight charges are non-refundable. Return freight arrangements, including costs, cannot be reclaimed on EWE. Goods outside this period will not be considered for return.
9. If goods are not received within 14 days from receipt of invoice please advise us in writing.
10. If any errors are discovered in the invoicing please notify supplying branch at once for correction.
11. **Property and Payment:** – By acceptance of delivery and retention of the goods it is acknowledged that the property of the goods remains with EWE and that legal title thereto will not pass until payment is made but that nevertheless the goods are at your risk after delivery. In the event that payment is not made within 30 days of delivery, or other agreed terms, full licence and authority is given to EWE to enter any premises where the goods are stored and to recover possession of them. In the event of the sale of the goods prior to payment, the proceeds of sale belong to EWE.
12. **Terms of Payment:** – Unless credit has been arranged strictly net cash; if credit has been arranged, payment must be made by the 25th day of the month, following the month appearing in the date on the front of the invoice.
13. **East West Engineering reserves the right to alter specifications, designs and prices without notification.**

Appendix A – to form Part of the Instruction Manual

Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 1 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
1. Crane Operational Safety Pre-Checks.	a) Unsafe use of Crane resulting in Spreader Beam, and/or items shifting & falling from height and striking Personnel and/or objects.	<ul style="list-style-type: none"> • Serious Risk to Personnel. • Moderate Risk to Operator. 	<ul style="list-style-type: none"> - The Crane has been duly commissioned & all lifting apparatus appropriately marked in accordance with AS 1418. - Pre-operational inspections (in accordance with AS 2550.1), to be carried out before each shift – Crane taken out of service if any risks or malfunctions are found. These MUST be reported & recorded for assessment by a competent person. - Operator to review logbook, be satisfied about presence of unauthorised personnel on the Crane & the safe working conditions of the Crane. - Operator to ensure the rated working load limits of the Crane & any lifting apparatus is not exceeded. - (continued on sheet 2 of 15). 	

Assessment carried out by: Allan WALKER, East West Engineering Date of Assessment: 10th April, 2015

Appendix A – to form Part of the Instruction Manual

Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 2 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
1. Crane Operational Safety Pre-Checks (Continued).	a) Unsafe use of Crane resulting in Spreader Beam and/or items shifting & falling from height and striking Personnel and/or objects. (Continued)	<ul style="list-style-type: none"> • Serious Risk to Personnel. • Moderate Risk to Operator. 	<ul style="list-style-type: none"> - Any stabilisers to be engaged prior to lifting. - All Crane movements to be carried out under power. - The operational areas to be assessed for hazards prior to and during work shifts. - The Operator to be provided with all necessary information to ensure risks are eliminated or controlled. - The Crane must to be left in safe condition after each shift. - Inspections, maintenance and repairs to be carried out in accordance with the relative Crane Instruction Manuals and AS 2550.1. 	

Assessment carried out by: Allan WALKER, East West Engineering Date of Assessment: 10th April, 2015

Appendix A – to form Part of the Instruction Manual

Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 3 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
1. Crane Operational Safety Pre-Checks (continued).	b) Electric Shock	<ul style="list-style-type: none"> • Serious Risk to Operator. • Serious Risk to Personnel. 	<ul style="list-style-type: none"> - All Risk Control Measures outlined in 1(a) above are to be in place. - The Power Supply is to be compatible with the Crane. - Operator to keep clear of overhead obstructions and in particular MAINTAIN RELEVANT CLEARANCES of ELECTRICAL Conductors. - A Spotter shall be used whenever operating near aerial conductors in accordance with AS 2550.1. - Ensure an Electrical isolation procedure developed for the Crane is in place – Operator must know location of main isolation switch & fire fighting equipment. - If more than 25 persons employed at workplace/site, a Certified First Aider to be at Workplace or on Site. 	

Assessment carried out by: Allan WALKER, East West Engineering Date of Assessment: 10th April, 2015

Appendix A – to form Part of the Instruction Manual

Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 4 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
2. Industrial Truck Operational Safety Pre-Checks.	a) Unsafe use of Industrial Truck – resulting in Spreader Beam and/or items shifting & falling from height and striking Personnel and/or objects.	<ul style="list-style-type: none"> • Serious Risk to Operator. • Serious Risk to Personnel. 	<ul style="list-style-type: none"> - Pre-operational inspections (in accordance with AS 2359.2), to be carried out before each shift – Industrial Truck taken out of service if any risks or malfunctions are found. These MUST be reported & recorded for assessment by a competent person. - Inspections, maintenance and repairs to be carried out in accordance with the relative Industrial Truck Operating Manuals and AS 2359.2. - The Industrial Truck & attachments supporting the Spreader Beam to comply with AS 2359.1. - The rated capacity of the Industrial Truck to handle the load must not be exceeded. - (continued on sheet 5 of 15). 	

Assessment carried out by: Allan WALKER, East West Engineering Date of Assessment: 10th April, 2015

Appendix A – to form Part of the Instruction Manual

Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 5 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
2. Industrial Truck Operational Safety Pre-Checks (continued).	a) Unsafe use of Industrial Truck – resulting in Spreader Beam and/or Items shifting & falling from height and striking Personnel and/or objects (continued).	<ul style="list-style-type: none"> • Serious Risk to Operator. • Serious Risk to Personnel. 	<ul style="list-style-type: none"> - The operational areas to be assessed for hazards prior to and during work shifts. - The Operator shall keep clear of overhead obstructions and in particular, maintain relevant clearance of ELECTRICAL CONDUCTORS. - The Industrial Truck to be used on a hard level surface. - The Industrial Truck to be left in a safe condition after each shift. - The Operator to be provided with all necessary information to ensure risks are eliminated or controlled - If more than 25 persons employed at workplace/site, a Certified First Aider to be at Workplace or on Site when the Industrial Truck is being used. 	

Assessment carried out by: Allan WALKER, East West Engineering Date of Assessment: 10th April, 2015

Appendix A – to form Part of the Instruction Manual

Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 6 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
3. Spreader Beam Operational Safety Pre-Checks.	a) Unsafe use of the Spreader Beam resulting in the Spreader Beam and/or Load shifting & falling from height and striking personnel and/or objects.	<ul style="list-style-type: none"> • Serious Risk to Personnel. • Moderate Risk to Operator. 	<ul style="list-style-type: none"> - Inspections, maintenance and repairs to be carried out in accordance with Instruction Manual. - All Pre-Checks listed in the Instruction Manual are to be carried out before each shift. - The Spreader Beam is to be fitted securely to the lifting apparatus (Crane or Forklift), according to the Instruction Manual. - All instructions for the use of the Spreader Beam as laid out in the Instruction manual are to be followed. - The Operator to lift the Spreader beam unladen to the required working height to confirm all systems are functioning correctly. - (continued on sheet 7 of 15) 	

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Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 7 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
3. Spreader Beam Operational Safety Pre-Checks (continued).	a) Unsafe use of the Spreader Beam resulting in the Spreader Beam and/or Load shifting & falling from height and striking personnel and/or objects. (continued).	<ul style="list-style-type: none"> • Serious Risk to Personnel. • Moderate Risk to Operator. 	<ul style="list-style-type: none"> - The Operator to ensure there has been no unauthorised interference or alteration to the equipment that may cause risk. - The Operator to ensure the load 'Centre of Gravity' is positioned directly under the Spreader Beam Lifting Eye to maintain a horizontal position when hoisted – Ext. Inner Beams positioned to suit Load evenly either side of Spreader Beam Lifting Eye. - When lifting by Crane, the hoist used to lift the Spreader Beam is not to be twisted or tangled before lifting. - If any equipment becomes unsafe, stop all usage until risk has been eliminated or controlled. - The use of the Spreader Beam is limited to those situations for which it is specifically designed and/or in accordance with AS 2550.1. 	

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Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 8 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
4. Lifting, Lowering, transporting or manoeuvring Spreader Beam/Load with Crane or Industrial Truck.	a) Unsafe/Incompetent Operator.	<ul style="list-style-type: none"> • Serious Risk to Operator. • Serious Risk to Personnel. 	<ul style="list-style-type: none"> - Only Certified & fully Trained Operators are to use the Crane or Industrial Truck. - Operators must not work the Crane or Industrial Truck unless physically & mentally capable. 	
	b) Items Falling from Height.	<ul style="list-style-type: none"> • Serious Risk to Personnel. • Moderate Risk to Operator. 	<ul style="list-style-type: none"> - All Risk Control Measures outlined above are to be in place. - Operator to ensure the Spreader Beam is fitted securely to the lifting apparatus and prevented from swinging. - Barriers/warning Signs in areas subject to passing traffic to be installed. - NO PERSONNEL shall 'ride' on the Spreader Beam at any time. - The Spreader Beam to be raised no higher than necessary. - The Industrial Truck mast, if adjustable, to be back tilted. - (continued on sheet 9 of 15) 	

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Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 9 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
4. Lifting, Lowering, transporting or manoeuvring Spreader Beam/Load with Crane or Industrial Truck (continued).	b) Items falling from height (continued).	<ul style="list-style-type: none"> • Serious Risk to Personnel. • Moderate Risk to Operator. 	<ul style="list-style-type: none"> - Transport the Cage as low as practicable. - Operator to hoist Spreader Beam vertically in a smooth manner slowly with minimum acceleration & deceleration. 	
	c) Spreader Beam and/or load uncontrolled and/or having unexpected movements.	<ul style="list-style-type: none"> • Serious Risk to Personnel • Moderate Risk to Operator. 	<ul style="list-style-type: none"> - All Risk Control Measures outlined in 4(b) above are to be in place. - Operator to gain assurance from a responsible person that the Spreader Beam and any load may be handled safely. - The Spreader Beam is NOT to be dragged along the ground. - Use a 'tagline' if necessary - The Operator is to stay with controls at all times whilst in operation. - Operator to avoid sudden stops, jerky movements. - When landing the Spreader Beam by Crane, rope slack must be avoided. - (continued on sheet 10 of 15) 	

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Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 10 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
4. Lifting, Lowering, transporting or manoeuvring Spreader Beam/load with Crane or Industrial Truck (continued).	c) Spreader Beam and/or Load uncontrolled and/or having unexpected movements (continued).	<ul style="list-style-type: none"> • Serious Risk to Personnel. • Moderate Risk to Operator. 	<ul style="list-style-type: none"> - The Operator to be aware of the Crane Hook spinning when using a single fall rope as this may create a dangerous situation. - Spreader Beam not to be moved unless the safety of persons in the vicinity of the Crane/ Industrial Truck are assured. - Operator to follow directions & signals given by an authorised person unless a dangerous situation occurs in which case all movements to cease. - Spreader Beam not to be moved when out of sight unless directed to by authorised person. 	
	d) Operator exposed to fixed/moving components.	<ul style="list-style-type: none"> • Serious Risk to Operator. 	<ul style="list-style-type: none"> - The Operator is to stay with controls at all times whilst in operation. - The Operator is to keep hands/feet wholly within Crane/Industrial Truck Cab whilst in operation. 	

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Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 11 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
4. Lifting, Lowering, transporting or manoeuvring Spreader Beam/load with Crane or Industrial Truck (continued).	e) Spreader Beam and/or load too heavy and/or unbalanced (e.g. Industrial Truck overturning).	<ul style="list-style-type: none"> • Serious Risk to Operator. • Serious Risk to Personnel. 	<ul style="list-style-type: none"> - All Risk Control Measures outlined in 4(b) and 4(c) above are to be in place. - DO NOT exceed the Rated Capacity (RC) of the Spreader Beam in all configurations. - The Operator to be aware of the weight of Spreader Beam/load. - The Rated Capacity of the Crane is NOT to be exceeded. - The Rated Capacity of the Industrial Truck to handle the load is NOT to be exceeded. - The Operator is to be trained in the use of lifting booms, slings & chains for lifting loads. - When transporting using an Industrial Truck, it is to be used on a hard surface, the area assessed before usage. - The Spreader Beam is to be raised unladen to working height to confirm all systems are functioning. 	

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Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 12 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
4. Lifting, Lowering, transporting or manoeuvring Spreader Beam/load with Crane or Industrial Truck (continued).	f) Spreader Beam/load and/or Industrial Truck striking Personnel.	<ul style="list-style-type: none"> • Serious Risk to Personnel. 	<ul style="list-style-type: none"> - All Risk Control Measures outlined in 4(c) and 4(e) above are to be in place. - A suitable clear space between barriers is to be left to safely use the Spreader Beam. - Spreader Beam MUST be visible to Personnel controlling the Crane movements at all times whilst suspended. - All safety equipment on the Crane/Industrial Truck MUST be functioning before use, (ie Reversing Beepers). - Convex mirrors are to be placed at Aisle corners used by Industrial Trucks. - A system is to be developed for handling the Spreader Beam/ loads about the Workplace/Site. - Manoeuvre slowly & cautiously when the Spreader Beam/load is elevated. 	

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Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 13 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
4. Lifting, Lowering, transporting or manoeuvring Spreader Beam/load with Crane or Industrial Truck (continued).	g) Spreader Beam/load striking objects, Industrial Truck and/or Mast striking Objects.	<ul style="list-style-type: none"> • Serious Risk to Operator. • Serious Risk to Personnel. 	<ul style="list-style-type: none"> - All Risk Control Measures outlined in 4(b), 4(c) and 4(f) above are to be in place. - Lifting & lowering areas to be assessed & the Crane Operator and/or Controller made aware of any objects within the path of normal Crane movements. - Spreader Beam/load to be raised sufficiently to avoid collision during horizontal movements. - The Crane or Industrial Truck Mast to keep clear of any overhead obstructions, and in particular ELECTRICAL conductors. - Work areas to be assessed to ensure NO overhead fittings can be contacted by Industrial Truck mast, Spreader Beam and/or load. 	

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Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 14 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
4. Lifting, Lowering, transporting or manoeuvring Spreader Beam/load with Crane or Industrial Truck (Continued)	h) Crane or Industrial Truck falling from raised areas.	<ul style="list-style-type: none"> • Serious Risk to Operator. • Serious Risk to Personnel. 	<ul style="list-style-type: none"> - All Risk Control Measures outlined above are to be in place. - All safety railings are to be placed in raised areas such as Ramps, Loading Docks etc. 	
	i) Entanglement with lifting ropes, chains, slings, beams, fallropes & taglines.	<ul style="list-style-type: none"> • Serious Risk to Personnel. 	<ul style="list-style-type: none"> - All Risk Control Measures outlined above are to be in place. - Spotters, Dogmen, Riggers are to be well clear of any lifting apparatus before any Crane movements take place. - All lifting ropes, chains, slings and/or lifting beams are to be prevented from swinging and/or become slack. - Do NOT allow the Crane Hook to rest on top of the Spreader Beam. 	

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Risk Control Measures & Risk Assessment for Identified Hazards



Equipment Type & Description: Type CFM-2439 Crane & Forklift Spreader Beam Sheet: 15 of 15

Operation	Hazards Identified	Risk Assessment	Risk Control Measures in Place	Risk Control In Place (Date)
5. Storage of Spreader Beam	a) Spreader Beam becoming damaged.	<ul style="list-style-type: none"> • Serious Risk to Personnel. • Moderate Risk to Operator. 	<ul style="list-style-type: none"> - Regular Maintenance, inspection and testing according to the Instruction Manual to be carried out. - Prior to storage, all dirt should be removed from the Spreader Beam and the Beam air-dried at ambient temperatures. - Spreader Beam to be stored in dry areas and away from any corrosive chemicals. 	
	b) Spreader Beam in the way of normal Workplace/ Site Operations.	<ul style="list-style-type: none"> • Moderate Risk to Personnel. 	<ul style="list-style-type: none"> - Spreader Beam to be stored in areas which will not interfere with the normal running of the Workplace/Site. 	

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