



BCF

Tiger Fixed Jaw Heavy Duty Beam Clamp with Shackle

INSTRUCTION GUIDE

- PLEASE PASS ONTO OPERATOR

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Manual BCF En 201706 v2.0





Operator Instruction Guide



MUST READ BEFORE USE

1. It is important that this manual is read and fully understood and that all instructions are followed before using the beam clamp.
2. The beam clamp should be used by a trained and or experienced person who understands its use and will operate the unit in a responsible and safe manner.
3. Inspect the beam clamp for any damage or wear before use. Do not use the beam clamp if it is not in good working order. Continuous monitoring of the condition of the machine is an important safety consideration.
4. The supplier takes no responsibility for any consequential loss or damage if the beam clamp has been dismantled or altered by an unauthorised person, especially if original parts were not used to repair the machine.
5. The clamps described in this manual must not be used to lift, support or transport people in any way.
6. These clamps are for manual operation only. Do not attempt to use a motorized mechanical device to operate the machine.
7. Check the beam clamp is of the correct profile, size and lifting capacity, or correctly adjusted, for the beam width and that it seats correctly on the beam flange.
8. Ensure the supporting structure is adequate for the full load that will be imposed and suitable for the application.
9. The adjusting screw must be fully hand tight before any load is applied; failure to do so could result in serious injury to persons or damage to equipment.
10. Do not attempt to overload the machine as this could cause damage to person or equipment.
11. Always ensure the beam clamp is used, maintained and repaired by a competently trained person.
12. Do not use the beam clamp in explosive environments unless an ATEX version has been supplied.

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For details of the full Tiger product range visit our website: www.tigerlifting.com

Due to our policy of continual product development, dimensions, weights and specifications may change without prior notice.

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1. Safety Information

Tiger Lifting products have been built in accordance with state of the art and generally accepted engineering standards. Nonetheless, incorrect handling when using the products may cause dangers to life and limb of the user or third parties and/or damage to the clamp or other property. The operating company is responsible for the proper and professional instruction of the operating personnel. The personnel responsible for operation, maintenance or repair of the product must read, understand and follow these operating instructions. These instructions are intended to make the user familiar with the product and enable them to use it to the full extent of its intended capabilities. Acting in accordance with these instructions helps to avoid danger, reduces repair costs and downtime and increases the reliability and lifetime of the product.

The operating instructions must always be available at the place where the product is operated. Apart from the operating instructions and the accident prevention act valid for the respective country and area where the product is used, statutory regulations and procedures along with the commonly accepted regulations for safe and professional work must also be adhered to. The indicated protective measures will only provide the necessary safety if the product is operated correctly and installed and/or maintained according to the instructions. The operating company must be committed to ensure safe and trouble-free operation of the product.

If the product's ability to do a job, or to do so safely is in question - DON'T TRY IT.

Definitions

! WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. It may also be used to alert against unsafe practices.

Competent Person

The competent person should have appropriate, practical and theoretical knowledge and experience of the Tiger product which will enable them to detect defects or weaknesses and to assess their importance in relation to the safety and continued use of the unit. Competent persons may be, for example, the maintenance engineers of the manufacturer or the supplier. However, the company may also assign performance of the inspection to its own appropriately trained specialist personnel.

Beam Clamp

A beam clamp is a device designed to attach to a suitable steel beam section to provide a means of suspension for a lifting appliance.

Beam

A beam is any structural steel section provided it is suitable for the purpose of lifting.

Health and Safety at Work

All equipment must be maintained and tested to meet relevant statutory regulations when put to use. It is the responsibility of every company to ensure that their employees have been fully and properly trained in the safe operation of their equipment.

It is the owner's and user's responsibility to determine the suitability of a product for any particular use. It is recommended that all applicable industry, trade association, federal, state and local regulations are checked. Read all operating instructions and warnings before operation.



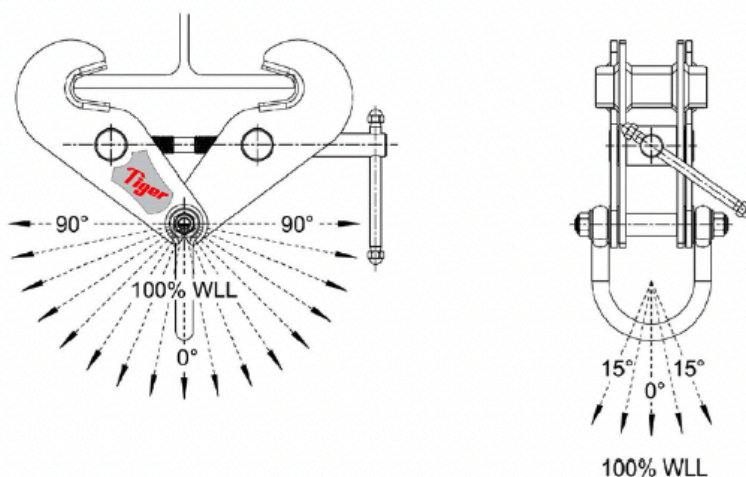


Equipment Labelling

The identification label/name plate details the product type, model, manufacturer, working load limit (WLL), serial number and the beam width range. The CE marking indicates compliance with the essential health and safety requirements of the Machinery Directive 2006/42/EC.

2. Function/Operation

The Tiger BCF Fixed Jaw Heavy Duty Beam Clamp with D Shackle can be used for lifting, pulling or as an anchor point. It is suitable for pulling and lifting at angles across the beam - Up to 90° side loading with no deration and 15° cross loading with no deration along the beam.



No deration up to 90° has been established for Tiger BCF model clamps and applies only for side loading on overhead beam attachments. It DOES NOT apply when used for lifting beams.

The working load limit specified on the label/name plate is the maximum load which can be applied to the product in service. The clamp must only be attached to structures which are approved and recommended to carry or sustain the maximum safe working loads which will be applied. These structures must be free from defects and have end stops fitted.

We advise that structural calculations are carried out on all beams and supporting steel work by qualified engineering departments to ensure safe operation.

! WARNING

All clamps should be installed correctly onto the beam by a competent person and fully tightened by hand. All lifting operations should be fully risk assessed by a competent person before commencing any operation.

The BCF beam clamp is easy to install. To open the clamp, turn the adjusting screw anti-clockwise. Unscrew the clamp so it is wider than the beam. Fit the clamp onto the beam. To tighten the clamp onto the beam, turn the adjusting screw clockwise. The adjusting screw must be fully hand tight before any load is applied; failure to do so could result in serious injury to persons or damage to equipment. Check the clamp is of the correct profile and size, or correctly adjusted, for the beam width and that it seats correctly on the beam flange. Ensure that the clamp is in contact with the beam at the curved mid-point of the fixed jaws. There should be no other contact between the beam and the clamp.





Ensure the beam clamp is strong enough for the full load that will be imposed. Ensure the lifting appliance is compatible with the clamp and that hooks or other attachments fit freely into the shackle of the clamp.

Before removing it from a beam, make sure there is no load on the beam clamp. Unscrew the adjusting screw anti-clockwise until the beam clamp is open sufficiently to be removed from the beam.

Where two or more clamps are used for one lift, care should be taken to ensure that no one clamp will be subjected to a load greater than its own working load limit (WLL). The use of ancillary equipment may also be necessary, eg spreader beam. You should seek appropriate guidance for multi-point lifting.

The BCF beam clamp is designed for static use. Moving the position of the beam clamp should only be carried out by a qualified person and must never be done while the clamp is loaded.

! WARNING

- Never** use beam clamps which are unidentified or uncertified for lifting applications.
- Never** replace bolts, shackles etc without consulting the supplier or an authorised repairer.
- Never** throw or drop beam clamps.
- Never** use beam clamps on damaged or distorted beams.
- Never** force or wedge hooks of lifting appliances into the attachment shackle.
- Never** attach a load, hoist or any other object to any part of the clamp other than the anchor point.
- Never** attempt to move the beam clamp under load.
- Never** allow a load attached to the beam clamp to swing or spin unintentionally.
- Never** work near or under suspended loads.

3. Inspection and Maintenance

According to national and international accident prevention and safety regulations, this equipment must be inspected:

- in accordance with the risk assessment of the operating company
- prior to initial operation
- before the unit is put into service for any subsequent use
- after substantial changes
- however, at least once per year, by a competent person.

Note: Actual operating conditions (e.g. operation in galvanizing facilities) can dictate shorter inspection intervals.

The intervals of inspection must be determined by the individual application and are based upon the type of service to which the beam clamp will be subjected. In the event of any defects refer the clamp to a Tiger distributor or Competent Person for thorough examination.

Examinations should include the following:

- Examine side frame for wear, damage and distortion.
- Examine adjusting screw for damaged threads and distortion.
- Examine adjusting screw handle for distortion and loose bar end stops.
- Examine for loose or missing fasteners, stops or nameplates.
- Examine for corrosion.
- Examine for illegible markings.
- In the case of a clamp in-situ, examine the beam to which the clamp is attached for any distortion.

An Inspection Log is included in Chapter 9 for making a dated record of any required inspections.





Maintenance of the beam clamp should include the following:

- Clean the beam clamp.
- Lubricate any moving parts.
- Correctly secure all fastenings.

The equipment should not be dismantled for cleaning or maintenance, except by an authorised competent person.

4. Transport, Storage, Decommissioning and Disposal

Transporting the unit:

- Do not drop or throw the unit, always deposit it carefully.
- Use suitable transport means. These depend on the local conditions.

Storing or temporarily taking the unit out of service:

To ensure the continuing integrity of the unit you should store the unit in conditions that do not lead to damage or deterioration. Therefore:

- Inspect beam clamps and accessories before placing into storage.
- **Never** return damaged beam clamps to storage.
- The unit should be secured against unauthorised and unwarranted use.
- Store the unit in a clean and dry place.
- Protect the unit including all accessories against contamination, humidity and damage by means of a suitable cover.
- Protect against corrosion.
- Wipe off all dirt and water.
- A light oil film should be applied to the adjusting bar.
- If the unit is to be used again after it has been taken out of service, it must first be inspected again by a competent person.

Disposal

After taking the unit out of service, recycle or dispose of the parts of the unit in accordance with the legal regulations.

5. Manufacturer Testing and Verification

This product was manufactured under our single-unit control of quality and was passed with strict inspection in accordance with our inspection standards.

Capacity (tonne)	WLL (kg)	Test Load (kg)
1	1000	1500
2	2000	3000
3	3000	4500

Capacity (tonne)	WLL (kg)	Test Load (kg)
5	5000	7500
10	10000	15000
15	15000	22500

The operating temperature range is -50°C (-58°F) to +50°C (+122 °F).

Tiger Beam Clamps have a 4:1 factor of safety. They are tested in line with the requirements within applicable sections of the European standard EN13155 :2003+A2:2009 and the Australian standard AS4991. All items comply with the essential health and safety requirements of the Machinery Directive 2006/42/EC. Tiger beam clamps are third party verified by SGS Certificate Number MDC 1302.



6. Product Warranty and Warnings

Definitions

'Customer' means the individual, firm, company or other party with whom the Company contracts;

'Company' means Tiger Lifting UK Limited or Woo Sing Industrial Co., Ltd;

'Contract' the contract between the Company and the Customer for the sale and purchase of this product;

'Defective Goods' goods, parts or materials, which by reason of fault or incorrect design or workmanship, are found to be defective or fail or are unable to perform in accordance with a Contract;

One Year Limited Warranty

The Company makes every effort to assure that its products meet high quality and durability standards and extends the following warranty to the Customer of new products manufactured by the Company:

1. The Company warrants that this product, when shipped, shall be free from defects in materials and workmanship under normal use and service and the Company shall, at its election, repair or replace free of charge any Defective Goods, provided that all claims for defects under this warranty shall be made in writing immediately upon discovery and, in any event, within one (1) year from the date of purchase of this product by the Customer and provided, further, that Defective Goods shall be kept for examination by the Company or its authorised agents or returned to the Company or an authorised service centre upon request by the Company.
2. The Company does not warrant components of products provided by other manufacturers. However to the extent possible, the Company will assign to the "Purchaser" applicable warranties of such other manufacturers.
3. Except for the repair or replacement mentioned in (1.) above, which is the Company's sole liability and Customer's exclusive remedy under this warranty, the Company shall not be responsible for any other claims arising out of the purchase and use of this product, regardless of whether the Customer's claims are based on breach of contract, tort (including negligence), breach of statutory duty, or otherwise, including claims for any loss of profit, goodwill or business opportunity or any indirect or consequential loss arising under or in connection with the Contract.
4. This one year limited warranty is conditional upon the installation, maintenance and use of this product pursuant to the product manuals prepared in accordance with content instructions by the Company. The warranty on this product does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents. This warranty does not apply if the product has been subjected to improper fittings, alignment or maintenance.
5. The Company shall not be responsible for any loss or damage caused by transportation, prolonged or improper storage or normal wear and tear of this product or for loss of operating time.
6. This warranty shall not apply to this product if it has been fitted with or repaired with parts, components or items not supplied or approved by the Company or which have been modified or altered.
7. The Company limits all implied warranties to the period specified above from the date the product was purchased by the Customer.
8. Except as stated herein, any implied warranties or merchantability and fitness are excluded.

If our inspection discloses a defect, the Company will repair, replace the product or refund the purchase price, if we cannot readily or quickly provide a repair or replacement and if you are willing to accept such refund. The Company will return repaired or replacement products at The Company's expense, but if it is determined there is no defect, or that the defect resulted from causes not within the scope of Tiger Lifting's warranty, then the Customer must bear the cost of storing and retrieving the product.

! WARNING

The use of this product is beyond the control of Tiger Lifting. The warranty of this product is limited to the replacement cost of this product should it be found to be defective in material and/or workmanship. The warranty is void if the beam clamp is damaged, worn or used improperly. Normal wear and tear is not considered grounds for replacement. The Tiger Lifting product warranty does not apply where there has been excessive overloading of the beam clamp.

Disclaimer

We believe that the information in this document, including technical information and any advice, is reliable although we give no guarantee as to its accuracy or completeness. The user of our products must determine if the product, either used alone or conjunction with other products, is suitable for their purpose and assumes all risk and liability in connection with those decisions. We have made every effort to make sure this document is accurate. The information contained in this document does not form part of any contract.

Please also refer to our terms and conditions which can be found at: www.tigerlifting.com/terms-conditions/





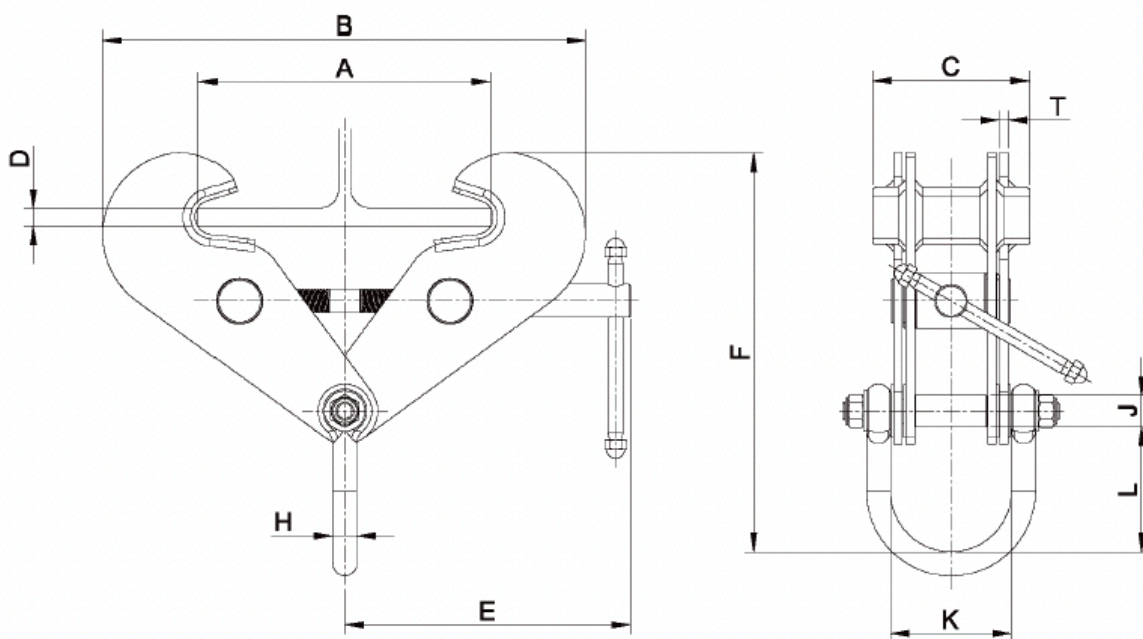
7. Technical Data

Product Code	Capacity (tonne)	Dimensions (mm)												Weight (kg)
		A	B	C	D	E	F	H	∅J	K	L	M	T	
BCF-0100	1.0	75-195	206-321	105	20	190	300-266	16	21	80	84		6	5.5
BCF-0200	2.0	75-195	206-321	105	20	190	311-276	18	21	88	95		8	6.5
BCF-0300	3.0	100-350	223-476	140	25	270	418-344	22	27	110	105		10	12.0
BCF-030S	3.0	75-190	216-325	140	20	190	310-271	22	27	110	105		10	9.5
BCF-0500	5.0	100-310	223-438	140	25	270	424-368	27	27	124	111		12	14.5
BCF-050S	5.0	75-190	216-325	140	20	190	315-276	27	27	124	111		12	11.0
BCF-1000	10.0	120-350	282-511	210	30	314	460-389	32	37	83	120		16	26.5
BCF-1500	15.0	203-457	463-742	250	36	416	644-558	38	44	99	146	400	20	76.0
BCF-2000	20.0	203-457	471-766	300	50	416	697-609	45	49	126	179	410	25	100.0
BCF-3000	30.0	203-457	483-800	390	63	416	742-648	50	57	138	197	416	20	TBA

T=beam clamp side plate thickness

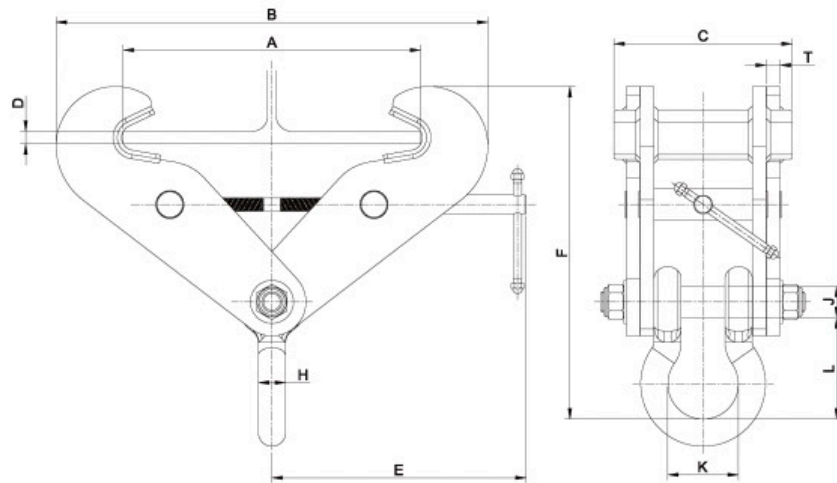
D=maximum beam flange thickness

Technical Drawing 1t - 5t

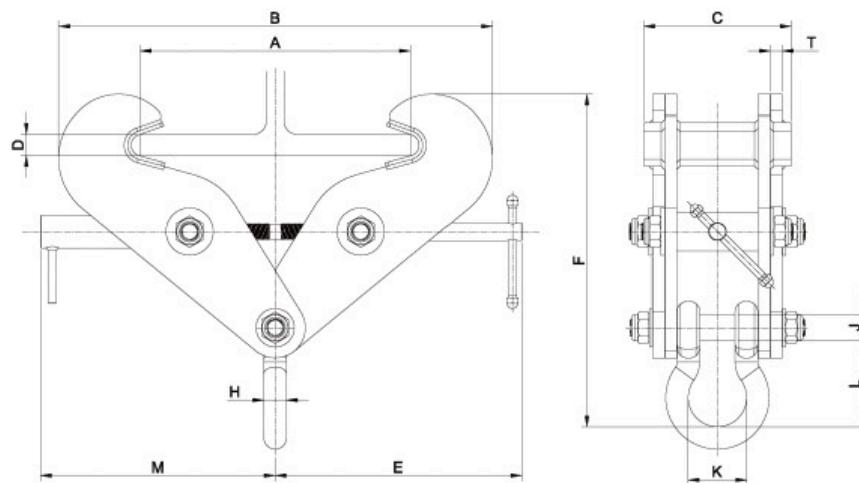




Technical Drawing 10t

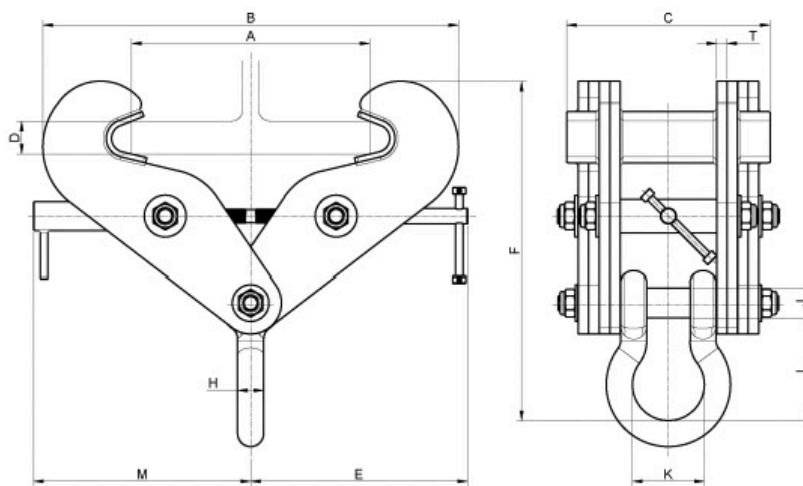


Technical Drawing 15t and 20t





Technical Drawing 30t



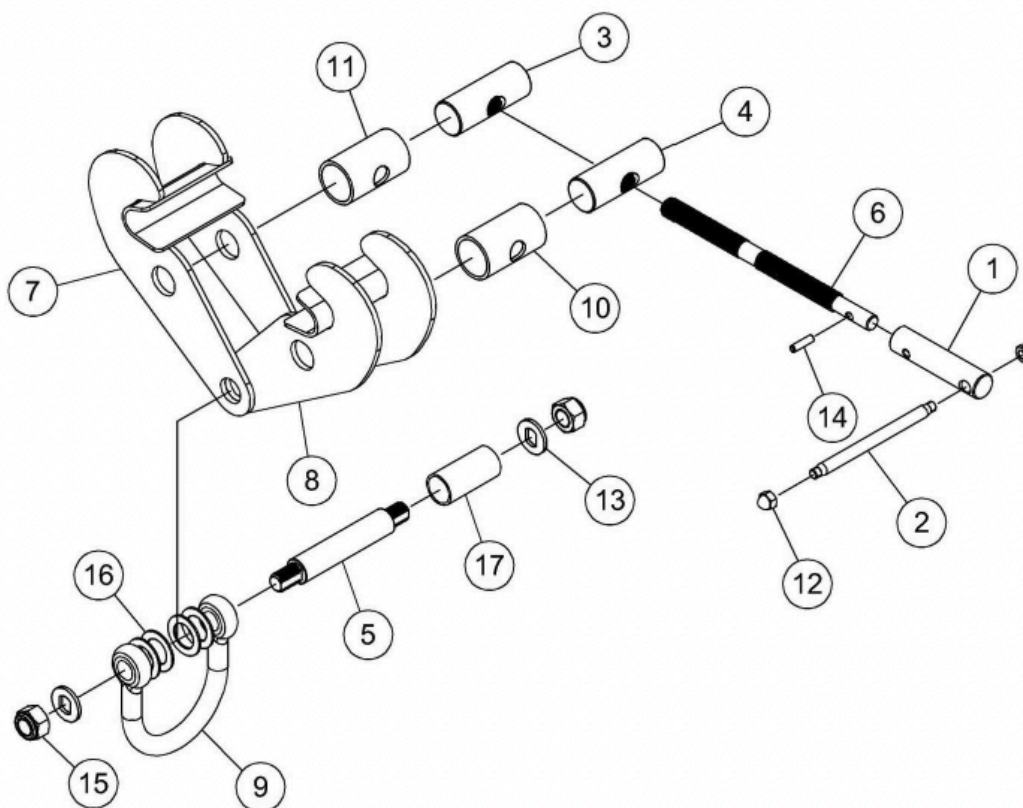
Due to our policy of continual product development, dimensions, weights and specifications may change without prior notice.



8. Exploded Diagrams

For BCF models BCF-0100, BCF-0200, BCF-0300, BCF-030S, BCF-050S

The following diagram is intended to clarify terms that appear in the Product Operation and the Inspection and Maintenance chapters.

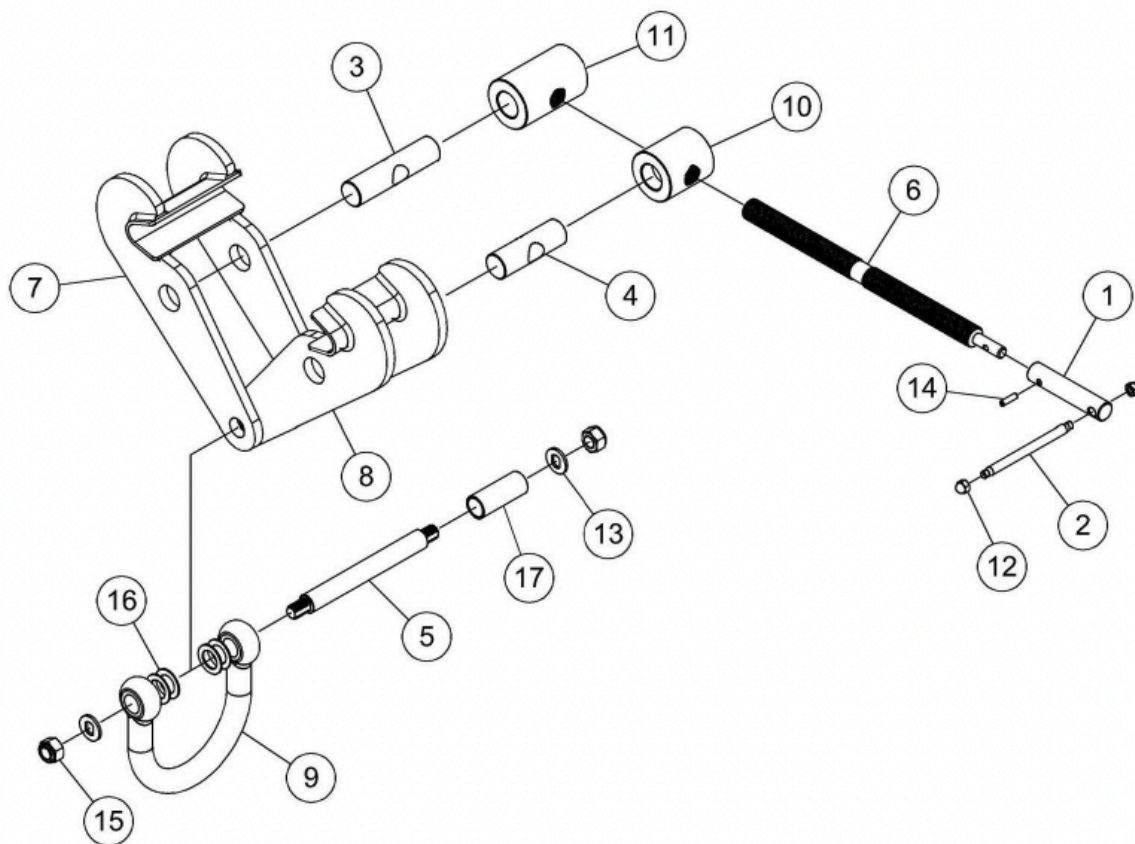


Part No.	Part Name	Part No.	Part Name	Part No.	Part Name
1/2/12	Handle assembly	7/8	Side frame with fixed jaws	14	Securing pin
3/4	Mounting bar	9	Shackle	15	Nut
5	Anchor pin	10/11	Protection sleeve	16	Washers
6	Adjusting screw	13	Keyway washers	17	Protection sleeve



For BCF 5t model BCF-0500

The following diagram is intended to clarify terms that appear in the Product Operation and the Inspection and Maintenance chapters.

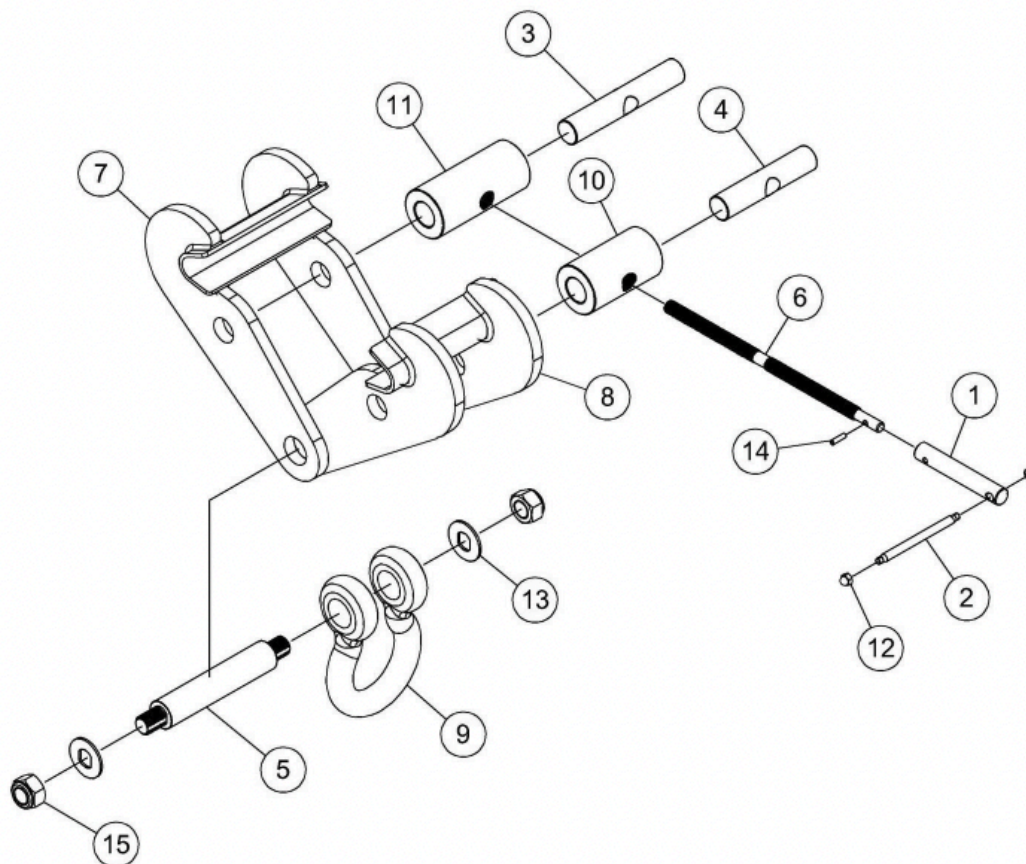


Part No.	Part Name	Part No.	Part Name	Part No.	Part Name
1/2/12	Handle assembly	7/8	Side frame with fixed jaws	14	Securing pin
3/4	Mounting bar	9	Shackle	15	Nut
5	Anchor pin	10/11	Protection sleeve	16	Washers
6	Adjusting screw	13	Keyway washers	17	Protection sleeve



For BCF 10t model BCF-1000

The following diagram is intended to clarify terms that appear in the Product Operation and the Inspection and Maintenance chapters.

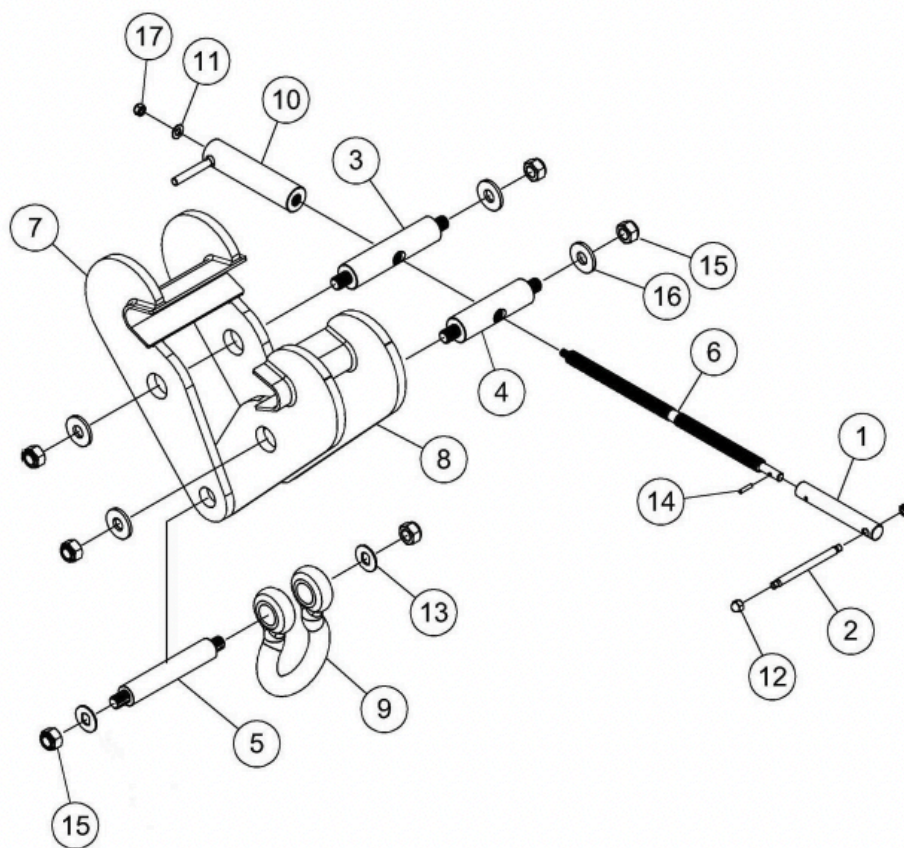


Part No.	Part Name	Part No.	Part Name	Part No.	Part Name
1/2/12	Handle assembly	7/8	Side frame with fixed jaws	14	Securing pin
3/4	Mounting bar	9	Shackle	15	Nut
5	Anchor pin	10/11	Protection sleeve		
6	Adjusting screw	13	Keyway washers		



For BCF 15t and 20t models BCF-1500/BCF-2000

The following diagram is intended to clarify terms that appear in the Product Operation and the Inspection and Maintenance chapters.



Part No.	Part Name	Part No.	Part Name	Part No.	Part Name
1/2/12	Handle assembly	7/8	Side frame with fixed jaws	14	Securing pin
3/4	Mounting bar	9	Shackle	15	Nut
5	Anchor pin	10/11/17	Locking handle	16	Washer
6	Adjusting screw	13	Keyway washer		



9. Inspection Log

Test Certificate/DOC Number	Model Number	Product Description

Date introduced into service	Serial Number

Date	Comments	Signature





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