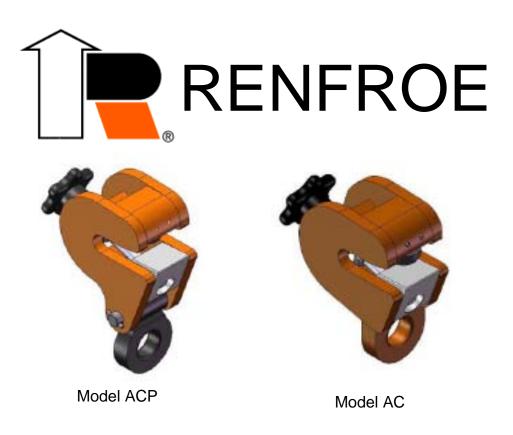
WARNING: Before putting tool in service, take to your immediate supervisor.



Application, Operation and Maintenance Manual

OM 211 AC/ACP



Operators Manual

This Operator's Manual covers the Application, Operation and Maintenance of this RENFROE product. Operator's Manuals for other current RENFROE products are available upon request. Direct Requests to J.C. Renfroe & Sons, Inc., Jacksonville, Florida 32201.

J.C. RENFROE & SONS, INCORPORATED

of Jacksonville, Florida, has been an international leader in the manufacture and marketing of Lifting Clamps for over fifty years. **RENFROE** products are manufactured in Jacksonville, Florida. A worldwide network of stocking distributors provides a readily available source of supply and service.

J.C. RENFROE & SONS, INCORPORATED

Jacksonville, Florida 32201 Telephone: 904/356-4181 Toll Free: 1-800-874-8454

Fax: 904/354-7865 www.jcrenfroe.com

THIS PUBLICATION SUPERSEDES ALL PREVIOUSLY PUBLISHED AND/OR DISTRIBUTED INFORMATION BY MANUFACTURER AND/OR ITS DISTRIBUTORS WITH RESPECT TO APPLICABLE RENFROE PRODUCTS AND SUBJECT MATTER DESCRIBED OR CONTAINED HEREIN.

WARNING:

Prior to selection, operation and/or maintenance of RENFROE products, read and understand the information provided in this manual.

The understanding and use of the Definitions are important in determining the limitations and proper application of RENFROE products.

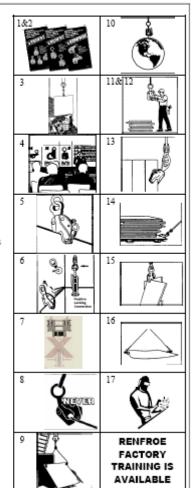
Failure to review and utilize recommended applications, operation and maintenance instructions may result in serious injury to operator and others.

NOTICE OF EXCLUSION OF WARRANTY

RENFROE HAS HEREIN SET FORTH IN CONSPICUOUS LANGUAGE AN EXCLUSION OF ANY WARRANTY EITHER EXPRESSED OR IMPLIED, WHICH IS NOT SPECIFICALLY AND PARTICULARLY CONTAINED HEREIN. PLEASE REFER TO THAT STATEMENT FOR REPRESENTATIONS AND WARRANTIES OF PRODUCTS MANUFACTURED BY J.C. RENFROE & SONS, INC.

OPERATING AIDS (DO'S AND DON'TS)

- DO read and understand the operator's manual before using clamp.
- 2. DO consult Operators Manual or RENFROE when in doubt.
- 3. DON'T lift over workmen. DON'T lift over safety areas or personnel.
- DO attend a factory training class for establishing proper use of Renfroe Products.
- DO Lock clamp closed when clamps are fitted with a lock. DON'T lift with lock in open or "lock open" position.
- DON'T use a connection that may release the clamp.
- DON"T attach clamp directly to crane hook. DO use a flexible connection between crane hook and clamp shackle. DON'T use heavy flexible connection.
- DO use correct clamp for job. DON'T use large capacity clamps to lift light loads.
- DO use an adequate number of clamps to balance load. DON'T lift loads that are not balanced.
- DO use clamps within their rated capacity. DON'T overload clamps.
- Do inspect clamp before each lift, follow inspection and maintenance instructions outlined in the manual and use RENFROE replacement parts to assure proper operation of the clamp.
- DON'T use clamp that has been overloaded. DO refer to pre-lift inspection in Operator's Manual.
- DON'T side load with a straight shackle clamp.
- DON'T misuse. DON'T lift plate from bottom of plate stack.
- DON'T rush. DON'T lift more than one plate at a time with a vertical clamp.
- DON'T improvise. Always use correct clamp for the job. DON'T lift plate horizontally with a vertical lift only clamp.
- DON'T alter clamp. DON'T grind, weld or modify the clamp in any manner.





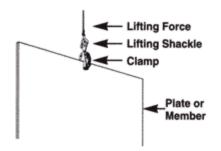
J.C. RENFROE & SONS, INC. P.O. BOX 4279 / 1926 SPEARING STREET / JACKSONVILLE, FL. 32201 Phone: 904-356-41/ Facsimile: 904-354-78 Internet: www.jorenfro

OPERATING AIDS (DO'S AND DON'TS)

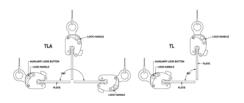
- 1. DO read and understand the Operators Manual before using the clamp
- 2. DO Consult Operator's Manual or RENFROE when in doubt.
- 3. DON'T Lift over workmen DON'T lift over Safety Areas or personnel.
- 4. Do attend a factory training class for establishing proper use of Renfroe Products.
- 5. DO Lock clamp closed before lifting load. DON'T lift with lock in open or "Lock Open" position.
- 6. DON'T Use a connection that may release the clamp.
- 7. DON'T attach clamp directly to crane hook. DO use a flexible connection between crane and clamp shackle. DON'T use heavy flexible connection.
- 8. DO use correct clamp for job. DON'T use large capacity clamps to lift light loads.
- 9. DO Use an adequate number of clamps to balance load. DON'T lift loads that are not balanced.
- 10. DO Use clamps within their rated capacity. DON'T overload clamps
- 11. DO Inspect clamp before each lift, follow inspection and maintenance instructions outlined in this manual and use RENFROE replacement parts to assure proper operation of the clamp
- 12. DON'T Use clamp that has been overloaded. DO refer to pre-lift inspection in Operators Manual
- 13. DON'T Side load with a straight shackle clamp. DON'T lift from side with vertical clamp
- 14. DON'T Misuse. DON'T lift plate from bottom of plate stack.
- 15. DON'T Rush. DON'T lift more than one plate at a time with a vertical clamp.
- 16. DON'T Improvise. Always use correct clamp for job. DON'T lift plate horizontally with a vertical lift only clamp.
- 17. DON'T Alter clamp. DON'T grind, weld or modify the clamp in any manner.

DEFINITIONS

VERTICAL LIFT: The lifting of a single plate or member in which the lifting force exerted by the rigging is directly above and in line with the lifting shackle as shown in the illustration below.



VERTICAL TURN/LIFT: A vertical turn/lift clamp is a vertical lifting clamp specifically intended to turn a single plate or member thru a ninety degree (90°) arc and back to vertical thru the same ninety degree (90°) arc or from horizontal to vertical to horizontal thru a one hundred and eighty degree (180°) Refer to Application Section of arc. specific Turn/Lift clamps for further detail. During the turning operation the edge of the plate opposite the edge to which the clamp is attached should always be in contact with a supporting surface such as a factory floor and the load on the clamp not exceed one half rated capacity of clamp—refer to illustrations shown below.



HORIZONTAL LIFT: Clamps (used in pairs or multiples) are attached to the side edges of a plate or bundle of plates positioned horizontally to the floor level. The rigging attached to clamps is generally multi-legged slings with the connecting point of the slings being approximately centered between the distance separating the clamps. Refer to illustrations shown below. WARN-ING: The capacity of all horizontal clamps is based on a sling angle of sixty degrees (60°). See illustration below. Sling angles less than sixty degrees (60°) increase the load exerted on the clamps, Never exceed the rated capacity of a single clamp. STEEL PLATES: Unless otherwise

600

specified, lifting clamps are manufactured to handle hot-rolled steel plates whose Brinell Hardness does not exceed 300. WARNING: Do not lift plates with coatings or mill scale that prevent the gripping surfaces of the clamp from making positive contact with the base metal.

For applications not covered by the above information, secure written recommendations from RENFROE.

FINISHED AND POLISHED PLATES: Steel plates in this category have other than hot-rolled surfaces such as stainless steel, etc., are generally handled using non-marring clamps incorporating smooth gripping surfaces.

WARNING: For applications using clamps with serrated gripping sur-

faces on finished or polished plates, secure written recommendations from RENFROE.

STRUCTURAL MEMBERS—FABRICATED SECTIONS: Unless otherwise specified, clamps described as capable of handling structural members and fabricated sections are limited to hot-rolled steel whose Brinell Hardness does not exceed 300. WARN-ING: For applications not covered by the above information, secure written recommendations from RENFROE.

RATED CAPACITY: The rated capacity of a RENFROE product is based on the product being in "new or as new" condition and represents the maximum load the product is to be subjected to when utilized in the manner described in this manual. Wear, misuse, abuse and other factors relating to usage may reduce the rated capacity. Shock loading and the factors listed must be taken into consideration when selecting a RENFROE product for a given application.

PLATE THICKNESS: The minimum and maximum plate thickness a clamp specified for handling plates is capable of lifting. WARNING: Never use a clamp for lifting a plate where the plate thickness is less than or greater than the minimum and maximum stenciled on the clamp.

JAW OPENING: The minimum and maximum thickness of a member of clamp specified as having a JAW OPENING is capable of handling. WARNING: Never use a clamp on a member whose thickness is less than or greater than the range of jaw

opening stenciled on the clamp.

OPERATING TEMPERATURES: Unless specified under the Application Section of the individual model, the approved operating temperature of RENFROE clamps is from zero degrees Fahrenheit (-18 Celsius) to a maximum of 200 degrees Fahrenheit (+93 degrees Celsius). The minimum and maximum temperatures apply to both ambient and the material being handled by the clamp. WARNING: Secure written authorization from RENFROE before using clamps in temperatures other than shown.

"HOT LIFTS": The Model R and S clamps are available in modifications that are capable of making lifts where the temperatures of the member being lifted exceeds 200 degrees Fahrenheit (+93 degrees Celsius). Depending on conditions a lift may exceed 1000 degrees Fahrenheit (538 degrees Celsius). The exact application and temperatures of the plates to be handled are critical in selecting the proper model. WARN-ING: Secure written instructions from RENFROE for all hot lift applications.

LOCKING CLAMPS: Locking clamps are divided into the categories listed below. With the exception of the "Locking Wedge" and "Locking Screw" type the purpose of the locks are to facilitate the attaching and removing of the clamp from the member being handled.

"LOCK CLOSED" - an overcenter spring loaded mechanism in which the spring exerts a force on the gripping cam when the lock handle is moved to the "Lock Closed" position. When the

handle is moved to unlocked position the force exerted by the spring is relaxed and the gripping cam may be retracted by pushing the lifting shackle into body of clamp. Refer to the Operation Section of specific models of "Lock Closed" clamps for additional details. Typical "Lock Closed" clamps are Models DG, FR and M.

"LOCK OPEN ONLY" - normally used on "Hot Lift" clamps and consists of a manually operated "Lock Stop Pin" that is inserted when gripping cam of clamp is retracted and removed when clamp is positioned on the plate. Tag line may be used to permit operator to remove pin from a greater distance from clamp. Refer to the Operation Section of specific model of "Lock Open Only" clamps for additional details. Typical "Lock Open Only" clamp is the Model RO.

"LOCK OPEN-LOCK CLOSED" - an over-center spring loaded mechanism in which the spring exerts a force on the gripping cam when the lock handle is moved to the "Lock Closed" position. When the handle is moved to the "Lock Open" the gripping cam is maintained in the retracted position for ease in installing the clamp on a plate or member. The Model FRD contains individual "Lock Open" and "Lock Closed" mechanisms that must be operated separately. Refer to the Operation Section of specific models of the "Lock Open-Lock Closed" clamps for additional details. Typical "Lock Open-Lock Closed" clamps are Models FRD, R, S, SD, SEA, SX, TL, TLA and the J-Series.

"LOCKING WEDGE" - is a fluted steel wedge that is driven in place with

hammer. The body of the wedge is positioned in a slot in the clamp body with the fluted edges contacting the member to which the clamp is being attached. Refer to Operation Section of specific models of the "Locking Wedge" clamps for additional details. Typical "Locking Wedge" clamps are Model A1, B1, B2 and PB.

"LOCKING SCREW" - "Lock Screw" clamps depend on manually adjusting a screw to hold the gripping surface in place for lifting and removing the clamp from member being lifted. Refer to Operation Section of a specific model of "Locking Screw" clamps for additional details. Typical "Locking Screw" clamps are Models AC, ACP, NM, PC, SCP and SCPA.

NON-LOCKING: "Non-Locking" clamps have no mechanisms to aid in attaching or removing clamp from member being lifted. It is necessary to have position of clamp maintained on the member being lifted until a properly applied force is exerted to the lifting shackle. Refer to Operation Section of specific models of the "Non-Locking" clamps for additional details. Typical "Non-Locking" clamps are Model AST, ASTL, BD, HR, HDR and WHSR. **WARNING:** A pointing out and no-The purpose of a tice of danger. "WARNING" is to apprise the operator and all other affected persons of the existence of danger of which he should be but may not be aware and to enable the operator to protect himself and others where applicable against such danger. An attempt is made herein to warn against reasonable and reasonably foreseeable danger in the proper use and possible reasonable misuse of RENFROE products described in this manual.

DESIGNATED PERSON — A person selected by the employer or the employer's representative as being competent to perform those specific duties.

QUALIFIED PERSON — A person who, by possession of a recognized degree in an applicable field or certificate of professional standing, or who, by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve problems relating to the subject matter at hand.

MODEL AC and ACP

SCREW TYPE LOCKING SUSPENSION CLAMP





Model AC

Model ACP

APPLICATION

The Model AC/P is intended to provide a quick and simple method of attaching a lifting or tightening mechanism to an existing beam, angle or fabricated section. Refer to Illustrations "A", "B" and "C" The clamps may be used singly, in pairs or multiple sets. The Model AC/P is attached to the member before the lifting or tightening device is attached to the shackle eye of the clamp. **CAUTION** must be observed in making certain the member the clamp is to be attached to will support the load to be applied.

WARNING: Read and understand the Application, Operation and Maintenance Sections of this manual before using clamps.

OPERATION

Step 1.

Before using the clamp refer to the Application Section of this manual to confirm the operation to be undertaken is an appropriate application for this product.

Step 2.

Determine that the member the clamp is to be attached to is capable of supporting the rated capacity of the clamp.

WARNING: Make certain the member the clamp is to be attached to is capable of supporting the rated capacity of the clamp and the thickness of the member is not less than the minimum or over the maximum plate thickness range specified and the length and position of the leg of the member is in accordance with Illustrations "A", "B" and "C" (pages 19, 20 and 21).

NEVER EXCEED RATED CAPACITY OR USE IN ANY MANNER OTHER THAN STATED OR ILLUSTRATED IN THIS OPERATORS MANUAL.

Step 3.

Inspect clamp before each lift.

WARNING: Do not use if in need of repair. If in doubt, refer to Maintenance Section for detailed maintenance instructions and drawing of the clamp for part identification.

- A. Check the clamp to be certain the Identification and warning tags are present and legible.
- **B.** Do not use the clamp if the tags are missing or illegible
- C. Inspect gripping surfaces of Swivel Jaw for wear and defects. Gripping surface of swivel jaw must be sharp and free of foreign matter.
- D. Swivel jaw must be able to rotate freely and pivot sideways throughout the 360 degree circumference of the swivel jaw body. Retaining pins holding the swivel jaw must be in place and maintain the swivel jaw in the socket.
- E. Inspect the Adjusting Screw and Handle for defects. The adjusting screw must be straight, turn freely and the threads free of damage and foreign matter.
- F. Inspect the Adjusting Wedge for damage. Turn the adjusting screw clockwise until the adjusting wedge comes into contact with the gripping surface of the swivel jaw to confirm that the gripping surfaces close to an opening less than the minimum plate thickness.

- H Inspect condition of body for wear, damage and distortion, particularly inside the jaw openings and the shackle eye opening.
- I The ACP (with pivoting shackle eye) Inspect Shackle Eye Pin for damage and wear. Retaining pin must be in place and the shackle eye must pivot freely.

WARNING: Remove all clamps from service in need of repair.

Step 4.

The clamp is a component of the rigging used in the operation of this clamp. It is important to use safe and adequate rigging. Refer to Pages 21 and 22 of this manual for Maximum Allowable Angle Loading.

WARNING: Use of improper or excessively heavy rigging or exceeding the Maximum Allowable Angle Loading may interfere with the operation of the clamp and its ability to maintain a proper position on the member. DO NOT EXCEED THE MAXIMUM ALLOWABLE ANGLE LOADING.

Step 5.

Turn Adjusting Screw clockwise until gripping surfaces are at maximum opening. Position the clamp on the member per instructions shown in Illustrations "A", "B" and "C" shown on Pages 19, 20, and 21.

Step 6.

Turn Adjusting Screw clockwise until gripping surfaces contact the member. Continue to turn Adjusting Screw until unable to tighten further. WARNING: Make certain the gripping surface of the swivel jaw is fully on the member and the swivel jaw and adjusting wedge surfaces are parallel to the surface of the member. Refer to Illustration "C" on Page 21.

Step 7.

Check attachment of clamp to member by manually exerting a force on the clamp body. If the clamp moves on the member, repeat operating procedure starting at Step 5. WARNING: Make certain the gripping surface of the swivel jaw is fully on the member and both gripping surfaces are parallel to the surfaces of the member. Refer to Illustration "C" and Page 21.

Step 8.

Attach load to the shackle and commence lift or operation. After a load has been applied to the clamp and released, repeat Operation by starting with Step 6.

WARNING: The operator should position himself away from and fully clear of the supporting or lifting of a member. Do not commence lift or operate until all personnel are clear of the area of the lift or operation. Never stand under or near an operation or a member being lifted or supported. Always repeat Step 6 and 7 before commencing another lift once a load has been released from the clamp.

Step 9.

To remove clamp from member - after the load being applied to the clamp has been safely relaxed and all members are fully supported, at rest and in a stable position, remove rigging (chain sling, etc.) from the clamp.

Step 10.

Turn adjusting screw in a counterclockwise direction until the gripping surfaces are at maximum open position. Remove clamp from member.

Step 11.

Inspect clamp. Remove from service if in need of repair. Refer to step by step procedure of Operation Section.

WARNING: In the event the stenciling is worn and not legible on the tags containing the warning, model, capacity or other pertinent information is missing - do not use the clamp until it has been properly labeled.

Maintenance Program for Renfroe Clamps Manufactured from Steel

The severity of service to which the clamp is subjected in the work place determines the frequency and type of inspection procedure required for the clamp. The frequency and type of inspection is determined by the clamp owner. Renfroe acknowledges the ASME B30.20 safety standard which sets forth minimum inspection requirements for "Below-the-Hook" lifting devices and the Renfroe Recommended Inspection Schedule meets and/or exceeds the ASME inspection recommendations.

Before using a clamp operators should be trained by a qualified person to visually inspect a lifting clamp that will include but not be limited to the following:

Every lift Inspection:

A visual inspection by the operator before and after each lift made by the clamp.

- Check the clamp to be certain the Identification and warning tags are present and legible.
- Do not use the clamp if the tags are missing or illegible
- Inspect gripping surfaces of Swivel Jaw for wear and defects. Gripping surface of swivel jaw must be sharp and free of foreign matter.
- Swivel jaw must be able to rotate freely and pivot sideways throughout the 360 degree circumference of the swivel jaw body. Retaining pins holding the swivel jaw must be in place and maintain the swivel jaw in the socket.
- Inspect the Adjusting Screw and Handle for defects. The adjusting screw must be straight, turn freely and the threads free of damage and foreign matter.
- Inspect the Adjusting Wedge for damage. Turn the adjusting screw clockwise until the adjusting wedge comes into contact with the gripping surface of the swivel jaw to confirm that the gripping surfaces close to an opening less than the minimum plate thickness.
- Inspect condition of body for wear, damage and distortion, particularly inside the jaw openings and the shackle eye opening.
- The ACP (with pivoting shackle eye) Inspect Shackle Eye Pin for damage and wear. Retaining pin must be in place and the shackle eye must pivot freely.

Remove any clamp from service in need of repair.

WARNING: Do not use the clamp if in need of repair.

If, during the every lift inspection, the operator believes the clamp exhibits excessively worn parts or is damaged, the clamp should be inspected by a qualified person who will make a determination as to its fitness to make a lift. At this time the condition of the clamp should be noted and recorded. After inspection by the qualified person it may be decided that a periodic inspection procedure is necessary.

Frequent Inspection:

A visual inspection (see every lift inspection) by an operator or other designated person timed according to the clamps service class.

• Normal Service: monthly

Heavy Service: weekly to monthly
Severe Service: daily to weekly.

If, during the frequent inspection, the operator believes the clamp exhibits excessively worn parts or is damaged the clamp should be inspected by a qualified person who will make a determination as to its fitness to make a lift. At this time the condition of the clamp should be noted and recorded. After inspection by the qualified person it may be decided that a periodic inspection procedure is necessary.

Periodic Inspection:

A recorded inspection by a qualified person as described in the Periodic Inspection Procedure below timed according to the clamps service class.

Normal Service: annual
Heavy Service: semi-annual
Severe Service: quarterly.

If during any inspection a condition is found which leads to a periodic inspection then the next periodic inspection is due from the time the clamp is returned to service. See the table below.

Normal Service-One Year Heavy Service-6 Months Severe Service-3 Months Warning: If any hazardous condition is found that may cause injury to the operator or other personnel then the clamp should be subjected to a Periodic Inspection by a Qualified Person.

Repair (replacement of worn parts)

During regular maintenance when replacing parts that are worn, a record should be made of the parts replaced. After the re placement of worn parts, clamps need not be load tested.

Repair (replacement of damaged parts)

During a repair in which parts are replaced due to damage, a record should be made of the repair. At this time, the clamp should be marked with the following information as per the ASME B30.20 requirements:

- Name and address of the repairer
- Repairer's unit identification
- Clamp weight (if altered)
- Rated load (if altered)
- ASME BTH-1 Design Category (if altered)
- ASME BTH-1 Service Class (if altered)

Inspection kits are available at no charge upon request from the distributor or Renfroe. Kit contains: Lifting clamp Inspection Reports, Inventory and Maintenance Record forms, Danger Tags and Monthly Inspection Stickers.

Model AC/P Periodic Inspection Procedures

Step 1. Verify the identity of the clamp by checking the I. D. plate on the clamp body. If the I. D. plate is missing or not legible an RFID chip (Radio Frequency Identification Device) is embedded in the clamp body or a clamp component. If the I. D. plate is missing and the RFID chip is unavailable call the Renfroe factory for instructions on returning the clamp for recertification.

Step 2. Completely disassemble clamp.

Step 3 - Remove all dirt, grease and other matter that may inhibit proper inspection of the clamp body or clamp components.

Step 4 Body.

- A) Inspect welds for fractures. RENFROE recommends a dye penetrant or similar method of detecting indications on the clamp. If an indication is found it may be necessary to use a magnetic particle, ultrasonic or similar methods for determining damage to the clamp or components.
- B) Inspect pin holes for wear and elongation.
- C) Inspect swivel jaw socket for wear and distortion. The swivel jaw must be able to turn freely around its vertical axis and pivot from its vertical axis in all directions. Both retaining pins must be in place when in operation.
- D) Inspect shackle eye hole for elongation, distortion and fractures.
- E) Inspect inside jaw opening for displaced metal and distortion.
- F) For clamps that have pivoted shackle eyes, check pin holes for fractures and elongation. Refer to Illustration "D".

G)

WARNING: Replace clamps containing fractures, elongated holes, distorted jaw openings and jaw openings with displaced metal.

Step 5 - Adjusting Screw, Sleeve and Handle.

- A) Inspect for distortion, damaged threads and wear.
- B) Inspect handle for damage. Retaining pins must be in place when clamp is in operation. **WARNING:** Replace screw that are bent, contain fractures, have distorted and/or worn threads.

Step 6 - Gripping Wedge.

- **A)** Inspect gripping wedge threads for damage. The adjusting screw must turn freely throughout its full length
- **B)** Inspect gripping wedge body for fracture and distortion.

WARNING: Replace gripping wedges that have damaged threads, fractures and distorted bodies.

Step 7 - Swivel Jaw.

A) Inspect swivel jaw for fractures, damage and wear. Serrations must be sharp and free of foreign matter.

WARNING: Replace worn, dull or damaged swivel jaws.

Step 8 - Pivoting Shackle Eye and Pin. (Model ACP with pivoting shackle eye, Refer to Illustration "D" and page 18).

- A) Inspect pin for fractures and distortion.
- B) Inspect shackle eye hole for distortion, wear and elongation.

WARNING: Replace shackle eye and pins that contain fractures, are distorted, worn or have elongated holes.

Step 9- Assembly.

After reassembly, check operation of clamp. All component parts should move freely without binding. Refer to attached drawings AC and ACP for identification and location of component parts.

WARNING: All retaining pins and fasteners must be in place.

GENERAL

RENFROE products may be returned to the factory for inspection and refurbishment in accordance with an established fee schedule. Use only RENFROE replacement parts to insure maximum efficiency and safety factor originally built into the product.

WARNING: Do not weld, grind or modify the clamp body or components in any manner. In the event the stenciling is worn and not legible or the tags containing the warning, model, capacity or other pertinent information is missing - DO NOT USE PRODUCT UNTIL IT HAS BEEN PROPERLY LABELED.

MODEL AC

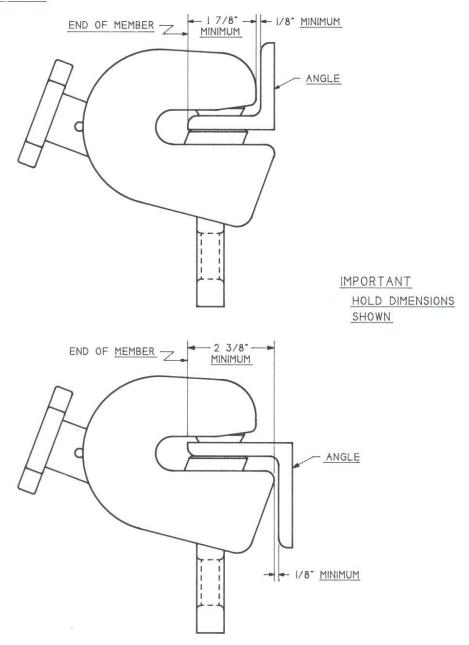
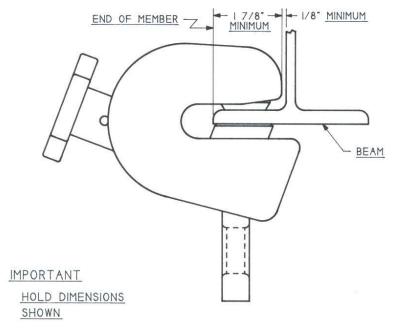


ILLUSTRATION "A"

MODEL AC



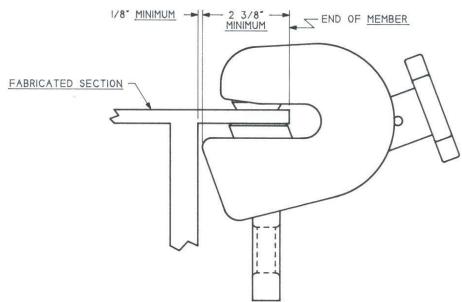
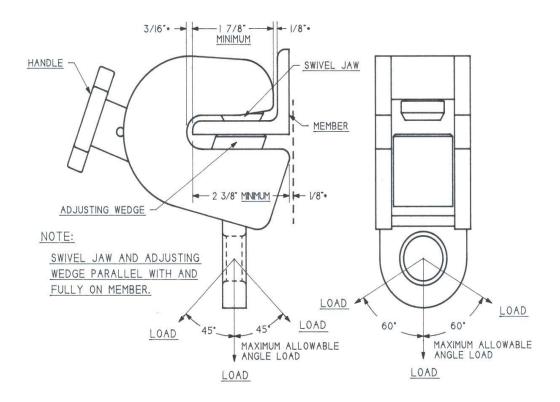
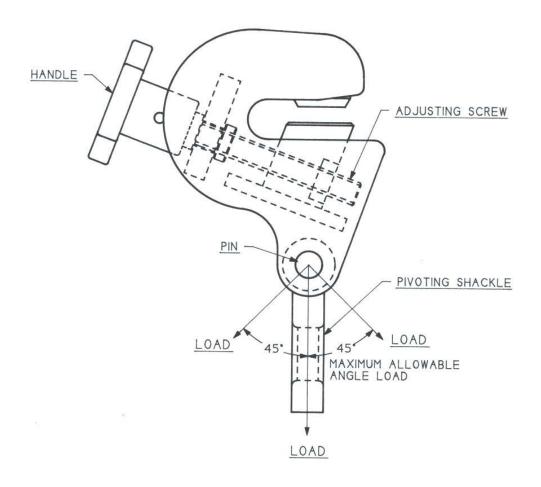


ILLUSTRATION "B"

* - MINIMUM CLEARANCE

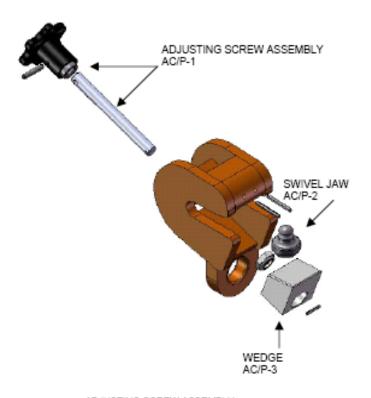


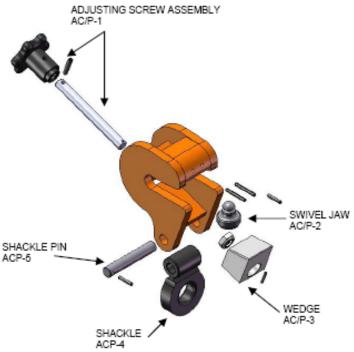
NOTE: MODEL AC SHOWN - ALL LOAD ANGLES AND DIMENSIONS ARE SAME FOR MODEL ACP.



NOTE:

ANGLE LOADING SAME AS MODEL AC. REFER TO ILLUSTRATION "C"





EXCLUSION OF WARRANTY

THERE EXISTS NO WARRANTIES NEITHER EXPRESSED NOR IMPLIED WHICH EXTEND BEYOND THE DESCRIPTIONS OR STATE-MENTS CONTAINED IN THE FACE OR ANY PART HEREOF.



J.C. RENFROE & SONS, INC.

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