

THE COWBOY OUTLAW

INSTRUCTION MANUAL

HAND CRANK INDUSTRIAL
LEATHER SEWING MACHINE



Version No. 2019A

INDEX

CONGRATULATIONS on your purchase of the CowBoy "OUTLAW" hand stitcher leather sewing machine

READ THROUGH THIS MANUAL THOROUGHLY AND BECOME FAMILIAR WITH THE COWBOY "OUTLAW" PARTS, OPERATION, AND SAFETY RECAUTIONS BEFORE YOU ATTEMPT TO OPERATE THIS MACHINE.

1	Table of Contents	1
2	Standard Equipment	1
3	Warning / Liability Statement	2
4	Safety Is Your Responsibility	2
5	General Description	2
6	Specifications	2
7	Setup Instructions	3
8	Installing the Needle	3
9	Installing Bobbin In Bobbin Shuttle	4
10	Threading the machine	5
11	Threading the needle	5
12	Drawing bobbin thread up through needle plate	6
13	How To Sew	7
14	Presser Foot Adjustment	7
15	Stitch Length Adjustment	7
16	Explosion Drawing	9
17	Parts Catalogue	9
18	Adjusting the Stitch (Needle & Bobbin Thread Tension)	10
19	Threading the Bobbin	11
20	Selecting the Correct Needle	11
21	Trouble Shooting	12
22	Complete Your Stitch	13
23	Timing Reference	14
24	Cleaning and Lubricating The Machine	15
25	Warranty & Repair	16
26	Special Sewing Accessories (Optional)	17
27	Relevant CowBoy Leathercraft Tools	18-21

STANDARD EQUIPMENT

	Parts Name		Quantity
1	Manual		1
2	Bobbins		5
3	Allen Wrench Set		1
4	Thread stand with 2 screws		1
5	Bobbin Winder - (Attaches to electric drill)		1
6	Needle		2
7	Needle fixing screw		2
8	Fixing bolts (for fixing machine to work bench)		3
9	Spacer shims		2
10	Spare sping		3

WARNING / LIABILITY STATEMENT

This Cowboy "OUTLAW" hand crank industrial leather sewing machine is surrendered by Cowboy Sewing Machines, Inc., with the understanding that the purchaser assumes all liability resulting from unsafe operation. Cowboy Sewing Machines, Inc., shall not be liable for personal injury resulting from the use of this machine under any circumstances.

All information in this manual is subject to change without notice and in no way represents a commitment on the part of Cowboy Sewing Machines, Inc. We reserve the right to make changes and improvements to products without incurring any obligation to incorporate such improvements in products previously

SAFETY IS YOUR RESPONSIBILITY!

The ownership of this machine places upon you the total responsibility of its safe operation. You must observe the same safety precautions as you would any piece of equipment to assure the safety of not only yourself but everyone around you.

Outlined here are some general precautions to be aware of: the operator should at all times use common sense when using this machine and be sure others who may operate are also familiarized, responsible and safety conscious. Do not attempt to operate this machine until you have read and are familiar with this manual. Common sense includes reading, reviewing and understanding these written instructions before operating or setting up this machine including but not limited to:

Before changing needles

Before threading needles.

Before changing bobbin.

Before disassembly of machine.

Before moving machine.

Do not attempt to operate this machine until it is securely fastened to a sturdy work surface.

Do not operate it when parts have been removed as damage to the machine and/or injury to operator may result.

GENERAL DESCRIPTION

The Cowboy Outlaw hand operated leather stitcher is the finest machine of its type in the market today. Carrying on the legacy of fine hand craftsmanship that defined the American West, the Cowboy Outlaw hand stitcher has proven itself to be an indispensable tool to leather workers the world over. Each pull of the handle delivers a clean, precise lockstitch, allowing the operator total control of stitch placement. The Outlaw uses some of the heaviest thread available allowing the user to create finely handcrafted leather items of true distinction and character.

The Cowboy Outlaw hand stitcher makes sewing easy for the experienced craftsman, or the novice alike. It is an ideal machine for those looking for an alternative to tedious and time consuming hand stitching.

The advantage:

1. Precision step-by step stitching for detailed sewing work. This leather stitcher is an excellent machine for doing repairs on leather goods that have already been sewn, as the operator can match each hole stitch for stitch
2. No need for cords, outlets or motors because it is designed to power free. It is also very light (compared to powered machines) and so offers a great deal of portability. Great for handmade leather workshop and saddlery;
3. This portable leather sewing machine uses a jump foot needle feed mechanism to pull the material through the machine, which results in very consistent stitch lengths, as well as perfectly spaced stitches;
4. Built tough with an extremely durable, precision cast iron frame instead of an aluminum frame, and all steel parts instead of zinc extruded parts, there are no soft metals used at all in the machine.

SPECIFICATIONS

Presser foot lift:	18mm	Metric thread #:	#30 to #7
Maximum thickness:	16mm	V thread size:	V69 to V415
Max. Stitch Length:	8mm	Bobbin size:	Dia. 24mm, Height 30.5mm
Feed Type:	Needle Feed	Working space:	230mm(L) x 120mm (H)
Needle (standard):	794, DYx3 Leather point needle	Packing size:	510X200X510MMS
Hook type:	HAD204 large Barrel shuttle hook	Gross/Net weight:	23/21KGS

SETUP INSTRUCTIONS

1. To Secure machine to existing work bench use three (3) 3/8" bolts or lag screws of suitable length.

2. Attach the Thread Stand (as per)

3.1 Insert the Thread Stand Post (#54) into the center of the thread stand plate and secure with nut.

3.2 Insert the bolt (#52) through the washer (#53), thread guide (#51) and thread stand plate (#55) carefully start it into the provided hole on the top of the machine.

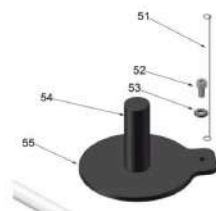


Diagram 1

3. Attach the Stitching Handle to the OUTLAW (as per Diagram 2).

Slide the Stitching Handle onto the shaft & secure the handle in position with lock washer (#59) and bolt (#82).

CAUTION: Always keep your free hand clear of presser foot and needle foot during operation - including during the following tests.

• **To Check* the Presser Foot Lift:**

(*Always be sure the presser foot path is clear of hands, tools etc.) With machine secured to a stable work bench, lift the Presser Foot by squeezing the Presser Foot Lifting Handle. The Presser Foot should lift approximately 7/8 inch.

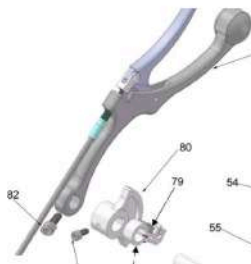


Diagram 2

• **To Check* the Stitching Handle:**

(*Always be sure needle foot path is clear of hands, tools etc.) With machine secured to a stable work bench, Cycle the Needle Foot: (by pulling the Stitch Handle completely down and then return it completely to the upright position).

INSTALLING THE NEEDLE

• Lower the needle foot by pulling the stitch handle until the needle set screw is visible.

• Loosen needle set screw with furnished allen wrench to allow needle to be inserted into needle bar hole.

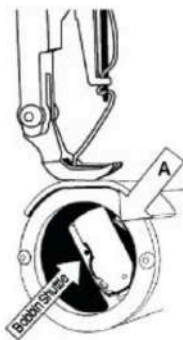
• Insert needle shank first, fully into needle bar hole with scarf spot facing the needle set screw

• With needle fully inserted and scarf spot the needle set screw, tighten set screw firmly with the allen wrench

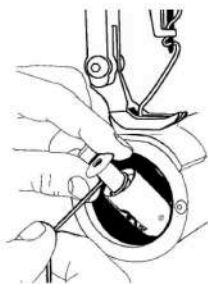


Diagram 3

INSTALLING BOBBIN IN BOBBIN SHUTTLE



- Locate the bobbin shuttle in the end of the cylinder bed. Press the shuttle release latch to release the bobbin cylinder (point A).
- Remove the empty bobbin spool and wind with thread.
- **Do not fill bobbin to the point that it has to be forced into bobbin shuttle!**



- Insert wound bobbin with 6 - 8 inches of thread kept out counterclockwise as pictured



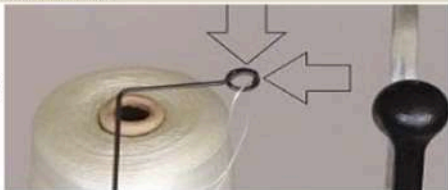
- Hold bobbin in place to keep it from turning. Now pull thread down the tension spring slit until thread reaches thread slot in the shuttle.
- Secure shuttle by snapping the bobbin cylinder back into place. There should be 6 - 8 inches of thread hanging out of the Bobbin Shuttle at the end of the cylinder bed at this point.
- Test bobbin tension by pulling on string. It should pull evenly with 1/2 the tension of the top string.

THREADING THE MACHINE

Place selected thread on thread stand.

Lead thread through all threading points as shown.

1. Loop thread over the Thread Guide A (#51) --
2. Pass thread through 2 holes in Thread Guide B (#43)
3. Loop the thread counterclockwise once around back side of Secondary Tensioner Wheel (#45) as shown below.
4. Loop thread clockwise once around the Primary Tensioner wheel (#46) as shown below.



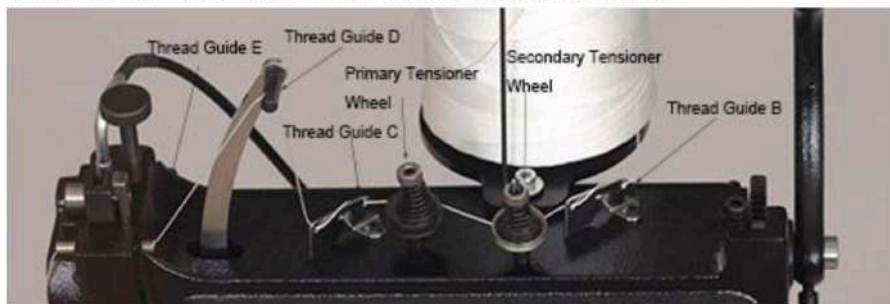
NOTE: when threading the Primary Tensioner wheel, make sure to make a around against the wheel, not visible on the outside of disc)

5. Pass thread through 2 holes in Thread Guide C (#43)

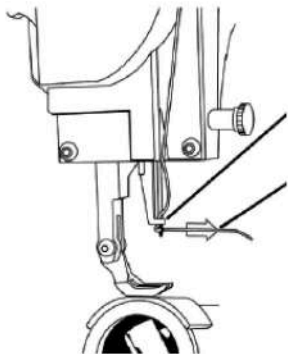
6. Pass thread through Thread Guide D (#40) on Take-up Arm as shown below.

(NOTE: The primary tensioner wheel should rotate clockwise as thread is drawn through the Thread Guide D on thread take-up arm).

7. Continue thread through thread guide E (#37) as shown above and down edge of machine through needle foot as shown below. You are now ready to thread the needle.



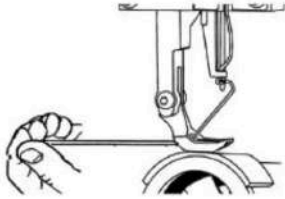
THREADING THE MACHINE



Pass the thread down through the needle bar then thread through the needle eye from left to right as show in illustration.

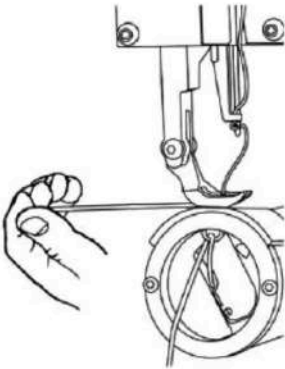
Pull about 6-8 inches of thread through the eye of needle

DRAWING BOBBIN THREAD UP THROUGH NEEDLE PLATE



STEP 1:

Place the thread under the presser foot and hold very lightly to the back



STEP 2: Looping bobbin and needle threads.

- Hold the needle thread lightly to the rear as shown and cycle the handle (pull down & up completely one time without releasing the end of the needle thread. This action loops the bobbin and needle threads together inside the cylinder bed.

If it does not loop, be sure to hold the thread gently to the rear as outlined in Step 1 and try again.

NOTE: Be careful not to pull the thread tightly or the loop will not form and the shuttle will not be able to pass through the loop as required.

STEP 3: Drawing up the bobbin thread

- Lift the presser foot and pull the needle thread up. The bobbin thread will come up with it through the needle plate (show as Diagram 1).

STEP 4: Aligning threads to sew.

- Align both threads under the presser foot to the back as shown Diagram 2.
- You are now ready to sew. NOTE: It is necessary to hold thread ends to begin stitching.



Diagram 1



Diagram 2

HOW TO SEW:

How do I start and finish locking a stitch?

- You will want to make sure that your sewing machine is on a sturdy work surface before starting any set up or maintenance of your machine.
- Start on your material about ¼" from where you would normally start.
- Sew to where you would normally start, then turn your material around and sew back through the previous holes and continue on.
- When you are to the end of your stitch line, lift your presser foot and move your material back, to line up your needle with the previous hole and then repeat.
- If you are in need of additional assistance feel free to call us at 001 330 692 1418.

PRESSER FOOT ADJUSTMENT

The Presser Foot Adjustor adjusts the Presser Foot Pressure.

A properly adjusted Presser Foot will advance the material without slipping.

To determine the proper pressure for the material to be sewn, perform the following test.

- Use a piece of the leather to be sewn.
- Insert the sample material under the Presser Foot and sew a couple stitches.
- Observe the test material during stitching.
 - ▽ If the material is not advanced by the Presser Foot, the pressure needs to be increased.
 - ▽ If the presser foot leaves a deep impression on the material, the pressure needs to be decreased.



To increase the Pressure.

- Turn the Presser Foot Adjustor clockwise . Re-test as before and adjust until the material is advanced by the Presser Foot without slipping.

To decrease the Pressure.

- Turn the Presser Foot Adjustor counterclockwise. Re-test and adjust until the material is advanced by the Presser Foot without leaving a deep impression.

STITCH LENGTH ADJUSTMENT

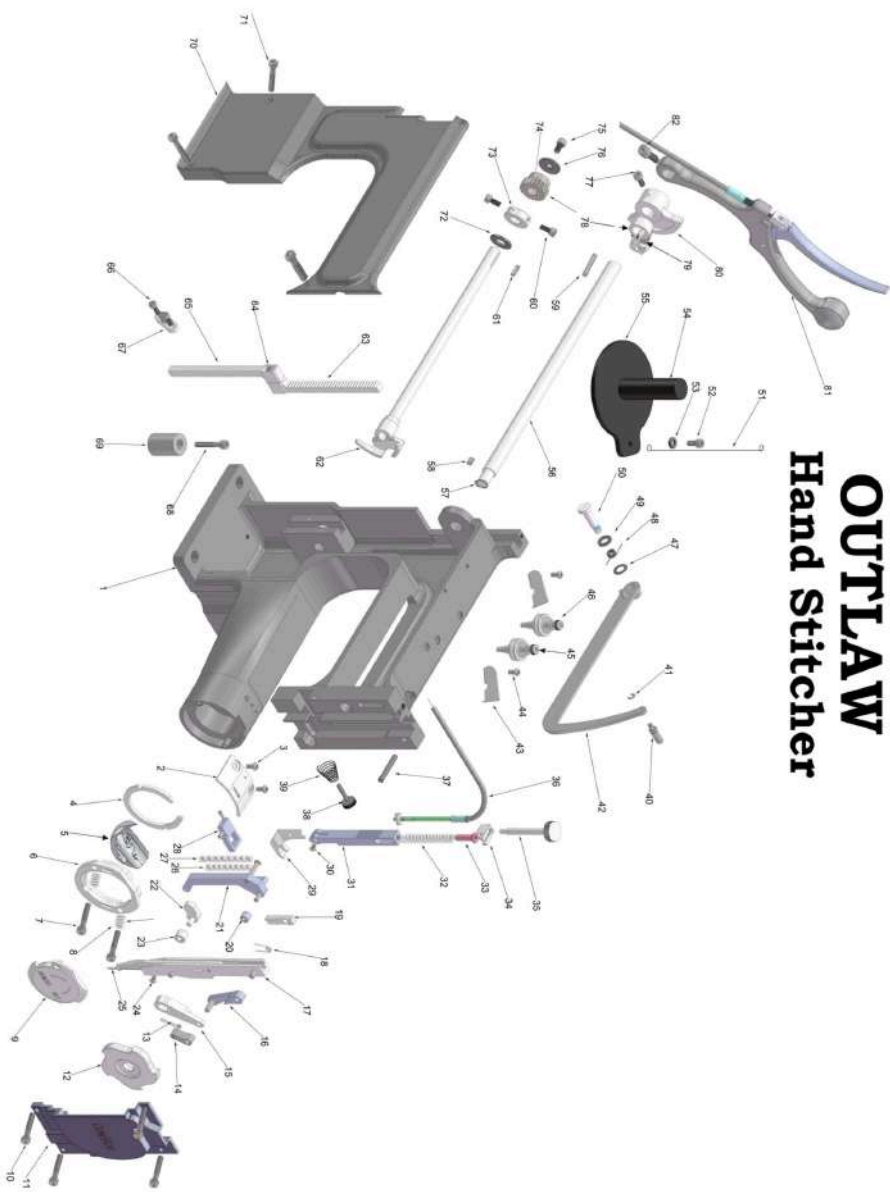
Adjust the stitch length with the Stitch Length Adjustor.

- **For a larger stitch.**
Turn the Stitch Length Adjustor clockwise
- **For a smaller stitch**
Turn the Stitch Length Adjustor counterclockwise
- **When the material thickness is increased, the stitch length shortens.**

Length of stitch is proportional to thickness of material. To maintain an even stitch length adjust accordingly. Turn the stitch length adjustor approximately 1/4 turn clockwise for 1/4 inch climb (increased thickness).



OUTLAW Hand Stitcher



PARTS CATALOG

No.	Parts Number	Parts Description	QTY	No.	Parts Number	Parts Description	QTY
1	HM-OL-001	Casting body		49	HM-OL-049		
2	HM-OL-002	Needle plate		50	HM-OL-050		
3	HM-OL-003	Screw		51	HM-OL-051		
4	HM-OL-004	Shuttle race		52	HM-OL-052		
5	HM-OL-005	Shuttle hook		53	HM-OL-053		
6	HM-OL-006	Shuttle race body		54	HM-OL-054		
7	HM-OL-007	Bolts		55	HM-OL-055		
8	HM-OL-008	Spring		56	HM-OL-056		
9	HM-OL-009	Shuttle bed cover		57	HM-OL-057		
10	HM-OL-010	Screw		58	HM-OL-058		
11	HM-OL-011	Front cover		59	HM-OL-059		
12	HM-OL-012	Cam		60	HM-OL-060		
13	HM-OL-013	Spring		61	HM-OL-061		
14	HM-OL-014	Small link		62	HM-OL-062		
15	HM-OL-015	Crank		63	HM-OL-063		
16	HM-OL-016	Lifting link		64	HM-OL-064		
17	HM-OL-017	Needle bar set		65	HM-OL-065		
18	HM-OL-018	Spring		66	HM-OL-066		
19	HM-OL-019	Block		67	HM-OL-067		
20	HM-OL-020	Bush		68	HM-OL-068		
21	HM-OL-021	Front crank		69	HM-OL-069		
22	HM-OL-022			70	HM-OL-070		
23	HM-OL-023			71	HM-OL-071		
24	HM-OL-024			72	HM-OL-072		
25	HM-OL-025			73	HM-OL-073		
26	HM-OL-026			74	HM-OL-074		
27	HM-OL-027			75	HM-OL-075		
28	HM-OL-028			76	HM-OL-076		
29	HM-OL-029			77	HM-OL-077		
30	HM-OL-030			78	HM-OL-078		
31	HM-OL-031			79	HM-OL-079		
32	HM-OL-032			80	HM-OL-080		
33	HM-OL-033			81	HM-OL-081		
34	HM-OL-034			82	HM-OL-082		
35	HM-OL-035						
36	HM-OL-036						
37	HM-OL-037						
38	HM-OL-038						
39	HM-OL-039						
40	HM-OL-040						
41	HM-OL-041						
42	HM-OL-042						
43	HM-OL-043						
44	HM-OL-044						
45	HM-OL-045						
46	HM-OL-046						
47	HM-OL-047						
48	HM-OL-048						

ADJUSTING THE STITCH



A PERFECTLY LOCKED STITCH

Results with upper and lower tensions balanced so that needle and bobbin threads are drawn into material equally.

TENSION IS TOO HIGH OR TIGHT



If the knot is laying on the top of the material, the top tension is most likely too tight. Loosen the two tension nuts on top of the machine. **Loosen both nuts the same amount, making 1/2 turn adjustments until the knot is centered in the material.** After adjusting, make 3-4 full stitches to see the change in tension.

TENSION IS TOO LOW OR LOOSE



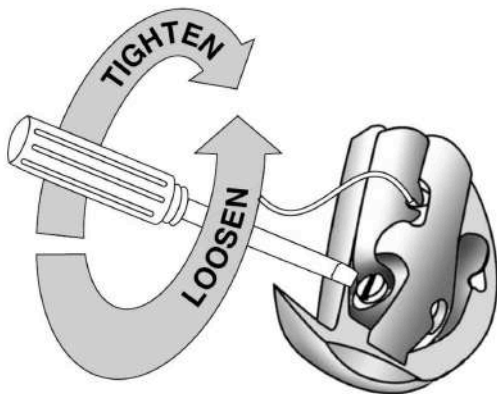
If the knot is laying on top of the material, the top tension is most likely too tight. Loosen the two tension nuts on top of the machine. **Loosen both nuts the same amount, making 1/2 turn adjustments until the knot is centered in the material.** After adjusting, make 3-4 full stitches to see the change in tension.

ADJUSTING THE BOBBIN TENSION

IMPORTANT

Only adjust the bobbin if absolutely necessary.

Rarely will you need to adjust tension on the bobbin shuttle. If you are unable to get the stitch correct by adjusting the top tensioners, you may need to adjust bobbin tension. To adjust tension, loosen the locking screw. You can then increase or decrease tension on the bobbin string by turning the adjustment screw. For most materials, you need less than half the tension of top string thread.



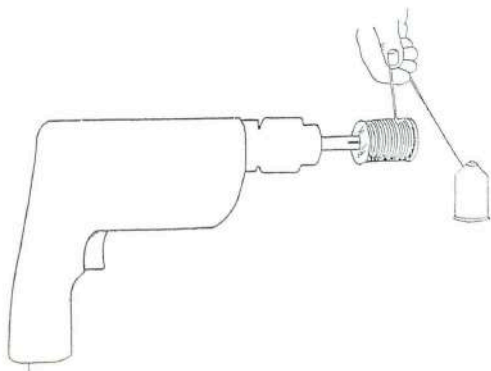
THREADING THE BOBBIN

You can wind the bobbin as you would any bobbin, or you can use the tooled bobbin winder which operates as pictured on left.

Provided with your "OUTLAW" hand operated industrial leather sewing machine is a tooled bobbin winder which fits into the end of a drill.

Once secured into the drill, place the bobbin on its slotted end and start winding the thread until you can complete winding the bobbin with the drill.

Note: As always, be careful when using power equipment. Do not wind the thread on the bobbin to the point that it has to be forced into bobbin shuttle.



SELECTING THE CORRECT NEEDLE (RULE OF THUMB)

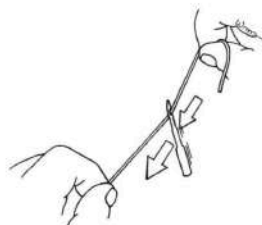
If you do not have your needle package, or if the kit provided with the "OUTLAW" is open or has spilled, you may not know what type and size of needle you have. In order to identify your needle, you will need a magnifying glass or microscope. You will find a small inscription on the side (shaft) of the needle (e.g. 230 / 26, as shown in the illustration on the left.

The first three numbers represent the size of the needle you will need when ordering and the last two numbers represent the size of the needle in metric.



After selecting the desired thread and needle point, place the thread through eye of needle and hold the thread as pictured with hands about 10 inches apart.

If needle does not slide freely down the thread, then you should select a larger needle.



TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSES
My machine is skipping stitches	<ol style="list-style-type: none"> 1. Timing 2. Check your needle vs thread size 3. Needle plate adjustment (see pg. 13) 4. Needle orientation 5. Bent needle 6. Bad needle 7. Take up bracket (see pg. 13) 8. Presser foot tension (see pg. 13) 9. Takeup spring tension (see pg. 13)
My string is tangled underneath my material.	<ol style="list-style-type: none"> 1. Make sure that you are completing your stitch. (see pg. 13) 2. Timing 3. Take up bracket 4. Take up spring tension
My machine is fraying / splitting / breaking thread	<ol style="list-style-type: none"> 1. Burr on needle plate, needle foot (see pg. 13) 2. Needle plate 3. Need to replace needle 4. Tension is too tight 5. Not threaded correctly 6. Needle positioning 7. Timing
My machine keeps breaking needles	<ol style="list-style-type: none"> 1. Needle plate 2. Timing 3. Needle is not seated properly
I am marking my leather up too much	<ol style="list-style-type: none"> 1. Presser foot tension 2. Style of presser foot 3. Presser foot needs to be buffed
My machine is not advancing or feeding.	<ol style="list-style-type: none"> 1. Stitch length adjustment 2. Presser foot tension 3. Presser foot needs to be buffed
My foot is catching on my material.	<ol style="list-style-type: none"> 1. Are you using correct foot 2. Place a piece of duct tape over needle plate insert

COMPLETE YOUR STITCH

IMPORTANT

The "OUTLAW" Leather Sewing Machine is dependent on the user pulling the handle all of the way down and then pushing the handle all of the way back up, for every stitch. The machine will bind up, skip stitches, and generally frustrate the user if you don't make a complete stitch.

This is a common mistake when first using the machine, or attempting to go too fast.

NEEDLE PLATE ADJUSTMENT

STEP 1: Loosen needle plate screw

STEP 2: Center the needle in HM-OL-002 needle plate insert

STEP 3: Tighten screw

TAKE UP BRACKET ADJUSTMENT

STEP 1: Loosen bolt

STEP 2: Push the handle all of the way up

STEP 3: Rotate the bracket until it touches the take up lever

STEP 4: Tighten bolt

STEP 5: Pull the handle down and then push it back up. Hold the handle up with your right hand, check for up and down play on take up lever. The play should be 1/16" or less.

PRESSER FOOT TENSION

STEP 1: Tighten presser foot tension until the material feeds correctly.

BUFF PRESSER FOOT

STEP 1: Using a buffing wheel or sandpaper, round the hard edges which are making the marks.

REMOVING BURRS

STEP 1: Check your needle foot, presser foot, needle plate, bobbin shuttle, shuttle tension screw, and retainer shuttle for burrs.

STEP 2: Remove burrs with 240 grit sand paper or emery cloth.

TAKE UP BRACKET ADJUSTMENT

STEP 1: Loosen bolt (#81)

Very important: DO NOT move the parts #78 toward left or right the position will change the thread-take-up result!

STEP 2: Push the handle, till the tip of Shuttle Driver (#62, see the Hollow arrow) near (about 2mm away) to the peak of Shuttle Race Body (#6, see arrow) or vertical to the needle.

STEP 3: Hold the handle, and tighten bolt #79)



TIMING REFERENCE

Check below picture, there are 3 key points for correct timing of the machine

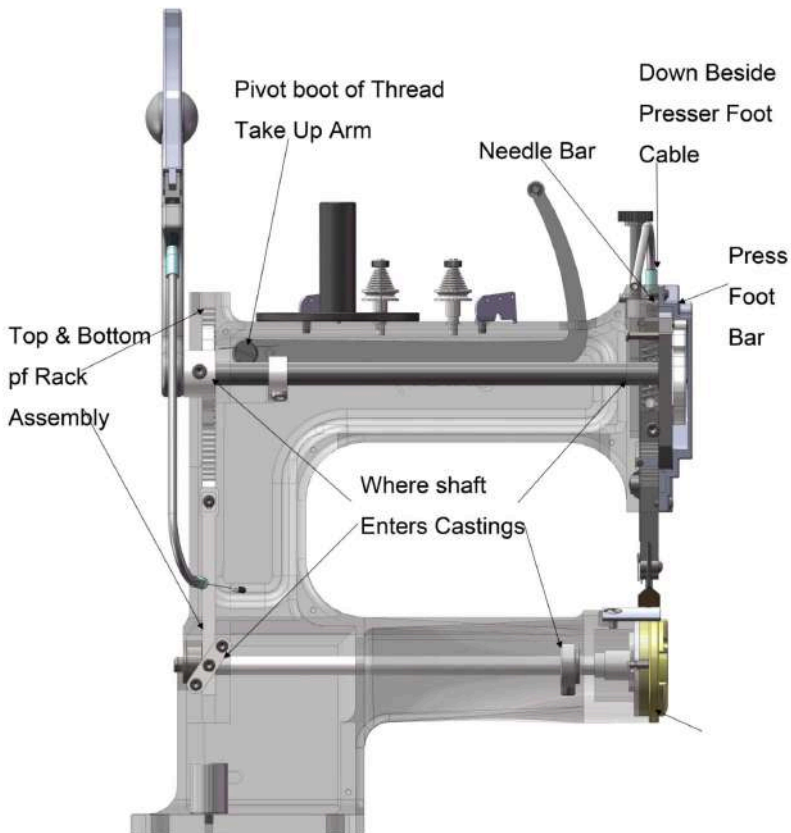
- 1 Move the needle to lowest position (put the handle in down position).
- 2 The tip of Shuttle hook just align up the section of Shuttle Race Body.
- 3 The round pin with arrow should be half over the front cover, if you cannot see the pin or see the whole pin, need to reset the gear rack



CLEANING AND LUBRICATING THE MACHINE

Your Cowboy "OUTLAW" should always be kept clean from lint and dust buildup to ensure proper operation. Periodically check the external and internal components of the machine to remove any buildups which may have occurred.

- After cleaning any lint or dust buildups, place a drop or two of oil at the wear points such as those indicated below.
NOTE: Use a quality sewing machine oil when oiling the "OUTLAW"



WARRANTY STATEMENT

CowBoy Sewing Machine, Inc. warrants that this product is found free from defects in materials and workmanship for a period of 1 year from the original date of purchase by the initial owner/purchaser.

On claims submitted as outlined in "WARRANTY OR REPAIR PROCEDURE" CowBoy Sewing Machine, Inc. will repair or replace, without charge, any parts that have failed through defect in material or workmanship.

WARRANTY OR REPAIR PROCEDURE

For warranty and non-warranty repair, after contacting CowBoy Sewing Machine, Inc., ship or deliver your sewing machine or specific parts to CowBoy Sewing Machine, Inc., or authorized dealers with a brief statement regarding the requested repair, your name, address and telephone number where you can be reached during normal business hours, if possible.



SPECIAL SEWING ACCESSORIES (OPTIONAL)



#CB01 Material Guide / Edge Guide: easy to make sure straight stitch.



#CB02 Special flat work table platform: allows the cylinder arm sewing surface to be converted to a flat sewing surface to allow for better stitching with certain types of work.

