

RENNER USA Division of Lloyd Meyer & Company, LLC

RENNER QUALITY

The firm Louis Renner was founded in Stuttgart, Germany in 1882. Today its headquarters and main factory are located in Gärtringen, just outside Stuttgart, with an additional state-of-the-art factory in Meuselwitz, near Leipzig. Renner manufactures complete grand and upright piano actions in addition to special piano parts, piano hammers, accessories, piano tools, and professional literature. They supply the primary piano action components to the world's leading piano makers and piano technicians in over 80 countries.

In 1988, Lloyd Meyer established Renner USA, a division of Lloyd Meyer & Company, to provide a stronger presence in North America and to create a U.S. based facility for the research and development of special piano action parts and tools specifically designed for vintage American pianos. These include original dimensioned piano action replacement parts for Baldwin, Chickering, Knabe, Mason & Hamlin, Steinway, and other fine American pianos. The company also provides original replacement parts for the great European piano makers, including Bechstein, Blüthner, Bösendofer, Fazioli, August Förster, Grotrian Steinweg, Schimmel, Seiler, Wilh, Steinberg, Steingraeber & Söhne, as well as the better quality Asian piano producers. Particularly in demand, are the top of the line Premium Blue Point piano hammers that do not require the addition of lacquers or other artificial hardeners; and special tools that have been developed for fine regulating.





P.O. Box 3440 Carefree, AZ 85377

480.575.1700 Renner@RennerUSA.com



TABLE OF CONTENTS



ACTION PARTS	4
Selecting the Correct Action Parts When Restoring a Vintage Piano	
SHANKS & FLANGES	6
GRAND WIPPENS	12
HAMMERS Selecting Replacement Hammers Special Features of the Renner Blue Point and Premium Blue Hammerheads	18 19
Hammer Specifications	20
HAMMER SERVICES	22
UNDERLEVER DAMPER SYSTEMBaldassin "3-in-1" Underlever System by Renner USA	
PARTS	24
RENNER ACTION MODEL	26
FELTS	
Flange and Key Bushing Cloth	
Flat Damper Strips	29
Pre-Cut Damper Sets Punchings and Leathers	
Key Bushing and Backcheck Leathers	
TOOLS	31
Key Measuring Device	
Regulating	
Tuning & Voicing	
Pliers	
PENNIER LISA ONI INIE STORE	47

ACTION PARTS



Selecting the Correct Action Parts When Restoring a Vintage Piano

The key factor in selecting correct replacement parts is to ensure that the original action dimensions and relationships won't change upon installation. To accomplish this, Renner maintains a century old manufacturing database with master action designs from which it can produce genuine Renner action parts with the same "original dimensions "as were used in the original piano manufacture. There is only one set of relationships through which the mechanism will operate properly, and you will find those relationships carefully engineered and built into every Renner part. The objective, simply stated, is to protect the authentic design of the piano and to carefully restore it to the original intent of the piano maker.

The drawings of our action parts are to exact scale and can be used for direct comparisons, making it easy to determine the correct dimensions and dimensional relationships to perfectly suit your particular action.

To print the scaled drawings, you must first download this catalog as a PDF file and then select the option to print the desired page or pages in actual size (100% scale).



For greater precision in determining the correct replacement action parts, we highly recommend using the Renner USA Sample Parts Kit, which can be seen on the next page.

This special kit is available to qualified piano technicians and allows the actual testing of sample action parts in the piano.



P.O. Box 3440 Carefree, AZ 85377

480.575.1700 Renner@RennerUSA.com

PARTS



Our Sample Parts Kit Can Make It Easy to Select the Correct Parts Needed

The Renner USA Sample Parts Kit can help solve the common problem of identifying and sourcing the correct replacement parts for most vintage pianos. Containing an assortment of over 40 original dimension wippens, shanks and flanges, hammers, damper felt samples, and other internal piano parts, technicians can test fit actual parts inside the piano to determine the best fit. This is critically important in order to maintain the original design and excellence of the instrument, particularly with vintage Steinway and other quality pianos, due to the way they were handcrafted at that time.

Our original dimension action parts for Steinway pianos are made in Germany in three different executions of shanks & flanges, and two different wippens, to accommodate the different configurations over the years including current. There are also different executions of wippens and shanks & flanges for Baldwin, Mason & Hamlin, Boesendorfer, Bechstein, and others, depending on the model and year manufactured.

For pianos where original dimensioned parts are no longer available, Renner USA offers parts that can be custom fitted to many particular pianos. For example, the Renner Universal Wippen offers multiple heel size options that can be configured to produce twelve different executions that fit most vintage American and European pianos, as well as many Asian-made pianos.

The Renner USA Parts Kit is available to professional piano technicians FREE of charge with the first purchase of a complete set of action parts (wippens, shanks & flanges, and hammerheads). Or, the kit may be purchased in advance, and the purchase price would be credited back with the first complete order.



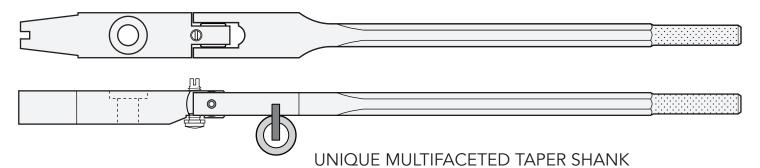




Our shanks and flanges are "dimensionally correct" ensuring that the original action dimensions and relationships are maintained when the part is installed. Some other companies in our industry have borrowed this term to describe dimensions that are not authentic and will fundamentally change the original design. Extreme examples include moving the hammer shank knuckle to a distance of 18mm from the center pin in order to reduce action weight at the front of the key. Reducing the leverage ratio at the hammer shank will certainly result in making the key easier to press down, as piano makers have known for 300 years. Doing so, however will have detrimental consequences in other areas of the mechanism including:

- A reduced amount of available hammer blow distance with the same touch depth.
- Greater touch depth with the same hammer blow distance.
- Slower acceleration of the hammer towards the string, resulting in lower contact velocity.
- Greater hammer weight required to reach equivalent ability to displace the struck string.

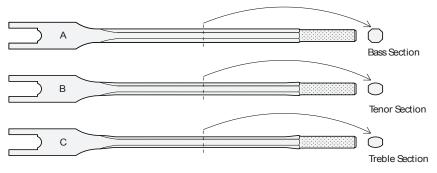
One of the advantages of the action parts offered by Lloyd Meyer & Company, LLC and Renner USA is the use of a special wood called Weissbuche, or Hornbeam in English, which is naturally air-dried and aged to provide stability over many years. The use of only the finest materials and highest level of quality workmanship done by our manufacturing partners in Germany are among the many reasons our parts are preferred by the world's finest piano makers and rebuilders.



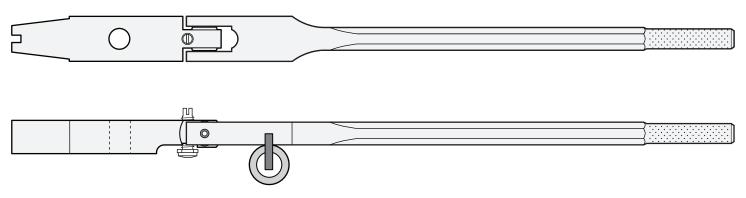
All of our shanks and flanges feature a multifaceted shape that offers increased strength and superior

energy transmission of the hammerhead.

Each set of our hammershanks include three levels of tapering in order to reduce the touchweight evenly from bass to treble.

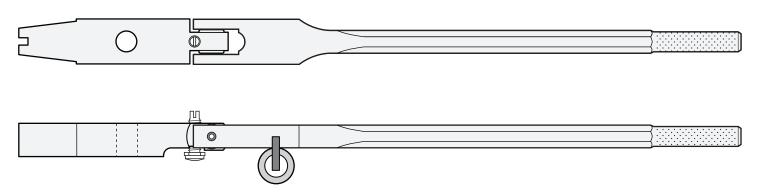






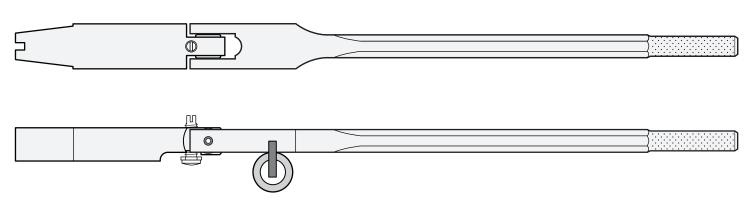
#913 001 Standard Renner

Note: Fits the standard Renner grand action found in many European pianos including Bechstein, Bösendorfer, Baldwin SD & SF and the older Yamaha.



#913 002 Renner Small Knuckle

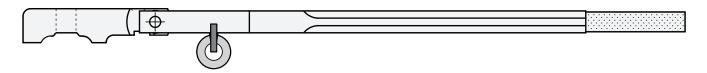
Note: Same as #913 001 except with smaller knuckle. This execution was standard on most Bechstein and some other European pianos.



#913 023 Renner Universal

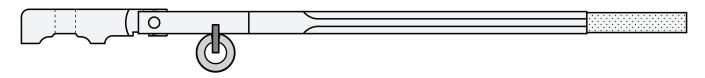
Note: Same as #913 001 except without screw hole. Can be adapted to many applications where a direct replacement is not available.





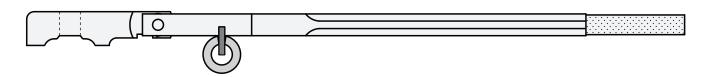
#913 021A Original Style

Note: Original dimension shanks and flanges for Steinway with smaller knuckle and 15.5mm distance between center pin and center of knuckle. Made in Germany at the Abel factory exclusively for Lloyd Meyer & Company, LLC. Same dimensions as Renner USA item 913 021 from Sample Parts Kit.



#913 029A Modified Style

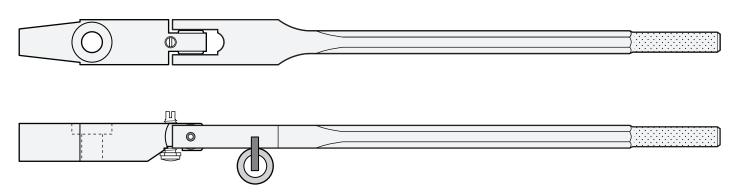
Note: Shanks and flanges for Steinway with standard size knuckle and 16.2mm distance between center pin and center of knuckle. Made in Germany at the Abel factory exclusively for Lloyd Meyer & Company, LLC. Same dimensions as Renner USA item 913 029 from Sample Parts Kit.



#913 031A Hamburg Style

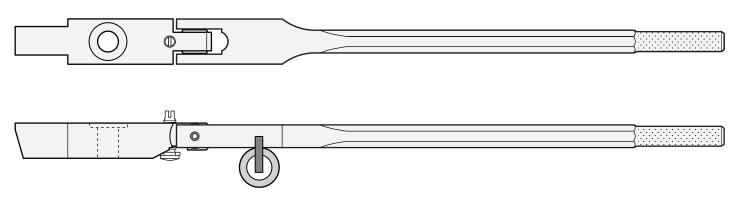
Note: Current dimension shanks and flange for Steinway with standard size knuckle and 17mm distance between center pin and center of knuckle. Fits the post 1970 Hamburg Steinway, some 1980's B & D NY Steinway models and current production models. Made in Germany at the Abel factory exclusively for Lloyd Meyer & Company, LLC. Same dimensions as Renner USA item 913 031 from Sample Parts Kit.





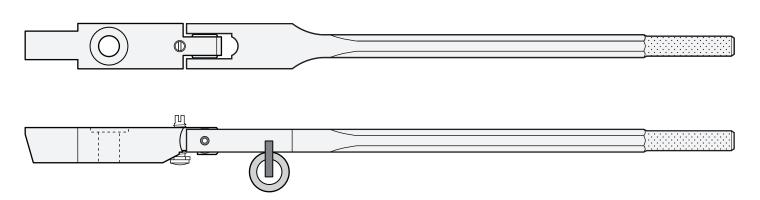
#913 009 Mason & Hamlin

Note: Fits vintage Mason & Hamlin as well as a variety of other piano makes that used Wessel, Nickel and Gross actions.



#913 019 Old Baldwin Pre-1932

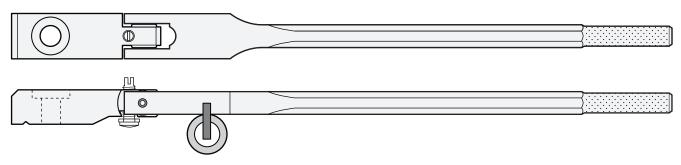
Note: For Baldwin models that were made before 1932.



#913 025 New Baldwin Post-1932

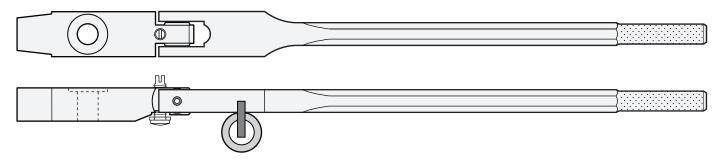
Note: Same as #913 019 except the screw hole is further from the center pin. For pianos built after 1932 that did not use a Renner action.





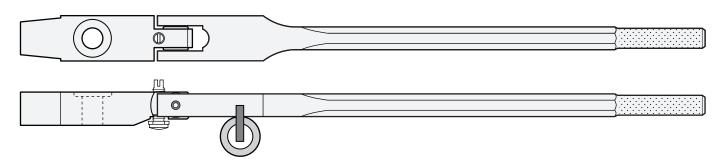
#913 013 Yamaha

Note: Fits Yamaha pianos.



#913 011 Pratt-Read

Note: Fits Pratt-Read standard actions.



#913 027 Pratt-Read Short

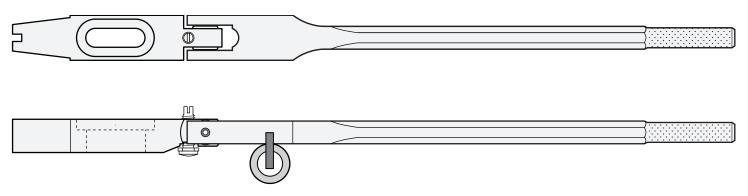
Note: Fits some Chickering and other Aeolian models.



#913 015 Falcone

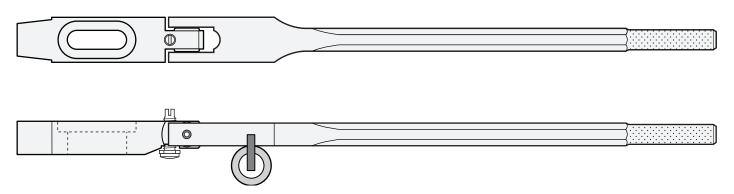
Note: Fits Falcone grands and some Mason & Hamlin grand pianos.





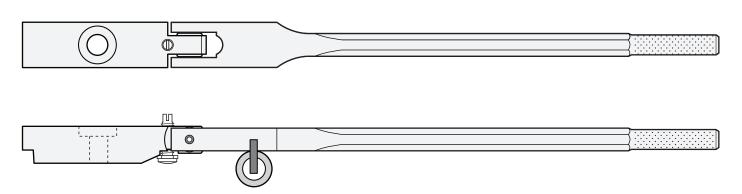
#913 005 Adjustable

Note: For applications requiring the long flange where models 913 001 and 913 023 are not suitable.



#913 007 Adjustable

Note: Fits some Mason & Hamlin models and other applications where model 913 009 is not suitable.



#913 017 Knabe

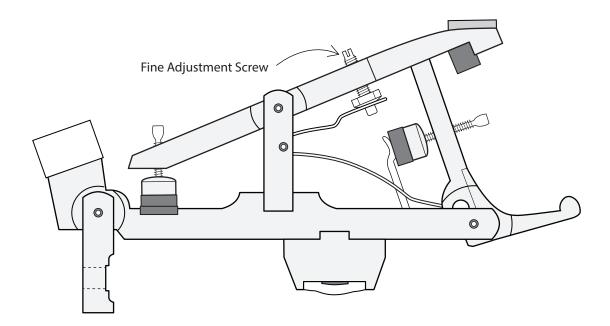
Note: Fits most Knabes.



Our wippens feature precision machined regulating screws and graduated spring tension for optimum regulation. On fine quality pianos this amazing action mechanism, perfected over a period of 300 years, is made from all natural living materials like fine woods, felt, and leather which depend on small action centers to precisely control their motion. These specific tolerances must also move naturally with the environment.

FINE ADJUSTMENT SCREW

Some of our wippen designs include this feature designed for superior fine adjustments after initial rough regulations. Also prevents butterfly spring from wearing a noisy groove in the repetition lever

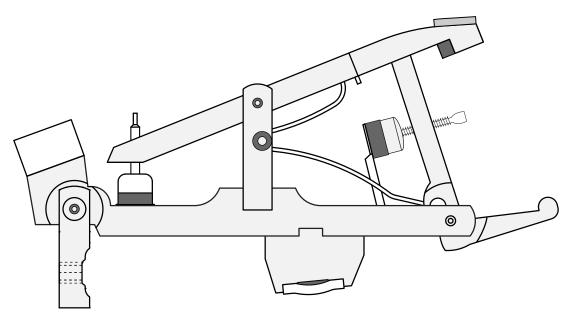


The HIGH DEFINITION FLANGE we invented over 30 years ago provides a more accurate flange seating on the many different rails produced over the years for both vintage & modern pianos, creating stability in the action and a more accurate transmission of power from key to string.

One of the advantages of the action parts offered by Lloyd Meyer & Company, LLC and Renner USA is the use of a special wood called Weissbuche, or Hornbeam in English, which is naturally air-dried and aged to provide stability over many years.

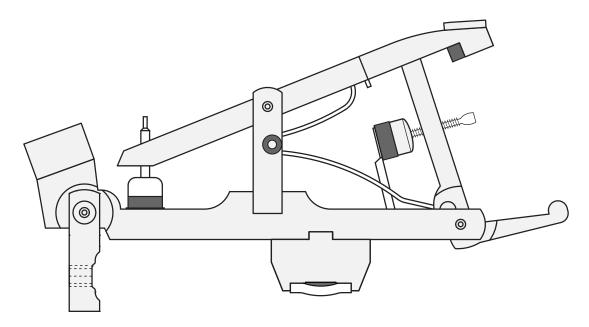
Our superior wippen designs, made exclusively in Germany from the finest quality materials, are among the reasons our products are preferred by the world's finest quality piano makers and rebuilders.





#913 048A Angled Heel

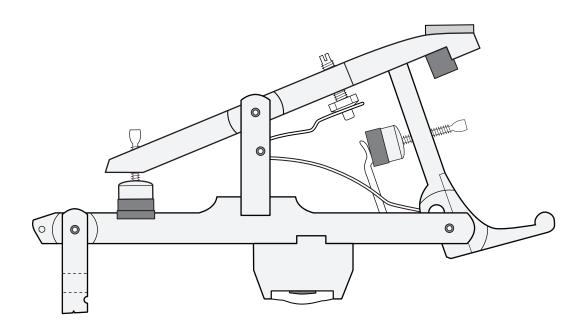
Note: Fits Steinway. Standard execution with angled heel for angled capstans. Made in Germany at the Abel factory exclusively for Lloyd Meyer & Company, LLC. Same dimensions as Renner USA item 913 048 from Sample Parts Kit without fine adjustment screw. Trial fit from parts kit recommended for best results.



#913 041A Straight Heel

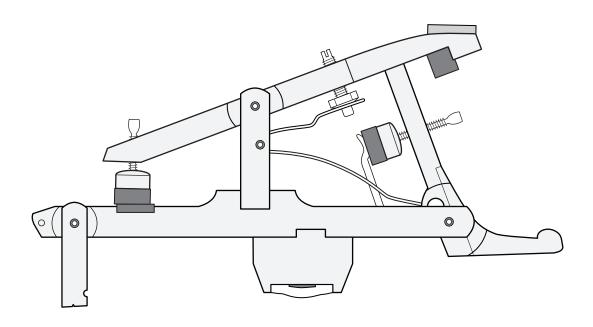
Note: Fits Steinway pianos with straight capstans and some models with angled capstans. Made in Germany at the Abel factory exclusively for Lloyd Meyer & Company, LLC. Same dimensions as Renner USA item 913 048 from Sample Parts Kit without fine adjustment screw. Trial fit from parts kit recommended for best results.





#913 010 Renner Standard

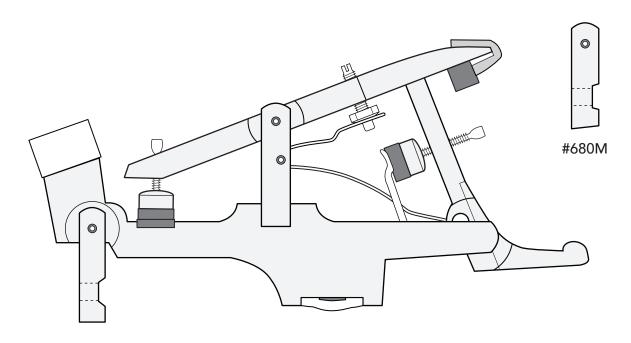
Note: Fits many European grands.



#913 015 Renner/Schwander

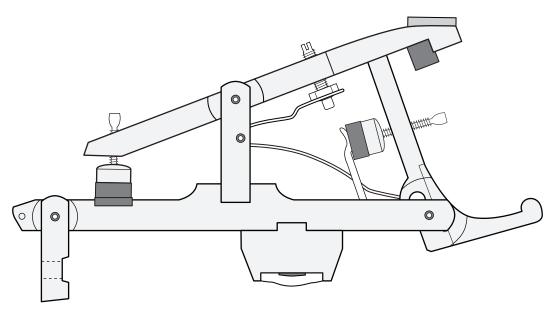
Note: Fits the Baldwin 9' and other actions that used the Schwander-type wippen. Replaces discontinued #913 059.





#913 046 Mason & Hamlin

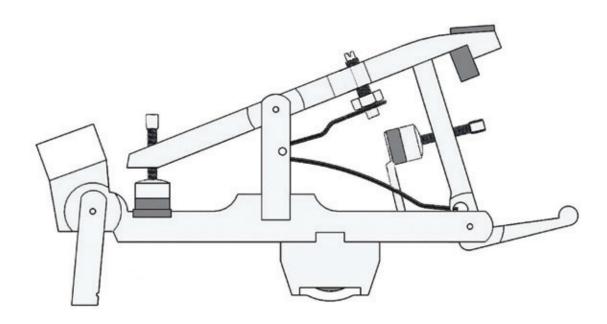
Note: Original dimensioned Wessel, Nickel & Gross (without the strings). Fits most Mason & Hamlin. Some models require a shorter flange, #680M, sold separately.



#913 051 Baldwin

Note: Suggested for vintage Baldwin pianos with the Baldwin action. Trial from parts kit recommended to ensure appropriate fit. Wippen #913 015 suggested for Baldwin pianos that used the Schwander wippen.

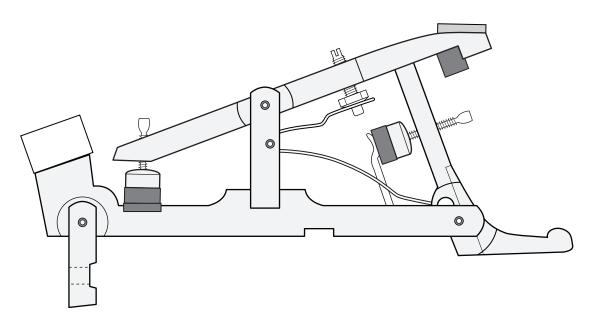




#913 008 Yamaha

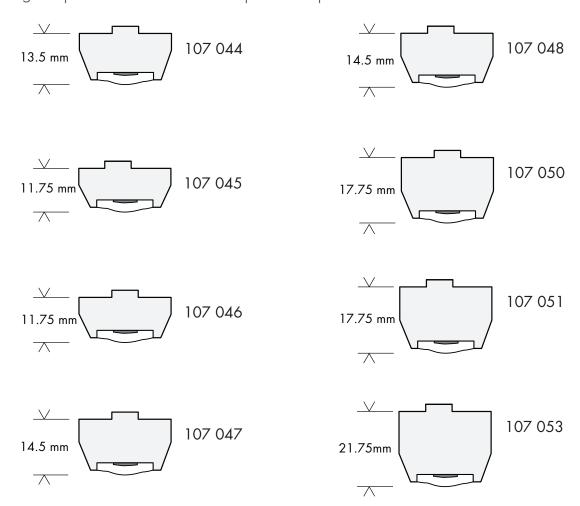
Note: Fits most Yamaha grand pianos.





#913 053 Universal Wippen

Note: The flexibility of this design allows replacement of piano actions for pianos no longer in production and for which replacement parts are not available.





Selecting Replacement Hammers

The Louis Renner company produces the hammerheads for the world's finest piano makers, as they have done for over 130 years, and have grown to become the largest, independent, producer of hammerheads in the world. The German Steinway, Bösendorfer, Fazioli, Schimmel, Bechstein, Blüthner, Estonia, Förster, and Steingräber are among the world's premium pianos that use Renner hammers which are produced to each manufacturer's specifications. Our selection of hammers for the North & South American markets include the following premium product lines which incorporate the original designs developed early in the 20th century for vintage Steinway and other quality pianos. These superior hammerheads are produced utilizing the most advanced technology and state-of-the-art machinery in the industry, combined with the finest German hand-craftsmanship.

The Grand hammers are made in five basic weights, from Gross 2 (12 lb.) to Gross 5 (18 lb.) with an additional Gross 6 (20 lb.) size available in the Hamburg Collection. Our standard and long molding sizes normally fit 80% of the pianos you are likely to encounter. Three universal molding sizes are also available in both Premium Blue, and Premium Blue Point, which can be custom bored, shaped, and tailed for the remaining 20% of grand pianos. The upright hammers are available in two basic sizes which will fit nearly every upright piano.

Renner Premium Blue

The original hammer designed and offered by Renner USA that delivers outstanding performance in all makes and models of quality grand pianos. These hammerheads achieved their popularity over more than 30 years by providing superior tone and sound quality without requiring the use of lacquer or chemical hardeners. See additional information on the following page.

Renner Premium "Blue Points"

The newer Premium Blue Point hammers feature the legendary Weickert Special felt, which was re-developed by the Würzen felt company and the Louis Renner Company with the cooperation of some top piano manufacturers. They are made exclusively for Renner USA, and pressed into a more pointed shape than traditional hammerheads to enable technicians and pianists to fully experience the many advantages of this amazing felt recipe. These high-tension hammers are known to produce a warm, clear tone, an incredible dynamic range, big sustains, and more. They offer stability and durability and also do not require the use of lacquer or chemical hardeners to produce tone. The "Blue Points" typically require less needling than our Premium Blue hammers and can be easily voiced to produce the desired tone in any environment. See additional information on the following page.

NEW Renner Hamburg Hammers

Designed for use in newer Hamburg Steinway & Sons grand pianos produced since 1970. Wider width and heavier weight.



Special Features of the Renner Blue Point and Premium Blue Hammerheads

Hammer Felt

The special hammer felts used in all of our Renner hammers are produced by the Würzen Felt Company in the former East Germany, which supplied vintage Steinway and other quality pianos their special hammer felt for over 100 years. The Weickert Special felt, featured in our Premium "Blue Point" hammers, became unavailable for several decades following World War II during the Russian occupation, and became available again with the reunification of Germany thanks to collaboration with Renner and some of Renner's piano manufacturing customers. It continues to be the finest hammer felt produced in the world, resulting in the widest possible harmonic and dynamic tonal range with a minimum of voicing required.

Hammer Molding

The molding used in the Renner Premium Blue and Blue Point hammers is a special species of Walnut wood, grown in Germany. It is carefully selected for its uniform, lighter weight, and responsiveness. It is aged naturally, prior to final conditioning, to assure long term stability and performance in different climatic environments.

Renner Compression Clasp

Each of our hammerheads incorporates the exclusive Renner T-ClaspTM to maintain the desired felt tension and even weight distribution within each hammer. This unique clasp is made from a proprietary, surface-coated, hardened steel, which is used to lock the felt to the base of the molding without damaging individual felt fibers. To assure uniformity, each clasp is optically sorted and matched by computer to assure the correct dimensions and alignment of the stems. The clasps are then inserted electronically into each hammerhead, one-at-a-time, applying equal pressure to both sides of the hammerhead, to assure uniform tension and perfect centering and alignment of each clasp. Each hammerhead is then hand inspected individually to assure absolute perfection.

Hammer Presses

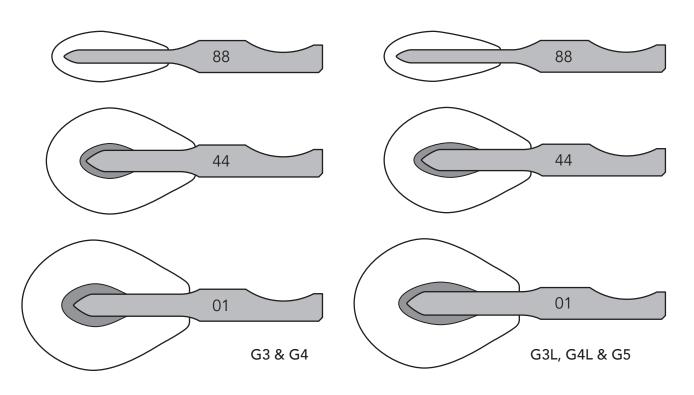
Our unique hammerhead presses allow for the perfect centering of the outer and under felt on the hammer molding, with special sensors controlling the amount of pressure and temperature applied to each individual hammer across the scale. This protects the structure and integrity of the felt during the pressing process, and results in the optimum tension and responsiveness of each individual hammer.



Hammer Specifications

Standard Molding Grand Hammers



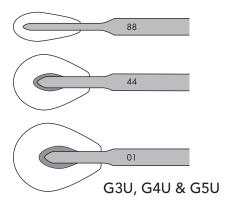


Premium Blue (PB) & Premium "Blue Point" (PBP) Grand Hammer Specifications											
Model	Molding Material	Size (lbs.)	# Han Bass	nmers Treble	Overall Length Bass Treble		Hammer Bore Range Bass Treble		Width		
G3-PB G3-PBP	Walnut	Gr.3 14 lb.	32	64	3 ½ in 79.5mm	2 ¹³ /16 in 71.5mm	2- 2 ⁹ / ₃₂ in 51-58mm	1 ⁴⁷ /64- 1 ³¹ /32 in 44-50mm	²⁷ / ₆₄ in		
G4-PB G4-PBP	Walnut	Gr.4 16 lb.	26	70					10.9mm		
G3L-PB G3L-PBP	Walnut	Gr.3 14 lb.	32	64							
G4L-PB G4L-PBP	Walnut	Gr.4 16 lb.	26	70	3 ¹ / ₄ in 83mm	2 ¹⁵ /16 in 75mm	2 ¹ / ₈ - 2 ³ / ₈ in 54-60mm	1 ¹³ / ₁₆ - 2 ³ / ₆₄ in 46-52mm	²⁷ / ₆₄ in 10.9mm		
G5-PB G5-PBP	Walnut	Gr.5 18 lb.	26	70				40-52MM			

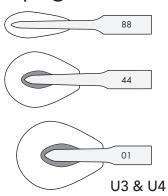
Renner USA offers a wide array of custom hammer technical services which include: custom hammerhead boring, pre-filing and pre-voicing the hammers, and hanging the hammers to the original factory specifications or to custom shank lengths provided or copied from samples (see details on page 23).



Universal Hammers



Upright Hammers



Premium Blue (PB) Grand Hammer Universal Molding Specifications										
Model	Molding Material	Size	# Hammers	Overall Length	Hammer Bore Range	Width				
G2U-PB PB "Lites"	Walnut	Gr. 2 (12 lb.)				²⁷ / ₆₄ in				
G4U-PB	Walnut	Gr. 4 (16 lb.)	96	3 ⁵/8in 92mm	2-2 ½in 51-63mm	10.9mm				
G5U-PB "Big Blues"	Walnut	Gr. 5 (18 lb.)		72111111		²⁹ / ₆₄ in 11.5mm				
Premium "Blue Point" (PBP) Grand Hammer Universal Molding Specifications										
G3U-PBP	Walnut	Gr. 3 (14 lb.)		0.544	0.0141					
G4U-PBP	Walnut	Gr.4 (16 lb.)	96	3 ⁵ /₃in 92mm	2-2 ½in 51-63mm	²⁷ / ₆₄ in 10.9mm				
G5U-PBP	Walnut	Gr. 5 (18 lb.)		/2:!!!!!		10.711111				

	Premium Blue Upright Hammer Specifications												
Model					Overall Bass	Length Treble	Hammer Bore Range Bass Treble		Width Bass Treble				
U3-PB	Hornbeam	Gr.3 14 lb.	32	20	22	20		2 ¹¹ /16in	2 ¹⁵ /16in	2 ¹ /8-2 ³ /8in	2 ³ /8-2 ⁵ /8in	³/ain 9.5mm	¹³ / ₃₂ in 10.4mm
U4-PB	Hornbeam	Gr.4 16 lb.		2 64	68mm	74mm	54-60mm	60-66mm	¹³ / ₃₂ in 10.4mm	¹³ / ₃₂ in 10.4mm			

NEW Hamburg Collection Grand Hammer Specifications											
Model	Molding Material	Size	# Hammers Bass Treble		Overall Length Bass Treble		Hammer Bore Range Bass Treble		Width Bass Treble		
S/M/O	Maple	Gr. 5 (18 lb.)	27	63	82mm	72mm	2 ³/ ₆₄ -2 ⁷ / ₁₆ in 52-62mm	1 ⁴⁷ /64-2 ⁵ /64in 44-53mm	11.5mm	11.5mm	
A/B	Maple	Gr. 5 (18 lb.)	21	69	82mm	72mm	2 ³/ ₆₄ -2 ⁷ / ₁₆ in 52-62mm	1 ⁴⁷ /64-2 ⁵ /64in 44-53mm	11.5mm	11.5mm	
C/D	Maple	Gr. 6 (20 lb.)	21	69	85mm	75mm	2 ¹ / ₈ -2 ³³ / ₆₄ in 54-64mm	1 ¹³ /16-2 ¹¹ /64in 46-55mm	12mm	12mm	

21

HAMMER SERVICES



Renner USA offers the following comprehensive piano hammer services:

Boring, Shaping and Tailing

We can custom bore all Renner hammerheads to the particular specifications of any grand or upright piano, to fit any diameter hammer shank, including the tapering and tailing of the hammer molding to the proper radius. We have all the standard factory boring specifications for Steinway, Baldwin, and Mason & Hamlin pianos, and do not require hammer samples for those instruments. For other pianos, we would need either the boring specifications or sample hammers from which we can determine the correct specifications.



For the ultimate in "out of the box" convenience the hammerheads can also be pre-filed and pre-voiced. When the hammers are cut apart, tension is released where the felt has been cut, causing a "cupped" shape on the top of the hammer. This "cupped" shape must be removed to produce good tone. The most efficient way to do this is to "gang file" the hammers before they are hung. This is a basic procedure performed on all quality hammerheads taken out of the box, prior to final voicing, and is available from Renner USA.

Full Side Tapering

To improve side clearance and to reduce weight Renner USA can fully taper each hammer in a straight cut from the crown to the tail, recreating the configuration found on fine American grands from the classic era.



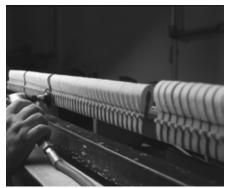
Cut and Cove

For Renner universal molding hammers with extended lengths and no factory cove, we offer this service to cut the hammer moldings to the desired length and add an appropriate cove to the tails.

Hanging Hammers to Shanks

We will hang any style of our Renner hammers to any style of our grand hammer shanks. Our hammer hanging services are available to technicians in two levels of precision. The most common method is the Factory Level Placement, where the hammers are hung to a uniform and fixed distance on the shank. This is the procedure used by most piano factories and is adequate for many situations. Custom Level Placement is a higher level service which preserves the original placement of the hammers, which is important for vintage Steinway and other quality pianos. With this process, we duplicate the original samples to replicate the original strike points. There is no additional charge for this special service which achieves the highest standard of accuracy.





UNDERLEVER DAMPER SYSTEM



Baldassin "3-in-1" Underlever System by Renner USA

The New Baldassin "3-in-1" Underlever System by Renner USA maintains the design of the original Renner USA Universal Underlever System, with the flexibility of adding capstans, either in the underlever or the tray, if desired.

This system allows the damper action to be custom tailored to fit the many different grand piano scales produced over the past 150 years.

The kit includes the underlever tray, the tray ending blocks, pivot pins, a complete set of underlevers (pre-drilled for optional capstans), a complete set of capstans, individually cut action cloth pieces (used with capstan in tray installations), flange screws, the flange keeper wire, tray cushion felt, stop rail cushion felt, damper lever assist springs, and a roll of mylar tape for creating the drilling scale.

The Baldassin "3-in-1" Underlever System can be used to replace:

- Damper actions that are damaged or worn out.
- Damper actions without sockets in the top posts.
- Damper actions with fixed sostenuto tabs.
- Damper actions with "short arm" underlevers.



Capstans in the Underlevers No Capstans Capstans in the Tray

PARTS

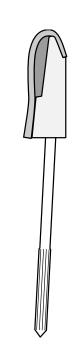


Back Checks with Wires

#706B

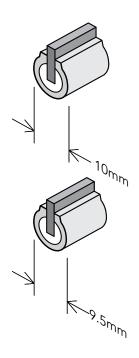
Renner grand back checks with wires feature threaded heads for easy micro adjustments.

29mm head length
9mm head width
88mm overall length



Renner Replacement Knuckles

Two sizes available: large – 10mm diameter small – 9.5mm diameter



Wippen Assist Springs

#0691

Set in three different \mathcal{J} thicknesses which go to note 70.

10 = 0.55mm

30 = 0.60mm

30 = 0.70mm.



#621A

Action flange screws, nickel plated, 4.5 x 17mm, with spring washer (bag of 100).



Let Off Screws "Eyebolt"

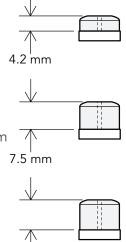
#GEN-0702

36mm long Iron nickel plated Bag with 100 pieces



Let Off Buttons

LOB 4.2 Small Size 4.2mm LOB 7.5 Medium Size 7.5mm LOB 8.4 Large Size 8.4mm



24

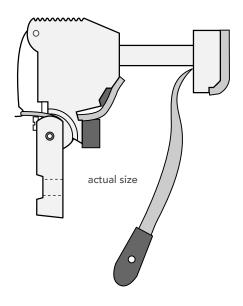
8.4 mm

PARTS



Upright Hammer Butt

#481 Pratt-Read Style
Now with Renner quality, will fit
most of the quality upright pianos
produced in North America during
the past 100 years.

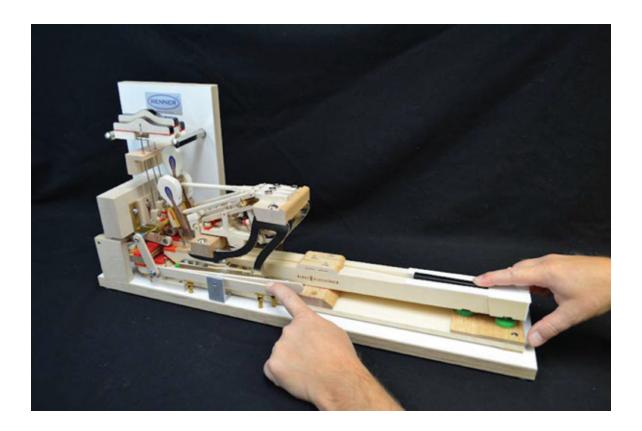


ACTION MODEL



Renner Action Model

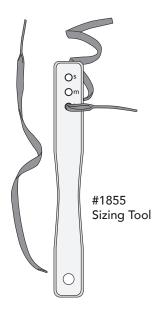
This 3-note grand piano action model is manufactured by the Louis Renner company exclusively for the Piano Technician's Guild, and is the official testing model used in the examination process to achieve the classification of Registered Piano Technician. It features Genuine Renner action parts, Premium Blue Point hammerheads, and includes working sustain and sostenuto levers. This model is a useful resource for grand action regulation training, and as a working public display model to demonstrate the intricate mechanisms and functioning of a grand piano action. For questions or to purchase, please visit www.ptg.org.





Flange and Key Bushing Cloth

Superior flange and key bushing cloths available in strips, squares and large sheets.



Flange Bushing Strips

25cm long with pre-formed (shoelace) ends, pre-glued and graphited.

#1049

Renner supplies special pre-glued and graphited flange bushing cloth strips that are exceptionally easy to use. These strips have pre-formed "shoelace" ends for easy insertion into the flange holes. A water-activated glue coating on the outside surface eliminates the need to apply any other adhesive, and the light graphite application on the inside surface provides quiet, trouble free operation. Use with sizing tool #1855

Bushing Cloth Strips For Spurlock System

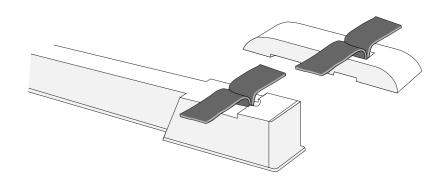
9mm wide x 100cm long Strips

#1050S 1.00mm thick

#1051S 1.20mm thick

#1052\$ 1.35mm thick

#1048S 1.50mm thick



Bushing Cloth Squares

25x25cm

#1050B 1.00mm thick

#1051B 1.20mm thick

#1052B 1.35mm thick

#1048B 1.50mm thick

Bushing Cloth - Large Pieces

100x140cm

#1050C 1.00mm thick

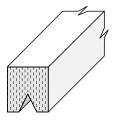
#1051C 1.20mm thick

#1052C 1.35mm thick

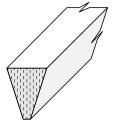
#1048C 1.50mm thick



Damper Felt Strips

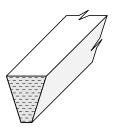


Mono-chord #850136 Width 10mm Height 11mm

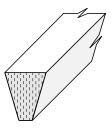


Bi-chord #850132 Width 9mm Height 11.5mm Narrow point for

lowest bi-chords



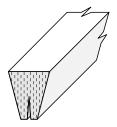
Bi-chord
#850140
Width 9mm
Height 10.5mm
Medium point for remaining bi-chords



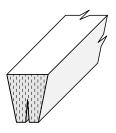
Width 9.5mm Height 11mm Wide point for bi-chords on tenor bridge

Bi-chord

#850138



Tri-chord
#850139
Width 9.5mm
Height 11mm
Narrow point for wound tri-chords



Tri-chord
#850143
Width 9.5mm
Height 11mm
Wide point for plain wire tri-chords

FELTS



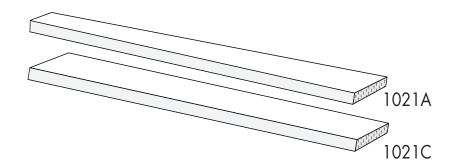
Flat Damper Strips

#1021A

Standard tapered 5cm - 3cm x 49cm 10.5mm thick

#1021C

No taper thin execution 4cm x 40cm 8.0mm thick



Pre-Cut Damper Sets

Renner quality red-felt backed. Pre-cut dampers to fit various scale designs.

#1033 S

Bass: 10 notes single,18 notes double Treble: 4 notes double, 9 notes tri-chord, 10 notes combination, 20 notes flats

#1033 M

Bass: 10 notes single,18 notes double Treble: 3 notes double, 9 notes tri-chord, 10 notes combination, 20 notes flats

#1033 L-O

Bass: 10 notes single,18 notes double Treble: 13 notes tri-chord,10 notes combination, 20 notes flats

#1033 A

Bass: 8 notes single, 14 notes double Treble: 5 notes double, 8 notes tri-chord, 10 notes combination, 28 notes flats

#1033 B

Bass: 8 notes single,14 notes double Treble:18 notes tri-chord, 8 notes combination, 25 notes flats



#1033 C

Bass: 8 notes single,14 notes double Treble: 18 notes tri-chord, 13 notes combination, 25 notes flats

#1033 D

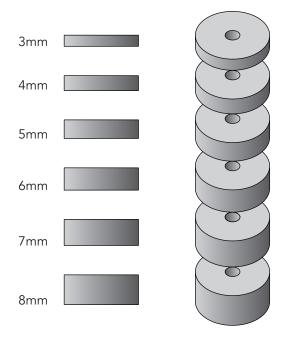
Bass: 8 notes single, 7 notes double, 7 notes tri-chord
Treble: 32 tri-chord, combination 13+13,
Flats 50

#1033 Generic set

15 notes single, 15 notes double,42 notes flat tapered,22.5 cm tri-chord strip



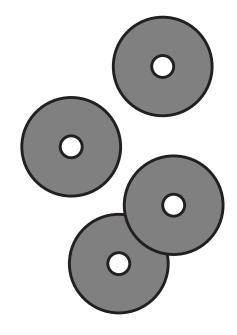
Punchings and Leathers





#1158

Superior quality felt front rail punchings, available in six different sizes.



Balance Rail Punchings

#1157

Available in one execution, our very popular balance rail punching, red felt.

Key Bushing and Backcheck Leathers

Backcheck Leather

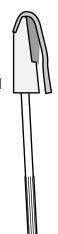
Wider width will fit the older longer style backchecks.
Narrow width will fit standard backchecks.

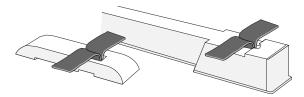
#1105W

6.2cm x 90cm

#1105N

4.4cm x 90cm





Key Bushing Leather

Available in two thicknesses:

#1108A 1.00mm thick 90cm x 3cm

#1109A 1.20mm thick 90cm x 3cm

TOOLS



Key Measuring Device



A Revolution in Key Balancing

With a push of a button, the Key Measuring Device (KMD) accurately calculates, upweight, downweight, balance weight, friction and key dip, making it possible to measure an entire keyboard in *under eight minutes!*

The KMD eliminates the need to fuss with manual weights on keytops as its precise force sensor takes readings throughout the entire keystroke with built-in protection against errors, providing consistent results.

The KMD can be operated independently or paired via Wi-Fi to a mobile device or laptop, offering the ability to save and export your data in CSV format for use with spreadsheet applications.

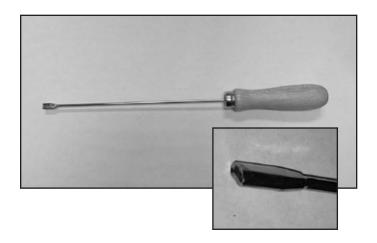
Offered exclusively through Renner USA.

Key Measuring Device Features

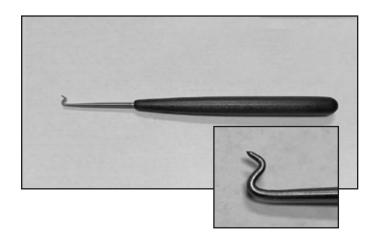
- Adjustable stop weight up to 400 grams
- Reporting available on any web browser
 no unique software needed
- Allows technicians to identify high-friction key and flange bushings
- 13 mm spacer included for consistent measurements
- Persistence Mode to compare readings
- Adjustable analysis window to select which portion of the keystroke to evaluate
- Built-in battery with universal USB-C charging and battery saving features
- Can be used to measure damper timing



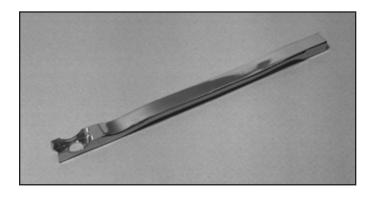
Regulating



Jack and Repetition Lever Regulator for Grand Levers #1520



Spring Hook #1525



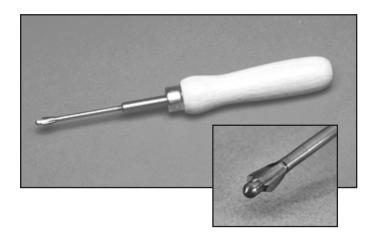
Flange Spacer for Steinway/Baldwin

#1567

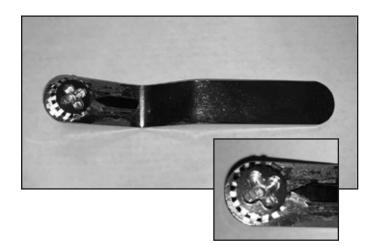
Also fits current Mason & Hamlin and Yamaha and our replacement parts for Baldwin. Designed to fit on flanges and is used to align hammers and strings. Particularly well-suited for tightly spaced flanges.



Regulating



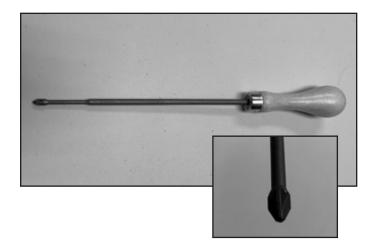
Balance Rail Hole Reaming Tool #1656 Used for accurate reaming of the balance rail hole.



Set Off Ratchet for Steinway #1570



Regulating



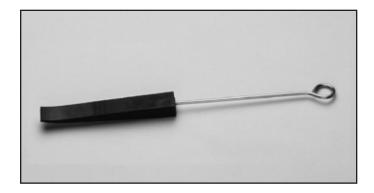
Pozidriv Screwdriver
#1775C
Screwdriver, cross slot PZD 2
with ball handle



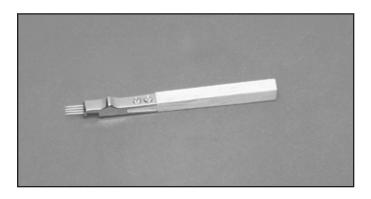
#1795B
Holds screw for easy installation.
Use for installing vertical hammer butt and damper lever.



Tuning & Voicing



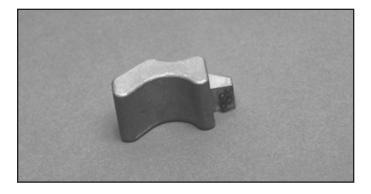
Rubber Tuning Wedge
#1421
Commonly used rubber wedge
for upright pianos.



Straight Voicing Tools
#1430 A
Four needle light duty voicing tools available with straight head for ease of use.



Tuning & Voicing



Upright Voicing Tool #1430D

The perfect voicing tool designed specifically for upright piano actions.



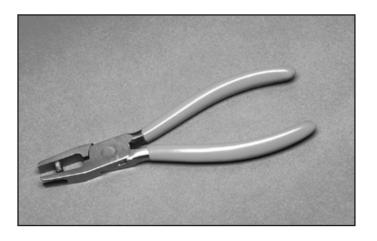
Deluxe Voicing Tool

#1430E

This uniquely designed Deluxe Voicing Tool is used in the Renner USA technical shop, and offers the following advantages:

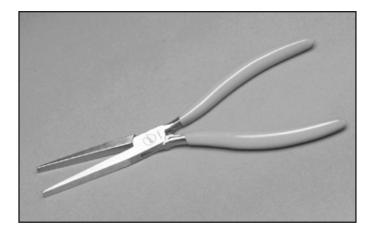
- Ergonomic grip improves control and reduces fatigue;
- Weighted handle stays put when set down on a flat surface;
- Special designed head reduces needle breakage;
- Custom cap seals to protect needles and technician.





Hammerhead Removing Pliers #1574

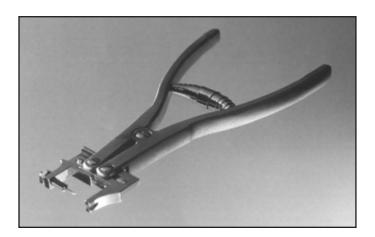
These pliers are designed to remove entire sets quickly and easily.



Grand Damper Pliers

#1606

Grand Damper Pliers used for holding the damper head while bending the damper wire.

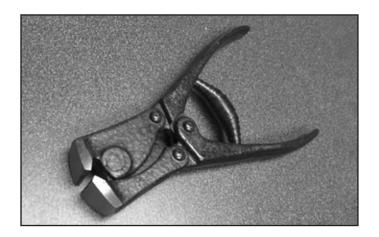


Center Pin Remover Pliers

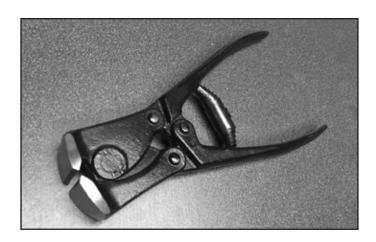
#1609

These compound spring-loaded pliers feature an adjustable extraction pin.

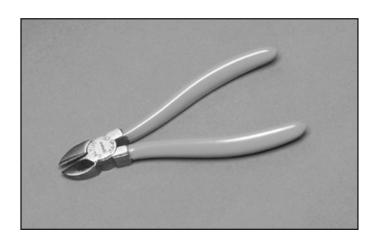




Piano Wire Cutter – 160mm #1628A



Piano Wire Cutter – 180mm #1628B



Diagonal Side Cutter Piers

#1630

These diagonal side cutters feature high-tempered, polished jaws at an angle allowing for maneuvering in tight spaces.

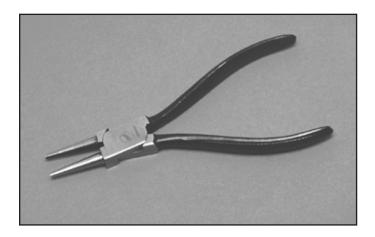




Center Pin Wire Cutter

#1632

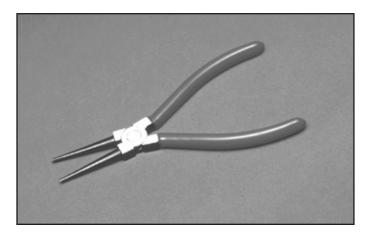
An unique contoured head design allows for flush cutting of center pins. The best tool available for this job.



Round Nose Pliers – 140mm

#1640A

These pliers are great for making string splices and individual ties.

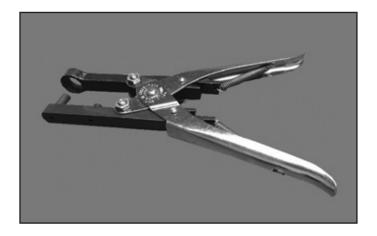


Round Nose Pliers – 140mm

#1642A

These pliers are great for making string splices and individual ties. Rubber handle gives easy grip. Jaws are slightly longer than 1640A.





Deadleader Pliers

DLP

Deadleader pliers for removing key leads.



Hammershank Cutting Pliers
#1588
This handy tools is excellent for quick field repairs.



Knuckle Removing Pliers
#1589
This tool is designed to remove knuckles from grand pianos.





Hammershank Reamer with Handle

#1591

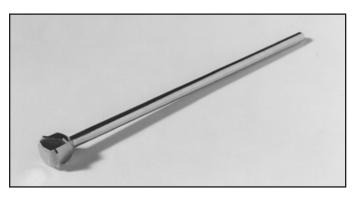
This tool is used to reduce the diameter of hammershanks and allows proper dressing of hammershank after hammerhead extraction. The handle is also removable enabling insertion into a drill.



Hammer Reamer

#1853

This tool is used for reaming hammer heads for custom fit prior to gluing.



Offset Screwdriver

#1793

A useful tool in tight spaces.

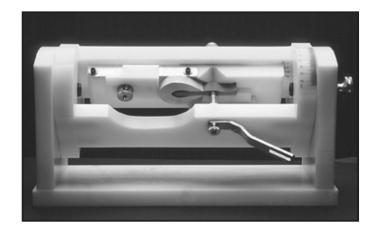


Flange Bushing Cloth Calibration Tool

#1855

This handy tool sizes bushing cloth prior to installation. Designed for use with Renner's exclusive pre-glued and pre-cut flange bushing cloth.





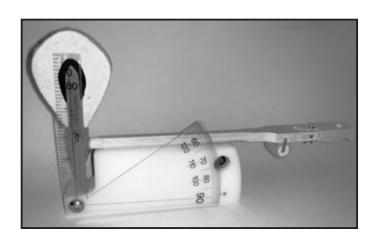
Renner Deluxe Hammer Boring Jig

This handmade boring jig is often described as the finest tool of its kind in the world.

It has been carefully developed and refined by talented engineers and leading piano technicians, and is the same device used in the Renner USA technical shop for boring hammers.



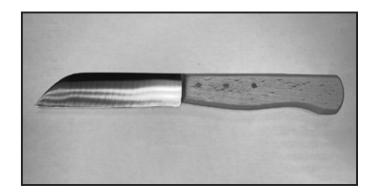
Hammer Side Taper Jig Tool for side tapering piano hammers for use with table saw (2 hammers per pass).



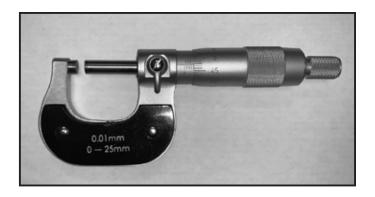
Hammer Angle Gauge

Tool for measuring the angles of piano hammers on shanks.





Felt Knife #1738

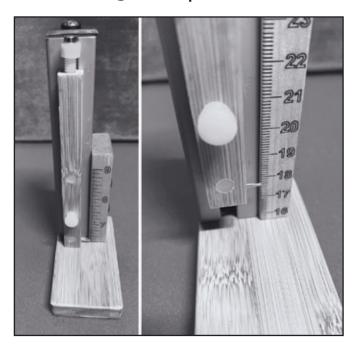


Micrometer (up to 25mm) #1750



Round Awl #1805



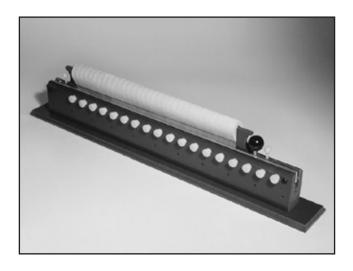


Grand String Height Gauge

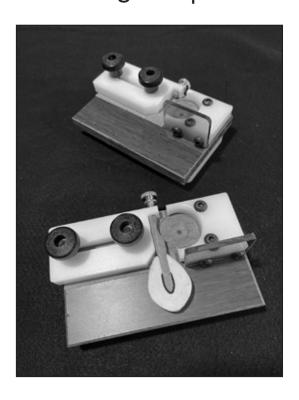
Provides a direct reading of string height in a grand piano. Magnetic indicator spindle attaches to strings, even heavy wound strings, for a hands-free reading. Rule is scaled in 1/32 inch increments. Metric rule also available. Accurate readings can be taken in a few minutes with no transfer errors. Will also take plate height readings. Included instructions contain simple re-calibration procedure.

Universal Hammer Gang Clamp

For pre-filing and pre-voicing of all hammer styles. Two- way clamping pressure securely holds 1/3 set (up to 36 hammers). Adjusts for all molding sizes. Use on bench top; removeable base for securing in wood vise. Special canting feature. Simple setup, directions and wrench included. Constructed of PVC.

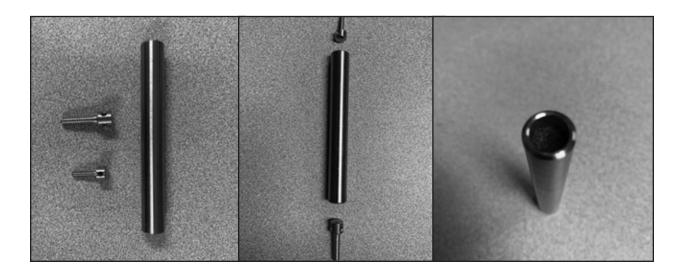






Hammer Coving Jig

This tool cuts the radius, or cove, on the hammer molding. This tool cuts the radius, or cove, on the hammer molding. It works equally well on unprepared hammers or ones that already have a factory cove. Re-coving is often desirable especially when considering weight reduction of the hammer head. It requires a drill press and cross-vice for use, and a 1 3/8" Forstner boring bit. Once the fixture is indexed to the drill spindle, you can adjust the size of the cove fore and aft, and left to right, ensuring that the cove is the proper depth and properly spaced between the tail and bore hole.



Capstan Spinner

#CS

The capstan spinner tool is designed to insert both the smaller (8mm) capstans supplied in the Baldassin 3-in-1 Universal Underlever System and the regular sized (9mm) capstans used in keys.

TOOLS



Shank Burner version 2.0

#SB2-M

A unique iron for heating hammer shanks for corrective hammer alignment. Low wattage does not scorch hammer shanks and does not require a rheostat. Quick and simple to use, and the 45 degree design makes the Shank Burner work equally well for grands, uprights, consoles and spinets and comes with a special holder to secure iron when hot.

Additional Information:

- Universal design works on all pianos.
- Heats the shank quickly without scorching.
- 30 watt iron works without heat control.
- Rugged safety stand for hot iron in use

Directions:

Place the iron in the safety stand and plug in.

- 1. After the iron is hot (about a minute) it is ready for use.
- 2. Apply the tip to the hammer shank for 7 to 15 seconds, maintaining contact.
- 3. Gently twist the hammer in the direction you wish to correct for.
- 4. Ease off the twisting pressure and allow hammer to relax.

Note: If additional burning alignment is needed, the hammer shank will need less contact time with the tip.

WARNING – When plugged in, this tool becomes very hot. Always keep the tool in the safety stand when in use and immediately after use.

Do not leave unattended. Fire hazard, use precautions to maintain a safe work environment.





MORE PRODUCTS AVAILABLE ONLINE

www.rennerusa.com