

The Finest Education in the East

Art where our work transcends the mechanical and pursues the aesthetic. Where the machine becomes music, and the pianist finds a dancing partner. You'll find six classes on voicing and concert preparation, including the specialized work by the piano technician and engineer of a first-quality recording studio.

> Craft covering the broad range of skills that are the foundation of our work. Nine classes on grand action and back action work. Five classes on verticals, including how they're built, how to service and regulate them, and even replace their actions. Six classes on tuning, both aural and ETD. Three classes on general shop work, including an all-day pinblock replacement class. Two overview classes, one on physics and the other, a historical basis of touch weight. And where would you be without our two business classes.

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Innovation When something on the horizon shows up next door, you probably wish that you'd seen it coming. Grand action set-up has already been revolutionized. Now the revolution is coming to soundboard

design and installation. Wood is no longer the only (or even best) material for action parts. And as keyboards continue on through the years, more ingenuity is required to make their restoration possible. When it's time for a new one CAD/CAM steps in.

> Art, Craft and Innovation are the essence of our work, and the conceptual focus for the 35 classes presented at NEECSO 2008.

The ART in Concert & Artist

OF MICS AND MEN (WOMEN & PIANOS) - THE ART OF

RECORDING THE PIANO 🍩 👓 🗉

Barbara Pease Renner, RPT and Jack Renner

What goes into recreating a realistic and natural piano sound on a recording? Join piano technician Barbara Pease Renner (a 27 year yeteran of Jazz, Classical, and Pop recording sessions) and her recording engineer husband Jack Renner (an 11-time Grammy winner), as they share the tips and techniques they have used on over 100 commercially released classical and jazz recordings featuring the piano. The Renners will share behind-the-scenes stories from notable projects, and discuss and demonstrate both piano prep and record engineering techniques used in the studio and on live dates. Learn what they each do to make good pianos sound their best.

THE CONCERT PIANO TECHNICIAN 000

Steve Brady, RPT (Steve Brady Piano)

Learn a proven routine for concert piano prep in this fast-moving class taught by a veteran of some 5,000 concert tunings. Included are Steve's pre-concert checklist with voicing and regulating tips, as well as a discussion of tuning technique and how to do a concert tuning that holds through the concert. This class was a favorite at the PTG Annual Convention in Kansas City last summer.

THE ART & AESTHETICS OF VOICING 🛛 🖗

David Andersen

Half "chalk talk": where you need to BE, internally and with your craft, to voice properly --- how to start and rapidly improve in building a tonal memory---the key to voicing -- how your own ears can & will become the greatest tool (along with your fingertips) in your arsenal. Half "how-to": listening critically, the proper test blow, an acupunctural, highly specific approach to needles in hammers, filing hammers, packing (smacking) hammers, leveling strings, increasing blow distance, ironing, repinning - the entire armamentarium of techniques David has used to create beautiful piano tone.

ADVANCED VOICING - LANGUAGE, THEORY, AND

TECHNIQUE 000

David Barr, RPT

David will look at the unique challenges of voicing. What is good tone? It cannot be defined, it can only be described. It varies depending on the instrument, the music, the performer, and the acoustic space. It has a scientific foundation but bridges into art. This class will separate the elements of voicing into a workable, systematic approach. It will give you a solid understanding of the subject, language so you can communicate with the pianist, a methodical approach to diagnosis, and techniques that get results.

MASTER CLASS IN KAWAI VOICING ④ TT

Don Maninno, RPT (Kawai USA)

This program provides an opportunity for hands-on learning of voicing techniques. Participants are selected from the audience to try actual voicing techniques in front of the class. After an introductory discussion of Kawai hammer construction and voicing techniques, the class will be guided through the process of building the tone in selected new (unvoiced) hammers in a Kawai grand piano. Participants should bring their own tuning hammer and voicing tools.

WHOLE TONE, OPEN STRING TUNING 🍩 2000

David Andersen

A huge percentage of what we do on a daily basis involves tuning and listening to piano tone. As time goes by, it is easy to "go on automatic" – easy to lose the thrill, fun, and focus of throwing a great tuning on a good piano. Virgil Smith has been my tuning mentor for a number of years, and I am pleased to continue and champion his methods and protocols along with some of my own. This class gives you lots of practical everyday tips and tricks for improving your tuning.... The entire class is pointed towards doing and hearing rather than talking and thinking; it's interactive, so come prepared to be involved. Everyone sits close to the piano and is able to hear the temperament being set, and hear the unisons being tuned. You DO hear the difference. Let's have some fun.

...Brand-New!!

CRAFT

Sweeten the Sound...

TUNING STABILITY INTO YOUR CLIENTS' PIANOS

Don Maninno, RPT (Kawai USA)

This class covers many aspects of the tuning stability problem, especially pertaining to new (or newly restrung) pianos. Tuning technique, proper string seating, pitch raising and other aspects of the technician's work will be discussed and demonstrated. Also reviewed will be the many other factors which can contribute to tuning instability, and the best ways to deal with them.

PUNCH DRUNK UNISONS 🔅

Bill Ballard, RPT (William Ballard Piano Service)

Want to know how a tuning can take a pounding and still stand tall? It's a matter of the flow of tension, and the interaction between tuning pin and string. "Mr Bill" will give you the needed set of fundamental mechanical principles to guide your hammer technique.

INTRODUCTION TO REYBURN CYBERTUNER AND AURAL TUN-ING FOR THE ETD USER 👘

Dean Reyburn,, RPT (Reyburn CyberTuner)

In this class we quickly cover RCT basics, then demonstrate using RCT's Smart Partials analyzing a piano's inharmonicity to create smoother transitions at the breaks, and converging the ear's aural preferences with a machine's digital decision making using RCT's Custom Equalizer tool. Then we'll cover verifying your tuning device's tuning, combining an aural temperament sequence with ETD use, and aural error detection.

THE FINEST CUSTOMIZED TUNINGS WITH

AURAL/SAT III METHOD 000

Paul Sanderson & Al Sanderson,, RPT (Inventronics)

Paul and Al will demonstrate features that make it easier than ever to customize tunings to fit pianos exactly. The Double-Octave Beat (DOB) control on the SAT III has been a very popular way to work with aural tests to adjust for octave- and double-octave stretch painlessly on the fly. Learn how to use this control like the experts. Even if the customer forgot to mention that they need a Werckmeister III temperament for the concert, you can easily create this tuning while following your familiar aural sequence. Overcome obstacles while keeping your schedule intact.

TUNELAB FROM A TO G

Mark Dierauf (New Hampshire Piano)

Start with the basics: software installation, customize Tunelab's various options, take samples and set up a tuning curve. Then pitch raise, select octave types, Tunelab for aural tuners, and tweak the tuning curve to match the piano. New to Tunelab? There's plenty to learn. An old hand? Come and share your favorite tips & tricks!



In The Shop...

RESTORATION FROM A TO Z

Shawn Hoar (Shawn's Pianos)

Follow a "soup to nuts" restoration of a vintage Steinway grand in Shawn's rebuilding shop. Included will be a plethora of tools, technology, jigs, fixtures, and cabinet restoration. Shawn will give an overview of his many years of shop experience that have led to a successful piano restoration and sales business.

THE GRAND PIANO PINBLOCK REPLACEMENT $(\Phi \circ \bullet \bullet TT)$

Andre Bolduc, RPT and Christian Bolduc (Les Pianos Andre Bolduc) Before your eyes, André and Christian will replace a grand pinblock. You will see how they remove the old block using the Bolduc Pinblock Extractor. Everything will be done in one day - removing the old block, fitting the new one to the plate, drilling, cutting, and gluing the new one in!

Grand Action Restoration - Raising the Bar

PROJECT MANAGEMENT FOR PIANO TECHNICIANS

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Chris Solliday RPT

This class describes the process of planning and managing time and resources during service calls and shop projects; including the use of Gant charts, flow charts, and computer programs to assist you in becoming more efficient.

BACK ACTION MASTER CLASS: DAMPERS FROM THE BOTTOM UP (1) **TT**

Jude Reveley, RPT (Absolute Piano Restoration)

Held at his shop in Lowell, Massachusetts (½ hr. from Nashua), Jude will cover building back actions from the various kits, rebushing guiderails, and basic damper regulating procedures. Each student will assemble their own model of a damper tray, underlever, guiderail, and damper; which can then be used as a jig for future installations.

THE GRAND ACTION: ASSESSMENT TO

TOUCH DESIGN $\textcircled{0} \bigcirc TT$

Robert Marinelli, RPT (Pianotek Supply Co.) & Chris Solliday, RPT

This all day Pianotek Masters Class is a grand action renovation journey designed to equip technicians with techniques to remedy problem actions already in service and those that are ready for renovation. The class will be guided through the methods of analysis, diagnosis, and design to successfully balance action models. The three pronged protocol of applied action geometry, friction analysis, and final touch design form the foundation of this class. Teams will take and interpret relevant measurements to identify the action ratio for component balancing. Participants will gain a keen understanding of the cause and effect of choosing replacement parts. Small groups and the personalized attention of multiple instructors make this class highly successful.

KEYBOARD RESTORATION

Michael Morvan (Blackstone Valley Piano)

This class will give an overview of the many procedures involved in restoring keyboards. Topics include: applying new (pre-ban) ivory and plastics to naturals; restoring original ivory; restoring or replacing sharps, bushings, and the mortise relief cut; button and mortise replacement;, pin and balance hole replacement; the build-up of keys (tops, sides and fronts) to correct spacing or inadequate repairs; and choosing the proper glue for keyboard repairs. Blackstone Valley Piano has recently implemented CNC technology using CAD and CAM in their piano and organ parts duplication, keyboard fabrication, and keyboard restoration. These innovative new technologies will be addressed as well.

HAMMER WEIGHT MANAGEMENT

David Stanwood, RPT (Stanwood Piano Innovations)

Hammer weight is the most fundamental component of action design and its effect on tone and touch is profound. David will cover the latest methods for matching hammer weights and ratios; then produce hammer weight specs with either computer based applications using spread sheets and graphics or non-computer based methods using charts and tables, as well as methods for adding/subtracting hammer weight (including prepping hammer weights prior to hanging and modifying weight on hammers already hung). This class will investigate the effects hammer weight have on the touch and tone of a piano, and then assess the change cause by clipping 1 gram weights to each shank.

STEINWAY ACTION REBUILDING

Kent Webb (Steinway & Sons)

Kent will discuss current parts production and recommended applications for maximizing repairs utilizing Steinway parts. Interchangeability, geometry, and comparisons of Hamburg parts and New York parts will be examined. Customers want the assurance of genuine Steinway parts in their pianos that are repaired or rebuilt. Don't miss this chance to gain valuable information that will add to the quality and value of the restorations you perform.

WESSEL, NICKEL, & GROSS COMPOSITE ACTION PARTS $\bigcirc \circ \bullet \bullet$

13 @ 00

Bruce Clark (Mason & Hamlin Co.)

(PART 1) BASICS OF ACTION GEOMETRY This class will establish basic concepts of action geometry as well as the terminology used in the second period of this class. Included are fundamentals concerning leverage, action center locations, and the benefits of half stroke design. At the end of this class students will have a basic understanding of the process of engineering an action into a piano as well as the language to be used in the second period of this sequence.

(PART 2) ACTION INSTALLATION USING ACTION GEOMETRY

This class targets installation details for the new WNG action parts. Included are procedures for measuring the basics for strike line location, key line, and key proportions; these are required to utilize the new geometry features of the WNG action parts. Also covered are frame fitting, frame location in the piano, and positioning the action stack on top of the keyframe so that the hammers will achieve the proper strike line. Then capstans will be relocated to achieve proper position under the action parts for both half stroke and leverage ratios. These new WNG action parts have been designed from the ground up to solve geometry problems common to many older pianos. All this and more!

INSTALLING THE RESTORED GRAND ACTION Chris Brown, RPT (Concord Piano, Inc.) 2000

A successful installation requires a good strategy, preparation, and implementation. You can exceed customer expectations by methodically doing the job. A sequential outline offers a very helpful path to follow, while overview considerations reveal the tactical benefits to customizing this route. With thirty years experience in shop and field, Chris will tell you all he knows.

WHAT DIFFERENCE DOES IT MAKE?

Steve Brady, RPT (Steve Brady Piano) OOO

This is a class on grand action regulation, but with a special slant. Each aspect of regulation will be examined for what happens if you go too far in either direction, how this is felt by the pianist, and why "just right" is just right. If the repetition lever is set too low, how does the pianist experience it? If it is too high, how does that impact the pianist?

PIANO PHYSICS

Doug Kirkwood, RPT (Piano Horizons)

To understand how a piano works, one will need to know physics - the design of a piano action, its interactions, and how it otherwise functions are based on these fundamentals. From the perspective of high school level physics, this class will examine how this science is utilized in action design, tone control, and tuning. When coupled with basic principles of wood technology, one can easily comprehend how things work in a piano action (good and bad) and determine how to fix them when things have gone wrong. Thus a good foundation for trouble-shooting actions is provided, as well as one for preparing concert instruments for a particular program or artist.

CRAFT

FINDING A NEEDLE IN A FELTSTACK -TONE REGULATION DEMYSTIFIED 🥨

Dean Garten, RPT (Flugelbauer Piano Supply)

The goal is to alleviate the fear of modifying the tone ("voicing") of pianos. Whether you are just "fixing" a note or two or completely changing an instrument's character; some techniques work better than others. Using the right tools is essential for good, consistent results. Learn proper techniques for prepping hammers and preparing the entire piano prior to needling to maximize results. You will leave this class with confidence in your abilities and you'll be ready to sell that voicing job when you get home!!!

PIANODISC: NEW PRODUCT SERVICE AND MAINTENANCE 2000

Miguel Zarate, RPT (PianoDisc)

For technicians already familiar with PianoDisc Systems, this class will focus on new products, service and maintenance. (Class size limited to 20)



Upright Endeavors...

A PRACTICAL APPROACH TO VERTICAL REGULATION ⁽¹⁾ Dean Garten RPT

This class will focus on the most common regulation issues in new vertical pianos. Keyboard preparation (key easing and fitting), use of tools and lubricants, and efficient ways to evaluate and correct problems will be addressed. Key regulation points and constants will be covered as well as the positive or negative result when regulation items are changed. Our goal is to give the technician a working knowledge of vertical action function so that problems can be easily resolved in practical situations - even without complete measurements, specifications, and instruction manuals.

SPINET, CONSOLE, OR UPRIGHT: THE (PROFITABLE) MIDLIFE SERVICE Chris Brown RPT (Concord Piano)

Ever thought to offer a customer this service? In 16 to 18 hours, you can transform a nasty, unreliable piano into a highly playable, great sounding, and dependable musical instrument. And make your hourly rate doing it! Hear Chris pitch this job, and see how he achieves the desired results.

VERTICAL PIANOS, SERVICE AND TROUBLE SHOOTING OOO Kent Webb (Steinway & Sons)

Kent will discuss the various problems, their causes, and the repair techniques associated with the vertical piano. Included will be noise diagnosis, regulation tips, touch analysis, and other items we encounter in our service schedules. The vertical piano remains the most commonly encountered piano we service today. Be sure not to miss this essential class on this important aspect of our market.

STEINWAY UPRIGHT ACTION PARTS REPLACEMENT Wally Brooks RPT (Brooks, Ltd.)

This class will cover replacement of parts in the Steinway upright; including new dampers and levers, butts, whippens, hammer installation, and regulation.

(2)

VERTICAL PIANO CONSTRUCTION Wally Brooks RPT (Brooks, Ltd.)

The basic construction of a back, sounding board, bridges, keybed, action, keys, and case of a vertical piano will be reviewed in this class by use of slides and models.

RECAP AN UPRIGHT BASS BRIDGE WITHOUT

REMOVING THE PLATE

Andre Bolduc, RPT and Christian Bolduc (Les Pianos Andre Bolduc) An easy way to replace split bridge caps on uprights without using epoxy or other glues to fix bridge pin problems. Learn how to build a jig over the plate to remove the old cap and glue in the new one. This technique can also be applied to grand pianos.

Down to Brass Tacks....

BUILDING A \$125,000 PIANO SERVICE BUSINESS David Barr RPT

This is a different approach to taking a business to the next level: Any successful businessman needs skills in three key areas; technical, business, and people. In a service business, technical skills are our product. Business skills are the methods we use to manage our time and assets. And people skills are the way we present ourselves to our clients and interact with them. This class will focus on how our beliefs, purposes, and attitudes end up strongly affecting the bottom line

PROJECT MANAGEMENT FOR PIANO TECHNICIANS

Chris Solliday RPT (Listed in "Grand Action Restoration")

INNOVATION

Rib Crowned & Supported Soundboards — A New Paradigm?

THE BELLY OF THE BEAST 🚳 🖲 **TT** Ron Nossaman RPT (Piano Revolutions)

> Various options in the design, construction, and assembly of soundboards and bridges will be considered, then how these choices affect performance and longevity discussed. Soundboard size, cutoff bars, panel compression, grain angles, rib configurations, bridge construction features and p[™]lacement, capping, string terminations, and setting of bearing (and its effect on tone) are covered.

CONSTRUCTION OF THE RIB CROWNED

& SUPPORTED BELLY 🗳 🖲

Terry Farrell RPT (Farrell Piano)

Terry will cover the steps involved in building and installing major components of the rib crowned and supported piano belly. Procedures for building radiused laminated ribs, soundboard panels, rib panels, cut-off bars, fish, loose foot, laminated bridge roots, laminated bridge caps, plate modifications, vertical hitch pins, and rim modifications will all be discussed . Several tasks will be demonstrated during the class; including panel jointing, and rib and bridge laminating; among others. Installation of these components will be addressed. (To Follow NOSSAMAN "Belly of the Beast")

(Below Classes Listed in "Grand Action Restoration")

WESSEL, NICKEL, & GROSS COMPOSITE ACTION PARTS 😳 000 Bruce Clark (Mason & Hamlin Co.) (PART 1) BASICS OF ACTION GEOMETRY (PART 2) ACTION INSTALLATION USING ACTION GEOMETRY

KEYBOARD RESTORATION

Michael Morvan (Blackstone Valley Piano)

HAMMER WEIGHT MANAGEMENT David Stanwood, RPT (Stanwood Piano Innovations)

