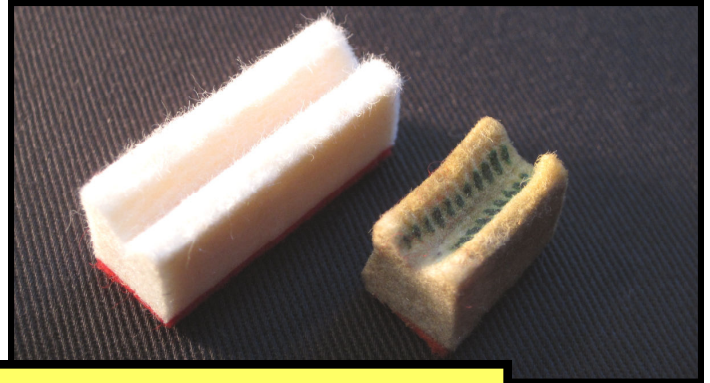


A close-up photograph of a piano's damper mechanism. The image shows several dark, polished metal damper flippers on the left, which are curved and positioned over a series of parallel copper-colored strings. The strings have a fine, textured surface. The background is slightly blurred, showing more of the piano's internal structure. A black rectangular box with a white border is superimposed over the upper portion of the image, containing white text.

# Grand Damper Replacement Promo Set Preview

# The Piano Owner's Heads-Up Guide to Important Piano Maintenance

## Focus On: Grand Damper Replacement



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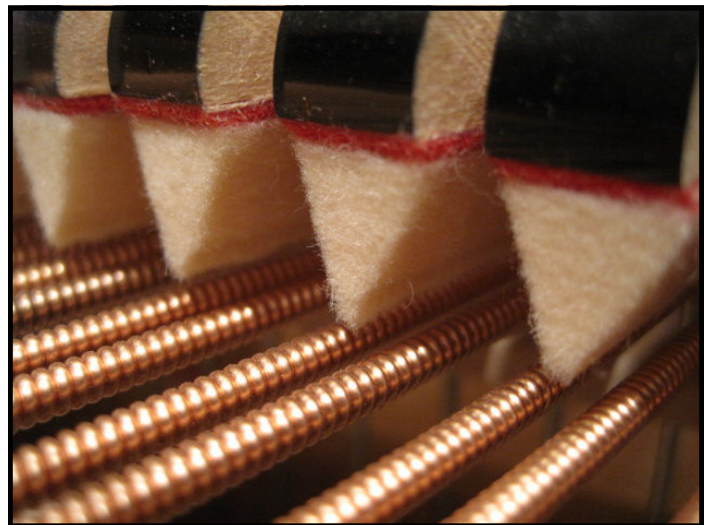
ordered or  
, rendering  
replacement  
of the old dampers with new dampers (above  
left) is the best option.

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**Dampers are to a piano what brakes are to an automobile.** While the action, strings and soundboard of the piano are all devoted to the production of sound, the sole purpose of the dampers is the cessation of sound. Because of dampers, a grand piano can go from a thunderous crescendo one second to nearly complete silence the next.

High-quality dampers have the ability to absorb the energy of strings hundreds of times as massive as themselves and to quell the collective vibration of those strings in a split-second. For this to happen, the material those dampers are made from must be firm enough to hold its shape but soft enough to instantly muffle the sound of the strings.

**The dampers on your grand piano have reached the point in which their effectiveness has been compromised by wear and tear. Replacement of the old damper felts with a set of new high-quality dampers is the solution.**



There is always a great deal of fine adjustment involved with this job. The dampers must lift as a unit (above photo), giving the appearance of all being solidly connected. When the dampers lift, individual damper heads should not be seen swiveling one way or the other in random directions. Most importantly, when the dampers make contact with the strings upon release of the pedal, they must all touch at exactly the same moment for cessation of sound to be precise. It's a job for the professional piano technician.

**Heads-Up Preview**

# About This Preview Packet

The 24 main topics available for your free personalized promo or newsletter set all come in 2 versions—heads-up and full-length, both of which are shown in this preview packet.

**Heads-up versions** (see example on previous page) are always 1 page in length and as such are very direct and to the point. These shorter versions work especially well for pianos which have a number of repair issues in that a packet of them can be included with an estimate without creating a perceived overload of information for the owner. For my own business, I print multiple copies of heads-up for every topic covered thus far and carry several of each with me in my briefcase on tuning rounds in case I need to put a packet together. I spend a little more on printing expenses to have them produced on heavy-weight card stock, but the extra expense is well worth it, at least in my opinion—the promos have a very substantial 'feel' about them on the heavier-weight paper.

With a written estimate accompanied by relevant heads-up promos, a well-informed decision can be made more easily at the owner's leisure. This is especially helpful when the decision (to repair or not to repair) involves a discussion between joint owners of the piano—a husband and wife for example. The couple can sit down at the kitchen table together and go over the materials in an informed manner. Also, heads-up promos are great for any situation involving committees. If a half dozen repair topics are involved in a proposed restoration of a church piano, for example, the heads-ups can be passed around among committee members for everyone to become involved in the discussion and decision making.

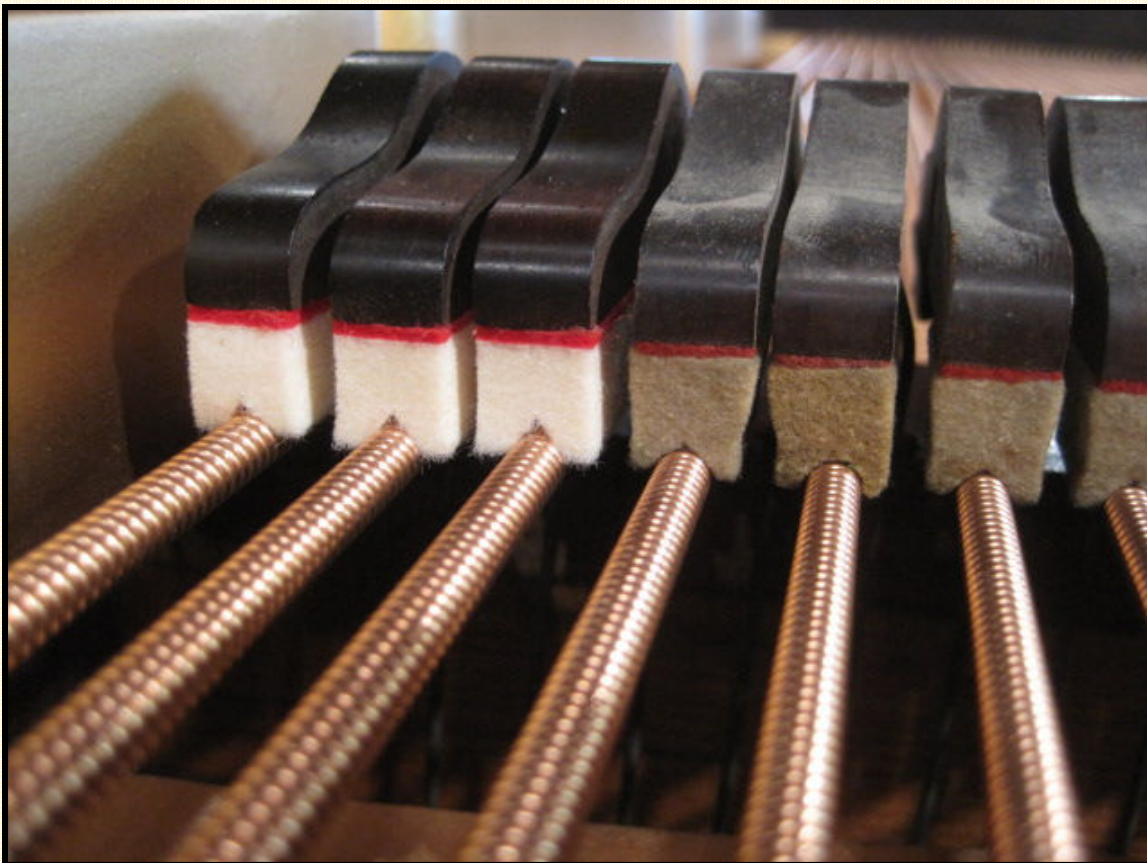
**Full-length versions** (see example on following pages) go into enough detail that even your most discriminating customer will be satisfied. For my own use, I've printed off a single copy of each full-length version that I have in a binder which I also carry in my briefcase. Occasionally, I get my binder out if the customer wants more information on the spot. More frequently, however, are situations in which I ask my customer if they would like me to send the full-length copies of the topics concerned via email for further reading and consideration. Quite often customers do opt to see the in-depth materials.

Whichever version of the promos are put to use, the fact is that they work! In my own business, since I have begun giving out promos with estimates, the percentage of clients having recommended repairs done has increased steadily. In 2011, over 90% of the estimates which I gave were followed through with. Before promos, those types of numbers were way beyond what I ever saw. Other users of promos (see testimonials) have experienced similar results. Technicians have reported back that because of the promos, their businesses are doing better than ever before.

But enough about my own experiences and those of other technicians. Try a promo set out for yourself! Pick out a topic for your free promo set, and let us help you start building upon your own success story! Best wishes to your future!

# **Full-Length Preview**

## **The Owner's Guide to Piano Repair**



### **Focus On: Grand Damper Replacement**

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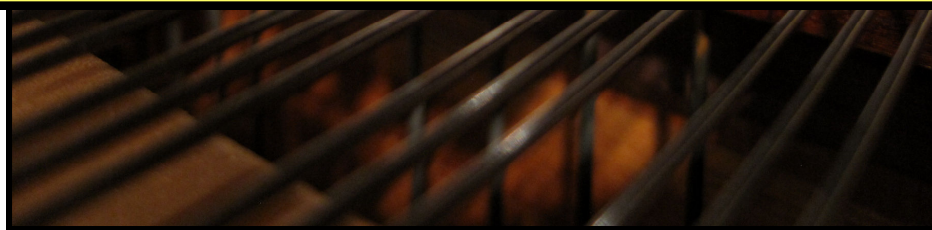


**Dampers are to a piano what brakes are to an automobile.** While the action, strings and soundboard of the piano are all devoted to the production of sound, the sole purpose of the dampers is the cessation of sound. The fact that a grand piano can go from a thunderous crescendo one second to nearly complete silence the next is a testament to the genius of the design of the grand damper. **The dampers on your piano, however, have reached the point in which their effectiveness has been compromised by wear and tear. Replacement of the old damper felts with a set of new high-quality dampers is the solution.**



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**The following commonly asked questions have been answered to give you the information you need in order to decide whether or not to have me replace the dampers on your grand piano.**

**What are the symptoms of dampers which have excessive wear and tear?**

Just as worn-out brakes on your car announce their condition with unwanted sounds that are characteristic of the problem (high-pitched squealing or scraping noise upon braking), so will worn-out dampers be detectable by what's heard when the piano is played. Specifically, when the sustain pedal is released, the transition from sound to silence won't be immediate, but will be more prolonged than usual—a symptom of ineffective dampers unable to quickly absorb the energy of the strings. Also, when individual notes are played, a faint "zinging" sound might be heard after the note is played as the strings buzz for an instant against the harder than normal surface of the old felt.



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**How do effective dampers work, and what happens to them physically as they wear out?**

A damper has the ability to absorb the energy of a string hundreds of times as massive as itself and to quell its vibration in a split-second. For this to happen, the damper material must be firm enough to hold its shape (damper on left in above photo) but soft enough to instantly muffle the sound of the strings. Precision alignment of the dampers on the strings is also a necessary factor.

Dampers often become hardened or misshaped with age, as seen with the damper on right in above photo. The treble dampers in the photo to the side illustrate clearly why worn-out dampers do not function as intended. In such a case, replacement of the old dampers with a new set is the only option.





## What's the typical procedure for this job? Is this a repair that must be done in the workshop?

Unless the piano is in the workshop for an extensive restoration work, there is no reason to transport the instrument to the shop. However, it may make sense to take the damper assemblies to the shop for at least part of the work to be done.



To access and remove the damper assemblies, the case will need to be disassembled to the extent that the action and keys may be drawn out of the piano. After removing the action from the piano, each damper will be taken out in order by loosening the set screw which holds the damper wire in place.

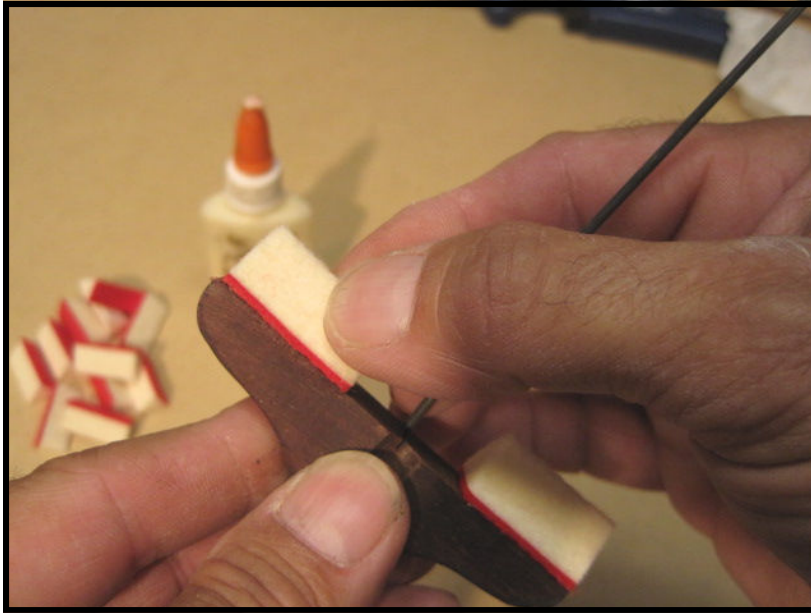
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The damper felts (the damper heads) are ordinarily saved. The old felts are removed with a sharp chisel. While this job could be done in the home, the tools and equipment of the shop (such as the bench vise being used in the photo to the right) make the process simpler and more precise.



The lower surface of damper head is then scraped and sanded clean. The upper surface of the damper head may be cleaned and polished if the original lacquer finish is still in good shape. Otherwise, the old finish may need to be stripped off, so that a new lacquer finish can be applied (**note-extra work =extra cost**). A final step will be the polishing of the damper guide wires.

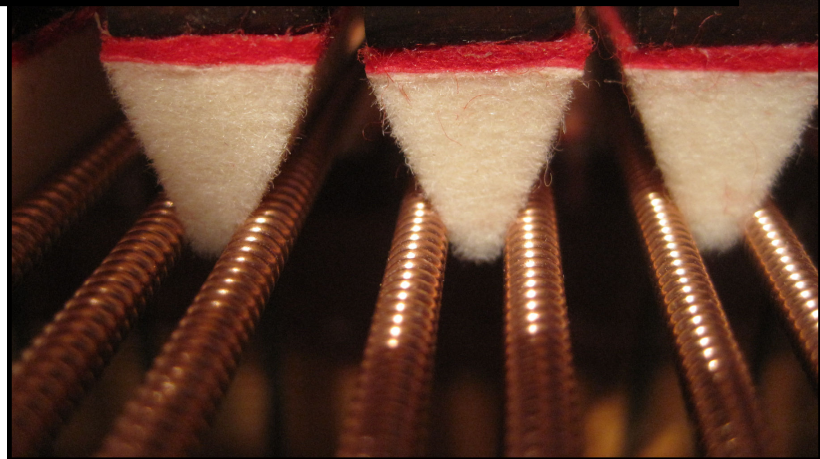


Once the damper heads and guide wires have been attended to, new damper felts will be glued in place, usually at the piano. High quality, precut damper felts are available for many grands. At other times, felt may be cut from strips so that the length of the dampers is precisely fitted to the damper heads.

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Ma  
preferred  
reinstall the  
heads and wires in the piano, then glue the damper felts in place, using the strings themselves to serve as the clamps while the glue dries. This way, alignment of the felt to the strings is sure to be precise.



#### **Do other repairs go hand-in-hand with the installation of a set of dampers?**

Yes. If the piano is in need of restringing, now would be the time to do it in that the two jobs compliment each other. Since the dampers conform to the strings (especially the wound bass strings shown in the photo above), it makes sense to have new strings and new dampers installed at the same time.

Additionally, the condition of the damper guide rail should be taken into account. If the bushings that the damper wires pass through are worn, this would be the obvious time to rebush the guide rail.





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Once the damper felts are properly adjusted, the damper heads should lift as a unit (above photo), giving the appearance of all being solidly connected. When the dampers lift, individual damper heads should not be seen swiveling one way or the other in random directions. Most importantly, when the dampers make contact with the strings upon release of the sustain pedal, they must all touch at exactly the same moment in order for cessation of sound to be precise.

Complicating this adjustment is the fact that different types of dampers are used for different sections of strings, and the profiles of these various dampers are not the same at all. In the photo to the right are shown single wedge dampers (used for the largest bass strings), double wedge dampers (used for notes with a pair of bass strings), trichord dampers (used for larger steel treble strings), and flat treble dampers (used for smaller steel treble strings). Obviously, a great deal of fine adjustment is necessary to make all these parts perform in unison with one another.





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*A new set of dampers installed and ready quiet things down when needed.*

**"In business to bring your piano to its full potential."**

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