# **Club Repair** LET'S TALK BASICS





\*Ralph Matlby Is the author of a new book on the repair business, Golf Club Design, Fitting, Alteration & Repair. Maltby is currently vice president of marketing for Faultiess. He previously owned his own repair and custom club shop. Some of the simplest repairs take only minutes. Above, the whipping of a wood head can be done quickly with either braided nylon or monofilament type. To the left, the process is completed, as the end of the whipping thread is pulled taut and the end is cut fush by a razor.

#### by RALPH MALTBY\*

Faced with a rapidly changing business, keen competition from "downtown" stores and the marching technology of his industry, the golf professional sometimes feels confused and wants to know what that does or this does or is it really all "baloney."

The pro is part of a confused recessionary economy that not only is concerned with Eurodollars and Pedrodollars, but with golfodollars. Sure, golfers will keep playing the game and continue to bludgeon, misplace and drown that little round "bread and butter" item, but will they buy the "steak and champagne" merchandise: clothing, clubs, shoes and bags.

This brings us to the question of what can the golf professional do to help himself through the tough times and even more importantly, benefit himself and his golfers all of the time. One answer could be to get into the club repair business. Many pros feel that club repair takes too much time and effort for the money involved. Nothing could be farther from the truth. Careful planning is all that is necessary to adapt club repair profitably to your particular business operation.

There are six basic reasons why a club professional should get into the repair business:

1. A golf pro who has practical club repair and alteration knowledge adds an extra dimension to his club fitting ability because he has a much better understanding of golf club mechanics and consequently can evaluate the golfer's needs with more expertise.

2. A golf pro is located where the game is played and also where the clubs are damaged or worn out. This makes him the most logical person to go to when a club needs repair. Thus, an instant market.

3. By doing club repair, the golf pro can keep better track of his members' equipment which could

## Club Repair Continued

provide him with timely information to sell the golfer newer, better or more properly fit clubs.

4. The golf market is huge. Add to this a steady growth rate and divide by the total current U.S. repair facilities and you have an answer that says "there's room for a lot more good ones."

- Look at these U.S. statistics:
  - \* 12<sup>1</sup>/<sub>2</sub> million golfers
  - \* 220 million rounds of golf played annually
  - 10,500 golf courses with pro shops
  - \* 12,000 golf equipment retail outlets
  - \* Estimated 650 repair facilities
  - \* 43 golf equipment manufacturers producing approximately 14 million individual golf clubs per year

5. The golf pro's competition comes from manufacturers who have always been involved in repairing golf clubs of their own manufacture. The main complaint from golf professionals concerning the manufacturers' repairing clubs is the amount of time it takes to ship the clubs in, have them repaired and returned. This whole process can take from four to 12 weeks. If a member's club breaks down in the middle of the golfing season, the owner may not have use of it again until there is snow on the ground. The customer or member is usually dissatisfied with the pro who sent them to the factory, and the pro is not happy with the manufacturer's service. In all fairness to the manufacturers, they probably want to encourage the golf professional or anybody else to enter more strongly into the repair business and remove this burden from them. This would allow manufacturers to concentrate more heavily on the fast growing custom golf club segment of the business. Most manufacturers willingly supply their exclusive components at a fair price for repair of their golf clubs.

6. Every golf professional is concerned about cash flow at certain times of the year, whether he is in a northern climate or a year round golfing climate. Winterizing, general repair, and off season work can provide those extra dollars to smooth out a normally cyclical cash flow situation.

Installing new grips is another regular service of most repair shops. The first step, top, is to remove the old grip with a sharp knife, after tightening the piece into a vise. After the new grip is placed, a solvent is injected. At bottom, the grip collar is attached.



There are other reasons but these six should give you some insight into the advantages club repair can offer the golf pro.

Should you now decide to get a little more serious about the golf to page 18

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repair business and want to know more about it contact the Professional Golfers Association and find out what the Education Department has scheduled for PGA members. Under the leadership of its Director, Gary Wiren and others in the Educational Department, such as Joe O'Brien, the PGA offers its members various types and levels of business schools and also indepth workshops. Repair, fitting, design, and construction of clubs are only some of the subjects discussed.

#### GETTING STARTED IN THE REPAIR BUSINESS

Pros often ask, "what equipment should I buy to get started?" This is difficult to answer without asking questions such as:

- \* How large an area is available for a shop?
- \* Do you want to do all repairs and alterations or just do a few?
- \* How much money can you spend?

- \* How much business do you intend to go after?
- \* Will you eventually expand into custom club making?

So as to not avoid the subject entirely, below is a list of equipment that will at least give you a good start doing the basic repairs:

	Cost
Propane Torch	\$ 8.00
Vise (at least 4" jaws)	15.00
"Official" swingweight	
scale	30.00
Phillips Screwdrivers	
2 sizes	3.00
Regular Slotted Screw-	
drivers 2 sizes	3.00
Bulge & Roll Measuring	
Gauge (Kenneth Smith)	3.00
Machinists Protractor for	
Measuring Lofts	5.00
Padded Vise Pads	1.50
(Kenneth Smith)	1.50
Hammer	5.00
Assorted Pin Punches (1/8",	1.00
1/16", 3/16")	4.00
Shaft Butt Gauge	EDEE
(Eaton Corp.)	FREE
Shaft Vise (Kenneth Smith,	



Lamkin, Magco, or Day		
Products) 2.50		
Assorted Files 7.00		
Awl 1.50		
Sanding Cone Mounted on		
1/3 HP Motor (Kenneth		
Smith) 7.00		
Electric Drill and Bits 20.00		
Buffing Wheel (will mount		
on 1/3 HP Motor above) 3.00		
1/2" Chisel 2.00		
Basic materials:		
Epoxy (for shafts, inserts, etc.)		
Polyurethane Finish, dip or		
spray (Kristal Kraft)		
Sandpaper (assorted)		
Toothpicks (used to tighten		
loose screws)		
Napatha (for putting on grips)		
Double-sided Tape (for putting		
on grips)		
Assorted Brass Flathead Phillips		
Screws		
Wooden or Metal Shaft Exten-		
sions		
Buffing Compounds		
Whipping Thread (Nylon) Touch-up Quantity of Black,		
Touch-up Quantity of Black,		
Walnut & Mahogany Stain		
Wood Filler		
Various Manufacturers' Decals		
(usually free, just write)		
It seems that many pros find it		
difficult to locate the basic repair		
components and special equipment		
for repairing, checking or altering		
clubs.		
THE "HOW TO" OF MINOR		
CLUB REPAIRS AND		
ALTERATIONS		

When a club comes in for repair you should first inspect it for other problems. It'll amaze you how many times you will find other repairs which should be made to prevent a serious problem later or will correct a hidden problem now. To properly inspect a club you should do the following:

To check for a loose head, grasp the grip end of the club in one hand and the head in the other. Gently twist back and forth in opposite directions and listen for a creaking sound or you may actually feel the head move back and forth. This test will also tell you if the grip is loose if it turns in your hand. Next, check for rattles in the shaft by putting the head end down, then up and repeat. Rattle within the head itself can be detected by holding the grip end of the club in the left hand very loosely and gently dropping the head end on a wooden or tile floor or rug from a height of five to six inches. A tinny, vibrating sound will be heard if there is something loose. The remaining checks are visual. Look for loose inserts; loose sole-plates; frayed or broken whippings; and also for chipped or open finishes which could allow moisture to enter during wet playing conditions or allow drying out during arid playing conditions or winter storage.

#### **REWHIPPING WOOD CLUBS**

Remove the old whipping and remove any unevenness or varnish buildup from the hosel with sandpaper if necessary.

The new whipping should be sealed against the hosel. Use either regular varnish or some clear wood head finish and apply a light coat on top of the hosel before applying a new whipping.

You are now ready to apply the whipping. The larger .022 diameter size in black is generally recommended. Either the braided nylon or monofilament type. Lay approximately one half inch of whipping on the top portion of the hosel and begin winding over it. Keep winding down the hosel being careful to butt each successive winding tightly to the one before it but not to allow it to overlap. When you have wound the whipping down to the desired length cut it off about 12 to 15 inches longer. Unwind or back off the whipping five or six turns, take the end of the whipping thread and lay it on the back of the neck facing up the shaft and loop the remaining portion of the whipping five or xi times over it and the head.

Lastly, pull the end of the whipping thread taut and cut the end flush with a razor or sharp knife.

#### REFITTING A LOOSE OR OPEN SOLEPLATE

The wood head must be securely fastened in a vise before attempting to remove a soleplate. Use vise pads to keep from damaging the head.

With the head secured, clean out the screw slots and remove the soleplate screws. Do not force the screws if they do not come out easily as this will either damage the slot or break the screws. Most manufacturers use epoxy to bond the screws and soleplates to the head. To remove epoxied screws, use a propane torch with the flame turned very low. Direct the flame to each screw head and heat for a few seconds. Be careful to angle the flame into the center of the metal soleplate so as not to burn the wood. Wait a minute or so before attempting to turn the screws as it takes a few minutes for the heat to soften the epoxy.

Now, remove all the screws and remember to keep them in order so that they can be reinstalled into the same holes. DO NOT USE YOUR FINGERS TO TURN SCREWS WHEN THEY BECOME LOOSE BECAUSE SOLEPLATE SCREWS HAVE EXTREMELY SHARP EDGES WHICH WILL CUT LIKE A RAZOR.

The soleplate should lift off easily, but sometimes it is necessary to insert a knife blade between the soleplate and the insert, prying gently. In exterme cases, more heat can be applied to the soleplate to help release the epoxy bond.

Next scrape off all grass, dirt and loose epoxy from under the soleplate and also from the soleplate cavity.

To replace the soleplate, first mix the epoxy, then coat both the soleplate and the wood with epoxy and place the soleplate in position. Next, coat each screw and firmly seat in place.

If the screw threads in the wood are stripped and the screw will not tighten properly, try this little trick: Remove the screw and push wooden toothpicks into the hole and break them off just below the top of the hole. Generally, four to six pieces of toothpick will do the job. Now, coat the screw with epoxy again and reinstall it in the hole.

Again, remember to put the screws in their original hole so they will seat properly. If a new screw is used because the old one was damaged, you will need to file the screw head flush with the soleplate.

Finally, the soleplate and surrounding area will need cleaning up and the wood will need to be resealed. First, either lightly handsand or machine-sand the entire bottom of the wood. This blends everything back together, removes any burn marks, burrs and scratches and makes the bottom smooth. Touchup the wood area with a matching stain if necessary and then either brush, spray or wipe some clear golf club finish over the entire bottom to seal and protect it from abrasion and moisture. to page 38

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#### **REFITTING LOOSE INSERTS**

In most cases, the old insert is loose and removal will be easy. However, in some cases, the insert may still be glued or screwed into the head and the removal becomes more involved. Proceed as follows if this is the case. First, remove all face screws; drill heads off if they will not come out. Second, remove the soleplate. Third, fasten the wood head securely in a vise using vise pads with the face of the club pointing up. Since the soleplate has been removed the insert is visible from the bottom of the head. Working from this point, use a one half inch wood chisel with a bevel up and place it on the separation line between the insert and wood. Tap the chisel gently with a hammer until the insert pops out. This a delicate operation and should be done very carefully so as not to chip or split the wood from around the insert.

Before replacing the insert, carefully remove any dirt or old adhesive from the insert cavity with a sharp chisel or knife. Also, scrape off any dirt or old adhesive from the insert and use a piece of 60 to 80 grit sandpaper to rough up the back and edges of the insert to assure good adhesion.

Next mix up a proper amount of epoxy and thoroughly coat both the insert and the cavity and reinstall the insert screws if any were used. If the insert does not have screws, use two or three pieces of masking tape to hold the insert tightly in place while the epoxy hardens. Let the epoxy cure overnight at a minimum temperature of 65°, preferably 75° or higher. After the epoxy has cured remove the masking tape being careful not to lift or peel the finish. Wrap a piece of 180 or 220 sandpaper around a flat file and gently blend the face and insert edges together, or until any lip around the insert edge is removed. Using a sharp razor-knife, remove any epoxy from the top and bottom portion of the insert.

Reinstall the soleplate as previously discussed.

For a final touch-up, lightly rub the entire head with grade 00 or 000 steel wool and then dip or spray a coat of clear finish over the entire head. Let the finish cure overnight and then wipe paint into the face grooves if desired.

#### CHANGING SWINGWEIGHTS WOOD CLUBS

First, remove the soleplate as previously outlined. Depending on whether swingweight will be increased or decreased will dictate if either adding or removing weight will be required.

The most common material used by club manufacturers for weighting wood heads is lead. Lead is available at most hardware stores or plumbing supply houses. To add lead to a wood club, use the following procedure: First, determine approximately how much lead will be needed and drill a hole in the sole of the wood head as required. A threeeighths inch diameter twist drill used to make a one-quarter inch deep hole will hold enough lead to increase a wood club by approximately two swingweights.

Melt the lead using any means convenient to you. A propane torch works well, or, use the electric ladle which Kenneth Smith sells for this purpose. With the wood head firmly fastened in the vise, pour the lead into the hole. Let it cool for a minute and then, temporarily, put the soleplate and the screws back in position. The screws do not have to be tight, just a few turns will do; however, be sure all the screws are used. Now, place the club on the swingweight scale to determine whether or not you will have to add more lead or drill some out.

Once the desired swingweight is obtained the soleplate and screws can be installed permanently.

After the soleplate is removed, weight can be taken out of the head by drilling out some of the lead in the sole. If a one-quarter inch deep hole is drilled with a three-eighths inch diameter twist drill, enough weight will be removed to reduce the swingweight by approximately two.

Reinstall the soleplate and touch-up surrounding area if necessary.

#### **IRON CLUBS**

There are very few irons on the market which are designed so that the swingweights can be changed as readily as on wood clubs. Listed next are four methods by which the swingweight of an iron club can be changed without altering other specifications such as length, heavier or lighter grips and so on:

- Method 1: Drill a small hole(s) in the head to reduce swingweight.
- Method 2: Remove shaft and drill out metal from bottom of hosel to reduce swingweight.
- Method 3: Add lead tape to the back of the head to increase swingweight.
- Method 4: Put weight (usually steel or lead) in the tip of the golf shaft to increase swingweight.

Methods 1 and 3 alter the cosmetic appearance of the iron heads (usually for the worse). Methods 2 and 4 will slightly alter the center of gravity of the iron head, either toward the heel or the toe.

The best method to increase swingweight is to use lead tape as it can be added low to the back of the clubhead and symmetrically from heel to toe so as not to alter the center of gravity for the worse and thus the general playing characteristics of the iron. As previously mentioned however, one must be willing to accept the altered cosmetic appearance.

#### INSTALLING RUBBER SLIP-ON GRIPS

To remove the old grip, first, insert the shaft in a rubber vise clamp, tighten it snugly in a bench vise, and using a strong, sharp knife cut the old grip off.

Be sure and remove any tape which is remaining on the shaft as this could affect the finished grip size. Leather grips can be slit in the same manner or unwrapped. Remove the underlisting and scrape the shaft clean. Older clubs with leather grips sometimes have a wooden bell plug in the butt end of the shaft. Do not remove this plug, but either sand, file or grind the bell portion down to the size of the shaft diameter.

Next, you must determine which size grip to use. To do this determine the shaft butt diameter by using either a vernier caliper, micrometer or the special plactic butt gauge which is available at no charge from Eaton.

The grip collar trim is the next item to check on. Sometimes you can save the original grip collar and use it again with the new grip. There are a number of different types of grip collars available and some repair shops even use black tape. Also, many of the newer grip styles are "Self Trimming" and do not require the use of a special collar trim.

If you desire a grip to be oversize you can do this by either wrapping on additional three-quarter inch masking tape or selecting the proper grip mandrel size. In most cases, it will be necessary to use tape. Next wrap one layer of double sided Miracle tape around the shaft or two pieces lengthwise if desired.

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Be sure to place a piece of tape over the end of the shaft so that no gasoline, naphtha, or whatever solvent you are using will enter.

Now plug the hole in the top of the grip with a wooden tee or other suitable object and fill the grip approximately one-third full with solvent. Next, pour the solvent out over the entire taped area of the shaft. Immediately pull out the tee or object plugging the end of the grip and slide the grip on the shaft until the shaft butt is tightly up against the end of the grip. Wipe off any excess solvent and trim off the starter bell at the bottom of the grip with a sharp knife. Before installing the collar, if needed, remove the golf club from the vise and place it in the playing position to see if the grip is correctly aligned with the club face. If not, simply rotate the grip using your thumb and index finger until it is in alignment. You only have a short time to do this before the solvent evaporates and the grip is permanently in place.

Lastly, wipe clean and let stand overnight before using.



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