THE GOLFWORKS®

Assembly & Operating Instructions For:

Maltby Putter Bending Machine

Code: **MA2012**

CONTENTS:

In the box you should receive the following:

- **1 Maltby Design Putter Bending Machine (MA2012)**
- **1 Adjustable Brass Non-Marring Bending Bar (BNMB)**
- **1 Putter Hosel Bending Bar (GW1058)**
- **1 Allen Wrench**
- **4 Mounting bolts with nuts**

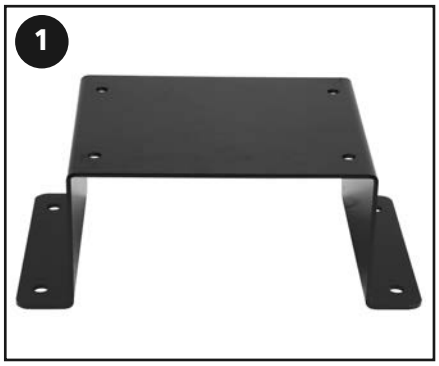
*It is recommended that the Maltby Putter Bending Machine be mounted on either the Bench Top Stand (MA2013) or the Floor Mount Stand (MA2003AD).

FEATURES:

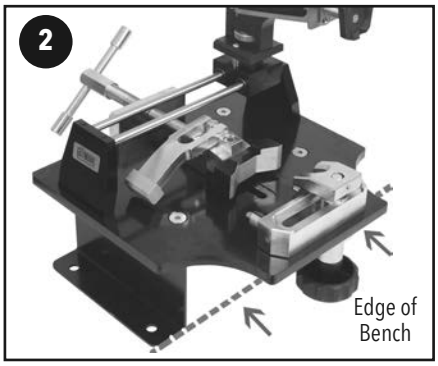
- **Easily clamps, measures and bends all right and left handed putters.**
- **Heavy Duty CNC milled components.**
- **Universal design eliminates the need for special attachments or disassembly regardless of the putter type. Traditional blade designs and modern oversized high MOI putters are equally easy to securely clamp, measure and bend.**
- **Smooth sliding protractor quickly and accurately measures the loft and lie angles of all putters.**
- **Firm rubber, auto adjusting, soling pads help level the putter head and protect the sole against dents and scratching during bending.**
- **Putter Hosel Bending Bar GW1058.**
- **Can be bench mounted using the MA2013 bench mount stand.**
- **Can be floor mounted using the MA2003AD heavy duty floor mount stand.**

The Maltby Putter Bending Machine (MA2012) was designed for the professional clubmaker. This machine needs no disassembly of parts or special attachments to safely clamp, bend and measure any right or left handed putter head. For the proper set up and operation, it is recommended the MA2012 Maltby Putter Bending Machine be mounted to either the Bench Mount (MA2013) or the Floor Mount Stand (MA2003AD).

SET-UP



The MA2012 can be bench mounted using the Benchtop mount (photo 1). If using the Benchtop mount, position the front the machine to the front of the work bench to give easy access to the top clamp knob (see photo 2).



The base of the machine has four countersunk holes that easily line up with the base holes. Four flat head bolts with nuts are included, along with an Allen wrench, for easy installation.

The MA2012 can also be mounted to the heavy duty floor stand (MA2003AD) that is designed to be mounted to a solid floor (see photo 3). (Bolts not included for mounting the stand to the floor. Consult your local hardware store for the correct anchor bolts for your particular floor type). The base of the machine has four countersunk holes that easily line up with the base holes. Four flat head bolts with nuts are included, along with an Allen wrench, for easy installation.

Once the Maltby Putter Bending Machine is mounted securely to either the bench top stand or the floor stand, it is ready for use.

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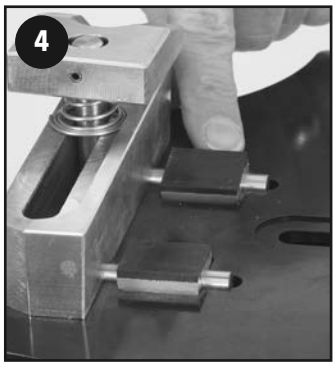
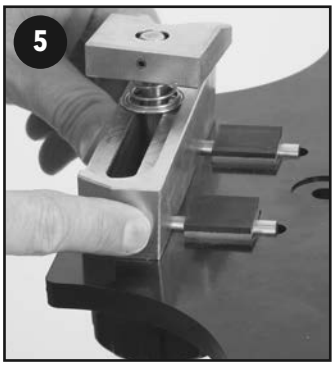
SHIPPING CODE T

OPERATION

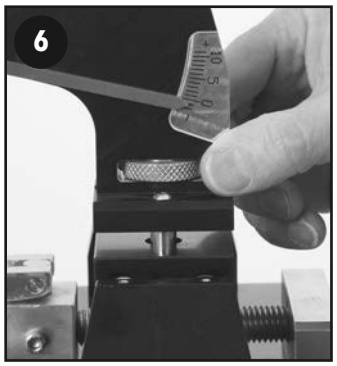


The MA2012 is designed with several key features to aid in installing putters into the machine. Photo 4 shows the two rubber, self adjusting sole pads that helps position the putter square in the machine. The face block (photo 5) is designed with a 4˚ angle facing the putter face. This angle helps secure the putter head in the machine and prevents slippage when adjusting the lie of a putter.

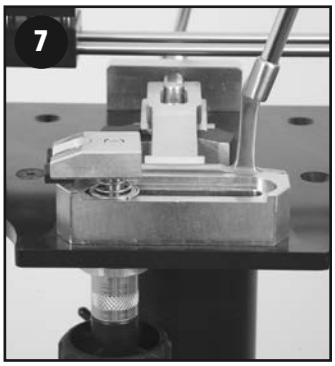


There is also a brass knob on the sliding protractor assembly that is used to adjust the protractor to the needed height to insure the measurements of loft and lie are taken on the straight portion of the putter shaft (see photo 6).

Any current style of putter can be clamped and measured in the Maltby Putter Bending machine. Photo 7 shows a common style of cavity back putter (Ping Anser style) postioned squarely in the

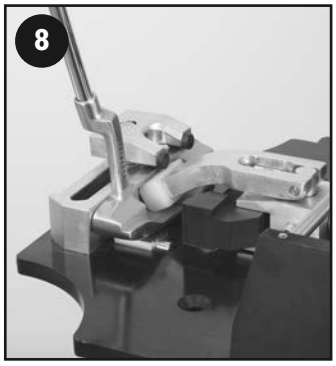


machine. The square position is achieved when the topline of the putter is parallel to the straight top line of the face block (see photo 7). To secure this style of putter in the machine, position the putter, visually aligning the top line with the face block, and tighten the T-bar so that the nylon pad on the back brace is up against the back of the putter (see photo 8).

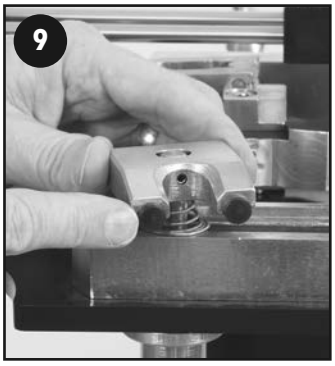


Re-check the position of the putter, making sure the top line of the putter face is parallel to the top line of the face block. The MA2012 also has a top clamp with two round rubber inserts (see photo 9).

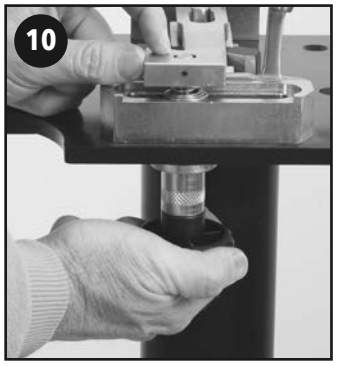
MEASURING THE LOFT & LIE



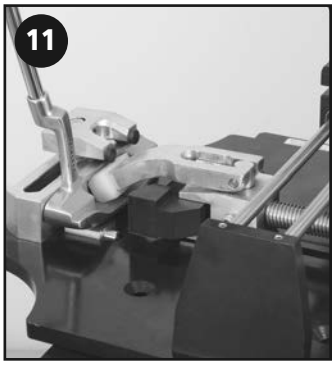
The rubber inserts are designed to prevent marring the top edge of the putter. It may be necessary to snug the top clamp down onto the top edge of the putter to prevent slippage when adjusting the loft and lie of the putter. If it is deemed necessary to use this clamp, position the rubber inserts over the top of the putter and tighten the top clamp by turning the black knob on the bottom side of the machine (see photo 10).



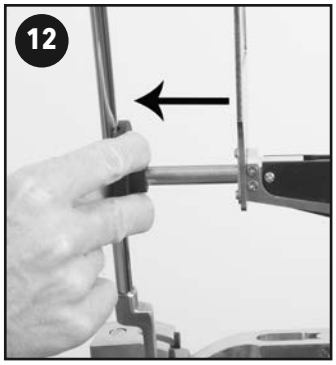
Once the putter head is square in the machine, with the back brace securely tightened, and the top clamp securely tightened (if necessary), the putter is ready for measuring and bending (see photo 11).



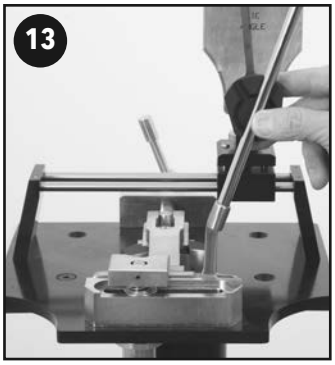
Once the putter is correctly positioned in the machine, position the sliding protractor to the right side of the machine (for a right handed putter). The protractor assembly is designed to give you simultaneous readings of both the loft and lie of a putter. To position the protractor in place for reading, slide the protractor arm forward as seen in photo 12. The sliding arm has a slotted shaft guide that rests up against the shaft for both right and left hand putters.



Hold the shaft guide up against the shaft as shown in photo 13. When the shaft guide is in place, the protractor will register the lie of the putter on the lie scale (see photo 14). In photo 14 the lie reading of the putter is 71˚. The loft scale is on the side of the protractor (see photo 15).



In this instance, the loft reading of the putter is 2˚. For left handed putters, install the putter in the same manner as for a right handed putter. Once the putter is in place, simply slide the protractor to the left hand side of the machine, pull the shaft guide into position and read the lie and loft readings in the same manner as the right hand putters (see photo 16).

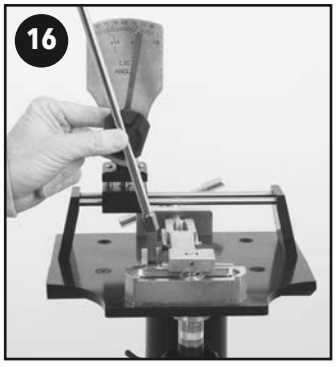


There is no disassembly required to install a left hand putter in the machine and read the loft and lie specifications.

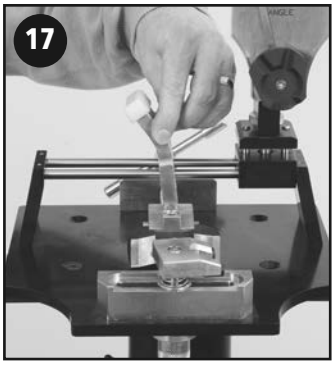
Multiple types of putter designs, both right and left handed, can be registered in the Maltby Putter Bending machine. For most mallet styles of putters, the back cavity brace is not necessary to secure a mallet style putter in the machine.

To install a standard size mallet putter in the machine, you must first move the back cavity brace out of the way to allow the T-bolt to be pulled far enough back to accommodate the mallet design. To do this, simply raise the back brace and turn it to the side (see photo 17). Lay it down so the nylon end of the brace is touching the base. As you are facing the machine from the front, turn the T-bar bolt clockwise to retract the clamp towards the back of the machine.

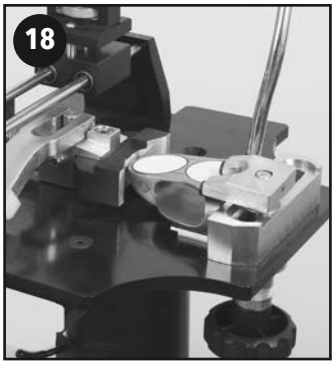
Turn the T-bar bolt until enough space is available to allow the mallet style putter to be placed in the machine. Place the mallet style putter in the machine in the same manner as the standard style putter, with the face flush up against the face block. While holding the putter in position with the face flush against the face block, tighten the T-bar bolt by turning counter clockwise.



Tighten until the curved back brace is snug up against the back of the putter (see photo 18). If necessary, position the top line bracket as shown in photo 18 and tighten snug by turning the black knob on the under side front of the machine. Photo 18 shows a popular style two ball putter with a double bend shaft correctly registered in the machine. It may be necessary to adjust the height of the protractor arm using brass height control knob (refer to photo 6). If needed, turn the

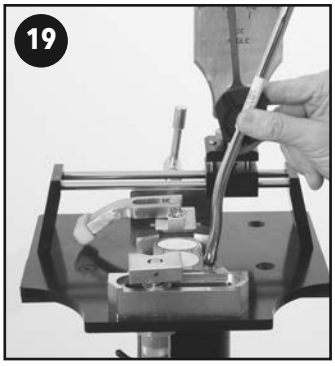


brass knob to raise the shaft guide arm to a position where it can be placed flush on the shaft, above the bend in the shaft. Photo 19 shows a double bend shaft style putter with the shaft guide properly in position to take the lie and loft readings.



For larger style mallet putters, the same procedures as used for the small style mallet are used. The T-bar bolt will have to be pulled further back to accommodate the larger style mallet. Photo 20 shows a large style mallet properly registered in the machine.

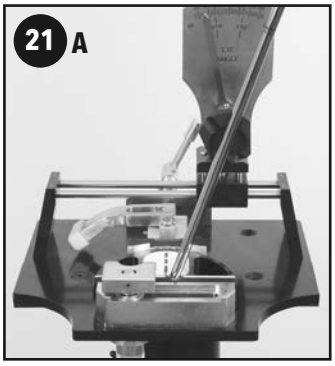
Center shafted putters can also be registered in the Maltby Design Putter Bending machine for measuring and bending.



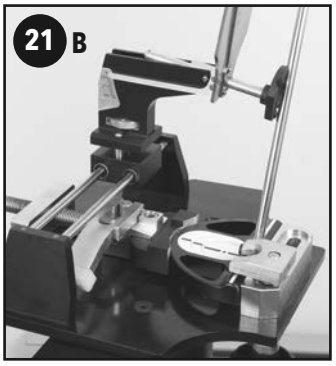
The same procedures used for registering the standard and mallet styles apply for a center shafted putter, with the possible exception of the top clamp application. Depending on the style of the center shafted putter and the length of the blade, the top clamp may need to be positioned toward the toe of the putter. Photos 21A and 21B show a mid size, center shafted mallet properly positioned in the machine, ready for measuring.

ADJUSTING (BENDING) THE LOFT & LIE STANDARD STYLE PUTTER

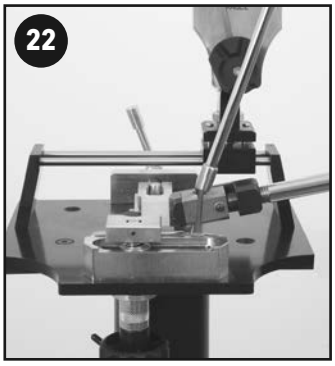
The Maltby Putter Bending machine comes with an adjustable brass bending bar (BNMB). To adjust the lie of a standard style putter (Ping Anser style), place the adjustable brass bending bar on the hosel as shown in photo 22. The bending bar should be parallel to the face. To bend the lie flatter, pressure should be applied downward.



A short, quick application of pressure or a constant pressure are the two techniques that are used. The material of the club head and the experience and preference of the user will dictate which technique is used. To bend the lie more upright, pressure should be applied upward on the bending bar.

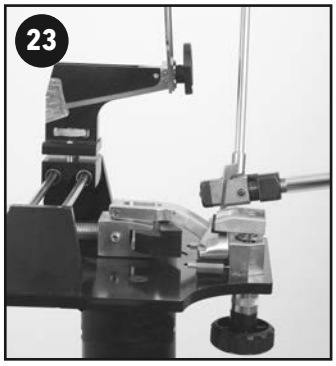


After pressure is applied to bend the lie of the putter flatter or more upright, re-check the position of the face to insure it is still positioned properly in the machine, with the face flush up against face block and the top line of the putter is parallel to the top line of the face block. If any movement has occurred, re-adjust the head into position, and proceed with the bending operation.

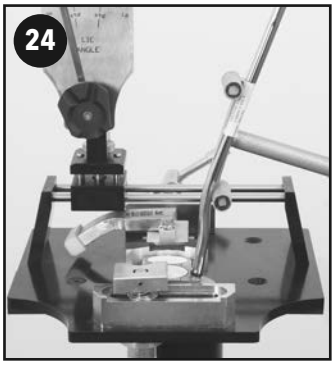


After bending, slide the protractor assembly into position and check the readings to insure the desired lie has been achieved.

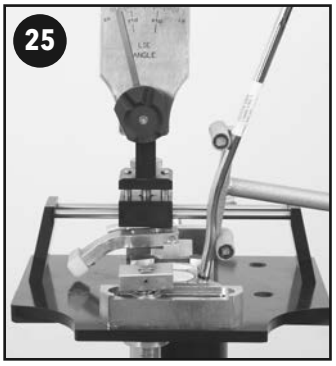
PUTTER STYLES WITH A DOUBLE BEND SHAFT



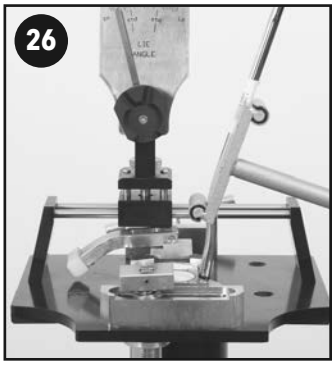
To adjust the loft of a standard style putter (Ping Anser style), the adjustable brass bending bar should be positioned as shown in photo 23. The bending bar should be perpendicular to the face. To add loft, apply pressure downward on the bending bar. A short, quick application of pressure or a constant pressure are the two techniques that are used.



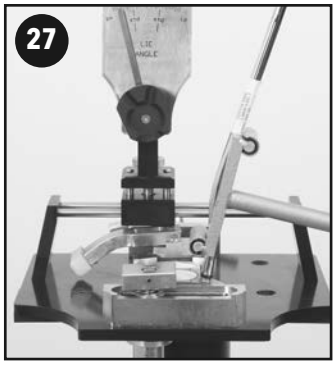
The material of the club head and the experience and preference of the user will dictate which technique is used. To decrease the loft of the putter, pressure should be applied upward on the bending bar. After bending, slide the protractor assembly into position and check the readings to insure the desired loft has been achieved.



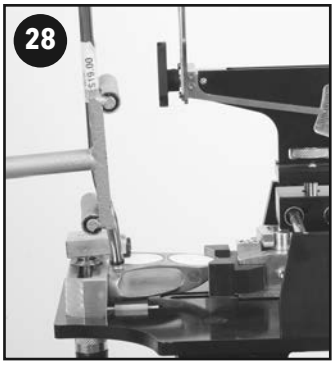
The Maltby Putter Bending Machine also comes with a double bend shaft bending bar (MDBB). To adjust the lie flatter on a putter style that has a double bend shaft, position the double bend shaft bending bar as shown in photo 24. This method positions the lower bending pad exactly at the bend of the shaft. The bending bar should be parallel to the face.



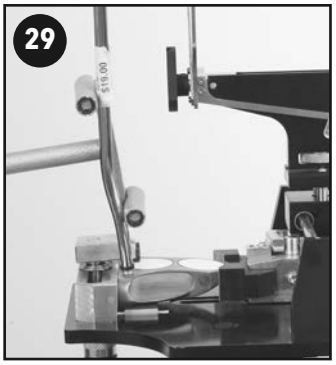
An alternative position of the double bend shaft bar for bending to a flatter lie is shown in photo 25. This places the lower pad of the double bend bar approximately 1" to 2" up the shaft from the head. To adjust the lie flatter, pressure should be applied downward.



To bend the lie more upright, position the double bend bar as shown in Photo 26.
An alternative position of the double bend shaft bar for bending to a more upright lie is shown in photo 27. Note: Either method of positioning the double bend bar can be used on inside the head shaft / head assemblies or shaft over post shaft / head assemblies.



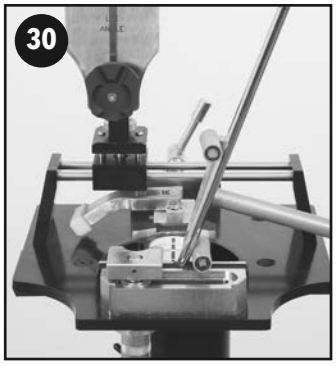
A short, quick application of pressure or a constant pressure are the two techniques that are used. The material of the shaft and the experience and preference of the user will dictate which technique is used. Most steel shafts will have some recoil. Enough pressure should be applied to move the shaft past the desired mark and when pressure is ceased, the shaft will recoil back towards the original position.



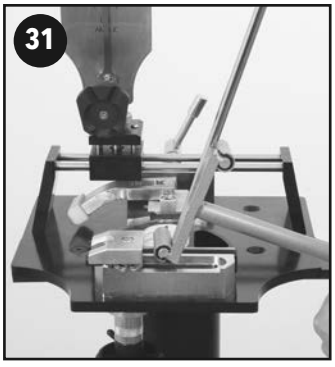
After each time pressure is applied, check the readings with the protractor assembly to see how much the shaft has been bent. Once the desired lie reading is reached, the operation is complete.

To add loft to a putter that has a double bend shaft, position the double bend bar as shown in photo 28. The lower pad on the double bend bar will be 1 1/2" to 2" up the shaft. The bar should be perpendicular to the face of the putter. Apply pressure downward to add loft to the putter. To decrease the loft of a putter that has a double bend shaft, position the double bend bar as shown in photo 29. The lower pad on the double bend bar will be 1 1/2" to 2" up the shaft. Again, the bar should be perpendicular to the face of the putter. Apply pressure upward to decrease the loft. A short, quick application of pressure or a constant pressure are the two techniques that are used. The material of the shaft and the experience and preference of the user will dictate which technique is used.

CENTER SHAFTED STYLE PUTTERS



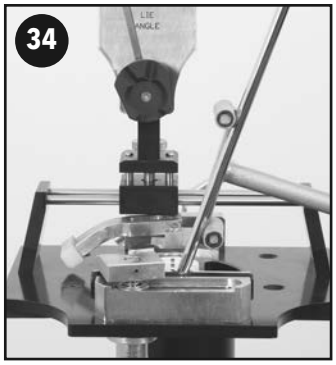
Center shafted putters can also have the loft and lie adjusted. To bend the lie or loft of a center shafted style putter, first secure the putter in the machine using the procedure previously outlined. Because center shafted designs have two basic types of shaft installations (inside bore or over stem), the positioning of the bending bar will vary. To adjust the lie flatter on a center shafted putter with the shaft installed inside the head, place the double bend bending bar parallel to the face of the putter as shown in photo 30.



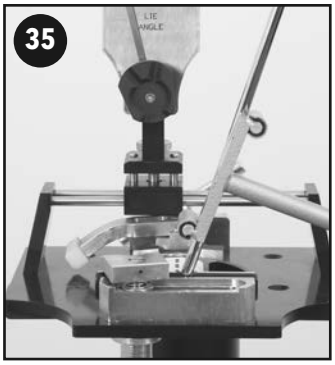
Apply downward pressure to make the lie flatter. To adjust the lie more upright, place the double bend bar parallel to the face of the putter as shown in photo 31. Apply upward pressure to bend the lie to a more upright position. After each time pressure is applied, check the readings with the protractor assembly to see how much the shaft has been bent. Note the position of the head and if it is evident that it has moved from the original square position, re-adjust and continue the operation. Once the desired lie reading is reached, the operation is complete.

To add loft to a center shafted style putter with the shaft installed inside the head, position the double bend bar perpendicular to the face as shown in photo 32 with the bar perpendicular to the face. Apply downward pressure to increase the loft. To decrease the loft, position the double bend bar as shown in photo 33, again with the bar perpendicular to the face. Apply upward pressure to decrease the loft.

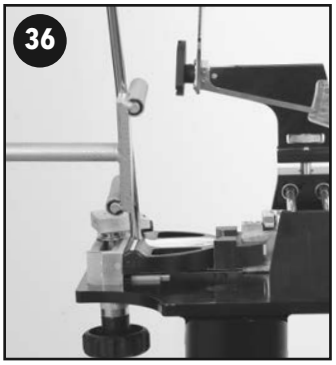
After each time pressure is applied, check the readings with the protractor assembly to see how much the shaft has been bent. Note the position of the head and if it is evident that it has moved from the original square position, re-adjust and continue the operation. Once the desired loft reading is reached, the operation is complete.



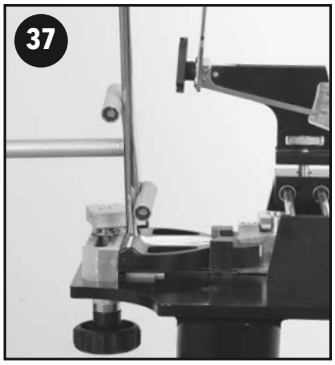
To adjust the lie flatter on a center shafted putter with the shaft installed over a post, position the double bend bar parallel to the face as shown in photo 34. Note: The position of the bending bar is approximately 1" to 2" up the shaft from the head. This places the point of bending pressure above the post portion of the head and minimizes the possibility of the post breaking and maximizes the amount of adjustment that can be achieved. Apply downward pressure to make the lie flatter. To adjust the lie



more upright, place the double bend bar parallel to the face of the putter as shown in photo 35. Apply upward pressure to bend the lie to a more upright position. After each time pressure is applied, check the readings with the protractor assembly to see how much the shaft has been bent. Note the position of the head and if it is evident that it has moved from the original, square position, re-adjust and continue the operation. Once the desired lie reading is reached, the operation is complete.



To add loft to a center shafted style putter with the shaft installed over a post, position the double bend bar perpendicular to the face as shown in photo 36 with the bar perpendicular to the face. Note: The position of the bending bar is approximately 1" to 2" up the shaft from the head. This places the point of bending pressure above the post portion of the head and minimizes the possibility of the post breaking and maximizes the amount of adjustment that can be achieved. Apply downward pressure to increase



the loft. To decrease the loft, position the double bend bar as shown in photo 37, again with the bar perpendicular to the face. Apply upward pressure to decrease the loft. After each time pressure is applied, check the readings with the protractor assembly to see how much the shaft has been bent. Note the position of the head and if it is evident that it has moved from the original square position, re-adjust and continue the operation. Once the desired loft reading is reached, the operation is complete.

Refer to "The Rules of Golf" published by the USGA, Appendix II-1, II-2 for rules related to shaft and head alignment in putters.

****SPECIAL NOTE: There is always a risk when attempting to bend any style of putter head or shaft. The liability lies with the operator and the owner of the golf club being adjusted. Golfworks is not responsible for any breakage of putter heads or shafts that may occur while using this product.**