



Lesson #4

3 Golf Club Covers

From the book, Our Best Knit Collection by Leisure Arts (1998)

Materials you will need:

Our Best Knit Collection by Leisure Arts (1998)

Artisan Knitting Machines Model 70D Instruction Book

Intarsia Carriage for the 70D

Ball winder

Enough yarn to complete your project using two colors

Graph Paper with larger squares

Colored pens or pencils

Magnetic bag or chip clips (if knitting with rewound balls), knitting bobbins,
or cardboard yarn holders for small amounts of yarn

Pom Pom maker

Knitting Skills You Will Need to Know for Lesson #4

How to take a gauge

Measuring your tension swatch

Knitting with waste yarn and nylon ravel cord

Picking up stitches- from waste yarn, and from a finished edge

Using hold position levers R & L

Using side levers for “free pass knitting”

Multiple increasing across a knitted row

Casting on your ribber for 1:1 ribbing

Seaming: crochet stitch, and mattress stitch

Knitting Terms You Will Need to Know for Lesson #4

Stockinette Stitch –Knit 1 Row, Purl 1Row (K 2 rows on your knitting machine)

Intarsia Knitting- Commonly referred to as bobbin knitting or picture knitting is a flat knitting color work technique in which multiple colors are worked in “blocks” across knitted rows. The strands of yarn colors are not carried across the back of the work between color changes, but rather are wound into small balls, or on bobbins that are systematically picked up and dropped as needed while knitting that particular section or “block” of color.

Discussion:

In lesson #3 we discussed how modern slip stitch or skip stitch Fair Isle knitting involves two or more colors knitted across one row of knitting. Yarn colors are stranded on the reverse side as the yarn is carried across from color to color creating these multiple



strands of yarn called “floats”. In intarsia knitting, these floats are eliminated by picking up these colors of yarn from separate balls of yarn for each color change. The colors are then knitted in separate “blocks” of color. To prevent holes between color changes the yarn strands are twisted around each other (under and over) as they meet forming a natural link on the purl side of the knitted fabric.

Although most knitters think of intarsia knitting as picture knitting, early knitters used this technique for knitting patterns of a geometric nature. Tartan patterns were knitted in this manner. Many of these patterns had twenty colors that demanded 20 balls of yarn for one knitted row! Tartan socks worn by the Highland regiments utilized this technique as well. Since this is a flat knitting technique, Tartan socks were knitted flat and seamed down the back.

Intarsia Knitting for the Machine Knitter

Intarsia knitting is a wonderful way to use up those ends of yarn you cannot seem to part with. Textures and multiple colors are combined to create an interesting effect or pattern. To accomplish this one must first feel comfortable with your knitting machine and the intarsia carriage. Learning to knit with an intarsia carriage is sort of like learning to drive and stick shift at the same time. It takes patience and coordination. Look at your Artisan intarsia instructions (see www.imaginethisproductions.com for those of you who don't have one). Notice its features (see figure 1 and 2 in your instruction book). Make sure your intarsia carriage is clean and oiled before you start any project (see Place The Intarsia Carriage On The Bed). Notice that the intarsia carriage attaches to the back of your needle bed onto the lower rail leaving the front of the carriage to sit or lay across the rest of the area. The fabric presser plate and wheels should lie just under and around the front edge of the needle bed (see figure 3 in the instruction book). Starting on either end of your machine, place the carriage onto your needle bed. Run the carriage across without any needles in the work position. Gently put more pressure to the back of the carriage and notice how it lifts off the needle bed. It is extremely important to put an even amount of pressure on the carriage while running it across your needle bed. You may need to adjust your position while knitting with the intarsia carriage in order to compensate for the angle of the knitting bed. As you can see, because the needle bed is tilted, it is extremely important that you get a proper weight balance onto the carriage or it may lift off, causing future stitches to jam, drop, or even skip while knitting.

After you have mastered this a few times, pull into work position 20 or so needles. Run your carriage across these needles and notice what happens to the needle position and the latches. It is in this position that intarsia is knitted. Take a piece of yarn and lay it across those needles. Holding onto one end of the yarn, hand knit a few stitches and see how easily the yarn knits with the needles in this position and the latches opened. Next, pull into work position 30 stitches and cast on in waste knitting with your main carriage. End with your carriage on the right. Remove your main carriage and attach your intarsia carriage to the left side of your machine. Clip your waste knitting making sure to leave a tail long enough not to lose a stitch on the end. Attach a clip to the end and forget about it. Make sure you have equal weight across on this knitted



fabric. Now notice the tension and look at the yarn you are going to use next. Just as in knitting with the main carriage, too tight a tension can cause problems making it hard to knit across. If you are meeting with too much resistance, your carriage will be difficult to move. **Never force the carriage across.** Next, move the intarsia carriage across these needles (see instructions Set Needles To D Position Using The Intarsia Carriage). Your needles should all be in D position with latches open. Take your main yarn and place it on the floor between the two needle beds. Bring your yarn up between the needle beds. Hold the end of the yarn in your right hand and a section of yarn in your left so you do not lose it between the beds. For those who are using magnetic bag clips, place one yarn clip with a magnet onto the end of the yarn and attach it to the right lower part of your stand still holding a section of yarn in your left hand. Now with the yarn in your left hand lay it across the needles in D position starting from the right and going to the left. Remember, the right end should be securely attached to the table, and your knitting should have equal weight on it preventing the knitting from floating up and off the needles. As a rule of thumb, it takes 3 times the amount of yarn to knit a section. After laying the yarn across, estimate 3 x this width, attach another clip to this point in the yarn, and let it drop between the beds. The clip provides tension to your knitting freeing up both hands for your intarsia carriage. Make sure you have not disturbed the needle position, and that the latches remain open. Adjust the needles, and open the latches if necessary. Run your carriage slowly and consistently across these needles. Notice how the yarn now lies **behind** the latches, the latches are open and needles are in D position ready for the next row. Continue in this manner until you feel you have been successful. Remember, the intarsia carriage should move freely across the knitting without difficulty. While pushing your carriage across, if the carriage becomes stiff, or difficult to move, there is too much resistance and the tension, weights, and yarn need to be checked. Make sure your yarn has not become tangled or ensnared on something. Yarn should flow freely from the ball, or bobbin holder. If necessary, rewind your yarn and adjust your tension and yarn weights accordingly. Once you have successfully mastered this knitting technique, make a tension swatch using the intarsia carriage just as you would knit with your main carriage. After you have the completed rows necessary for your tension swatch, take off on waste knitting and remove it from your machine. You may knit the waste knitting with your main carriage. Next, using the same yarns make a tension swatch with your main carriage and compare the tensions used to make the swatches. Notice that there is a difference between carriages. This will always affect your knitting and when combining the knitting carriages to complete a knitting project, it is extremely important to match these tensions as closely as possible. For instance, suppose you are knitting a sweater with an intarsia pattern only on the front of the sweater. One would only need to knit the front section containing the intarsia pattern with the intarsia carriage. The rest of the sweater may be completed utilizing the main carriage. Therefore, you need to make 2 tension swatches, one for the intarsia knitting and one for the rest of the sweater, calculating the stitches and rows needed for each knitted item according to size and gauge. Additionally, any ribbing or extensive patterning would also need a tension swatch. When using many colors, it may be difficult to determine which yarn to use to determine your gauge. Try making a tension swatch utilizing the predominate color. The same would be for any pattern knitting. It is always recommended to start with simple design using a limited amount of colors.



Knitting In Pattern Utilizing the Intarsia Carriage

When knitting with the multiple colors in this manner, one is able to knit without floats. In order to do this one must twist the yarn around each succeeding color causing a “chain” to form between the knitting yarns (see figures 1-7 on page 2 under Pattern Knitting). Without wrapping the yarn around each other gaps form between the knitting colors creating separate sections of knitted fabric.

Next, practice the exercise found on page 2 of the intarsia instruction manual. Read where it says Pattern Knitting. Cast on in waste knitting and cut your yarn. Run your intarsia carriage across these needles to prepare them for intarsia knitting. Next, select the colors to be knitted. Place each color needed (3) under the knitting machine and bring the colors up between the needle beds. For patterns of this nature where the colors are “ordered”, it is helpful to place them in the same order on the floor. Take the ends in hand and let them hang down the front of the ribber bed for now. Attach a clip to these yarn ends to keep them from “running away” back down between the needle beds. Remember the beginning of your ball of yarn starts at the carriage side of your knitting, with the other end ready to be drawn from the ball or bobbin. Once laid across the appropriate needles selected, the yarn will pull freely from the ball ending at the opposite side of the carriage (see illustration #1 under Pattern Knitting). You must always go in this direction so that the yarn flows freely from the ball feeding it into the knitting needles as needed by the carriage as it knits. If your thread lays in the opposite direction, all the slack is used and your carriage will jam. When this happens, the knitting has used up all the available slack and there is not enough to knit the rest of the section. Next, refer to the pattern in the intarsia instruction page 2, recheck your needles and starting from the carriage side, in successive order, lay across your yarn into the appropriate needles one at a time twisting them at the beginning of each successive color in order as they occur. When the twist is completed attach your clip to the end of the yarn you have just completed, remembering to place the clip at the point where the yarn is 3 x its length! If you do not do this correctly, as the yarn gets fed into the carriage and the end shortens taking the clip as it goes, This can cause the clip to jam into the lower front part of your needle bed. Many people prefer to use bobbins or yarn brakes (not always available) because of this. Depending upon the pattern, you may need a clip for **each** end of yarn. The reason for this is that the pattern may require different lengths of yarn for each section. Repeat this process across your knitting ending with the last color opposite your intarsia carriage. Move your intarsia carriage slowly and consistently across the knitting. Watch those clips! The magnet gives weight to the knitting, however they can stick to the machine, table, weights, or each other causing traffic jam! Remember, always start laying the yarn across the needles in successive order starting from the carriage side and ending on opposite side. Repeat these steps until you feel comfortable with the process. When this practice is successfully completed, you are ready to begin your golf club covers.



Pattern # 3 Cover

Before you begin your pattern, you will need to read the pattern completely and convert the Charts given, #1-4, so that they may be read from the purl side. Get your graph paper ready to convert your charts to read “backwards”. If you are using a chart made for hand knitting, they are made for the knit side facing you. Always remember that in machine knitting the purl side faces you so you must always consider your pattern before beginning your project. If you have color printer and art graphics software, you may chart this out in a bright color such as red and then turn your paper over to “see” it from the reverse. This may be helpful if it becomes too difficult to imagine and copy in the reverse. Numbers and letters are knitted in this way. You must consider the direction of your knitting as well. If you are knitting from the top down, as in a Christmas stocking, then the pattern not only needs to be reversed but knit upside down as well. For some patterns, this may make little difference and then the knitter must decide if it is detrimental to the overall visual effect of the project. Ask yourself this question, “Is the additional work worth the effort?”

In this project, we will be substituting duplicate stitch for intarsia knitting. The knitter must plan when making any changes. Notice in your pattern directions that it does not tell you where to place your design. Centering your design is important. The number can get lost in the seam, or under the pompom, or on the bottom of the club so it cannot be seen while it is stored in the bag. Figure out how many rows are to be knitted to complete your item once the ribbing is finished and all the stitches are transferred to the main bed. Next, subtract from the amount the number of rows needed to knit your number. Divide your result by 2. This will center your design horizontally. To center your design vertically, calculate the number of stitches cast on your main bed after all increases are made. Subtract from this amount the total number of stitches required for the width of the project at its **widest** point. Divide this result by 2. The answer will be the number of stitches that is needed to center your design on each side of the completed design at its **widest point**. Another way of doing this would be to carefully number your graphic pattern marking its center point, and numbering each stitch to correspond to the numbers on your knitting machine. You can also do the same for the rows, counting from the first row that you begin your pattern and ending with the last row. These numbers should match your row counter. Patterns followed in this way are easier to read from row to row. You may also find it helpful to enlarge your patterns. It is easy to lose your place when following a graphic pattern. Rulers are often helpful to train the eye to find your place in the pattern, and help to divert many frustrated moments. Place the ruler over each row or two as it is completed and if you need to leave your project, always mark where you have left off. Office supply stores have clipboard stands that have movable rulers attached to them (see photo in the appendix). I find these helpful to have around in machine knitting. They can hold knitting patterns for easy reading and follow horizontal graphics easily by moving the mobile ruler attached to the clipboard up and down.



Follow the directions as given in your pattern until you complete the required rows. A little trick you can use to minimize the bulk at the top when gathering the end is to transfer every stitch to its adjacent needle resulting in every other needle having 2 stitches. Push the now empty needles out of work. This should decrease your stitches to about half the amount you started with (even or odd number left). Knit 1 row at a looser tension on EON, and then take the knitting off on a tapestry needle utilizing the tail end of your yarn. Make sure to leave a tail long enough for weaving through the loops two times for additional strength. Seam your golf club cover and weave in all loose ends as needed (see appendix). Attach your pompom. Hint: Use your tension unit on your knitting machine while winding your yarn. It goes quickly and evenly! You may also knit your ribbing last, by casting on in waste knitting and ravel cord first, minimizing the amount of unraveling or relatching that may be necessary for any corrections needed.

In the above exercise, I have shown you my way of knitting intarsia successfully after numerous unsuccessful attempts at using both bobbins and a yarn break. I think for me using magnetic clips is a slower process. However, when done correctly you will notice a more even tension in the completed knitting project. Seeing that Thomas the Tank, or Disney's Mickey Mouse from the publications by Leisure Arts on the front of a child's sweater is extremely rewarding to see when completed.

I hope this information has been useful to you. Happy Knitting!

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