

# DUET

U.K. £3.95  
ISSN 0959-8243

**INTERNATIONAL**  
*THE magazine for*  
**PASSAP & PFAFF**  
*Knitting Machine*  
*Owners*



*Articles*  
*Patterns*  
*Letters*  
*Hints*  
*Tips –*  
*Just for*  
*Passap*  
*System*  
*Knitters*

*Number 7*  
*Summer 1991*





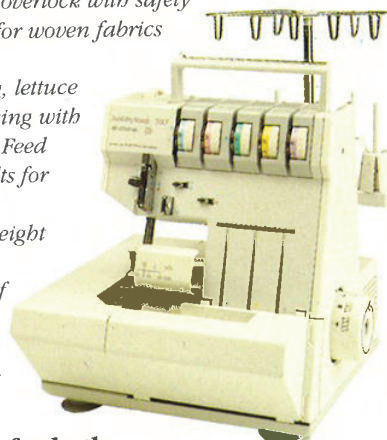
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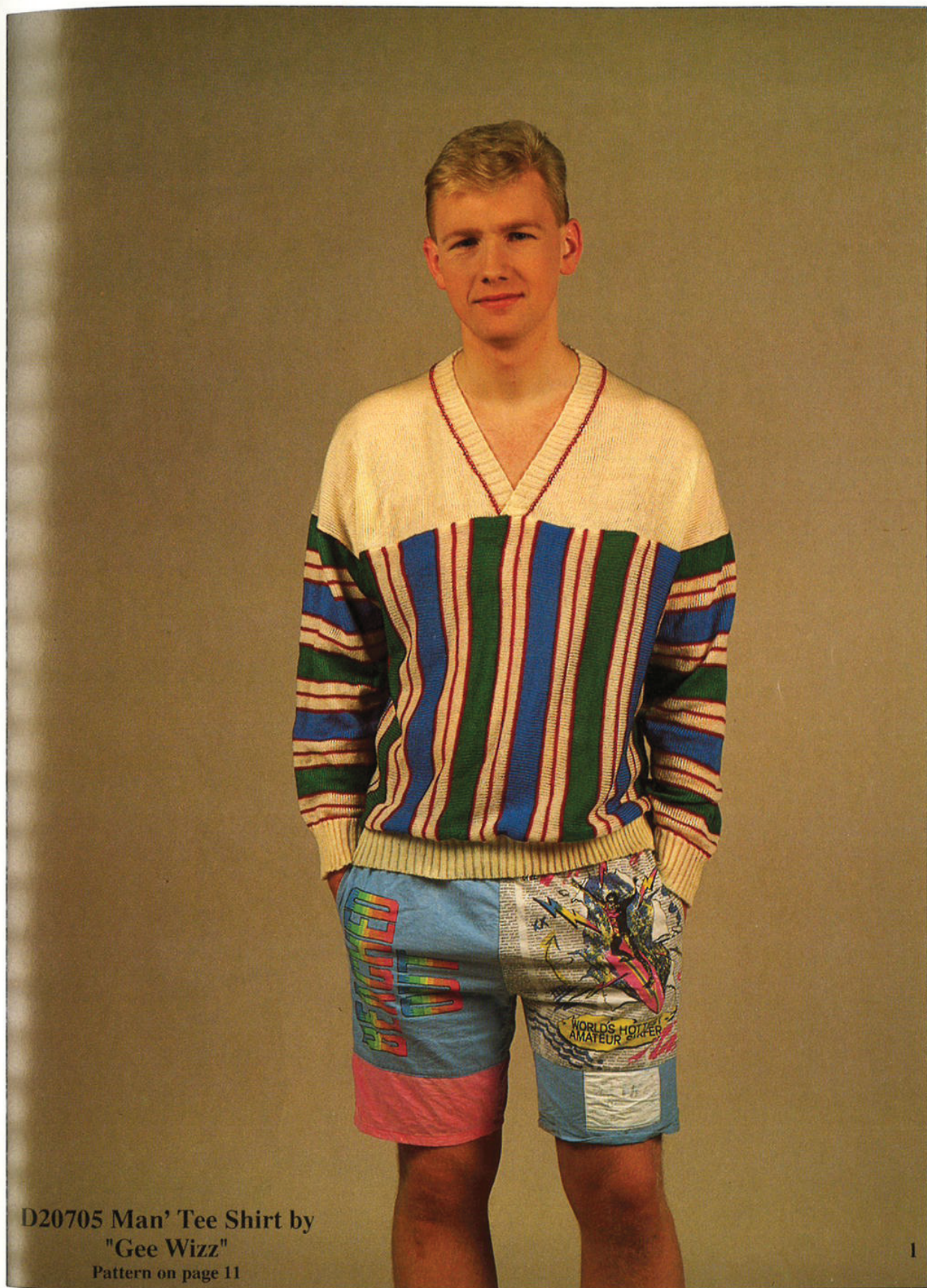
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D20705 Man' Tee Shirt by  
"Gee Wizz"  
Pattern on page 11





**D20710 Pink & Grey  
Cabled Sweater by  
Barbara Jones  
Pattern on page 13**



# DUET

INTERNATIONAL

THE magazine for  
PASSAP & PFAFF  
Knitting Machine  
Owners

Volume 2, Number 7

DUET Magazine is published on the last day of February, May, August and November each year by George le Warré and Whittle Print Electronne Press. The magazine is available from all good Passap/Pfaff dealers throughout the U.K. or on direct subscription from the publishers. U.K. subscriptions cost £16.00 per year, or £30.00 overseas. Both prices include postage. Subscriptions all run from November to the following October and if you subscribe between those times you will receive back issues to the previous November and future issues to the completion of that year, as published. DUET is the largest circulating independent magazine dealing entirely with Passap System knitting machines manufactured by Madag, Dietikon, Switzerland.

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## EDITOR & PUBLISHER

George le Warré

## ASSISTANT EDITOR & ARTWORK

Alma Spriggs

## PHOTOGRAPHY

David Kimber Studios,  
Bournemouth, England

## MODELS

Models Plus Charisma, England

## ADVERTISEMENTS

Rosemary McDermott

## ACCOUNTS & ADMIN.

Susan Loader

## LAYOUTS

Ann Whittle

PRINTED & BOUND BY  
Whittle Print-Electronne Press  
5 The Old Yarn Mills, Sherborne,  
Dorset, England, DT9 3RQ

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Fax: + 44 (0)202 743152

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## The Editor's Letter

Dear Readers,

At last the summer is almost here, and we are probably all looking forward to holidays etc., (at least in the Northern Hemisphere). But there are still those days, and evenings, when it can be a little chilly, and you will find garments just for such a time in this issue of Duet International. The Wrap Coat for instance, is very light, but warm enough to keep out the chills.

Many people seem to think that the summer is not the time for knitwear, or knitting, but this is not true. Think of those lovely long, light evenings. All the extra daylight is just right for knitting. Those of us who are well organized, (not me I fear), will be busy knitting their Autumn and Winter wardrobe at this time, but for those of us that "knit-as-we-go", there is plenty to do, making summer garments.

For the first time, in response to many requests, we are featuring a maternity pattern. Perhaps knitwear does not spring immediately to mind for this type of garment, but knitted fabric is really ideal, because of its easy and open structure, and draping qualities. (Our model, Linda, really is expecting her first baby in July, so there was no need for "padded deception" on the photographic shoot!)

We begin a short new series of articles on yarns this time. The first article explains the principles of yarn production, and the following ones, (which are shorter in length), deal with each different fibre type, their uses, pitfalls and knitting problems, as well as their good points.


































Finally, there are already many people booked in for the Passap System Experience in October this year, so if you are thinking you might like to attend this, please send for your brochure and booking form soon, as places are limited, and first come first served is the order of the day.

Best wishes, and see you in August.

*George*



# SYMBOLS AND ABBREVIATIONS

	BLACK STRIPPERS ABAISSEURS NOIRS		HANDLE DOWN EN BAS		EASY FACILE		SKIRT JUPE
	BLUE STRIPPERS ABAISSEURS BLEU		HANDLE UP		FORM COMPUTER FORME		ACTUAL MEASUREMENTS DIMENSION ACTUEL
	ORANGE STRIPPERS ABAISSEURS ORANGE		TRANSFER POS POSITION 9 HEURS		MAKING UP ASSEMBLAGE		SIZE(S) TAILLES
	DECO SETTING DECO PROGRAMME		RACK 1 POS LEFT UN TOUR À GAUCHE		BACK LE DOS		STITCH PATTERN DESSIN
	FORM COMPUTER FORME		RACK 1 POS RIGHT UN TOUR À DROITE		FRONT DEVANT		SWATCH SIZE ECHANTILLON
	WITH FRONT LOCK ALONE TRAVAILLER UNIQUEMENT AVEC LE CHARIOT AVANT		RACK 2 POS RIGHT DEUX TOURS À DROITE		SLEEVE(S) MANCHE		GARMENT WEIGHT
	LEVER POS FOR U80/U100/100E POSITION DE MANETTE D'U80/U100/U100E		TRANSFER TO BACK BED TRANSFÉRER D'AVANT À L'ARRIÈRE		RIB or BAND COTE		YARN(S) LAINE/FILS
			TRANSFER TO FRONT BED TRANSFÉRER D'ARRIÈRE À L'AVANT		BUTTONHOLE BAND BANDE DES BOUTONS		FABRIC YARDAGE TISSU TRICOT
					COLLAR COL		MACHINE(S)

## YARN NOTES

For accurate results, you must use the yarn specified. If you wish to substitute, then use a yarn of the same thickness and fibre type. Thickness is denoted by "count", e.g. 2/28's, or by yards/ounce metres/100grm. If you substitute yarns with a totally different fibre content, i.e. use cotton instead of lambswool, the resulting garment will not be accurate in sizing. It is also important to remember that the colour of the yarn will slightly affect the tension swatch size, so knitting a swatch is essential, even if you are not substituting yarns. Also remember that all machines vary slightly. Stitch sizes given are intended only as a starting guide to knitting your own personal swatch.

all	alternate
approx	approximate
BB	back bed
beg	beginning
circ	circular
cm	centimetre
CoF	cast (bind) off
Col 1,2, 3,4	Colours 1, 2, 3, 4
CoN	cast on
cont	continue
dec	decrease(s)
Diag	diagram(s)
FB	front bed
ff	fully fashioned
foll	following
g	grams
inc	increase(s)
K	knit
K/K	every needle rib
Lk(s)	lock(s)
LT	left
mm	millimetres
N(s)	needle(s)
NWP	non-working position
opp	opposite
P	purl
pos	position
pshr	pusher(s)
1/4P	transfer position
RC	row counter
RP	rest position
rk	rack
R(s)	row(s)
rel	release
str	straight
SS	stitch size
st(s)	stitch(es)
stst	stocking stitch
trans	transfer
WP	working position
CoRak	Cast on with racking
CoCir	Cast on with circular rows

## KNITTING FROM DIAGRAMS & CHARTS

Please read this section carefully before commencing to knit from charts

The pattern writing method used within DUET utilizes all the Paspap/Pfaff pictograms from the Model Books by permission of Madag, Switzerland, as well as our own for yarn, weight and so on. These symbols are not difficult to read and are logical. All garment parts are shown drawn to shape, *but not necessarily to scale*. Symmetrical shapes are shown only as the right half of the part. A broken line always denotes the centre of the part. The opposite side of the shape is knitted at the same time, in reverse. If there is no broken line at the left, this means that the part is drawn complete and the shape seen in full.

Each garment section is sub-divided into smaller sections A, B, C etc. Always cast on and commence knitting at A, and continue through B, C and so forth. At the start of each section there are written instructions for that section within the pattern. The size of each section is given in centimetres at the bottom and left side of the chart. Needles/stitches are quoted at each section where necessary. The number given is always the number of needles and spaces

counted on the FRONT BED ONLY, in line with Madag's Model Books, unless otherwise stated in the pattern notes.

Shaping, increasings, decreasings are noted in blocks. These are ALWAYS read from the bottom to the top. e.g.

**-1K2 X 2[1:2:0:2]**

**-2K2**

**-3K2**

**-4K4**

is read as

Cast off 4 and knit 4 rows.

Cast of 3 and knit 2 rows.

Cast of 2 and knit 2 rows.

Decrease 1 and knit 2 rows TWICE, [or once, none, twice], depending on the size followed.

*Instructions in italics always refer only to 6000 electronic machines.*

### N.B.

Patterns will only be as accurate as your tension swatch and measurements. It is essential to match the swatch exactly and use specified yarns, or close substitutes of the same fibre type. (See Yarn notes above).

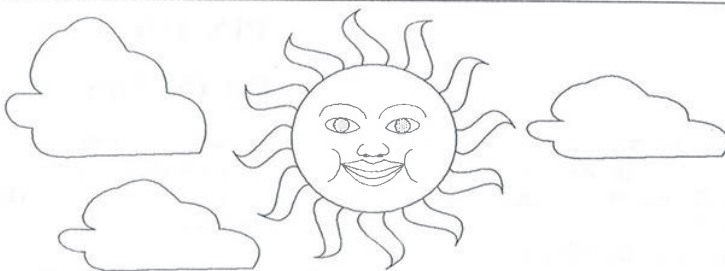
Alternatively, use Form Computer programmes and the yarn and stitch pattern swatch of your choice.



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! Denotes an "Easy Knit" Garment  
FC These patterns contain Form Computer & Form Programmes



## PIN TUCKS

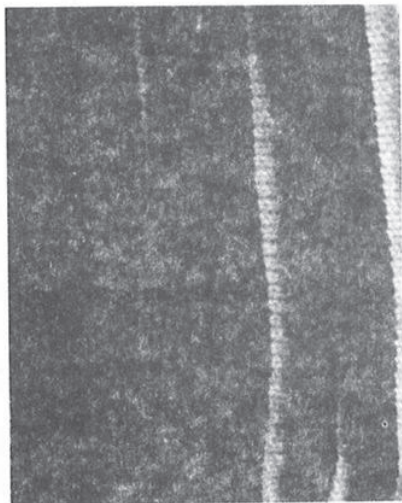
Pat Coulston

Knitting pin tucks is very easy, and can be varied in many ways, leading up to all sorts of different and interesting ideas.

Pin tucks may be knitted:-

1. On one bed only in stocking stitch, although these are really in the form of little hems.
2. With the sewing machine to create a decorative effect, or to reduce the width of the knitting.
3. Using both beds for cuffs, welts in a sweater, to decorate the hemline of a dress or skirt, or a neckband.
4. Using the pushers for manual patterning, Deco, or E600 patterning. This still uses the principal of the pin tuck, but in a pattern formation.

### STOCKING STITCH



As explained, this really makes little hems, that look like pin tucks. Up to a "4 ply" type yarn may be used, and we will use two colours, which makes the knitting easier.

Having cast on, knit in stocking stitch up to the point where you want the pattern to begin, using colour 1.

\*Colour 2, knit 8 rows.

Pick up the stitches of the first row in colour 2, and rehang them on their appropriate needles.

Colour 1. Knit 6 rows\*.

Repeat from \* to\*.

You can vary the rows knitted between the little hems, and you can vary the number of rows knitted in

colour 2, making the hem fuller, or less full, as you wish. The little hems will come out on the right side, (knit side), of the work.

### THE SEWING MACHINE



Thread up your sewing machine with a polyester thread, both in the needle and the bobbin. Use a ball point needle as this will not cut into the knit fabric, and a small zig-zag, or a straight stitch.

With the right side of the fabric out, (purl side facing each other), fold the fabric, and tack the "pin tucks" where you wish to sew them. Sew exactly on the marked line. Be sure to carefully knot the ends of the sewing thread, so that it will not come undone. These are useful as decoration, or to reduce the width of a piece of knitting.

### PIN TUCKS ON BOTH BEDS

These are made by putting one bed out of action, and knitting on the other bed for a chosen number of rows. This makes the ridges in the knitting that we know as "pin tucks". If you get a problem with stitches not knitting correctly, use black strippers for the rows you knit on one bed only, and the orange strippers for the N/N rows when both beds knit, instead of black strippers all the time.

Use yarn no thicker than a "3 ply" type, (e.g. Bramwell DuoMagic).

Colour 1, cast on in an every needle rib, K/K, and knit a few rows.

Set locks to GX/N and knit 4 rows.

Set locks to N/N and knit 6 rows.

Repeat this a few times, and then try N/GX for 4 rows, followed by N/N for 6 rows.

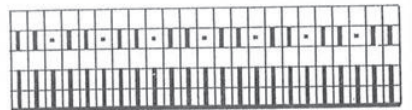
Repeat this last one for a few more times, and remove the work from the machine.

Notice that when you had the setting N/GX, the pin tucks faced you, and when you had GX/N, the pin tucks appeared on the other side of the work. It is important that you know this, so that the pin tucks will come out on the side of the knitting you want them to be. It's no good having lovely pin tucks, if they come out on the back of the work - they will not show!

You can vary the number of rows you knit BETWEEN the pin tucks, and also the number of rows you knit for the pin tucks themselves. This will depend on the thickness of the yarn that you are using. If it is a fine yarn, then it is possible to knit up to a 10 or 12 row pin tuck. Whereas a thicker yarn will only pin tuck for 6 to 8 rows. You can of course vary the colour of the pin tucks, which can look most attractive.

### PATTERNING IN THE PIN TUCK ROWS

Arrange the pushers as shown here:-



AX/GX Knit 4 rows Colour 1.  
N/N Knit 6 rows Colour 2.

This pusher arrangement can be altered to give different effects. In a six row pin tuck try knitting  
2 rows Colour 2  
2 rows Colour 1  
2 rows Colour 1  
and still use the pushers for patterning.



## EXAMPLES FOR CUFFS & NECKBANDS

### CUFF

Knitted at the stitch size for the garment, minus 1 number, although it really is best to start at the wrist end of the cuff, with as tight a stitch size as you can manage, increasing stitch size towards the top of the cuff. This allows for the wrist thickening out into the arm.

A word of warning. If you are then going to go into a pattern using the same needles on both beds, then this is fine. But, if you are going to follow this with stocking stitch, there is a problem. You will find that you must knit the pin tuck cuff on fewer needles than the pattern dictates to get a good cuff. So using fewer stitches, cast on and knit your cuff. Transfer all the stitches to one bed. Stitch size for stocking stitch, and knit 1 row. Remove on waste yarn. Bring up the required number of needles for the sleeve and return the cuff to the needles, spacing out the stitches to fit. Fill the empty needles with the heel of the adjacent stitches, and continue to knit the sleeve.

It is essential that you do a trial piece before you launch into, and actually complete the sleeve!!

Some examples you may like to try.

#### A Cuff Sample 3

N/GX knit 4 rows.  
N/N knit 2 rows.  
Knit these 6 rows three times in all.  
N/GX knit 6 rows.



N/N knit 2 rows.  
Knit these 8 rows three times in all.

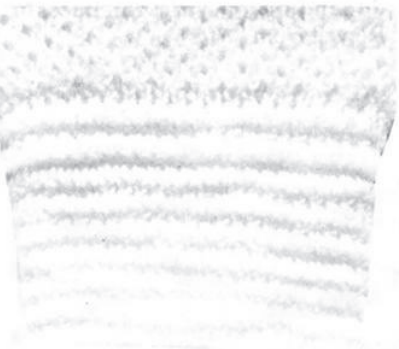
#### Sample 4

Knit the cuff as above, but a different colour for the pin tucks.



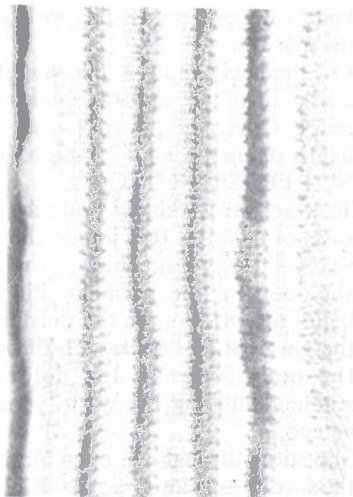
#### Sample 5

A Cuff With a Thicker Pin Tuck  
N/GX knit 6 rows.  
N/N knit 2 rows.  
Knit these 8 rows three times in all.  
N/GX knit 8 rows.  
N/N knit 2 rows.  
Knit these 10 rows three times in all.



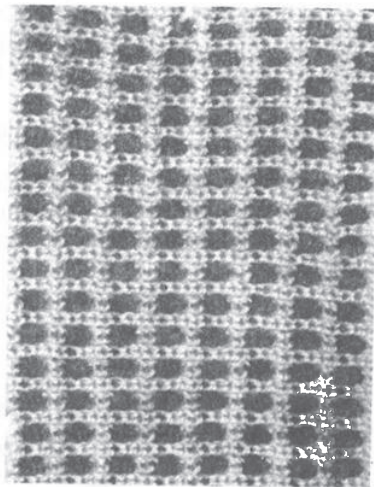
#### Sample 6

Wide pin tucks, with 4 plain rows knitted between.



#### Sample 7

Patterned pin tuck.



## NECKBANDS

This can be knitted exactly as for the cuff, using whatever method of attaching the band you wish. The pin tuck just replaces the part where you would normally knit a 1X1 or 2X1 rib. Take for example a double flap, or "envelope" neckband.

Cast on, and knit 1 row. Increase the stitch size as for the cuff, and knit about 4 pin tucks.

On one bed only, and increasing the stitch size on each row, (black strippers), knit 4 rows.

Colour 2, knit 2 rows. Pull down a loop of colour 1 between the beds, this will prevent the two flap sections joining with a short length of yarn.



On the opposite bed, colour 1, repeat the 4 rows as above. The colour 2 for 2 rows.

Set locks to N/N, still with colour 2, knit 2 rows, and release the work from the machine.

Lay the neckband flat, allowing it to curve into its natural neckband shape. Cover the pin tuck area, and lightly steam the color 2 section. (DO NOT PRESS OR "IRON").

To attach the neckband, undo the two rows of colour 2 that joined the envelope flaps together. Join the shoulders of the garment. Pin the band into position on the outside of the garment and backstitch through the open loops of the colour 1 stitches, undoing the waste yarn as you go.

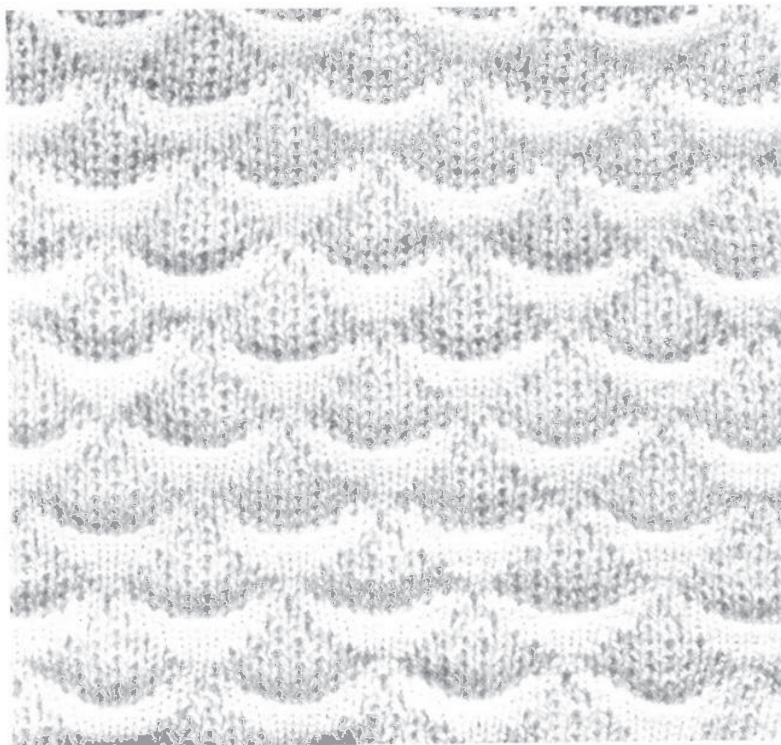
Slip stitch through the open loops of the second envelope flap to the inside of the garment, enclosing the neck edge.

### PIN TUCK IN PATTERN

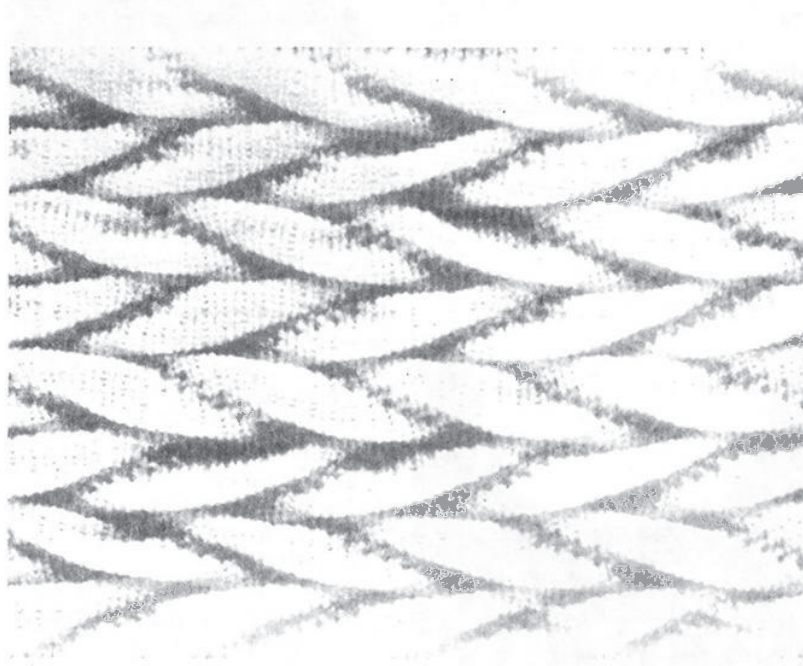
E6000 machines, try some of the patterns from the manual - Sample 8 Pattern 1130, Technique 251.

Sample 9 Pattern 1362, Technique 253.

Duomatic machines will make pin tucks in the same way from many cards. Card 15 from the basic set for instance.



\*\*Set locks to N/N, Deco 2. Do Not attach the Deco to the front lock. Pass Deco from left to right and back again, alone. Knit 2 rows. Reset locks to GX/BX and knit 2, 4, 6, or 8 rows, depending on yarn thickness\*\*. Repeat from \*\* to \*\*.



### GARMENT KNITTING USING PIN TUCKS

Try to keep the shaping in these garments to a minimum, and if making a sweater or similar, cut and sew for necklines is very helpful. Some pin tuck patterns that make pin tucks on more than about 4 rows on the same needles, may need blue strippers or comb and weights for the N/N rows. Pin tucks can also be used as the bottom welt for garments, but instead of knitting the pin tuck from bottom of the welt to the top, you can knit a narrow strip of pin tucking, the width that the welt is to be deep. Attach this to the bottom of the garment, and you get a vertical pin tucked welt, which is in the opposite direction to the main knitting.

At the hemline of a skirt or dress, if knitting in a double bed fancy pattern, some pin tucking can be added as a decorative feature.

Front bands for jackets and cardigans can be knitted in pin tuck, and finished off with the double flap envelope, just as we did for the neckband, then attach to the fronts of the garment in the same way. Jackets also look good knitted in as all over pin tuck pattern.

See you next time.





**5, 80, 6000**

Estelle Weynman, for Passap Canada. ©Husqvarna-White.

97[102:107]cm Bust. Length 64cm.

107[112:116]cm Bust.

**ORIGINAL YARN**  
**BRITISH MOHAIR SPINNERS** BMS Mohair No. 4 Kid. 90% Kid Mohair 10% Polyamide. 260g Orange = Col 1, 20g Beige = Col 2, 20g Copper = Col 3, 20g Green = Col 4. KROY 3 ply Black 20g = Col 5.

**SUBSTITUTES**  
 CELANDINE Dawn 70% Super Kid Mohair 30% Nylon. 300g Col 1, 50g each of Cols 2, 3, 4. (Available only on 250g cones and 50g balls). BRAMWELL DuoMagic Black = Col 5.

40sts = 166mm, 40Rs = 140mm, measured over cabled pattern. 40 Rs rib = 93mm. NOTE. If substituting yarns, this may change the tensions slightly.

Single bed cabled pattern as Diagrams.

Page 4.

340g Size 107cm Bust.

Cable pattern worked as Diagrams on the BB in stocking stitch based fabric, with

stitches between cables on the BB. Collar & sleeve bands in 3 col double jacquard. E6000 Pat 1274. ADD 1274

Tech 195. Duomatic with card & Diag given.



A. CoCir 1X1 Col 1 as Diag 1. K as chart. K last row SS7.75/7.75

B. Trans all sts to FB. Arrange Ns & sts as Diag 2. Fill Ns marked x with purl loop from FB sts "a". K & inc as chart, working cables as Diag 2 using 2 yellow double eyelet tools.

C. Divide work using length of nylon cord to K Ns down to NWP on both beds. K Rt side first. K & dec as chart, cont cable patt. CoF. K second side, reversing shapings & keeping cable patt correct. CoF.



A. As Back A.  
 B. As Back B.  
 C. As Back C.



A. As Back A.  
 B. Fill empty Ns with purl loops from opp bed Ns. Set as Diag 4. K 2Rs Col 1, 2Rs Col 5, 2Rs Col 1. Set for 3 col st patt as Diag 3. K in patt as chart to RC 36. Set as Diag 4. K 2Rs Col 1, 2Rs Col 5.  
 C. Trans all sts to FB. K 2Rs Col 1. Set for cable patt. K as Diag 2 & inc as chart. CoF.

A. As Back A.  
 B. Set for cable patt as Diag 2. K & inc in cable patt.  
 C. Fill all opp bed Ns with purl loops. K 2Rs Col 1. Set for 3 col patt as Diag 3. K in patt.  
 D. Set as Diag 4. 2Rs Col 1, 2Rs Col 5. Trans all sts to FB. K 2Rs Col 1. CoF.



Join Lt shoulder seam. Pick up & rehang neckline sts to FB with right side of work facing you. K 1R Col 4 GX/N SS 7. Fill all BB Ns with purl loops from FB sts. Set as Diag 4. K 2Rs Col 1. Set for 3 Col patt. K in patt & col sequence.

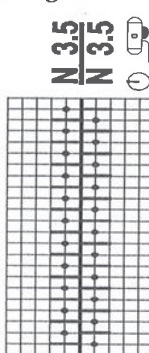
Trans sts for 1X1 SS3.5/3.5 Lks N/N. K 4Rs Col 1, 12Rs Col 5, 2Rs WY. Rel.



Join second shoulder and collar seam.

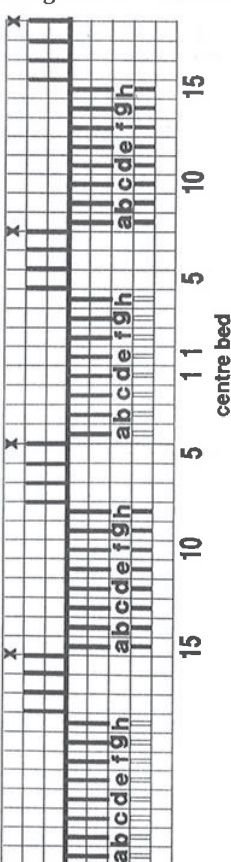
Turn 1X1 band to inside, leaving 2Rs Col 5 showing on right side of garment. Slip st to inside. This will avoid the mohair tickling the neck of the wearer. Join side & sleeve seams. Give light brushing with teazle brush if required.

**Diagram 1 CABLE PATTERN**



In Diag 2, paint the heads of FB pushers with red nail polish in alternate groups of 8 as shown, (top surface of heads ONLY). Start by leaving centre 8 pushers unpainted and work outwards on groups. Pushers in this pattern act as markers only, & are not used in the knitting. Make cables alternately on red marked blocks only for 5 times (30Rs). Then on plain blocks for 5 times (30Rs). On completion, remove painted pushers from the bed BEFORE cleaning off the polish. Oil & return to the bed.

**Diagram 2**



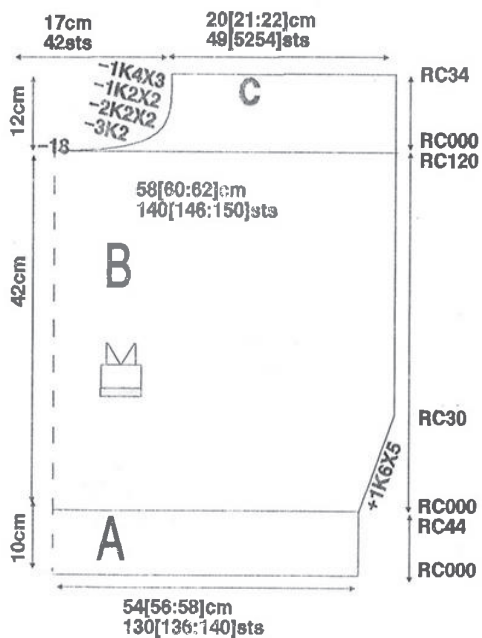
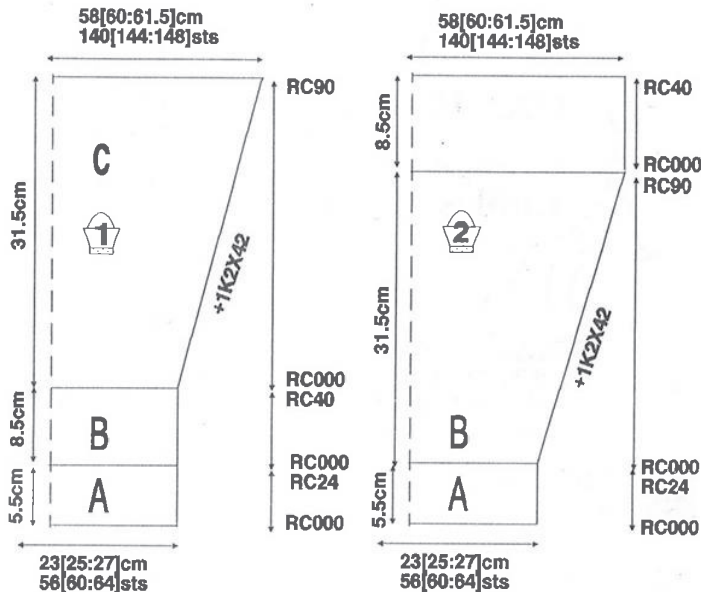
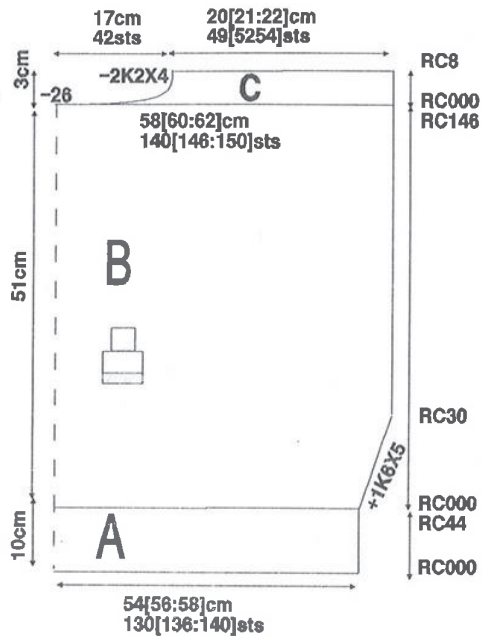
**KNIT 6 ROWS MAKE CABLE**  
 N 7.75 Move sts ab to cd, cd to ab & gh to ef, ef to gh.

N 7.75



RED PUSHER  
 PLAIN PUSHER  
 x - BB needle filled with purl loop from FB needle a





CARD FOR DECO ONLY

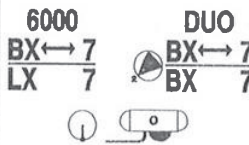
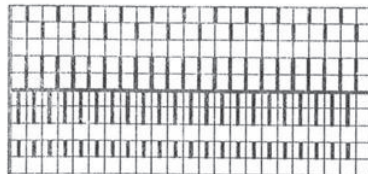
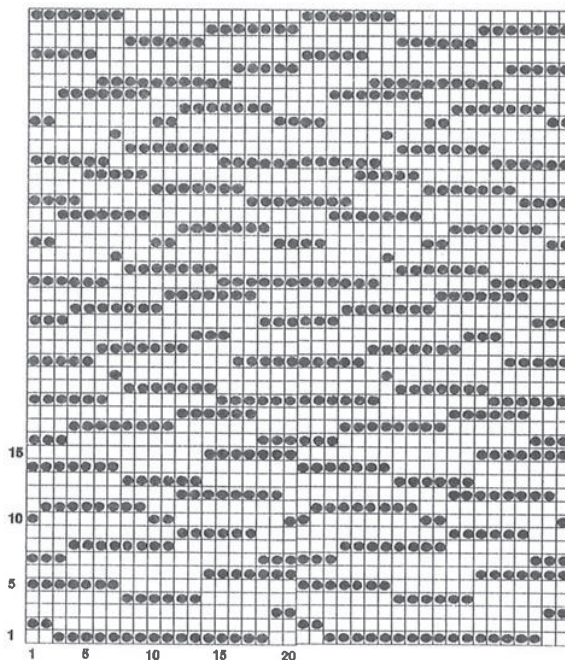


DIAGRAM 3  
6000 1274 ADD 1274      Tech 195  
DUO As shown in Diag  
ALL MACHINES  
2Rs Col 2, 2Rs Col 3, 2Rs Col 4

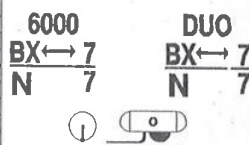
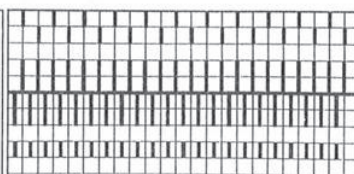


DIAGRAM 4  
Knit as described in written instructions





**D20705  
Man's Tee  
Shirt**



**5, 80, 6000**



"Gee Wizz", England.



97[102:112:117]cm Chest.



107[112:122:127] cm Chest.



**DENYS BRUNTON "Duette"**  
100% acrylic. 350g per cone.  
987m per 100g. Count 2/17.5's.  
Col 1 = 1 cone Aran. Col 2 = 1  
cone Red. Col 3 = 1 cone  
Royal Blue. Col 4 = 1 cone  
Green.



40sts = 116mm 40Rs = 84mm,  
measured over stocking stitch.  
40 Rs rib = 76mm.



Stocking stitch K on BB all  
machines, with colour chang-  
ing sequence as foll:- §\*2Rs  
Col 2, 8Rs Col 1, 2Rs Col 2,  
8Rs Col 1, 2Rs Col 2\*, 20Rs  
Col 4, rep \* to \*, 20Rs Col 3§.  
Repeat from § to §.



Page 4.



350g Size 112 Chest.



Main back & front body sec-  
tions knitted in one section,  
sideways knit in colour se-  
quence. Yoke sections k in Col  
1 only. Sleeves in col sequence.  
Ribs applied to body section  
after knitting.



A. Single bed CoN on BB Ns  
as Diag 1, Col 2.  
B. Lks as Diag 2. K as chart in  
Col sequence. CoF.

**YOKE**

A. CoN as for Back Col 2.  
B. K as Diag 2 & chart, Col 1.  
C. CoF as chart at Lt. Cont k  
and inc as chart. CoF. Rep  
reversing shapings



A. CoCir 2X1 as Diag 3. Col 1.  
K as chart.  
B. Trans all sts to BB. K as Diag  
2 in Col sequence and inc as  
chart.  
C. K as chart cont in sequence.  
CoF.



CoCir 2X1 as Diag 3 Col 1,  
180Ns [all sizes]. K 40Rs. Trans  
all sts to BB. K as Diag 2 in Col  
2 for 2Rs. CoF.



CoCir 2X1 Col 1 160Ns [all  
sizes]. K 20Rs. Trans all sts to  
BB. K as Diag 2 Col 2 for 2 Rs  
CoF.



Block and gently steam all  
parts to size. Fold body section  
in half lengthways. Join side  
seam.

Join centre back yoke seam.  
With right sides together join  
yoke section to back. Fold yoke  
section in half to front, & join  
to front with backstitch.

Sew sleeves to back & front,  
matching centre sleeve to back  
neck line level.

With right sides together, join  
rib sections to back & front  
lower edges, backstitching  
through cast off edge sts. Join  
rib seams. Join sleeve seams.  
Starting at point of Vee, sew  
collar band to neckline, back-  
stitching cast of edge stitches  
to outside of garment.

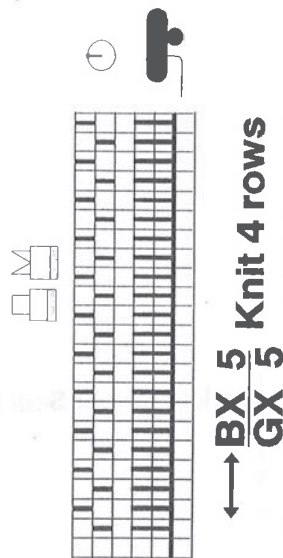
**ELECTRONIC 6000  
STITCH DESIGNS**

IN 2, 3, & 4 COLOURS  
ALSO PREPRINTED SHEETS  
& Duomatic patterns

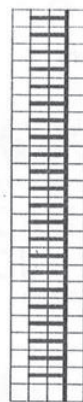
S.A.E. FOR DETAILS

**L. J. CALVERLEY**

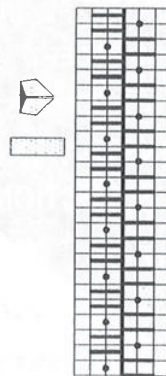
48 PARTRIDGE CLOSE  
WASHINGTON  
TYNE & WEAR  
NE38 0ES



**DIAGRAM 1**

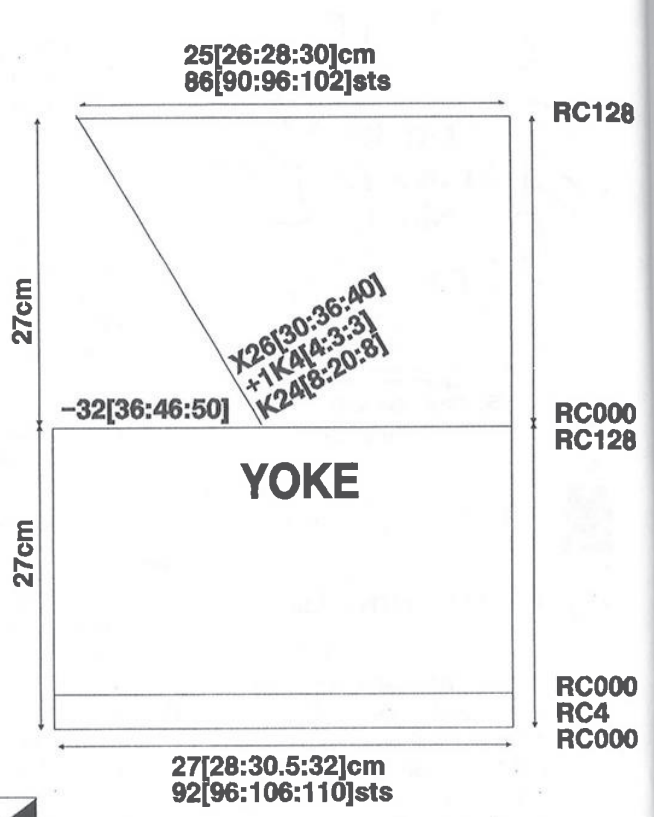
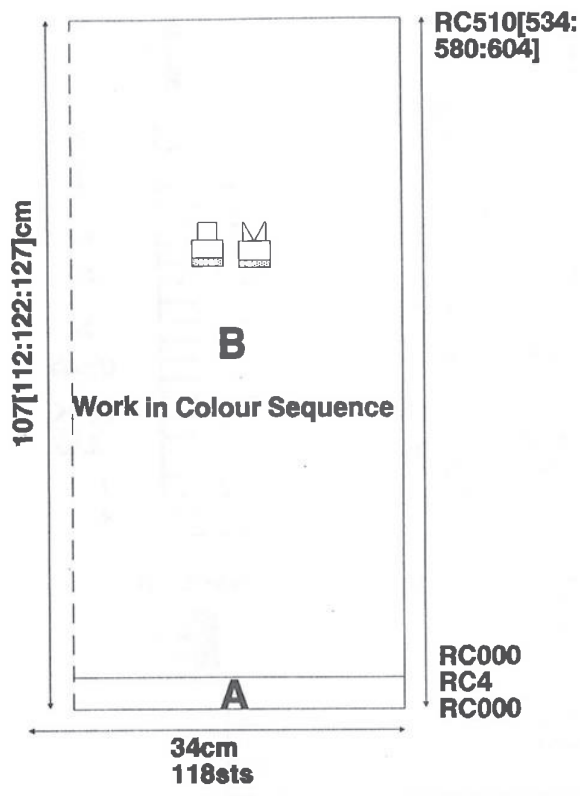


**DIAGRAM 2**



**DIAGRAM 3**





**TYSON**  
SEWING MACHINES LIMITED

**KNITTING MACHINES**  
BROTHER - JONES  
KNITMASTER  
TOYOTA  
SINGER  
PFAFF

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SEWING MACHINES LIMITED

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**HOUNSLOW** 40 HIGH ST - 081 570 6790  
(NEAR BUS STATION)

MAIL ORDER DEPT.  
SOUTHALL  
4 HIGH STREET 081 574 1587

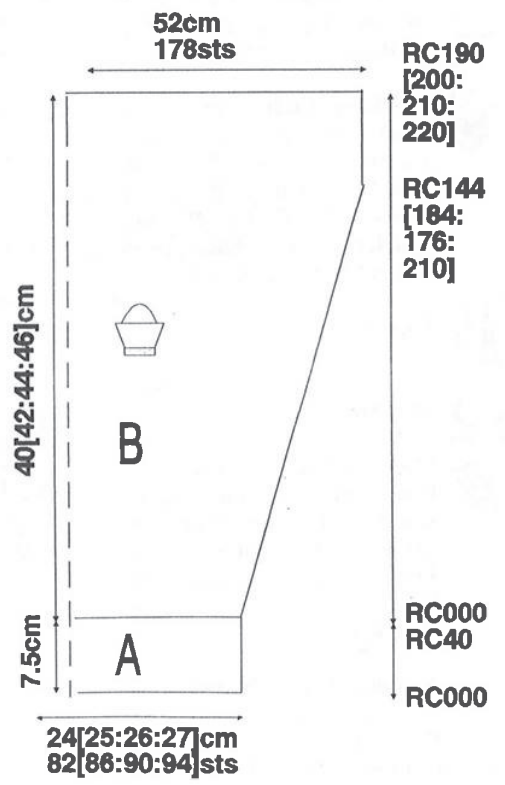
**DEMONSTRATIONS**  
**HUGE SELECTION**

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B.K. + FORSELL  
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WATER WHEEL + JAROL  
KING COLE + YEOMAN YARNS  
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+ TABLES ETC.

OVERLOCKERS + LINKERS + SEWING MACHINES  
**KNITTING CLUBS WELCOME**







# D20710 Cabled Sweater



5, 80, 6000



Barbara Jones, England.



86[96:102]cm Chest/Bust.



94[102:110]cm Chest Bust.



BRAMWELL 2/30's 100% acrylic. 1 cone Black = Col 1. 1 cone Dusty Pink = Col 2. Yarns used 3 ends together throughout.



40sts = 133mm, 40Rs = 61mm, measured over patt.



Two colour cable pattern with manual pusher selection. See Diags.



Page 4.



415g Size 102cm.



Manual cable pattern in two colours is made on a long stitch based fabric. 3 ends of each colour taken through eyelets together throughout. Pattern is made on the BB. FB K plain throughout. Settings identical for all machines. Cut & sew neckline may be used instead of shaping.



A. CoCir 2X1 Col 2. After CoN change to Col 1 & K as chart.

B. Push all empty Ns to WP. With Col 1, K 1 R N/N SS 3/3. 2Rs CX/CX SS 4/4. 1 R N/N SS 4/4. Set for patt as Diags. K as

chart & Diags, 2Rs Col 1 2Rs Col 2.

C. Cont in patt & dec as chart. CoF.



A. As Back A.

B. As Back B.

C. Divide work using length of nylon cord to knit Ns down to NWP. Note Lt side BB pusher positions & place withing blocking rail. Work on Rt side first K & dec as chart.

D. Dec as chart.

Return Lt side sts to Ns. Place BB pushers in correct positions, & k Lt side reversing shaping.



A. As Back A.

B. As Back B & inc as chart & Diags.

C. Dec & K as chart. CoF.



CoCir 2X1 Col 1, 150Ns. \*SS4/4 K 7Rs. SS3.5/3.5 K 7Rs. SS3/3 K 8 Rs\*. K 2 Rs Col 2. Rep from \* to \* in reverse order. Push up all empty Ns to WP. Trans all sts to BB. Black strippers. S/S 4/4. K 4Rs. Change to WY, K 10Rs & rel.



Block & gently steam all parts to size. Join shoulder seams. Sew sleeves to body, matching centre sleeve to shoulder seams. Join side & sleeve seams. Sew collar to neckline, starting at Lt shoulder seam, backstitching through open loops to outside of garment, unraveling WY as you go. Join collar seam. Fold collar in half to inside & slip stitch down. Give final light steaming.

	86 cm	96 cm	102 cm
1	40	40	40
2	160	160	160
3	A	A	A
4	B	B	B
5	118	126	138
6	88	96	105
7	(1)	(1)	(1)
8	195	195	195
9	C	C	C
10	7	7	7
11	49	49	49
12	38	38	38
13	118	126	138
14	82	90	98
15	(3)	(3)	(3)
16	52	52	52
17	65	65	65
18	(2)	(2)	(2)
19	99	99	99
20	191	191	191
21	157	161	164
22	1	1	1
23	0	0	0

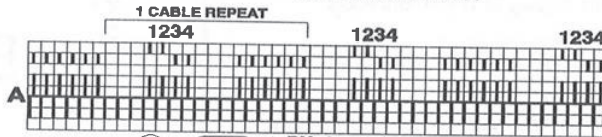
	86 cm	96 cm	102 cm
1	40	40	40
2	160	160	160
3	A	A	A
4	B	B	B
5	62	66	70
6	3	3	3
7	3	3	3
8	195	195	195
9	C	C	C
10	7	7	7
11	29	29	29
12	38	38	38
13	120	122	128
14	3	3	3
15	3	3	3
16	39	38	39
17	56	57	58
18	(2)	(2)	(2)
19	101	101	101
20	1	1	1
21	190	190	190
22	132	133	134
23	190	190	190
24	138	139	140
25	0	0	0



	86 cm	96 cm	102 cm
1	40	40	40
2	160	160	160
3	A	A	A
4	B	B	B
5	118	126	138
6	88	96	105
7	(1)	(1)	(1)
8	195	195	195
9	C	C	C
10	7	7	7
11	49	49	49
12	38	38	38
13	118	126	138
14	82	90	98
15	(3)	(3)	(3)
16	40	40	40
17	65	65	65
18	(2)	(2)	(2)
19	229	229	229
20	7	7	7
21	51	51	51
22	191	191	191
23	157	161	164
24	1	1	1
25	72	72	72
26	168	176	184
27	190	190	128
28	130	130	191
29	183	183	131
30	2	2	128
31	159	159	183
32	2	2	2
33	6	6	159
34	0	0	2
35			7
36			128
37			0

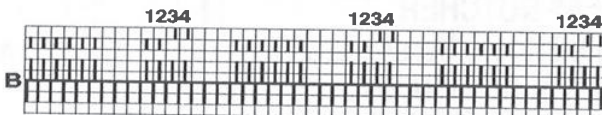
N 2.5  
N 2.5

SET UP 5 CABLE REPEATS FOR FRONT AND BACK, 3 FOR SLEEVES. CENTRE CABLE STS 123 AT CENTRE OF BED.



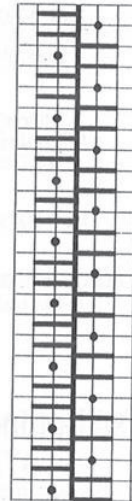
← BX 4 DUO 5 ONLY 3.5  
N 4.5

Knit 2Rs Col 1, 2Rs Col 2 for 20Rs. Cross sts 1&2 over 3&4. Reset pushers as next Diag & repeat.



← BX 4 DUO 5 ONLY 3.5  
N 4.5

Knit 2Rs Col 1, 2Rs Col 2 for 20Rs. Cross sts 1&2 over 3&4. Reset pushers as next Diag & repeat.









# THE KNIT CLINIC

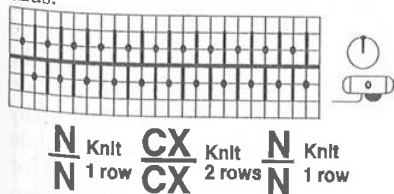
George le Warré

Last time, at the end of the Knit Clinic, I gave you some of the equivalent lock settings for the Duomatic and the E6000 machines, and this theme is continued in this issue, but concentrating more on "Knit Techniques" as they are called by E6000 users.

In the instruction manual for the electronic machine, there are over 280 of these techniques that are programmed in to the console, to make the front lock work in a particular way to produce stitches of a particular type and structure. What many knitters do not perhaps realize, is that often these can be achieved in other ways, or varied on the E6000, and that Duomatic owners can also use these, but with sometimes different lock settings.

These notes are not intended to supersede the manual in any way, more to enable knitters on Duomatics and E6000s understand that many of the simpler things are possible on both machines without the use of the electronics, and to help Duomatic knitters understand what is happening in patterns that are written for E6000 machines. The E6000 technique number may be thought of as a sort of shorthand for a stitch type if you like. Let us look first at some of the cast on techniques. (Numbered 1 through 14).

Number 1 is a tubular cast on in 1 X 1. On the E6000, this is semi-automatic, in that the only changes required to the NX levers take place on the back lock. It is perfectly possible on both machines to make this cast on manually by setting the machine thus:-

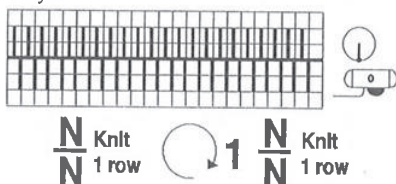


$\frac{N}{N}$  Knit 1 row  $\frac{CX}{CX}$  Knit 2 rows  $\frac{N}{N}$  Knit 1 row

Technique 2 is the same type of cast on, but with the needles set for K/K,

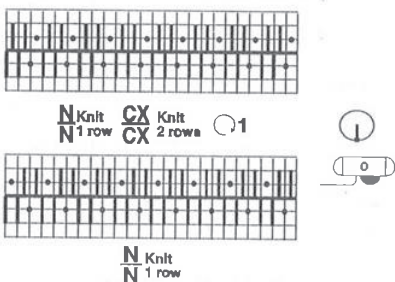
(every needle rib), and is made in exactly the same way.

Technique 3 is a K/K cast on with racking. This is made manually in this way:-



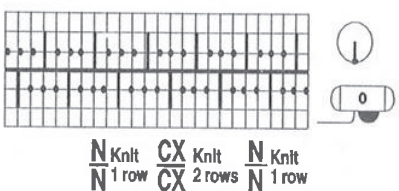
$\frac{N}{N}$  Knit 1 row  $\frac{N}{N}$  Knit 1 row

Techniques 4 & 5 are again tubular cast ons, but for different needle set ups. 4 being a 2 X 1 rib, (sometimes called an industrial 2/2), and 5 is a 3 X 1 rib. To make a manual 2 X 1 cast on, follow these instructions:-



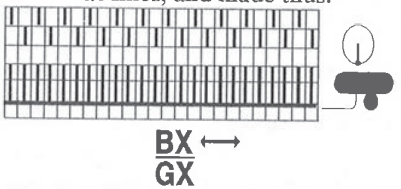
$\frac{N}{N}$  Knit 1 row  $\frac{CX}{CX}$  Knit 2 rows

The 3 X 1 cast on is made exactly as for the 1 X 1, but with the needles arranged in this way:-



$\frac{N}{N}$  Knit 1 row  $\frac{CX}{CX}$  Knit 2 rows  $\frac{N}{N}$  Knit 1 row

Casting on for stocking stitch on the back bed in four rows is identical for both machines, and made thus:-



$\frac{BX}{GX}$

Casting on in six rows is exactly the same, except you need to make two more passages of the locks.

These cast on methods may be used on the front bed of the Duomatic as well, and correspond directly with cast on numbers 6 and 7 for the E6000.

Another quick method of making a fast edge cast on for either machine, on either bed is to arrange needles on one bed only in a 1 up 1 down formation. Set the lock that will knit to N, and the opposite one to GX. Black strippers. Set the stitch size a half number lower than for stocking stitch with the yarn used, and knit 1 row. Push all the needles up to working position, raise the stitch size to that for stocking stitch, and knit 1 more row. Continue knitting. This is not a perfect cast on, but is fast and efficient enough for getting waste yarn onto the machine, prior to knitting in the main yarn. I often use it for casting on in waste before a single bed tension swatch.

Now let us look at some of the other techniques that may be done manually.

104 is every needle fisherman's rib, but may be knitted on both machines manually by setting both locks to EX, (in addition to EX/KX for the E6000). Technique 112 is the same, but on every other needle, and is knitted with the same settings.

105 is every needle half fisherman's rib. May be knitted on both machines by setting one lock to N, and the opposite one to EX. 113 is knitted on every other needle in the same way.

107 is tubular knitting. This may be achieved by setting both locks to CX, but don't forget the black strippers!

Techniques 116 and 117 are both long stitch, (half milano). In 116 the long stitch is formed on the back bed, in 117 on the front bed. Both may be produced manually. 116 locks set to CX/N. 117 locks set to N/CX.



Technique 119 is Overknit, which is a very useful way of producing a firm, yet pliable fabric, particularly with thin yarns. To knit this manually on the E6000 set the lock to BX and left arrow key on the back bed. Every needle having a pusher in alternate positions. Front lock to CX. Set the Duomatic as above, or reverse the lock settings, so that CX is on the back bed, if you wish.

These basic techniques should help knitters realize that whilst the electronic and Duomatic machines use different names for many settings, much of what is involved in a technique is very similar on either machine. Electronic machine knitters may sometimes find that using a manual version of a technique can be useful.

### MISPATTERNING

This is a continuing problem that seems to rear its ugly head almost weekly in the letters tray. It can have many causes, but the most common, is still damaged or dirty needles, or sticky pushers. We have dealt with these before, but just a reminder that the needles and pushers do need cleaning, as well as their channels, at fairly frequent intervals.

When you clean your machine, examine each latch on all the needles. A latch that is not working properly can cause that needle not to pattern correctly, drop stitches, or even refuse to knit if badly damaged. The tell-tale sign to look for with a damaged latch in the knitting, is a vertical mispatterning line up through the work. Find the needle and replace it with a new one. Trying to bend the latch or needle to straighten it is really not worth the effort. Another point to remember, is that if the latch on a needle is damaged, it is likely that you may have also damaged your stripper blades in the process. So check these carefully too, for scratches and nicks in the plastic blades, or wheels and blades of the black strippers.

A sticky pusher is one that does not slide easily up and down in its channel. If this happens on the front bed, the pattern will not be correct. On the back bed, the backing in jacquard will be incorrect. Take out the pushers

and clean thoroughly, and the channels. Wipe the pushers with a cloth dipped in Bellodor Oil, and replace them. Sticky pushers and sticky needles are avoided with regular cleaning.

Still on the subject of regular cleaning, do make sure that when you remove needles and replace them, you follow the instructions in the manual to the letter.

Under the top rail of the machine is a long coiled spring that acts as a brake on the needles. If this gets damaged or kinked by pulling needles out with the latches open, it will not work correctly and cause the needles to mispattern. The spring will need to be replaced if this happens.

One more thing on cleaning. It is very important that you use the correct cleaning fluid, as recommended in the manual, (5% Bellodor Oil and 95% Surgical Spirit). Surgical spirit is sometimes known as "Rubbing Alcohol" in North America, but when buying this, do make sure that it does NOT have any water content, (some brands do contain a percentage of water). Ask the pharmacist if in doubt for a non-water content brand. If necessary, take your machine manual with you, and explain what the fluid is for.

### HIGH POWERED KNITTING?

When you are knitting on the E6000 machine, do you encounter problems with the console suddenly, displays gibberish? If so, it could be that the problem is static electricity.

This most often occurs in very cold, or very dry weather conditions, where there is not enough humidity in the air to drain away the static charge. It can also happen if your machine is standing on a nylon carpet.

There are static charge "drain" kits available, in the form of a bracelet that the user clips onto one wrist. The other end of this should then be attached to an earth, or ground. The best way to do this is attach it to the central heating radiator. It can also help if you earth, (ground), the machine as well. Tie a length of bare bell wire around the clamp that holds your machine to the stand. Attach the other end to the radiator, or out

through a window and bury the end in the garden. In some countries outside the U.K. there are grounding kits available from your dealer, especially for combatting this normally cold, dry weather problem.

### EASIER TRANSFER OF STITCHES

Many of us find that transferring stitches from one bed to another in small groups, where using the U100(E) is not practical, a bit of a chore. It wasn't until a short time ago that I realized that the method I have used for years, was perhaps not common knowledge. I was in the office transferring front bed stitches to the back bed, and Pat Coulston, our Assistant Editor, peered over my shoulder and said, "Whatever are you doing".

I was using the double ended eyelet tool to transfer of course, but instead of all the hassle of holding the fabric down under the beds with my left hand, I had removed the orange stripper, and was holding this in my left hand, using the blade of this to hold down the zig-zag, whilst transferring over the top of the wire section.

Pat was fascinated, and could see how much easier this made things, particularly if transferring when only a very short piece of knitting is between the beds, and cannot be grasped with your free hand. She promptly "had a go" at this technique, and announced that it was the best tip she had seen for ages. I thought nothing of it, because I had been doing it for years without it occurring to me that others may not have tried it. I cannot take the glory for this tip, as it was shown to me many years ago by a knitter whose name I have unfortunately forgotten. To use this tip, remove one of the strippers from the locks. Press the wire section of the blade firmly down onto the zig-zag yarn between the beds, then use the double eyelet tool to transfer stitches in either direction. It works every time, and if you need to transfer more stitches than the length of the stripper blade, just slide the stripper along the work. Any stitches already transferred, will slide off the wire, and you can continue for as many stitches as you like. (It also shows that you must never assume that everyone knows everything).



## NICE 'N' EASY

Last time we looked at squares and rectangles of knitted fabrics for garments, and we are continuing in this theme this time.

The knee rugs by Eileen Metcalf, are again knitted rectangle, but this time we have been a little more adventurous, in that they are in a jacquard stitch type, using several colours. Both are relatively quick and easy to make, and are very good practice for using jacquard techniques. Don't necessarily always follow a pattern slavishly, try other types of jacquard too. The sizing of these rugs is not all important, as it would be for a garment, so if changing the type of jacquard makes a difference to the finished size, it is not going to matter a great deal.

Here are some suggestions. First try knitting with BX and both arrow keys on the back lock, pushers in a one up and one down formation. Then set the back lock to N. Then back lock to EX.

Try the back lock first on AX, then on DX with pushers one up one down. There are many more varieties to try, each one making a slight difference to the fabric. Using these varieties on something where sizing is not too important is a good method of becoming familiar with the capabilities of the machine.

More knitted fabric rectangles are how the Wrap Coat is knitted. This consists of just three main sections, which are sewn together into what becomes an interesting garment. The edging too consists of very long rectangles, which are sewn on to finish the edges neatly. The stitch type used in this garment is one known as Over-knit, in which one bed knits every row and every stitch, whilst the opposite bed knits on alternate needles in alternate rows. Because of the type of yarn used for this garment, which is a fine lambswool, on steam pressing, this fabric becomes very soft and pli-

able, with the draping qualities necessary. You could also choose to make this garment in a jacquard type stitch pattern, as the construction of Over-knit and jacquard are very similar, so would not alter the sizing too much if using the same yarn.

The skirt from the Lavender Suit, is again rectangular knitting, with just two panels making the finished garment. There is no shaping involved, the panels just being made in every needle rib, (K/K), from the cast on to the hips. At the hip level, the stitches are transferred into a 1 X 1 needle setup, which effectively makes the garment shaping, but without actually moving or decreasing stitches. The shape being created by the change in stitch structure and tension within the knitting.

Next time, we shall be looking at some classic garment shapes, and how to "dress them up" and change them.

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# CARPET STITCH ON THE E6000 MACHINE

Denis Cook, "Mister-Knit" from the U.S.A.

Well, now we find another "You cannot do this on the E6000" solution, and the answer definitely is..... See how you cannot do this on the E6000. See how easy it is to do, this thing that cannot be done!! Here is the solution to carpet stitch, step by step.

As with the Duomatic machines, after the welt, band or whatever is completed, all the stitches must then be transferred to the back bed needles.

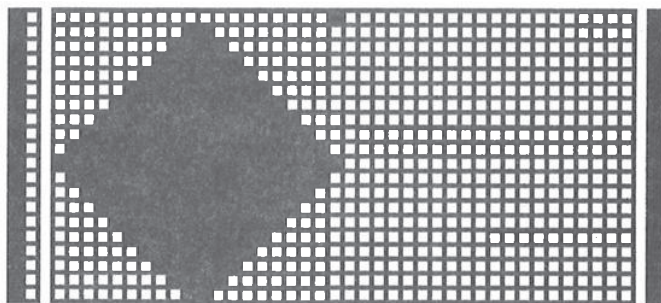
The technique to use for single colour work is number 256, but here you DO NOT FOLLOW THE INSTRUCTIONS displayed on the console, and surely we are all becoming used to doing this and cheating a little now and again?

The setting used for the back lock is FX and both arrow keys, not BX and left arrow key as directed. Set the pushers on the back bed to 1 up and 1 down formation. The front lock will be set to LX, as directed by the console.

Knit two rows, then with the aid of the "Drop Stitch Accessory", (available from MISTERKNIT Inc. U.S.A.), drop the stitches from the front bed. If you do not have this accessory, you can use your orange needle selector, flat edge against the front bed needles. Push the needles up so that the stitches fall behind the latches. Then return the needles to working position, allowing the front bed stitches to drop off the needles. This must be done after every two rows of knitting.

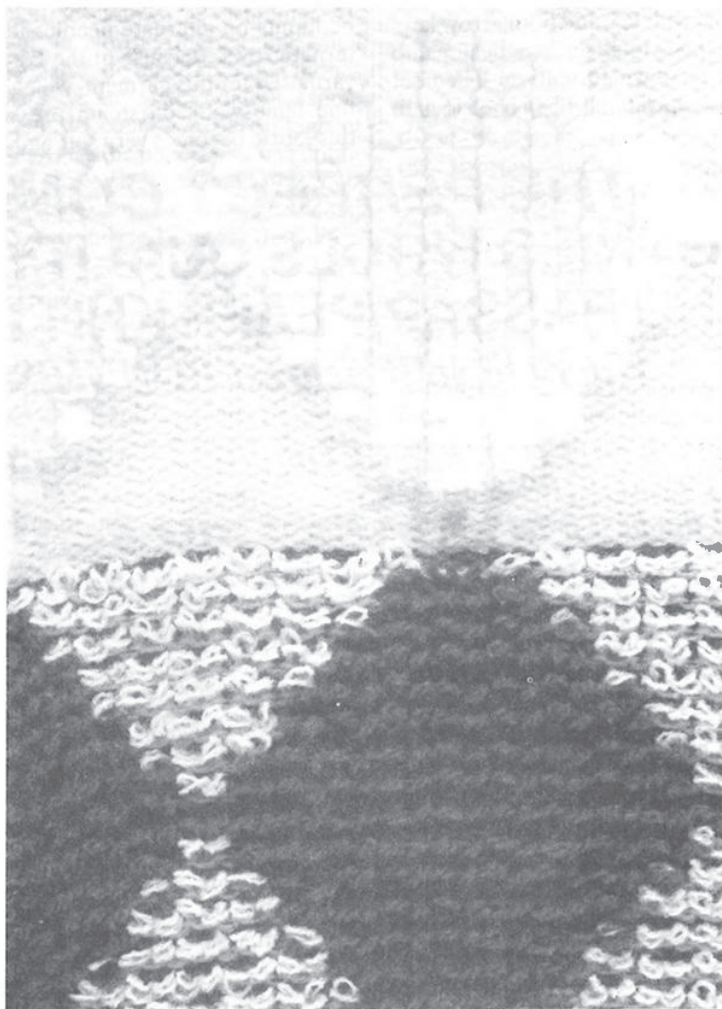
For two colour work, the technique is 184. Any two colour jacquard card is suitable, according to your taste. The card shown here, along with the sample, is a "self drawn" one. The instructions and settings are as for single colour work above, and stitches are dropped off the front bed needles every two rows.

Who says it can't be done on the E6000!



Self Drawn Card for Sample Shown Below

DUO MACHINES: Punch twice over card width & omit last line







# D20711a & D20711b Rugs



5, 80, 6000



Eileen Metcalf, for Bramwell.



81cm Wide & 110cm Long.



BRAMWELL DuoMagic  
100% acrylic. 270m per 100g.  
20711a:- 100g each Col 1,  
Purple: Col 2, Royal: Col 3,  
Jade: Col 4 Black.

20711b:- Col 1, Royal: Col 2,  
Black: Col 3, Puffin: Col 4,  
White. Or colours of your  
choice.



40sts = 141mm, 40Rs = 37mm  
measured over 4 colour jac-  
quard.



4 colour jacquard with card(s)  
given.  
Cast on 2. *St Patt A Tech 235.*



Page 4.



375g Each Rug.



These rugs are ideal for using  
up oddments of yarns, as well  
as for practicing various ja-  
quard techniques. If pastel  
shades are used, they make  
ideal baby blankets. They may  
also be used as throw covers  
for chairs, or wall hangings.



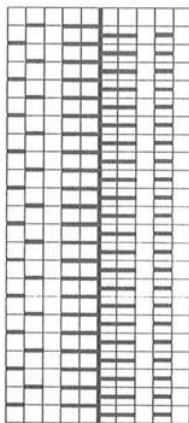
A. CoCir K/K 179 Ns Col 1.  
Cast on 2.  
B. Set for *St Patt A* as *Diag. St  
Patt A Tech 235.* K as chart.  
CoF.



Using 3 ends DouMagic, work  
1 double crochet all round  
edges. Then Crab Stitch, or  
backwards crochet around  
again.

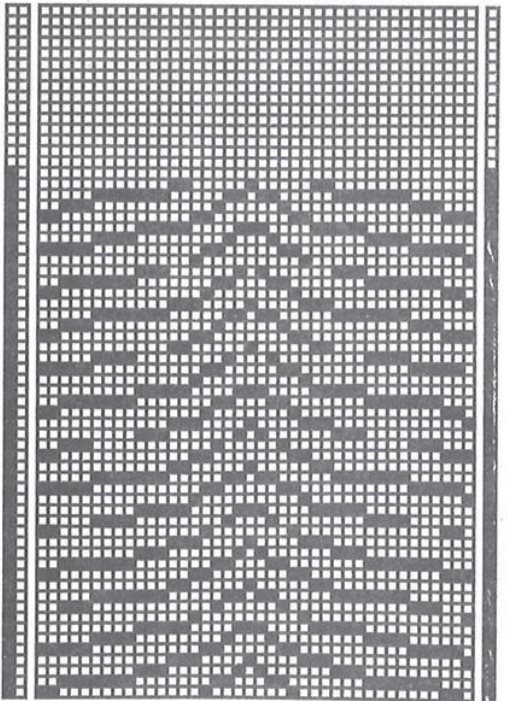
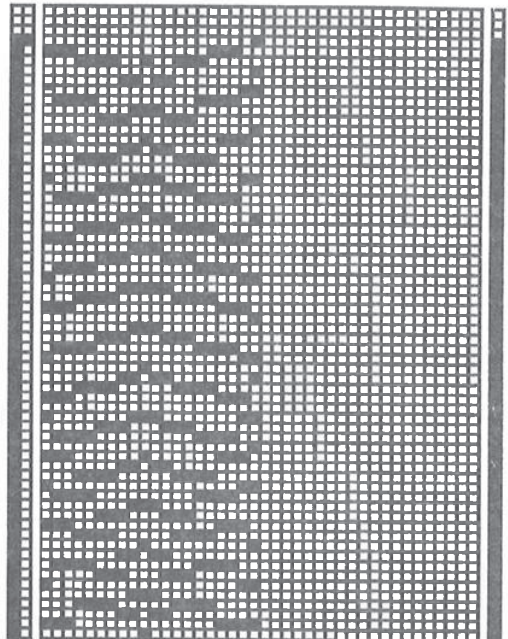
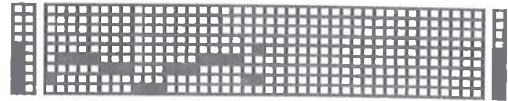


1	80
2	160
3	A
4	B
5	25
6	20
7	81
8	38
9	25
10	20
11	81
12	6
13	6
14	110
15	0



## CARD D27011a

For Deco, punch twice on card  
width, omitting final blank rows &  
Rt top black squares. Join as one  
card



## CARD D20711b

For Deco, punch  
card as shown

RC1200

RC000  
RC4  
RC000



110cm

81cm  
179sts

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**D20701  
Wrap Coat**



**5, 80, 6000**

"Gee Wizz", England.



One size garment, suitable for up to 112cm Bust.



Back length 110cm.



**ADELAIDE WALKER**  
2/28's Lambswool. Approx 1410m to 100g. 500g Mink = Col 1. 200g Fawn = Col 2.



40sts = 84mm, 40Rs = 58mm, measured over stitch pattern after steam pressing.



Interlock for all parts. See Diag. Cast on 2. Tech 118.



Page 4.



550g.



The yarn used is waxed, & not oiled, so will not require washing before pressing & measuring. Simple to knit, consisting of 4 rectangular main sections. Stretch fabric lengthways in pressing to close up stitch formation, & to obtain soft draping quality. Edges bound with knitted strips.



**KNIT 1**

A. CoCir K/K as Diag.  
B. Set Lks as Diag for st patt. K str as chart, CoF.



**KNIT 2**

A. As Back A.  
B. As Back B.



**SCARF**

A. As Back A, but using Col 2.  
B. As Back B.

**EDGING**

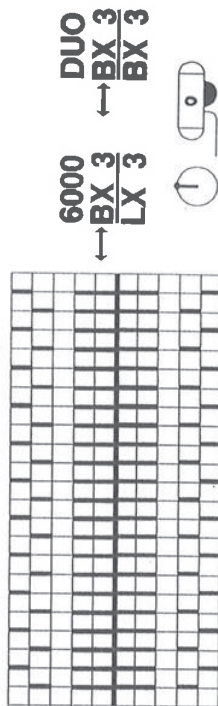
CoCir K/K 20Ns Col 2. Set Lks as Back B. K sufficient length to bind front, bottom & side edges. CoF.



Steam press all parts & block to size. Fold both front/back panels in half lengthways. Join centre back panel to both backs. Sew scarf section to back neck, and to front inside edges for approx 20cm.

Fold & steam press edging in half lengthways. Cut lower front and back to even shallow curves. Attach edging to outside of garment starting at point where scarf is joined to Rt front. Cont around outside edge to point at Lt front scarf. Fold edging in half to inside, slip stitch in place. Steam press seams and edgings. Give final light press.

**DIAGRAM 1 "Interlock" stitch pattern**



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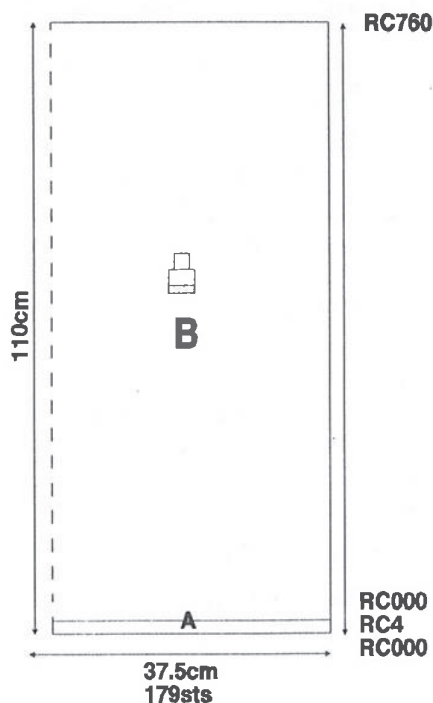
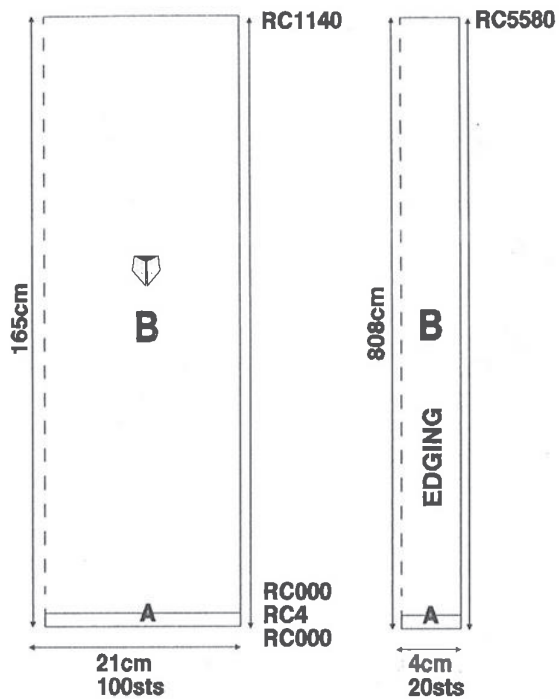
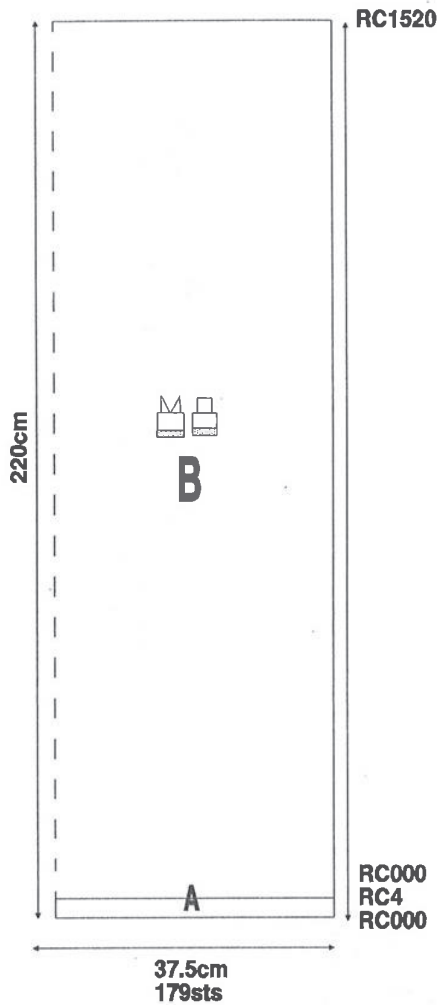
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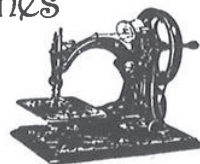
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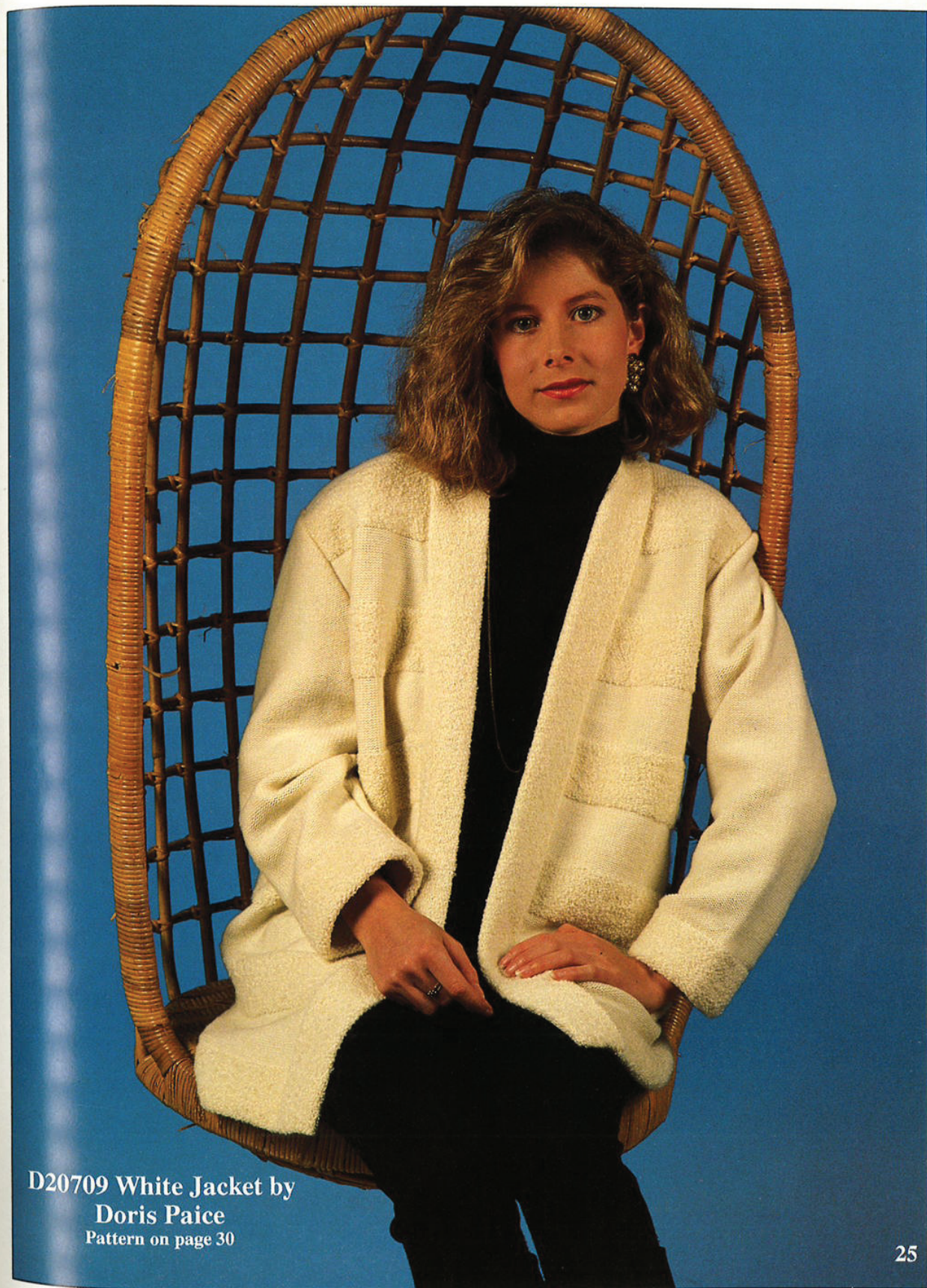
**D20701 Wrap Coat by  
"Gee Wizz"**  
Pattern on page 21





**D20711 Knee Rugs by  
Eileen Metcalf for  
Bramwell**  
Pattern on page 19





**D20709 White Jacket by  
Doris Paice**  
Pattern on page 30





D20708 Lilac Suit by  
Anne Marsh  
Pattern on page 28



# HELLO FROM NEW ZEALAND

## Hello Knitters,

It is a wet and windy day as I write this - just the sort of day to be at the knitting machine. Those in the Northern Hemisphere will be planning their summer wardrobes. For us "down under", we are getting into the full swing for the cooler months to come.

Our capital city is Wellington, which is on the southern tip of the North Island. I first landed there, by ship, over forty years ago. My first impression on that sunny day was of a beautiful harbour, virtually landlocked. The steep hills surround the harbour to add to the beauty, and it is still my favourite city. Whenever I go there it looks different - depending on the weather. An artist would have an ever changing picture. Ferries for the South Island leave from Wellington, and cross the Cook Strait. This stretch of water can be as smooth as a mill pond, or as rough as h...., and the city is known as "windy Wellington". This is a little unfair, as it gives the impression of a place where the wind never stops blowing. Not true.

My hint for this issue is not original, but is one that I use constantly, and one that was given to me in California about eight years ago. It is called Swedish Rib, and is a beautiful rib/hem which I use on all my double bed jacquard sweaters. It sits fairly flat, and does not pull the waist/hip band in too tightly, which I find ideal for a man's sweater. I would not use it for the wrist welts, as it does not fit snugly enough. I set the needles and pushers on both back and front beds as for double bed jacquard. Back pushers 1 up and 1 down, back lock BX and both arrow keys in. Front lock on N, but with the selector dial at B, ready for later.

Knit one row from right to left, and notice that alternate needles on the back bed picked up a loop of yarn. All the needles on the front bed picked up a loop. Knit one row from left to right. This time the back bed needles that did not knit the first row knit only. Again all needles on the front bed have knitted. Cancel the back lock arrow keys, but leave the setting on BX. The front lock remains on N with selector dial on B. Knit about

seventy rows. Watch how the knitting grows, and you will see that the needles on the back bed with a pusher in working position knit. Those with a pusher in rest position hold a loop of yarn for 70 rows. The front bed will knit every row. The work is folding into a hem. After completing the seventy rows, (or any number to suit), press both back lock arrow keys. Flick the front lock lever to X, you already have the dial on B. With the pushers out of the rail, all you need to do is attach the Deco, and away you go, straight into the jacquard pattern.

By the time Duet International number 7 is on our shelves, I shall be in Washington attending the Passap University. I am getting quite excited about it, and look forward to learning more about our great machines, so that I can pass it on to all our Passap Knitters here. What a fascinating machine we have, that we are always learning. How could one ever get bored with so much just waiting to be created.

Until the next issue, happy knitting!

Doris Paice, Auckland, N.Z.

## CANADA CALLING

Dear Passap Knitters,

I know you have been enjoying our Passap Knits in the last issue of Duet International. I have received numerous 'phone calls from customers across Canada to show their appreciation. Thankyou everyone who has participated, and are continuing to contribute to the magazine. I think it is fantastic to be part of such an informative magazine.

We have added two new Passap dealers since the last time I was talking to you. Cathy Carlino, from Salvatore Originals of Schreiber, a suburb of Thunder Bay, Ontario, and Michael Becker from Creative Odyssey of Gloucester, a suburb of Ottawa, Ontario. Michael has already has a knitting club, who meet the last Tuesday of every month.

For more information on these two new dealers, please contact Cathy Carlino on 807-824-3157 and Michael Becker on 613-822-0271. Welcome to the

Passap team both of you, and good luck with your new ventures!

I am travelling a good deal these days, and am not in the office a lot. If you need any information, or have any questions regarding Passap, please don't hesitate to contact John Stam on 416-759-4486. John is the Educator for all knitting machines at Husqvarna-White.

As you know, Canada is a vast country, stretching from the Atlantic, to the Pacific ocean. From Halifax on the Atlantic, to Vancouver on the Pacific, it is 6,182 kilometres, and when it is noon in Halifax, it is 8 o'clock in the morning in Vancouver. How is that for big!

We also have two official languages, English and French.

Best wishes until next time,

Monique Chevassu, Husqvarna-White, Canada.



**5, 80, 6000**  
Anne Marsh, England.



92[97:102:107:112:117]cm  
Bust. Length 70cm. Skirt  
97[102:107:112:117:117]cm  
Hips. Length 80cm (adjustable).



102[107:112:117:122:125]cm  
Bust.  
107[112:117:122:127:127]cm  
Hips.



BRAMWELL 2/30's acrylic.  
2 X 500g cone Lilac = Col 1.  
12 buttons. Length waistband  
elastic to fit.



40sts = 250mm, 40Rs = 55mm  
measured over tuck patt. 40Rs  
rib = 87mm. Skirt 40sts  
= 191mm, 40Rs = 66mm.



Jacket. 1X1 rib. Double bed  
tuck patt with Card 77 shown.  
6000 Cast on 2. St Patt A 1130  
Tech 138.  
Skirt. Longstitch as Diag &  
1X1 rib. 6000 Cast on 102 St  
Patt A 116. St Patt B 101.



Page 4.



Jacket 550g Size 117cm. Skirt  
450g Size 125cm.



3 ends yarn used for ribs. 2  
ends used for jacket & skirt.  
Wind off approx 100g from  
cone for knitting ribs before  
commencing. To adjust skirt  
length, knit 6Rs more, or less  
for each centimetre adjustment  
made.



A. CoCir K/K 3 ends Col 1 as  
Diag 1 & chart.  
B. 2 ends Col 1. Set for patt. K  
as Diag 2 & chart. CoF.



A. As Back A & chart.  
B. As Back B.  
C. Dec at Lt edge & K in patt  
as chart. CoF.  
Rep for second front reversing  
shapings.



A. CoCir 1X1 as Diag 3, Col 1  
3 ends.  
B. Push up empty Ns to WP &  
fill with purl loops from opp  
Ns. Set for patt as Diag 2. 2  
ends Col 1. K & inc as chart.  
CoF.



CoCir 1X1 as Diag 3. 3 ends  
Col 1, 110[116:130:134:140]Ns.  
K 40Rs. Fill empty Ns with purl  
loops from opp Ns. Lks  
CX/CX SS 5/5. K RC10. WY K  
several Rs & rel.



CoCir 1x1 as Diag 3, 3 ends Col  
1. K to RC 284 & rel. Do not  
cast off.



CoCir & K as button band, but  
making buttonholes at RC6, 24,  
50, 76, 102, 128, 154, 180, 206,  
258, 278. K to RC284 & rel. Do  
not cast off.



Join shoulder seams. Sew in  
sleeves, matching centre top of  
sleeve to shoulder seam. At-  
tach collar by backstitching  
through open loops to outside  
of garment, unravelling WY as  
you go. Slip stitch loops of  
second side of envelope to in-  
side, enclosing edges.

Attach button and buttonhole  
band to front edges with mat-  
tress stitch. Unravel excess  
knitting & crochet CoF bottom  
of both bands with latch tool.  
Join side & sleeve seams. Sew  
on buttons to match button-  
hole positions.



#### KNIT 2 PANELS

A. CoCir K/K 2 ends Col 1 as  
Diag 1.  
B. Set for longstitch as Diag 4.  
K as chart.

C. Trans all sts to 1X1 as Diag  
3. K as chart  
D. Trans all sts to FB so that sts  
are on working Ns only (1X1  
setting). Set Lks GX/N SS 5. K  
as chart with black strippers.  
WY K several Rs & rel.



Join side seams with mattress  
stitch. Turn band in half to in-  
side & slip stitch down, enclos-  
ing waistband elastic. Remove  
WY.

DIAGRAM 1

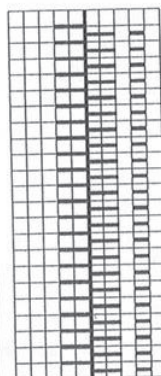
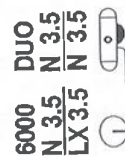


DIAGRAM 2

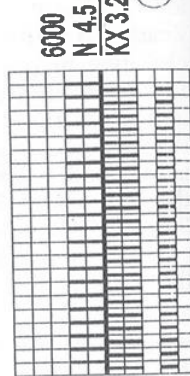
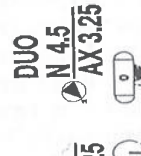


DIAGRAM 3

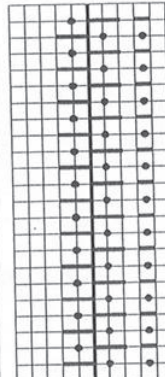
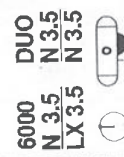
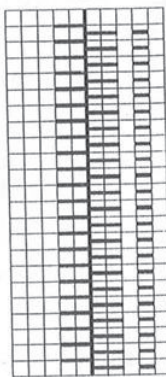
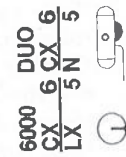
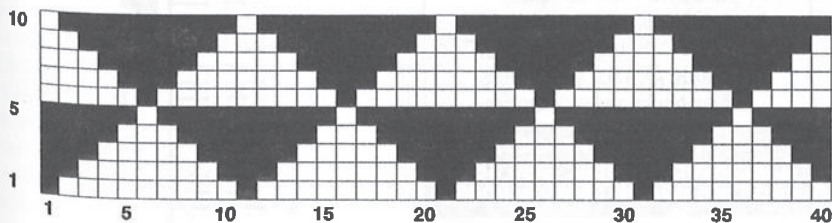
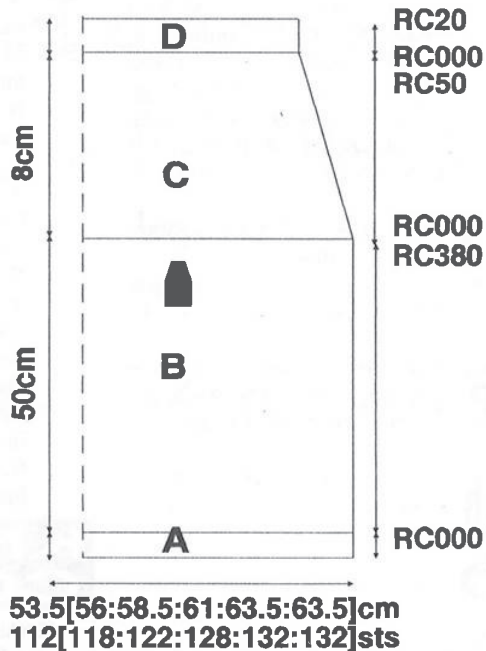
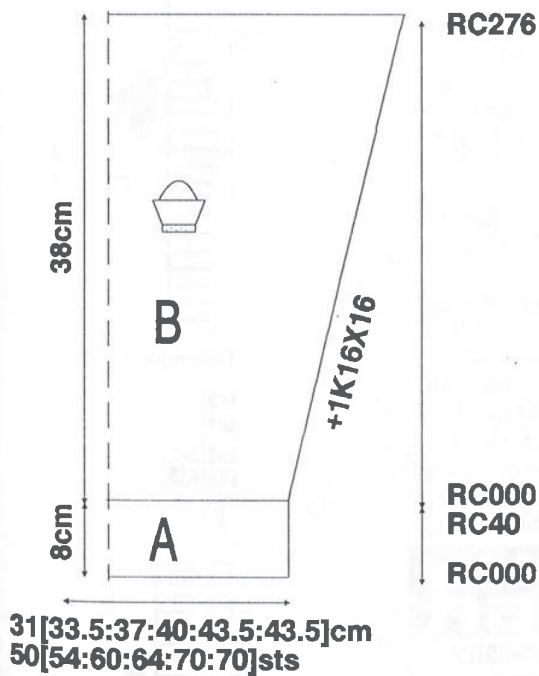
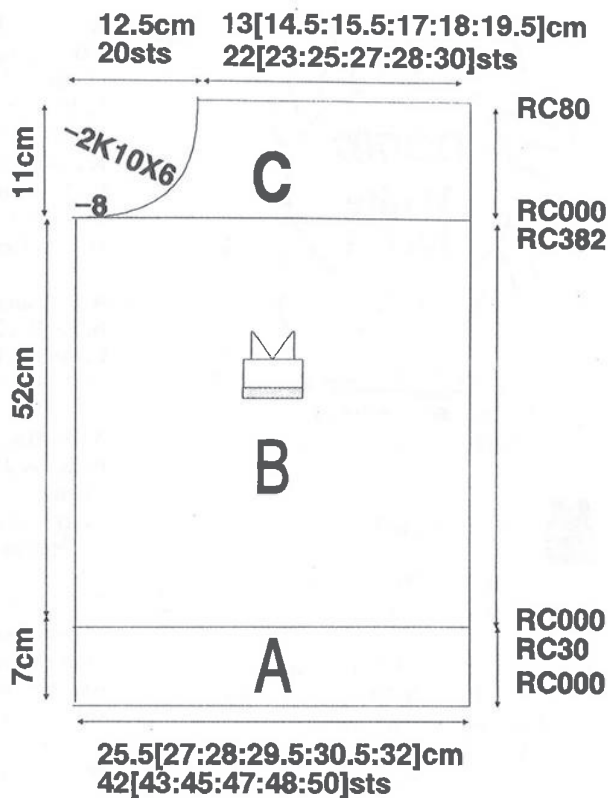
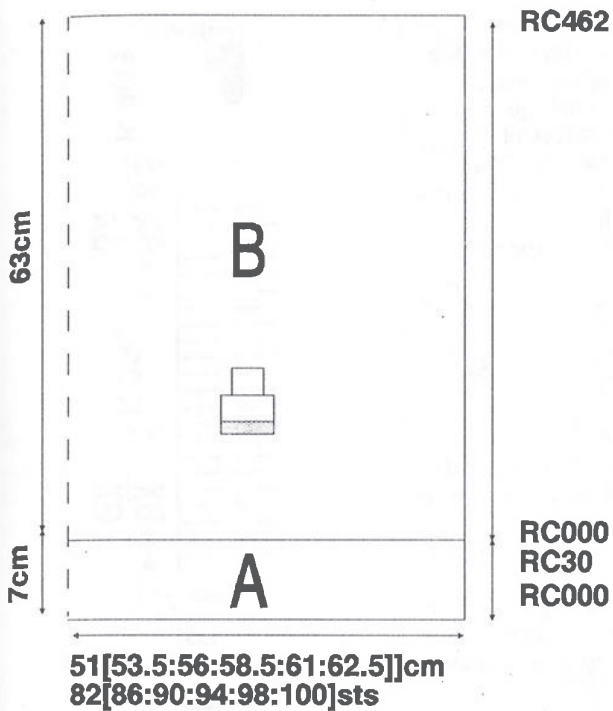


DIAGRAM 4







**DECO CARD**  
Punch design as shown,  
making 4 vertical repeats  
in all.



**5, 80, 6000**



Doris Paice, New Zealand.



92[97:102]cm Bust.



111[118:125]cm Bust.  
Length 73cm.



**ORIGINAL YARN**

Col 1 = 500g R68T wool white.  
(5 ends taken together).  
Col 2 = 500g bouclé wool,  
white. (2 ends + 1 end Col 1).

**SUBSTITUTES**

Col 1 = 500g Nina Miklin  
"ROMA". 100% lambswool,  
2/30's Shade 17, (5 ends taken  
together). Col 2 = 500g Bon-  
nies POLY-POODLE, 80%  
acrylic 20% nylon. (2 ends + 1  
end Roma).



Smooth Yarn 40sts = 138mm  
40Rs = 48mm.  
Bouclé Yarn 40sts = 138mm  
40Rs = 80mm.



Slip stitch throughout on back  
bed. Texture made with dif-  
ferent yarns. See Diags.



Page 4.



960g Size 92cm.



5 ends smooth yarn = Col 1. 2  
ends bouclé + 1 end smooth  
= Col 1. Wind yarns off cones  
before commencing garment.  
If substituting yarns, remem-  
ber that this may alter the ten-  
sions slightly. Purl side of  
fabric used as right side  
throughout.



A. Single bed CoN for stst on  
BB as Diag 1 with Col 1. K as  
in stst as Diag 2 & chart.  
B. K as Diag 3 in sequence:-  
\*50Rs Col 2, 30Rs Col 1\*.  
K from \* to \* 4 times in all.  
C. K from \* to \* twice and  
shaping as chart.  
D. K in Col 1 & shape as Diag.



A. As Back A.  
B. As Back B.  
C. As Back C.  
D. As Back D.



A. As Back A.  
B. K as Diag 3, Col 2 50Rs.  
Then set as Diag 2, Col 1. K as  
chart in stst.  
C. Cont in stst, shape as chart.



Block & steam all parts to size.  
Use purl side as right side. Join  
shoulder seams. Sew in sleeves.  
Join side & sleeve seams.  
Turn section A on back, fronts  
& sleeves to inside to form  
hem, slip stitch into position.



A. Pick up sts on back neck  
onto BB needles, with knit side  
of fabric facing you. Col 2. K  
and dec as Diag 3 & chart.  
B. Col 1. K and inc as Diag 3 &  
chart. WY K several Rs & rel.



A. Pick up edge sts of front as  
Collar A. Col 2. K as Diag 3 &  
shape as chart.  
B. Col 1. K as Diag 3 & shape  
as Chart. WY K several Rs &  
rel. Repeat for second side.  
Join collar/band seams with  
mattress stitch. Fold band/coll-  
ar in half to inside & slip stitch  
into place. Sew lower edge of  
front band sections together at  
hem. Give final light steaming.

Diagram 1

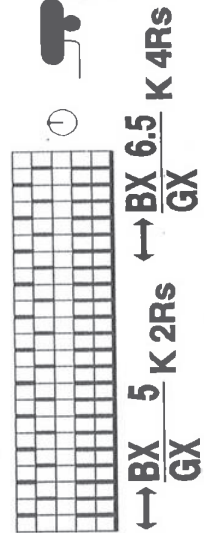
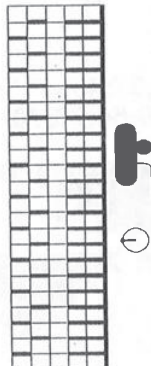


Diagram 2



Diagram 3

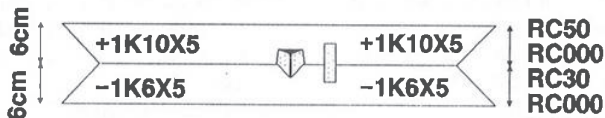
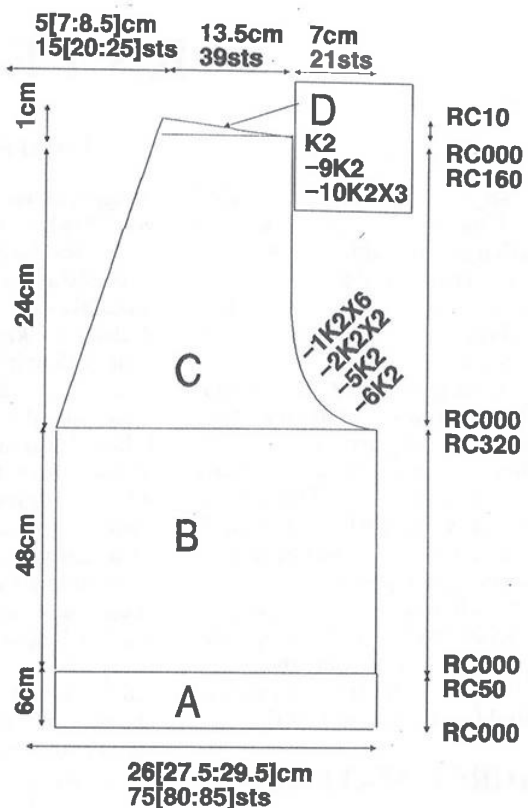
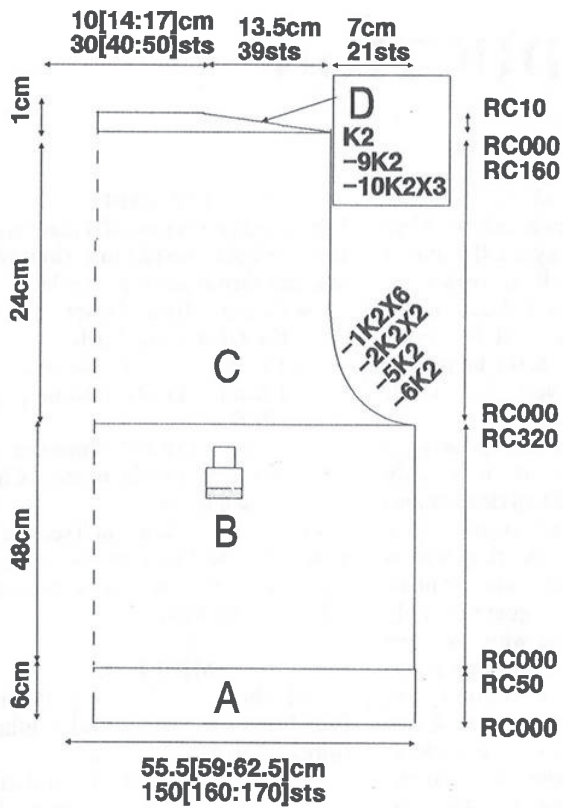


**KNIT-INN CORNER**

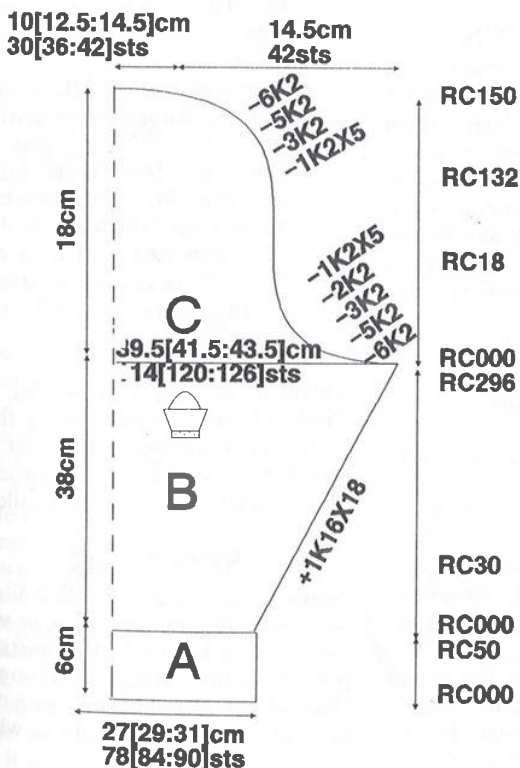
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# YARN PRODUCTION

George le Warré

In this short series of articles, we shall be looking at the various types of yarns that are available to us machine knitters. How they are produced, dyed and finished, and their suitability for various knitting techniques and methods.

Apart from general interest, understanding the raw material for knitting is almost as important as understanding your machine, and can save hours of wasted effort in knitting, because some yarns are just not suitable for certain things. If you understand the yarns before you start, it is possible to eliminate unsuitable yarn types before beginning the design and knit process, and use only those that you know have the basic properties required for the finished fabric.

## SOURCE MATERIALS

Yarn can be made from almost anything that has a filament, or thin thread-like structure. From animal hair through paper strips, to fine metal wire and glass.

Of course, not all of these will be suitable for knitting, so we are going to be looking at the main yarn types that most knitters will come across, and that are sold for knitting.

It is easy to assume that any yarn that appears on the market on cones is made for knitting, but this is not always the case. There are some types of yarns that occasionally appear on the counters of certain less than reputable dealers, that were never intended for knitting. These are usually very inexpensive and offered as a "bargain". What they really are, is ends of runs from factories that used the yarn for weaving, and this type of yarn is often spun in a totally different way to that used for knitting. It has a "lively" twist in one direction that will impart a bias slope to the finished knitting that is almost impossible to remove.

A quick way to test these yarns, is to unwind about a metre of yarn from the cone. Hold the end in one hand, and the cone in the other, hands about half a metre apart, and the yarn

hanging down in a U shape in front of you. Slowly bring your hands together and watch the loop of yarn. If it quickly twists around itself to form what looks like one yarn, don't buy it. It will distort in knitting and be more trouble than it is worth. If it hangs just as a loop, or has a very slight twist, then it should be fine.

I should also say here that these types of yarns and dealers are now fairly infrequently found. Most dealers and yarn shops would never offer you such "bargains", because they have a reputation to maintain and want to keep your custom. It is generally only the "back street" boys who are here today and gone tomorrow that try to sell you what is not true knitting yarn. In the U.K., there was a lot of this about in the late 1970's and early 80's, and many knitters have been caught this way. All is not lost even if you do have some yarn like this. It is possible to knit with it, but it takes a little preparation first, and we will deal with this a little later.

## FIBRE TYPES

There are three main groupings of source materials for yarns. Animal, vegetable, and mineral. Each of them containing many different varieties. In this series, we will be looking at those that are used for knitting yarns only, which is a relatively small number. Each of these three groups is again sub-divided into smaller groups as follows:-

### ANIMAL

Fibres that are produced by animals as a coat, or protective case.

- Sheep family:- wool
- Goat family:- mohair and cashmere
- Camel family:- camel hair, alpaca, vicuna, llama
- Rabbit family:- angora
- Insect family:- silk, (from the cocoon of the silk moth caterpillar)

Wool only comes from the sheep family, all other types of animal fibres produced as an "overcoat" by the animal, are called animal "hair".

### VEGETABLE

Fibres that form part of a plant structure, and obtained from various plant sources throughout the world.

- Cotton:- from the seed pods of the Gossypium bush
- Linen:- from the stems of the *Linum usitatissimum* plant, (flax)
- Ramie:- From the inner bark of the *Bohemeria nivea*, (China grass), plant

(This last fibre is not much seen in the U.K., but used in many fibre blends overseas, often as a less expensive substitute for linen).

### MINERAL

Metals that are rolled or pulled into fine fibres or strips, and synthetic fibres, (polymers)

- Metallics:- very fine metal strips encased in plastic. most frequently twisted in with other fibre yarns, or occasionally used alone.
- Synthetics:- made from coal, oil etc. These include polyamide, (nylon), acrylics, polyester and so on.
- Rayon or Viscose:- this is not a true synthetic, nor truly a natural fibre, but a "regenerated fibre, being produced from cotton waste or wood pulp, which is dissolved and then extruded as a new fibre. There are many varieties of this fibre with differing names.

Through this series of articles, we shall be looking at the yarns in their individual fibre types. But first we shall take a closer look at the process of producing a yarn, which is called

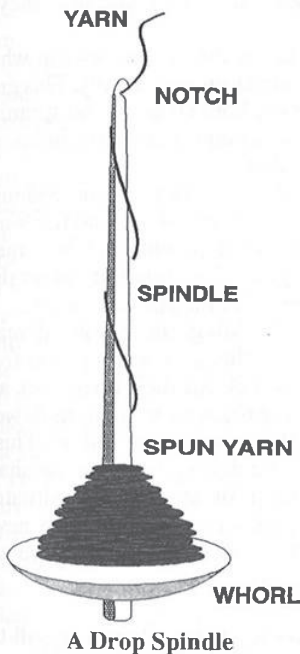
## SPINNING

No-one knows when the first fibres were actually spun into yarn, or who did it. This is lost in the mists of prehistoric time. What we do know, is that fibres were being spun for making into yarns and fabrics when people lived in caves.



It is possible to turn fibres into a yarn by twisting them into a length between your fingers. But to produce long lengths of yarn, this is cumbersome.

One of the first methods invented of twisting fibres was the spindle and whorl. These have been found on many sites with stone, bone or clay whorls. Sometimes the spindle was originally wood and has not survived, but some bone spindles have been found too. This spindle could be any length, and at the top had a notch or groove to grip the yarn. The drop spindle, which is what this is now commonly called, was one of man's first moves into automating what was in essence, a hand task.



#### THE DROP SPINDLE

To use a drop spindle, a length of previously spun yarn is attached to base of the spindle, wrapped around the spindle length, and a slip knot sits in the notch at the top. The whole thing hangs from this yarn. The spindle is twirled between thumb and forefinger, which makes the attached yarn twist. The new fibres are teased out, and laid onto this yarn, which then begin to take the twist also, spinning them into a yarn. More fibres are teased, and the spindle kept revolving. The whorl at the bottom of the spindle acts as a fly wheel, which keeps it spinning for a longer time.

The more the fibres are teased out and pulled lengthways before taking a spin, the thinner the yarn. Less pulling out results in a thicker yarn.

When the length of yarn is such that the spindle touches the floor, it is wrapped around the spindle base, and the whole process started again. Working in this way, many metres of yarn can be spun in one continuous length. The thinner the yarn, means more can be held on the spindle. Drop spindles all work in much the same way, although their design varies in different parts of the world, and from culture to culture.

#### THE SPINDLE WHEEL

All yarns were produced on a drop spindle, until the invention of the spinning wheel. The first ones being spindle, or "great" wheels. All these were, was a method of automating the spinning of the spindle, leaving the spinner with both hands free to tease and draw out the fibres. The wheel was spun by hand, and the attached belt turned the spindle, which was now positioned at right angles to the floor. The spinner stands at a slight angle to the spindle, allowing the spin to twist the fibres, caused by the yarn slipping off the spindle tip. When twisted sufficiently, the angle of holding the yarn is changed slightly, allowing the spindle to wind the yarn onto it's length.

The spindle wheel speeded up yarn production in a big way, and was in

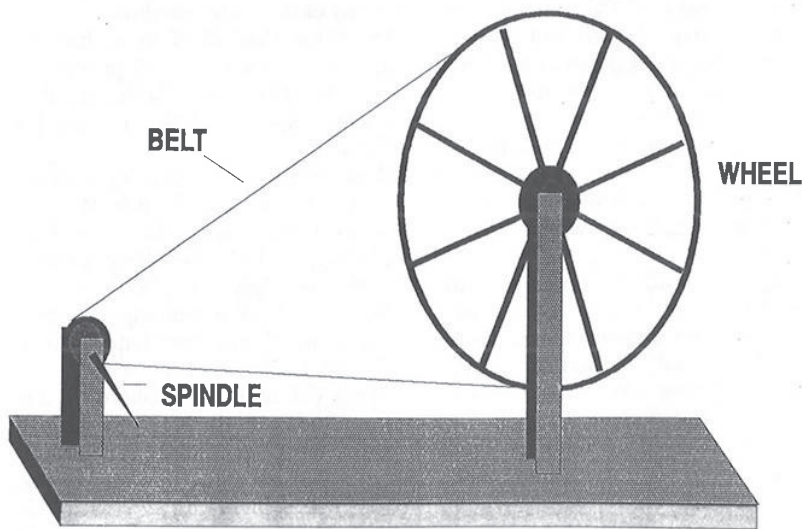
use all over the world in one form or another.

Yarns could be spun in either direction, imparting either an S or a Z twist. Turning the wheel in a clockwise direction with the drive belt uncrossed gives a Z twist. In a clockwise direction with the drive belt crossed, an S twist. The type of twist required depending on the intended use for the yarn.

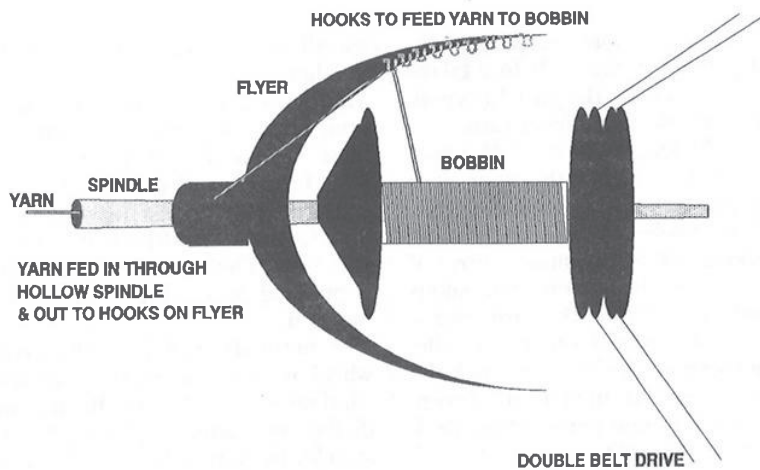
The main drawback to the great wheel, is that spinning the yarn, and winding it onto the spindle are two distinct operations. Spinning has to stop for the yarn to be taken onto the spindle. So spinning and taking up are still not a continuous process.

Many great wheels were in operation for centuries all over the world. In Britain, frequently as a cottage industry with one wheel in a cottage. But often several wheels would be housed in one building, and several spinners would work together. There are illustrations of these great wheels in documents dating back to the thirteenth century, and in some parts of the world were considered normal household equipment up to the end of the nineteenth century.

In later years the great wheel was improved upon by adding a gearing system, so that the belt from the large wheel drove a small wheel, which in turn had a belt which drove the spindle. This had the effect of speeding up the spinning action.



A Great Wheel



The Flyer

### THE FLYER SPINNING WHEEL

Around five hundred years ago, the next step in automating the spinning process took place. This was the invention of the "flyer" spinning wheel. The flyer is a horseshoe shaped piece of wood or metal, that spins around the spindle. The spindle itself now holds a bobbin for the yarn to wind onto. The action of the flyer is to spin the yarn, and allow the take up onto the bobbin to become part of the same process.

So spinning yarn was further speeded up because the spinner no longer needed to stop intermittently to allow the yarn to wind onto the spindle. The flyer allowed this whilst continuing to impart a twist to the yarn. In addition, the wheel itself was later driven with a treadle action by the spinners foot. More automation! This time not only speeding up production, but allowing the operator to sit down at what had up until this time, in Europe, been a standing job.

All yarns were produced on wheels of one or other of these types, for all fabric production, knitted or woven, right up to 1764, when James Hargreaves invented the Spinning Jenny, with multiple spindles. This was followed in 1770 by Samuel Crompton's semi-automated Spinning Mule, and Arkwright's Water Frame. From these inventions developed the modern Ring and Cap spinners of today, which produce yarns continuously and are fully automated.

So we can see from this "potted" history, that spinning yarn has been a continuing development since prehistoric times, with each improvement making the yarn production more speedy, even, and less strenuous on the spinner.

The way that yarn is spun, still differs in method for the type of yarn required for the finished article.

It may be "Worsted" spun, that is with all the fibres aligned in the same way as the length of the yarn.

"Woolen" spun, with the fibres arranged crossways to the yarn length, to incorporate more air.

Semi-worsted, with most fibres arranged lengthways.

Semi-woolen, with most arranged crossways to the length, and so on.

It may also be tightly or loosely spun by any of the above methods.

The thing that all of these have in common, is that they all produce a single length of yarn, whether hand or machine spun, and this is called a "singles".

Most yarn used for knitting consists of more than one length of yarn, twisted together. This is called "plying", and the resulting yarn is known as a "ply", or "plied" yarn. So the term "ply", is a spinning term, and has absolutely nothing whatever to do with the thickness of the yarn.

Plying, ("doubling" or "folding" as it is sometimes called), is the twisting of two or more yarns together. Normally, "singles" yarns that are spun on a Z twist, will be plied with an S twist. This twists the yarns so that they hold

together nicely, and also removes some of the original twist put into the yarn, making it softer and more pliable in use. S twist singles are usually plied with a Z twist for the same reason.

This takes us back to our yarn that we bought from the back street boy, that twists on itself when we do the loop test. This is a singles yarn, but can be made to work, by plying it with itself in the opposite direction to it's own twist. Wind off some of the yarn from the cone, and ply it using a home yarn twister, such as the "Daruma Twister", with the original yarn left on the cone. It will take time, but it will at least make a usable yarn from something that was initially a waste of money.

Now let us turn to the way in which yarns are spun industrially. This grew out of the home based hand spinning, and was a major part of the industrial revolution.

With the invention of the Spinning Jenny, Spinning Mule, and the Water Frame, yarn production became a factory based occupation, rather than one based in the spinners home.

Large buildings now housed many machines that used water power from water wheels for their operation, and this is the reason why many mills were built at the bottom of valleys. This is where the driving force, in the shape of a river or stream, was situated. Later, steam power from the newly invented steam engines drove the machinery.

For woolen yarns, there are still the two main types of yarns, worsted, and woolen spun. Each using their own methods of production.

The worsted spin is perhaps the main one utilized in the production of many knitting yarns, and is carried out on a series of machines, and one of the best ways to describe this, is to tell you about the Coldharbour Mill Working Wool Museum in Uffculme, Devon, England. This is a working mill, that is also an industrial museum, showing how woolen spinning was carried out at the beginning of this century. It takes you through all the processes used, with machinery actually producing yarns as you go.

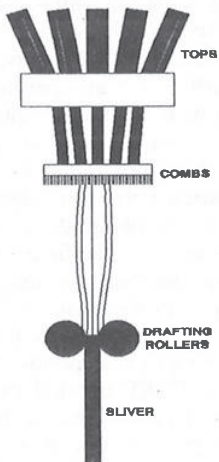


After sorting and washing, the fleece is combed so that the fibres are all aligned in one direction in a machine called a "gill box". When the fibre leaves this machine, it is in the form of a long, untwisted rope of fibres called a "top". The top may be put through further gill boxes to align the fibres and remove broken or misaligned fibres.

### Straightening The Fibres

From here the tops are fed into a machine called an "auto-leveller gill box". Several tops are fed in to the machine at the same time, and as they pass through, a small amount of oil is added to the tops by an oiling roller. The machine has a series of forty combs that vibrate up and down 600 times a minute, straightening and combing the fibres. On leaving the combs, the now single top is taken through "drawing rollers", which have the action of extending the top because they turn faster than the rollers pulling the top into the machine. The auto-leveller also ensures that the fibre rope, (now called a "sliver"), is of an even thickness. The sliver is six times longer than the tops that entered the machine. So for every metre of top that is taken in, six metres of sliver emerge, and are folded into a large revolving drum on the back of the machine. If coloured, (dyed), tops are placed through the auto-leveller, they are mixed into the emerging sliver, and the sliver itself may be taken through this machine more than once so as to blend colours further.

### "Drawing Out" The Fibres

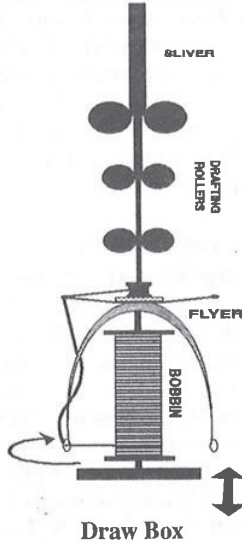


Auto-leveller Gill Box

The next machine is the "Auto-leveller Draw Box", where the sliver from the gill box that was folded into a revolving drum, is again drawn out to a thinner consistency, this time eight times the input length, and again checks the thickness with an auto-leveller. The resulting thinner rope of fibres is called a "slubbing", which is given a slight twist this time by the revolving flyer as the slubbing is wound onto very large bobbins. At this, and all subsequent stages, the twist imparted is always in a clockwise direction.

The bobbins are filled evenly as the flyers revolve, by the part of the machine that holds the bobbins slowly raising and lowering inside the flyer. This ensures an even filling and spread of the fibre on the bobbin.

From here on, the machines have no

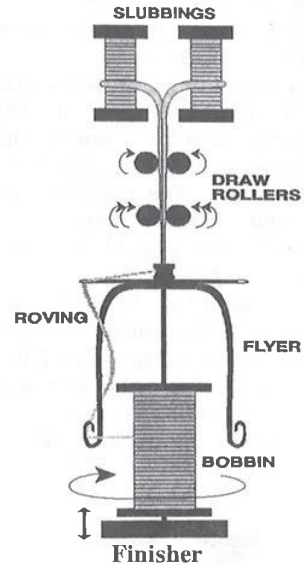


auto-leveller device to check the thickness. Thickness is maintained by combining, or "doubling", two slubbings in each drawing out and spinning operation.

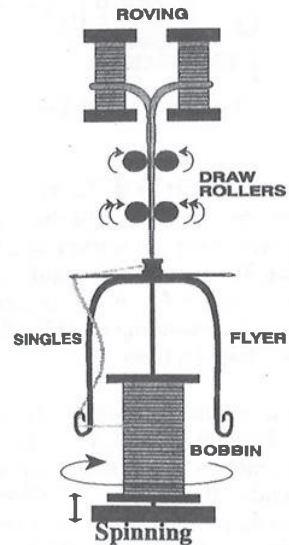
The next machines, "finishers", continue the drawing out process, further lengthening the yarn, using two bobbins of slubbings together by pulling, "drafting", and twisting them together. The drafting is once again achieved by input rollers revolving more slowly than the output rollers, and the twist added by means of the flyer, which also winds the resulting fibre rope, which is now called a

"roving", onto smaller bobbins. The rovings are now ready to be spun.

### Spinning



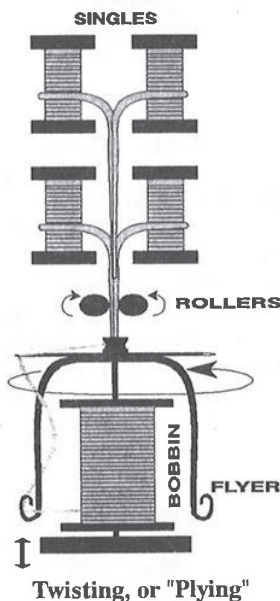
On the next machine, the rovings from the bobbins filled on the finishers are spun clockwise by very rapidly revolving small flyers so that no further drawing out of the fibres is possible. The yarn is now called a "singles", and is tightly spun in a clockwise direction, very thin, and may be up to one thousand times the length of the original tops that entered the first auto-leveller gill box.



## Twisting or "Plying"

Now we arrive at the point where the singles yarns are turned into knitting yarn. This is done by a twisting machine, that takes two, three, or four ends of singles yarn, and twists them together in an *anti-clockwise direction*, or "plies" them. This is where the term "ply" comes from, and this process is also sometimes called "folding". i.e. The resulting yarn is "two fold", "three fold" etc.

Since it is not possible to draw the yarn out, there is only one set of rollers supplying the flyers on this machine, both revolving at the same speed. The knitting yarn of the required thickness is obtained by using more, or fewer ends of singles yarn. The more ends plied together, the thicker the yarn.



## Finished Yarn

From this machine, the bobbins of yarn are taken to further machines, where it is wound into hanks of 100 grams weight for hand knitters, or onto a cone winding machine for use by machine knitters.

Much of the machinery described and shown here is very old, the spinning machine for instance dates from the end of the last century. Obviously technology has now moved along, and improvements have been made in machinery etc. In modern mills, much of this work is more automated,

faster, additional processes, and the technology differs in parts, (e.g. cap spinning machines), but the basic processes remain very much the same for yarn production. The advantages of seeing yarn produced at Coldharbour Mill, is that it is possible to see what is going on at all stages at very close quarters, and the guides and machine operators are so knowledgeable on all aspects, that it is almost impossible not to understand yarn production from the fleece, right up to the finished product.

What has been described here, is worsted spinning of wool fibre, but many of the fibre types that we machine knitters work with are spun by much the same methods, whether natural or synthetic in origin.

The idea is that the knitter should have an understanding of the basics of how fibre is made into a yarn, rather than be a lesson in how to spinning yarns. Spinning is indeed a separate craft altogether, that takes time to learn, and can be as absorbing as machine knitting. (I speak from personal experience!)

## Yarn Thickness

### The "Count" System

As we have seen, it is the thickness of the singles yarn that will determine the resulting thickness of the final "plied" or "folded" finished yarn.

The term "ply" means to twist or fold yarns together, so any yarn that contains four singles is a four ply. Take 4 singles, the thickness of a pencil and twist them, result four ply. Then take four hairs from your head and twist these together, result four ply. Ply as a term, has nothing to do with denoting thickness, as we have discovered.

It is logical that to produce a consistent thickness of end product, it is essential to know exactly how thick the singles are, and to maintain this over a period of time. To this end, methods of determining singles thickness were developed many, many years ago called "counts".

In the U.K. there were two main methods in use for wool yarns. The Yorkshire Woolen Count, and the Worsted Count. Both of them using the same basis of one pound in weight

of raw material as the basis of measurement.

From this one pound of raw wool, the number of yards of a single yarn that could be spun was determined as the base single, called a 1.

Yorkshire Woolen, this is 256 yard per pound.

Worsted spin this is 560 yard per pound.

Cotton this is 840 yards per pound.

Linen this is 300 yards per pound.

Spun silk this is 840 yards per pound.

These are the Imperial Counts.

The resulting yarn is always a "1" and is the standard length for that particular fibre type, and if the yardage from every pound of raw material is maintained, it will always follow that the yarn will always be the same length and thickness.

Should you require a thinner yarn, then the number of yards to the pound is increased. Then that yarn thickness is expressed as the number of times the standard length was spun from the pound of raw material. So a 4's yarn means that four times the standard length yarn was obtained from the pound of raw material. Expressed in another way this is:-

$4 \times 560 = 2240$  yards of yarn to the pound. Increasing the length obtained makes the yarn thinner. So a 32's will be  $32 \times 560$  yards of yarn to the pound, or 17,920 yards to every pound in weight. So the singles thickness is expressed as a figure.

The number of singles plied or folded together are also expressed as a figure. 2 for two singles, 3 for three singles and so on, and this figure is placed before the number denoting the thickness of the single, separated by a slash mark "/". We have arrived at something we are perhaps fairly familiar with. A figure expressed as 2/30 for example, and we now can decode this.

The figure 2 before the slash means that there are two ends of singles in the yarn we see. The figure after the slash is the number of times the standard length, in this case  $32 \times 560 = 17,920$  yards to the pound. If the cone of yarn weighs one pound, then we will have 17,920 divided by 2, (the figure in front of the slash mark), yards of yarn on that cone = 8960 yards. To arrive at the yardage per



pound, always divide the number after the slash mark by the number that appears before the slash. Since metrication, this system has been adapted slightly for Worsted spin, and the standard length of a single is 500 yards, rather than 560 yards. It does make calculation a lot easier as well. So a 2/30's yarn spun on New Metric will be  $30 \times 500 = 15,000$  yards, divided by  $2 = 7,500$  yards length to the pound.

Now I am more than aware that many readers will be thinking that while this may be interesting, what earthly use is it to the knitter to know about thickness and length ratios. The answer is that it can allow you to calculate exactly the amount of yarns required for any project, allow you to match up any yarn expressed as a count in any country, and allow you to match up yarns for thickness by taking several ends into the feeding eyelet together to match a yarn that is unobtainable in your country.

Here are the basic formulae again. To obtain yards per pound:- Divide the second figure by the first figure. e.g.  $3/9$  is 9 divided by 3 = 3. Multiply by 500. Result is yards per pound. e.g.  $3 \times 500 = 1,500$ .

To convert this to metres per pound, multiply by 0.9144.

e.g.  $1,500 \times 0.9144 = 1371.6$  metres. To convert this to metres per 100 grams, divide by 4.54

e.g.  $1371.6$  divided by  $4.54 = 302.1$ . This last calculation will enable you to match yarns used in many magazines, including this one, and the earlier Model Books, because this is often how the yarns are described, and many yarn companies now quote metres per 100 grams on their yarns.

If metres per 100 grams is not quoted on the yarn band, it is possible to calculate an approximate count number of the yarn required in the following way:-

Pattern quotes approx 302 metres per 100 gramms for yarn. Multiply this by 4.54.  $302 \times 4.54 = 1371$  metres per pound.

Multiply by 1.094 to obtain yards per pound. e.g.  $1371 \times 1.094 = 1499.8$  yards per pound.

Divide by 500 to obtain the New Metric base. e.g. 1499.8 is rounded up to 1500. Divide this by  $500 = 3$ .

This 3 is the result of dividing the figure after the slash by the figure before the slash mark in the count number, and the following chart will help you find the most common count numbers that derive from this figure.

2	2/4, 4/8
2.5	3/8
3	3/9,
4	2/8, 3/12
4.5	3/14
5	2/10, 3/15
5.5	2/11
6	2/12, 3/18
6.5	3/20
7	2/14
7.5	2/15
8	2/16, 3/24
10	2/20, 3/30
11	2/22
12	2/24
13	2/26
14	2/28
15	2/30
16	2/32
17	2/34
18	2/36

In our example, we arrived at 3, and the count number from this would be a 3/9's.

These are only close approximations, and the chart does not contain all possibilities, but is suitable for use with domestic knitting machines. As most knitting yarns are spun on the New Metric count, it should also work for most yarns that are readily available.

To save you the trouble of making calculations for 100 metres of yarn into a count number, the following chart may be used.

There will of course, always be yarns that do not fall exactly into any one of these categories. In this case, choose the nearest approximation.

The chart is suitable for all wool yarns Worsted spun New Metric, and many synthetic yarns, such as acrylics, spun in the same way. (These do not have a count system of their own, but follow that devised for wool).

Metres per 100g	Approx NM Count
1611	2/32
1510	2/30
1410	2/28
1310	2/26
1208	2/24
1108	2/22
1007	2/20, 3/30
806	2/16, 3/24
755	2/15
705	2/14
655	3/20
604	2/12, 3/18
554	2/11
504	2/10, 3/15
453	3/14
402	2/8, 3/12
302	3/9
252	3/8
202	2/4, 4/8
101	2/2, 4/4

### Coldharbour Mill

This is a working wool museum situated in the beautiful Culm Valley, Devon, England, only 2 miles from Junction 27 of the M5, off the B3181. Follow the signs to Willand, and then to the museum at Uffculme. Free car parking is provided at the mill. There are also bus connections from Tiverton, Exeter and Cullumpton. Coach parties and Educational visits are very welcome, by prior arrangement, and there are limited facilities for the disabled.

Features include turn of the century spinning, carding and weaving machinery. A 1910 Pollit & Wiggell 300 h. p. steam engine. 18 foot water wheel. Devon Wildlife Trust's River Culm summer exhibition. Audio-visual presentations. Licenced restaurant/tea room.

A truly wonderful day out for anyone concerned with yarns in any way, where you can watch yarn production from combed fleece to knitting wool, or woven fabrics, in a mill that has been producing yarn since 1797. There are grounds and gardens for walking or a picnic, and a mill shop, where you may purchase the beautiful yarns produced.

Coldharbour Mill Working Wool Museum is a registered Charitable Trust, and is totally independent,

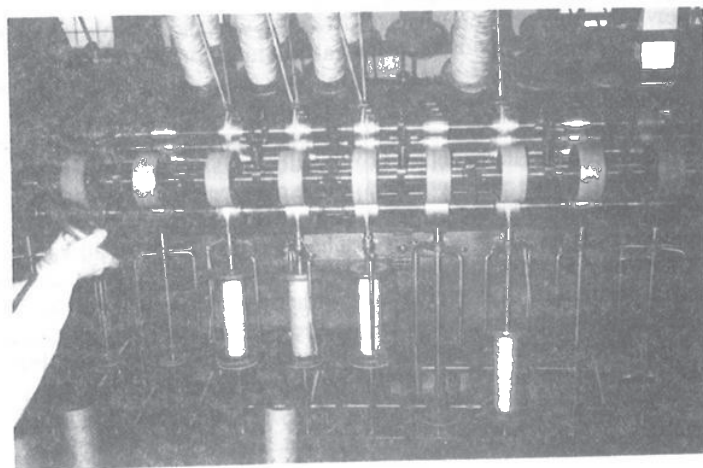
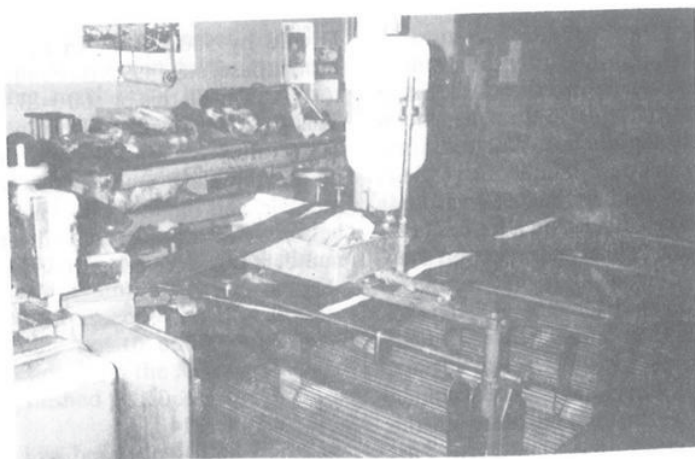
relying on monies earned from visitors and yarn sales. The Trust's aims are the preservation of the Mill, and the old processes of yarn production for future generations to enjoy. Education. The Mill won an award for it's excellence in Heritage Education work with schools last year. The Mill is open daily from 11 am to 5 pm Easter to October, with the last tour at 4 pm. Winter opening is Monday to Friday, but telephone first for an appointment. A guided tour will cost just £2.85 per person, and is money well spent. Or, if you become a Friend of Coldharbour Mill for just a very small annual subscription, you are entitled to visit as many times a year as you like for free.

It is important that Coldharbour Mill continues to exist for us all to see and learn, and most people who visit, come away absolutley fascinated by what they have seen, even those who have no previous interest in yarns or wool, so it is something for the whole family as an "all weather" attraction. To become a Friend of the mill, write to The Hon. Treasurer, Friends of Coldharbour Mill, Coldharbour Mill, Uffculme, Cullompton, Devon, England, EX15 3EE, for an application form, enclosing a stamped addressed envelope.

Or telephone 0884 840960, for forms, or to arrange a group or knitting club visit.

The yarns produced, (which are wonderful for machine knitting), are also available on mail order. Please write to the above address, enclosing a stamped addressed envelope, for details of obtaining price lists and the shade ranges available.

Next time, we shall be taking a closer look at wool as a fibre, and a knitting yarn.







5, 80, 6000



"Gee Wizz", England.



One size garment fits all.



Max Bust measurement 130cm. Length 86cm.



**BONNIES "Sable Crepe"**  
100% bright acrylic.  
1 X 500g Jade, (Shade S6), = Col 1. 1X 500g cone White, (S13), = Col 2. **BONNIES "French Crepe"** 89% acrylic, 11% polyamide.  
1 X 500g cone White, (F1), = Col 3.



Yoke fabric:- 40sts = 100mm, 40Rs = 93mm, measured after hard steam pressing.  
Main pleated fabric:- 40sts = 390mm, 40Rs = 60mm, measured after steaming & stretching. (See Notes).



Yoke Longstitch. *Cast on 2, St Patt A 116*. Main pleated fabric. Stocking stitch. *Cast on 7, St Patt A 100*. See Diags.



Page 4.



575g.



To steam pleated fabric. Thread long ribber comb wire through both long edges of pleat fabric, on green sections only. Push into pleats. Hang from colour change edge, add weights to lower edge. Steam. This will stretch and set the fabric at it's maximum. Long

stitch. Steam press very hard, stretching the ROWS to maximum length. This will make the parts narrower.

#### YOKE Knit 2

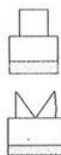
Use 1 end Col 2, & 1 end Col 3 together throughout.

A. CoCir K/K. Set for longstitch as Diag 1 and K as chart.

B. CoF as chart. Inc & K as chart.

C. K as chart.

D. Lks CX/CX SS 5/5. RC000 K to RC12. WY K several Rs & rel. Knit second yoke reversing shaping.



#### PLEATED FABRIC

K as one length.

A. Single bed cast on. Duo as Diag 2. 6000 Cast on 7. Using 1 end Col 1.

B. Set as Diag 3. K 8Rs Col 1 & 6Rs Col 3 throughout. CoF.

CoCir K/K Col 1, 150Ns. RC000. Lks CX/CX SS 5/5 K to RC 4. Lks N/N. K to RC20. Lks CX/CX. K to RC 24. Lks N/N. K to RC 40.

Lks CX/CX SS 5/5. RC000. K to RC 20. WY, K several Rs & rel.

#### CORD DECORATION

CoCir Col 1, 4Ns BB & 4 Ns FB. K with Lks on CX/CX SS 5/5 to RC1500. Rel.

Steam and/or press yokes & fabric as notes. Do not press collar. Divide pleated fabric into 4 equal sections & mark. Join yoke sections, overlapping front & back to fit size required. Stitch inside & outside, except CX Rs on fronts. Backstitch through open loops of outside front sections to pleated fabric, one quarter fabric to each front. (Ensure colour change edge in the top). Slip stitch to inside, enclosing edges. Join fabric to back yoke matching mark to centre back. Attach collar to neckline using backstitch method. Overlap collar & stitch into position. Apply cord to taste in decorative pattern. Give light steam.

DIAGRAM 1

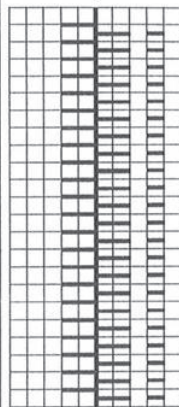
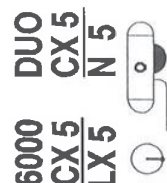
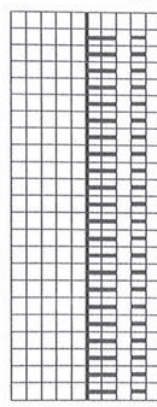


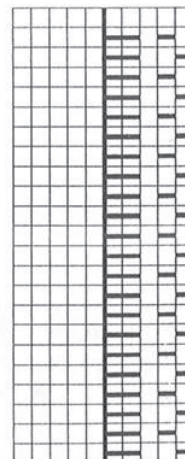
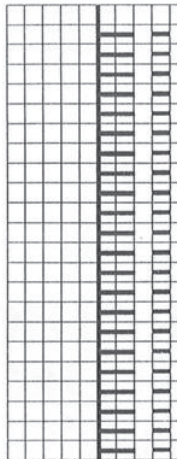
DIAGRAM 3

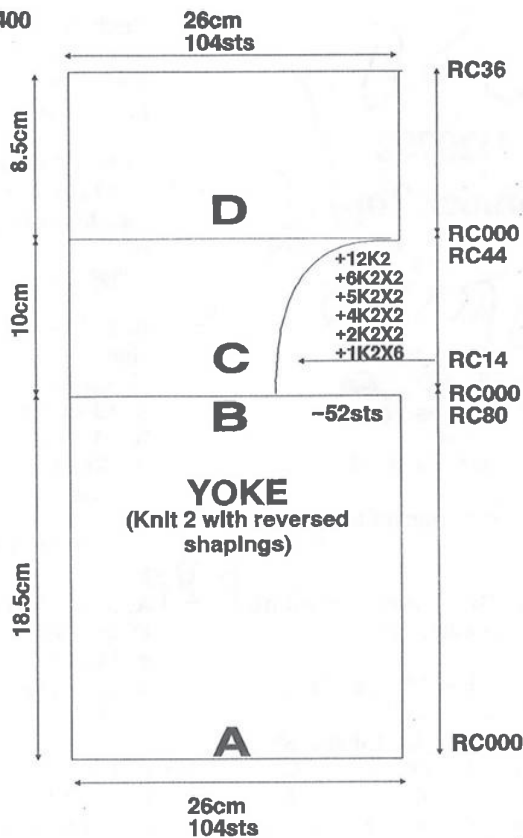
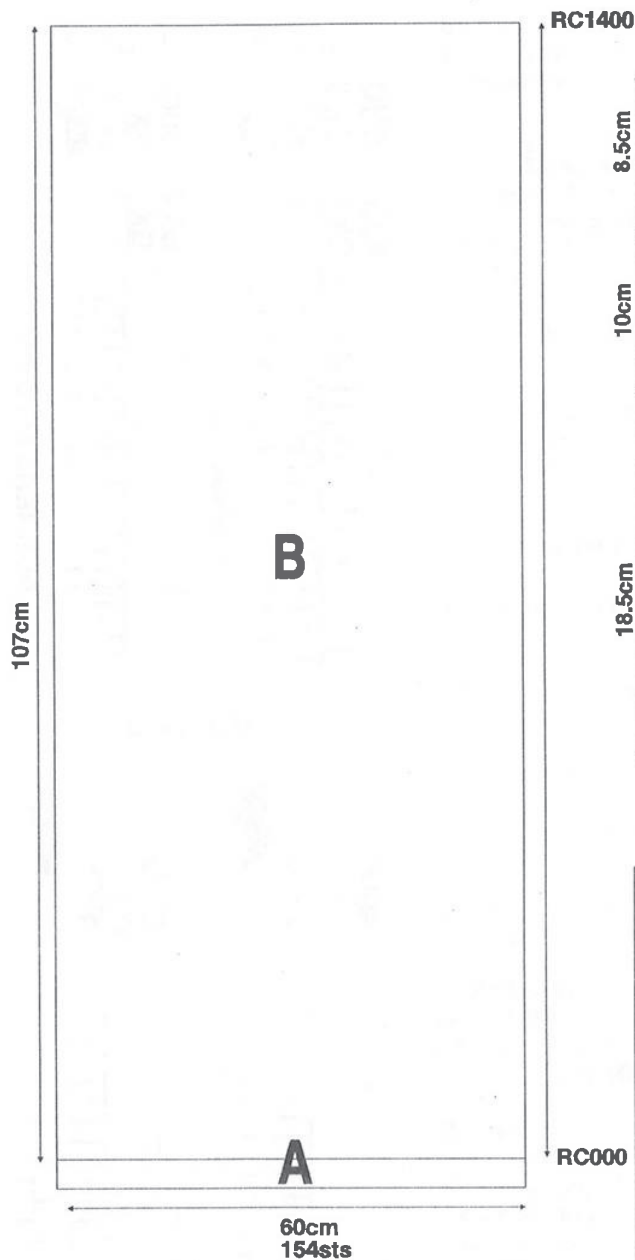


FB PUSHERS 6000 ONLY

FB PUSHERS 6000 ONLY

DIAGRAM 2





## ELECTRONIC 6000 STITCH DESIGNS

IN 2, 3, & 4 COLOURS  
ALSO PREPRINTED SHEETS

& Duomatic patterns

S.A.E. FOR DETAILS

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5, 80, 6000



George le Warré, England.



88[99:102:107:112:117]cm  
Chest/Bust.



100[110:117:120:125:130]cm  
Chest/Bust.



DENYS BRUNTON "Neon"  
100% Bright Acrylic. 1 X 340g  
cone White = Col 1.

1 X 340g cone Jade, (Shade  
10) = Col 2.

"Denfine" 100% Bright Acrylic  
2/30's. 1 X 250g cone Purple  
(Shade 4) = Col 3. 1 x 250g  
cone Yellow = Col 4.

NEON 1 end used. DENFINE  
3 ends taken together for each  
colour.



40sts = 120mm, 40Rs = 90mm  
measured over stst stripe patt.  
40Rs rib, (Neon), 70mm.



Stocking stitch in stripe pat-  
tern as given on charts.



Page 4.



Shirt collar, version X 310g  
Size 112cm. Slash neck, ver-  
sion Y 280g Size 102cm.



Wind off 2 balls of Denfine  
each approx a third of the cone  
for each colour before starting  
to knit. 3 ends of same colour  
Denfine taken together for  
each col. The amount of yarn  
given is sufficient for both  
tops. **Shirt collar = version X.**  
**Slash neck = version Y.**



### KNITTED AS 4 PANELS

#### Version X. K 2 of each panel.

A. CoCir 2X1 Col 1. K as Diag  
1 & chart.

B. Trans all sts to BB. K in stst  
& col sequence as shown in  
Diag 2 & charts.

C. Inc & K in col sequence as  
chart. CoF.

#### Version Y. K 2 of each panel.

A. CoCir 2X1 Col 1. K as Diag  
1 & chart.

B. Trans all sts to BB. K in stst  
& col sequence as shown in  
Diag 2 & charts.

C. Inc & K in col sequence as  
chart.

D. Trans all sts for 1X1 rib. SS  
3/3. K 8 Rs in Col 1. 2Rs Col 3  
(2 panels. 2Rs Col 4, 2 panels).  
30Rs Col 1. CoF.



#### Version X only.

CoCir K/K Col 1, 170sts all  
sizes. SS 3/3. K 40Rs. Col 2. Lks  
CX/CX SS 5/5, black strippers.  
RC000. K to RC20. WY K  
several Rs & rel.



### FRONT BANDS

#### Version X only.

K 2. 1 Col 1, & 1 Col 3.  
CoCir K/K 24sts. Lks CX/CX  
black strippers SS 5/5. K RC24.  
WY K several Rs rel.



### ARMBANDS

#### Both versions

CoCir K/K Col 1, 132[132:132:  
146:160:172]sts. Lks CX/CX  
SS 5/5, black strippers. RC000  
K to RC 20. WY K several Rs  
& rel.



#### Version X

Join centre back seam with  
mattress stitch. Join front  
centre seam to top of stripes  
above sleeve level. Join  
shoulder seams, leaving 15 cm  
open at centre. Make cut neck-  
line on fronts 12 cm deep in  
even curve. Backstitch through  
open loops of bands to centre  
fronts, unravelling WY as you  
go. Slip st inside of band to  
inside. Col 1 to Lt side. Col 3 to  
Rt side. Slip st white band over  
purple at lower edge. Attach  
collar in same way, enclosing  
top of bands and cut neckline.

Attach sleeve bands by back-  
stitch method to each sleeve.  
Join side & sleeve seams. Give  
very light steaming.



### VERSION Y

Join centre front & centre  
back seams with mattress  
stitch. Fold top ribbed sections  
in half to inside & slip stitch  
down. Join shoulder seams,  
leaving centre 17cm open.

Attach armbands backstitch-  
ing through open loops to out-  
side & unravelling WY as you  
go. Slip stitch to inside, enclos-  
ing edges. Join side & sleeve  
seams. Give very light final  
steaming.

Diagram 1

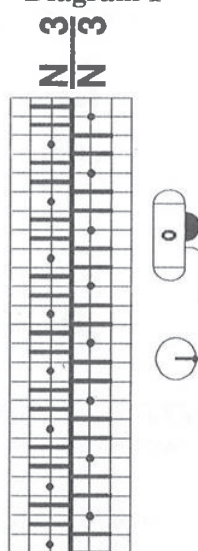
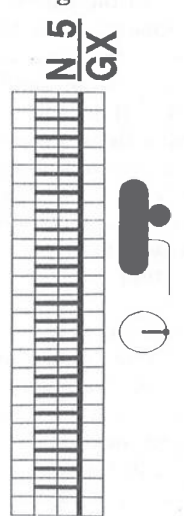
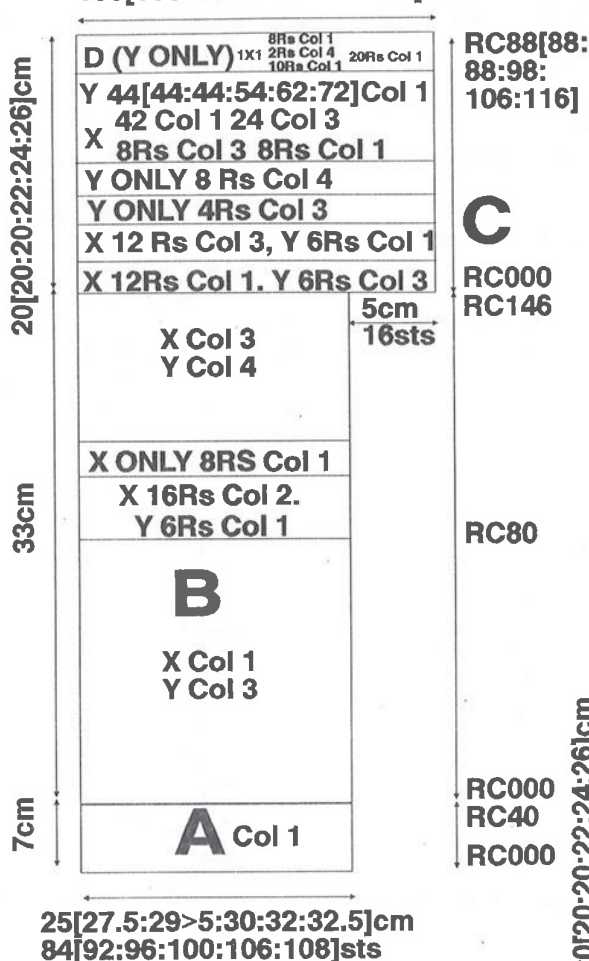


Diagram 2



30[32.5:33.5:35:36.5:37]cm  
100[108:112:116:122:124]sts



D20703 "Multi-Pattern"

This is a "Multi-Pattern" in that there are two versions of the garment pattern shown in one. Both versions are suitable for ladies and gents, but if knitting version X, (shirt collar), for a lady, reverse the front bands, sewing the right band over the left instead of as shown in the making up instructions. Please ensure that you follow only one version at a time when knitting, particularly for the stripe sequences. We suggest that you use a coloured pen to mark all the instructions before you start, for the version you are knitting.

You may of course use colours other than those shown in the photograph, but be careful not to change the stripe sequences, as these have been worked so that there is an overall colour balance to the garment. If this is changed, the balance could be lost and the resulting garment appear "top heavy", or not have the effect you originally intended.

MAKING UP

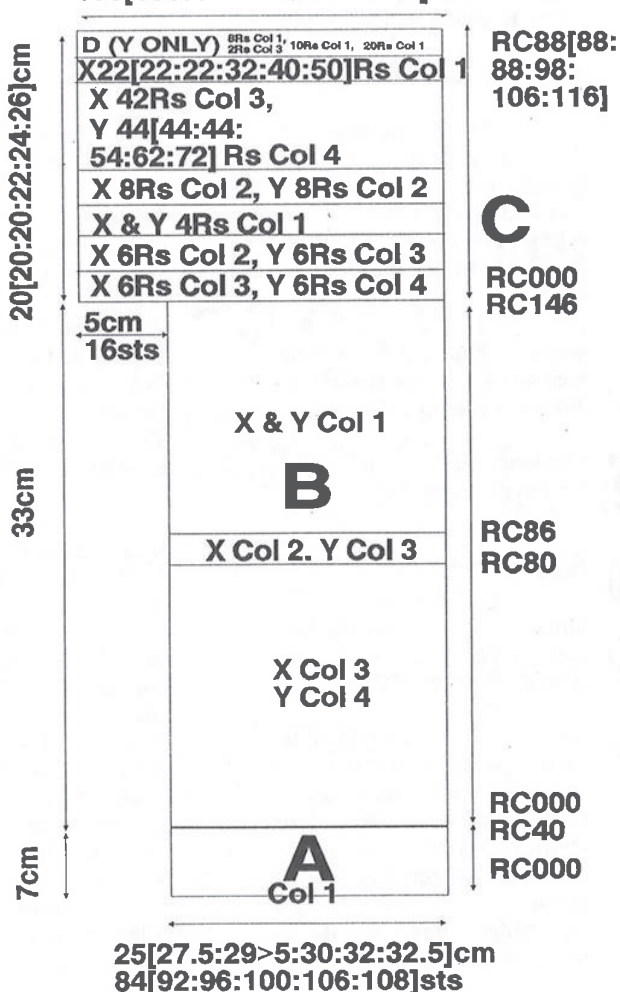
When making up, ensure that the stripes are accurately matched at all seams.

Use the mattress stitch on front and back centre seams, as this should give an almost invisible join, giving the effect of a garment front or back knitted all in one piece.

If you are unsure of mattress stitch, refer to the article on finishes by Pat Cook in this issue of Duet International, where this is explained fully. Practice first on sections of waste knitting until you are happy with the result, and then seam your garment(s).

Mattress stitch gives a flat, invisible seam, and is possibly the most useful of all the hand making up methods.

30[32.5:33.5:35:36.5:37]cm  
100[108:112:116:122:124]sts





# "KNIT SOMETHING SIMPLE"

Irene Krieger

Luckily for me, the International Fashion Collections came out during the time that I was planning the design for this "Knit Something Simple", and any help I can get with ideas, I am grateful for.

In the papers, magazines and on the TV, we have been bombarded with what the designers of the world have decided we will be wearing for the next season (hopfully in toned down versions). Nice bright colours are definitely in, as are swirling shapes. So for "Knit Something Simple" I have designed a three quarter length swing jacket. Very few of us are as thin, or as young, as the models on the catwalk and I have taken this into account. This design will suit all shapes, sizes and ages. (*It is also suitable for "ladies in waiting", as you can see from our model. Ed*).

It is just the sort of garment we all wish at sometime that we had in our wardrobe. Being lightweight, it is ideal for that in between period when we still need some sort of outer garment, but we are longing to put away the winter coat. Over a nice floating dress, it would take you to a wedding but the jacket would be equally at home over a pair of trousers and T shirt. For taking away on holiday it is ideal because it is very light, but the 20% wool means that it is also quite warm.

The yarn I have used is Forsells Sir-rocco which is readily available in a super range of colours. Regular readers will know that I love bright colours, and I particularly like this shade called Melon, because it is bright without being "jangling". I am sure you will know what I mean when I say that some bright colours almost make your teeth ache. This one is just that little bit "off" that, and allows it to be worn with virtually any other colour you care to think of. Of course, you can make the jacket in any colour you choose. There are lots of colours in the range, including the basics like black, cream and navy.

The width at the bottom which gives the swing, is achieved in two ways. Firstly by incorporating a deep inverted pleat at the centre back, and secondly, by an A-line shaping at the side seams. The pleat will cause no problems but shaping at the side seams makes them hang in points which is most unattractive. These points are avoided by knitting short rows i.e. knitting less rows at the side than at the centre. This has the effect of "lifting" the points and making the hem even again.

Those who have Japanese machines will be familiar with knitting short rows with the "holding position" - also called partial knitting. On our machines, sideways knitted skirts are made using the pushers for partial knitting, or short-rowing as it is called. All these techniques are usually only used for single bed work, and then often only stocking stitch. This jacket adapts the technique for double bed fabric.

There is absolutely no need to panic. It is not at all difficult to do. In fact it has an advantage in that for single bed work, you usually have to hook the yarn onto an adjacent needle to prevent holes forming. On double bed work, because of the stitches on the other bed behind the holes, they are hardly noticeable.

Partial rows are not possible with all types of stitch. The technique only works where N is used on the Back Bed and BX or LX on the Front Bed. As Back Bed pushers are needed I am afraid that it cannot be done on the Duo S. For the Electronic, you need to use technique 183. It will work, irrespective of whether you are working with a stitch pattern or not. For this jacket however, I have used just the technique. I call this fabric "plain jacquard". Worked in one colour, the technique alone gives a smooth fabric on one side and a nice texture in the other.

As the design has several parts that fold back, it allows the contrast in

textures to show. I have made the jacket with the smooth side as the main fabric, but if you prefer to have more texture, all you have to do is to stitch the garment together with the textured side out.

I have designed the jacket with rather deep armholes. To my mind, very few things look worse than armholes of jackets and coats stuffed tight with the clothes we are wearing underneath. Normally, I am not very keen on dropped shoulder garments, but in this case, this shape fits the style well. That however, is not the only reason I settled on the dropped shoulder. I thought that we would have our work cut out for shaping the bottom and then the collar. So to have only one thing at a time to concentrate on, would be a tremendous help.

If you look at the pattern diagram, you will see that the collar is worked all in one with the body of the garment and that it tips back rather strangely. This is because there is a small section of partial knitting on the collar. It has the effect of knitting in a wedge to give extra length to the collar edge whilst keeping the neckline edge the same. That means that the collar will sit nicely without the points pulling upwards which we so often see in all in one styles.

This section is the only place in the whole design where you will be doing two lots of shaping at the same time. I have worked it so that the shapings co-incide to make it as simple as possible and when all is said and done, it is only for 36 rows worth of knitting.

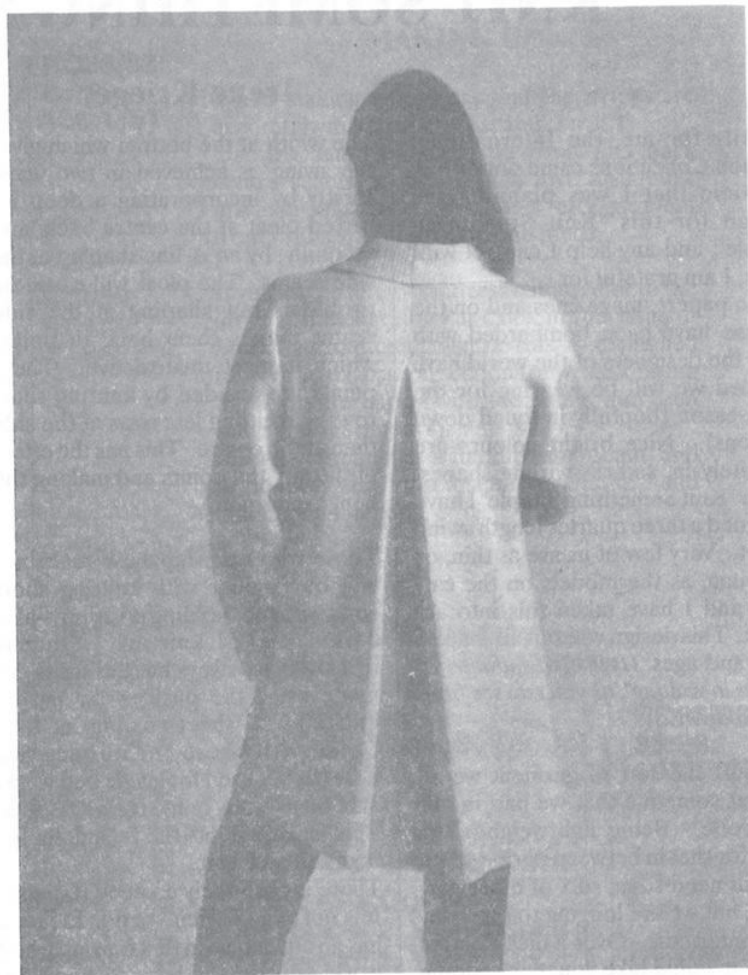
Shapings, other than by partial knitting, are made in two ways. At the sides where the edge will be stitched into a seam, just use the normal method, i.e. take the last stitch off and put it onto the next working needle for decreasing and bringing up the next needle for increasing. On the collar, where the edges will show, I have used the fully fashioned

method because it gives a neater edge. Usually fully fashioned methods are associated with single bed work but there is no reason why it should not be adapted for double bed fabric. The only difference is that you have to make the increases or decreases on both beds, instead of just one. To save time and effort, I suggest that you make the fully fashioned shaping only on the bed that will show. As the collar turns back, the "wrong" side will show, so the fully fashioned shaping need only be made on the Back Bed. On the Front Bed, just shape in the ordinary way.

Increases, where they will be seen such as on the collar, are worked in what I can only describe as "reversed fully fashioned decreases". Instead of moving the two end stitches one needle inwards, you move the two end stitches one needle outwards. That leaves an empty needle third from the end. Make sure that this needle is in the working position before continuing to knit. Of course, you will also have to increase on the other bed, but as it wont show, just do it in the normal way. The effect of this fully fashioned increasing and decreasing is that on the side that shows, the increases and decreases are made away from the edge. The edge stitches slope sideways to give a much neater finish.

Whilst I am on the subject of edges, this style relies very heavily on the very neat edges that our machines are able to produce. Please always use the edge sprigs, particularly on the edges that will form the centre front opening. We also need edges to be exactly the same. Rather than to have to continually think about it, it is easiest to ignore the needle rule. For all the pieces of this garment, knit with the two outer needles on the Front Bed. That way, no matter what piece you are knitting, all edges will match.

As for variations and ways of making the garment just that little bit different, I have already mentioned the most obvious which is to use the reverse side of the fabric. Another variation would be to make the style



in a straight up and down shape. This would eliminate the need for the short rows at the bottom and, because of the pleat at the back, it would still be a nice big jacket.

If you decide on this option, deduct the number of decreases from the number of stitches you are told to cast on. This is the number of stitches you need for an unshaped jacket. Shaping instructions for the collar should be followed as given but the pockets will no longer need to be shaped at the sides. I would suggest that you modify the width of the sleeve at the top. This is not essential but the very deep armhole was designed to compliment the flared bottom of the jacket. A straight style would look better with a more fitted sleeve. Just increase less times but spread the increases evenly along the rows of the sleeve.

This style particularly lends itself to surface decoration and I think it would look very nice with embroidery of a contrasting colour on the collar, cuffs and inside the pleat. Even though my version has no fastenings, you could add these. Similarly, my design has no edgings but you could vary the design by applying a binding in a contrasting colour.

I hope all of this has given you plenty of ideas. I also hope that you will find the section on working short rows useful for when you design your own garments. If you want to have a "practice" run for the partial knitting, the pocket is a nice manageable piece to begin with.

Until the next issue,





Irene Krieger, England.

86-91[96-101:106-111]cm Bust

110[120:130]cm Bust

FORSSELL Sirrocco 80% acrylic 20% wool. 790 metres per 100g approx. 2 X 400g cone shade 270, Melon, = Col 1.

40sts = 160mm, 40Rs = 52mm measured over st patt.

"Plain jacquard", knit in one colour.

Page 4.

600g. 86-91cm Size.

Lock row counter & computer row counter will not agree. Figures given always refer to LOCK row counter. Where extra needles are required in this pattern, this refers to FB needles. Bring up BB needles to match, but return last BB N at Rt to NWP. This breaks the needle rule, but ensures matching of edges for seaming. See Diags 1 & 2.

### 6000 Computer Programme

CAST ON - 2  
ST PATT A - 183



### Make 2 with reversed shapings

A. 110[116:122]Ns, (See Notes), K/K. CoCir, Cast on 2. As Diag 1.

B. All machines. Counting from Rt trans 18th BB st to adjacent needle. Empty N to NWP. This ensures a good fold line for the pleat. Set locks for St Patt A, as Diag 2. RC000. Remember to bring pushers into work at THE SAME SIDE as the locks, & out of work OPPOSITE the locks.

FB pushers at Rt, 50[56:62] in WP. Remainder in blocking rail. BB pusher for every N in lower position. Bring up at Rt 50[56:60] to WP. K using short rowing as Chart.

Set back lock to BX. K 4Rs, remembering to pass ALL the Ns, even though only a small number will actually knit.

To help prevent loops, it may be helpful to manually hold the yarn above the locks.

Bring 10 pushers on both beds at the RT to upper position. K 4Rs. Continue in this manner, bringing 10 pushers to upper position & knitting 4 rows, until the RC shows 24 & 10 Ns are left without pushers on both beds. Set back lock to N.

K 16 rows & then dec 1 st at the LT, 23 times in all. RC392. Cont without further shaping to RC616[640:664] CoF. Make second side reversing shaping. K 1 extra row in patt after the cast on to take locks to the left.

### PLEAT INSERT

A. CoCir Col 1 as for Back 36Ns.

B. St Patt A. RC000. K in patt to RC616[640:664]. CoF.



### Make 2 with reversed shapings

A. Beginning at N59[62:65] at Lt & counting to the RT, bring up 92[98:104]Ns both beds, (See Notes). CoCir as for Back A. RC000.

B. Set for st patt A as back. On FB return all FB pushers to blocking rail except 32[38:44] at Rt. BB pushers 32[38:44] at Rt in upper position, remainder in lower position. Back Lk to BX. K 4Rs. Bring to upper position 10 FB & 10 BB pushers at the Rt, & K 4 Rs. Continue bringing up 10 pushers & knitting 4Rs to RC24. Bring remaining FB pushers to upper position. Set back Lk to N. K 16Rs & dec 1 st at Lt, 23 times in all to RC 392.

Two larger sizes only, Cont without shaping to RC416[440].



C. Make collar. \*On Rt inc 1 BB st fully fashioned. Inc on FB in normal way. K 4Rs\* K from \* to \* 25 times in all. RC492[516:540] K 12 Rs & dec 1 st at Rt as instructions in Notes.

Cont dec every 12Rs to RC617[641:665]. Lks at Lt. CoF 47[51:54]sts & K 3Rs. RC620[644:668]. RC000

Work short rowing as explained in Back, but using groups of 4 pushers instead of 10's, every 4Rs. Continue decs at Rt edge every 12Rs whilst short rowing. Work to RC36. Bring FB pushers to upper position for all remaining Ns. Back Lk to N. Reset RC to 656[680:704]. Cont decs as before until 30[30:31]sts remain. K to RC724[756:788]. CoF.



A. Bring up 64[66:72]Ns both beds, (See Notes). CoCir as Back A. RC000.

B. Set for St Patt A as Back. K to RC80. Inc 1 st both edges & K 8Rs, 25 times in all. Inc 1 st both edges & K 12Rs, 13 times in all. RC436, & 140sts. CoF.

### POCKETS

#### Make 2 with reversed shapings

Worked from the top down, because the cast on edge gives a neater finish to the flap.

A. Bring up 44Ns, (See Notes). CoCir as Back A. RC000

B. Set for St Patt A. K to RC 24.

Work short rows on Rt side as Back, but bringing 4 pushers to upper position every 4Rs. 10 times in all. RC64. All Ns are now working. Back Lk to N. RC000.

Inc 1 st at Lt & K 16Rs, 7 times in all. K 8Rs. RC120. CoF.

Make second pocket, reversing shapings.



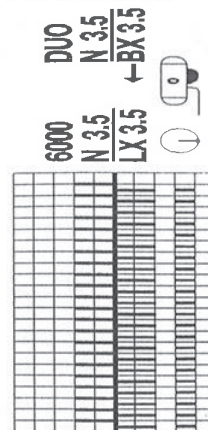
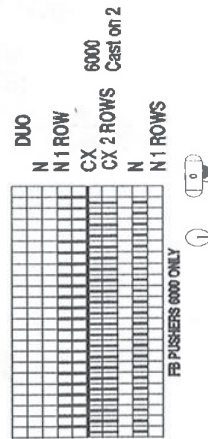
Block & steam all garment parts to size. Do not allow the iron to touch the fabric.

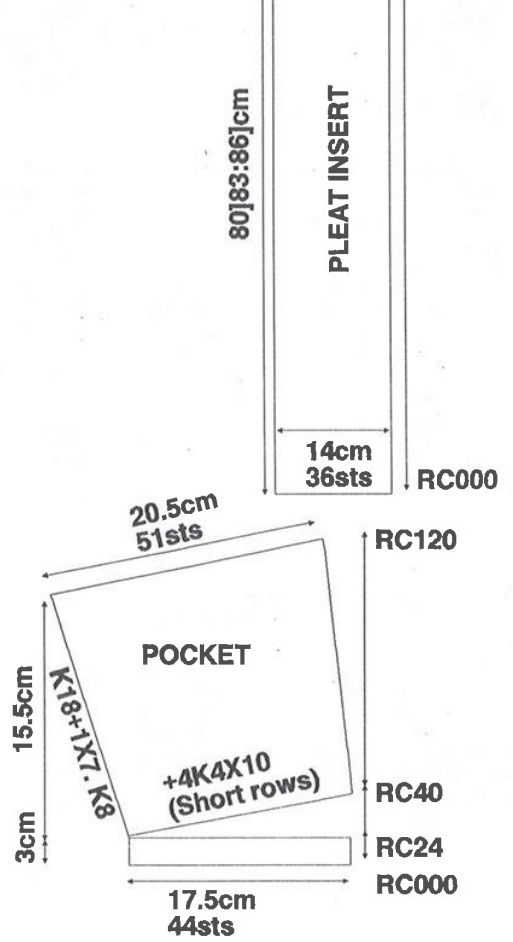
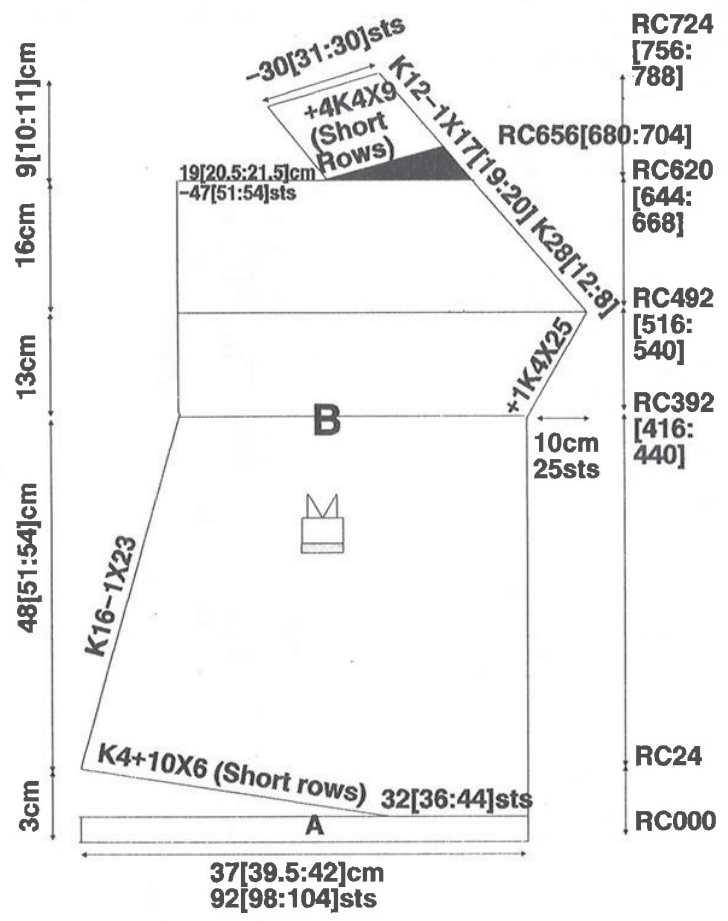
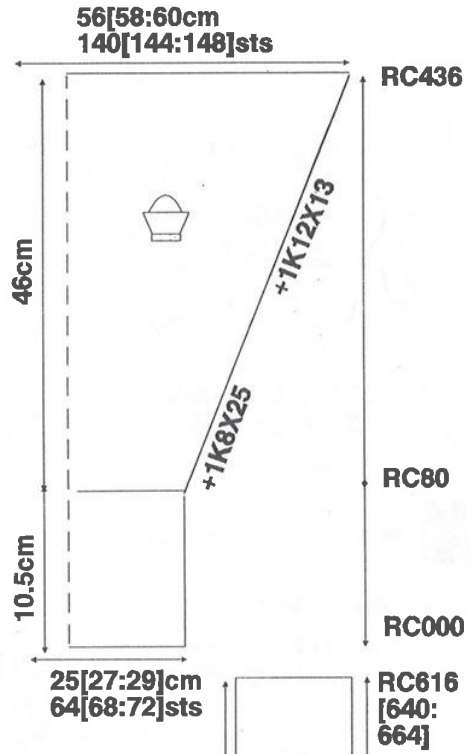
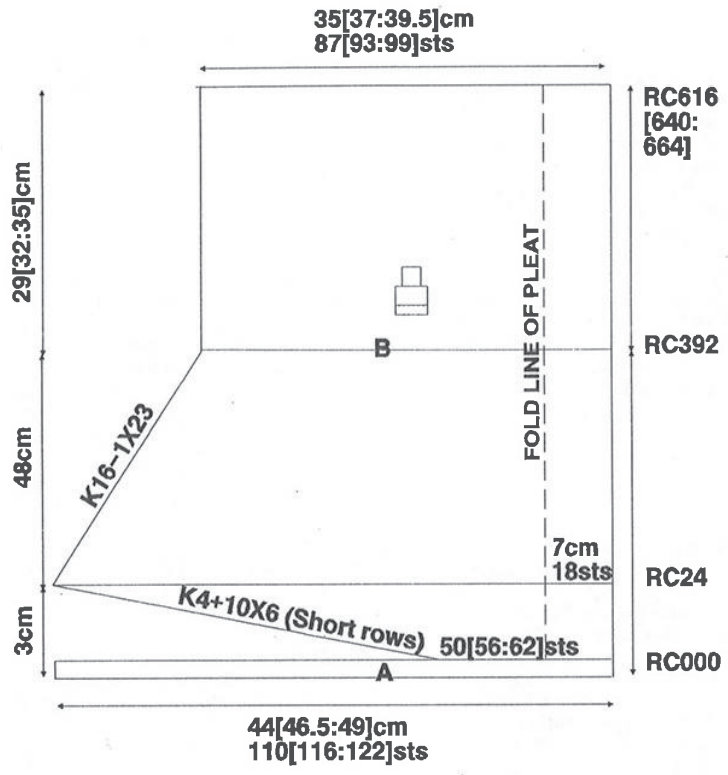
Fold back pleat on back sections on fold line, & steam fold to set. With right sides facing, stitch pleat insert to edges of pleat. Stitch pleat down for approx 12cm at centre back. This will hold the pleat closed and stop it falling open, creating "sagging" at the shoulders. Steam.

Fold back flaps on pocket sections. Place pockets on fronts & stitch into place. Tack side edges of pocket to side seam. Lightly steam.

With wrong sides facing, join collar at centre back and steam seam. With right sides facing, join back to fronts at shoulders. Set collar into back neckline, matching collar seam to centre of pleat. Slight easing will be necessary. Stitch. Find centre of sleeve head. Match to shoulder seam and join seam. Steam.

With wrong sides together, pin approx 5cm of cuff edge of sleeve. Stitch. This ensures that when the cuff is turned back, the seam is on the inside. Turn work so that right sides are facing. Pin underarm of sleeve, fronts & back. Stitch. Be sure to catch the pocket within the seam. Sew in all ends. Steam seams. Sew in shoulder pads if required.









**D20713 Ladies Jacket by  
Irene Krieger**  
Pattern on page 45





D20703 Summer Tops by  
George le Warré  
Pattern on page 41





D20702 Smock Top by  
"Gee Wizz"  
Pattern on page 39





**D20706 Ladies Jacket by  
Betty Manwaring**  
Pattern on page 51  
**D20714 Argyle Sweater by  
Betty Manwaring**  
Pattern on page 53





# D20706 Ladies Jacket

5, 80, 6000



Betty Manwaring, England.



84[88:94]cm Bust.



90[104:118]cm Bust.  
Length 68cm.



CHRISTIANA Braemar.  
20%wool/80% acrylic, shade  
Oyster 450g. WORTH KNIT-  
TING 2/30's acrylic, shade  
Aran. 1 end each yarn = Col1.



40sts = 155mm, 40Rs = 38mm  
measured over main patt.  
Tubular knitting, 40sts  
= 170mm, 40Rs = 25mm.



Double bed jacquard knitted  
in single colour. 6000 Cast on  
8. St Patt A 115. Trims etc.,  
tubular knitting. Cast on 8 St  
Patt 107. See Diags.



Page 4.



675g Size 88cm Bust.



Use 1 end each yarn together  
throughout.



- A. CoCir K/K as Diag 1, Col 1.  
K as chart.
- B. Set as Diag 2, & K as chart.
- C. Dec & K as chart.
- D. Dec & K as chart.
- E. K & dec as chart. CoF.



- A. As Back A & chart.
- B. As Back B & chart.
- C. Dec & K as chart.
- D. Dec & K as chart.
- E. K & dec as chart. CoF.



- A. As Back A & chart.
- B. As Back B & K inc as chart.
- C. Dec & K as chart. CoF.



- A. CoCir 126sts K/K. Cast on 8
- B. Set for St Patt & K 114Rs in  
patt.
- C. Black strippers. Lks GX/N  
SS 4.75/4.75 K 8Rs. Pull down  
length of yarn between beds.  
Lock N/GX, K 8Rs. WY 2Rs.  
Lks GX/N K 2Rs. Orange  
strippers. Lks N/N SS 3/3 K  
10Rs & rel.

## POCKETS

CoCir K/K 40sts. Cast on 8. Set  
for St Pat as Diag 2. K 110Rs.  
Lks GX/N SS 4.5, K 30Rs &  
CoF. Repeat for second pocket

## COLLAR & POCKET EDGING

CoCir K/K 5Ns both beds. Lks  
CX/CX SS 4/4. K 3 sections, 2  
long enough to go round pock-  
ets, 1 to go round collar.

CoCir K/K 148Ns. Lks CX/CX  
SS 4.5/4.5 K 38Rs. WY K  
several Rs & rel.

As Button band, but at RC 20,  
make buttonholes over Ns 4-6,  
26-28, 48-50, 70-72, 92-94, 104-  
106, starting from Lt of work.  
Cont K as Button band. Make  
buttonholes as foll:-



Trans D to A, E to B, F to C. St  
A behind latch D in hook pull  
Nd back thus making 1 st which  
is trans to Nd B. Last CoF st B.  
Trans this to C. Knit through  
this & place resulting st back  
onto B. Take odd long length of  
yarn, K st H with this, then  
wind zig-zag round ADBEC F  
& K st G. Take yarn to next  
buttonhole & make next but-  
tonhole. Loose yarn will  
remain between tubular knit-  
ting.



Steam & block each part to  
size. Join shoulder seams.  
Stitch bands to front edges,  
backstitching through open

loops & removing Wy as you go. Slip  
st to inside. Stitch collar to neck in  
similar way from centre of front  
bands. Carefully stitch tubular edging  
around collar edges. Place pockets in  
position and attach. Stitch tubular  
edging around pockets. Stitch sleeves  
into position, making box pleat in  
centre top of each sleeve. Join side &  
sleeve seams. Insert shoulder pads if  
required. Sew on buttons to match  
buttonholes. Give  
final light steaming.

	84	88	94		84	88	94
	cm	cm	cm		cm	cm	cm
1	74	74	74	1	74	74	74
2	140	140	140	2	396	396	396
3	A	A	A	3	A	A	A
4	B	B	B	4	B	B	B
5	138	148	158	5	69	74	81
6	3	3	3	6	3	3	3
7	3	3	3	7	3	3	3
8	38	38	38	8	38	38	38
9	138	148	158	9	69	74	81
10	3	3	3	10	3	3	3
11	3	3	3	11	3	3	3
12	41	40	39	12	41	40	39
13	68	68	68	13	68	68	68
14	(3)	(3)	(3)	14	(3)	(3)	(3)
15	107	107	109	15	235	235	237
16	5	5	5	16	5	5	5
17	155	164	173	17	155	164	173
18	166	166	175	18	166	166	175
19	175	183	128	19	175	183	128
20	4	5	191	20	4	5	191
21	159	159	128	21	159	159	128
22	5	5	5	22	5	5	5
23	7	7	159	23	7	7	159
24	23	24	5	24	23	24	5
25	188	188	7	25	188	188	7
26	152	153	25	26	152	153	25
27	0	0	188	27	0	0	188
28			155	28			155
29			0	29			0
	84	88	94		84	88	94
	cm	cm	cm		cm	cm	cm
1	74	74	74	1	74	74	74
2	140	140	140	2	160	168	155
3	A	A	A	3	186	186	71
4	B	B	B	4	128	129	176
5	74	78	80	5	180	180	186
6	3	3	3	6	166	166	129
7	3	3	3	7	147	147	180
8	38	38	38	8	4	5	166
9	138	142	148	9	0	0	156
10	3	3	3	10			6
11	3	3	3	11			0
12	4	40	40	12			
13	58	59	60	13			
14	(3)	(3)	(3)	14			
15	107	107	109	15			
16	5	5	5	16			
17	155	164	173	17			
18	157	166	175	18			
19	183	183	128	19			
20	4	5	183	20			
21	167	167	6	21			
22	8	9	167	22			
23	190	190	9	23			
24	130	130	191	24			
25	188	188	131	25			
26	133	133	128	26			
27	0	0	188	27			
28			133	28			
29			0	29			

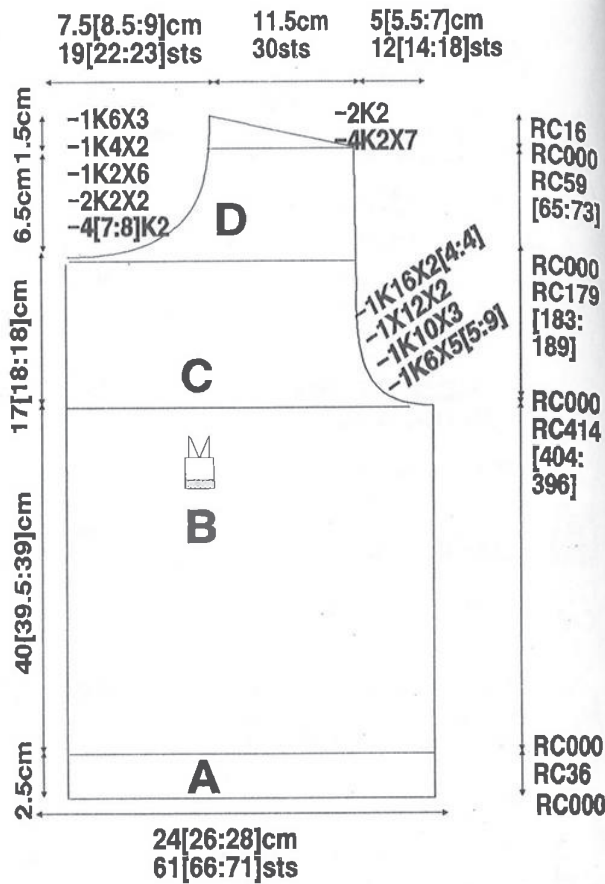
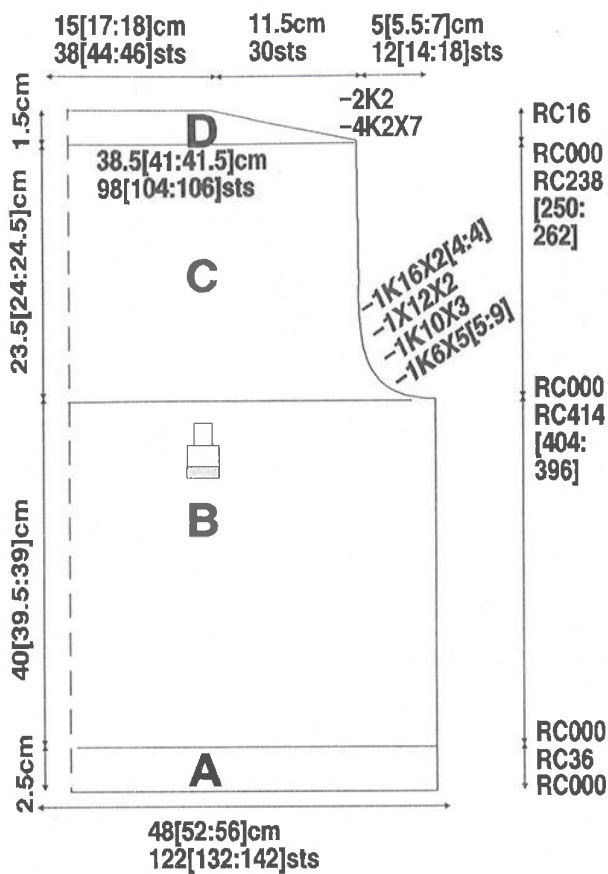


DIAGRAM 1

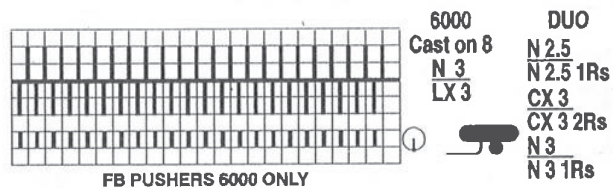
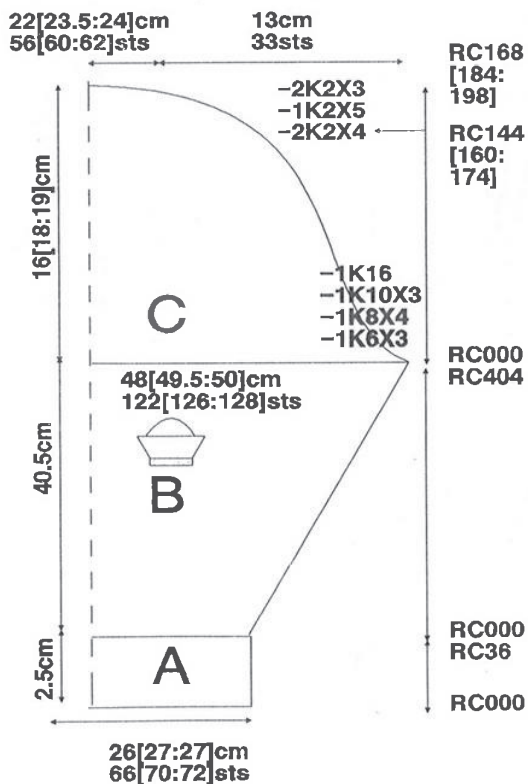
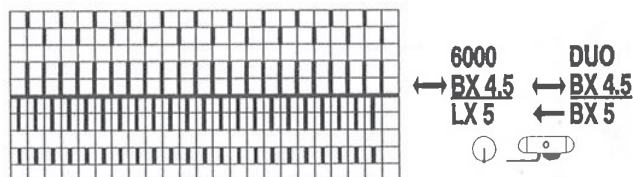


DIAGRAM 2



**REAL SHETLAND KNITTING YARNS**  
from the Shetland Isles

These are spun from 100% Pure Wool and renowned for their softness. We carry a large stock and endeavour to despatch orders by return of post. Over 230 shades in various thicknesses, including 1 ply Cobweb for fine machine knitting. Send £1.50 which can be used with first order over £10.00 value, for shade cards and price list to:-

**JAMIESON SMITH**  
**(SHETLAND WOOL BROKERS) Ltd.,**  
**LERWICK, SHETLAND.**





# D207014 Argyle Sweater



Betty Manwaring, England.



97[102:107]cm Chest/Bust.



108[112:116]cm Chest/Bust.  
Length 66cm.



WORTH KNITTING 100% acrylic 3 ply, 400g Dark Grey = Col 1. WORTH KNITTING 100% acrylic 2/30's. 250g Kingfisher = Col 2, 250g Black = Col 3, 250g Silver Grey = Col 4.



40sts = 140mm, 40Rs = 29mm measured over 4 col jacquard. 40Rs rib = 52mm.



4 col jacquard Tech 207, using cards given. Ribs/welts 2X1. Cast on 4.



Page 4.



420g Size 97cm.



1 end ach yarn used for 4 col patt. 1 end Col 1 for ribs/welts.

## COMPUTER PROGRAMME

CAST ON 4 - ENT  
ST PATT A - ● - ENT  
Read in cards 1A & 1B.  
ALTER - ENT  
DIRECTION - ENT - [→] [←]  
ADD - ENT  
ADD WHAT - ● - ENT  
Read in cards 2A & 2B.  
DIRECTION - ENT - [→] [←]  
ALTER - ENT  
ADD - ● - ENT  
Read in cards 3A & 3B.  
DIRECTION - ENT - [→] [←]  
TECH - 207 - ENT  
POSITION - ENT

PATT AFTER - 0 RS - ENT  
TO L/R 0 - ENT  
IN PATT AT R0 - ENT  
REP ROWS - ENT  
↔ STS - NO



A. CoCir Col 1 & K as Diag 1 & chart.

B. Set for 4 col jacquard as Diag 2, Tech 207 but without cards. K as chart.

C. K & dec as chart.

D. K & dec as chart. CoF.



A. As Back A.

B. Set for St Patt as Diag 2 & using cards. K as chart.

C. K & dec as chart.

D. K & dec ast chart. CoF.



A. As Back A & chart.

B. As Back B. K & inc as chart.

C. As Back C K & dec as chart. CoF.



Knit without electronics.

CoCir 2X1 Col 1 150[156:160] sts, as foll:- Place pusher under each BB Nd working. Lks N/N SS 2.5/2.5 K 1R. Push up all empty BB Ns. Lks CX/CX SS 3/3. K 2Rs. Lks BX/N SS 3.25/3.25 K 30Rs.

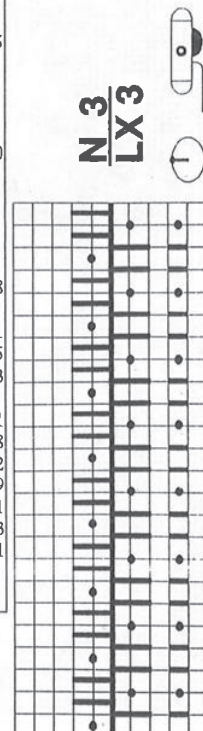
Push up remaining FB Ns. Ls GX/N SS 4. K 6Rs. SS 5.5 K 1R. Pull down loop of yarn. Lks N/GX SS 4 K 6Rs. SS 5.5 K 1R. WY K several Rs. Lks GX/N K several Rs & rel.

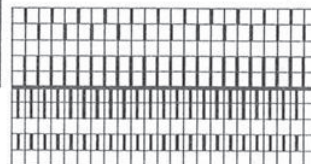
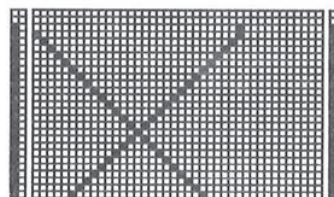
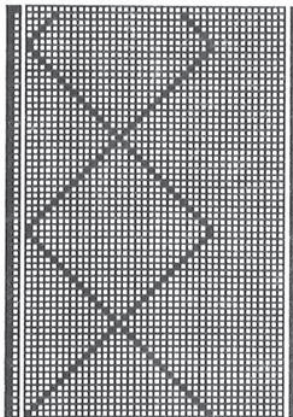
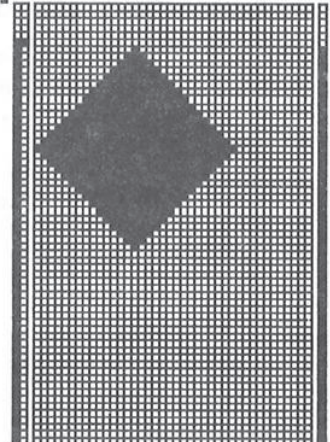
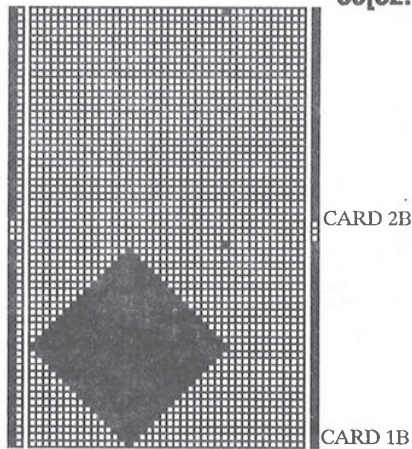
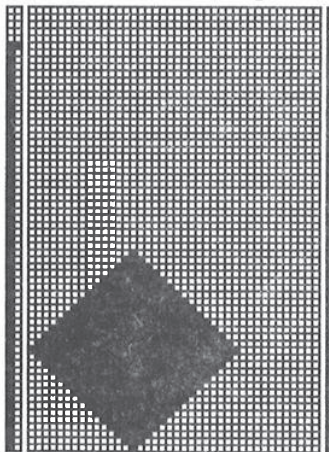
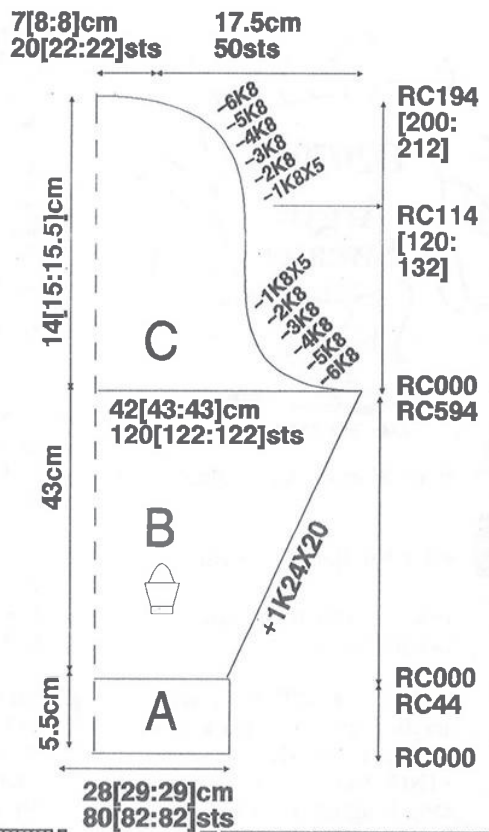
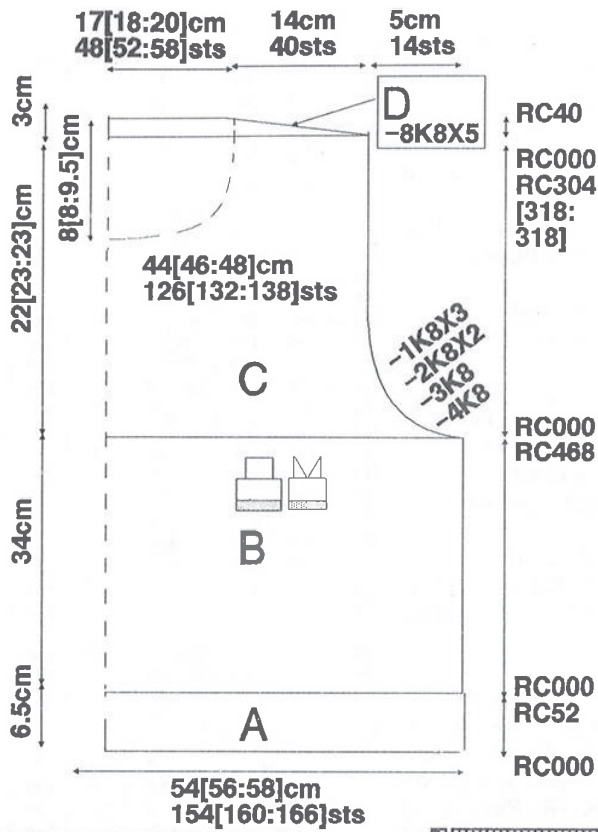


Block & steam all parts to size. Steam tubular edges of collar. Join shoulder seams. Make cut & sew neckline if required. Join collar seam. Attach collar to neckline backstitching through open loops to outside of garment. Unravel WY. Slip stitch to inside, enclosing edges. Sew in sleeves. Join side & sleeve seams. Give final light steaming.

	97 cm	102 cm	106 cm		97 cm	102 cm	106 cm
1	101	101	101	1	101	101	101
2	161	161	161	2	161	161	161
3	A	A	A	3	A	A	A
4	B	B	B	4	B	B	B
5	135	140	146	5	135	140	146
6	108	112	116	6	108	112	116
7	(1)	(1)	(1)	7	(1)	(1)	(1)
8	195	195	195	8	195	195	195
9	C	C	C	9	C	C	C
10	7	7	7	10	7	7	7
11	7	7	7	11	7	7	7
12	38	38	38	12	38	38	38
13	135	140	146	13	135	140	146
14	96	100	104	14	96	100	104
15	(2)	(2)	(2)	15	(2)	(2)	(2)
16	30	30	30	16	30	30	30
17	65	66	66	17	65	66	66
18	(3)	(3)	(3)	18	(3)	(3)	(3)
19	105	106	106	19	234	235	235
20	7	7	7	20	7	7	7
21	1	2	1	21	1	2	1
22	169	169	169	22	169	169	169
23	162	153	161	23	162	153	161
24	155	162	162	24	155	162	162
25	7	146	146	25	7	146	146
26	159	7	7	26	159	7	7
27	190	160	161	27	191	160	161
28	155	190	190	28	155	191	191
29	0	155	157	29	128	155	157
30		0	0	30	70	128	128
				31	177	70	70
				32	178	177	177
				33	179	178	178
				34	155	179	179
				35	7	164	164
				36	3	7	7
				37	0	2	3
				38		0	0

DIAGRAM 1





2Rs Col 1  
2Rs Col 2  
2Rs Col 3  
2Rs Col 4

**PLEASE NOTE**

Follow either chart or Form instructions for sts Rs decs & incs, as they will not be the same for both.



# FINISHING A GARMENT

Pat Cook

This time, I would like to talk about the finishing of a garment. Unless this is well done, the whole effect will be spoiled and the knitting of the garment will have been a waste of time and effort. So many times I see a really lovely garment, that has been spoiled by the finishing. Even a sweater that has been badly knitted can look good if it is put together well.

## USING A LINKER

Those of you who are thinking about buying a linker, or have just acquired one, will find that it takes time and practice to obtain a really good result, and it may seem slower than hand sewing at first. But do persevere, as in time you will achieve a very good result, and it will be quicker.

If you use a linker to put garments together, always take care to keep within the same vertical row of knitting to avoid a wavy seam. Always try to keep as close to the edge of the fabric as possible to avoid a bulky seam. NEVER link the ribs! Sew them by hand. I have evolved a method of joining ribs so that there is no unsightly bulk. As shown in the diagram below.



DIAGRAM 2 - JOINING RIBS  
Seam closed by gently pulling together as sewing is being done.

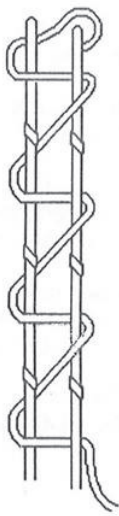


DIAGRAM 1 - JOINING RIBS  
Seam open to show formation of stitches.

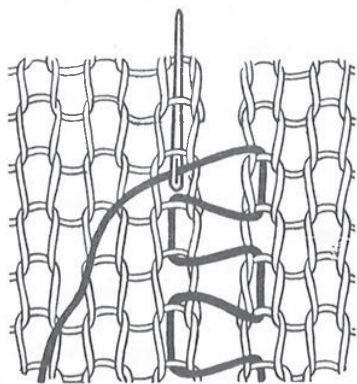
## JOINING RIBS

Take care when knitting the ribs to ensure that the edge stitches always knit correctly. It may take a little more time to knit them slowly, but the extra time involved will be well spent when it comes to the sewing up stage. Look closely at the edges of the rib, and you should see something similar to the diagram above. A straight bit, then a little knotty bit, alternately spaced along the edge. Thread the piece of yarn left from the cast on through the eye of a tapestry needle. (Not a darning needle, because the point is too sharp). Follow the diagrams, with the right sides of the work uppermost, and always bring the needle up through the work from below.

## JOINING SIDE SEAMS

I know from the letters that I receive that many of you have heard of mattress stitch, but don't know how to do it. This is by far the best way to join side and sleeve seams, and in my case, gives me the opportunity to sit by the fire and relax, and actually see my family! There is a lot to be said for a bit of hand sewing!

Mattress stitch is also worked with the right sides of the work uppermost, which is very helpful when you have a pattern to match. It is exactly like grafting. The diagram below will help to clarify the technique, and is reproduced courtesy of Madag, Switzerland.



The idea is to always enter the needle into the stitch that you have just completed, and to bring it out through the next stitch, on the same side. Repeat the process, but on the opposite side, on the section of knitting that is being joined to the first. The trick is not to pull the stitches to tight, but just tight enough to hold the two edges together.

## PUTTING ON SLEEVES and BUTTON BANDS or EDGINGS

I think that most of you probably know how to put a neckband onto a garment, either by hand, or the "on the machine" method. The neatest way to attach sleeves and bands to a garment is to use exactly the same method.

When you have completed the band or sleeve, increase the stitch size to around 5/5, or a size suitable for stocking stitch in the yarn you are using, and knit the circular rows. I find that RC6 is about right for sleeves and bands. If you prefer the hand sew method, then take off the work on waste yarn. If you are attaching a sleeve, then enclose the armhole edge in the circular rows, as you would when putting on a neckband. If you are attaching a front band, then the front edges of the cardigan are enclosed in the circular rows. The same thing applies to the "on the machine" method. For attaching a sleeve, the armhole edge is presented from the back of the machine, right side uppermost, and the front edge of a garment presented in the same way for a cardigan front band.

## BANDS

The most foolproof way of achieving a really neat, flat band on a cardigan that I have found, is as follows.

Start with a racking cast on for full needle rib, with a stitch size of 4 to 4.5 on both locks. After the cast on is complete, change the stitch size to around 3 to 3.5 on both locks. Knit 6

rows in full needle rib. If required make buttonholes by transferring 2 stitches onto their adjacent needles on each bed, for each buttonhole, leaving 2 empty needles in working position on each bed opposite each other for each buttonhole. Knit 6 more rows in full needle rib. Change the stitch size to at least 5 on both locks, and put in the black strippers. Set both locks to CX and knit to RC6. Either remove on waste yarn and attach by hand as for a neckband, or use the "on the machine" method.

Using the yellow latch tool, crochet the cast on edge of the band. To do this, insert the hook of the yellow tool into the first loop of the cast on edge, at the right hand side. (Work from the left if you are left handed). \*Let the loop slide behind the latch of the tool, and hold the latch open with your index finger. Insert the hook into the next loop. Let the latch close, and pull the new loop through the old one\*. Repeat from \* to \* along the length of the band. Secure the last loop, and give the crocheted edge a gentle pull to stretch it slightly, and the band

should lie flat. I also use this method for V necks.

### USEFUL HINTS

Steam and/or press each garment part BEFORE putting it together. Sew in the loose ends on each piece before you sew the garment together, but leave the cast on ends on the ribs for sewing up. If your work is double bed, then use the yellow latch tool to hide any ends. Insert the tool about 2.5cm away from the loose end, between the double fabric. Catch the thread in the hook and close the latch. Pull the hook back through the work taking the thread with it. Cut off excess yarn. Check to make sure that you have not taken the hook through to the other side of the fabric by mistake. The thread should lie hidden between the two layers of fabric.

### BUTTONS

Buttons can "make or break" a garment. I have lost count of the times I have toured all the cities and town in my area for just the right buttons. All to no avail. Finally, I decided to try

making my own. "Oh, but we can't do that", I hear you cry - BUT YOU CAN!!

I found that a product called FIMO is best. This is like a cross between "Plasticene" and pottery clay, and is "fired" by baking in an ordinary household oven. The colours can be mixed almost like paint to achieve the exact colour of your garment. Once the buttons have been baked, they can be machine washed at 40 degrees centigrade, (cool wash cycle), and are very robust as long as they are not too thin. The slightly uneven hand made look gives a very expensive air to the garment, and of course, the buttons are unique.

To make a swirled effect button, knead the clay until it is soft, several colours to match and tone with your garment. Roll each colour into a fairly thin, long sausage. Lay the coloured sausages together and roll into one sausage. If you want a clearly defined difference in the colours, then don't overdo the rolling at this stage. The more you roll, the more the colours will fuse into each other. Cut the roll into pieces. The size depends on the



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size you want the buttons to be. Try to make all the pieces approximately the same size. Roll each piece into a ball, and press the ball flat with your thumb, but don't make the button too thin. You will now have the basic button. It doesn't matter if it is not perfectly round. The hand made look is an advantage. Pierce two holes through the centre of each button with a tapestry needle.

A plain button is made in the same way, using only one colour. Plain buttons can be decorated with anything you like. I like to pick out a feature of the pattern used to knit the garment. To make a flower, I roll tiny, (and I mean TINY), pieces of clay in my hand. I then use the point of a pin to pick up the tiny pieces of clay, and place onto the button. Then I flatten the tiny pieces of clay onto the button with my finger. When all the petals have been placed in this way, use the point of the pin to draw veins or tiny creases going towards the centre of the flower. This adds detail, and anchors the petals to the button. Try pricking the centre of the flower in a circle to imitate stamens. For flower

stems, make very thin sausages, and arrange them with the pin. Press them down very gently, as you do not want to flatten them too much. Make leaves of slightly larger pieces of clay. Pick them up with the point of the pin, and position on the button. Press down until flat. Draw a centre vein with the pin, and then side veins radiating from this central one to complete. I have made cats, pigs, trains, strawberries - the possibilities are endless. When you have made your buttons, place them on a sheet of aluminium baking foil, and put this on a baking tray. Bake in an ordinary oven at 130 degrees centigrade, (Celsius), for about 20 minutes, or equivalent for your type of oven. Good basic instructions come with packs of Fimo, which can be purchased at many art or craft stores, as well as toy stores, such as "Toys R Us" and "Early Learning Centres".

Do try making your own buttons, it's fun and very rewarding. But why stop at buttons. What about matching beads and earrings!!

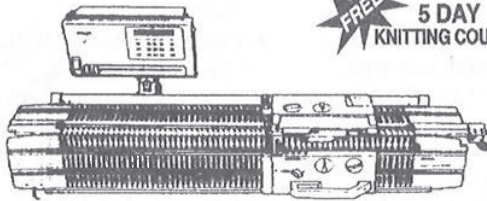
Happy knitting until next time - Pat.



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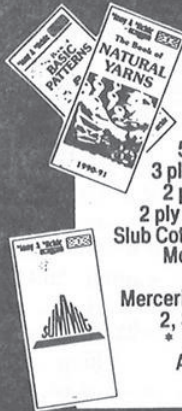
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# NEWS FROM THE U.S.A.

## Mona Early

It is not unusual to hear that our most satisfied customers come from our most successful dealers. These extraordinary men and women are often actively involved with some sort of consumer activity. They and their Passap people are full of energy, and seem to radiate excitement about our favourite knitting machine, Passap.

To reward some of these tireless Passap enthusiasts, Peter Foss, President of Passap U.S.A., along with Madag, planned three week-long education seminars, geared especially to Passap U.S.A. at the Passap factory in Switzerland. Because of the Middle East war, many of the top dealers were unable to attend. But there are those of us whom even a war cannot stop! All of the empty spaces were filled by others who would brave any obstacle to go to this exciting preview. Happily, everyone arrived without incident and the course proceeded as scheduled. Those who participated were:

Nomi Mummert, Nathalie Coulatta, Sandy Hairston, Brenda Rutchka, Teryl Hollins, Jennifer Bendelius, Jeannie Oneacre, Sally Hall, Oscar & Kathryn Hairell, Kathy Keck, Bea Wiesen, Ruth Nierenburg, Charity Smith, Barbara Nappen, Pearl Mayer, Laura Peppin, Beverly Walker, Sharon Wilson, Linda Winkler, Carolyn Dadisman, Jane Cohen, Susan Miller and Holly Jenkins.

The three week-long trips were march 5 1991, through March 23rd 1991. Each group had a maximum of eight participants, plus a chaperone. Chaperones were Victoria Kearney, Norman Foster and myself.

### CREATION 6

In preparation for the introduction of Passap's new product, Creation 6, in the United States at the Passap Dealer Convention and Passap University, May 25 - 27 1991, our dealers were given a special five day hands on training course for Creation 6. I could give you an in depth description of what went on during

these sessions, but I won't as it would take too long. However, I will tell you that we were all sorely disappointed that each of us could not take a Creation 6 home. This product will knock your socks off!! It is terrific.

For those of you who have not heard of Creation 6 yet, the following is information from a fact sheet Passap U.S.A. has been sending out when enquiries are received, telling what Creation 6 is all about.

### INFORMATION

Whether you are an accomplished artist, or haven't done any art work since you last finger painting in second grade, (primary school), with Creation 6 you will easily produce designs for knitwear in a matter of hours.

Creation 6 is a Paint Programme for knitwear. It is designed with the novice in mind, giving on screen instructions as you draw and colour. Because it is a paint programme, designs can be specific to your needs. Do you want a small uncomplicated design? You can draw a small uncomplicated design. Or maybe you want a landscape with lots of trees and flowers. You can draw with as much or as little detail as you desire. But you say you can't draw? No problem with Creation 6! Get out your scanner, and scan a pre-drawn picture from a colouring book, fabric swatch, a photograph, or maybe something by your favourite renaissance artist.

Make it **BIG**, make it *tiny*.

Use the whole design, or just a portion of it.

Take parts of three separate patterns, and combine them into one design. You can even superimpose them if you like.

Your grandson's soccer team name? You Bet! The alphabet is already a part of the paint programme, in three different letter styles.

Do you have yarn left over that is just too gorgeous to throw away, or not use? You can easily draw a design

with palette colours that you have matched to that yarn. It will be so much easier than having to knit a test piece before discovering that those colours do not have the effect that you wanted.

### FEATURES

Here are some of the features of Creation 6.

- Draw on a screen corresponding to the width of the needle beds. (180 pixels)
- Draw on the normal drawing screen, or magnify the screen to draw stitch by stitch.
- Draw perfect circles, ovals, squares, rectangles.
- Use any E6000 pattern, (already stored in Creation 6 memory).
- Include text.
- Reduce or enlarge parts, or all of the design.
- Work with either an opaque, or a transparent background.
- Cut and paste.
- Rubber stamp.
- Make direction changes.
- Make a single repeat into an all-over design.
- Design in stitches, or centimetres.
- Design according to the gauge of your test swatch.
- View the proportion of the pattern as it will appear when knit with the technique you have chosen.
- Adjust the height of the pattern with one easy step to allow for proportion changes due to knitting technique.
- See co-ordinates, in pixels or centimetres, of where you are drawing.
- Erase one pixel, everything in a frame, everything outside a frame.
- Create custom palettes
- Replace or exchange colours.
- Identify a colour used weeks ago to re-use the same shade.
- Scan pre-drawn designs.



- Store designs and/or palettes.
- Make a printout of the design.
- Transfer the design directly from the computer to the E6000 console memory.

### REQUIREMENTS

Please note that this product is made for use with 100% IBM compatible computers. The computer operating system must be MS DOS version 3.0, or higher.

Your computer must have a minimum of 640KBytes of RAM, have a colour monitor, preferably VGA, or higher, and a hard disk.

There must be two serial interfaces to support the E6000 cable and a mouse. The mouse must be supported by Genius, Logitech, Microsoft, Mouse-system, or Dexxa.

The computer must have at least one free expansion slot to insert a scanner card, and it must have one of either

5.25 or 3.5 inch floppy disk drives, preferably high density.

For further information, watch for Creation 6 advertisements.

For further information on your personal computer, please consult your computer dealer.

Best wishes till next time, Mona.



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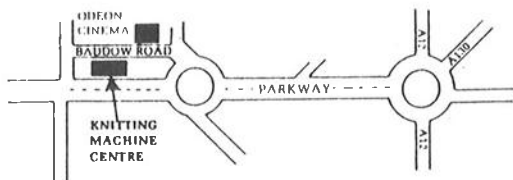
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# SUPERIMPOSING 3 & 4 COLOUR DESIGNS WIDER THAN 40 STITCHES

Hélène Napaul, Switzerland

My last teaching trip abroad left me determined to write an article on superimposing 3 & 4 colour patterns that are wider than 40 stitches for the E6000. As usual, one assumes that everyone knows and understands newly found methods, especially as there are designs using them in the last three Model Books from Madag. My trip proved me wrong!, and I would like to use this opportunity to draw with you the design used in Model Book 46, number 4626, that was issued as a design using colour separation for the rows using 24 cards.

I made enquiries at Madag as to the most popular 4 colour design requested by our customers from all across the globe, and this one proved to be the favourite.

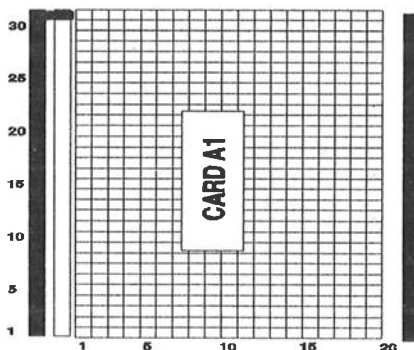
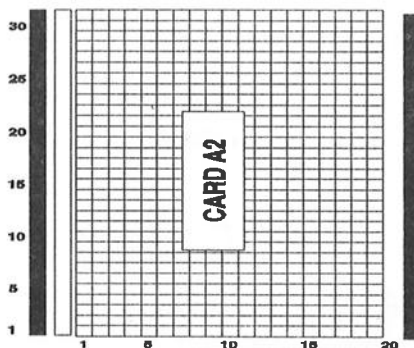
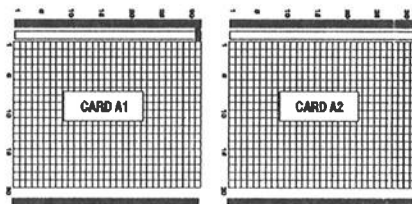
Let me give you a small list of comparisons for using both systems of designing pattern 4626.

## The E6000 rules when superimposing a stitch pattern wider than 40 stitches.

The card length/height will be the width of your design. This allows a minimum width of 63 stitches per card. Should your design be wider than 63 squares, the 64th row in the left hand margin gives the reader information that there is a continuation card to follow. (See instruction manual page 129). This will allow you to draw a single motif design over the whole width of the needle bed.

## READING THE CARDS WITH THE READER

The card reader accepts the cards only lengthways. The result is that the design must be turned before knitting. Therefore, we read in column A cards, and when the display shows ALTER, we turn the design with  $\left[ \rightarrow \right] m$  BEFORE we superimpose the 3rd colour, and again BEFORE we superimpose the 4th colour.



When knitting with 3 or 4 colours, the direction changes have to be made before reading the cards for the 3rd colour, and again before reading the cards for the 4th colour.

## SUPERIMPOSING

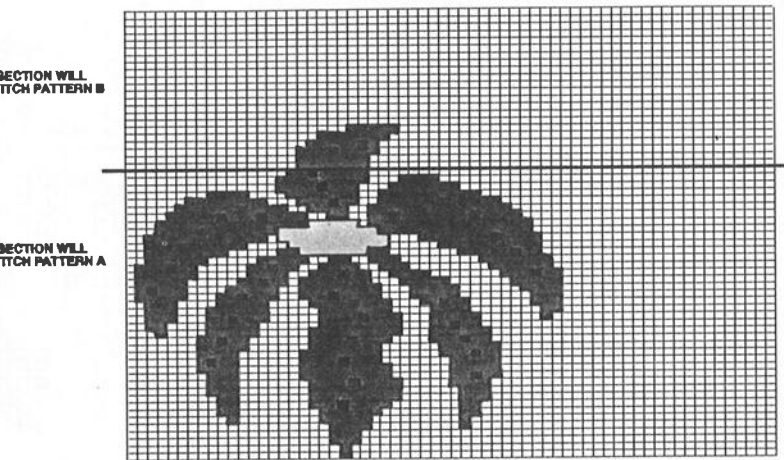
- Uses fewer cards for the design. Our example 12 cards instead of 24.
- The same cards may be used for 2, 3, or 4 colour designs.
- Direction changes can be combined with the pattern. (A symmetrical shape only requires half the design to be drawn).
- The design can be enlarged.
- It is easy to recognise the shapes within your pattern.

## COLOUR SEPARATION

- More cards needed. Our example 24 cards instead of 12.
- Can only be used as a 3 or 4 colour design
- No direction changes can be made.
- The pattern drawn actual size, cannot be enlarged.
- Impossible to see the shapes.

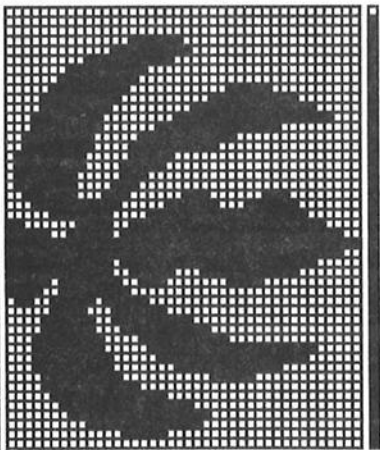


Let us look at the sleeve pattern in detail to see the principals behind this.

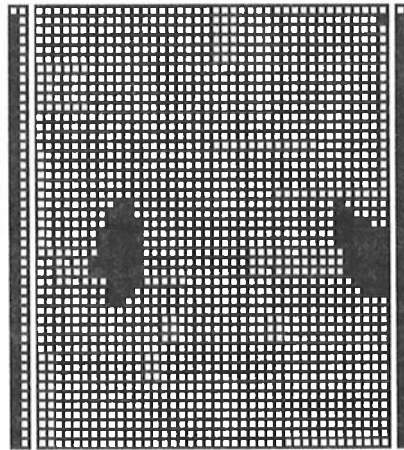


**EXAMPLE**  
Original design for sleeve is 42 stitches by 46 rows.  
Grid design onto squares corresponding to the pattern.  
Can be 40 X 63.

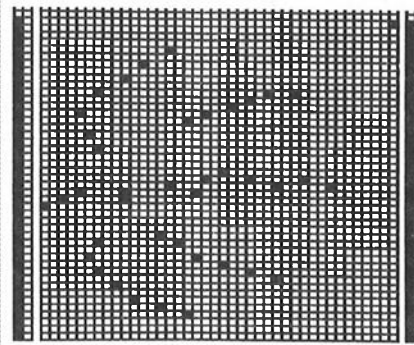
Your maximum design area can only cover 40 squares by 63 squares per rectangle, as the 64th square is used for information coding for the reader. (Instruction Manual page 129).



**SLEEVE CARD NUMBER 1**  
The white squares are automatically read as background colour. The black squares represent 2nd, 3rd and 4th colours.  
This allows me to use the same card with a 2 colour technique, or a 3 colour technique if I only wish to superimpose a third colour.



**SLEEVE CARD NUMBER 2**  
The black squares represent the 3rd colour to be superimposed onto the card marked A1, plus 2nd colour for the card B2.  
N.B. Do not write on your pattern cards. Your card reader will not like it!. Make photocopies and write notes on these.



**SLEEVE CARD NUMBER 3**  
The black squares represent the 4th colour to be superimposed onto A1. This would also make an interesting design alone in a two colour technique.

## READING THE PATTERN INTO THE CONSOLE

### MARKING THE CARDS

#### SLEEVE

Which part of the garment the card is used for

**SLEEVE A1** - The first card to be read into the console of column A. (Knitted as stitch pattern A).

**SLEEVE B1** - The first card to be read into the console of column B. (Knitted as stitch pattern B).

**CARD B1**  
TOP →

**CARD B2**  
TOP →

**CARD A1**  
TOP →

**CARD A2**  
TOP →

**3rd Colour onto A1** - The third colour is superimposed onto card A1.

**4th Colour onto A1** - The 4th colour to be superimposed after the above actions are carried out, onto card A1.

Should a design be wider than 63 stitches, the card must be marked with a continuation square, (Instruction Manual Page 129), and the continuing card will be A2. (See cards for back & front).

## READING THE PATTERN INTO THE CONSOLE

Enter the cards into the reader. This is not a step by step guide to programming the sleeve cards, but below you will find key words wherever it is necessary to carry out the given functions.

Read Sleeve Card number 1 into the console.

**ALTER** -  $\overline{E} \rightarrow m$

**ADD** - Read sleeve card number 2, but cover all the black squares marked B1 with white paper. Be careful not to cover the margins.

**ALTER** -  $\overline{E} \rightarrow m$  These superimpose as the 3rd colour.

**ADD** - Read in sleeve card number 3.

**ALTER** - Then superimpose as the 4th colour.

**POSITION - REP. R. 0 - NO**

**ALL ST PATT - NO**

**ST. PATT B** - Read in sleeve card number 2, but cover all the black squares marked for 3rd colour A1.

**ALTER** -  $\overline{E} \rightarrow m$

**ADD** - \*Enter sleeve card number 2 again, but cover all the black squares except the margins.

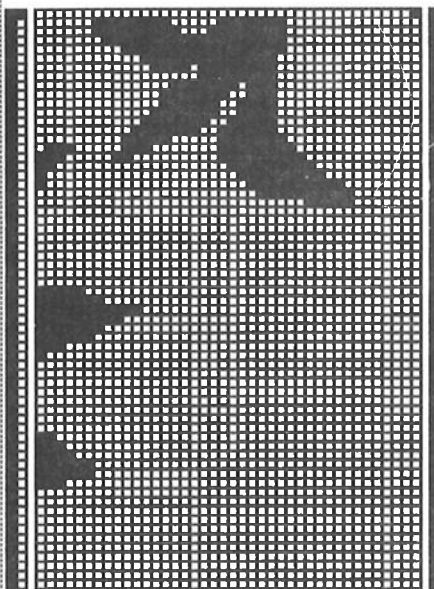
**ALTER** -  $\overline{E} \rightarrow m$  Then superimpose as the 3rd colour.

**ADD** - \*Enter sleeve card number 2 again, but cover all the black squares except the margins.

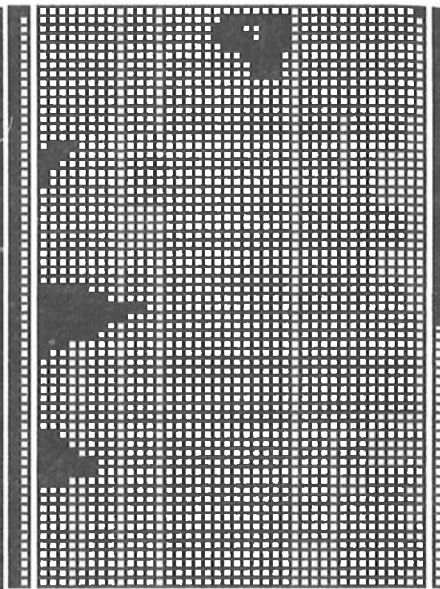
**POSITION - REP. R. 0 - NO**

\*This is necessary as we continue to knit with a four colour technique.

To position each stitch pattern helps when knitting the parts, as mistakes are less likely to occur in repeating the pattern. Always calculate how many rows are needed for each stitch pattern so that the row counter corresponds with the selection of all the pushers on the front bed in working position. This is the way to know where to call up the next stitch pattern.

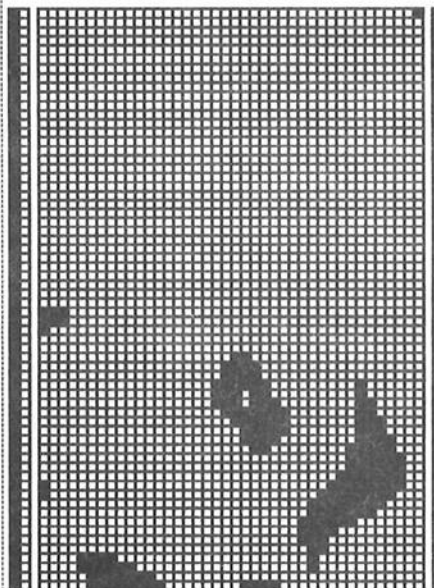


BACK & FRONT CARD 1 = A1



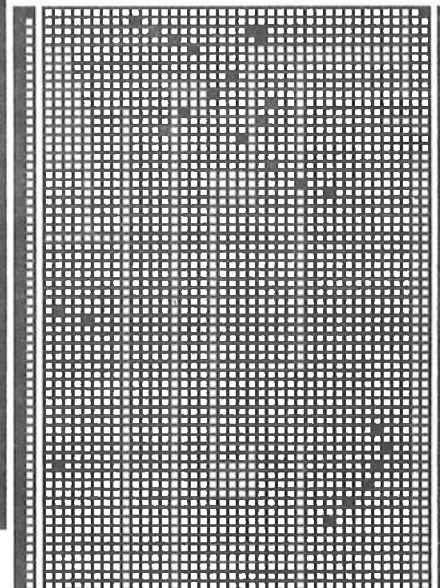
BACK & FRONT CARD 3

This card has colour 3 which will superimpose onto card A1.



CARD BACK/FRONT 2 = A2

This has the second colour to superimpose onto card A2 as the 3 black areas at the left side of card, and the 3rd colour to superimpose onto card A2 as the black squares to the right side of the card.



BACK & FRONT CARD 4

This card has colour 4 which will superimpose onto card A1.



## READING CARDS MARKED BACK/FRONT INTO THE CONSOLE

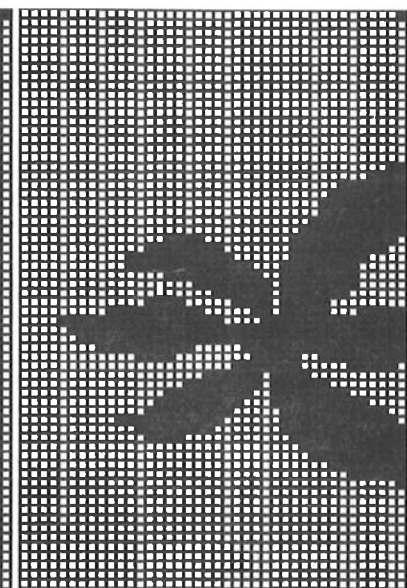
Read Back/Front card number A1  
CONTINUE - ENT  
Read Back/Front card A2, but cover  
all the black squares for the 3rd  
colour on B2.  
ALTER -  
ADD -  
Read card Back/Front 3.  
CONTINUE  
Read card A2 again, covering the  
black squares for colour 4, on card  
A2.  
ALTER -  
POSITION - REPR. 0 - NO  
ALL ST. PATT. - NO  
ST. PATT B

Read Back/Front card number 5  
CONTINUE  
Read in Back/Front card number 6  
ALTER -  
ADD -  
Read in card Back/Front number 7  
CONTINUE -  
Read in Back/Front card number 2,  
but cover the black squares for col 2,  
as card A2.  
ALTER -  
ADD -  
Read in card back/Front number 8.  
CONTINUE -  
Read in card Back/Front number 9.  
POSITION - REPR.0 - NO

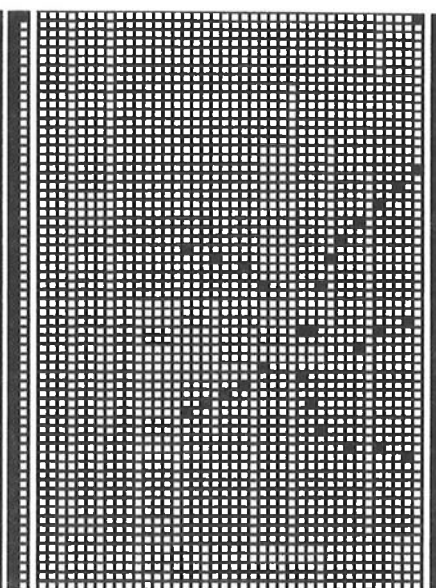
Remember The Paragraph From  
Before :-  
The card reader accepts the cards  
only lengthwise. The result is that the  
design must be turned before knit-  
ting. Therefore, we read in column A,  
and when the display shows ALTER,  
we turn the design with **[→] BEFORE**  
we superimpose the 3rd colour, and  
again **BEFORE** we superimpose the  
4th colour.

I hope you enjoy experimenting with  
superimposing and turning patterns.  
It can be a lot of fun, even if some-  
times you make mistakes. Also, using  
this method rather than colour  
separations into rows for colours, you  
use a lot less cards for many designs.  
Look forward to seeing you next time.  
Best wishes,

Hélène.

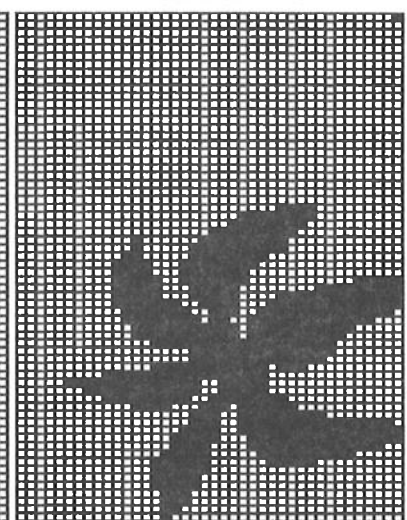


BACK & FRONT CARD 5 = B1

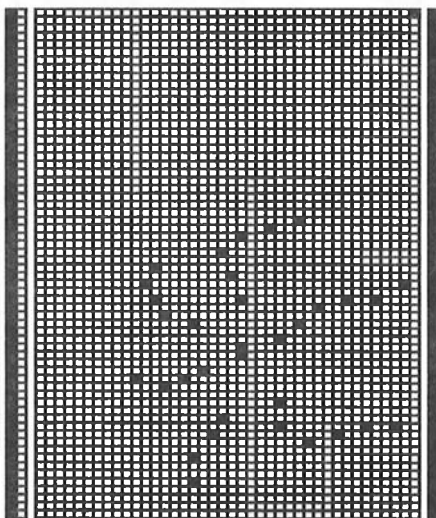


BACK & FRONT CARD 8

This card has the 4th colour which will super-  
impose onto card B1

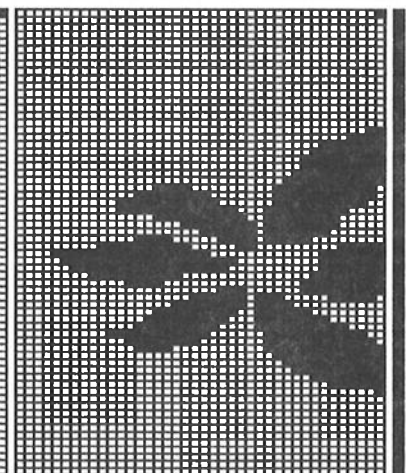


BACK & FRONT CARD 6 = B2



BACK & FRONT CARD 9

This has the 4th colour which will superimpose  
onto card B2.



BACK & FRONT CARD 7

This has the 3rd colour which will superimpose  
onto card B1.

Once again, an awful lot to cram into my section, but at least this time I have been given more space! Perhaps one of the most important things to tell you about is,

### CREATION 6

The new software from Madag for Passap and Pfaff E6000 knitting machines. George will be writing about this much more fully next time, but he has told me a little of what this can do, and how it will make the design of stitch patterns so much easier for those of us who own IBM compatible personal computers. I am not really a computer person myself, but if this will avoid drawing all those reader cards that are necessary for some designs, then I will start learning today. What sounds so amazing is that you are able to draw in colour, and send the design straight to the console, without having to superimpose patterns etc. A case of drawing it as you want to knit it, and this makes visualizing a pattern so much easier. I love the idea too, of being able to match up the colours used on the screen with the yarn you want to use. Think how simple that will make things as far as avoiding disasters with colours that clash. Hours of time saved on knitting experimental swatches, only to find that the colours you have chosen look awful in that particular pattern, no matter what you do with it.

I have not actually used the programme as yet, but the instruction book appears very comprehensive. I can even understand some of it without seeing the programme, and it is all taken step by step through the design process.

Imagine being able to use a scanner to copy your favourite photograph of your pet, and have it straight onto the computer screen, and then loaded into the console ready to knit, all in a shorter time than it takes to talk about it. This will really cut the amount of time spent in the design area down to a minimum. Have you ever thought that when you are designing pattern cards or sheets, that ninety percent of the time taken is not on the design itself, but on producing the card?



## NEWS & AROUND

Heather Jonson

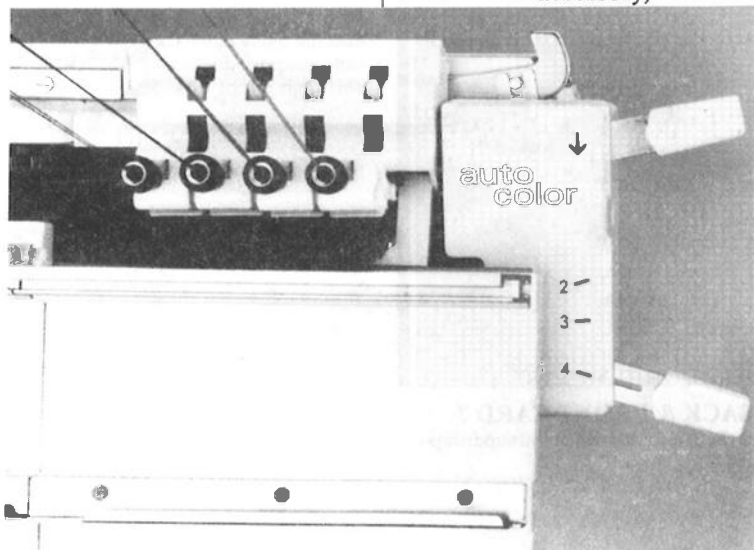
Now all this can be avoided, and the time saved used in knitting, or designing new patterns. However, as George commented when he was telling me about this wonderful new accessory, it is so fascinating to be free to design almost at will, with scan-

ners, colours, etc. etc., that there is a danger you may never actually get round to knitting them, but go on to design more and more!!

**AUTOCOLOR**

Now we turn to another new accessory, and one that is very close to my heart. The AUTOCOLOR. This is the latest colour changer to come from Madag, and is fully automatic for two, three, or all four colours.

No more sitting next to the machine and selecting the colour buttons in turn as you knit in three or four colours. Autocolor takes care of this automatically for you. As you can see from the photo, you select the changes required, 2, 3, 4 with the lower lever on the accessory, and from then





on everything is completely automatic. The action is similar to that used on the four colour changer we now have, but automatic once set. The action is positive, and works every time, even with the most "difficult" yarns. It makes no difference whether you use a smooth, hairy loopy or bobbly yarn. Autocolor changes them positively and perfectly every time.

Because of the truly modular system from Madag, Autocolor will fit onto any of the Duomatic 80, or E6000 machines. If you are currently using a two colour changer, then the kit contains the yarn masts etc., as always supplied with the normal four colour changer. However, if you already have the four colour changer, there is a special upgrade version of Autocolor available. All you need to buy in this case, is the actual Autocolor unit itself, which is of course less expensive, and replace the four colour changer with the new unit, everything else remains the same.

I have visions of knitting miles of three and four colour patterns with the motor, and not having to be at the machine all the time. To me, this has always been one of the drawbacks to knitting in more than two colours. Now I shall be able to feed in a pattern from Creation 6 in four colours, set the motor to the number of rows I want, set the Autocolor, and go back to the computer and make more designs!

Autocolor will be available from your dealer in the middle of this year, so watch out for announcements.

Like most people, I find that the finishing off of a garment often can be the making of the whole thing. If I block and steam, or press properly, and take the care that I should, things turn out well. The problem is that although I have tried most of the steam irons, steamers and so on that are available, there are always two basic problems with steam. Either the steam iron, which is light and easy to handle, runs out of steam at the most important part, dribbles water all over the work if not set to a high enough temperature, and certainly will just not produce steam unless the sole plate is facing downwards. Steamers seem always to be big and

clumsy, and take a lot of my effort to actually get ready. It's almost like getting out the vacuum cleaner, and sometimes, if the knitted part is very small, it hardly seems necessary and too much effort to get the steamer all set up just for a tint section of knitting. The steamer produces lots of steam, and in the right place, at any angle. But is so big and hefty, that I am sometimes tempted just not to bother. The answer now seems to have been invented, and once again comes from the Madag factory, bearing the Passap name.

### THE PASSAP TOP JET VARIO STEAM IRON

An iron shaped iron, with a steam generating tank that sits on the end of the ironing board or table. The steam is produced in the tank section, and is taken to the iron along the cable that is only slightly bigger than an ordinary iron cable.

Steam is therefore produced with the iron at any angle. Upside down if you like! and at three different levels of intensity, 20, 40, and 60 grams per minute. Which meant absolutely nothing to me, but the average steam iron can produce only 15 to 35 grams of steam per minute. So there is a lot of steam when and where you need it, and of course, no need to actually touch the surface of the knitted fabric, and no possibility of water dribbles all over the work.

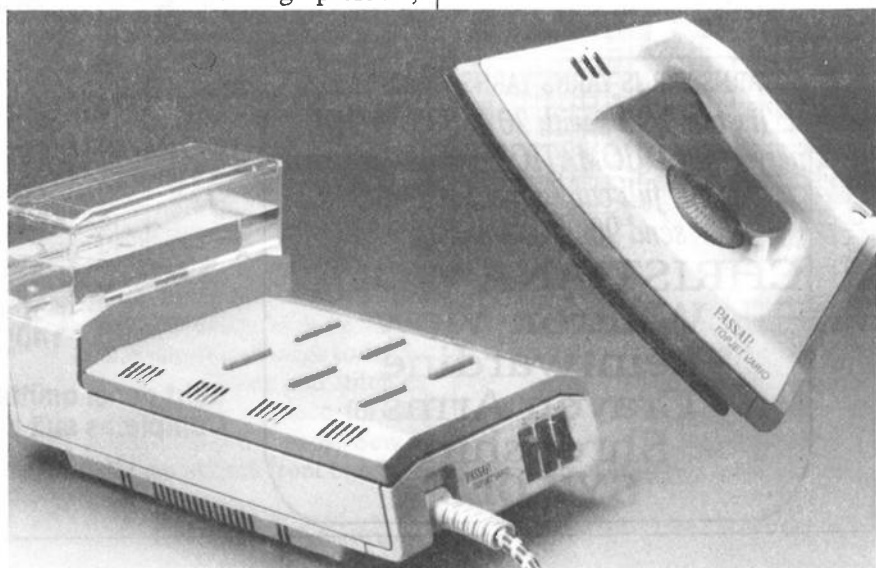
The steam is produced in the steam station by a patented, very safe method called the "Steam Disc". What this means, is that because the steam is never under high pressure,

there is no risk of accident when refilling the tank with water. If the see through tank water level drops, you can just lift off the actual tank, take it to the tap, refill it and replace it onto the steam station. The water tank holds one litre of fresh water, and for those who live in a hard water area, there is a built in water softening cartridge, that lasts for 15 to 20 fillings, then is easily replaced by dropping in a new one.

The sole of the iron is made of anodized aluminium, which is actually harder than stainless steel, glides smoother for actual ironing, lighter in weight, and can be cleaned with a pan scrubber such as "Scotch Brite".

Of course the Top Jet Vario is not just a steamer for knitwear. It is also a "proper iron" for all the weekly wash, with variable heat settings etc. But the iron itself is ultra light, fits into the hand well, and virtually glides along on a cushion of steam in operation.

From switching on to attaining maximum temperature and maximum steam, takes less than five minutes, and lower temperatures slightly less. The level of steam required is set with a switch to 30, 40 or 60 grams, or you may choose to use without steam for certain items. The weight of the iron itself is 1.070 kg, and the steam generator station 4.130 kg. This product is not yet actually on the market, but when available later this year, the retail price will be around £160 to £170, and of course is serving two purposes, a household iron, and a really professional steamer for knitted fabric.



## YARN INFORMATION

### ADELAIDE WALKER YARNS

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Otley Mills, Ilkley Road,  
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U.S.A.

Bramwell Yarns,  
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Texas, 79708.

CANADA

Westrade Sales Inc.,  
2711 No 3 Road, Richmond, B.C.  
V6X 2B2.

### BONNIES WOOLS

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Northfield, Birmingham, England,  
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### CELANDINE YARNS

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West Yorks, England, LS21 3HJ.  
Tel: 0943 466640

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### DENYS BRUNTON YARNS

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Medina, Ohio, 44258.

&

North West Knitting Supplies,  
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Suite C, Olympia, WA 98506

CANADA

Creative Product Sales,  
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### FORSELL YARNS

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England.

### NINA MIKLIN YARNS

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Tel: 071 286 1532

### WORTH KNITTING

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England.  
Tel: 0532 557293

## CORRECTION TO PATTERN

### NUMBER D20601, (Duet 6).

The chart on the right was omitted in error from Duet International Number 6, (Spring 1991).

Any reader who informed us of this omission before publication of Duet International Number 7, was sent a copy of the chart, but we publish it here to complete this pattern and charts for all our readers. Sincere apologies for any inconvenience caused in the interim.

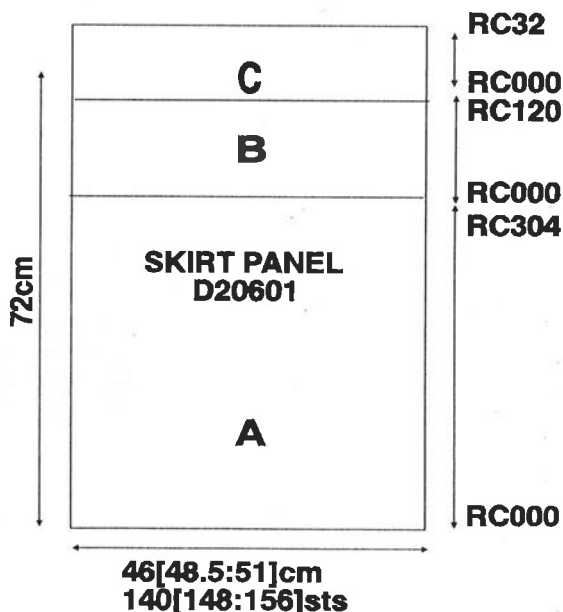
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Skirt panel omitted from Duet International No. 6.  
Completes suit pattern No. D20610.





Michael Becker for Passap  
Canada. © Husqvarna White.

91[102]cm Bust.

110[114]cm Bust.  
Length 64cm, adjustable.

2/12's Merino, (Botany), pure  
wool. 675 metres = 100g.  
450g Natural White = Col 1,  
100g Medium Blue = Col 2,  
525g Light green = Col 3, 75g  
Dark Moss Green = Col 4,  
100g Orange = Col 5.  
Total of 1025g yarn required.  
Any make yarn in the specified  
count and colours is satisfactory.

40sts = 167mm, 40Rs = 4mm  
measured over st patt. See  
Note below. 40Rs rib = 80mm

Double bed jacquard with  
tuck stripes alternating, with  
card given, colour sequence &  
Diags. Cast on 1. *St Patt A*  
*reader card Tech 180. St Patt B*  
*100, but as Diag. St Patts C, E,*  
*G, I, as A, St Patt D, F, H, J, as*  
*B.*

Page 4.

750g Size 91cm.

To determine row tension, knit  
1 repeat of jacquard patt and 1  
repeat of tuck patt, RC120 =  
120mm. Comb with one weight  
used throughout. Ribs knitted  
with 2 ends yarn. Colour se-  
quence notes for jacquard.:-  
4Rs Col 1 to RC4  
2Rs Col 1, 2Rs Col 2 to RC16

8Rs Col 1 to RC24  
2Rs Col 3 2Rs Col 4 to RC40  
2Rs Col 3 2 Rs Col 5 to RC68  
8Rs Col 1 to RC76  
2Rs Col 1 2Rs Col 2 to RC92  
4Rs Col 1 to RC 96  
This forms one rep of jacquard  
N.B. Sleeve ribs K separately,  
& attached afterwards. Begin  
and end each tuck section with  
2Rs N/N. Tuck as Diag.



A. CoCir 1X1 as Diag 1 Col 3.  
K as chart.

B. Push all Ns to WP. 2Rs  
CX/CX. \*Set as Diag 2. K in  
Col sequence & jacquard patt  
96Rs. Set as Diag 3, K 24Rs Col  
1\*. Rep from \* to \* five times  
in all. CoF.



A. As Back A & chart.  
B. As Back B & chart.



A. CoCir K/K Col 3 as chart.  
B. Set as Diag 2. K as Back B &  
inc as chart. K 120Rs of patt  
repeat, (1 jacquard + 1 tuck),  
2.5[3] times in all. CoF. Rep for  
second sleeve.

#### SLEEVE RIBS

CoCir 1X1 66Ns 2 ends Col 3.  
K 30Rs as Diag 1. Trans all sts  
to BB. Rehang CoN edge of  
sleeve evenly, 2 sleeve sts to  
every N. CoF using 2 ends Col  
3. K second rib.



CoCir K/K 12FB Ns, 11BB Ns  
2 ends Col 3. Lks N/N SS 3/3.  
RC000. K to RC248. Rel.



As buttonband, but make but-  
tonholes over Ns, 6,7,8 at RC8,  
39, 70, 101, 132, 163, 194, 225.  
Cont to RC248, rel.



Block & steam all parts to size.  
DO NOT PRESS. Make cut &  
sew necklines as charts on  
fronts.

Measure 2 cm down on sides of  
back & fronts & mark. Join  
shoulder seams making sloping  
seam from neck edge to marks.  
Fold seam open and stitch ex-  
cess fabric in place forming  
small shoulder pads. Sew in  
sleeves. Attach front bands.



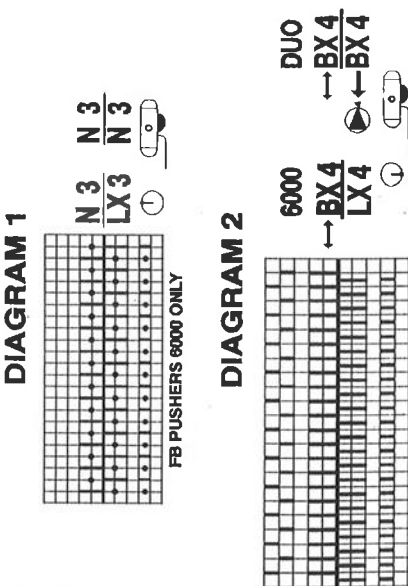
CoCir 1X1 2 ends Col 3 136Ns.  
Do not use comb & weight. Set  
pusher to WP for every BB N  
in WP. Push up all empty Ns on  
BB.

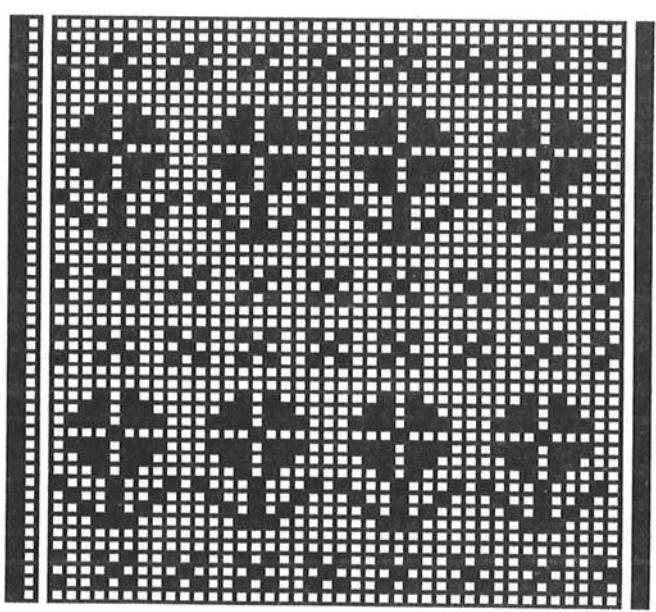
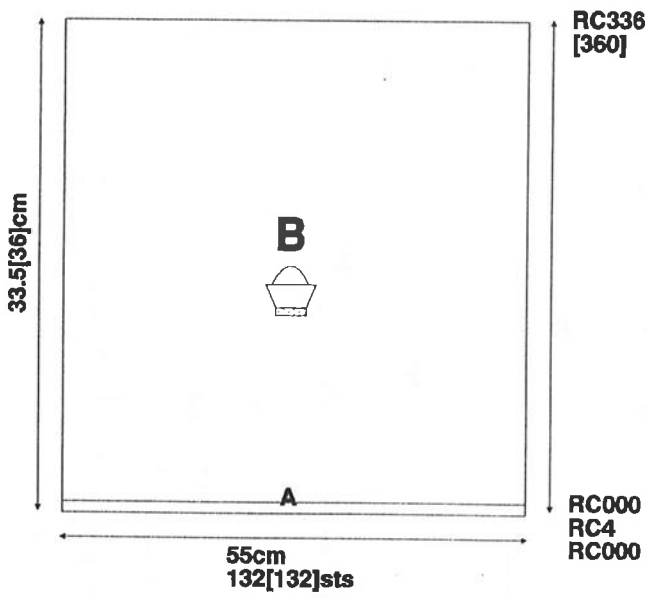
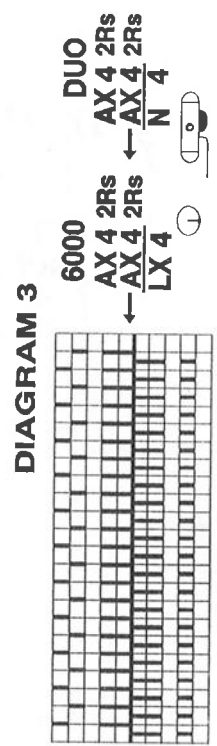
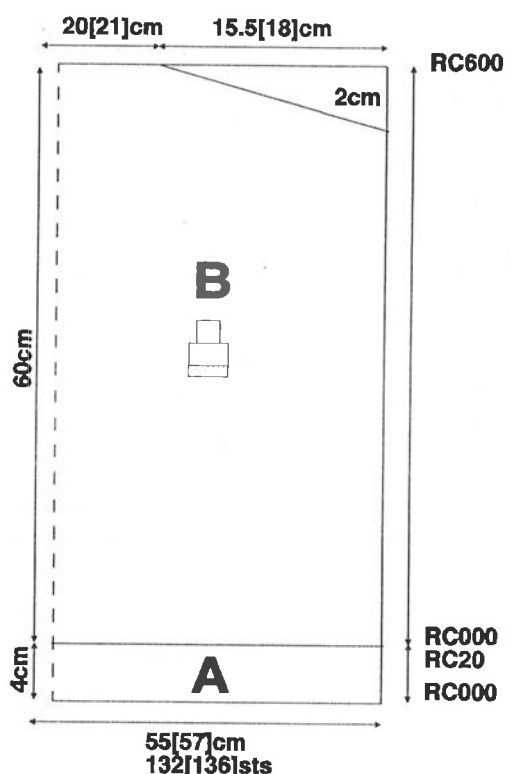
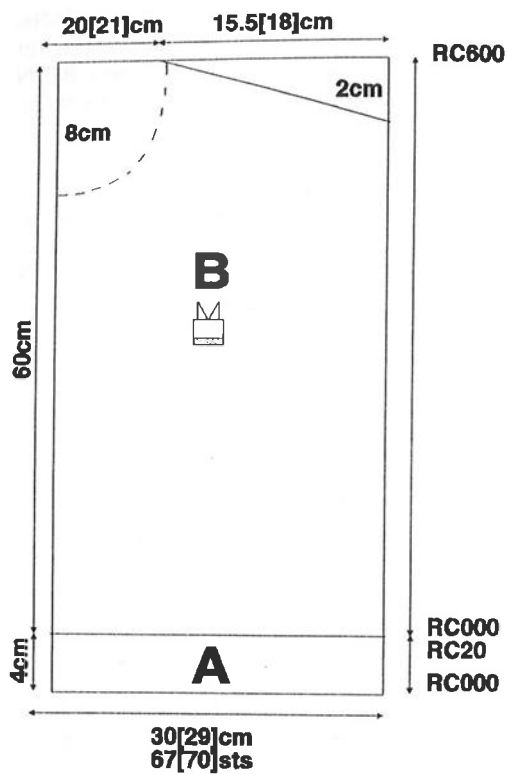
SS 2.5/2.5 K 2Rs CX/CX  
RC000. Lks BX/N SS 3/3. K to  
RC36. Work buttonhole as  
before over same Ns. K to  
RC48. (Lks at Lt). Lks N/GX  
Black strippers, SS4.75. K 6Rs.  
Pull down loop of yarn be-  
tween beds. Lks GX/N SS 4.75  
K 6Rs.

Open beds. Lay jacket over BB, right  
side uppermost. Present neckline to  
open envelope, & push BB Ns  
through work 0.75cm above edge,  
easing across length to fit. Close all  
BB N latches. Pull BB Ns down so  
that only closed latch & hook end  
show. Close beds, ensuring edges are  
between beds. Trans FB sts to BB Ns  
pulling BB N down hard when con-  
taining both sts. Lift work to hang  
over FB. E-wrap cast off & remove  
from machine.

K length of cord Col 3 2BB & 1 FB  
Ns. CX/CX SS 3/3. 50cm long. Weave  
through holes in collar band.

Sew buttons to match buttonholes.  
Join open ends of collar neatly. Give  
final light steaming.









**D20712**

**Grey & Royal  
Sweater**



**6000 ONLY**

Kathy Haynes, England.

86[94:102]cm Bust/Chest.

92[99:107]cm Bust/Chest.  
Length 64cm.

**CHRISTIANA YARNS**  
"Braemar" wool/acrylic blend,  
1 cone "Liberty Blue" = Col 1.  
1 cone "Siver Grey" = Col 2.

40sts = 141mm, 40Rs = 41mm  
measured over pattern. 40Rs  
rib = 69mm.

Double bed jacquard with  
card given.

Back & Front  
CAST ON - 4

St Patt A - ● - ENT

Read in card given.

ALTER - [E-E]

KNIT TECH - 180 - ENT

POSITION TO R/L - 42

REP. ST. 0 - Rep St 48

Sleeves

St Patt A - ● - ENT

Read in card given.

ALTER - [E-E]

KNIT TECH - 180 - ENT

POSITION TO R/L - ENT

REP. ST. 0 - NO

Page 4.

400g Size 86cm Bust.

2 ends of each Col used  
together throughout. This gar-  
ment has a cut & sew neckline.



A. CoCir 2X1 Col 1 as Diag 1.  
K as chart.

B. Push up all empty Ns to WP.  
K 2Rs CX/CX SS 4/4. 1 R N/N.  
Set for St Patt A. K in Patt as  
chart.

C. K & dec as chart. CoF.



A. As Back A.

B. As Back B. K & inc as chart.  
CoF.



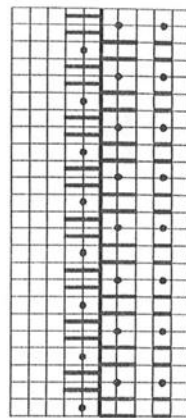
Knit without console.

CoCir K/K 130Ns Col 1 Lks  
N/N SS 4/4, K 20Rs. SS3.5/3.5  
K 20Rs. SS 6/6, K 10 Rs. Lks  
CX/CX SS 4/4 K 4 Rs, (8 Lk  
movements). WY K several  
Rs & rel.



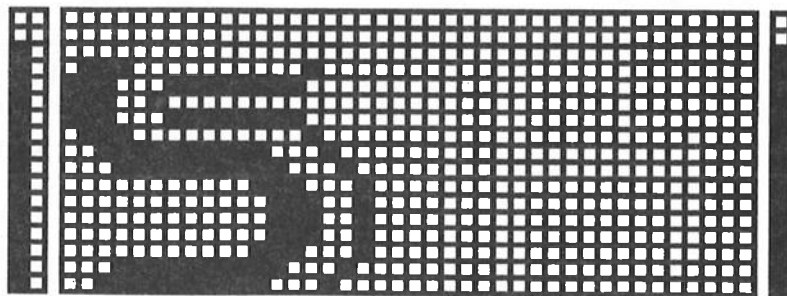
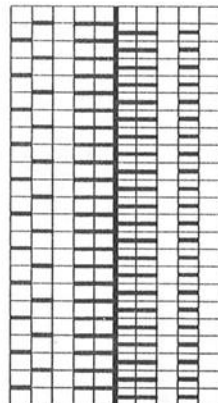
Block & steam parts to size.  
Do not steam welts & collar.  
Join shoulders. Mark & cut  
front neckline. Unravel WY on  
collar & starting at centre  
front, backstitch through open  
loops to outside of garment.  
Slip stitch second side of en-  
velope to inside of garment,  
enclosing edges. Join collar  
seam. Sew in sleeves. Join side  
& sleeve seams. Give final light  
steaming.

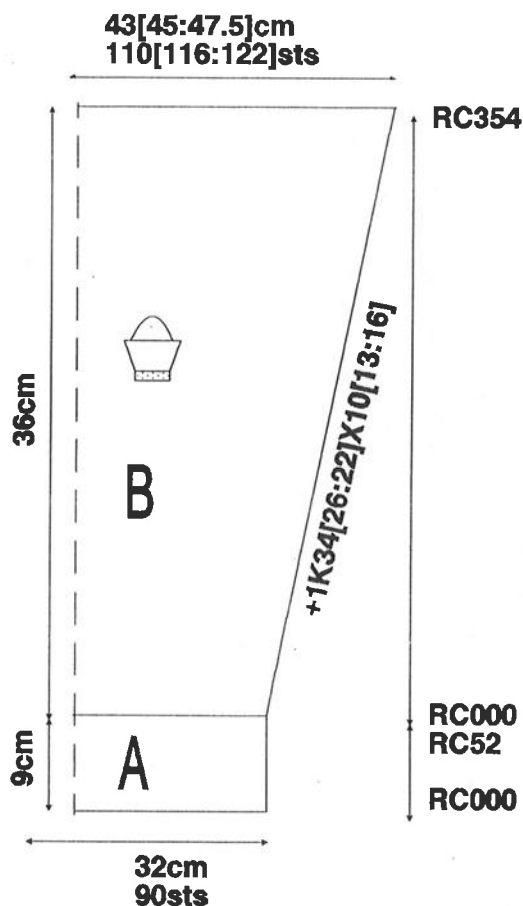
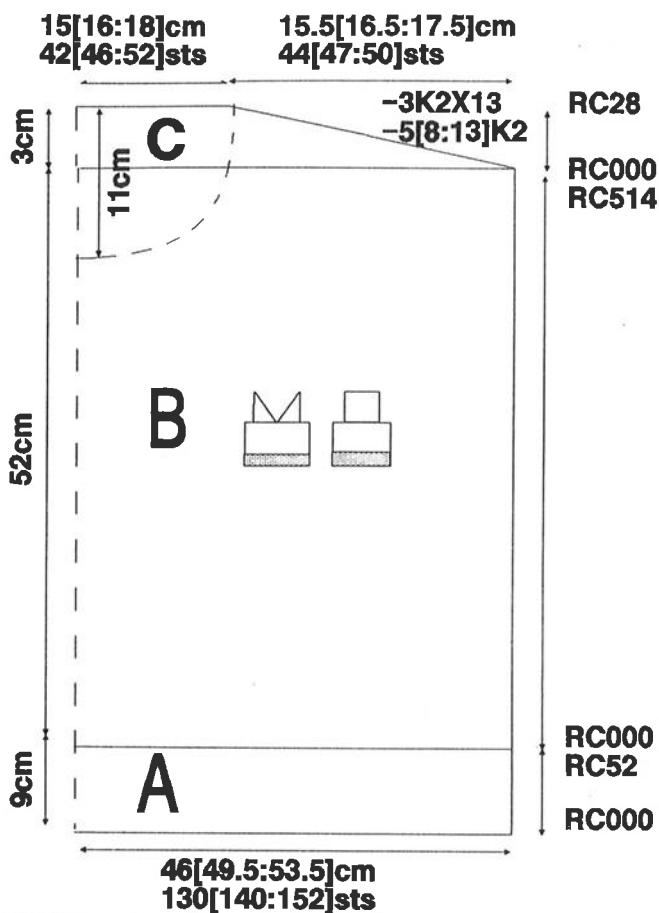
**DIAGRAM 1**



FB PUSHERS 6000 ONLY

**DIAGRAM 2**

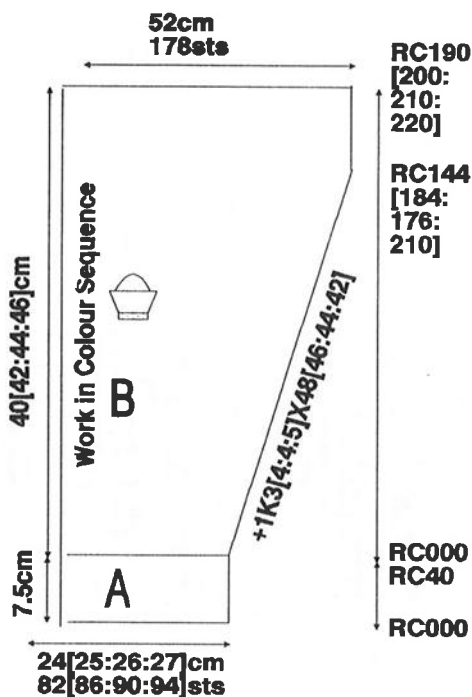




**CORRECTION TO PATTERN CHART No. 20705**

Page 12.

Please use this chart for knitting sleeve, and not the one that appears on page 12.



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**D20712 Royal Blue &  
Grey Sweater by  
Kathy Haynes**  
Pattern on page 69





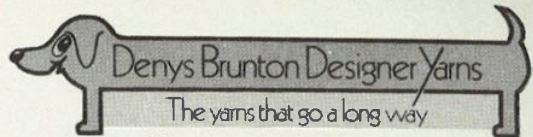
D20707 Ladies Fairisle  
Jacket by Michael Becker  
for Passap Canada  
Pattern on page 67



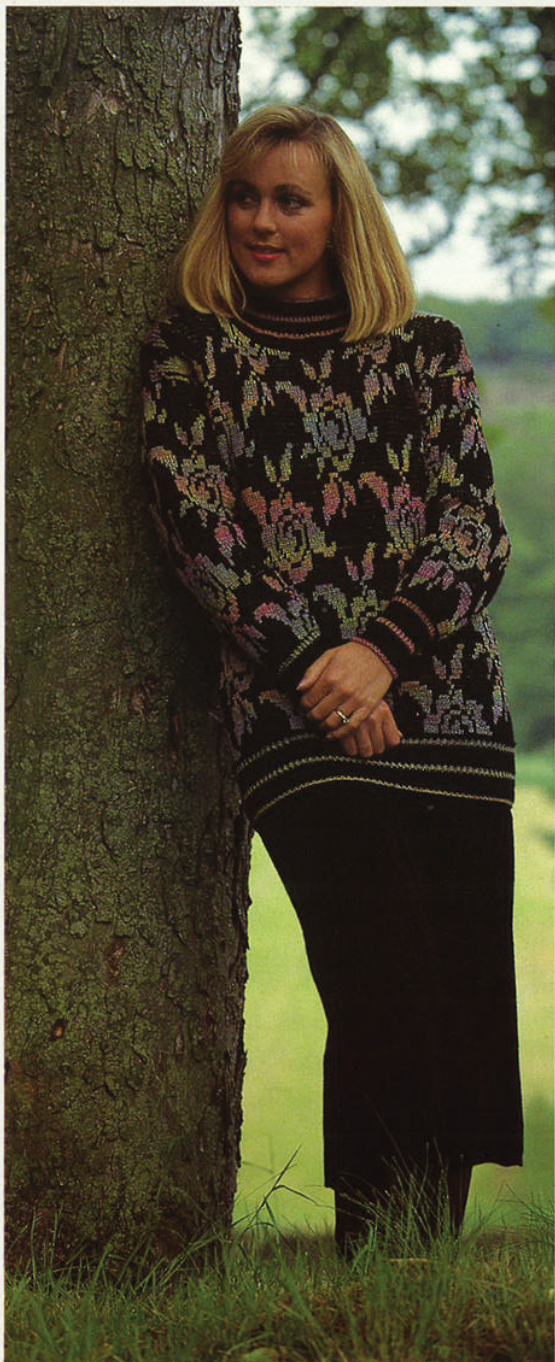
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**ARAN  
(CHUNKY)**

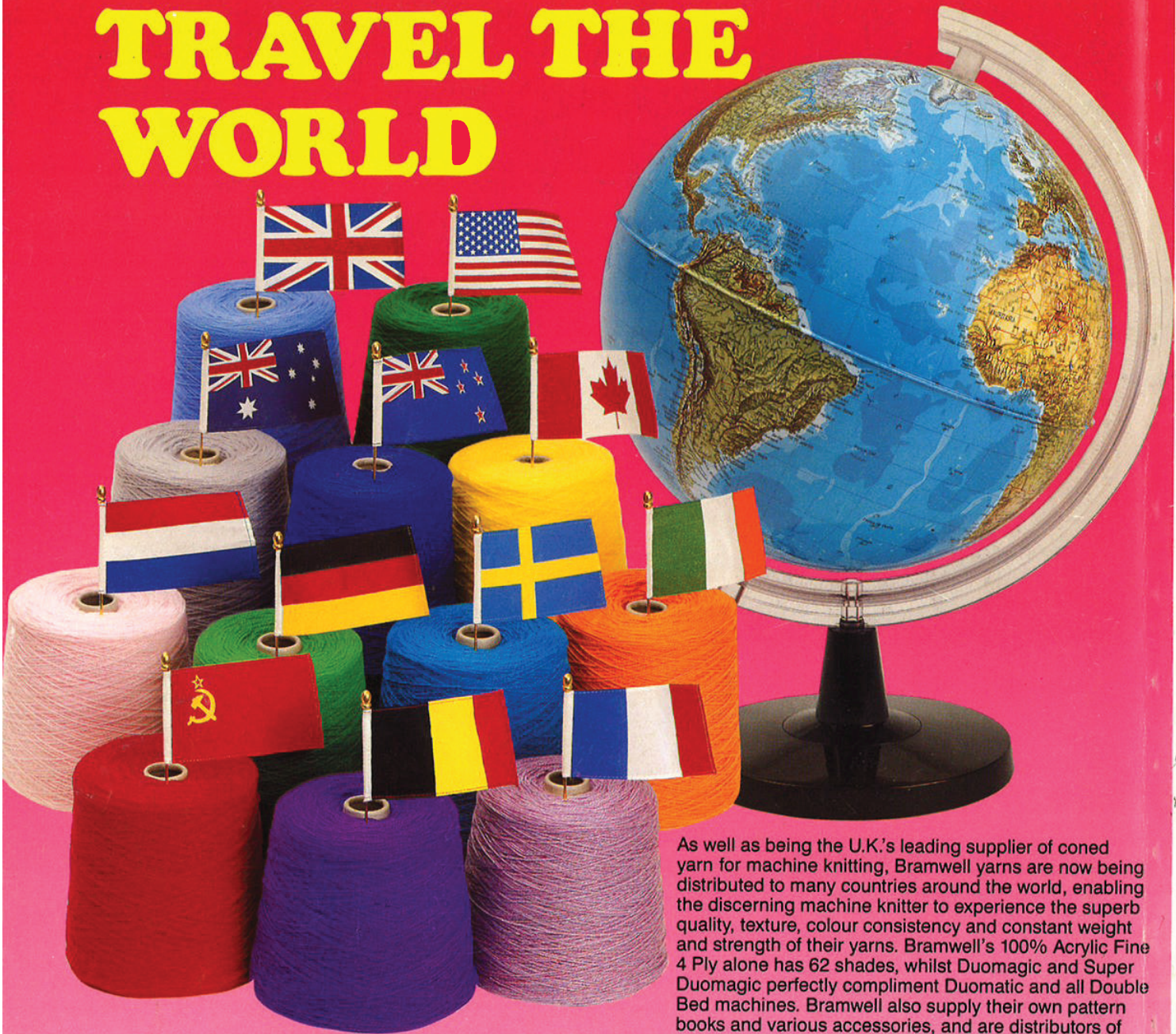
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