# INSTRUCTION MANUAL FOR BROTHER DB2-B792

SINGLE NEEDLE
ADJUSTABLE TOP AND BOTTOM FEED
LOCK STITCH MACHINE

Thank you very much for your purchase of a BROTHER sewing machine.

The full performance of your new sewing machine depends, above all, on correct operation.

Be sure to carefully read the following instructions before use.

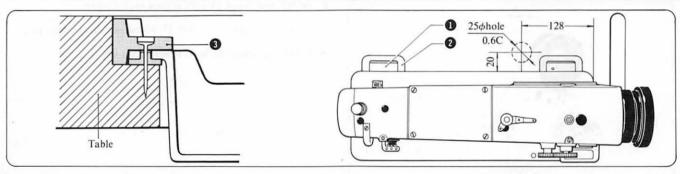
# NAMES OF MAIN PARTS



- Needle bar
- Presser-regulation thumb screw
- 1 Thread retainer
- Pre-tension
- 6 Pulley
- 6 Feed-reverse lever

DB2—B792	003	-013	-015
Use	For medium materials		Gathering
Sewing speed	4500 spm		3500 spm
Maximum stitch length	4 mm		5 mm
Maximum upper feed amount	6 mm		8 mm
Presser foot height (Knee lifter)	10 mm		
Feed dog height	0.8 mm		
Needle	DB×1		
Use gauge	Group A	Group B	Group L
Shirring device	Included		uded

# HOW TO INSTALL THE MACHINE



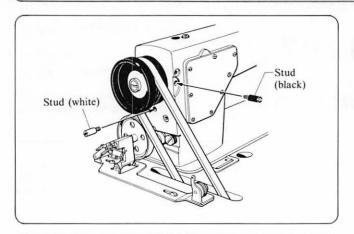
- \* Fit the head hinges 1 in the table slot, fit it to the rubber hinge base 2 of the table, and then place the head onto the rubber pads 3 at the four corners.
- \* When you use model DB2-B792-013, 015 (pedal system), please make a hole for chain as shown on the figure above.

# ADJUSTMENT OF THE KNEE LIFTER STOPPER

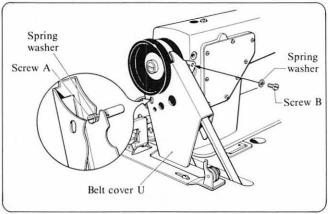


- \* Loosen the nut and adjust the left knee lifter stopper 3 so that there is about 2mm clearance between the knee lifter 1 and knee lifter pusher bar 2.
- \* When you push the knee pad, loosen the nut and adjust the right knee lifter stopper 4 so that there is about 1mm clearance between the oil pan and the knee lifter 1.

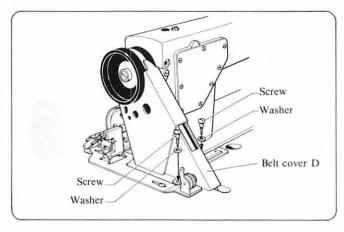
## HOW TO INSTALL THE BELT COVERS



- 1. Screw the black stud into the back of the machine head.
- 2. Screw the white stud into the machine head.

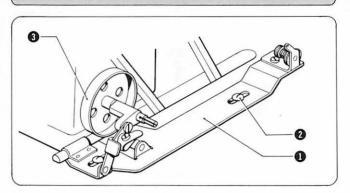


- Temporarily tighten screw A and the spring washer to the white stud.
- Install belt cover U with screw A as shown in the figure at the left.
- 5. Install belt cover U with screw B and the spring washer.
- \* When installing belt cover U, please bring down the machine.



- 6. Install belt cover D with screws and washers.
- \* When installing belt cover D, please set up the machine.
- \* When replacing the belt, remove belt cover U.

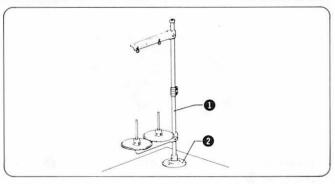
# HOW TO INSTALL THE BOBBIN WINDER



\* Install the bobbin winder 1 to the table with two screws 2.

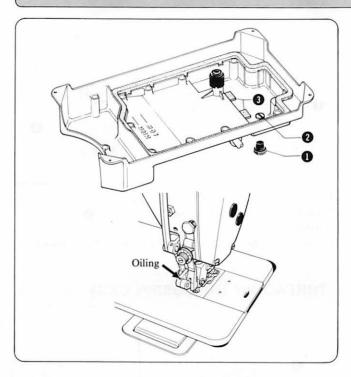
(Install it so that the bobbin winder pulley 3 will not slip.)

# HOW TO INSTALL THE SPOOL HOLDER BASE



\* Install the spool holder base 1 at the right corner of the table with screws 2.

## LUBRICATION



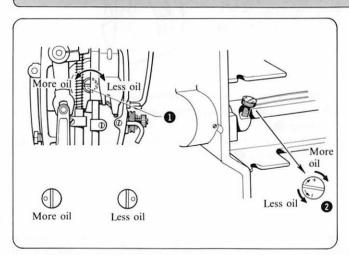
#### 1. Lubrication

- Supply oil slowly to the mark at the left ("HIGH").
   If the oil level falls below the mark at the right ("LOW"), add oil.
- (2) If the oil becomes contaminated, remove the oil cap 1 and the oil cover screw 2.
- (3) Wipe away contamination from the magnet 3.
- \* Use the oil specified by BROTHER: Hi-White 70.

#### 2. Oiling

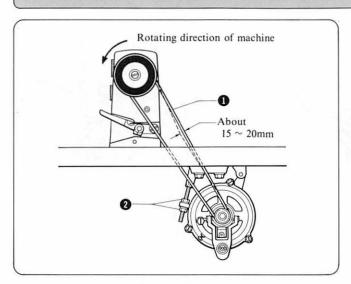
\* Before using the machine, be sure to supply one or two drop of oil to the point indicated by the arrow.

## ADJUSTMENT OF OIL SUPPLY AMOUNT TO ARM SHAFT AND ROTATING HOOK



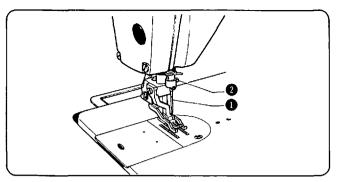
- \* Remove the face plate, and adjust the lubrication for the arm shaft by turning the screw ①.
- \* Lower the head, and adjust the lubrication for the rotating hook by turning the screw 2.

## **ROTATION DIRECTION OF THE MACHINE**



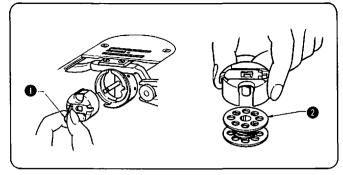
- \* The correct rotating direction of the machine is counterclockwise as viewed from the pulley side.
- Press the belt ①, and adjust the belt tension by turning the nut
  ② so that the belt can be pushed inward about 15 ~ 20mm.
- \* When the machine runs idle, be sure to raise the presser foot.

## HOW TO INSTALL THE NEEDLE



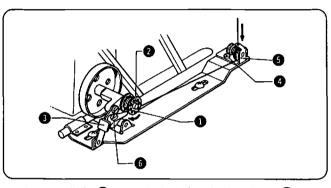
\* Insert the needle ① all the way, making sure that the long groove of the needle is at the left, and tighten by using the set screw ②.

# HOW TO REMOVE THE BOBBIN CASE



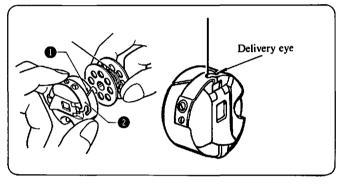
- (1) Raise the needle above the needle plate.
- (2) After lifting the latch of the bobbin case 1, remove the bobbin case.
- (3) The bobbin ② will come out when the latch is released.

# LOWER THREAD WINDING



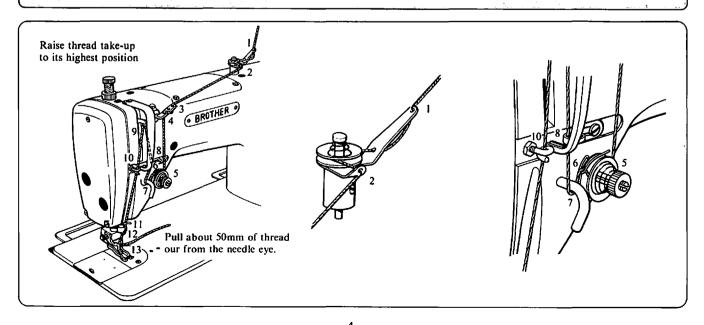
- (1) Fit the bobbin 1 onto the bobbin winder spindle 2.
- (2) Push the bobbin winder stop latch 3 completely upward.
- (3) After winding the thread around the bobbin ① a few times in the direction of the arrow, operate the machine.
- (4) If the thread cannot be wound evenly, adjust the bobbin winder tension bracket 5 by moving it to the left or right after loosening the set screw 4.
- \* To wind more thread on the bobbin 1, tighten the adjustment screw 6.

# THREADING THE BOBBIN CASE

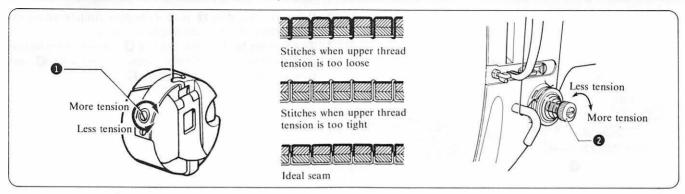


- (1) Insert the bobbin into the bobbin case.
- (2) Pass the thread through the slot **1** and under the tension spring **2**.
- (3) Pull out the thread from the delivery eye at one end of the tension spring 2.

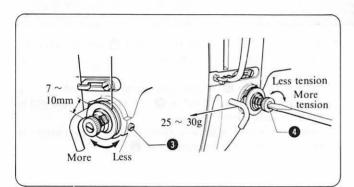
## **UPPER THREADING**



## THREAD TENSION



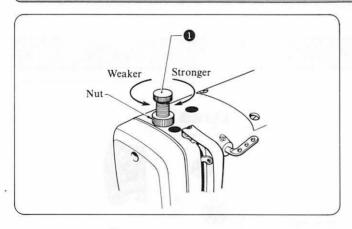
- \* Adjust the screw ① so that the lower thread tension is just strong enough to prevent the bobbin case from falling by its own weight when it is suspended by holding the end of the lower thread.
- \* Adjust the tension of the upper thread with the tension control nut 2 as shown in the figure above after lowering the presser foot.



#### Thread take-up spring

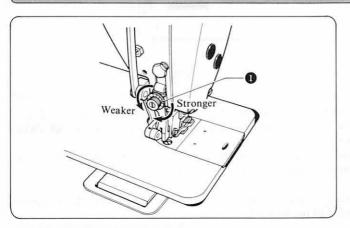
- The standard operating range of the thread take-up spring is 7
   10mm.
  - The standard tension is  $25 \sim 30$  grams.
- \* To adjust the operating range, loosen the screw 3 and turn the upper thread tension assembly.
- \* To adjust the tension, insert the tip of a screwdriver into the slot of the tension stud (4), and turn it as necessary.

## ADJUSTMENT OF PRESSER FOOT PRESSURE



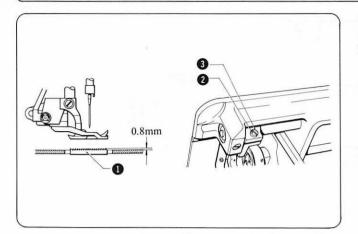
- \* The pressure on materials during sewing must be as weak as possible but still enough to prevent slippage. Adjust, if necessary, by using the adjustment screw ①.
- \* Loosen the adjustment nut before adjusting.

#### ADJUSTMENT OF UPPER FEED PRESSURE



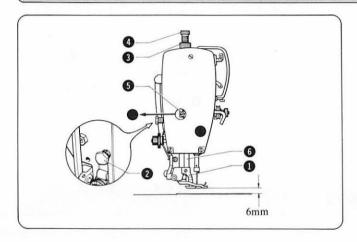
- \* Adjust the upper feed pressure by turning the adjustment upper feed dial ① so that the upper feed dog will feed the material firmly and securely.
  - If you make the upper feed pressure stronger, the upper feed efficiency will be increased.
  - If you make it weaker, the upper feed efficiency will be decreased.
- \* Be sure not to make the upper feed pressure too strong, because, if it is, the upper feed dog will lift the presser foot, causing the material to slip.

# ADJUSTMENT OF FEED DOG HEIGHT



- \* When the feed dog ① is at its highest position above the needle plate, the standard height is 0.8mm.
- \* To adjust the height of the feed dog 1, move it to the highest position above the needle plate, loosen the set screw 2, and raise or lower the feed lifting arm 3.

# ADJUSTMENT OF PRESSER FOOT HEIGHT

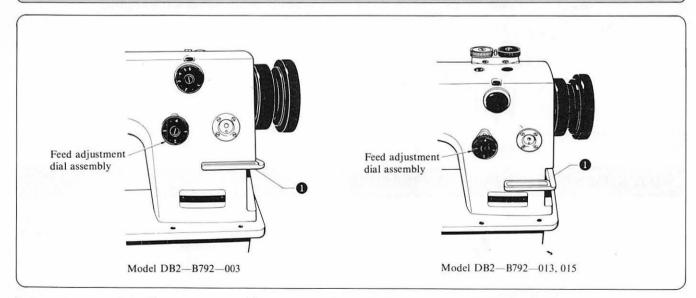


- \* The standard height of the presser foot ① is 6mm when it is raised by using the knee lifter, and locked by the presser foot stopper ②.
- \* Loosen the nut ③ of the adjustment screw and then the presser foot adjustment screw ④ so that no pressure will be applied to the presser foot.

  Loosen the set screw ⑤ and adjust the presser foot height by

Loosen the set screw **6**, and adjust the presser foot height by raising or lowering the presser bar **6**.

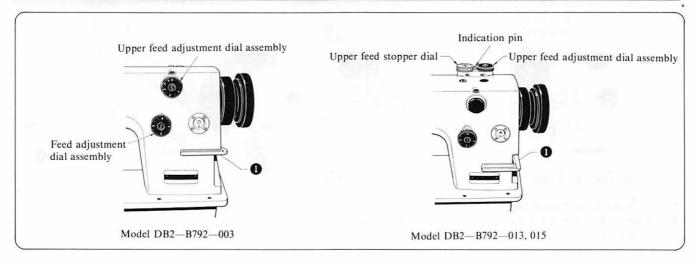
#### ADJUSTMENT OF STITCH LENGTH



- \* Press the reverse lever 1 to the center position, set the number on the feed adjustment dial which corresponds to the desired stitch length (1-4 on models 003 and 013, and 1-5 on model 015) to the "12 o'clock" position, and then release the reverse lever 1. (When setting the reverse lever in the center position, be certain to press it all the way into position.)
- \* The amount of feed becomes greater as the number becomes larger. The maximum stitch length of models 003 and 013 is 4 mm, and the maximum of model 015 is 5 mm. The maximum stitch length of backtack sewing, however, is approximately 2 mm.
- Reverse-operation mechanism

When the reverse lever 1 is pressed, the material will be fed in the reverse direction. When the reverse lever is released, it will return to its original position, and the material will automatically be fed in the forward direction.

# ADJUSTMENT OF UPPER FEED AMOUNT



#### O Model DB2-B792-003

- \* Press the reverse lever 1 to the center position, and after setting the desired number (1  $\sim$  6) on the upper feed adjustment dial assembly to the "12 o'clock" position, release the reverse lever 1.
- \* The upper feed amount becomes larger as the number becomes larger.

  Maximum feed amount = 6 mm

#### Model DB2-B792-013

- \* Align the number 6 (on the upper feed stopper dial) with the indication pin.

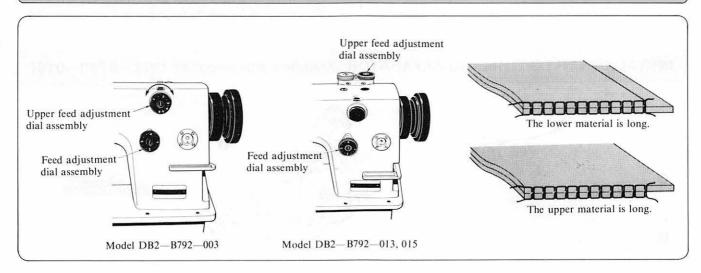
  Press the reverse lever 1 to the center position, and after aligning the number (1 ~ 6) of the upper feed adjustment dial assembly with the indication pin, release the reverse lever.
- \* The upper feed amount becomes greater as the number becomes larger.

#### 

- \* Align the number 8 on the upper-feed stopper dial with the indication pin.

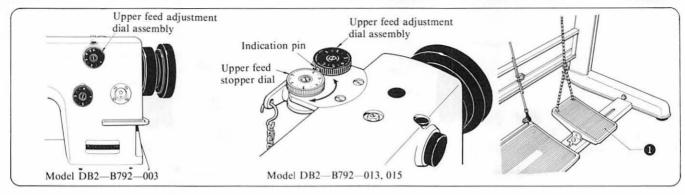
  Press the reverse lever 1 to the center position, align the desired number (1-8) of the upper-feed adjustment dial with the indication pin, and then release the reverse lever 1.
- \* The amount of upper feed becomes greater as the number becomes larger.

#### ADJUSTMENT OF SEWING LAG

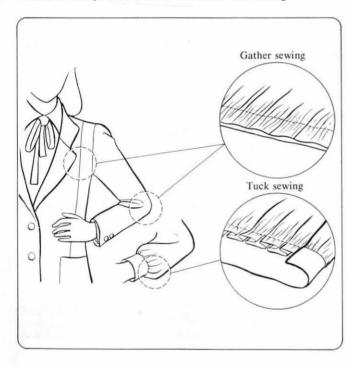


- \* If the lower material is long when sewing is finished, set the upper feed adjustment dial assembly to a smaller number, or set the feed adjustment dial assembly to a larger number.
- \* If the upper material is long when sewing is finished, set the upper feed adjustment dial assembly to a larger number, or set the feed adjustment dial assembly to a smaller number.
- \* If the upper feed adjustment dial is to be turned, first turn the upper feed stopper dial to the maximum number, and then turn the upper feed adjustment dial.
- \* Turn the upper feed adjustment dial assembly and the feed adjustment dial assembly little by little to the place when there is no sewing lag.

#### **GATHER SEWING**



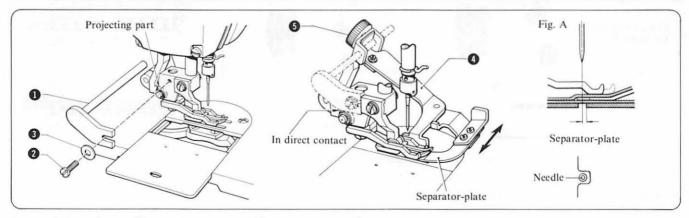
- \* Use the gather type gauge for gather sewing.
- ★ Use group B or group L replacement parts for tuck sewing. The tuck separator ensures beautiful tuck sewing.



#### Sewing method

- 1. Turn the feed adjustment dial to set the desired stitch length.
- Set the upper feed adjustment dial to a position in which the amount of upper feed is larger than that of the lower feed.
- Because the amount of gathering differs according to the type
  of material being used, the length of the stitch and other
  factors, the appropriate amount must be determined and set
  by using the adjustment dial.
- Partial gathering is possible with models DB2—B792—013 and —015
- 1. Set the feed adjustment dial to the desired stitch length.
- 2. Set the upper feed stopper dial to the maximum number.
- Use the upper feed adjustment dial to eliminate any sewing lag.
- 4. When the gather sewing pedal is depressed, the machine will begin gather sewing, When the pedal is released, the machine will resume normal sewing.
  (Use the upper-feed stopper dial to adjust the gather to the
  - (Use the upper-feed stopper dial to adjust the gather to the desired amount.)
- \* When the gather-sewing pedal is depressed, the material will be sewn with the amount of feed set by the upper feed stopper dial. When the pedal is released, the material will be sewn with the amount of feed set by the upper-feed adjustment dial.

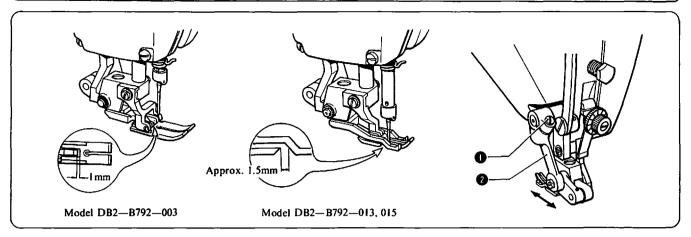
## INSTALLING THE GATHERING-SEPARATOR [Standard equipment on DB2—B792—015]



- 1. Install the guide bar 1 by using the screw 2 and the washer 3.

  (Install the guide bar 1 so that it is in direct contact with the projecting part.)
- 2. Fit the separator-plate assembly 4 onto the guide bar, and then temporarily tighten with the grip screw 5.
- 3. Adjust the sewing margin by using the grip screw (3), and then tighten the grip screw (3) firmly.
- \* Refer to figure A for the alignment of the front end of the separator-plate. (Install the separator-plate so that the needle will not come into contact with it.)

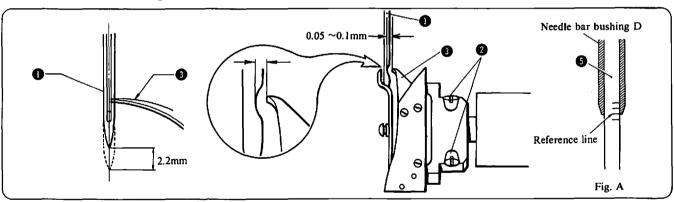
# CLEARANCE BETWEEN UPPER FEED DOG AND PRESSER FOOT



- 1. Turn the upper feed adjustment dial assembly to set the upper feed amount to maximum.
- 2. Turn the machine pulley slowly.
- 3. The minimum clearance between the upper feed dog and the presser foot should be approximately 1.0 mm when the forward-pulling type upper feed dog is used, and 2.5 mm when the gathering type upper feed dog is used.
- 4. Loosen the screw 1, and adjust the clearance by moving the upper feed arm 2 forward or backward.

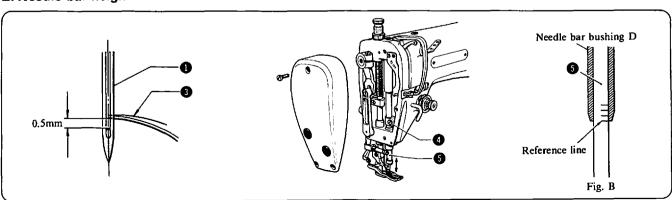
## ADJUSTMENT OF NEEDLE AND ROTATING HOOK TIMING

### 1. Needle bar lift amoung



- \* Turn the machine pulley toward you. When the needle ① is at the position 2.2 mm above the lowest position, loosen the set screw ②, and adjust so that the rotating hook point ③ is at the center of the needle ①.
- \* Adjust so that the clearance between the rotating hook point 3 and the needle 1 is  $0.05 \sim 0.1$  mm.

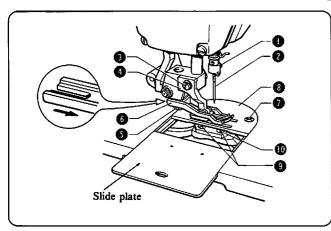
#### 2. Needle bar height



- \* Loosen the set screw 4, and raise or lower the needle bar 5 so that the clearance between the upper edge of the needle hole and rotating hook point 3 is about 0.5 mm when the rotating hook point coincides with the center line of the needle 1.
- \* Refer to figure A for the lowest position of the needle bar (5), and to figure B to raise the needle bar (5) by 2.2 mm.

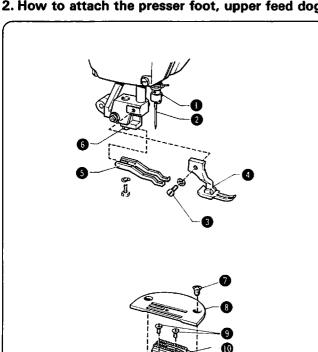
## HOW TO REPLACE GAUGE PARTS

## 1. How to remove the presser foot, upper feed dog, needle plate and feed dog

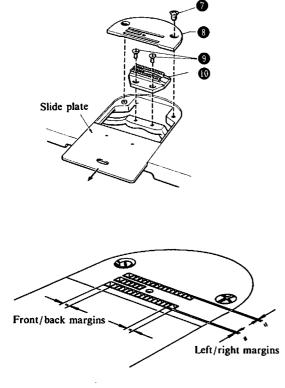


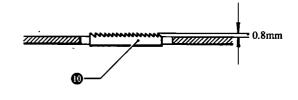
- (1) Loosen the set screw 1, and then remove the needle 2.
- (2) Remove the set screw 3, and then remove the presser foot 4.
- (3) Remove the hexagonal bolt (5), and then remove the upper feed dog (6).
- (4) Remove the cap screw , and then remove the needle plate
- (5) Remove the set screw 19, and then remove the feed dog 10.
- \* For model DB2—B792—015, loosen the hexagonal bolt **5**, and then remove the upper feed dog **6**.

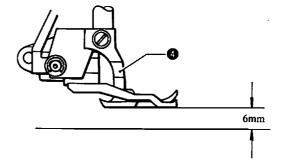
# 2. How to attach the presser foot, upper feed dog, needle plate and feed dog



- (1) Temporarily tighten the feed dog 10 by using the set screw 19.
- (2) Attach the needle plate 8 by using the cap screw 7
- \* Turn the machine pulley to move the feed dog (1), and then secure it in place, by using the set screw (3), so that there are front/back and left/right margins in the grooves of the needle plate (3).
- \* Confirm the height of the feed dog. Refer to page 6.
- (3) Attach the upper feed dog 6 by using the hexagonal bolt 6.
- (4) Attach the presser foot 1 by using the set screw 1.
- \* Confirm the height of the presser foot 3. Refer to page 6.
- \* Confirm the clearance between the upper feed dog (3) and the presser foot (4). Refer to page 8.
- (5) Attach the needle 2 by using the set screw 1.







# 3. Gauge parts

- ★ Select the gauge parts (presser foot, upper feed dog, feed dog, needle plate) from those shown below.
- ★ Group A of the replacement parts is included with model DB2—B792—003, group B with model DB2—B792—013, and group L with model DB2—B792—015.

Replacement parts code	Presser foot	Upper feed dog	Feed dog	Needle plate
Replacement parts Group A 183041—0—01 For stretching				
	151277—0—01	151383—0—01	151324—0—01	151261—0—01
Men's jacket Model DB2—B792—003	<ul> <li>material as well as pa</li> <li>The use of these parts must be matched.</li> <li>These are forward-puthere will be no bunc</li> <li>* These parts are not s</li> </ul>	articularly smooth materials is especially effective who alling type parts. Because thing even when sewing to uitable for gather sewing.	en decorative stitching is d the upper feed dog is loc ogether materials of differ	esired, or when patter eated behind the need rent thicknesses.
Replacement parts Group B 183042—0—01 For shirring				
Attachment of ruffles Attachment of sleeves Gathering	151281—0—01	151384—0—01	151325—0—01	151262—0—01
Attachment of cuffs  Girl's dress	<ul> <li>These parts are used in order to gather or tuck materials of thin or medium thickness.</li> <li>These parts are effective for the prevention of sewing lag. They are also useful when differe materials (linings, leather and cloth, knitted material and cloth, etc.) are sewn together.</li> <li>If these parts are used especially for gathering, the gathering attachment (gathering separato should be used together with them. By using these parts, the amount of gathering can be increase and an adverse effect on the bottom material (when the material is thin) can be prevented.</li> <li>(Examples) Attachment of yokes, gathered cuffs or facing to children's or women's clothin (Effective in preventing sewing lag when sewing different materials together).</li> </ul>			

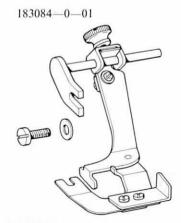
Replacement parts code	Presser foot	Upper feed dog	Feed dog	Needle plate
Replacement parts Group C 183043—0—01 For tucking prevention  Plain belt seam   Plain waist-lining seam				
	151286—0—01	151384—0—01	151326001	151263—0—01
Decorative stitches of pocket openings  Men's slacks	<ul> <li>These parts are used for gathering, decorative stitching and preventing sewing lag in medium thickness materials. The fact that the area pressed by these parts is very large also makes them ideal for partial gathering and for the prevention of puckering. They are very effective for the attachment of bias materials as well.</li> <li>(Examples) Sewing princess lines on women's blazers, underarm seams of two-layered sleeves, decorative stitches of pocket openings on men's slacks, plain belt seams and plain waist-lining seams.</li> </ul>			
Replacement parts Group D 183044—0—01 For materials which need large feeding capacity				
Attachment of sleeve Plain collar seam Attachment of collar	151288—0—01	151385—0—01	151324—0—01	151261—0—01
Sewing underarm seam  Leather jacket	A large feed dog of the same length as the presser foot operates on both sides of the needle.      Materials that are difficult to feed, such as quilting materials, polyurethane, materials containing.			
Replacement parts Group E 183045—1—01 For hemming				
<i>/ / /</i>	151290—0—01	151386—0—01	153200—0—01	153199—0—01
	<ul> <li>Adjustment of the ar</li> </ul>	for sewing a double-fold nount of upper feed elim er is necessary for this op	inates twisting even in th	

Replacement parts code	Presser foot	Upper feed dog	Feed dog	Needle plate
Replacement parts Group F 183046—1—01 For top stitching				
	151292—1—01	151387—0—01	151327—0—01	151264—0—01
Cuff stitches	<ul> <li>These parts are used for stitching with a width of 7 mm.</li> <li>If the stitch width is less than 7 mm, measure the width from the point where the needle descends and then use a file to decrease the width of the right portion of the presser foot accordingly.</li> <li>These parts are also used for hem stitches on silk cotton material, etc., as well as for general stitches</li> <li>(Example) Collar and cuff stitches on dress shirts.</li> </ul>			
Replacement parts			a (h	11 15 15 15 1
Group FD 183108—0—01				
	153983—0—01	151387—0—01	151327—0—01	151264—0—01
Cuff stitches	Consistent stitch wid	ched to the right side of the can be obtained when and cuff stitches on dress s	sewing patches or hems.	
Replacement parts Group GR 183047—0—01 For attachment of right zipper			STORY TO STO	000
/;	151293—0—01	151388—0—01	151328—0—01	151265—0—01
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	teeth of the zipper fa Suitable for sewing to This group can also  (Examples) Rear zip	for sewing medium thick cing right and the materi bias materials (when a fre- be used for sewing extren pers of skirts and one-pie ppers of slacks and pants.	al to be sewn facing left, e-presser is used). nely close to the edges of ce dresses.	and then sew them.
Replacement parts Group GL 183048—0—01 For attachment of left zipper				
<b>^</b> `\\	151296—0—01  ■ These parts are used	151389—0—01  for sewing medium thickn	151329—0—01 sess material on the right	151266—0—01 side of zippers. Place t
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	teeth of the zipper fa  Suitable for sewing b	cing left and the material bias materials when a free be used for sewing extren	to be sewn facing right, presser is used.	and then sew them.
	(Example) Side zipp	pers of skirts and one-piec	ce dresses.	

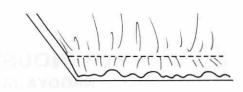
Replacement parts code	Presser foot	Upper feed dog	Feed dog	Needle plate
Replacement parts Group H For pocket welting  "Suisei" LOT No.A 10  Wrapped hem  Piping  Replacement parts Group H Folded hem Binding hem	<ul><li>Commercially sold no</li><li>By combining differe</li></ul>		s as well as wrappers can g hem stitches are possib	be used.
Replacement parts Group J 183064—0—01 For stretching	151622-0-01	151621-0-01	151324-0-01	151261-0-01
Collar stitches	<ul> <li>These parts are used</li> <li>There is no bunching is used.</li> <li>If the stitch width is leand then use a file to</li> <li>These parts are also to</li> </ul>	for sewing stitches with even when layered edges a ess than 10 mm, measure to decrease the width of the	a width of 10 mm.  The sewn because the forwath  The width from the point was right portion of the pro- tes on silk cotton, etc. as we	rd-pulling upper feed dog where the needle descends, esser foot accordingly.
Replacement parts Group JD 183109—0—01	153984-0-01	151621-0-01	151324-0-01	151261-0-01
Collar stitches	<ul> <li>A step presser is attached to the right side of the F-group presser foot.</li> <li>Consistent stitch widths can be obtained by using these parts when sewing patches or hems.</li> <li>(Example) Collar and cuff stitches on dress skirts.</li> </ul>			
Replacement parts Group K 183065—0—01 For shirring				
Underarm seams	• These parts are used	as teeth only on the right	ersey, quilting, etc. Tripper that can be separated of the needle. The tee	

Replacement parts code	Presser foot	Upper feed dog	Feed dog	Needle plate
Replacement parts Group L 183085—0—01 For shirring				
	153575—0—01	153581—0—01	153577—0—01	151263—0—01
Attachment of ruffles  Attachment of sleeves  Gathering seams  Attachment of cuffs  Girl's dress  Model  DB2-B792-015	<ul> <li>These parts are effect different materials to</li> <li>If these parts are use should be used togeth and an adverse effect</li> <li>There is no groove of sewn.</li> </ul>	for gathering or tucking tive for the prevention of gether (linings, leather and expecially for gathering er with them. By using the on the bottom material in the presser foot to prevent gyokes, gathered cuffs, materials are sewn togeth	sewing lag and are particled cloth, knitted material g, the gathering attachme ese parts, the amount of ga (when the material is thin ent the bunching of mater or inside linings (sewing	cularly useful for sewing and cloth, etc.). ent (gathering separator) athering can be increased, n) can be prevented. cial when thin material is
Replacement parts Group M 183107—0—01	153978-0-01	153982-0-01	151324-0-01	151261-0-01
	<ul> <li>These parts are used for stitching double zippers and are also effective for sewing extremely close to the edges of materials.</li> <li>Slide the presser foot to the left and right in order to operate.</li> <li>Twists in the material are prevented by these parts because the needle moves behind the upper feed dog.</li> <li>Both thin materials, such as crepe, and medium thickness materials can be sewn.</li> </ul>			

# GATHERING SEPARATOR [Standard equipment on B792-015 type]



- The amount of gathering can be increased by inserting the gathering separator between the top and bottom materials.
- The use of the gathering separator prevents the bottom material from puckering when thin materials are gathered.
- A stitch guide is attached.
- To be used with type B or type L gauge parts.





117-792 192792-1-02 Printed in Japan