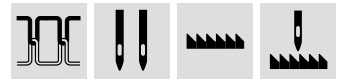


# brother®



## Twin needle direct drive lock stitcher

T-8421A

## Twin needle direct drive lock stitcher with thread trimmer

T-8422A

## Twin needle lock stitcher

T-8420A

## Twin needle direct drive lock stitcher with large hook and thread trimmer

T-8722A

## Twin needle lock stitcher with large hook

T-8720A

Full model change for Brother's twin needle lock stitchers that have the No. 1 market share in the world.

***Brother's twin needle lock stitchers utilize a world-first direct drive method and dry head mechanism to provide more comfortable and cleaner sewing.***



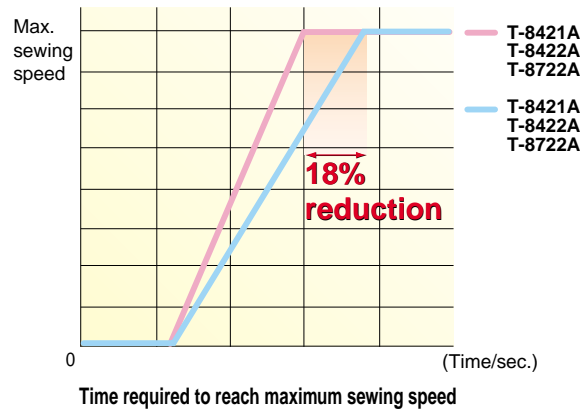
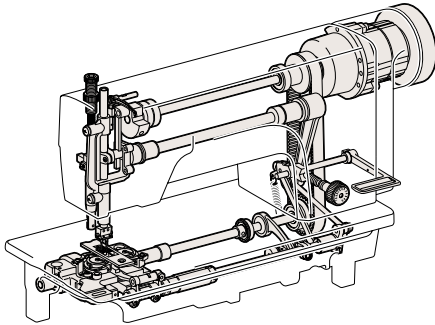
T-8421A-T33

- Premier energy-saving design in the industry (T-8421A/8422A/8722A)
- High arm jaw and wide arm pocket make handling sewing article easier
- Easy-to-understand and easy-to-use operation panel (T-8421A/8422A/8722A)
- Clean operation is possible with no staining of the material
- Easy gauge part replacement

## Good response and more comfortable sewing (T-8421A/8422A/8722A)

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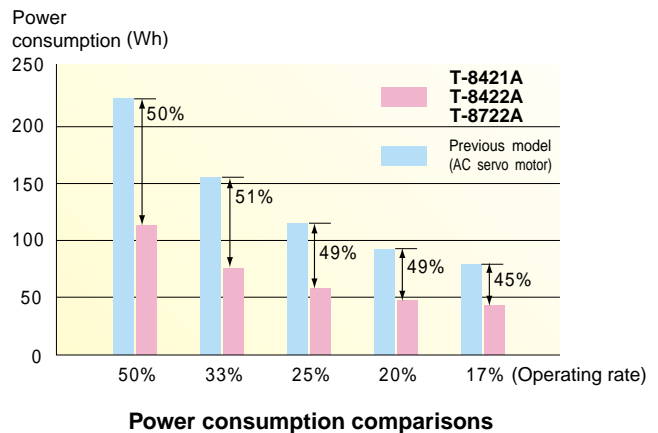
Operator control is indispensable for lock stitching. The direct drive method provides good response to operator commands and makes it much easier for the operator to operate the sewing machine in the exact way that is intended.



## Premier energy-saving design in the industry (T-8421A/8422A/8722A)

Brother  
Only

The direct drive mechanism greatly reduces power transmission losses, and a compact and energy-efficient motor has also been adopted. These innovations result in energy savings of approximately 50% compared to previous models.



## Easy-to-understand and easy-to-use operation panel (T-8421A/8422A/8722A)

### Easy access to the required functions

A symmetrical layout has been adopted as the user interface to make the function locations easy to remember. Plus, they are grouped and color-coded by the type of function so that you can easily find what you are looking for.

### Easy-to-understand two-color graphic display

A two-color LCD panel has been adopted. The display details can be identified by color, and easy-to-understand icons are also used.



### Digital setting of maximum sewing speed

The maximum sewing speed can be easily set using the digital operation panel. Changing the sewing speed can be done visually using the easy-to-understand sewing speed control display.



### The number of stitches is counted

The number of stitches you have sewn is counted and a graphic display lights and buzzer sounds when a preset number is reached. The stitch counter lets you know how much lower thread you have used and give you an indication of sewing length. It can be used as a production counter as well.

### Easy to view with no eye fatigue

Because the panel uses a backlit LCD, the displays are easy to see. The glare from the operation panel surface has been eliminated, so that it is much less reflective and does not cause eye fatigue.

## Greater needle penetration force (T-8421A/8422A/8722A)

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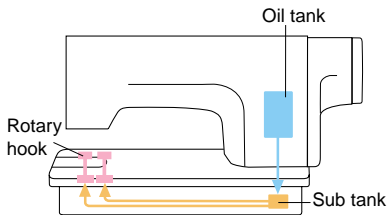
A more powerful 550 W motor has been adopted, large amounts of torque are generated even at slow speeds so that strong needle penetration force can be obtained. This allows accurate sewing of heavy materials and joints. If the needle penetration resistance increases, such as when sewing heavy materials and materials with joints, vibration control (intermittent impact) automatically increases the penetration force. (Patent pending)

## Clean operation is possible with no staining of the material

Brother  
Only

These twin-needle lock stitchers are the first in the world to eliminate the need for lubrication around the thread take-up. At the same time, a newly-developed lubrication system greatly reduces oil consumption around the rotary hook and feed regulator.

### Semi dry type (-□3□)\* Max. sewing speed 3,000rpm

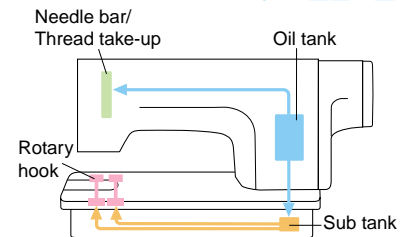


A sealed oil tank has been adopted. Oil that remains clean at all times is supplied to only the rotary hook. The needle bar and thread take-up do not use any oil.

### Minimum lubrication type (-□0□)

Max. sewing speed 4,000rpm (T-84□□A-□0F, -□03)

Max. sewing speed 3,000rpm (T-84□□A-□05  
(T-87□□A-□03, -□05))



A sealed oil tank has been adopted. Oil that is always clean is supplied in the minimum quantities needed to only the parts that need it, so that high speed sewing can be carried out.

### Notification is given when greasing is required (-□3□)\*

A record of the running time for the sewing machine is kept, and notification is given to the operator automatically when it is time for the grease that is indispensable for dry-head machines to be applied. (Be sure to use special Brother grease for excellent durability.)



T-8421A/8422A



T-8420A

\*Except for T-8720A/8722A

## Easy thread trimming timing adjustment (T-8422A/8722A)

Adjustment of the thread trimming timing is done simply by adjusting the position of the thread trimming cam relative to the lower shaft. There is no need to remove the timing belt and the timing between the needle and the rotary hook does not change, so there is no need for troublesome re-adjustment when the thread trimming timing is adjusted. Adjustment is easy even if the material or thread thickness changes, so that accurate thread trimming can be obtained.



## Ideal model for foundation garments (T-8421A)

Brother  
Only

The T-8421A is the world's first direct-drive/no thread trimmer sewing machine. It is equipped with functions ideal for sewing foundation garments (Selectable needle feed/lower feed, bar tacking, needle up/needle down stop, foundation gauge parts).

In addition, a semi-dry function which eliminates staining by oil can also be selected. (-□3F sub-class)

(Foundation garment specifications are also available for the T-8420A.)

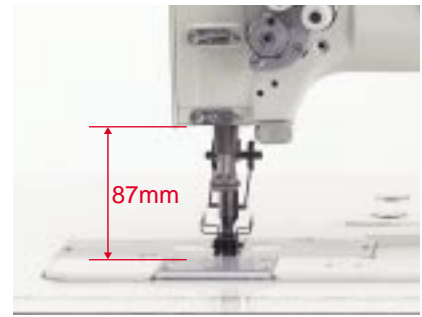


## Higher arm jaw improves visibility

Brother  
Only

The position of the arm jaw has been raised, so that the penetration of the needle is easier to see.

The operator's hands can easily fit under the arm jaw while the sewing articles are being held, so that both hands can be kept near the needle drop point during sewing. This makes it much easier to sew detailed stitches on small articles such as around cups of brassieres.



## Handling of articles is easier

Brother  
Only

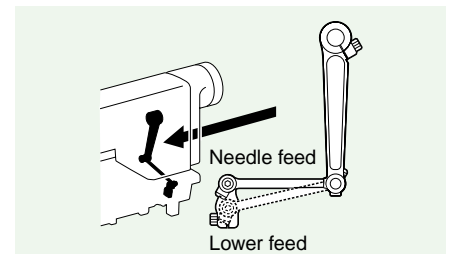
The arm pocket is now larger, but the bed is the same size as before. This makes it easier to position large articles such as when attaching pockets to jeans.



## Feed method can be switched to suit the sewing application

Brother  
Only

A function to switch between needle feed and lower feed is included as a standard function. Needle feed is effective in preventing uneven material feeding, and lower feed prevents puckering and is ideal for making quick and frequent turns. The operator can select the optimum feed method according to the material and the process, so that sewing quality can be increased.



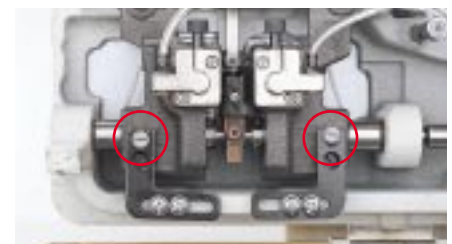
## Easy gauge part replacement

Brother  
Only

A cam has been adopted in the lateral position adjustment mechanism for the rotary hook base, so that fine adjustments for clearance between needle and rotary hook point can easily be made, which greatly increases the efficiency of replacing gauge parts.

Furthermore, a needle drop correction function (sideways) is provided, so that the needle drop position can still be adjusted to the center of the needle hole even if using commercially-available gauge parts.

The gauge parts for previous models can still be used without any changes.



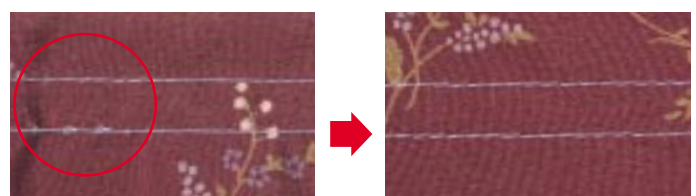
## Excellent material compatibility

Brother  
Only

The angle of the feed dog can now be adjusted. In addition, it is now much easier to adjust the height of the feed dog.

Furthermore, the thread take-up amount can be adjusted, so that materials from light to medium weight can be sewn with -□□3 sub-classes.

Adjustments can be made easily to the optimum settings, so that a wide range of different materials can be sewn.

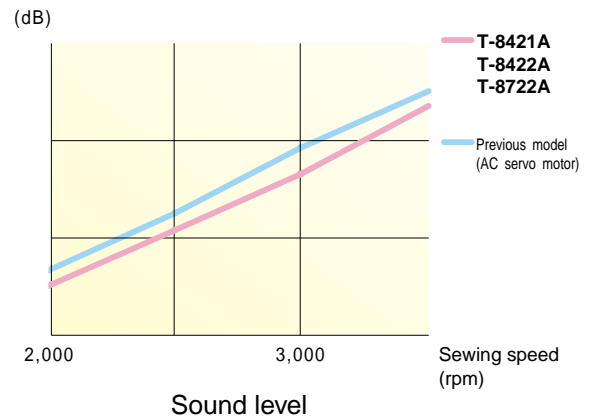


## Excellent durability

The main components of the needle bar and thread take-up mechanism and the spiral gear have all had special surface treatment carried out, and the heat-treatment method for the rotary hook has been changed to increase quenching hardness. This has increased the wear resistance of the components.

## Low noise and low vibration for stress-free operation

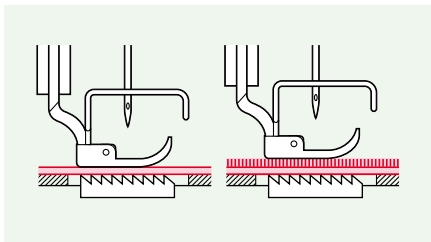
A highly-rigid frame has been adopted. Computer analysis has been used to achieve balance between the main parts to reduce noise and vibration. In particular, the high-frequency noise from the rotary hook opener that is irritating to the ears has been greatly reduced. This reduces operator discomfort and alleviates stress.



## Higher sewing quality

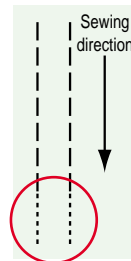
### Optimized floating presser foot for long pile materials

A micro-adjustable type floating presser foot, which can be slightly lifted to sew according to sewing materials, is equipped as standard. This device is ideal for controlling presser foot floating in materials that stretch easily and materials with long pile. It prevents damage to the material. In addition, articles can be handled with ease even when sewing curves.



### Condensed stitching is possible

This feature is ideal for use when sewing thin materials that can easily pucker when reverse stitches are sewn. Condensed stitches have a smaller sewing pitch and they help prevent fraying.



### Feed adjustment dial with stopper

The stopper prevents a position of the feed adjustment dial from changing during sewing.



### Presser foot pressure can reset easily

The presser foot adjustment screw has an adjustment scale. The presser foot pressure can be controlled numerically, so that you can reset it easily and accurately when required.



## Easy for operators to use

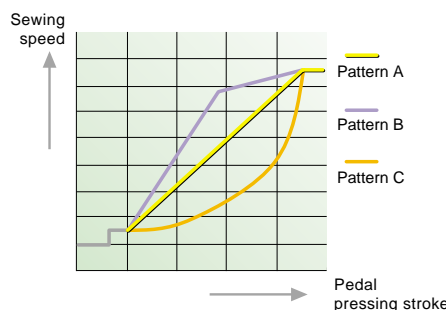
### Easy-to-operate bobbin winder

The bobbin winder is located at the top of the sewing machine arm. This makes it easy to adjust the bobbin winding amount and to replace the bobbin.



### Selectable starting speed

The sewing speed at the sewing start can be selected in accordance with the treadle depression amount. You can set the speed according to the preferences of the operator.



### Quickback device

This is located in a place where it can be pressed easily in order to increase working efficiency. (T-8421A/8422A/8722A)



## Friendly to the environment

Brother has created its own "Brother Green Label" classification for products that conform to the ISO 14021 international industrial standard and the JIS Q14021 Japanese industrial standard.

The T-8421A/8422A/8722A conform to this standard. Features such as an energy save function that provides energy savings of 30% or more compared to previous models, 1/5th the machine oil consumption of previous models (minimum lubrication type), and improved operating environment resulting from a reduction of 3 dB or more in irritating noise from the rotary hook have all contributed to making these sewing machines more friendly to the environment and more comfortable for operators to use.



An energy save function that provides energy savings of 30% or more compared to previous models  
1/5th the machine oil consumption of previous models (minimum lubrication type)  
Improved operating environment resulting from a reduction of 3 dB or more in irritating noise from the rotary hook

## Specifications

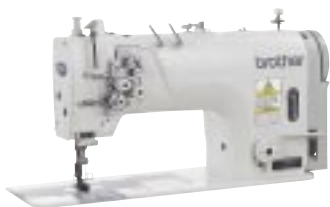
models	DD Direct drive	Lock stitch	2-needle	Bottom feed	Needle feed	Standard hook	Double hook	Thread trimmer	Thread wiper	Quick back device
T-8420A	— *	★	★	★	★	★	—	—	—	—
T-8421A	★	★	★	★	★	★	—	—	—	★
T-8422A	★	★	★	★	★	★	—	★	★	★
T-8720A	— *	★	★	★**	★	—	★ (1.8)	—	—	—
T-8722A	★	★	★	★**	★	—	★ (1.8)	★	★	★

\* Belt drive system \*\* MAX. stitch length is limited.

### T-8420A-0     -N

Additional functions		Lubrication type		Use			Factory setting for feed type		Needle gauge	
0	None	0	Minimum lubrication	F	Foundation		N	Needle feed		
		3	Semi dry	3	Light and Medium materials			32	3.2mm (1/8)	
				5	Heavy materials			48	4.8mm (3/16)	
								64	6.4mm (1/4)	
								95	9.5mm (3/8)	

T-8420A	-00F	-003	-005	-03F	-033
Lubrication type	Minimum lubrication			Semi dry	
Use	Foundation	Light and Medium materials	Heavy materials	Foundation	Light and Medium materials
Max. sewing speed (rpm)	4,000	4,000	3,000	3,000	3,000
Max. stitch length (mm)	4	4	5	4	4
Presser foot height (mm)	7	7	7	7	7
Needle (DPX5)	#11	#14	#22	#11	#14
Lubricating oil	Rotary hook	Nisseki Mitsubishi Sewing Lub 10N			Nisseki Mitsubishi Sewing Lub 10N
	Needle bar/Thread take-up	Nisseki Mitsubishi Sewing Lub 10N			Special Brother grease



T-8420A-003



T-8420A-033

# Specifications

## T-8421A-T -N

Additional functions		Lubrication type		Use		Factory setting for feed type		Needle gauge	
T	Quick back	0	Minimum lubrication	F	Foundation	N	Needle feed	32	3.2mm (1/8)
		3	Semi dry	3	Light and Medium materials			48	4.8mm (3/16)
				5	Heavy materials			64	6.4mm (1/4)
								95	9.5mm (3/8)

T-8421A		-T03	-T05	-T3F	-T33
Lubrication type		Minimum lubrication		Semi dry	
Use		Light and Medium materials	Heavy materials	Foundation	Light and Medium materials
Max. sewing speed (rpm)		4,000	3,000	3,000	3,000
Max. stitch length (mm)		4	5	4	4
Presser foot height (mm)		7	7	7	7
Needle (DPX5)		#14	#22	#11	#14
Lubricating oil	Rotary hook	Nisseki Mitsubishi Sewing Lub 10N		Nisseki Mitsubishi Sewing Lub 10N	
	Needle bar/Thread take-up	Nisseki Mitsubishi Sewing Lub 10N		Special Brother grease	



T-8421A-T33

## T-8422A-4 -N

Additional functions		Lubrication type		Use		Factory setting for feed type		Needle gauge	
4	Quick back Thread wiper	0	Minimum lubrication	3	Light and Medium materials	N	Needle feed	32	3.2mm (1/8)
		3	Semi dry	5	Heavy materials			48	4.8mm (3/16)
								64	6.4mm (1/4)
								95	9.5mm (3/8)

T-8422A		-403	-405	-433
Lubrication type		Minimum lubrication		Semi dry
Use		Light and Medium materials	Heavy materials	Light and Medium materials
Max. sewing speed (rpm)		4,000	3,000	3,000
Max. stitch length (mm)		4	5	4
Presser foot height (mm)		7	7	7
Needle (DPX5)		#14	#22	#14
Lubricating oil	Rotary hook	Nisseki Mitsubishi Sewing Lub 10N		Nisseki Mitsubishi Sewing Lub 10N
	Needle bar/Thread take-up	Nisseki Mitsubishi Sewing Lub 10N		Special Brother grease



T-8422A-403

## T-8720A-00 -N

Additional functions		Lubrication type		Use		Factory setting for feed type		Needle gauge	
0	None	0	Minimum lubrication	3	Light and Medium materials	N	Needle feed	32	3.2mm (1/8)
				5	Heavy materials			48	4.8mm (3/16)
								64	6.4mm (1/4)
								95	9.5mm (3/8)

T-8720A		-003	-005
Lubrication type		Minimum lubrication	
Use		Light and Medium materials	Heavy materials
Max. sewing speed (rpm)		3,000	3,000
Max. stitch length (mm)		7	7
Presser foot height (mm)		7	7
Needle (DPX5)		#14	#22
Lubricating oil	Rotary hook	Nisseki Mitsubishi Sewing Lub 10N	
	Needle bar/Thread take-up	Nisseki Mitsubishi Sewing Lub 10N	



T-8720A-003

# Specifications

## T-8722A-40    -N

4	Additional functions	0	Lubrication type	3	Use	N	Factory setting for feed type	32	Needle gauge
	Quick back Thread wiper		Minimum lubrication		Light and Medium materials		Needle feed		3.2mm (1/8)
					Heavy materials				48 4.8mm (3/16)
									64 6.4mm (1/4)
									95 9.5mm (3/8)

T-8722A	-403	-405
Lubrication type	Minimum lubrication	
Use	Light and Medium materials	Heavy materials
Max. sewing speed (rpm)	3,000	3,000
Max. stitch length (mm)	7	7
Presser foot height (mm)	7	7
Needle (DPX5)	#14	#22
Lubricating oil	Rotary hook	Nisseki Mitsubishi Sewing Lub 10N
	Needle bar/ Thread take-up	Nisseki Mitsubishi Sewing Lub 10N



T-8722A-403

	T-8420A	T-8421A	T-8422A	T-8720A	T-8722A
Start backtacking and continuous backtacking speed	—	250 – 1,800rpm	250 – 1,800rpm	—	250 – 1,800rpm
End backtacking speed	—	1,000rpm	1,000rpm	—	1,000rpm
Feed dog height	1 mm				
Weight	Machine head: 42.5kg	Machine head: 46.5kg Control box: 6.1kg Operation panel: 0.8kg	Machine head: 49.5kg Control box: 6.1kg Operation panel: 0.8kg	Machine head: 42.5kg	Machine head: 49.5kg Control box: 6.1kg Operation panel: 0.8kg
Arm pocket size	Arm pocket width 264 mm, Arm height 120 mm				
Arm bed size	517.5mm × 178mm				
Bobbin winder	Included in machine arm				
Machine head drive	Belt drive mechanism	Direct drive mechanism	Direct drive mechanism	Belt drive mechanism	Direct drive mechanism
Motor	—	AC servo motor (4-pole, 550W)	AC servo motor (4-pole, 550W)	—	AC servo motor (4-pole, 550W)
Control circuit	—	Microprocessor	Microprocessor	—	Microprocessor
Power source	—	Single-phase 100-120V, 200-240V, 3-phase 200-240V, 380-415V Power rating 400VA	Single-phase 100-120V, 200-240V, 3-phase 200-240V, 380-415V Power rating 400VA	—	Single-phase 100-120V, 200-240V, 3-phase 200-240V, 380-415V Power rating 400VA

A standing operation connector is equipped as standard. (T-8421A/8422A/8722A)

## Options

- Solenoid-type presser lifter (knee switch is sold separately)



## Gauge parts (Refer to the parts book for more details)

### NEEDLE FEED Standard gauge parts

Needle gauge	T-8420A, T-8421A		T-8422A		T-8720A	T-8722A
	-□□F	-□□3, -□□5	-□□3	-□□5	-□□3, -□□5	-□□3, -□□5
3.2mm (1/8)						
4.0mm (5/32)						
4.8mm (3/16)						
5.6mm (7/32)						
6.4mm (1/4)						
7.1mm (9/32)						
7.9mm (5/16)						
9.5mm (3/8)						
11.1mm (7/16)						
12.7mm (1/2)						
15.9mm (5/8)						
19.1mm (3/4)						
22.2mm (7/8)						
25.4mm (1)						
28.6mm (1-1/8)						
31.8mm (1-1/4)						
34.9mm (1-3/8)						
38.1mm (1-1/2)						

Included as a standard gauge at the time of shipment from Brother

### NEEDLE FEED Chaining-off gauge parts (Different in needle plate, feed dog and presser foot assembly from the standard gauge parts. Suitable for sewing small articles continuously.)

Needle gauge	T-8420A, T-8421A	T-8422A	T-8720A	T-8722A
4.8mm (3/16)				
6.4mm (1/4)				
22.2mm (7/8)				
25.4mm (1)				

### NEEDLE FEED Gauge parts for heavy materials (Different in feed dog from the standard gauge parts. The feed dog needle hole is larger than that of -□□5 gauge parts.)

Needle gauge	T-8420A, T-8421A	T-8422A	T-8720A	T-8722A
4.8mm (3/16)				
6.4mm (1/4)				

### NEEDLE FEED Gauge parts for extra heavy materials (Different in feed dog from the standard gauge parts. The feed dog needle hole is larger than that of the gauge parts for heavy materials.)

Needle gauge	T-8420A, T-8421A	T-8720A
3.2mm (1/8)		
4.8mm (3/16)		
6.4mm (1/4)		
9.5mm (3/8)		
12.7mm (1/2)		
15.9mm (5/8)		

### NEEDLE FEED Gauge parts for light materials (Different in feed dog from the standard gauge parts. The feed dog needle hole is smaller than that of the standard gauge parts.)

Needle gauge	T-8420A, T-8421A
3.2mm (1/8)	
4.8mm (3/16)	
6.4mm (1/4)	

### NEEDLE FEED Gauge parts for extra light materials (Different in presser foot assembly and feed dog from the standard gauge parts. The presser foot has special surface treatment carried out.) (The feed dog pitch is smaller than that of the gauge parts for light materials.)

Needle gauge	T-8420A, T-8421A	T-8422A
4.8mm (3/16)		
6.4mm (1/4)		

## Gauge parts (Refer to the parts book for more details)

### LOWER FEED Standard gauge parts

Needle gauge	T-8420A, T-8421A	T-8422A
	For light materials	For light materials
3.2mm (1/8)	○	○
4.8mm (3/16)	○	○
6.4mm (1/4)	○	○
7.9mm (5/16)		○
9.5mm (3/8)		○
12.7mm (1/2)	○	○
19.1mm (3/4)	○	○
20.0mm	○	
22.2mm (7/8)	○	○
25.4mm (1)		○
38.1mm (1-1/2)		○

### LOWER FEED Gauge parts for extra light materials

(Different in needle plate, feed dog and presser foot assembly from the standard gauge parts.  
The presser foot has special surface treatment carried out. The feed dog pitch is smaller than that of the gauge parts for light materials.)

Needle gauge	T-8420A, T-8421A	T-8422A
4.8mm (3/16)	○	○
6.4mm (1/4)	○	○
22.2mm (7/8)	○	○

### LOWER FEED Gauge parts for shirt front stitches

Needle gauge	T-8420A, T-8421A
	For light materials
18mm	○
20mm	○
22mm	○
24mm	○
26mm	○
28mm	○
30mm	○

## Optional hooks (Refer to the parts book for more details)

	Small hook	Large hook
Hook with cap	○	◎
Extra lubrication hook (Sufficient oil is supplied to the rotary hook to prevent wear of the rotary hook race.) (This type is suitable for sewing heavy and extra heavy materials.)	○	○
Hook with reinforced hook point (This type is suitable for sewing materials that are hard to make loops on the surface and that requires making contact with the hook point and the needles.)	○	○
RP hook (Lubrication is not needed. This type is the most useful to prevent oil stains on material and thread.)	○	

◎: Included as a standard hook at the time of shipment from Brother.

**Brother Only** The items with a mark of "Brother Only" show that the performances, the functions and the features described in the items are unique to Brother or superior, compared to Brother's conventional or other companies' similar products in the industrial twin needle lockstitch sewing machine category.  
(As of May 1, 2004. Based on market survey conducted by Brother.)

Product specifications are subject to change for improvement without notice. Please read instruction manual before using the machine for safety operation.

**brother**  
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