

T-8421C

Twin needle direct drive lock stitcher

T-8422C

Twin needle direct drive lock stitcher
with thread trimmer

T-8452C

Twin needle direct drive split needle
Bar lock stitcher with thread trimmer

T-8420C

Twin needle lock stitcher

T-8450C

Twin needle split needle
Bar lock stitcher

T-8722C

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

T-8752C

Twin needle direct drive split needle bar lock
Stitcher with large hook and thread trimmer

T-8720C

Twin needle lock stitcher with large hook

T-8750C

Twin needle split needle bar lock stitcher
with large hook

With new Brother-developed motor and control box, high-valued twin needle lock stitcher by its direct drive method and dry head mechanism realized higher energy saving and reliability. It brings you comfortable and clean sewing.



Working with you for a better environment

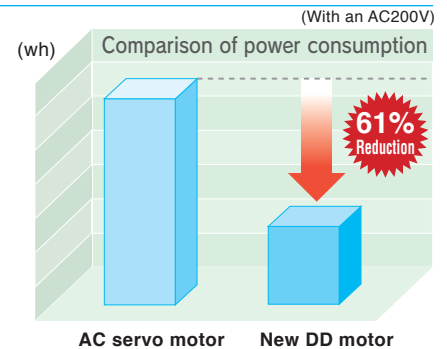
www.brotherearth.com

Features for Direct Drive Models T-8421C, T-8422C,

High Energy Saving

New Brother-developed motor realized higher energy saving. The power consumption of the machine is approximately 61% less than that with the V-belt driven system (with an AC servo motor) and approximately 12% less than that of T-8421B.

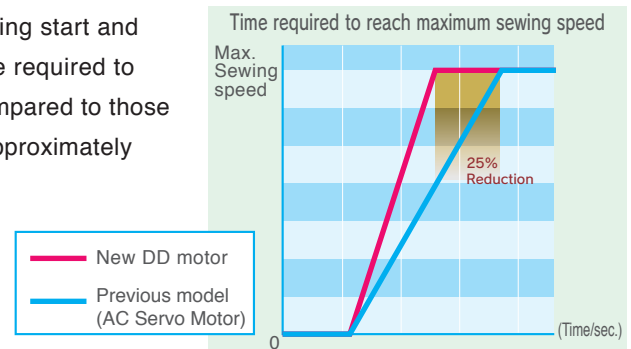
It boasts top-level energy saving in the industry, enabling machines to work twice as many as machines even where the electricity supply is limited.



Better Response and More Comfortable Sewing

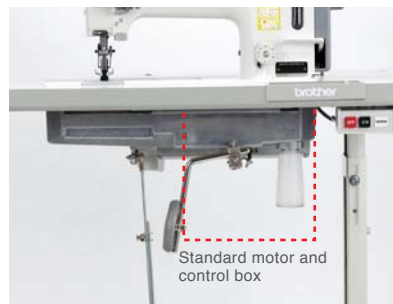
Better response to the pedal operation has been realized at sewing start and stopping of sewing with new original motor and control box. Time required to reach the maximum sewing speed is approximately 25% less compared to those driven by the V-belt driven system (with an AC servo motor), or approximately 7% less to T-8421B.

The needle up stop and needle down stop positions can be set, so as to enhance the productivity.



The Efficiency of the Operation Has Improved

A downsized and flat control box can provide a larger leg space to be utilized. The efficiency of the operation has been improved. It will also help to alleviate a sense of fatigue of operators who have to sit in front of the machines in a fixed posture for long hours.



Prevents Bird's Nests

Stabilized motor stop position at the time of thread trimming reduces the bobbin racing. This prevents the bird's nests. It is a big advantage when sewing the light materials.

Foundation

T-8421C Direct Drive, w/o thread trimmer
T-8422C Direct Drive, w/thread trimmer

- Clean sewing
- Selectable needle feed/lower feed
- Selectable needle up/needle down
- Condensed stitching and bar tacking available
- Floating presser foot



Casual/Shirts

T-8421C Direct Drive, w/o thread trimmer
T-8422C Direct Drive, w/ thread trimmer
T-8452C Direct Drive, split needle bar, w

- Clean sewing
- From light to medium materials can be adjusting the thread take-up amount



T-8452C,T-8722C,T-8752C

Great Needle Penetration Force

Powerful 550W motor outputs large amounts of torque 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)

Easy Thread Trimming Timing Adjustment (T-8422C/8452C/8722C/8752C)

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.



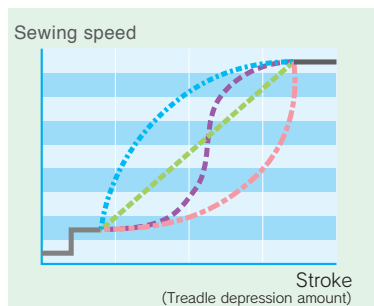
Low Noise and Low Vibration for Stress-Free Operation (T-8421C/8422C/8452C/87722C/8752C)

Using a highly-rigid frame and computer analysis that achieves balance between the main parts, its noise and vibration are minimized. 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.

Further Improved Ease of Operation

According to the operator's preference (G50 panel)

The curve of the acceleration at sewing start can be selected on the operation panel. The machine provides more options for customizing operations by the operator's preference.



Quick back device

This is located in a place where it can be pressed easily in order to increase working efficiency.



Jeans

T-8722C Direct Drive,large hook,w/ thread trimmer
T-8752C Direct Drive,split needle bar,large hook,
w/ thread trimmer

- Great needle penetration force
- Selectable needle feed/lower feed

Bags

T-8421C
Direct Drive
w/o thread trimmer

- Clean sewing

/ thread trimmer

sewn by



Features for All Models

User-Friendly Operation Panel

The operation panel is easy to see and use. The size of the panel keys and pictograms are double those of the conventional models.



G10 Panel



G50 Panel

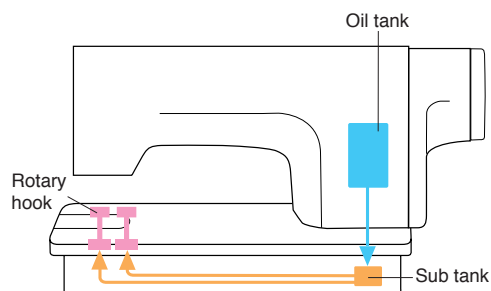
	Start backtack	End backtack	Continuous backtack	Fixed stitch	Name label	Pleat Presser sewing	Lower thread counter
G10 Panel	○	○	○	—	—	—	—
G50 Panel	○	○	○	○	○	○	○

Parameter setting will be limited with G 10 panel.

Clean Sewing with No Oil Staining

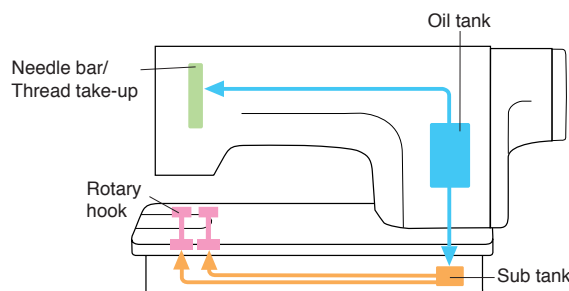
Semi-dry type(—□3□)

A sealed oil tank is 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.



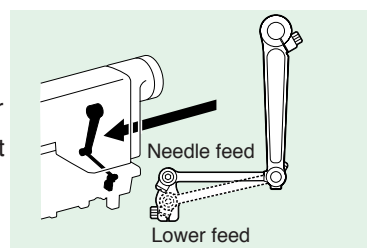
Minimum lubrication type(—□0□)

A sealed oil tank is 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.



Feed Method Can Be Switched To Suit The Sewing Application

A function to switch between needle feed and lower feed is equipped 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.



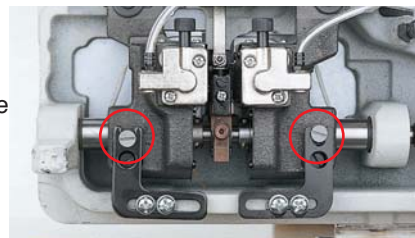
Excellent Material Compatibility

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.

Easy Gauge Part Replacement

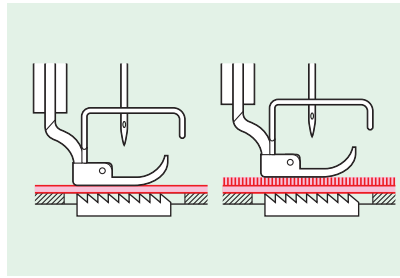
Cam adopted in the lateral position adjustment mechanism for the rotary hook base allows easy fine adjustments for clearance between needle and rotary hook point can easily be made, which greatly increases the efficiency of replacing gauge parts. Furthermore, a needle drop correction function (sideways) 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.



Enhanced Sewing Quality

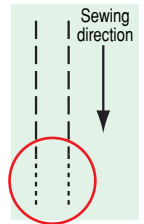
Optimized floating presser foot for long pile materials

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.



Environment-Conscious

Brother has established its original "Brother Green Label" for the products, in conformity with ISO 14021 and JIS Q14021. The Twin needle sewing machines are certified as an environment-conscious sewing machines according to the "Brother Green Label" standard.

The machines are also compliant with the RoHS Directive *2 and the WEEE Directive *3. The use of the restricted substances such as lead, cadmium, hexavalent chromium is absolutely within the regulation values. Brother has been providing all its products in accordance with the RoHS Directive for all market areas (excluding machine tools).



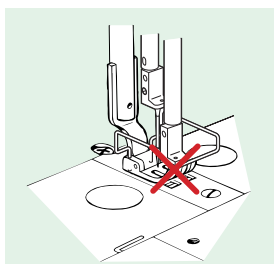
*2. The RoHS Directive (the restriction of the use of certain hazardous substances in electrical and electronic equipment) came into effect in the EU in July 2006.

Features for Split Needle Bar Models T-8450C, T-8452C, T-8750C, T-8752C

All Possible Measures To Prevent The Needle Bar From Falling Out Have Been Taken Avoid Damages To The Sewing Machine

If you accidentally touch the stop lever (selection lever) during high speed sewing, you do not have to worry. The sewing machine is equipped with the safety mechanism which prevents the needle bar from falling out.

Sufficient consideration for safety of sewing operation is given so that fatal damage to the sewing machine will be avoided. (Patent pending)



No worries about falling out of needle bar

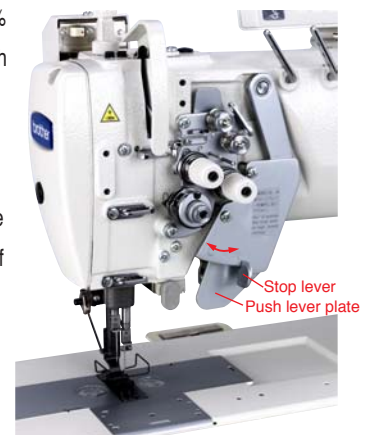


Quick Needle Bar Select Function Reduces Operator Fatigue

One of the needle bars can be stopped simply by changing the position of the stop lever (select lever). Compared to the previous models, a stroke of the stop lever has been shortened to optimum stroke and the weight of the lever has also been reduced by about 10 % so that easy operation is possible with a light touch of the lever.

The setting can be returned to twin needle sewing simply by pushing the push lever plate. The push lever plate can be removed from the front face of the sewing machine and easily replaced so that it can be adjusted to the best position.










In addition, with the adoption of center stop mechanism, the stop lever automatically and accurately returns to the center position to prevent setting errors when it is set back to the twin needle sewing.



Single Needle Start

Single needle operation at the sewing start can be set easily by the memory switch. It's convenient for some operations such as the crotch of jeans.

Twin needle lock stitcher series

Model	DD Direct drive	 Lock stitch	 2-needle	 Split needle bar	 Bottom feed	 Needle feed	 Standard hook	 Double hook	 Thread trimmer	 Thread wiper	Quick back device
T-8420C	—*	★	★	—	★	★	★	—	—	—	—
T-8421C	★	★	★	—	★	★	★	—	—	—	★
T-8422C	★	★	★	—	★	★	★	—	★	★	★
T-8450C	—*	★	★	★	★	★	★	—	—	—	—
T-8452C	★	★	★	★	★	★	★	—	★	★	★
T-8720C	—*	★	★	—	★**	★	—	★(1.8)	—	—	—
T-8722C	★	★	★	—	★**	★	—	★(1.8)	★	★	★
T-8750C	—*	★	★	★	★**	★	—	★(1.8)	—	—	—
T-8752C	★	★	★	★	★**	★	—	★(1.8)	★	★	★

*Belt drive system **Max. stitch length is limited

	T-8420C	T-8421C	T-8422C	T-8450C	T-8452C
Start backtacking and continuous backtacking speed	—	250~1,800sti/min	250~1,800sti/min	—	250~1,800sti/min
End backtacking speed	—	1,000sti/min	1,000sti/min	—	1,000sti/min
Feed dog height	1 mm				
Weight	Machine head 42.5kg	Machine head46.5kg Control box3.1kg Operation panel G50:0.6kg, G10:0.4kg	Machine head49.5kg Control box3.1kg Operation panel G50:0.6kg, G10:0.4kg	Machine head 43kg	Machine head50kg Control box6.1kg Operation panel G50:0.6kg, G10:0.4kg
Arm pocket size	120 mm × 264 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 supply	—	Single-phase 100-120V, 200-240V	Single-phase 100-120V, 200-240V	—	Single-phase 100-120V, 200-240V

	T-8720C	T-8722C	T-8750C	T-8752C
Start backtacking and continuous backtacking speed	—	250~1,800sti/min	—	250~1,800sti/min
End backtacking speed	—	1,000sti/min	—	1,000sti/min
Feed dog height	1 mm			
Weight	Machine head 42.5kg	Machine head49.5kg Control box3.1kg Operation panel G50:0.6kg,G10:0.4kg	Machine head 43kg	Machine head50kg Control box3.1kg Operation panel G50:0.6kg,G10:0.4kg
Arm pocket size	120 mm × 264 mm			
Arm bed size	517.5mm×178mm			
Bobbin winder	Included in machine arm			
Machine head drive	Belt drive mechanism	Direct drive mechanism	Belt drive mechanism	Direct drive mechanism
Motor	—	AC servo motor (4-pole,550W)	—	AC servo motor (4-pole,550W)
Control circuit	—	Microprocessor	—	Microprocessor
Power supply	—	Single-phase 100-120V, 200-240V 3-phase 200-240V, 380-415V 400VA	—	Single-phase 100-120V, 200-240V 3-phase 200-240V, 380-415V 400VA

A standing operation connector is equipped as standard.(T-8421C/8422C/8452C/8722C/8752C)

T-8420C-0 Twin needle lock

Additional functions	Lubrication type	Applications
0 None	0 Minimum lubrication	F Foundation
	3 Semi-dry	3 Light and Medium materials
		5 Heavy materials



T-8420C



T-8420C
Semi-dry type

T-8420C	—003	—005	—03F	—033
Lubrication type	Minimum lubrication		Semi-dry	
Applications	Light and Medium materials	Heavy materials	Foundation	Light and Medium materials
Max. sewing speed	4,000sti/min	3,000sti/min	3,000sti/min	3,000sti/min
Needle	DP×5 (#14)	DP×5 (#22)	DP×5 (#11)	DP×5 (#14)
Max. stitch length	4mm	5mm	4mm	4mm
Presser foot height	7mm	7mm	7mm	7mm

T-8421C-T Twin needle direct drive lock stitcher

Additional functions	Lubrication type	Applications
T Quick back	0 Minimum lubrication	F Foundation
	3 Semi-dry	3 Light and Medium materials

T-8421C	—T0F	—T03	—T3F	—T33
Lubrication type	Minimum lubrication		Semi-dry	
Applications	Foundation	Light and Medium materials	Foundation	Light and Medium materials
Max. sewing speed	4,000sti/min	4,000sti/min	3,000sti/min	3,000sti/min
Needle	DP×5 (#11)	DP×5 (#14)	DP×5 (#11)	DP×5 (#14)
Max. stitch length	4mm	4mm	4mm	4mm
Presser foot height	7mm	7mm	7mm	7mm



T-8421C

T-8422C-4 Twin needle direct drive lock stitcher with thread trimmer

Additional functions	Lubrication type	Applications
4 Quick back Thread wiper	0 Minimum lubrication	3 Light and Medium materials
	3 Semi-dry	5 Heavy materials
		7 Heavy materials (For extra thick thread)

T-8422C	—403	—405	—433	—407
Lubrication type	Minimum lubrication		Semi-dry	Minimum lubrication
Applications	Light and Medium materials	Heavy materials	Light and Medium materials	Heavy materials
Max. sewing speed	4,000sti/min	3,000sti/min	3,000sti/min	3,000sti/min
Needle	DP×5 (#14)	DP×5 (#22)	DP×5 (#14)	DP×5 (#22)
Max. stitch length	4mm	5mm	4mm	5mm
Presser foot height	7mm	7mm	7mm	7mm



T-8422C

Twin needle lock stitcher series

T-8450C-00 Twin needle split needle bar lock stitcher

Additional functions	Lubrication type	Applications
0 None	0 Minimum lubrication	3 Light and Medium materials 5 Heavy materials

T-8450C	—003	—005
Lubrication type	Minimum lubrication	
Applications	Light and Medium materials	Heavy materials
Max. sewing speed	3,000sti/min	3,000sti/min
Needle	DPx5 (#14)	DPx5 (#22)
Max. stitch length	5mm	5mm
Presser foot height	7mm	7mm



T-8450C

T-8452C-40 Twin needle direct drive split needle bar lock stitcher with thread trimmer

Additional functions	Lubrication type	Applications
4 Quick back Thread wiper	0 Minimum lubrication	3 Light and Medium materials 5 Heavy materials 7 Heavy materials (For extra thick thread)

T-8452C	—403	—405	—407
Lubrication type	Minimum lubrication		
Applications	Light and Medium materials	Heavy materials	Heavy materials
Max. sewing speed	3,000sti/min	3,000sti/min	3,000sti/min
Needle	DPx5 (#14)	DPx5 (#22)	DPx5 (#22)
Max. stitch length	5mm	5mm	5mm
Presser foot height	7mm	7mm	7mm



T-8452C

T-8720C-00 Twin needle lock stitcher with large hook

Additional functions	Lubrication type	Applications
0 None	0 Minimum lubrication	5 Heavy materials

T-8720C	—005
Lubrication type	Minimum lubrication
Applications	Heavy materials
Max. sewing speed	3,000sti/min
Needle	DPx5 (#22)
Max. stitch length	7mm
Presser foot height	7mm



T-8720C

T-8722C-40 Twin needle direct drive lock stitcher with large hook and thread trimmer

Additional functions	Lubrication type	Applications
4 Quick back Thread wiper	0 Minimum lubrication	5 Heavy materials 7 Heavy materials (For extra thick thread)

T-8722C	—405	—407
Lubrication type	Minimum lubrication	
Applications	Heavy materials	Heavy materials
Max. sewing speed	3,000sti/min	3,000sti/min
Needle	DP×5 (#22)	DP×5 (#22)
Max. stitch length	7mm	7mm
Presser foot height	7mm	7mm



T-8750C-00 Twin needle split needle bar lock stitcher

Additional functions	Lubrication type	Applications
0 None	0 Minimum lubrication	5 Heavy materials

T-8750C	—005
Lubrication type	Minimum lubrication
Applications	Heavy materials
Max. sewing speed	3,000sti/min
Needle	DP×5 (#22)
Max. stitch length	7mm
Presser foot height	7mm



T-8752C-40 Twin needle direct drive split needle bar lock stitcher with large hook and thread trimmer

Additional functions	Lubrication type	Applications
4 Quick back Thread wiper	0 Minimum lubrication	3 Light and Medium materials 5 Heavy materials 7 Heavy materials (For extra thick thread)

T-8752C	—403	—405	—407
Lubrication type	Minimum lubrication		
Applications	Light and Medium materials	Heavy materials	Heavy materials
Max. sewing speed	3,000sti/min	3,000sti/min	3,000sti/min
Needle	DP×5 (#14)	DP×5 (#22)	DP×5 (#22)
Max. stitch length	7mm	7mm	7mm
Presser foot height	7mm	7mm	7mm



Twin needle lock stitcher series

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

●NEEDLE FEED Standard gauge parts

Needle gauge	T-8420C, T-8421C		T-8422C		T-8450C	T-8452C		T-8720C	T-8722C	T-8750C	T-8752C
	-□□F	-□□3, -□□5	-□□3	-□□5	-□□3, -□□5	-□□3	-□□5	-□□5	-□□5	-□□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)		○	○	○					○		
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-8420C, T-8421C	T-8422C	T-8450C	T-8452C	T-8720C	T-8722C
4.8mm(3/16)	○		○		○	
6.4mm(1/4)	○	○	○	○	○	○

●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-8420C, T-8421C	T-8422C	T-8450C	T-8452C	T-8720C	T-8722C	T-8750C	T-8752C
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-8420C, T-8421C	T-8450C	T-8720C	T-8750C
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-8420C T-8421C	T-8450C
3.2mm(1/8)	○	○
4.8mm(3/16)	○	○
6.4mm(1/4)	○	○

●NNEDLE 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-8422C
4.8mm(3/16)	○
6.4mm(1/4)	○

●LOWER FEED Standard gauge parts

Needle gauge	T-8420C, T-8421C	T-8422C	T-8450C	T-8452C
	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)	○	○	○	○
22.2mm(7/8)		○		
25.4mm(1)		○		
31.8mm(1-1/4)		○		

●LOWER FEED Gauge parts for shirt front stitches

Needle gauge	T-8420C, T-8421C
	For light materials
20mm	○
22mm	○

Option hooks (Refer to the parts book for more details)

	T-8420C T-8421C	T-8422C	T-8450C	T-8452C	T-8720C	T-8722C	T-8750C	T-8752C
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.)	○	○				○		

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

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

RoHS Compliant

Twin needle lock stitcher are compliant with the RoHS Directive (the restriction of the use of certain hazardous substances in electrical and electronic equipment) which came into effect in the EU in July 2006.



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Brother Industries, Ltd. Machinery & Solution Company
Kariya and Minato plants acquired ISO 9001 and 14001 certifications.

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