
TTM-2000-1023
4 - 8 - 2000

USER'S MANUAL
PARTS LIST

BOBBIN CHANGER

0-BC02-E
(2000.04)

FOREWORD

This User's Manual consists of two sections - description of the bobbin changer including the setting and operating procedure and parts list.

Please read through this manual carefully and understand the contents thoroughly before using the bobbin changer.

The contents of this manual are largely divided into the following sections.

[IMPORTANT SAFETY INSTRUCTIONS]

[IMPORTANT WARNING ITEMS FOR SAFE OPERATION]

[FEATURES AND DESCRIPTION OF BOBBIN CHANGER]

[BOBBIN CASE SETTING AND BOBBIN CHANGE OPERATION]

[PARTS LIST]

Always keep this manual at hand whenever you need.

This manual may contain discrepancies in detailed information when compared with actual product due to differences in machine models for which the product is used and also continued research and improvements of the product.

If any question about the unit or contents of this manual arises, please consult your local TAJIMA distributor.

If you do not use the bobbin changer, keep this manual for future use.

IMPORTANT SAFETY INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

Correct handling is required for safe use of the bobbin changer.

Please read the IMPORTANT SAFETY INSTRUCTIONS in this manual and parts list carefully and do not attempt operation of the machine before you thoroughly understand the items written under IMPORTANT SAFETY INSTRUCTIONS.

Items which require your special attention on the handling of the bobbin changer are specified following the warning symbol and signal word. These items must be strictly observed to ensure safety while using the bobbin changer.

Signal word definition is given below.



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury (*1) or property damage.

* 1 : An injury that does not necessitate hospitalization or visit to a hospital over a long period.



: Prohibited Items



: Items that must be followed carefully to ensure safe operation.

The information which gives details or supplements the explanation appears under the title **NOTE**.

CONTENTS

CONTENTS

1. IMPORTANT WARNING ITEMS FOR SAFE OPERATION	i
1-1. Cautions on Using Bobbin Changer	i
2. FEATURES AND DESCRIPTION OF BOBBIN CHANGER	1
2-1. Part Name and Arrangement of Bobbin Changer Parts	1
2-2. Names and Functions of the Switches on Control Box	2
3. BOBBIN CASE SETTING AND BOBBIN CHANGE OPERATION	7
3-1. Setting a Bobbin Case	7
3-2. Bobbin Change Operation	8
• Changing a Bobbin after Finishing Embroidery	8
• Changing a Bobbin during Embroidery	9
■ PARTS LIST	End of Volume


IMPORTANT WARNING ITEMS FOR SAFE OPERATION

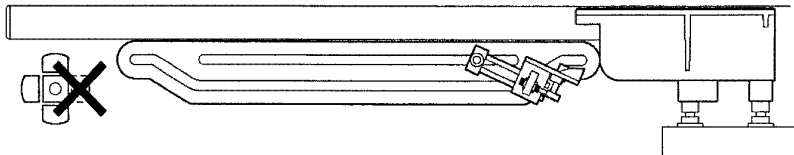
1. IMPORTANT WARNING ITEMS FOR SAFE OPERATION

1-1. Cautions on Using Bobbin Changer

CAUTION

When using or maintaining the bobbin changer, observe the items indicated below to prevent injury or damage to the machine.

- While the machine is running, do not press the START switch and the execution switch. This starts bobbin change operation causing the machine and the bobbin changer to be damaged. 
- If the machine is equipped with a bobbin case, do not set a bobbin case in the bobbin holder located at machine side position among the four bobbin holders.

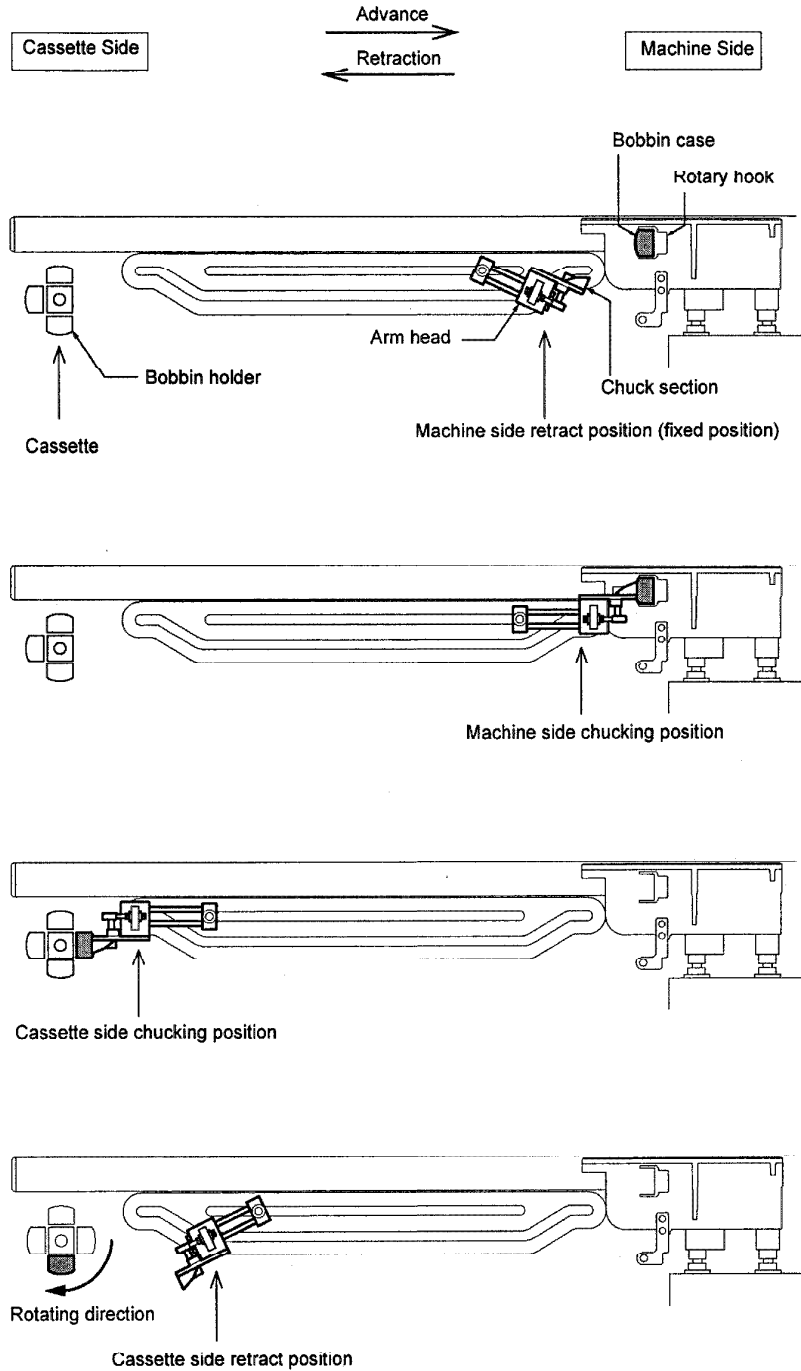


When bobbin change operation starts while a bobbin case is set in the bobbin holder at the machine side position, an empty bobbin, removed from the machine, will cause interference with the bobbin set in this bobbin holder when the removed empty bobbin case is returned to the bobbin holder to cause damage to the bobbin changer.

FEATURES AND DESCRIPTION OF BOBBIN CHANGER

2. FEATURES AND DESCRIPTION OF BOBBIN CHANGER

2-1. Part Name and Arrangement of Bobbin Changer Parts

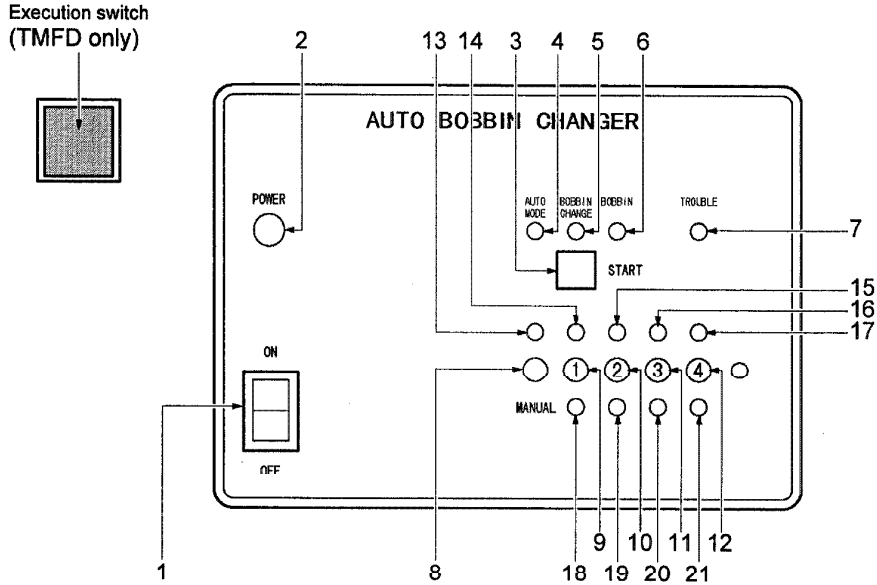


FEATURES AND DESCRIPTION OF BOBBIN CHANGER

2-2. Names and Functions of the Switches on Control Box

NOTE: [In case of TMFX and TMFN]

Before executing operation, be sure to confirm the setting of the embroidery machine is set to "use the bobbin changer (under thread exchanging device)" referring to the user's manuals for TMFX Series and TMFN respectively.



1. Power switch:

Used to turn on and off the power.

NOTE: When the switch is turned ON, the POWER indicating lamp (2) and the AUTO MODE indicating lamp (4) light and, at the same time, the green indicating lamps (18, 19, 20, and 21) that represent the status of the chuck switch key (9), cassette feed key (10), and arm head retractor drive key (12) light. Although the BOBBIN indicating lamp (6) also lights, this function is not used now.

2. POWER indicating lamp:

Lights when the power switch (1) is ON.

3. START switch:

[In case of TMFD]

When the execution switch is pressed after this START switch is pressed in the state the AUTO MODE indicating lamp (4) is lit, a bobbin change cycle starts.

[In case of TMFX and TMFN]

When this switch is pressed in the state the AUTO MODE indicating lamp (4) is lit, a bobbin change cycle starts after thread trimming operation (under thread only). However, when pushing the START switch after automatic/manual thread trimming operation, only bobbin exchanging operation will start.

CAUTION

In case of TMFD: While the machine is running, do not press the START switch and the execution switch. This starts bobbin change operation causing the machine and the bobbin changer to be damaged

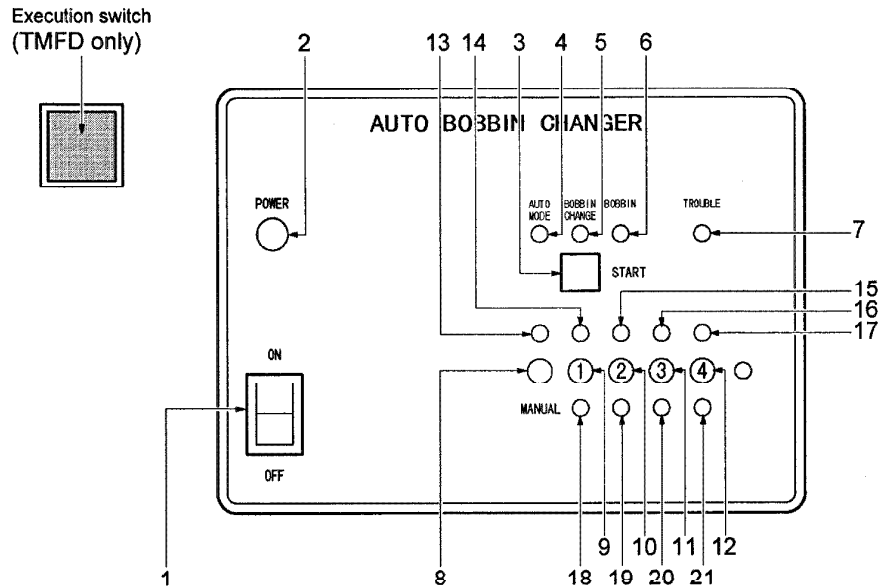


4. AUTO MODE indicating lamp: Indicates, if lit (automatic mode), that automatic bobbin change cycle is enabled.

5. BOBBIN CHANGE indicating lamp: Lights momentarily when the START switch (3) pressed.

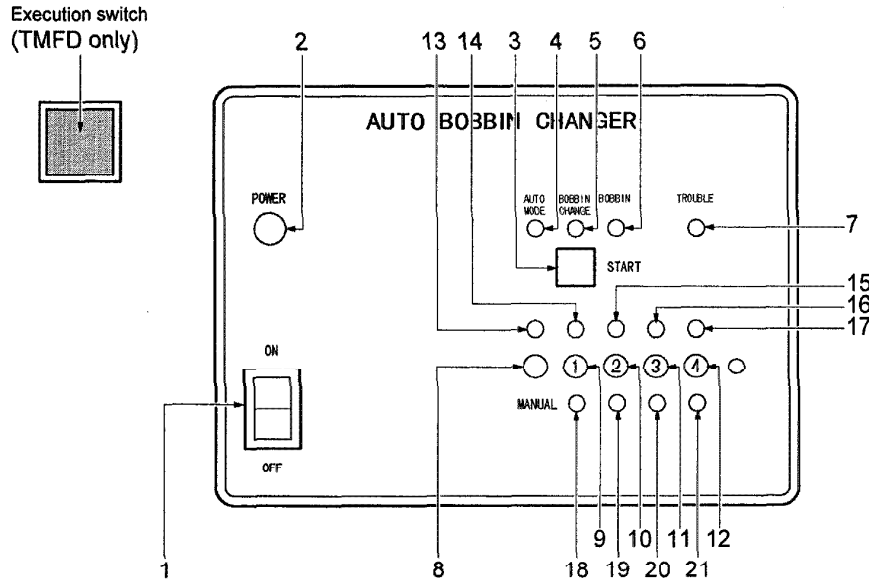
6. BOBBIN indicating lamp: Presently, this function is not used. This indicating lamp stays lit when the power switch is ON.

FEATURES AND DESCRIPTION OF BOBBIN CHANGER



7. TROUBLE indicating lamp: Lights if a bobbin changer trouble occurs.
The TROUBLE indicating lamp lights in the following cases:
- Overrun of the arm head due to bobbin change error (bobbin case is not set in a bobbin holder correctly, such that a bobbin case is not set in a bobbin holder straight.)
 - Failure of sensor operation at the air cylinder actuation side (sensor does not detect the air cylinder operation, trouble of a sensor, etc.)
 - Bobbin change cycle time-over (bobbin changer stops halfway while changing a bobbin.)
- NOTE:** If the TROUBLE indicating lamp lights, bobbin change cycle stops halfway. If the lamp lights, check the source of the trouble, take appropriate corrective measures, and return the bobbin changer units to the correct positions by manual operation (press the MANUAL mode key to select the manual mode.).
8. MANUAL mode key: When pressed during automatic operation, operation mode changes to manual and the indicating lamp (13) above the MANUAL mode key lights.
In the manual mode, bobbin changer units can be operated manually using the corresponding keys: chuck switch key (9), cassette feed key (10), arm head back and forth drive key (11) and arm head retractor drive key (12).
To return the operation mode from manual to automatic, press the MANUAL mode key again in the state all green lamps (18, 19, 20, 21) are lit.
9. Chuck switch key: When pressed, the arm head chuck closes to clamp a bobbin case and the yellow lamp A (14) lights. When this key is pressed again, the arm head chuck opens to release the bobbin case and the green lamp A (18) lights.
- NOTE:** After operating the chuck manually, make sure to return the chuck state to "open" (green lamp A (18) lit).
- NOTE:** The chuck switch key is enabled only in the manual mode.

FEATURES AND DESCRIPTION OF BOBBIN CHANGER



10. Cassette feed key:

When pressed, the cassette section turns 90°. The cassette feed cylinder advances, the yellow lamp B (15) lights momentarily, the cassette feed cylinder returns and the green lamp B (19) lights.

NOTE: The cassette feed key is enabled only when the arm head is away from the cassette section. Even if the key is pressed while both of the yellow lamp C (16) and the green lamp D (21) are lit (indicating that the arm head is at the cassette side chucking position), the cassette section does not move.

NOTE: The cassette feed key is enabled only in the manual mode.

11. Arm head back and forth drive key:

When pressed, the arm head moves back from the machine side to the cassette side and the yellow lamp C (16) lights. When this key is pressed again, the arm head moves forward to the machine side (original position) and the green lamp C (20) lights.

Within the arm head moving interval (arm head back/forth interval), arm head movement depends on which of the lamps (green lamp D: 21, yellow lamp D: 17) of the arm head retractor drive key (12) lights.

NOTE: After operating the arm head manually, position the arm head at the machine side retract position (fixed position, green lamp D: 20 lit).

NOTE: The arm head back and forth drive key is enabled only in the manual mode.

[When green lamp D (21) is lit]

The arm head moves within the following interval.

Machine side retract position (green lamp C: 20 lit)

←→ Cassette side chucking position (yellow lamp C: 16 lit)

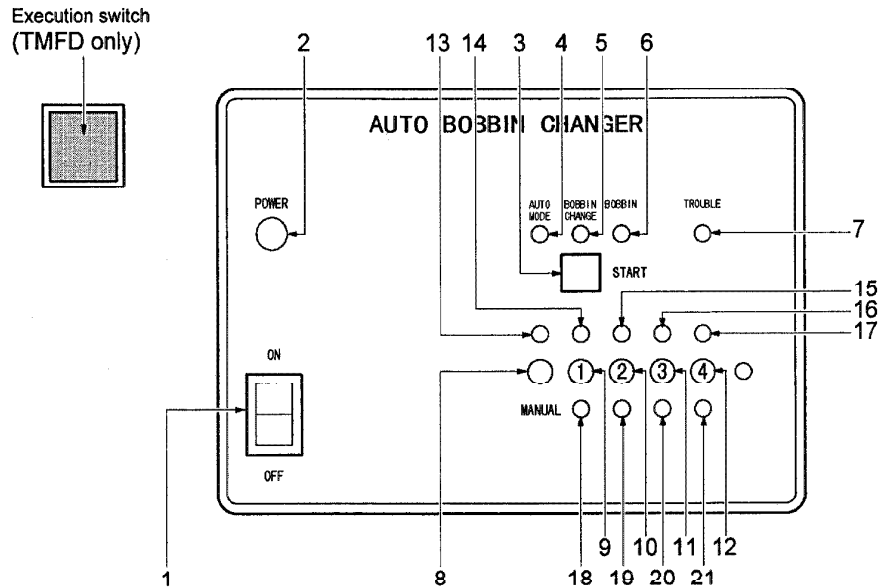
[When yellow lamp D (17) is lit]

The arm head moves within the following interval.

Machine side chucking position (green lamp C: 20 lit)

←→ Cassette side retract position (yellow lamp C: 16 lit)

FEATURES AND DESCRIPTION OF BOBBIN CHANGER



12. Arm head retractor drive key:

When pressed, the arm head moves between the retract position and the chucking position only in one way. The arm head returns to the previous position when the key is pressed again.

At which side (machine side or cassette side) the arm head moves depends on which of the lamps (green lamp C: 20, yellow lamp C: 16) of the arm head back and forth drive key (11) lights.

NOTE: After operating the arm head manually, position the arm head at the machine side retract position (fixed position, green lamp D: 20 lit).

NOTE: The arm head retractor drive key is enabled only in the manual mode.

[When green lamp C (20) is lit]

The arm head moves within the following interval.

Machine side retract position (green lamp D: 21 lit)

←→ Cassette side chucking position (yellow lamp D: 17 lit)

[When yellow lamp D (16) is lit]

The arm head moves within the following interval.

Machine side chucking position (green lamp D: 21 lit)

←→ Cassette side retract position (yellow lamp C: 17 lit)

13. Manual mode indicating lamp: Lights in the manual mode.

14. Yellow lamp A: Lights when the arm head chuck is closed.

15. Yellow lamp B: Lights momentarily at the start of cassette feed operation.

16. Yellow lamp C: ON/OFF status of this indicating lamp changes corresponding to the arm head position (*1).

17. Yellow lamp D: ON/OFF status of this indicating lamp changes corresponding to the arm head position (*1).

18. Green lamp A: Lights when the arm head chuck is open.



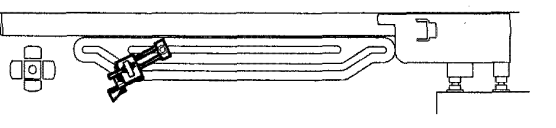


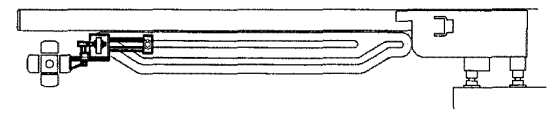


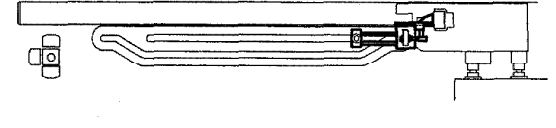


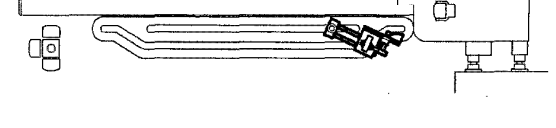
19. Green lamp B: Lights when the cassette feed operation is stopped.

20. Green lamp C: ON/OFF status of this indicating lamp changes corresponding to the arm head position (*1).

21. Green lamp D: ON/OFF status of this indicating lamp changes corresponding to the arm head position (*1).

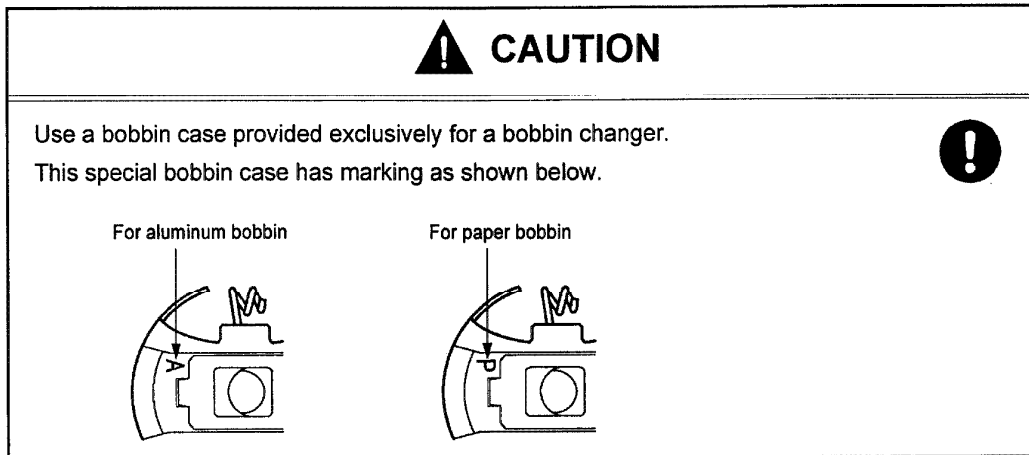
FEATURES AND DESCRIPTION OF BOBBIN CHANGER

*1: The relationships between the lamp ON/OFF status and the arm head position are shown below

Lamp ON/OFF Status	Arm Head Position
<p>○ ○  </p> <p>① ② ③ ④</p> <p>○ ○ ○ ○</p>	<p>Cassette side retract position</p> 
<p>○ ○  ○</p> <p>① ② ③ ④</p> <p>○ ○ ○ </p>	<p>Cassette side chucking position</p> 
<p>○ ○ ○ </p> <p>① ② ③ ④</p> <p>○ ○  ○</p>	<p>Machine side chucking position</p> 
<p>○ ○ ○ ○</p> <p>① ② ③ ④</p> <p>○ ○  </p>	<p>Machine side retract position (fixed position)</p> 

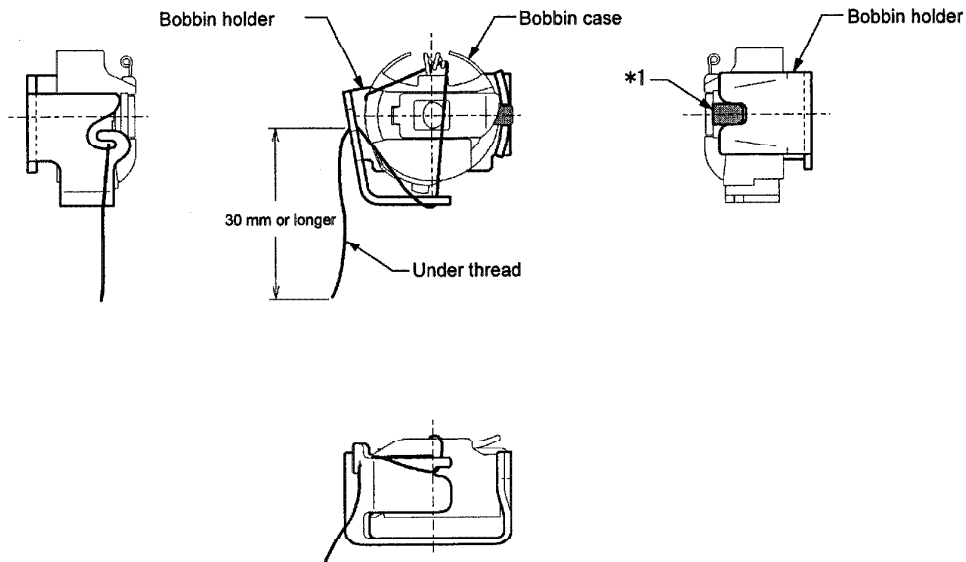
BOBBIN CASE SETTING AND BOBBIN CHANGE OPERATION

3. BOBBIN CASE SETTING AND BOBBIN CHANGE OPERATION



3-1. Setting a Bobbin Case

Set a bobbin case in a bobbin holder as shown below.



*1: Align the bobbin case with the bobbin holder so that a projection in the bobbin case fits into the notch in the bobbin holder.

NOTE: Start stitching error occurs unless the under thread is set in the manner as shown above.

NOTE: Set the bobbin case in the bobbin holder securely. Otherwise a chucking error will occur.


NOTE: Do not use a paper bobbin of which the side base is impaired or deformed. Otherwise, the bobbin may get off the arm head during transport.


NOTE: A paper bobbin that has no side base cannot be used.

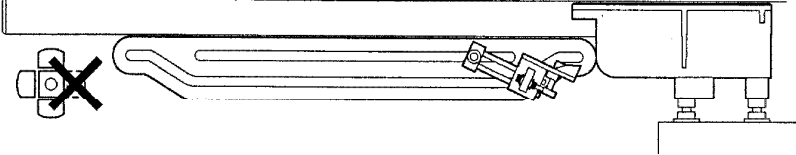
BOBBIN CASE SETTING AND BOBBIN CHANGE OPERATION

3-2. Bobbin Change Operation

The procedure for performing a series of bobbin change operation automatically is described below. To operate the bobbin changer step by step, select the manual mode and operate the manual switches and keys by referring to 2-2 "Names and Functions of the Switches on Control Box".

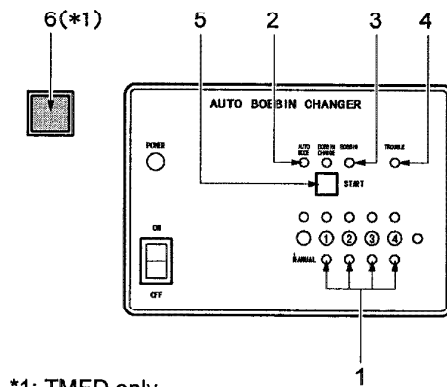
 **CAUTION**

- While the machine is running, do not press the START switch and the execution switch. This starts bobbin change operation causing the machine and the bobbin changer to be damaged. 
- If the machine is equipped with a bobbin case, do not set a bobbin case in the bobbin holder located at machine side position among the four bobbin holders.



When bobbin change operation starts while a bobbin case is set in the bobbin holder at the machine side position, an empty bobbin, removed from the machine, will cause interference with the bobbin set in this bobbin holder when the removed empty bobbin case is returned to the bobbin holder to cause damage to the bobbin changer.

3-2-1. Changing a Bobbin after Finishing Embroidery



1. At the control box, make sure that four green lamps (1), the AUTO MODE indicating lamp (2) and the BOBBIN indicating lamp (3) are all lit. Also make sure that the TROUBLE indicating lamp (4) is not lit.
2. Make sure that a bobbin case is correctly set in a bobbin holder.
3. [In case of TMFD]
Press the START switch (5) then the execution switch (6).

NOTE: Bobbin change cycle starts when the execution switch (6) is pressed.

[In case of TMFX and TMFN]

Press the START switch (5).

NOTE: Bobbin change cycle starts when the start switch (5) is pressed.

4. Change the bobbin removed from the machine with a thread-wound bobbin.

3-2-2. Changing a Bobbin during Embroidery

1. [In case of TMFD]

Stop the machine and manually trim the thread.

NOTE: After trimming the thread manually, follow the steps 1 and on described in 3-2-1 "Changing a Bobbin after Finishing Embroidery".

[In case of TMFX and TMFN]

Stop the machine, and follows the steps 1 and after described in 3-2-1 "Changing a Bobbin after Finishing Embroidery". A bobbin change cycle starts after thread trimming operation (under thread only). However, when pushing the START switch after automatic/manual thread trimming, only bobbin exchanging operation will start.

PARTS LIST

Table of Contents

● HEAD UNIT.....	BC-1
● HEAD DRIVE SYSTEM.....	BC-2
● CASSETTE DRIVE SYSTEM.....	BC-3
● BOBBIN CHANGER AND PIPING AND RELATED PARTS.....	BC-4

[Explanations of Marks #'s and *'s at End of Part No.]

- ◆ Please specify, in the following manner, your machine model, manufacturing number and embroidery space when you order us with the parts having **** at the end of the part No.:

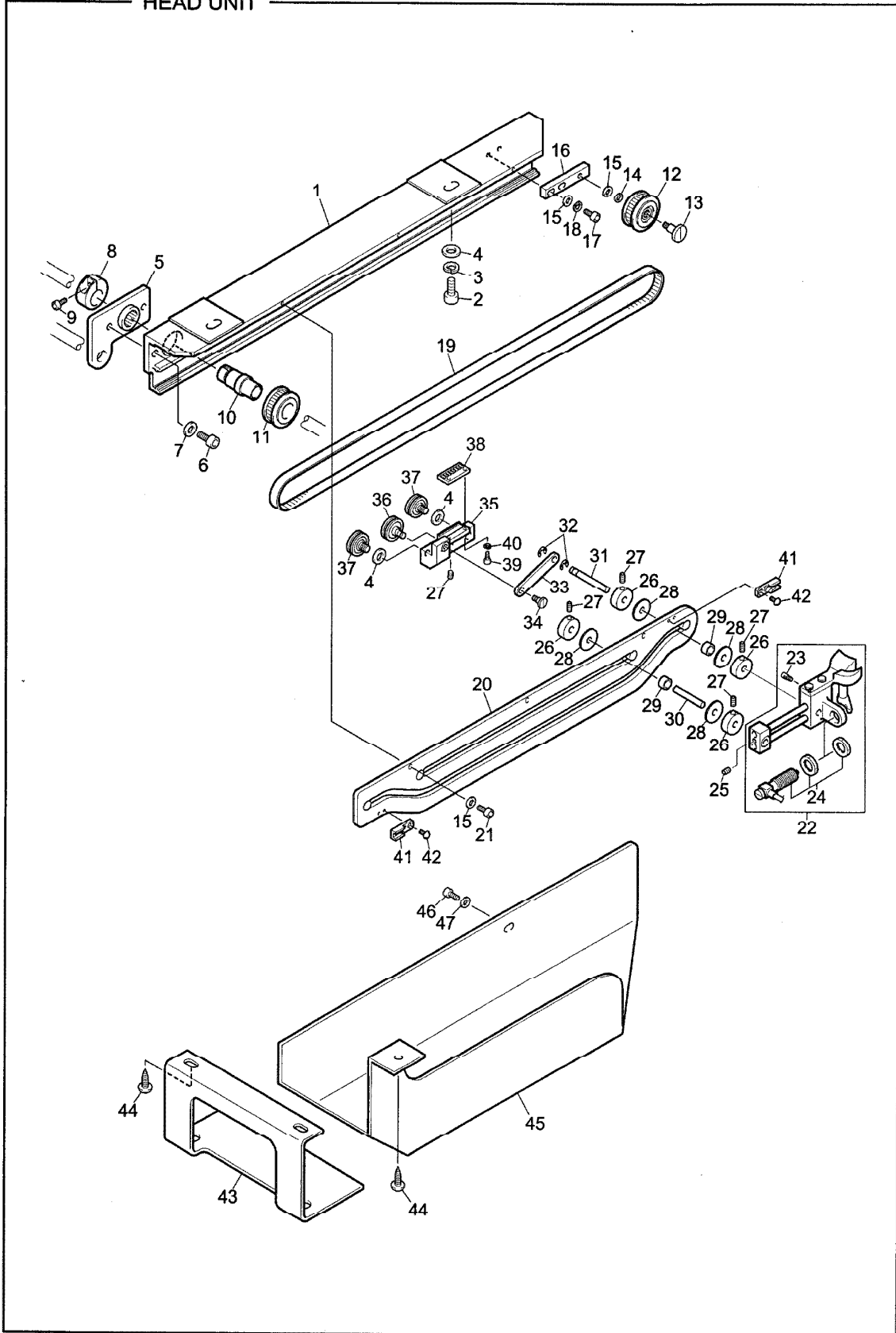
Ex.	TMFD-G620	(450X275)W	No.01234
	[Model]	[Emb. Space]	[Mfg. No.]

- ◆ Please specify the number of needles on your machine's head in your parts order by changing the marks #### into one of the 4-digit numbers below:

Ex.	The part Number, BC012345####
	4-digit Numbers Machine Type
	0300.....3-needle machine
	0600.....6-needle machine
	0900.....9-needle machine
	1200.....12-needle machine
	1500.....15-needle machine

BC-1

HEAD UNIT



HEAD UNIT

BC-1

No.	Name	Part No.	Remark
1	Assembly Base	BC0115000000	
2	Hexagon Socket Head Cap Screw	SS6206250TN0	M6*25
3	Spring Washer	WSS060000KC0	M6
4	Plain Washer	WSP06D010SC0	M6*13*1.0t
5	Connecting Base	BC0116000000	
5	Connecting Base	BCC116000000	For Jumbo Rotary Hook
6	Hexagon Socket Head Cap Screw	SS6205100TD0	M5*10
7	Plain Washer	WSP05A010SD0	M5*10*1.0t
8	13mm Dia. Split Collar	BC0101000000	
9	Hexagon Socket Head Cap Screw	SS6204150TN0	M4*15
10	Bearing Case Collar	BC0111000000	
11	S3M Drive Pulley	BC0112000000	
12	S3M Driven Pulley	BC0113000000	
13	Lever Pin	HF2208000000	
14	Plain Washer	WSP048005SD0	M4*8*0.5t
15	Plain Washer	WSP04A008SD0	M4*10*0.8t
16	Pulley Base	BC0104000000	
17	Hexagon Socket Head Cap Screw	SS6204120TD0	M4*12
18	Spring Washer	WSS040000KD0	M4
19	Timing Belt	BPS3M06N0951	
20	Cam Base Plate	BC0114000000	
20	Cam Base Plate	BCC114000000	For Jumbo Rotary Hook
21	Hexagon Socket Head Cap Screw	SS6204060TD0	M4*6
22	Chucking Device	BC0121S00000	
22	Chucking Device	BCC121S00000	For Jumbo Rotary Hook
23	Guide Pin	BC0122000000	
24	Pin Cylinder	BPCJPB615B00	
25	Hexagon Socket Head Set Screw	SS8204030TN0	M4*3
26	5mm Dia. Collar	BC0102000000	
27	Hexagon Socket Head Set Screw	SS8204040TN0	M4*4
28	Washer	BC0107000000	
29	Cam Roller	BC0119000000	
30	No.2 Shaft	BC0118000000	
31	No.1 Shaft	BC0117000000	
32	E-ring	BPE400000000	E-4
33	Connecting Rod	BC0106000000	
34	Roller Base Guide Pin	EG0718000000	
35	Drive Block	BC0108000000	
36	Eccentric Bearing Roller	BC0105000000	
37	Resin Bearing	BPDH16B10000	
38	Belt Catcher Plate	BC0109000000	
39	Hexagon Socket Head Cap Screw	SS6203080TD0	M3*8
40	Spring Washer	WSS030000KD0	M3
41	Guide Block	BC0120000000	
42	Pan Head Screw	SS4175040MZ0	M2.5*5
43	Clear Plate	BC0132000000	
44	Round Head Wood Screw	ZZ010520SD00	5P*20
45	Head Cover	BC0133000000	
46	Hexagon Socket Head Cap Screw	SS6203060TN0	M3*6
47	Plain Washer	WSP038005SC0	M3*8*0.5t

NOTE: As for parts with marks # or *, please follow our instruction on Table of Contents, in your parts order.

(CG12)

HEAD DRIVE SYSTEM

BC-2

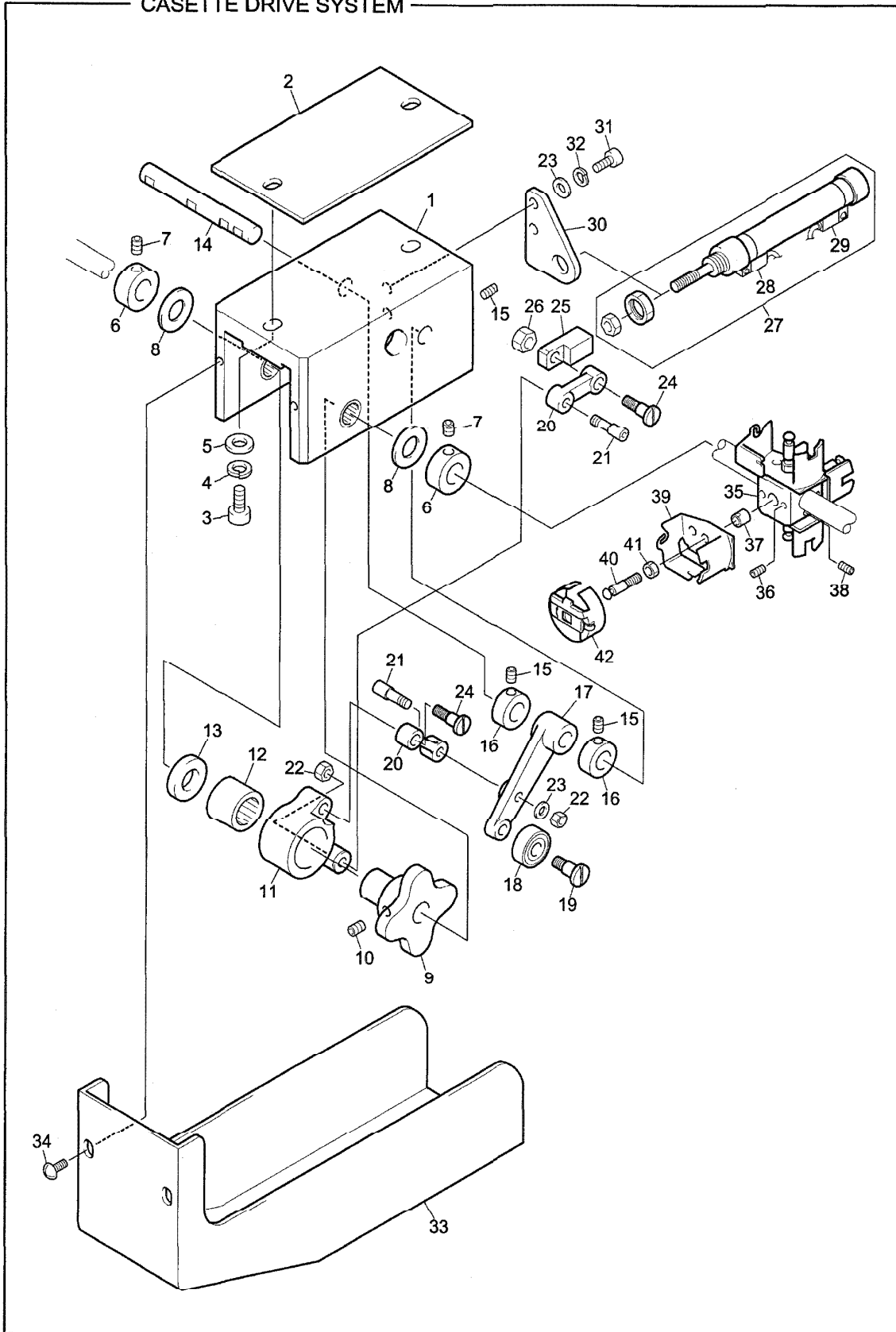
No.	Name	Part No.	Remark
1	Drive Frame	BC021500000	
2	Hexagon Socket Head Cap Screw	SS6206300TN0	M6*30
3	Spring Washer	WSS060000KC0	M6
4	Plain Washer	WSP06D010SC0	M6*13*1.0t
5	Flat Gear A	BC020100000	
6	Hexagon Socket Head Set Screw	SS8205120TN0	M5*12
7	Flat Gear B	BC020200000	
8	Hexagon Socket Head Set Screw	SS8205040TN0	M5*4
9	S5M Drive Pulley	BC020300000	
10	Hexagon Socket Head Set Screw	SS8205060TN0	M5*6
11	Drive Shaft	BC020900000	
12	Washer	BPTW10200000	
13	10mm Dia. Collar	BC021400000	
14	S5M Driven Pulley	BC020400000	
15	Tension Pin	BC020700000	
16	E-ring	BPE700000000	E-7
17	Hexagon Socket Head Cap Screw	SS6205150TD0	M5*15
18	Plain Washer	WSP05C008SD0	M5*12*0.8t
19	U-shaped Bracket	BC020600000	
20	Hexagon Socket Head Cap Screw	SS6205250TD0	M5*25
21	Hexagon Nut	SSN005SD0000	M5 Type 1
22	Tension Stay	BC020800000	
23	Hexagon Socket Head Cap Screw	SS6204120TD0	M4*12
24	Plain Washer	WSP04A008SD0	M4*10*0.8t
25	Timing Belt	BPS5M10N0965	
26	Linear Motion Slide	BP2011400000	
27	Truss Head Screw	SS0103050SD0	M3*5
28	Cylinder Bracket A	BC021100000	
29	Countersunk Head Screw	SS1103100SD0	M3*10
30	Belt Catcher Plate	BC020500000	
31	Countersunk Head Screw	SS1103060SD0	M3*6
32	Belt Presser Plate	BC021300000	
33	Hexagon Socket Head Cap Screw	SS6203100TD0	M3*10
34	Air Cylinder	BPCDJ2B1645C	
35	Auto Switch A	PB0004A0SC00	
36	Auto Switch B	PB0004B0SC00	
37	Connecting Nut	BC021000000	
38	Air Cylinder	BPCDM2B20210	
39	Auto Switch C	PB0004C0SC00	
40	Auto Switch D	PB0004D0SC00	
41	Cylinder Bracket B	BC021200000	
42	Spring Washer	WSS050000KD0	M5
43	Driver Cover	BC021600000	
44	Cover Stud	BC021700000	
45	Truss Head Screw	SS0104050SD0	M4*5
46			
47			
48			
49			
50			

NOTE: As for parts with marks # or *, please follow our instruction on Table of Contents, in your parts order.

(CG12)

BC-3

CASSETTE DRIVE SYSTEM



CASSETTE DRIVE SYSTEM

BC-3

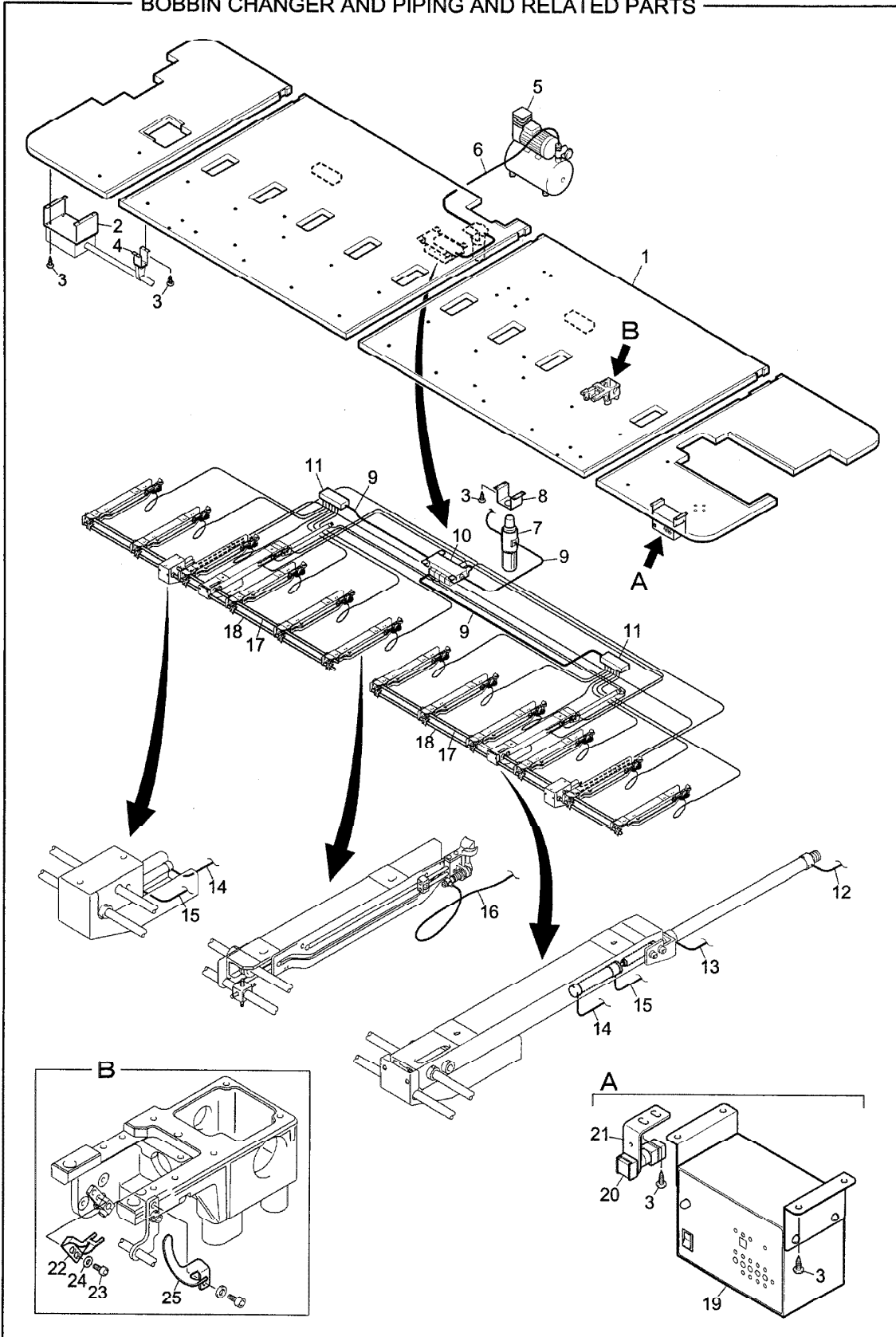
No.	Name	Part No.	Remark
1	Reverser Base	BC0307000000	
2	Reverser Spacer	BC0310000000	
3	Hexagon Socket Head Cap Screw	SS6206250TN0	M6*25
4	Spring Washer	WSS060000KC0	M6
5	Plain Washer	WSP06D010SC0	M6*13*1.0t
6	10mm Dia. Collar	BC0214000000	
7	Hexagon Socket Head Set Screw	SS8205040TN0	M5*4
8	Washer	BPTW10200000	
9	Reverse Cam	BC0301000000	
10	Hexagon Socket Head Set Screw	SS8205050TN0	M5*5
11	Reverse Lever A	BC0302000000	
12	One-way Clutch	BPHF14160000	
13	Spacer Collar	BC0308000000	
14	Shaft Pin A	BC0306000000	
15	Hexagon Socket Head Set Screw	SS8204040TN0	M4*4
16	8mm Dia. Collar	EF0418000000	
17	Reverse Lever B	BC0303000000	
18	Ball Bearing	BP606ZZ00000	
19	Stepped Pin B	EC0A21000000	
20	Needle Bar Drive Connecting Rod	EF0513000000	
21	No.3 Pin	EF0511010000	
22	Hexagon Nut	SMN067030CN0	11/64*40*7*3
23	Plain Washer	WSP04A008SD0	M4*10*0.8t
24	Stepped Pin A	EC0A20000000	
25	Connecting Bracket	BC0304000000	
26	Hexagon Nut	SSN005SD0000	M5
27	Air Cylinder	BPCDJ2B1645C	
28	Auto Switch E	PB0004E0SC00	
29	Auto Switch F	PB0004F0SC00	
30	Cylinder Bracket	BC0305000000	
31	Hexagon Socket Head Cap Screw	SS6204150TD0	M4*15
32	Spring Washer	WSS040000KD0	M4
33	Reverser Cover	BC0309000000	
34	Truss Head Screw	SS0104050SD0	M4*5
35	Cassette Block	BC0123000000	
36	Hexagon Socket Head Set Screw	SS8204050TN0	M4*5
37	Adjusting Boss	BC0124000000	
38	Hexagon Socket Head Set Screw	SS8203060TN0	M3*6
39	Bobbin Attaching Bracket	BC0126000000	
39	Bobbin Attaching Bracket	BCC126000000	For Jumbo Rotary Hook
40	Bobbin Shaft	BC0125000000	
40	Bobbin Shaft	BCC125000000	For Jumbo Rotary Hook
41	Hexagon Nut	SSN004SD0000	M4
42	Bobbin Case	BC0130A00000	For Aluminum Bobbin
42	Bobbin Case	BC0130P00000	For Paper Bobbin
42	Bobbin Case	BCC130A00000	For Jumbo Hook, Aluminum Bobbin
42	Bobbin Case	BCC130P00000	For Jumbo Hook, Paper Bobbin
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NOTE: As for parts with marks # or *, please follow our instruction on Table of Contents, in your parts order.

(CG12)

BC-4

BOBBIN CHANGER AND PIPING AND RELATED PARTS



(CG12)

BOBBIN CHANGER AND PIPING AND RELATED PARTS

BC-4

No.	Name	Part No.	Remark
1	Table	BC040300****	
2	Box Base	BC0402000000	
3	Round Head Wood Screw	ZZ410420CC00	
4	Bar Switch Support Base	BC0401000000	4.5P*20
5	Compressor	BPOFP02P0000	
6	Air Hose	BPLH63M00000	
7	Regulator	BPAW300102G0	
8	Regulator Bracket	BC0408000000	
9	Urethane Tube	BPU8B0000000	
10	Electro-magnetic Valve Set	BPSS5Y52004S	
11	Chuck Manifold	BC0406000000	
12	Urethane Tube	BPU6B0000000	
13	Urethane Tube	BPU6W0000000	
14	Urethane Tube	BPU4B0000000	
15	Urethane Tube	BPU4W0000000	
16	Urethane Tube	BPU4BU000000	
17	Driver Shaft	BC040400****	
18	Connecting Shaft	BC040500****	
19	Control Box	BC5201000000	
20	Push-button Switch	PB004800SP00	Only for TMFD
21	Switch Bracket	BC0407000000	Only for TMFD
22	Wide Picker	BC0127000000	
23	Hexagon Socket Head Cap Screw	SS6204050TN0	M4*5
24	Plain Washer	WSP048008SD0	M4*8*0.8t
25	Rotary Hook Cover A	BC0128A00000	
25	Rotary Hook Cover B	BC0128B00000	For the 1st Head
25	Rotary Hook Cover A	BCC128A00000	For Jumbo Rotary Hook
25	Rotary Hook Cover B	BCC128B00000	For Jumbo Hook, 1st Head
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(CG12)

1st Edition(9912), December 1999
1st Revision(2000.04), April 2000

■ **Manufactured by:**

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