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INSTRUCTION MANUAL AND SPARE PARTS

FOR

MODEL 341N

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BEFORE OPERATION

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CAUTION

Check the following so as to prevent maloperation of and damage to the machine.

 Before you put the machine into operation for the first time after the set-up, clean it thoroughly. Remove all dust gathering during transportation and oil it well.

Confirm that voltage has been correctly set. Confirm that the power plug has been properly connected to the power

supply

• Never use the machine in the state where the voltage type is different from the designated one.

- The direction of normal rotation of the machine is counterclockwise as observed from the pulley side. Take care not to allow the machine to rotate in the reverse direction.
- When tilting the machine head, tilt it after removing the knee lifter hook.

· For a test run, remove the bobbin case and the needle thread.

- For the first month, run the machine at a speed of 1,800 s.p.m. or less.
- Operate the handwheel after the machine has totally stopped.

SPECIFICATIONS

Type of sewing machine head	Cylinder-bed, 1-needle, unison-feed lockstitch machine (with a vertical-axis h(x)k)
Application	Medium- to heavy-weight materials
Sewing speed .	Max. 2,000 s.p.m
Stitch length	Max. 6 mm
Lift of presser foot	By hand lifter: 8.5 mm, By knee lifter: 15 mm
Thread take-up lever	Slide type thread take-up
Needle bar stroke	33.36 mm
Needle	DP × 17
Count of needle to be used	#14 through #24 (standard: #23)
Count of thread to be used	#50 through #8
Stitch adjusting method	By dial
Lubrication method	By an oiler
Motor to be used	400 W clutch motor (4P)
Lubricating oil	New Defrix Oil No. 1

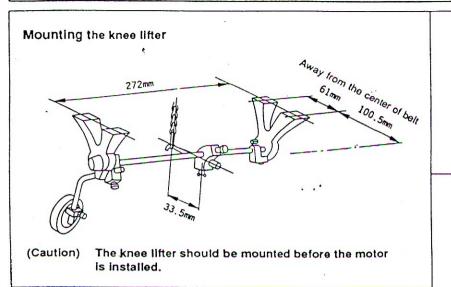
Noise

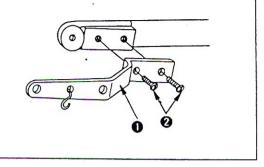
Workplace-related noise at sewing speed

n= 1,550 min-1: Lpa 84 dB(A)

Noise measurement according to DIN 45635-48-A-1.

1 SETTING UP THE SEWING MACHINE





When using the knee lifting pedal, attach knee lifter bracket A 1 in place using screws 2 as illustrated in the figure.

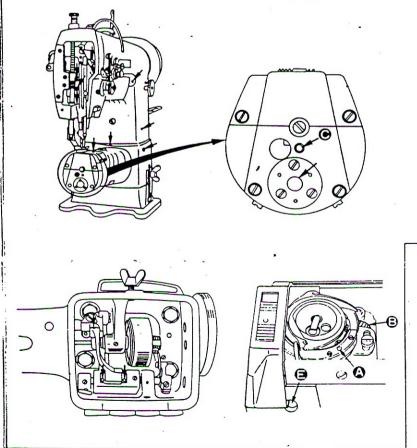
(Caution) Knee lifter bracket 1 and screws 2 are supplied with the machine in the accessory box.

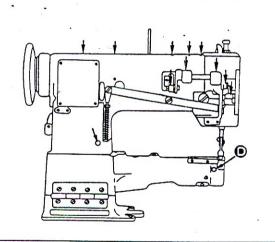
2. LUBRICATION



WARNING:

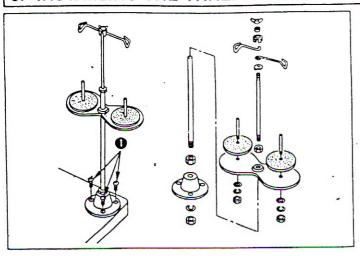
Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.





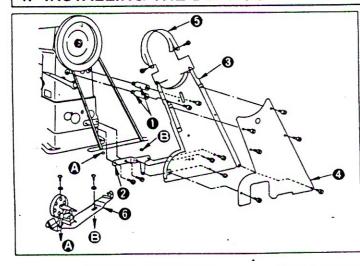
- Prior to operation, apply adequate amount of oil to the points marked with the arrows.
- ★ Lubricating the hook and hook shaft saddle
 Shift the slide plate, and apply two or three drops of oil
 every day to the hole shown with the arrow ②. And
 four or five drops of oil every day to the felt shown
 with the arrow ③.
- ★ Lubricating the feed bar Prior to operation, apply two or three drops of oil to the holes shown with the arrows ②, ② and ③ without fail.

3. INSTALLING THE THREAD STAND



Assemble the thread stand, and install it on the far right-hand side edge of the table using three screws ①

4. INSTALLING THE BELT COVER AND THE BOBBIN WINDER



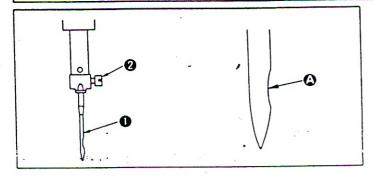


WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

- 1) Drill guide holes (2) and (3) for wooden screws to be used in the table.
- Insert belt cover support 1 into the tapped hole in the machine arm.
- 3) Install belt cover support plate **2** on the machine head.
- 4) Attach belt cover 10 to support 10 and support plate 2.
- 5) Fit bobbin winder **6** in belt cover **8**, and adjust the position of the bobbin winder properly.
- 6) Fix bobbin winder 6 on the table.
- 7) Put the V belt on the handwheel. Attach rid 4 of the bel cover and top cover 5 in place.

5. ATTACHING THE NEEDLE



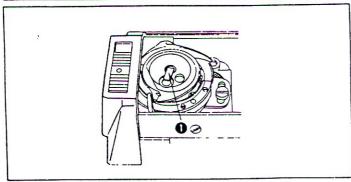


WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

- · Turn OFF the power to the motor.
- Turn the handwheel to move the needle bar up to it highest position.
- 2) Loosen needle clamp screw 2. Hold needle 1 so that is indented part A faces exactly to the right.
- Insert the needle into the needle bar until it will go n further.
- 4) Securely tighten the needle clamp screw 2.

6. ATTACHING/REMOVING THE BOBBIN CASE



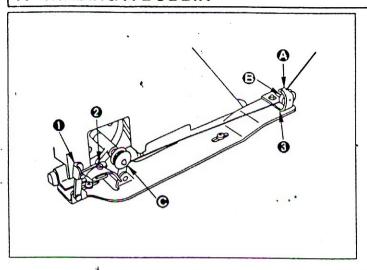


WARNING:

Turn OFF the power before starting the work so as to preven accidents caused by abrupt start of the sewing machine

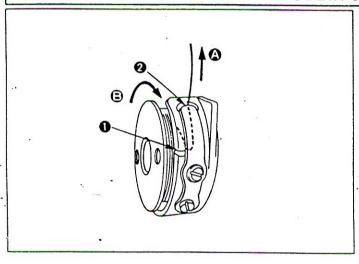
- Raise lever 1 of the hook, and remove the bobbin ca together with the bobbin in it.
- Fit the bobbin case into the hook driving shaft, and tilt t lever.

7. WINDING A BOBBIN



- 1) Route the thread in the order of ②, ② and ② beforewinding it round the bobbin several times.
- Set bobbin presser down to bring the winder in contact with the belt.
- 3) Adjust screw to adjust the amount of thread to be wound round the bobbin so that the bobbin is wound with thread about 80% of its capacity. Turn the screw clockwise to increase the amount of thread wound round the bobbin, or counterclockwise to decrease it.
- 4) If thread is wound unevenly round the bobbin, move winder tension adjuster base 3 to the right or left so that thread is evenly wound round the bobbin.
- The moment the bobbin has been wound up, the bobbin presser is released, and the bobbin winder will stop automatically.

8. PLACING A BOBBIN IN THE BOBBIN CASE



A WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

- Hold a bobbin so that the end of the thread wound round the bobbin is directed to the right and put it into the bobbin case.
- 2) Pass the thread in threading slit 1 in the bobbin case, route it under the tension spring and draw it out from notch 2.

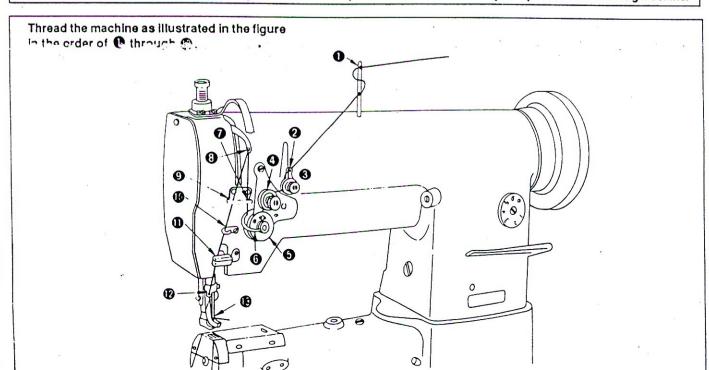
(Caution) As long as the bobbin is correctly placed in the bobbin case, pulling the thread in direction (a) makes the bobbin rotate in direction (a).

9. THREADING THE MACHINE HEAD

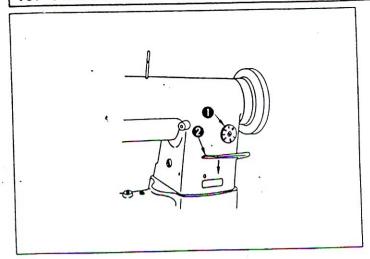


WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



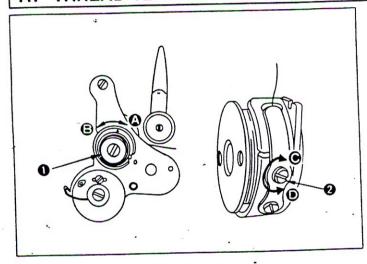
10. ADJUSTING THE STITCH LENGTH



Turn stitch length dial ① counterclockwise or clockwise to bring the desired value to the top of the dial so that the value is aligned with the pin.

- * Reverse feed stitching
- 1) Push down feed lever. 2.
- 2) The machine performs reverse feed stitching as long as the lever is held depressed.
- 3) The moment you release the lever, the machine resumed the normal stitching mode.

11. THREAD TENSION



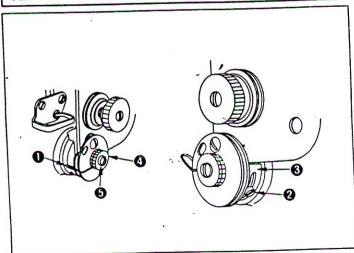
★ Adjusting the needle thread tension

Turn tension nut No. 2 ● clockwise (toward ♠) to increase the needle thread tension, or counterclockwise (toward ⑤) to decrease it.

* Adjusting the bobbin thread tension

Turn tension screw 2 clockwise (toward) to increase the bobbin thread tension, or counterclockwise (toward) to decrease it.

12. THREAD TAKE-UP SPRING

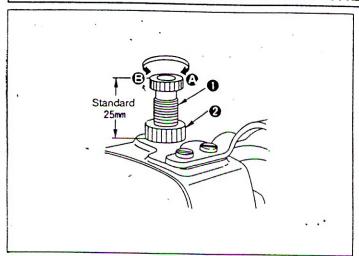


- ★ To change the stroke of thread take-up spring •
- 1) Loosen screw 2 in the stopper, and move stopper 3 to the right or left.
- Move the stopper to the right to increase the stroke of the thread take-up spring, or to the left to decrease it.

★ To change the tension of the thread take-up spring

Loosen nut . Turn spring shaft counterclockwise to increase the tension of the spring, or clockwise to decrease it. Fit a screwdriver in the groove in the spring shaft and turn it until the desired tension is provided.

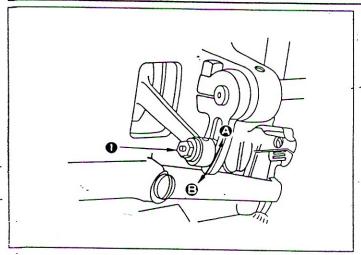
13. ADJUSTING THE PRESSURE OF THE PRESSER FOOT



Adjust the pressure of the presser foot in accordance with the type of material to be used. (Standard height of the pressure spring regulator: 25 mm)

- Turn pressure spring regulator Oclockwise (toward O) to increase the pressure of the presser foot, or counterclockwise (toward) to decrease it.
- After the adjustment, securely tighten nut ② of the regulator.

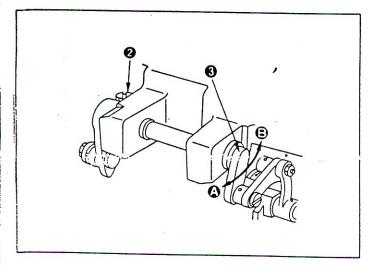
14. ADJUSTING THE PRESSER FOOT AND THE WALKING FOOT



★ Operating height of the walking foot and the presser foot

The operating height of the walking foot and the presser foot has been adjusted to the marker of "1/8" engraved on the top feed crank. A better result may be obtained by adjusting the operating height of the walking foot and the presser foot.

- Loosen nut 1, and change the position of the cam rod boss accordingly.
- Highest position → The stroke is maximized. ②
- Lowest position → The stroke is minimized. ②

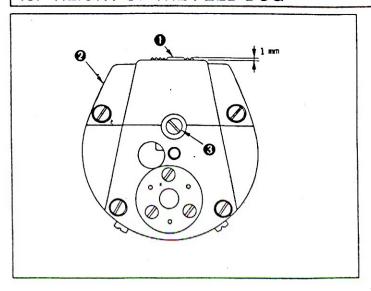


★ Alternate vertical motions of the walking foot and presser foot

The alternate vertical strokes of the walking foot and presser foot are normally equal.

- 1) Loosen screw 2 of the top feed crank.
- Bring the thread take-up lever to its highest position, and lower the presser bar lifting lever.
- Move top feed crank 3 to left 3 to increase the stroke of the presser foot, or to the right 5 to increase it.

15. HEIGHT OF THE FEED DOG



Feed dog • has been factory-adjusted to jut out 1 mm from the surface of throat plate • When the feed dog height needs to be adjusted according the sewing conditions or after the feed dog is replaced, follow the procedure described below.

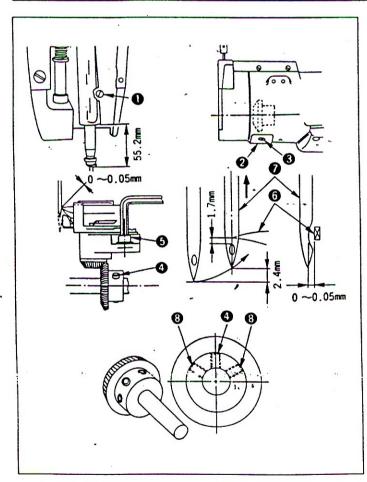
- 1) Maximize the feed dog height.
- 2) Loosen screw 3 in the feed dog.
- Adjust the feed dog height comparatively higher than the standard height, and temporarily fix it at that position.
- 4) Now, adjust the height of the feed dog appropriately, and securely tighten the screw 3 in the feed dog.

16. NEEDLE-TO-HOOK RELATIONSHIP



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



Adjust the timing between the needle and the hook following the procedure described below.

- 1) Set the feed regulating dial to "3".
- Turn the handwheel to bring the needle bar to the lowest position of its stroke, and loosen needle bar connection screw 1.
- * Determine the height of the needle bar.
- 3) The standard height of the needle bar is obtained when a distance of 1.7 mm is provided between the top end of the needle eyelet and blade point 6 of the hook when the needle ascends 2.4 mm from the lowest position of its stroke.

(The lowest position of the needle bar for reference)

Distance from the bottom face of the needle bar frame to the bottom end of the needle bar: 55.2 mm

- * Determine the position of the hook
- 4) Loosen screw 3 in the gear cover 2, remove gear cover 2 and loosen screws 3 and 3 in the large bevel gear.
- 5) In the state described in 3), loosen screw in the hook driving shaft saddle and move the hook driving shaft saddle to the right or left until a clearance of 0 to 0.05 mm is provided between the bladere into 6 the hook and needle.

 2. After the adjustment, securely righten the screw.
- 6) Then, align the blade point of the hook with the center of the needle, and tighten screw 4 in the gear.
- 7) Turn the handwheel clockwise and alternately tighten screws 3 little by little.

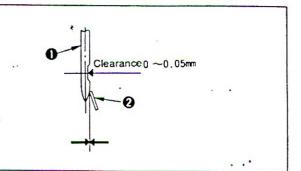
(Never tighten either screw only.)

7. ADJUSTING THE NEEDLE GUARD OF THE HOOK



WARNING:

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After replacing the hook, be sure to confirm the position of the needle guard. The standard position of the needle guard is obtained when needle guard lightly comes in contact with the side face of needle as illustrated in the figure. If not, adjust the position of the needle guard by bending it accordingly.

- 1) To bend the needle guard inward, apply a screwdriver to the outside of the needle guard.
- To bed the needle guard outward, apply a screwdriver to the inside of the needle guard.

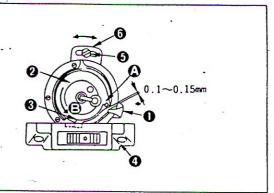
ADJUSTING THE BOBBIN CASE OPENING LEVER



8.

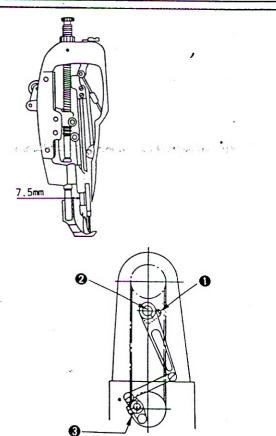
WARNING:

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- Turn the handwheel in its normal rotational direction to bring bobbin case opening lever to its back end position.
- Turn bobbin case 2 in the direction of arrow (a) until stopper (a) comes in contact with the groove in throat plate (a).
- 3) Loosen screw in the bobbin case opening lever adjustment plate and move bobbin case opening lever adjustment plate in the direction of the arrow so that a clearance of 0.1 to 0.15 mm is provided between the bobbin case opening lever and protruding section of the bobbin case.

9. ADJUSTING THE LONGITUDINAL POSITION OF THE NEEDLE BAR FRAME

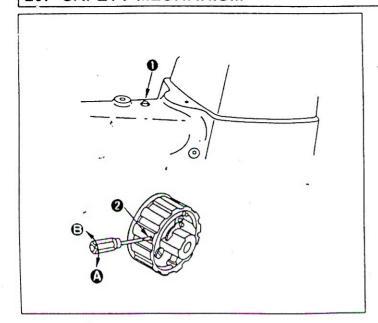


- ★ Adjusting the relationship between the top feed rod and presser bar
- 1) Set the feed regulating dial to its minimum value.
- Loosen clamping screw 1 in the needle bar frame rear arm, and adjust the clearance between the top feed rod and the presser bar to 7.5 mm.

(Caution) Take care not to allow any play in needle bar frame 2.

- ★ Adjusting the relationship between the feed dog and the needle bar
- 1) Set the feed regulating dial to its minimum value.
- Loosen clamping screw 3 in the feed rock shaft crank.
- Adjust the position of the feed dog so that the needle comes to the center of the needle hole in the feed dog (slightly closer to the operator).

SAFETY MECHANISM



WARNING:

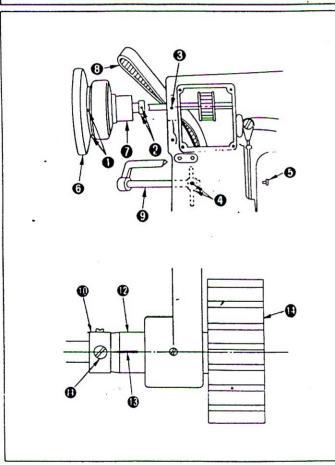
Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

If the thread is caught in the hook while the sewing machine is in operation, the safety mechanism actuates to idle the lower sprocket only.

- ★ How to reset
- 1) Remove the thread caught in the hook.
- 2) Pressing push button 1, strongly turn the pulley in the direction opposite to its normal rotational direction.
- ★ Safety load

Turn adjustment screw 2 in direction (clockwise) to increase the safety load, or in direction (a) (counterclockwise) to decrease it.

21. REPLACING THE TIMING BELT



WARNING:

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- ★ How to remove the timing belt
- 1) Loosen screw 1 in the handwheel, screws 2 in main shaft rear bushing (2), screw 3 in the main shaft rear bushing, clamping screws 1 in the feed lever shaft arm and screw **6** in the feed lever shaft in the written order.
- 2) Remove handwheel 6, and pull out main shaft rear bushing 1.
- 3) Draw feed lever shaft 9 until a clearance enough to allow timing belt 10 to come off is provided.
- 4) Remove the timing belt from the lower sprocket, draw it from the side window and pull out it from the hole in the main shaft rear bushing.
- * How to Install the timing belt
- 1) Installation is carried out analogously in reverse order.
- 2) To adjust the timing between the main shaft and the hook driving shaft, turn the handwheel to bring the thread takeup to its highest dead point and the screw No. 1 engraved on the hook driving shaft thrust collar 10 with marker line (8) engraved on hook driving shaft rear bushing 10. In this state, insert the timing belt into lower sprocket .

22. MOTOR PULLEY AND V BELT

- 1. Use an M type V belt.
- 2. The following table show the relationship between the motor pulley, belt length and the rotational speed of the sewing machine.

Rotational speed of sewing machine	Frequency	Outside diameter of motor	Size of V belt
2000 s.p.m	50 Hz	ø115 mm	M57
2000 s.p.m	60 Hz	ø95 mm	M56

(Caution) The effective diameter of the motor pulley is 5 mm smaller than the outside diameter.

When your machine uses a single-phase motor, apply the belt which is 1 inch longer than those given in the table above.

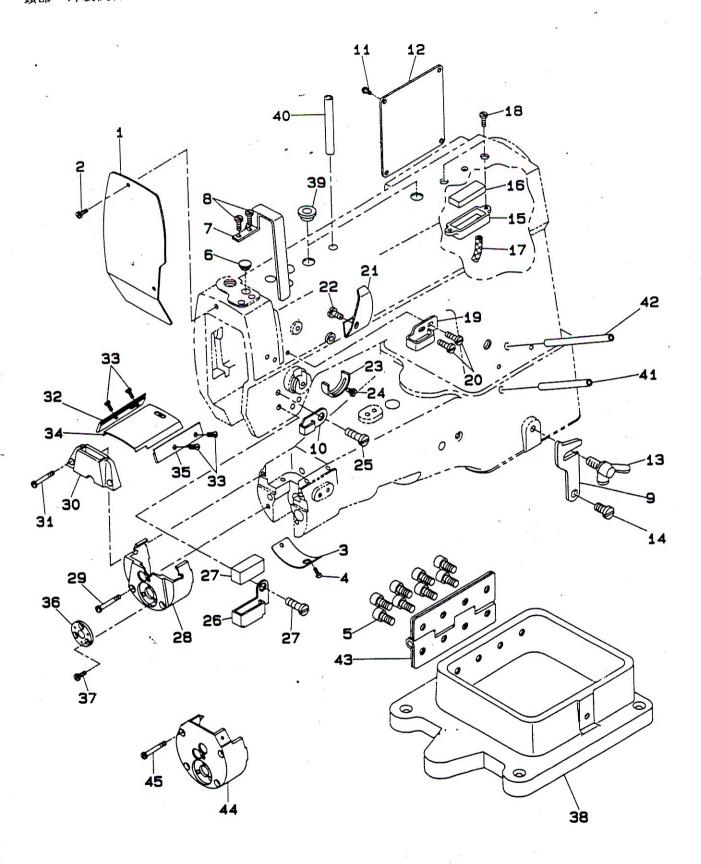
23. TROUBLE IN SEWING AND CORRECTIVE MEASURES

Trouble	Cause	Corrective measures.
Thread breakage (Thread frays or wears out.) (Needle thread remains 2 to 3 cm on the wrong side of the cloth.)	 The thread path, needle point, blade point of the hook or the stopper groove in the throat plate has scratches. The needle thread tension is too high. The clearance in the bobbin case opening lever is too large. The needle comes in contact with the blade point of the hook. The needle thread tension is too low. The thread take-up spring has an excessively high tension while it has an excessively small stroke. The timing between the needle and hook too early or too late. 	 Remove the scratches on the blade point of the hook using a fine emery paper. Buff up the stopper groove in the throat plate. Adjust the needle thread tension properly. Decrease the clearance in the bobbin case opening lever. Refer to "18. Adjusting the bobbin case opening lever". Refer to "16. Needle-to-hook relationship". Adjust the needle thread tension properly. Decrease the tension of the thread take-up spring, and increase the stroke of the spring. Refer to "16. Needle-to-hook relationship".
2. Stitch skipping	 The clearance between the needle and the blade point of the hook is too large. The timing between the needle and hook is too early or too late. The presser foot pressure is too low. The height of the needle bar is inadequate. The needle guard of the hook does not function. The size of the needle is wrong. Defective needle thread path. The hook has scratches. 	 Refer to "16. Needle-to-hook relationship". Refer to "16. Needle-to-hook relationship". Tighten the pressure spring regulator. Refer to "16. Needle-to-hook relationship". Refer to "17. Adjusting the needle guard of the hook". Replace the needle by one which is one count thicker. See "9. Threading the machine head". Remove the scratches on the blade point of the hook using a fine emery paper.
3. Local statches (isolated idling loop)	 The thread path is poorly finished. The bobbin fails to rotate smoothly. The clearance in the bobbin case opening lever is too large. The bobbin thread tension is too low. The bobbin thread has been wound too tight round the bobbin. The forked part of the tension spring of the bobbin case is not threaded. 	o Grind Rusing a fine emery paper, or buff it up. o Replace the bobbin, or replace the hook. o See "18. Adjusting the bobbin case opening lever". o Properly adjust the bobbin thread tension. o Decrease the bobbin thread winding tension. o Correctly thread the bobbin case.

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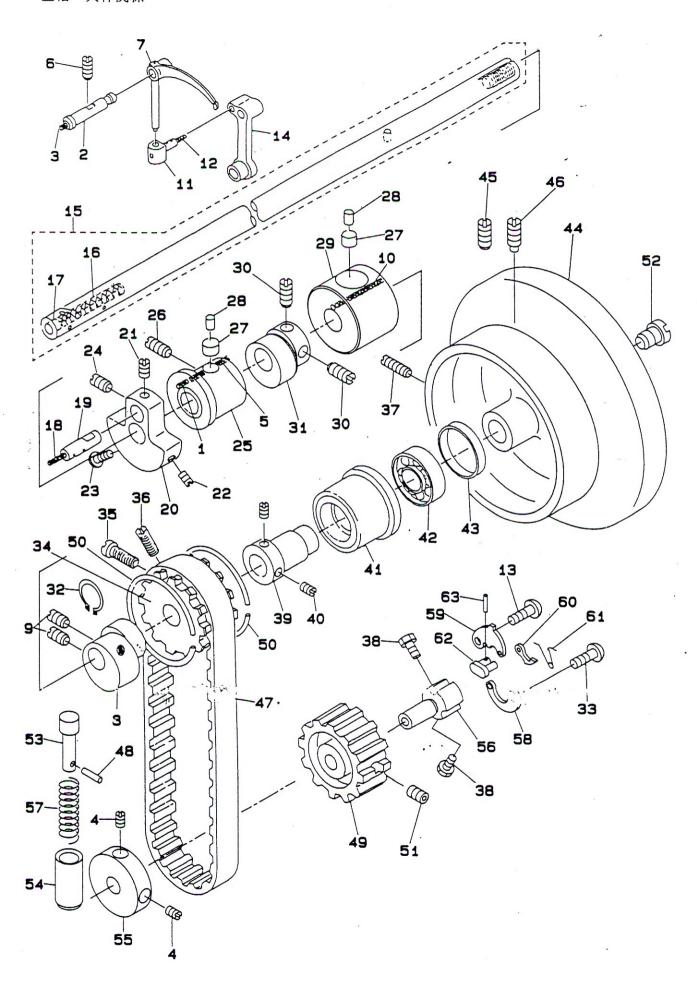
1.	FRAME & MISCELLANEOUS COVER COMPONENTS	•••	•	1
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1. FRAME & MISCELLANEOUS COVER COMPONENTS 頭部·外装関係



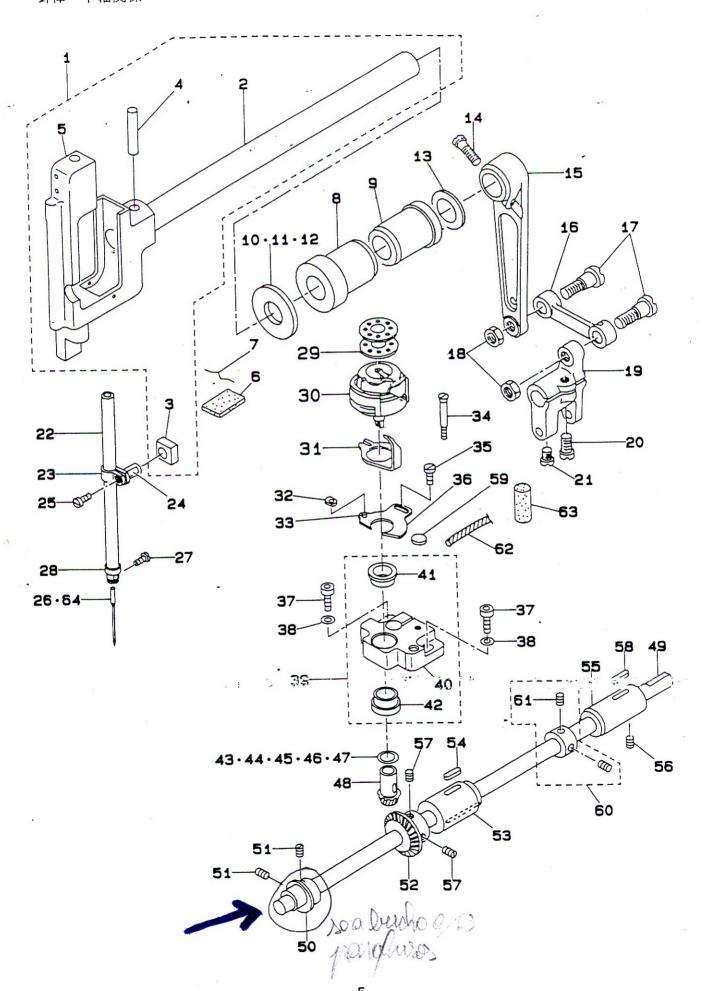
REF.NO	NOTE	PART NO.	DESCRIPTION	ヒンメイ	Qty
1		212-21056	SIDE PLATE ASM. SCREW 9/64-40 L= 6.8	メンイタ (クミ)	1
2		SS-7090710-SP	SCREW 9/64-40 L= 6.8	マルヒラネシ* 9/64-40 L=6.8	2
3		212-20900		ハクプルマカハー	1
4		SS-5090610-SP	SCREW 9/64-40 L=6	トラスネシー 9/64-40 し=6	2
5		SM-6082002-SP	SCREW M8 L=20	ロッカファナホールト M8 1 = 20	8
6		1A-1250406-KO	KUBBEK PLUG	トメセン D=12.5 L=4	1
7	-	D1158-241-E00	THREAD TAKE-UP LEVER COVER	テンヒ*ン カハ*ー	- 1.
8		SS-7150940-SP	SCREW 15/64-28 L=9	マルヒラネシ 15/64-28 L=9	2
9		B1117-246-000	HOOK	カケカプネ	1
_10		B1130-051-000	FRAME THREAD GUIDE, MIDDLE	イトアンナイ	1
11 -		SS-7110710-SP	SCREW 11/64-40 L=7	マルヒラネシ* 11/64-40 L=7	· 1
12		212-21205	SIDE PLATE	₹1.13	1
13		B1116-246-000	WING BOLT	カケカ*ネトメ チョウネシ*	1
14		SD-0800352-SP	HINGE SCREW D= 8 H= 3.5	タプンネシプ D=8 H=3.5	1
_15		212-23201 -		アファラタャマリ	1
16		B3503-115-000	OIL RESERVOIR FELT	77"79" X 71% (A)	
17		CQ-2020000-00	OIL WICK	コシン	0.08
18		SS-7111120-SP	SCREW 11/64-40 L=10.5	マルヒラネシ* 11/64-40 L=10.5	2
19		B1129-563-000	FRAME THREAD GUIDE, UPPER	イトアンナイ ウエ	2
20		SS-2090710-SP	SCREW 9/64-40 L=7	マルチラネシ 9/64-40 L=7	1
21		B1140-051-000	TAKE-UP OIL-SPLASHER	テンヒ"ン ユホ"ーイタ	1
22		SS-5090610-SP	TAKE-UP OILESPLASHER SCREW 9/64-40 L=6	トラスネシ* 9/64-40 L=6	1
23		B3138-512-000	TAKE-UP SPRING ADJUSTING PLATE	イトトリハーネ アンナイ チョーセッハーン	1
24		SS-7090520-SP	SCREW 9/64-40 L= 4.5	マルヒラネシ 9/64-40 L=4.5	1
_25			SCREW 9/64-40 L=7	マルサラネシ 9/64-40 L=7	1 -
26		B1130-528-000	THREAD GUIDE, LOWER	イトアンナイ シタ	
27		B1131-528-000	FFIT	イトアンナイ イトオサエ	1
28			THROAT PLATE BASE FRAME	ハリイタト マーイ	1
29		SS-7113110-SP	SCREW 11/64-40 L=30	マルヒラネシ 11/64-40 L=30	1
30		212-21908	THROAT PLATE		2
31			SCREW 11/64-40 L=28	刈り付	
32		B1108-340-000		マルヒラネシ 11/64-40 L=28	2
33		SS-2090520-SL	SCREW 9/64-40 L=5		1
34		212-20405	BED SLIDE	マルチラネシ* 9/64-40 L=5	4
_35				スペーリイタ	1
36		212-27905	LOWER SHAFT FRONT METAL	スペ [*] リ イタウケ (ミキ [*])	
37		SS-7110410-SP		シタシ クマエメタル	1
38		212-20207	MACHINE DACE	マルヒラネシ 11/64-40 L= 4	3
39		B1156-115-000	DUDDED DING	ላ*ット*ウケタ*イ	1
40		PS-0600302-KP		ウワシーグ アフ・ラタ・マリ フタ	2
41		PS-0600302-NP	SPRING PIN SPRING PIN 6X24	スプリンク・ヒ°ン	1_
42				スプ°リンケーヒ°ン 6.0X24	1
43		PS-0600602-KP	OIL TUBE	スプ°リンク*ヒ°ン	1
	# ∧1	B1128-246-000	HINGE	fヨウハ*ン	1
44	#01	212-20504	THROAT PLATE BASE FRAME	ハリイタト・ターイ	1
45	#01	SS-7113110-SP	SCREW 11/64-40 L=30	マルヒラネシ* 11/64-40 L=30	4
		Note (注記)#0	D1OPTION	オプ [®] ション	

2. MAIN SHAFT & THREAD TAKE-UP LEVER COMPONENTS 上軸・天秤関係



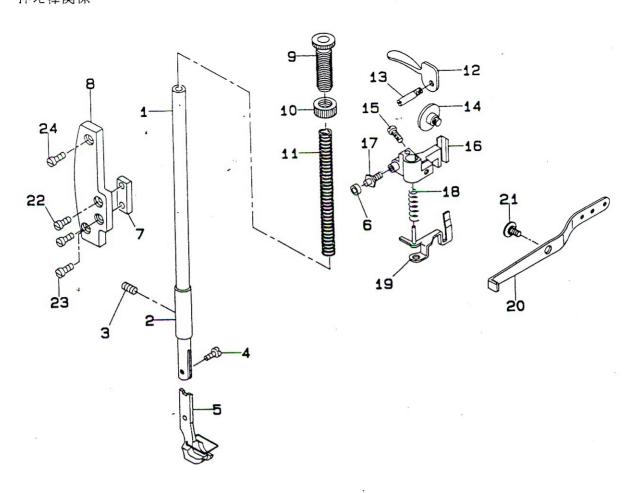
REF.NO	NOTĘ PART NO.	DESCRIPTION	ヒンメイ	Qty
1	TA-0500000-R0 P	LUG	トメセン	2
2		AKE-UP LEVER PIN	テンヒ*ン ササエシ*ク	0.1
3		IL WICK	ユシン トメネシ 15/64-28 L=7	•2
. 4		CREW 15/64-28 L=7 IL WICK	19704 28 ピート	0.1
· 5	CQ-2520000-00 0 SS-8151550-SP S	CREW 15/64-28 L=15	トメネシ* 15/64-28 L=15	1
7	B1905-241-H00 T	HREAD TAKE-UP LEVER	テンヒ*ン	1
8	B1605-246-000 F	EED DRIVE ECCENTRIC CAM	オクリ ヘンシン カム	1
9	SS-8661030-SP S	CREW 1/4-40 L=10	トメネシ* 1/4-40 L=10	2
10	CD-2000000-00 D	IL WICK	199	0.06
11		AKE-UP LEVER THRUST PIN	テンヒ [*] ン スライト [*] シ [*] ク ユシン	1 0.1
12		IL WICK	タ*ンネシ* D=6.35 H=3.2	1
13		INGE SCREW D= 6.35 H= 3.2 EEDLE BAR CRANK ROD	ハリホ [*] ゥ クランクロサト [*]	1
14		IAIN SHAFT ASM.	カワシ ケ (クミ)	i
15		OIL WICK	ユシン	(0.1)
16 17		PLUG D=5X5.4 L=6	トメセン D=5X5.4 L=6	(1)
18		OIL WICK	ユシン	0.1
19	B1210-051-000	HEEDLE BAR CRANK PIN	Λリホ [⋆] ー クランクヒ°ン	1
20		COUNTERWEIGHT	ツリアイオモリ	1_
21	SS-8680540-SP S	SCREW 9/32-28 L= 4.5	トメネシ* 9/32-28.L=4.5	1
22	SS-8681650-TP S	SCREW 9/32-28 L=16	トメネシ* 9/32-28 L=16	1
23	SS-7681750-TP	SCREW 9/32-28 L=16.5	マルヒラネシ 9/32-28 L=16.5	1
24		SCREW 9/32-28 L=7	トメネシ 9/32-28 L=7	1
_25		MAIN SHAFT BUSHING, FRONT	ウワシ [*] ク マエメタル	1
26		SCREW 15/64-28 L=15	トメネシ* 15/64-28 L=15 ウワシ*ク マエメタル フエルト	1 2 2 1
27		OIL FELT	コーファ アファラタッメ フェルト	2
28		OIL FELT REAR BUSHING, INTERMEDIATE	ウワシークナカメタル	ī
29		SCREW 1/4-40 L=6	トメネシ 1/4-40 L=6	2
30 31	SS-8660610-TP D1450-055-B00	UPPER FEED DRIVING CAM	ウワオクリカム	1
32		RETAINING RING	Cリンク*	1
33		SCREW 1/4-40 L=11	マルヒラネシ 1/4-40 L=11	1
34	B1302-051-000	SPROCKET WHEEL, UPPER	ウワスフ [°] ロケツト	- 1
35	SS-7681750-TP	SCREW 9/32-28 L=16.5	マルヒラネシ* 9/32-28 L=16.5	
36	SS-8681650-TP	SCREW 9/32-28 L=16	トメネジ 9/32-28 L=16	1
37		SCREW 15/64-28 L=15	トメネシ 15/64-28 L=15	1 2
38		SCREW 1/4-40 L=7	ヒラネシ* 1/4-40 L=7	1
39		MAIN SHAFT BUSHING (2), REAR	ゔヷゔ゙゚゚゙゙゙゙゙゙゙゙゚゙゙ゔ゚゚゚ゔ゚゚゙゙゙゙゙゙゙゙゙゙゙゙゙゙゙	2
_40	SS-8150710-SP	SCREW 15/64-28 L=7	ウワシ*ク ウシロメタル (1)	1
41	B1216-051-000	MAIN SHAFT BUSHING 1, REAR	ヘ [*] アリンク [*]	1
42	SB-1150002-00	BEARING REAR BEARING RETAINING COLLAR		î
43	B1218-051-000 B1227-340-000	HAND WHEEL	ハスプミクプルマ	1
44 45	SS-8151550-SP	SCREW 15/64-28 L=15	トメネシ* 15/64-28 L=15	1
46	SS-8151780-SP	SCREW 15/64-28 L=17.0	トメネシ* 15/64-28 L=17	1
47	212-23300	TIMING BELT	タイミンク・ヘールト	1
48	PS-0200102-KH	SPRING PIN 2.0 X 10	スプ°リンク*ヒ°ン 2.0X10	1
49	212 - 23706	SPROCKET WHEEL, LOWER	シマスプ・ロケット	1 2
50	B1214-019-000	SPROCKET RING	スプロケット リング	2
51	SS-8090410-SP	SCREW 9/64-40 L= 3.5	トメネシ 9/64-40 L=3.5	2
52	SS-7701010-SP	SCREW 5/16-24 L=10 SAFETY CLUTCH PUSH BUTTON PUSH BUTTON CYLINDER	マルヒラネシ* 5/16-24 L=10 アンセ*ンソウチオシホ*タン	1
53	212-23409	SAFETY CLUTCH PUSH BULLON	アンセーンソウチオシホータンツツ	1
54	212-23508		アンセーンソウチェンハーン	1
_55		SAFETY CLUTCH DISK	アンセーンソウチウケ	1
56	105-03605	SAFETY BASE . SPRING	オシホータン ハーネ	1
57	B1639-051-000	SAFETY CLUTCH SPRING	アンセーンソーチ ハーネ	1
58	B1307-055-000-8	SAFETY CLUTCH HOOK	アンセーンソーチ サメ	1
59	R1308-055-000	SAFETY CLUTCH COUNTER-HOOK	アンセーンソーチ キャヤク サメ	1
<u>60</u> 61	R1309-055-000	COUNTER-HOOK SPRING	アンセプンソーチ キャヤクサメ ハーネ	1
	D1310 055 000	SAFETY CLUTCH SMALL LINK	アンセ*ンソーチ シヨーリンク	1
62	81310-055-000	Sale I Choron Sames Start	アンセ*ンソーチ ショーリンク ヒ°ン	1

3. NEEDLE BAR & HOOK DRIVING SHAFT COMPONENTS 針棒•下軸関係



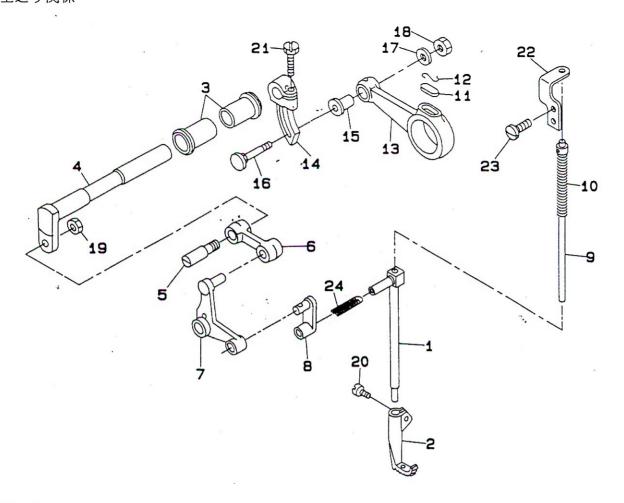
REF.NO	NOTE	PART NO.	DESCRIPTION	ヒンメイ	Q ty
1		212-23854	NEEDLE BAR FRAME ASM.	Λリホ [*] ウヨウト [*] ウタ [*] イ (クミ)	
2		B1424-512-000-A	NEEDLE BAR FRAME ROCK SHAFT	ハリホーウ ヨウトーウシーク	1 (1)
4		PT-0502700-S0	NEEDLE BAR SLIDE BLOCK	ハリホーーカクユーマ	(1)
5		212-23805	NEEDLE BAR FRAME	テーハ°ーヒ°ン	(1)
6		B1422-512-000	FELT	ハリホーウョウトーウターイ	(1)
7		B1440-512-000	RETAINER	ハリホ"- ヨート"ータ"イ フェルト ハリホ"- ヨート"ータ"イ フェルト オサエ	1
8		B1606-512-000	ROCK SHAFT BUSHING, FRONT	スイヘイシャク マエメタル	1
9 10		B1608-512-000	ROCK SHAFT BUSHING, REAR	スイヘイシャク ウシロメタル	1
11	#01	B1438-512-B00	WASHER 17.1X28X1.5	<u>ヨートーシークメタル サーカーネ T=1.5</u>	1
12	#01	B1438-512-A00 B1438-512-C00	WASHER T=1.35	ヨト・・・シークメタル サーカーネ T=1 35	1
13		B1438-512-C00	WASHER WASHER	ヨートー・シークメタル サーカーネ	1
14		SS-9152130-CP	SCREW 15/64-28 L=20.5	ヨート・・・シークメタル チーカーネ	1
15			DRIVING ARM	ロッカケホールト 15/64-28	1
16		B1434-246-000	CONNECTING ROD	<u> ハリホー ヨートー ユーブ・ウテー</u> ハリホー ヨートーロット	1
17		SD-1020961-SP	HINGE SCREW D=10.2 H=9.6	タブンネシ゛ D=10.2 H=9.6	1
18		NS-6680410-SP	NUT 9/32-28	ロッカクナット 9/32-28	2 2
19	4	B1628-246-000	FEED ROCKER SHAFT CRANK	スイヘイ オクリウテ	
20 21		SS-6151440-SP	SCREW 15/64-28 L=14	ヒラネシ* 15/64-28 L=14	1
22		SS-7110720-TP B1401-053-000	SCREW 11/64-40 L=7	マルヒラネシ* 11/64-40 L=7	1
23		B1401-053-000 B1411-053-000	NEEDLE BAR	ハリホ ー	1
24		B1412-051-000	NEEDLE BAR CONNECTION FELT	ハリネー・ターキ	i
25		SS-7090910-SP	SCREW 9/64-40 L= 8.5	ハリホー・ターキ フェルト	1
26		MDP-170B2300	NEEDLE DPX17 #23	マルヒラネシ* 9/64-40 L=8.5	1
27		SS-7080510-TP	SCREW 1/8-44 L=4.5	Λυ DPX17 #23	1
28		103-08401	NEEDLE BAR THREAD GUIDE	マルヒラネシ* 1/8-44 L=4.5	1
29		B9117-201-000	BOBBIN	オプピーン	1
30 31	<u> </u>	212-28051	HOOK ASM.	カマ (クミ)	1
32		212-27400	INNER HOOK GUIDE	ナカカ*マアンナイ	1
33		B1827-246-000 B1826-246-000	SLIDE BLOCK	ナカ オーマ アンナイ コロ	1
34		SS-1092810-SP	SLIDE BLOCK PIN SCREW 9/64-40 L=25.4	ナカ カーマ アンナイ ユロシーク	ī
35			SCREW 9/64-40 L= 25.4 SCREW 9/64-40 L= 6.8	サラネシ *	1
36		212-27509	ADJUSTING PLATE	マルヒラネシ 9/64-40 L=6.8	
37		SM-6051202-TP	SCREW M5X0.8 L=12	ナカカ・マアンナイチョセツイタ	1
38		WP-0520656-SA	WASHER 5.2X9.5X0.6	ロッカクアナホールト M5X0.8 L=12 ヒラナーカーネ 5.2X9.5X0.6	2
19	•	212-29653	HOOK SHAFT SADDLE ASM.	カマシブクタブイ(クミ)	1
1			HOOK SHAFT SADDLE	カマシェクタ・イ	(1)
2		B1812-340-000	HOOK SHAFT BUSHING, UPPER	カマシ*クメタル (ウエ)	(1)
13	#01	B1813-340-000 B1820-246-000	HOOK SHAFT BUSHING, LOWER	カマジ [*] クメタル (ジタ)	(1)
4	#01		WASHER A	カマシ゛クラ゛カ゛ネ	1
5			WASHER B	カマシークラーカーネ A	1
6	#01		WASHER C	カマシ [*] クラ [*] カ [*] ネ B	1_
7	#01		WASHER	カマシ [*] クラ**カ**ネ C カマシ [*] クラ**カ**ネ	1
.8		212-27301	HOOK SHAFT GEAR	カマシャクカテハク・ルマ	1
9		B1816-340-000	HOOK DRIVING SHAFT	シタシーク	1
0		212-27103	FEED VERTICAL CAM	オクリシ*ョウケ*カム	1
1 2		SS-8150510-TP	SCREW 15/64-28 L= 4.7	トメネシ 15/64-28 L=4.7	2
3		B1836-246-000-A	LOWER SHAFT BEVEL GEAR	シタシークカサハクールマ	ī
4		B1803-246-000 B1805-201-000	BUSHING, INTERMEDIATE	シタシーク ナカメタル	î
5			OIL FELT BUSHING, INTERMEDIATE	シタシーク マエメタル フェルト	1
6			SCREW 15/64-28 L= 4.7	シタシ*ケ ナカメタル	1
7			SCREW 1/4-40 L=6	トメネシ 15/64-28 L=4.7	1
8		B1806-038-000	OIL FELT	トメネシ* 1/4-40 L=6 シタシ*ケ ウシロメタル フェルト	3
9		B3511-280-000	OIL FELT	ウワシ ^ャ クメタル フェルト	1
0		CS-0950810-SH	THRUST COLLAR ASH, D=9.5 V=8	スラストウケ D=9.5 W=8 クミ	1
51 52		55-8110410-TP	SCREW 11/64-40 L= 3.5	トメネシ 11/64-40 L=3.5	(2)
3		CQ-2020000-00 B1432-027-000	OIL WICK	ユシン	(0.04)
	#02		OIL PAD ROLLER	ハリホー ヨート・・・タ・イ・フェルト	1
		0.20010-00	NEEDLE SY3355 160	עא SY3355 160	1
		Note (注記)#01	SELECTIVE PART	35 ta 5n a	
		#02	FOR JE	選択部品	
		• •		JE向のみ	6

4. PRESSER BAR COMPONENTS 押え棒関係

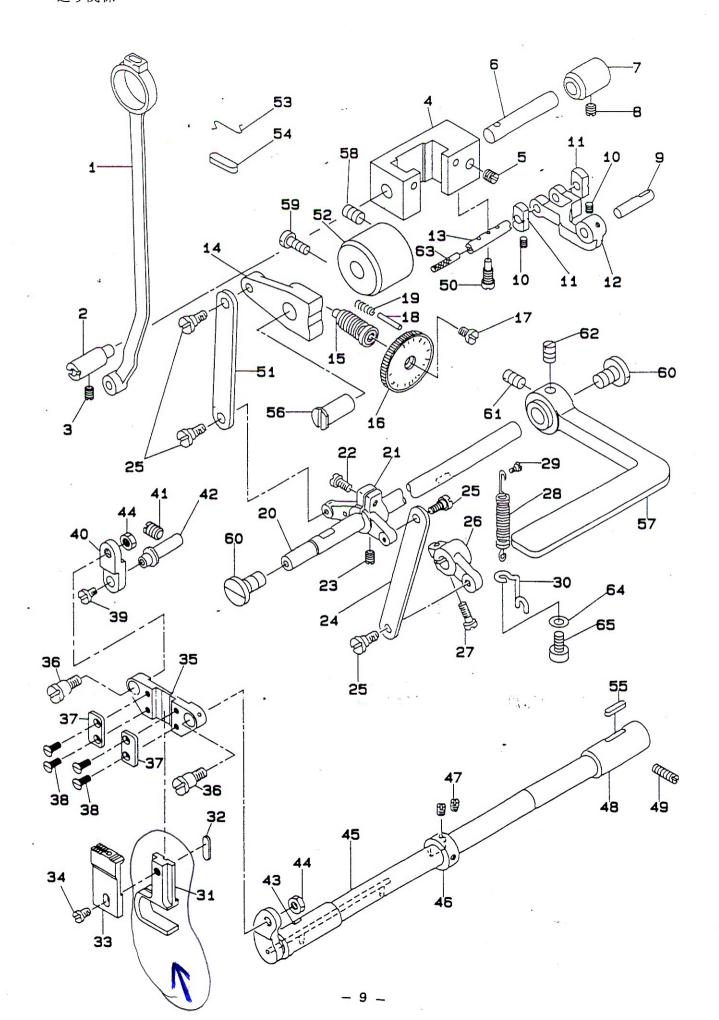


REF.NO NO	TE PART NO.	DESCRIPTION	t	Qty
1	B1501-241-H00	PRESSER BAR	オサエホ~-	1
2	B1510-155-000	PRESSER BAR LOWER BUSHING	オサエホャー シタメタル	1
3	SS-8150710-SP	SCREW 15/64-28 L=7	トメネシ" 15/64-28 L=7	1
4	SS-6090910-TP	SCREW 9/64-40 L=9	ヒラネシ* 9/64-40 L=9	1
5	B1525-053-0A0	PRESSER FOOT ASM.	オサエ (アンセ*ンカハ*・ツキ) クミ	1
6	D1462-241-E00	CONNECTING PIN ROLLER	オサエアケーテコターイ シーク コロ	1
7	D1463-241-E00	PRESSER BAR BRACKET GUIDE	オサエアケーテコ カーイトー	1
8	D1464-241-E0A	GUIDE PLATE BASE	オサエアケプテコカプイトプイタトプタブイ	1
9	B1509-141-H00	PRESSER SPRING REGULATOR	オテエチヨーセツネシブ	1
10	B1511-555-000		オサエチョーセツネシ* ナット	1
11	B1502-246-000	PRESSER SPRING	オサエ チョウセツ ハ"ネ	1
12	B1512-141-H00	HAND LIFTER	オサエアケー	1
13	31515-051-000	HAND LIFTER PIN	オサエアケ* シ*ケ	1
14	SD-0800481-SP	HINGE SCREW D= 8 H= 4.9	タブンネシ゛ D=8 H=4.9	1
15	SS-7111310-SP	SCREW 11/64-40 L=12.8	マルヒラネシ* 11/64-40 L=12.8	1
16	B1460-245-000	PRESSER LIFTING LEVER BASE	オチェアケーテコターイ	1
17	B1461-245-000	GUIDE SHAFT HINGE SCREW	カーイト・シークターンネシー	1
18	B1462-053-000	THREAD RELEASE SPRING	イトユルメ ウケイヌ ハブネ	1
19	B1460-246-0A0	THREAD RELEASE GUIDE ASM.	イト ユルメ ウケイタ (ケサユニウ)	1
20	B3401-340-000	PRESSER BAR LIFTING LEVER	<u> </u>	1
21	SD-1127321-SP	HINGE SCREW D=12.70 H= 3.2	ターンキシー D=12.7 H=3.2	1
22	SS-7621040-SP	SCREW 3/16-32 L= 9.5	マルヒラネシ 3/16-32 L=9.5	1
23 24	SS-7150740-SP		マルヒラネシ 15/64-28 L=7	2
24	SS-7621040-SP	SCREW 3/16-32 L= 9.5	マルヒラネシ 3/16-32 L=9.5	1

5. UPPER FEED MECHANISM COMPONENTS 上送り関係

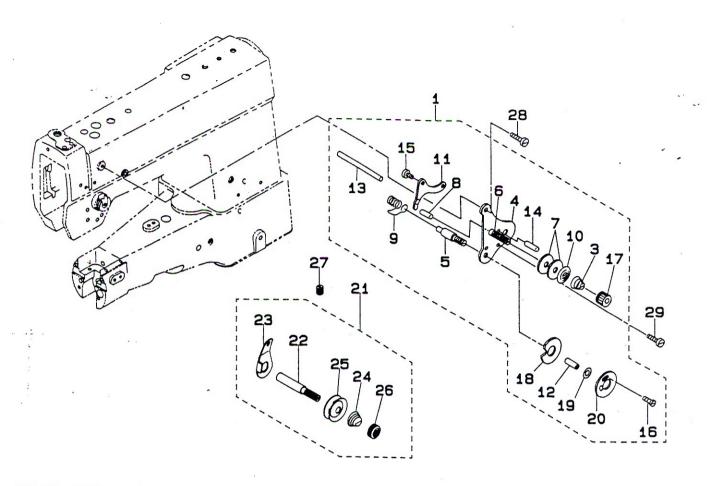


REF.NO	NOTE	PART NO.	DESCRIPTION	ヒンメイ	Qty
1		B1466-053-000-A	WALKING BAR	· ウワオクリホ~ -	1
2		B1470-053-000	WALKING FOOT	ウワオクリアシ	i
3		B1455-053-000	BUSHING	ウラオクリシーク メネル	2
4 5		B1456-053-000	UPPER FEED DRIVING SHAFT	ウワオクリシーク	1
5		B1457-055-000	SCREW STUD	ウワオクリ レンケツ タ*ンネシ*	1
6		B1458-241-H00	UPPER FEED CONNECTING LINK	ウワオクリレンケツリンク	1
7		D1459-241-E00	L SHAPED LINK	Lカプタ リンク	1
8 9		B1465-053-000	WALKING BAR DRIVING LINK	ウワオクリ ヨート*ーリンク	1
		212-30057	WALKING BAR SPRING	ウワオクリハ"ネシシ"ホ"ウ(クミ)	1
_10		B1468-053-000	WALKING BAR SPRING	ウワオクリホー オサエハブネ	1
11		B1702-012-000	OIL FELT	7111	1
12		11113-012-000	FELT RETAINER	7161 771	1
13		υ1453-055-B00	UPPER FEED DRIVING ROD	ウワオクリ ロット	1
14		D1454-055-B00	UPPER FEED SPRING ROD	ウワオクリウテブ	1
_15		D1455-055-B00	CONNECTING STUD	ウワオクリ ロット レンケッシック	1
16		D1456-055-B00	HINGE SCREW	ウワオクリ ロット・ターンネシー	1
17		WP-0482086-SD	WASHER 4.8X11.5X2	ヒラサ"カ"ネ 4.8X11.5X2	i
18		NS-6110530-SP	NUT 11/64-40	ロッカクナット 11/64-40	1
19		NS-6660430-SP	NUT 1/4-40	ロツカクナット 1/4-40	ī
20		SS-6110710-TP	SCREW 11/64-40 L= 6.5	ヒラネシ 11/64-40 L=6.5	i
21		SS-9161610-SP	SCREW 1/4-24 L=16	ロッカクホールト 1/4-24 L=16	1
22		212-30107	WALKING BAR RETAINING PLATE	ウワオクリハーネシシーホーウウケイタ	i
23		SS-7090710-SP	SCREW 9/64-40 L= 6.8	マルヒラネシ 9/64-40 L=6.8	2
24		CQ-2020000-00	OIL WICK	195	0.02



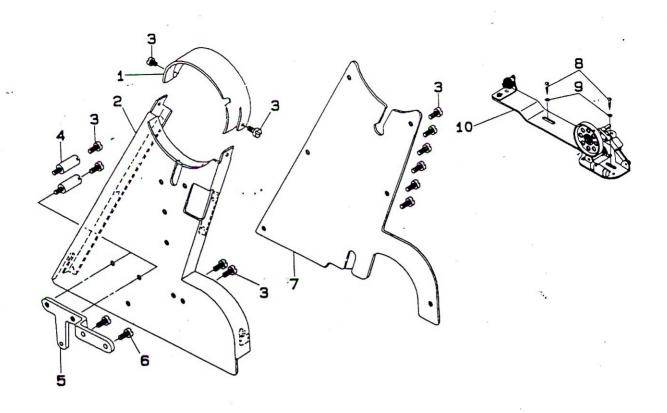
REF.NO	NOTE PART NO.	DESCRIPTION	ヒンメイ	Q to
1 .	· B1619-246-000	CONNECTING ROD	オクリ ロット*	
2	B1621-246-000		オクリ ヘンカン タイ シェク	
3	SS-8150510-TP	SUREW 15/64-28 L= 4.7	トメネシ 15/64-28 L=4.7	
4 5	212-26006	FEED DRIVING ROCKER	オクリヘンカンタイ	:
5	SS-8151150-SP		トメネシ* 15/64-28 L=10.5	
6	B1622-246-000		オクリ ヘンカン シンク	-
7	B1623-246-000		オクリ ヘンカン ジェク メタル	
8	SS-8150510-TP		トメネシ 15/64-28 L=4.7	
10	B1627-246-000		スイヘイ オクリウテ シーク	
11	SS-8090540-SP	SCREW 9/64-40 L=5	トメネジ 9/64-40 L=5	
12	B1626-246-000	SLIDE BLOCK	オクリ ヘンカン カクユーマ	
13	B1624-246-000		オクリ チヨウセツ リンク	
14	B1625-246-000	SLIDE BLOCK SHAFT	オクリ ヘンオン カクユ゛マ シ゛ケ	
15	212-26501	FEED REGULATOR	オクリチョウセツキ	
16	B1652-115-000		オクリチヨーセツネシ゛	
17	B1633-246-000	STITCH DIAL	メモリイタ	
18	SS-6121050-SP		ヒラネシ* 3/16-28 L=9.5	
19	B1147-555-000		オクリ チョーセツ ヒ°ン	1
20	B1148-555-000	SPRING	オクリ チヨーセツ ヒ°ン∧*ネ	-
21	212-26402	REVERSE FEED LEVER SHAFT	オクリレハー・シーク	
21	212-26105	CONTROL LEVER CRANK	オクリレハ゛ーシ゛クウテ゛	
	SS-6121210-SP		ヒラネシ 3/16-28 L=9	
23	SS-8150710-SP		トメネシ* 15/64-28 L=7	-
24	B1630-246-000	CONTROL LEVER CRANK LINK	オクリ ヘンカン リンク (A)	
25	SD-0640325-SP	HINGE SCREW	タ*ンネシ*	
26	B1631-246-000		オクリ ヘンオン シック ウテッ	
27	SS-6121210-SP	SCREW 3/16-28 L=12	ヒラネシ 3/16-28 L=9	
28	B1666-246-000		ヒツハ°リ ハ**ネ	
29	SD-0400201-SD	HINGE SCREW D= 4 H= 2	タ*ンネシ* D=4 H=2	10-
30	212-26709	SUSPENSION HOOK	ヒッハ・リハ・ネカケ	
31	▲ B1602-340-000		オクリターイフタマタ	
32	B1806-038-000	OIL FELT	シタシーク ウシロメタル フェルト	
33	212-25305	FEED DOG, 3.2MM	オクリハ*(オフ°ション ハリアナ:3.2)	1
34	SS-6110670-TP		マルヒラネシ	
35	B1601-340-000		オクリタブイラサエ	1
36	SD-0790701-SP	HINGE SCREW D=7.94 H=7	ターンネシー	
37	B1603-340-000		オクリターイオサエイタ	1
38	SS-1080620-SP	SCREW 1/8-44 L=6	サラネシ* 1/8-44 L=6	,
39	SS-7110830-SP		マルヒラネシ 11/64-40 L=7.5	
10	B1616-246-000	FEED BAR LINK	オクリ ターイ リンク	
41	SS-8150750-SP	SCREW 15/64-28 L=7	トメネシ* 15/64-28 L=7	
42	B1617-246-000	FEED ROCKER LINK SHAFT	スイヘイ オクリ リンク シック	
43	B1607-246-000	BUSHING, FRONT	スイヘイ オクリシーク マエメタル	1
44	NS-6660430-SP	NUT 1/4-40	ロッカフナット 1/4-40	2
15	212-24308	FEED ROCKER SHAFT	スイヘイオクリシーク	
16	CS-1111019-SH	THRUST COLLAR D=11.11 W=10	スラストウケ D=11.11 W=10	1
17	SS-8660610-TP	SCREW 1/4-40 L=6	トメネシ 1/4-40 L=6	
18	B1609-246-000	BUSHING, REAR	スイヘイ オクリシーク ウシロメタル	1
19	SS-8151550-SP	SCREW 15/64-28 L=15	トメネシ* 15/64-28 L=15	
<u> </u>	SS-7151550-SP		マルヒラネシ 15/64-28 L=14.5	:
1	212-26303	FEED LEVER CONNECTING LINK B	オクリヘンカンリンク (B)	
2	212-26600	FEED REGULATOR BUSHING	オクリチョウセツキファッシュ	
3	B1213-012-000	FELT RETAINER	フェルト オサエ	
4	B1702-012-000	OIL FELT	7111	
55	B1806-038-000	OIL FELT	シタシーク ウシロメタル フェルト	-
6	B1622-555-000	HINGE PIN	オクリ チョーセッタ・イ トメシック	
57	B1624-141-H00	FEED LEVER	オクリレハー	;
	SS-8151150-SP	SCREW 15/64-28 L=10.5	トメネシ 15/64-28 L=10.5	
		SCREW 15/64-28 L=14	ヒラネシ 15/64-28 L=14	1
9	SS-6151440-SP	DCKEW 13/04 20 E-14		
59 50	SS-7620750-SP	SCREW 3/16-32 L= 6.5		,
59 50 51	SS-7620750-SP SS-8660810-TP	SCREW 3/16-32 L= 6.5	マルヒラネシ 3/16-32 L=6.5	
59 50 51 52	SS-7620750-SP SS-8660810-TP SS-8661040-TP	SCREW 3/16-32 L= 6.5 SCREW 1/4-40 L=8	マルヒラネシ* 3/16-32 L=6.5 トメネシ* 1/4-40 L=8	1
59 50 51 52 53	SS-7620750-SP SS-8660810-TP SS-8661040-TP CQ-2000000-00	SCREW 3/16-32 L= 6.5 SCREW 1/4-40 L=8 SCREW 1/4-40 L=10	マルヒラネシ* 3/16-32 L=6.5 トメネシ* 1/4-40 L=8 トメネシ* 1/4-40 L=10	2
58 59 50 51 52 53 54 55	SS-7620750-SP SS-8660810-TP SS-8661040-TP	SCREW 3/16-32 L= 6.5 SCREW 1/4-40 L=8	マルヒラネシ* 3/16-32 L=6.5 トメネシ* 1/4-40 L=8	1 1 (0.1

7. THREAD TENSION COMPONENTS 糸調子関係



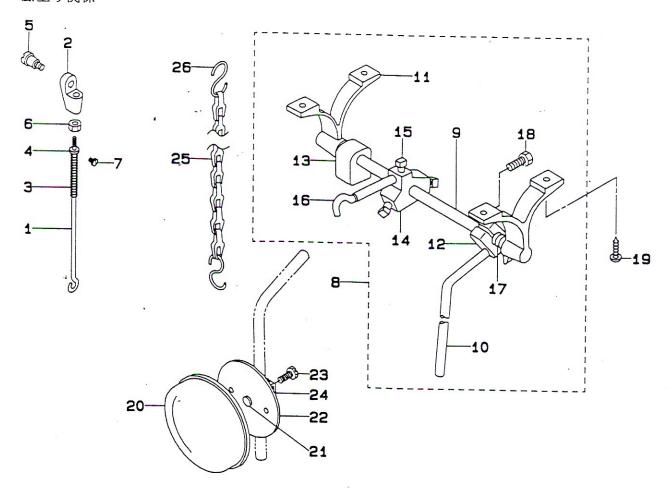
REF.NO	NOTE PART NO.	DESCRIPTION	ヒンメイ	Qty
1	212-30552	TENSION CONTROLLER ASM.	イトチョウシ (クミ)	
2	B3125-012-000	THREAD TENSION NUT	イトチョーシ ナツト	1
3	B3129-053-000	TENSION SPRING	イトチョーシハーネ	(1)
4 5	B3121-512-000	TENSION CONTROLLER BASE	イトチョーシ タディイタ	(1)
5	B3123-051-000	TAKE-UP SPRING STUD	1173 0 3 443 1173 0 3 443 1173 0 3 443 1173 0 3 443	(1)
- 6	B3124-051-000 -	TENSION STUD	イトチョーシネギー	(1)
7	B3126-051-000	TENSION DISC	イトチョーシ サラ	(1)
8 9	B3127-051-000	TENSION RELEASE PIN, SHORT	イトユルメ ヒ°ン	(1)
9	B3128-051-000	THREAD TAKE-UP SPRING A	イトトリハーネ	(1)
10	B3132-051-000	TENSION DISC HOLDER		(1)
11	B3134-051-000	TENSION RELEASE LEVER	<u>- イトチョーシサラ オサエ</u> イトユルメ イタ	(1)
12	B3137-051-00A	TAKE-UP SPRING CUITT SHAFT		(1)
13	B3122-053-000	TENSION RELEASE BAG	イバリグラ アンティ がえがり ツーツ	(1)
14	PS-0200122-KO	SPRING PIN 2.0X12	イトユルメ オシホー	(1)
15	SD-0470281-SP	HINGE SCREW D=4.7 H=2.8	スプ°リンク*ヒ°ン 2.0X12	(1)
16	SS-4080610-SP	SCREW 1/8-44 L=6.4	ターンネシー D=4.7 H=2.8	(2)
17	103-20208	THRED TENSION STUD NUT	ナヘーキシー 1/8-44 L=6.4	(1)
18	B3137-051-00B	TENSION GUIDE DISC, INNER	イトトリハーネシークナット	(1)
19	B3137-051-00C	SHAFT	イトトリハ ネ アンナイサラ (ウチカ・ワ)	(1)
20	B3137-051-00D	TENSION GUIDE DISC, OUTER	イトトリハーネ アンナイシーク	(1)
21	212-21452	TENSION CONTROLLER ASM. NO.1	イトトリハーネ アンナイサラ(ソトカーワ)	(1)
22	D3161-555-B00	FIRST TENSION POST	ターイイチイトチョウシセット	1
2.3	D3162-555-B00	THREAD GUIDE	ターイイチ イトチョーシホー	(1)
24	D3168-555-HOB	SPRING	タ*イイチ イトチヨーシホ*ー アンナイ	(1)
25	B3214-047-000	BOBBIN WINDER TENSION DISC	ターイ1 イトチヨウシハーネ	(1)
26	B3216-047-000	BOBBIN WINDER TENSION NUT	イトチヨーシ サラ	(2)
27	SS-8110510-SP	SCREW 11/64-40 I-E	イトチョーシ ナツト	(1)
28	SS-7110720-SP	SCREW 11/64-40 L=5	トメネシ" 11/64-40 L=5	1
29	SS-2090710-SP		マルヒラネシ* 11/64-40 L=7	1
	33 2090 110-SF	SCREW 9/64-40 L=7	マルサラネシ* 9/64-40 L=7	1

8. BELT COVER & BOBBIN WINDER COMPONENTS ベルトカバー・糸巻装置関係



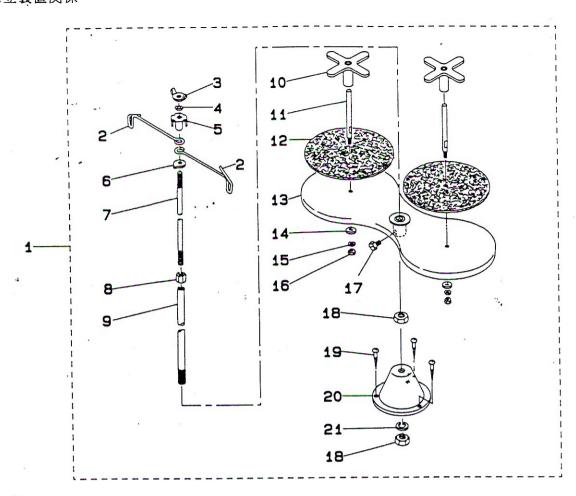
REF.NO	NOTE	PART NO.	DESCRIPTION		٤	צ	×	1	Qty
1 2 3 4 5	7.00	B9101-246-000 B9102-245-0A0 SS-6110480-SP B9106-246-000 B9107-246-000	BELT COVER, TOP BELT COVER ASM. SCREW 11/64-40 L=4.3 BELT COVER SUPPORT BELT COVER SUPPORT PLATE	P	トツフ [*] カン ヘ* ルトカン ヒラネシ* ヘ* ルト コ ヘ* ルト	^~-(ケ 11/6 カ^~-	4-40 ††I	L=4.3	1 1 12 2
7 8 9		SS-6111140-SP B9104-246-000 SK-3482500-SC WP-0501016-SC B3201-012-0A0	SCREW 11/64-40 L=11 BELT COVER, LOWER WOOD SCREW D=4.8 L=25 WASHER 5X10.5X1 BOBBIN WINDER ASM.		ヒラネシ* ヘ* ルトカン マルモクネン ヒラチ*カ* イトマキ	n*- (D* D ** 5X	7タ) =4.8	L=25	2 1 2 2 1

9. KNEE LIFTER COMPONENTS 膝上げ関係



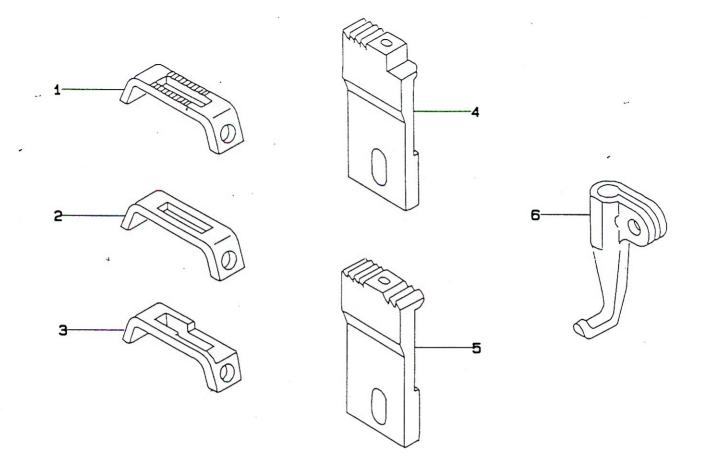
REF.NO	NOTE	PART NO.	DESCRIPTION	ヒンメイ	Qty
1		212-30602	HANGING ROD	#11.7**T	
2		210-27503	BAR CONNECTION	ツリネ [*] ウ	1
3		212-30701	SPRING	ツリホ ウタ ルマ	1
4		B3418-245-000	SPRING HOLDER	アトツリホーウオシハーネ	1
5		SD-0790601-SP	HINGE SCREW D=7.94 H=6	ヒサーアケーテュハーネウケ	1
6		NS-6620310-SP	NUT 3/16-32	タ*ンネシ* D=7.94 H=6	1
7		SS-7110730-SP	SCREW 11/64-40 L= 6.5	ロッカクナット 3/16-32	1
8		B3420-245-0A0		マルヒラネシ 11/64-40 L=6.5	1
8		B3420-245-000	KNEE LIFTER ASM.	ヒサプアケブソウチクミ	1
10		B3422-245-000	MAIN SHAFT	シュシェケ	(1)
11			KNEE LIFTER PLATE ROD	ヒサ*アケ*タチシ*ク	(1)
12		B3423-245-000	KNEE PRESS ROD HOLDER	ササエ	(2)
13		53433-141-HOA -		"ヒラ*アテヌトラ*クトリッケペー"	(i)
4		B3434-141-H00	BRACKET	トメタールマ	
5		B3424-141-H00	MOUNTING BRACKET	マカプリウテプササエ タブルマ	(1)
		B3425-141-H00		トメネシ	(1)
16		B3424-245-000	KNEE LIFTER PLATE ARM	マカーリウテー	(3)
17		B3425-245-000-A	SPRING	ヒサーアナーカイテン トメハーネ	(1)
.8		SS-9182010-SN	SCREW 9/32-20 L=20	ロップラ カイナン トメハース	(1)
9		SK-1483200-SE	VOOD SCREW D=4 8 1=32	ロッカクホールト 9/32-20 L=20	(2)
0		B3431-552-000-A	KNEE PRESS PLATE COVER	サラモクネシ D=4.8 L=32	4
21		110-24403	RUBBER	ヒサーアティタ カハー	1_
2		110-23702	KNEE PRESS PLATE	ヒテアテューム	1
3		110-23801	KNEE PRESS PLATE HOLDER	ヒサーアティタ	1
24		SS-9151540-SR	SCREW 15/64-28 L=15	ヒサ、アティタササエ	1
5		B8131-019-000	CHAIN 13/04-28 L=15	ロッカクホールト 15/64-28 L=15	1
26		B8133-019-000	S SHAPED HOOK	<u> </u>	1
		20100 010 000	S SHAFED HOOK	Sカータ カナクー	(2)

10. THREAD STAND COMPONENTS 糸立装置関係



REF.NO	NOTE	PART NO.	DESCRIPTION	ヒンメイ	Qty
1		B3301-012-0A0	THREAD STAND ASM.	イトタテ ソーチ クミ	1
2		B3307-012-000	THREAD GUIDE	イトタテ イトアンナイ	(2)
3		B3310-012-000	POSITION CUP SET SCREW	イトタテ イトアンナイ シメネシ	(1)
4		WS-0641560-KR	SPRING WASHER 6.4X11.9X1.5	カーネサーカーネ 6.4X11.9X1.5	(1)
5		B3309-012-000	POSITION CUP	イトタテ イトアンナイ マワリト・メ	(1)
6		B3308-012-000	ROD WASHER	イトタテ イトアンナイウケ	(1)
7		B3306-012-000	SPOOL ROD	イトタテ ウエカン	(1)
8		NM-6061061-SE	NUT M6	מילללים M6 10X11.5X10	(1)
9		B3302-012-000	SPOOL REST ROD	イトタテ シタカン	(1)
_10		B3312-012-000	SPOOL RETAINER	イトマキ フレト・メ	(2)
11		B3305-012-000	SPOOL PIN	イトマキ ウケホ"ー	(2)
12		12211-0200	SPOOL REST Change	イトマキタケナ	(2)
13		111-83209	SPOOL REST	イトマキ ウケ	(1)
14		WP-0560860-SE	WASHER 5.6X12X0.8	ヒラサ*オ*ネ 5.6X12X0.8	(2)
_15		WS-0531060-KR	SPRING WASHER 5.3X8.3X1	Λ*ネサ*カ*ネ 5.3X8.3X1	(2)
16		NS-6123881-SE	NUT 3/16-28	ロッカクナット 3/16-28	(2)
17		SM-9061080-SE	SCREW M6 L=10	ロサカクホ [*] ルト M6 L=10	(1)
18		NM-6100663-SE	NUT H10	ロッカクナット M10 3シュ	(2)
19		SK-3452000-SE	WOOD SCREW D=4.5 L=20	マルモクネシ* D=4.5 L=20	(3)
20		B3301-012-000	SPOOL STAND	<u> </u>	(1)
21		WS-1002560-KR	SPRING WASHER 10X18X2.5	パネサ゚カ゚ネ 10X18X2.5	(1)

11. GAUGE COMPONENTS ゲージ関係



REF. NO	NOTE	PART NO.	DESCR	IPTION	ヒンメイ	Qty
1 2 3 4 5	#01 #01 #01 #01 #01	212-22104 212-22005 212-22203 212-25107 212-25008 212-31006	THROAT PLATE THROAT PLATE THROAT PLATE FEED DOG (OPTION) FEED DOG WALKING FOOT		ハリイタ(JAムケ) ハリイタ ハリイタ オクリハ**(オフ [°] ション) オクリハ** ウワオクリアシ	1 1 1 1 1
		Note (注記)#01OPTION		47° 373	•

IMPORTANT SAFETY INSTRUCTIONS

Congratulations on your purchase. TAKING machine.

To get the most out of the many functions of this machine and operate it in safety, it is necessary to use this machine correctly.

Please read this Instruction Manual carefully before use. We hope you will enjoy the use of your machine for a long time. Please remember to keep this manual in a safe place.

- 1. Observe the basic safety measures, including, but not limited to the following ones, whenever you use the machine.
- 2. Read all the instructions, including, but not limited to this Instruction Manual before you use the machine. In addition, keep this Instruction Manual so that you may read it at anytime when necessary.
- 3. Use the machine after it has been ascertained that it conforms with safety rules/standards valid in your country.
- 4. All safety devices must be in position when the machine is ready for work or in operation. The operation without the specified safety devices is not allowed.
- 5. This machine shall be operated by appropriately-trained operators.
- 6. For your personal protection, we recommend that you wear safety glasses.
- 7. For the following, turn off the power switch or disconnect the power plug of the machine from the receptacle.
 - 7-1 For threading needle(s), looper, spreader etc. and replacing bobbin.
 - 7-2 For replacing part(s) of needle, presser foot, throat plate, looper, spreader, feed dog, needle guard, folder, cloth quide etc.
 - 7-3 For repair work.
 - 7-4 When leaving the working place or when the working place is unattended.
 - 7-5 When using clutch motors without applying brake, it has to be waited until the motor stopped totally.
- 8. If you should allow oil, grease, etc. used with the machine and devices to come in contact with your eyes or skin or swallow any of such liquid by mistake, immediately wash the contacted areas and consult a medical doctor.
- 9. Tampering with the live parts and devices, regardless of whether the machine is powered, is prohibited.
- 10. Repair, remodeling and adjustment works must only be done by appropriately trained technicians or specially skilled personnel. Only spare parts designated by JUKI can be used for repairs.
- 11. General maintenance and inspection works have to be done by appropriately trained personnel.
- 12. Repair and maintenance works of electrical components shall be conducted by qualified electric technicians or under the audit and guidance of specially skilled personnel.
- Whenever you find a fallure of any of electrical components, immediately stop the machine.

 13. Before making repair and maintenance works on the machine equipped with pneumatic parts such as an air cylinder, the air compressor has to be detached from the machine and the compressed air supply has to be cut off. Existing residual air pressure after disconnecting the air compressor from the machine has to be expelled. Exceptions to this are only adjustments and performance checks done by appropriately trained technicians or specially skilled
- 14. Periodically clean the machine throughout the period of use.
- 15. Grounding the machine is always necessary for the normal operation of the machine. The machine has to be operated in an environment that is free from strong noise sources such as high-frequency welder.
- 16. An appropriate power plug has to be attached to the machine by electric technicians. Power plug has to be connected to a grounded receptacle.
- 17. The machine is only allowed to be used for the purpose intended. Other used are not allowed.
- 18. Remarks or modify the machine in accordance with the satety rules/standards while taking all the effective safety measures. JUKI assumes no responsibility for damage caused by remodeling or modification of the machine.
- 19. Warning hints are marked with the two shown symbols.



personnel.

Danger of injury to operator or service staff



Items requiring special attention

FOR SAFE OPERATION



1. Keep your hands away from needle when you turn ON the power switch or while the machine is in operation.

 During operation, be careful not to allow your or any other person's head or hands to come close to the thread take-up, handwheel, V-belt, bobbin winder and motor. Also, do not place anything close to them.

3. Do not operate your machine with the finger guard, belt cover and any other protectors removed.

4. Before tilting the machine head, be sure to confirm that the head support bar is properly attached to your machine head.

Before tilting the machine or removing the V belt, be sure to turn OFF the power switch and confirm that the motor of the sewing machine stops.

6. Tilt the machine head after removing the hook for the knee lifter.

7. When having tilted the machine head, wipe out oil on the bed underside, the top face of bed support and hinge area, and then raise up the machine head.



8. To ensure safety, never operate the machine with the ground wire for the power supply removed.

9. When inserting/removing the power plug, the power switch has to be turned OFF in advance.

10. In time of thunder and lightening, stop your work and disconnect the power plug from the receptacle so as to ensure safety.

11. If the machine is suddenly moved from a cold place to a warm place, dew condensation may be observed. In this case, turn ON the power to the machine after your have confirmed that there is no danger of water drops in the machine.

12. Turn OFF the power to the machine in the eyent of a power failure.

13. Do not allow the power cord to trail on the floor.

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personnel.

Danger of injury to operator or service staff



Items requiring special attention

marculo

INSTRUCTION MANUAL AND SPARE PARTS

FOR

MODEL 341N

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BEFORE OPERATION

M

CAUTION

Check the following so as to prevent maloperation of and damage to the machine.

- Before you put the machine into operation for the first time after the set-up, clean it thoroughly. Remove all dust gathering during transportation and oil it well.
- Confirm that voltage has been correctly set. Confirm that the power plug has been properly connected to the power supply.
- Never use the machine in the state where the voltage type is different from the designated one.
- The direction of normal rotation of the machine is counterclockwise as observed from the pulley side. Take care not to allow the machine to rotate in the reverse direction.
- · When tilting the machine head, tilt it after removing the knee lifter hook.
- · For a test run, remove the bobbin case and the needle thread.
- For the first month, run the machine at a speed of 1,800 s.p.m. or less.
- Operate the handwheel after the machine has totally stopped.

SPECIFICATIONS

Type of sewing machine head	Cylinder-bed, 1-needle, unison-feed lockstitch machine (with a vertfcal-axis hook)
Application	Medium- to heavy-weight materials
Sewing speed	Max. 2,000 s.p.m
Stitch length	Max. 6 mm
Lift of presser foot	By hand lifter: 8.5 mm, By knee lifter: 15 mm
Thread take-up lever	Slide type thread take-up
Needle bar stroke	33.36 mm
Needle	DP × 17
Count of needle to be used	#14 through #24 (standard: #23)
Count of thread to be used	#50 through #8
Stitch adjusting method	By dial
Lubrication method	By an oiler
Motor to be used	400 W clutch motor (4P)
Lubricating oil	New Defrix Oil No. 1

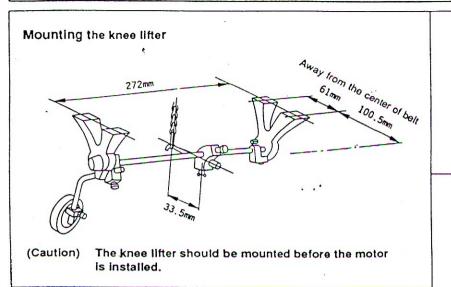
Noise

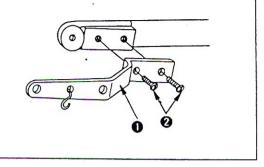
Workplace-related noise at sewing speed

n= 1,550 min-1: Lpa 84 dB(A)

Noise measurement according to DIN 45635-48-A-1.

1 SETTING UP THE SEWING MACHINE





When using the knee lifting pedal, attach knee lifter bracket A 1 in place using screws 2 as illustrated in the figure.

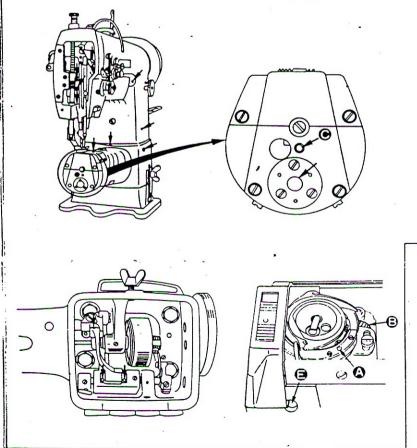
(Caution) Knee lifter bracket 1 and screws 2 are supplied with the machine in the accessory box.

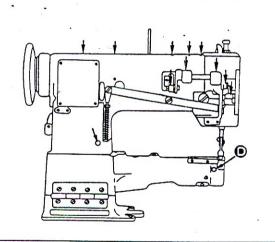
2. LUBRICATION



WARNING:

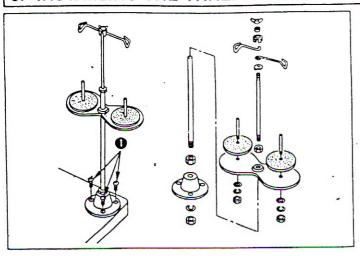
Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.





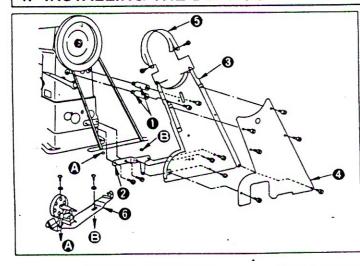
- Prior to operation, apply adequate amount of oil to the points marked with the arrows.
- ★ Lubricating the hook and hook shaft saddle
 Shift the slide plate, and apply two or three drops of oil
 every day to the hole shown with the arrow ②. And
 four or five drops of oil every day to the felt shown
 with the arrow ③.
- ★ Lubricating the feed bar Prior to operation, apply two or three drops of oil to the holes shown with the arrows ②, ② and ③ without fail.

3. INSTALLING THE THREAD STAND



Assemble the thread stand, and install it on the far right-hand side edge of the table using three screws ①

4. INSTALLING THE BELT COVER AND THE BOBBIN WINDER



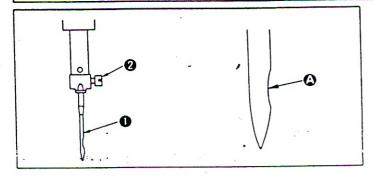


WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

- 1) Drill guide holes (2) and (3) for wooden screws to be used in the table.
- Insert belt cover support 1 into the tapped hole in the machine arm.
- 3) Install belt cover support plate **2** on the machine head.
- 4) Attach belt cover 10 to support 10 and support plate 2.
- 5) Fit bobbin winder **6** in belt cover **8**, and adjust the position of the bobbin winder properly.
- 6) Fix bobbin winder 6 on the table.
- 7) Put the V belt on the handwheel. Attach rid 4 of the bel cover and top cover 5 in place.

5. ATTACHING THE NEEDLE



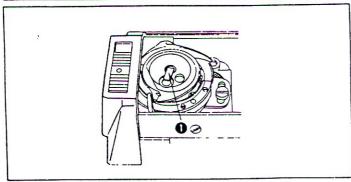


WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

- · Turn OFF the power to the motor.
- Turn the handwheel to move the needle bar up to it highest position.
- 2) Loosen needle clamp screw 2. Hold needle 1 so that is indented part A faces exactly to the right.
- Insert the needle into the needle bar until it will go n further.
- 4) Securely tighten the needle clamp screw 2.

6. ATTACHING/REMOVING THE BOBBIN CASE



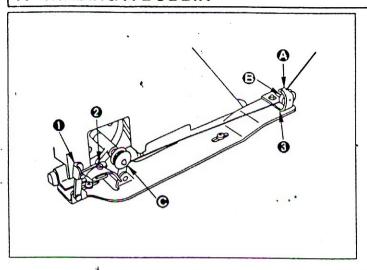


WARNING:

Turn OFF the power before starting the work so as to preven accidents caused by abrupt start of the sewing machine

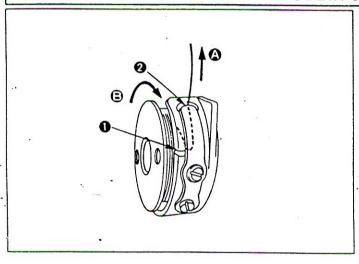
- Raise lever 1 of the hook, and remove the bobbin ca together with the bobbin in it.
- Fit the bobbin case into the hook driving shaft, and tilt t lever.

7. WINDING A BOBBIN



- 1) Route the thread in the order of ②, ② and ② beforewinding it round the bobbin several times.
- Set bobbin presser down to bring the winder in contact with the belt.
- 3) Adjust screw to adjust the amount of thread to be wound round the bobbin so that the bobbin is wound with thread about 80% of its capacity. Turn the screw clockwise to increase the amount of thread wound round the bobbin, or counterclockwise to decrease it.
- 4) If thread is wound unevenly round the bobbin, move winder tension adjuster base 3 to the right or left so that thread is evenly wound round the bobbin.
- The moment the bobbin has been wound up, the bobbin presser is released, and the bobbin winder will stop automatically.

8. PLACING A BOBBIN IN THE BOBBIN CASE



A WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

- Hold a bobbin so that the end of the thread wound round the bobbin is directed to the right and put it into the bobbin case.
- 2) Pass the thread in threading slit 1 in the bobbin case, route it under the tension spring and draw it out from notch 2.

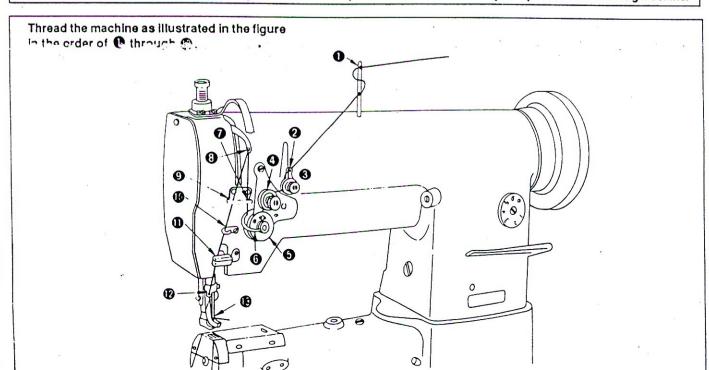
(Caution) As long as the bobbin is correctly placed in the bobbin case, pulling the thread in direction (a) makes the bobbin rotate in direction (a).

9. THREADING THE MACHINE HEAD

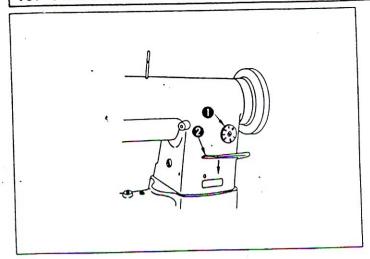


WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



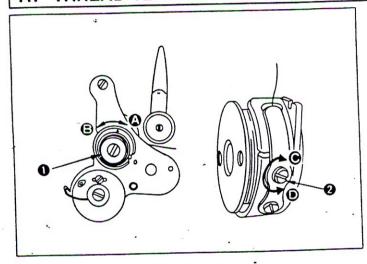
10. ADJUSTING THE STITCH LENGTH



Turn stitch length dial ① counterclockwise or clockwise to bring the desired value to the top of the dial so that the value is aligned with the pin.

- * Reverse feed stitching
- 1) Push down feed lever. 2.
- 2) The machine performs reverse feed stitching as long as the lever is held depressed.
- 3) The moment you release the lever, the machine resumed the normal stitching mode.

11. THREAD TENSION



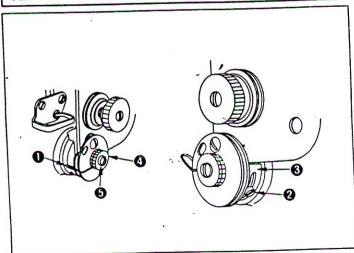
★ Adjusting the needle thread tension

Turn tension nut No. 2 ● clockwise (toward ♠) to increase the needle thread tension, or counterclockwise (toward ⑤) to decrease it.

* Adjusting the bobbin thread tension

Turn tension screw 2 clockwise (toward) to increase the bobbin thread tension, or counterclockwise (toward) to decrease it.

12. THREAD TAKE-UP SPRING

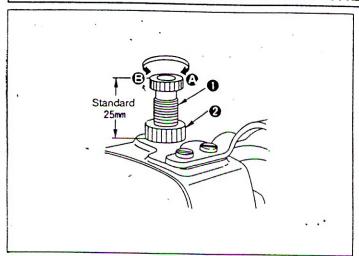


- ★ To change the stroke of thread take-up spring •
- 1) Loosen screw 2 in the stopper, and move stopper 3 to the right or left.
- Move the stopper to the right to increase the stroke of the thread take-up spring, or to the left to decrease it.

★ To change the tension of the thread take-up spring

Loosen nut . Turn spring shaft counterclockwise to increase the tension of the spring, or clockwise to decrease it. Fit a screwdriver in the groove in the spring shaft and turn it until the desired tension is provided.

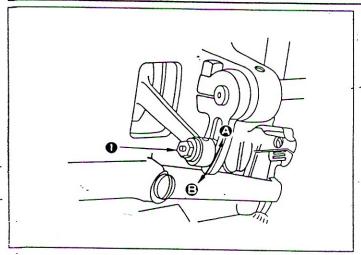
13. ADJUSTING THE PRESSURE OF THE PRESSER FOOT



Adjust the pressure of the presser foot in accordance with the type of material to be used. (Standard height of the pressure spring regulator: 25 mm)

- Turn pressure spring regulator Oclockwise (toward O) to increase the pressure of the presser foot, or counterclockwise (toward) to decrease it.
- After the adjustment, securely tighten nut ② of the regulator.

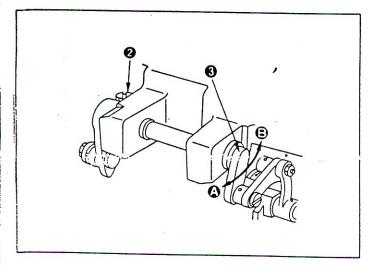
14. ADJUSTING THE PRESSER FOOT AND THE WALKING FOOT



★ Operating height of the walking foot and the presser foot

The operating height of the walking foot and the presser foot has been adjusted to the marker of "1/8" engraved on the top feed crank. A better result may be obtained by adjusting the operating height of the walking foot and the presser foot.

- Loosen nut 1, and change the position of the cam rod boss accordingly.
- Highest position → The stroke is maximized. ②
- Lowest position → The stroke is minimized. ②

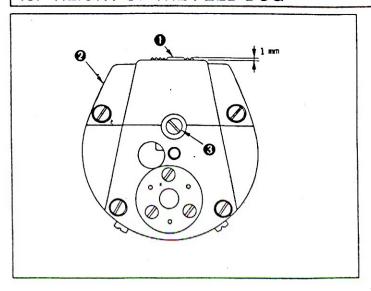


★ Alternate vertical motions of the walking foot and presser foot

The alternate vertical strokes of the walking foot and presser foot are normally equal.

- 1) Loosen screw 2 of the top feed crank.
- Bring the thread take-up lever to its highest position, and lower the presser bar lifting lever.
- Move top feed crank 3 to left 3 to increase the stroke of the presser foot, or to the right 5 to increase it.

15. HEIGHT OF THE FEED DOG



Feed dog • has been factory-adjusted to jut out 1 mm from the surface of throat plate • When the feed dog height needs to be adjusted according the sewing conditions or after the feed dog is replaced, follow the procedure described below.

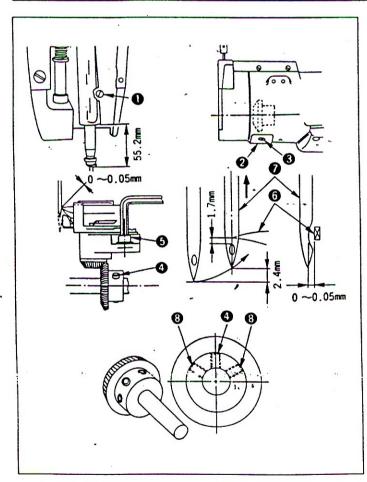
- 1) Maximize the feed dog height.
- 2) Loosen screw 3 in the feed dog.
- Adjust the feed dog height comparatively higher than the standard height, and temporarily fix it at that position.
- 4) Now, adjust the height of the feed dog appropriately, and securely tighten the screw 3 in the feed dog.

16. NEEDLE-TO-HOOK RELATIONSHIP



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



Adjust the timing between the needle and the hook following the procedure described below.

- 1) Set the feed regulating dial to "3".
- Turn the handwheel to bring the needle bar to the lowest position of its stroke, and loosen needle bar connection screw 1.
- * Determine the height of the needle bar.
- 3) The standard height of the needle bar is obtained when a distance of 1.7 mm is provided between the top end of the needle eyelet and blade point 6 of the hook when the needle ascends 2.4 mm from the lowest position of its stroke.

(The lowest position of the needle bar for reference)

Distance from the bottom face of the needle bar frame to the bottom end of the needle bar: 55.2 mm

- * Determine the position of the hook
- 4) Loosen screw 3 in the gear cover 2, remove gear cover 2 and loosen screws 3 and 3 in the large bevel gear.
- 5) In the state described in 3), loosen screw in the hook driving shaft saddle and move the hook driving shaft saddle to the right or left until a clearance of 0 to 0.05 mm is provided between the bladere into 6 the hook and needle.

 2. After the adjustment, securely righten the screw.
- 6) Then, align the blade point of the hook with the center of the needle, and tighten screw 4 in the gear.
- 7) Turn the handwheel clockwise and alternately tighten screws 3 little by little.

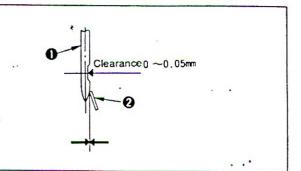
(Never tighten either screw only.)

7. ADJUSTING THE NEEDLE GUARD OF THE HOOK



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



After replacing the hook, be sure to confirm the position of the needle guard. The standard position of the needle guard is obtained when needle guard lightly comes in contact with the side face of needle as illustrated in the figure. If not, adjust the position of the needle guard by bending it accordingly.

- 1) To bend the needle guard inward, apply a screwdriver to the outside of the needle guard.
- To bed the needle guard outward, apply a screwdriver to the inside of the needle guard.

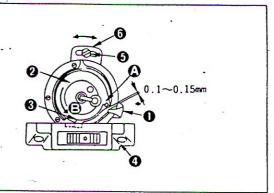
ADJUSTING THE BOBBIN CASE OPENING LEVER



8.

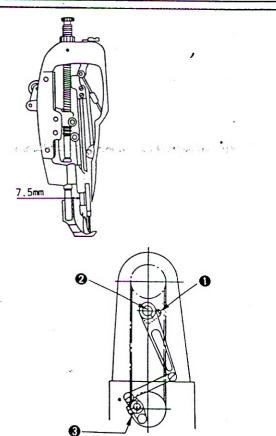
WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



- Turn the handwheel in its normal rotational direction to bring bobbin case opening lever to its back end position.
- Turn bobbin case 2 in the direction of arrow (a) until stopper (a) comes in contact with the groove in throat plate (a).
- 3) Loosen screw in the bobbin case opening lever adjustment plate and move bobbin case opening lever adjustment plate in the direction of the arrow so that a clearance of 0.1 to 0.15 mm is provided between the bobbin case opening lever and protruding section of the bobbin case.

9. ADJUSTING THE LONGITUDINAL POSITION OF THE NEEDLE BAR FRAME

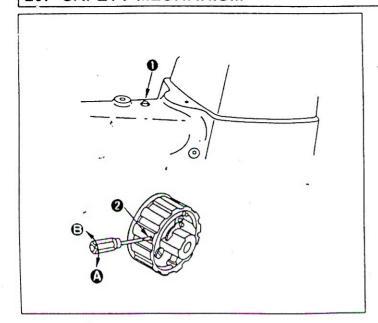


- ★ Adjusting the relationship between the top feed rod and presser bar
- 1) Set the feed regulating dial to its minimum value.
- Loosen clamping screw 1 in the needle bar frame rear arm, and adjust the clearance between the top feed rod and the presser bar to 7.5 mm.

(Caution) Take care not to allow any play in needle bar frame 2.

- ★ Adjusting the relationship between the feed dog and the needle bar
- 1) Set the feed regulating dial to its minimum value.
- Loosen clamping screw 3 in the feed rock shaft crank.
- Adjust the position of the feed dog so that the needle comes to the center of the needle hole in the feed dog (slightly closer to the operator).

SAFETY MECHANISM



WARNING:

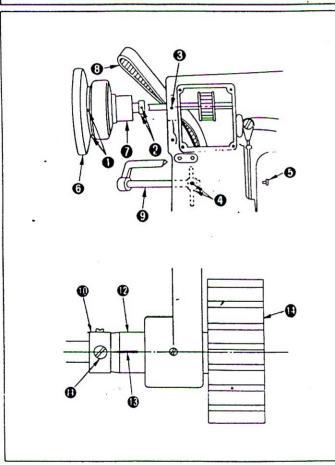
Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

If the thread is caught in the hook while the sewing machine is in operation, the safety mechanism actuates to idle the lower sprocket only.

- ★ How to reset
- 1) Remove the thread caught in the hook.
- 2) Pressing push button 1, strongly turn the pulley in the direction opposite to its normal rotational direction.
- ★ Safety load

Turn adjustment screw 2 in direction (clockwise) to increase the safety load, or in direction (a) (counterclockwise) to decrease it.

21. REPLACING THE TIMING BELT



WARNING:

Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.

- ★ How to remove the timing belt
- 1) Loosen screw 1 in the handwheel, screws 2 in main shaft rear bushing (2), screw 3 in the main shaft rear bushing, clamping screws 1 in the feed lever shaft arm and screw **6** in the feed lever shaft in the written order.
- 2) Remove handwheel 6, and pull out main shaft rear bushing 1.
- 3) Draw feed lever shaft 9 until a clearance enough to allow timing belt 10 to come off is provided.
- 4) Remove the timing belt from the lower sprocket, draw it from the side window and pull out it from the hole in the main shaft rear bushing.
- * How to Install the timing belt
- 1) Installation is carried out analogously in reverse order.
- 2) To adjust the timing between the main shaft and the hook driving shaft, turn the handwheel to bring the thread takeup to its highest dead point and the screw No. 1 engraved on the hook driving shaft thrust collar 10 with marker line (8) engraved on hook driving shaft rear bushing 10. In this state, insert the timing belt into lower sprocket .

22. MOTOR PULLEY AND V BELT

- 1. Use an M type V belt.
- 2. The following table show the relationship between the motor pulley, belt length and the rotational speed of the sewing machine.

Rotational speed of sewing machine	Frequency	Outside diameter of motor	Size of V belt
2000 s.p.m	50 Hz	ø115 mm	M57
2000 3.0.111	60 Hz	ø95 mm	M56

(Caution) The effective diameter of the motor pulley is 5 mm smaller than the outside diameter.

When your machine uses a single-phase motor, apply the belt which is 1 inch longer than those given in the table above.

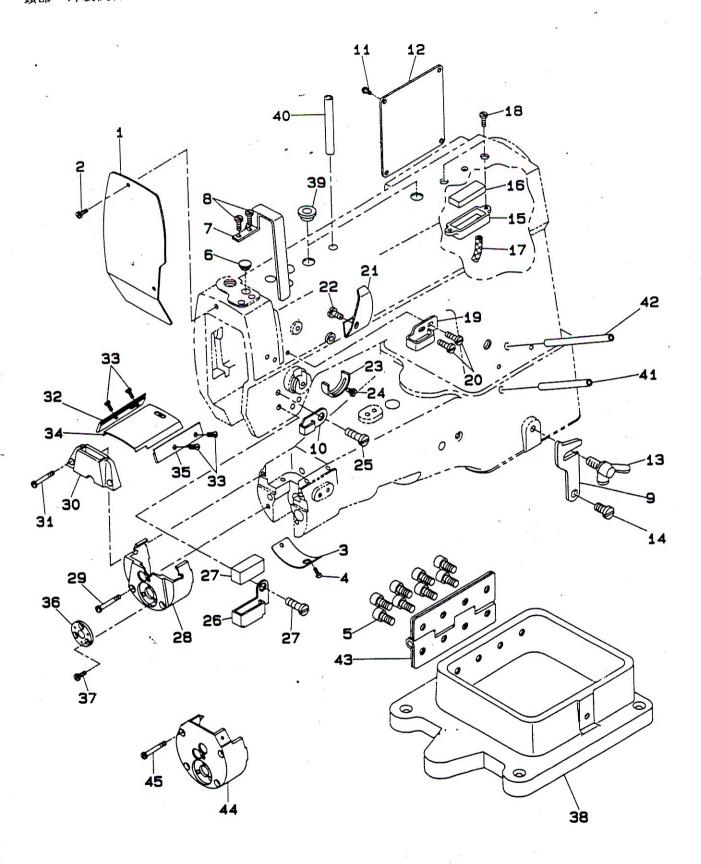
23. TROUBLE IN SEWING AND CORRECTIVE MEASURES

Trouble	Cause	Corrective measures.
Thread breakage (Thread frays or wears out.) (Needle thread remains 2 to 3 cm on the wrong side of the cloth.)	 The thread path, needle point, blade point of the hook or the stopper groove in the throat plate has scratches. The needle thread tension is too high. The clearance in the bobbin case opening lever is too large. The needle comes in contact with the blade point of the hook. The needle thread tension is too low. The thread take-up spring has an excessively high tension while it has an excessively small stroke. The timing between the needle and hook too early or too late. 	 Remove the scratches on the blade point of the hook using a fine emery paper. Buff up the stopper groove in the throat plate. Adjust the needle thread tension properly. Decrease the clearance in the bobbin case opening lever. Refer to "18. Adjusting the bobbin case opening lever". Refer to "16. Needle-to-hook relationship". Adjust the needle thread tension properly. Decrease the tension of the thread take-up spring, and increase the stroke of the spring. Refer to "16. Needle-to-hook relationship".
2. Stitch skipping	 The clearance between the needle and the blade point of the hook is too large. The timing between the needle and hook is too early or too late. The presser foot pressure is too low. The height of the needle bar is inadequate. The needle guard of the hook does not function. The size of the needle is wrong. Defective needle thread path. The hook has scratches. 	 Refer to "16. Needle-to-hook relationship". Refer to "16. Needle-to-hook relationship". Tighten the pressure spring regulator. Refer to "16. Needle-to-hook relationship". Refer to "17. Adjusting the needle guard of the hook". Replace the needle by one which is one count thicker. See "9. Threading the machine head". Remove the scratches on the blade point of the hook using a fine emery paper.
3. Local statches (isolated idling loop)	 The thread path is poorly finished. The bobbin fails to rotate smoothly. The clearance in the bobbin case opening lever is too large. The bobbin thread tension is too low. The bobbin thread has been wound too tight round the bobbin. The forked part of the tension spring of the bobbin case is not threaded. 	o Grind Rusing a fine emery paper, or buff it up. o Replace the bobbin, or replace the hook. o See "18. Adjusting the bobbin case opening lever". o Properly adjust the bobbin thread tension. o Decrease the bobbin thread winding tension. o Correctly thread the bobbin case.

CONTENTS 固 次

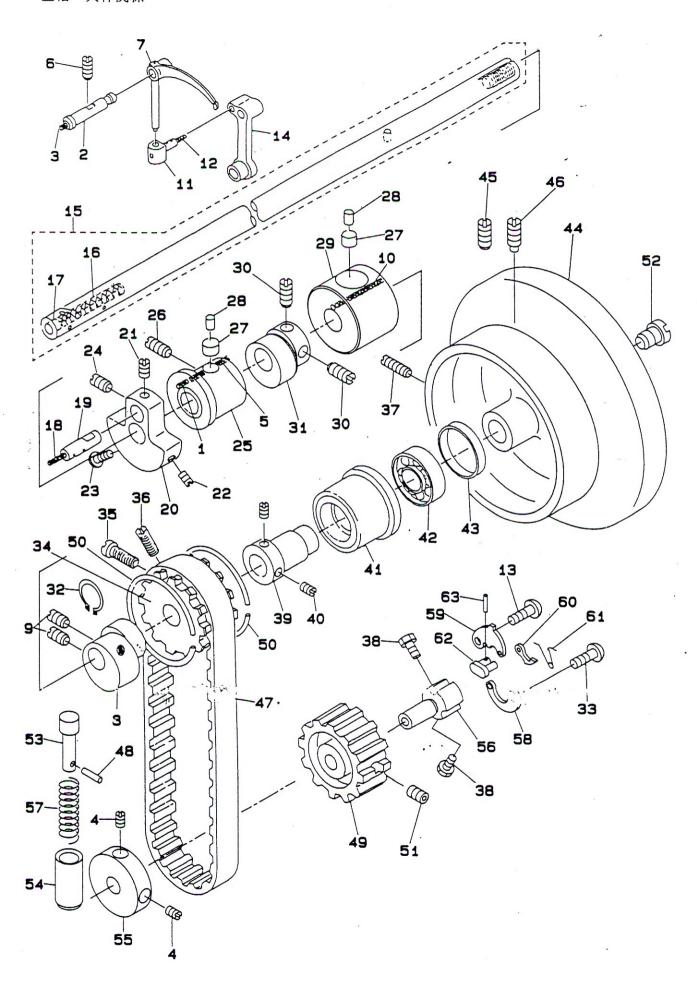
1.	FRAME & MISCELLANEOUS COVER COMPONENTS	•••	•	1
2.	MAIN SHAFT & THREAD TAKE-UP LEVER COMPONENTS 上軸・天秤関係	•••	•	3
3.	NEEDLE BAR & HOOK DRIVING SHAFT COMPONENTS	· • • •		5
4.	PRESSER BAR COMPONENTS 押え棒関係	• • • •		7
5.	UPPER FEED MECHANISM COMPONENTS	• • •	••	8
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7.	THREAD TENSION COMPONENTS	•••		11
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9.	KNEE LIFTER COMPONENTS	• • •	٠.	13
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1. FRAME & MISCELLANEOUS COVER COMPONENTS 頭部·外装関係



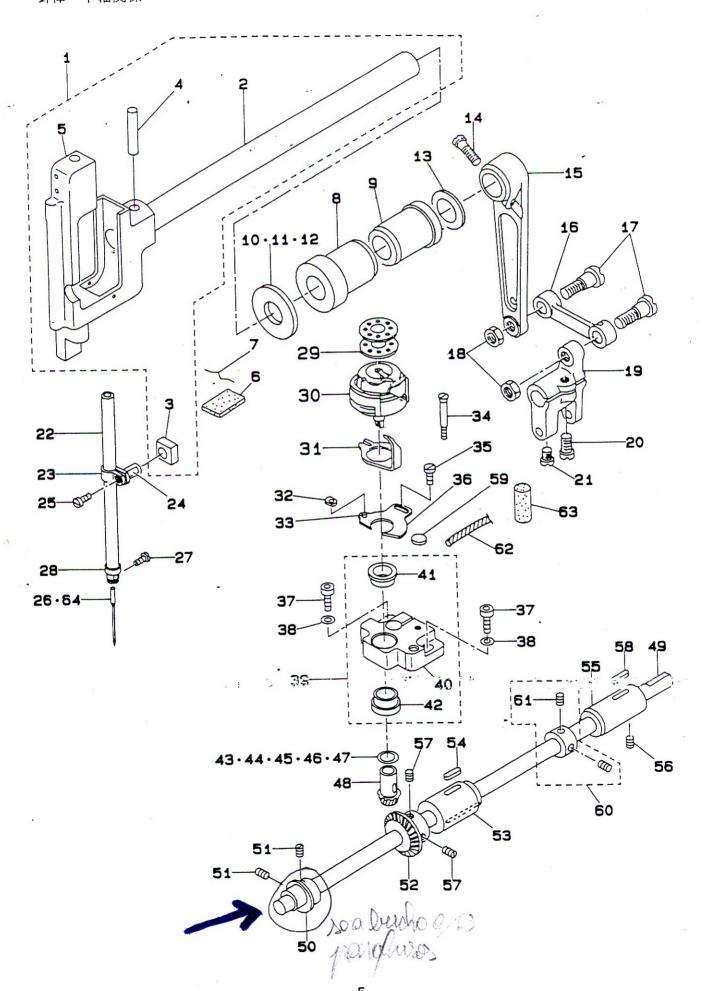
REF.NO	NOTE	PART NO.	DESCRIPTION	ヒンメイ	Qty
1	,	212-21056	SIDE PLATE ASM. SCREW 9/64-40 L= 6.8	メンイタ (クミ)	1
2		SS-7090710-SP	SCREW 9/64-40 L= 6.8	マルヒラネシ* 9/64-40 L=6.8	2
3		212-20900		ハクプルマカハブー	1
4		SS-5090610-SP	SCREW 9/64-40 L=6	トラスネシー 9/64-40 し=6	2
5		SM-6082002-SP	SCREW M8 L=20	ロッカファナホールト M8 1 = 20	8
6		1A-1250406-K0	KUBBEK PLUG	トメセン D=12.5 L=4	1
7	-	D1158-241-E00	THREAD TAKE-UP LEVER COVER	テンヒ*ン カハ*ー	- 1.
8		SS-7150940-SP	SCREW 15/64-28 L=9	マルヒラネシ 15/64-28 L=9	2
9		B1117-246-000	HOOK	カケカプネ	1
_10		B1130-051-000	FRAME THREAD GUIDE, MIDDLE	イトアンナイ	1
11 -		SS-7110710-SP	SCREW 11/64-40 L=7	マルヒラネシ* 11/64-40 L=7	· 1
12		212-21205	SIDE PLATE	₹1.13	1
13		B1116-246-000	WING BOLT	カケカ*ネトメ チョウネシ*	1
14		SD-0800352-SP	HINGE SCREW D= 8 H= 3.5	タプンネシプ D=8 H=3.5	1
_15		212-23201 -		アファラタャマリ	1
16		B3503-115-000	OIL RESERVOIR FELT	77"79" X 71% (A)	
17		CQ-2020000-00	OIL WICK	コシン	0.08
18		SS-7111120-SP	SCREW 11/64-40 L=10.5	マルヒラネシ* 11/64-40 L=10.5	2
19		B1129-563-000	FRAME THREAD GUIDE, UPPER	イトアンナイ ウエ	2
20		SS-2090710-SP	SCREW 9/64-40 L=7	マルチラネシ 9/64-40 L=7	1
21		B1140-051-000	TAKE-UP OIL-SPLASHER	テンヒ"ン ユホ"ーイタ	1
22		SS-5090610-SP	TAKE-UP OILESPLASHER SCREW 9/64-40 L=6	トラスネシ* 9/64-40 L=6	1
23		B3138-512-000	TAKE-UP SPRING ADJUSTING PLATE	イトトリハーネ アンナイ チョーセッハーン	1
24		SS-7090520-SP	SCREW 9/64-40 L= 4.5	マルヒラネシ 9/64-40 L=4.5	1
_25			SCREW 9/64-40 L=7	マルサラネシ 9/64-40 L=7	1 -
26		B1130-528-000	THREAD GUIDE, LOWER	イトアンナイ シタ	
27		B1131-528-000	FFIT	イトアンナイ イトオサエ	1
28			THROAT PLATE BASE FRAME	ハリイタト*タ*イ	1
29		SS-7113110-SP	SCREW 11/64-40 L=30	マルヒラネシ 11/64-40 L=30	1
30		212-21908	THROAT PLATE		2
31			SCREW 11/64-40 L=28	刈り付	
32		B1108-340-000		マルヒラネシ 11/64-40 L=28	2
33		SS-2090520-SL	SCREW 9/64-40 L=5		1
34		212-20405	BED SLIDE	マルチラネシ* 9/64-40 L=5	4
_35				スペーリイタ	1
36		212-27905	LOWER SHAFT FRONT METAL	スペ [*] リ イタウケ (ミキ [*])	
37		SS-7110410-SP		シタシ クマエメタル	1
38		212-20207	MACHINE DACE	マルヒラネシ 11/64-40 L= 4	3
39		B1156-115-000	DUDDED DING	ላ*ット*ウケタ*イ	1
40		PS-0600302-KP		ウワシーグ アフ・ラタ・マリ フタ	2
41		PS-0600302-NP	SPRING PIN SPRING PIN 6X24	スプリンク・ヒ°ン	1_
42				スプ°リンケーヒ°ン 6.0X24	1
43		PS-0600602-KP	OIL TUBE	スプ°リンク*ヒ°ン	1
	# ∧1	B1128-246-000	HINGE	fヨウハ*ン	1
44	#01	212-20504	THROAT PLATE BASE FRAME	ハリイタト・ターイ	1
45	#01	SS-7113110-SP	SCREW 11/64-40 L=30	マルヒラネシ* 11/64-40 L=30	4
		Note (注記)#0	D1OPTION	オプ [®] ション	

2. MAIN SHAFT & THREAD TAKE-UP LEVER COMPONENTS 上軸・天秤関係



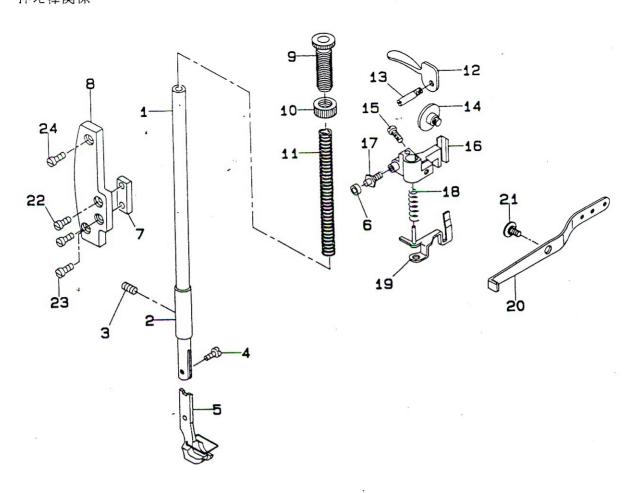
REF.NO	NOTĘ PART NO.	DESCRIPTION	ヒンメイ	Qty
1	TA-0500000-R0 P	LUG	トメセン	2
2		AKE-UP LEVER PIN	テンヒ*ン ササエシ*ク	0.1
3		IL WICK	ユシン トメネシ 15/64-28 L=7	•2
. 4		CREW 15/64-28 L=7 IL WICK	19704 28 ピート	0.1
· 5	CQ-2520000-00 0 SS-8151550-SP S	CREW 15/64-28 L=15	トメネシ* 15/64-28 L=15	1
7	B1905-241-H00 T	HREAD TAKE-UP LEVER	テンヒーン	1
8	B1605-246-000 F	EED DRIVE ECCENTRIC CAM	オクリ ヘンシン カム	1
9	SS-8661030-SP S	CREW 1/4-40 L=10	トメネシ* 1/4-40 L=10	2
10	CD-2000000-00 D	IL WICK	199	0.06
11		AKE-UP LEVER THRUST PIN	テンヒ [*] ン スライト [*] シ [*] ク ユシン	1 0.1
12		IL WICK	タ*ンネシ* D=6.35 H=3.2	1
13		INGE SCREW D= 6.35 H= 3.2 EEDLE BAR CRANK ROD	ハリホ [*] ゥ クランクロサト [*]	1
14		IAIN SHAFT ASM.	カワシ ケ (クミ)	i
15		OIL WICK	ユシン	(0.1)
16 17		PLUG D=5X5.4 L=6	トメセン D=5X5.4 L=6	(1)
18		OIL WICK	ユシン	0.1
19	B1210-051-000	HEEDLE BAR CRANK PIN	Λリホ [⋆] ー クランクヒ°ン	1
20		COUNTERWEIGHT	ツリアイオモリ	1_
21	SS-8680540-SP S	SCREW 9/32-28 L= 4.5	トメネシ* 9/32-28.L=4.5	1
22	SS-8681650-TP S	SCREW 9/32-28 L=16	トメネシ 9/32-28 L=16	1
23	SS-7681750-TP	SCREW 9/32-28 L=16.5	マルヒラネシ 9/32-28 L=16.5	1
24		SCREW 9/32-28 L=7	トメネシ 9/32-28 L=7	1
_25		MAIN SHAFT BUSHING, FRONT	ウワシ*ケ マエメタル	1
26		SCREW 15/64-28 L=15	トメネシ* 15/64-28 L=15 ウワシ*ク マエメタル フエルト	1 2 2 1
27		OIL FELT	コーファ アファラタッメ フェルト	2
28		OIL FELT REAR BUSHING, INTERMEDIATE	ウワシークナカメタル	ī
29		SCREW 1/4-40 L=6	トメネシ 1/4-40 L=6	2
30 31	SS-8660610-TP D1450-055-B00	UPPER FEED DRIVING CAM	ウワオクリカム	1
32		RETAINING RING	Cリンク*	1
33		SCREW 1/4-40 L=11	マルヒラネシ 1/4-40 L=11	1
34	B1302-051-000	SPROCKET WHEEL, UPPER	ウワスフ [°] ロケツト	- 1
35	SS-7681750-TP	SCREW 9/32-28 L=16.5	マルヒラネシ* 9/32-28 L=16.5	
36	SS-8681650-TP	SCREW 9/32-28 L=16	トメネジ 9/32-28 L=16	1
37		SCREW 15/64-28 L=15	トメネシ 15/64-28 L=15	1 2
38		SCREW 1/4-40 L=7	ヒラネシ* 1/4-40 L=7	1
39		MAIN SHAFT BUSHING (2), REAR	ゔヷゔ゙゚゚゙゙゙゙゙゙゙゙゚゙゙ゔ゚゚゚ゔ゚゚゙゙゙゙゙゙゙゙゙゚゚゚ゔ゚゚゚゙゙゙゙゙゙	2
_40	SS-8150710-SP	SCREW 15/64-28 L=7	ウワシ*ク ウシロメタル (1)	1
41	B1216-051-000	MAIN SHAFT BUSHING 1, REAR	ヘ [*] アリンク [*]	1
42	SB-1150002-00	BEARING REAR BEARING RETAINING COLLAR		î
43	B1218-051-000 B1227-340-000	HAND WHEEL	ハスプミクプルマ	1
44 45	SS-8151550-SP	SCREW 15/64-28 L=15	トメネシ* 15/64-28 L=15	1
46	SS-8151780-SP	SCREW 15/64-28 L=17.0	トメネシ* 15/64-28 L=17	1
47	212-23300	TIMING BELT	タイミンク・ヘールト	1
48	PS-0200102-KH	SPRING PIN 2.0 X 10	スプ [°] リンク [*] ヒ [°] ン 2.0X10	1
49	212 - 23706	SPROCKET WHEEL, LOWER	シマスプ・ロケット	1 2
50	B1214-019-000	SPROCKET RING	スプロケット リング	2
51	SS-8090410-SP	SCREW 9/64-40 L= 3.5	トメネシ 9/64-40 L=3.5	2
52	SS-7701010-SP	SCREW 5/16-24 L=10 SAFETY CLUTCH PUSH BUTTON PUSH BUTTON CYLINDER	マルヒラネシ* 5/16-24 L=10 アンセ*ンソウチオシホ*タン	1
53	212-23409	SAFETY CLUTCH PUSH BULLON	アンセーンソウチオシホータンツツ	1
54	212-23508		アンセーンソウチェンハーン	1
_55		SAFETY CLUTCH DISK	アンセーンソウチウケ	1
56	105-03605	SAFETY BASE . SPRING	オシホータン ハーネ	1
57	B1639-051-000	SAFETY CLUTCH SPRING	アンセーンソーチ ハーネ	1
58	B1307-055-000-8	SAFETY CLUTCH HOOK	アンセーンソーチ サメ	1
59	R1308-055-000	SAFETY CLUTCH COUNTER-HOOK	アンセーンソーチ キャヤク サメ	1
<u>60</u> 61	R1309-055-000	COUNTER-HOOK SPRING	アンセプンソーチ キャヤクサメ ハーネ	1
	D1310 055 000	SAFETY CLUTCH SMALL LINK	アンセ*ンソーチ シヨーリンク	1
62	81310-055-000	Sale I Choron Sames Start	アンセ*ンソーチ ショーリンク ヒ°ン	1

3. NEEDLE BAR & HOOK DRIVING SHAFT COMPONENTS 針棒•下軸関係



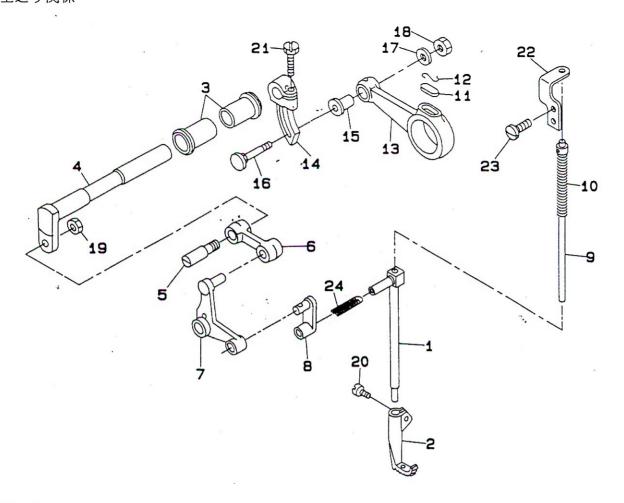
REF.NO	NOTE	PART NO.	DESCRIPTION	ヒンメイ	Q ty
1		212-23854	NEEDLE BAR FRAME ASM.	Λリホ [*] ウヨウト [*] ウタ [*] イ (クミ)	
2		B1424-512-000-A	NEEDLE BAR FRAME ROCK SHAFT	ハリホーウ ヨウトーウシーク	1 (1)
4		PT-0502700-S0	NEEDLE BAR SLIDE BLOCK	ハリホーーカクユーマ	(1)
5		212-23805	NEEDLE BAR FRAME	テーハ°ーヒ°ン	(1)
6		B1422-512-000	FELT	ハリホーウョウトーウターイ	(1)
7		B1440-512-000	RETAINER	ハリホ"- ヨート"ータ"イ フェルト ハリホ"- ヨート"ータ"イ フェルト オサエ	1
8		B1606-512-000	ROCK SHAFT BUSHING, FRONT	スイヘイシャク マエメタル	1
9 10		B1608-512-000	ROCK SHAFT BUSHING, REAR	スイヘイシャク ウシロメタル	1
11	#01	B1438-512-B00	WASHER 17.1X28X1.5	<u>ヨートーシークメタル サーカーネ T=1.5</u>	1
12	#01	B1438-512-A00 B1438-512-C00	WASHER T=1.35	ヨト・・・シークメタル サーカーネ T=1 35	1
13		B1438-512-C00	WASHER WASHER	ヨートー・シークメタル サーカーネ	1
14		SS-9152130-CP	SCREW 15/64-28 L=20.5	ヨート・・・シークメタル チーカーネ	1
15			DRIVING ARM	ロッカケホールト 15/64-28	1
16		B1434-246-000	CONNECTING ROD	<u> ハリホー ヨートー ユーブ・ウテー</u> ハリホー ヨートーロット	1
17		SD-1020961-SP	HINGE SCREW D=10.2 H=9.6	タブンネシ゛ D=10.2 H=9.6	1
18		NS-6680410-SP	NUT 9/32-28	ロッカクナット 9/32-28	2 2
19	4	B1628-246-000	FEED ROCKER SHAFT CRANK	スイヘイ オクリウテ	
20 21		SS-6151440-SP	SCREW 15/64-28 L=14	ヒラネシ* 15/64-28 L=14	1
22		SS-7110720-TP B1401-053-000	SCREW 11/64-40 L=7	マルヒラネシ* 11/64-40 L=7	1
23		B1401-053-000 B1411-053-000	NEEDLE BAR	ハリホ~ -	1
24		B1412-051-000	NEEDLE BAR CONNECTION FELT	ハリネー・ターキ	i
25		SS-7090910-SP	SCREW 9/64-40 L= 8.5	ハリホー・ターキ フェルト	1
26		MDP-170B2300	NEEDLE DPX17 #23	マルヒラネシ* 9/64-40 L=8.5	1
27		SS-7080510-TP	SCREW 1/8-44 L=4.5	Λυ DPX17 #23	1
28		103-08401	NEEDLE BAR THREAD GUIDE	マルヒラネシ* 1/8-44 L=4.5	1
29		B9117-201-000	BOBBIN	オプピーン	1
30 31	<u> </u>	212-28051	HOOK ASM.	カマ (クミ)	1
32		212-27400	INNER HOOK GUIDE	ナカカ*マアンナイ	1
33		B1827-246-000 B1826-246-000	SLIDE BLOCK	ナカ オーマ アンナイ コロ	1
34		SS-1092810-SP	SLIDE BLOCK PIN SCREW 9/64-40 L=25.4	ナカ カーマ アンナイ ユロシーク	ī
35			SCREW 9/64-40 L= 25.4 SCREW 9/64-40 L= 6.8	サラネシ *	1
36		212-27509	ADJUSTING PLATE	マルヒラネシ 9/64-40 L=6.8	
37		SM-6051202-TP	SCREW M5X0.8 L=12	ナカカ・マアンナイチョセツイタ	1
38		WP-0520656-SA	WASHER 5.2X9.5X0.6	ロッカクアナホールト M5X0.8 L=12 ヒラナーカーネ 5.2X9.5X0.6	2 2
19	•	212-29653	HOOK SHAFT SADDLE ASM.	カマシブクタブイ(クミ)	1
1			HOOK SHAFT SADDLE	カマシェクタ・イ	(1)
2		B1812-340-000	HOOK SHAFT BUSHING, UPPER	カマシークメタル (ウエ)	(1)
13	#01	B1813-340-000 B1820-246-000	HOOK SHAFT BUSHING, LOWER	カマジ [*] クメタル (ジタ)	(1)
4	#01		WASHER A	カマシ゛クラ゛カ゛ネ	1
5			WASHER B	カマシークラーカーネ A	1
6	#01		WASHER C	カマシ [*] クラ [*] カ [*] ネ B	1_
7	#01		WASHER	カマシ [*] クラ**カ**ネ C カマシ [*] クラ**カ**ネ	1
.8		212-27301	HOOK SHAFT GEAR	カマシャクカテハク・ルマ	1
9		B1816-340-000	HOOK DRIVING SHAFT	シタシーク	1
0		212-27103	FEED VERTICAL CAM	オクリシ*ョウケ*カム	1
1 2		SS-8150510-TP	SCREW 15/64-28 L= 4.7	トメネシ 15/64-28 L=4.7	2
3		B1836-246-000-A	LOWER SHAFT BEVEL GEAR	シタシークカサハクールマ	ī
4		B1803-246-000 B1805-201-000	BUSHING, INTERMEDIATE	シタシーク ナカメタル	î
5			OIL FELT BUSHING, INTERMEDIATE	シタシーク マエメタル フェルト	1
6			SCREW 15/64-28 L= 4.7	シタシ*ケ ナカメタル	1
7			SCREW 1/4-40 L=6	トメネシ 15/64-28 L=4.7	1
8		B1806-038-000	OIL FELT	トメネシ* 1/4-40 L=6 シタシ*ケ ウシロメタル フェルト	3
9		B3511-280-000	OIL FELT	ウワシ ^ャ クメタル フェルト	1
0		CS-0950810-SH	THRUST COLLAR ASH, D=9.5 V=8	スラストウケ D=9.5 W=8 クミ	1
51 52		55-8110410-TP	SCREW 11/64-40 L= 3.5	トメネシ 11/64-40 L=3.5	(2)
3		CQ-2020000-00 B1432-027-000	OIL WICK	ユシン	(0.04)
	#02		OIL PAD ROLLER	ハリホー ヨート・・・タ・イ・フェルト	1
		0.20010-00	NEEDLE SY3355 160	עא SY3355 160	1
		Note (注記)#01	SELECTIVE PART	35 ta 5n a	
		#02	FOR JE	選択部品	
		• •		JE向のみ	6

4. PRESSER BAR COMPONENTS 押え棒関係

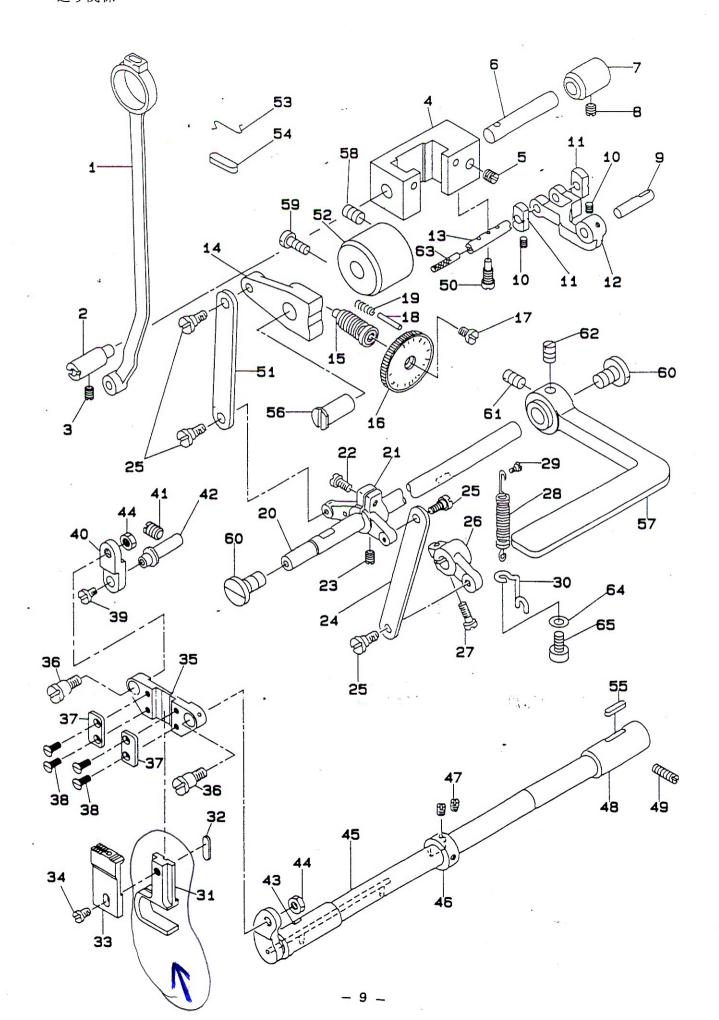


REF.NO NO	TE PART NO.	DESCRIPTION	t	Qty
1	B1501-241-H00	PRESSER BAR	オサエホ~-	1
2	B1510-155-000	PRESSER BAR LOWER BUSHING	オサエホャー シタメタル	1
3	SS-8150710-SP	SCREW 15/64-28 L=7	トメネシ" 15/64-28 L=7	1
4	SS-6090910-TP	SCREW 9/64-40 L=9	ヒラネシ* 9/64-40 L=9	1
5	B1525-053-0A0	PRESSER FOOT ASM.	オサエ (アンセ*ンカハ*・ツキ) クミ	1
6	D1462-241-E00	CONNECTING PIN ROLLER	オサエアケーテコターイ シーク コロ	1
7	D1463-241-E00	PRESSER BAR BRACKET GUIDE	オサエアケーテコ カーイトー	1
8	D1464-241-E0A	GUIDE PLATE BASE	オサエアケプテコカプイトプイタトプタブイ	1
9	B1509-141-H00	PRESSER SPRING REGULATOR	オテエチヨーセツネシブ	1
10	B1511-555-000		オサエチョーセツネシ* ナット	1
11	B1502-246-000	PRESSER SPRING	オサエ チョウセツ ハ"ネ	1
12	B1512-141-H00	HAND LIFTER	オサエアケー	1
13	31515-051-000	HAND LIFTER PIN	オサエアケ* シ*ケ	1
14	SD-0800481-SP	HINGE SCREW D= 8 H= 4.9	タブンネシ゛ D=8 H=4.9	1
15	SS-7111310-SP	SCREW 11/64-40 L=12.8	マルヒラネシ* 11/64-40 L=12.8	1
16	B1460-245-000	PRESSER LIFTING LEVER BASE	オサエアケーテコターイ	1
17	B1461-245-000	GUIDE SHAFT HINGE SCREW	カーイト・シークターンネシー	1
18	B1462-053-000	THREAD RELEASE SPRING	イトユルメ ウケイヌ ハブネ	1
19	B1460-246-0A0	THREAD RELEASE GUIDE ASM.	イト ユルメ ウケイタ (ケサユニウ)	1
20	B3401-340-000	PRESSER BAR LIFTING LEVER	<u> </u>	1
21	SD-1127321-SP	HINGE SCREW D=12.70 H= 3.2	ターンキシー D=12.7 H=3.2	1
22	SS-7621040-SP	SCREW 3/16-32 L= 9.5	マルヒラネシ 3/16-32 L=9.5	1
23 24	SS-7150740-SP		マルヒラネシ 15/64-28 L=7	2
24	SS-7621040-SP	SCREW 3/16-32 L= 9.5	マルヒラネシ 3/16-32 L=9.5	1

5. UPPER FEED MECHANISM COMPONENTS 上送り関係

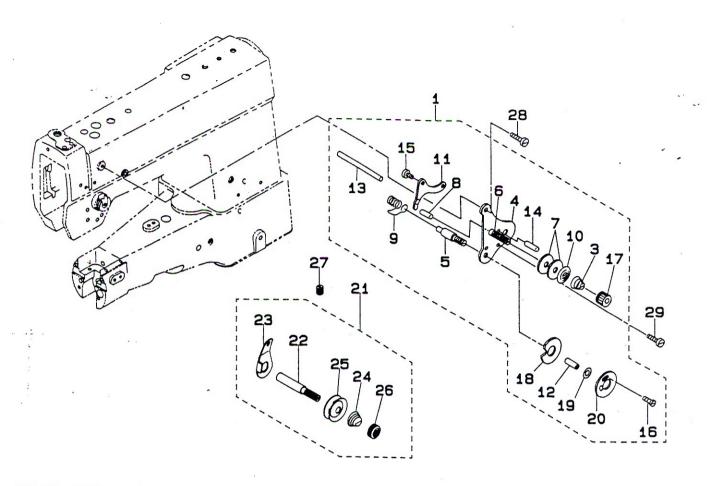


REF.NO	NOTE	PART NO.	DESCRIPTION	ヒンメイ	Qty
1		B1466-053-000-A	WALKING BAR	· ウワオクリホ~ -	1
2		B1470-053-000	WALKING FOOT	ウワオクリアシ	i
3		B1455-053-000	BUSHING	ウラオクリシーク メネル	2
4 5		B1456-053-000	UPPER FEED DRIVING SHAFT	ウワオクリシブク	1
5		B1457-055-000	SCREW STUD	ウワオクリ レンケツ タ*ンネシ*	1
6		B1458-241-H00	UPPER FEED CONNECTING LINK	ウワオクリレンケツリンク	1
7		D1459-241-E00	L SHAPED LINK	Lカプタ リンク	1
8 9		B1465-053-000	WALKING BAR DRIVING LINK	ウワオクリ ヨート*ーリンク	1
		212-30057	WALKING BAR SPRING	ウワオクリハ"ネシシ"ホ"ウ(クミ)	1
_10		B1468-053-000	WALKING BAR SPRING	ウワオクリホー オサエハブネ	1
11		B1702-012-000	OIL FELT	7111	1
12		11113-012-000	FELT RETAINER	7161 771	1
13		υ1453-055-B00	UPPER FEED DRIVING ROD	ウワオクリ ロット	1
14		D1454-055-B00	UPPER FEED SPRING ROD	ウワオクリウテブ	1
_15		D1455-055-B00	CONNECTING STUD	ウワオクリ ロット レンケッシック	1
16		D1456-055-B00	HINGE SCREW	ウワオクリ ロット・ターンネシー	1
17		WP-0482086-SD	WASHER 4.8X11.5X2	ヒラサ"カ"ネ 4.8X11.5X2	i
18		NS-6110530-SP	NUT 11/64-40	ロッカクナット 11/64-40	1
19		NS-6660430-SP	NUT 1/4-40	ロツカクナット 1/4-40	ī
20		SS-6110710-TP	SCREW 11/64-40 L= 6.5	ヒラネシ 11/64-40 L=6.5	i
21		SS-9161610-SP	SCREW 1/4-24 L=16	ロッカクホールト 1/4-24 L=16	1
22		212-30107	WALKING BAR RETAINING PLATE	ウワオクリハーネシシーホーウウケイタ	i
23		SS-7090710-SP	SCREW 9/64-40 L= 6.8	マルヒラネシ 9/64-40 L=6.8	2
24		CQ-2020000-00	OIL WICK	195	0.02



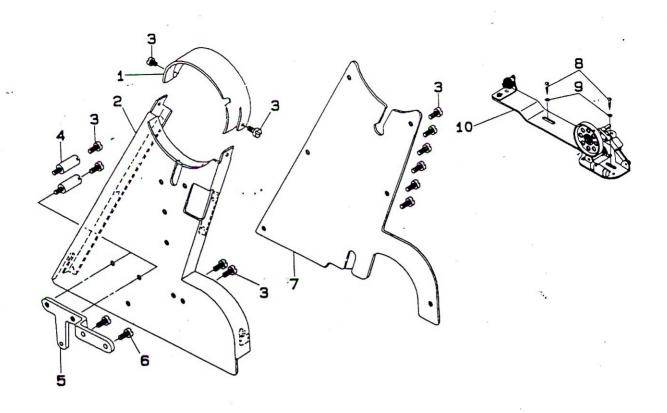
REF.NO	NOTE PART NO.	DESCRIPTION	ヒンメイ	Q to
1 .	· B1619-246-000	CONNECTING ROD	オクリ ロット*	
2	B1621-246-000		オクリ ヘンカン タイ シェク	
3	SS-8150510-TP	SUREW 15/64-28 L= 4.7	トメネシ 15/64-28 L=4.7	
4 5	212-26006	FEED DRIVING ROCKER	オクリヘンカンタイ	:
5	SS-8151150-SP		トメネシ* 15/64-28 L=10.5	
6	B1622-246-000		オクリ ヘンカン シンク	-
7	B1623-246-000		オクリ ヘンカン ジェク メタル	
8	SS-8150510-TP		トメネシ 15/64-28 L=4.7	
10	B1627-246-000		スイヘイ オクリウテ シーク	
11	SS-8090540-SP	SCREW 9/64-40 L=5	トメネジ 9/64-40 L=5	
12	B1626-246-000	SLIDE BLOCK	オクリ ヘンカン カクユーマ	
13	B1624-246-000		オクリ チヨウセツ リンク	
14	B1625-246-000	SLIDE BLOCK SHAFT	オクリ ヘンオン カクユ゛マ シ゛ケ	
15	212-26501	FEED REGULATOR	オクリチョウセツキ	
16	B1652-115-000		オクリチヨーセツネシ゛	
17	B1633-246-000	STITCH DIAL	メモリイタ	
18	SS-6121050-SP		ヒラネシ* 3/16-28 L=9.5	
19	B1147-555-000		オクリ チョーセツ ヒ°ン	1
20	B1148-555-000	SPRING	オクリ チヨーセツ ヒ°ン∧*ネ	-
21	212-26402	REVERSE FEED LEVER SHAFT	オクリレハー・シーク	
21	212-26105	CONTROL LEVER CRANK	オクリレハ゛ーシ゛クウテ゛	
	SS-6121210-SP		ヒラネシ 3/16-28 L=9	
23	SS-8150710-SP		トメネシ* 15/64-28 L=7	-
24	B1630-246-000	CONTROL LEVER CRANK LINK	オクリ ヘンカン リンク (A)	
25	SD-0640325-SP	HINGE SCREW	タ*ンネシ*	
26	B1631-246-000		オクリ ヘンオン シーク ウテー	
27	SS-6121210-SP	SCREW 3/16-28 L=12	ヒラネシ 3/16-28 L=9	
28	B1666-246-000		ヒツハ°リ ハ**ネ	
29	SD-0400201-SD	HINGE SCREW D= 4 H= 2	タ*ンネシ* D=4 H=2	10-
30	212-26709	SUSPENSION HOOK	ヒッハ・リハ・ネカケ	
31	▲ B1602-340-000		オクリターイフタマタ	
32	B1806-038-000	OIL FELT	シタシーク ウシロメタル フェルト	
33	212-25305	FEED DOG, 3.2MM	オクリハ*(オフ°ション ハリアナ:3.2)	1
34	SS-6110670-TP		マルヒラネシ	
35	B1601-340-000		オクリタブイラサエ	1
36	SD-0790701-SP	HINGE SCREW D=7.94 H=7	ターンネシー	
37	B1603-340-000		オクリターイオサエイタ	1
38	SS-1080620-SP	SCREW 1/8-44 L=6	サラネシ* 1/8-44 L=6	,
39	SS-7110830-SP		マルヒラネシ 11/64-40 L=7.5	
10	B1616-246-000	FEED BAR LINK	オクリ ターイ リンク	
41	SS-8150750-SP	SCREW 15/64-28 L=7	トメネシ* 15/64-28 L=7	
42	B1617-246-000	FEED ROCKER LINK SHAFT	スイヘイ オクリ リンク シック	
43	B1607-246-000	BUSHING, FRONT	スイヘイ オクリシーク マエメタル	1
44	NS-6660430-SP	NUT 1/4-40	ロッカフナット 1/4-40	2
15	212-24308	FEED ROCKER SHAFT	スイヘイオクリシーク	
16	CS-1111019-SH	THRUST COLLAR D=11.11 W=10	スラストウケ D=11.11 W=10	1
17	SS-8660610-TP	SCREW 1/4-40 L=6	トメネシ 1/4-40 L=6	
18	B1609-246-000	BUSHING, REAR	スイヘイ オクリシーク ウシロメタル	1
19	SS-8151550-SP	SCREW 15/64-28 L=15	トメネシ* 15/64-28 L=15	
<u> </u>	SS-7151550-SP		マルヒラネシ 15/64-28 L=14.5	:
1	212-26303	FEED LEVER CONNECTING LINK B	オクリヘンカンリンク (B)	
2	212-26600	FEED REGULATOR BUSHING	オクリチョウセツキファッシュ	
3	B1213-012-000	FELT RETAINER	フェルト オサエ	
4	B1702-012-000	OIL FELT	7111	
55	B1806-038-000	OIL FELT	シタシーク ウシロメタル フェルト	-
6	B1622-555-000	HINGE PIN	オクリ チョーセッタ・イ トメシック	
57	B1624-141-H00	FEED LEVER	オクリレハー	;
	SS-8151150-SP	SCREW 15/64-28 L=10.5	トメネシ 15/64-28 L=10.5	
		SCREW 15/64-28 L=14	ヒラネシ 15/64-28 L=14	1
9	SS-6151440-SP	DCKEW 13/04 20 E-14		
59 50	SS-7620750-SP	SCREW 3/16-32 L= 6.5		,
59 50 51	SS-7620750-SP SS-8660810-TP	SCREW 3/16-32 L= 6.5	マルヒラネシ 3/16-32 L=6.5	
59 50 51 52	SS-7620750-SP SS-8660810-TP SS-8661040-TP	SCREW 3/16-32 L= 6.5 SCREW 1/4-40 L=8	マルヒラネシ* 3/16-32 L=6.5 トメネシ* 1/4-40 L=8	1
59 50 51 52 53	SS-7620750-SP SS-8660810-TP SS-8661040-TP CQ-2000000-00	SCREW 3/16-32 L= 6.5 SCREW 1/4-40 L=8 SCREW 1/4-40 L=10	マルヒラネシ* 3/16-32 L=6.5 トメネシ* 1/4-40 L=8 トメネシ* 1/4-40 L=10	2
58 59 50 51 52 53 54 55	SS-7620750-SP SS-8660810-TP SS-8661040-TP	SCREW 3/16-32 L= 6.5 SCREW 1/4-40 L=8	マルヒラネシ* 3/16-32 L=6.5 トメネシ* 1/4-40 L=8	1 1 (0.1

7. THREAD TENSION COMPONENTS 糸調子関係



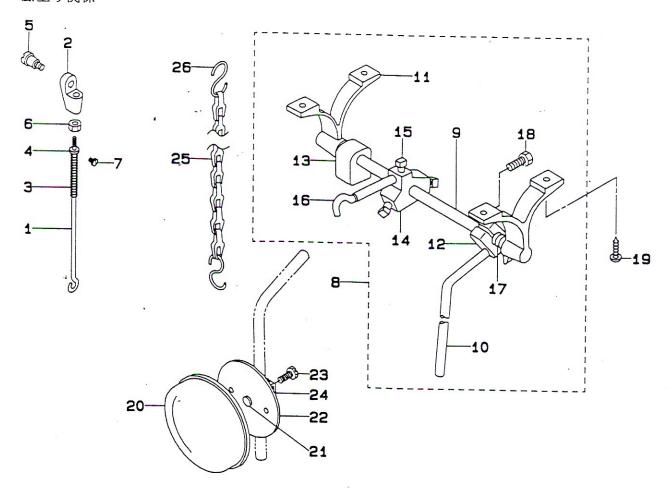
REF.NO	NOTE PART NO.	DESCRIPTION	ヒンメイ	Qty
1	212-30552	TENSION CONTROLLER ASM.	イトチョウシ (クミ)	
2	B3125-012-000	THREAD TENSION NUT	イトチョーシ ナツト	1
3	B3129-053-000	TENSION SPRING	イトチョーシハーネ	(1)
4 5	B3121-512-000	TENSION CONTROLLER BASE	イトチョーシ タディイタ	(1)
5	B3123-051-000	TAKE-UP SPRING STUD	1173 0 3 443 1173 0 3 443 1173 0 3 443 1173 0 3 443	(1)
- 6	B3124-051-000 -	TENSION STUD	イトチョーシネギー	(1)
7	B3126-051-000	TENSION DISC	イトチョーシ サラ	(1)
8 9	B3127-051-000	TENSION RELEASE PIN, SHORT	イトユルメ ヒ°ン	(1)
9	B3128-051-000	THREAD TAKE-UP SPRING A	イトトリハーネ	(1)
10	B3132-051-000	TENSION DISC HOLDER		(1)
11	B3134-051-000	TENSION RELEASE LEVER	<u>- イトチョーシサラ オサエ</u> イトユルメ イタ	(1)
12	B3137-051-00A	TAKE-UP SPRING CUITT SHAFT		(1)
13	B3122-053-000	TENSION RELEASE BAG	イバリグラ アンティ がえがり ツーツ	(1)
14	PS-0200122-KO	SPRING PIN 2.0X12	イトユルメ オシホー	(1)
15	SD-0470281-SP	HINGE SCREW D=4.7 H=2.8	スプ°リンク*ヒ°ン 2.0X12	(1)
16	SS-4080610-SP	SCREW 1/8-44 L=6.4	ターンネシー D=4.7 H=2.8	(2)
17	103-20208	THRED TENSION STUD NUT	ナヘーキシー 1/8-44 L=6.4	(1)
18	B3137-051-00B	TENSION GUIDE DISC, INNER	イトトリハーネシークナット	(1)
19	B3137-051-00C	SHAFT	イトトリハ ネ アンナイサラ (ウチカ・ワ)	(1)
20	B3137-051-00D	TENSION GUIDE DISC, OUTER	イトトリハーネ アンナイシーク	(1)
21	212-21452	TENSION CONTROLLER ASM. NO.1	イトトリハーネ アンナイサラ(ソトカーワ)	(1)
22	D3161-555-B00	FIRST TENSION POST	ターイイチイトチョウシセット	1
2.3	D3162-555-B00	THREAD GUIDE	ターイイチ イトチョーシホー	(1)
24	D3168-555-HOB	SPRING	タ*イイチ イトチヨーシホ*ー アンナイ	(1)
25	B3214-047-000	BOBBIN WINDER TENSION DISC	ターイ1 イトチヨウシハーネ	(1)
26	B3216-047-000	BOBBIN WINDER TENSION NUT	イトチヨーシ サラ	(2)
27	SS-8110510-SP	SCREW 11/64-40 I-E	イトチョーシ ナツト	(1)
28	SS-7110720-SP	SCREW 11/64-40 L=5	トメネシ" 11/64-40 L=5	1
29	SS-2090710-SP		マルヒラネシ* 11/64-40 L=7	1
	33 2090 110-SF	SCREW 9/64-40 L=7	マルサラネシ* 9/64-40 L=7	1

8. BELT COVER & BOBBIN WINDER COMPONENTS ベルトカバー・糸巻装置関係



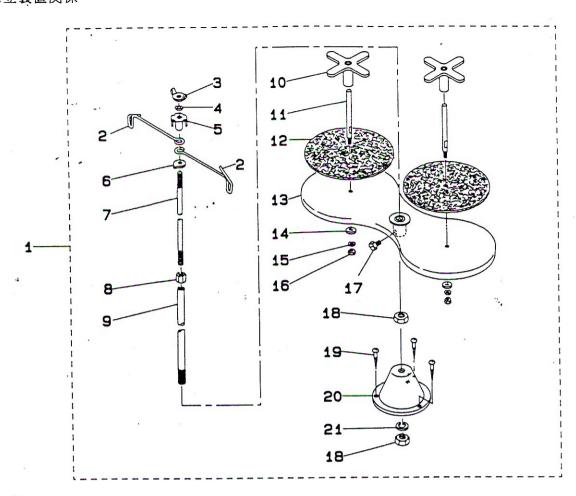
REF.NO	NOTE	PART NO.	DESCRIPTION		٤	צ	×	1	Qty
1 2 3 4 5	700	B9101-246-000 B9102-245-0A0 SS-6110480-SP B9106-246-000 B9107-246-000	BELT COVER, TOP BELT COVER ASM. SCREW 11/64-40 L=4.3 BELT COVER SUPPORT BELT COVER SUPPORT PLATE	P	トツフ [*] カン ヘ* ルトカン ヒラネシ* ヘ* ルト コ ヘ* ルト	^~-(ケ 11/6 カ^~-	4-40 ††I	L=4.3	1 1 12 2
7 8 9		SS-6111140-SP B9104-246-000 SK-3482500-SC WP-0501016-SC B3201-012-0A0	SCREW 11/64-40 L=11 BELT COVER, LOWER WOOD SCREW D=4.8 L=25 WASHER 5X10.5X1 BOBBIN WINDER ASM.		ヒラネシ* ヘ* ルトカン マルモクネン ヒラチ*カ* イトマキ	n*- (2* D ** 5X	7タ) =4.8	L=25	2 1 2 2 1

9. KNEE LIFTER COMPONENTS 膝上げ関係



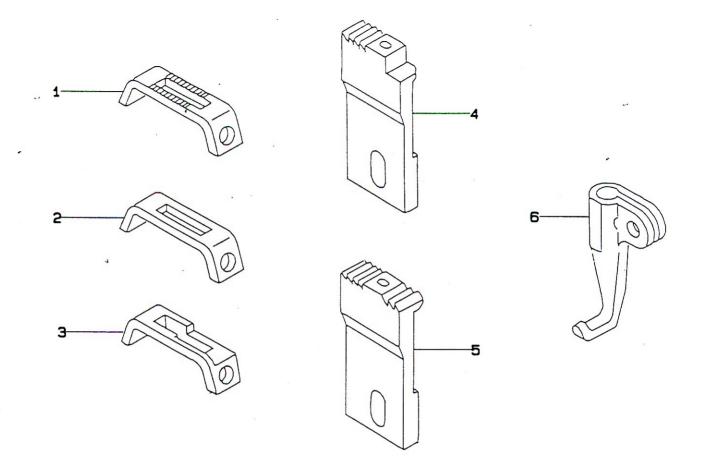
REF.NO	NOTE	PART NO.	DESCRIPTION	ヒンメイ	Qty
1		212-30602	HANGING ROD		
2		210-27503	BAR CONNECTION	ツリネ*ウ	1
3		212-30701	SPRING	ツリホーウタールマ	1
4		B3418-245-000	SPRING HOLDER	アトヴリホーウオシハーネ	1
5		SD-0790601-SP	HINGE SCREW D=7.94 H=6	ヒサーアケーテュハーネウケ	1
6		NS-6620310-SP	NUT 3/16-32	タ*ンネシ* D=7.94 H=6	1
7		SS-7110730-SP	SCREW 11/64-40 L= 6.5	ロッカクナット 3/16-32	1
8		B3420-245-0A0		マルヒラネシ 11/64-40 L=6.5	1
9		B3420-245-000	KNEE LIFTER ASM.	ヒサーアナーソウチクミ	1
10		B3422-245-000	MAIN SHAFT	シュシェケ	(1)
11		B3423-245-000	KNEE LIFTER PLATE ROD	<u>`Ŀサ*アケ*タチシ*</u> ク	(1)
12			KNEE PRESS ROD HOLDER	ササエ	(2)
3		53433-141-HOA -		ことす アテネトラ うらりりかべー	(i)
14		B3434-141-H00	BRACKE	FX2*47	(1)
15		B3424-141-H00	MOUNTING BRACKET	マカ*リウテ*サラエ タ*ルマ	
16		В3425-141-НОО		トメネシ	(1)
.7		B3424-245-000	KNEE LIFTER PLATE ARM	マカ゛リウテ゛	(3)
18		B3425-245-000-A	SPRING	ヒサーアケーカイテン トメハーネ	(1)
		SS-9182010-SN	SCREW 9/32-20 L=20	ロッカクホールト 9/32-20 L=20	(1)
9		SK-1483200-SE	WOOD SCREW D=4.8 L=32	#5##50# D 4 0 1 000	(2)
0		B3431-552-000-A	KNEE PRESS PLATE COVER	サラモクネシ D=4.8 L=32	4
21		110-24403	RUBBER	ヒサーアテイタ カハー	
2		110-23702	KNEE PRESS PLATE	ヒサーアテ ユーム	1
:3		110-23801	KNEE PRESS PLATE HOLDER	ヒサーアテイタ	1
.4		SS-9151540-SR	SCREW 15/64-28 L=15	ヒサーアテイタササエ	1
5		B8131-019-000	CHAIN 10/04 28 E-13	ロッカクホールト 15/64-28 L=15	1
26		B8133-019-000	S SHAPED HOOK	クサリ	1
			S SHALED HOOK	Sカータ カナクー	(2)

10. THREAD STAND COMPONENTS 糸立装置関係



REF.NO	NOTE	PART NO.	DESCRIPTION	ヒンメイ	Qty
1		B3301-012-0A0	THREAD STAND ASM.	イトタテ ソーチ クミ	1
2	1	B3307-012-000	THREAD GUIDE	イトタテ イトアンナイ	(2)
3		B3310-012-000	POSITION CUP SET SCREW	イトタテ イトアンナイ シメネシブ	(1)
4		WS-0641560-KR	SPRING WASHER 6.4X11.9X1.5	カーネサーカーネ 6.4X11.9X1.5	(1)
5		B3309-012-000	POSITION CUP	イトタテ イトアンナイ マワリト・メ	(1)
6		B3308-012-000	ROD WASHER	イトタテ イトアンナイウケ	(1)
7		B3306-012-000	SPOOL ROD	イトタテ ウエカン	(1)
8		NM-6061061-SE	NUT M6	ロッオクナット M6 10X11.5X10	(1)
9		B3302-012-000	SPOOL REST ROD	イトタテ シタカン	(1)
_10		B3312-012-000	SPOOL RETAINER	イトマキ フレト・メ	(2)
11		B3305-012-000	SPOOL PIN	イトマキ ウケホ"ー	(2)
12		12211-0200	SPOOL REST Change	イトマキタケナ	(2)
13		111-83209	SPOOL REST	イトマキ ウケ	(1)
14		WP-0560860-SE	WASHER 5.6X12X0.8	ヒラサ*オ*ネ 5.6X12X0.8	(2)
_15		WS-0531060-KR	SPRING WASHER 5.3X8.3X1	ハ*ネサ*カ*ネ 5.3X8.3X1	(2)
16		NS-6123881-SE	NUT 3/16-28	ロッカクナット 3/16-28	(2)
17		SM-9061080-SE	SCREW M6 L=10	ロサオクホールト M6 L=10	(1)
18		NM-6100663-SE	NUT M10	ロツオクナツト M10 3シュ	(2)
19		SK-3452000-SE	WOOD SCREW D=4.5 L=20	マルモクネシ D=4.5 L=20	(3)
20		B3301-012-000	SPOOL STAND	<u> </u>	(1)
21		WS-1002560-KR	SPRING WASHER 10X18X2.5	パネサ゚カ゚ネ 10X18X2.5	(1)

11. GAUGE COMPONENTS ゲージ関係



REF.NO	NOTE	PART NO.	DESCR	IPTION	е у _{ж. г} .	Qty
1 2 3 4 5	#01 #01 #01 #01 #01	212-22104 212-22005 212-22203 212-25107 212-25008 212-31006	THROAT PLATE THROAT PLATE THROAT PLATE FEED DOG (OPTION) FEED DOG WALKING FOOT		ハリイタ(JAムケ) ハリイタ ハリイタ オクリハ**(オフ°ション) オクリハ** ウワオクリアシ	1 1 1 1 1
		Note (注記)#01OPTION		∤ 7° ∿2∨	

FOR SAFE OPERATION



1. Keep your hands away from needle when you turn ON the power switch or while the machine is in operation.

 During operation, be careful not to allow your or any other person's head or hands to come close to the thread take-up, handwheel, V-belt, bobbin winder and motor. Also, do not place anything close to them.

3. Do not operate your machine with the finger guard, belt cover and any other protectors removed.

4. Before tilting the machine head, be sure to confirm that the head support bar is properly attached to your machine head.

 Before tilting the machine or removing the V belt, be sure to turn OFF the power switch and confirm that the motor of the sewing machine stops.

6. Tilt the machine head after removing the hook for the knee lifter.

7. When having tilted the machine head, wipe out oil on the bed underside, the top face of bed support and hinge area, and then raise up the machine head.



8. To ensure safety, never operate the machine with the ground wire for the power supply removed.

9. When inserting/removing the power plug, the power switch has to be turned OFF in advance.

10. In time of thunder and lightening, stop your work and disconnect the power plug from the receptacle so as to ensure safety.

11. If the machine is suddenly moved from a cold place to a warm place, dew condensation may be observed. In this case, turn ON the power to the machine after your have confirmed that there is no danger of water drops in the machine.

12. Turn OFF the power to the machine in the eyent of a power failure.

13. Do not allow the power cord to trail on the floor.