Operation manual and parts book

High speed, automatic, lockstitch sewing machine with programmable stitches

Art Auto 2



In order to create a better environment

Please, read carefully before use

First of all, I would like to express my heartfelt thanks to you for using our products. Our company is committed to caring for the earth's environment and has formulated the basic policy of "intelligent manufacturing and green manufacturing". Local citizens in environmental protection activities should also do little to the local community, the environment two aspects of everyone's contribution.

Therefore, I hope you can cooperate with this plan, as part of the environmental protection activities, when dealing with wastes in peacetime can pay more attention.

1. Unused packaging materials, in order to be recycled again, please send them to the local recycling company for disposal.

2.Lubricants used shall be properly handled according to relevant laws and regulations.

3.When parts need to be replaced in product maintenance or repair, there are unnecessary circuit boards and electronic parts, and when products are discarded, please treat them as electronic waste. Thank you very much for purchasing our industrial sewing machine Before using the sewing machine, please read <for your safe use> and use instructions carefully.

The characteristic of industrial sewing machine is that it should be operated near the moving parts such as needles and spindles, which are easy to cause injury, so place use the sewing machine correctly under the guidance of the safety operation knowledge of trained or skilled personnel.

Safe Use

[1] Security Usage Markup And Its Significance

The labels and pattern marks used in this instructions and products are for your safety and correct use of the products to prevent you and others from being harmed and damaged.

The methods and implications are as follows.



Patterns And Symbols

	•	•	•	•	•	•	•	•	•	•	•	
•	•	•	•	•	•	•	•	•	•	•	•	

The symbol (\triangle) indicates "points for attention". The pattern in the triangle represents the essential content that must be paid attention to. (For example, the pattern on the left shows "watch out for injuries".)

..... The symbol (\bigotimes) indicates "prohibition".



The symbol (●)indicates "must". The pattern in the circle indicates the substance of what must be done.

(For example, the pattern on the left shows "must be grounded".)

[2] Safety Precautions

⚠Danger

After closing the power switch and unplugging the power plug from the socket, wait for at least 5 minutes before opening the control box cover. Touching areas with high voltage can cause casualties.



Be careful



or place the objects on the moving parts, because this will cause injuries to people or damage to the sewing machine.When the head of the sewing machine falls down,

please make sure that the worktable is fixed and not moved at will. Accidents such as foot clamping have occurred in the move -ment of worktable, which is the cause of personal accidents.

When the sewing machine head falls down or stands up, please operate with both hands.

One-handed operation can easily cause injury if the weight of the sewing machine slips.

If the sewing machine operates incorrectly, or hears abnormal noise or smells abnormal odor, the power supply should b e cut off immediately. Then contact the shop or

If the sewing machine breaks down, please contact the shop or trained technicians.







Replacement of fragile parts such as spindle and cutter



Before opening the motor cover, be sure to turn off the power supply, wait a minute, and then perform the operation. Touching the motor surface can cause burns.



When the power switch must be connected to adjust, be sure to switch to maintenance mode. Be careful to observe all safety precautions

can work properly.

In order to prevent accidents and malfunctions, please do not alter the sewing machine without authorization. The Company will not be liable for any accident or malfunction caused by the modification of the sewing machine.

malfunction caused by the use of non-authentic parts.

it again, be sure to install it in situ and check whether it

When removing the safety protection device and installing

1 Precautions Prior to Startup

1. The machine head is coated with a thick layer of rust-prevention grease before encasement, and the encased machine head may possibly be subjected to grease hardening and dust buildup on the machine surface in process of long storage and

long-haul traffic; therefore, take care to remove the grease and dust from the surface using soft cloth and gasoline.

2. Though the machine was inspected and tested with care before factory leaving, it might be affected by violent vibration resulting in looseness or distortion of the machine parts; therefore the operator shall thoroughly check the machine, turn the upper wheel by hand and check it for difficulty in free rotation, slight impact, and other uneven resisting force or abnormal noises, and make appropriate adjustment if any to restore the machine state before formal trial run.

3. Never start up the machine if the oil liquid level in the oil box falls outside the normal range.

4. The upper wheel shall rotate counterclockwise (when it is viewed from the lateral surface of the upper wheel) when the machine is operating.

5. Check whether the voltage and phases indicated on the electric-control data plate are correct.

6.The date of manufacture is indicated on the certificate of conformity.

2 Precautions for Use

- 1.Never touch the needle by hand when the machine is powered on or while it is operating.
- 2.Never put your finger into the protection cover of take-up lever during operation of the machine.
- 3. The operator must not put his finger into the needle guard bracket when he feeds the sewing materials by hand.
- 4.Operator must trim off the electricity supply before he turns over the machine head or removes the hand cover.
- 5. The operator must trim off the electricity supply before he gets away from the machine.
- 6.Prohibit the head, hands and anything to approach the upper wheel and bobbin winder while the machine is operating.
- 7.Never remove or mount the protection cover or other protection devices before the machine is stopped.
- 8. Never wipe up the surface of machine head using paint thinner such as acetone.

Main Techanical Specifications

Specification		Parameter
Application		For medium-weight materials
Maxsewing s	peed	5000 sti/min
Maxstitch		5 or 7mm
Length Needle		DP ×5 9# ~ 22#
Presser foot	Hand lifter	5.5mm(Max)
lift height	Knee lifter	13mm(Max)
Lubricating system		Auto
Lubrication oil		10# White oil
Motorpower		220V/550W

4 Mounting the Machine (Fig. 1, Fig. 2, Fig. 3, Fig. 4 and Fig. 5)

1.Installation of oil pan and machine

Fix the oil pan ② under the table ①with 6 screws ③ as shown in the Fig.1.

As shown in the Fig,2 ,fix two cushions (5) and two support seats (6) in four corner of the machine table (5) respectively , then fix connecting hook seat (4) on the machine table (1) with 6 screws.











Insert machine head coupling hook⑦ into the pin holes in the bottom plate such that it is embedded into the coupling hook seat ④, and put the machine head onto the seating washer on four corners of the oil tray.

As shown in the picture, insert head support (8) into the machine table firmly.

1.Installation of plastic rear cover Plug in the connecting wires on the electronic control.

Fix the plastic rear cover on the sewing machine as the Fig.5 shown.

5 Lubrication of machine(Fig.6)

1.Lubrication of gearbox

Fill gearbox if the oil pointer ② below the lower tick mark in the oil window ③ when using the sewing machine.

The steps of lubrication are as fellow:

1) Remove the rubber plug ① of oil filler, fill with oil using the oil bottle in accessory box. (No.10 white oil)

2) Fill oil until the oil pointer ② reaches the upper tick mark in the oil window ③.Do not fill too much oil otherwise the oil will flow into head when turnover machine.



Caution:

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2.When using the new sewing machine for the first time, open the rubber plug (1) of oil filler and fill with 500ml oil.(No.10 white oil)



6 Mounting the Thread Stand (Fig.7)

1.As shown in right-hand figure, mount the thread stand component onto the mounting hole for thread stand on the sewing machine table.

2.Screw down retaining nut 1 for lower segment of thread stand lever to fix the thread stand.





7 Mounting the Needle (Fig.8)

- 1. Turn the upper wheel to allow the needle to reach its maximum height.
- 2. Unscrew needle carrying screw 2 hold needle 1 by hand, and align the indentation A of needle to right direction B.
- 3. Insert the needle into the bottom of needle hole in direction of arrow till it reaches the end point.
- 4. Screw down the needle carrying screw 2
- 5. Take care to ensure that the elongated slot C on the needle is aligned to the left direction D.



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2. Needles are available in different sizes. Please select appropriate needle as per the thickness of threads and the sewing materials.

8 Mounting the Bobbin (Fig. 9)



1.Hold the rotating hook by hand, and fit t he bobbin into the rotating hook.

2.Thread the thread through the thread groove A in the rotating hook, and draw out the thread in direction C. In this way, the thread is led out of hole B through the tension spring.3.When bobbin thread is drawn, the bobbinshall turn clockwise in direction of arrow.



9 Installation of bobbin case (Fig. 10)

1. Turn the machine pulley to raise the needle until it is above the needle plate.

2.Hold the bobbin case ① (with bobbin) with one hand, then install the bobbin case into theok.



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10 Winding up the Bobbin Thread (Fig. 11, Fig. 12)

- 1.Bobbin thread winding-up method Fit bobbin ① onto spool ②.
- 2.Thread the right-hand thread coiling onthread stand as shown in right-hand figure, and reel the thread end rightwards onto the bobbin for several turns.
- 3.Push winding lever ③ over to directionA, and run the sewing machine. Bobbin ① is rotated in direction C, and thread is reeled onto bobbin ①. Once the reel is full, winding lever③ is pushed toward direction B, and winding is over.

Remove bobbin 1, and trim off the thread using winding trimmer 4.





1. To reel bobbin thread onto bobbin (1) when no sewing is performed, draw the needle thread out of hole in the take-up lever, remove bobbin (1) out of rotating hook.

2.Do not touch or lean anything to any running components when rolling the bottom line, in order to avoid the safety accident.

- 1.Adjusting the bobbin thread winding
 - 1)To adjust the winding capacity of bobbinthread, unscrew fixing screw (5),set winding lever (3) in direction A or direction B, and fix screw (5) again. Direction A is intended for reduction, and direction B is intended for increase(Caution:The amount of thread wound onto the bobbin should be a maximum of 80% of the bobbin capacity).
 - 2.If thread cannot be wound onto the bob

bin flatly, unscrew nut (6), turn the winding tesion disco, and adjust the height of height of thread gripper plate \mathcal{T} .

a. The standard position is reached once the center heights of rotating hook (1) and thread gripper plate (7) are identical.

b. If the winding amount on the lower part is bigger, move the winding tension discoin direction D indicated in the right hand figure.

3.If the winding amount on upper part is bigger, move the winding tension disco in direction E indicated in the right-hand figure.

When the winding tension disco reaches its suitable position, screw down fixing screw (6). Adjust the winding tension of bobbin thread by turning thread tension nut (8). Thread the needle thread when needle bar stays in its highest position, lead out the thread end from the thread stand, and conduct threading as per the serial numbers indicated in the figure.

11 Threading the Needle Thread (Fig. 13)



Caution:

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12 Lifting of presser foot(Fig. 14, Fig. 15)

1.Lift presser foot controlled by hands

- 1)Shut down the machine, turn presser footlever ① in direction A to uplift the presser foot (for about 5.5 mm).
- 2)When presser foot lever ① is turned in direction B, presser foot will be returned to its original position.
- 2.Lift presser foot controlled by knees

The presser foot ③ can be raised by pressing the knee lifter plate ② . (Height of presser lifting is relate to the degree of knees pressing) The height of presser foot are respectively about 10mm and 13mm when pressing knees fully. The lifting presser foot ③ lowers as soon as loosing the knee lifter plate ② release.



13 Adjusting the Stitch Length

The stitch pitch is controlled by the stepper motor , and there is no mechanical function to adjust the stitch pitch . If you need to adjust the stitch pitch , please directly adjust the stitch pitch on the operation panel. For the specific adjustment method , please refer to the elec-tronic control operation manual.

14 Hand-touch Backstitch Device(Fig. 16)

1.Use of back sewing push-button

1) Push the backstitch switching push-button ①to allow the sewing machine to start backstitch immediately.

- 2) Backstitch is implemented only while the push-button is held down.
- 3) It is changed to forward stitch once the push-button is released.
- 2. Use of reinforce sewing

Press the reinforce sewing button 2 one time, the sewing machine reinforce forth with half stitch, press all the time, it continues sewing with forth reinforce.

Caution: in addition to continue back reinforce sewing,the reinforce sewing boutton can be as stop button ② during any sewing condition.(before trimming)

3. Use of the light push-button

The illuminating lamp goes on at full brightness once the machine is powered on. Push illuminating lamp control button ③ to reduce in sequence the brightness till turn off.





15 Operating the Treadle(Fig. 17)

1. The treadle has 4 operation levels:

- 1) The machine runs at low sewing speed when you lightly depress the front part of the pedal. (as show in the picture B)
- 2) The machine runs at high sewing speed when you further depress the front part of the pedal. (as show in the picture A)
- 3) Pedal back to the initial position when stepping on it and the machine stop working.(needle in the upper or down position)(as show in the picture C)
- 4) The machine trims threads when you fullydepress the back part of the pedal (as show in the picture A).

When the auto-lifer is used,one more operating switch is provided between the sewing machine stop switch and thread trimming switch. The presser foot goes up when you lightly depress the back part of the pedal(D), and if you further depress the back part, the thread trimmer is actuated.

16 Adjusting the Treadle(Fig. 18, Fig. 19, Fig. 20)

1.Adjusting the angle of treadle

- 1) Adjust the angle of treadle only by adjusting the length of treadle connecting rod: unscrew screw ①, and adjust the length of treadle connecting rod by moving upward/ downward the upper connecting rod ② and lower connecting rod ③.
- 2) Screw down screw ① when adjustment is over.



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2.Adjustment of the strength of pedal

The sewing machine run at a low speed when step forth on the panel slightly. If the strength is insufficient, hang the stepping adjustment spring 4 on the panel spiral arm driving lever 5 in order to adjust strength. (a is the minimum stepping strength ,b,c,d increase gradually)



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3.Adjustment of stepping return strength

1) Loosing nut (6) and turn bolt (7) to adjust stepping return strength : tighten bolt (7) the strength increases; loosen bolt (7), the strength decreases.

a) Tighten nut 6 after adjusting stepping return strength.



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4. Adjustment of panel moving distance

- 1) Remove nut (8).
- 2) Move connecting rod joint (9) from A to B,panel moving distance is 1.3 times than original one.
- 3) Move reversely the distance is 0.8 times as original one.
- 4) Assembly the nut 8 after adjusting panelmoving distance.

Caution:



1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

2. Stepping strength and stepping return strength both change after adjusting panel movement, follow the steps above to have adjustments again.



17 Oil mass Adjustment of Rotating Hook (Fig.21, Fig.22, Fig.23)

1.Adjustment method

- Adjust the oil mass of rotating hook usingadjusting screw ① :Screw down (turn it to the right) adjusting screw ① to raise the oil mass ,or unscrew (turn it to the right) the adjusting screw to lower the oil mass. Amount repeatedly until the lubrication amount is correct.
- 2) Check the lubrication amount again after the sewing machine has been used for approximately two hours.





2. Confirming the Oil Mass

- 1)Remove the thread from all points from the thread take-up to the needle.
- 2)Use the lifting lever to lift the presser foot.
- 3)Run the machine at the normal sewing speed for approximately 3 minute without sewing any material (following the same start/stop pattern as when actually sewing)



4) Place the lubrication amount check sheet (2) underneath the rotary hook (3) and hold it there. Then run the sewing machine at the normal sewing speed for 10 seconds.

(Any type of paper can be used as the lubrication amount check sheet 2)

5) Check the amount of oil which has spattered onto the sheet 2.



Caution:

1.Prior to the above-mentioned operation, remove the knockout plate and check whether there is oil in the oil box.

2.Do not use fingers to touch the hook or other running components of feeding mechanism when checking the amount of oil for the hook to avoid the accident.

3.Use the following procedure to check the amount of oil being supplied to the rotary hook when replacing the rotary hook or when changing the sewing speed.

3. Guide sample of oil mass adequacy

1)The guide sample shown in the right-hand figure(see Fig. 23) may be finely adjusted

18 Adjusting t he Presser Foot Pressure(Fig. 2 4)

1.Unscrew pressure adjusting nut 2.

2.Presser foot pressure is:

-increased if pressure adjusting screw ① is turned clockwise (namely in direction A); -reduced if the screw is turned counterclockwise (namely in direction B).

3.Screw down pressure adjusting nut (2) when adjustment is over.





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2. For ordinary materials, the standard height of pressure adjusting screw (1) ranges from 32 to 34mm (4.5 kilogram force) approximately.

19 Adjusting t he height and angle of presser foot(Fig. 25)

1.Loosen pressure adjusting nut (2) and screw (1), free the pressure of presser foot

2. Open rubber plug 3 in panel.

3.Loosen screw (4) in compression rod guide frame, move mobile compression rod (5) from up and down to adjust the height and angle of presser foot. (height of presser foot is the distance from needle plate surface to the bottom of it, the standard height of lifting presser foot by hand is 5.5mm)

4. Tighten the screw ④ in compression rodguide frame and assembly the rubber plug ③ after adjusting.

5. Adjust pressure of presser foot through pressure adjusting screw (1), tighten the nut (2) after adjusting.

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2.After adjusting, check that the needle moves down into the center of the groove in the presser foot.

20 Adjustment of The Knee Lift Height(Fig. 26)

1. Turn the machine pulley so that the feed dog is below the top of the needle plate.

2.Lower the presser foot by using the lifting lever.

3.Unscrew the nut ① and rotating the screw ② are the purpose to adjust the height of presser foot when the knee totally pushed to the touch point (by knee, the standard height:10 mm, the maximum height :13mm)

4.Securely tighten the nut ①.

Caution: 1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.



21 Adjusting t he Tension of S titch Thread(Fig. 2 7, Fig. 28)

1. Adjusting the tension of bobbin threadHold the end of a thread which hanging from the bobbin case and use the adjusting rotating scerw (1) to regulate. The tension of the bottom thread is become strong by tight the screw (1), loose the screw to make it weak.

Caution : The adjust standard of the bottom thread tension: Rotating the adjusting screw (1) till the bobbin case can falling slowly by it's own weight.



1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

2.Adjusting the tension of needle thread

After the lower thread tension has been adjusted, adjust the upper thread tension so that a good, even stitch is obtained.

1) Lower the presser foot by using the liftinglever.

2) Adjust by turning the tension nut (2):

The tension of the upper thread will become strong when turning toward the clockwise(A), otherwise weak when toward anti-clockwise (B).





22 Adjustment of the Upper Thread Lengthfter Trimming(Fig. 29)

At the time of thread trimming,the thread tension is loosened and tension is applied by the thread clamp (1) only. If added the tension in the thread clamp (1), the upper thread length that left in the pinhole will be shorter, and vice versa.

1. The length of upper thread which left in the pinhole will decrease when turning the adjusting nut (2) in the thread clamp (1) towards the clockwise (A), otherwise it will increase when turn toward anti-clockwise (B). (The standard length of the upper thread which left in the pinhole is 25~30mm)

23 Adjusting the Take-up Amount of Take-up Lever(Fig. 30)

- 1. Unscrewing the screw (1).
- 2.Move the right thread hook ② to adjust : the thread amount of thread take-up lever will incr ease if turned it towards left (A direction), while turning it to the right (direction B) and the thread amount of thread take-up lever will decrease accordingly.(The standard position is obtained when graduation line C on right thread hook is aligned to screw center.)
- 3.Remember to tight the screw 1 after adjusting.





1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

- 2.For heavy duty , move the right thread hook ② to left to add amount of thread.
- 3.For light material , move the right thread hook 2 to right to reduce amount of the thread.

24 Adjusting the Take-up Spring (Fig. 31)

1. Adjusting the tension of take-up spring

- 1) Unscrew screw ②, and take out thread clamp ⑤(assembly).
- 2) Unscrew screw ④ in thread clamp ⑤.
- 3) Rotating the screw (3) in the thread clamp to adjust, The tension of the thread take-up spring will become larger when turning toward the clockwise(A), otherwise smaller when towarding anticlockwise (B).
- 2. Screw down screw 4 when adjustment isover, fit thread clamp 5 (assembly) into the machine,and screw down screw 2

Judgment basis for adjustment adequacy of take-up spring:Confirm that the tension of take-up spring is properly adjusted, draw out the needle thread in direction B. If place B of needle thread is drawn before take-up spring reaches its lowest position, reduce the tension of take-up spring.



1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

2. The take-up spring is already adjusted properly before the machine leaves the factory as a rule, and it requires readjustment only for sewing of special materials or usage of special stitch threads.

2.Adjustment of the Stroke to the Thread take-up Spring:

- 1) Lower the presser foot by using the lifting lever.
- 2) Loosen the set screw 2.

3) Rotating the screw ③ in the clamp to adjust, the stroke to the Thread take-up Spring ① will increase when turning toward the clockwise(A), otherwise decrease when toward anti-clockwise (B). (The standard stroke, under the state of presser foot was put down is around 6~7mm higher than the slow hook)

4).Securely tighten the screw2.



Caution:

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2. The take-up spring is already adjusted properly before the machine leaves the factory as a rule, and it requires readjustment only for sewing of special materials or usage of special stitch threads.





25 Adjust the Height of the Needle B ar(Fig. 3 2)

1. Turn the machine pulley to set the needlear ① to its lowest position.

2.Remove the rubber cap (2) from the face plate.

3.Unscrewing the connecting screw ③ of needle bar, through moving the needle bar ① up and down to adjust, when using needle DB X1 and DPX5, the mark A on the needle bar should be ① match to the bottom of needle bar lower bushing; When using DAX1, the mark C on needle bar ① should match to the bottom of needle bar lower bushing.

4. Tighten the screw ③ in compression rod guide frame and assembly the rubber plug② after adjusting.



Caution:

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26 Adjust the Synchronization of the needle and hook(Fig. 33)

1. Unscrewing the two positioning screw 1 of hook.

2. Rotating the hand wheel to make needle bar 2 lift from the lowest place, when using needle DBX1 and DPX5, the mark B on needle bar2 should match to the bottom of lower needle bar
2 bushing, when using needle DAX1, the mark D on needle bar 2 should match to the bottom of lower needle bar 2 bushing.

3. Moving the hook to match the hook point ③ with center of needle ④. Meantime, make the space between the hook point ③ and needle ④ 0~0.05mm.

4. Tightening two positioning screw ① of hook.



1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

2.If the clearance between notch on needle and thread hooking tip of rotating hook is too small, rotating hook tip may be worn; if the clearance is excessive, skipped stitch may take place.

3.It may lead to needle breakage if over-rotating the eccentric wheel towards A direction.



27 Adjust the Synchronization of the Needle and Feed(Fig. 34)

1.Remove the rubber plug ①.

- 2.Loosen the two set screws ③ of the feedeccentric cam ②, and then turn the feed eccentric cam ② slightly to adjust the timing: If make the needle sooner than material feeding, rotate toward A direction. If make the needle later than material feeding, rotate toward B direction. (The standard of adjustment is when the feed dog falling from the highest to the surface of needle plate, the top of the needle and needle plate should at the same level).
- 3. Tightening two positioning screw (3) and assembly the rubber plug (1) after adjusting.

1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.



2.If the feed lifting eccentric cam is turned too far in the direction A, it may cause the needle to break.

- 3.To prevent material slippage from occurring, retard the needle timing.
- 4. To improve thread tightening, adv ance the needle timing.



28 Adjustment of t he Height of feed dog(Fig. 35)

1. Turn the pulley until the feed dog rises to the highest position.

2.Turn over the sewing machine head on the supporting bar.

3. Unscrewing the tightened screw (1) in the feed lifting crank (2).

4.Rotating the feed lifting crank② to make adjustment:

the feed dog will be higher when the feed lifting crank ② is turn towards A direction;

turn towards B direction the feed dog will be lower.(When the feed dog in the highest position, the standard height of the type of medium-heavy machine is 0.8~1.0mm and standard height of the heavy duty machine is 1.1~1.3mm.

5.Remember to tighten the tightening screw ① in the feed lifting crank ② after adjusting.





1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.



29 Adjust the lean of feed dog(Fig. 36)

1. Turn the pulley until the feed dog (4) rises to the highest position.

2. Turn over the sewing machine head on the supporting bar.

3.Unscrewing the tightening screw(1) in theteeth pedestal (2).

4.Adjust the eccentric pin (3) by screw driver:

Fall front site of tooth feed when moving the eccentric pin ③ towards A, and raising it when move towards B.(When raising the tooth feed to the highest position,

The standard lean position of feed dog is that mark C on eccentric pin(3) should be at the same level D with mark on the teeth pedestal(2) and the feed dog should be parallel with needle plate.)

5.Remember to tighten the tightening screw(1) in the teeth pedestal (2) after adjusting



1. To prevent the unexpected startup of sewing machine, trim off the pow- er supply before the operation is conducted.

2.In order to prevent puckering, lower the front of the feed dog.

3.In order to prevent the material from slipping, raise the front of the feed dog. 4.The height of the feed dog will change after the angle has been adjusted, so it will be necessary to re-adjust the height of the feed dog.

30 Replacing the fixed knife and movable knife (Fig. 37, Fig. 38, Fig. 39)







Caution:

1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

2.Carry out the above steps in reverse to install the fixed knife.

2. Grinding the stationary trimmer:

If the cutting performance deteriorates,Sharpen the fixed knife ④on a whetstone as Shown in the illustration ⑤.

3.Removing the movable trimmer

- 1) Remove the needle.
- 2) Uplift the presser foot using foot lifting lever.
- 3) Screw off screw6 (2 pieces), and take out
- Clearance hole plate ASM. $\ensuremath{\overline{7}}$
- 4) Turn the handwheel to allow the needle bar⑧ to reach its highest position.
- 5) Lay down the sewing machine head.

6) Push thread-trimming driving crank lever (9) in direction of arrow till the position of screw (9) is exposed.

7) Screw off screw 9 (2 pieces), and take out movable trimmer 10



Caution:

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2.Carry out the above steps in reverse to install the movable knife.





31 Adjusting t he Threatrimming Device(Fig. 40, Fig. 41)

1. Adjusting the position of thread-trimming cam

1) Rotating the hand wheel to raise the needle bar 5mm from the lowest place.

2) To press the core in trimming electromagnet ④ with your hands by arrow direction, allowing the ball of the trimming cam crank ③ press into the cavity in trimming cam ①. And the place of trimming cam ① remains the gap which between the end face of trimming cam ① and the left side on the ball is 0.6~0.8mm.

3) With the 25kgf.cm force to tighten the two screws 2 from trimming cam .

4)When the trimming cam crank ③ back to its original place, please confirm that the gap between the right side on the trimming cam ① and the left side on the ball of the trimming cam crank ③ is 0.5mm.



Caution:

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3. Adjusting the positions of movable trimmer and stationary trimmer:

Hold down electromagnet core so that the balls in slide block assembly 3 is pressed into the recess on thread-trimming cam 1.

Turn the upper wheel, and the front end stationary trimmer (8) and cutting edge of movable trimmer (7) shall be engaged for 0.2~0.5mm when thread-trimming driving crank lever (6) drives movable trimmer (7) to perform thread-trimming action.

If no engagement is achieved, unscrew screw (5) and move thread-trimming driving crank lever (6) to engage the front end stationary trimmer (8) and cutting edge of movable trimmer (7).

The adjusted positions of movable trimmer 0 and stationary trimmer 8 must ensure that cotton thread 203 can be snipped when manual thread-trimming is conducted.



Caution: 1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

32 Maintenance(Fig. 42, Fig. 43, Fig. 44)



The following cleaning operations should be carried out each day in order to maintain the performance of this machine and to ensure a long service life.

3.Ensuring the oil amount in gear case:

Confirm that the top of oil amount indicating rod is between the upper engraved marker line and the lower engraved marker line of the oil amount indicating window. (For the details, refer to "6 Lubrication of machine")

2.Cleaning

1)Raise the presser foot.

2)Remove the two screws ①, and then remove the needle plate ②.

3)Remove dust adhered to feed dog (3) and thread trimmer unit with a soft brush or cloth.

4)Install the needle plate (2) with the two screws (1).

5)Turn over the sewing machine down on the supporting bar of head.

6)Remove the bobbin case ④.

7)Wipe off any dust from the rotary hook (5) with a soft cloth, and check that there is no damage to the rotary hook (5).Wipe out with the cloth dust and hook oil drained in the under cover near the hook.
a)Remove the bobbin from the bobbin case (1) and clean the bobbin case (1) with a cloth.
b)Insert the bobbin into the bobbin case (1),and then place the bobbin case (1) back into the machine.

$33_{\rm Carrying\ and\ Placing\ of\ the\ Sewing\ Machine(Fig.\ 45,\ Fig.\ 46)}$

1. Carrying of the machine

It needs to hold tight frame body of the sewing machine by two people as the picture shows.

2.Attention for placing

Must be put in the plain site. Clear the screwdriver or something embossment out of the placing site.







CE DECLARATION OF CONFORMITY

Distributor:

Strima Sp. z o.o. Swadzim, st. Poznańska 54 62-080 Tarnowo Podgórne, Polska

We declare, that the following product:

Lockstitch sewing machine

Model: Art Auto 2 (A8100-D4-W/02)

which this declaration relates, complies with the following directives:

Machine directive 2006/42/WE

Low voltage directive 2006/95/WE

Harmonized norm used: EN 60204-1

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Machine Frame & CoverMiscellaneous Components

Ref. No.	Part No.	Name of part	QTY	Remark
A-1	10008871	Bed screw stud	2	
A-2	10008941	Rubber plug	1	
A-3	10010066	Screw SM11/64"×40	2	
A-4	10003382	Screw SM11/64"×40	2	
A-5	10062047	Slide buckle	2	
A-7	10067450	Plastic plate	1	
A-8	10062565	Washer	1	
A-9	10062049	Bobbin thread tension ASM	1	
A-10	10009576	Rubber plug	1	
A-11	10066540	Side plate gasket	1	
A-12	20025957	Side plate	1	
A-13	10008972	Screw SM3/16"×28	12	
A-14	10011149	Thread cutter	1	
A-15	10050423	Screw SM9/64"×40	2	
A-16	10031086	Bobbin wider ASM.	1	
A-17	10004380	Screw SM3/16"×32	3	
A-18	10008773	Rubber ring	1	
A-19	10008943	Rubber ring	2	
A-20	10008934	Screw SM3/16"×28	2	
A-21	10014082	Thread take-up lever cover	1	
A-22	10052992	Thread tension guide	1	
A-23	10041529	Screw SM3/16"×28	1	
A-24	10008942	Rubber ring	1	
A-25	10062031	Face plate gasket	1	
A-26	20024053	Face plate	1	
A-27	*	Decorative board	1	
A-28	10008977	Rubber ring	2	
A-29	10013706	Push plate ASM.	1	
A-30	10008937	Arm thread guide left	1	
A-31	10008973	Screw SM11/64"×40	2	
A-32	10009074	Screw M4	1	
A-33	10012463	Screw SM11/64"×40	1	
A-34	10009005	Screw SM11/64"×40	1	
A-35	10060708	Needle plate	1	
A-35	10014459	Needle plate	1	-5
A-36	10004374	Screw SM11/64"×40	2	
A-37	10068607	Ruler plate	1	
A-38	10038945	Presser bar thread guide	1	
A-39	10006264	Screw SM15/64"×28	1	
A-40	10062374	Tension release supporting pin	1	
A-41	10050348	Spring	1	
A-42	10062050	Thread take-up device	1	
A-43	10008940	Arm thread guide right	1	
A-44	10062051	Top thread tension ASM	1	
A-45	10060563	Rubber plug	1	
-				



B

Main Shaft & Thread Take-up Cover Components

Ref. No.	Part No.	Name of part	QTY	Remark
B-1	10010504	Adjusting pin	1	
B-2	10010538	O-ring 6.46×1.78	1	
B-3	10010540	Sleeve of adjusting pin	1	
B-4	10066835	Roler felt	1	
B-5	10067799	Main shaft	1	
B-6	20023713	Head wheel	1	
B-7	10011232	Screw M6×6	2	
B-8	10059025	Screw M5 ASM.	4	
B-9	10074227	ASM. Motor (rep. for 10068155)	1	
B-10	10058049	Oil seal	1	
B-11	10066836	Shaft sleeve	1	
B-12	10005020	Screw SM1/4"×40	2	
B-13	10010542	Thrust collar	1	
B-14	10007239	Shaft sleeve	1	
B-15	10004472	Driving wheel	1	
B-16	10012062	Screw SM11/64"×40	2	
B-17	10055615	Shaft sleeve	1	
B-18	10010082	Screw SM9/32"×28	1	
B-19	10010065	Screw SM1/4"×40	2	
B-20	10012203	Crank	1	
B-20	10012858	Crank	1	-5/H
B-21	10010534	O-ring 9.2×2.4	1	
B-22	10010545	Screw	1	
B-23	20013230	Thread take-up lever ASM.	1	
B-23	20014717	Thread take-up lever ASM.	1	-5
B-23	20016366	Thread take-up lever ASM.	1	Н
B-24	10010539	Oil resistant cover	1	
B-25	10010535	Connecting rod	1	
B-25	10005936	Connecting rod	1	Н
B-26	10010083	Screw SM15/64"×28	1	
B-27	20019236	Pin ASM.	1	
B-28	10038474	Thread take-up lever	1	
B-28	10005939	Thread take-up lever	1	Н
B-29	10014107	Needle bearing K8×12×7.8	2	
B-30	10004144	Crank ASM.	1	
B-30	10005937	Crank ASM.	1	-5/H
B-31	10053559	Sliding block	1	
B-32	10010592	Connecting rod	1	
B-33	10010537	Screw	1	
B-34	10043360	Screw	1	
B-35	10053558	Slide guide	1	
B-36	10010587	Rubber plug	1	
B-37	10011063	Shaftsleeve	1	
B-38	10062045	ARM oil shield ASM.	1	
B-39	10005558	Screw SM1/8"×44	1	



B

Main Shaft & Thread Take-up Cover Components

Ref. No.	Part No.	Name of part	QTY	Remark
B-40	10043355	Joint pin	1	
B-41	10043356	Screw SM9/64"×40	1	
B-42	10014117	Shaftsleeve	1	
B-42	10005916	Shaft sleeve	1	-5/H
B-43	10005943	Thread guide	1	
B-44	10041608	Needle bar	1	
B-44	10041609	Needle bar	1	-5/H
B-45	10010588	Screw SM1/8"×44	1	
B-46	10010591	Thread guide	1	
B-46	10005945	Thread guide	1	-5/H
B-47	135X5 SERV 7 090	TEXI Needle DP×5 18#	1	-5/H





Ref. No.	Part No.	Name of part	QTY	Remark
C-1	10052532	Presser foot ASM.	1	
C-1	10005982	Presser foot ASM.	1	-5/H
C-2	10010650	Screw SM9/64"×40	1	
C-3	10010646	Presser bar	1	
C-4	10014118	Shaft sleeve	1	
C-4	10005915	Shaftsleeve	1	-5/H
C-5	10066598	Oil protector cover	1	
C-6	10000325	Screw M6×8	1	
C-7	10039365	Presser guide bar bracket	1	
C-8	10004439	Presser guide bar	1	
C-9	10004473	Spring	1	
C-10	10062022	Nut	1	
C-11	10062021	Screw	1	
C-12	10062052	Screw ASM.	1	
C-13	10010651	Screw SM3/16"×32	2	
C-14	10061689	Lifting lever connecting rod	1	
C-15	10057556	Lifting lever link components ASM.	1	
C-16	10010652	Screw	2	
C-17	10057557	Lifting lever connecting plate	1	
C-18	10057559	Connecting rod vertical	1	
C-19	10009037	Screw M4×12	2	
C-20	10039378	Platen	1	
C-21	10069046	Foot lifter pull thread components ASM.	1	
C-22	10039373	Pin	1	
C-23	10009074	Screw M4×4	1	
C-24	10010027	O-ring 3.68×1.78	2	
C-25	10039372	Tension release plate	1	
C-26	10050590	Snap ring	1	
C-27	10050188	Lifting lever	1	
C-28	10013038	Closing ring 5×0.8	2	
C-29	10052046	Spring	1	
C-30	10010016	Screw SM9/64"×40	1	
C-31	10062023	Hand lifter	1	
C-32	10050190	Hand lifter CAM ASM.	1	
C-33	10039374	Pin	1	
C-34	10005834	Nut SM3/16"×32	2	
C-35	10008860	Loosing plate	1	
C-36	10008834	Spring	1	
C-37	10012467	Screw	1	
C-38	10069144	Loosing line plate	1	
C-39	10013615	Fixing shutter	1	
C-40	10006624	Screw SM9/64"×40	2	
C-41	10008972	Screw SM3/16"×28	2	
C-42	10011653	Washer 5.2×10.5×1	2	
C-43	10068482	Presser foot lifting solenoid	1	
C-44	10000134	Screw M5×10	4	
C-45	10053351	Oil shield	1	





Ref. No.	Part No.	Name of part	QTY	Remark
C-46	10009205	Spring	1	
C-47	10013216	Nut SM1/4"×28	1	
C-48	10000675	Clip	1	
C-49	10014477	Screw SM3/16"×28	1	





Hook Of Driving Shaft Components

Ref. No.	Part No.		Name of part	QTY	Remark
D-1	52237NS		Bobbin case	1	
D-2	10025484	204 230 A	Bobbin alu.	1	
D-3	SMH-7.94BTR		Hook	1	
D-4	10011101		Screw SM11/64"×40	1	
D-5	10031260		Positioning finger	1	
D-6	10010064		Screw	1	
D-7	10010063		Oil wick	1	
D-8	10013029		Oil sealing 7.94×12×3.5	1	
D-9	10068367		Shaft sleeve	1	
D-10	10014503		Oil sealing 7.94×22×6.5	2	
D-11	1007267		Shaftsleeve	1	
D-12	10008821		Hook driving shaft	1	
D-13	10010059		Screw SM11/64"×40	2	
D-14	10010058		Thrust collar	1	
D-15	10012454		Shaft sleeve	1	
D-16	10010030		Screw SM3/16"×28	1	
D-17	10010065		Screw SM1/4"×40	8	
D-18	10003937		Gear	1	
D-19	10002560		Gear ASM.	1	
D-20	10010029		Gear	1	
D-21	10002509		Gear ASM.	1	
D-22	10010057		Upright shaft	1	
D-23	10007235		Shaft sleeve	1	
D-24	10007267		Shaft sleeve	1	
D-25	10041529		Screw SM3/16"×28	1	
D-26	10010062		Gear	1	
D-27	10002561		Gear ASM.	1	
D-28	10010056		Gear	1	
D-29	10002445		Gear ASM.	1	



Feed Mechanism Components

Ref. No.	Part No.	Name of part	QTY	Remark
E-1	10069145	Rubber plug	1	
E-2	10010090	Closing ring 13.8×1	2	
E-3	10068365	Shaft sleeve	1	
E-4	10068366	Shaft sleeve	1	
E-5	10010542	Thrust collar	2	
E-6	10038073	Screw SM1/4"×40	4	
E-7	10068651	Feed driving shaft	1	
E-8	10068650	Feed driving shaft	1	
E-9	10012536	Oil seal 1472×22×7	2	
E-10	10004440	Pin	1	
E-11	10004474	Feed bar driving crank	1	
E-11	20019012	Feed bar ASM.	1	
E-12	10004993	Screw SM3/16"×28	1	
E-13	10010074	Screw SM11/64"×40	1	
E-14	10067264	Feed bar ASM.	1	
E-15	10010099	Screw SM1/8"×44	2	
E-16	10052531	Feed dog	1	
	10007322	Feed dog	1	-5
E-17	10030200	Crank	1	
E-18	10004628	Screw SM11/64"×40	1	
E-19	10010095	Screw SM3/16"×28	2	
E-20	10010086	Crank	1	
E-21	10009576	Rubber plug	2	
E-22	10004475	Nut SM9/32"×28	1	
E-23	10010091	Screw	1	
E-24	10010084	Connecting rod	1	
E-25	10010089	Closing ring 18.5×1.2	1	
E-26	10010092	Screw SM1/4"×40	2	
E-27	10010115	Feed drive eccentric cam	1	
E-28	10010072	Connecting rod	1	
E-29	10010098	Thrust cover	1	
E-30	10010643	Screw SM9/64"×40	2	
E-31	10010069	Pin	1	
E-32	10010071	Screw SM9/64"×40	2	
E-33	10010068	Connecting plate	2	
E-34	10010075	Connecting plate	2	
E-35	10010076	Crank	1	
E-36	10010096	Pin	1	
E-37	10010087	Pin	2	
E-38	10010102	Pin	1	
E-39	10058783	Pin	1	
E-40	10010678	Screw SM15/64"×28	2	



Ε

Feed Mechanism Components

Ref. No.	Part No.	Name of part	QTY	Remark
E-41	10005989	Feed adjusting ASM.	1	
E-42	10010197	Screw SM9/64"×40	2	
E-43	10067159	Feed adjust rod	1	
E-44	10010649	Closing ring 5.1×0.6	2	
E-45	10067160	Crank	1	
E-46	10011376	Screw M5×12	1	
E-47	10067158	Oil seal	1	
E-48	10068811	Feed motor	1	
E-49	10065628	Screw M5×16	3	







Thread trimmer Components

Ref. No.	Part No.	Name of part	QTY	Remark
F-1	10011421	Fixed knife	1	
F-2	10011422	Screw SM9/64"×40	1	
F-3	10024496	Screw SM1/8"×40	1	
F-4	10058067	Dispart	1	
F-4	10062533	Dispart	1	Н
F-5	10013154	Washer 9×4.5×0.8	3	
F-6	10014474	Screw SM11/64"×40	1	
F-7	10011514	Screw SM11/64"×40	2	
F-8	10031612	Knife shaft crack rod	1	
F-9	10010900	Screw SM11/64"×40	2	
F-10	10069005	Knife holder	1	
F-11	10004640	Round knife bracket	1	
F-12	10011578	Nut SM11/64"×40	1	
F-13	10011494	Round knife	1	
F-13	10030280	Round knife	1	-5
F-14	10011588	Screw SM11/64"×40	2	
F-15	10010736	Thread trimmer cam	1	
F-16	10023739	Cam collar	1	
F-17	10013465	Screw SM1/4"×40	2	
F-18	10058043	Trimming crank	1	
F-19	10008863	Screw SM3/16"×32	1	
F-20	10011580	Block	1	
F-21	10008865	Washer 15.3×21×1	1	
F-22	10011649	Spring	1	
F-23	10012454	Shaftsleeve	1	
F-24	10012062	Screw SM11/64"×40	1	
F-25	10011630	Short bushing	1	
F-26	10008866	Trimming crank shaft	1	
F-27	10014196	Spring cover	1	
F-28	10008812	Spring	1	
F-29	10011686	Trimming cam crank ASM.	1	
F-30	10008862	Screw SM1/4"×40	1	
F-31	10068364	Trimming shaft	1	
F-32	10009654	Closing ring 6×1	1	
F-33	10003031	Washer 8.4×16×1.6	1	
F-34	10011650	Washer 8.2×15×2	1	
F-35	10050266	Sound deadening plug	1	
F-36	10068360	Thread trimmer solenoid ASM.	1	
F-37	10003077	Washer 6	2	
F-38	10011605	Screw SM1/4"×28	2	
F-43	10069004	Guide sleeve	2	

Drive-by-wire Components





Ref. No.	Part No.	Name of part	QTY	Remark
G-1	10063944	Screw SM3/16"×28	1	
G-2	10074666	Operation screen ASM.	1	
G-3	10043305	Screw SM11/64"×40	1	
G-4	10008934	Screw SM3/16"×28	1	
G-5	10011168	Washer 4.8×11.6×1.6	1	
G-6	10063246	Led lamp ASM.	1	
G-7	10009074	Screw M4×4	1	
G-8	10066837	Electromagnet tension disk	1	
G-9	10002417	Pedal control rod ASM.	1	
G-10	10049837	Screw M5×35	3	
G-11	10012080	Screw M4×20	1	
G-12	10006115	Washer 5.3×9×1	1	
G-13	10069667	Controll box	1	
G-14	10062062	Cord holder 1	2	
G-15	10062063	Cord holder 2	1	
G-16	10010899	Screw SM3/16"×28	2	
G-17	10031424	Pedal unit ASM.	1	

Lubrication Components





Lubrication Components

	Deuthle	Name of part	OTV	
Ref. NO.	Part No.		QIY	Remark
H-1	10008067	Oilwick	1	
H-2	10066949	Oil connection	2	
H-3	10011471	Clamk	2	
H-4	10064136	Oil connection	1	
H-5	10012160	Clamk	3	
H-6	10007796	Oil tube	1	
H-/	10007800	Oil tube	1	
H-8	10058103	Oil connection	1	
H-9	10058087	Screw	1	
H-10	10000567	O-ring 3.6×1.8	2	
H-11	10009991	Screw SM5/16"×24	1	
H-12	10009988	Washer	1	
H-13	10051249	Guide sleeve	1	
H-14	10053411	Magnet	1	
H-15	10050422	Screw SM15/64"×28	1	
H-16	10003077	Washer 6	1	
H-17	10010066	Screw SM11/64"×40	1	
H-18	10005537	Washer 5	1	
H-19	10007795	Oil tube(690mm)	1	
H-20	10008817	Oil pump	1	
H-21	10068648	Oil tube	1	
H-22	10010340	Oil connection	1	
H-23	10010293	Screw	1	
H-24	10048653	Oil tube	1	
H-25	10063945	Foam rubber	1	
H-26	10041628	Holder	1	
H-27	10008934	Screw SM3/16"×28	1	
H-28	10010294	Oil felt preser	1	
H-29	10054207	Roler felt	1	
H-30	10008938	Oil sight window	1	
H-31	10008939	O-ring 19×3	1	
H-32	10068421	Indicator ASM	1	
H-33	10069146	Oil pointer ASM.	1	





Presser Foot Components Of Oil Plate Knee Lift

Ref. No.	Part No.		Name of part	QTY	Remark
I-1	10068368		Tank cover gasket	1	
I-2	10068362		Knee lift rod	1	
I-3	10068363		Oil pan	1	
I-4	10063385		Retaining ring	1	
I-5	10059960		Two-way crank of lifting pressor foot	1	
I-6	10003890		Nut M6×32	2	
I-7	10061673		Screw	2	
I-8	10058784		Screw	1	
I-9	10059959		Spring	1	
I-10	10068652		Knee pressing shaft	1	
I-11	10069149		Knee pressing rod	1	
I-12	10002562		Connection ASM.	1	
I-13	10052476		Knee pressing rod ASM	1	
I-14	10004611		Screw	6	

Components Of Thread-running Stand



J

Components Of Thread-running Stand

J-1 10007130 Thread stand ASM. 1 J-2 10004282 Column cap 2 J-3 10004282 Column pipe(upper) 1 J-4 1000293 Nut M5 6 J-5 1000301 Screw M5×14 3 J-7 10004285 Thread guide bushing 2 J-8 10004298 Thread guide pipe 2 J-9 10004286 Column pipe (connector 1 J-10 10004286 Column pipe (lower) 1 J-11 10004286 Column pipe (lower) 1 J-12 1000312 Screw M5×30 1 J-13 10004284 Thread hanger(lower) 1 J-14 10004287 Spool cushion 2 J-15 10004287 Spool cushion 2 J-16 10004280 Spool seat disc 2 J-17 10004299 Spool seat disc 2 J-16 10004290 Washer 16×30×1.5 2 J-20 10004295 Washer 16×30×1.5 2 J-21
J-2 10004282 Column ape (upper) 1 J-4 10002953 Nut M5 6 J-5 1000301 Strew M5×14 3 J-7 10004285 Thread guide bushing 2 J-8 10004285 Thread guide bushing 2 J-9 10004286 Thread guide pipe 2 J-9 10004286 Column pipe connector 1 J-10 10004286 Column pipe (lower) 1 J-11 10004286 Column pipe (lower) 1 J-12 1000312 Screw M5×30 1 J-13 10004284 Thread hanger(lower) 1 J-14 10004281 Spool pin 2 J-15 10004287 Spool seat disc 2 J-17 10004281 Spool seat disc 2 J-18 10003077 Wesher 16.3v27.5v3 2 J-20 10004295 Washer 16.5v27.5v3 2 J-21 10002985 Nut M16 1
J-3 10004293 Column pipe(upper) 1 J-4 10002953 Nut M5 6 J-5 1000302 Washer 5 4 J-7 10004285 Thread guide pipe 2 J-8 10004280 Thread guide pipe 2 J-9 10004286 Column pipe connector 1 J-11 10004286 Column pipe connector 1 J-12 1000312 Screw M5×30 1 J-13 10004284 Thread hanger(lower) 1 J-14 10004284 Spool pin 2 J-15 10004288 Spool pin 2 J-15 10004281 Spool seat disc 2 J-16 10004281 Spool seat disc 2 J-17 10004280 Washer 16.5x27.5x3 2 J-20 10004295 Washer 16.5x27.5x3 2 J-21 1000286 Nut M16 1 I I I I I I I
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Auxiliaries





Auxiliaries

Ref. No.	Part No.	Name of part	QTY	Remark
K-1	*	Plastic cover	1	
K-2	10008323	Screw ST42×20	6	
K-3	10051332	Oil reservoir	1	
K-4	10051652	Holder	1	
K-5	10051707	Scavenging felt	1	
K-6	10051651	Scavenging felt holder	1	
K-7	10003185	Screw ST22×6.5	2	
K-8	*	Head cover	1	
K-9	10060866	Oil bottle with oil	1	
K-10	135X5 SERV 7 090	TEXI Needle	3	
K-11	10050425	Head pole	1	
K-12	10003889	Nail	8	
K-13	10051246	Oil reservoir seat	2	
K-14	10051245	Oil reservoir cushion	2	
K-15	10004466	Head connecting hook	2	
K-16	10011041	Head connecting hook socket	2	
K-17	10010995	Screw driver, middle	1	
K-18	10025484	Bobbin	3	







Dealer:			