EC DECLARATION OF CONFORMITY

According to the following European Directive
Machinery Directives: 98/37/EC.

The undersigned, ROBERT TSAI, representing KAULIN MFG. CO., LTD. 11F, No.128, Sec.3, Minsheng East Road, Songshan District, Taipei, Taiwan, ROC., manufacturer, Declares that the machine described hereafter:

Three Needles Cylinder Bed Chainstitch Machine.
Model: C007K/C007KD/C858K/C858KD

Provided that it is used and maintained in accordance with the generally accepted codes of good practice and the recommendations of the instructions manual, meets the essential safety and health requirements of the Machinery Directive.


The compliance of the model with the requirements of EC Machinery Directive was established by AIB-VINCOTTE Inter n.f.p. Avenue A. Drouart 27-29, B 1160, Brussels, Belgium (Notified body under the number 26 for machinery listed in annex IV of EC Machinery Directive).

Date: Feb/01/2010
Signature: [Signature]
Qualification: R&D MANAGER
### Explanation of Dangerous Level

<table>
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<tr>
<th>Level</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Dangerous</strong></td>
<td>If ignored, it will cause serious injury or death during maintenance.</td>
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<tr>
<td><strong>Caution</strong></td>
<td>Ignoring this warning sign and proceeding incorrectly will cause injuries to the person involved or the third party and equipment damage during maintenance.</td>
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### Explanation of Warning Signs and Labels

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<td>Moving part, beware of industrial accident</td>
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<td>⚡</td>
<td>High voltage, beware of electric shock</td>
</tr>
<tr>
<td>🎈</td>
<td>High temperature, beware of burns</td>
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<tr>
<td>🚫</td>
<td>Prohibited</td>
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<th>MODEL</th>
<th>C007K/CO07KD/C858K/C858KD</th>
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<tbody>
<tr>
<td>Net Weight (Kgs)</td>
<td>45</td>
</tr>
<tr>
<td>Serial Number</td>
<td></td>
</tr>
<tr>
<td>Dimension</td>
<td>Length</td>
</tr>
<tr>
<td></td>
<td>46 cm</td>
</tr>
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</table>
Warning!

When using this machine, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the followings.

1. **Keep work area clean**
   Cluttered areas and benches invite injuries.

2. **Consider work area environment**
   Do not expose power to rain. Do not use machine tools in damp or wet locations. Keep work area well lit. Do not use power tools where there is risk to cause any fire or explosion.

3. **Guard against electric shock**
   Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges refrigerators.)

4. **Keep children away**
   Do not let visitors touch the tool or extension code.

5. **Dress properly**
   Do not wear loose clothing or jewelry, they can be caught in moving parts. Wear protecting hair covering to contain long hair.

6. **Do not abuse the cord**
   Never carry the machine by cord or yank it to disconnect it from the socket. Keep the cord away from heat, oil, and sharp edges.

7. **Maintain machine with care**
   Follow instructions for lubrication and changing accessories. Inspect tool cord periodically. If damaged, have it repaired by an authorized service facility.
8. **Disconnect machine**
When not in use, before servicing and when changing accessories.

9. **Avoid unintentional starting**
Do not carry a plug-in tool with a finger on the switch. Ensure the power switch is off when plugging in.

10. **Check damaged parts**
Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function.

11. **Warning**
The use of any accessory or attachment, other than those recommended in this instruction manual, may present a risk of personal injury.

12. **Have your tool repaired by a qualified person**
Repairs should only be carried out by qualified persons using original spare parts.

**SPECIAL WARNING FOR ELECTRIC CONNECTION!**

1. Incorporate this machine only with "CE" certificate hold-to-run control device.
2. Follow the instruction manual device to install control device.
3. Always earth machine appropriately during operation.
4. Before adjustment, parts change or servicing must be sure to pull out the plug from socket to prevent the hazard of unintentionally start of machine.
For operating safely and getting the best functions of this machine, you must operate it correctly. Please read and follow the instructions of this manual, and keep it at hand for future references. We are confident that you will enjoy this machine as much as we enjoy manufacturing it.

1. Instead of the following instructions, when you use this machine, please pay attention to the basic safety measures.

2. Before using this machine, please read this manual and all related instructions. In addition, please keep this manual for future needs.

3. Before using this machine, please ascertain that it conforms with safety standards and regulations of your country.

4. When the machine is ready for operation, all the safety equipments must be ready. Operate this machine without the specified safety devices is not allowed.

5. This machine must be operated by a properly trained operator.

6. For your own safety, we suggest you wearing goggles.

7. Please turn off the power switch or disconnect it for any one of the circumstances of the followings:
   (1) When threading needle(s), adjusting thread Take-up(s), thread guide(s), and/or replacing bobbin(s).
   (2) When replacing needles, presser feet, needle plates, feed dogs, needle guards, horns, cloth guides and other parts or accessories.
(3) When repairing.
(4) When the operator leaves the working place or leaves the machine unattended.
(5) If clutch motors without brake pads are used, must wait until the motor stops completely.

8. If grease, oil, or any fluid contacts your skin or eyes by any chance, please wash the contacted area completely with clean water and consult a doctor. Or, swallow any fluid mistakenly, consult a doctor immediately.

9. Do not touch any functioning parts and devices. Always attend to whether power switch is on or off before operating in order to prevent anyone from getting hurts.

10. Qualified technicians are required for adjustment, modification, and repair. Only use assigned parts for replacement.

11. Routine maintenance and service must be performed by well trained persons, or qualified technicians.

12. Maintain and check the electronic parts must be done by qualified electrician or well-trained persons. If any electronic part damaged or malfunctioned, stop the machine immediately.

13. The air house has to be detached from the machine and the compressor or air supply has to be cut off before repairing and servicing the machine equipped with pneumatic parts such as an air cylinder. Qualified technicians or well-trained persons are required for adjustment and repairs.
14. To ensure the best performance, periodically clean the machine is necessary.

15. In order to operate properly and to reduce the noise, please place the machine flat and level on the ground. Avoid operating the sewing machine at a noisy surrounding.

16. Select a proper power plug and install it by an electrician. Please connect the power plug to a grounded receptacle.

17. This machine can only be used for the designed purpose. Other uses of this machine are not allowed.

18. Any modification or conversion made on this machine must be conformed with the safety standards and regulations. Precaution is necessary. No responsibility will our company take for damages caused by any modification or conversion of this machine without permission.

19. Two safety warning signs are applied as warning signs:

(1) For the safety of operators and service persons, please don’t open the cover of any electronic control boxes of motor or other devices and don’t touch any components inside to avoid electrical shock hazards.

(2) Always keep in mind:
   a. Please never operate this machine without outer cover, finger guard or any safety device to avoid physical injury.
b. Please keep your hair, fingers and clothes away from the hand wheel, V belt and motor while the machine is in operation, as well as never put anything near these parts, to prevent the risk of injuries by tangled into them.

c. Please never put your fingers under the needle(s) or in the thread take-up cover to prevent physical injuries when you turn on the power switch or operate the machine.

d. While the machine is in operation, the hook rotates at a high speed. Please keep your hands away from the area of hook to prevent any potential injury to your hands. In addition, please make sure to turn off the power of the machine while changing bobbins.

e. Be careful and do not place your fingers inside the machine when placing or lifting the machine head to avoid possible physical injuries.

f. Please turn off the power before tilting the machine head or removing the belt cover and the V belt to avoid possible accidents due to abrupt start of this machine.

g. For machine equipped servo motors, the motors do not produce noise while the machines are at rest. Therefore, please turn off the power of this machine to avoid possible accidents due to abrupt start of the machine.
h. Never operate the sewing machine after the ground wire is removed to avoid electrical shock hazards.

i. Please turn the power switch off before connecting or disconnecting the power plug to prevent possible accidents due to electric shock or damaged electronic components.

Please confirm the followings to avoid malfunction or damage to this machine.

1. After installing the machine, and before the first operation, please clean it completely.

2. Clean all dust and overflowed oil during transportation.

3. Confirm that the voltage and the phase (single or 3 phase) of motor are set correctly.

4. Confirm that the power plug is correctly connected to the power supply.

5. Never use the machine when the local voltage type is different from the marked voltage on the nametag attached on the machine.

6. Confirm that the rotating direction of the machine pulley is correct.

Warning:
Before doing any operation or any adjustment described later in this manual, please turn the power off to prevent accidents caused by abrupt start of the sewing machine.
**WARNING TAG**

- The following warning tags will be attached on the sewing machine. (Fig. 1, Fig. 2)
- When using the sewing machine, please follow the instructions of the tags. Please contact the dealer if any of the tags is fallen off or fuzzy.

**WARNING**

1. **DANGER**
   - Touching areas where high voltages are present can result in severe injury.
   - Turn off main switch and wait 5 minutes before opening this cover.

2. **CAUTION**
   - Moving parts may cause injury. Operate with safety devices.
   - Turn off main switch before threading, changing bobbin and needle, cleaning etc.

3. **CAUTION**
   - A loosen or a did not connect well ground wire is the reason causing electronic shock or malfunction.

**Finger protector**
- (A) Goggle

**Safety Protection Device** (Fig. 3)
- (A) Finger protector
- (B) Goggle

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**警告標籤**

· 繡紉機上有下列警告標籤。（圖1、2）

· 當使用縫紉機時，請遵守標籤上的使用，如果標籤脫落或模糊不清，請和購買商店聯繫。

1. **危険**
   - 觸摸帶有高電壓的區域將會造成人員受傷
   - 在切斷電源5分鐘後再打開護蓋

2. **必須接地**
   - 接駁地線不牢固，是造成觸電或誤動作的原因。

3. **表示轉動方向**
   - 安全保護裝置（圖3）
   - (A) 護指器
   - (B) 護目鏡

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From the library of: Superior Sewing Machine & Supply LLC
SAFETY ILLUSTRATION OF NEEDLE GUARD

The presser foot protection device is shown as figure 4. For safety of all operators, this device is restricted to disassemble.

MOVING THE SEWING MACHINE

1. The machine should be carried by two people as shown in the figure.
2. Hold the motor cover firmly.
3. Please wear a pair of skidproof shoes while moving the sewing machine. (Fig.5)
THE INSTALLATION POSITION OF THE SEWING MACHINE

1. Please do not install the sewing machine near the equipments, such as Television, Radio, or wireless Telephone. Or these equipments will experience electronic interference. (Fig.6)

2. The wire should insert to the AC power socket directly. If using the extension wire, this might cause malfunction.

SPECIFICATIONS

1. Motor types:
   (1) SIRUBA T41xxx (position motor)
   (2) SIRUBA T51xxx (servo motor)

2. Horse power: 1HP for position motor/500W for servo motor

3. Size of motor pulley: 90~110 mm in diameter (standard is 90mm)

4. Air pressure type: Minimum required pressure is 3.5kg/cm²

5. The voltage of the solenoid is DC 24V.

6. The voltage of the rotary electromagnet is DC 24V.

Note:
(1) Motor voltage, hertz and phases have to be specified clearly while ordering.
(2) All details regarding to the motor adjustment, please refer to the motor operation manual.
SAFETY SWITCH AND ITS FUNCTION

1. Pneumatic
   a. Solenoid valve (left side)1: is used to control the presser foot lift and lower movement.
   b. Solenoid valve (middle)2: is used to control the operation of the lower trimmer. (Including needle thread and lower looper thread.)
   c. Solenoid valve (right side)3: is used to control the operation of the spreader's thread trimmer or to drive the air blower. (Please refer to the parts list for above information.)

2. Electric
   a. Electromagnet (UT534K): is to control the operation of threads (upper and lower) and the mechanism of thread trimming (as shown in the parts list).
   b. Electromagnet (UT218J): is used to control the operation of the top cover thread pulling system (as shown in the parts list).
   c. Electromagnet (UT776): is used to control the operation of top cover thread trimmer (as shown in the parts list).

3. The major function of the safety switch is to check and confirm the thread trimmer of needle's and lower looper's returning to the origin. If the trimmer is not located on the origin, the motor will not function at all. (Fig.7)

Note:
(1) Please be sure to turn off the power switch before connecting the wires on the solenoid valve. If the power switch is not turned off, please notice that the red and black wires do not contact. Otherwise, the contact will cause short circuit and damage the internal circuit (as shown in the parts list).
(2) The plug connecting with the motor controlling box should be plugged fully so that it contacts well. This will prevent the malfunction resulting from the loose plug.
INSTALLATION AND ADJUSTMENT OF SYNCHRONIZER

1. Press the hidden synchronizer into the long groove of the machine head, and then tighten the screw (3). (Fig.8)
2. Before connecting each wire or plug, please check that all the electric switches are turned off.
3. The mark (1) should be aligned with the shorter marking line (3) on the hand pulley (2) when the needle bar is at its top dead point. (Fig.9)
1. Thread on the pedal to start the machine and sewing. (Fig. 10-1)

2. When the pedal stop horizontally (Fig. 10-2), the machine stops running and the needle bar will stop at the lower dead point.

3. When threading the pedal backward and holding (Fig. 10-4), the needle bar moves up and stops at the upper dead point, and all trimming system start working.
   (1) When the mechanism of the thread and lower thread trimmer pull the thread and the lower thread to top trimmer to trim, the trimmed thread will be held by the clamping mechanism.
   (2) When under UTP-K and UTR-K, top cover thread trimming mechanism trims and clamps the top cover thread.
   (3) When under UTQ-J, needle's thread will be blown to the upside of the presser foot by air pressure.
   (4) When under UTS-K, needle's thread will be pulled and clamped by needle's thread pulling mechanism.
   (5) Presser foot lifter.

4. Remove the material away for the next sewing.

5. Keep the pedal in horizontal position as shown as (Fig. 10-2), the presser foot will put down.

6. Thread the pedal at the backward position of (Fig. 10-3) or (Fig. 10-4) so that the presser foot may lift.

Note:
(1) Do not put the lower trimmer to the left thread trimming location when there is no air pressure source in order to prevent damaging the lower trimmer from turning the power switch on.
(2) Do not put the lower trimmer to the left thread trimming location when the electromagnet types (UTR-K, UTS-K) are disconnected lest the power switch should be turned on and the lower trimmer should be damaged.

(3) When there is no fabric under the presser foot, do not operate the auto trimming system.

踏板位置/PEDEL POSITIONS
1. 前压 (開始車縫)
   Press forward (start sewing)
2. 中央 (壓具下放)
   Horizontal (presser foot down)
3. 後半壓 (壓具提升)
   Press half backward (presser foot lifts)
4. 後壓 (自動切線裝置)
   Press backward (automatic thread trimming)
<table>
<thead>
<tr>
<th>名称</th>
<th>英文名称</th>
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<tbody>
<tr>
<td>(1) 過線盒</td>
<td>(1) Thread Guide Box</td>
</tr>
<tr>
<td>(2) 導線片</td>
<td>(2) Thread Guide</td>
</tr>
<tr>
<td>(3) 壓具</td>
<td>(3) Presser Foot</td>
</tr>
<tr>
<td>(4) 控制箱</td>
<td>(4) Control Box</td>
</tr>
<tr>
<td>(5) 油鏡</td>
<td>(5) Oil Windows</td>
</tr>
<tr>
<td>(6) 拉線鬆緊調整組</td>
<td>(6) Thread Tension Adjusting Set</td>
</tr>
<tr>
<td>(7) 手輪</td>
<td>(7) Pulley</td>
</tr>
<tr>
<td>(8) 線架</td>
<td>(8) Thread Stand</td>
</tr>
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<td>安全保護裝置</td>
<td>Safety Protection Device</td>
</tr>
<tr>
<td>(9) 挑線桿防護罩</td>
<td>(9) Thread Take-up Cover</td>
</tr>
<tr>
<td>(10) 護指器</td>
<td>(10) Finger Guard</td>
</tr>
</tbody>
</table>

![图11/Fig.11](image-url)
Specifications of machine category
1. Description of the machine name

C007K/C858K

① represents the type of the machine:
C = Three needles cylinder bed chainstitch machine

② represents the improved machine appearances that are arranged from letter F. Ex: C007K/C858K.

③ represents a small servo motor added.
④ shows whether having upper cross stitchery or not.
W = have upper cross stitchery (Fig.12)

U = Without upper cross stitchery (Fig.13)
車縫形式:
12 = 一般車縫
13 = 拷下縮
15 = 三角縫、緊身縫、內縫等編織物
伸縮帶上帶縫
16 = 一般厚布料之車縫
22 = 附車縫包條作業
32 = 包飾縫作業
51 = 上送式鬆緊帶上帶車縫
52 = 上花邊鬆緊帶
53 = 環型平織鬆緊帶上帶車縫
54 = 下送式鬆緊帶上帶車縫
61 = 單面飾縫褲耳
71 = 雙鍊縫
72 = 褲帶縫作業
81 = 拷下擺附左切刀
82 = 鬆緊帶上帶邊縫附左切刀
92 = 三針車四針車縫

表示針板舌片之形狀 (針板舌的功能: 打繩) (圖10)
1. 為縫線時，針線較緊密，一般縫線(無伸縮性)或細縫距(15針/吋以上)時適用。
2. 為標準縫距(11針/吋~14針/吋)
3. 縫紉時針線結合線較鬆弛，伸縮性縫線或粗縫距(10針/吋以下)時適用。

is stitching type:
12 = general seaming
13 = bottom hemming
15 = elastic tape feeding for cotton fabric such as underwear, and tights pants
16 = general seaming for normal thick materials
22 = tape binding
32 = seam covering (decorative stitching)
51 = elastic tape feeding, upper feeding type
52 = elastic or lace seaming
53 = elastic tape feed seaming in hooped type lockstitch
54 = elastic tape feeding, lower feeding type
61 = belt loop seaming
71 = double chain stitch
72 = pocket lining seaming
81 = bottom hemming with left trimmer
82 = elastic tape feeding with left trimmer
92 = four needles chain seaming

means the shape of the needle plate tongue, whose function is to knot. (Fig.10)
1 = While sewing, the stitches are closer to each other. For normal threads without stretch, or closer stitches (15 stitches/in or above).
2 = Standard stitch length (11~14 stitches/in.).
3 = The stitches length is wider. For stretch threads or long stitch length. (10 stitches/in)
Fig. 14

7 is the number of stitches. (Fig. 14)

2 = 2 needles sewing machine
3 = 3 needles sewing machine
4 = 4 needles sewing machine

Fig. 15

8 means the needle width (the distance between the left and the right stitch). (Fig. 15)

Fig. 16

8 needle width (the distance between the left and the right stitch). (Fig. 15)
2. Purpose (Table 1)

<table>
<thead>
<tr>
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<td>L</td>
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<td>1~4.23</td>
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<tr>
<td>M</td>
<td>4500</td>
<td>1~4.23</td>
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<td>H</td>
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表1/Table 1

3. Specification

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<tbody>
<tr>
<td>機型別 Model</td>
<td>C007K/C007KD/C858K/C858KD-XX</td>
</tr>
<tr>
<td>車缝布料 Sewing materials</td>
<td>纖布料 Light material</td>
</tr>
<tr>
<td>車缝转动 (R. P. M) Max. sewing rotational speed</td>
<td>4000</td>
</tr>
<tr>
<td>噪音 Noise</td>
<td>80dB/4000 R.P.M</td>
</tr>
<tr>
<td>纬距 Stitch Length</td>
<td>4.23mm</td>
</tr>
<tr>
<td>針棒行程 Needle bar stroke</td>
<td>29mm</td>
</tr>
<tr>
<td>使用針 Needle DB×1-DP×5</td>
<td>SCHMETZ UY128GAS #70</td>
</tr>
<tr>
<td>壓带壓力 Presser foot pressure</td>
<td>4-5KGS</td>
</tr>
<tr>
<td>壓带提升量 Presser foot height</td>
<td>5mm</td>
</tr>
<tr>
<td>压带 Presser foot</td>
<td>可調壓带 Adjustible presser foot</td>
</tr>
<tr>
<td>塞治具高度 Feed dog height</td>
<td>0.8mm</td>
</tr>
<tr>
<td>重量 Weight</td>
<td>機頭 Head: 45kgf</td>
</tr>
<tr>
<td>機頭空間尺寸 Machine head</td>
<td>长 Long 460mm × 高 Height 400mm</td>
</tr>
<tr>
<td>桌板尺寸 Table specification</td>
<td>605mm×1200mm</td>
</tr>
<tr>
<td>加油方式 Lubrication</td>
<td>完全自動加油 Automatic lubrication system</td>
</tr>
<tr>
<td>潤滑油 Oil</td>
<td>SIRUBA sewing machine oil</td>
</tr>
<tr>
<td>機頭驅動 Machine head driving</td>
<td>直接驅動装置 Directly driving device.</td>
</tr>
<tr>
<td>马达 Motor</td>
<td>順定輸出 400W (1/2HP)</td>
</tr>
<tr>
<td>控制電路 Control circuit</td>
<td>三相/單相 3-phase/Single-phase</td>
</tr>
<tr>
<td>使用電路 Power</td>
<td>三相/單相 3-phase/Single-phase</td>
</tr>
<tr>
<td>電磁線圈驅動電源 Solenoid driving power</td>
<td>DC-30V</td>
</tr>
</tbody>
</table>

表2/Table 2
1. Transportation
   (1) The machine packed with two piece-up and lower-covers that made of expanded Polystyrene to protect it.
   (2) Put the machine into a carton.
   (3) Use a cart or by two men's hands to move it.

2. Storage
   (1) The machine must use duster cover to cover it when it did not work.
   (2) Do not storage the machine over 45 °C.

3. Working
   The machine doesn't work over 40 °C.

4. Warning
   Pay attention to the following warning advices:
   (1) Working area is dangerous.
   (2) Never touch the needle if the machine is still running.
   (3) Be careful if you infeed fabric.
   (4) Do not insert your finger between needle and roller for transportation on fabric.

Pay attention to the warning sticker.
(1) Movable parts must be enclosed with guard when you operate.
(2) Turn off the power during adjusting, threading, bobbin-changing and needle-cleaning.
注意CAUTION

- **警告**: 請避免非技術人員安裝。
  - Machine installation should only be carried out by qualified technician.

- **警告**: 務必請委託專業人員安裝電器配置。
  - Contact your dealer or a qualified electrician for any electrical work that may need to be done.

- **警告**: 縫紉機重45公斤，安裝工作必須由兩人以上來完成。
  - The sewing machine weighs 45kg. The installation should be carried out by two or more people.

- **警告**: 在安裝完成前，請不要連接電源，如果誤按啓動開關，縫紉機動作會導致受傷。
  - Do not connect the power cord until installation is complete. The machine may operate if the treadle is depressed by mistake, which could result in injury.

- **警告**: 縫紉機頭倒下時，請用雙手操作，單手操作時可能會因縫紉機的重量過重而滑落，而導致受傷。
  - Use both hands to hold the machine head when tilting it back or returning it to its original position. If only using one hand, the weight of the machine head may be too heavy to hold, and may cause human physical injuries.

1. 依本機所附桌板製圖及零件組合圖所列之配件，依序安裝防震機座、縫架。

2. 馬達之轉向為順時鐘方向，皮帶之鬆緊度以用手指向內壓下2公分為宜，同時為了安全起見，請皮帶蓋必須鎖上。（圖17、18）

1. Before installing machine, please refer to table cut-out drawing, and the necessary attachment as enclosed, to fix cushion base, thread stand.

2. Be sure that the motor turning direction is clockwise, and the motor belt tension can be pressed with finger inward about 2cm. For safety reason, please fasten the belt cover. (Fig.17, 18)
3. 皮帶輪與繡紡轉度請參照表 3 。

注意:
1. 使用新機器最初一個月運轉速度約為最高轉
速之 80% ，並請選擇正確的馬達帶輪尺寸
( 如表 3 )。

2. 桌板厚度約 45mm 。

註：皮帶尺寸會因選用馬達的形式，廠家不同
而有所差異。

<table>
<thead>
<tr>
<th>轉速 R.P.M</th>
<th>皮帶輪尺寸 MOTOR PULLEY SIZE</th>
<th>皮帶尺寸 BELT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60HZ</td>
<td>50HZ</td>
</tr>
<tr>
<td>6000</td>
<td>105</td>
<td>125</td>
</tr>
<tr>
<td>5500</td>
<td>95</td>
<td>115</td>
</tr>
<tr>
<td>5000</td>
<td>85</td>
<td>105</td>
</tr>
<tr>
<td>4500</td>
<td>80</td>
<td>95</td>
</tr>
<tr>
<td>4000</td>
<td>70</td>
<td>85</td>
</tr>
</tbody>
</table>

表3/Table 3
1. Connect the small servo motor A and gear B. Keep the distance between A and B to be 6mm. (Fig. 19)

2. Remove upper cover ①, fixed plate ②, pulley ③, oil reservoir ④, oil baffle ⑤ and bearing ⑥, and then install the belt ⑦. (Fig. 20)

3. Connect the downside of the belt ⑦ and gear, and then hold the upside of the belt by a proper tool. Connect the small servo motor ⑧ and the upside of the belt ⑦. Meanwhile, rotate the pulley ⑨ so that the up and the downside of the belt ④ have correctly joined with the gear and the motor ⑥, and rotate smoothly. Then, fix the motor ⑥ onto the machine body by screw ⑩. (Fig. 20, 21)
4. Place and tighten the bearing ⑤ and pulley ③ at its original position. Then, assemble the belt with the right side pulley ③, and then assemble on the left side pulley ④. (Fig.20, 21, 22)

5. Tighten the upper cover①, oil reservoir⑨, oil baffle⑩, motor cover⑪, and the belt cover⑫ on the machine. (Fig. 20, 23)
<table>
<thead>
<tr>
<th>MOTOR AND BELT</th>
<th>MOTOR AND BELT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Clutch Motor, 1/2 HP (400W), 3 phase, 2 pole M type V belt.</td>
<td>1. Clutch Motor, 1/2 HP (400W), 3 phase, 2 pole M type V belt.</td>
</tr>
<tr>
<td>2. When installing the motor, the center line of both motor's and machine's pulley must be aligned with each other.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>THREADING</th>
<th>THREADING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow the procedures shown in Fig.24 for threading. Wrong threading may cause thread breaking, stitch skipping, puckering or unexpected sewing. Please refer to THREADING drawing for more details.</td>
<td>Follow the procedures shown in Fig.24 for threading. Wrong threading may cause thread breaking, stitch skipping, puckering or unexpected sewing. Please refer to THREADING drawing for more details.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADJUST THREAD TENSION</th>
<th>ADJUST THREAD TENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The tension of the thread should be adjusted according to:</td>
<td>The tension of the thread should be adjusted according to:</td>
</tr>
<tr>
<td>1. The material type</td>
<td>1. The material type</td>
</tr>
<tr>
<td>2. The thickness of the fabric being sewed;</td>
<td>2. The thickness of the fabric being sewed;</td>
</tr>
<tr>
<td>3. The thread;</td>
<td>3. The thread;</td>
</tr>
<tr>
<td>4. The stitch length.</td>
<td>4. The stitch length.</td>
</tr>
<tr>
<td>If you turn the thread tension knob clockwise, thread will be tighter. If you turn it counterclockwise, will be looser. (Fig.24)</td>
<td>If you turn the thread tension knob clockwise, thread will be tighter. If you turn it counterclockwise, will be looser. (Fig.24)</td>
</tr>
</tbody>
</table>
针线挑线桿之調整

1. 轉動手輪使針桿位於最低位置時，針線控桿搖臂的上邊必須成水平，必要時放鬆螺絲調整之。（圖 25）

2. 將螺絲鬆開，調整 A，B 兩點的距離約 75 mm 再鎖緊。

註：
欲將針線調鬆時，將挑線桿向左方向移動。
欲將針線調緊時，將挑線桿向右方向移動。

3. 上叉挑線桿⑤不要調整。

ADJUSTING NEEDLE THREAD TAKE-UP

1. When turning the pulley and make the needle bar in the lowest position, the top edge of the needle thread take-up should remain horizontal. To adjust the position of the take-up if necessary, loosen the screw ④. (Fig.25)

2. Loosen screw ② to adjust the length between point A and B to be about 75 mm, then fasten it tightly.

Note:
To loosen the needle thread, turn the needle thread take up ③ toward the left. To tighten the needle thread, turn the needle thread take up ③ toward the right.

3. Do not move the spreader thread take-up ⑤ when making above adjustments.

上叉挑線桿之調整

1. 當上叉挑線桿①擱至最高點時，另一張線桿②上的小孔 A 必須與張線桿①上之長溝底同高。（圖 26）

2. 必要調整時，先鬆開螺絲及，上下擺動上叉挑線桿②，調整後鎖緊之。

ADJUSTING SPREADER THREAD TAKE-UP

1. When the spreader thread take-up ① is adjusted to the top, the small hole A of the other spreader thread take-up must be at the same level with the long groove of the Spreader Thread Take-up ①. (Fig.26)

2. For necessary adjustment, loosen screw ③ and ④ first, move the Spreader Take-up ② up and down, and then fasten the screws again.
Loosen screw ① and adjust presser foot ② left and right to a proper position to let the needle may get into the center of presser foot's eyelet. After adjusting, tighten screw ①. (Fig.27)

Stitch length can be adjusted variably in range from 1~4.23mm or 6~25 stitches per inch. (Fig.28)

1. Adjust the rotary knob ① by hand to adjust stitch length. The adjustable range is 1mm~4.23mm which is equal to the maximum stroke 6 stitches per inch. The minimum stroke is 25 stitches per inch.
2. After manual adjusting the rotary knob ①, the moving distance of current feed teen can be known by the indicated number on the scale plate ③.

3. Turning knob ① clockwise can lengthen the stitch length, turning it counterclockwise can shorten the stitch length.

4. The adjusted stitch length can affect the differential ratio, so the differential ration should be adjusted after adjusting the stitch length.

## ADJUSTING DIFFERENTIAL RATIO

The differential ratio = rear feed dog stroke : front feed dog stroke

1. The differential ratio can be adjusted from 1:1 to 1:7.6.

2. Adjust the rotary knob ② by hand to adjust the front feed dog stroke. The adjustable range is 1mm~7.6mm. (Fig.28)

3. After manual adjusting the rotary knob ②, the feed dog stroke can be known by the indicated number on the scale plate ③.

4. Turning the knob ② clockwise when sewing the elastic fabric.

5. Turning the knob ② counterclockwise when sewing the shrink fabric.
ADJUSTING PRESSURE OF THE PRESSER FOOT

Pressure of the presser foot should be as light as possible, so that cloth can be fed and sewed smoothly. (Fig. 29)

LIGHTENING OF THE OPERATION ENVIRONMENT

An industrial sewing unit or sewing system must always be unplugged from the local lighting of the sewing area before relamping, the marking of maximum rated input of a lamp shall be easily discernible while the lamp is being installed on or near the lamp socket as shown on Fig. 30.

額定功率.......100W
Lamp Max.....100W
操作者条件

1. 熟讀並了解使用說明書內容。
2. 認識機器各部功能及注意事項。
3. 了解警告標籤之意義。
4. 了解熟悉機器之操作方式。
5. 操作者必須保持精神狀態良好。
6. 操作者須穿著合宜適當之工作服。
7. 視需要培養操作者使用機器之熟練度。

保養

条件於所有操作者

1. Read and understand well the content of this instruction book.
2. Know the functions of major parts and understand the notices.
3. Truly realize the meanings of all warning tags.
4. Realize and be familiar with how to operate this machine.
5. Operators have to keep well mental status.
6. Operators shall wear appropriate and proper working suits.
7. Develop the familiarity of how to operate the machine if needed.

注意

清潔作業前，請切斷電源。當誤觸啓動開關時，縫紉機動作易導致人員受傷。

Turn off the power switch before carrying out cleaning. The machine may operate if the treadle is pressed incautiously, which could result in injury.

加潤滑油和黃油時，務必戴好保護眼鏡和手套，以防潤滑油進入眼中或沾在皮膚上，易引起發炎。

Be sure to wear protective goggles and gloves when handling the lubricating oil and grease so that they do not get into your eyes or onto your skin, otherwise inflammation can be resulted.

潤滑油或黃油不能飲用，否則將會引起嘔吐和腹瀉，將油放在小孩拿不到的地方。

Furthermore, do not drink or eat the oil nor the grease for they can cause vomiting and diarrhea. Keep the oil away of the reach of children.

縫紉機頭倒下或豎起時，請以雙手進行操作。

Use both hands to hold the machine head when tilting or returning it to its original position.

單手操作時，因縫紉機的重量較重，萬一滑落易導致受傷。

If only using one hand to move the machine, the weight of the machine head may cause slipping and you may get hurt.

為了保持縫紉機的機能，且能長久的使用，
請每日加以保養。另外，縫紉機如果長時間未使用，請依定期保養項目 (表4) 內各項進行保養後再使用。

For keeping the machine quality and lengthening the usage term of this sewing machine, please maintain it everyday. In addition, before first use after a long idling time, please follow the following the periodical maintenance items (Table 4) to maintain.
《清潔送料具保養方式》
1. 抬起押具
2. 將兩個螺絲①拆下，然後拆下針板②。

3. 以軟毛刷清除送布牙③上的布屑。(圖31)
4. 清潔後將針板②裝上。

《加油孔潤滑的保養》
1. 將布屑和灰塵清掃乾淨；
2. 每週定期在加油孔的位置加注潤滑油，需加注潤滑油的位置如下圖：

3. 駕起壓腳。
4. 非兩螺絲①，和然後拆下針板②。

《Maintain the feed dog》
1. Raise the presser foot.
2. Remove two screws①, and then remove the needle plate②.

3. Use a soft brush to clean dust and lints on the feed dog teeth③. (Fig.31)
4. Install the needle plate② after doing the above cleaning.

《Maintenance of lubrication in the fueling holes》
1. Cleanse the fiber and dirt.
2. Weekly add the lubrication in the fueling holes.

The positions needed to be added lubrication as below:
<table>
<thead>
<tr>
<th>Maintenance Cycle</th>
<th>Maintenance Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Daily</strong></td>
<td></td>
</tr>
<tr>
<td>1. Clean the lint on the feed dog.</td>
<td></td>
</tr>
<tr>
<td>2. Check if there has enough liquid oil inside the oil pan. (The amount should be between the red up and down paint mark of the oil level gauge.)</td>
<td></td>
</tr>
<tr>
<td>3. Keep the machine and the operation table clean.</td>
<td></td>
</tr>
<tr>
<td><strong>Weekly</strong></td>
<td></td>
</tr>
<tr>
<td>1. Keep the power cords looking clean and neat.</td>
<td></td>
</tr>
<tr>
<td>2. Keep the operational panel clean.</td>
<td></td>
</tr>
<tr>
<td>3. Check if the power parts is loosening or still at the right position.</td>
<td></td>
</tr>
<tr>
<td><strong>Quarterly</strong></td>
<td></td>
</tr>
<tr>
<td>1. Replace the liquid oil inside the oil pan.</td>
<td></td>
</tr>
<tr>
<td><strong>Annually</strong></td>
<td></td>
</tr>
<tr>
<td>1. Check the transmission belt to see if it is weariful or damaged.</td>
<td></td>
</tr>
</tbody>
</table>

### LUBRICATION

1. Please use Mobil#10 or ESSO#32 or its Equivalent pil.

2. The lubricating oil has been drained from the machine before delivery. Therefore, before using the new machine, remove screw (A), and fill the oil until the oil level is between the high/low indicate lines of oil level gauge. (Fig.32,33)
3. Be sure to check every day and refill the oil, if oil level is lower than line L of oil level gauge. * Before starting a brand new machine or a machine which has not been used for more than a couple of week, oiling the needle bar.

**Fig.33**
LUBRICATE AND THE COOLING OF NEEDLES AND THREADS

Fill reservoir ① and ② with silicon oil to prevent the thread from breaking. (Fig.34)

**Fig.34**

**CHANGE THE LUBRICATION OIL**

1. Loosen screw D and fasten it after drain all the oil from the tank. (Fig.35)

2. For extending the life of the machine, change oil after the first month operation. After that, change oil every four months.

**Fig.35**
CHANGE THE OIL FILTER

This machine is equipped with an oil filter, and the filter must be cleaned every month.
Replace the filter if necessary. (Fig.36)

REPLACE THE NEEDLE

1. See Table 5 for the sizes and the specifications of the needles.
2. Loosen screw ①, then pull out the used needles. Insert the new needles into the holder holes as far as they can go, and let the long groove of the needle face you. (Fig.37)
3. Fasten screw ①.

*Needle size of special model, please refer to conversion chart.

针之更换

1. 選用針之規格與尺寸請參照（表5）
2. 旋開螺絲①並取下針，將新針插至針座最低端，並使針之長溝面向自己。（圖37）
3. 重新鎖緊螺絲①。
*特殊機種針之代號請參考規格件表。
The instruction of pneumatic end intensive:
End intensive sewing function- hook the end intensive sewing driving lever ① by the chain ② and stretch down the end intensive sewing driving lever ① by foot-action, which enable the end stitch more intensive and strong. The standard equipment of end intensive sewing is foot-action, but the electronic motor control box can be option too. (Fig.38)
### TROUBLESHOOTING

**注意 CAUTION**

在進行故障檢修查詢之前，請先關閉電源並拔出電源，否則如果誤觸啓動開關，纏紗機會動作，易導致人身受傷。

Before processing the troubleshooting, please turn off the power switch and unplug the electronic cord. Otherwise, if touching the start switch incautiously, the sewing machine will function and will probably cause injuries happened on operators.

<table>
<thead>
<tr>
<th>No.</th>
<th>現象</th>
<th>檢查及調整</th>
<th>Problem</th>
<th>Exam and Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>鈈線太過緊密/疏鬆</td>
<td>鈈線張力是否過大或過小？</td>
<td>Needle thread too tight/loose</td>
<td>The tension of the needle thread is too loose or too tight?  &lt;br&gt; 調整鈈線張力。 &lt;br&gt; Adjust the needle thread tension.</td>
</tr>
<tr>
<td>2.</td>
<td>鈈線的跳線現象</td>
<td>1.車針的選擇不對？</td>
<td>The skipping stitch of needle thread</td>
<td>Choose the wrong needle?  &lt;br&gt; 選擇配合布料的車針與縫線號碼。 &lt;br&gt; Select the needle and thread number match the fabrics.  &lt;br&gt; 2. 車針不良？ &lt;br&gt; Bad needle?  &lt;br&gt; 搬新車針。 &lt;br&gt; Change a new needle.  &lt;br&gt; 3. 穿線方式不正確。</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. 車針針尖斷或彎曲。</td>
<td></td>
<td>The needle tip is broken or bent.  &lt;br&gt; 搬新車針。 &lt;br&gt; Change a new needle.  &lt;br&gt; 6. 勾針針尖變鈍。</td>
</tr>
</tbody>
</table>
| No. | 現象 | 檢查及調整  
Exam and Adjustment |
|-----|------|----------------------------------|
| 2.  | 針線的跳線現象。  
The skipping stitch of needle thread | 8. 勾針不能套住右邊車針的線環，造成勾針線的右邊線跡跳針。  
The looper can't hook the right needle thread loop and cause the right stitch of looper thread skipped.  
◎主因為車針線環太小，增加挑線量。  
Because the needle thread loop is too small which increase the thread take-up amount.  
9. 勾針不能套住左邊車針的線環，造成勾針線的左邊線跡跳針。  
The looper can't hook the left needle thread loop and cause the left stitch of looper thread skipped.  
◎主因為車針線環太大，減少挑線量。  
Because the needle thread loop is too big which decrease the thread take-up amount.  
10. 勾針無法勾住中間與左邊直針線環，勾針線的中針線與左針線跳針。  
The looper can't hook the middle and left straight needle thread loop which cause the middle and left stitch of looper thread skipped.  
◎依標準調整車針與勾針的勾線關係，使車針線環大小適當。  
According to the standard to adjust the looper thread connection between needle and looper and make proper needle thread loop size.  
11. 勾針無法勾住中間與右邊直針線環，勾針線的中針線與右針線跳針。  
The looper can't hook the middle and right straight needle thread loop and cause the middle and right stitch skipped.  
◎檢查縫線是否有穿過夾線器，控線凸輪的同步關係，有問題依標準進行調整。  
Check if the thread pass through the thread gripper and the synchronization relationship of thread controlling cam. If there is any problem, adjust it according to the standard.  
12. 勾針與車針配合不當。  
The looper and needle didn't cooperate well.  
◎檢查針榫高度，車針與勾針之間的同步。  
Check the needle lever height and the synchronization between needle and looper.  
13. 車針與護針片配合不當。  
The needle and the needle guard plate didn't cooperate well.  

From the library of: Superior Sewing Machine & Supply LLC
| No. | 现象 | 檢查及調整
Problem | Exam and Adjustment |
<table>
<thead>
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<tbody>
<tr>
<td>2.</td>
<td>針線的跳線現象。</td>
<td>The skipping stitch of needle thread</td>
</tr>
<tr>
<td>14.</td>
<td>車針與上勾針配合不當，或上勾針位置不對，造成上勾針跳針。</td>
<td>The needle and up looper didn't cooperate well or the incorrect up looper position cause the up looper skipped.</td>
</tr>
<tr>
<td>3.</td>
<td>纏線開始時出現跳針或脫線</td>
<td>Skipped stitches or unraveled thread at sewing start</td>
</tr>
<tr>
<td>1.</td>
<td>機針過粗。</td>
<td>The needle is too thick.</td>
</tr>
<tr>
<td></td>
<td>使用比現有機針小一號的機針。</td>
<td>Try using a needle with a count that is one lower than the current needle.</td>
</tr>
<tr>
<td>2.</td>
<td>纏線開始時，縫紉速度過快。</td>
<td>The sewing speed is too fast at the sewing start.</td>
</tr>
<tr>
<td>3.</td>
<td>紡線張力過大。</td>
<td>The thread tension is too strong.</td>
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<tr>
<td></td>
<td>適當調整縫線張力。</td>
<td>Adjust the thread tension properly.</td>
</tr>
<tr>
<td>4.</td>
<td>斷線</td>
<td>Thread broken</td>
</tr>
<tr>
<td></td>
<td>按穿線圖重新穿線。</td>
<td>According to the threading diagram to re-threading.</td>
</tr>
<tr>
<td>2.</td>
<td>車針安裝不正確。</td>
<td>Incorrect needle installation.</td>
</tr>
<tr>
<td></td>
<td>重新安裝車針，使車針前端朝向操作者。</td>
<td>Reinstall the needle to make the needle slot face the operator.</td>
</tr>
<tr>
<td>3.</td>
<td>紡線張力過大。</td>
<td>The thread tension is too strong.</td>
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<td>適當調整縫線張力。</td>
<td>Adjust the thread tension properly.</td>
</tr>
<tr>
<td>4.</td>
<td>縫線質量太差。</td>
<td>Bad thread quality.</td>
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<tr>
<td></td>
<td>改用適當縫線。</td>
<td>Change to use the proper thread.</td>
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<tr>
<td>5.</td>
<td>縫線比針孔粗。</td>
<td>The thread is wider than the needle hole.</td>
</tr>
<tr>
<td></td>
<td>改換適中的縫線或針。</td>
<td>Change to use the proper thread or needle.</td>
</tr>
<tr>
<td>No.</td>
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<tr>
<td>4.</td>
<td>斷線</td>
<td>Thread broken</td>
</tr>
<tr>
<td>5.</td>
<td>斷針</td>
<td>Needle broken</td>
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<tr>
<td>5.</td>
<td>斷針</td>
<td>Needle broken</td>
</tr>
<tr>
<td>7.</td>
<td>壓腳壓力過小、送布不良。</td>
<td>The presser foot pressure is small or the fabric feeding is improper.</td>
</tr>
<tr>
<td>8.</td>
<td>針針與車針相碰。</td>
<td>The looper contact the needle.</td>
</tr>
<tr>
<td>9.</td>
<td>針針與護針片配合不當。</td>
<td>The needle and needle guard plate didn't cooperate well.</td>
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<tr>
<td>10.</td>
<td>車針與護針片配合不良。</td>
<td>The needle and needle guard plate didn't cooperate well.</td>
</tr>
<tr>
<td>11.</td>
<td>職針尖銳。</td>
<td>The looper tip is blunt.</td>
</tr>
<tr>
<td>12.</td>
<td>針桿與針桿套筒磨損過大，使車針與針桿套配合鬆動。</td>
<td>The needle lever and needle lever sleeve is worn out so the needle and needle sleeve become loose.</td>
</tr>
<tr>
<td>13.</td>
<td>針板上容針孔太小。</td>
<td>The needle hole on the needle plate is too small.</td>
</tr>
<tr>
<td>14.</td>
<td>零件鬆動過大。</td>
<td>The parts is over-loosing.</td>
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© 檢查各機構之間配合與磨損狀況，按標準調整配合尺寸，對於磨損嚴重機件進行更換。
Check cooperation and wear condition among the mechanism and adjust the size according to the standard. Replace the part which is worn out seriously.
<table>
<thead>
<tr>
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<td>6.</td>
<td>線跡不規則</td>
<td>Uneven stitch</td>
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<tr>
<td>7.</td>
<td>縫線不平整</td>
<td>Uneven Seam</td>
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<td>8.</td>
<td>縫布料皺起</td>
<td>The fabric is puckering</td>
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<td>The fabric is puckering</td>
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</table>

1. 車針太低使車針線形成太大，使線圈之間相互交纏在一起。
The lower needle cause the big thread loop and make the thread loop intertwist together.  
◎按標準重新定位車針高度。  
Reset the needle height by following the standard.  
2. 針板舌頭部太窄，使車針圓容易產生併攏而線跡產生不規則。  
The needle plate tongue is too narrow which make the needle come close easily and have uneven stitch.  
◎更換新針板。  
Replace with the new needle plate.  
3. 車針與勾針配合不良。  
The needle and looper didn't cooperate well.  
◎按標準調整車針與勾針配合位置。  
Adjust the needle and looper position by following the standard.  
1. 壓具壓力過小？  
The presser foot pressure is too weak?  
◎調整壓具壓力。  
Adjust the presser foot pressure.  
2. 送具送齒過低。  
The feed dog teeth is too low.  
◎調整送具送齒高度。  
Adjust the feed dog teeth height.  
1. 差動送布比率不當。  
The improper differential fabric feeding ratio.  
◎適當調整差動送布比率。  
Adjust the differential fabric feeding ratio properly.  
2. 送具送齒高低前後位置不當。  
The improper position of feed dog teeth.  
◎按標準調整送具送齒高低。  
According to the standard to adjust the feed dog teeth height.  
3. 縫線張力過大。  
The stitch tension is too strong.  
◎適當調整縫線張力。  
Adjust the stitch tension properly.
<table>
<thead>
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<th>No.</th>
<th>現象</th>
<th>檢查及調整</th>
</tr>
</thead>
</table>
| 8.  | 繡布料皺起 | 4. 壓骨壓力太大或太小。  
The presser foot pressure is too strong or too weak.  
**適當調整壓骨壓力。**  
Adjust the presser foot pressure properly.  
5. 縫紉速度過快。  
The sewing speed is too fast.  
**降低車縫速度。**  
Decelerate the sewing speed. |
| 9.  | 縫跡不良 | 1. 線的粗細不一致。  
The thread thickness is different.  
**改用較好的繡線。**  
Change to use the better thread.  
2. 夾線器工作不正常。  
The thread gripper is abnormal.  
**清除夾線器雜物，使過線平順。**  
Clean the thread waste on the thread gripper to make the thread crossing smoothly.  
3. 過線器定位不正確。  
The locating of thread crossing is incorrect.  
**調整針線、勾針線及上勾針線的張力。**  
Adjust the tension of needle thread, looper thread and up looper thread.  
4. 過線孔不光滑。  
The thread crossing hole is not smooth.  
**用砂紙或挫刀工具拋光過線孔。**  
Use emerypaper or file to polish the thread crossing hole. |
| 10. | 繡布料出現針孔 | 1. 針針尖變鈍或起毛。  
The needle tip is blunt.  
**更換車針。**  
Replace the needle.  
2. 繡繡布料比較，車針太粗。  
The needle which compares with fabric is too thick.  
**換用較細車針。**  
Replace with the fine needle.  
3. 針板上容針孔太小或磨損。  
The needle hole on the needle plate is too small or worn out.  
**把車板孔修圓滑。**  
Rounding and smooth the needle plate hole. |
| No. | 現象  
| --- | Problem  
| 11. | 不能噴油  
The oil does not splash  

| 檢查及調整  
| --- | Exam and Adjustment  
|  | 1. 泵浦不出油。  
The oil does not come out from the pump.  
|  | ◎ 更換泵浦不良零件  
|  | Change the improper parts of pump.  
|  | 2. 上機構不噴油。  
The Upper mechanism does not splash the oil.  
|  | ◎ 更換濾油器，用鐵絲清通油路。  
|  | Change a new filter and use the iron wire to clean through the oil path.  
|  | 請依下列實施：  
|  | A. 參數 64 項，出廠值：40 改為 100  
|  | B. 參數 65 項，出廠值：10 改為 28  
|  | Please implement the procedure as below:  
|  | A. Parameter No.64, default: 40 change to 100  
|  | B. Parameter No.65, default: 10 change to 28.  

| 12. | 大聲、異聲  
Loud noise, strange noise  

| 1. 鈎棒鬆動。  
The needle bar is loosing.  
|  | ◎ 更換新品或磨合其接觸面使之間隙變小。  
|  | Change a new one or to polish the contacting surface so that clearance is smaller.  
|  | 2. 皮帶輸出聲。  
The pulley has noise.  
|  | ◎ 按基準調整之。  
|  | Adjust it based on the standard.  

| 13. | 打開電源並踩下腳踏板時，縫紉機不動作。  
Machine does not operate when power is turned on and treadle is pressed.  

| 1. 電源插頭從控制箱上鬆開。  
The power supply connector disconnected from the control box.  
|  | ◎ 將插頭插牢。  
|  | Insert the connector securely.  

| 14. | 縫紉機不能以高速運轉。  
Machine does not operate at high speed.  

| 1. 縫紉機速度設定過低。  
The sewing speed is setting too slow.  
|  | ◎ 請重新設定縫紉機轉速。  
|  | Please reset the sewing rotational speed.  

| 15. | 加裝 CL 如遇抬壓腳力道不足時。  
If the strength or the presser foot lifter is insufficient with being equipped with CL.  

|  | 請依下列實施：  
|  | A. 參數 64 項，出廠值：40 改為 100  
|  | B. 參數 65 項，出廠值：10 改為 28  
|  | Please implement the procedure as below:  
|  | A. Parameter No.64, default: 40 change to 100  
|  | B. Parameter No.65, default: 10 change to 28.  

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1. When the machine needs to be eliminated and demolished, certain basic rules must be observed to protect the environment and public health.

2. ALL machine components must be divided according to categories as the followings:
   (1) All sheathes, flexible hosing and plastic or non-metal components.
   (2) Electricity components: switches, or lighting components.
   (3) Insulation materials: rock wool, and flexible rubber strips.
   (4) Metals: ferrous metals, copper, bronze and brass, various.

3. In this way, all materials can be eliminated correctly, recycled, or melted down for reuse or disposed of so that they do not harm the environment.
The specification and/or appearances of the equipment described in this parts list are subject to change because of modification without previous notice.

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