

# ***Instruction Manual and Parts List***

Integrated Energy Saving  
Direct Drive Motor  
Lockstitch Sewing Machine

**141** **G** 20CE  
30CE  
20CF (With U.T.T)  
30CF (With U.T.T)



**SINGER®**

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## 1.1

### Important Safety Instructions

#### Important

When using the machine, basic safety procedures must be followed. Read with attention all instructions before using the machine.

When using it, understand that all basic safety instructions are not limited to the following items. Read all instructions, take care of this manual, and use it as reference when necessary.

- Before running the machine, make sure all relevant safety specifications are adequate to specifications and technical standards in your country.
- The machine should not be run without its safety devices.
- Please don't operate when environment temperature is above 45°C or below 0°C.
- For your safety, goggles must be used while running the machine.
- Turn off or unplug the machine when the following situations arise:
  - Passing the thread by the needle or replacing the bobbin or looper.
  - Replacing the needle, presser foot, throat plate, feed dog and sliding plate.
  - When the machine is in maintenance.
  - When the operator is not running the machine.
- In case of lubricant oil contact with the eyes or skin, washed the surface with plenty of icy water with a generous amount of cold water. In case of ingestion, seek medical help immediately.
- Avoid operating in the area where humidity is 30% less and 95% more, also keep away from dew or acid spray area.
- Repair, fitting or maintenance should only be performed by properly trained personnel.
- Maintenance and repair on electric equipment should only be made by qualified personnel. If any electric device is damaged, the machine should be immediately stopped.
- Before starting the machine in full running, a test must be conducted to assure that machine and operator are able to perform the task.
- The machine should not be placed next to a sound source as an ultrasonic welding machine and other equipment.
- The machine should only be run with the proper electric cable and connectors, and also the adequate grounding.
- The machine should only be used to sew materials as indicated in its instructions manual, and indications of use should be followed.

Singer will not be held responsible for any damage caused by unauthorized changes in the product.



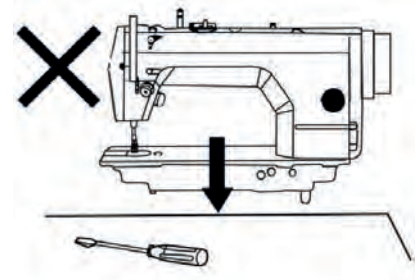
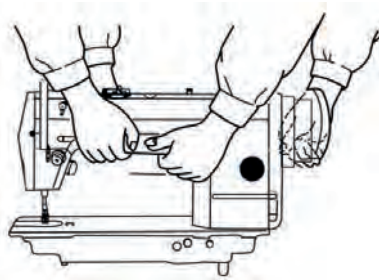
# 1.2

## Safe Operation

- ⚠️ • To avoid the risk of electric shock, do not open the motor wiring box and do not touch the components assembled inside the wiring box.
  - To avoid injuries do not run the machine without the belt cover or in case any other safety device is removed.
  - To avoid possible injuries keep fingers, head and clothes far from wheel, belt and motor when the machine is running. Nothing should be placed near those parts.
  - To avoid injuries never put your fingers next to the rotating hook and the thread take-up lever cover when the machine is running.
  - To avoid possible injuries be careful when putting down or lifting the machine head.
  - To avoid accident in case of a sudden start of the machine always turn it off when laying it down, or remove the belt cover and the belt.
- If you machine is equipped with a servomotor, it does not make noises while being driven. To avoid a possible accident caused by an unexpected start, be sure the machine is turned off.
  - To avoid electrical shock, do not run the machine without proper grounding.
  - ⚠️ • To minimize the risk of accidents or damage in electric components caused by electric discharge turn the machine off before unplugging it.
  - Clean the machine periodically.

### CAUTION

- Carry the sewing machine with two persons as the shown in the figure. **Do not hold the handwheel.**
- Do not put a obstacle thing such as screwdriver at the location, where the sewing machine will be placed.



# 2

## Product Description and Machine Specification

### 2.1

#### Product Description

*Integrated Energy Saving Direct Drive Lockstitch Sewing Machine*

*141G-20CEA / -30CEA (Without Auto Thread Trimmer)*

*141G-20CFA / -30CFA (With Auto Thread Trimmer)*



# 2.2

## Machine Specification

Table1 - Machine Specification

Singer Model	Application	Maximum Speed [spm]	Stitch Length [mm]	Height of Presser Foot Hand / Knee [mm]	Needle Bar Stroke [mm]	Hook Type	Electric Device	Needle Cat.	Lubrication	Motor Power
141G-20CEA	Light to medium	5,000	5.0	5.5 / 13.0	30.7	Standard	NU / ND	1955-01 #14	Automatic (Oil pump)	220V
141G-20CEB										110V
141G-30CEA	Medium to heavy	4,000	7.0	6.0 / 13.0	35.0			1955-01 #18		220V
141G-30CEB										110V
141G-20CFA	Light to medium	5,000	5.0	5.5 / 13.0	30.7	Standard	UTT	1955-01 #14	Automatic (Oil pump)	220V
141G-20CFB										110V
141G-30CFA	Medium to heavy	4,000	7.0	6.0 / 13.0	35.0			1955-01 #18		220V
141G-30CFB										110V

NU / ND: Needle up / Needle down  
UTT: Under Thread Trimmer

# 2.3

## Motor Specifications

- Integrated direct drive servo motor with operation panel

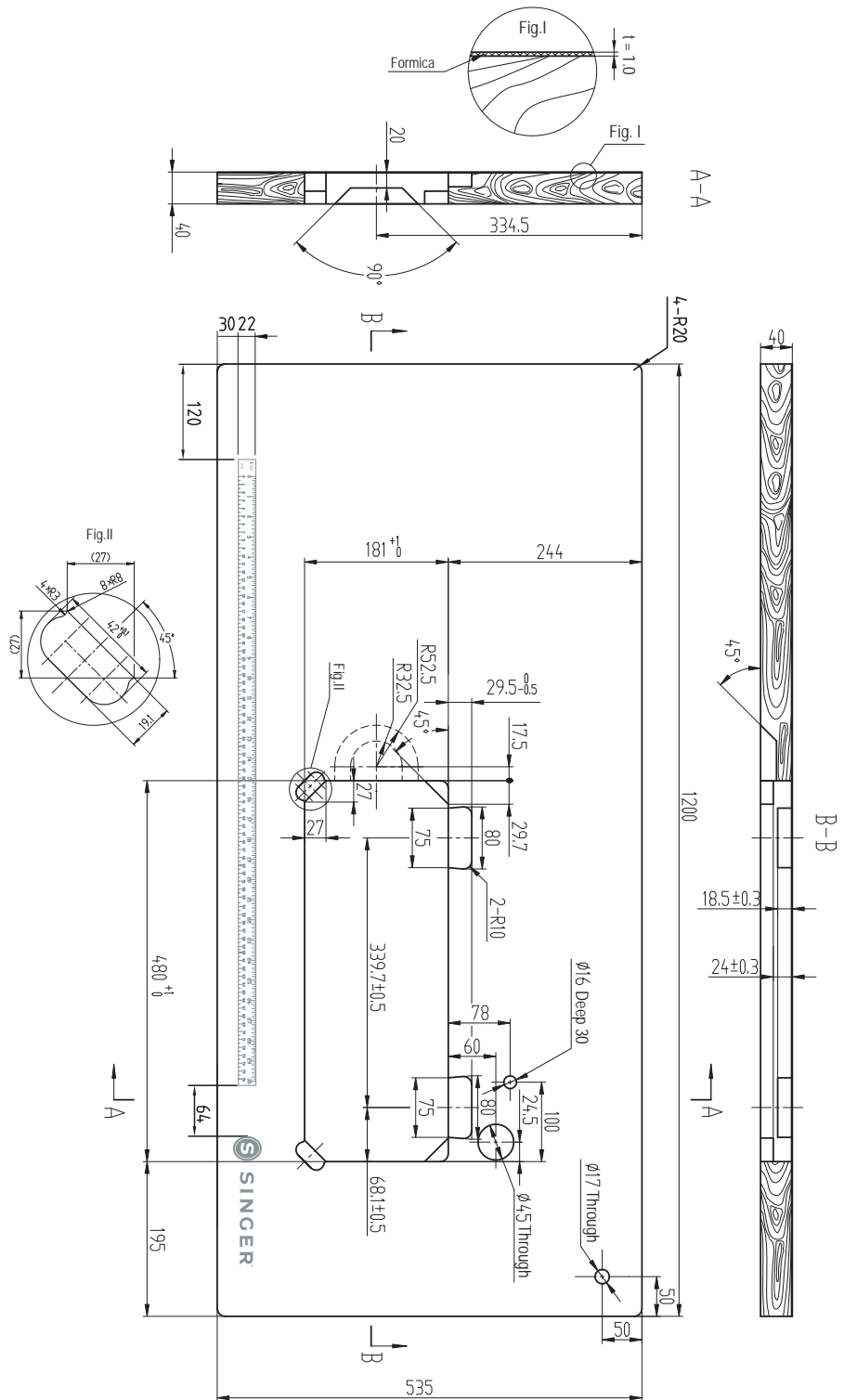
Model	Power	Torque	Voltage	Frequency
141G-20CEA	550W	4.0 Nm	220V	50 / 60 Hz
141G-30CEA			110V	
141G-20CEB				110V
141G-30CEB				
141G-20CFA	550W	4.0 Nm	220V	50 / 60 Hz
141G-30CFA			110V	
141G-20CFB				110V
141G-30CFB				

# 3

## Setup and Adjustment instructions

### 3.1 Table Cut-Out Drawing

For 141G-CE / 141G-CF



# 3.2

## Oil Reservoir Installation

The oil reservoir should rest on the four corners of the machine table groove.

Two rubber seats '1' for supporting the head portion on the operator side 'A' are fixed on the extended

portion of the table and other two rubber cushion '2' on the hinge side 'B'.

Then, the oil reservoir '3' is placed.

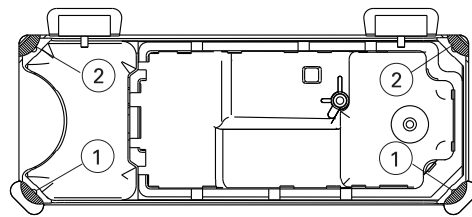


Figure 2

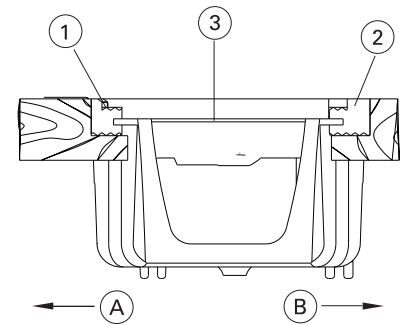


Figure 3

Two hinges '1' fit into the hole in the machine bed, and the machine head fitted the table hinge's rubber

'2', before the machine head is placed to the cushions '3' on the four corners of the table.

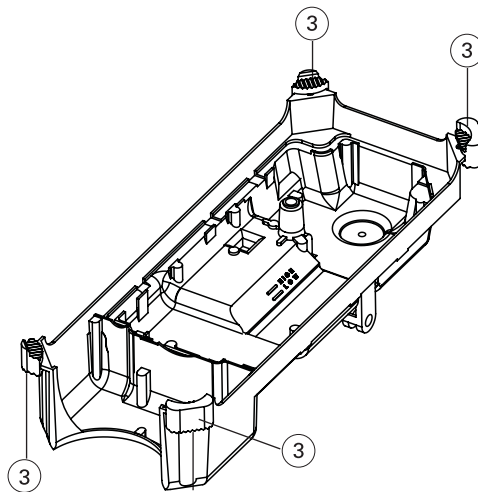


Figure 4

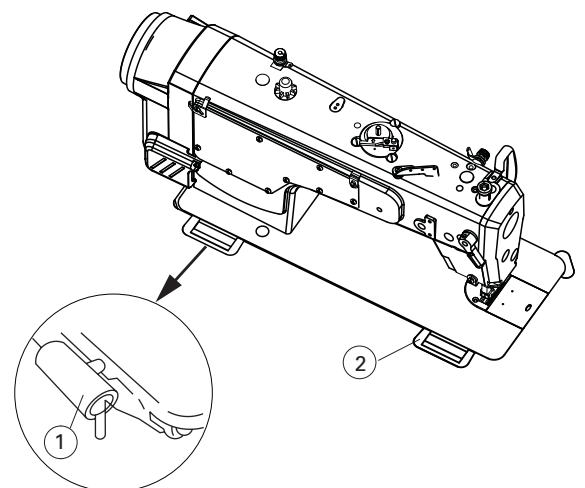


Figure 5

# 3.3

## Lubrication

### Precaution

When set-up a new machine or a machine after an extended period of disuse, run your machine at 3,000 - 3,500 rpm for about 10 minutes for the purpose of break-in.

Before turning the machine on, fill oil reservoir '1' with sewing machine oil up to 'HIGH' mark 'A' (Figure 6).

When the oil level lowers below 'LOW' mark 'B', refill the oil reservoir with the specified oil.

When you operate the machine after lubrication, you will see splashing oil through oil sight window '2' if the lubrication is adequate.

Note that the amount of the splashing oil is unrelated to the amount of the lubricating oil.

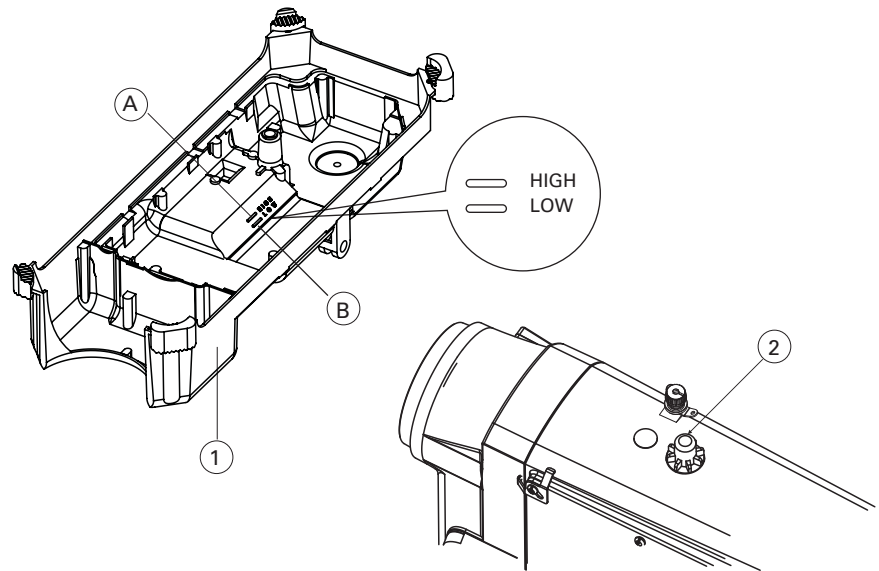


Figure 6

# 3.4

## Rotating Hook Oil Supply Adjustment

### How to check the hook oil supply

Unused machine should run idle for 3 minutes (Moderate intermittent operation).

The amount of oil confirmation paper must be inserted in the state when the machine is running.

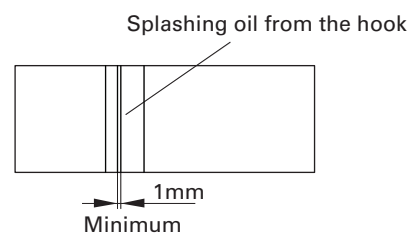
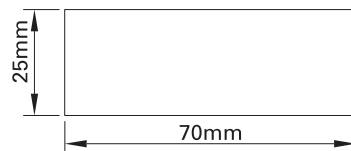
The confirming time of the oil amount is 5 seconds (check the period of time with a watch).

### Sample showing the appropriate amount of oil

The amount of oil can be adjusted according to the different sewing process but it must be a suitable amount. Otherwise the hook will generate heat or the sewing material will be contaminated.

Use the amount of oil confirmation paper for three times to observe the amount of oil. Adjust the screw until the mark on the paper unchanged.

- ① The amount of oil confirmation paper



- ② Place of oil amount confirming

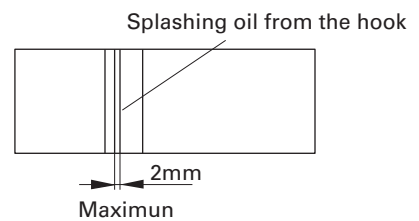
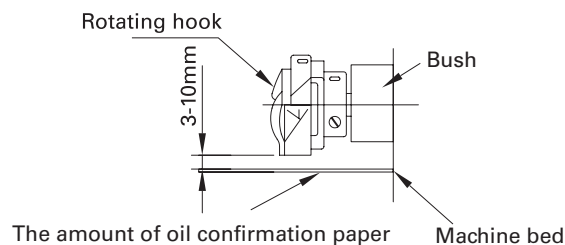


Figure 7

Figure 8

### Adjusting the amount of oil supplied to the hook

Turning the oil adjusting screw of the hook shaft bushing on bed toward '+' in direction 'A', the oil amount will be increased, and toward '-' in direction 'B', the oil amount will be decreased.

After adjustment the machine must be idling for thirty seconds. It can be confirmed the state of oil supplied.

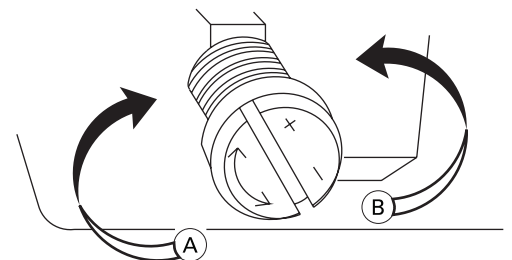


Figure 9

# 3.5

## Needle Attachment

### Cautions

Choose a proper needle size according to the count of thread and the type of sewing material used.

The power supply should be cut off before attaching the needle.

Turn the hand wheel until the needle bar reaches the highest point of its stroke.

Loosen screw '2' and hold needle '1' with its indented part 'A' facing exactly to the right in direction 'B'.

Insert the needle in the direction of the arrow until it will go no further. Tighten the screw '2'.

Make sure the long groove 'C' of the needle is facing exactly to the left in direction 'D'.

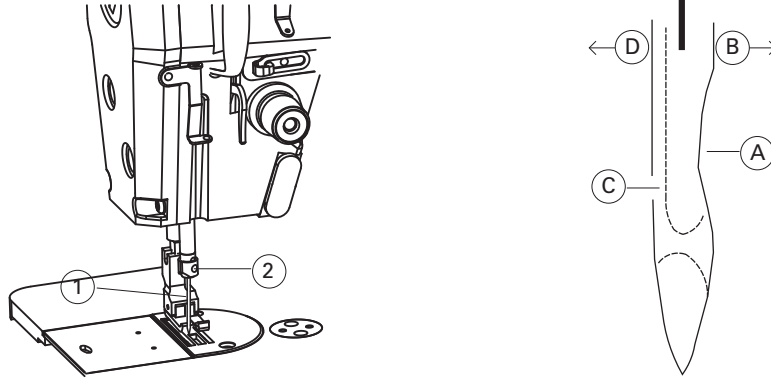


Figure 10

# 3.6

## Machine Threading

When threading the machine, the needle bar should be at the highest point of its stroke.

Threading the machine in the order shown below.

Leave thread approximately 4.0 cm long in the needle.

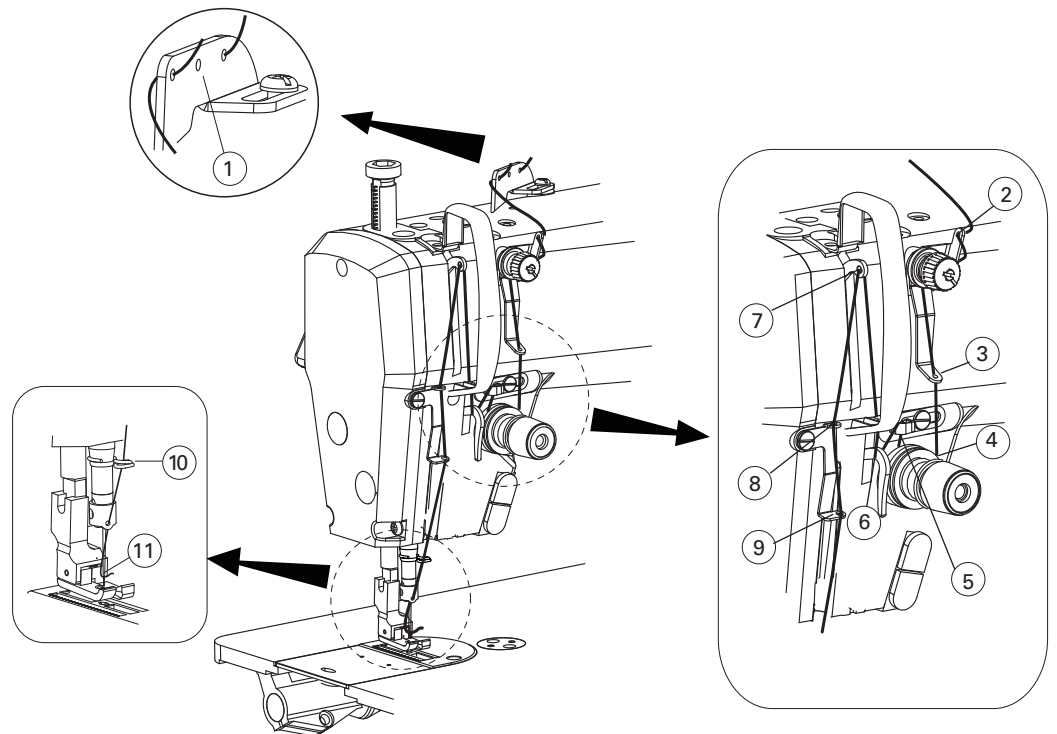


Figure 11



# 3.7

## Winding the Bobbin Thread

### Cautions

When winding the bobbin thread, start the winding in the state that the thread between the bobbin and thread tension disk '7' is tense.

When winding the bobbin thread in the state that sewing is not performed, remove the needle thread from the thread path of thread take-up and remove the bobbin from the hook.

1. The bobbin is pushed into the bobbin winder spindle '1' until it will go no further.

2. Pass the bobbin thread pulled out from the spool rested out the right side of the thread stand following the order as shown in the figure on the left. Then, wind clockwise the end of the bobbin thread on the bobbin several times. (In case of the aluminum bobbin, after winding clockwise the end of the bobbin thread, wind counterclockwise the thread coming from the bobbin thread tension several times to winding the bobbin thread with ease.)

3. Press the bobbin winder lever '2' in the direction 'A' and start the sewing machine. The bobbin rotates in the direction of 'C' and the bobbin thread is wound up. The bobbin winder spindle '1' automatically as soon as the winding is finished.

4. Remove the bobbin and cut the bobbin thread with the thread cut retainer '3'.

5. To adjust the winding amount of the bobbin thread, loosen the

setscrew '4' and move the bobbin winder adjusting plate '5' to the direction of 'A' (Decrease) or 'B' (increase). Then, tighten the setscrew '4'.

6. In case that the bobbin thread is not wound evenly on the bobbin, loosen the nut '6' and turn the bobbin thread tension to adjust the height of the thread tension disk '7'.

- It is the standard that the center of the bobbin is as high as the center of the thread tension disk '7'.

- Move the position of the thread tension disk '7' to the direction of 'A' as shown in the figure on the left when the winding amount of the bobbin thread on the lower part of the bobbin is excessive and to the direction 'B' as shown in the figure on the left when the winding amount of the bobbin thread on the upper part of the bobbin is excessive.

- After the adjustment, tighten the nut '6'.

7. To adjust the tension of the bobbin winder, turn the thread tension nut '8'.

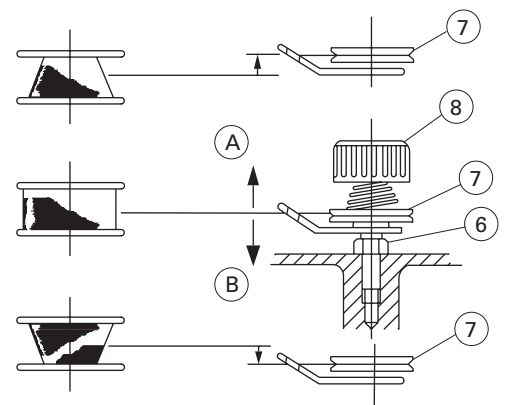
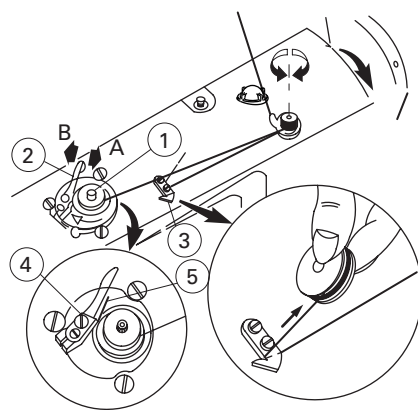


Figure 12

## 3.8 Bobbin Case Attachment

Fix the bobbin into bobbin case with that the thread open end is directed to the left as observed from you.

Pass the thread through thread slit 'A', and pulls it in direction 'B'. By doing so, the thread will pass under the tension spring and come out from notch 'B'.

When pulling the thread 'C', the bobbin should rotate in the direction of the arrow.

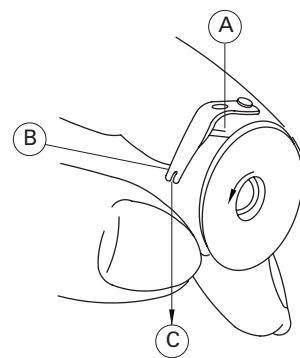


Figure 13

## 3.9 Stitch Length Adjustment

Press reverse lever '1', turn stitch dial '2' direction of the arrow, and align the desired number to marker dot 'A' on the machine arm.

The indication of the dial is in millimeters.

When you want to decrease the stitch length, press reverse lever '1' while turn stitch dial '2' in the direction of the arrow.

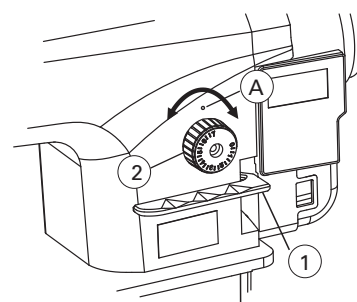


Figure 14

## 3.10 Thread Tension Adjustment

### Adjusting the needle thread tension

The tension nut '1' can be adjusted for the needle thread lengths after trimming.

Turn the nut '1' clockwise (in direction A), the length of the needle thread will be shorter.

Turn the nut '1' counter-clockwise (in direction B), the length of the needle thread will be longer.

Adjust the tension of needle thread by tension nut '2' according to different sewing conditions.

Turn the nut '2' clockwise (in direction C), the needle thread tension will be increased.

Turn nut '2' counter-clockwise (in direction D), the needle thread tension will be decreased.

### Adjusting the bobbin thread tension

Turn the screw '3' clockwise (in direction E), the bobbin thread tension will be increased.

Turn the screw '3' counter-clockwise (in direction F), the bobbin thread tension will be decreased.

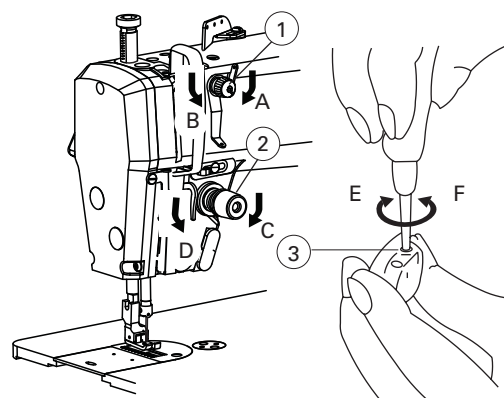


Figure 15

# 3.11

## Thread Take-up Spring Adjustment

### **The adjustment of the stroke of the thread take-up spring**

Loosen setting screw '2'.

Turn the thread tension post '3' clockwise (in direction A), the stroke of the thread take-up spring will be increased.

Turn the thread tension post '3' counter-clockwise (in direction B), the stroke of the thread take-up spring will be decreased.

### **Adjusting the pressure of the thread take-up spring '1'**

Loosen setting screw '2' and take out thread tension assembly.

Loosen setting screw '4' and turn the tension post '3'.

Turn the tension post '3' clockwise (in direction A), the pressure of the spring will be increased.

Turn the tension post '3' counter-clockwise (in direction B), the pressure will be decreased.

- Usually, the thread take-up spring '1' has been properly adjusted before leaving the factory.

- Only when sewing special clothes or using special thread is readjustment necessary.

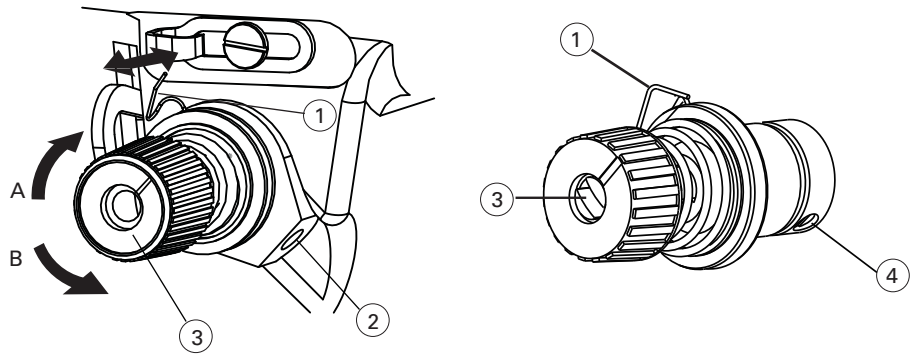


Figure 16

# 3.12

## Thread Take-up Stroke Adjustment

When sewing for heavy weight material, the thread guides '1' move to the left (in direction 'A' to increase the length of thread pulled out by the thread take-up.

When sewing light weight material, the thread guides '1' move to the right (in direction 'B' to decrease the length of thread pulled out by the thread take-up.

When marker line 'C' on the thread guide '1' is aligned with the center of the screw that is standard.

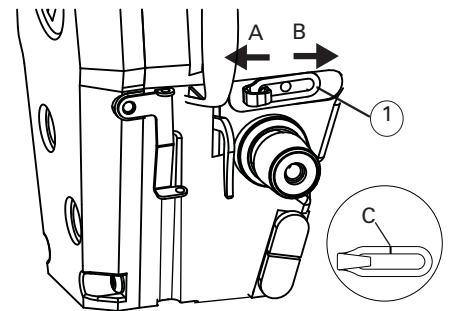


Figure 17

# 3.13

## Knee Lifter Height Adjustment

When using the knee lifter, the standard height of the presser foot is 10mm.

You can adjust the presser foot lift up to 13mm by turning the knee lifter adjusting screw '1'.

### Caution

When the presser foot lift to over 10 mm or more, be sure that the needle bar '2' in its lowest position does not hit the presser foot '3'.

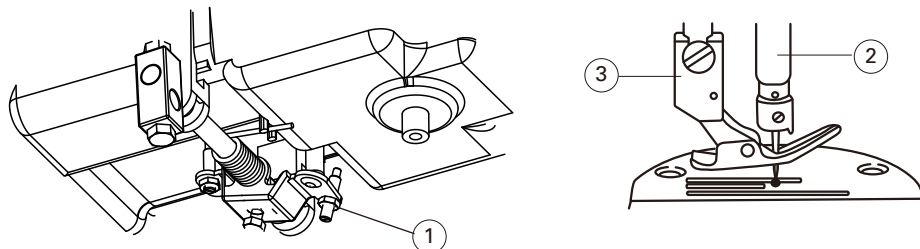


Figure 18

# 3.14

## Presser Foot Lifter Adjustment

Turn the presser foot lifter '1' in direction 'A' to lift the presser foot. The presser foot will go up about 5.5 mm and stop.

The presser foot will go back to its original position when the lifter is turned down in direction 'B'.



Figure 19

# 3.15

## Presser Foot Pressure Adjustment

Loosen the nut '2' and turn the presser spring regulator '1' clockwise (in direction A), the pressure of the presser foot will be increased.

Turn the regulator '1' counter-clockwise (in direction B), the pressure of the presser foot will be decreased.

Tighten nut '2'.

For general sewing of the fabrics, the standard height of the presser spring regulator '1' will be around 29~30 mm (4.5 kg).

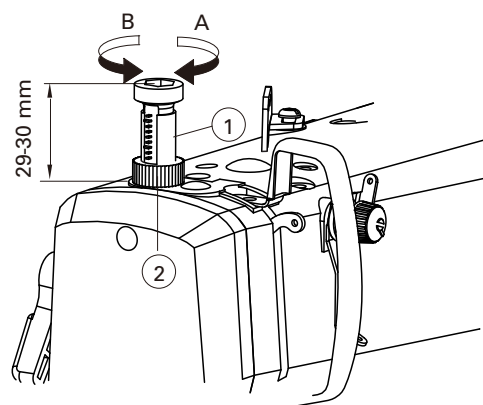


Figure 20

# 3.16

## Pedal Adjustment

### **Installing the connecting rod.**

Move the pedal '3' to the right or left as illustrated by the arrows so that the motor control lever '1' and connecting rod '2' are straightened.

### **Adjusting the pedal angle.**

The pedal tilt can be freely adjusted by changing the length of the connecting rod '2'.

Loosen adjust screw '4', and adjust the length of connecting rod '2'.

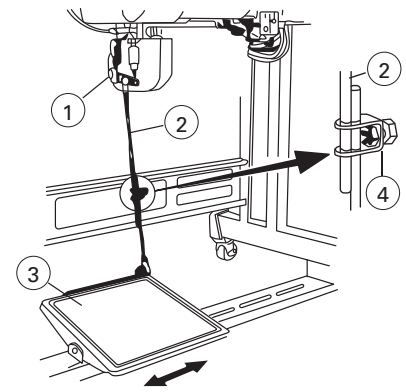


Figure 21

# 3.17

## Pedal Operation

**The pedal is operated in the following.**

### **Step 'A' position**

The machine runs at high sewing speed, when you further depress the front part of the pedal.

### **Step 'B' position (Neutral)**

The machine stops (with its needle up or down), when you reset the pedal to its original position.

### **Step 'C' position (Only 141G-20CFA / -30CFA)**

The machine trims threads when you fully depress the back part of the pedal.

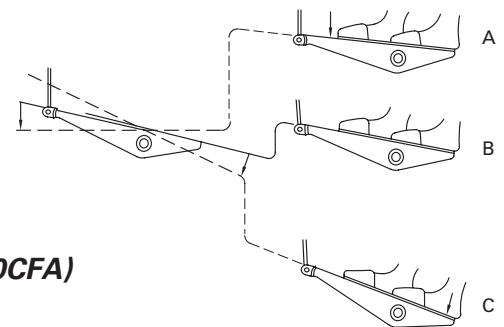


Figure 22

### **Notes:**

- 1) While the machine is on the auto reverse stitch, if the pedal put it to the neutral position, the machine will stop after reverse stitches.
- 2) The machine will perform normal thread trimming even if you depress the back part of the pedal immediately following high and low speed sewing.
- 3) The machine will completely perform thread trimming even if you reset the pedal to its neutral position immediately after the machine started thread trimming function.
- 4) When the machine stops at the needle down, and if you intend to bring the needle up, depress the back part of the pedal once.

# 3.18

## Needle to Rotating Hook Relation Adjustment

### Precaution

If the clearance is too small, the rotating hook points will wear out, and too big, it will cause the skip stitch. When replacing the rotating hook, it should be using the original one.

### Adjusting the height of the needle bar

Turn the hand wheel until the needle bar '2' has been at the lowest point, loosen the setscrew '1'.

The line 'A' on the needle bar '2' align with the bottom end of needle bar lower bushing '3', then securely tighten the setscrew '1'.

### Adjusting the position of the rotating hook

Loosen two rotating hook setscrews and turn the hand wheel until the line 'B' on needle bar align with the bottom end of needle bar lower bushing '3'.

After the above adjustments steps, the rotating hook point '5' aligns with the center of needle '4'(a), and make sure the clearance between the needle and the rotating hook '5' is 0.04~0.1 mm (b).

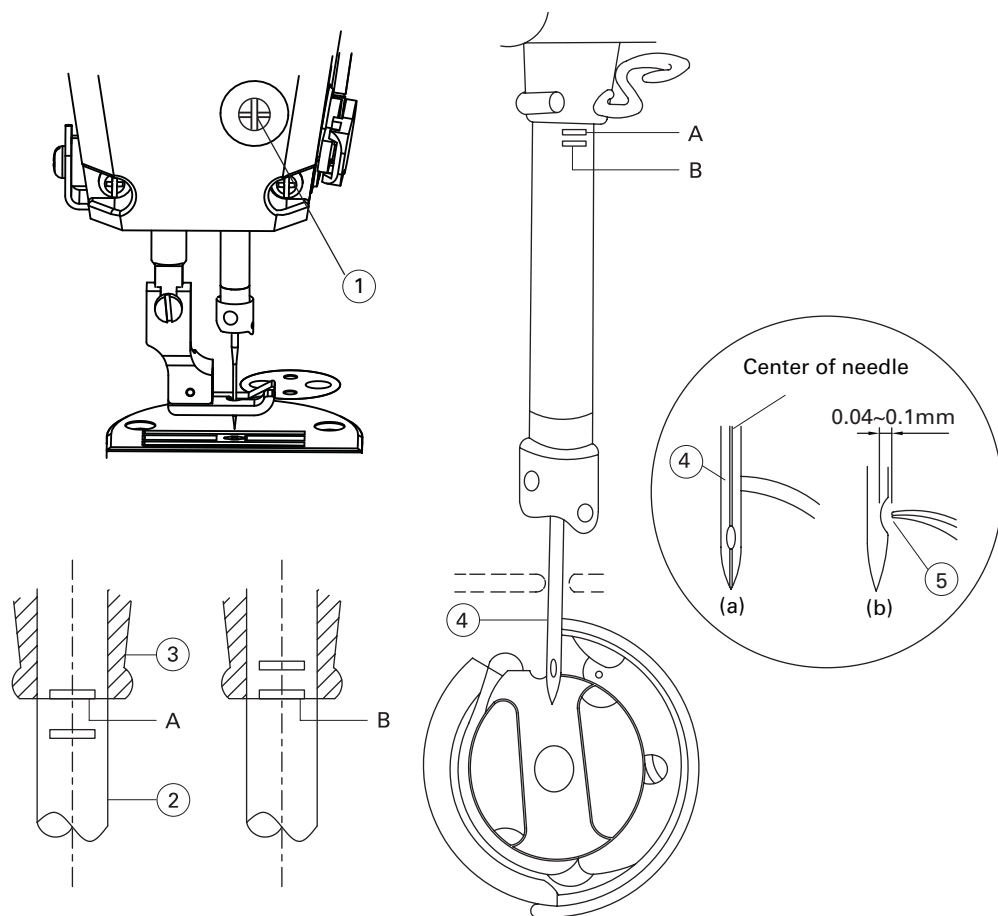


Figure 23



# 3.19

## Thread Trimming Adjustment (For 141G-xxCFx Only)

### Adjustment of the thread trimming cam position. (Figure 24)

Turn the hand wheel until the needle bar goes from the bottom up to 5.0 mm.

The thread trimming solenoid '4' is pressed until the thread trimming shaft with the roller '3' touches to the concave of the thread trimming cam '1'.

The positioning screw '2' is lightly tightened.

Then releases the thread trimming solenoid '4' and loosen the screw '2' to adjusting the cam '1' position until the clearance between the cam '1' and thread trimming driving shaft '3' is 0.5 mm.

After it is adjusted, securely tighten the screw '2'.

(Recheck)

When the trimming shaft with the roller '3' engaged to the concave of the thread trimming cam '1', it is make sure that the clearance between the both should be 0.6-0.8 mm. (Figure 25)

### Adjusting the position of the counter and the moving knives. (Figure 26)

When the thread trimming shaft with the roller '3' is at the highest position in the thread trimming cam '1', the front tip of the counter knife '8' and the edge of the moving knife '7' should be engaged by 0.2-0.5 mm.

If it is need to adjust, move the knife shaft crank rod '6' before the thread trimming driving shaft with the roller '3' exceeded the trimming cam '1'.

Loosen screw '5', and move the knife shaft crank rod until in front tip of counter knife '8' and the edge of moving knife '7' engages by 0.2-0.5mm.

Then securely tighten the screw '5'.

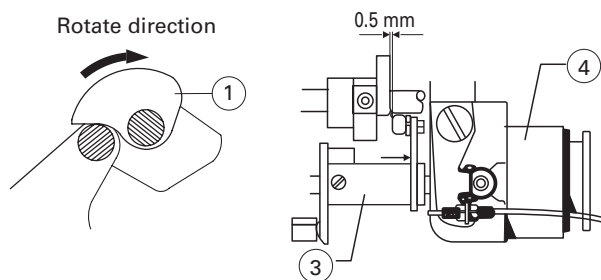


Figure 24

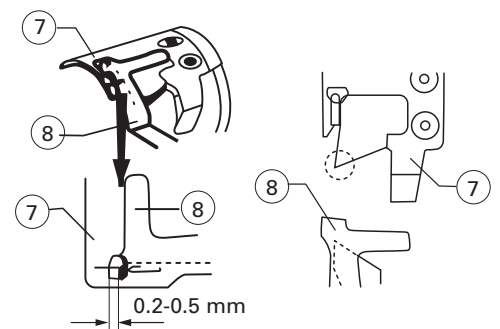


Figure 26

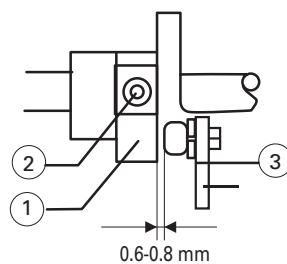


Figure 25

# 3.20

## Movable and Fixed Knives Position Adjustment (For 141G-xxCFx Only)

### Removing the fixed knife (Figure 27)

Tilt the machine head until it stops.

Remove the screw '1' and rotating hook positioner '2'.

Remove the screw '3' and the fixed knife '4'.

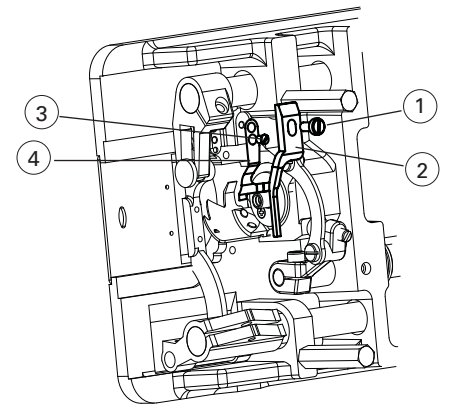


Figure 27

### Removing the movable knife (Figure 28)

Lift the presser foot up by the presser foot lift lever.

Remove the screw '5' and the needle plate '6'.

Turn the hand wheel until the needle bar is at its highest position.

Remove the screws '7' and the movable knife '8'.

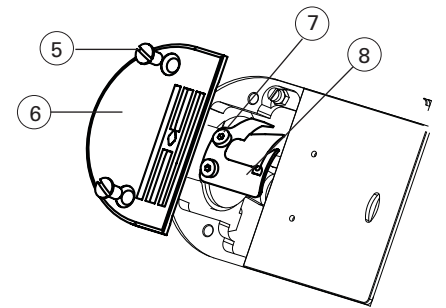


Figure 28

**\* Installation is performed by reversing the above order.**

### Adjusting pressure of fixed knife (Figure 29)

Remove the screw '5' and the needle plate '6'.

Use the socket spanner '9' to loosen the nut '10', then turn the screw '11' until desired pressure of fixed knife '12'.

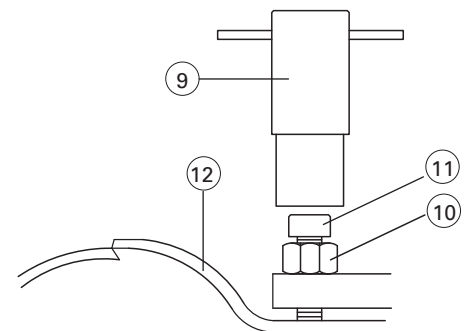


Figure 29



# 3.21

## Height and Tilt of the Feed Dog

### Note

For preventing of uneven of the material, raise the fronts of the feed dog. For prevention of puckering of the material, lower the front of the feed dog.

### Note

Whenever the feed dog tilt is adjusted, the feed dog height will be changed. So, it is necessary to check the height after tilt adjustment

### For adjusting of the height of the feed dog.

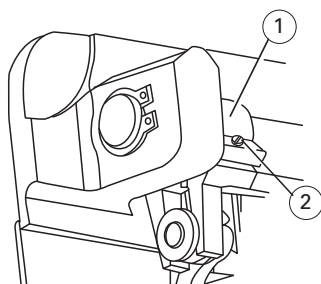
When the feed dog 'A' is at its highest position, the teeth should be above the top surface of the throat plate 'B'.

Adjust the height in accordance with the material to be used.

Loosen screw '2' of crank '1'.

Move the feed bar up or down to make a correct height.

Securely tighten screw '2'.



See description below for height

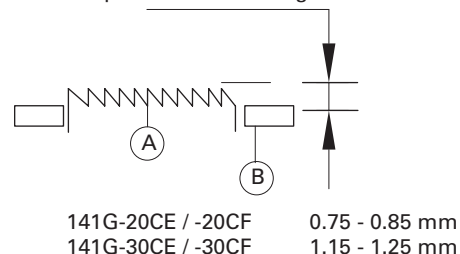


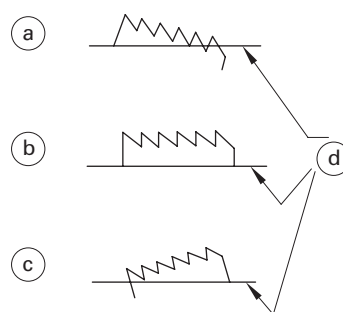
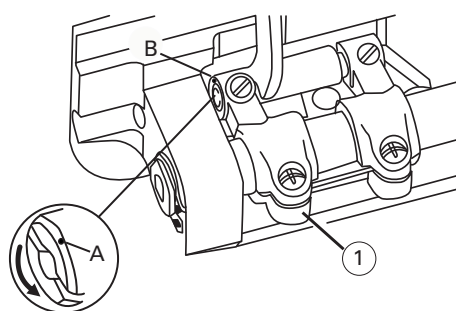
Figure 30

### For adjusting of the tilt of the feed dog.

The standard tilt (horizontal) of the feed dog is obtained when marker dot 'A' on the feed bar shaft is aligned with marker dot 'B' on feed rocker '1'. (If it is for heavy-weight materials, the marker dot 'B' inclines forward the feed rocker shaft by 90° as standard.)

To tilt the feed dog with its front up in order to prevent puckering, loosen the setscrew, and turn the feed bar shaft 90° in the direction of the arrow, using a screwdriver.

To tilt the feed dog with its front down in order to prevent uneven material feed, turn the feed bar shaft 90° in the opposite direction from the arrow. (The standard tilt for heavy-weight materials)



- (a) Front up
- (b) Standard
- (c) Front down
- (d) Throat plate

Figure 31

# 3.22

## Feed Timing Adjustment

### Caution

If the feed eccentric cam is moved too far, the needle will be broken.

Loosen screws '2' and '3' in feed eccentric cam '1'; move the feed eccentric cam '1' in the direction of the arrow or opposite direction of the arrow, and firmly tighten the screws '2' and '3'.

For the standard feed timing is align the set screw '2' on the feed eccentric cam '1' with set screw '4' on the main shaft '5'.

Make sure that the top surface of feed dog and the top end of needle

eye are flush with top surface of throat plate when the feed dog descends below the throat plate.

To advance the feed timing in order to prevent uneven material feed, move the feed eccentric cam in the direction of the arrow.

To delay the feed timing in order to increase stitch tightness, move the feed eccentric cam in the direction from the arrow.

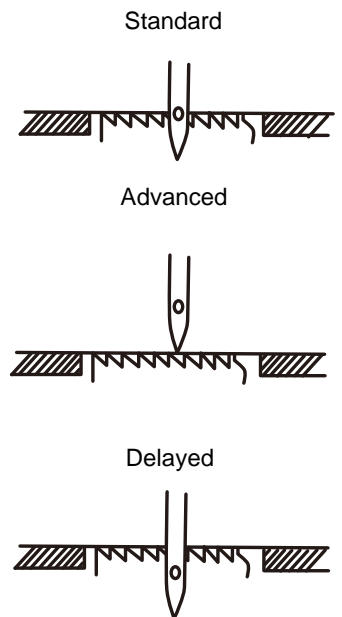
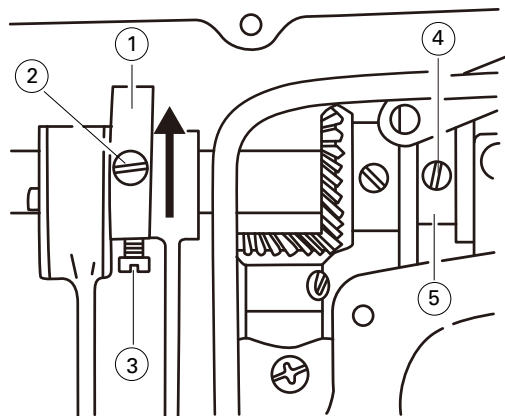


Figure 32

# 3.23

## Function of One-Touch Switch

### **Needle up or stitches correction**

If the machine stops at intermediate and press the switch '1', the needle raised up to the up position.

If the machine stopped at the end of the each seams, the swithc '1' is press to correct by one stitch forward.

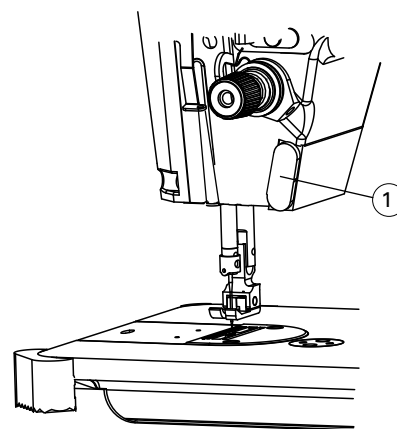


Figure 33

# 3.24

## Connection of Foot Pedal Switch

When the machine head and foot pedal switch has been installed to the machine, loosen the set screw '1' from the cover '2'. (Figure 34)  
The cover '2' slide to the arrow direction.

Put the foot pedal switch connector into the electric control connector '3', then test the machine. (Figure 35)

After the sewing performance is confirmed, install the cover '2' by the set screw '1'.

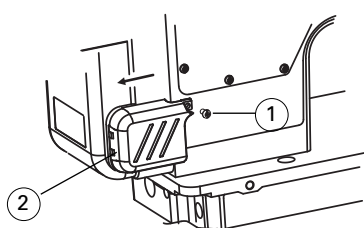


Figure 34

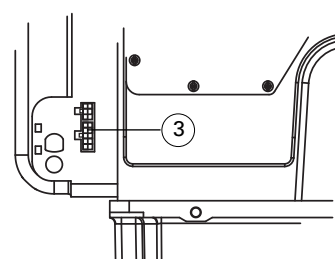


Figure 35

# 4

## Maintenance

### **4.1** Machine Head Cleaning

---

*Clean the machine periodically with a soft and dry cloth to remove the excess of dust on the machine head. Do not use any kind of lacquer thinner to wipe the surface.*

### **4.2** Lubrication

---

*If the machine was idle for a long time, lubricate the machine according to the instructions of topics 3.3 to 3.4*

### **4.3** Safety Inspection

---

*Check periodically if all safety devices are properly installed and adjusted.*

*Check if all fixing and supporting screws of the machine head are adequately tighten.*

*Check if there is no overheating in the electrical motor and check if the power cord and plug are not damaged.*

# 5

## Troubleshooting

Problems	Possible Causes	Possible Solutions
Needle break	1. Needle is installed wrong	1. Install needle correctly
	2. Wrong needle type or size	2. Use proper needle for fabric and thread
	3. Needle is bent	3. Replace needle
	4. Wrong relation with rotary hook	4. Readjust the rotary hook
	5. Needle doesn't center the needle hole of throat plate or presser foot	5. Readjust the needle plate and presser foot
Thread break	1. Low quality thread	1. Change the thread
	2. Thread is thicker than needle hole	2. Use proper needle for fabric and thread
	3. Wrong threading	3. Rethreaded the machine correctly
	4. Thread tension is too strong	4. Readjust the thread tension nut
	5. Needle is installed wrong	5. Install needle correctly
	6. Thread stand installed wrong	6. Install thread stand correctly
	7. Thread tension disc, thread guide, needle, hook point and needle plate are burred	7. Grind off, polish or replace by a new parts
	8. Wrong relation with rotary hook	8. Readjust needle and hook point relation
Skip stitches	1. Wrong relation of needle and hook point	1. Readjust needle and hook point
	2. Wrong threading	2. Rethread the machine correctly
	3. Needle is installed wrong	3. Installed needle correctly
	4. Inadequate thread tension	4. Readjust the thread tension nut
	5. Hook point is damaged	5. Replace by a new part
	6. Needle is bent	6. Replace needle
Loosen stitches	1. Wrong threading	1. Rethread the machine correctly
	2. Thread is thicker than needle hole	2. Use proper needle for fabric and thread
	3. Inadequate thread tension	3. Readjust the thread tension nut
	4. Wrong setting of needle and hook point	4. Readjust needle and hook point
Wrinkled stitches	1. Thread tension is too strong	1. Readjust the thread tension nut
	2. Take-up spring is too strong	2. Readjust the take-up spring
	3. Inadequate pressure of presser foot	3. Readjust the presser foot pressure
	4. Inadequate height of feed dog	4. Readjust the feed dog
	5. Needle is too thick	5. Use proper needle for fabric and thread

Problems	Possible Causes	Possible Solutions
Needle thread comes out of the needle hole after trimming	1. Thread take-up lever highest position wrong	1. Set thread take-up lever highest position correctly
	2. The needle thread is too short	2. Use proper needle for fabric and thread
	3. Needle thread tension is too strong	3. Adjust needle thread tension
	4. Wrong relation with rotary hook	4. Readjust the rotary hook
	5. Needle doesn't center the needle hole of throat plate or presser foot	5. Readjust the needle plate and presser foot
Thread break start	1. Low quality thread	1. Change the thread
	2. Thread is thicker than needle hole	2. Use proper needle for fabric and thread
	3. Wrong threading	3. Rethreaded the machine correctly
	4. Thread tension is too strong	4. Readjust the thread tension nut
	5. Needle is installed wrong	5. Install needle correctly
	6. Thread stand installed wrong	6. Install thread stand correctly
	7. Thread tension disc, thread guide, needle, hook point and needle plate are burred	7. Grind off, polish or replace by a new parts
	8. Wrong relation with rotary hook	8. Readjust needle and hook point relation
Skip stitches	1. Wrong relation of needle and hook point	1. Readjust needle and hook point
	2. Wrong threading	2. Rethread the machine correctly
	3. Needle is installed wrong	3. Installed needle correctly
	4. Inadequate thread tension	4. Readjust the thread tension nut
	5. Hook point is damaged	5. Replace by a new part
	6. Needle is bent	6. Replace needle
Loosen stitches	1. Wrong threading	1. Rethread the machine correctly
	2. Thread is thicker than needle hole	2. Use proper needle for fabric and thread
	3. Inadequate thread tension	3. Readjust the thread tension nut
	4. Wrong setting of needle and hook point	4. Readjust needle and hook point
Wrinkled stitches	1. Thread tension is too strong	1. Readjust the thread tension nut
	2. Take-up spring is too strong	2. Readjust the take-up spring
	3. Inadequate pressure of presser foot	3. Readjust the presser foot pressure
	4. Inadequate height of feed dog	4. Readjust the feed dog
	5. Needle is too thick	5. Use proper needle for fabric and thread



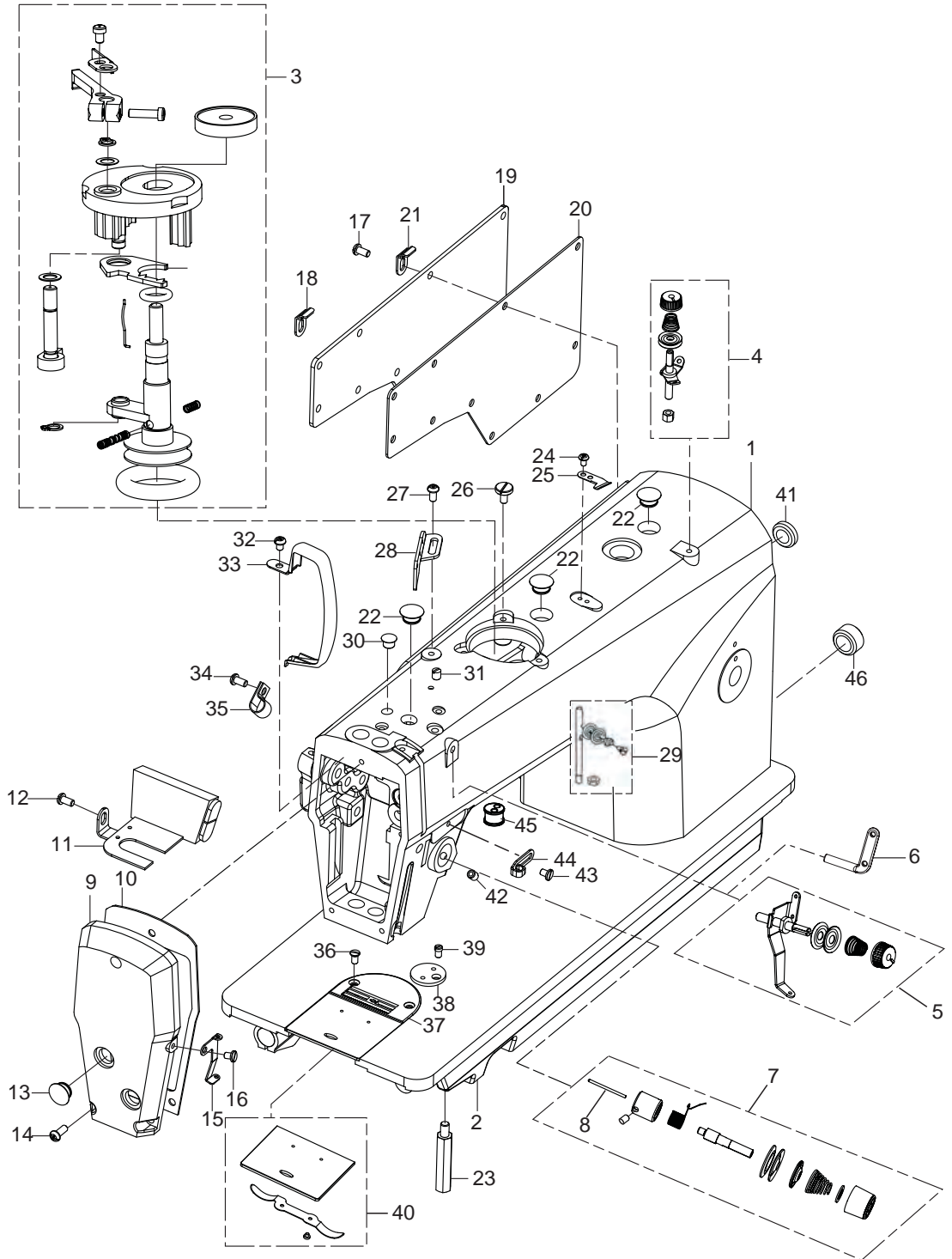
# 6

## ***Parts List***



# 6.1

Frame &  
Miscellaneous  
Cover  
Components



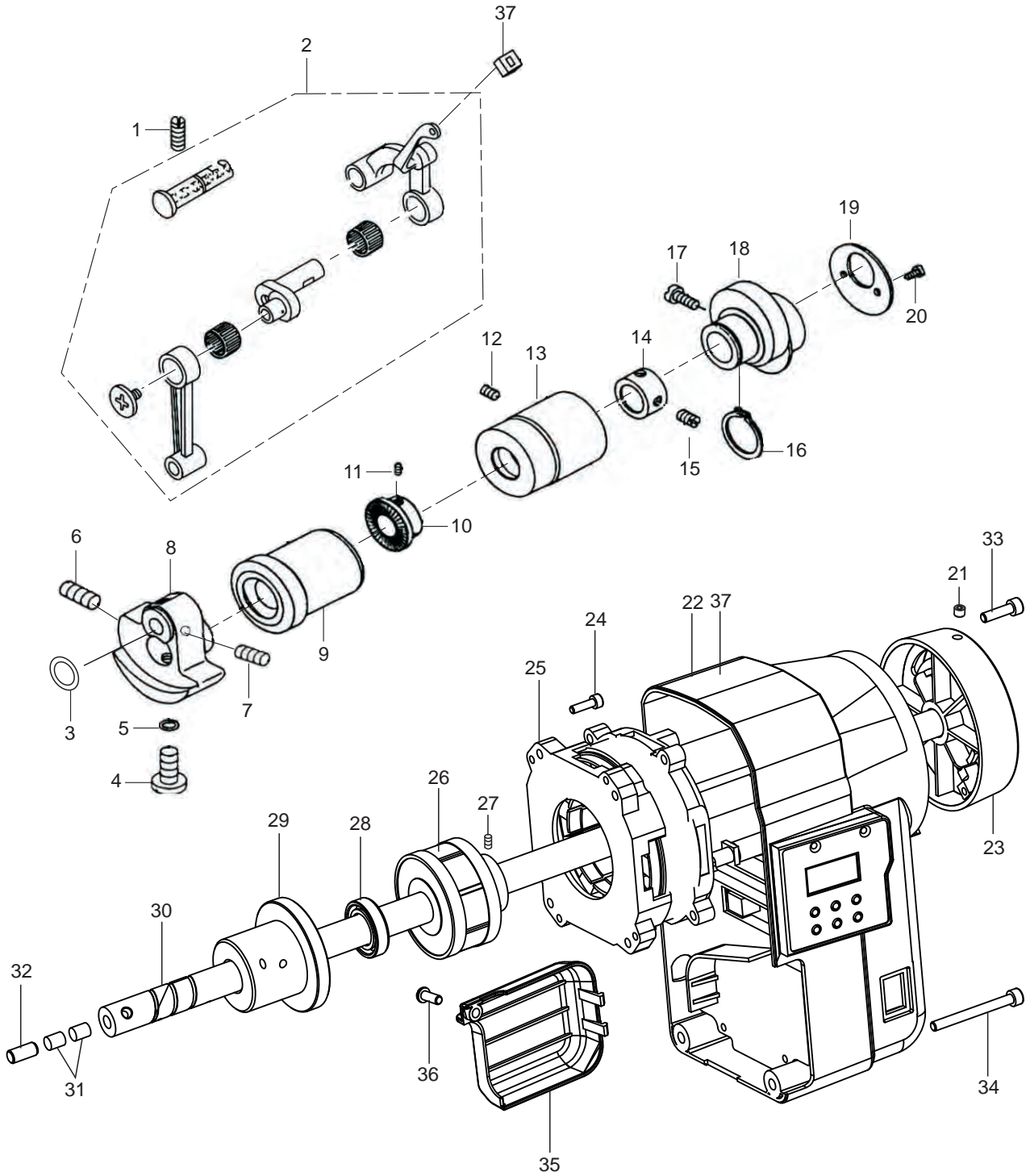
# 6.1

## Frame & Miscellaneous Cover Components

No.	Part No.	Description	QTY			
			CE		CF	
			20	30	20	30
1	1281-01-20	Machine frame	1	1	1	1
2	1230-01-01-02	Bed	1	1	1	1
3	134-02-01	Bobbin winder assembly	1	1	1	1
4	1281-05-13	Bobbin thread tension assembly	1	1	1	1
5	1281-05-14	Pre-tension assembly	0	0	1	1
6	101-03-14	Two hole thread eyelet	1	1	0	0
7	1281-05-12	Thread tension assembly	1	0	1	0
8	101.03-23	Thread release pin	1	1	1	1
9	1280-01-21	Face plate	1	1	1	1
10	1280-01-22	Face plate gasket	1	1	1	1
11	1283-01-01-04	Reverse feed switch assembly	1	1	1	1
12	11-40120625-01	Screw SM3/16 x 28 L=6	1	1	1	1
13	101-01-10	Rubber plug	2	2	2	2
14	11-40121225-01	Screw SM13/16 x 28 L=12	3	3	3	3
15	1281-01-13	Two hole thread guide	1	1	1	1
16	11-70110620-02	Screw SM11/64 x 40 L=6	1	1	1	1
17	11-40120925-01	Screw SM 3/16 x 28 L=9	6	6	6	6
18	1273-12-25	Rectangular wire clamp	2	2	2	2
19	101-01-04	Back side plate	1	1	1	1
20	101-01-05	Back side plate gasket	1	1	1	1
21	1273-12-06	Coner wire clamp	1	1	1	1
22	101-01-11	Rubber plug	3	3	3	3
23	101-01-15	Bed screw stud SM 15/64 x 28	1	1	1	1
24	11-00090620-01	Screw SM 9/64 x 40 L=6	2	2	2	2
25	134-02-03	Thread cutter	1	1	1	1
26	11-70121020-02	Screw SM 3/16 x 28 L=10	3	3	3	3
27	11-40120625-01	Screw SM 3/16 x 28 L=6	1	1	1	1
28	1255-01-15	Three thread eyelet plate	0	0	1	1
29	101-03-34	Needle thread guide assembly	1	1	0	0
30	101.01-12	Rubber plug	1	1	1	1
31	11-80150710-01	Pre-tension screw	1	1	1	1
32	11-40120625-01	Screw SM 3/16 x 28 L=6	1	1	1	1
33	1277.01-12	Thread take-up cover	1	1	1	1
34	11-40110825-01	Screw SM 11/64 x 40 L=8	1	1	1	1
35	501-13-02-09	Plastic double wire clamp	1	1	1	1
36	11-20110920-02	Screw SM 11/64 x 40 L=9	2	2	2	2
37	109-01-44A	Needle plate	0	0	1	0
	101-06-36	Needle plate	1	0	0	0
38	101-01-17	Ruler stop seat	1	1	1	1
39	11-00110520-01	Screw SM 11/64 x 40 L=5.5	1	1	1	1
40	101-06-39	Slide plate assembly	1	1	1	1
41	101-01-02	Rubber plug	1	1	1	1
42	11-80150710-01	Screw SM 15/64 x 28 L=6	1	1	1	1
43	11-70110620-02	Screw SN 11/64 x 40 L=6	1	1	1	1
44	101-03-16	Arm thread guide (right)	1	1	1	1
45	109-01-20A	Double holes rubber plug	0	0	1	1
46	101-01-03	Rubber plug	1	1	1	1

# 6.2

## Arm Shaft and Thread Take-Up Lever Components



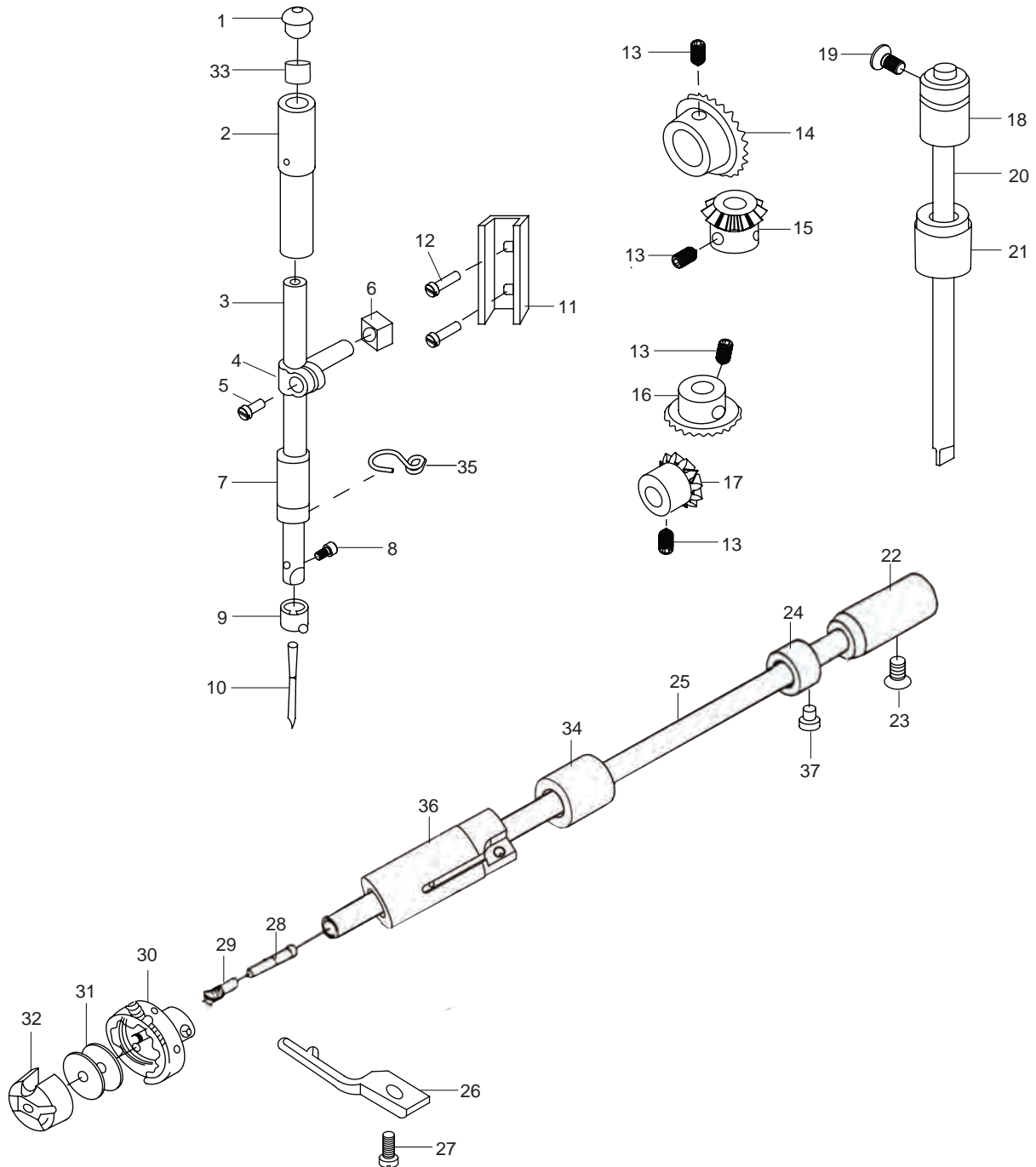
# 6.2

## Arm Shaft and Thread Take-Up Lever Components

No.	Part No.	Description	QTY			
			CE		CF	
			20	30	20	30
1	11-80151550-01	Set screw SM 15/64 x 28 L=11	1	1	1	1
2	1281-01-30	Thread take-up lever assembly	1	0	1	0
3	21-08008160-01	Counter weight protecting plate	1	1	1	1
4	11-60181630-01	ScREW SM 9/32 x 28 L=16	1	1	1	1
5	31-04424000-09	O ring	1	1	1	1
6	11-80181650-01	Set screw SM 9/32 x 28 L=16	1	1	1	1
7	11-80160610-01	Screw SM 1/4 x 40 L=6	2	2	2	2
8	101-02-15	Needle bar crank	1	1	1	1
9	1281-01-13	Main shaft bushing (left)	1	1	1	1
10	1255-02-10	Driving wheel	1	1	1	1
11	11-80160810-01	Screw SM 1/4 x 40 L=8	2	2	2	2
12	11-80150710-01	Set screw SM 15/64 x 28 L=7	1	1	1	1
13	1255-02-12	Main shaft bushing (middle)	1	1	1	1
14	101-02-33	Thrust collar D=14.72 W=12	1	1	1	1
15	11-80160710-01	Screw SM 1/4 x 40 L=7	2	2	2	2
16	25-20000000-08	Snap ring	1	1	1	1
17	11-00161120-01	Screw SM 1/4 x 40 L=11	2	2	2	2
18	101-06-02	Feed drive eccentric cam	1	0	1	0
19	101-06-04	Thrust collar	1	0	1	0
20	11-10090620-01	Screw SM 9/64 x 40 L=6	2	2	2	2
21	12-80500612-01	Bolt socket M5 L=6	2	2	2	2
22	1283-05-06-00	Electronic control unit assembly (220V)	1	1	0	0
	1283-05-08-00	Electronic control unit assembly (220V)	0	0	1	1
23	1283-01-01-03	Hand wheel	1	1	1	1
24	12-60401422-01	Screw M4 L=14	4	4	4	4
25	1283-01-01-02A	Motor stator	1	1	1	1
26	1280-01-02-02A	Motor rotor	1	1	1	1
27	12-80600812-01	Set screw M6 L=8	2	2	2	2
28	32-14450300-09	Oil seal	1	1	1	1
29	1281-01-04	Supporting sleeve	1	1	1	1
30	1283-01-02	Main shaft	1	1	1	1
31	1281-01-40	Roller felt	2	2	2	2
32	1281-01-39A	Oil seal pin	1	1	1	1
33	12-60501522-01	Bolt socket M5 L=15	1	1	1	1
34	12-60505022-01	Bolt socket M5 L=50	2	2	2	2
35	1281-02-09-1	Rear wire cover	1	1	1	1
36	11-40120925-01	Screw SM3/16 x 28 L=12	1	1	1	1
37	1283-05-06-01	Electronic control unit assembly (110V)	1	1	0	0
	1283-05-08-01	Electronic control unit assembly (110V)	0	0	1	1

# 6.3

## Needle Bar, Upright Shaft, and Rotating Hook Driving Shaft Components



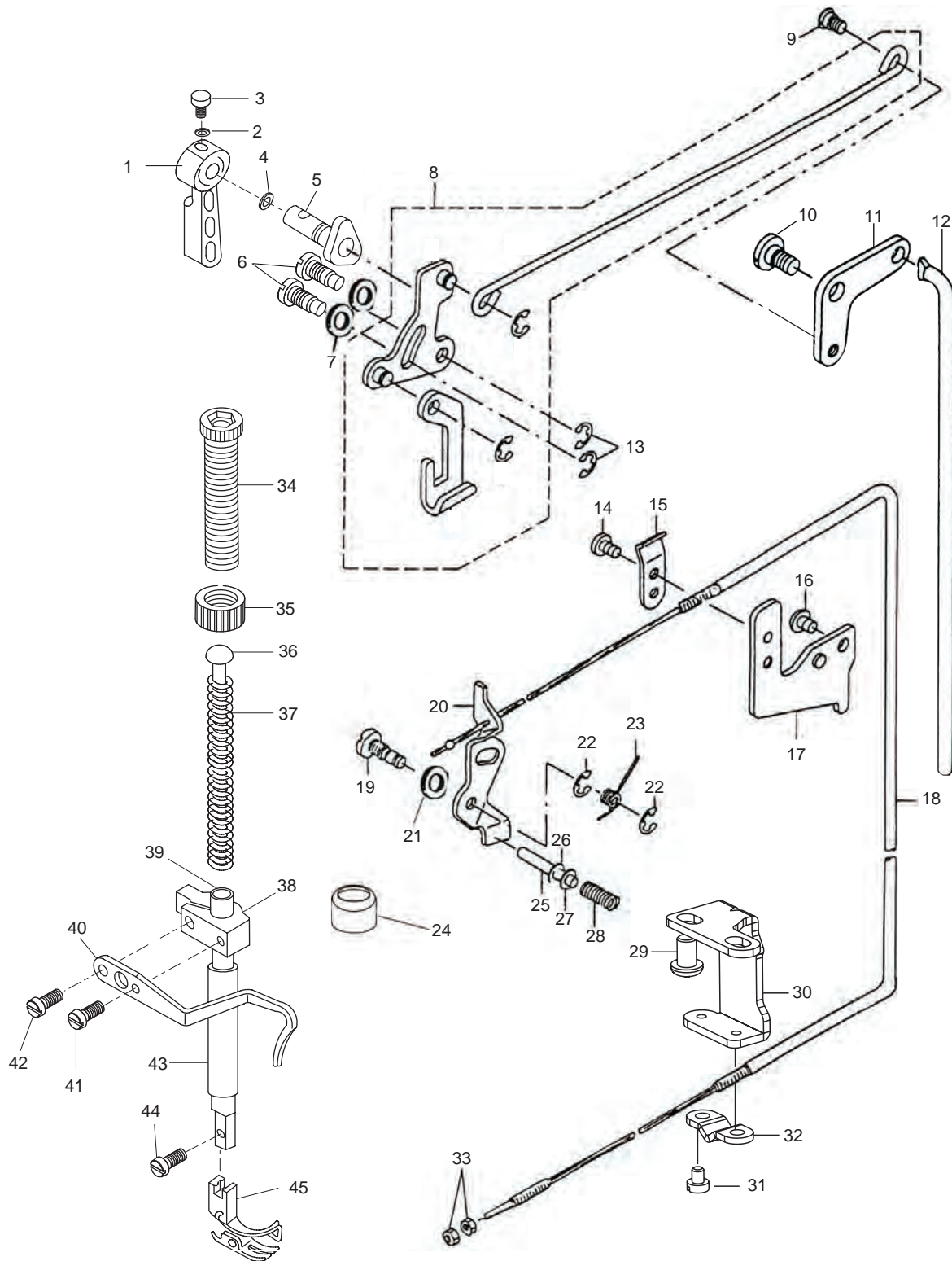
# 6.3

## Needle Bar, Upright Shaft, and Rotating Hook Driving Shaft Components

No.	Part No.	Description	QTY			
			CE		CF	
			20	30	20	30
1	101-03-07	Rubber plug	1	1	1	1
2	1281-01-25	Needle bar bushing (upper)	1	1	1	1
3	1281-05-32	Needle bar	1	1	1	1
4	120-02-07	Needle bar connection	1	1	1	1
5	11-60090620-01	Screw SM 9/64 x 40 L=6	1	1	1	1
6	120-02-25	Slide block	1	1	1	1
7	101-03-08	Needle bar bushing (lower)	1	1	1	1
8	11-60080520-01	Screw SM 1/8 x 44 L=5	1	1	1	1
9	101-03-11	Needle bar thread guide	1	1	1	1
10	1955-01	Needle (Cat No.1955-01 size 14)	1	0	1	0
11	120-02-23	Slide block guide	1	1	1	1
12	11-60110820-01	Screw SM 11/64 x 40 L=8	2	2	2	2
13	11-80160810-01	Screw SM 1/4 x 40 L=8	2	2	2	2
14	101-05-26	Arm shaft bevel gear	1	1	1	1
15	101-05-25	Upright shaft bevel gear (upper)	1	1	1	1
16	101-05-20	Upright shaft bevel gear (lower)	1	1	1	1
17	101-05-18	Rotating hook driving shaft bevel gear	1	1	1	1
18	101-05-22A	Upright shaft bushing (upper)	1	1	1	1
19	11-40120925-01	Screw SM 3/16 x 28 L=9	1	1	1	1
20	101-05-24	Upright shaft	1	1	1	1
21	101-05-21	Upright shaft bushing (lower)	1	1	1	1
22	101-05-14A	Rotating hook driving shaft bushing	1	1	1	1
23	11-40120925-01	Screw SM 3/16 x 28 L=9	1	1	1	1
24	402-04-21	Thrust colla	1	1	1	1
25	101-05-07	Rotating hook driving shaft	1	0	0	0
	1230-05-07	Rotating hook driving shaft	0	0	1	0
26	101-05-05	Positioning finger	1	1	1	1
27	11-60111120-01	Screw SM 11/64 x 40 L=11	0	0	1	1
	11-60111020-01	Screw SM 11/64 x 40 L=10	1	1	0	0
28	101-05-09	Oil wick	1	1	1	1
29	101-05-08	Oil seal screw	1	1	1	1
30	101-05-01	Rotating hook assembly	1	0	0	0
	109-03-24	Rotating hook assembly	0	0	1	0
31	101-05-03	Bobbin	1	1	0	0
	402-04-04	Bobbin	0	0	1	1
32	101-05-02	Bobbin case	1	1	0	0
	109-03-42-1	Bobbin case	0	0	1	1
33	1280-01-23	Needle bar sleeve felt	1	1	1	1
34	158-05-19	Hook driving shaft middle sleeve	0	0	1	1
35	1280-01-30	Needle bar thread guide	1	1	1	1
36	1283-05-04	Hook driving shaft bushing (front) assembly	1	1	0	0
	1255-06-01	Hook driving shaft bushing (front) assembly	0	0	1	1
37	11-80160512-01	Screw SM 1/4 x 40 L=5	1	1	1	1

# 6.4

## Presser Bar Components





# 6.4

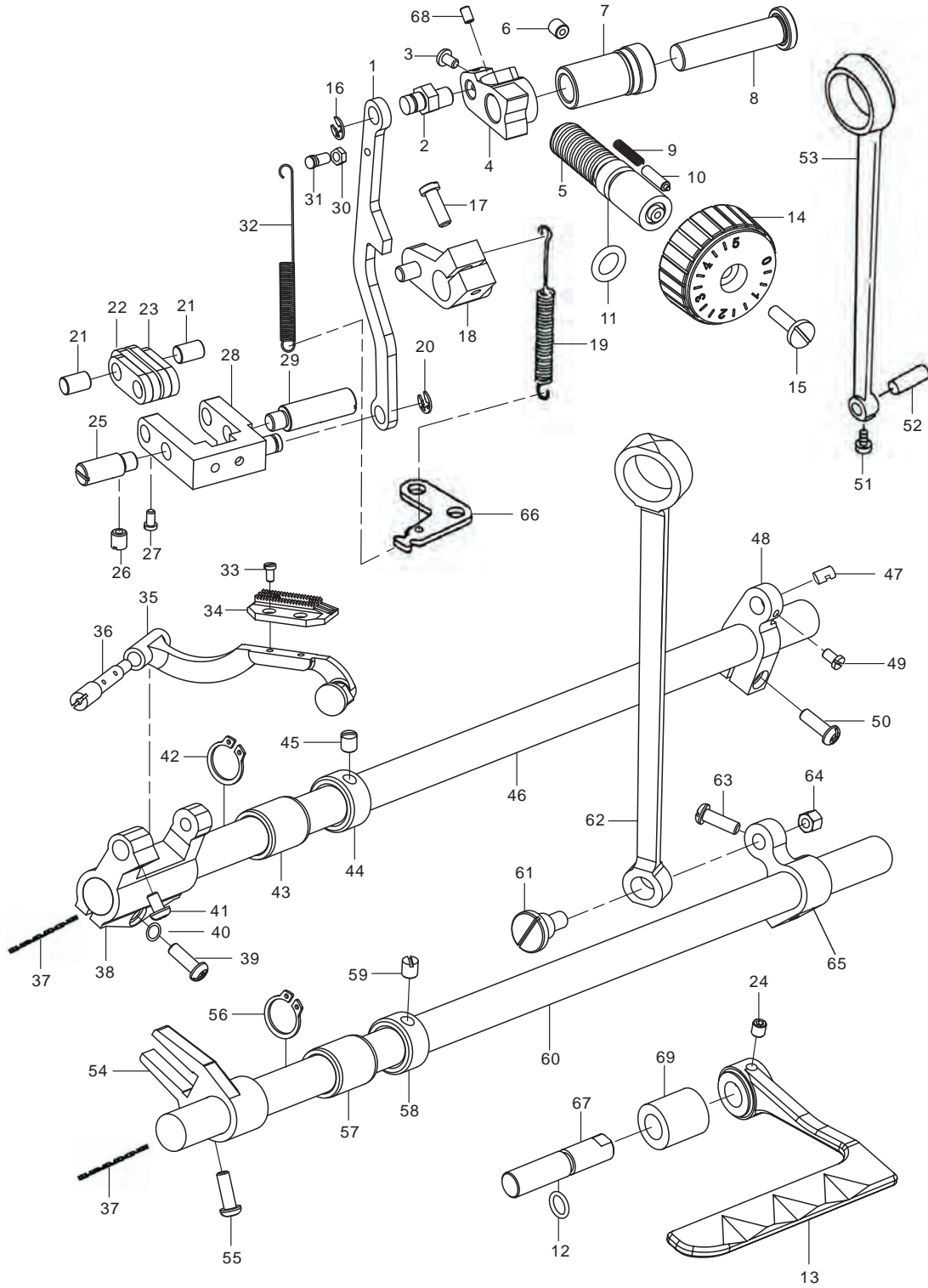
## Presser Bar Components

No.	Part No.	Description	QTY			
			CE		CF	
			20	30	20	30
1	101-04-13	Hand lifter	1	1	1	1
2	21-03810080-01	Washer	1	1	1	1
3	11-30091020-01	Screw SM 9/64 x 40 L=10	1	1	1	1
4	31-04018000-09	Rubber ring	1	1	1	1
5	1281-01-10	Hand lifter cam assembly	1	1	1	1
6	101-04-20	Hand lifter link screw SM 5/16 x 24	2	2	2	2
7	101-04-21	Washer plate	2	2	2	2
8	101-04-19	Hand lifter link assembly	1	1	1	1
9	101-04-32	Hinge screw SM3/16 x 32	1	1	1	1
10	101-04-31	Hinge screw SM15/64 x 28	1	1	1	1
11	101-04-30	Lifting lever ring	1	1	1	1
12	101-04-33	Connecting rod vertical	1	1	1	1
13	24-05000000-08	E-ring 5	2	2	2	2
14	11-60111020-01	Screw SM 11/64 x 40 L=10	0	0	1	1
15	109-04-18	Presser plate B	0	0	1	1
16	11-40120625-01	Screw Sm 3/16 x 28 L=9	0	0	1	1
17	109-04-20-00	Cord holder bracket	0	0	1	1
18	1230-04-44	Arrester assembly	0	0	1	1
19	101-04-25	Thread tension release screw stud	1	1	1	1
20	101-04-24	Thread tension release wire plate	1	1	1	1
21	101-04-21	Washer plate	1	1	1	1
22	24-05000000-08	E-ring 5	2	2	2	2
23	1255-04-01	Thread tension release wire spring	1	1	1	1
24	101-04-34	Rubber bushing	1	1	1	1
25	101-03-30	Thread tension release supporting pin	1	1	1	1
26	24-04000000-08	E-ring 4	1	1	1	1
27	101-03-32	Washer plate	1	1	1	1
28	101-03-33	Thread tension release supporting pin spring	1	1	1	1
29	11-40150925-01	Screw SM15/64 x 28 L=9	0	0	2	2
30	1230-04-42	Cord holder	0	0	1	1
31	11-60090820-01	Screw SM 9/64 x 40 L=8	0	0	2	2
32	1230-04-18	Cord holder	0	0	1	1
33	13-60623020-01	Nut SM 3/16 x 32	0	0	2	2
34	101-04-01	Presser regulator screw	1	1	1	1
35	101-04-02	Presser regulator nut	1	1	1	1
36	101-04-03	Presser guide bar	1	1	1	1
37	101-04-04	Presser spring	1	1	1	1
38	101-04-06	Presser bar guide bracket	1	1	1	1
39	1281-01-26	Presser foot bar	1	1	1	1
40	1255-04-02	Thread guide	1	1	1	1
41	11-80160810-01	Screw SM 1/4 x 40 L=8	1	1	1	1
42	11-40090825-01	Screw SM 9/16 x 40 L=8	2	2	2	2
43	101-04-10	Presser bar bushing (lower)	1	1	1	1
44	11-60091120-02	Presser foot screw SM 9/64 x 40 L=11	1	1	1	1
45	109-04-41	Presser foot assembly	1	1	1	1



# 6.5

Feed  
Mechanism  
Components



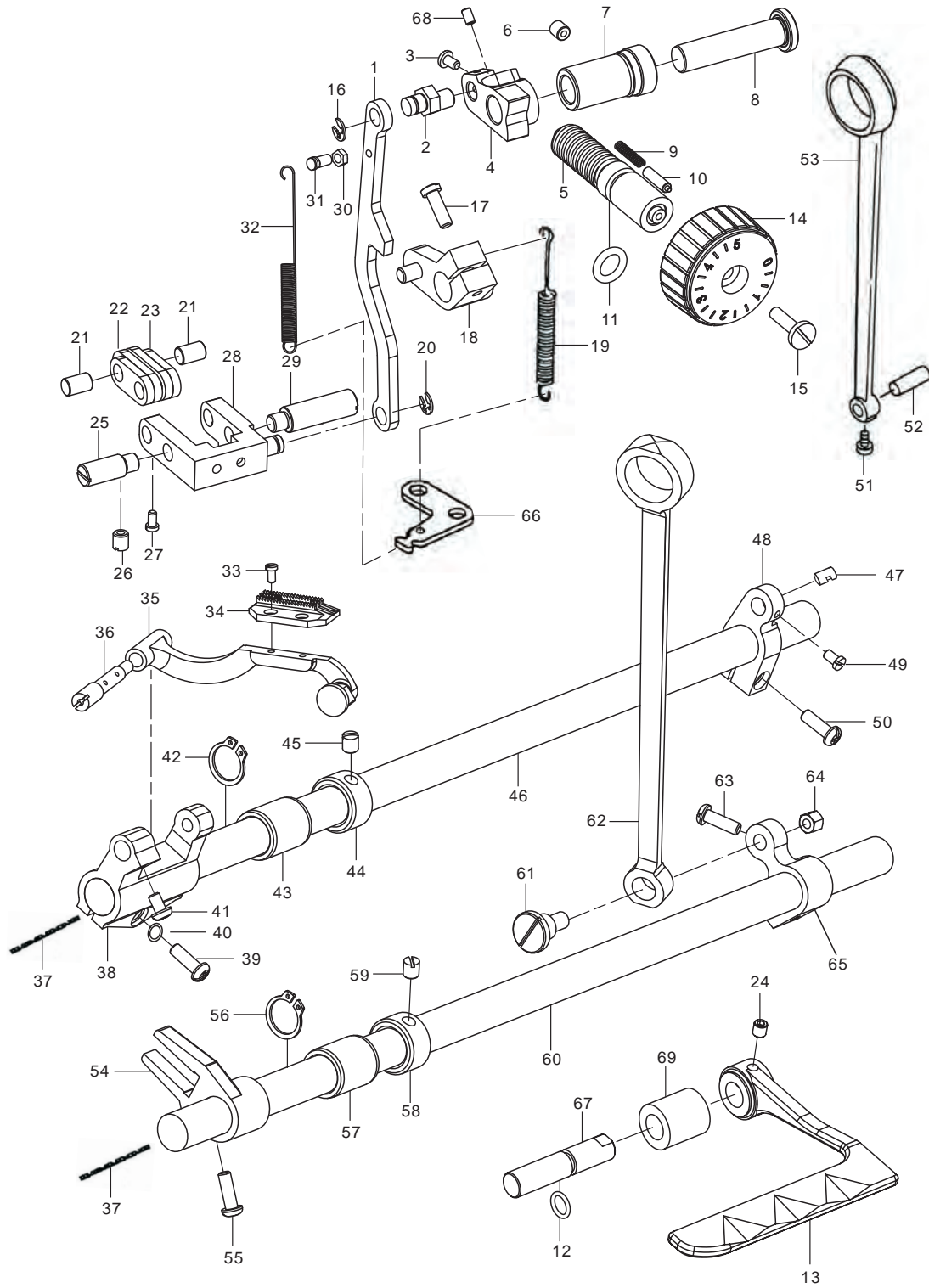
# 6.5

## Feed Mechanism Components

No.	Part No.	Description	QTY			
			CE		CF	
			20	30	20	30
1	1281-01-43	Feed regulator connecting rod	1	0	1	0
2	1255-05-09	Feed regulator pin	1	0	1	0
3	11-60090620-01	Screw SM 9/64 x 40 L=6	2	2	2	2
4	1255-05-05	Feed regulator	1	0	1	0
5	12-80500612-01	Bolt socket M5 L=6	2	2	2	2
6	11-80150612-01	Screw SM 15/64 x 40 L=6	1	1	1	1
7	1255-05-07	Feed regulator bushing	1	1	1	1
8	1255-05-06	Feed regulator hinge pin	1	0	1	0
9	124-08-07	Spring	1	1	1	1
10	1273-15-24	Pin	1	1	1	1
11	31-09428000-09	Rubber ring	1	1	1	1
12	31-08018000-09	Rubber ring	1	1	1	1
13	1281-01-09	Reverse feed lever	1	1	1	1
14	1281-05-17	Feed dial	1	0	1	0
15	11-70121820-01	Screw SM 3/16 x 28 L=18	1	1	1	1
16	24-05000000-09	E-ring 5	1	0	1	0
17	11-60121420-01	Screw SM 3/16 x 28 L=	1	1	1	1
18	1273-05-02	Feed reverse assembly	1	0	1	0
19	101-07-22	Feed reverse spring	1	0	1	0
20	24-05000000-09	E-ring 5	1	1	1	1
21	101-06-11	Feed adjust link pin	2	2	2	2
22	101-06-09	Feed adjust link	2	2	2	2
23	101-06-10	Feed adjust connecting link	2	2	2	2
24	11-80150612-01	Screw SM 15/64 x 28 L=6	2	2	2	2
25	101-06-14	Feed adjust link shaft (left)	1	1	1	1
26	11-801501150-01	Screw SM 15/64 L=11	2	2	2	2
27	11-00090620-01	Screw SM 9/64 x 40 L=6	2	2	2	2
28	109-05-27	Feed adjust link assembly	1	0	1	0
29	1230-06-16	Feed adjusting link shaft (right)	1	1	1	1
30	13-60113020-01	Nut	1	1	1	1
31	134-05-28	Spring connecting pin	1	1	1	1
32	11-60110520-01	Screw SM 11/64 x 40 L=5	1	1	1	1
33	11-60080620-01	Screw SM 1/8 x 44 L=6	1	1	1	1
34	109-05-33A	Feed dog	0	0	1	0
	101-06-34	Feed dog	1	0	0	0
35	1273-15-01	Feed bar assembly	1	1	1	1
36	101-06-32	Feed bar shaft	1	1	1	1
37	43-10250000-00	Oil wick	1	1	1	1
38	101-06-28	Feed rocker assembly	1	1	1	1
39	11-60121420-01	Screw SM 11/64 x 40 L=11	1	1	1	1
40	21-04808080-01	Washer	1	1	1	1
41	11-40110725-01	Screw SM SM 11/64 x 40 L=7	1	1	1	1
42	25-15000000-08	Retaining ring	1	1	1	1
43	101-06-26	Feed rocker shaft bushing	1	1	1	1
44	101-02-06	Feed rocker shaft collar	1	1	1	1
45	11-80160610-01	Screw SM 1/4 x 40 L=6	2	2	2	2
46	1255-06-22	Feed rocker shaft	1	1	1	1
47	101-06-19	Feed rocker crank pin	1	1	1	1
48	101-06-18	Feed rocker shaft crank	1	1	1	1
49	11-00090620-01	Screw SM 9/64 x 40 L=6	1	1	1	1
50	11-40121425-01	Screw SM 3/16 x 28 L=14	1	1	1	1

# 6.5

Feed  
Mechanism  
Components



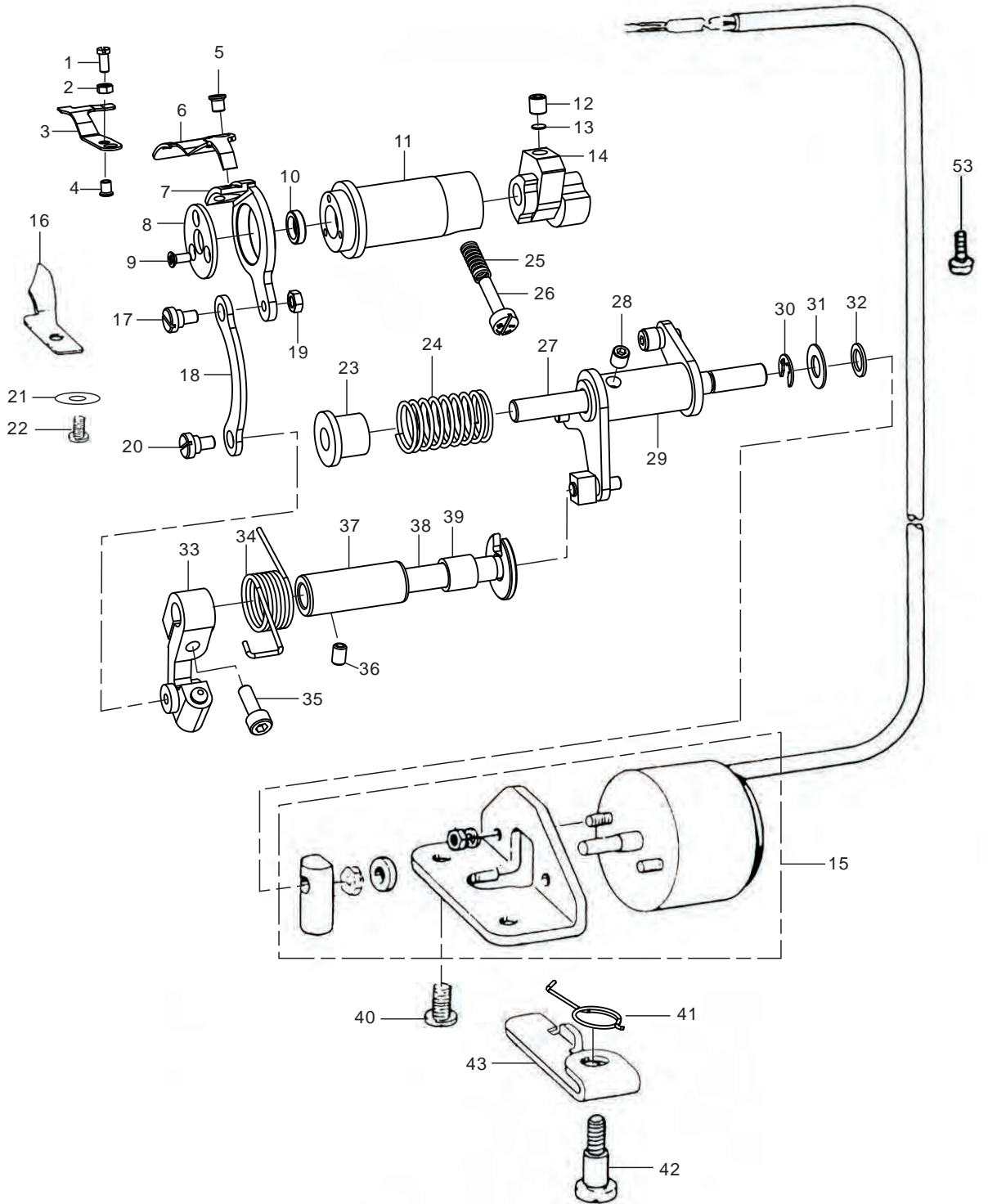
# 6.5

## Feed Mechanism Components

No.	Part No.	Description	QTY			
			CE		CF	
			20	30	20	30
51	11-00090620-01	Screw SM 9/64 x 40 L=6	1	1	1	1
52	101-06-07	Feed rocker shaft connecting rod pin	1	1	1	1
53	101-06-06	Feed rocker shaft connecting rod	1	0	1	0
54	101-06-42	Feed driving shaft crank (front) assembly	1	0	1	0
55	11-40111025-01	Screw SM 11/64 x 40 L=10	1	1	1	1
56	25-15000000-08	Retaining ring	1	1	1	1
57	101-06-26	Feed rocker shaft bushing	1	1	1	1
58	101-02-06	Thrust collar assembly (D=14.72 W=12)	1	1	1	1
59	11-80160610-01	Screw SM 1/4 x 40 L=6	2	2	2	2
60	101-06-44	Feed driving shaft	1	1	1	1
61	101-06-50	Hinge screw	1	1	1	1
62	101-06-49	Connecting rod	1	1	1	1
63	11-40121225-01	Screw SM 3/16 x 28 L=12	1	1	1	1
64	13-60184020-01	Hinge nut SM 9/32 x 28	1	1	1	1
65	101-06-47	Feed rocker crank	1	1	1	1
66	101-07-23	Feed spring hook bracket	1	0	1	0
67	1255-05-04	Feed reverse shaft	1	1	1	1
68	12-80500612-01	Bolt socket M5 L=6	1	1	1	1
69	1255-05-03	Reverse feed lever bushing	1	1	1	1

# 6.6

Thread  
Trimmer  
Components



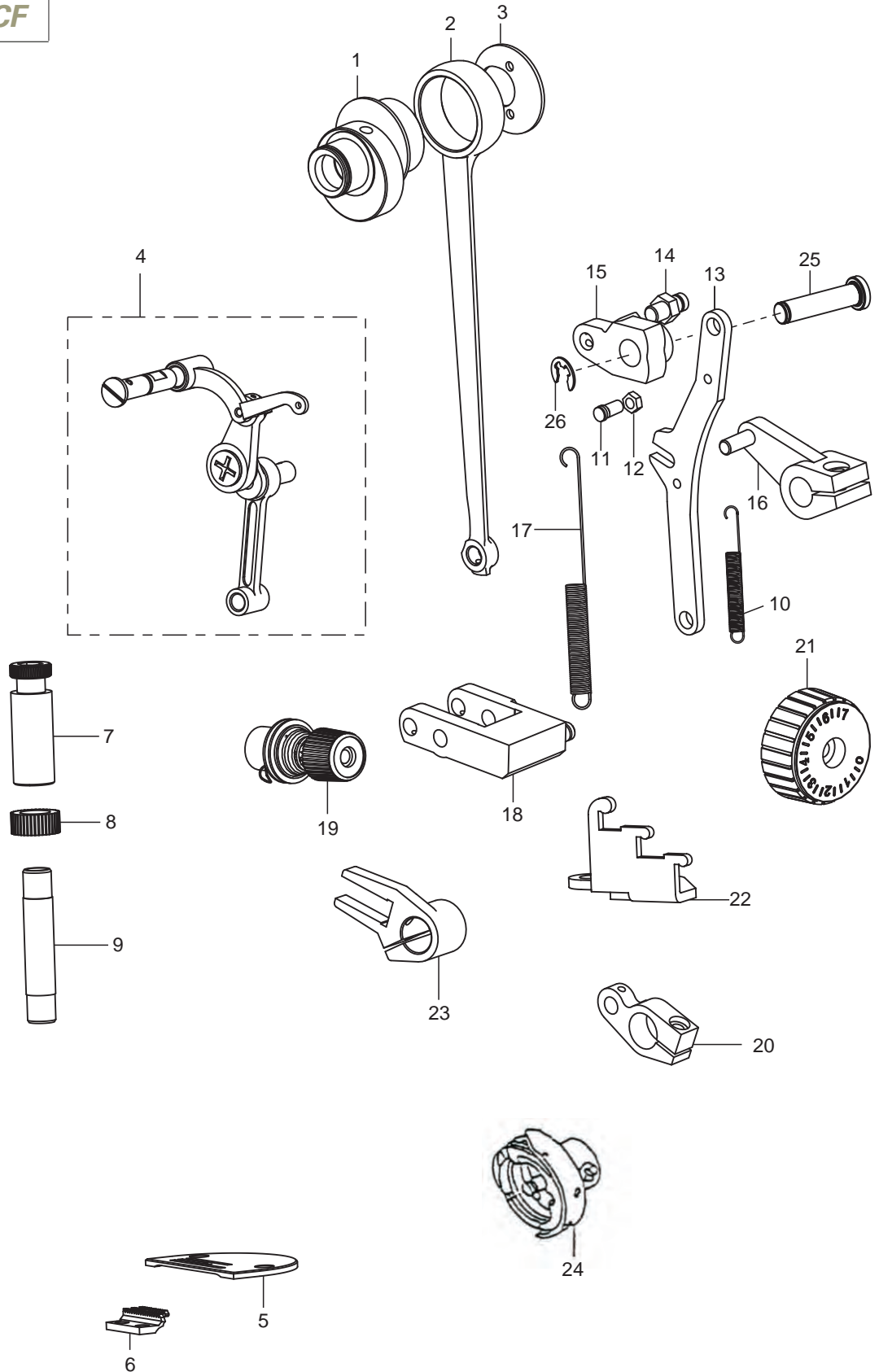
# 6.6

## Thread Trimmer Components

No.	Part No.	Description	QTY			
			CE		CF	
			20	30	20	30
1	11-00580720-02	Screw SM 1/8 x 40 L=7	0	0	1	1
2	13-60582420-02	Nut SM 1/8 x 40	0	0	1	1
3	158-09-04	Fixed knife	0	0	1	1
4	11-20090520-01	Screw SM 9/64 x 40 L=5	0	0	1	1
5	11-10110622-01	Screw SM 11/64 x 40 L=6	0	0	2	2
6	158-09-13	Movable knife	0	0	1	1
7	1255-06-01-02	Knife bracket	0	0	1	1
8	1255-06-01-03	Knife bracket presser plate	0	0	1	1
9	12-10300821-01	Screw M3 L=8	0	0	3	3
10	32-07430120-09	Oil seal	0	0	1	1
11	1255-06-01-01	Hook driving shaft bushing assembly	0	0	1	1
12	11-80161012-01	Screw 1/4 x 40 L=10	0	0	2	2
13	1230-09-40	Washer	0	0	2	2
14	158-09-01	Thread trimmer cam	0	0	1	1
15	1281-01-27	Thread trimmer solenoid assembly	0	0	1	1
16	1230-09-06	Protect needle patch	0	0	1	1
17	135-06-22	Screw	0	0	2	2
18	1230-09-15	Knife shaft connection rod	0	0	1	1
19	13-60113020-01	Nut SM 11/64 x 40	0	0	1	1
20	158-11-01	Thread loose seat	0	0	1	1
21	21-04608110-01	Washer	0	0	1	1
22	11-40090625-01	Screw SM 9/64 x 40 L=6	0	0	1	1
23	158-09-31	Spring cover	0	0	1	1
24	158-09-32	Spring	0	0	1	1
25	113-06-22	Oil adjusting spring	0	0	1	1
26	113-06-21	Oil adjusting screw	0	0	1	1
27	158-09-30	Thread shear shaft	0	0	1	1
28	11-80160612-01	Screw SM 1/4 x 40 L=10	0	0	1	1
29	158-09-26-00	Thread shear rock arm assembly	0	0	1	1
30	24-06000000-08	Retaining ring E6	0	0	1	1
31	21-08210162-03	Washer	0	0	1	1
32	101-04-21	Magnetic plug cushion mat	0	0	1	1
33	1230-09-18-00	Thread shear rock arm	0	0	1	1
34	158-09-21	Spring	0	0	1	1
35	11-60621422-01	Screw SM 3/16 x 32 L=14	0	0	1	1
36	11-80120712-01	Screw SM 3/16 x 28 L=7	0	0	1	1
37	158-09-24	Thread shear rock arm shaft bush (long)	0	0	1	1
38	158-09-22	Thread shear rock arm shaft	0	0	1	1
39	158-09-23	Thread shear rock arm shaft bush (short)	0	0	1	1
40	11-40150925-01	Screw SM 15/64 x 28 L=9	0	0	1	1
41	158-11-11	Spring	0	0	1	1
42	158-09-42	Screw	0	0	1	1

# 6.7

Specific  
Parts for  
141G-30CE / CF



# 6.7

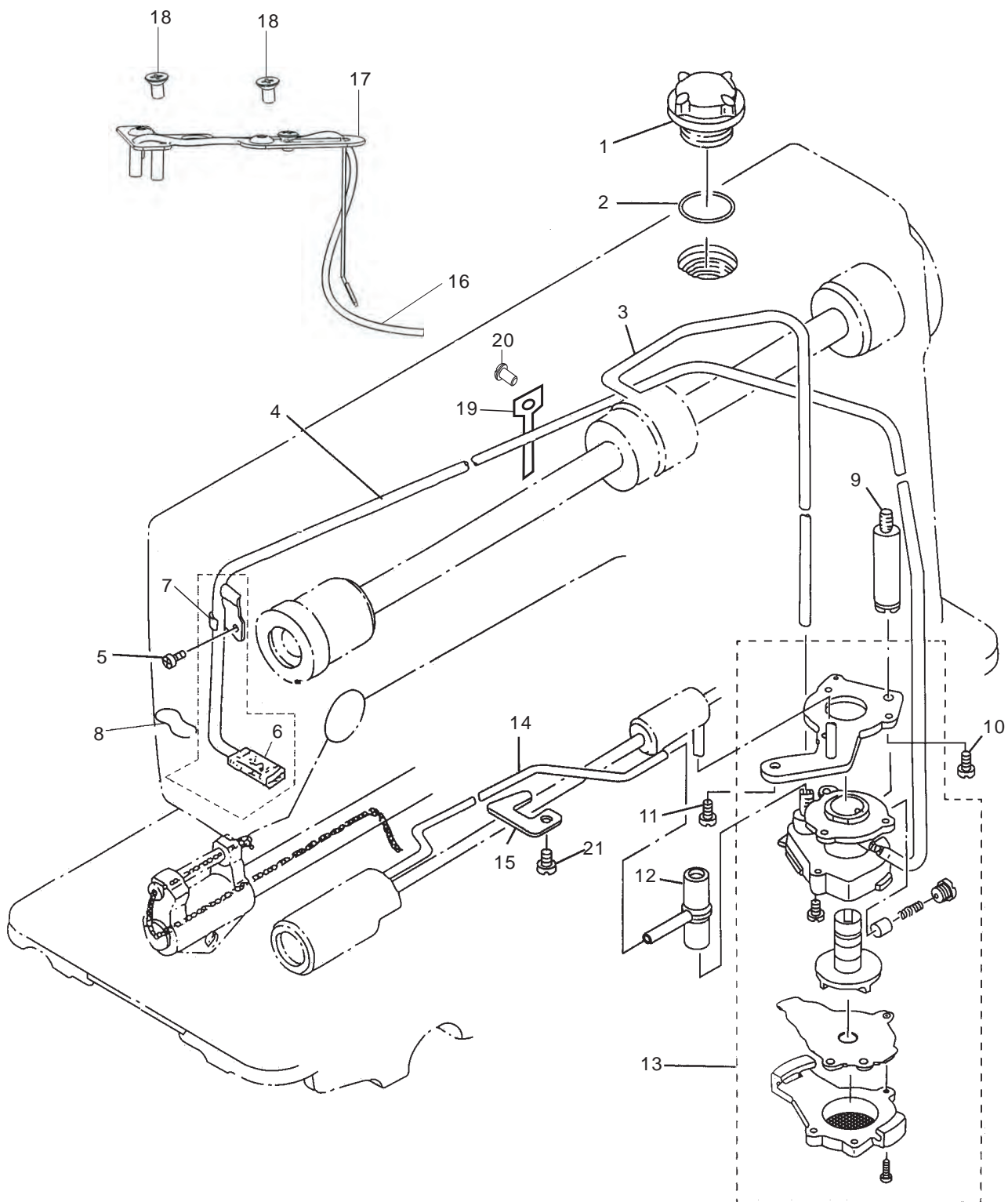
**Specific  
Parts for  
141G-30CE / CF**

No.	Part No.	Description	QTY			
			CE		CF	
			20	30	20	30
1	101-06-02XH	Feed drive eccentric cam	0	1	0	1
2	101-06-06XH	Feed rock shaft crank connecting rod	0	1	0	1
3	101-06-04XH	Thrust collar	0	1	0	1
4	1281-01-32A	Thread take-up lever assembly	0	1	0	1
5	101-06-36H	Needle plate B20	0	0	0	1
	120-01-22	Needle plate	0	1	0	0
6	120-04-04	Feed dog	0	1	0	1
7	101-04-01XH	Presser adjusting thumb screw	0	1	0	1
8	101-04-02XH	Presser adjusting thumb screw nut	0	1	0	1
9	101-04-10XH	Presser bar bushing (lower)	0	1	0	1
10	101-07-26XH	Feed reverse spring	0	1	0	1
11	1281-01-22	Spring connecting pin	0	1	0	1
12	13-60113020-01	Nut	0	1	0	1
13	1273-05-06	Feed regulator connecting rod	0	1	0	1
14	101-07-10A	Feed regulator pin	0	1	0	1
15	1273-15-04	Feed regulator	0	1	0	1
16	1273-15-05	Feed reverse arm assembly	0	1	0	1
17	1273-15-03	Feed reverse spring	0	1	0	1
18	101-06-13-00XH	Feed adjusting link assembly	0	1	0	1
19	1281-05-12H	Thread tension assmby	0	1	0	1
20	101-06-18XH	Feed rock shaft crank	0	1	0	1
21	1283-05-11H	Feed dial	0	1	0	1
22	101-07-23XH	Feed spring hook plate	0	1	0	1
23	1273-15-02	Feed driving shaft crank (front) assembly	0	1	0	1
24	109-03-24XH	Rotating hook assembly	0	0	0	1
	115-04-17	Rotating hook assembly	0	1	0	0
25	1273-15-25	Feed regulating hing pin	0	1	0	1
26	24-09000000-09	E-ring	0	1	0	1



# 6.8

Lubrication  
Components



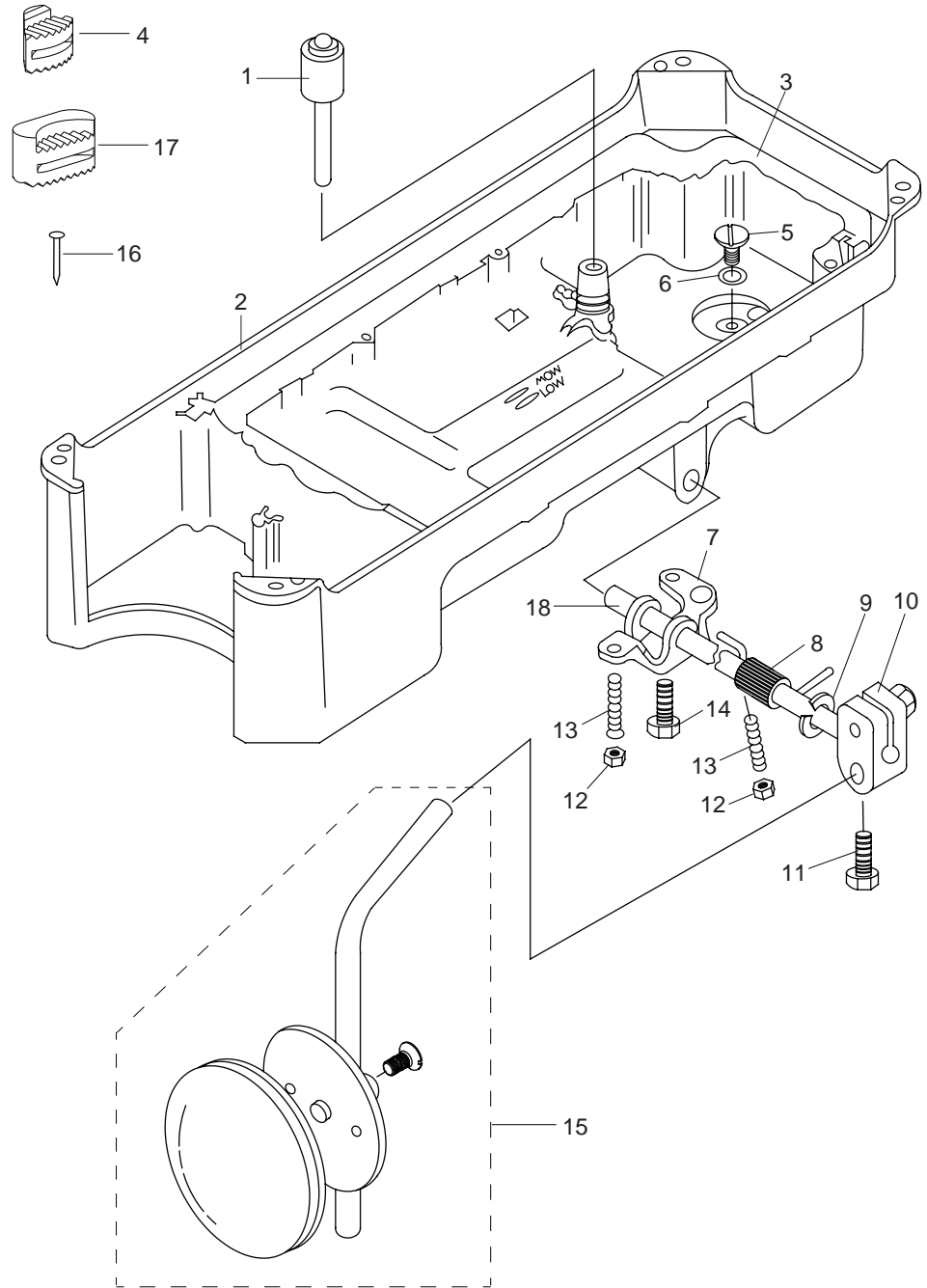
# 6.8

## Lubrication Components

No.	Part No.	Description	QTY			
			20G		30G	
			20	30	20	30
1	101-08-25	Oil sight window	1	1	1	1
2	31-20024000-09	Rubber ring	1	1	1	1
3	101-08-19	Main shaft oil tube	1	1	1	1
4	42-05003000-00	Oil return tube	1	1	1	1
5	11-40120625-01	Screw SM3/16 x 28 L=6	1	1	1	1
6	120-07-07	Oil return tube felt	1	1	1	1
7	101-08-28	Oil return tube holder	1	1	1	1
8	1283-02-05	Oil feet presser	1	1	1	1
9	101-08-16	Oil pump support M8	1	1	1	1
10	11-40111025-01D	Screw	1	1	1	1
11	11-40150925-01	Screw	1	1	1	1
12	101-08-18	Rubber joint	1	1	1	1
13	101-08-01-00	Lubricating oil pump assembly	1	1	1	1
14	101-08-20	Oil tube	0	0	1	1
	1283-05-17	Oil tube	1	1	0	0
15	101-08-23	Plate	0	0	1	1
	1283-05-18	Plate	1	1	0	0
16	43-10250000-00	Oil wick	1	1	1	1
17	1280-01-10	Oil wick set plate assembly	1	1	1	1
18	11-40090825-01	Screw SM 9/16 x 40 L=8	2	2	2	2
19	101-08-37	Oil return clamp	1	1	0	0
20	11-40120625-01	Screw SM 3/16 x 28 L=6	1	1	0	0
21	11-40150925-01	Screw SM 15/64 x 28 L=9	1	1	1	1

# 6.9

Oil Reservoir  
Components



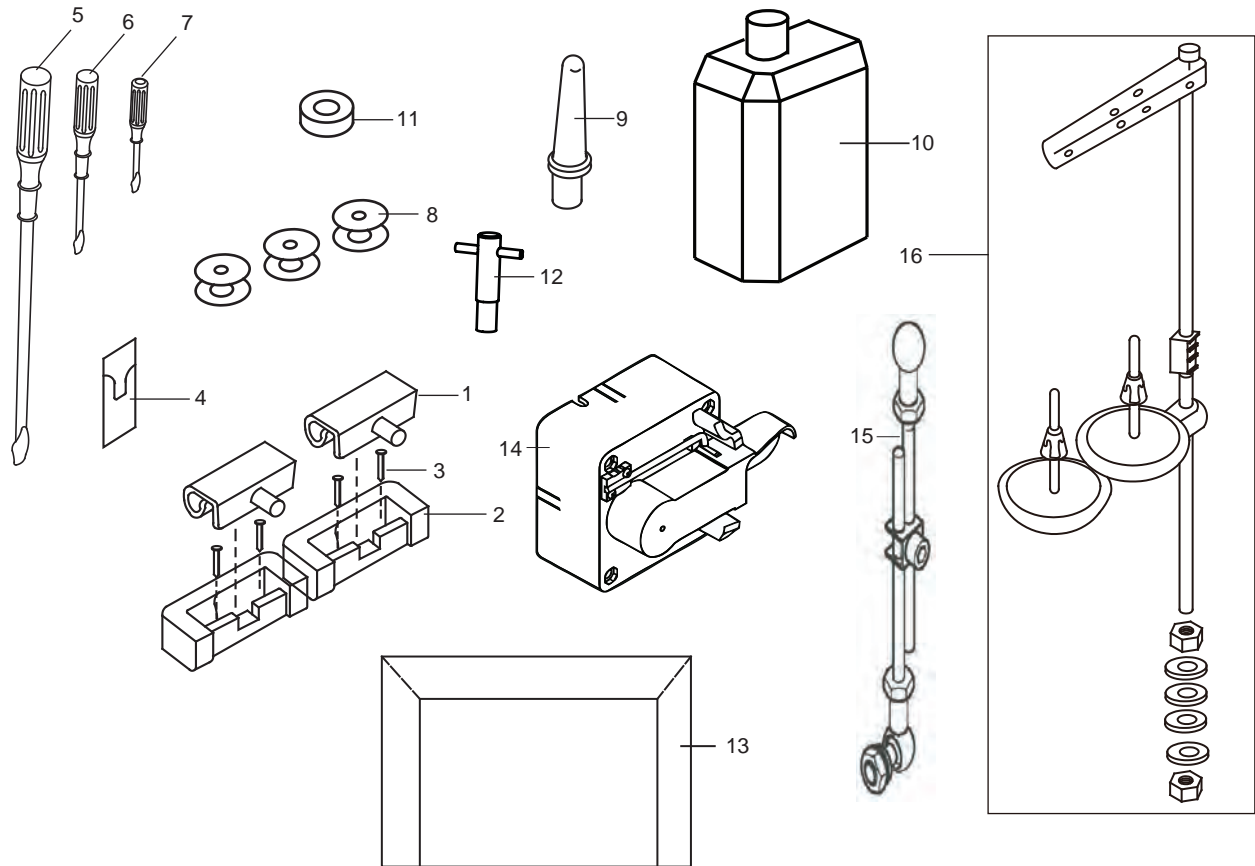
# 6.9

## Oil Reservoir Components

No.	Part No.	Description	QTY			
			CE		CF	
			20	30	20	30
1	101-09-02	Knee presser lift rod	1	1	1	1
2	101-09-01	Oil reservoir	1	1	1	1
3	101-09-03	Oil reservoir gasket	1	1	1	1
4	101-09-05	Rubber cushion (small)	2	2	2	2
5	11-70200720-01	Screw SM 5/16 x 24 L=7	1	1	1	1
6	31-06224000-09	Rubber ring	1	1	1	1
7	101-09-07	Knee lifter connecting rod	1	1	1	1
8	101-09-08	Spring	1	1	1	1
9	24-10000000-09	E-ring 10	1	1	1	1
10	101-09-10-00	Knee lifter connecting rod bracket	1	1	1	1
11	12-90801423-02	Screw M8 x 14	2	2	2	2
12	14-60603320-02	Nut M6	2	2	2	2
13	12-80603050-02	Screw M6 x 30	2	2	2	2
14	12-90601633-02	Screw M6 x 16	1	1	1	1
15	101-09-15-00	Knee lifter plate assembly	1	1	1	1
16	101-12-03	Nail	4	4	4	4
17	120-09-04	Rubber cushion (big)	2	2	2	2
18	101-09-06	Knee lifter shaft	1	1	1	1

# 6.10

## Machine Accessories



No.	Part No.	Description	QTY			
			CE		CF	
			20	30	20	30
1	101-12-01	Machine hinge plate	2	2	2	2
2	120-09-02	Machine hinge rubber cushion	2	2	2	2
3	101-12-03	Nail	4	4	4	4
4	1955-01	3 needles per packet size 14	1	0	1	0
	1955-01	3 needles per packet size 18	0	1	0	1
5	101-12-15	Screw driver (large)	1	1	1	1
6	101-12-16	Screw driver (medium)	1	1	1	1
7	101-12-17	Screw driver (small)	1	1	1	1
8	402-04-04	Bobbin	0	0	2	2
	101-05-03	Bobbin	2	2	0	0
9	101-12-19	Machine rest pin	1	1	1	1
10	101-12-21	Oil pouch	1	1	1	1
11	101-09-22	Oil reservoir magnet	1	1	1	1
12	1277-14-02	Spanner	0	0	1	1
13	IP07042-001	Dust cover	1	1	1	1
14	1278-17-01-03	Foot pedal controller	1	1	1	1
15	1281-05-02-01-03	Pitman rod	1	1	1	1
16	101-11-01	Thread stand assembly	1	1	1	1

