Sun Special

OPERATION INSTRUCTION

AND
PARTS MANUAL



1. Brief introduction

Both the models adopt straight twin-needle and two horizontal hooks with auto lubrication for thread looping, sliding lever for thread take up to form two lines of lockstitch seam. The upper shaft and lower shaft is connected by ball bearing and driven by teeth-type synchronic belt; plunge oil pump lubrication system. They adopt the compound feed mechanics of feed dog, needle bar and presser foot, even if for long stitch length and long material, They can deal with them freely.

They are widely used in factories of suitcase, tent, cushion, leather goods, apparel, mat, etc..

The difference between the two models:

SS20606 adopts twin-needle, two large horizontal hooks with auto lubrication. With the parts it can form ten different needle gauges.

SS20606-1 adopts single needle and form single line double lockstitch form.

2. Main Technical Specification

Application:

Max. sewing speed:

Max. stitch length:

4 Needle bar stroke:

5 Presser foot lift volume:

6 Hook:

7 Needle:

8 Lubrication:

9 Needle gauge: (Twin-needle)

10 Motor power:

medium and heavy duty materials

2000 spm

9 mm

36 mm

 $2\sim6$ mm

large horizontal hook with auto lubrication

DP×17 Nm125~180

pump auto lubrication (partial of manually oiling)

6. 4, 3. 2, 4, 4. 8, 8, 9. 5, 12. 7, 16, 19, 25. 4

0.37 kw (clutch motor)

3.Installation and preparation

3.1 Installation

3.1.1 Location of the machine

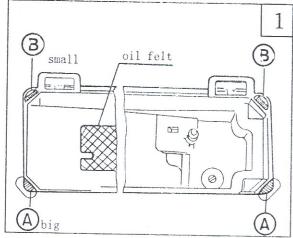
To ensure a smooth running, the machine should be located on rigid and flat floor. The insert of rubber mat between machine stand and floor is recommended for further reducing the running noise and vibration.

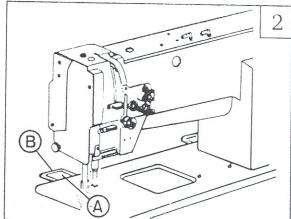
3.1.2 Oil Reservoir Installation(Fig. 1)

Put the oil reservoir into the table cutout, and place the four cushions on the four corners of the cutout, and place oil felt into the oil reservoir.

3.1.3 Mounting machine head(Fig. 2)

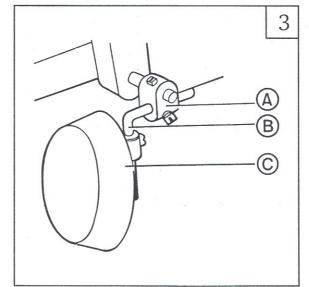
Make the hinge (A) of machine head engaged with hinge socket B on the table, then turn the machine head freely till it is seated on the frame of table cutout.





3.1.4 Knee control presser foot lifter installation (Fig. 3) a. Installing

Install Connector (A) , Bell Crank (B), Bell (C) in the order shown in Fig. 3.

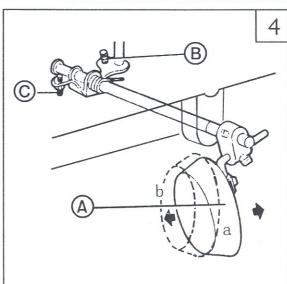


b. Adjustment (Fig. 4)

In the order of the following:

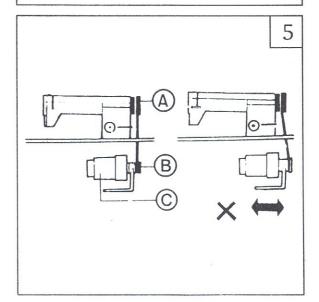
1. When the presser foot is at its lowest position, keep the crank in the position shown by b in the figure, turn Knee Control Stop Adjusting Screw (C) to touch with the oil reservoir, and tighten the nut of Screw (C).

2. When operate by knee, the presser foot lift volume is controlled by Screw (B). Turn the presser foot lever down, make the bell in the position shown by a in the figure, lift the presser foot to 13 mm, adjust Screw (B) to touch the oil reservoir, then tighten the nut of Screw (B).



3.1.5 Installing the motor (Fig. 5)

Align machine balance wheel belt groove (A) with motor pulley belt groove (B) by moving the motor (C) leftward or rightward. Be sure the belt is not touch with table.



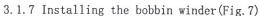
3.1.6 Connecting the clutch lever to the pedal(Fig.6)

1) The optimum tilt angle of pedal (A) with floor is approx. 30 degree.

2) Adjust the clutch of the motor so that clutch lever (C) and draw bar (B) run in line.

3) The machine balance wheel should rotate counterclockwise for normal sewing when view from opposite side of balance wheel (G). The motor is rotated in the same direction. The rotation can be reversed by reversing (turn over 180 deg.) the plug of motor.

4) Adjust the tension of V-belt (F) by moving the motor vertically. The proper tension of V-belt is a slack of 10-12mm when the belt is depressed at the belt span by finger.



Align pulley (B) of bobbin winder with outside of belt (C) and should be kept a proper clearance between them, so that pulley B could be contacted with belt after the stop latch thumb lever (A) depressed, thereby belt drives the pulley B while machine running. After check bobbin winder is in parallel with belt slit E of table, fastened by two wood screws (D).

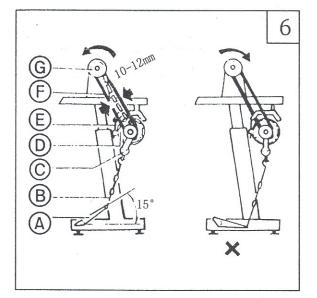


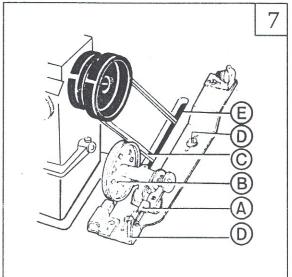
Locate thread spool stand at the right front of the table, note that spool rest may not obstruct when machine head is turned backward, then tighten wood screw.

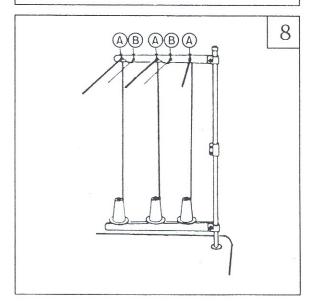
3.2 Preparation

3.2.1 Cleaning the machine

Before delivery, the machine parts are coated with rust preventive grease, which may be hardened and contaminated by dust during storage and shipment. The grease must by removed by clean cloth with gasoline.







3.2.2 Examination

Though every machine is confirmed by strict inspection and test before delivery, the machine parts may be loosed or deformed after long distance transportation with jolt. A thorough examination must be performed after cleaning the machine. Turn the balance wheel to see if there is running obstruction, parts collision, uneven resistance or abnormal noise. If these exist, adjustment must be made accordingly before run.

3.2.3 Precaution before Start

a. Oiling (Fig. 9)

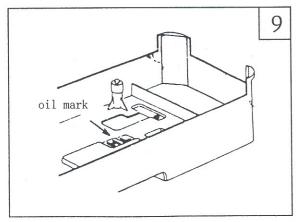
Oil amount should be filled according to the marks in the oil reservoir. Mark (H) refers to the highest of oil amount; (L) refers to the lowest, be careful that the oil amount should not be lower than Mark (L), otherwise the machine parts can not be fed with oil and cause overheat and collision.

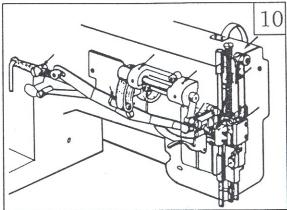
Be sure to use machine oil HA-8 or HJ-7.

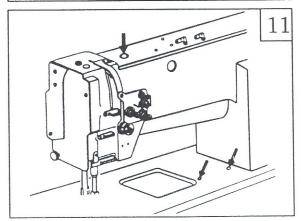
b. When the machine starts for the initial time or reuse after a long period of time, the proper oil amount should be filled in sections of machine shown by arrows in Fig10,11. When it is in operation, observe the oil sparking in oil screen to check the oil condition.

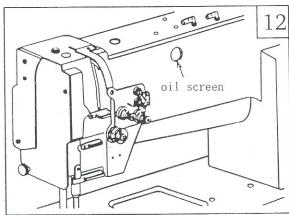
Note: when the machine needs drop oiling, do not start before drop oiling. $\boldsymbol{\cdot}$

- c. When a new machine starts running, for extending its life, please run at a medium and low speed (1000 spm) for about a month and then raise the speed gradually.
- d. Please turn off the power when it is not in use or the operator leaves away from it.
- e. Replace the oil every month. When replacing, fully drain off the old oil in the reservoir and add the new one.
- f. The needle gauge options are: 6.4, 3.2, 4, 4.8, 8, 9.5, 12.7, 16, 19, 25, 4. For getting it, the throat plate, presser foot or alternating foot, needle holder, feed dog, left and right sliding plates, thread guide should be changed. It is provided with 6.4 mm when it leaves off the factory, For the other size, the relevant parts can be ordered from the factory.









4. Operation

4.1 Coordination between needle, thread and sewing material

Please use needle GR2-2 or DP \times 17,135 \times 17,SY3355 Nm125-180. The coarseness of needle should be in accordance with the nature of material. If stitch on heavy duty material with a slim needle, the needle will be easily bent,skip or thread breakage occurs, on the contrary,stitch on tightly woven material with a very coarse needle, the material will be destroyed with over-big needle. So the needle and thread should be properly selected.

4.2 Needle installation(Fig.13)

Turn the balance wheel to lift needle bar to the highest position, loosen Needle Set Screw (A), fully insert the needle shank upto the bottom of needle socket, keeping the long grooves of the two needles opposite with each other, then tighten Screw (A). For single needle, keep the long groove of needle facing the left of the operator. See Fig(b).

Note: Fig. (c): insufficient insertion.

Fig. (d):wrong direction of needle long groove in insertion.

4.3 Winding the Bobbin thread

4.3.1 Winding method(Fig. 14)

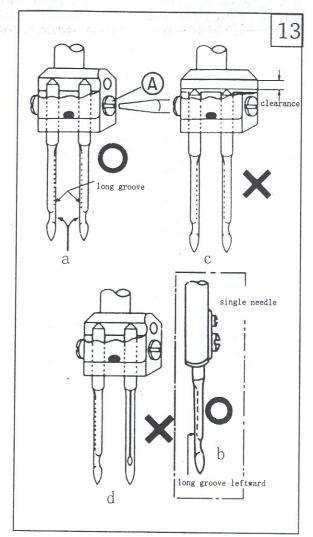
1) Install bobbin (A) to bobbin winder spindle(B).
2) Pass thread (C) from spool through the eyelon tension bracket (E). pass it between tension discs 2, and then wind the end of the thread a few turns on the bobbin.

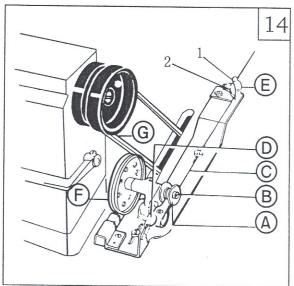
3) Push stop latch thumb lever (D) down to lock the bobbin, the winder pulley (F) is thereby pressed on belt (G).

4) Start the machine to wind thread.

Note when thread is wound without sewing operation, be sure to keep the presser foot lifted.

5) When the thread is fully wound, the bobbin winder stop latch automatically release the bobbin winder, thus stopping the winding motion.





4.3.2 Winding adjustment (Fig. 15)

1) Wound bobbin thread should be neat and tight, if not, adjust the thread tension by turning tension stud thumb nut (A) of bobbin winder tension bracket.

Note: nylon or polyester thread should be wound with light tension, otherwise bobbin (D) might be broken or deformed.

2) When the wound thread layer does not present a cylindrical shape as in Fig.15a,loosen tension bracket screw (B) and move tension bracket (C) leftward or rightward. If thread is wound as shown in Fig, 15b, move the tension bracket rightward, while if thread is wound as shown in Fig.15c, move the tension bracket leftward, After adequately positioning the tension bracket, tighten screw (B).

3)Do not over fill the bobbin, the optimum capacity of thread will fill about 80% of bobbin ouside diameter, this can be adjusted by stop latch screw (E).

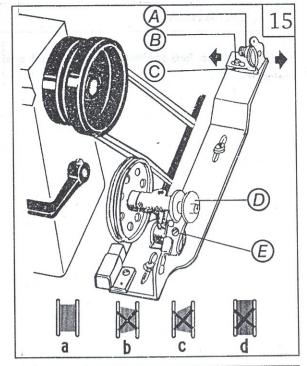
4.3.3 Threading (Fig. 16)

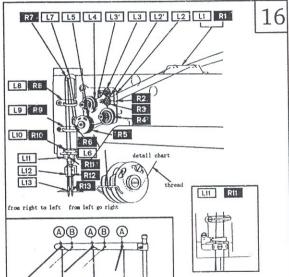
Every thread should be drawn through Thread Hole (A), when use light and smooth thread (polyester or long silk thread), it should be drawn through Hole (B), Keep the thread take-up lever in its highest position, draw every thread in the following numerical order.

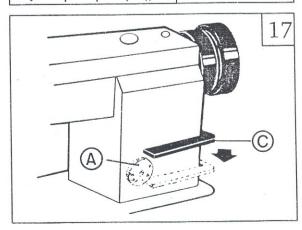
4.3.4 The stitch length and forward and reverse sewing control (Fig. 17)

The stitch length can be regulated by Stitch Length Dial (A). Turn it counter-clockwise to expand its length and clockwise to shorten its length. The numbers on Dial(A) show the sizes of the stitch length in mm.

For reverse feed, press down Release Feed Lever (C) to perform reverse sewing. Release the lever, the reverse feed lever can reset automatically and the forward sewing is resumed.





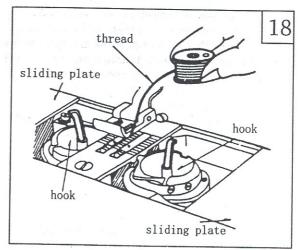


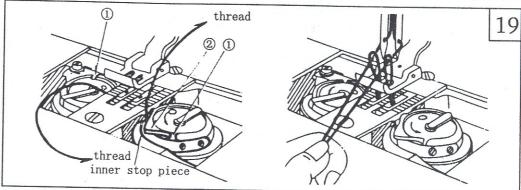
4.3.5 Placing bobbin (Fig. 18)

Note: when bobbin is placed into the bobbin case, the thread should be wound properly in the correct direction shown in the figure.

4.3.6 Drawing thread from the bobbin (Fig. 19)

- a. draw the thread end to Bobbin Slot (1) shown in the figure, and pull it out down through the inner bobbin stop piece.
- b. hold the thread with left hand, turn the balance wheel slowly and get the bobbin thread, then draw them a little apart from the presser foot.





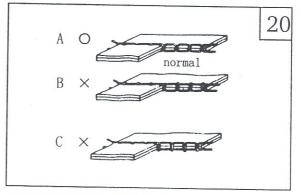
5. Machine Adjustment

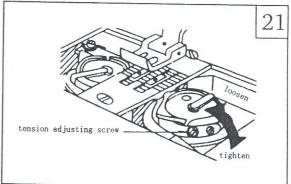
5.1 Thread tension adjustment

All forms of stitches are shown in Fig. 20.

The normal stitch of sewing machine is shown as Fig.(A) If stitch is abnormal, the puckering and thread breakage will occur, and the needle thread tension and bobbin thread tension should be adjusted so that the normal stitch can be obtained.

a. If the stitch seam shows as Fig. 20B, indicates that the needle thread or bobbin thread tension is too loose, then turn the thread tension screw counter-clockwise to release the needle thread pressure; or turn the adjusting screw with a screwdriver to increase the bobbin thread tension. (see Fig. 21, 22)





b. If the needle thread is too loose and the bobbin thread is too tight, then shows as Fig. 20C, And turn the thread tension screw clockwise to increase the needle thread tension; or turn loose the bobbin lace screw to reduce the bobbin thread tension. (See Fig. 21, 22)

For special sewing with special thread, the tension needed can be obtained by adjusting the power and stroke of the thread take-up spring.

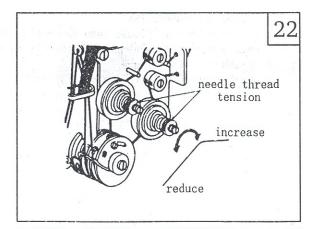
5.2 Adjusting the pressure of presser foot(Fig.23)

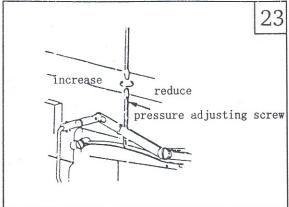
The pressure of the presser foot should be adjusted according to the thickness of the sewing materials. If stitch on heavy duty material, the pressure should be increased and turn the pressure adjusting screw on the back of the arm clockwise; if reduce the pressure, turn it counter-clockwise.

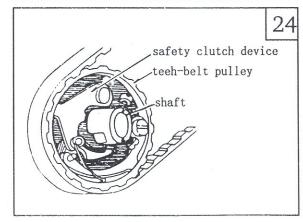
5.3 Use and adjustment of the safety clutch device

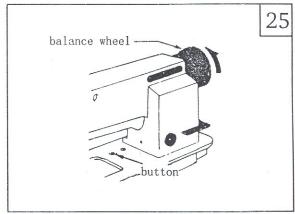
The function of the safety clutch device is to prevent the hook and teeth-belt from destroy when the needle thread is drawn into the hook for adnormal load during the operation.

- 5.3.1The function of the safety clutch device (Fig. 24)
 - a. When the safety clutch device is functioning, the teeth-belt will remove the load and the rock shaft will stop rotating, only the upper shaft rotates, and the machine stops work.
 - b. Clean off the needle thread which is drawn in the hook.
 - c. Turn the shaft of the teeth-belt with hand to check if the rock shaft can turn smoothly, then reset the safety clutch device.
- 5. 3. 2Resetting the safety clutch device.
 - a. While press down the button in the bed surface with left hand, turn the balance wheel slowly with right hand in the direction shown in Fig. 25.

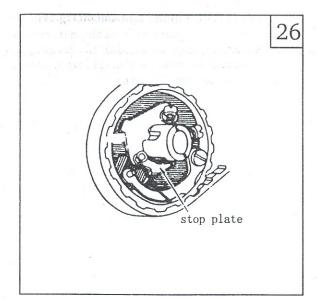




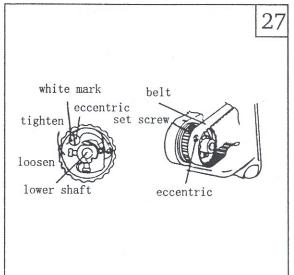




- b. When the stop plate stops the balance wheel, more strength is needed to turn the balance wheel to reset the safety clutch device.
- c. Release the button in the bed. So the resetting of it is OK. (see Fig. 26)



- 5.3.3 Regulating the strength on the safety clutch device(Fig. 27)
 - a. When the white mark of the eccentric pin aims at the center of the rock shaft, indicates that the strength on the safety clutch device is the minimun. When the white mark points outward, the strength is properly increased.
 - b. For regulating the strength of it, move the teeth -belt and loosen the set screw of the eccentric pin, and turn the eccentric pin.
 - c. After regulation, please tighten the set screw.

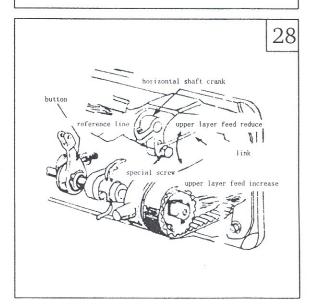


5.4 Upper feed adjustment(Fig.28)

If the upper and lower feed are not in timing during sewing, the long hole of the horizontal feed crank should be adjusted to get the length of upper feed.

Adjust as the following:

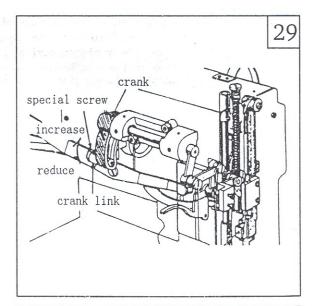
- a. Loosen the special screw.
- b. Move the special screw upward to reduce the feed amount of upper layer of material.
- c. Move the special screw downward to increase the feed amount. Theoretically when it is on the reference line of the horizontal feed crank, the upper feed amount equals to the lower feed amount.
- d. After adjustment, tighten the special screw.



5.5 Presser foot lift volume adjustment(Fig.29)

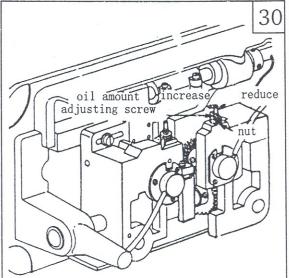
When stitch on the very elastic material or the thickness of the sewing material is changed. The adjustment should be done in the following order:

- 1. Loosen the special screw.
- 2. When the centerline distance between the special screw and the presser foot lift rear crank becomes shorter, the presser foot lift volume will become longer. On the country the distance becomes longer, the lift volume will become shorter.
- 3. After adjustment, tighten the special screw. The common presser foot lift volume can be adjusted in the range of 2-6 mm.

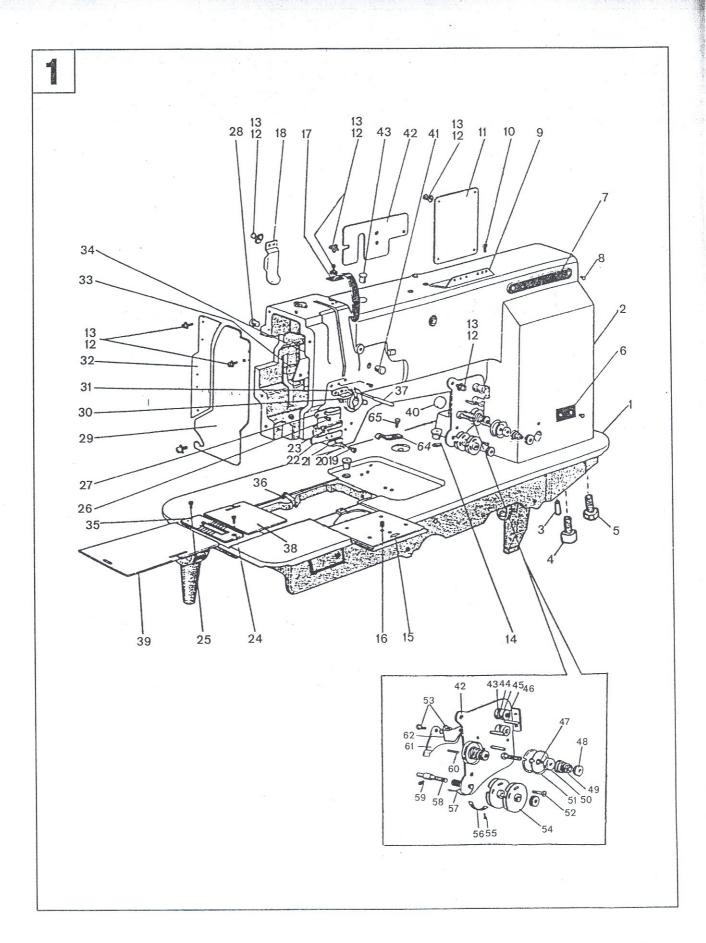


5.6 Hook oil amount adjustment(Fig.30)

It adopts plunger full auto lubrication system, even at very low speed, it can supply and suck oil very well. Generally only the hook oil amount can be adjusted, the other can not be adjusted. The hook oil amount can be obtained by the oil amount adjusting screw. First loosen the nut of the adjusting screw, turn the screw clockwise to increase the oil amount, on the contrary reduce the oil amount. After adjustment, tighten the nut.



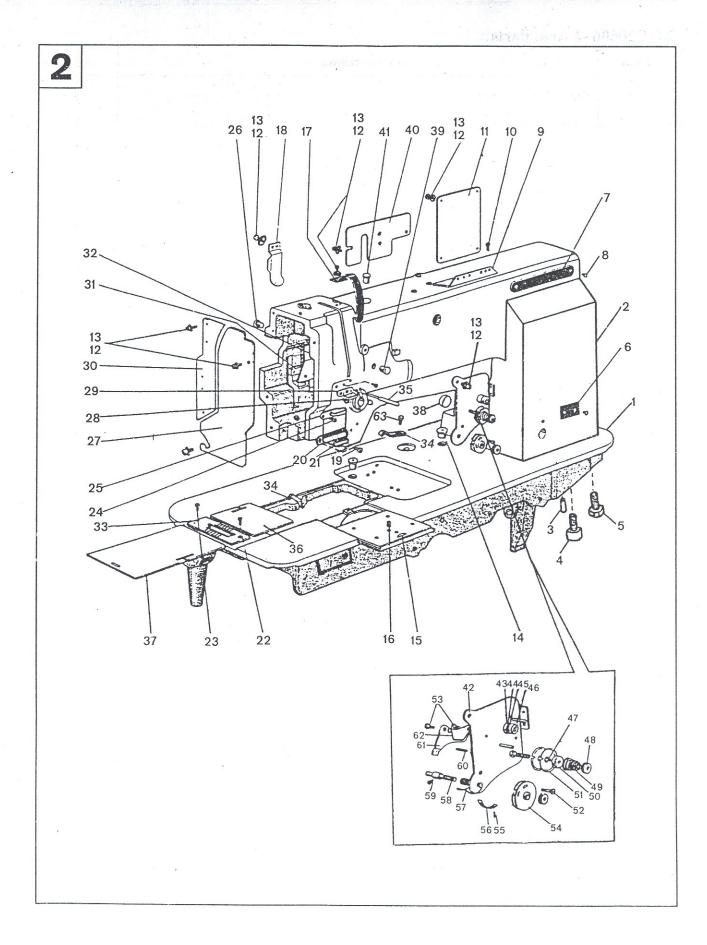
Parts Catalogue



1. SS20606 Arm Parts

Item	makan meg	Description	Part number	Pcs
1.	Bed		1WF1-001	1
2.	Arm		1WF1-002	1
3.	Pin		Test fully (20)	2
4.	Screw			1
5.	Screw		Astonastic	3
6.	Trade mark plate			1
7.	Model plate		1WF1-041	1
8.	Nail		1WF1-042	4
9.	Upper thread guide			1
10.	Screw		1WF1-015	2
11.	Back cover		1WF1-016	1
12.	Screw		1WF1-017	15
13.	Washer	• 1	1WF1-011	15
14.	Cover			2
15.	Front slide plate		1WF1-032	1
16.	Screw		1WF1-038	1
17.	Thread take-up lever guard		1WF1-039	1
18.	Back front cover		1WF1-019	1
19.	Screw		1WF1-030	1
20.	Spring		1WF1-027	1
21.	Thread retainer		1WF1-028	1
22.	Low thread finger		1WF1-003	1
23.	Screw		1WF1-004	1
24.	Screw		1WF1-005	1
25.	Screw		1WF1-034	1
26.	Screw		1WF1-036	1
27.	Middle thread finger		1WF1-007	
28.	Rubber plug		1WF1-006	2
29.	Face plate		1WF1-018	1
30.	Screw		1WF1-013	2
31.	Upper thread finger		1WF1-009 1WF1-008	1

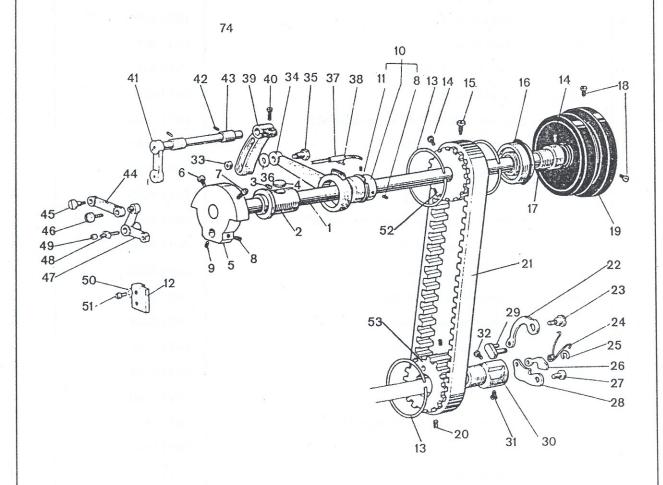
Item	Description	Part number	Pcs
32.	Guide set plate	1WF1-012	1
33.	Set plate	1WF1-021	1
34.	Oil retainer	1WF1-020	1
35.	Throat plate	1WF1-035	1
36.	Pin shaft	1WF1-037	1
37.	Thread releasing lever	1WF1-023	1
38.	Right sliding plate	1WF1-033	1
39.	Left sliding plate	1WF1-040	1
40.	Plug	1WF1-029	1
41.	Plug	1WF1-022	1
42.	Back fitting cover	1WF1-031	1
43.	Plug	1WF1-014	1
44.	Thread tension set plate assembly	1WF1-010A	1
45.	Thread guide bracket	1WF1-010B	2
46.	Thread guide plate	1WF1-010C	2
47.	Spring	1WF1-010D	2
48.	Thread guide bracket screw assembly	1WF1-010E	2
49.	Thread releasing pin	1WF1-010M	1
50.	Thread tension nut	1WF1-010H	3
51.	Thread tension spring	1WF1-010G	2
52.	Thread releasing plate	1WF1-010S	2
53.	Thread tension plate	1WF1-010F	4
54.	Screw	1WF1-010R	1
55.	Screw	1WF1-010Q	2
56.	Thread control plate assembly	1WF1-010J	2
57.	Screw	1WF1-026	1
58.	Stop plate	1WF1-025	1
59.	Thread take-up spring	1WF1-010K	1
60.	Shaft for thread take-up spring	1WF1-010I	1
61.	Set screw	1WF1-024	1
62.	Thread releasing pin	1WF1-010L	1
63.	Thread tension retaining plate	1WF1-010W	1
64.	Thread releasing spring	1WF1-010P	1
65.	Spring retaining plate	1WF1-043	1
66.	Screw	22T2-004	1



2. SS20606-1 Arm Parts

Item	Description	Part number	Pcs
1.	Bed	9WF1-007	1
2.	Arm	1WF1-002	1
3.	Pin		2
4.	Screw		1
5.	Screw		3
6.	Trade mark plate	9WF1-005	1
7.	Model plate	9WF1-006	1
8.	Nail		4
9.	Upper thread guide	1WF1-015	1
10.	Screw	1WF1-016	2
11.	Back cover	1WF1-017	1
12.	Screw	1WF1-011	15
13.	Washer		15
14.	Cover	1WF1-032	2
15.	Front slide plate	1WF1-038	1
16.	Screw	1WF1-039	1
17.	Thread take-up lever guard	1WF1-019	1
18.	Back front cover	1WF1-030	1
19.	Screw	1WF1-005	1
20.	Low thread finger	9WF1-001	1
21.	Oil felt	9WF1-002	1
22.	Screw	1WF1-034	1
23.	Screw	1WF1-036	1
24.	Screw	1WF1-007	1
25.	Middle thread finger	1WF1-006	1
26.	Rubber plug	1WF1-018	2
27.	Face plate	1WF1-013	1
28.	Screw	1WF1-009	2
29.	Upper thread finger	IWF1-008	1
30.	Guide set plate	IWF1-012	1
31.	Set plate	1WF1-021	1

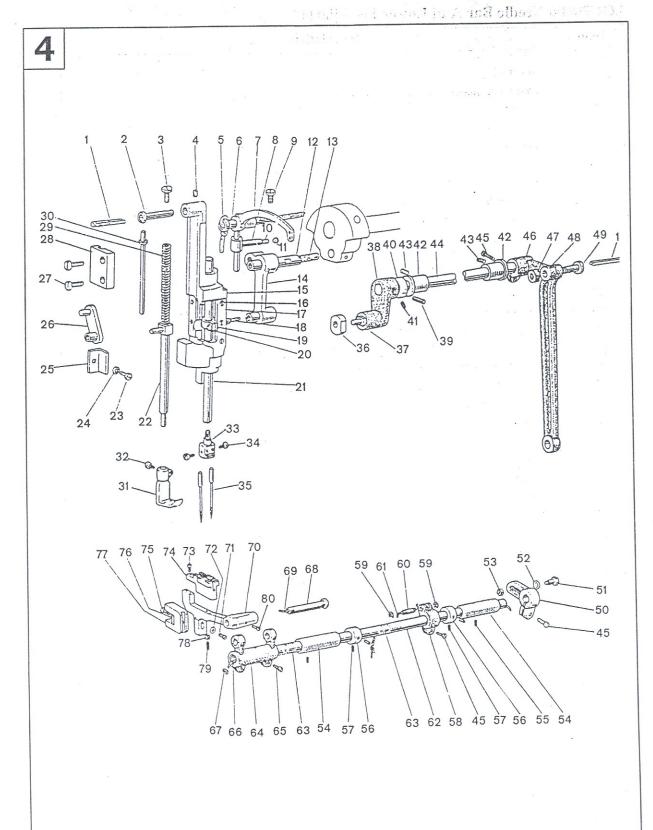
Item	Description	Part number	Pcs
32.	Oil retainer	1WF1-020	1
33.	Throat plate	9WF1-004A	1
34.	Spring retaining plate	1WF1-043	1
35.	Thread releasing lever	1WF1-023	1
36.	Right sliding plate	1WF1-033	1
37.	Left sliding plate	1WF1-040	1
38.	Plug (φ14.5)	1WF1-029	1
39.	Plug(φ12.7)	1WF1-022	1
40.	Back fitting cover	1WF1-031	1
41.	Plug(φ12, 7)	1WF1-034	1
42.	Thread tension set plate assembly	1WF1-010A	1
43.	Thread guide bracket	1WF1-010B	1
44.	Thread guide plate	1WF1-010C	1
45.	Spring	1WF1-010D	1
46.	Thread guide bracket screw assembly	-1WF1-010E	1
47.	Thread releasing pin	1WF1-010M	1
48.	Thread tension nut	1WF1-010H	1
49.	Thread tension spring	1WF1-010G	1
50.	Thread releasing plate	1WF1-010S	1
51.	Thread tension plate	1WF1-010F	2
52.	Screw	1WF1-010R	1
53.	Screw	1WF1-010Q	2
54.	Thread control plate assembly	1WF1-010J	1
55.	Screw	1WF1-026	1
56.	Stop plate	1WF1-025	1
57.	Thread take-up spring	1WF1-010K	1
58.	Shaft for thread take-up spring	1WF1-003A	1
59.	Set screw	1WF1-024	1
60.	Thread releasing pin	IWF1-010I	1
61.	Thread tension retaining plate	1WF1-010W	1
62.	Thread releasing spring	IWF1-010P	1
63.	Screw	22T2-004	1



3.Upper Shaft And Presser Foot Parts

Item	Description	Part number	Pcs
1.	Upper shaft	1WF2-025	1
2.	Front bushing	1WF2-022	1
3.	Screw	1WF2-023	1
4.	Oil felt	1WF2-024	1
5.	Needle crank	1WF2-021	1
6.	Screw	1WF2-020	1
7.	Screw	1WF2-007	1
8.	Screw	1WF2-010	3
9.	Screw	1WF2-009	1
10.	Presser foot lift eccentric cam	1WF5-026	1
11.	Stop ring	2	1
12.	Slot for front crank sliding block	1WF5-041	1
13.	Stop ring	1WF2-026	3
14.	Screw	1WF2-030	3
15.	Set screw	1WF2-029	1
16.	Ball bearing for upper shaft		1
17.	Rear bushing for upper shaft	1WF2-031	1
18.	Screw	1WF2-019	2
19.	Balance wheel	1WF2-032	1
20.	Screw	1WF2-044	2
21.	Teeth belt	1WF2-028	1
22.	Spring plate	1WF2-039	1
23.	Pin for eccentric shaft	1WF2-037	1
24.	Spring	1WF2-041	1
25.	Split stop ring		1
26.	Stop plate	1WF2-040	1
27.	Nail	1WF2-048	1
28.	Control plate	1WF2-045	1
29.	Connection	1WF2-042	1
30.	Bushing	1WF2-046	1
31.	Set screw	1WF2-047	1

Item	Description	Part number	Pcs
32.	Screw	1WF2-038	1
33.	Nut	1WF5-001	1
34.	Connecting lever	1WF5-025	1
35.	Connecting screw	1WF5-044	1
36.	Washer		1
37.	Oil tube assembly	1WF5-023	1
38.	Spring	1WF5-024	1
39.	Presser foot lift rear crank	1WF5-045	1
40.	Screw	1WF4-018	3
41.	Presser foot lift front crank	1WF5-038	1
42.	Screw	1WF5-028	2
43.	Bushing	1WF5-037	2
44.	Presser foot lift link	1WF5-030	1
45.	Connecting screw	1WF5-029	1
46.	Connecting screw	1WF5-032	1
47.	Presser foot lift movable plate	1WF5-033	1
48.	Shaft for needle bearing	1WF5-034	1
49.	Needle bearing	1WF5-035	1
50.	Washer	20	1
51.	Screw	1WF5-042	2
52.	Timing wheel	1WF2-027	2
53.	Timing wheel	1WF2-043	1
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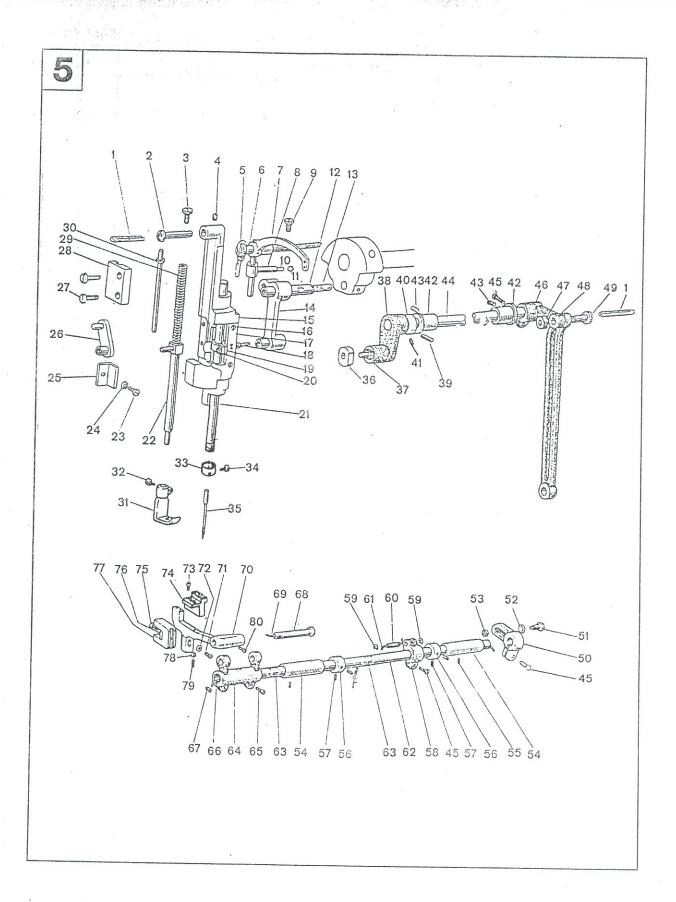


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4. SS20606 Needle Bar And Lower Feed Parts

Item	Description	Part number	Pcs
1.	Oil wick	1WF5-017	2
2.	Shaft for needle bar motion holder	1WF5-018	1
3.	Screw	1WF5-031	1
4.	Screw	1WF5-019	1
5.	Oil wick	1WF2-018	1
6.	Bushing for thread take-up lever hole	1WF2-017	1
7.	Thread take-up lever	1WF2-016	1
8.	Sliding block	1WF2-011	1
9.	Screw	1WF2-019	1
10.	Oil wick	1WF2-012	1
11.	Plug	1WF2-013	1
12.	Pin for needle bar crank	1WF2-014	1
13.	Oil wick	1WF2-015	1
14.	Needle bar link	1WF2-008	1
15.	Needle bar motion holder	1WF5-011	1
16.	Screw	1WF5-013	6
17.	Shim for needle bar motion holder	1WF5-012	2
18.	Oil felt	1WF2-007	1
19.	Needle bar adaptor	1WF2-005	1
20.	Screw	1WF2-006	1
21.	Needle bar	1WF2-004	1
22.	Presser bar	1WF5-006	1
23.	Screw	1WF5-010	1
24.	Washer		1
25.	Needle bar holder guide	1WF5-009	1
26.	Presser bar link	1WF5-036	1
27.	Screw	1WF3-009	2
28.	Needle bar motion holder guide	1WF5-014	1
29.	Spring	1WF5-016	1
30.	Reel for spring	1WF5-015	1
31.	Alternate foot	1WF5-043	1
32.	Screw	22T2-004	1
33.	Needle holder	1WF2-003	1
34.	Screw	1WF2-002	2
35.	Needle	1F-009	2
36.	Sliding block for needle bar motion	1WF5-007	1
37.	Shaft for sliding block	1WF5-008	1
38.	Left crank	1WF5-020	1
39.	Pin		1
40.	Washer	1WF5-021	1
41.	Screw	1WF5-022	2

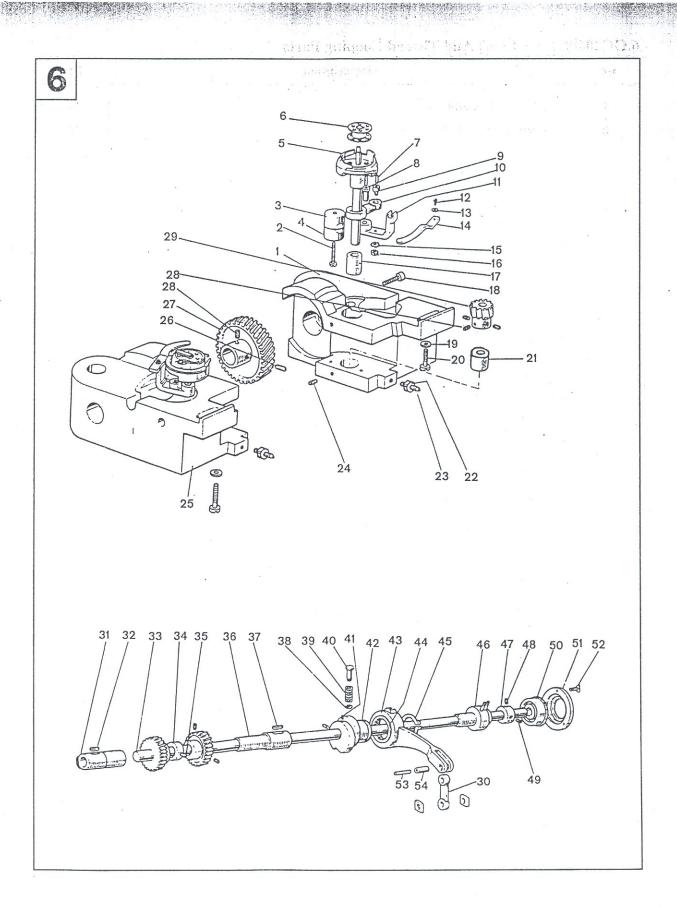
Item	Description	Part number	Pcs
42.	Bushing for needle bar motion shaft	1WF5-027	2
43.	Set screw	1WF5-028	2
44.	Shaft for needle bar motion	1WF5-048	1
45.	Screw	1WF4-018	3
46.	Rear crank for needle bar motion	1WF5-005	1
47.	Connecting nut	1WF5-004	1
48.	Link for needle bar motion	1WF5-003	1
49.	Connecting screw	1WF5-049	1
50.	Right crank for feed shaft		1
51.	Pin for right crank	1WF5-002	1
52.	Washer	1WF5-046	1
53.	Nut	1WF5-047	1 1
54.	Feed shaft bushing	1WF5-001	2
55.	Set screw	1WF4-052	2
56.	Collar for feed shaft	1WF2-023	2
57.	Screw	1WF4-054	
58.	Feed crank	1WF2-009	4
59.	Split stop ring	1WF4-017	1
60.	Pin for feed crank	177774 010	2
61.	Oil wick	1WF4-019	1
62.	Feed shaft	1WF4-020	1
63.	Oil felt	1WF4-037	2
64.	Feed connecting crank(left)	1WF4-038	1
65.	Tension screw	1WF4-035	2
66.	Oil wick clump	1WF4-034	1
67.	Oil wick	1WF4-029	1
68.	Shaft for feed dog support crank	1WF4-030	1
69.	Oil wick	1WF4-036	1
70.	Feed dog support	1WF4-031	1
71.	Connecting screw	1WF4-001	1
72.	Washer	1WF4-032	1
73.	Screw	111/17/4 005	2
74.	Feed dog	1WF4-005	1
75.	Screw	1WF4-004	1
76.	Oil felt for feed dog lift fork	1WF4-007	1
77.	Feed dog lift fork	1WF4-008	1
78.	Nut	1WF4-009	1
79.	Feed dog adjusting screw	1WF4-002	
80.	Screw	1WF4-003	1
00.	OCT 6#	IWF4-033	1



5. SS20606-1 Needle Bar And Lower Feed Parts

Item	Description	Part number	Pcs
1.	Oil wick	1WF5-017	2
2.	Shaft for needle bar motion holder	1WF5-018	1
3.	Screw	1WF5-031	1
4.	Screw	1WF5-019	1
5.	Oil wick	1WF2-018	1
6.	Bushing for thread take-up lever hole	1WF2-017	1
7.	Thread take-up lever	1WF2-016	1
8.	Sliding block	1WF2-011	. 1
9.	Screw	1WF2-019	1
10.	Oil wick	1WF2-012	1
11.	Plug	1WF2-013	1
12.	Pin for needle bar crank	1WF2-014	1
13.	Oil wick	1WF2-015	1
14.	Needle bar link	1WF2-008	1
15.	Needle bar motion holder	1WF5-011	1
16.	Screw	1WF5-013	6
17.	Shim for needle bar motion holder	1WF5-012	2
18.	Oil felt	1WF2-007	1
19.	Needle bar adaptor	1WF2-005	1
20.	Screw	1WF2-006	1
21.	Needle bar	1WF2-001	1
22.	Presser bar	1WF5-006	1
23.	Screw	1WF5-010	1
24.	Washer		1
25.	Needle bar holder guide	1WF5-009	1
26.	Presser bar link	1WF5-036	1
27.	Screw	1WF3-009	2
28.	Needle bar motion holder guide	1WF5-014	1
29.	Spring	1WF5-016	1
30.	Reel for spring	1WF5-015	1
31.	Alternate foot	35T5-502	1
32.	Screw	22T2-004	1
33.	Thread guide ring	35T1-103	1
34.	Screw	22T2-017	1
35.	Needle	1F-009	1
36.	Sliding block for needle bar motion	1WF5-007	1
37.	Shaft for sliding block	1WF5-008	1
38.	Left crank	1WF5-020	1
39.	Pin		1
40.	Washer	1WF5-021	1
	Screw	1WF5-022	2

	Description	Part number	Pcs
42.	Bushing for needle bar motion shaft	1WF5-027	2
43.	Set screw	1WF5-028	2
44.	Shaft for needle bar motion	1WF5-048	1
45.	Screw	1WF4-018	3
46.	Rear crank for needle bar motion	1WF5-005	1
47.	Connecting nut	1WF5-004	1
48.	Link for needle bar motion	IWF5-003	1
49.	Connecting screw	1WF5-049	1
50.	Right crank for feed shaft	IWF5-002	1
51.	Pin for right crank	1WF5-046	1
52.	Washer	1WF5-047	1
53.	Nut	1WF5-001	
54.	Feed shaft bushing	1WF4-052	1
55.	Set screw	1WF2-023	2 2
56.	Collar for feed shaft	1WF4-054	
57.	Screw	1WF2-009	2
58.	Feed crank	1WF4-017	4
59.	Split stop ring	1 W F4-017	1
60.	Pin for feed crank	1WF4-019	2
61.	Oil wick	1WF4-020	1
62.	Feed shaft	1WF4-037	1
63.	Oil felt		1
64.	Feed connecting crank(left)	1WF4-038	2
65.	Tension screw	1WF4-035	1
66.	Oil wick clump	1WF4-034	2
67.	Oil wick	1WF4-029	1
68.	Shaft for feed dog support crank	1WF4-030	1
69.	Oil wick	1WF4-036	1
70.	Feed dog support	1WF4-031	1
71.		IWF4-001	1
72.	Connecting screw Washer	1WF4-032	1
73.	Screw	700	1
74.		V02	2
75.	Feed dog	9WF2-002A	1
76.	Screw	IWF4-007	1
	Oil felt for feed dog lift fork	1WF4-008	1
77.	Feed dog lift fork	IWF4-009	1
8.	Nut	IWF4-002	1
9.	Feed dog adjusting screw	1WF4-003	1
30.	Screw	1WF4-033	1

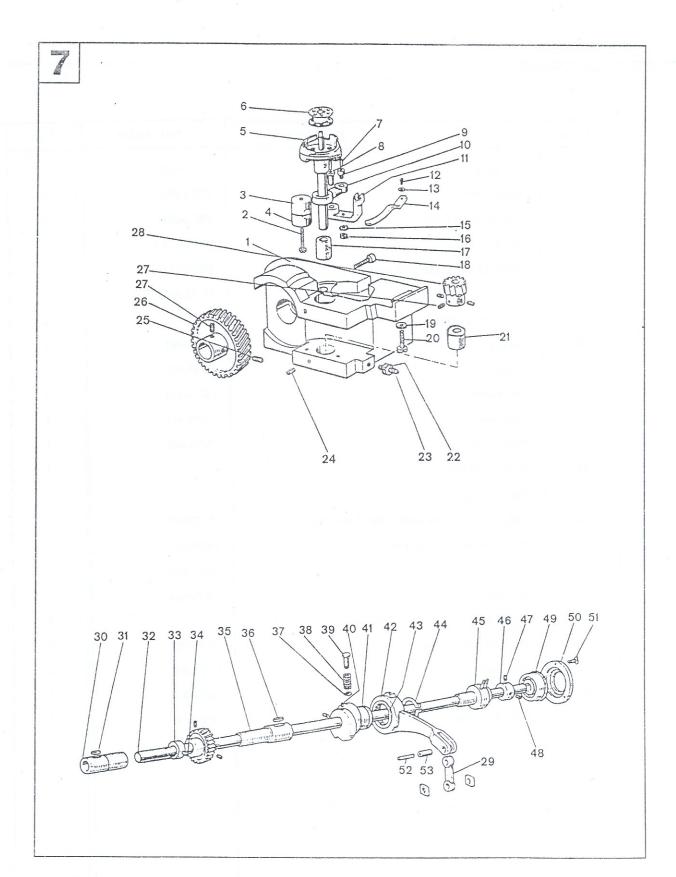


6. SS20606 Rock Shaft And Thread Looping Parts

Item	Description	Part number	Pcs
1.	Right hook saddle	1WF2-063	1
2.	Screw	1WF2-060	2
3.	Upper bushing of hook saddle	1WF2-059	2
4.	Lower bushing of hook saddle	1WF2-061	2
5.	Hook assembly	1WF2-064	2
6.	Bobbin	1WF2-065	2
7.	Oil wick	1WF2-070	2
8.	Hinge shaft	1WF2-069	2
9.	Screw	1WF2-072	2
10.	Connecting lever	1WF2-071	2
11.	Thread finger bracket	1WF2-075	2
12.	Screw	1WF5-026	2
13.	Washer		2
14.	Thread finger	1WF2-076	2
15.	Spring washer		2
16.	Nut	1WF2-074	2
17.	Bushing	1WF2-062	2
18.	Set screw	1WF2-034	2
19.	Washer		2
20.	Tension screw for hook saddle	1WF2-033	2
21.	Bushing	1WF2-077	2
22.	Adjusting nut	1WF2-067	2
23.	Adjusting screw	1WF2-066	2
24.	Screw	1WF2-044	2
25.	Left hook saddle	1WF2-068	1
26.	Screw	1WF2-052	2
27.	Spiral gear	1WF2-078	2
28.	Screw	1WF2-009	8
29.	Spiral gear	1WF2-079	2
30.	Feed link	1WF2-055	1
31.	Left bushing for rock shaft	1WF2-035	1

Item	Description	Part number	Pcs
32.	Oil wick	1WF2-036	1
33.	Rock shaft	1WF2-056	1
34.	Feed dog lift cam	1WF2-006	1
35.	Set screw	1WF2-019	1
36.	Right bushing for rock shaft	1WF2-057	1
37.	Oil wick	1WF2-058	1
38.	Split stop ring		1
39.	Spring	1WF4-041	1
40.	Button	1WF4-042	1
41.	Set screw	1WF4-010	2
42.	Feed cam	1WF4-011	1
43.	Feed link	1WF4-012	1
44.	Needle bearing		1
45.	Spring stop ring	-	1
46.	Middle bushing assembly for rock shaft	1WF2-055	1
47.	Rear bushing for rock shaft	1WF2-051	1
48.	Screw	1WF2-009	1
49.	Set screw	1WF2-052	1
50.	Ball bearing for rock shaft		1
51.	Bearing press ring	IWF2-050	3
52.	Set screw	1WF2-049	1
53.	Oil wick	I WF4-044	1
54.	Feed link pin	1WF4-043	1

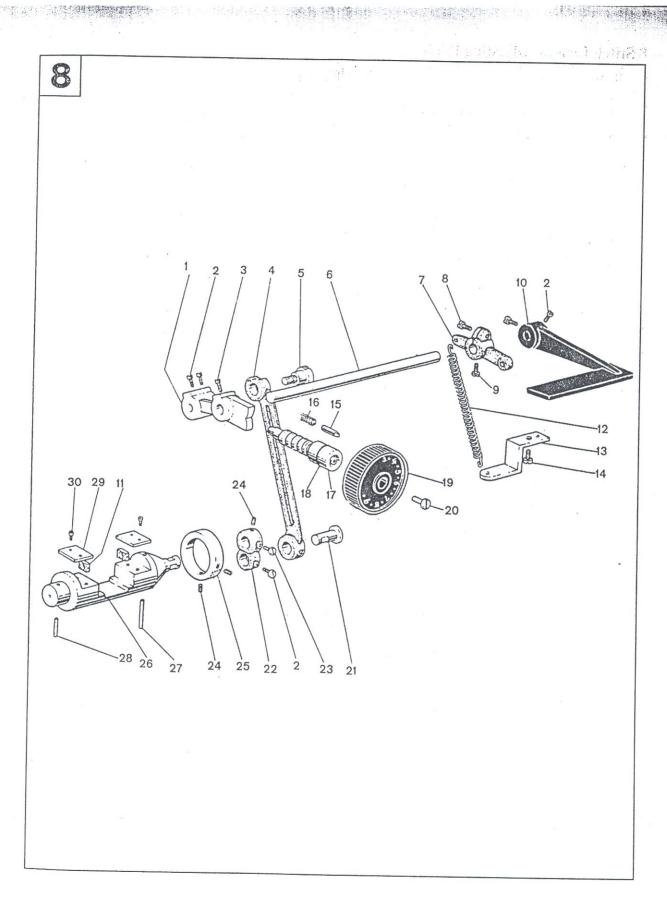
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7. SS20606-1 Rock Shaft And Thread Looping Parts

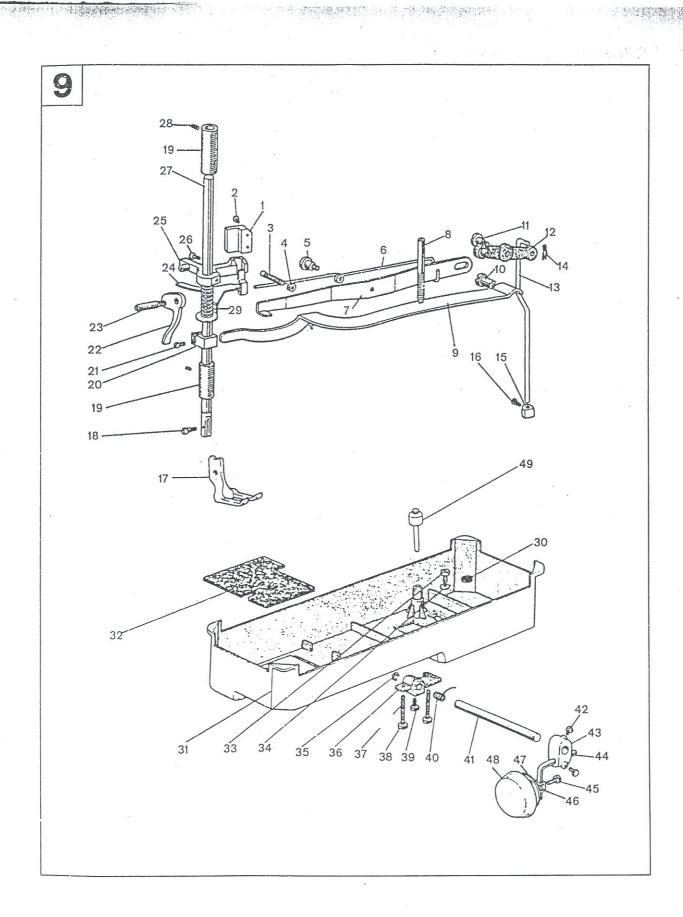
Item	Description	Part number	Pcs
1.	Right hook saddle	1WF2-063	1
2.	Screw	1WF2-060	1
3.	Upper bushing of hook saddle	1WF2-059	1
4.	Lower bushing of hook saddle	1WF2-061	1
5.	Hook assembly	1WF2-064	1
6.	Bobbin	1WF2-065	-1
7.	Oil wick	1WF2-070	1
8.	Hinge shaft	1WF?-069	1
9.	Screw	1WF2-072	1
10.	Connecting lever	1WF2-071	1
11.	Thread finger bracket	1WF2-075	. 1
12.	Screw	1WF5-026	1
13.	Washer		1
14.	Thread finger	1WF2-076	1
15.	Spring washer		1
16.	Nut	1WF2-074	1
17.	Bushing	1WF2-062	1
18.	Set screw	1WF2-034	1
19.	Washer		1
20.	Tension screw for hook saddle	1WF2-033	1
21.	Bushing	1WF2-077	1
22.	Adjusting nut	1WF2-067	1
23.	Adjusting screw	1WF2-066	1
24.	Screw	1WF2-044	1
25.	Screw	1WF2-052	1
26.	Spiral gear	1WF2-078	4
27.	Screw	1WF2-009	2
28.	Spiral gear	1WF2-079	1
29.	Feed link	1WF2-055	1
30.	Left bushing for rock shaft	1WF2-035	1
31.	Oil wick	1WF2-036	1

Item	Description	Part number	Pcs
32.	Rock shaft	1WF2-056	1
33.	Feed dog lift cam	1WF2-006	1
34.	Set screw	1WF2-019	1
35.	Right bushing for rock shaft	1WF2-057	1
36.	Oil wick	1WF2-058	1 .
37.	Split stop ring	Made to paternat regula	1
38.	Spring	1WF4-041	- 1
39.	Button	1WF4-042	1
40.	Set screw	1WF4-010	2
41.	Feed cam	1WF4-011	1
42.	Feed link	1WF4-012	1
43.	Needle bearing		1
44.	Spring stop ring		1
45.	Middle bushing assembly for rock shaft	1WF2-055	1
46.	Rear bushing for rock shaft	1WF2-051	1
47.	Screw	1WF2-009	1.
48.	Set screw	1WF2-052	1
49.	Ball bearing for rock shaft		1
50.	Bearing press ring	1WF2-050	1
51.	Set screw	1WF2-049	3
52.	Oil wick	1WF4-044	1
53.	Feed link pin	1WF4-043	1
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8. Stitch Length Adjusting Parts

Item	Description	Part number	Pes
1.	Stitch length adjusting swing lever	1WF4-025	1
2.	Screw	1WF4-030	5
3.	Set screw	IWF4-026	1
4.	Stitch length link	1WF4-014	1
5.	Stitch length link eccentric shaft	1WF4-028	1
6.	Reverse sewing shaft	1WF4-046	1
7.	Reverse sewing crank	1WF4-047	1
8.	Tension screw	1WF4-027	1
9.	Set screw	1WF4-021	1
10.	Reverse sewing lever	1WF4-048	1
11.	Sliding block	1WF4-040	2
12.	Spring	1WF4-049	1
13.	Spring holder	1WF4-050	1
14.	Screw	1WF4-051	1
15.	Stop pin	1WF4-024	1
16.	Pin spring	1WF5-006C3	1
17.	Stitch length adjusting bolt	1WF4-023	1
18.	0-gasket		1
19.	Stitch length dial	1WF4-022	1
20.	Screw	1WF5-009	1
21.	Stitch length adjusting crank shaft	1WF4-013	1
22.	Stitch length adjusting crank	1WF4-015	1
23.	Tension screw	1WF2-038	1
24.	Set screw	1WF4-016	3
25.	Collar	1WF4-053	1
26.	Reverse sewing adjusting stand	1WF4-057	1
27.	Oil wick	1WF4-045	1
28.	Oil wick	1WF4-039	1
29.	Sliding block guide	1WF4-056	2
30.	Tension screw	1WF1-011	4

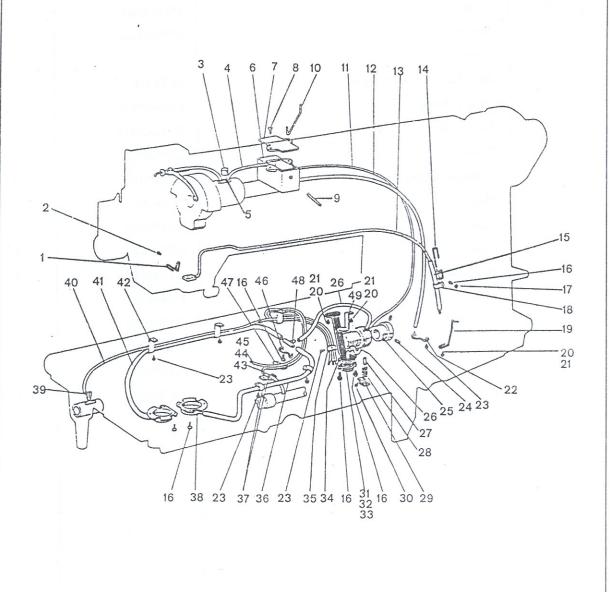


9.Presser Foot Lift Parts

Item	Description	Part number	Pcs
1.	Sliding block rail	1WF5-040	1
2.	Screw	1WF5-039	2
3.	Screw	1WF3-011	1
4.	Nut	1WF3-010	1
5.	Screw	1WF3-013	1
6.	Spring	1WF3-014	1
7.	Knee lift lever	1WF3-012	1
8.	Pressure adjusting screw	1WF3-015	1
9.	Pressure bar spring lever	1WF3-016	1
10.	Screw	1WF3-018	1
11.	Screw	1WF3-017	1
12.	Knee control crank assembly	1WF3-019	1
13.	Knee lift prop rod	1WF3-021	1
14.	Split pin	1WF3-020	1
15.	Stop collar	1WF3-024	1
16.	Screw	1WF3-025	1
17.	Presser foot	1WF3-001(9WF3-001)	1
18.	Set screw	1WF3-002	1
19.	Bushing for presser bar shaft	1WF3-004	2
20.	Spring lever holder	1WF3-005	1
21.	Screw	1WF2-006	1
22.	Presser foot lift lever	1WF3-023	1
23.	Screw	1WF3-022	1
24.	Thread releasing lever	IWF3-007	1
25.	Presser bar guide	1WF3-008	1
26.	Tension screw	1WF3-009	1
27.	Presser bar	1WF3-003	1
28.	Screw	1WF3-023	2
29.	Spring	IWF3-006	1
30.	Magnet	22T9-012	1
31.	0il reservoir	58F0-001A1	1
32.	Oil gasket	58F0-001	1

Item	Description	Part number	Pcs
33.	Screw	22T9-001A2	1
34.	Washer	22T9-001A3	1
35.	Retain ring		1
36.	Knee lifter stop bracket	1WF3-028	1
37.	Adjust screw	22T9-001A9	1
38.	Adjust nut	22T9-001A10	1
39.	Screw	22T9-007C2	1
40.	Position spring	22T9-001A7	1
41.	Hinge pin	1WF3-027	1
42.	Screw	22T9-003B4	1
43.	Connector	22T9-003B3	1
44.	Bent rod	22T9-003B2	1
45.	Screw	22T9-003B7	1
46.	Knee lifter bell bracket	22T9-003B6	1
47.	Bell	22T9-003B5	1
48.	Pat	22T9-003B8-	1
49.	Knee lifter prop ear	1WF3-026	1

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10. SS20606 Lubrication Parts

Item	Description Description	Part number	Pcs
1.	Oil felt press spring	1WF6-001	1
2.	Screw	1WF6-034	1
3.	Oil felt	1WF6-003	1
4.	Oil pipe	1WF6-005A	1
5.	Oil wick	1WF6-004	1
6.	Oil cup	1WF6-007	1
7.	Oil cup cover	1WF6-008	
8.	Screw		1
9.	Spring pin	1WF6-009	2
10.	Wick press spring	1WF6-006	1
11.	Oil pipe	1WF6-010	1
12.		1WF6-011	1
13.	Oil drain pipe Oil wick	1WF6-002	1
14.	Oil pipe position finger	1WF6-013	1
15.	Needle bar oil return pipe	1WF6-012	1
16.	Screw	1WF6-024	10
17.	Washer		
18.	Oil pipe clamp	1WF6-042	
19.	Oil pipe set spring	1WF6-014	1
20.	Screw	IWF1-011	
21.	Washer	22T1-007	4
22.	Oil pipe end clamp	1WF6-021	1
23.	Screw	1WF1-026	8
24.	Screw	1WF2-053	2
25.	Bushing	I WF2-054	1
26.	Oil pipe	1WF6-027	2
27.	Plunger	1WF6-025	1
28.	Spring	1WF6-024	1
29.	Braket for spring	1WF6-023	1
30.	Screw	1WF6-026	1
31.	Oil filter	1WF6-018	1
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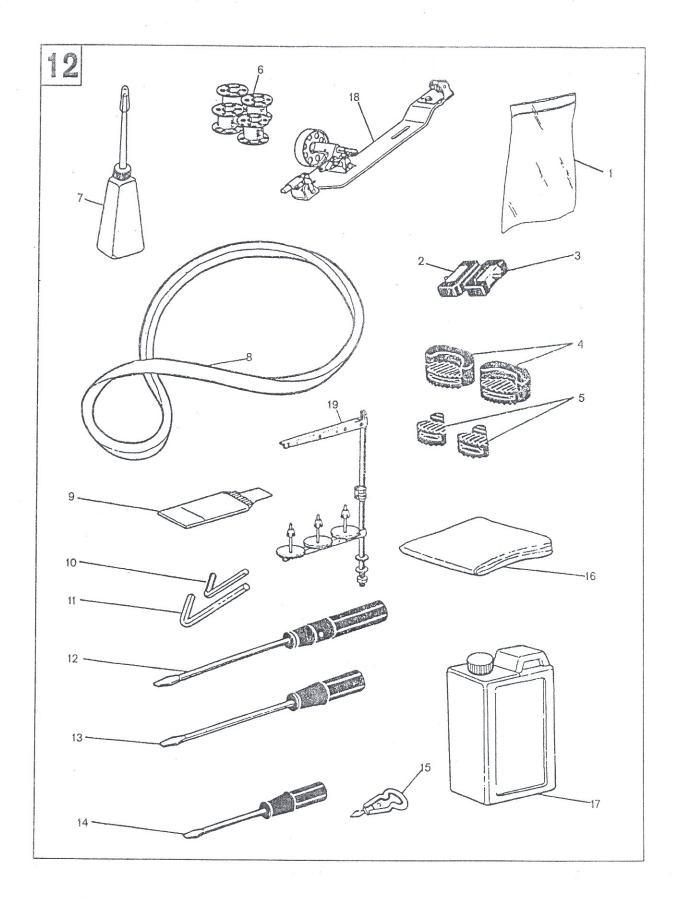
Item	Description	Part number	Pcs
32:	Washer	1WF6-019	1
33.	Filter screw	1WF6-020	1
34.	Oil filter bracket	IWF6-017	1
35.	Oil pipe clamp	IWF6-028	1
36.	Oil pipe	IWF6-035	1
37.	Pipe clamp	1WF6-036	3
38.	Oil tray assembly	1WF6-038	2
39.	Oil wick	1WF6-041	1
40.	Oil pipe	1WF6-040	1
41.	Oil pipe	1WF6-039	1
42.	Pipe clamp	1WF6-034	3
43.	0il pipe	1WF6-032	2
44.	Oil wick	1WF6-037	1
45.	Oil wick	1WF6-033	1
46.	3-nozzle oil mouth bracket	1WF6-030	1
47.	Oil pipe clamp	1WF6-031	1
48.	3-nozzle oil mouth bracket	1WF6-029	1
49.	Oil filter bracket	1WF6-015	1
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11. SS20606-1 Lubrication Parts

Item	Description	Part number	Pcs
1.	Oil felt press spring	1WF6-001	1
2.	Screw	1WF6-034	1
3.	Oil felt	1WF6-003	1
4.	Oil pipe	1WF6-005A	1
5.	Oil wick	1WF6-004	1
6.	Oil cup	1WF6-007	1
7.	Oil cup cover	1WF6-008	1
8.	Screw		2
9.	Spring pin	1WF6-009	1
10.	Wick press spring	1WF6-006	1
11.	Oil pipe	1WF6-010	1
12.	Oil drain pipe	1WF6-011	1
13.	Oil wick	1WF6-002	1
14.	Oil pipe position finger	1WF6-013	1
15.	Needle bar oil return pipe	1WF6-012	1
16.	Screw	1WF6-024	10
17.	Washer		1
18.	Oil pipe clamp	1WF6-042	1
19.	Oil pipe set spring	1WF6-014	1
20.	Screw	1WF1-011	4
21.	Washer	22T1-007	4
22.	Oil pipe end clamp	1WF6-021	1
23.	Screw	1WF1-026	8
24.	Screw	1WF2-053	2
25,	Bushing	1WF2-054	1
26.	Oil pipe	IWF6-027	2
27.	Plunger	1WF6-025	I
28.	Spring	IWF6-024	1
29.	Braket for spring	1WF6-023	1
30.	Screw	IWF6-026	1
31.	Oil filter	1WF6-018	1

Item		Description	Part number	Pcs
32.	Washer		1WF6-019	1
33.	Filter screen	7	1WF6-020	1
34.	Oil filter bracket		1WF6-017	1
35.	Oil pipe clamp	9	1WF6-028	1
36.	Oil pipe		1WF6-035	1
37.	Pipe clamp	,	1WF6-036	3
38.	Oil tray assembly		1WF6-038	2
39.	Oil wick		1WF6-041	1
40.	Oil pipe		1WF6-040	1
41.	Pipe clamp		1WF6-034	3
42.	Oil pipe		1WF6-032	2
43.	Oil wick		1WF6-037	1
44.	Oil wick		1WF6-033	1
45.	Oil pipe clamp		1WF6-031	1
46.	Oil filter bracket		1WF6-015	1

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12.Accessories

Item	Description	Part number	Pcs
1.	Accessories bag	33TF-010	1
2.	Hinge pin	22T9-007F1	2
3.	Hinge pin socket	22T9-007F2	2
4.	Cushion	22T9-009	2
5.	Cushion	22T9-010	2
6.	Bobbin	1WF2-065	4
7.	Oil pot	33TF-011	1
8.	V-belt	33TF-016	1
9.	Needle	1F-009	1包
10.	Hex key	1F-011	1
11.	Hex key	1F-010	1
12.	Screwdriver	33TF-012	1
13.	Screwdriver	33TF-013	1
14.	Screwdriver	33TF-014	1
15.	Thread tweezer assembly	58T0-007C	1
16.	Arm cover	22T9-018	.1
17.	0il tank	1F-012	1
18.	Bobbin winder	S14420020	
19.	Thread stand	1F-014(33TF-019)	
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