

GLOBAL

WF 975

**CYLINDER-BED UNISON
FEED SEWING MACHINE**

**INSTRUCTION MANUAL
CATALOG**

1.PRECAUTIONS BEFORE STARTING OPERATION:

- 1、 Do not operate the machine before lubricating it;
- 2、 When a new sewing machine is first turned on, verify the rotational direction of the pulley with the power on (the pulley should rotate counterclockwise when viewed from pulley) ;
- 3、 Verify the voltage and (single or three)phase with those given on the machine nameplate.

2.SAFETY PRECAUTIONS:

- 1、 When turning the power on, keep your finger away from the underside of the needle;
- 2、 Do not insert fingers into the thread take-up cover, under/around the needle, or pulley when the machine is in operation;
- 3、 Power must be turned off before titling the machine head, installing or removing the V belt, adjusting the machine or when replacing;
- 4、 Avoid placing fingers, hairs, bars etc. near the pulley, V belt, bobbin winder pulley, or motor when the machine is in operation. Injury could result;
- 6、 Avoid using the machine in dusty conditions.

3.SPECIFICATION:

Max. Speed	2000rpm	
Needle	DP×17 22#	
Max. Stitch length	5mm	
Presser bar lift	By hand	8mm
	By knee	14mm

4.PRECAUTIONS FOR SEWING OPERATE:

(1) Cleaning the machine

Before leaving the factory, the machine parts are coated with rust-preventive grease, which may be hardened and contaminated by dust during storage and shipment. This grease must be removed with gasoline.

(2) Examination

Though every machine is confirmed by strict inspection and test before leaving the factory, the machine parts may be loosen 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-in operation.

(3) Lubrication (fig.1、fig.2、fig.3、fig.4)

When a new sewing machine is first operated, or when a sewing machine is operated which is out of use for long period of time, it will be necessary to oil through the oil holes after removing the rubber plugs shown below.

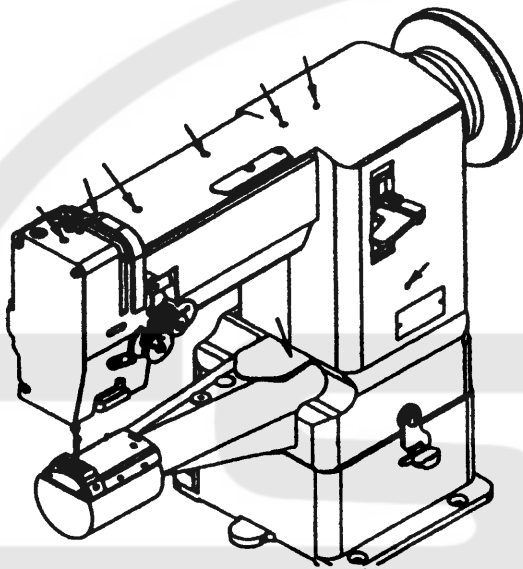


Fig.1

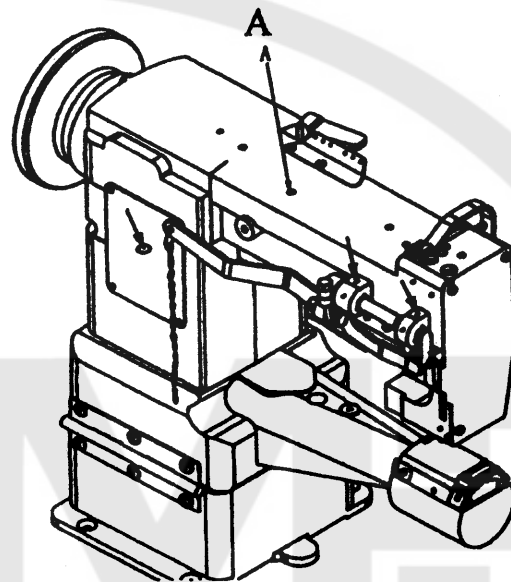


Fig.2

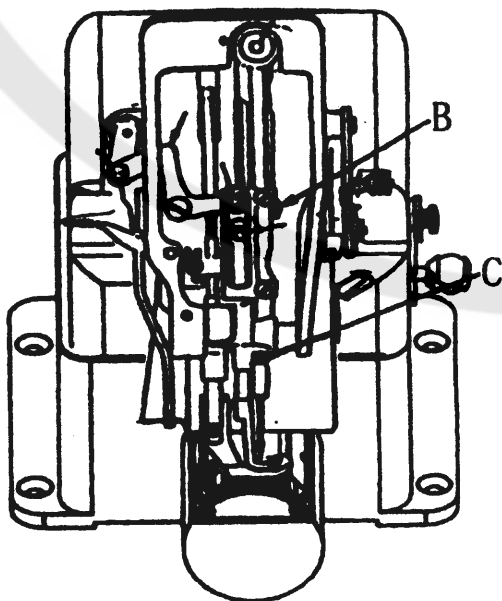


Fig.3

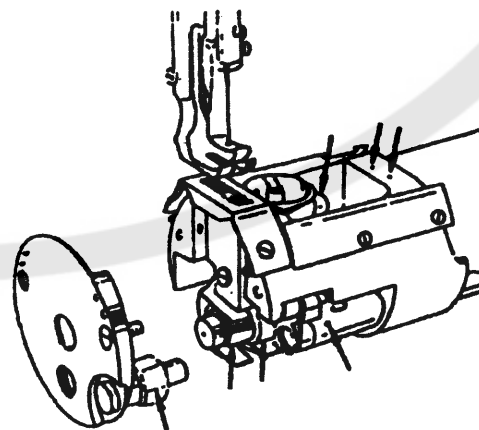


Fig.4

(4) Broken-in

It is imperative that for the first several weeks of operation the max. Speed is held at less than 1600rpm in order to allow the parts to become properly broken-in.

5.NEEDLE:(Fig. 5)

Use DP×17 #22. The size of the needle to be used should be determined by the size of the thread, which must pass freely through the eye of the needle.

(1) Removing the needle bar to the highest position;

(2) Loosen the needle screw, insert the needle up to the bottom of needle clamp. Keep the long groove side of needle forward the left.

(3) tighten the screw.

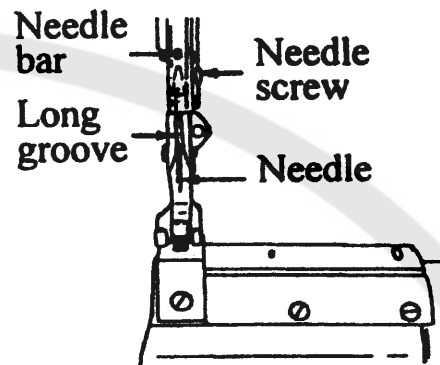


Fig.5

6.WINDING THE LOWER THREAD: (FIG. 6)

(1) Push a bobbin on the bobbin winder spindle(3) as far as it will go;

(2) Bring the thread forward toward the bobbin and wind from blow in clockwise direction several times around the bobbin;

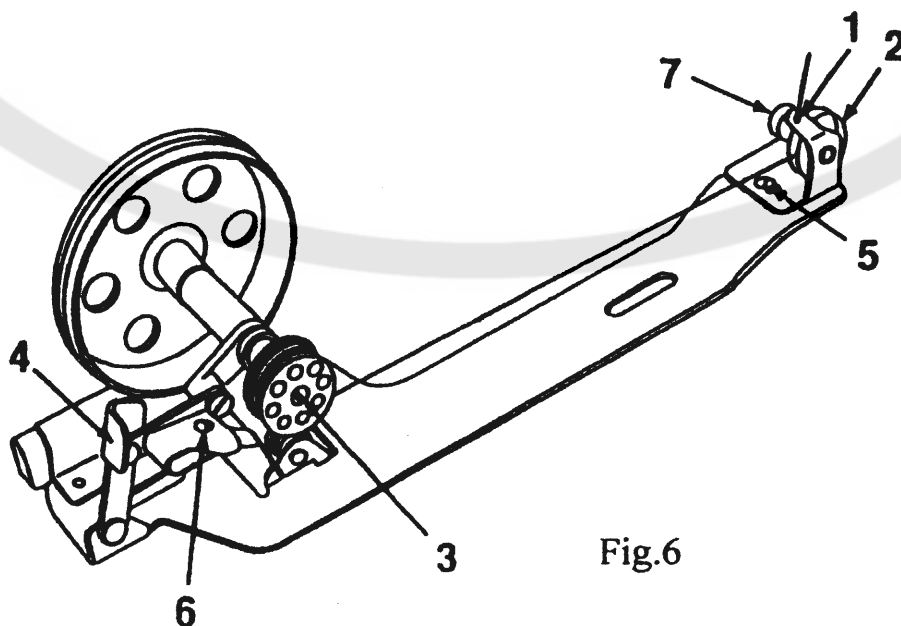


Fig.6

(3) push the lever 4 toward other side so that the pulley and V belt will engage and then start the machine;

(4) The pulley will automatically be free from the belt and stopped after the bobbin is filled with thread.

7.ADJUSTMENT OF THE BOBBIN WINDER:

(1) In case of uneven winding:

Loosen the screw 5 in the tension bracket and move the bracket to the right or to the left as may be required;

(2) Winding amount of thread:

Adjustment screw 6 can be turned in or out to increase or to decrease the amount of thread wound on the bobbin;

(3) Winding strength:

Strength of the winding can be adjusted with the nut 7.

8.REMOVING AND INSERTING THE BOBBIN: (Fig.7)

1.Take out the bobbin: open the cover, take out the bobbin;

Install the bobbin: replace the bobbin to the bobbin case, pull the thread to the left.

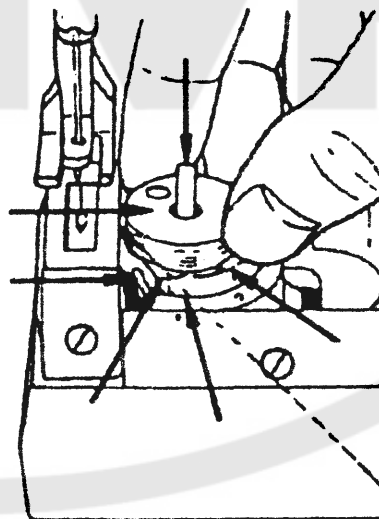


Fig.7

9.THREADING: (Fig. 8)

Raise the needle bar to its highest position and thread the upper thread in the following order:

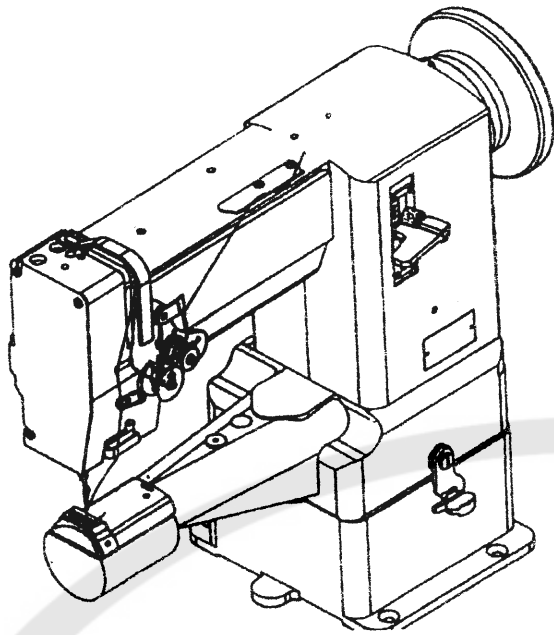


Fig.8

Well balanced stitch



Upper thread is too strong
Or lower thread is too weak



Lower thread is too strong
Or upper thread is too weak



Fig.9

10.ADJUSTING OF THREAD TENSION: (Fig. 9)

For ordinary stitching, the tension of the upper and the lower threads should be equal.

(1) Tension of upper thread:

Before adjusting the tension of the upper thread, it should be certain that the presser foot is let down but not in other position. To adjust tension, turn serrated nut on tension device to the right to increase tension and to the left if you desire to decrease it.

(2) tension of the lower thread:

Turning the larger screw to the right (clockwise) will increase the thread tension, while turning it to the left (counter-clockwise) will decrease it.

11.ADJUSTING THE PRESSURE OF PRESSER FOOT: (Fig.2)

Pressure of the presser foot can be adjusted by turning the pressure regulating thumb screw (fig. 2 A) .

To increase the pressure, turn the screw to the right and to left if you decrease the pressure.

12.STITCH LENGTH & REVERSING LEVER: (Fig.10)

Stitch length can be set by adjusting the stitch adjustment bar.

For desired stitch length, push the stitch adjustment bar downward.

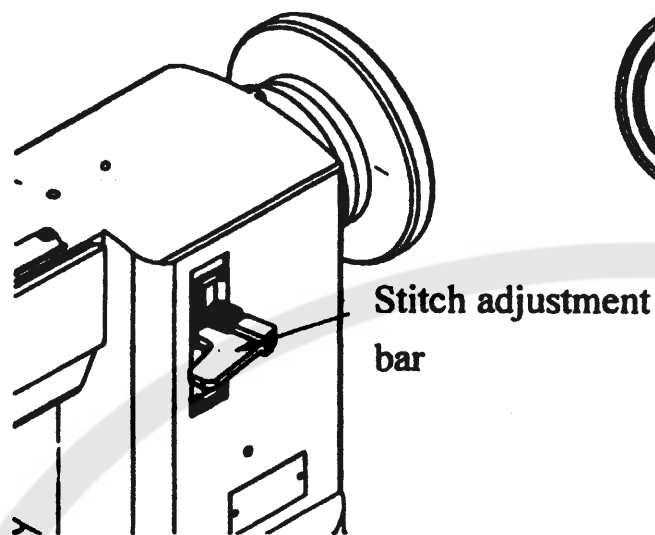


Fig.10

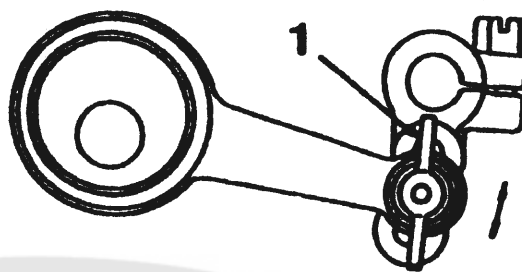


Fig.11

13. ADJUST THE LIFT OF THE ALTERNATING PRESSER FOOT: (Fig. 11)

To alter lift, loosen the wing nut 1 and move the link and stud assembly along the slot-move up to raise the feeding presser foot and push down to lower this foot. Tight wing nut upon completion of adjustment.

14. RE-SET THE SAFETY CLUTCH MECHANISM: (Fig. 12)

(1) Removing any foreign matter may have lodged itself in the hook. Do not use any sharp-edged tools.

(2) Depress button B, turn the pulley clockwise until the locking mechanism re-engages.

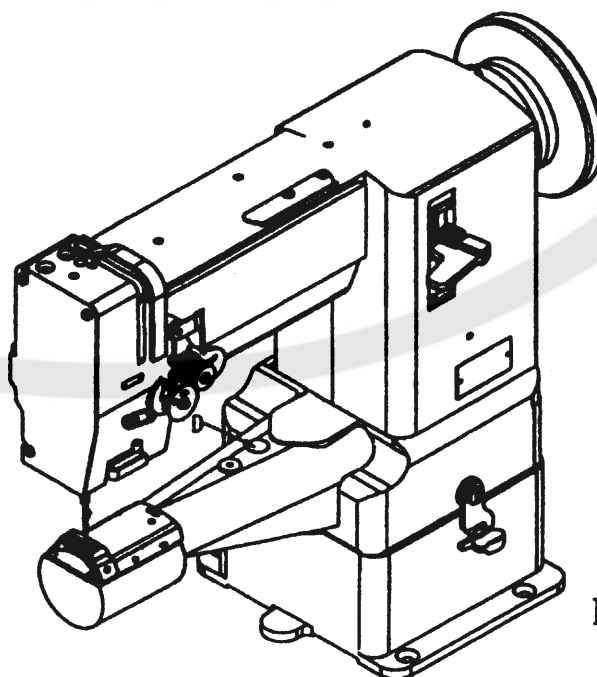


Fig.12

15. ADJUSTMENT THE HEIGHT OF THE FEED DOG:

(Fig.13)

The max. Height of the feed dog 1 from the surface to the needle plate 2 is normally 1mm.

To adjust this height:

- 1、 Lay down the machine head toward the other side, and turn the pulley so as to raise the feed dog to it highest position;
- 2、 Loosen bell crank screw and adjust the height of the feed dog by raising or lowering it.
- 3、 Tighten the screw after adjustment.

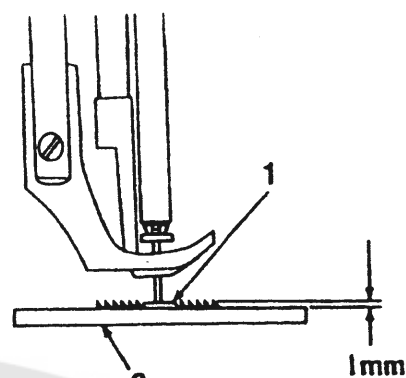


Fig.13

16.RELATIVE POSITION OF THE FEED DOG TO NEEDLE PLATE(Fig. 14):

- 1、 Set the stitch length at minimum;
- 2、 Turn the pulley so as to raise the feed dog to its highest point;
- 3、 Lay down the machine head toward the other side, loosen the screw(E);
- 4、 Adjust the needle plate to the center of the needle hole on the feed dog;
- 5、 Tighten the screw.

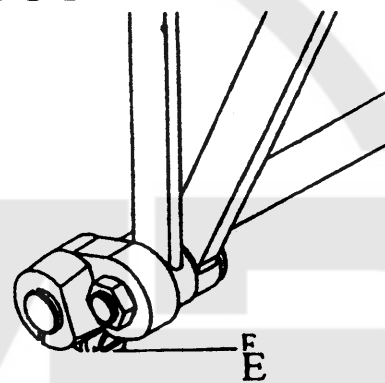


Fig.14

17.ADJUSTING THE HEIGHT OF THE NEEDLE BAR(Fig.15):

When the needle bar is at its highest position, normally the measurement between the surface of the needle plate and the upper end of the needle eye is 22.3mm. You can adjust this at its lowest position. In this case, normally the measurement between the surface of the needle plate and the upper end of the needle eye is 11mm. To adjust this, loosen screw (B.fig.3), and raise or lower the needle bar as may be required. Then tighten the screw.

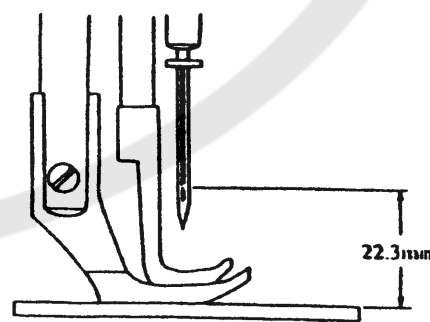


Fig.15

18.ADJUSTING THE HEIGHT OF THE PRESSER FOOT:

- 1) Adjustment by the presser bar lifter:

Loosen the screw(1.fig.16), raise the presser bar lifter and loosen the set screw(2.fig.16) ,move the lifting presser foot up or down as may be required so as to get the correct height and tighten screws.

2) Adjusting the lift of alternating presser foot

If the height of the lifting presser foot changes, the momentums of the lifting and vibrating presser foot vary, thus the height of the vibrating presser foot must be adjusted. Lower the presser bar lifter, holding the vibrating presser foot and loosen the screw(3.fig.16) and move the presser foot up or down as may be required. After setting the position, tighten the screw.

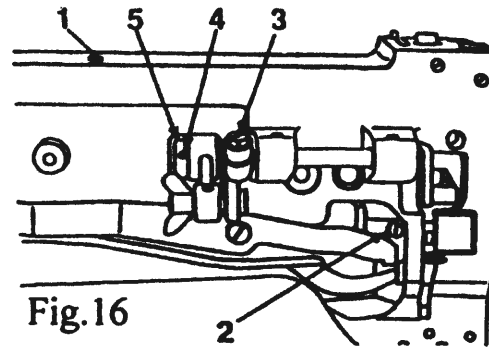


Fig.16

19.TIMING OF THE VIBRATING PRESSER FOOT (Fig.16)

This is the normal timing when turn the pulley toward you, after lowering the presser bar lifter, the vibrating presser foot should reach the feed dog earlier than the needle eye comes to, and when the needle raises, the vibrating presser foot should leave the feed dog after the needle eye has left the feed dog. This is due the reason that the vibrating presser foot must tightly hold the goods while the needle is passing the goods for avoiding irregular stitches. To adjust this, set the lift of the alternating presser feet to equal, loosen the two screws(4, fig.16) and adjust the rotating position of the cam faster or slower as may be desired, and tighten the screws.

Adjusting the thread take-up spring (fig.17)

Normally, the thread take-up spring should hold slack of the upper thread until the needle reaches to the goods, and it should pause while raising of the needle and passing the upper thread through the bobbin case.

1. For more control action on the thread:

Loosen the stop screw 2, move the stop 3 to the right (for less action, move to left). Tighten the screw.

2. To adjust the tension spring:

Loosen the nut 4 and screw 5, turn the tension stud 6 slightly to the left to strengthen the tension(to lighten the tension, turn to the right) with a screw driver. Tighten the screw and nut upon completion of adjustment.

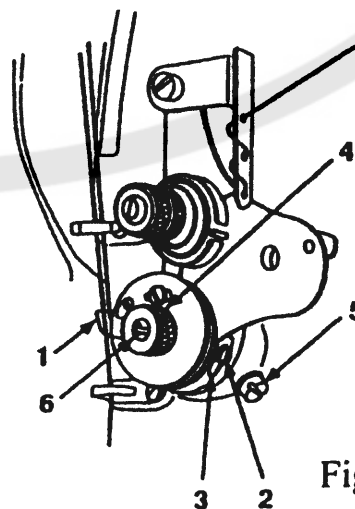
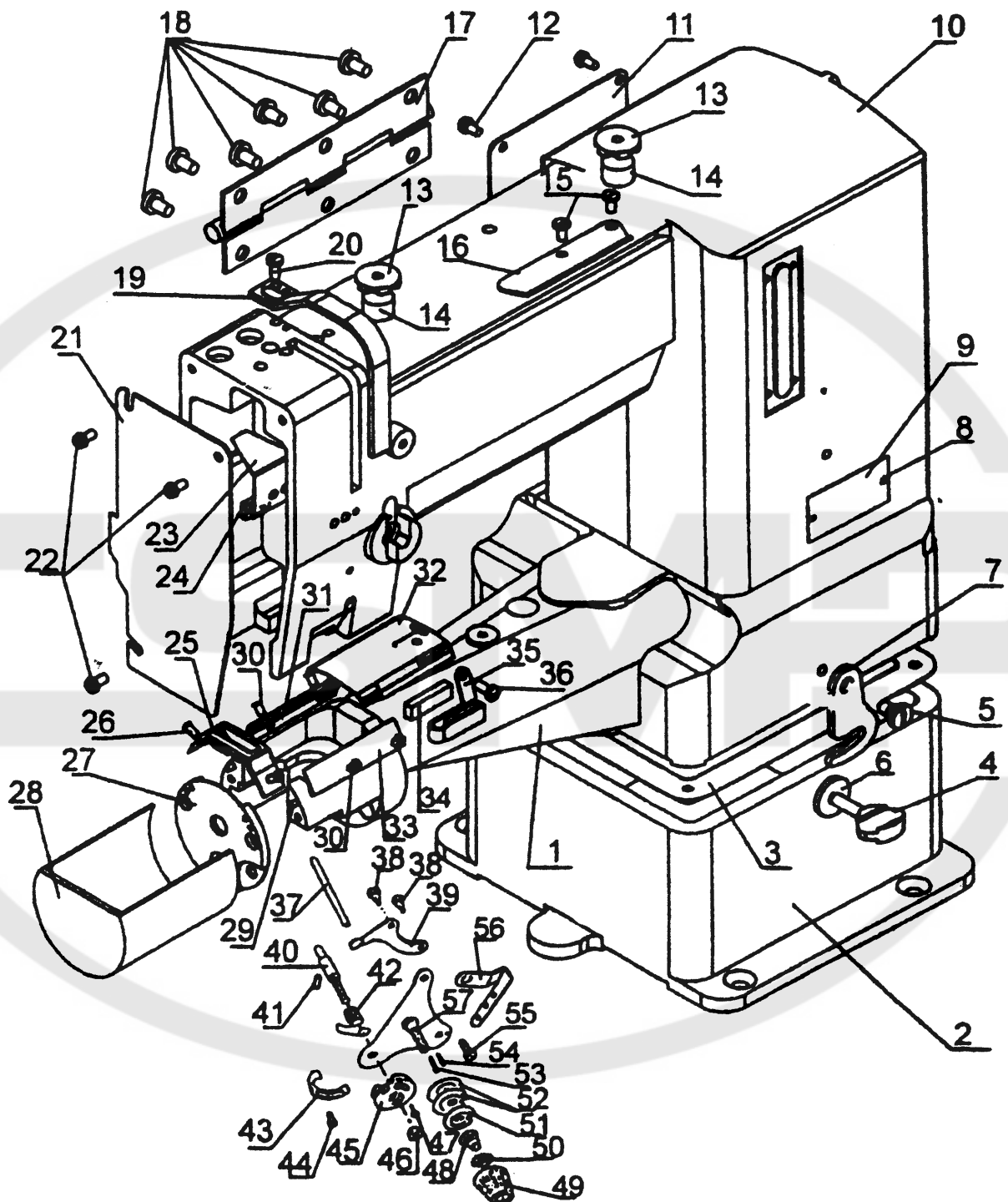


Fig.17

1. ARM BED AND ITS ACCESSORIES



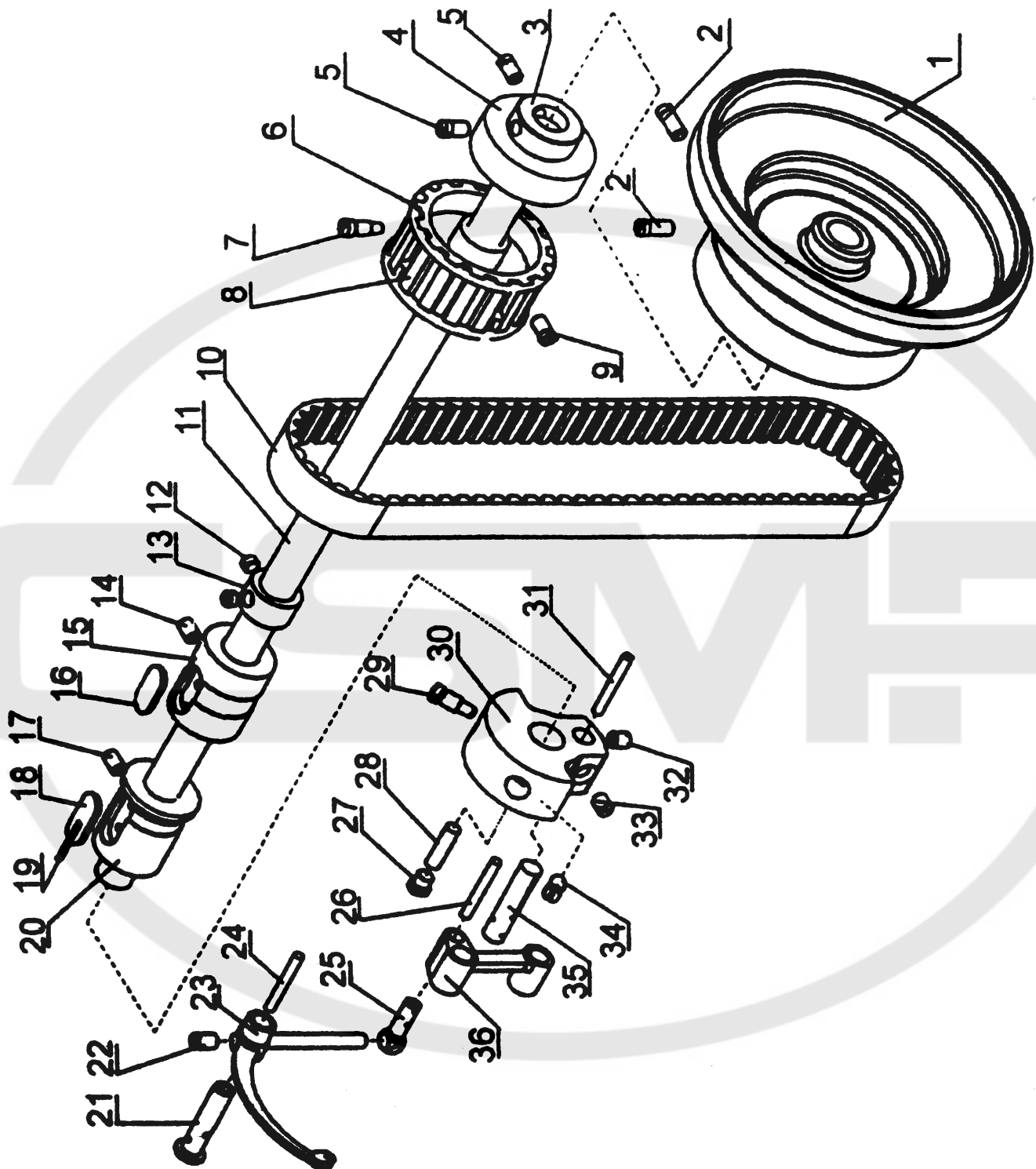
1、ARM BED AND ITS ACCESSORIES

A01	41H1-003B2	Arm bed	1	
A02	41H1-004C2	Supporter	1	
A03	41H1-005	Oil reservoir	1	
A04	41H1-008	Set screw	1	
A05	41H1-007	Set screw	1	
A06	41H1-009	Washer	1	
A07	41H1-006	Link plate	1	
A08	41H1-013	Trade mark plate	1	
A09	GB827-86	Trade mark plate rivet	6	
A10	41H1-002A2b	Arm	1	
A11	41H1-016	Arm side cover	1	
A12	72T1-017	Arm side cover screw	4	
A13	24H9-001	Oil wick	2	
A14	24H9-002	Oil cap	2	
A15	82T1-006	Set screw	2	
A16	24H1-010	Thread guide	1	
A17	41H1-010	Hinge	1	
A18	41H1-011	Set screw	6	
A19	31H1-006	Thread take-up guard	1	
A20	72T1-016	Set screw	1	
A21	31H1-003C1	Face plate	1	
A22	72T1-017	Set screw	3	
A23	24H1-005	Oil guard	1	
A24	24H1-006	Plate for oil guard	1	
A25	41H1-025	Needle plate	1	
A26	41H1-018	Set screw	2	
A27	41H1-024	Stop plate	1	
A28	41H1-019D2	Cover	1	
A29	GB119-86	Stop plate pin	2	A3×10
A30	41H1-018	Set screw	4	
A31	41H1-022	Needle guide plate (right)	1	
A32	41H1-020E	Slide plate		
A33	41H1-021	Needle guide plate (left)	1	
A34	31H1-005E2	Felt	1	
A35	31H1-005E1	Thread guide	1	
A36	73T2-007	Set screw	1	

1、ARM BED AND ITS ACCESSORIES

A38	25H2-001A10	Set screw	2	SM9/64" (3.57) × 40
A39	31H1-008F4	Thread tension disk	1	
A40	25H2-001A2	Set screw	1	
A41	72T1-008	Set screw	1	
A42	31H1-008F2	Thread take-up spring	1	
A43	32H1-018D19	Spring stop	1	
A44	32H1-018D8a11	Set screw	1	
A45	25H2-001A4	thread controller disc	1	
A46	25H2-001A8	Thumb nut	1	
A47	31H1-008F3	Set screw	1	
A48	74T1-004D	Thread tension spring	1	
A49	72T1-007F1	Thumb nut	1	
A50	22T1-012F10	Stop disk	1	
A51	25H2-001A7	Thread tension disk	1	
A52	25H2-001A6	Thread tension disk	2	
A53	25H2-001A12b	Thread tension releasing pin	1	
A54	31H1-008F1a2	Tension bracket pin	1	
A56	31H1-007	Three-hole thread guide	1	
A57	82T2-003C1a6	Set screw	1	

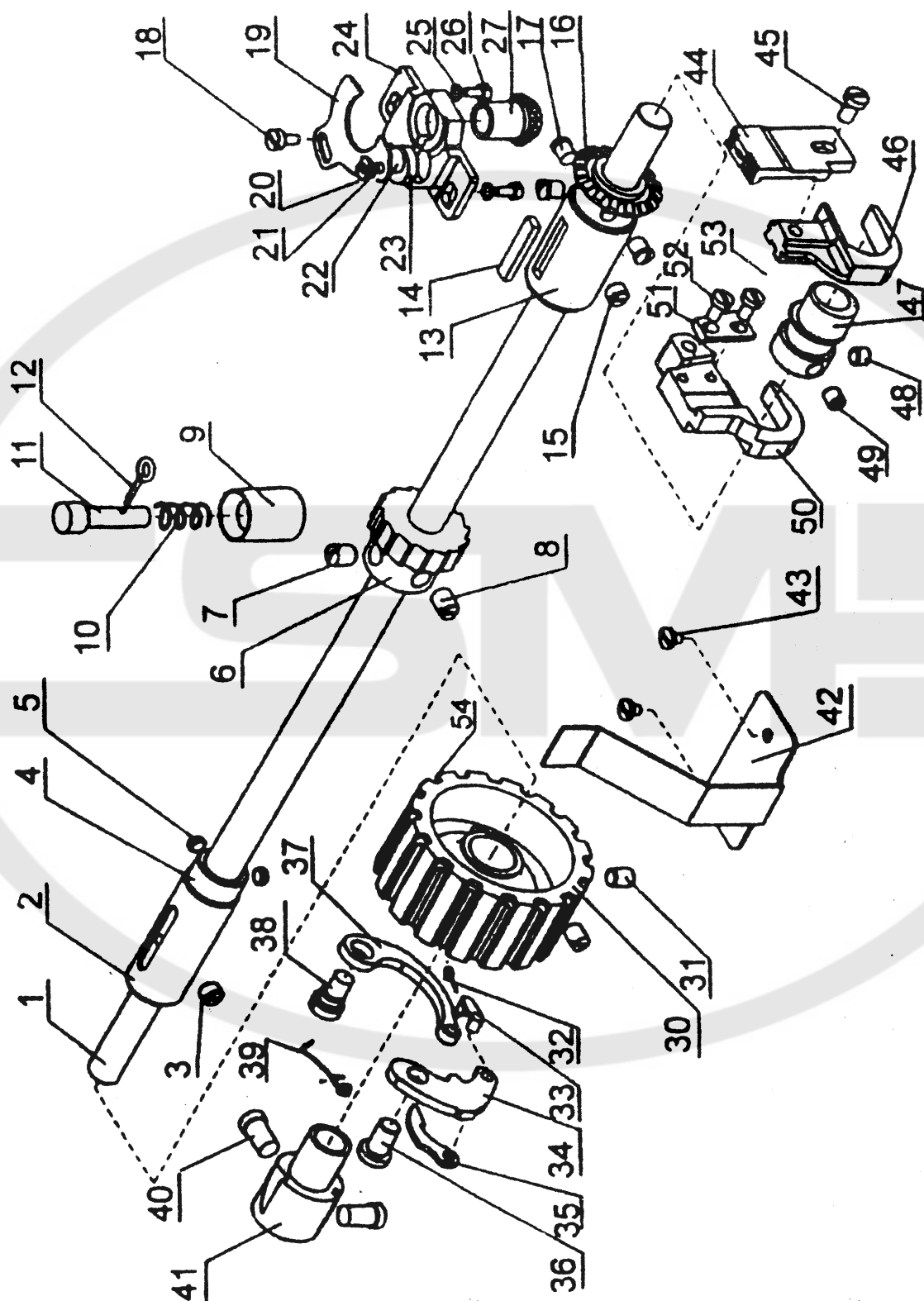
2、 TAKE-UP THREAD AND ARM SHAFT MECHANISM



2、TAKE-UP THREAD AND ARM SHAFT MECHANISM

B01	20H2-004	Balance wheel	1	
B02	22T3-007C2	Set screw	2	SM15/64" (5.95) × 28
B03	32H9-002B1	Arm shaft bushing(right)	1	
B04	32H9-002B2	Bear	1	
B05	22T5-010D4	Set screw	2	
B06	32H2-002B1	Spring washer	2	
B07	22T5-013	Set screw	1	
B08	32H2-002B2a	Pulley	1	
B09	22T5-010D4	Set screw	1	
B10	32H2-003	Belt	1	
B11	41H2-003	Arm shaft	1	
B12	22T3-002B2	Set screw	2	SM1/4" (6.35) × 40/4
B13	22T6-005B1	Collar for arm shaft	1	
B14	22T2-002	Set screw	2	
B15	41H2-002B1	Arm shaft bushing (middle)	1	
B16	32H1-001A2b1	Felt	1	
B17	22T2-002	Set screw	1	
B18	20H1-006J3	Felt	1	
B19	20H1-006J2	Felt	1	
B20	31H1-001A3c1	Arm shaft bushing (left)	1	
B21	31H2-002	Hinge pin	1	
B22	22T3-007C2	Set screw	1	SM15/64" (5.95) × 28/10
B23	31H2-001	Thread take-up lever	1	
B24	31H2-003	Oil wick	1	
B25	31H2-004	Driving stud	1	
B26	31H2-005	Oil wick	1	φ × 30
B27	31H2-013	Oil packing stop screw	1	
B28	31H2-012	Oil wick	1	
B29	22T2-006	Screw	1	SM9/32" (7.14) × 28
B30	31H2-009	Needle bar crank	1	
B31	31H2-008	Oil wick	1	
B32	FLY07-19	Set screw	1	SM1/4" (6.35) × 40/3.75
B33	22T2-005B3	Set screw	1	SM1/4" (6.35) × 40/7
B34	22T2-007	Set screw	1	SM9/32" (7.14) × 28
B35	31H2-007	Hinge pin	1	
B36	31H2-006	Thread take-up pin	1	

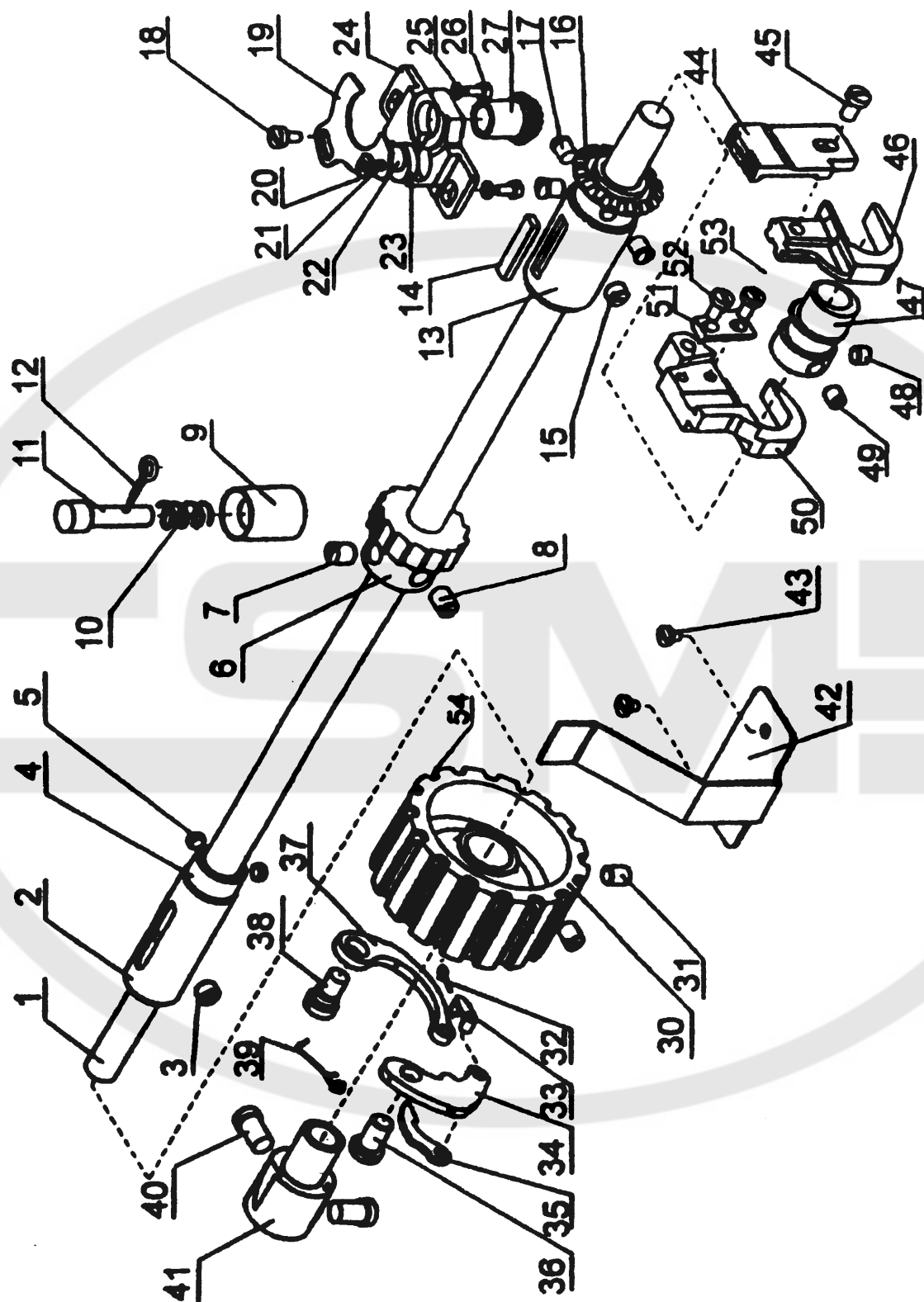
3、ROTATING HOOK SHAFT MECHANISM



3、ROTATING HOOK SHAFT MECHANISM

C01	41H3-001	Rotating hook shaft	1	
C02	41H3-010	Hook shaft bushing(right)	1	
C03	41H3-008	Set screw	1	
C04	41H3-002A1	Collar for hook shaft	1	
C05	41H3-002A2	Set screw	2	
C06	41H3-003B1	Ratchet wheel	1	
C07	22T2-005B3	Set screw	1	
C08	41H3-003B2	Set screw	1	
C09	41H3-004C1	Safe clutch bushing	1	
C10	41H3-004C2	Safe clutch spring	1	
C11	41H3-004C3	Safe clutch shaft	1	
C12	GB91-86	Safe clutch shaft pin	1	
C13	41H3-007	Hook shaft bushing (left)	1	
C14	41H3-009	Felt		
C15	41H3-008	Set screw	1	
C16	41H3-005D1	Bevel gear for hook shaft	1	
C17	41H3-005D2	Set screw	3	
C18	22T2-001A9	Set screw	1	
C19	41H3-013F2b1a1	Guide plate	1	
C20	41H3-013F2b2	Guide plate slide block	1	
C21	41H3-013F2b1a2	Guide plate pin	1	
C22	41H3-013F1a2	Felt	1	
C23	41H3-013F1a3	Felt	1	
C24	41H3-013F1a1	Rotating hook bracket	1	
C25	GB848-85	Washer	2	Washer 5
C26	41H3-014	Set screw	2	
C27	41H3-006	Bevel gear for hook shaft	1	
C28	41H3-012	Rotating position guide	1	
C29	41H3-011E	Rotating hook	1	
C30	41H3-016G1	Pulley	1	
C31	22T2-005B3	Set screw	2	
C32	GB91-86	Pin	1	
C33	41H3-016G9	Link pin	1	
C34	41H3-016G4	Short lever for pulley	1	
C35	41H3-016G6	Lever for pulley	1	
C36	41H3-016G5	Pin	1	

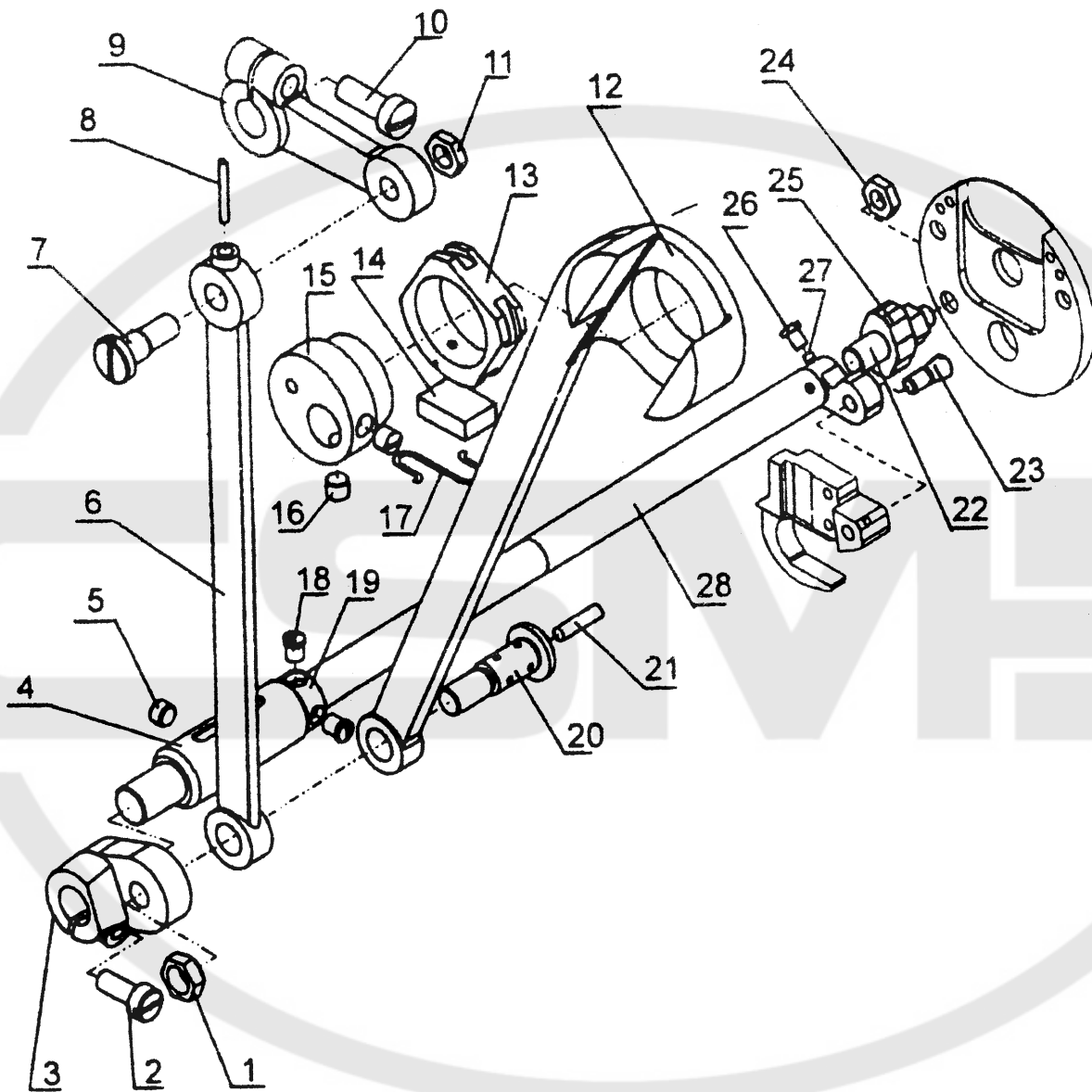
3、ROTATING HOOK SHAFT MECHANISM



C43	22T1-003C6	Set screw	2
C44	41H4-001A1a3	Feed dog	1
C45	41H4-001A1a4	Set screw	1
C46	41H4-001A2	Feed rock shaft crank	1
C47	41H2-001A1	Feed eccentric	1
C48	41H2-001A2	Set screw	1
C49	41H2-001A3	Set screw	1
C50	41H4-001A1a1	Feed lifting rock shaft crank	1
C51	41H4-001A3	Slide block for crank	1
C52	22T1-003C6	Set screw	2
C53	41H4-001A1a2	Felt	1

C43	22T1-003C6	Set screw	2
C44	41H4-001A1a3	Feed dog	1
C45	41H4-001A1a4	Set screw	1
C46	41H4-001A2	Feed rock shaft crank	1
C47	41H2-001A1	Feed eccentric	1
C48	41H2-001A2	Set screw	1
C49	41H2-001A3	Set screw	1
C50	41H4-001A1a1	Feed lifting rock shaft crank	1
C51	41H4-001A3	Slide block for crank	1
C52	22T1-003C6	Set screw	2
C53	41H4-001A1a2	Felt	1

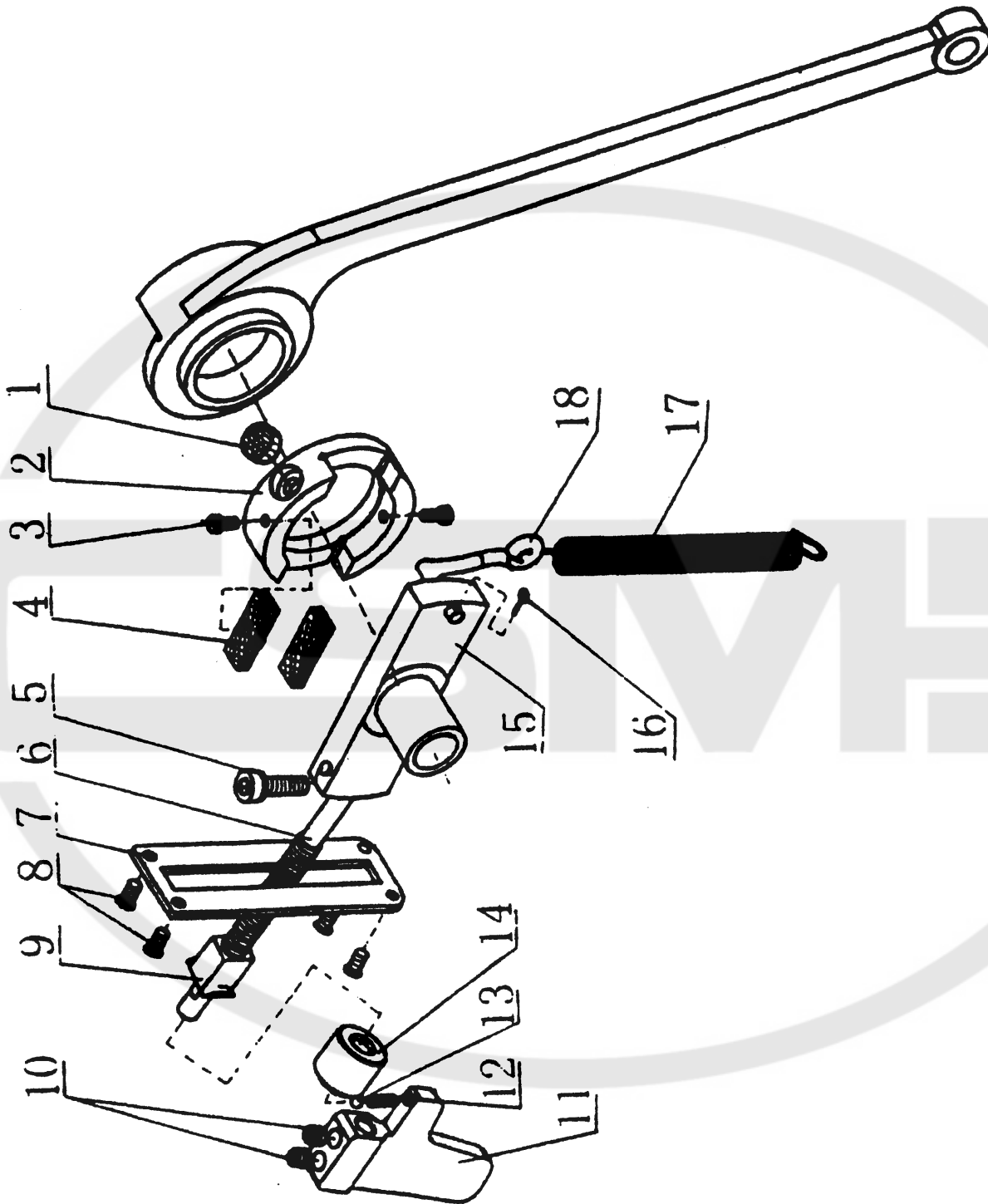
4、FEEDING AND FEED LIFTING MECHANISM



4、FEEDING AND FEED LIFTING MECHANISM

D01	41H4-009E4	Nut	1	
D02	41H4-009E3	Set screw	1	
D03	41H4-009E2	Feed link crank	1	
D04	41H4-010	Feed rock shaft bushing	1	
D05	41H3-008	Set screw	1	
D06	41H4-009E5b1	Crank rock for feed lifting	1	
D07	41H4-009E6	Pin	1	
D08	41H4-009E5b2	Oil wick	1	
D09	41H4-009E7	Crank for feed lifting shaft	1	
D10	41H4-009E8	Set screw	1	
D11	41H4-009E9	Nut	1	
D12	41H4-009E1	Crank rock for feed shaft	1	
D13	41H4-010F1a1	Feeding slide block	1	
D14	41H4-010F1a2	Felt	1	
D15	41H4-010F1b1	Eccentric wheel	1	
D16	22TT2-005B2	Set screw	2	
D17	20H2-003A1a1	Felt clip	1	
D18	41H3-005D2	Set screw	2	
D19	41H3-002A1	Collar for hook shaft	1	
D20	41H4-009E1a1	Pin	1	
D21	41H4-009E1a2	Oil wick	1	
D22	41H4-008D1	Pin	1	
D23	41H4-002	Set screw	1	
D24	41H4-007	Stud	1	
D25	41H4-008D2	Felt	1	
D26	22T1-003C6	Set screw	1	
D27	41H4-003B2	Set screw pin	1	
D28	41H4-003B1	Feed rock shaft	1	

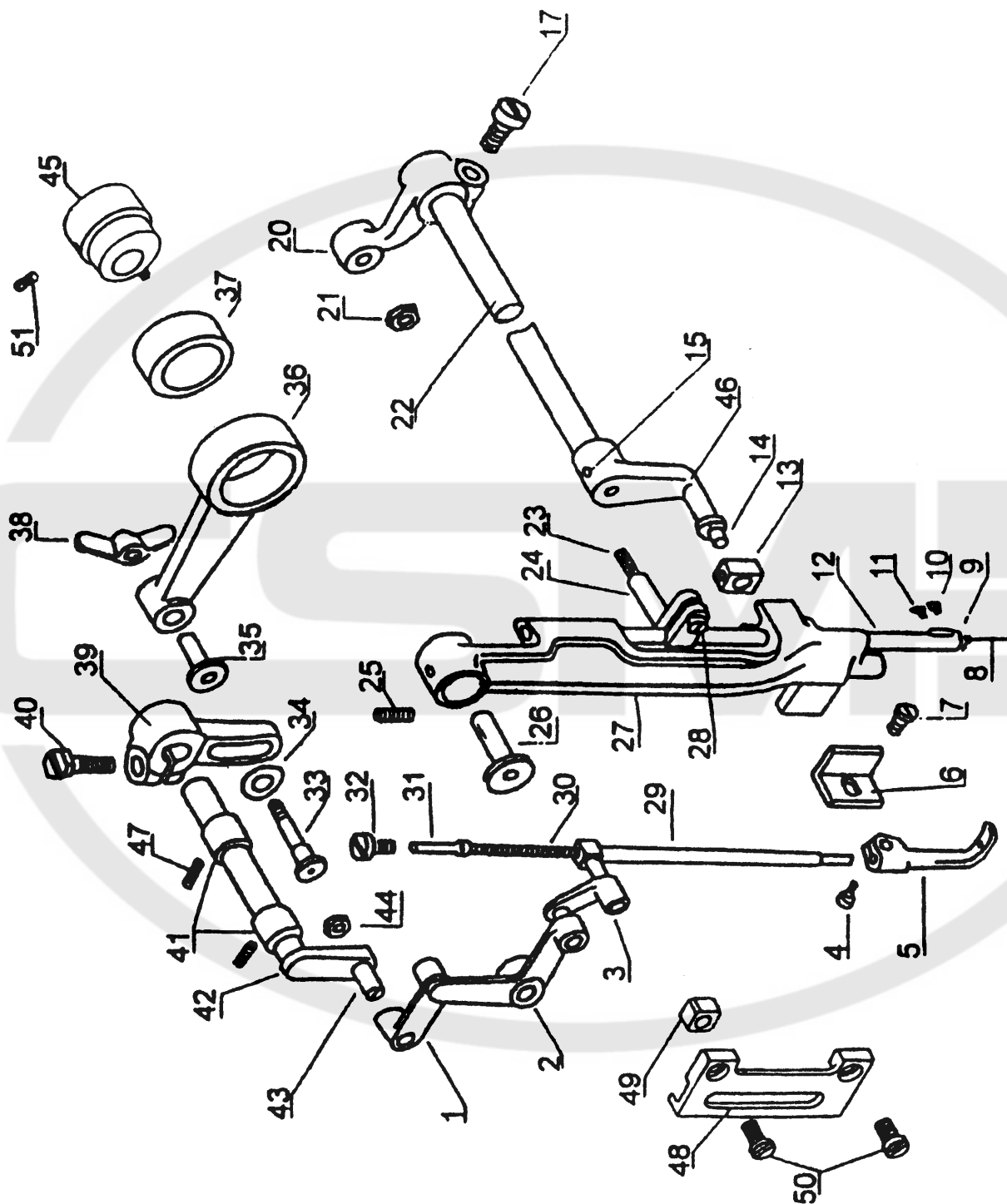
5、 STITCH LENGTH REGULATING MECHANISM



5、STITCH LENGTH REGULATING MECHANISM

E02	41H5-001A1	Collar	1	
E03	22T1-003C6	Set screw	2	
E04	41H5-001A2	Felt (large)	2	
E01	41H5-001A3	Felt	1	
E16	GB91-76	Pin	1	1.5*12
E06	41H5-005C2	Feed regulator screw bar nut	1	
E09	41H5-005C3	Guide bushing	1	
E07	41H5-006	Dial	1	
E08	41H5-007	Screw	4	
E11	41H5-005C1	Reverse feed lever	1	
E10	32H6-002B1a1-4	Set screw	2	
E14	41H5-005C4	Feed regulator screw bar	1	
E13		Steel ball	1	φ 3.17
E12	41H5-005C5	Spring for feed regulator shaft	1	
E05	32H5-007D2	Screw	1	
E15	41H5-002B1	Slide block	1	
E18	41H5-004	Slide block connecting lever	1	
E17	41H5-003	Spring	1	

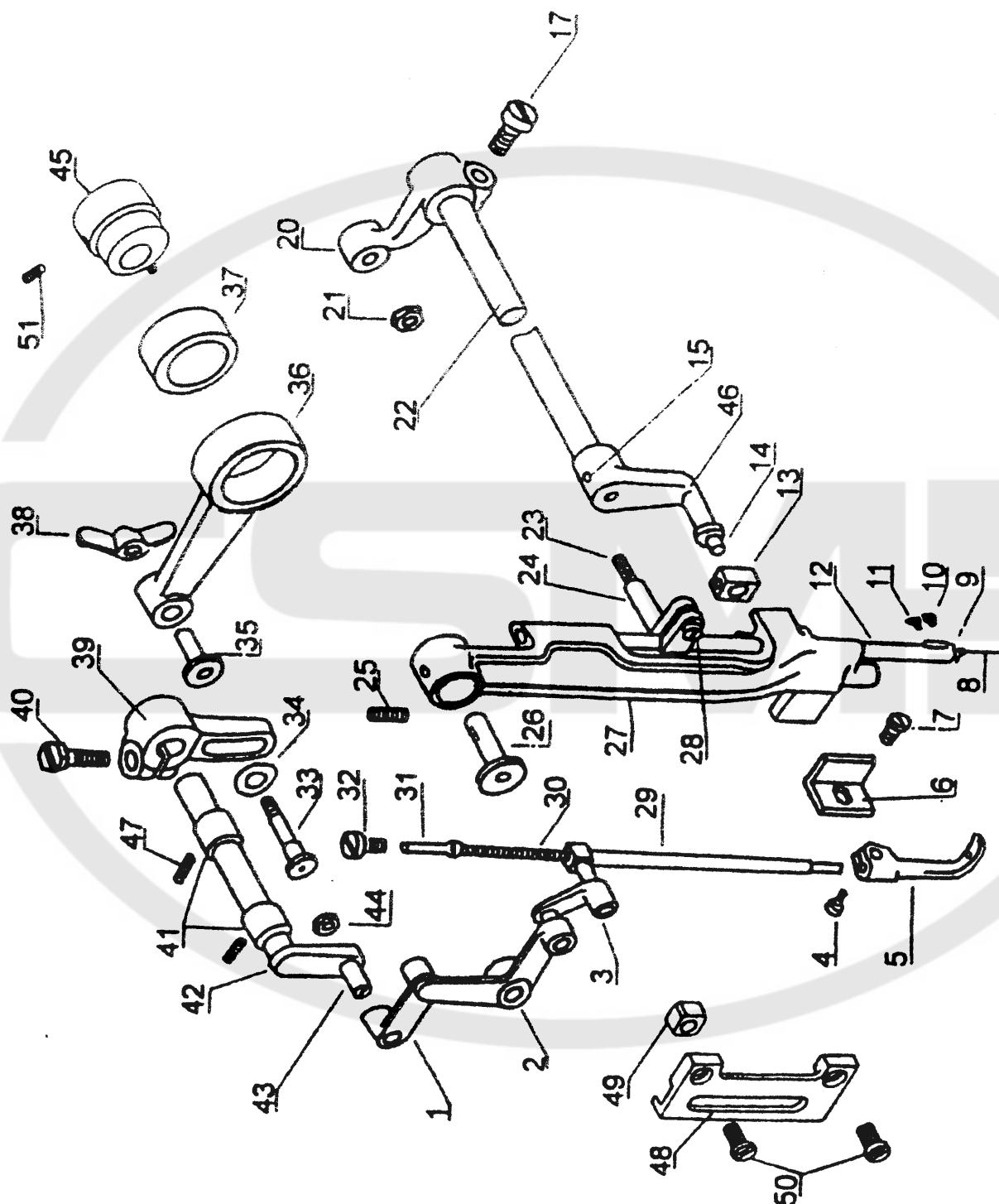
6. NEEDLE BAR FEEDING MECHANISM



6、 NEEDLE BAR FEEDING MECHANISM

F01	31H5-001	Lifting bell crank link	1	
F02	31H5-002	Lifting bell crank	1	
F03	31H5-003	Presser bar connecting link	1	
F04	31H5-004	Screw	1	
F05	31H5-008A1	Vibrating presser foot	1	
F06	31H5-024	Rock frame position bracket	1	
F07	34H2-002	Set screw	1	
F08		Needle	1	DP×17 22#
F09	31H5-026E3	Needle bar thread guide	1	
F10	31H5-026E1	Set screw	1	
F11	22T2-017	Needle set screw	1	
F12	31H5-026E2	Needle bar	1	
F13	31H5-027	Slide block	1	
F14	34H2-003C1	Slide block stud	1	
F15	GB117-79	Hinge pin	1	
F17	31H5-029G2	Set screw	1	
F20	31H5-029G1	Rock frame crank (right)	1	
F21	FLY42-13	Hinge screw stud	1	
F22	31H5-028F3	Rock frame crank shaft	1	
F23	31H5-023D3	Oil wick	1	
F24	31H5-023D1	Needle bar connecting stud	1	
F25	22T2-002	Set screw	1	
F26	31H5-020	Pin for rock frame	1	
F27	31H5-022	Needle bar rock frame	1	
F28	82T2-003C1a12	Set screw	1	
F29	31H5-007	Vibrating presser bar	1	
F30	31H5-006	Vibrating presser bar spring	1	
F31	31H5-005	Vibrating presser bar extension	1	
F32	82T5-010	Screw	1	
F33	31H5-013	Hinge pin	1	
F34	GB97.1-85	Washer	1	Washer 6
F35	31H5-015	Bushing for hinge pin	1	
F36	31H5-017	lifting eccentric connection	1	
F37	31H5-018	Needle bearing	1	DCL1710
F38	31H5-016	Stud	1	
F39	31H5-012C2	Crank	1	

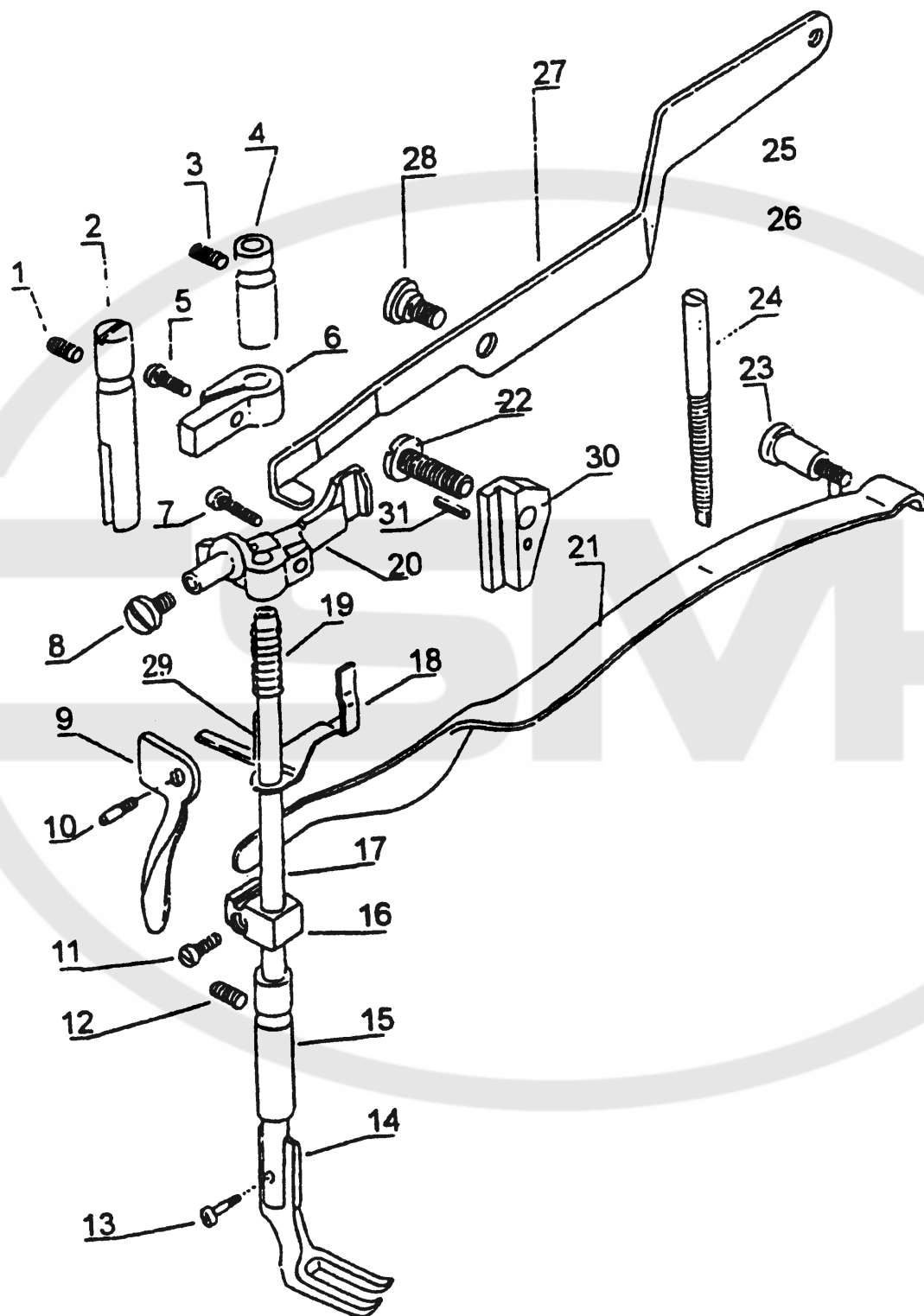
6. NEEDLE BAR FEEDING MECHANISM



6、 NEEDLE BAR FEEDING MECHANISM

F40	31H5-012C1	Set screw	1	
F41	31H5-010	Bushing for rock shaft	1	
F42	31H5-009B3	Lifting rock shaft	1	
F43	31H5-009B1	Set screw	1	
F44	31H5-009B2	Nut	1	
F45	31H5-033	lifting eccentric	1	
F46	31H5-028F4	Crank	1	
F47	22T1-011	Set screw	1	
F48	31H5-034	guide for slide block	1	
F49	31H5-035	Screw	1	
F50	31H5-036	Screw	2	
F51	82T2-003C1a3	Screw	2	

7 PRESSER BAR MECHANISM



7、PRESSER BAR MECHANISM

G01	22T2-002	Set screw	1	
G02	72T3-005D1a3	Presser bar position guide	1	
G03	22T2-002	Set screw	1	
G04	31H1-001A4	Presser bar bushing (upper)	1	
G05	22T8-012	Set screw	1	
G06	31H6-003A2	Presser bar position guide bracket	1	
G07	31H6-004B1	Set screw	1	
G08	31H6-004B2	Set screw	1	
G09	31H6-007	Presser bar lifter	1	
G10	31H6-008	Set screw	1	
G11	24H8-001A3d	Set screw	1	
G12	22T2-002	Set screw	1	
G13	31H6-012	Set screw	1	
G14	41H7-001	Lifting presser foot	1	
G15	31H1-001A6	Presser bar bushing (lower)	1	
G16	31H6-010C1	Presser bar spring bracket	1	
G17	31H6-009	Presser bar	1	
G18	31H6-006A1	Tension releasing slide	1	
G19	31H6-005	Tension releasing spring	1	
G20	31H6-004B3	Presser bar lifting bracket	1	
G21	31H6-015	Presser bar spring	1	
G22	31H6-022	Set screw	1	
G23	31H6-017	Set screw	1	
G24	31H6-016	Set screw	1	
G25	6C3-002	Connector	2	
G26	6C3-003	Chain		
G27	31H6-014	Knee lifter lifting lever	1	
G28	31H6-013	Set screw	1	
G29	31H6-006A2	Guide for tension releasing slide	1	
G30	31H6-021	Presser bar lifting bracket	1	
G31	GB879-86	Spring pin	1	