

M700 *Series Technical Manual-Advance*



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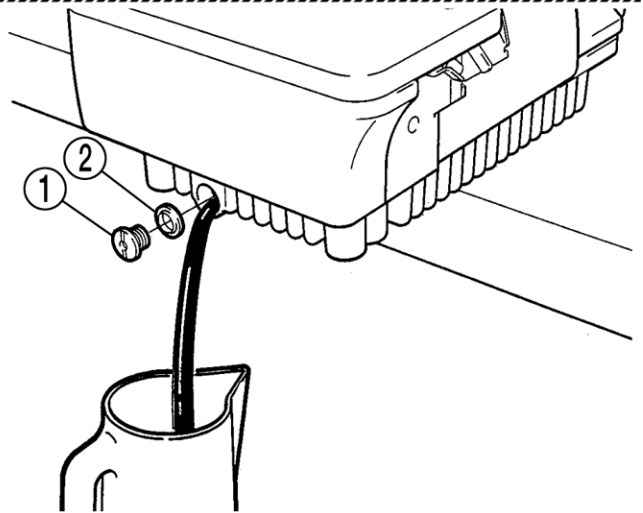
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Manual for disassembly

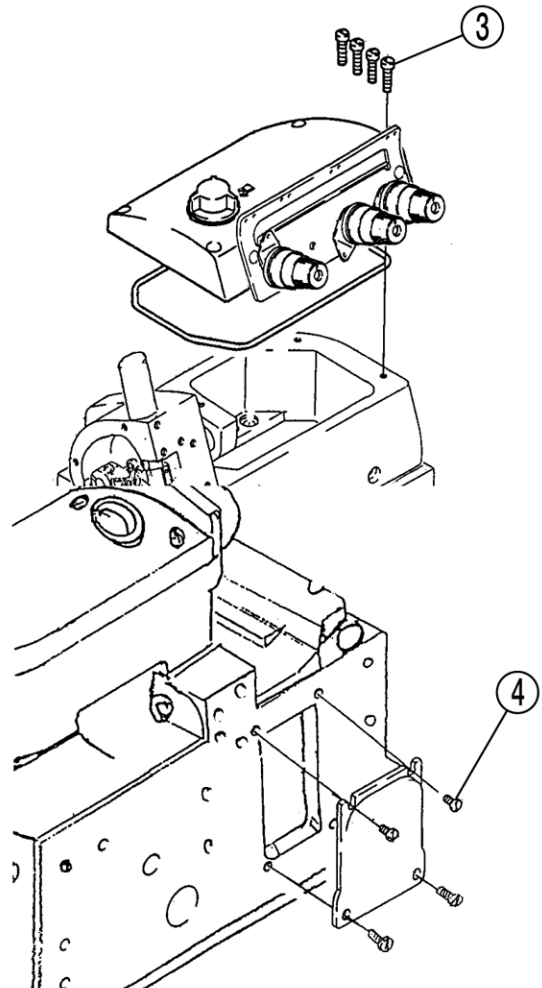
(1) Draining the oil

- 1) Remove screw ① and washer ②.
- 2) Drain the oil.
- 3) Tighten screw ①.



(2) Removing the top cover

- 1) Remove four screws ③.

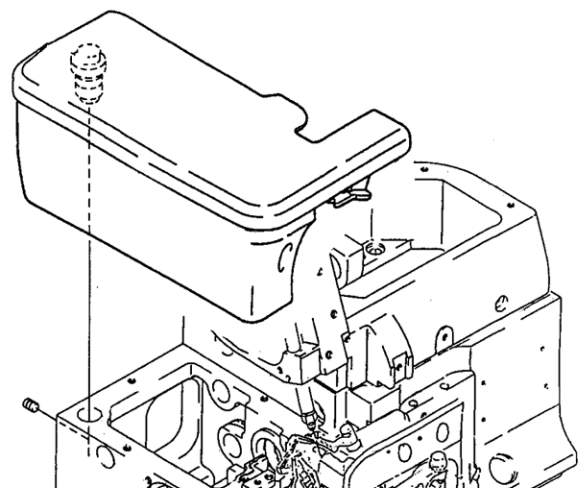


(3) Removing the cover plate

- 1) Remove four screws ④.

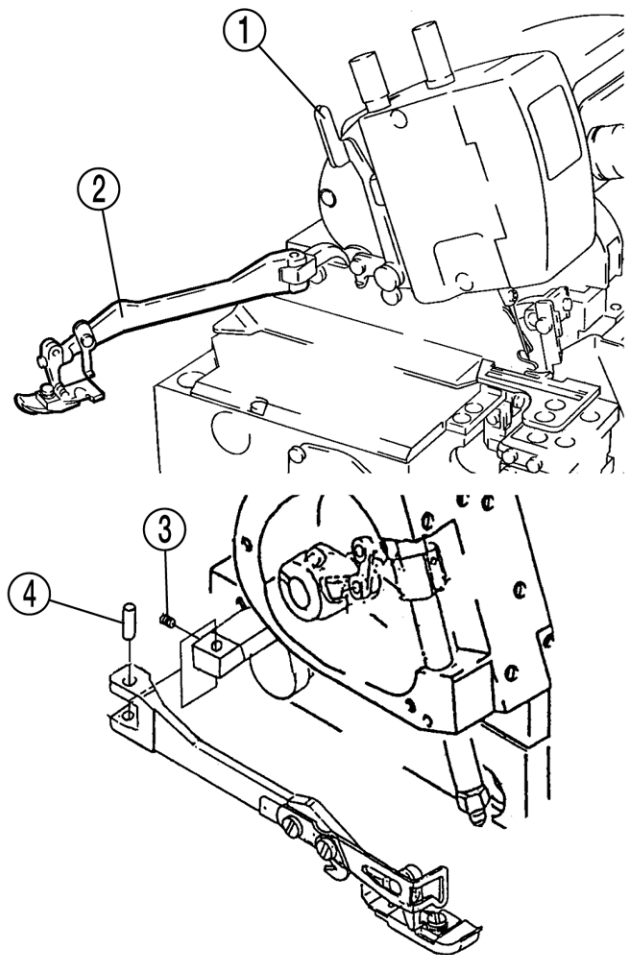
(4) Removing the cloth plate

- 1) Loosen screw ⑤.



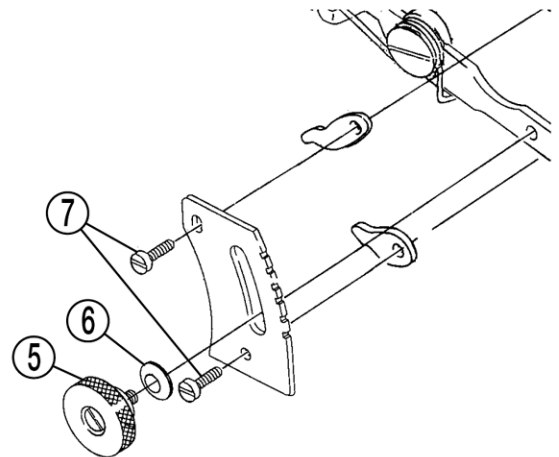
(5) Removing the presser arm complete

- 1) Bring the needle to the highest position.
- 2) Lower lever ①.
- 3) Swing presser arm ② aside.
- 4) Loosen screw ③.
- 5) Remove pin ④.



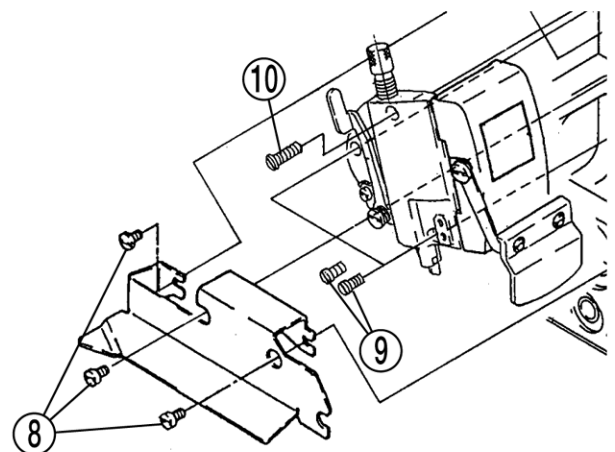
(6) Removing the regulating plate

- 1) Remove screw ⑤ and washer ⑥.
- 2) Remove two screws ⑦.



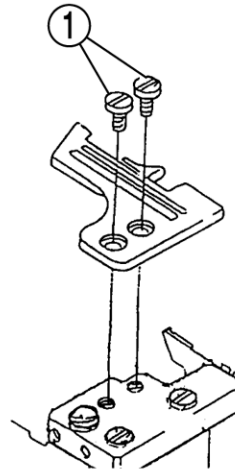
(7) Removing the fabric guide, arm

- 1) Remove three screws ⑧.
- 2) Remove two short screws ⑨ and long screw ⑩.



(8) Removing the needle plate

- 1) Remove two screws ①.

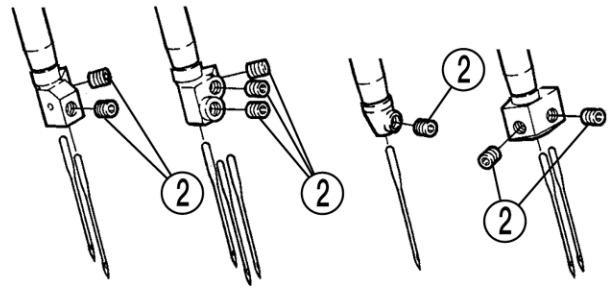


(9) Removing the needle(s)

- 1) Loosen two screws ② with a 1/16" key wrench.

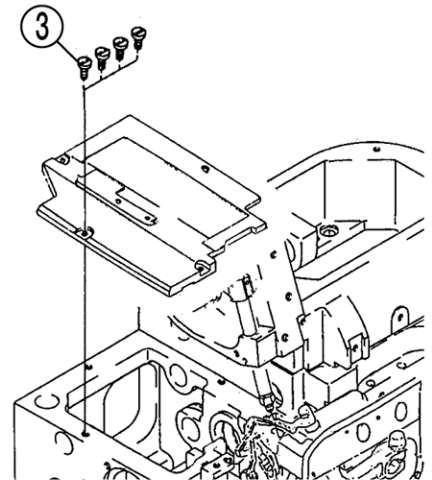
Safety stitch machines

Overedgers



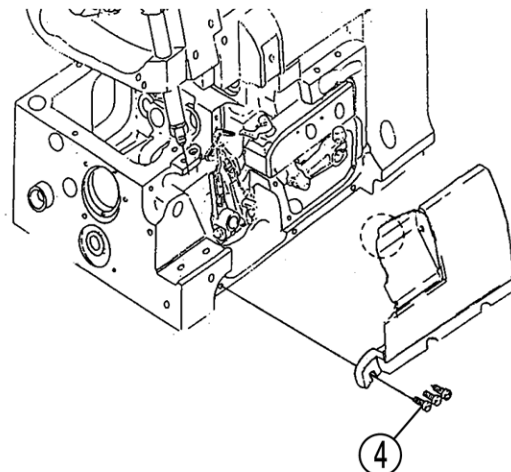
(10) Removing the bed cover plate (left)

- 1) Remove four screws ③.



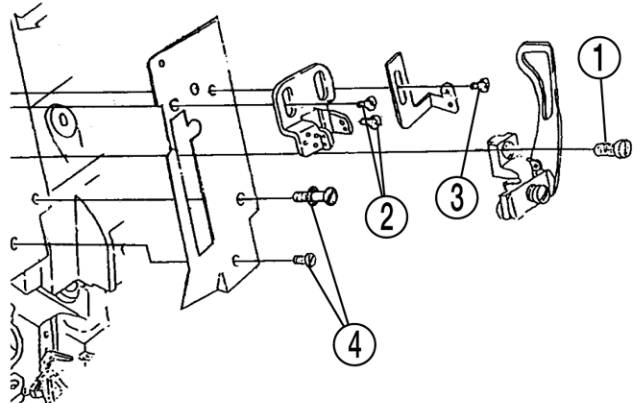
(11) Removing the front cover complete

- 1) Remove three screws ④.



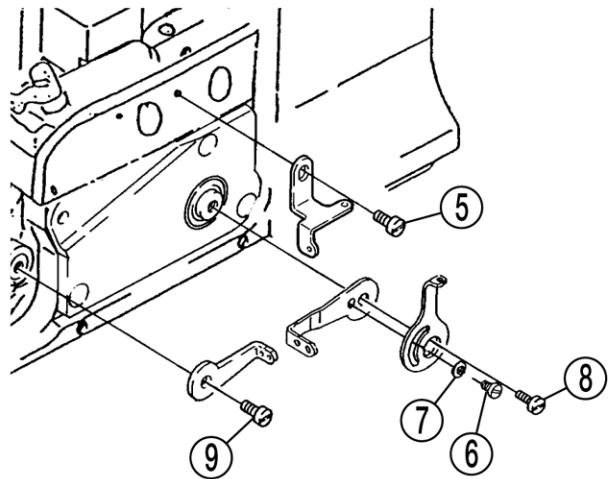
(12) Removing the needle thread guides,
retainer bracket and face plate complete

- 1) Remove screw ①.
- 2) Remove two screws ② and ③.
- 3) Remove two screws ④.



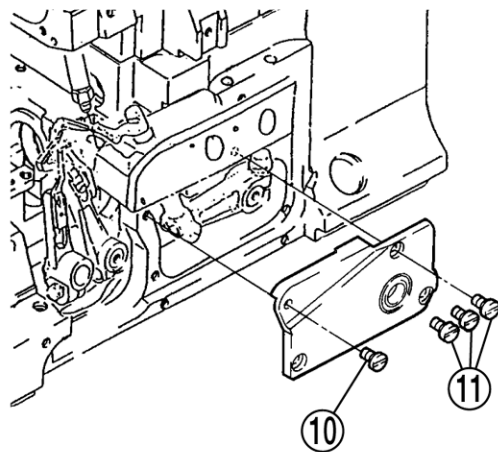
(13) Removing the looper thread guide, looper
thread take-up

- 1) Remove screw ⑤.
- 2) Remove screw ⑥ and washer ⑦.
- 3) Remove screw ⑧.
- 4) Remove screw ⑨.



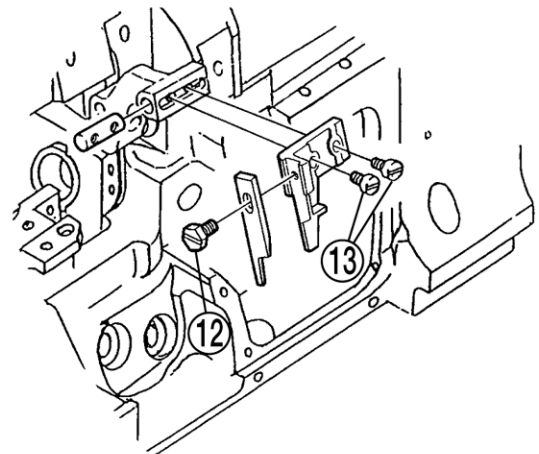
(14) Removing the looper holder cover

- 1) Remove screw ⑩.
- 2) Remove three screws ⑪.



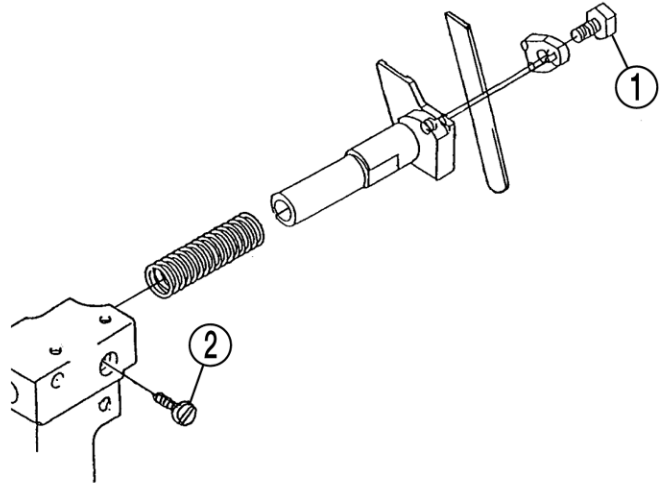
(15) Removing the upper knife clamp

- 1) Loosen screw ⑫ with a 7mm wrench.
- 2) Remove two screws ⑬.



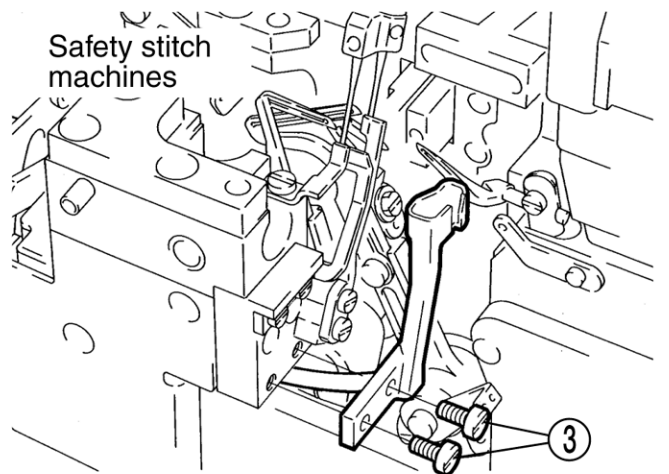
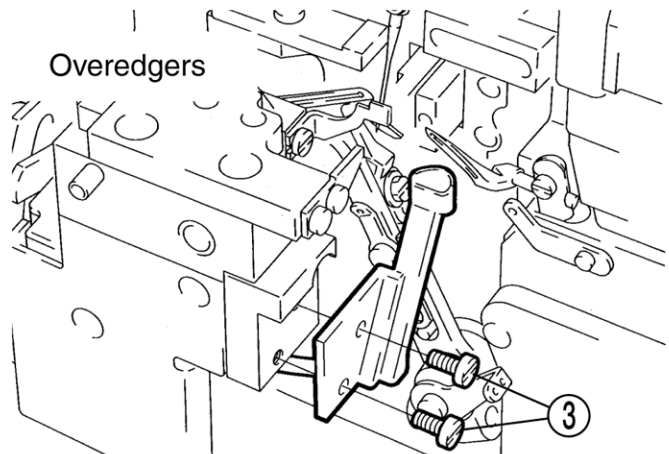
(16) Removing the lower knife holder

- 1) Loosen screw ① with a 7mm wrench.
- 2) Hold the lower knife holder by hand so that it cannot pop out. Then loosen screw ②.



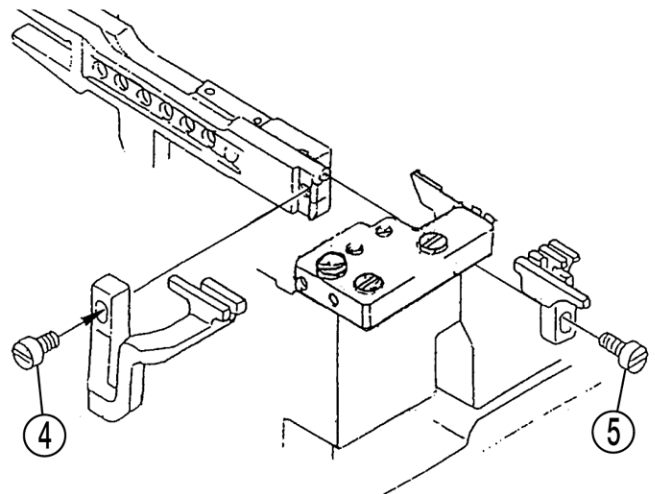
(17) Removing the needle cooler

- 1) Remove two screws ③.



(18) Removing the main and differential feed dogs

- 1) Remove screw ④.
- 2) Remove screw ⑤.



(19) Removing the needle guards
Front needle guard (on overedgers)

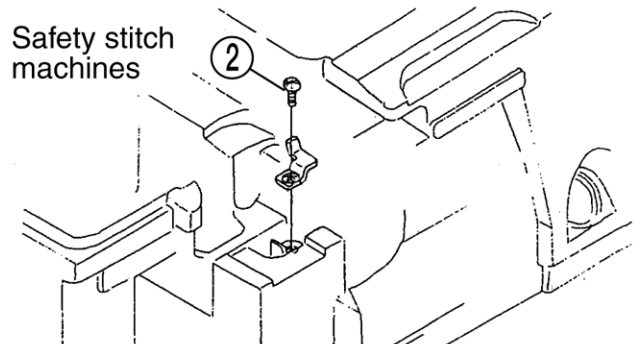
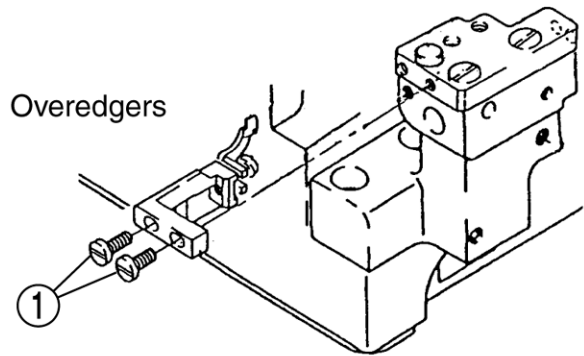
- 1) Remove screws ①.

Front needle guard (on safety stitch machines)

- 1) Remove screw ②.

Rear needle guard (on overedgers/safety stitch machines)

- 1) Remove screw ③ and washer ④ with a 5mm wrench.

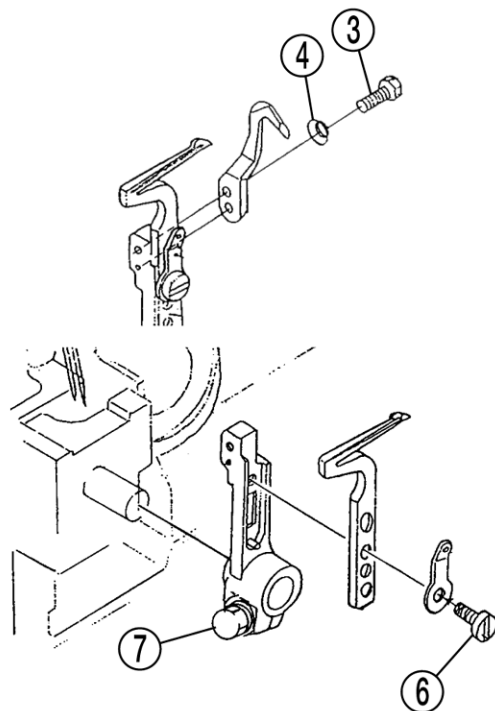
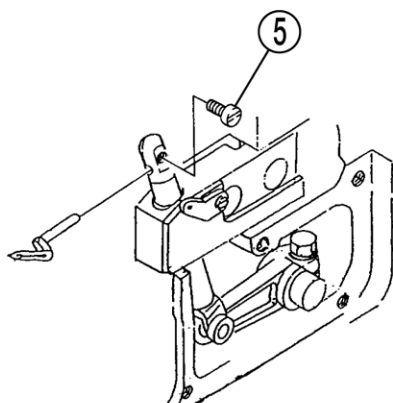


(20) Removing the upper and lower loopers

- 1) Remove screw ⑤.

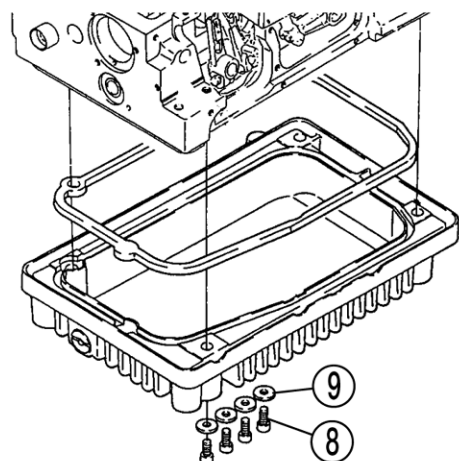
- 2) Remove screw ⑥.

- 3) Loosen screw ⑦ with a 7mm wrench.



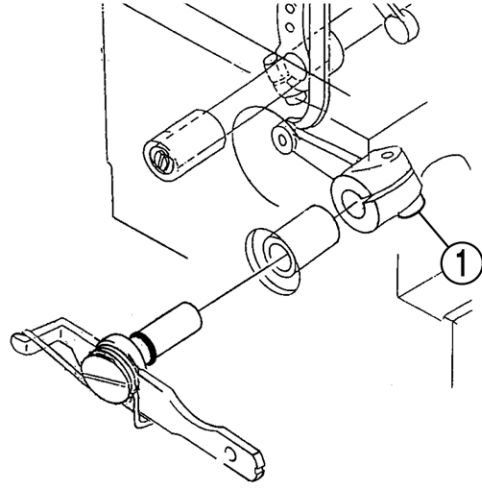
(21) Removing the oil reservoir

- 1) Remove four screws ⑧ and four washers ⑨ with a 4mm pin wrench.



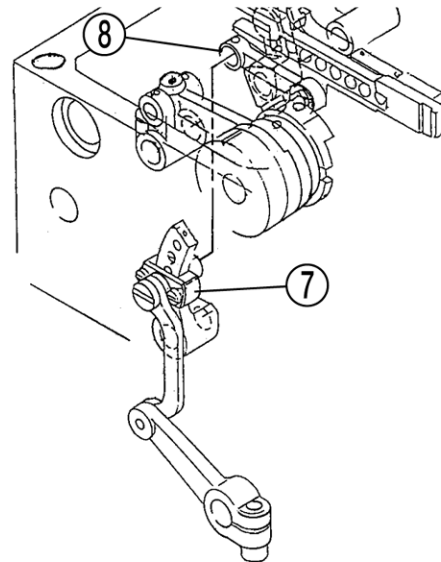
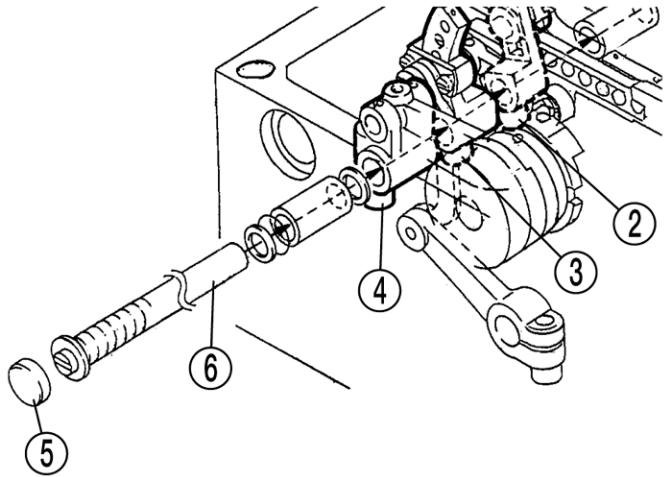
(22) Removing the differential feed regulating bar, lever

- 1) Loosen screw ① with a 5mm pin wrench.



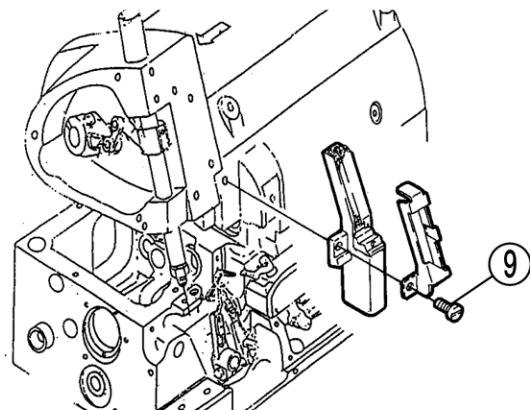
(23) Removing the feed shaft, differential feed crank complete

- 1) Loosen screws ②, ③ and ④ with a 5mm pin wrench.
- 2) Remove plug ⑤ by tapping it with feed shaft ⑥.
- 3) Remove differential feed crank complete ⑦ from differential feed link ⑧.



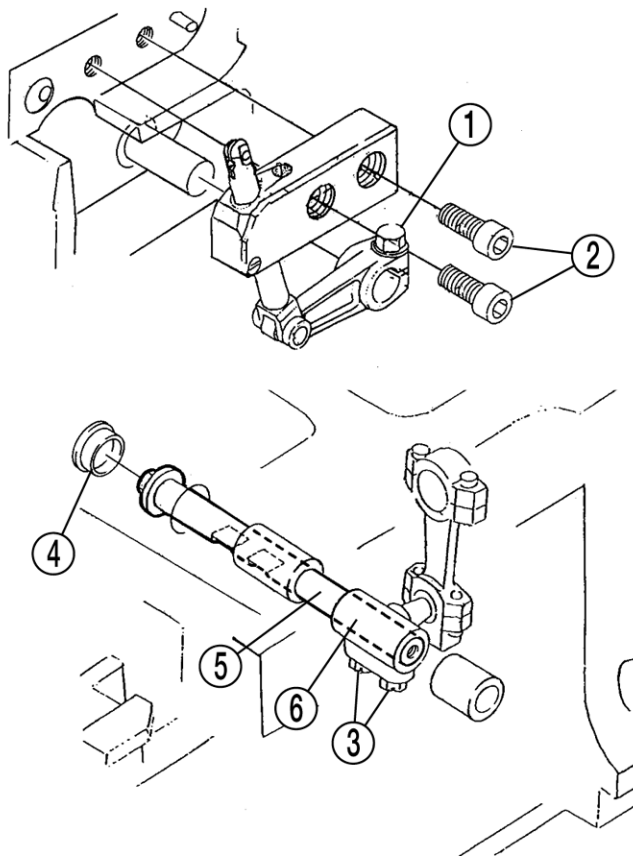
(24) Removing the upper silicone oil tank

- 1) Remove screw ⑨.



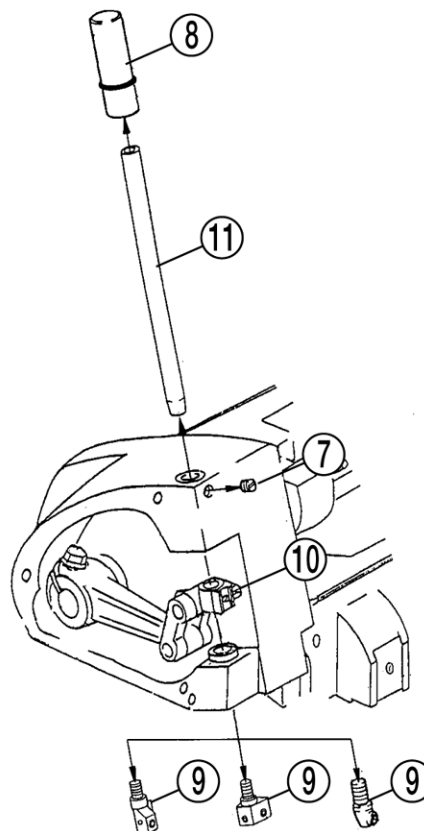
(25) Removing the upper looper holder, upper looper shaft

- 1) Loosen screw ① with a 8mm wrench.
- 2) Remove two screws ② with a 5mm pin wrench.
- 3) Loosen two screws ③ with a 7mm box head (Allen) wrench.
- 4) Remove plug ④ by taping it with shaft ⑤.
- 5) Align the end of upper looper shaft ⑤ with that of crank ⑥. Then tighten screws ③ temporarily.



(26) Removing the needle bar

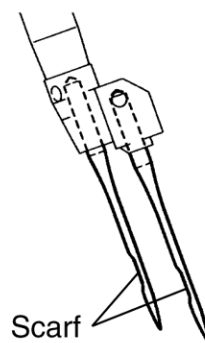
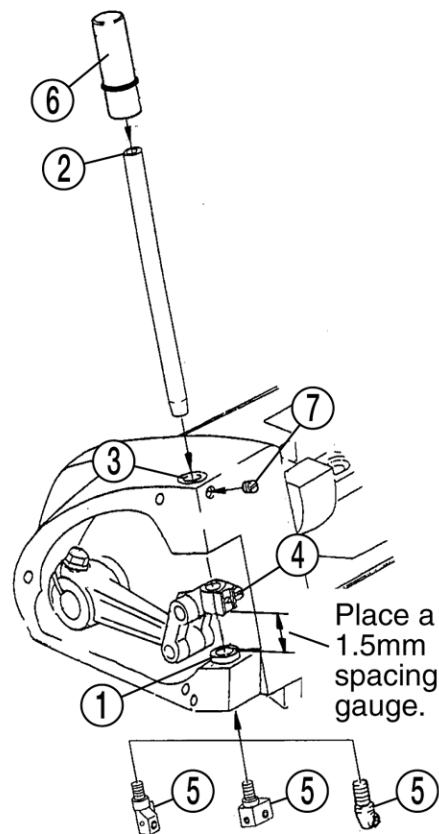
- 1) Loosen screw ⑦.
Remove needle bar cap ⑧.
- 2) Remove needle holder ⑨.
(1-needle overedgers: 2.5mm pin wrench)
(2-needle overedgers: 7mm wrench)
(Safety stitch machines with a needle space of 2mm: 7mm wrench)
(Safety stitch machines with a needle space of 3.5mm: 5mm wrench)
- 3) Loosen screw ⑩ with a 8mm wrench.
Remove needle bar ⑪ from the top surface of the arm.



Manual for reassembly

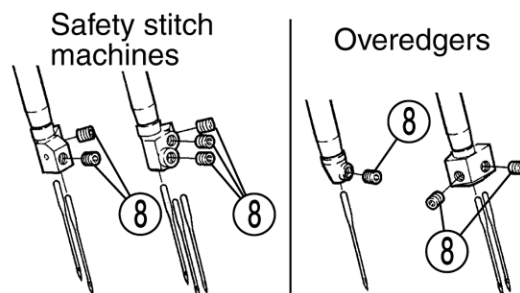
(1) Installing the needle bar

- 1) Insert the needle bar into the arm and the needle bar clamp. Then bring the needle bar clamp to its lowest position. Place a 1.5mm spacing gauge between bush ① and the needle bar clamp.
- 2) Align top surface ② of the needle bar with the top surface of bush ③. Then tighten screw ④ temporarily with a 8mm wrench.
- 3) Attach needle holder ⑤ to the needle bar.
 (1-needle overedgers: 2.5mm pin wrench)
 (2-needle overedgers: 7mm wrench)
 (Safety stitch machines with a needle space of 2mm: 7mm wrench)
 (Safety stitch machines with a needle space of 3.5mm: 5mm wrench)
- 4) Fit needle bar cap ⑥ onto the arm. Tighten screw ⑦.



(2) Installing the needles

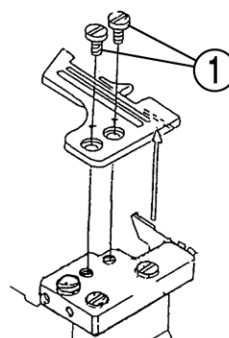
- 1) Turn the scarf on the needle(s) to the back of the machine. Insert the needle(s) to the proper depth and tighten screw(s) ⑧.



(3) Installing the needle plate
(adjusting the needle drop hole)

(For 1-needle overedgers)

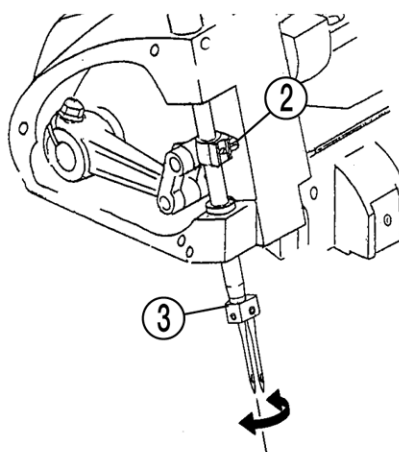
- 1) Adjust the needle plate so that the needles are centered in the needle drop holes. Adjustment is made by moving the needle plate.
- 2) Install the needle plate with two screws ①.



(4) Installing the needle plate
(adjusting the needle drop hole)

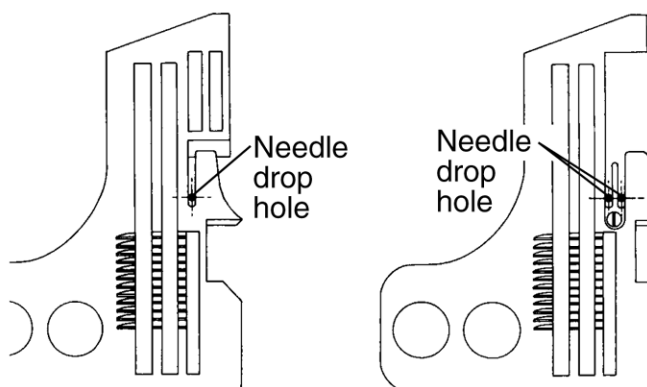
(For 2- and 3-needle overedgers, safety stitch machines)

- 1) Loosen screw ② until needle bar ③ can be turned by hand. Adjust needle bar ③ to center the needles in the needle drops. Adjustment is made by turning needle bar ③ as required. Then tighten screw ② temporarily with a 8mm wrench.
- 2) Install the needle plate with two screws ①.



(5) Adjusting the height of the needle

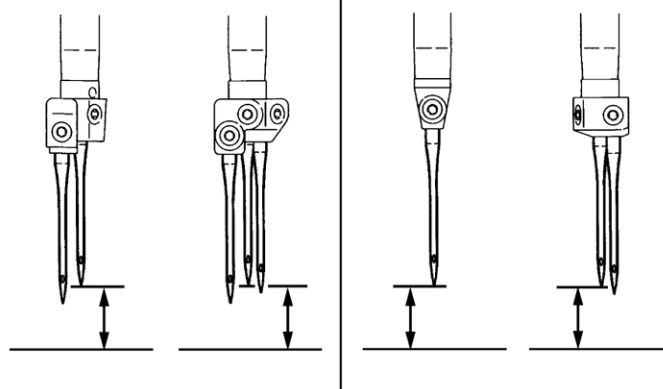
- 1) Turn the machine pulley until the needle bar is at the top of its stroke. Adjust the height of the needle. Then check to make sure the needle drop point is correctly positioned.
- 2) Adjust the height of the needle according to each subclass (see the table below).
- 3) Tighten screw ②.



Subclass	Needle height (mm)	Subclass	Needle height (mm)
M732-36	10.6	M752-01	10.1
M732-38	10.6	M752-13	10.4
M732-48	10.1	M752-16S2	10.1
M732-48P2	10.1	M752-17	10.1
M732-70	10.6	M752-23B	10.6
M732-86	12.0	M752-54A	10.1
M732-355	12.0	M752-55A	10.4
		M752-180	10.1
		M752-181	10.4

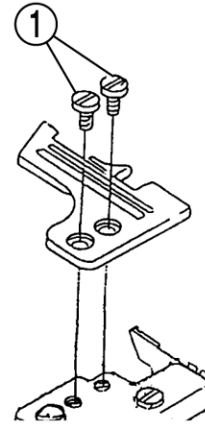
Safety stitch machines

Overedgers



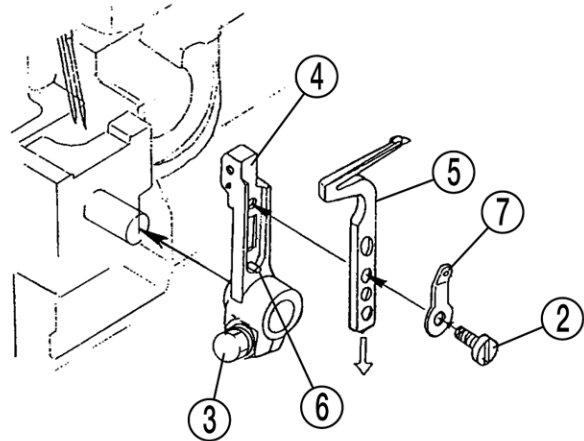
(6) Removing the needle plate

- 1) Remove two screws ①.



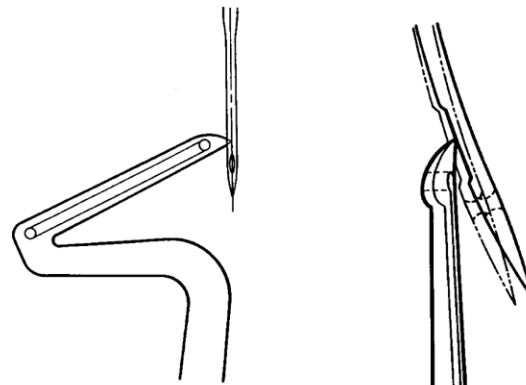
(7) Installing the lower looper

- 1) Fit lower looper ⑤ onto lower looper holder ④ so that the bottom of lower looper ⑤ touches pin ⑥.
- 2) Secure lower looper ⑤ and thread guide ⑦ with screw ②.
- 3) Fit the lower looper complete onto the looper shaft.



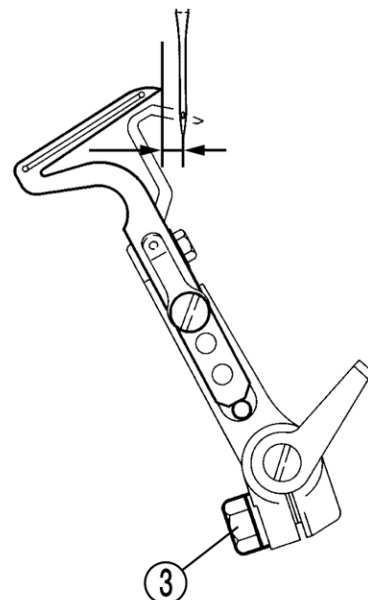
(8) Clearance between the point of the lower looper and the needle (on 1-needle overedgers, safety stitch machines)

- 1) Turn the machine pulley until the needle bar is positioned 3mm ~ 3.5mm from the bottom of its stroke.
- 2) Bring the point of the looper to the center line of the needle. Under this condition, adjust the point of the looper so that it presses the needle 0.03mm ~ 0.05mm to the front. Then tighten screw ③ temporarily with a 8mm wrench.



(9) Lower looper-needle setting distance (on 1-needle overedgers, safety stitch machines)

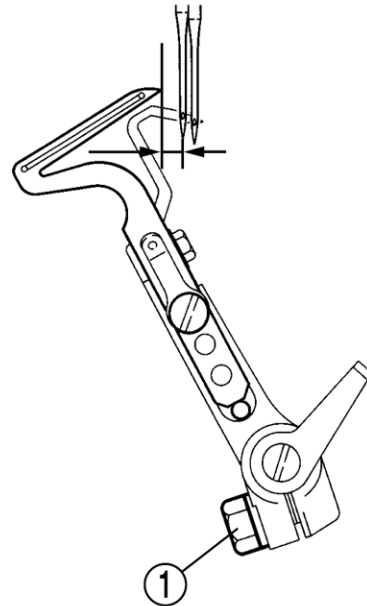
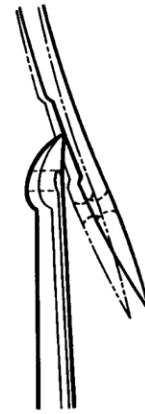
- 1) Turn the machine pulley until the point of the looper is at the extreme left end of its travel.
- 2) Adjust the distance from the center line of the needle to the point of the looper according to each subclass (see the table below).
- 3) Tighten screw ③ with a 8mm wrench.



Subclass	Lower looper-needle setting distance (mm)	Subclass	Lower looper-needle setting distance (mm)
M732-36	3.9	M752-01	4.2
M732-38	3.9	M752-16S2	4.2
M732-48	3.9	M752-17	4.2
M732-48P2	3.9	M752-54A	4.2
M732-70	3.9	M752-180	4.2
M732-86	3.6		
M732-355	3.6		

(10) Clearance between the point of the lower looper and the needle
(on 2-needle overedgers)

- 1) Turn the machine pulley until the needle bar is positioned 3mm ~ 3.5mm from the bottom of its stroke.
Bring the point of the looper to the center line of the needle.
- 2) Under this condition, adjust the point of the looper so that it presses the left needle 0.03mm ~ 0.05mm to the front.
Then tighten screw ① temporarily with a 8mm wrench.
- 3) Check to make sure the point of the needle also presses the right needle 0.03mm ~ 0.05mm to the front by turning the machine pulley. If it does not, adjust the needle drop point by referring to page 10.



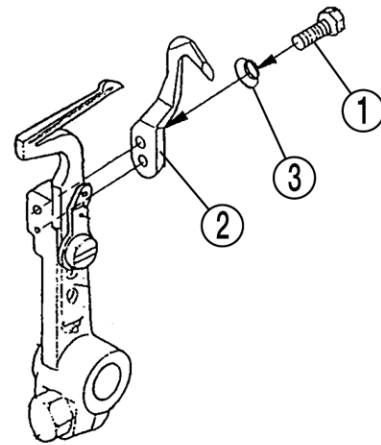
(11) Lower looper-needle setting distance
(on 2-needle overedgers)

- 1) Turn the machine pulley until the looper is at the extreme left end of its travel.
- 2) Adjust the distance from the center line of the needle to the point of the looper according to each subclass (see the table below).
- 3) Tighten screw ① with a 8mm wrench.

Subclass	Lower looper-needle setting distance (mm)	Subclass	Lower looper-needle setting distance (mm)
M752-13	4.2		
M752-23B	4.2		
M752-55A	4.2		
M752-181	4.2		

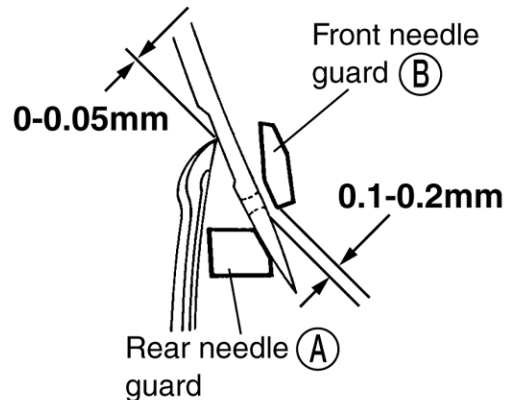
(12) Installing the movable rear needle guard

- 1) Fit movable rear needle guard ② and washer ③ onto the lower looper holder. Then tighten screw ① temporarily.



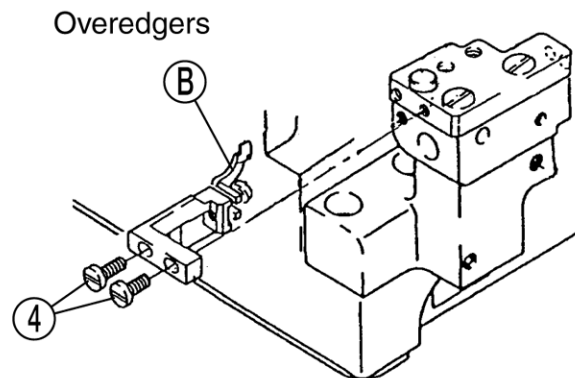
(13) Adjusting the movable rear needle guard

- 1) Adjust movable rear needle guard ② front to back. When the lower looper comes to the center line of the needle, there should be a clearance of 0 ~ 0.05mm between the point of the lower looper and the needle. Adjustment is made by turning the machine pulley.
- 2) Tighten screw ①.



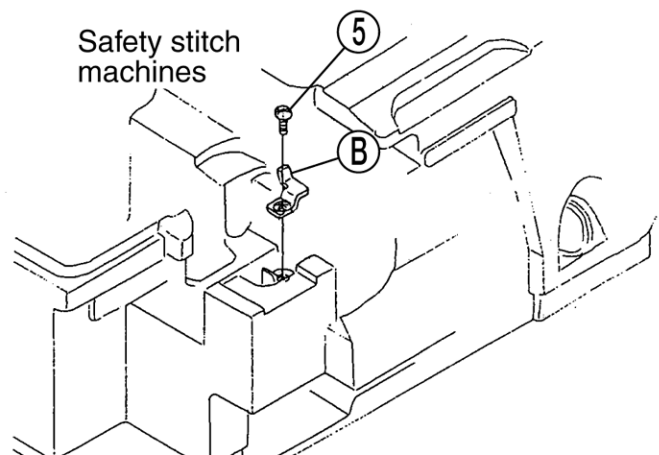
(14) Installing the front needle guard (on overedgers)

- 1) Tighten two screws ④ temporarily. Installing the front needle guard (on safety stitch machines)
- 2) Tighten screw ⑤ temporarily.



(15) Adjusting the front needle guard (on overedgers)

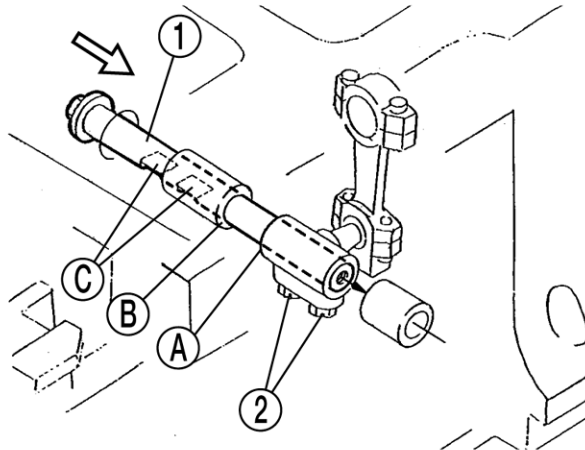
- 1) When the lower looper comes to the center line of the needle, there should be a clearance of 0.1 ~ 0.2mm between front needle guard B and the needle.
- 2) Tighten two screws ④. Adjusting the front needle guard (on safety stitch machines)
- 3) When the lower looper comes to the center line of the needle, there should be a clearance of 0.1 ~ 0.2mm between front needle guard B and the needle.
- 4) Tighten screw ⑤.



(16) Installing the upper looper shaft

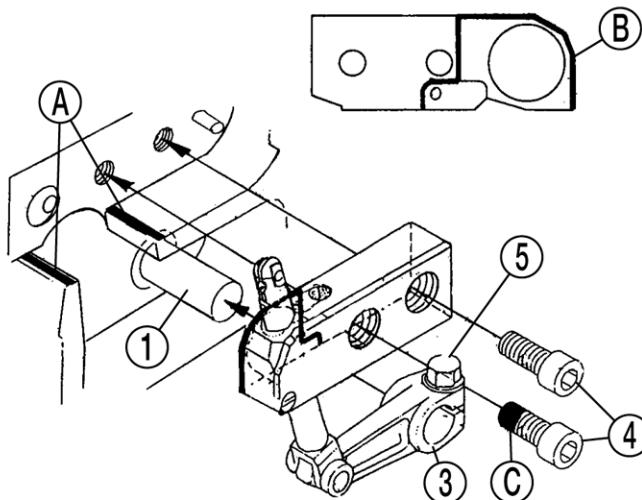
- 1) Press upper looper shaft ① in the direction of the arrow from the rear of the machine bed. Fit surface **A** on the upper looper crank onto surface **B** on the bush tightly.
- 2) Tighten two screws ② so that their bottoms tightly touch flat surfaces **C** on upper looper shaft ①.

Note: Torque the screws to ⑧ N.m.
Excessive torque causes burning.



(17) Installing the upper looper holder

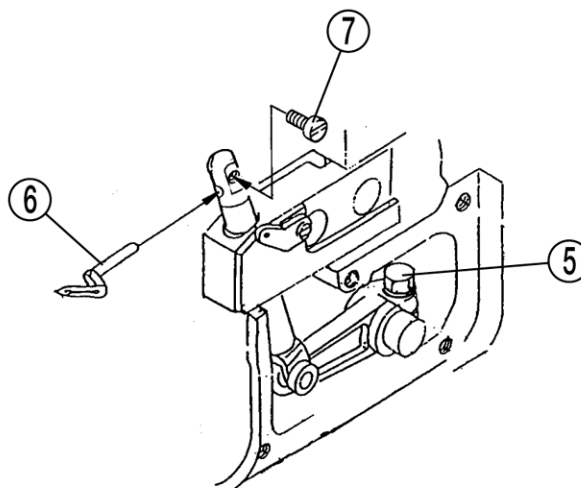
- 1) Wipe oil off areas **A** on the bed, area **B** on the upper looper holder and area **C** (see solidly shaded areas). Then apply sealant (TSE397) to each area.
- 2) Fit crank ③ onto the upper looper shaft and then tighten screws ④ temporarily.
- 3) Check to make sure crank ③ moves easily. Then tighten screws ④.
- 4) Tighten screw ⑤ temporarily. Check that there is no change of torque on the machine by turning the machine pulley.



(18) Installing the upper looper

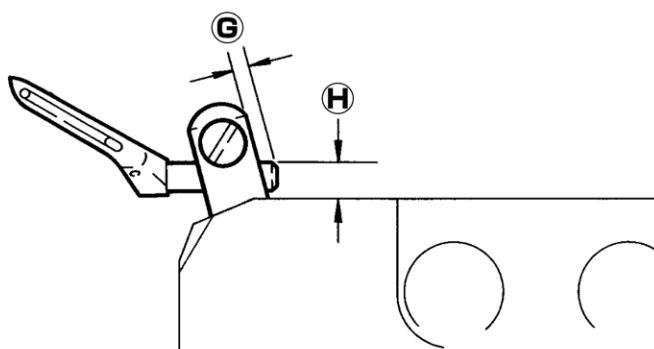
Install upper looper ⑥ first by referring to the table below before adjusting it accurately left to right (see the next page).

- 1) Insert upper looper ⑥ into the upper looper holder. Adjust distance **G** according to each subclass (see the table below).
- 2) Tighten screw ⑦.
- 3) Turn the machine pulley until the upper looper is at the bottom of its travel. Adjust distance **H** according to each subclass (see the table below).
- 4) Tighten screw ⑤.



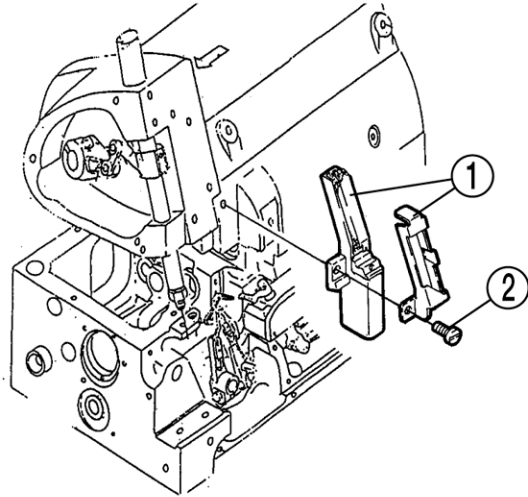
Subclass	Distance G (mm)	Subclass	Distance G (mm)
M732-36	1.3	M752-01	1.2
M732-38	1.3	M752-13	1.4
M732-48	1.3	M752-16S2	1.2
M732-48P2	1.3	M752-17	1.2
M732-70	1.3	M752-23B	2.4
M732-86	3.2	M752-54A	1.2
M732-355	2.4	M752-55A	1.4
		M752-180	1.2
		M752-181	1.4

Subclass	Distance H (mm)	Subclass	Distance H (mm)
M732-36	3.94	M752-01	3.78
M732-38	3.94	M752-13	4.58
M732-48	3.94	M752-16S2	3.78
M732-48P2	3.94	M752-17	3.78
M732-70	3.94	M752-23B	3.39
M732-86	3.11	M752-54A	3.78
M732-355	3.36	M752-55A	4.58
		M752-180	3.78
		M752-181	4.58



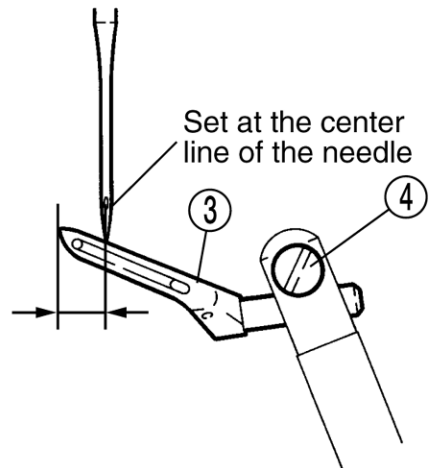
(19) Installing the upper silicone tank complete

- 1) Install upper silicone tank complete ① with screw ②.



(20) Adjusting the upper looper left to right (looper-needle setting distance)

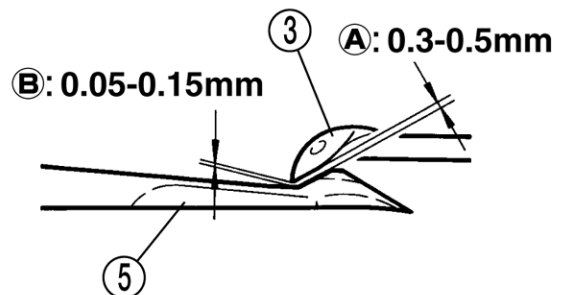
- 1) Turn the machine pulley until upper looper ③ is at the extreme left end of its travel.
- 2) Adjust the distance from the point of the upper looper to the center line of the needle according to each subclass (see the table below). Tighten screw ④ temporarily.



Subclass	Upper looper-needle setting distance (mm)	Subclass	Upper looper-needle setting distance (mm)
M732-36	5.1	M752-01	5.1
M732-38	5.1	M752-13	5.8
M732-48	5.1	M752-16S2	5.1
M732-48P2	5.1	M752-17	5.1
M732-70	5.1	M752-23B	5.8
M732-86	5.1	M752-54A	5.1
M732-355	5.8	M752-55A	5.8
		M752-180	5.1
		M752-181	5.8

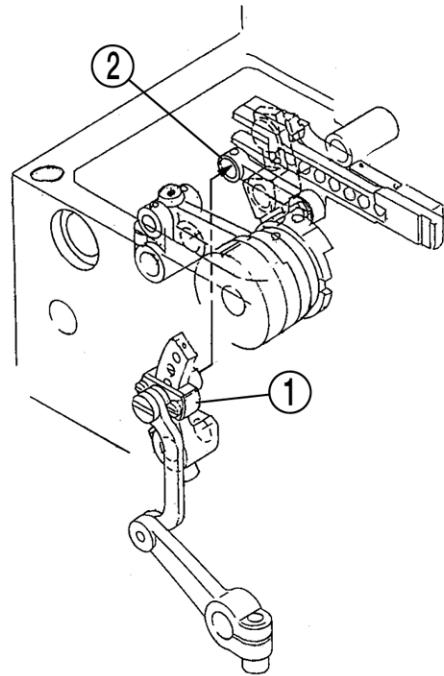
(21) Adjusting the upper looper front to back

- 1) Turn the machine pulley until upper looper ③ and lower looper ⑤ cross each other.
- 2) Loosen screw ④ until upper looper ③ is easily moved front to back with the proper upper looper-needle setting distance.
- 3) Set clearances of 0.3 ~ 0.5mm **A** and 0.05 ~ 0.15mm **B** between upper looper ③ and lower looper ⑤.
- 4) Tighten screw ④.



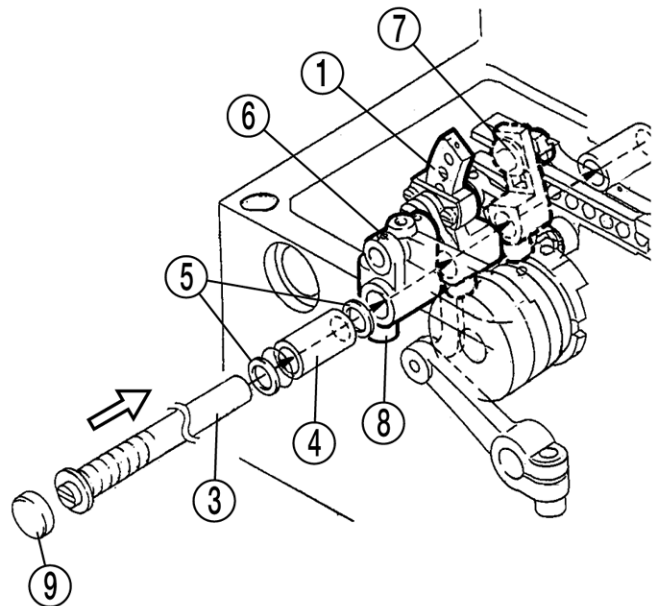
(22) Installing the differential feed crank

- 1) Insert differential feed crank complete ① into differential feed connection link ②.



(23) Installing the differential feed shaft

- 1) Insert feed shaft ③ into bushing ④ together with washers ⑤ on the front and back ends.
- 2) Insert feed shaft ③ into feed crank ⑥, differential feed crank ① and main feed crank ⑦ in sequence.



(24) Installing the feed crank

- 1) Press feed shaft ③ slightly in the direction of the arrow.
- 2) Tighten screw ⑧ for feed crank ⑥.

(25) Installing the plug

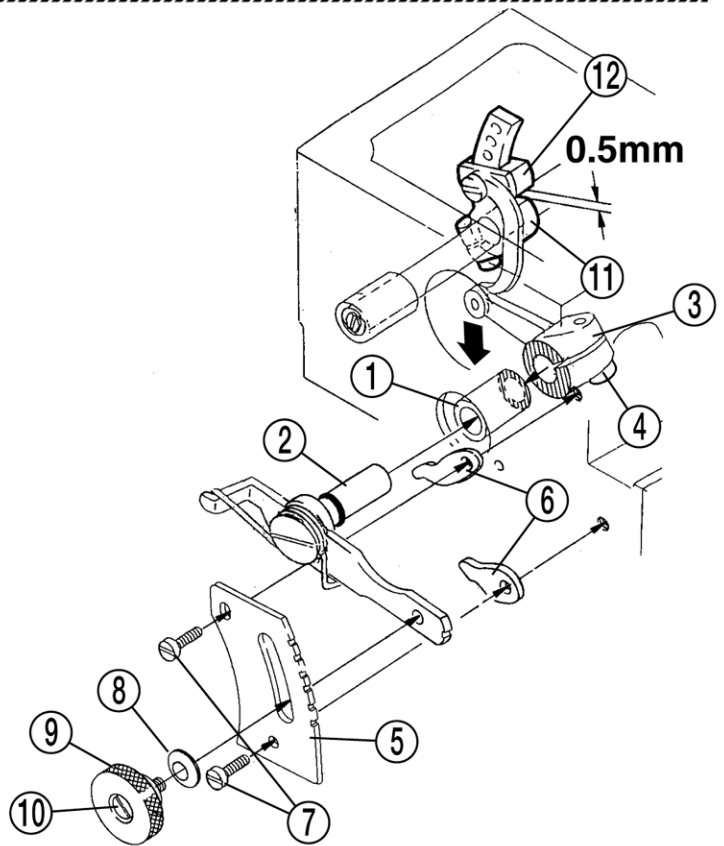
- 1) Tap plug ⑨ slightly so that it is flush with the bed.

(26) Installing the differential feed regulating lever

- 1) Insert differential feed regulating lever ② into busing ①.
- 2) Press lever ② to the right and lever ③ to the left.
- 3) Lower lever ③ in the direction of the arrow.
- 4) Tighten screw ④ temporarily with a 5mm pin wrench.
- 5) Secure regulating plate ⑤ and stoppers ⑥ to the bed with screws ⑦.
- 6) Install washer ⑧ and nut ⑨ on lever ② with screw ⑩.

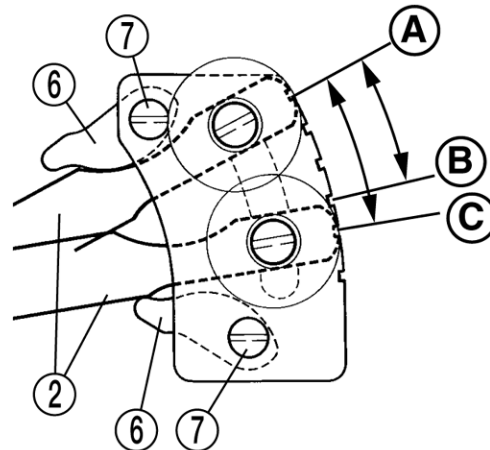
Note:

Torque screw ⑩ so that nut ⑨ can be turned easily by hand.



(27) Adjusting the differential feed regulating lever

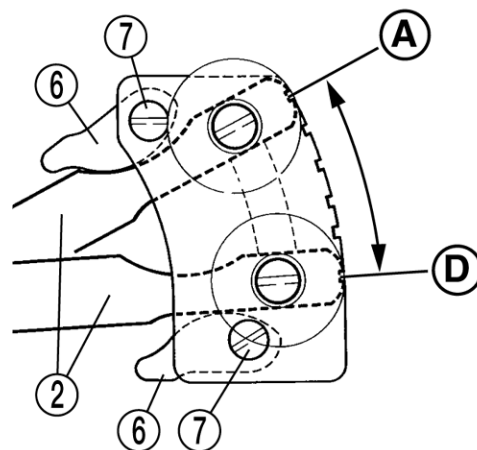
- 1) Loosen screw ④. Bring lever ② to its highest position. Tighten nut ⑨.
- 2) Lower lever ③ in the direction of the arrow. Set a clearance of 0.5mm between differential feed crank ⑪ and block ⑫.
- 3) Tighten screw ④.



(28) Adjusting the stopper

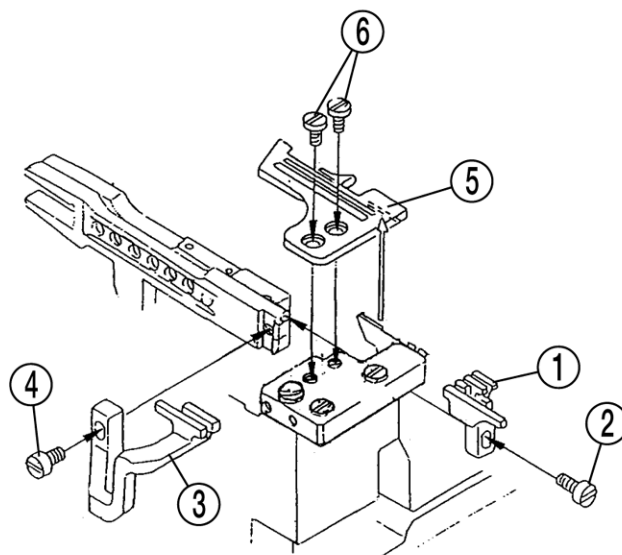
- 1) Loosen screws ⑦. Adjust lever ② within the regulating range according to each subclass (see the table below). Adjustment is made by moving lever ⑥.
- 2) Tighten two screws ⑦.

Subclass	Regulating range with lever ②	Subclass	Regulating range with lever ②
M732-36	A~B	M752-01	A~C
M732-38	A~C	M752-13	A~C
M732-48	A~D	M752-16S2	A~C
M732-48P2	A~D	M752-17	A~C
M732-70	A~C	M752-23B	A~C
M732-86	A~D	M752-54A	A~C
M732-355	A~C	M752-55A	A~C
		M752-180	A~C
		M752-181	A~C



(29) Installing the feed dogs

- 1) Install main feed dog ① temporarily with screw ②.
- 2) Install differential feed dog ③ temporarily with screw ④.

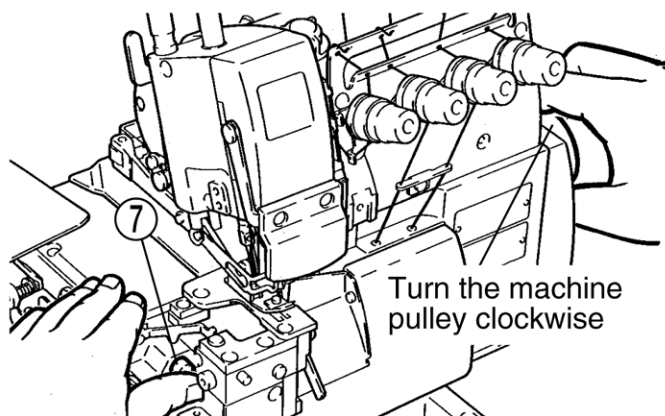


(30) Installing the needle plate

- 1) Secure needle plate ⑤ with two screws ⑥.

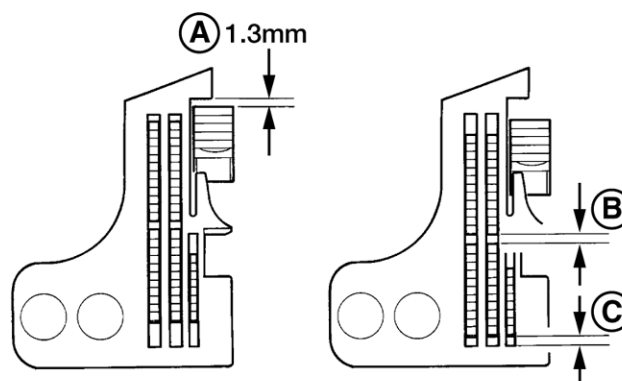
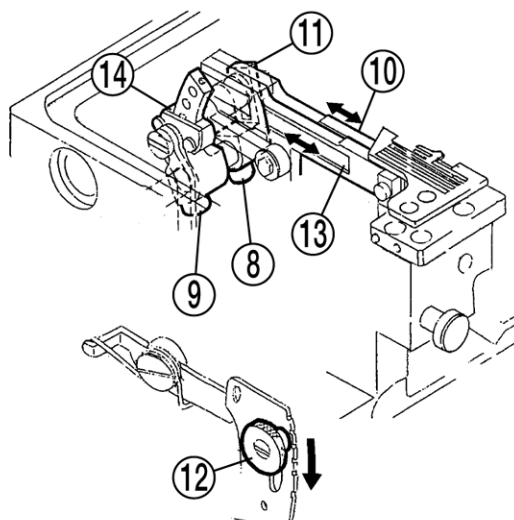
Note:

Adjust the needle drop hole first before installing the needle plate (see page 10).



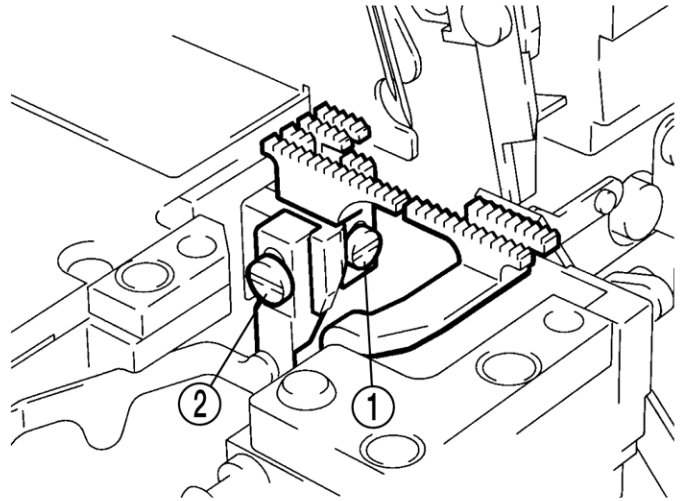
(31) Adjusting the feed dogs front to back

- 1) Turn the machine pulley while pressing push button ⑦.
- 2) Push button ⑦ goes into the depth.
- 3) With push button ⑦ in this position, turn the machine pulley clockwise until it stops (max. stitch length).
- 4) Loosen screws ⑧ and ⑨.
- 5) Turn the machine pulley until the main feed dog is at the extreme rear end of its travel.
- 6) With the main feed dog in this position, set clearance ① of 1.3mm between the needle plate and the main feed dog.
- 7) Adjustment is made by moving main feed bar ⑩ or main feed crank ⑪.
- 8) Tighten screw ⑧ with a 6mm pin wrench.
- 9) Check to see if lever ⑫ is at the bottom of its stroke (max differential feed ratio).
- 10) Clearance ② when the differential feed is at the extreme rear end of its travel should be equal to clearance ③ when the differential feed dog is at the extreme front end of its travel.
- 11) Adjustment is made by turning the machine pulley, and moving differential feed bar ⑬ or regulating plate ⑭.
- 12) Tighten screw ⑨.
The adjustment should be made with maximum stitch length.



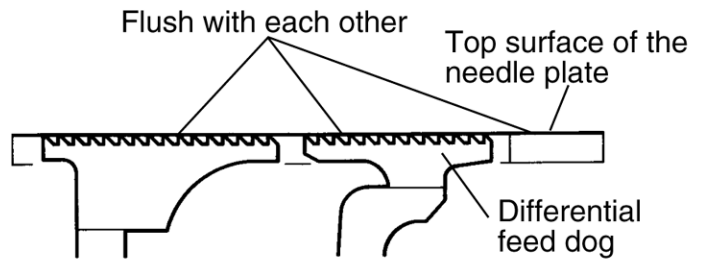
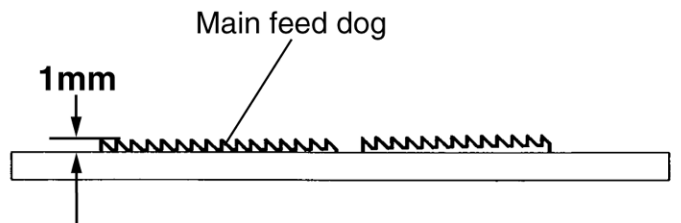
(32) Adjusting the height of the main feed dog

- 1) Turn the machine pulley until the main feed dog is at the top of its travel.
- 2) Loosen screw ①.
- 3) Adjust the main feed dog so that the second feed dog teeth from the back end is set to rise 1mm above the top surface of the needle plate.
- 4) Tighten screw ①.



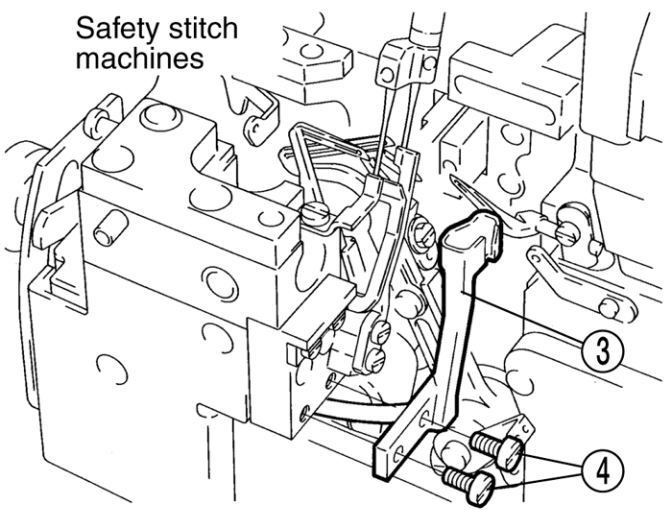
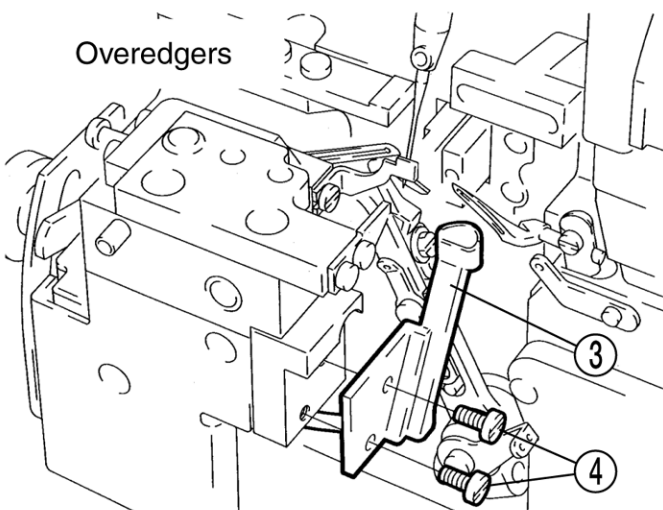
(33) Adjusting the height of the differential feed dog

- 1) Turn the machine pulley until the main feed dog is flush with the top surface of the needle plate.
- 2) Loosen screw ②. Adjust the height of the differential feed dog.
- 3) The differential feed dog should be flush with the top surface of the needle plate.
- 4) Tighten screw ②.



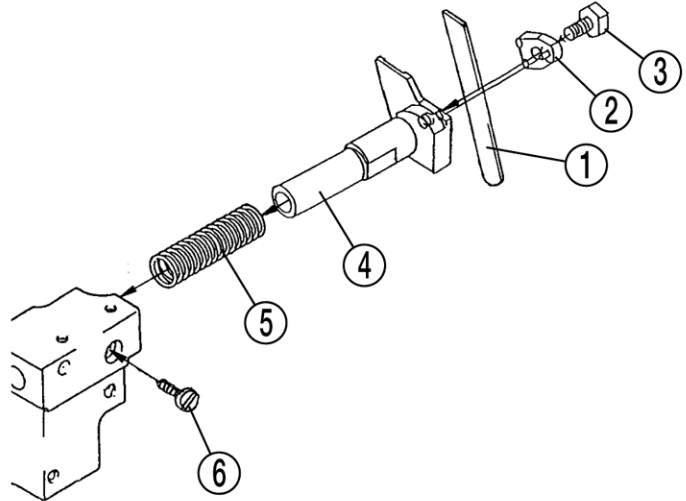
(34) Installing the needle cooler

- 1) Secure needle cooler ③ with two screws ④.



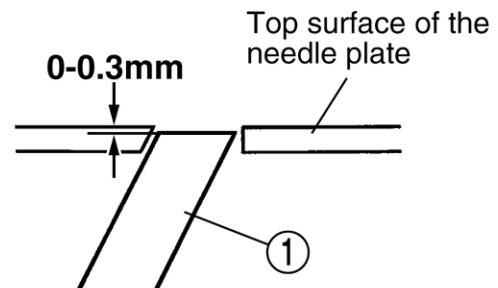
(35) Installing the lower knife holder

- 1) Install lower knife ① on lower knife holder ④ temporarily with lower knife clamp ② and screw ③.
- 2) Insert lower knife holder ④ and spring ⑤ into the hole on the bed.
- 3) Fit lower knife ① slightly onto the needle plate. Then tighten screw ⑥ temporarily.



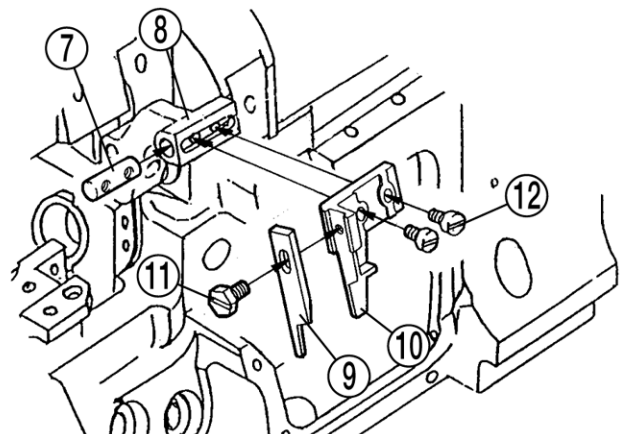
(36) Adjusting the lower knife

- 1) Loosen screw ⑥.
- 2) Adjust lower knife ① so that the cutting edge is 0 ~ 0.03mm below the top surface of the needle plate.
- 3) Tighten screw ⑥ with a 7mm wrench.



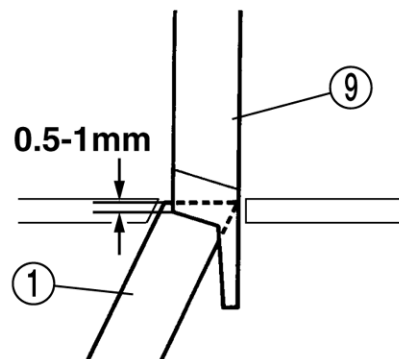
(37) Installing the upper knife

- 1) Insert pin ⑦ into upper knife holder ⑧.
- 2) Fit upper knife ⑨ onto upper knife clamp ⑩. Tighten screw ⑪ temporarily.
- 3) Install upper knife clamp ⑩ on upper knife holder ⑧ temporarily with screws ⑫.



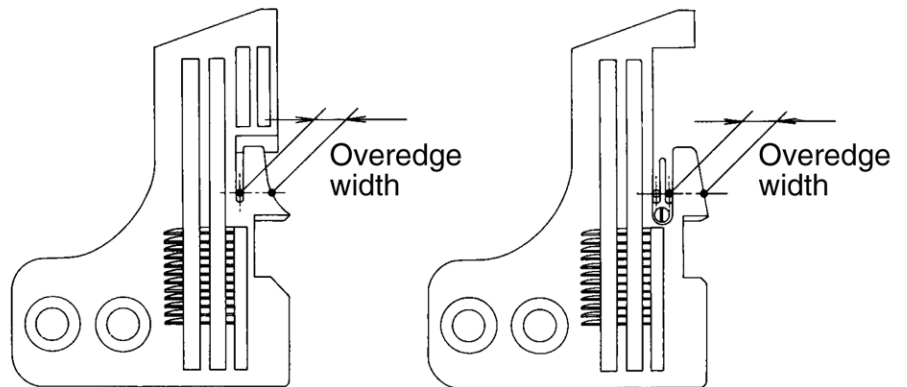
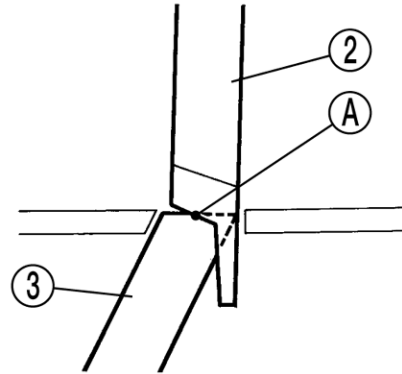
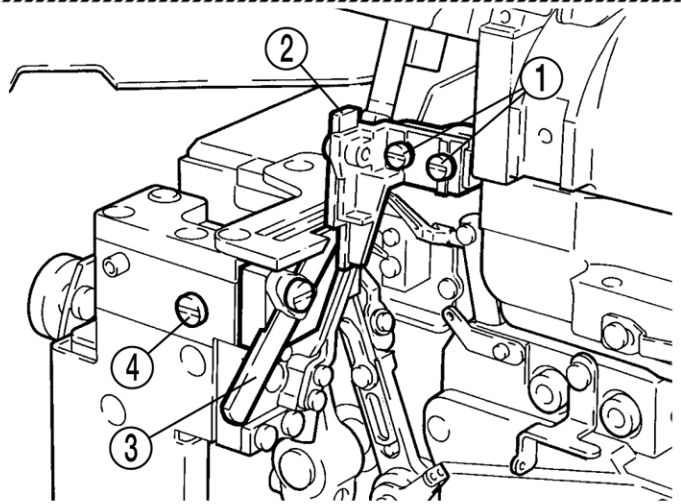
(38) Adjusting the height of the upper knife

- 1) Turn the machine pulley until upper knife ⑨ is at its lowest position.
- 2) Loosen screw ⑪.
- 3) Position upper knife ⑨ so that there is an overlap of 0.5 ~ 1.0mm of the cutting edge of upper knife ⑨ (front side) and lower knife ①.
- 4) Tighten screw ⑪.



(39) Adjusting the overedge width (seam width)

- 1) Loosen screw ①.
- 2) Position upper knife ② according to the overedge width.
- 3) Tighten screw ①.
- 4) Turn the machine pulley until upper knife ② and lower knife ③ cross each other at point A (center of each cutting edge).
- 5) Loosen screw ④.
- 6) Check to make sure the upper and lower knives contact tightly with each other. Then tighten screw ④.

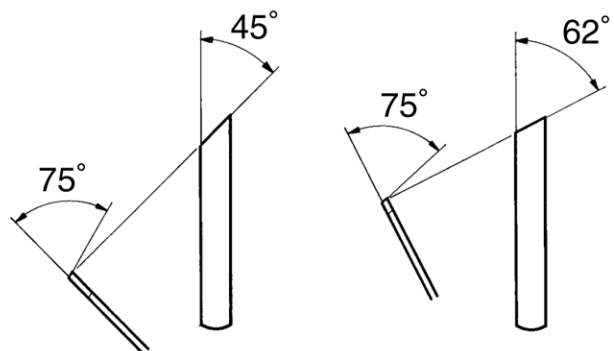


(40) Sharpening lower knife

- 1) Sharpen the lower knife as fig.

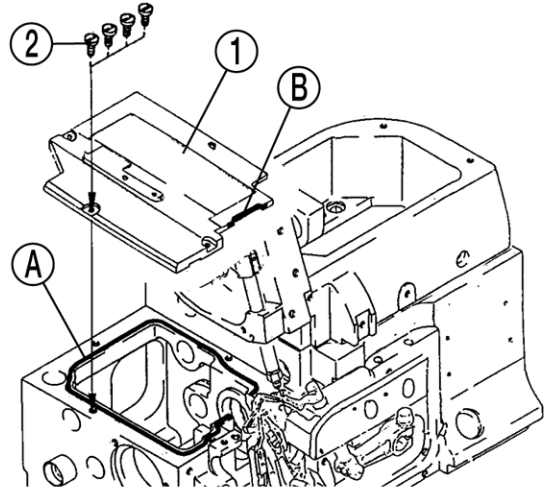
M732 Series

M752 Series



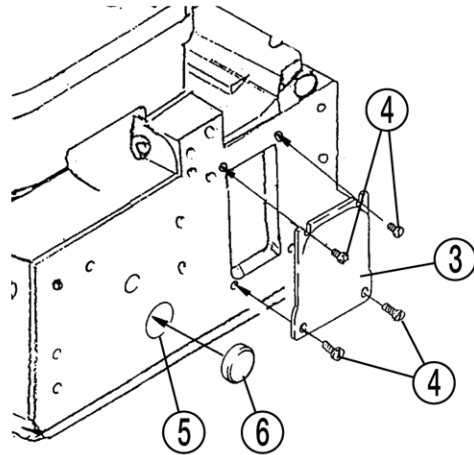
(41) Installing the bed cover plate (left)

- 1) Wipe oil off area **A** on the bed and area **B** on the top cover (left) **1** (see solidly shaded areas). Then apply sealant (TSE397) to **A** and **B**.
- 2) Secure bed cover plate **1** with four screws



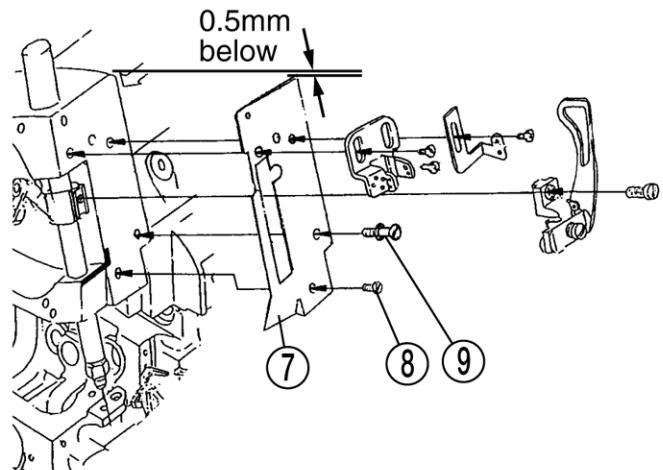
(42) Installing the cover plate

- 1) Secure cover plate **3** to the back side of the bed with four screws **4**. Fit plug **6** into hole **5** on the back side of the bed. Tap plug **6** slightly so that it is flush with the back side of the bed.



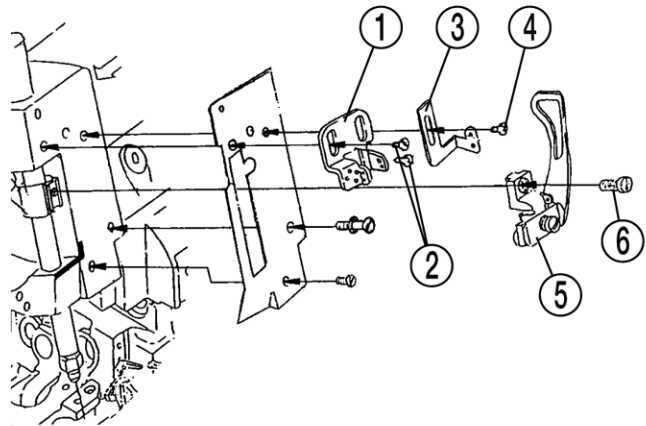
(43) Installing the face plate

- 1) Lower plate **7** so that its upper end is 0.5mm below the top surface of the arm. Fit lower plate **7** onto the arm and tighten screws **8** and **9**.



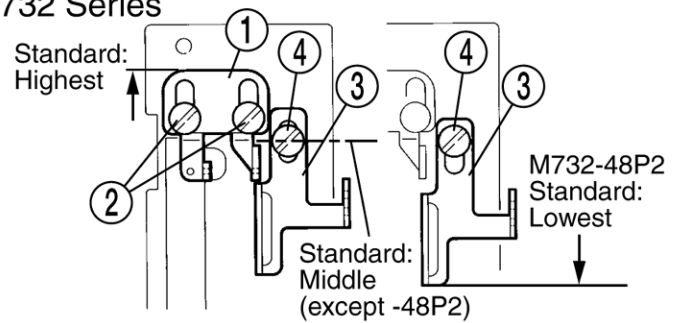
(44) Installing & adjusting the thread guides

- 1) Position thread guide ① by referring to the illustration and the table below. Then tighten screws ② .
- 2) Position thread guide ③ by referring to the illustration and the table below. Then tighten screw ④ .



Model	Position of ①	Position of ②
Standard (except -48P2)	Highest	Middle
M732-48P2	Highest	Lowest

M732 Series

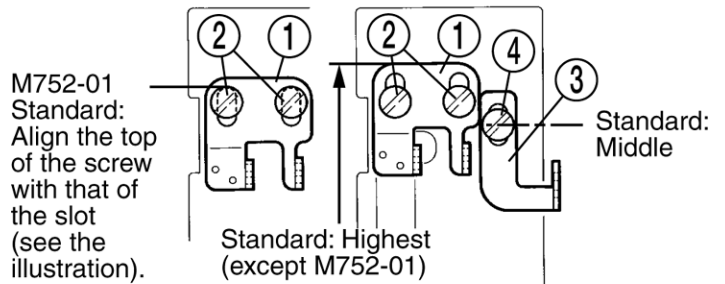


(45) Installing the retainer bracket

- 1) Secure retainer bracket ⑤ to the needle holder with screw ⑥ .

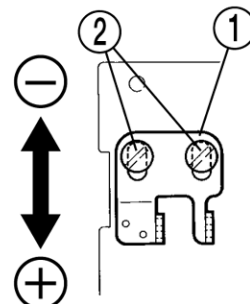
Model	Position of ①	Position of ③
Standard (except M752-01)	Highest	Middle
M752-01	See the illustration	Middle

M752 Series



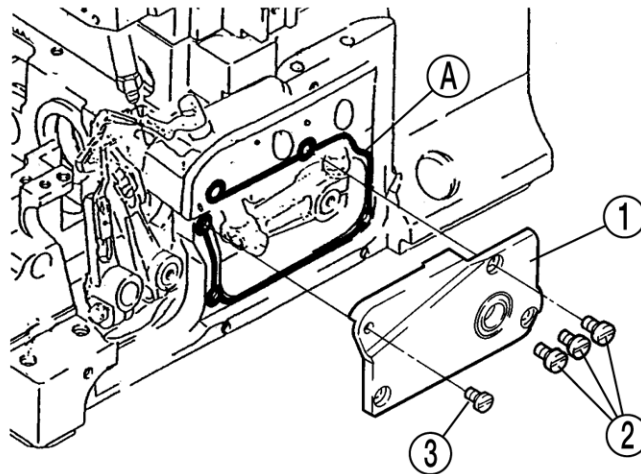
(46) Making a fine adjustment on the thread guide

- 1) Loosen two screws ② .
- 2) To increase the thread supply amount, lower thread guide ① toward (+). To decrease the thread supply amount, raise thread guide ① toward (-). (For blindstitch hemming bottoms or shirring, lower thread guide ① to its lowest position)



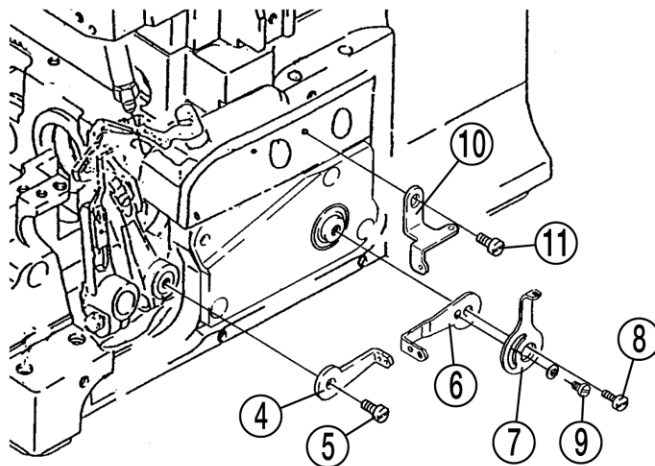
(47) Installing the looper holder cover

- 1) Wipe oil off area **A** on the bed (see the solidly shaded area). Then apply sealant (TSE397) to area **A**.
- 2) Secure looper holder cover **1** to the bed with screws **2** (three large) and **3** (one small).

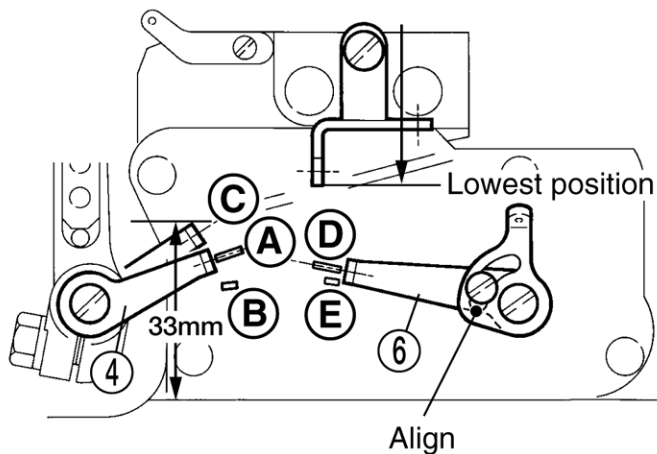


(47) Installing the looper thread guide

- 1) With the lower looper at the extreme right end of its travel, secure lower looper thread take-up **4** with screw **5** (see the illustration).
- 2) With the upper looper at the top of its travel, secure upper looper thread take-up **6** and auxiliary thread take-up **7** with screws **8** and **9** (see the illustration and the table below).
- 3) Bring looper thread guide **10** to its lowest position. Then tighten screw **11**.

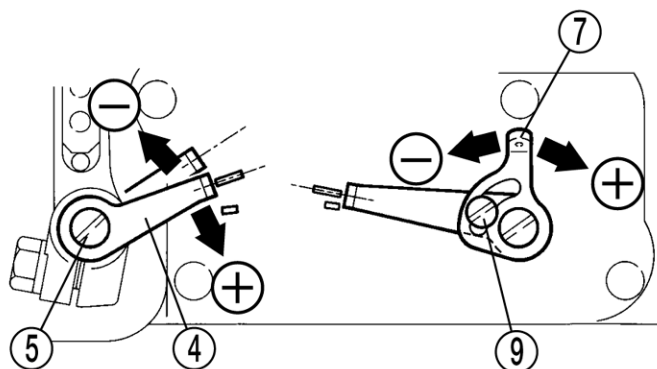


Model	Position of 4	Position of 6
M732	A	D
M752 (except -16S2,-23B)	A	D
M752-16S2	B	E
M752-23B	C (33mm)	D



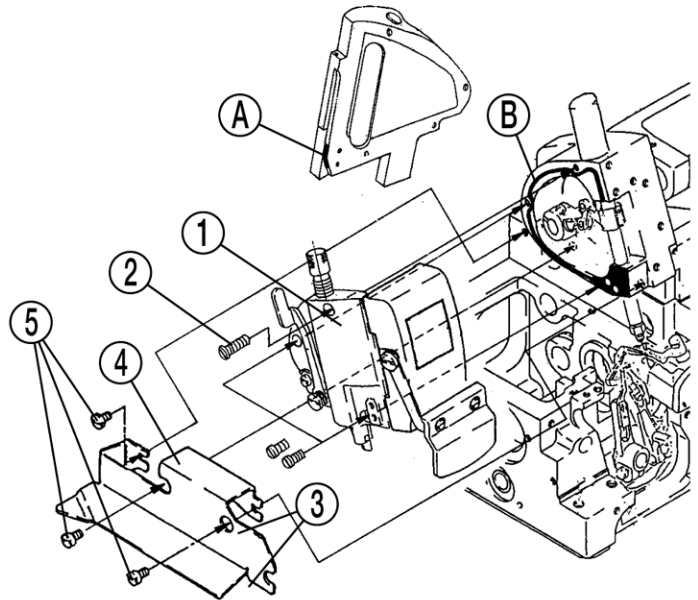
(49) Making a fine adjustment on the looper thread guide

- 1) Loosen screw **9**.
- 2) To increase the thread supply amount, move auxiliary thread take-up **7** toward (+). To decrease the thread supply amount, move auxiliary thread take-up **7** toward (-).
- 3) Loosen screw **5**.
- 4) To increase the thread supply amount, move lower looper thread take-up **4** toward (+). To decrease the thread supply amount, move lower looper thread take-up **4** toward (-).



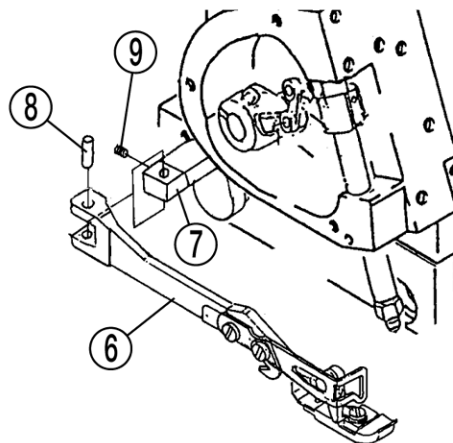
(50) Installing the side cover & fabric guard

- 1) Wipe oil off area **A** on side cover **1** and area **B** on the arm (see solidly shaded areas). Then apply sealant (TSE397) to **A** and **B**.
- 2) Secure side cover **1** with screw **2** and two short screws **3**.
- 3) Secure fabric guard **4** with three screws **5**.



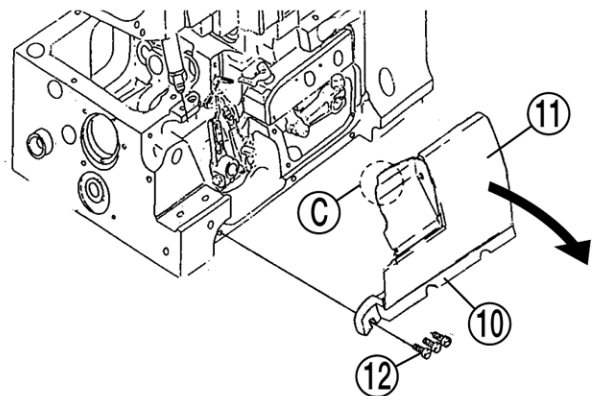
(51) Installing the presser foot

- 1) Fit presser arm **6** onto presser arm shaft **7**.
- 2) Insert pin **8** into presser arm **6** and presser arm shaft **7**.
- 3) Fit the bottom of screw **9** onto the flat surface. Then tighten screw **9**.



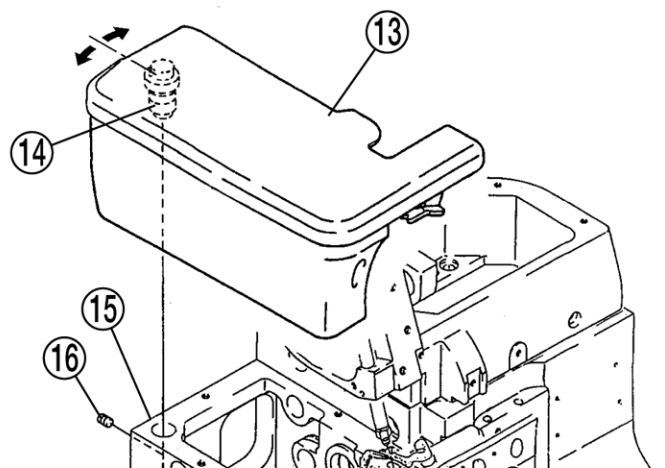
(52) Installing the front cover

- 1) Move front cover **11** to the right while holding front cover **10**.
- 2) Open front cover **11** toward you.
- 3) Tighten three screws **12**.
- 4) With front cover **11** closed tightly, check to make sure any other parts, such as the needle guards do not contact part **C** and then front cover **11** moves to the left or right easily.



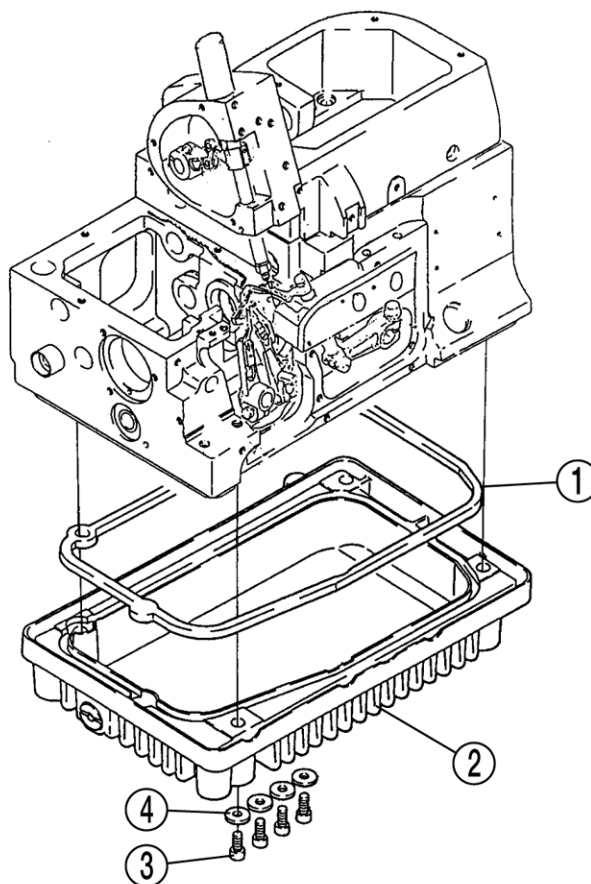
(53) Installing the cloth plate

- 1) Insert bushing **14** on cloth plate **13** into hole **15**.
- 2) Set a clearance of 0.3mm between the cloth plate and the needle plate. Adjustment is made by turning bushing **14** with a 2mm pin wrench, etc.
- 3) Tighten screw **16**.



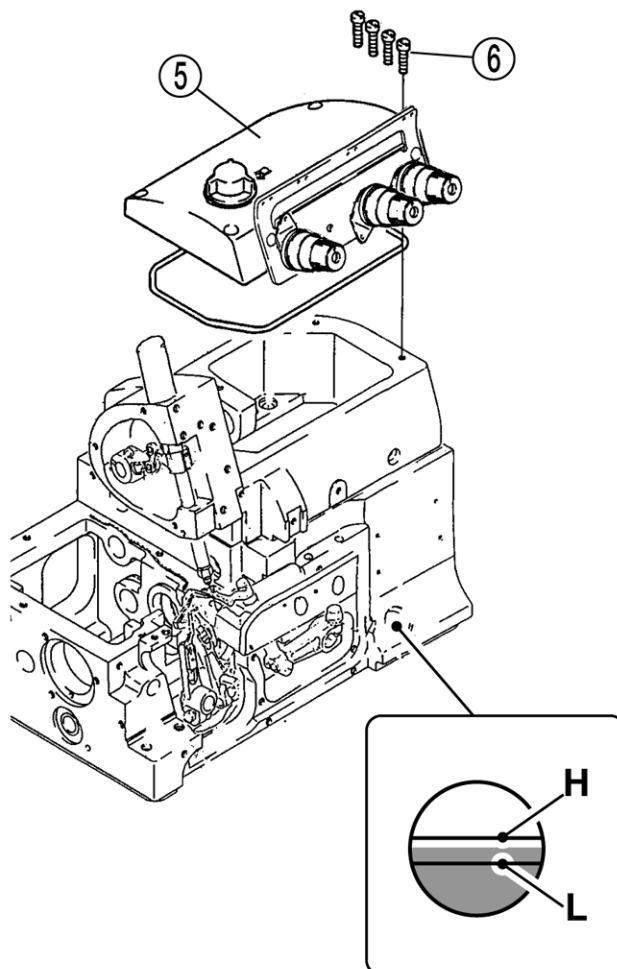
(54) Installing the oil reservoir

- 1) Check to see if gasket ① fits into the groove on oil reservoir ② .
- 2) Secure oil reservoir ② with four screws ③ and four washers ④.



(55) Installing the top cover/checking the oil level

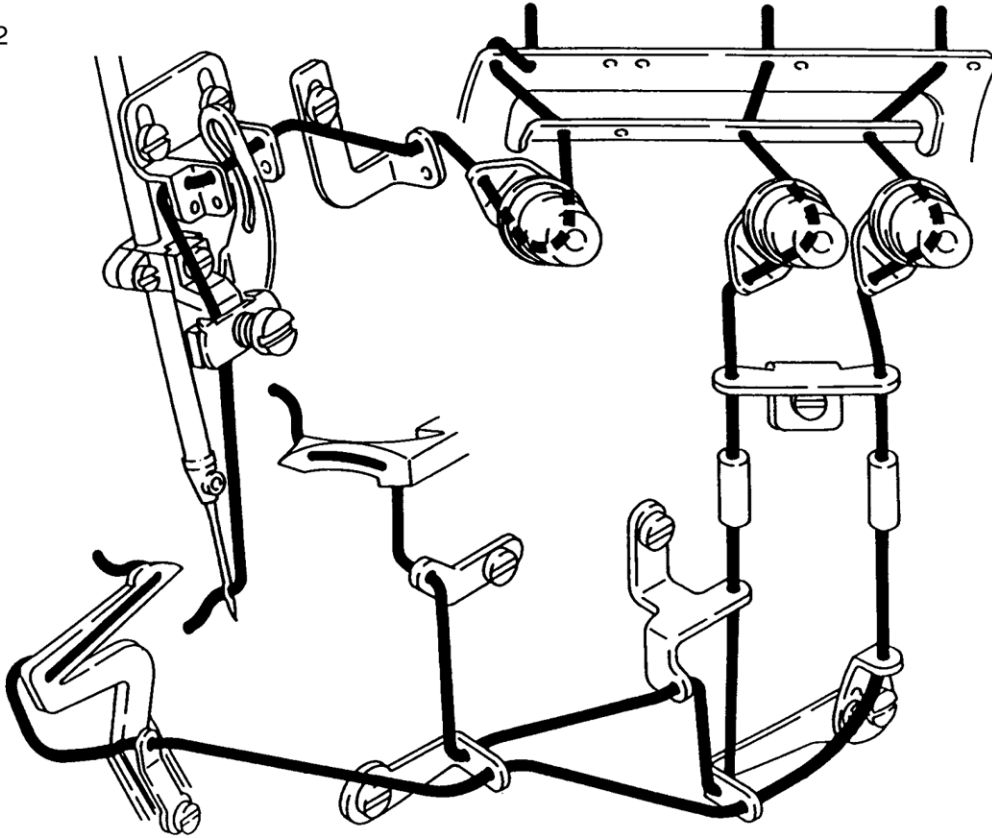
- 1) Secure top cover ⑤ with four screws ⑥.
- 2) Check the oil level (the indicator should lie between H and L).





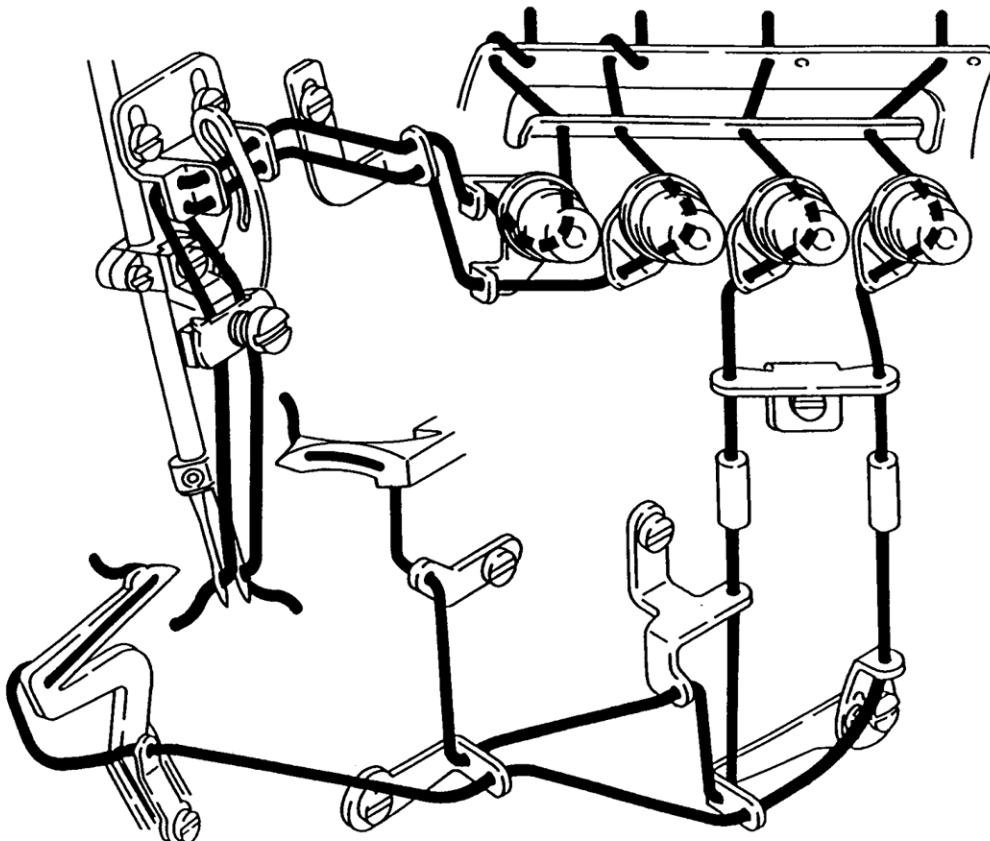
1-needle/3-thread overedgers **Stitch type: 504, 505**

M752-01
M752-16S2
M752-17
M752-54A
M752-180



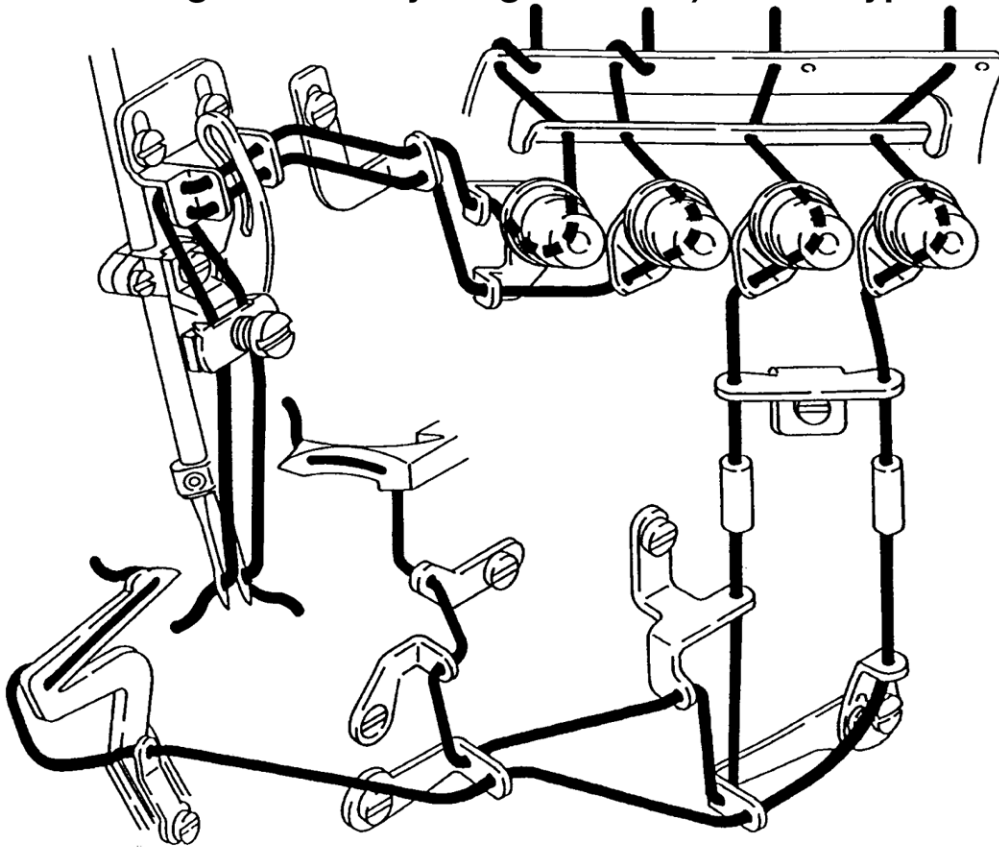
2-needle/4-thread overedgers **Stitch type: 514**

M752-13
M752-55A



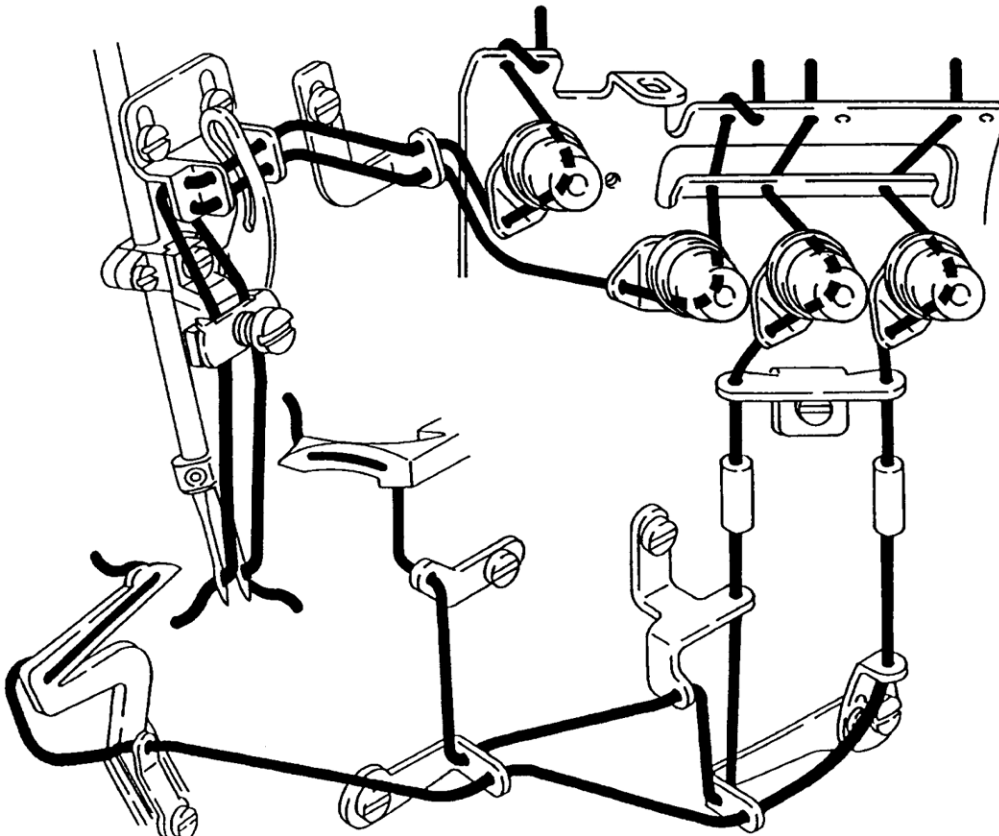
**2-needle/4-thread overedgers
(for plain seaming extra heavy weight fabrics) Stitch type:514**

M752-23B



● **2-needle/4-thread overedgers (for backlatching) Stitch type: 514**

M752-181



2-needle/5-thread safety stitch machines Stitch type: 516

M732-36

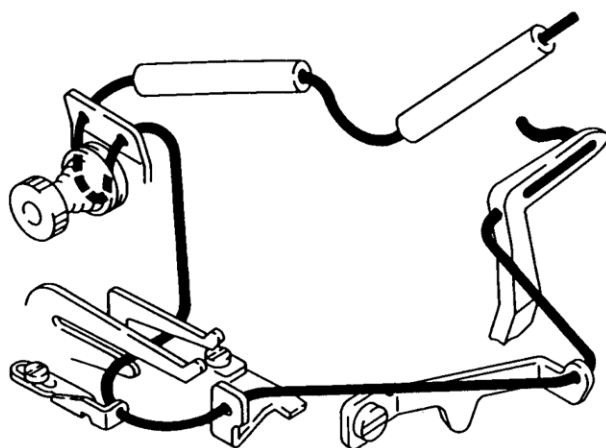
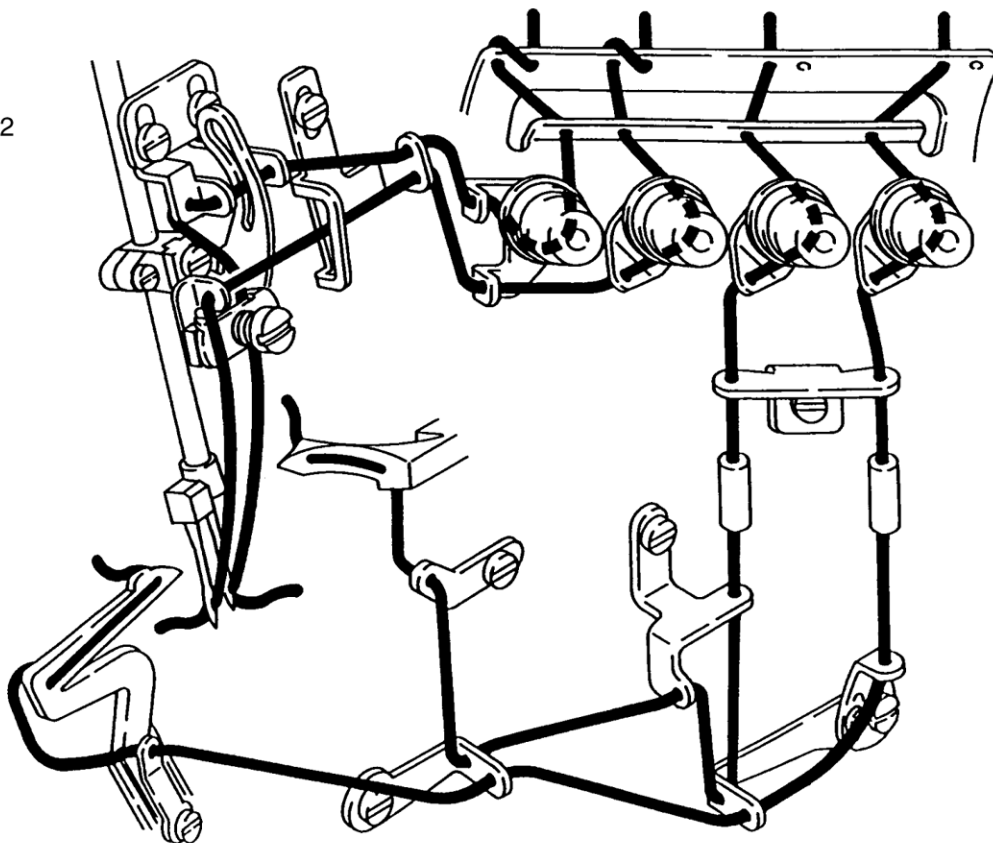
M732-38

M732-48

M732-48P2

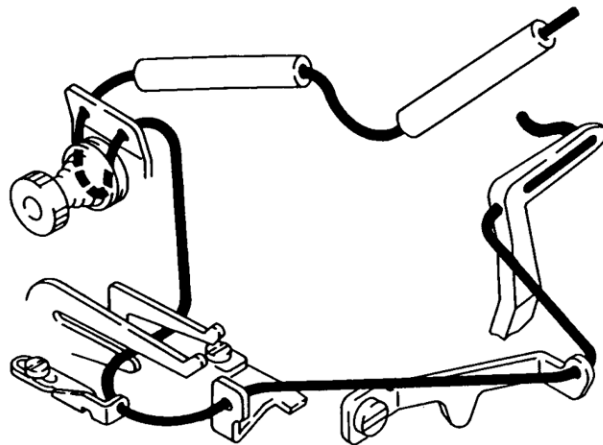
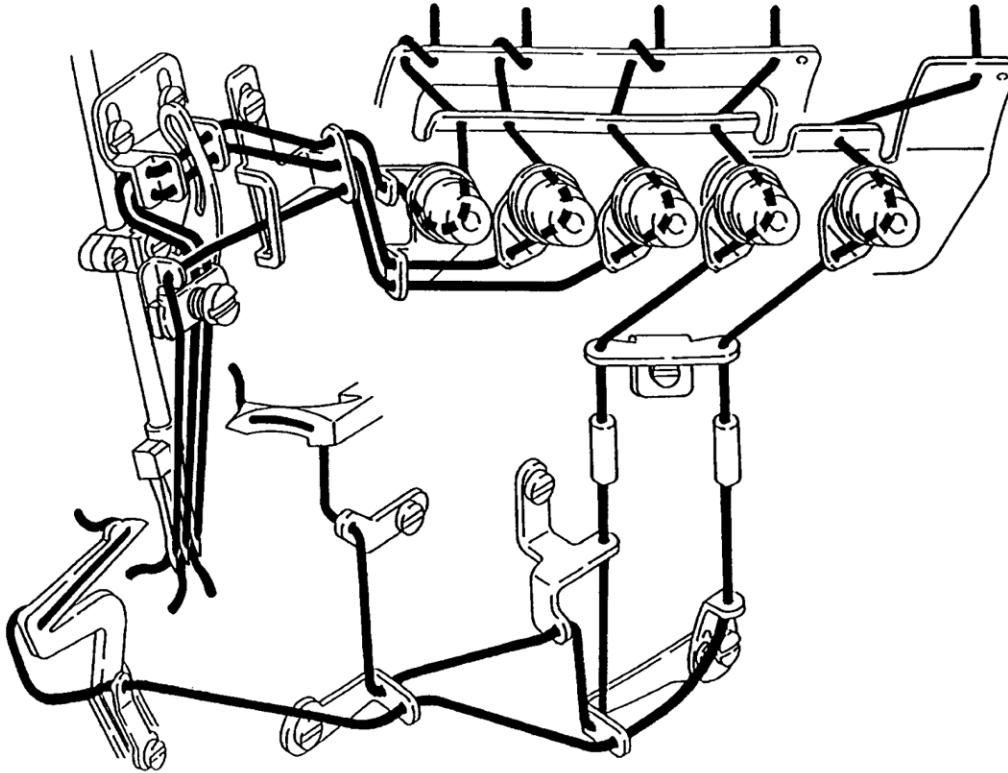
M732-70

M732-86

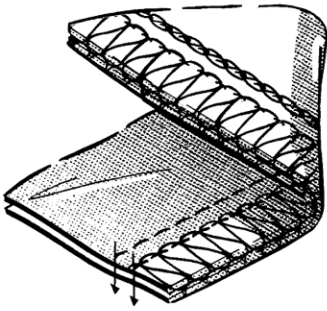


3-needle/6-thread safety stitch machines Stitch type: 401 + 514

M732-355

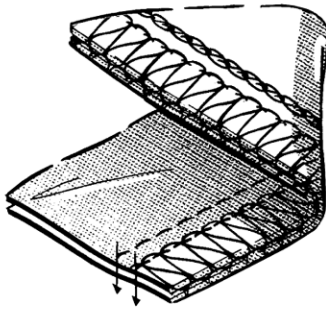


M732 Series



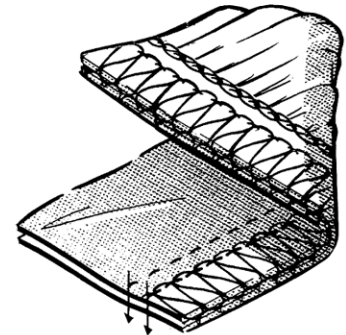
M732-36

Plain seaming light weight fabrics
2-needle 516



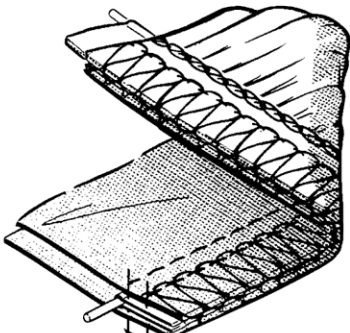
M732-38

Plain seaming medium weight fabrics
2-needle 516



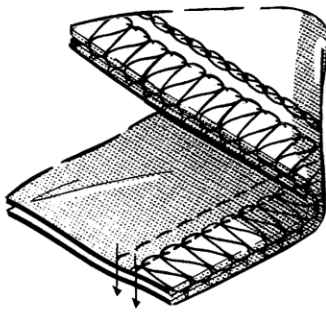
M732-48

Shirring on medium weight fabrics
2-needle 516



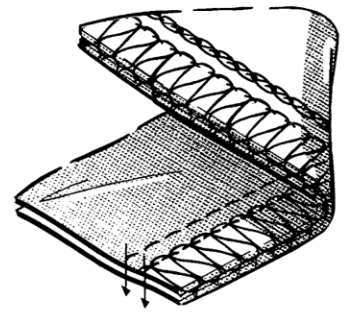
M732-48P2

Shirring while piping on medium weight fabrics
2-needle 516



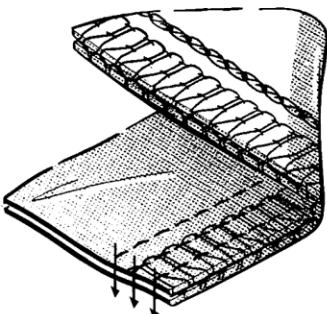
M732-70

Plain seaming medium weight fabrics
2-needle 516



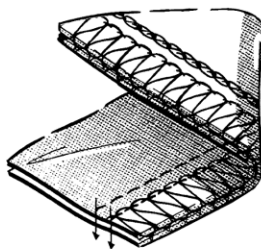
M732-86

Plain seaming extra heavy weight fabrics
2-needle 516



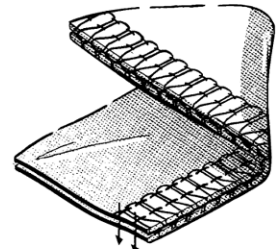
M732-355

Plain seaming medium weight fabrics for many purposes
3-needle 504+401



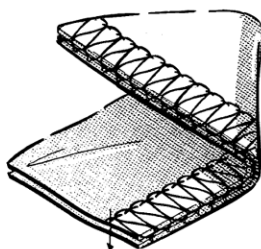
M732-355

Plain seaming medium weight fabrics for many purposes
2-needle 516



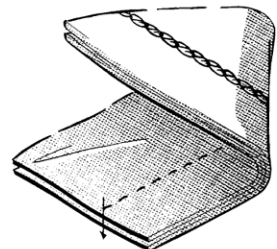
M732-355

Plain seaming medium weight fabrics for many purposes
2-needle 514



M732-355

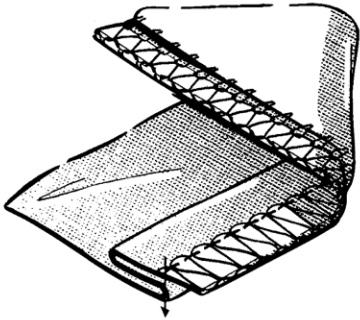
Plain seaming medium weight fabrics for many purposes
1-needle 504



M732-355

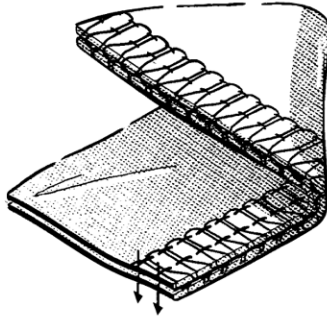
Plain seaming medium weight fabrics for many purposes
1-needle 401

M752 Series



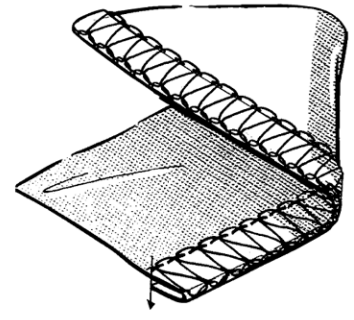
M752-01

Blindstitch hemming bottoms on light to medium weight fabric
1-needle 505



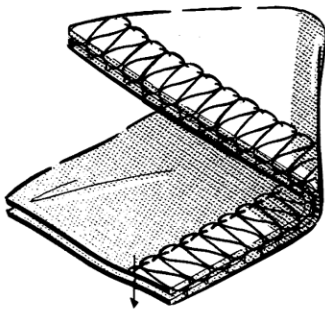
M752-13

Plain seaming light to medium weight fabrics
2-needle 514



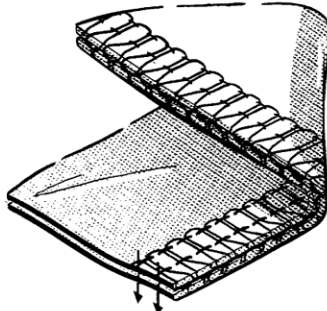
M752-16S2

Roll down hemming on light weight fabrics
1-needle 504



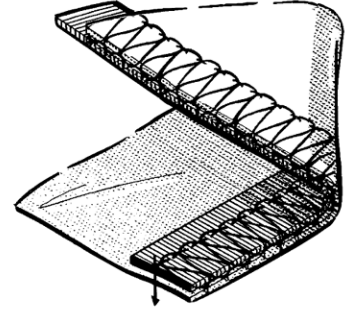
M752-17

Plain seaming light to medium weight fabrics
1-needle 504



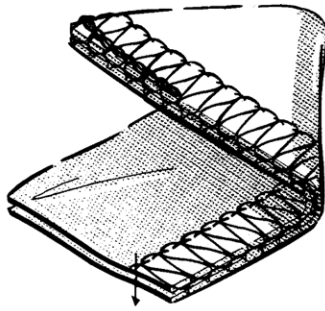
M752-23B

Plain seaming extra heavy weight fabrics
2-needle 514



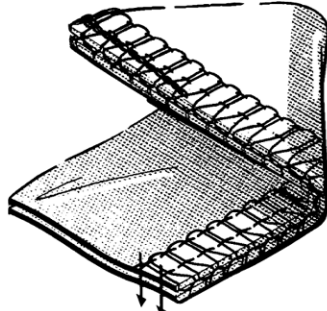
M752-54A

Attaching elastic on light to medium weight fabrics
1-needle 504



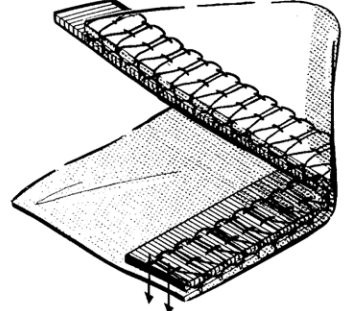
M752-180

Backlatching on light to medium weight fabrics
1-needle 504



M752-181

Backlatching on light to medium weight fabrics
2-needle 514



M752-55A

Attaching elastic on light to medium weight fabrics
2-needle 514

Troubleshooting for overedgers

Stitch skipping

Causes

1. Threading is not correct.
2. The needle being used is not proper.
3. Thread tension is too high or low.
4. The point of the needle is damaged.
The needle is bent.
5. The relationship between the needle and the looper is not proper.
6. The point of the upper and/or lower looper is damaged.
7. The relationship between the needle and the needle guards is not proper.

Remedies

1. Refer to "Threading diagram."
2. Refer to "Needle(s)," "Replacing the needle," and "Needle height."
3. Adjust the thread guides and thread tension nuts.
4. Replace the needle with the new one.
5. Refer to "Needle height," "Adjusting the lower looper" and "Adjusting the upper looper."
6. Sharpen each point of the loopers with a grindstone or sand paper.
Replace the looper if necessary.
7. Refer to "Adjusting the needle guards on overedgers."

Thread breakage

Causes

1. Threading is not correct.
2. The needle being used is not proper.
The needle is installed in a wrong way.
3. Thread tension is too high or low.
4. The thread stand is not installed vertically.
5. The point of the needle is damaged.
The needle is bent.
6. Needle heat
7. The relationship between the needle and the looper is not proper.

Remedies

1. Refer to "Threading diagram."
2. Refer to "Needle(s)," "Replacing the needle," and "Needle height."
3. Adjust the thread guides and thread tension nuts.
4. Install the thread stand straight so that the threads are supplied smoothly.
5. Replace the needle with the new one.
6. Replace the needle with the new one.
Readjust the needle guards on the overedger. Install the needle cooler (optional HR device).
7. Refer to "Needle height," "Adjusting the lower looper" and "Adjusting the upper looper."

Needle breaks

Causes

1. The needle being used is not correct.
The needle is installed in a wrong way.
2. The needle is too thick.
3. The needle is not correctly positioned in the needle drop hole.
4. The relationship between the needle and the looper is not proper.
5. The relationship between the needle and the needle guards is not proper.
6. The presser foot is not installed correctly.

Remedies

1. Refer to “Needle(s),” “Replacing the needle,” and “Needle height.”
2. Use the correct needle.
3. Install the needle plate correctly.
4. Refer to “Needle height,” “Adjusting the lower looper” and “Adjusting the upper looper.”
5. Refer to “Adjusting the needle guards on overedgers.”
6. Refer to “Installing the presser foot.”

Faulty stitching

Causes

1. Threading is not correct.
2. Thread count is larger than needle count.
3. Thread tension disks are not installed correctly.
4. The threads are not supplied smoothly.
5. The relationship between the needle and the looper is not proper.
6. The thread guides are not installed correctly.

Remedies

1. Refer to “Threading diagram.”
2. Use the proper needle.
3. Install the thread tension disks correctly so that they moves smoothly.
4. Install the needle cooler (optional HR device). Add silicone oil.
5. Refer to “Needle height,” “Adjusting the lower looper” and “Adjusting the upper looper.”
6. Refer to “Installing the thread guides.”

Finished seams are not good.

Causes

1. Threading is not correct.
2. The thread stand is not installed vertically.
3. The lower knife is not installed correctly.
4. The upper and lower knives do not cut the threads and fabrics smoothly.
5. The thread guides are not installed correctly.
6. The threads are not supplied smoothly through the thread guides.

Remedies

1. Refer to “Threading diagram.”
2. Install the thread stand straight so that the threads are supplied smoothly.
3. Refer to “Removing/Installing the lower knife.”
4. Refer to “Removing/Installing the upper knife,” “Removing/Installing the lower knife” and “Adjusting/Sharpening the lower knife.”
5. Refer to “Installing the thread guides.”
6. Remove all burrs and nicks from the thread guides.

Puckering

Causes

1. Thread tension is too heavy.
2. Presser foot pressure is not proper.
3. Differential feed amount is not proper.
4. The needle is too thick.
5. The knives do not cut the threads and fabrics smoothly.
6. Overedge width does not match the width of the needle plate finger.
7. The feed dogs are not installed correctly.

Remedies

1. Obtain the proper thread tension.
2. Adjust the presser foot so that the proper presser foot pressure is achieved. Refer to “Adjusting the presser foot pressure.”
3. Refer to “Adjusting the differential feed ratio.”
4. Use the proper needle.
5. Refer to “Removing/Installing the upper knife,” “Removing/Installing the lower knife” and “Adjusting/Sharpening the lower knife.”
6. Change the overedge width according to the width of the needle plate finger. Replace the needle plate with another one.
7. Refer to “Height of the feed dogs” and “Tilt of the feed dogs.”

Yarn severance

Causes

1. The point of the needle is damaged.
2. The needle is too thick for the fabric
3. The needle is not correctly positioned in the needle drop hole.
4. The needle height is not proper.
5. Needle heat
6. The area around the needle drop hole on the needle plate is damaged.
7. The relationship between the needle and the looper is not proper.

Remedies

1. Replace the needle with the new one.
2. Use the proper needle.
3. Install the needle plate correctly.
4. Refer to “Replacing the needle” and “Needle height.”
5. Replace the needle with the new one. Readjust the needle guards on overedgers. Install the needle cooler (optional HR device). Add silicone oil.
6. Remove all burrs and nicks from the needle drop hole .
7. Refer to “Needle height,” “Adjusting the lower looper” and “Adjusting the upper looper.”

Thread chain is not produced properly.

Causes

1. Threading is not correct.
2. Thread tension is not proper.
3. The thread guides are not installed correctly.
4. The relationship between the needle and the looper is not proper.
5. The needle plate and/or the presser foot finger is damaged.

Remedies

1. Refer to “Threading diagram.”
2. Adjust the thread guides and tension disks.
3. Refer to “Installing the thread guides.”
4. Refer to “Needle height,” “Adjusting the lower looper” and “Adjusting the upper looper.”
5. Remove all burrs and nicks from the needle plate and/or the presser foot finger.

Fabric damage by the feed dogs

Causes

1. Presser foot pressure is too heavy.
2. The feed dog teeth is too sharp.

Remedies

1. Refer to “Adjusting the presser foot pressure.”
 2. Grind the feed dogs with a grindstone.
-

Troubleshooting for double chainstitch machines

Stitch skipping

Causes

1. Threading is not correct.
2. The needle is not installed correctly.
3. The point of the needle is damaged.
The needle is bent.
4. Thread tension is not proper.
5. Needle heat
6. The height of the looper thread take-up is not correct.
The looper thread guides are not installed correctly.
7. The relationship between the needle and the looper is not proper.
8. The point of the double chainstitch looper is damaged.
9. The relationship between the needle and the needle guards is not proper.

Remedies

1. Refer to "Threading diagram."
2. Refer to "Needle(s)" and "Replacing the needle."
3. Replace the needle with the new one.
4. Adjust the thread guides and thread tension disk nuts.
5. Install the needle cooler (optional HR device). Add silicone oil.
6. Refer to "Adjusting the double chainstitch looper thread regulator."
7. Refer to "Needle height" and "Adjusting the double chainstitch looper."
8. Grind the point of the looper with a grindstone or buff.
Replace the looper with the new one.
9. Refer to "Adjusting the double chainstitch needle guards."

Thread breakage

Causes

1. Threading is not correct.
2. The needle being used is not proper.
The needle is installed in a wrong way.
3. Thread tension is too heavy or light.
4. The thread stand is not installed vertically.
5. The point of the needle is damaged.
The needle is bent.
6. Needle heat
7. The relationship between the needle and the looper is not proper.

Remedies

1. Refer to "Threading diagram."
2. Refer to "Needle(s)," "Replacing the needle" and "Needle height."
3. Adjust the thread guides and tension disks.
4. Install the thread stand straight so that the thread is supplied smoothly.
5. Replace the needle with the new one.
Adjust the double chainstitch needle guards.
6. Install the needle cooler (optional HR device). Add silicone oil.
7. Refer to "Needle height" and "Adjusting the double chainstitch looper."

Needle breaks

Causes

1. The needle is installed in a wrong way.
2. The needle is too thin.
3. The needle is not correctly positioned in the needle drop hole.
4. The relationship between the needle and the double chainstitch looper is not proper.
5. The relationship between the needle and the needle guards is not proper.
6. The presser foot is not installed correctly.
7. The needle is bent.

Remedies

1. Refer to “Needle(s),” “Replacing the needle,” and “Needle height.”
2. Use the proper needle.
3. Install the needle plate correctly.
4. Refer to “Needle height,” “Adjusting the double chainstitch looper.”
5. Refer to “Adjusting the double chainstitch needle guards.”
6. Refer to “Installing the presser foot.”
7. Replace the needle with the new one.

Faulty stitching

Causes

1. Threading is not correct.
2. The thread being used does not match the thickness of the needle.
3. Thread tension disks are not installed correctly.
4. The threads are not supplied smoothly.
5. The relationship between the needle and the looper is not proper.
6. The thread guides are not installed correctly.
7. The looper thread take-up is not installed correctly.

Remedies

1. Refer to “Threading diagram.”
2. Use the proper needle.
3. Install the thread tension disks correctly so that they moves smoothly.
4. Install the needle cooler (optional HR device). Add silicone oil.
5. Refer to “Needle height” and “Adjusting the double chainstitch looper.”
6. Refer to “Installing the thread guides.”
7. Refer to “Adjusting the double chainstitch looper thread regulator.”

Puckering

Causes

1. Differential feed amount is not proper.
2. Thread tension is too heavy.
3. The looper thread regulator and thread guide are not installed correctly.

Remedies

1. Refer to “Adjusting the differential feed ratio.”
2. Obtain the proper thread tension.
3. Refer to “Adjusting the double chainstitch looper thread regulator.”

Thread chain is not produced properly.

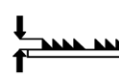
Causes

1. Threading is not correct.
2. Thread tension is not proper.
3. The thread guides are installed in a wrong way.
4. The height of the main feed dog is not equal to that of the differential feed dog.
5. The position of the feed dogs is too high.
6. The bottom surface of the presser foot is not parallel with the top surface of the needle plate.
7. The looper thread regulator is not installed correctly.
8. The relationship between the needle and the double chainstitch looper is not proper.
9. The main feed dog teeth is too sharp.

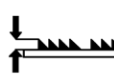
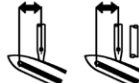
Remedies

1. Refer to “Threading diagram.”
2. Adjust the thread guides and tension disks.
3. Refer to “Installing the thread guides.”
4. Refer to “Height of the feed dogs.”
5. Refer to “Height of the feed dogs.”
6. Refer to “Installing the feed dogs.”
7. Refer to “Adjusting the double chainstitch looper thread regulator.”
8. Refer to “Needle height” and “Adjusting the double chainstitch looper.”
9. Grind the main feed dog with a grindstone.

Adjustment dimensions



Subclass	Needle height (mm)	Lower looper-needle setting distance (mm)	Upper looper-needle setting distance (mm)	Feed dog height (mm)	Presser foot lift (mm)	Double chainstitch looper-needle setting distance (mm)
M732-36	10.6	3.9	5.1	0.9~1.1	5.5	1.5
M732-38	10.6	3.9	5.1	0.9~1.1	5.5	1.5
M732-48	10.1	3.9	5.1	0.9~1.1	5.5	1.5
M732-48P2	10.1	3.9	5.1	0.9~1.2	5.0	1.5
M732-70	10.6	3.9	5.1	0.9~1.1	5.5	1.5
M732-86	12.0	3.4	5.1	0.9~1.1	5.5	1.5
M732-355	12.0	3.6	5.8	0.9~1.1	5.5	1.5



Subclass	Needle height (mm)	Lower looper-needle setting distance (mm)	Upper looper-needle setting distance (mm)	Feed dog height (mm)	Presser foot lift (mm)	
M752-01	10.1	4.2	5.1	0.9~1.1	5.5	
M752-13	10.4	4.2	5.8	0.9~1.1	5.5	
M752-16S2	10.1	4.2	5.1	0.9~1.1	5.5	
M752-17	10.1	4.2	5.1	0.9~1.1	5.5	
M752-23B	10.6	4.2	5.8	0.9~1.1	7.0	
M752-54A	10.1	4.2	5.1	0.9~1.1	6.0	
M752-55A	10.4	4.2	5.8	0.9~1.1	5.5	
M752-180	10.1	4.2	5.1	0.9~1.1	5.5	
M752-181	10.4	4.2	5.8	0.9~1.1	5.5	

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