

SERVICE INSTRUCTIONS FOR 591D303A MACHINE (PULLER FEED SYSTEM)

POSITION OF THE DRIVE ECCENTRIC (See Fig. 1)

Set the machine to the maximum stitch length.

Position the drive eccentric (1) on the arm shaft such that the roller and feed dog move in unison.

The approximate radial timing for this eccentric is such that when the needle bar is at the top of its stroke the timing screw (with "T" mark) on the eccentric will be approximately at a 10 o'clock position on the arm shaft when viewed from the face plate end of the machine.

When finally tightening the three set screws in the driving eccentric ensure that the connecting rod (2) is centrally positioned on the eccentric. This eliminates any side loading due to misalignment of the connecting rod.

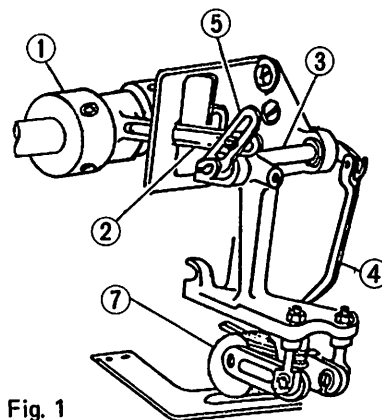


Fig. 1

POSITION OF THE FEED ROLLER LINK (See Fig. 1 and Fig. 2)

Set the needle bar at the top of its stroke.

Loosen the clamping screw of adjusting crank (5).

Position drive shaft (3) such that its drive arm and also the drive arm of feed roller shaft (8) are perpendicular to feed roller link (4).

Retighten clamping screw on crank (5).

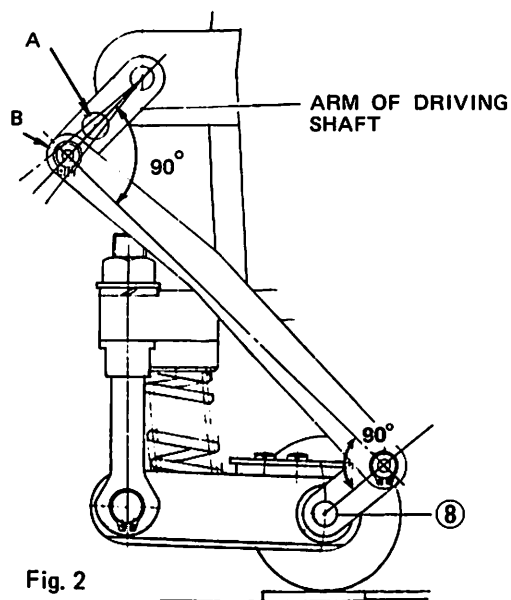


Fig. 2

ADJUSTING THE AMOUNT OF THE ROLLER FEED (See Fig. 3)

Set the machine to the desired stitch length.

Adjust the position of connecting rod end on the adjustable crank by loosening the lock nut (6) to matching stitch length or slightly larger if required by the application. The amount of the roller feed will become smaller when the connecting rod end of the adjustable crank is raised and becomes larger when crank is lowered. (See Fig. 1 and Fig. 3)

Note: Check whether the amount of roller feed is adequate or not by placing a sheet of paper under the presser foot and feed roller (7) and by turning the machine pulley.

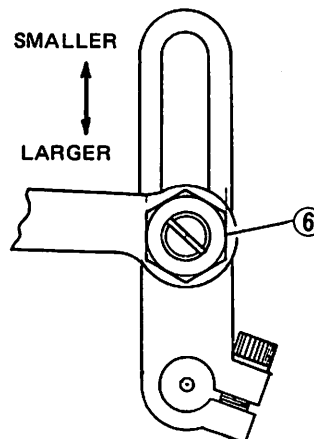


Fig. 3

HOW TO USE THE TWO HOLES ON THE LEVER OF THE DRIVING SHAFT (See Fig. 2)

The 2 holes provided on the driving shaft (3) lever is used as follows depending upon the stitch length of the sewing machine which is set with the feed regulating dial.

When the sewing machine stitch length is set within the boundaries of 20 S.P.I. – 8 S.P.I.,
..... use the short pitch hole A.

When the sewing machine stitch length is set between 10 S.P.I and 4 S.P.I.,
..... use the long pitch hole B.

OILING (See Fig. 4)

In addition to the automatic oil wicking system, it is recommended that a few drops of SINGER TYPE "C" oil be added every two weeks to the location shown in Fig. 4.

If the needle bearings of drive shaft (3) are replaced, they should be packed with a bearing grease similar to Exxon Unirex N3.

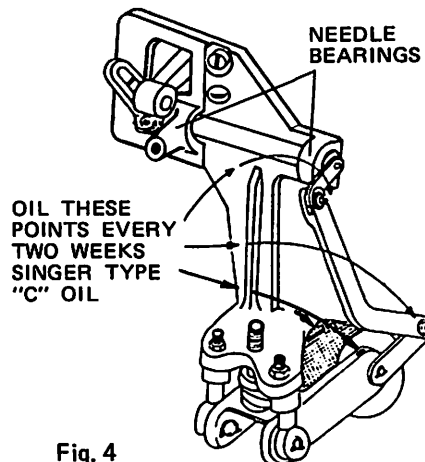


Fig. 4

TO REPLACE THE REAR COVER PLATE

When rear cover plate is replaced after removing it from the rear of arm, it is necessary to apply seal compound (Three Bond #1104 or equivalent) to the gasket glued onto the cover plate in order to prevent oil leakage.

TO REPLACE THE FEED ROLLER LIFTING CABLE (See Fig. 5)

Hook the ball of the lifting cable (9) into the lifting arm (10) adjusting the ball upward so that it will not vibrate out of place. Fix with the lock nut (11).

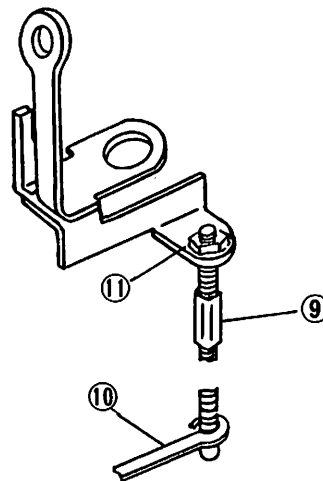


Fig. 5

SERVICE INSTRUCTIONS FOR 591D305A MACHINE (VERTICAL EDGE TRIMMER SYSTEM)

POSITION OF THE DRIVE ECCENTRIC AND THE SLIDE BLOCK (See Fig. 1)

The approximate radial timing for this eccentric (1) is such that when the needle bar is at the top of its stroke, the timing screw (with "T" mark) on the eccentric will be approximately at a 10 o'clock position on the arm shaft when viewed from the face plate end of the machine.

With the eccentric secured in this position, the timing of the knife will be as follows:

Knife should just begin to cut as the feed dog completes its forward motion.

Continue to rotate the arm shaft until the knife is at bottom of its stroke. Loosen feed clamp (2) and with the arm shaft fixed, move slide block (3) to within $1/32''$ (0.8mm) above the end of guide post (4). Re-tighten feed clamp (2).

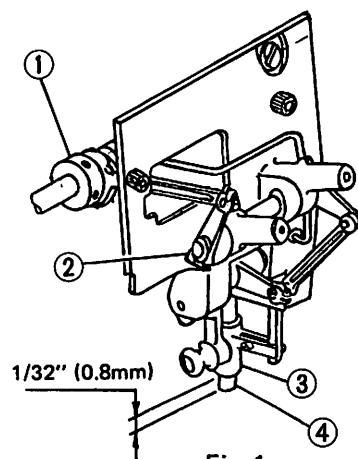


Fig. 1

ASSEMBLING THE KNIFE (See Fig. 2)

With the slide block at the top of its stroke, position the knife such that the pilot on the knife is approximately $1/16''$ (1.6mm) below cutting bar (5).

Set the knife (6) parallel to cutting bar (5) by adjusting set screws (7) and (8).

The knife should now be set to touch the cutting bar with minimal pressure and secured with screw (9). At this setting the knife should be capable of cutting a single strand of fine thread at both extremes of cutting edge when machine is operated by hand.

Adjust lock-up spring (10) until the pressure against screw (9) is sufficient to hold mechanism in disengaged position. Secure spring (10) in this position.

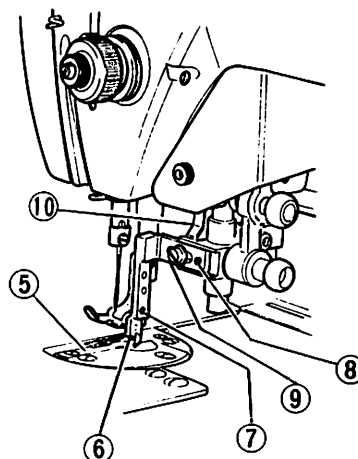


Fig. 2

TO REPLACE THE REAR COVER PLATE

When rear cover plate is replaced after removing it from the rear of arm, it is necessary to apply seal compound (Three Bond #1104 or equivalent) to the gasket glued onto the cover plate in order to prevent oil leakage.