



PEGASUS®

INSTRUCTION

FOR

MODEL

DCP-101

DCP-101W DCP-103 DCP-105 DCP-109

HIGH SPEED

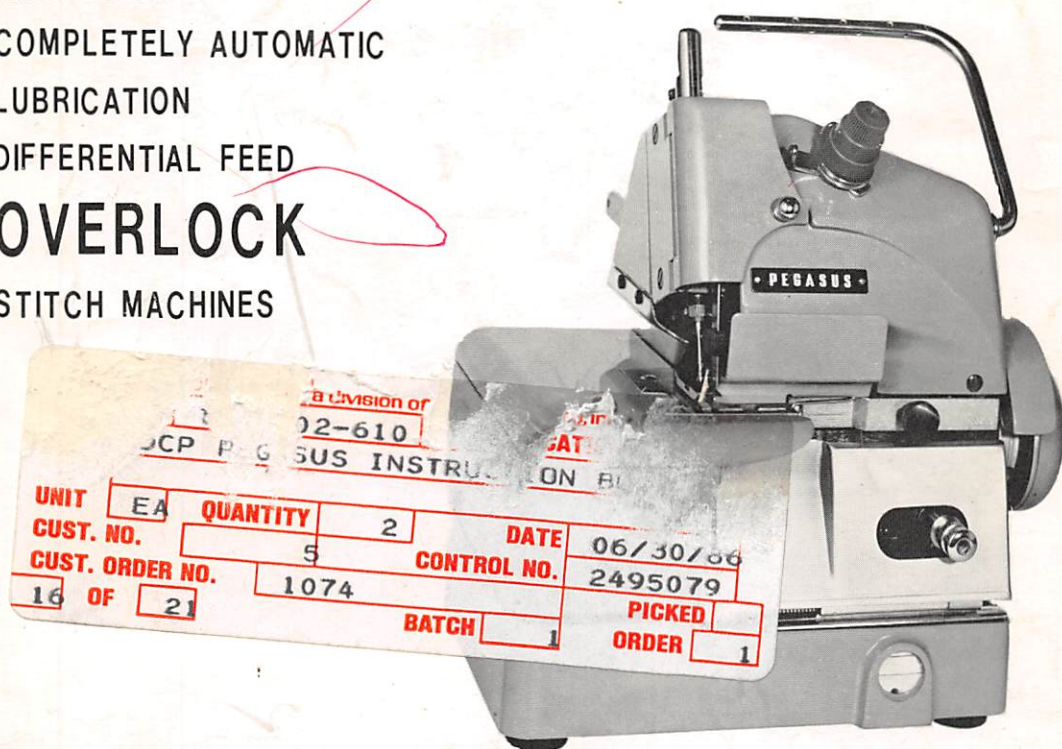
COMPLETELY AUTOMATIC

LUBRICATION

DIFFERENTIAL FEED

OVERLOCK

STITCH MACHINES



Model DCP-101

MIMA SEWING MACHINE CO., LTD.

OSAKA TOKYO
JAPAN

From the library of: Superior Sewing Machine & Supply LLC

ORGANIZATION CHART:

Model	Number of		Type of Presser Foot	Seam Width (mm)	Stitch Range (SPI)	Attachment	Remarks
	Needles (gauge)	Threads					
DCP-101	1	3	Solid	2-4	8-18	Welting guide	Plain overedging, hemming and welting
DCP-101W	1	3	Hinged	2-4	8-18	Edge guide	General plain overedging
DCP-103	1	2	Hinged	3-4	7-17	Edge guide	Serging on woven fabrics
DCP-105	2 (2mm)	4	Solid	4-6	9-16	Edge guide	Double needle seaming on knitted fabrics
DCP-109	2 (2mm)	4	Solid	4-6	9-16	Edge guide	Double needle seaming on woven fabrics

FEATURES:

- 4,500 stitches per minute
- Completely automatic lubrication mechanism
- Differential feeding system
- Totally enclosed mechanism
- Independent drive system of right and left loopers
- Single main crankshaft in one piece
- Simplified threading
- Uniform stitches at all speeds
- Effortless, quiet operation

SPECIFICATIONS:

- Continuous Rating : 4,200 stitches per minute
 Stitch Range : 8-18 stitches per inch adjustable by wrench
 Seam Width : 2mm (0.08")-4mm (0.16")
 Lift Clearance under presser foot : 4mm (0.16")
 Needle Type & Size : DC x 1 (81 x 1)
 #9 #13 & #14 available
 Type of Feed : Differential
 Presser Foot : Solid or Hinged
 Installation : Flush (Non-submerged)

CAUTION! Run machine at recommended speed

Machine, being operated at higher than recommended speed of 3,500 rpm for 2 weeks at least after starting operation, will cause excessive wear and costly damage to parts. 4,000 rpm to 4,200 rpm is recommended as continuous rating after 2 weeks from starting operation.

TO OIL THE MACHINE

Caution! Oil was drained from machine when shipped, so oil reservoir (machine base, Fig. 1, C & Fig. 11) must be filled with oil before beginning to operate. Oil reservoir contains 400 cc and is filled with oil at oil filler cup (Fig. 5,V) located at the back of machine bed after opening frame rear cover (Fig. 5,R) backward.

Oil level is checked at oil sight gauge (Fig. 1) located in front of oil reservoir. Fill oil so that oil level can be maintained between two gauge lines (Fig. 1, A and B). Daily check of oil is necessary before morning start; add oil as required. Oil level should not be maintained above the upper gauge line (Fig. 1,A) or under the lower gauge line (Fig. 1, B).

One or two drops of manual lubricating is required to the following parts before morning operation. All other moving parts are automatically lubricated and do not require manual lubricating.

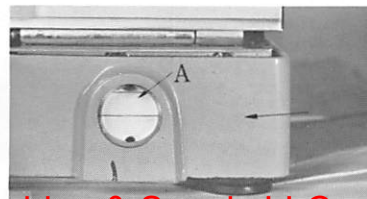
Needle Bar Bushings (upper and lower)..... Fig. 2, D and E

Needle Bar Connecting Link..... Fig. 2, F

After filling reservoir with oil, run machine and check circulation of oil through oil vinyl tubes (Fig. 5, U) at the back of machine.

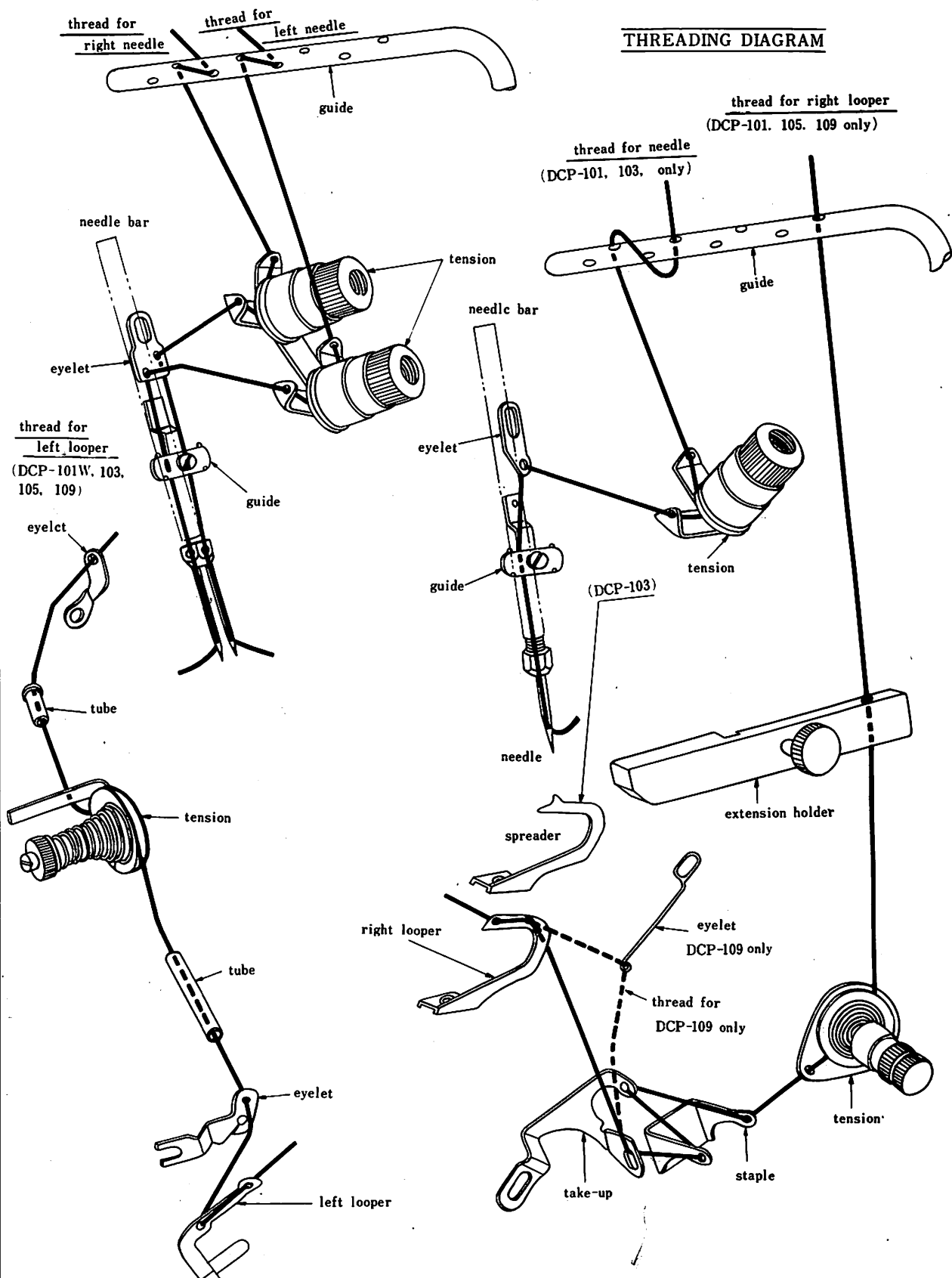
To keep oil clean and fresh, entire change of oil is recommended after one-month starting operation, and at least once every three months. Before filling with oil, oil reservoir must be thoroughly drained and cleaned of all lint and dust.

Fig. 1



TWO-NEEDLE THREADING for Model DCP-105 & 109 only

THREADING DIAGRAM



NEEDLE & THREAD

Needles for DCP-100 series are of chrome plated, straight blade, type DC x 1 (81 x 1), and available sizes are 9, 11, 14 and 16. Each needle has both a type number and a size number, and a size number is stamped on needle shank. The size of needle should be determined by the size of thread and thickness or weight of material.

Generally speaking needle of a size #9 is recommended for light weight material, size #11 for medium and #14 for medium heavy weight material. When ordering needles, the following example will be an intelligible order.

"100 Needles Type DC x 1 Size No. 11" or "100 DC x 1 #11"

Thread to be used must pass freely through needle and looper eyes. To use rough or uneven thread, or thread which passes with difficulty, will interfere with proper stitch formation or cause thread breakage.

TO CHANGE THE NEEDLE (See Fig. 2 or 3)

Turn balance wheel in operating direction until needle bar is at its highest position. With wrench, furnished with machine, loosen needle clamp nut (Fig. 2 or 3, G) about 1/4 turn and withdraw needle.

Insert needle in needle bar as far as it will go, with long groove to the front. Holding it in position, securely tighten needle clamp nut (G).

The needle for DCP-105 and 109, 2-needle machine, is clamped with screw. Inserting or withdrawing needles is simply made by loosening or tightening screw with screw driver.

TO THREAD THE NEEDLE, RIGHT & LEFT LOOPERS (See Page 6)

Threadings for DCP-100 series are shown in the THREADING DIAGRAM in page 6. However, the simplest way of threading is to tie a fresh thread with the end of a thread originally passed in the machine immediately after the delivered machine is unpacked and mounted, and draw a thread until a fresh thread comes out through needle and looper eye.

Caution! Draw about two inches (50mm) of thread through needle and looper eyes, with which to start sewing.

TO REGULATE THE THREAD TENSION

(See Fig. 2, 3 & 4)

The amount of tension on needle and looper threads is regulated by each tension nut (Fig. 2, H, Fig. 3, I and Fig. 4, J). Tension on threads should be only enough to secure proper stitch formation. In general for DCP-100 series proper stitch formation will be obtained by tightening needle tension nut (Fig. 2, H) and loosening looper thread tension nuts (Fig. 3, I and Fig. 4, J).

TO REGULATE THE PRESSURE OF PRESSER FOOT (See Fig. 3)

Pressure of presser foot on material is regulated by means of thumb nut (Fig. 3, W). To increase pressure, turn thumb nut (W) clockwise or downward. To decrease pressure, turn thumb nut (W) anticlockwise or upward. Too much pressure on presser foot may spoil material.

TO REGULATE THE SEAM WIDTH (See Fig. 4)

Loosen thumb screw (Fig. 4, K), and swing out cloth plate (L) to left. Loosen screw (M) and turn screw (N) until proper seam width is obtained. Lower knife will move to right and left slightly as screw (N) is turned, and upper knife will move simultaneously with lower knife, so no lateral adjustment on upper knife is required when seam width is changed. Tighten screw (M) and move cover extension holder (O) to left so that left edge of cover extension (P) slightly touches upper knife when upper knife is at its lowest position. Tighten thumb screw (K) securely.

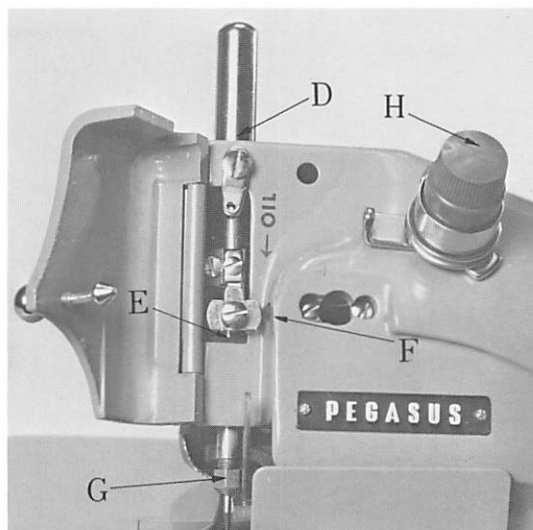


Fig. 2

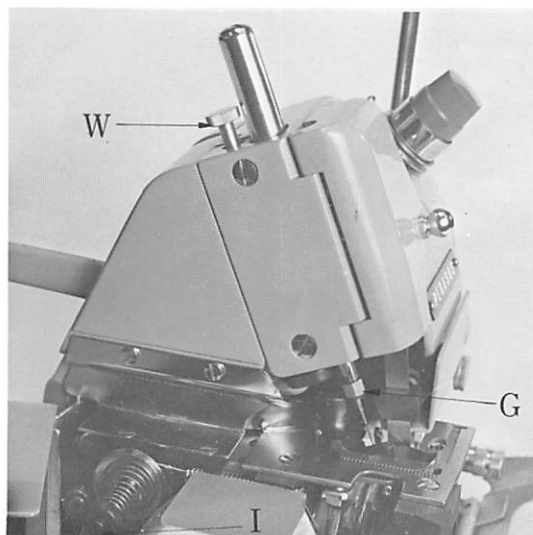


Fig. 3

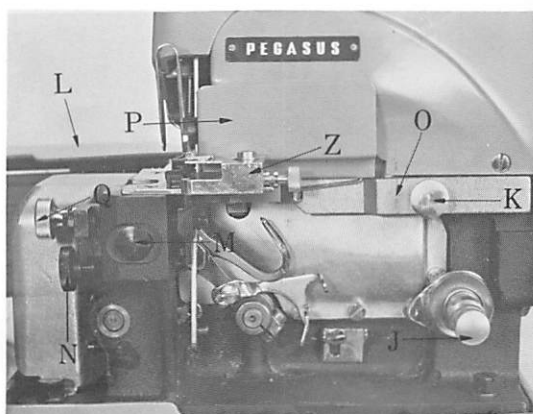


Fig. 4

TO REGULATE THE STITCH LENGTH (See Fig. 5)

In general main feeding determines number of stitches to be produced and differential feeding ratio is selected in relation to degree and direction of stretch of material to be sewn.

To regulate main feeding, turn balance wheel until main feed dog (back) is positioned as close to the front as possible. Swing out frame rear cover (Fig. 5, R) backward. Loosen screw (S) with wrench, furnished with machine. To move screw (S) upward will increase stitch length and to move screw (S) downward will decrease stitch length. Note that the amount of main feeding will change slightly as differential feeding ratio is changed.

To regulate differential feeding, loosen screw (T) with wrench. To move screw (T) upward will shrink material to be sewn. To move screw (T) downward will stretch material. Note that the amount of main feeding will change slightly as differential feeding ratio is changed.

TO CHANGE THE LOWER KNIFE (See Fig. 4 & 7)

In preparation for removing lower knife, loosen screw (K) and move cover extension holder (O) to right and swing out cloth plate to left. Loosen thumb screw (Q) and lower knife will be withdrawn downward.

Cutting edge flush of lower knife must be set with needle plate surface as shown in Fig. 7. Be sure to tighten thumb screw (Q) after lower knife is set correctly. Caution! To set cutting edge flush of lower knife above or below needle plate surface must be avoided.

TO CHANGE THE UPPER KNIFE (See Fig. 6 & 7)

To remove upper knife, loosen screw (W) and withdraw upper knife upward. Upper knife is spring pressed, so pushing upper knife holder (X) with fingers to right, insert upper knife until its cutting edge is positioned to the right of lower knife. To set upper knife correctly, front cutting edge of upper knife should extend, at its bottom of stroke, not less than 0.5mm–1mm below front cutting edge of lower knife, as shown in Fig. 7. Tighten screw (W) securely.

TO SHARPEN THE UPPER & LOWER KNIVES (See Fig. 8)

Dull knives should immediately be replaced. Sharpen knives with grinder in accordance with the dimensional requirement as shown in Fig. 8. Note the part of a double circle where sharp edge is required. Upper or lower knife whose cutting edge is rounded off or without sharp edge should not be used.

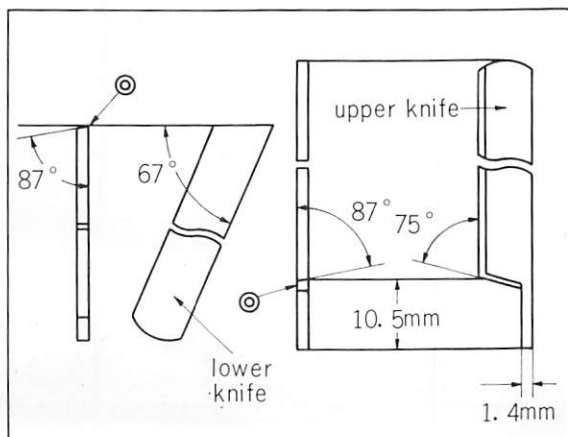


Fig. 8

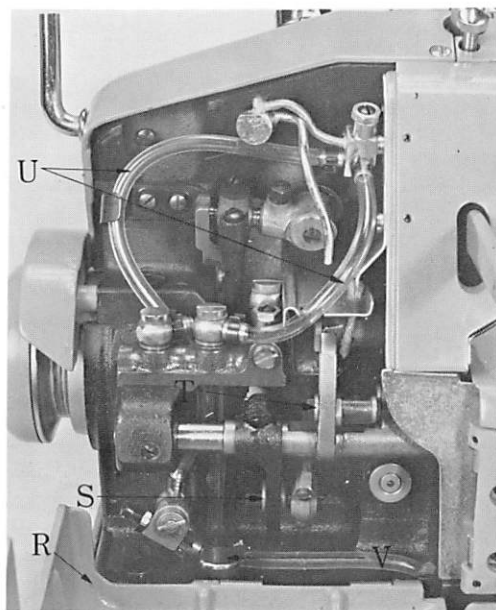


Fig. 5

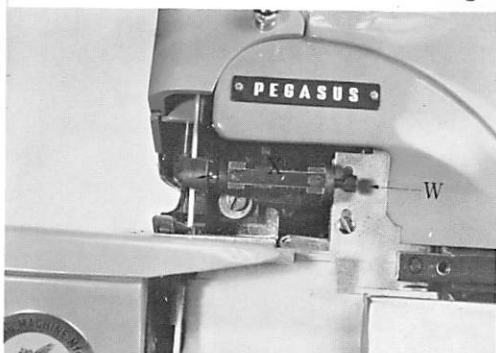


Fig. 6

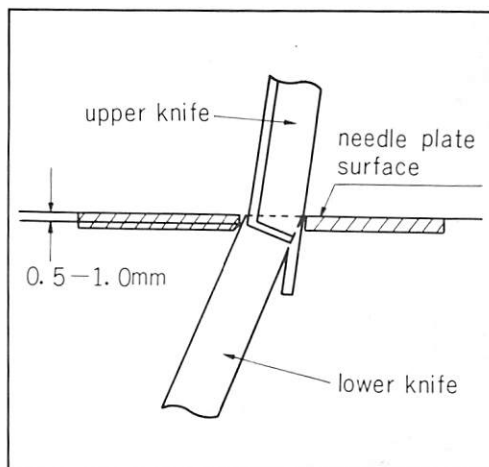


Fig. 7

TO SET THE WELT GUIDE (See Fig. 4 & 9)

Welt guide shown in Fig. 9 enables only model DCP-101 to do blindstitch welting operation for tubular work. To install welt guide, set the projected part (Fig. 9, a) at the bottom of welt guide holder into groove of needle plate and at the same time, setting groove (b) of screw to engage with groove of needle plate, loosely tighten screw (c) from under needle plate. Turn screw (d), and welt guide will move slightly right and left. After welt guide is correctly positioned, tighten screw (c) securely.

Fig. 4 (Z) shows the Welt Guide completely installed on the needle plate.

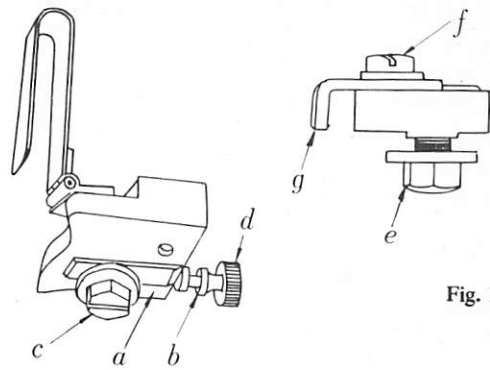


Fig. 10

TO SET THE EDGE GUIDE (See Fig. 10)

Edge guide shown in Fig. 10, is designed to regulate the width of material to be trimmed or designed for edge guide when the machine is operated without trimmer. This edge guide is furnished with all DCP-100 series except model DCP-101. To install edge guide, set screw (e) into groove of needle plate and tighten screw (e) securely. Loosen screw (f) and move edge guide (g) right and left until the width of material to be trimmed or seam width when operated without trimmer, is determined. Tighten screw (f) securely.

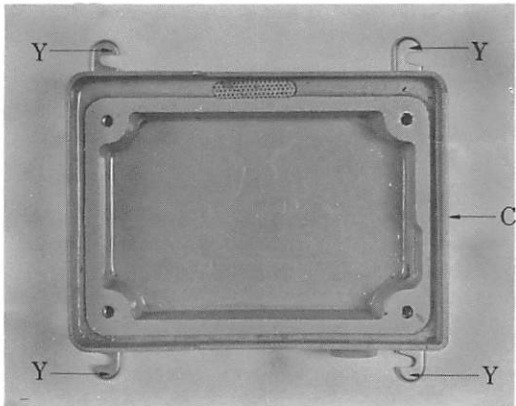


Fig. 11

TO INSTALL THE MACHINE ON THE TABLE TOP

(See Fig. 11 & 12)

The machine (base-oil reservoir, Fig. 11) must be installed with four machine base set hooks (Fig. 11, Y) and wood screws, furnished with machine, after the location on the table top is fixed. Be sure to set correctly a machine base set hook with the groove of cushion rubber installed on the bottom of machine base before setting the other side (Fig. 11, Y) of hook with wood screw.

Fig. 12 shows the typical installation of machine head, thread unwinder, furnished with machine, and clutch motor with table top and pressed steel stand. Note that in general DCP-100 series are non-submergedly installed (direct mounting on table top).

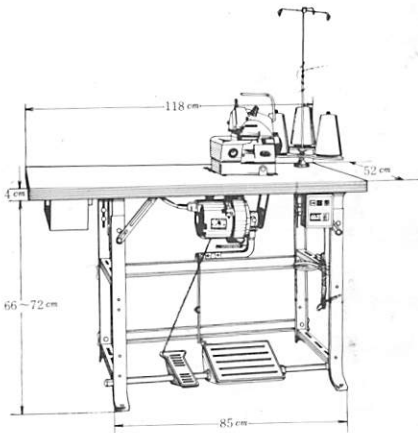


Fig. 12

MOTOR PULLEY

200W output (1/4 HP) or 250W (1/3 HP), 2 pole, individual clutch motor, approximately 3,400 rpm on 60 cycles or 2,850 rpm on 50 cycles, is recommended for efficient operation of DCP-100 series machines.

When only a machine head is bought, a clutch motor and its PULLEY must be prepared by you in accordance with the following List.

Machine Speed	Clutch Motor		
	Cycles	Motor Pulley (Effective dia.)	Motor Speed
3,500 rpm	60	60mm	3,400 rpm
3,500 rpm	50	75mm	2,850 rpm
4,200 rpm	60	70mm	3,400 rpm
4,200 rpm	50	90mm	2,850 rpm