SINGER
148-5

USE ONLY **SINGER*** OILS and LUBRICANTS

They insure freedom from lubricating trouble and give longer life to sewing equipment

The following are the correct lubricants for this machine:

TYPE B — MANUFACTURING MACHINE OIL, HEAVY GRADE

When a stainless oil is desired, use:

TYPE D — MANUFACTURING MACHINE OIL, STAINLESS, HEAVY GRADE

OTHER **SINGER** LUBRICANTS

TYPE E — STAINLESS THREAD LUBRICANT

For lubricating the needle thread of sewing machines for stitching fabrics or leather where a stainless thread lubricant is required.

TYPE F — MOTOR OIL

For oil lubricated motors and plain bearings in power tables and transmitters.

NOTE: **All of the above oils are available in 1 quart, 1 gallon and 5 gallon cans or in 55 gallon drums.**

GEAR LUBRICANT

This specially prepared grease is recommended for gear lubrication on manufacturing sewing machines.

BALL BEARING LUBRICANT

This pure grease is specially designed for the lubrication of ball bearings and ball thrust bearings of motors and electric transmitters, ball bearing hangers of power tables, **etc. Furnished in 1 lb. and 4 lb. tins.**

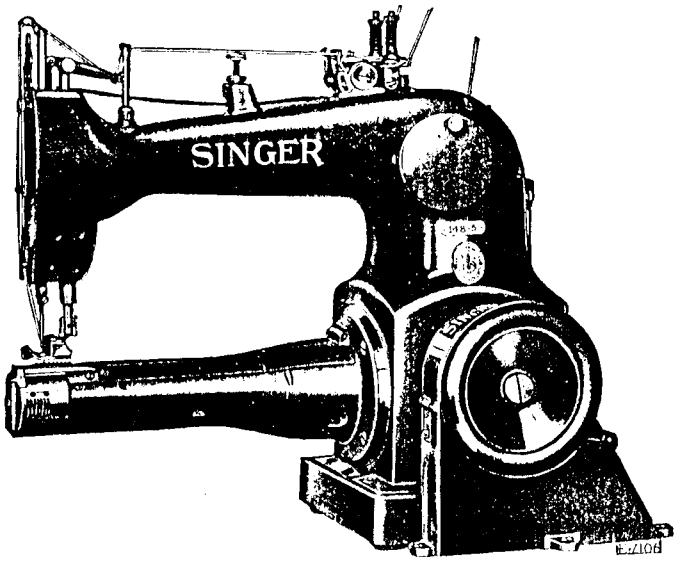
18328

INSTRUCTIONS

FOR USING AND ADJUSTING

SINGER*

SEWING MACHINE



148-5

* Reg. U. S. Pat. Off. by

THE SINGER MANUFACTURING CO.

TO ALL WHOM IT MAY CONCERN:

The improper placing or renewal of the Trade-Mark "SINGER" or any other of the Trade-Marks of The Singer Manufacturing Company (all of which are duly Registered Trade-Marks) on any machine that has been repaired, rebuilt, reconditioned, or altered in any way whatsoever outside a SINGER factory or an authorized SINGER agency is forbidden.

THE IMPORTANCE OF USING **SINGER*** PARTS AND NEEDLES IN **SINGER** MACHINES

The successful operation of SINGER machines can only be assured if SINGER parts and needles are used. Supplies are available at all SINGER Shops for the Manufacturing Trade, and mail orders will receive prompt attention.

SINGER Needles should be used
in SINGER Machines.
These Needles and their Containers
are marked with the
Company's Trade-Mark "SIMANCO.*" 1

Needles in Containers marked
"FOR SINGER MACHINES"
are NOT **SINGER** made needles. 2

DESCRIPTION

Machine 148-5 is designed for seam covering on knit underwear, light weight sweaters, etc. It has two needles and one looper and makes a strong elastic chain stitch with three threads, producing a perfect overseam on all grades of knit goods, ranging from the finest balbriggans to the heaviest fleece lined goods.

The distance between the two needles may be $\frac{1}{8}$, $\frac{3}{16}$ or $\frac{1}{4}$ inch, as ordered. Samples of looper yarn and materials to be sewn should also be sent with orders for the machine.

To Set Up the Machine

The base of the machine can be set in any convenient position. The sub-base is usually set so that its front edge is even with the front edge of the bench. The transmitter to be used should have its machine driving pulley directly in line with the belt pulley on the sewing machine and far enough back so that the belt will clear the hinge lug on the side of the sub-base. Belt holes should be $\frac{7}{8}$ inch in diameter and inclined at an angle that will coincide with the slant of the belt toward the transmitter pulley.

Set the machine in the sub-base and adjust the screws at the side of the sub-base so that the machine will rest centrally on it. If desired, the bench screw, spring and washer may be inserted from below and drawn up tightly by hand to hold the sub-base in place. Tighten the hinge screws sufficiently to make a bearing for the machine to be turned back on, then securely tighten the lock nuts.

The foot lifter should be set at the left of the treadle in any position convenient to the operator. The chain hole should be $\frac{5}{8}$ inch in diameter, directly under the tension release lever (N, Fig. 2) on the machine and inclined at an angle toward the foot lifter.

The thread stand can be set in any convenient position, but it should be set at the right of the machine to secure the best results.

Belt

When putting a round belt on the machine, care should be taken to see that it is not twisted. A $\frac{5}{16}$ inch belt is recommended. Both ends of the belt should be brought together evenly and the belt hook should be of a size adapted to the belt. The belt should be just tight enough to drive the machine and no tighter or heating will result.

To Oil the Machine

Use **"TYPE B"** or **"TYPE D" OIL,** sold only by Singer Sewing Machine Company. For description of these oils, see inside front cover.

When the machine is received from the factory, it should be thoroughly cleaned and oiled. Care should be taken to see that no foreign matter has reached the interior mechanism.

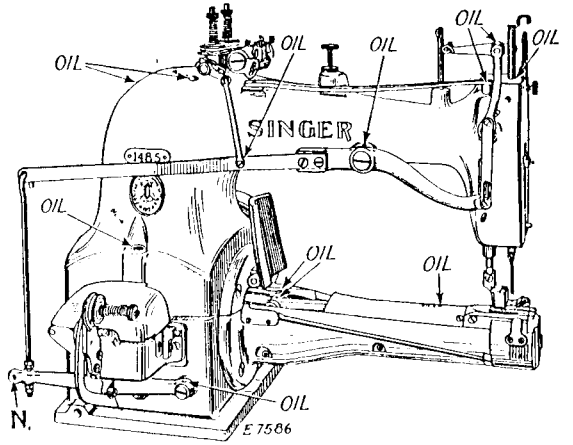


FIG. 2. OILING POINTS AND ADJUSTMENTS ON THE MACHINE

Oil should be applied at each of the places designated by arrows in Figs. 2, 3, 4, 5 and 6. The use of the oil can, sent with the machine, is recommended particularly on the ball oilers.

Remove the cover at the rear of the base of the machine and oil all of the movable parts inside.

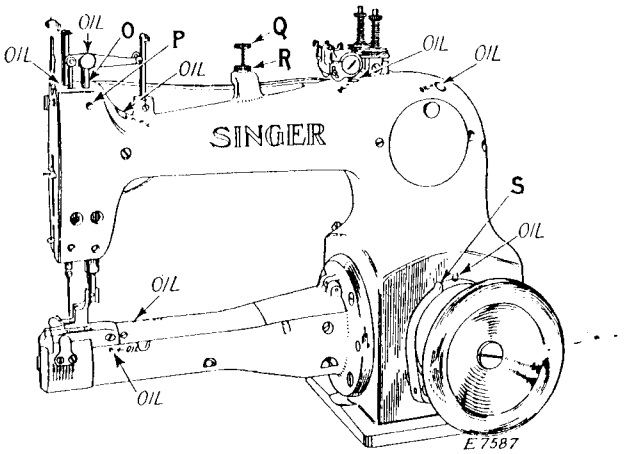


FIG. 3. OILING POINTS AND ADJUSTMENTS ON THE MACHINE

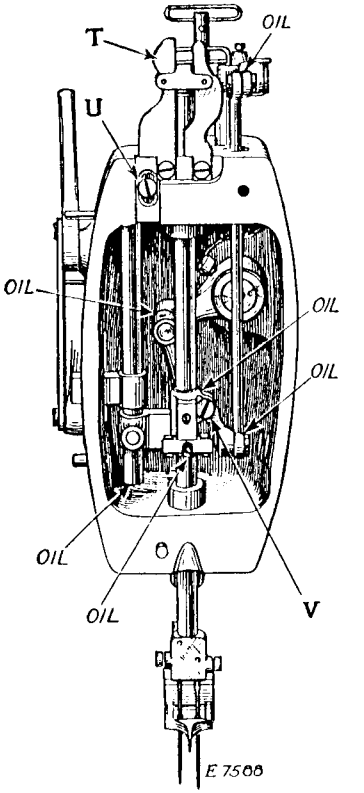


FIG. 4. OILING POINTS AND ADJUSTMENTS ON THE MACHINE

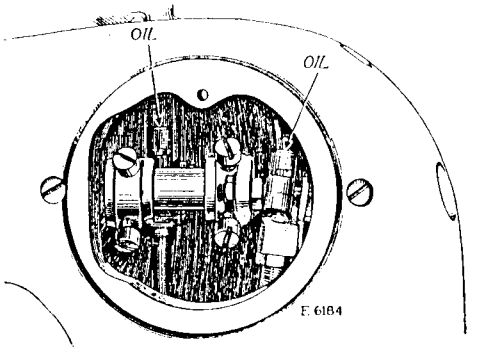


FIG. 5. OILING POINTS ON THE MACHINE

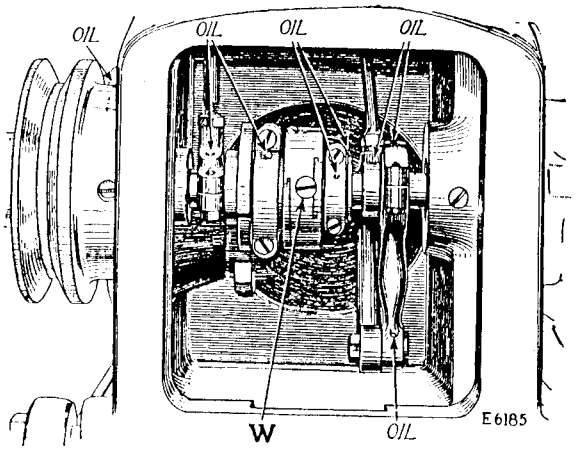


FIG. 6. OILING POINTS AND ADJUSTMENTS ON THE MACHINE

Cleaning

The mechanism in the cylinder should be thoroughly cleaned at least once a week. To do this, remove the two screws in the forward end of the cylinder cover next to the throat plate. Raise the hinged cover on the cylinder, push back the front cover until the spring on the under side becomes disengaged from the slot, and lift it off. Remove the throat plate and clean the entire mechanism thoroughly.

Speed

The maximum speed recommended for Machine 148-5 is 3200 per minute, depending upon the nature of the material being sewn. The machine should be run slower than the maximum speed until the parts which are in movable contact have become glazed by their action upon each other. When the machine is in operation, the top of the balance wheel should always turn over from the operator.

Needles and Thread

Needles for Machine 148-5 are of Class and Variety 148 x 1 and are furnished in sizes 18, 19, 21 and 22.

The size of the needles to be used should be determined by the size of the thread which must pass freely through the eye of the needles. If rough or uneven thread is used, or if it passes with difficulty through the eye of the needles, the successful use of the machine will be interfered with. Either right or left twist thread can be used in the needles and looper.

Orders for needles must specify the *quantity* required, the *size* number, also the *class* and *variety* numbers separated by an x.

The following is an example of an intelligible order:

"100 No. 19, 148 x 1 Needles."

The best results will be obtained when using the needles furnished by the Singer Sewing Machine Company.

To Set the Needles

Turn the balance wheel over from you until the needle bar moves up to its highest point, loosen the set screws in the needle clamp and put the needles up into the clamp as far as they will go, with the twist groove away from you and the eyes of both needles directly in line with the arm of the machine, then tighten the set screws.

To Thread the Needles

(SEE FIG. 7)

To thread the right hand needle, pass the thread from the unwinder, upwardly through the hole (1) in the right hand tension bracket at the top of the machine, around from back to front between the tension discs (2), through the wire eyelet (3), into the loop of the thread controller spring (4), through the wire eyelet (5), through the wire guides (6 and 7), through the right hand holes (8 and 9) in the take-up, down, back of the right hand thread retainer spring (10), through the thread guide (11), through the right hand thread guide (12) in the needle clamp and from front to back through the eye of the right hand needle (13).

To thread the left needle, pass the thread from the unwinder upwardly through the hole (A) in the left tension bracket at the

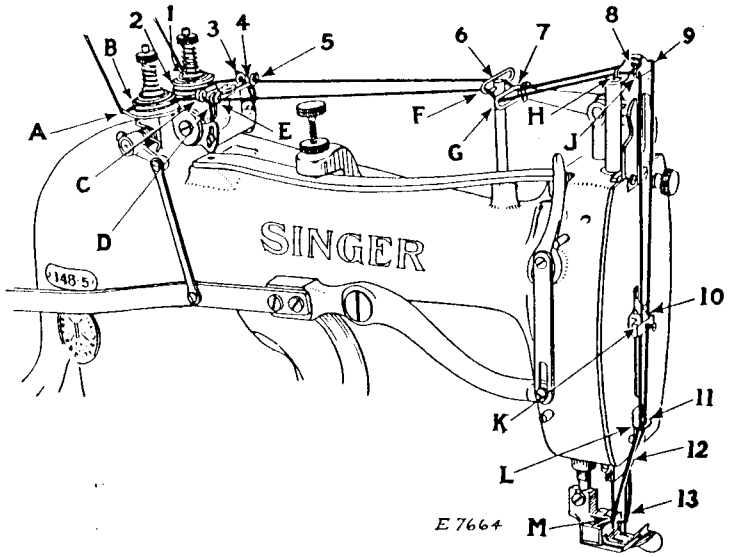


FIG. 7. THREADING THE NEEDLES

top of the machine, around from back to front between the tension discs (B), through the wire eyelet (C), into the loop of the thread controller spring (D), through the wire eyelet (E), through the wire guides (F and G), through the left holes (H and J) in the take-up, down, back of the left thread retainer spring (K), through the thread guide (L), and from front to back through the eye of the left needle (M), omitting the left thread guide in the needle clamp.

To Thread the Looper

(SEE FIGS. 8 AND 9)

Pass the thread from the unwinder, through the hole (1) in the tension bracket at the left of the machine, over between the

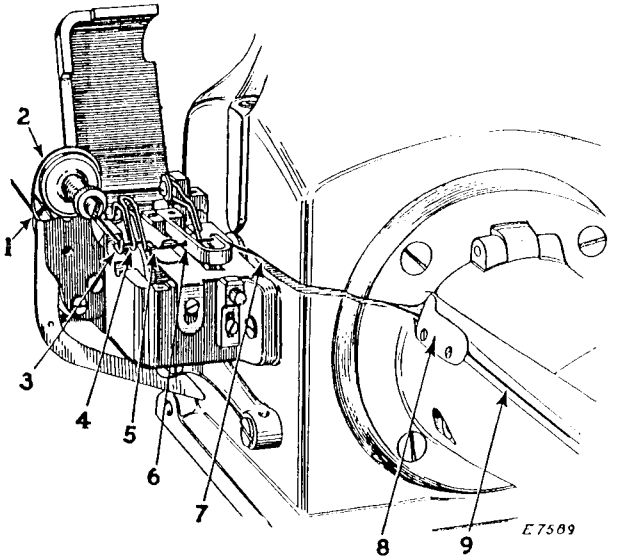


FIG. 8. THREADING THE LOOPER

tension discs (2), through the wire eyelet (3), through the pull-off stripper wire (4) which straddles the pull-off, through the notch (5) in the nipper plate; raise the thread guide (6) which lies on both sides of the looper thread take-up and pass the thread through both eyelets in the guide (6), then lower the guide and draw the thread through the slot (7) in the machine and back of the plate (8), through the thread tube (9), drawing the thread under the thread guard spring (10), then pass the thread upwardly through the hole (11) in the heel of the looper and from you through the eye (12) of the looper. Draw about two inches of thread through the eye of the looper with which to commence sewing.

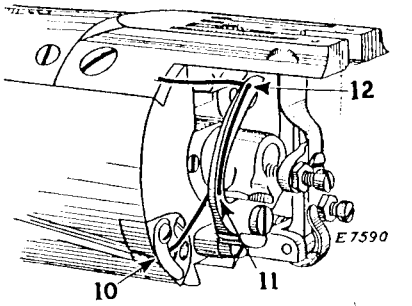


FIG. 9. THREADING THE LOOPER

To Change Length of Stitch

Pull the latch (S, Fig. 3, page 4) towards you with the left hand and at the same time, with the right hand, turn the balance wheel in either direction until it locks. Then, while holding the latch up, turn the top of the balance wheel toward you to lengthen or from you to shorten the stitch. When the desired length of stitch is obtained, push the latch (S) back into position.

Tensions

The machine should be operated with as little tension on the needle threads as possible. The tension on the looper thread should also be very light.

To Regulate the Pressure of the Presser Foot on the Material

The pressure of the presser foot on the material is regulated by means of the thumb screw (Q, Fig. 3, page 4) at the top of the machine. To increase the pressure, loosen the lock nut (R, Fig. 3) and turn the thumb screw (Q) downwardly. To decrease the pressure, turn this thumb screw upwardly. When the desired amount of pressure is obtained, securely tighten the lock nut (R).

INSTRUCTIONS

FOR

ADJUSTERS AND MACHINISTS

To Set the Needle Bar at the Correct Height

When the needle bar is at its lowest point, the distance from the top of the needle bar to the top of the needle bar bushing should be $\frac{1}{4}$ inch.

In case the needle bar is not set at the correct height, loosen the screw (V, Fig. 4, page 5) in the needle bar connecting link and move the needle bar up or down, as may be required, then tighten the screw (V).

To Time the Looper

When the needle bar is at its lowest point, the distance from the point of the looper to the centre of the left needle should be as follows for the gauges listed below:

Gauge	Distance from Point of Looper to Centre of Left Needle
$\frac{1}{8}$ inch	$\frac{7}{32}$ inch
$\frac{3}{16}$ inch	$\frac{3}{16}$ inch
$\frac{1}{4}$ inch	$\frac{5}{32}$ inch

To obtain the correct distance from the point of the looper to the centre of the left needle, loosen the looper carrier clamp screw (CC, Fig. 10, page 12) and turn the looper carrier, as required, then securely tighten the clamp screw (CC).

Care must be taken to see that the looper carrier is adjusted endwise on the shaft so that the looper will not come into contact with the needles.

Adjustment of the Needle Avoiding Motion of the Looper

Should it become necessary to use smaller or larger needles than those sent out with the machine, it may be necessary to change the adjustment of the needle avoiding motion of the looper so that the looper will pass as close to the needles as possible, on its forward and backward strokes, without touching the needles.

The side swing or needle avoiding motion of the looper is regulated by loosening the needle avoiding motion set screw and turning the needle avoiding eccentric flange screw (W, Fig. 6, page 6) in the required direction, after which the set screw should be securely tightened.

To Raise or Lower the Feed Dog

The feed dog should be set so that slightly less than the full depth of the teeth will project above the top surface of the throat

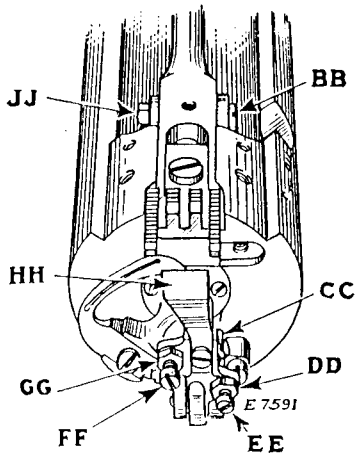


FIG. 10. ADJUSTMENTS ON THE MACHINE

plate. To raise or lower the feed dog, loosen the lock nut (JJ, Fig. 10) and turn the screw (BB, Fig. 10) as required. When the feed dog is set at the desired height, securely tighten the lock nut (JJ). Care must be taken to keep the feed dog high enough so that it does not strike the looper.

The timing of the feed and needle avoiding motion of the looper is fixed in relation to each other and requires no adjustment.

To Adjust the Needle Thread Loop Guard

The function of the needle thread loop guard (HH, Fig. 10) is to prevent the needles from springing too far from the looper and to ensure the correct formation of the needle loops on the looper side of the needles.

When the needles are at their lowest point, the needle thread loop guard (HH) should be set so that it just clears the needles. To make this adjustment, loosen the lock nut (DD, Fig. 10) and turn the stop screw (EE, Fig. 10) in or out, as required, then securely tighten the lock nut (DD).

When the looper has reached its extreme forward movement, the screw (FF, Fig. 10) should just come into contact with the end of the looper shaft, so that the movement of the looper shaft will keep the needle thread loop guard (HH) out of the path of the looper. To make this adjustment, loosen the lock nut (GG, Fig. 10) and turn the screw (FF) in or out, as required, then securely tighten the lock nut (GG).

To Time the Looper Thread Take-up

The looper thread take-up (6, Fig. 8, page 9) should be timed when the needles are at their highest point and the looper is just commencing its backward stroke or loop shedding motion, at which time the flat or straight part of the take-up (6) should just touch the thread between the two eyelets in the take-up thread guide. As the needles move downwardly, the take-up (6) should just take up the slack of the thread from the looper without straining it, keeping the thread straight from the eye of the looper to the last stitch formed. When the needles have descended far enough into the triangle formed by the looper blade, the looper thread and the needle loops, the looper thread should be released by the cast-off arm of the stripper wire above the take-up, and held by the retaining arm of the stripper until the eye of the looper, on its forward or loop taking stroke, reaches the needles. At this point, the retaining portion of the stripper should cast off the looper thread and allow it to go freely with the looper. The looper thread take-up (6) can be timed after loosening the screws which hold it in position on the shaft. When the looper thread take-up is correctly timed, securely tighten the screws which hold it in position.

To Time the Looper Thread Nipper

The function of the looper thread nipper (5, Fig. 8, page 9) is to prevent the take-up (6, Fig. 8) pulling the thread from the supply instead of taking up the slack from the looper.

The nipper cam directly below the nipper (5, Fig. 8) should be timed to close the nipper just before the flat portion of the take-up (6) reaches the eyelets in the take-up thread guide and before the take-up starts to act. The nipper cam can be timed after loosening the screws which hold it in position on the shaft.

To Adjust the Slack Thread Controller Springs

The slack thread controller springs (4 and D, Fig. 7, page 8) should be adjusted to take up the slack thread between the needle thread nipper (K, Fig. 7) on the face plate and the needle thread tension discs.

To Adjust the Needle Thread Controller

The purpose of the needle thread controller (7, Fig. 7) is to regulate the amount of needle thread drawn through the tension discs at the finish of the upward stroke of the needle bar, according to the thickness of the material under the presser foot. The thread controller (7) can be adjusted by loosening screw (P, Fig. 3) and raising or lowering the post (O, Fig. 3). When the desired adjustment of the thread controller is obtained, securely tighten the screw (P).

To Adjust the Needle Thread Take-up Stripper

The needle thread take-up stripper (T, Fig. 4, page 5) should be so adjusted that it pulls the thread off the looper without snap or tension. It can be raised or lowered, as may be required, after loosening the screw (U, Fig. 4) which holds it in position.

HINTS

Skipping of the needle threads may be caused by the needles not being set squarely with the long groove toward the operator, or the points of the needles may be blunt or bent. If the needles are in good condition and properly set, it may be necessary to time the looper earlier or later. Examine the tensions to see that there is no foreign matter, lint, etc., between the discs. Missing of the needle thread loops may be caused by wrong adjustment of the under thread take-up, allowing loose thread from the eye of the looper to interfere with the loops of needle threads as the looper advances.

If the needle threads break, it is usually caused by the needle threads slipping forward on the blade of the looper so that when the needles descend they go through their own loops. If the needle loops are not pulled up into place, it is probably due to the looper thread pull-off not giving sufficient looper thread. To remedy this, loosen the screw in the looper thread pull-off (4, Fig. 8, page 9) and turn to pull more or less thread, as required.

Sticking or hesitating in the feeding is due either to the feed dog being too low or not level, or to the bottom of the presser foot being rough, or to the teeth on the feed dog worn smooth, or to insufficient pressure on the presser foot bar.

PARTS REQUIRED TO CHANGE GAUGE OF MACHINE 148-5

NOTE: When ordering parts, the gauge required MUST be stated on order

FOR 1/8 INCH GAUGE

NO.	NAME
128278	Feed Dog, 13 teeth (16 teeth to the inch)
128282	Needle Clamp with two 209F
128291	Presser Foot (compensating) complete, Nos. 337D, 34318, 128288, 128290 and two each 14058 and 128289
128296	Thread (under) Take-up with two 465C
128301	" (upper) Take-up Stripper (right)
128302	Throat Plate with 128303, 128304, 138318, 140120D and two 229D, for 128278

FOR 3/16 INCH GAUGE

128278	Feed Dog, 13 teeth (16 teeth to the inch)
128282	Needle Clamp with two 209F
128291	Presser Foot (compensating) complete, Nos. 337D, 34318, 128288, 128290 and two each 14058 and 128289
128296	Thread (under) Take-up with two 465C
128301	" (upper) Take-up Stripper (right)
128359	Throat Plate with 128303, 128304, 138318, 140120D and two 229D, for 128278

FOR 1/4 INCH GAUGE

128278	Feed Dog, 13 teeth (16 teeth to the inch)
128282	Needle Clamp with two 209F
128291	Presser Foot (compensating) complete, Nos. 337D, 34318, 128288, 128290 and two each 14058 and 128289
128296	Thread (under) Take-up with two 465C
128301	" (upper) Take-up Stripper (right)
128360	Throat Plate with 128303, 128304, 138318, 140120D and two 229D, for 128278