



DECORATIVE STITCHING MACHINE

70-52

E. D. S. PARTS CATALOG

For Serial Numbers 3151 and up.

AUGUST 1984



APPAREL EQUIPMENT DIVISION
2115 West Laburnum Avenue, P.O. Box 9168, Richmond, VA 23227 · 804/355-7961
AMF INCORPORATED

20/8/87



ELECTRONIC DECORATIVE STITCHER LOGIC BOARD - P. C. BOARD

Product Technical Bulletin

Class 59 Rev. 83 File No. 85-9-100

THE FOLLOWING STITCHING FAULTS MAY BE CAUSED BY THESE FAILED COMPONENTS: (*SEE BELOW)

I.C. #1 & #2 (671)

- (1) STITCH ON ONE SIDE NO GOOD** - OTHER SIDE GOOD.
- (2) STITCHES ON BOTH SIDES NO GOOD**.

I.C. #5 (672)

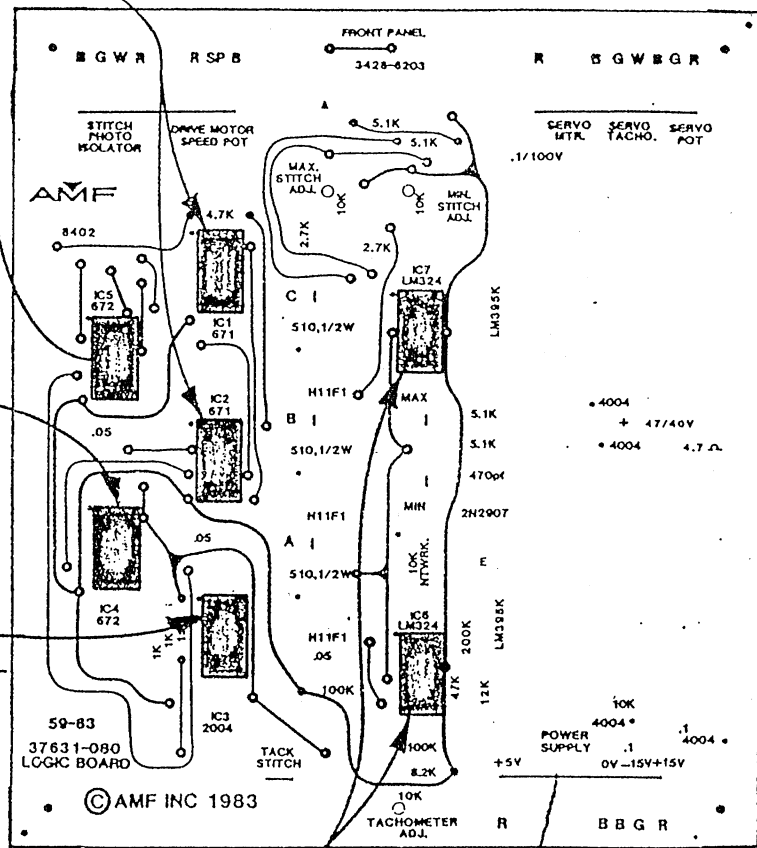
- (1) STITCHES ON BOTH SIDES MIN.
- (2) STITCHES ON BOTH SIDES IDENTICAL (EITHER LONG OR SHORT).

I.C. #4 (672)

- (1) STITCHES WILL NOT REVERSE.
- (2) STITCHES ON BOTH SIDES IDENTICAL (EITHER LONG OR SHORT).

I.C. #3 (2004)

- (1) STITCH ON ONE SIDE NO GOOD** - OTHER SIDE GOOD.
- (2) STITCHES ON BOTH SIDES NO GOOD**.
- (3) STITCHES WILL NOT REVERSE.
- (4) ONE (1) STITCH ODD WHEN REVERSE ACTIVATED.



I.C. #6 & #7 (LM324)

- (1) STITCHES ON BOTH SIDES EITHER MAX. OR MIN. (MECHANICALLY STOPPED).

*CHECK VOLTAGE AS SHOWN BEFORE CHANGING ANY I.C.

**STITCHES ARE "NO GOOD" IF THEY DO NOT MATCH STITCH LENGTH INDICATOR LIGHTS.

MOST PROBLEMS CAN BE CORRECTED BY REPLACING THE APPROPRIATE I.C.

A KIT CONSISTING OF VARIOUS I.C.'s CAN BE ORDERED FROM AMF BY PART NO. 59-83-49925-348.

Revised 7/29/87

Insert into Service Manual

STITCH PHOTO ISOLATORS AND PANEL MODULE P. C. BOARDS

59

83

85-9-101

THE FOLLOWING STITCHING FAULTS MAY BE CAUSED BY THESE FAILED COMPONENTS:

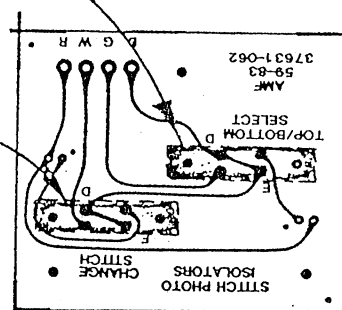
STITCH PHOTO ISOLATORS - P. C. BOARD

TOP/BOTTOM SELECT (G.E. #H21-B3)

- (1) STITCHES, BOTH SIDES, CAN ONLY BE CHANGED BY TURNING ONE OF THE STITCH LENGTH POTS.

CHANGE STITCH (G.E. #H21-B3)

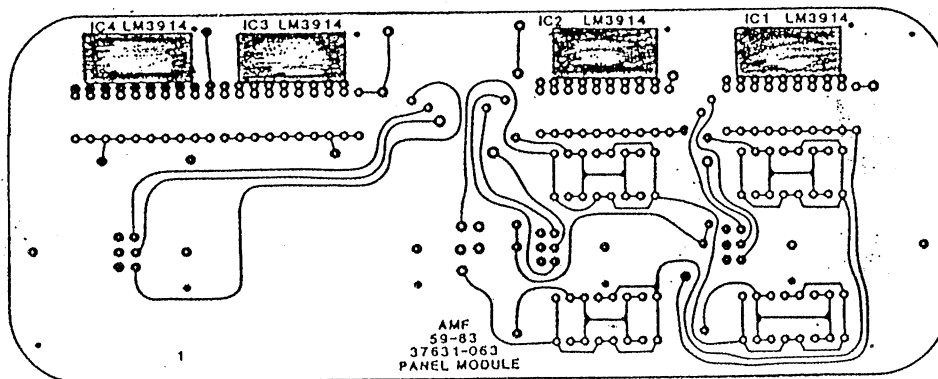
- (1) RANDOM LENGTH SINGLE STITCH PROBABLE WHEN REVERSE SWITCH ACTUATED.
- (2) STITCHES DO NOT REVERSE WHEN REVERSE SWITCH IS ACTUATED.



(SHOWN AS MOUNTED)

PANEL MODULE - P. C. BOARD

THE LIGHTS ON THIS BOARD ARE INDICATORS ONLY AND MAY NOT REPRESENT THE ACTUAL STITCH OR SPEED OF MACHINE. IF THE LIGHTS DO NOT CHANGE WHEN A POT. IS TURNED, REPLACE I. C. (BEFORE CHANGING ANY I.C. - CHECK VOLTAGE FROM POWER SUPPLY)



MOST PROBLEMS CAN BE CORRECTED BY REPLACING THE APPROPRIATE I.C.

A KIT CONSISTING OF VARIOUS I.C.'s CAN BE ORDERED FROM AMF BY PART NO. 59-83-49925-348.

Revised 7/29/87

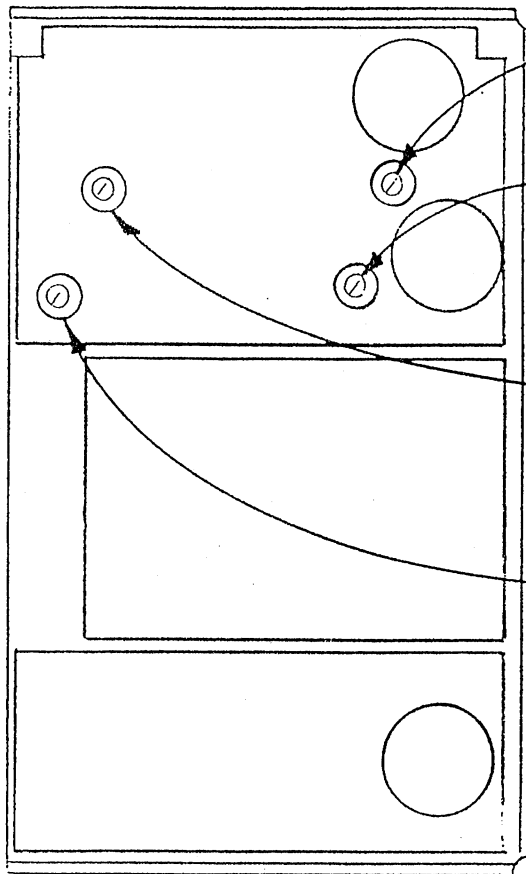
Insert into Service Manual

STITCH MALFUNCTION -
ALL LONG.

Technical Bulletin

59 83 87-06-100

The two (2) current limiting potentiometers should be set to maximum current (turn pot C.W. max.) in order to eliminate the following potential problems:



CURRENT LIMIT POT.
(R12 -15V 1. LIM.)

CURRENT LIMIT POT.
(R 5 +15V 1. LIM.)

CHECK OUTPUT TERM. FOR -15V AND
ADJ. IF NECESSARY (R26 -15V ADJ.)

CHECK OUTPUT TERM. FOR +15V AND
ADJ. IF NECESSARY (R20 +15V ADJ.)

Stitches larger than set (over 1/4") after machine has been run for one-half hour or more. The fault usually causes the stitches, both top and bottom, to be longer than the 1/4" that can be set with the controls of the machine. However, it has been noted in some instances that this long stitch may alternate with one of the programmed stitches.

Insert into Service Manual

STITCH MALFUNCTION -
ALL LONG.

AME

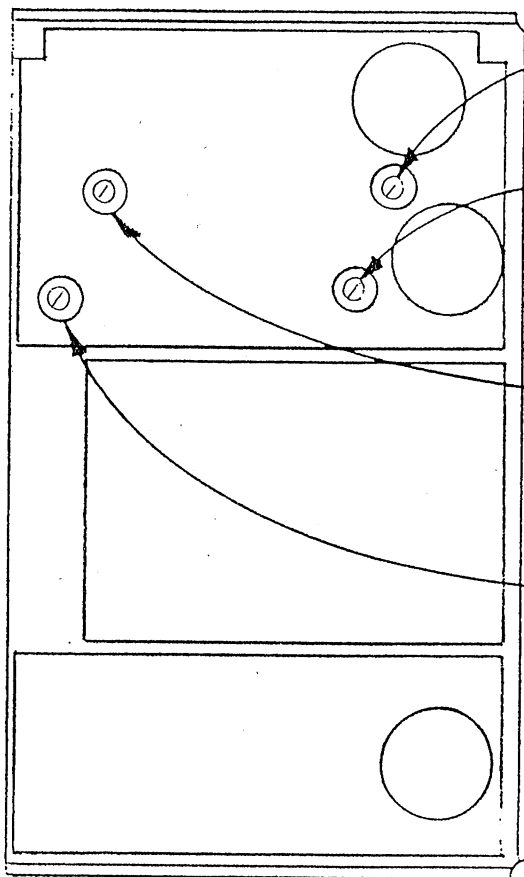
Product Technical Bulletin

59

83

87-06-100

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Insert into Service Manual



DECORATIVE STITCHING MACHINE

70-52

E. D. S.

INSTRUCTIONS

For Serial Numbers 3151 and up.

AUGUST 1984



APPAREL EQUIPMENT DIVISION
2115 West Laburnum Avenue, P.O. Box 9168, Richmond, VA 23227 • 804/355-7961
AMF INCORPORATED

Printed in U.S.A.



AMF Decorative Stitching Machine

APPAREL EQUIPMENT

CLASS 59 DIVISION 83

AMF

WARRANTY POLICY ON NEW AND RECONDITIONED EQUIPMENT

What is covered:

90 day warranty on service. The warranty period shall begin on the completed installation date.

One year warranty on parts. Any part customer feels is defective, customer must return, freight prepaid, to AMF Richmond. Upon receiving the part, AMF will inspect and if the part is found to be defective, it will be replaced at no charge to customer.

What is not covered:

Normal adjustments and routine maintenance will not be covered. This is the sole responsibility of the customer.

Cleaning and lubrication of equipment.

Parts found to be altered, broken or damaged due to neglect or improper installation or application.

Shipping or delivery charges.

WHAT TO DO IF THERE IS A QUESTION REGARDING WARRANTY

The satisfaction and goodwill of owners and lessee's of AMF Equipment are of primary concern to AMF Manufacturer's Representatives and the AMF Apparel Equipment Division. In the event that a warranty matter is not handled to your satisfaction, the following steps are suggested:

1. Discuss the problem with the nearest AMF Manufacturer's Representative.
2. Contact the Director of Installation And Service at the address below:

AMF INCORPORATED
Apparel Equipment Division
2115 W. Laburnum Avenue
P.O. Box 9168
Richmond, Virginia 23227

Telephone 804/355-7961



AMF Decorative Stitching Machine

APPAREL EQUIPMENT

CLASS 59 DIVISION 83

INSTALLATION POLICIES

I. AMF Installations (by AED Field Service Representative)

- A. Installation, without charge, includes four hours training (with operator and mechanic).
- B. The customer is responsible for having all pertinent personnel available for training upon request from AMF field service representative.
- C. If additional training is requested, AMF will bill at the prevailing service rates.

II. Customer Installation

Should the customer choose to install the machine himself, AMF will not be held responsible for any damage incurred through improper handling of the machine or any of its component parts. Our advice is to take advantage of the installation offer in each case.

III. Distributer Installation

It shall be the responsibility of each distributor or agent to handle installations and training in his territory. Should the distributor/agent be unable to complete installation due to the condition of the machinery, then AMF shall send its own representative at no charge to assist with the installation.

Should it be decided or become necessary for AMF technicians to install machinery because the distributor or agent's mechanics are not able to perform said installation, then AMF at its discretion may charge the commission account or bill back the distributor for the following costs:

Air Fare

Expenses of living and lodging

Service time at the prevailing service rate

This is a general policy and may be subject to a case by case evaluation. Any variation to this policy should be cleared by the General Manager, Director Of Marketing, or Director of Installation And Service.



AMF Decorative Stitching Machine

APPAREL EQUIPMENT

CLASS 59 DIVISION 83

AMF APPAREL EQUIPMENT DIVISION GENERAL OPERATING PRECAUTIONS

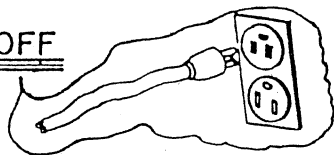
Equipment described in this manual has been carefully designed and manufactured to our high quality standards. Special attention has been devoted to convenience of operation while simultaneously providing effective hazard protection for operating personnel.

Any piece of equipment can become dangerous to personnel when improperly operated or poorly maintained. It is incumbent upon you that all personnel who will be expected to operate or maintain this equipment be familiar with the instructions contained in this manual. It is recommended that AMF service personnel be utilized to supervise the installation and initial training of your personnel.

The most effective hazard protection for your employees is a rigidly enforced safety program which includes effective training in safe operating methods. Supplementary methods of hazard protection such as guards, covers, and electrical interlocks are useful to the extent that they remain attached in a protective manner and are rigidly maintained.

STITCH LENGTH ADJUSTMENTS

POWER OFF

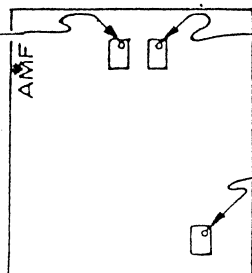


1 SERVO MOTOR ADJUSTMENT

"MAX. STITCH ADJ."

① TURN ↺ 25X

② TURN ↻ 5X



"MIN. STITCH ADJ."

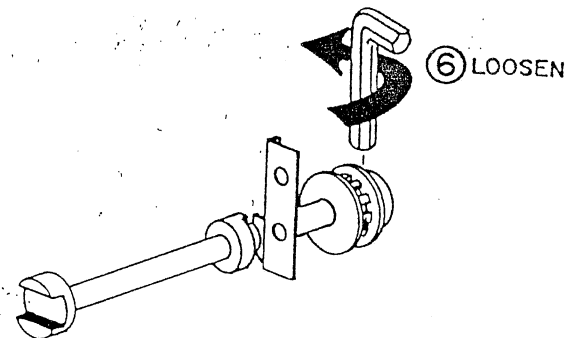
③ TURN ↻ 25X

"TACK ADJ."

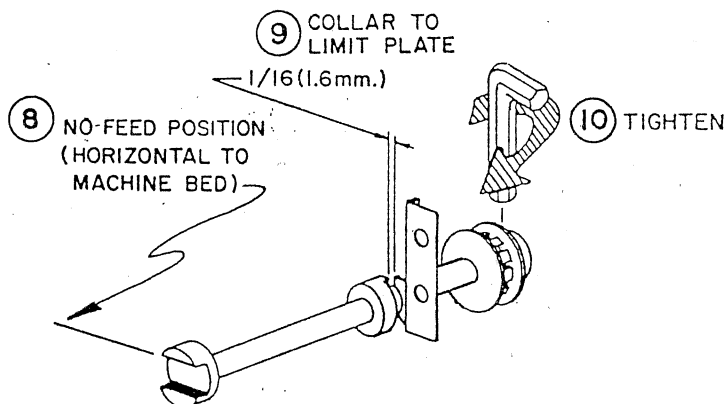
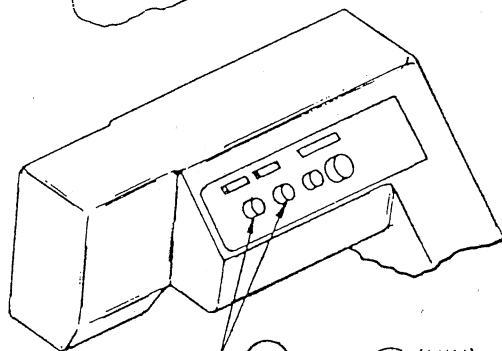
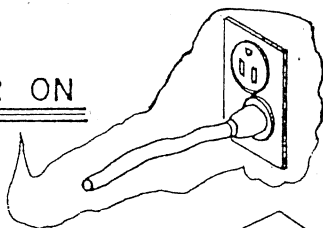
④ TURN ↻ 25X

⑤ TURN ↻ 10X

P.C. BOARD NO. 59-83-37631-061
'STITCH LENGTH CONTROLLER'

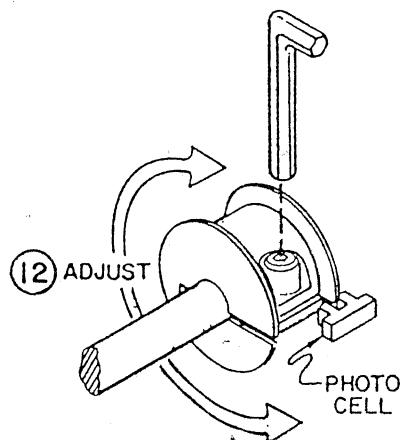
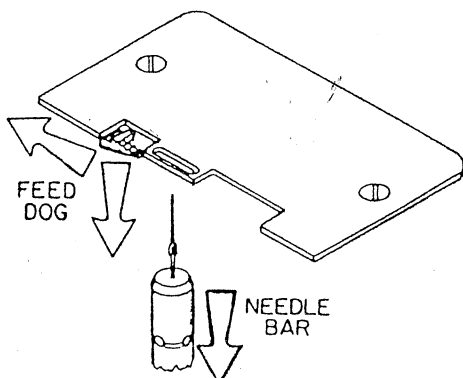


POWER ON



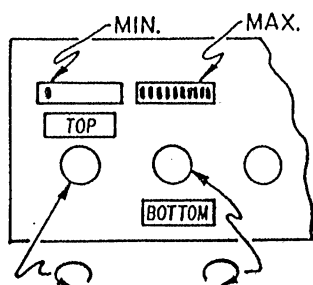
2 TIMING ADJUSTMENT

⑪ TURN HANDWHEEL

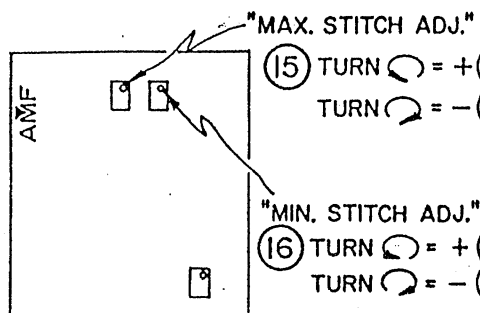
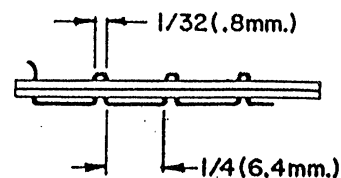


3 STITCH ADJUSTMENT

(13)



(14) SEW SAMPLE

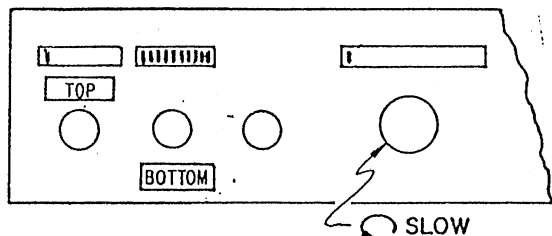


(15) TURN \curvearrowright = + (LONGER STITCH)
TURN \curvearrowleft = - (SHORTER STITCH)

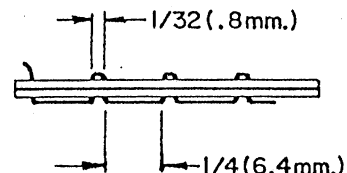
(16) TURN \curvearrowright = + (LONGER STITCH)
TURN \curvearrowleft = - (SHORTER STITCH)

4 SERVO MOTOR TACHOMETER ADJUSTMENT

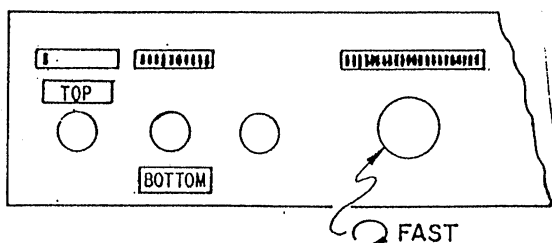
(17) SET TOP (MIN.), BOTTOM (MAX.),
SPEED (SLOW)



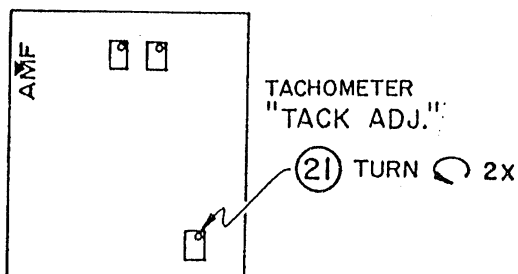
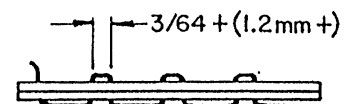
(18) SEW 6" (152mm.)



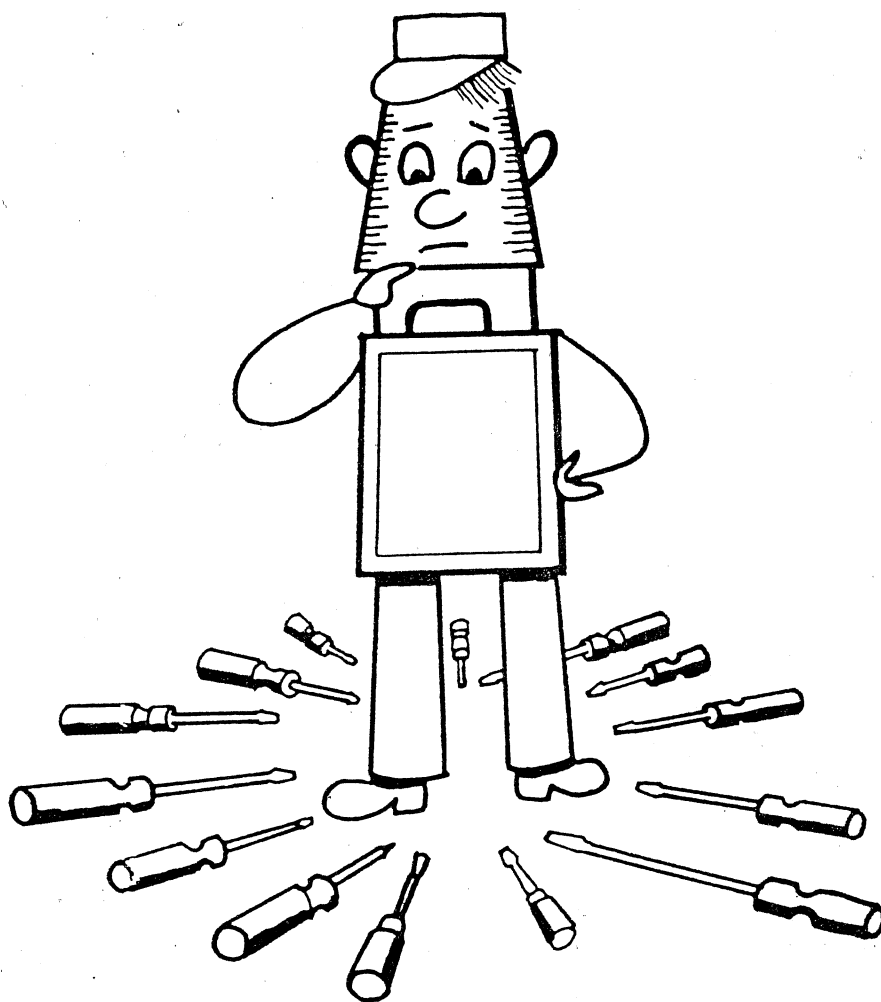
(19) SET SPEED (FAST)



(20) SEW 6" (152mm.)



(22) REPEAT (20) + (21)
UNTIL (20) = (18)

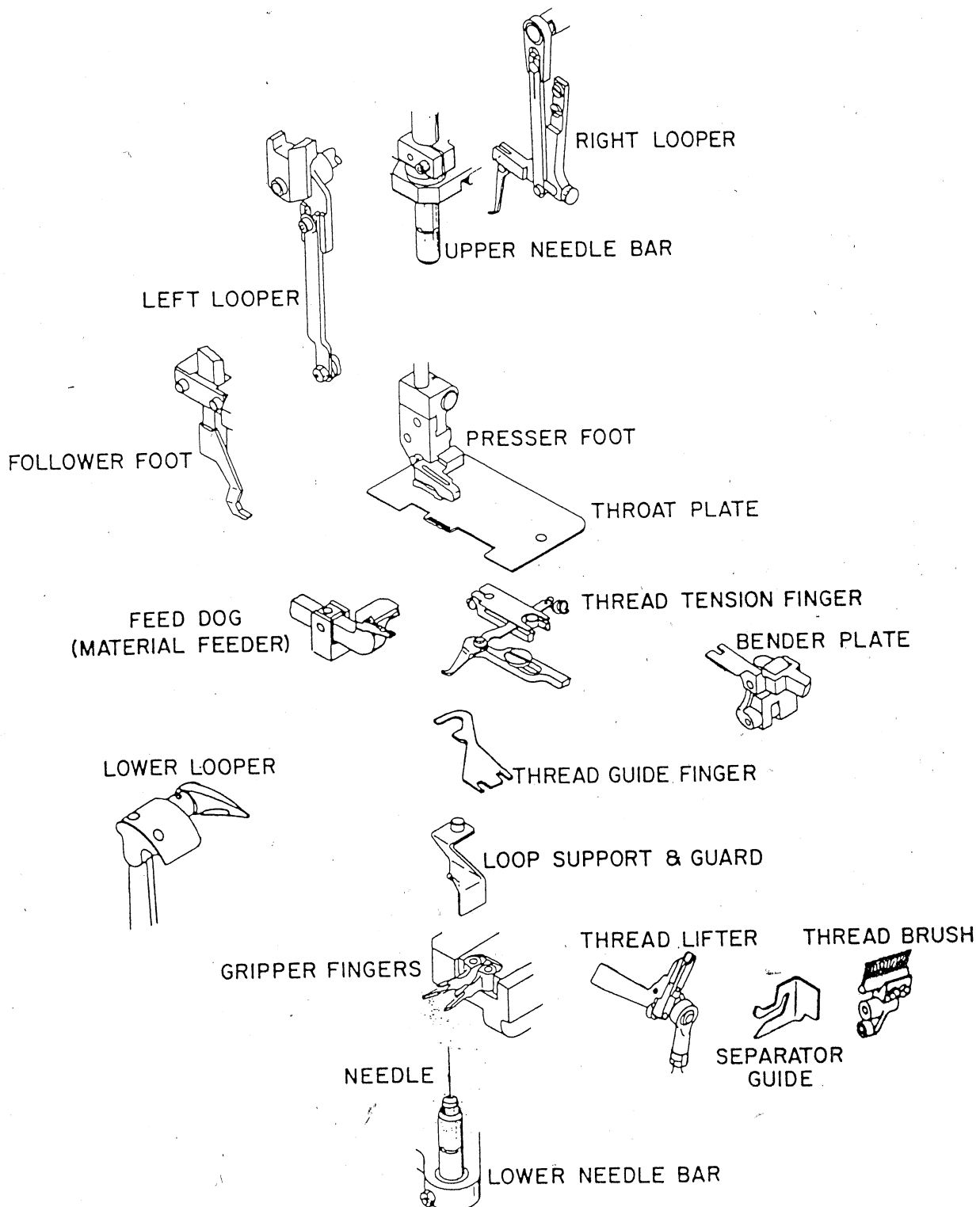


ADJUSTMENTS

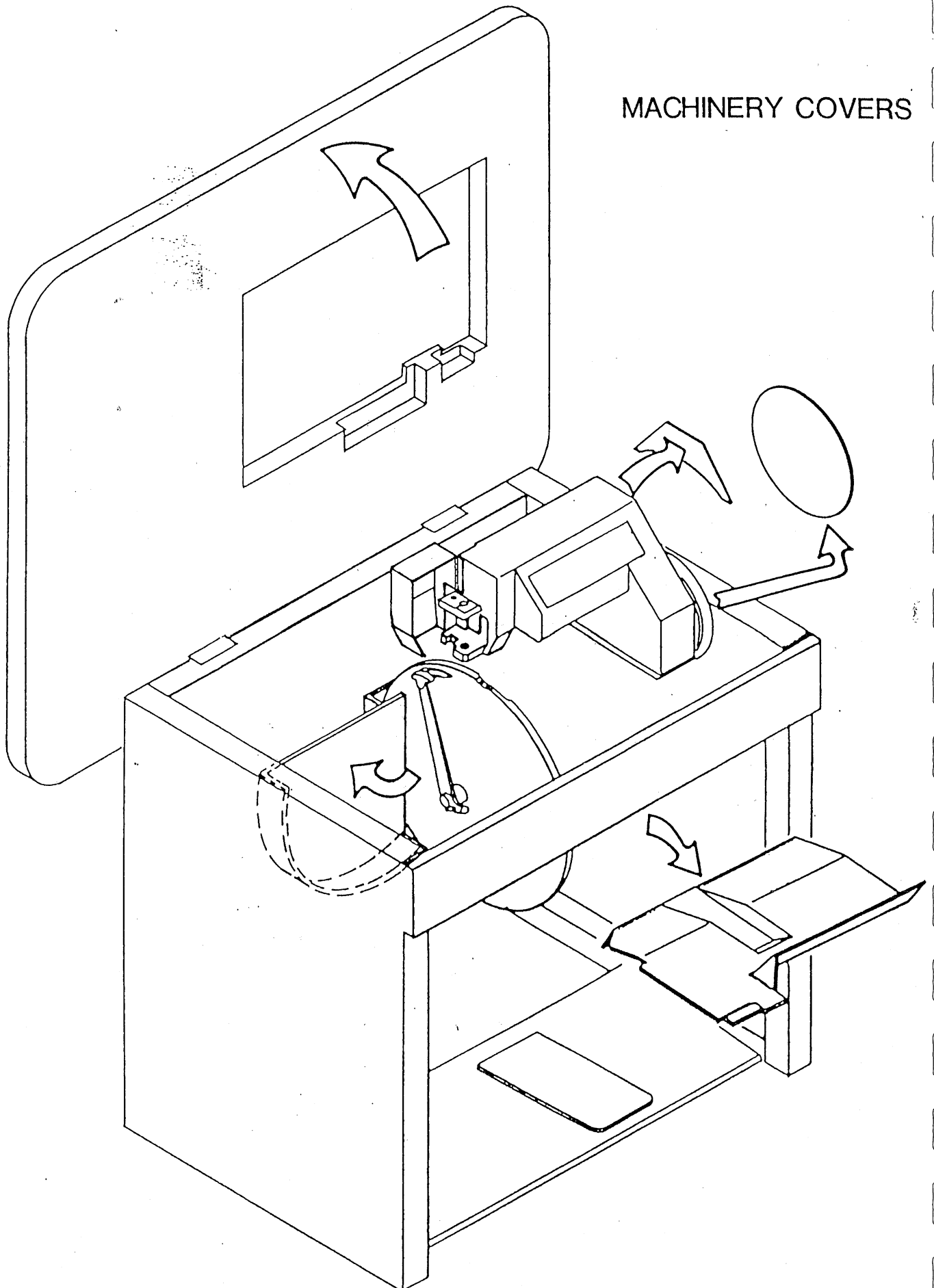
ADJUSTMENTS

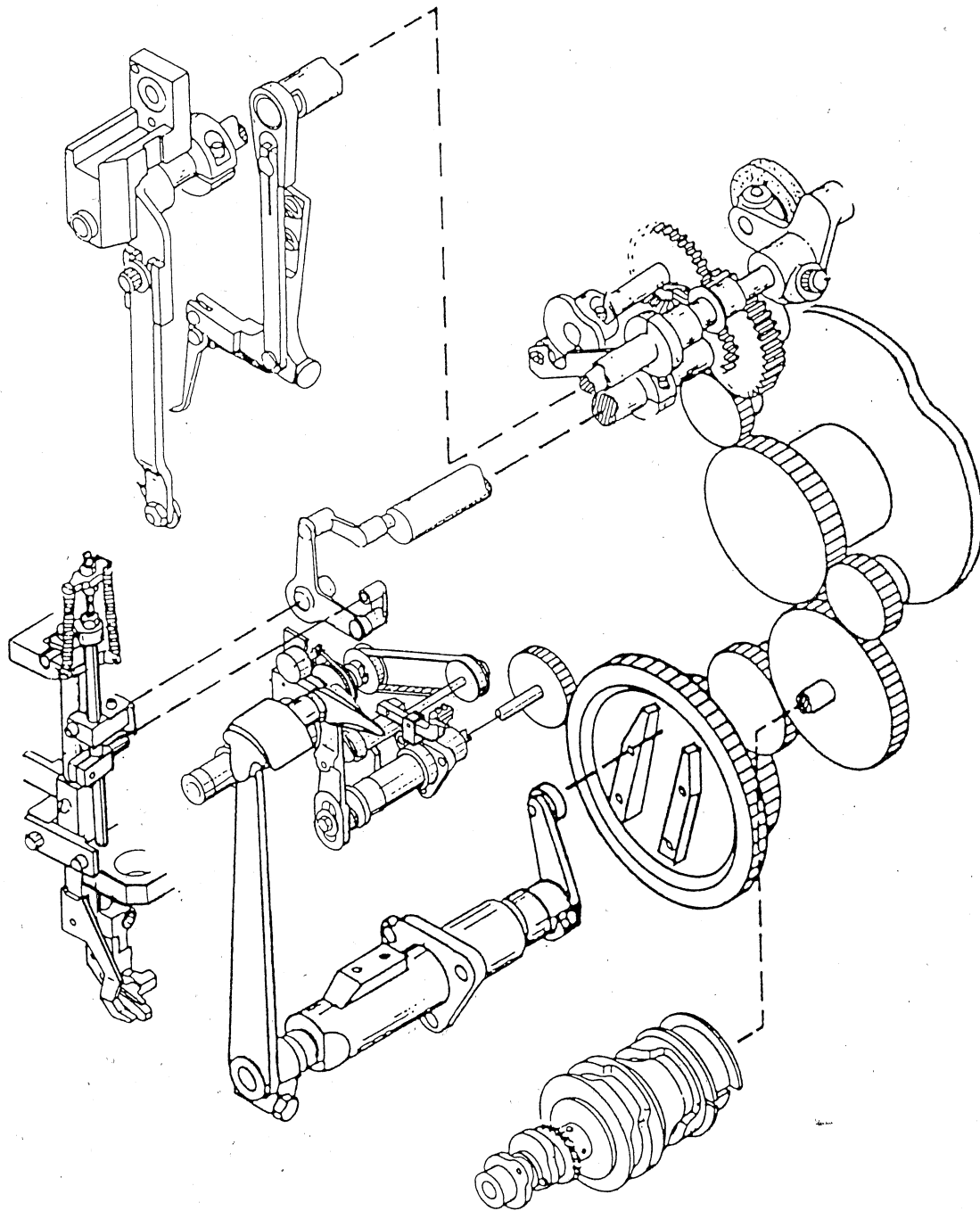
INSTRUCTION	PAGE
Parts Glossary	3
Machinery Covers	4
Machine Gear Train	5
Adjustments Diagram.	6
Timing Diagram	7
Adjustment Of Needle Bars.	8 & 9
Adjustment And Timing of Gripper Fingers	10 & 11
Adjusting Loop Support, Thread Guide, and Separator Guide. .	12 & 13
Adjustment And Timing Of The Thread Lifter	14 - 17
Timing The Thread Brush.	16 & 17
Adjustment And Timing Of Thread Tension Finger	18 & 19
Adjustment And Timing Of Material Feed	20 & 21
Timing The Follower Foot	22 & 23
Adjustment And Timing, Left Looper And Right Looper.	24 & 25
Adjustment And Timing Of Lower Looper.	26 & 27
Adjustment And Timing Of Bender Plate	28 - 31
Adjustment And Timing of Stitch Length	32 - 35

PARTS GLOSSARY



MACHINERY COVERS

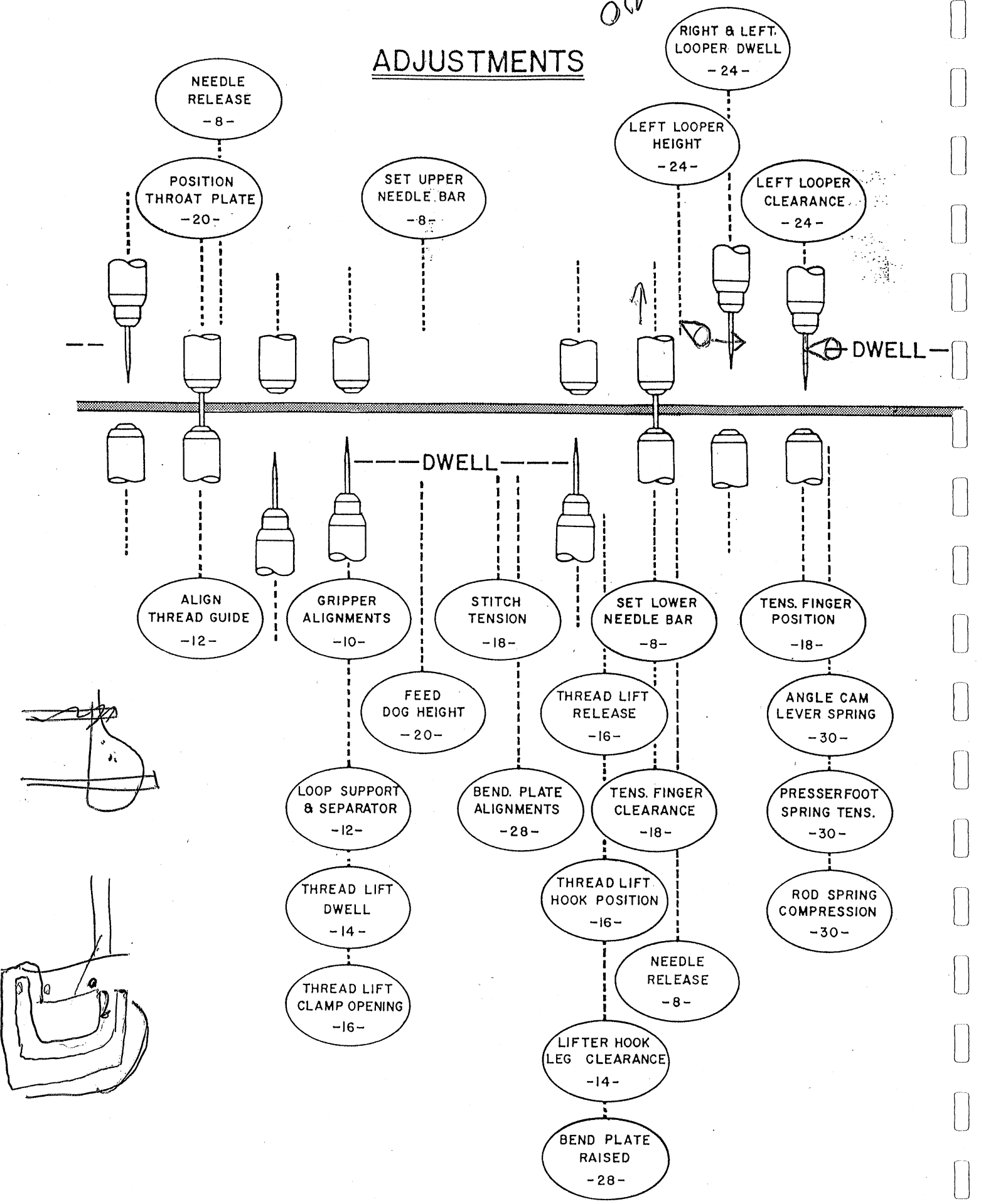




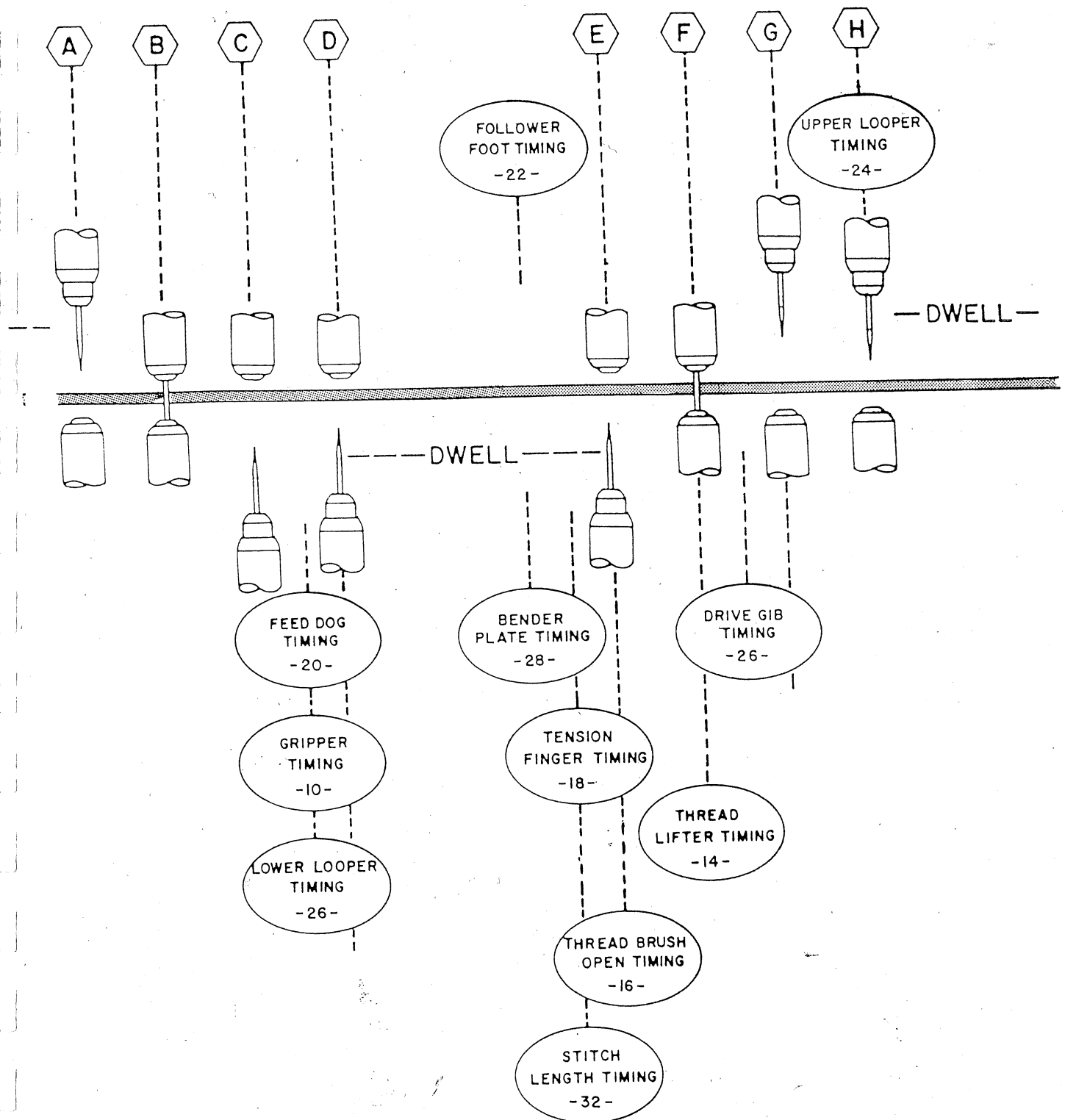
MACHINE GEAR TRAIN

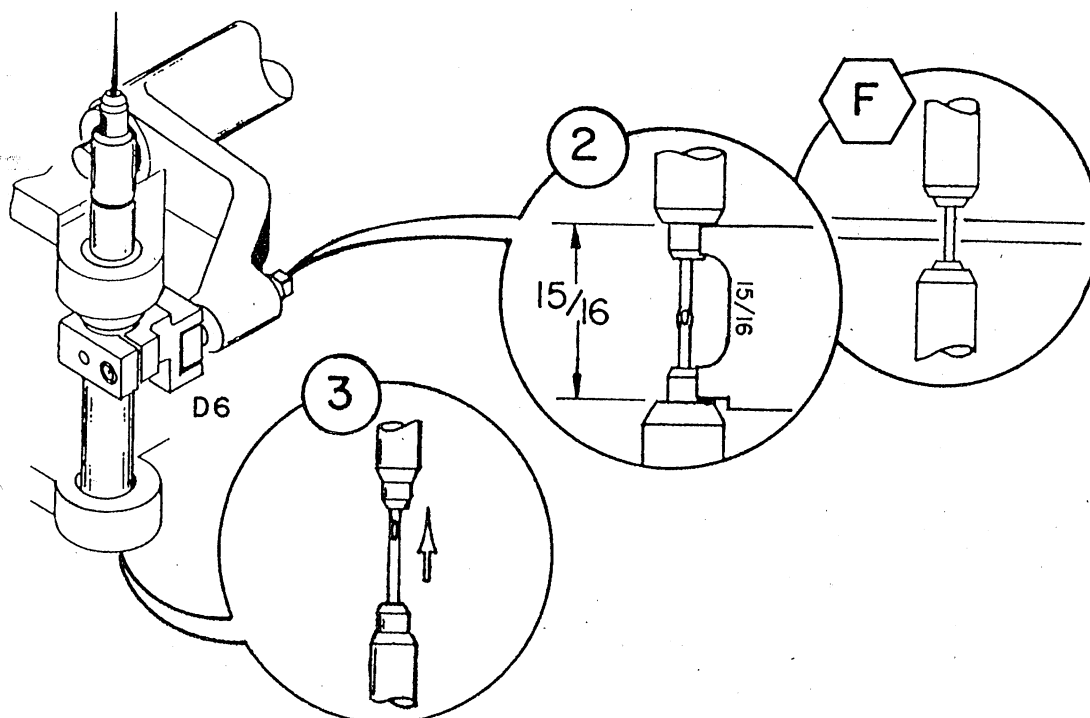
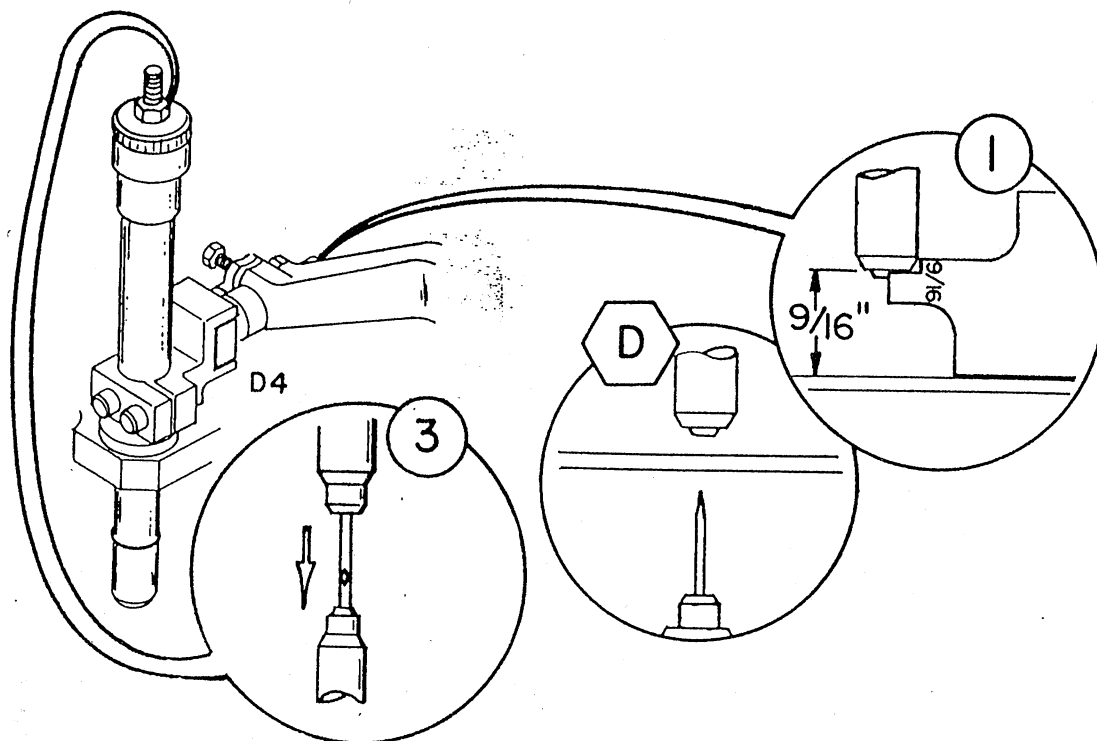
22-0-4
022-10

ADJUSTMENTS



TIMING







AMF Decorative Stitching Machine

APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT OF NEEDLE BARS

① ADJUST THE UPPER NEEDLE BAR

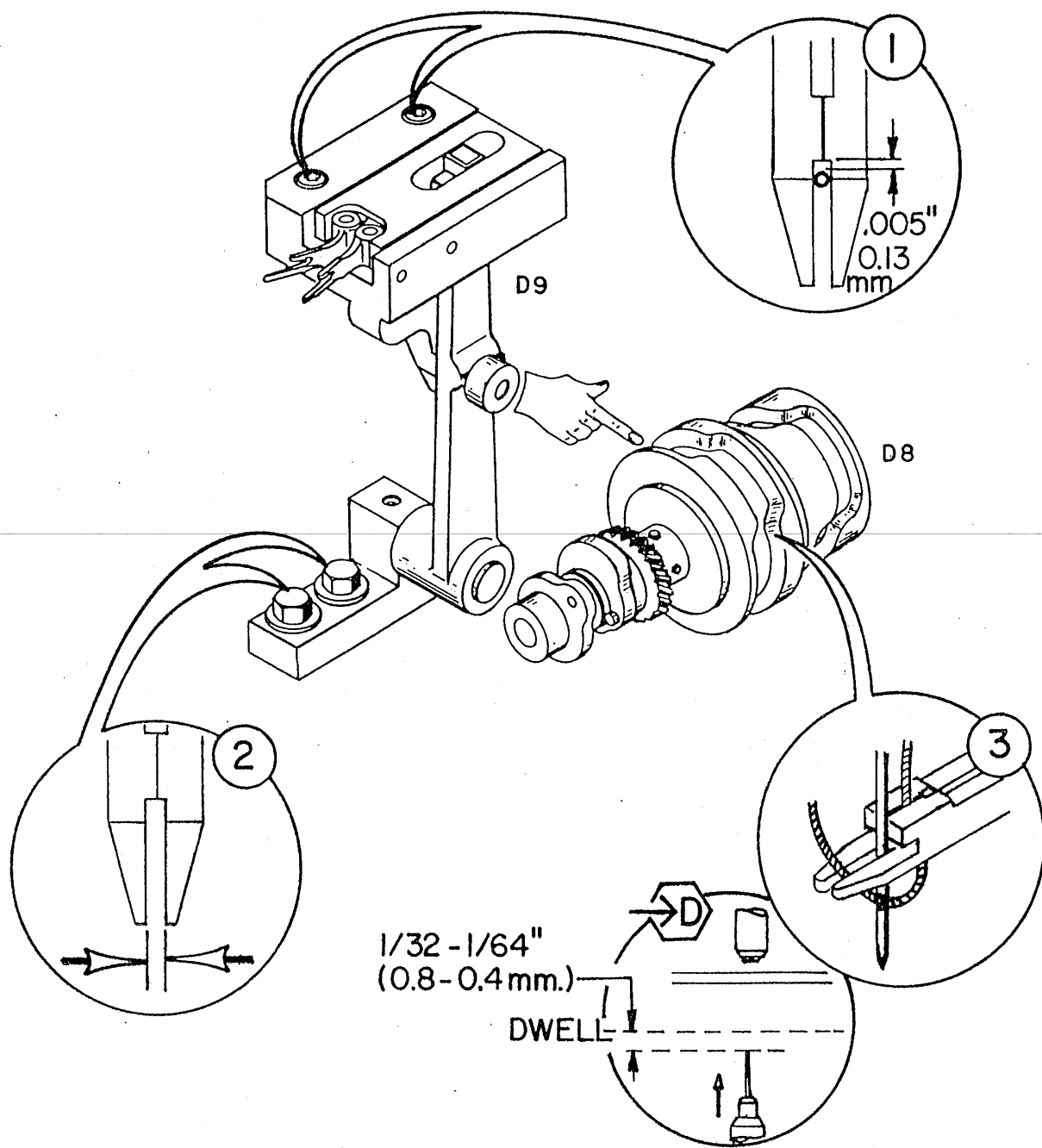
1. Move the Upper Needle Bar to its DWELL position.
2. Use the square head adjustment on the rear of the rocker arm to move the Needle Bar up and down. First loosen the clamping screw (5/16 wrench).
3. Use the gauge (37771-023) to measure 9/16 inch between the lip on the Needle Bar -not the needle sleeve- to the Throat Plate.
4. Adjust the Upper Needle Bar to the gauge. Tighten the clamping screw.

② ADJUST THE LOWER NEEDLE BAR

1. Bring the needle bars to the closest point while transferring the needle.
2. Use the square head adjustment on the rear of the lower rocker arm to move the Needle Bar up and down. First loosen the clamping screw (5/32 allen key).
3. Use the gauge (37771-023) to measure 15/16 inch between the lip on the Lower Needle Bar and the lip on the Upper Needle Bar. Do not measure to the needle sleeves.
4. Adjust the Lower Needle Bar to the gauge. Tighten the clamping screw.
5. Move the needle up and down. The needle should be free to move 1/64 to 3/64 inch (0.4 to 1.2 mm).

③ ADJUST THE NEEDLE RELEASE

1. With a needle in the Upper Needle Bar, rotate the Handwheel to bring the needle just to the transfer point to the Lower Needle Bar.
2. Move the handwheel back and forth slightly to test the needle release from the Upper Needle Bar.
3. Loosen the jam nut (3/8 wrench) on the top of the Needle Bar. Rotate the Sleeve Adjust Nut counterclockwise (viewed from above) 1/8 turn at a time until the needle does not release. Reverse the nut clockwise until the needle just releases at the transfer point. Turn clockwise an additional 3/4 turn. Tighten the jam nut.
4. Make the same adjustment on the Lower Needle Bar to get needle release from the Lower Needle Bar to the Upper Needle Bar. Oscillate the handwheel to assure that the needle transfers properly.



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT AND TIMING OF GRIPPER FINGERS**① ALIGN TO THE NEEDLE**

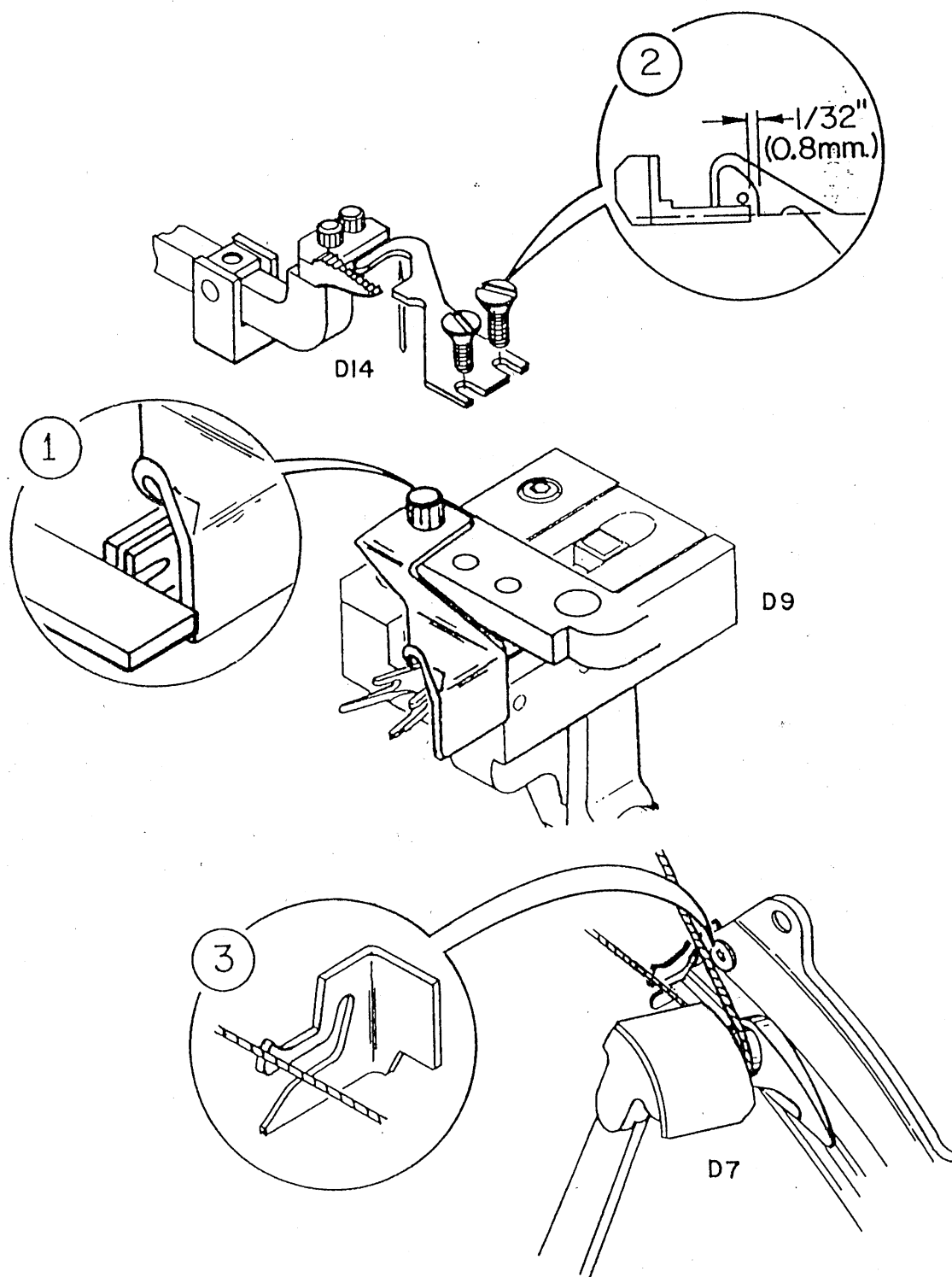
1. Bring the Gripper Fingers into the closed position.
2. Loosen the mounting screws holding the Finger Bracket (2 screws, 1/4 allen key).
3. Move the Finger Bracket to get .005 inch (0.13 mm) clearance between the needle and the end of the pads on the Gripper Fingers. Tighten the screws.

② ADJUST FINGER CLOSING

1. Bring the Gripper Fingers into the closed position with the Lower Needle Bar in the DWELL position.
2. Loosen the Pivot Bracket (2 screws, 7/16 wrench).
3. Move the Pivot Bracket to close the Fingers. Be sure to remove all play in the mechanism. Tighten the screws.

③ TIMING THE GRIPPER FINGERS

1. Bring the Lower Needle Bar at 1/32 to 1/64 inch (0.8 to 0.4 mm) before the needle reaches the DWELL position.
2. Loosen the screws (3 screws, 5/16 wrench) clamping the Thread Clamp Cam on the Main Cam Shaft.
3. Rotate the Cam to just close the Gripper Fingers. Tighten the clamping screws on the Cam.



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTING LOOP SUPPORT, THREAD GUIDE, AND SEPARATOR GUIDE**① ADJUST THE LOOP SUPPORT**

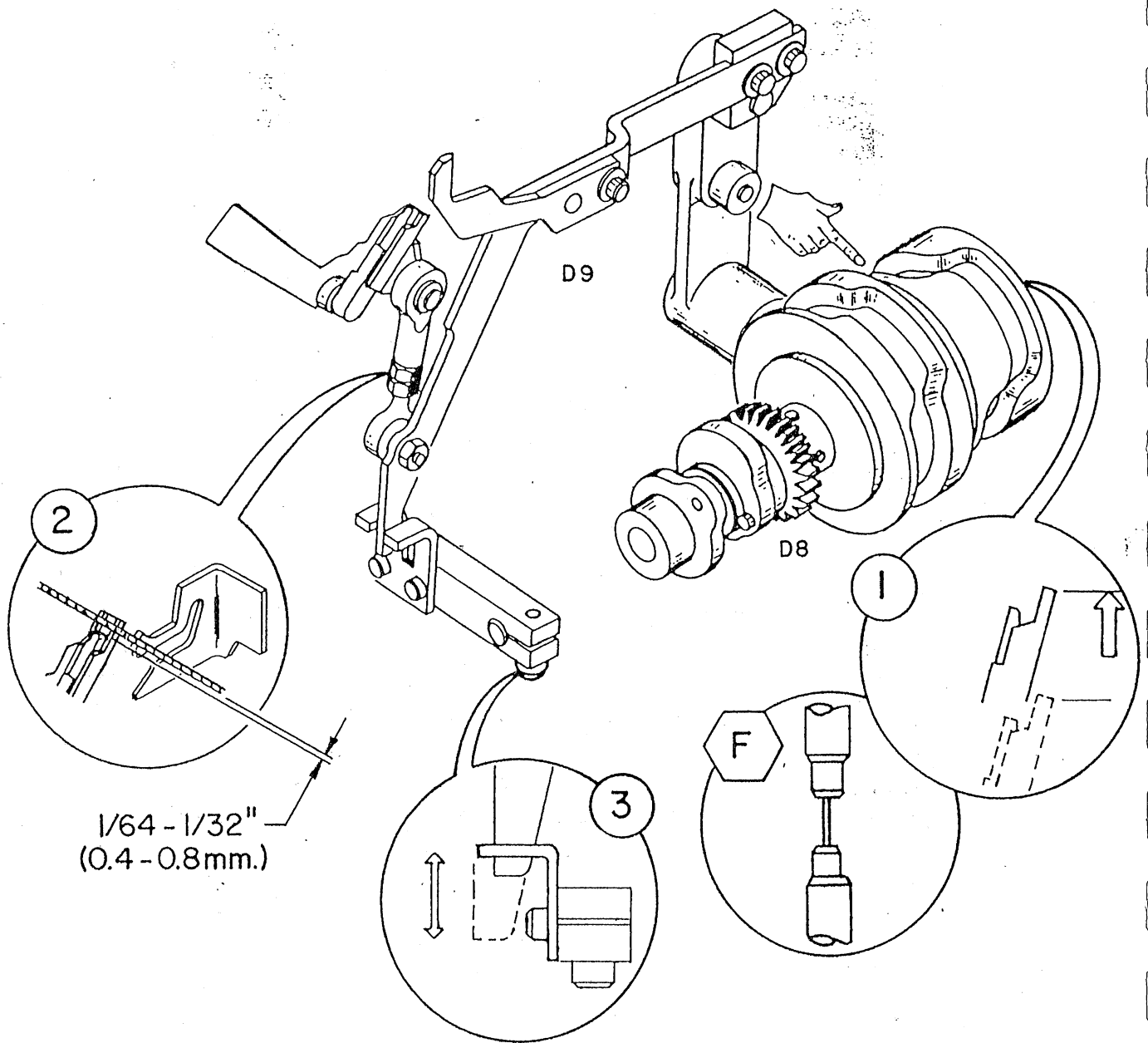
1. Bring the Gripper Fingers into the closed position.
2. Loosen clamping screw (1 screw, 9/64 allen key) holding the Loop Support (pyramid).
3. Move the Loop Support to align its edge with the top fingers on the Gripper Fingers. Tighten the clamping screw.
4. Bring the Lower Needle Bar all the way up. Make sure that it clears the Loop Support.

② ADJUST THE THREAD GUIDE

1. Bring the Lower Needle Bar to hold the needle in the DWELL position.
2. Loosen the screws (2 #5 flathead screws) holding the Thread Guide.
3. Set the Thread Guide at 1/32 inch (0.8 mm) from the side of the needle.
4. Align the edge of the Thread Guide with the center of the Feed Dog. Tighten the screws.

③ ADJUST THE SEPARATOR GUIDE

1. Loosen the screw (5/64 allen key) holding the Separator Guide to the Drum.
2. Set the Separator Guide so that the thread being carried by the Lower Looper contacts midway on the upper angle. The thread will then drop properly into the groove. Tighten the screw.



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT AND TIMING OF THE THREAD LIFTER

① THREAD LIFTER TIMING

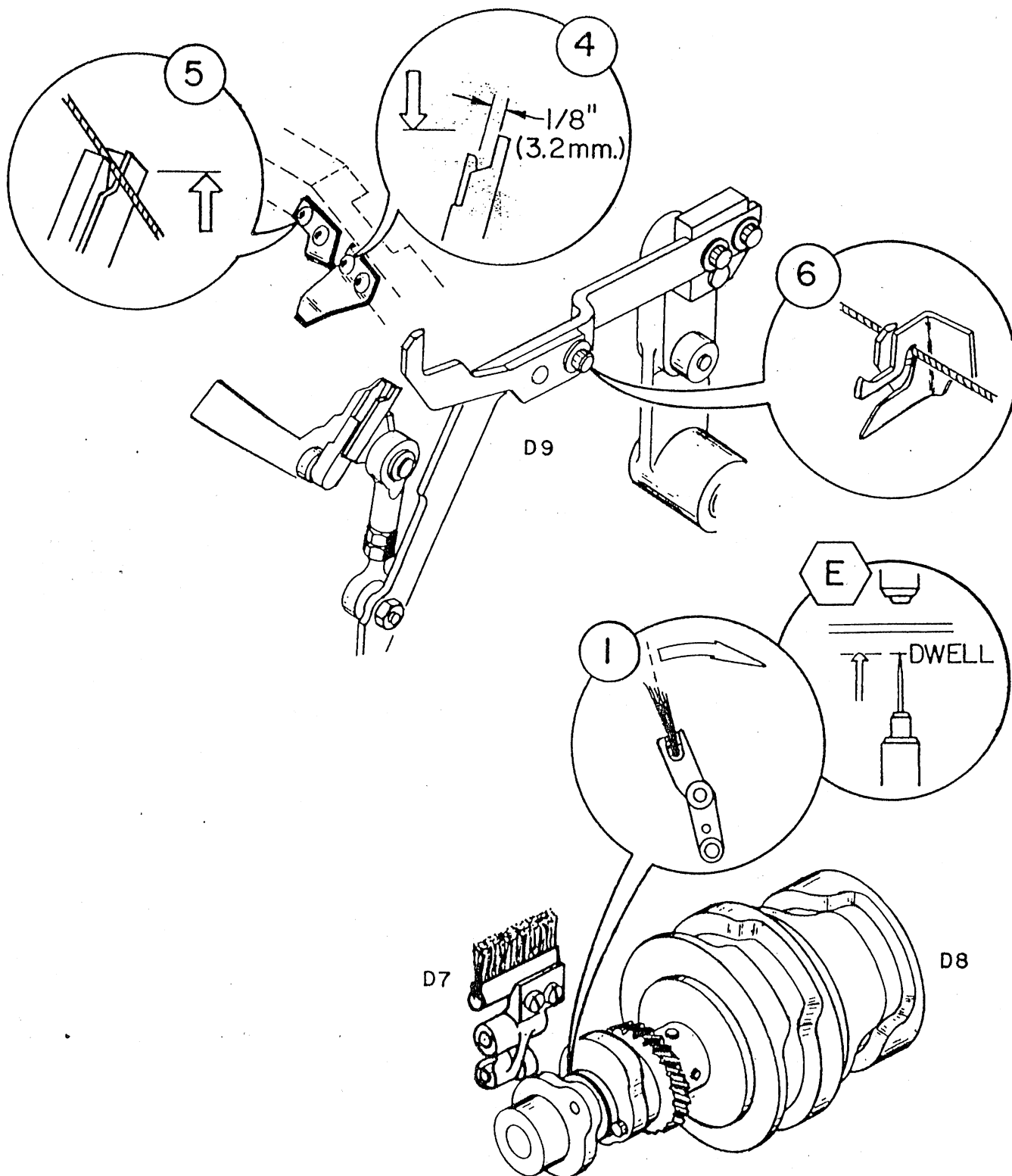
1. Rotate the Handwheel until the needle just transfers from the Lower Needle Bar to the Upper Needle Bar.
2. Loosen the Thread Lifter Cam (3 screws, 5/16 wrench) on the Main Cam Shaft.
3. Rotate the Cam to where the Thread Lifter just completes its upward motion. Tighten the Cam.

② ADJUST DWELL POSITION

1. Look at the screws (2 screws, 9/64 allen key) holding the arm of the Lifter Hook to the Cam Lever; they should be approximately centered in the slot. Measure the center-to-center distance between the ball joints on the Rod End; it should be approximately 2 inches (50.8 mm).
2. Use the handwheel to run a stitch through a piece of material and bring the Lower Needle Bar to its DWELL position.
3. Continue slowly to pick up the thread with the Lower Looper. Stop when the rear of the Lower Looper is one inch (25 mm) beyond the starting edge of the drum.
4. Adjust the Thread Lifter for 1/64 to 1/32 inch (0.4 to 0.8 mm) clearance between the thread and the clamp finger of the Thread Lifter.
5. Make the Rod End longer or shorter to set the clearance.
6. Remove the jam nut (3/8 wrench) and the screw (5/32 allen key) at the bottom of the Rod End. Loosen the jam nut (3/8 wrench) and adjust the length of the Rod End. Reassemble to test the clearance between the thread and the clamp. Tighten the assembly.

③ LIFTER HOOK LEG CLEARANCE

1. Move the Thread Lifter from DWELL to all the way up. Check the motion of the tip of the lower arm of the Lifter Hook.
2. Loosen the clamping screw (5/32 allen key) to move the Support Bracket Arm so that the tip of the lower arm always moves in the slot in the Support Bracket without striking the Bracket. Tighten the screw.



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT AND TIMING OF THE THREAD LIFTER (CONTINUED)**4 ADJUST CLAMP OPENING**

1. Move the Thread Lifter to its DWELL position (down).
2. Adjust the Lower Opener Cam (2 screws) to get 1/8 inch (3.2 mm) opening at the tip of the Clamp finger. Tighten the screws.

5 ADJUST THREAD RELEASE

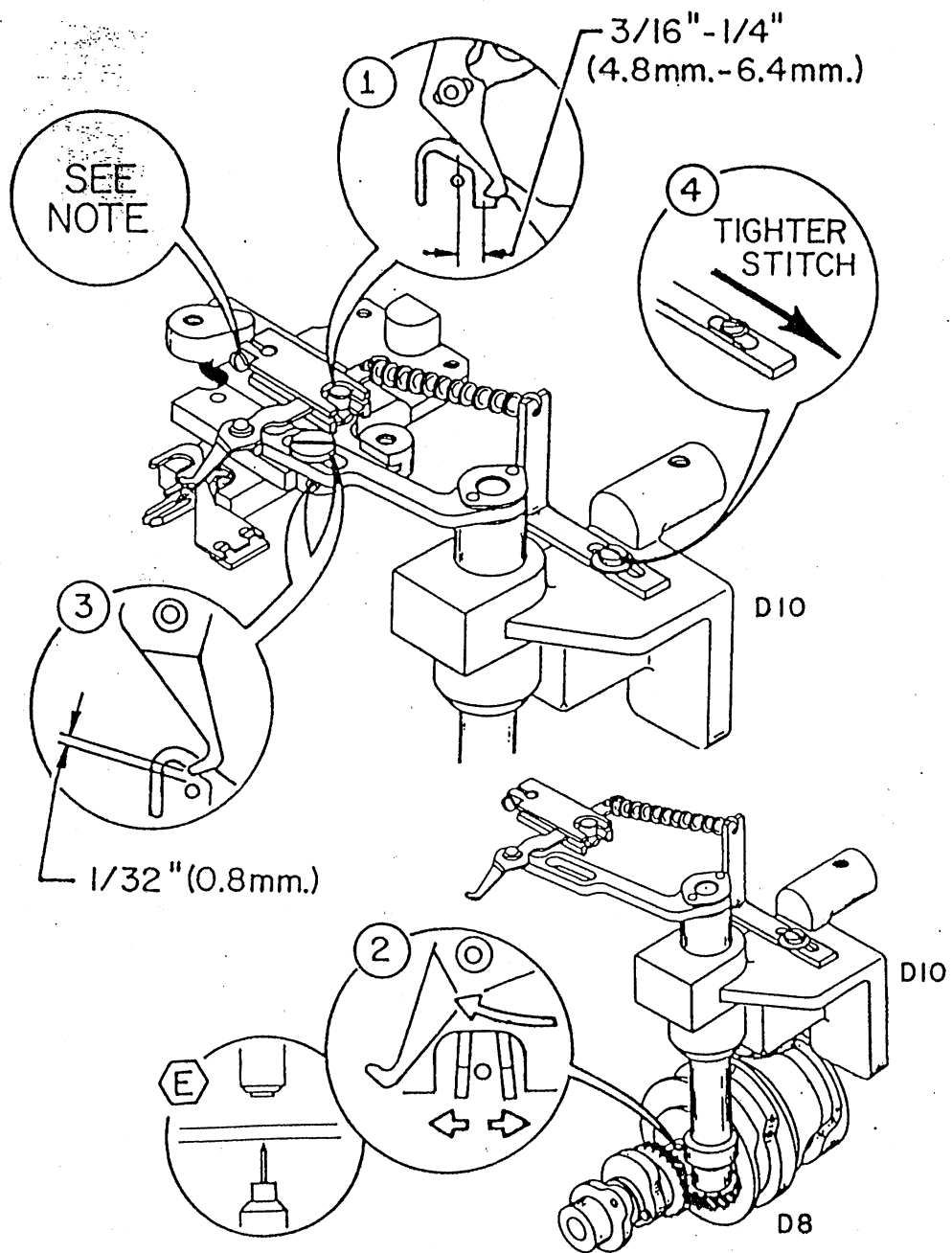
1. Move the Thread Lifter to just before completing its upward travel.
2. Adjust the Upper Opener Cam (2 screws) to release the thread. Tighten the screws.

6 ADJUST LIFTER HOOK

1. Move the Thread Lifter to complete its upward travel.
2. Adjust the Lifter Hook (9/64 allen key) to lift the thread fully into the slot of the Separator Guide. Do not pinch the thread. Tighten the screw.

TIMING THE THREAD BRUSH**1 THREAD BRUSH OPENING**

1. Bring the Lower Needle Bar to the point where the needle just starts to move from the DWELL position.
2. Loosen the Brush Operating Cam (2 screws, 3/32 allen key) on the Main Cam Shaft.
3. Rotate the Cam to where the Thread Brush just starts to open. Tighten the Cam.



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT AND TIMING OF THREAD TENSION FINGER

① SET FORWARD POSITION

1. Remove the Throat Plate (2 pieces)
2. Bring the Tension Finger to its most forward position (toward operator).
3. Loosen the Support Block pivot screw (9/64 allen key). Move the pivot to position the nose of the Finger at 3/16 to 1/4 inch (4.8 to 6.4 mm) from the center of the needle. Tighten the screw.

② TIMING THE TENSION FINGER

1. Bring the Lower Needle Bar to the point when the Gripper Fingers just open.
2. Loosen the Bevel Gear on the Main Cam Shaft (2 screws, 3/32 allen key).
3. Rotate the other bevel gear to move the Tension Finger to its rearmost position. Tighten the screws on the bevel gear.

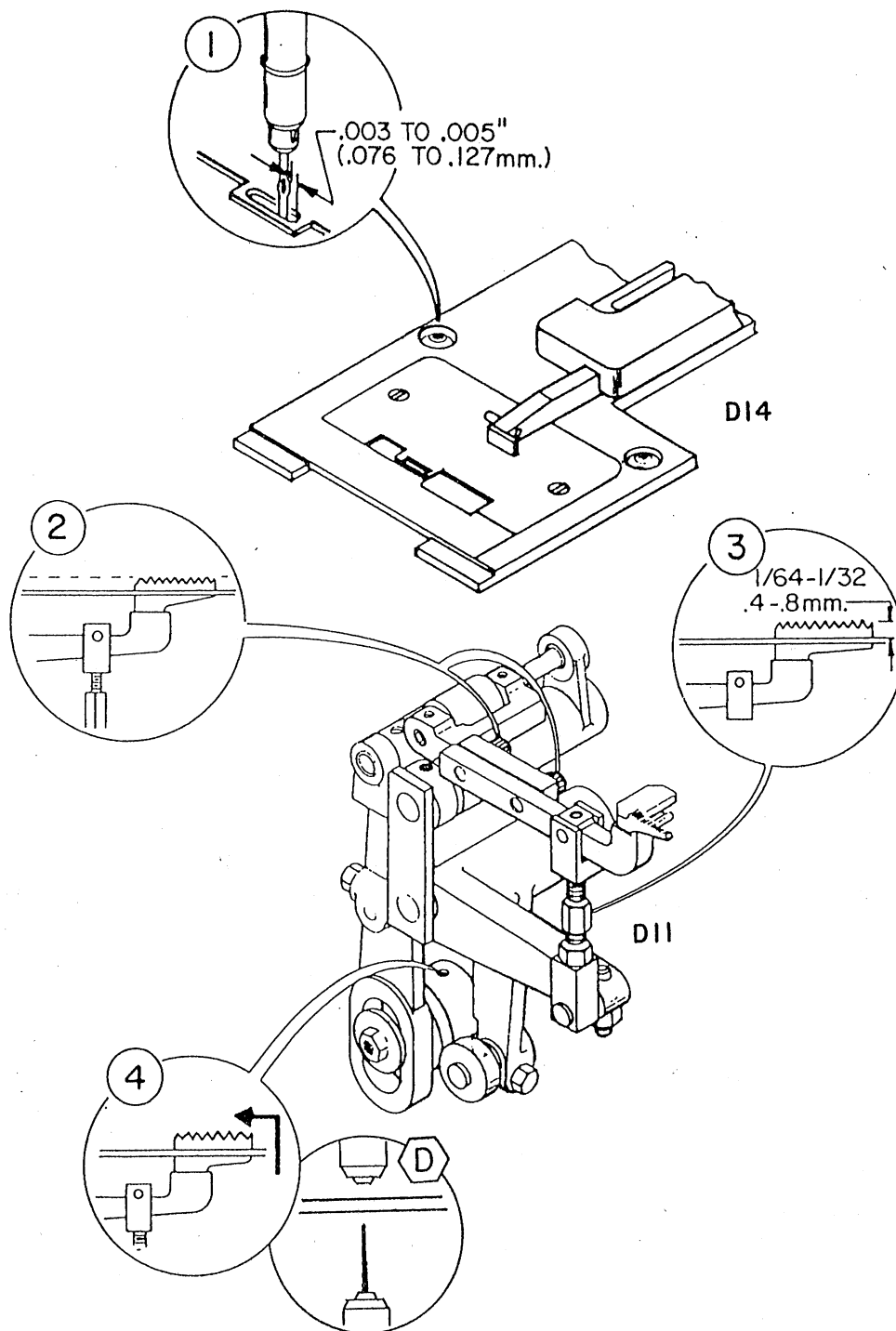
③ CLEARANCE FROM THE NEEDLE

1. Remove the Throat Plate (2 pieces).
2. Rotate the Handwheel to move the Tension Finger through a complete cycle.
3. Loosen the set screw (1/16 allen key) clamping the Eccentric Stud. Rotate the Eccentric Stud to adjust for 1/32 inch (0.8 mm) clearance on the return stroke between the Finger and the needle. Tighten the set screw.

④ ADJUST THE STITCH TENSION

1. First set the Tension Spring (1 screw) for no tension with the Tension Finger at the rearmost position (away from the operator).
2. For tighter stitches, adjust for more tension on the Tension Spring.

NOTE: Adjust the Support Block up or down so that the Tension Finger moves through the complete cycle without any binding.



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT AND TIMING OF MATERIAL FEED

① POSITION THE THROAT PLATE

1. Bring the eye of the needle flush with the Throat Plate.
2. Loosen the Throat Plate Holder (2 screws, 5/32 allen key) holding the Throat Plates.
3. Position the Throat Plate for .003 to .005 inch (0.08 to 0.13 mm) clearance of the forward end of the slot from the needle eye. Make sure that the Feed Dog and the Bender Plate are free to operate. Tighten the Throat Plate Holder making sure that it is square with the back casting.

② ADJUST FEED DOG ANGLE

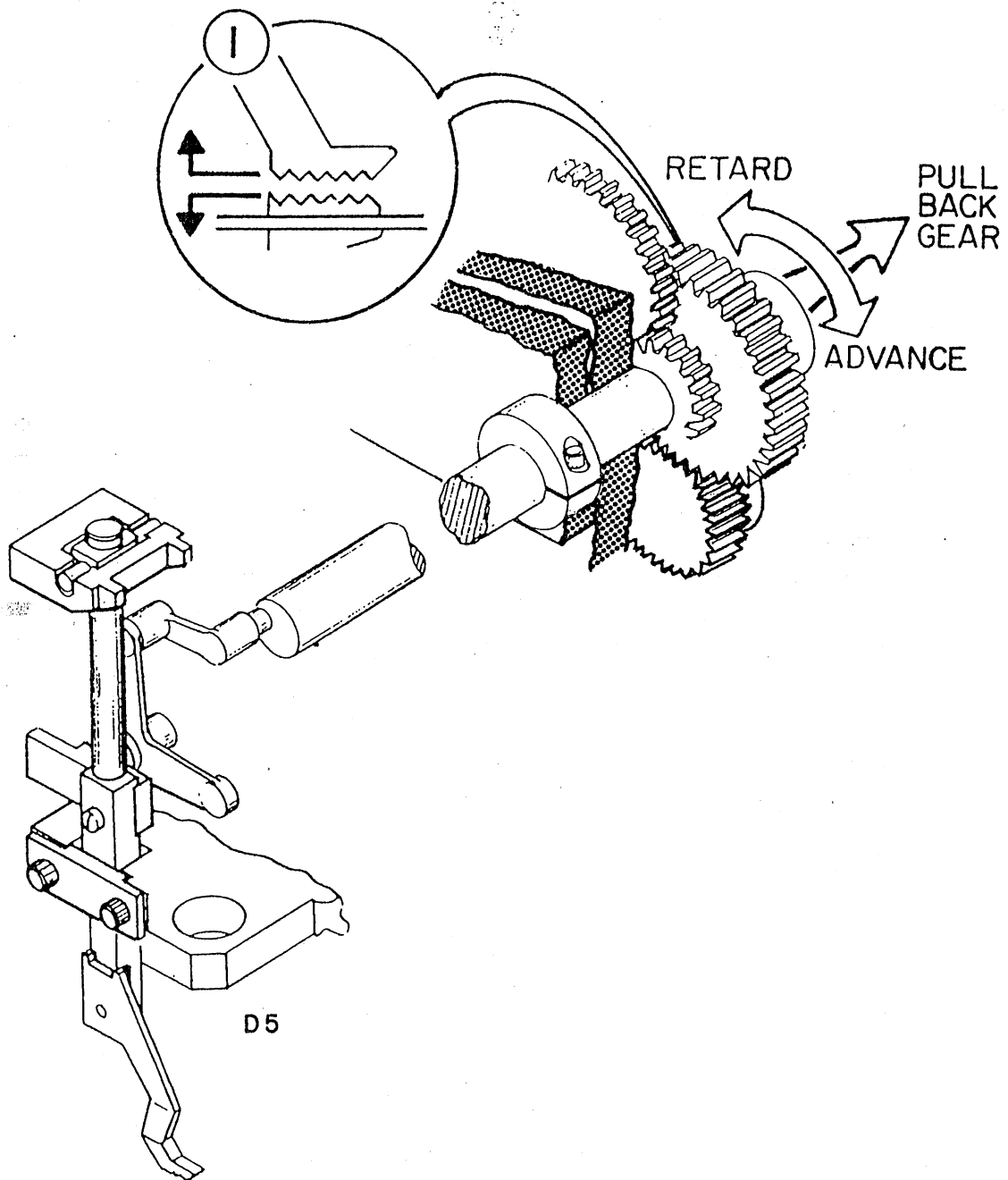
1. Perform this adjustment and the adjustment FEED DOG HEIGHT at the same time.
2. Bring the Feed Dog above the Throat Plate.
3. Loosen the Material Feed arm (2 screws, 5/32 allen key) to adjust the Feed Dog.
4. Adjust the upper surface of the Feed Dog parallel with the Throat Plate. Tighten the screws.

③ ADJUST FEED DOG HEIGHT

1. Bring the Feed Dog above the Throat Plate.
2. Use the Lifter Rod to raise or lower the Feed Dog. Loosen the upper jam nut (7/16 wrench). Loosen the lower jam nut (left hand thread).
3. Adjust the Feed Dog for 1/64 to 1/32 inch (0.4 to 0.8 mm) above the Throat Plate. Tighten the jam nuts.

④ ADJUST FEED DOG TIMING

1. Bring the Lower Needle Bar at 1/32 to 1/64 inch (0.8 to 0.4 mm) before the needle reaches the DWELL position.
2. Loosen the Material Feed Cam (2 screw, 1/8 allen key) and rotate to just bring the Feed Dog all the way up. Tighten the Feed Cam.

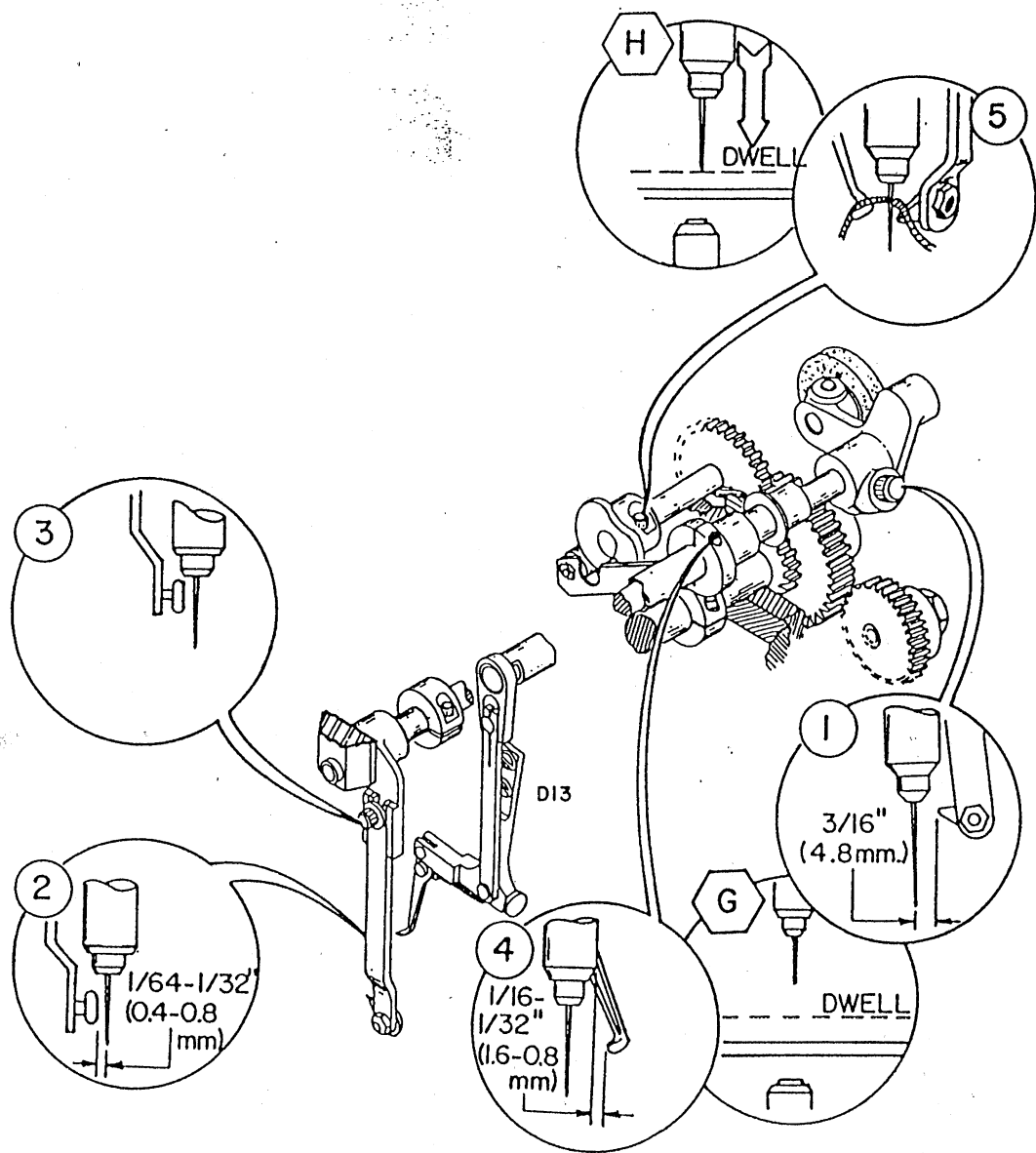


APPAREL EQUIPMENT

CLASS 59 DIVISION 83

TIMING THE FOLLOWER FOOT**① ADJUST THE FOLLOWER FOOT SEPARATION**

1. This adjustment requires a Long Arm 3/32 Allen Key or an extension to a standard Key. Bend the key as required for access to the gear screw.
2. Remove the Belt Guard. Unhook the Cam Lever Spring for the Upper Looper.
3. Rotate the Handwheel to bring the set screw on the Presser Foot Gear into view. Loosen the set screw (3/32 allen key).
4. Rotate the Handwheel to bring the Feed Dog to the end of stroke where it starts to descend. The Follower Foot should move upward at this time. Determine whether to Advance the Follower Foot to move upward sooner or Retard the Follower Foot to move later.
5. Rotate the Handwheel to where the low section of the Left Upper Looper Cam uncovers the Presser Foot Gear.
6. Hold the Right Cam Looper Gear in place. Pull the Presser Foot Gear to disengage from the gearing. Rotate the Presser Foot Gear clockwise to Retard the Follower Foot or counterclockwise to Advance. Push the Gear in to engage the gearing. Rotate the Handwheel to check the timing of the Follower Foot to the Feed Dog.
7. Repeat Step 5 and Step 6 until the Follower Foot separates from the Feed Dog at the end of its stroke.
8. Rotate to bring the set screw on the Presser Foot Gear into view and tighten the screw. Replace the Upper Looper Cam Lever Spring. Replace the Belt Guard. Check the Right Looper timing.



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT AND TIMING, LEFT LOOPER AND RIGHT LOOPER**① LEFT LOOPER DWELL POSITION**

1. Remove the Belt Guard (2 screws, 3/32 allen key) at the Handwheel end of the machine for access to the Cam Lever.
2. Bring the Upper Needle Bar to its maximum upward position.
3. Loosen the Cam Lever screw (3/16 allen key) and locate the tip of the Left Looper at 3/16 inch (4.8 mm) from the center of the needle. Tighten the screw. Replace the Belt Guard.

② LEFT LOOPER CLEARANCE

1. Rotate the Handwheel to bring the Left Looper alongside the needle.
2. Check for 1/64 to 1/32 inch (0.4 to 0.8 mm) clearance between the Left Looper and the Needle. If necessary, carefully bend the Looper Arm to get the proper clearance.

③ LEFT LOOPER HEIGHT

1. Loosen the Left Looper Arm (screw at top, 9/64 allen key) and adjust the Arm to just clear the needle bar on the return stroke. Tighten the Arm.
2. Run the Left Looper through its motion a few times to assure that the Arm does not strike the Needle Bar on the return stroke.

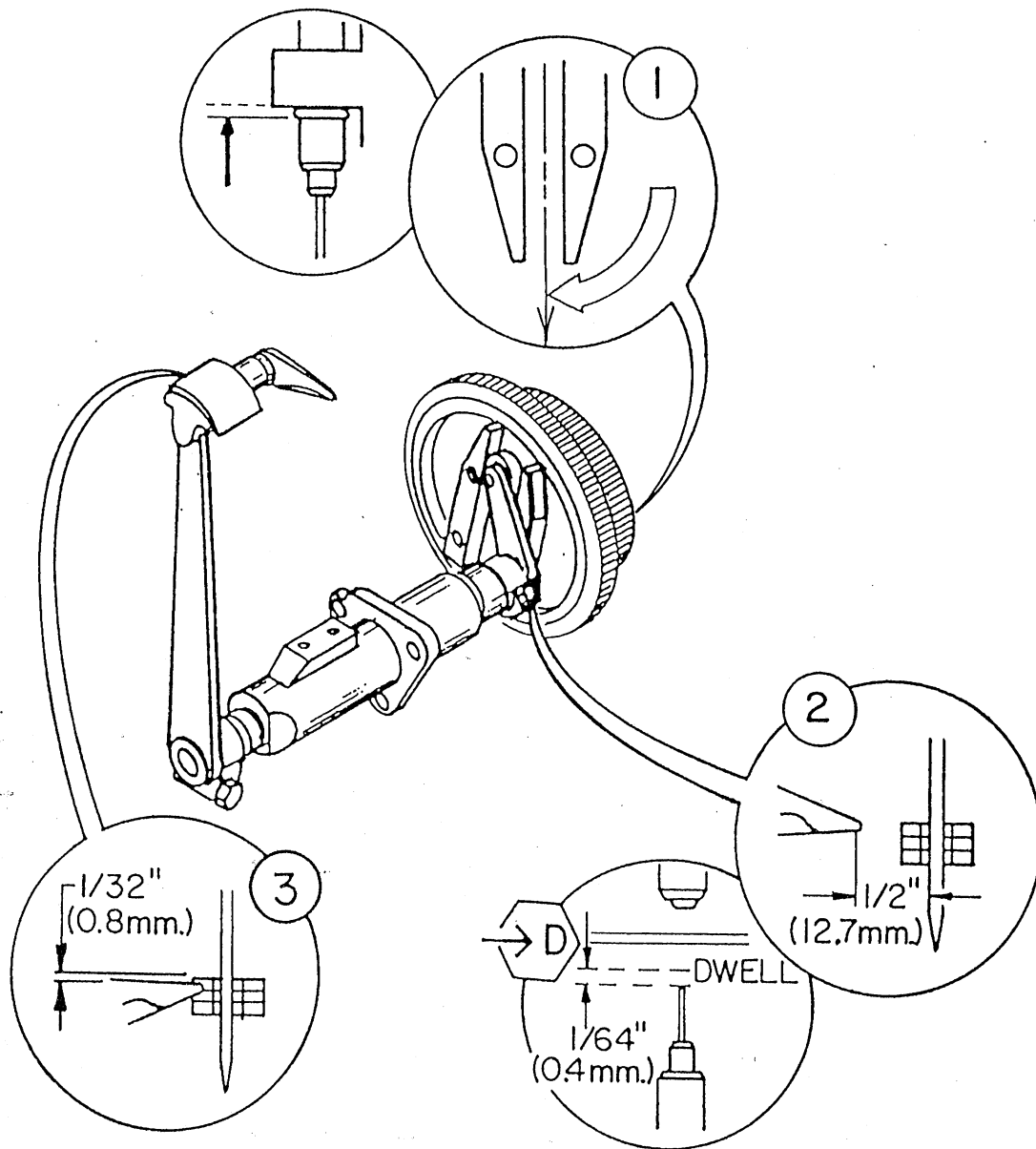
④ RIGHT LOOPER DWELL

1. Bring the Upper Needle Bar to its maximum upward position.
2. Loosen the Right Looper Cam Lever (9/64 allen key). Move the Right Looper for 1/16 to 1/32 inch (1.6 to 0.8 mm) clearance from the Upper Needle Bar. Tighten the Cam Lever.

⑤ LOOPER TIMING

1. Bring the Upper Needle Bar just to its DWELL position.
2. Loosen the Right Looper Cam (7/64 allen key). Rotate the Cam to advance the Right Looper to 1/32 inch (0.8 mm) ahead of the Left Looper. Tighten the Cam.

NOTE: The Right Looper picks up the thread ahead of the Left Looper.



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT AND TIMING OF LOWER LOOPER

① TIMING THE DRIVE GIBS

1. Rotate the Handwheel by hand to transfer the needle to the Upper Needle Bar. Stop at the point that the Retainer Ring on the Upper Needle Bar (moving upward) is just flush with the bottom of the Needle Bar Bushing.
2. Loosen the Arm Crank screw (1/2 inch wrench). Hold the Arm Crank assembly and move the Lower Looper Arm out far enough to remove the Arm Crank.
3. Below the Handwheel, remove the nut (15/16 wrench on nut, 13/16 wrench on gear stud) holding the Arm Crank Drive Gear.
4. Mark the position of the Material Feed Drive Gear.
5. Pull the Arm Crank Drive Gear to disengage from the gearing and rotate to make the Drive Gibs point vertically downward to the 6:00 o'clock position (not as shown). Reengage the Arm Crank Drive Gear to the gearing. Check that the Material Feed Drive Gear has not moved.
6. Replace the nut on the gear stud and tighten.
7. Install the Arm Crank assembly on the shaft of the Lower Looper Arm and make sure that the Looper Arm is seated. Do not tighten. Proceed to the instructions for Timing The Lower Looper.

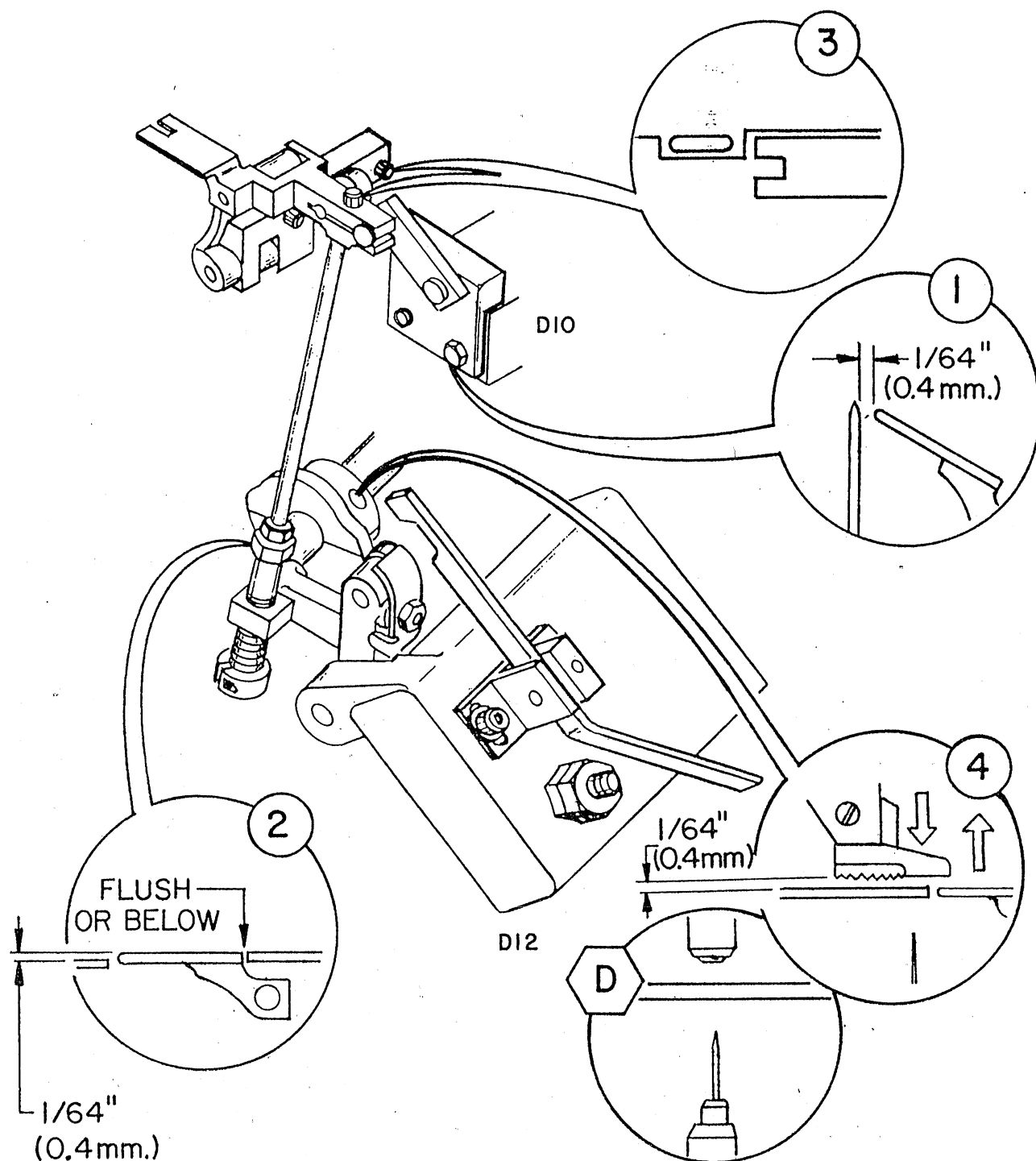
CAUTION: Whenever the Arm Crank Drive Gear is disengaged, all other timings and adjustments must be checked.

② TIMING THE LOWER LOOPER

1. Bring the Lower Needle Bar to 1/64 inch (0.4 mm) before the needle reaches its DWELL position. The Gripper Fingers should just close.
2. Loosen the Arm Crank screw (1/2 inch wrench). Hold the Drive Gibs in place and rotate the Bottom Looper to position its tip at 1/2 inch (12.7 mm) from the slot in the Gripper Fingers. Tighten the screw.

③ ALIGN THE LOWER HOOK TIP

1. Bring the tip of the Lower Hook to the Gripper Fingers.
2. Align the tip of the Hook at 1/32 inch (0.8 mm) below the top edge of the Gripper Fingers (screw at end of Looper Arm, 9/64 allen key). Tighten the screw.



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT AND TIMING OF BENDER PLATE

① RAISED POSITION OF BENDER PLATE

1. Remove the Metal Table (2 screws).
2. Release the Angle Plate Latch for Pick Stitch operation. Rotate the Handwheel to bring the Bender Plate fully up.
3. Loosen the screw (5/16 wrench) attaching the Pusher Plate.
4. Lift the Presser Foot away from the Bender Plate. Move the Bender Plate for 1/64 inch (0.4 mm) clearance from the needle. Tighten the screw.

② ADJUST BENDER PLATE HEIGHT

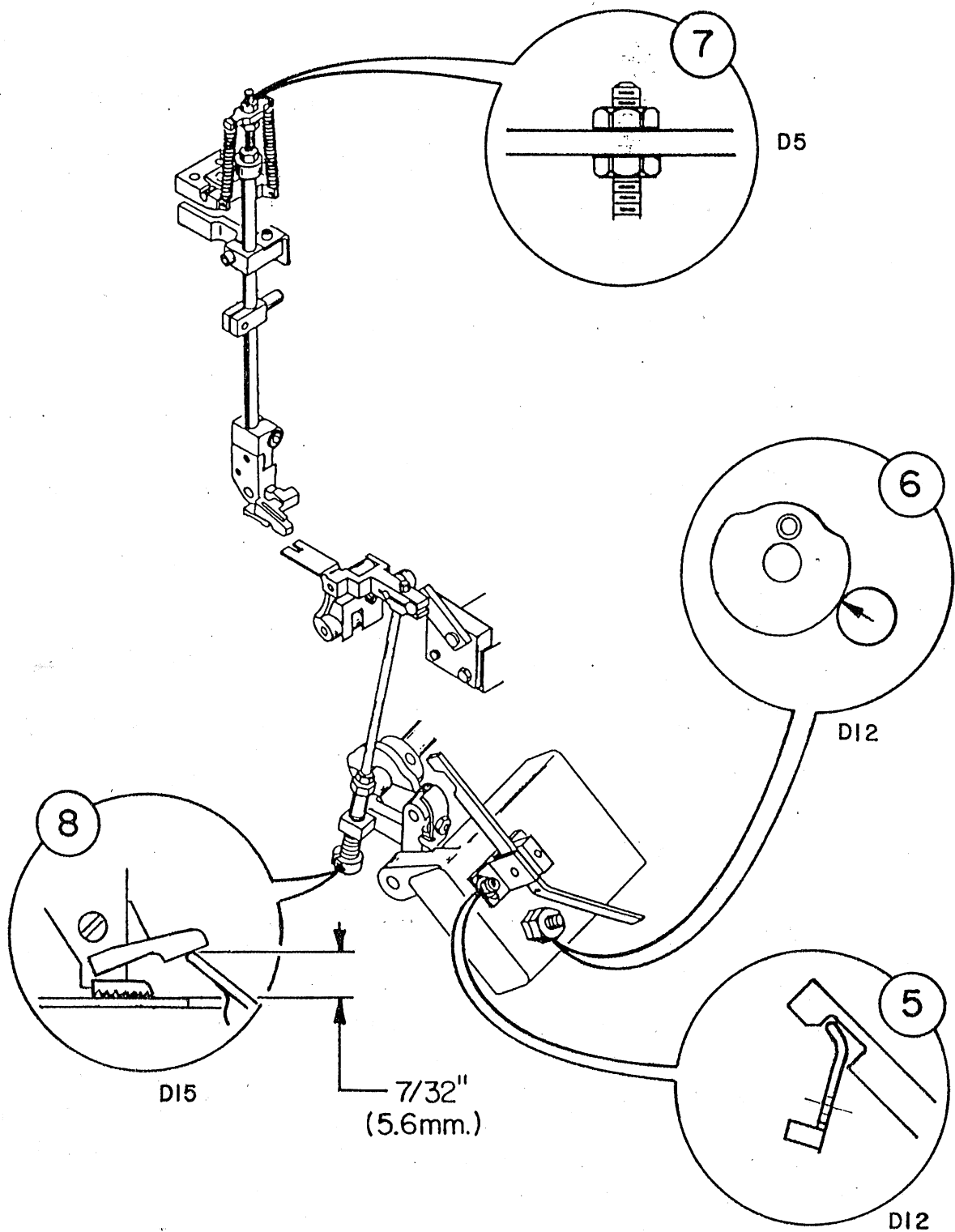
1. Bring the Bender Plate into the down position.
2. Loosen the jam nut on the Bracket Rod. Turn the Adjusting Bushing to align the end of the Bender Plate towards the operator flush with the Throat Plate. This should set the opposite end of the Bender Plate at 1/64 inch (0.4 mm) above the Throat Plate. Tighten the jam nut.

③ ALIGN TO THE THROAT PLATE

1. Loosen the clamping screw on the Bender Plate (7/64 allen key). Loosen the Pivot Support (2 screws, 9/64 allen key).
2. Align the edge of the notch for the Feed Dog on the Bender Plate with the edge of the Feed Dog slot on the Throat Plate.
3. Tighten the Pivot Support Screws. Adjust the pins to the Bender Plate and tighten the clamping screw.

④ TIMING THE BENDER PLATE

1. Release the Angle Plate Latch for Pick Stitch operation.
2. Rotate the Handwheel to move the needle into the Lower Needle Bar.
3. Rotate to bring the Presser Foot down to the Throat Plate. Stop when the Presser Foot is 1/64 inch (0.4 mm) above the Throat Plate.
4. Loosen the Angle Plate Cam (2 screws, 5/32 allen key) on the Main Cam Shaft.
5. Rotate the Cam to just start the Bender Plate upward. Tighten the Cam.



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT AND TIMING OF BENDER PLATE (CONTINUED)

5 ADJUST THE ANGLE PLATE LATCH

1. Rotate the Handwheel to bring the roller onto the high section of the Angle Plate Cam on the Main Cam Shaft.
2. Loosen the mounting of the Angle Plate Latch (2 screws, 5/32 allen key) on the Tie Bracket.
3. Adjust the Latch to snap onto the locking clip. Tighten the mounting.

6 ADJUST CAM LEVER SPRING

1. Loosen the jam nut (5/16 wrench) on the stud attaching the Cam Lever Spring to the Tie Bracket.
2. Use the other nut to adjust the pressure of the roller on the Cam Lever against the Angle Plate Cam.
3. Operate the machine. The roller should stay in positive contact with the Cam. Tighten the jam nut.

7 PRESSER FOOT TENSION

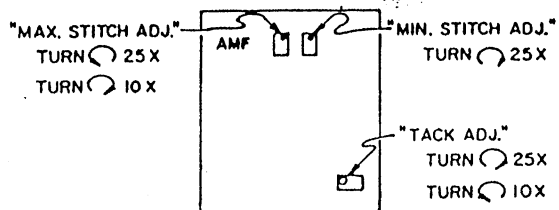
1. Run the upper nut (3/8 wrench) on the top of the Presser Foot rod to two threads from the top.
2. Turn the underneath nut to move the Spring Clip against the upper nut. Tighten the two nuts.

8 ROD SPRING COMPRESSION

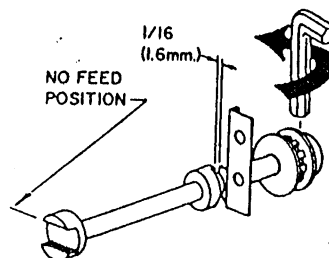
1. Bring the Bender Plate to the fully up position.
3. Lift the Presser Foot and then reseal on the Bender Plate. The Presser Foot should move down to contact the Throat Plate.
2. Loosen the collar under the Rod Spring on the Angle Stitch mechanism.
4. Rotate the collar to increase or decrease the compression of the Rod Spring. Find the point that the Bender Plate just lifts the Presser Foot away from the Throat Plate. Then back off 2 turns on the collar to decrease the compression on the Rod Spring. Tighten the collar.
5. Operate the machine to check the stitching on the material being used. If the stitch length varies, increase the compression on the Rod Spring.



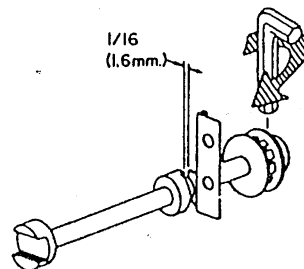
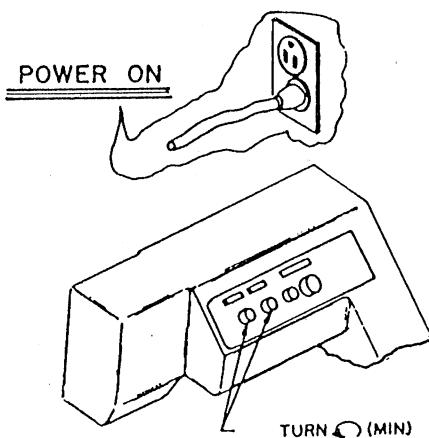
①



P.C. BOARD NO. 59-83-37631-061
'STITCH LENGTH CONTROLLER'



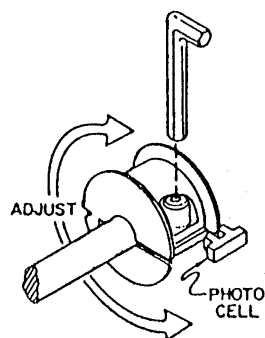
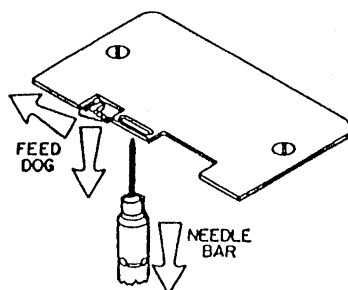
LOOSEN



TIGHTEN

②

TURN HANDWHEEL



APPAREL EQUIPMENT

CLASS 59 DIVISION 83

ADJUSTMENT AND TIMING OF STITCH LENGTH

① ZERO FEED ADJUSTMENT

1. Switch the POWER to OFF.
2. In the Electronics Cabinet, set the potentiometer adjustments on the Stitch Length Controller circuit board as follows:
 - MAX STITCH ADJ. Turn counterclockwise 25 rotations, then clockwise 10 rotations.
 - MIN STITCH ADJ. Turn clockwise 25 rotations.
 - TACK ADJ. Turn clockwise 25 rotations, then counterclockwise 10 rotations.
3. On the control panel, set both STITCH LENGTH controls counterclockwise.
4. Loosen Slide Block Limit Stop (1 screw, 7/64 allen key). Loosen the driven Pulley on the same shaft (1 screw, 9/64 allen key).
5. Switch POWER to ON. The servo motor will run to the minimum stitch condition. Check that both STITCH Length controls are set to the minimum stitch.
6. Rotate the Slide Block to the No Feed position with the slot in the Block exactly horizontal. Tighten the Pulley. NOTE: If the Pulley screw is not accessible, first switch POWER to OFF and then rotate the Block and the Pulley as a unit to a position where the screw can be tightened; switch POWER to ON and assure that the slot in the Slide Block comes to the exactly horizontal position.
7. With the slot in the Slide Block exactly horizontal, rotate the Slide Block Limit Stop to achieve 1/16 inch (1.6 mm) clearance between the Limit Stop and the upper projection on the Stop Plate. Tighten the Limit Stop.
8. Rotate the Handwheel and check that the Feed Dog does not move horizontally. There must be neither foreward feed nor back feed. Should any feed occur, loosen the screw in the Pulley and readjust starting with step 5.

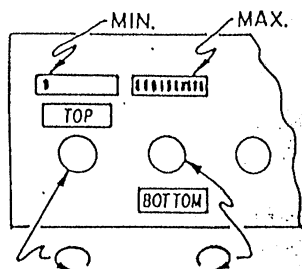
② PHOTOCCELL TIMING

1. Rotate the Handwheel to move the needle to the Lower Needle Bar. Stop at the point that the Feed Dog reaches its lowest position below the Throatplate.

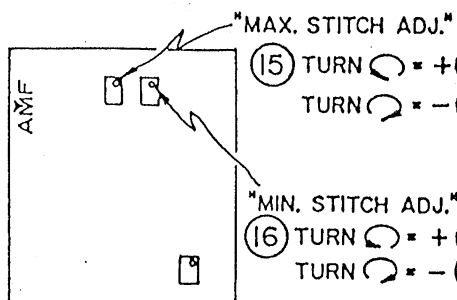
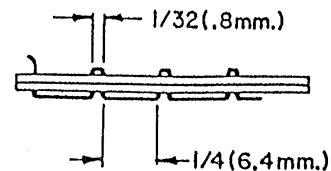
(Continued on next page)

3 STITCH ADJUSTMENT

(13)



(14) SEW SAMPLE

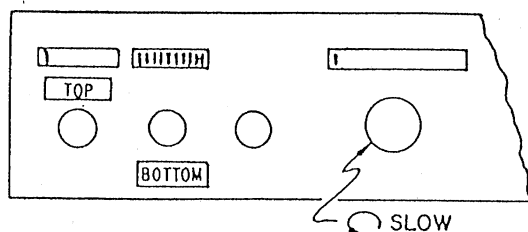


(15) TURN \curvearrowright = + (LONGER STITCH)
TURN \curvearrowleft = - (SHORTER STITCH)

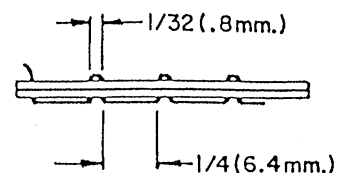
(16) TURN \curvearrowright = + (LONGER STITCH)
TURN \curvearrowleft = - (SHORTER STITCH)

4 SERVO MOTOR TACHOMETER ADJUSTMENT

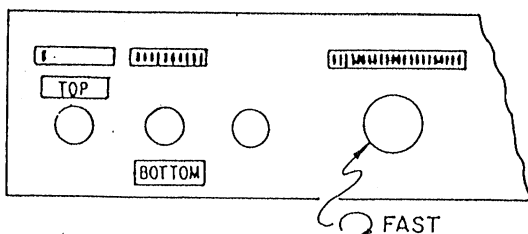
(17) SET TOP (MIN), BOTTOM (MAX.),
SPEED (SLOW)



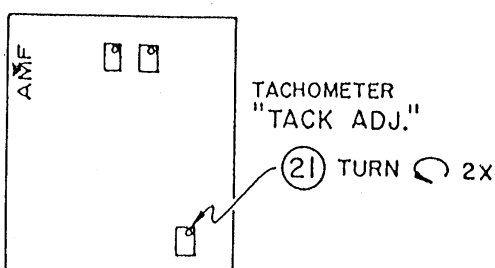
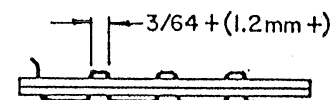
(18) SEW 6" (152mm.)



(19) SET SPEED (FAST)



(20) SEW 6" (152mm.)



(21) TURN \curvearrowright 2X

(22) REPEAT (20) + (21)
UNTIL (20) = (18)

APPAREL EQUIPMENT

CLASS 59 DIVISION 83

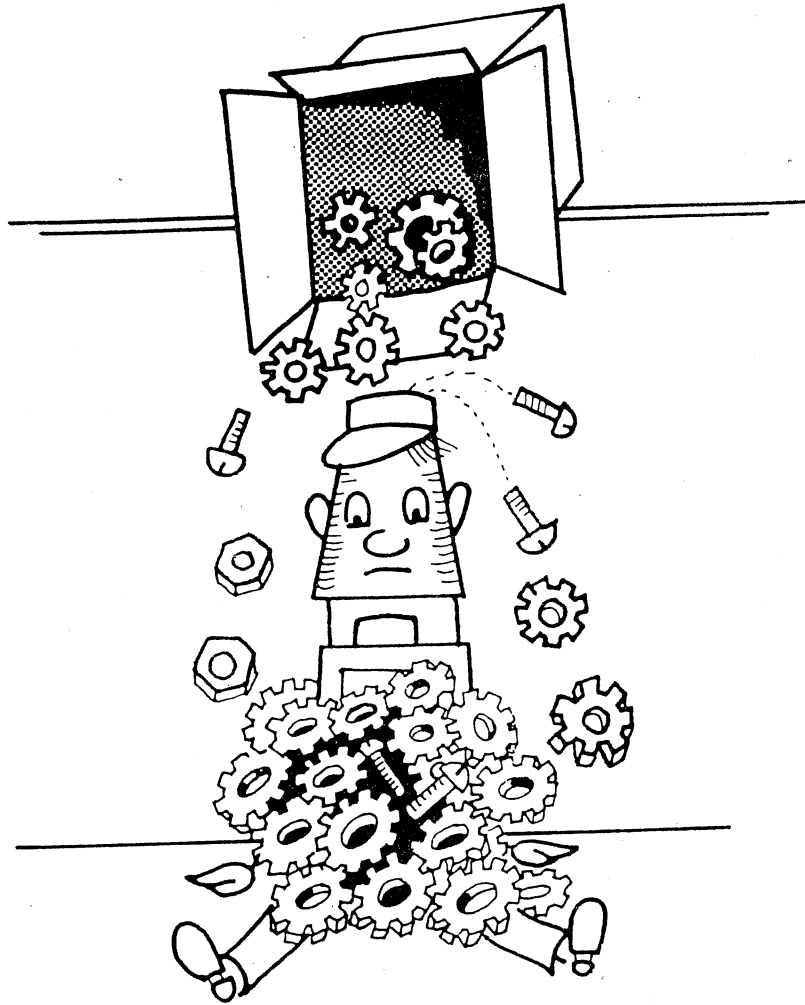
2. Loosen the Stitch Control Cam (1 screw, 5/32 allen key) on the Main Cam Shaft. Rotate the Cam to position the screw upwards and to bring the step in the rear flange just to the center of the photocell. Align, as necessary, to center the flange in the slot of the photocell. Tighten the screw.

3**STITCH LENGTH ADJUSTMENT**

1. Thread the machine. Place 2 plies of sample material under the Presser Foot.
2. Switch POWER to ON. Set STITCH LENGTH controls; TOP to minimum stitch and BOTTOM to maximum stitch.
3. Rotate the Handwheel to form stitches. In the Electronic Cabinet, rotate the MIN STITCH ADJ. counterclockwise to get a minimum stitch length of 1/32 inch (0.8 mm). Rotate the MAX STITCH ADJ. to get a maximum stitch length of 1/4 inch (6.4 mm). Counterclockwise adjustments increase the stitch lengths.

4**TACHOMETER ADJUSTMENT**

1. Thread the machine. Place 2 plies of sample material under the Presser Foot.
2. Switch POWER to ON. Set STITCH LENGTH controls; TOP to minimum stitch and BOTTOM to maximum stitch.
3. Set SEWING SPEED to minimum speed. Sew for about 6 inches (150 mm).
4. Set SEWING SPEED to maximum speed. Sew for about 6 inches (150 mm).
5. Compare the low speed stitches to the high speed stitches. If the short high speed stitches are longer, rotate the TACHOMETER ADJ. 2 turns counterclockwise and try again. Repeat until the stitches do not vary in length.



PARTS

APPAREL EQUIPMENT

CLASS 59 DIVISION 83

PARTS

PART LIST AND DRAWING	PAGE
Electronic Decorative Stitcher D-1	40 & 41
Main Frame Assembly D-2.	42 & 43
Cam And Gear Drive Assembly D-3.	44 & 45
Upper Needle Bar Assembly D-4.	46 & 47
Presser Foot D-5	48 & 49
Lower Needle Bar Assembly D-6.	50 & 51
Lower Looper & Thread Drum Assembly D-7.	52 & 53
Main Cam Shaft Assembly D-8.	54 & 55
Thread Gripper And Elevator Assembly D-9	56 & 57
Pick Stitch And Tension Finger D-10.	58 & 59
Material Feed D-11	60 & 61
Angle Stitch Mech. D-12.	62 & 63
Upper Looper D-13.	64 & 65
Material Guide D-14.	66 & 67
Presser Foot And Swivel Toe Mech. D-15	68 & 69
Electronic Cabinet Assembly D-16	70 & 71



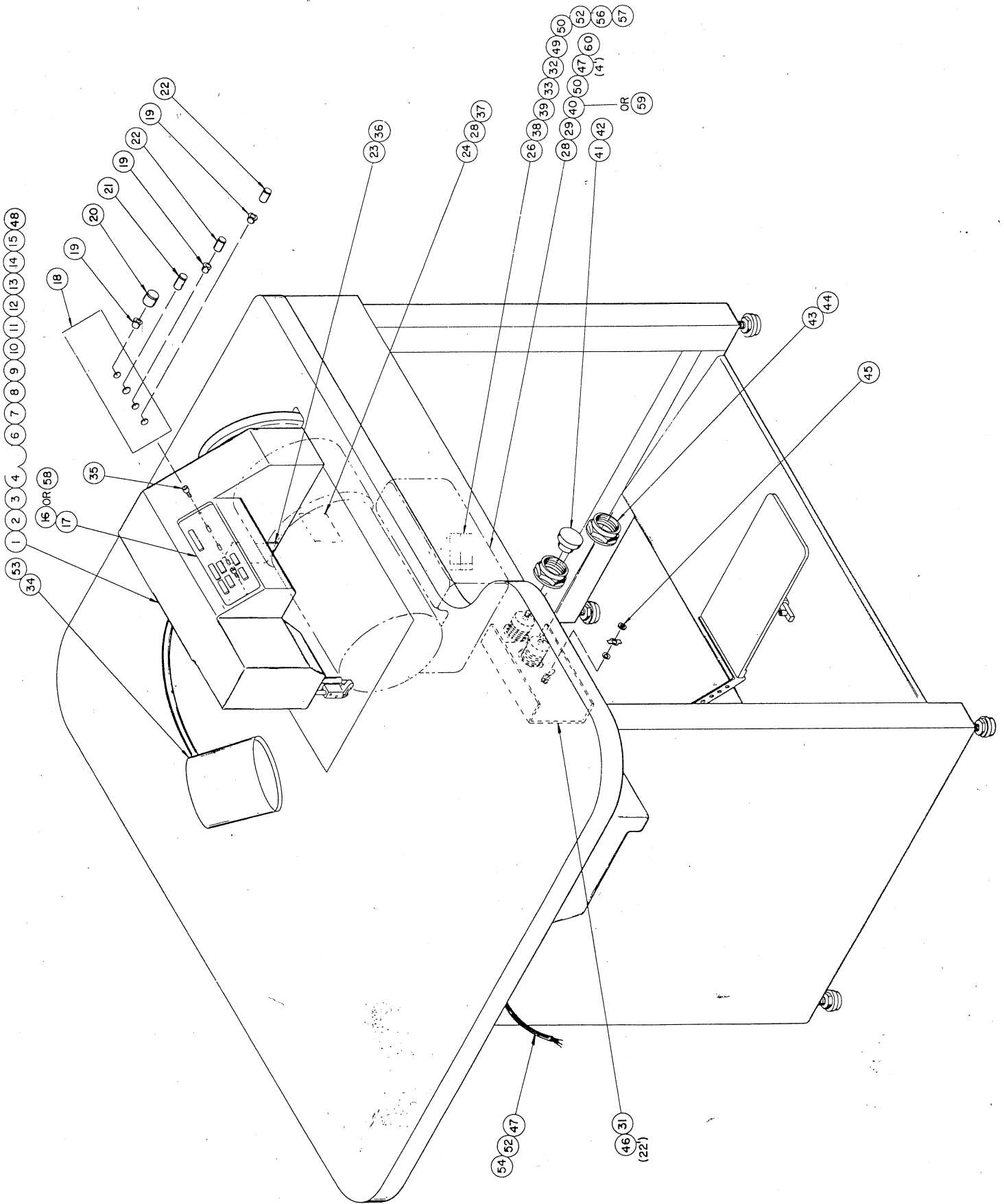
AMF Decorative Stitching Machine

APPAREL EQUIPMENT

ELECTRONIC DECORATIVE STITCHER D-1 49965-194
Serial No. 3151 & Up

CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Frame Assembly (D2) -----	(E) 41334-0054	38	Screw, Binding Hd. 10-32 x 1/2-----	4100-008
2	Cam & Gear Drive Assembly (D3) -----	(E) 42422-012	39	Wrap, Spiral 1/2 Dia. (White)-----	27513-870
3	Upper Needle Bar Assembly (D4) -----	(E) 44411-045	40	Motor, "Teledyne-Amco" 220/380, 50-60Hz.-	27578-014
4	Presser Foot Assembly (D5) -----	(E) 42422-011	41	Switch, Mushroom "C&H" 10250T122 (Red) >	28211-105
5	Lower Needle Bar Assembly (D6) -----	(E) 44411-046	42	Block, Contact "C&H" 10250T51(N.C.)-----	28211-033
6	Lower Looper & Thd. Drum (D7) -----	(E) 44811-034	43	Switch, Std. Button 10250T103 (Green)-----	28211-050
7	Main Cam Shaft Assembly (D8) -----	(D) 42233-027	44	Block, Contact "C&H" 10250T53(N.O.)-----	28211-031
8	Thd. Gripper & Elevator (D9) -----	(E) 44821-029	45	Switch, Toggle "Carling" HKA271-73-----	28211-088
9	Pick Stitch & Tens. Fing. (D10) -----	(E) 42211-008	46	Screw, Self-Tapping 8x3/8 (Type "F")-----	2230-026
10	Material Feed Assembly (D11) -----	(E) 42761-084	47	Cable, Rubber, SO 16-4-----	18518-506
11	Angle Stitch Mech. (D12) -----	(D) 44821-030	48	Base, Ty-Rap "Panduit" EMS-A-----	27513-866
12	Upper Looper Assembly (D13) -----	(E) 44811-035	49	Cable, Rubber, SO 18-3-----	18518-502
13	Material Guide Assembly (D14) -----	(E) 44211-105	50	Grip, Cord, "T&B" 2269 (90°)-----	27511-166
14	Press. Ft. & Swivel Toe (D15) -----	(D) 44241-107	51		
15	Elect. Cabinet, Assembly (D16) -----	(E) 46551-436	52	Grip, Cord, "T&B" 2522 (Straight)-----	27511-197
16	P.C. Brd., Panel Module -----	(B) 37631-063	53	Screw, Binding Hd. 1/4 - 20 x 1/2-----	4100-022
17	Cable, Panel -----	(B) 46331-011	54	Fitting, "Hollingsworth" S05363SF-----	27512-087
18	Face Plate, "Eds" -----	(C) 37731-130	55	A.C. Schematic -----	37631-067
19	Retainer, Bezel -----	(B) 31697-004	56	Screw, Rd. Head 8-32 x 1/2-----	4030-023
20	Knob, Sew Speed -----	(B) 31617-023	57	Terminal, "Hollingsworth" R4123SB-----	27512-270
21	Knob, Reverse -----	(B) 31617-024	58	Single Phase P.C. Board -----	(B) 37631-078
22	Knob, Stitch Length -----	(B) 31617-022	59	Motor, "Teledyne-Amco" 240V, 50-60 Hz.---	27378-015
23	Cover, Wire -----	(B) 33184-048	60	Pedal Rod -----	42761-088
24	P.C. Brd. Stitch Selector -----	(B) 37631-062			
25					
26	Switch Plate -----	(B) 31871-027			
27	Accessories, Standard -----	(B) 49920-005			
28	Cable, Mtr. & Selector -----	(B) 46331-014			
29	Pulley, Motor (50 Hz) -----	(B) 36341-138			
30	Accessories, Export -----	(B) 49920-012			
31	Cover, Outlet Box -----	(C) 34125-139			
32	Switch, Limit "Micro" LSZ 23K-----	28211-258			
33	Rivet, Stl. Flat "Tinner's" 3/16 x 3/8-----	08532-001			
34	Lamp, "Moffat" A0615-PR-----	27395-015			
35	Screw, Cap Hex. Soc. 8-32 x 3/8-----	1000-236			
36	Screw, Binding Hd. 8-32 x 3/8-----	4100-054			
37	Screw, Cap Hex. Soc. 6-32 x 3/8-----	1000-017			





AMF Decorative Stitching Machine

APPAREL EQUIPMENT

CLASS 59 DIVISION 83

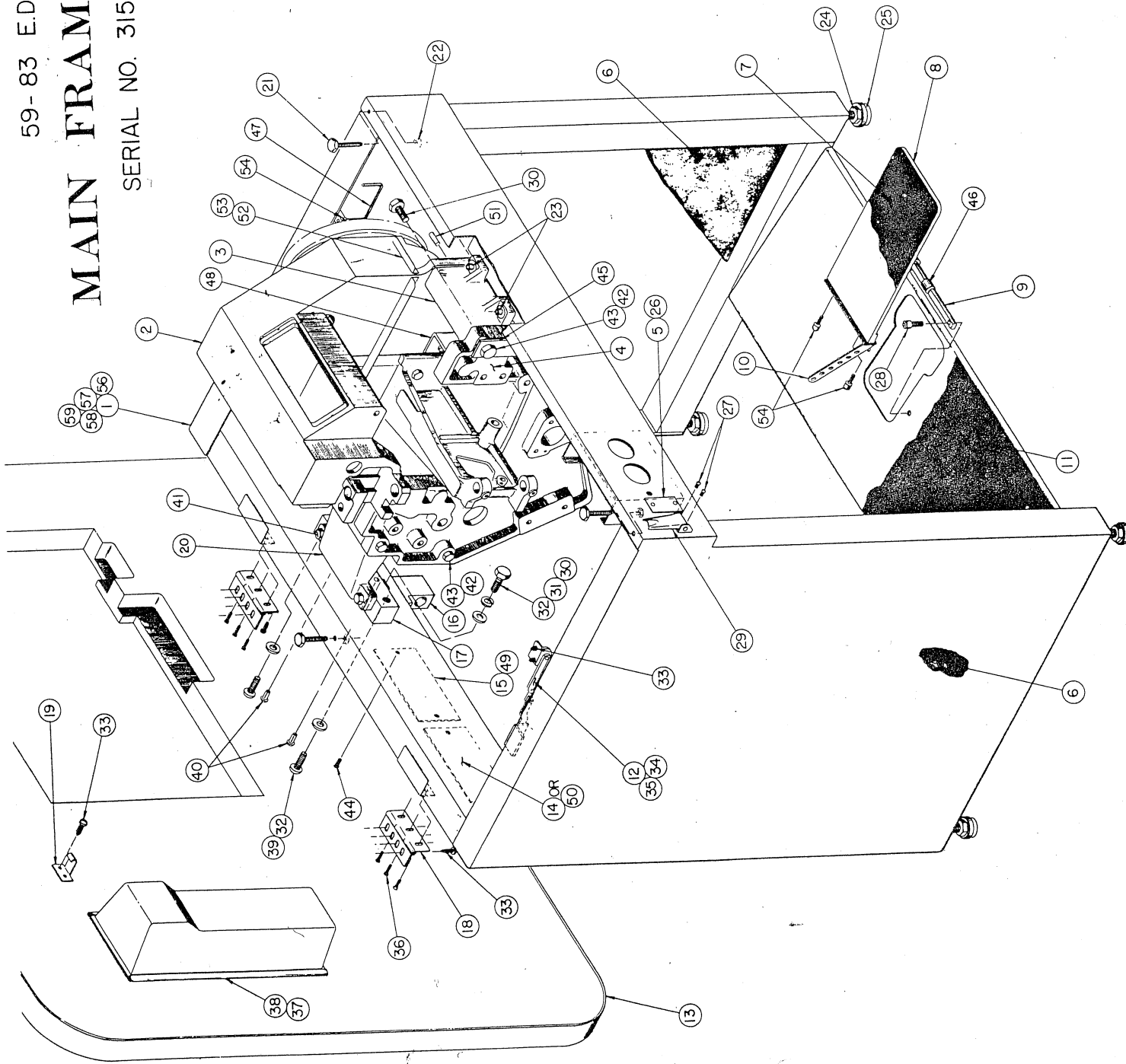
MAIN FRAME ASSEMBLY D-2 41334-005
Serial No. 3151 & Up

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Main Frame	(E) 35328-071	38	Fl.Hd.Wood Screw No.8 x 3/4	05000-040
2	Needle Bar Hd.Assembly	(D) 41321-019	39	ex.Soc.But.Hd.Screw /8-16 x 1	01200-024
3	Front Spacer	(B) 35371-003	40	Rd.Hd.Grooved Stud No.16 x 1/2	22913-025
4	Tie Frame	(E) 35315-013	41	Hex.Hd.Screw 5/16-18 x 1	04200-027
5	Name Plate	(D) 37711-017	42	Dowel Pin 3/16 x 1 1/4	08000-045
6	Sound Suppressor	(B) 32711-019	43	Hex.Hd.Screw 3/8-16 x 1 1/2	04200-004
7	Foot Pedal Tread	(B) 32115-005	44	'Century Fastners' Rivit No.ABA 43	22914-006
8	Foot Pedal	(C) 36617-003	45	Bracket, Switch Mount.	(B) 34416-044
9	Shaft, Foot Pedal	(B) 31225-015	46	"Oillite" Bushing No.AA-521-1	23132-142
10	Pedal Extension	(C) 34445-019	47	Retainer Rod	(B) 31922-018
11	Foot Plate Tread	(B) 32216-086	48	Sensor Mtg. Bracket	(B) 34378-064
12	Table Support	(B) 41441-059	49	Patent Plate	(C) 37711-032
13	Table Top	(E) 35351-180	50	Name Plate	(B) 50201-002
14	Patent Plate	(C) 37713-001	51	Dowel Pin 5/16 x 3/4	08000-056
15	Name Plate	(B) 37712-010	52	Binding Hd.Screw 8-32 x 1/4	04100-052
16	Motor Mount	(B) 33251-104	53	Angle, Filler	(B) 34268-124
17	Mach. Support, Rear	(B) 32418-075	54	Screw, Hex. Soc. Cap 8-32 x 1/2	1000-025
18	Hinge	(B) 41214-006	55	Screw, Hex. Soc. Cap 5/16-18 x 1/2	4200-029
19	Hook	(B) 34584-007	56	Lockwasher 5/16	7100-008
20	Spacer, Rear, Tie Frame	(C) 35472-011	57	Flat Washer 5/16	7012-010
21	'Ohio' Levelling Screw No.FH3323	22962-014	58	Hex. Nut 5/16-18	6000-008
22	Hex. Jam Nut 3/8-16	06020-015	59		
23	Hex. Soc. Hd. Cap Screw 5/16-18 x 1	01000-047			
24	Hex. Jam Nut 1/2-13	06020-010			
25	'Ohio' Levelling Screw No.FB4444	22962-030			
26	'Century' Fastners Rivit No.ABA 34	22914-005			
27	Rd. Hd. Mach. Screw No.6-32 x 1/4	04030-009			
28	Hex. Soc. Hd. Cap Screw No.10-32 x 3/4	01000-019			
29	'Camloc' Latch No.5111-1-1AB	22972-010			
30	Hex. Hd Screw 3/8-16 x 1	04200-450			
31	Spring Lockwasher 3/8	07100-009			
32	Flatwasher 3/8	07012-003			
33	Pan Hd. Screw (Type A) No.10 x 5/8	02060-018			
34	ASA Lock Screw No.1A	22911-038			
35	'ESNA' Lock Nut No.21NTE-058	06100-012			
36	Truss Hd. Screw No.10-32 x 5/16	04140-040			
37	'Superior' Stl. Drawer No.333 Grey	27571-120			

59-83 E.D.S.

MAIN FRAME ASS'Y.

SERIAL NO. 3151 & UP





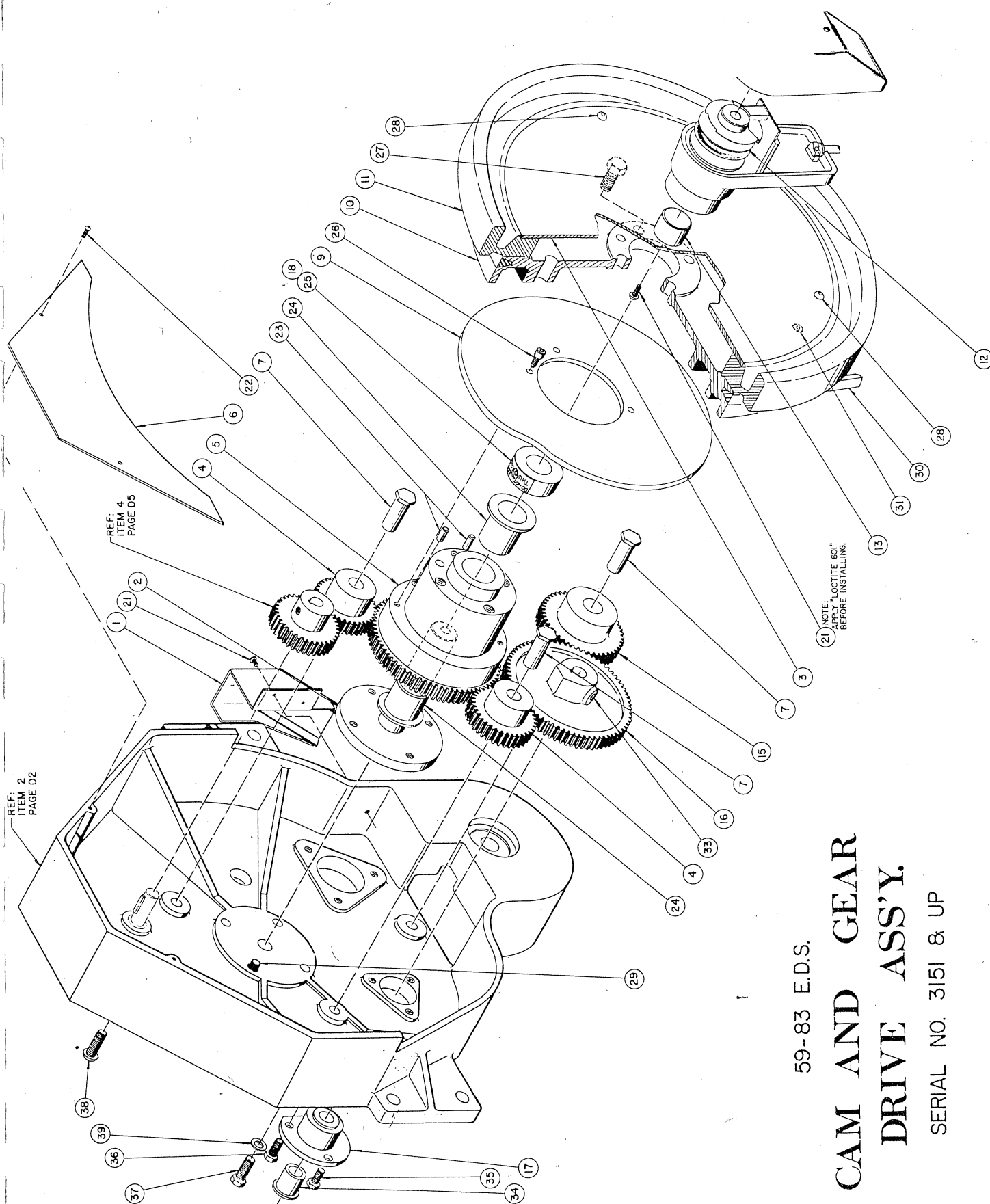
AMF Decorative Stitching Machine

APPAREL EQUIPMENT

CAM AND GEAR DRIVE ASSEMBLY D-3 42422-012
Serial No. 3151 & Up

CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Cover, Rear Drum -----	(C) 35812-049	38	Screw, But, Hex, Soc. 3/8-24 x 1-----	1200-083
2	Drive Gear Stud -----	(C) 31766-009	39	Washer, Lock 3/8-----	7100-009
3	Cover, Handwheel -----	(B) 31523-037			
4	Small Inter Gear -----	(B) 36224-010			
5	Drive Gear -----	(C) 36228-020			
6	Guard, Belt -----	(C) 32652-015			
7	Gear Stud -----	(B) 31838-030			
8					
9	Left Upper Looper Cam -----	(D) 36513-082			
10	Needle Bar Cam -----	(D) 36516-040			
11	Needle Bar Hand Wheel -----	(C) 36713-007			
12	Disc, Positioning -----	(B) 31565-027			
13	Sensor Drive Shaft -----	(B) 31652-001			
14					
15	Lg. Intermediate Gear -----	(B) 36226-017			
16	Cam Shaft Drive Gear -----	(B) 36228-009			
17	Cam Shaft Bearing -----	(B) 36515-032			
18	Handwheel Collar Decal -----	(B) 37732-022			
19					
20					
21	Screw, Binding Hd. 8-32 x 3/8-----	4100-054			
22	Screw, Hx Soc But Hd. 8-32 x 3/8-----	1200-005			
23	Pin, Roll 3/16 x 3/8-----	8200-031			
24	Bearing, "Oilite" FF-1213-4-----	23161-140			
25	Collar, Set SC100 1" I.D.-----	24116-150			
26	Screw, Hex Soc, Cap. 10-32 x 1/2-----	4200-057			
27	Screw, Hex Hd 3/8-16 x 1-----	4200-003			
28	Screw, Hx, Soc But Hd. 10-32 x 1/2-----	1200-001			
29	Screw, Cap Hex, Soc. 5/16-18 x 5/8-----	1000-099			
30	V-Belt, "Goodyear" 4L640-----	24323-130			
31	Screw, Hx, Soc Hd Cap 5/16-18 x 3/4-----	1002-040			
32					
33	Screw, Set Hx, Soc Cup Pt. 1/4-20 x 1/2-----	3200-023			
34	Bushing, "Oilite" FF-707-2-----	23161-063			
35	Screw, Hex, Hd. 1/4-20 x 5/8-----	4200-013			
36	Screw, Hex, Hd. 1/4-20 x 1/2-----	4200-012			
37	Screw, Hex, Hd. 3/8-24 x 1-----	4200-267			



59-83 E.D.S.

CAM AND GEAR DRIVE ASS'Y.

SERIAL NO. 3151 & UP



AMF Decorative Stitching Machine

APPAREL EQUIPMENT

UPPER NEEDLE BAR ASSEMBLY D-4 44411-045
Serial No. 3151 & Up

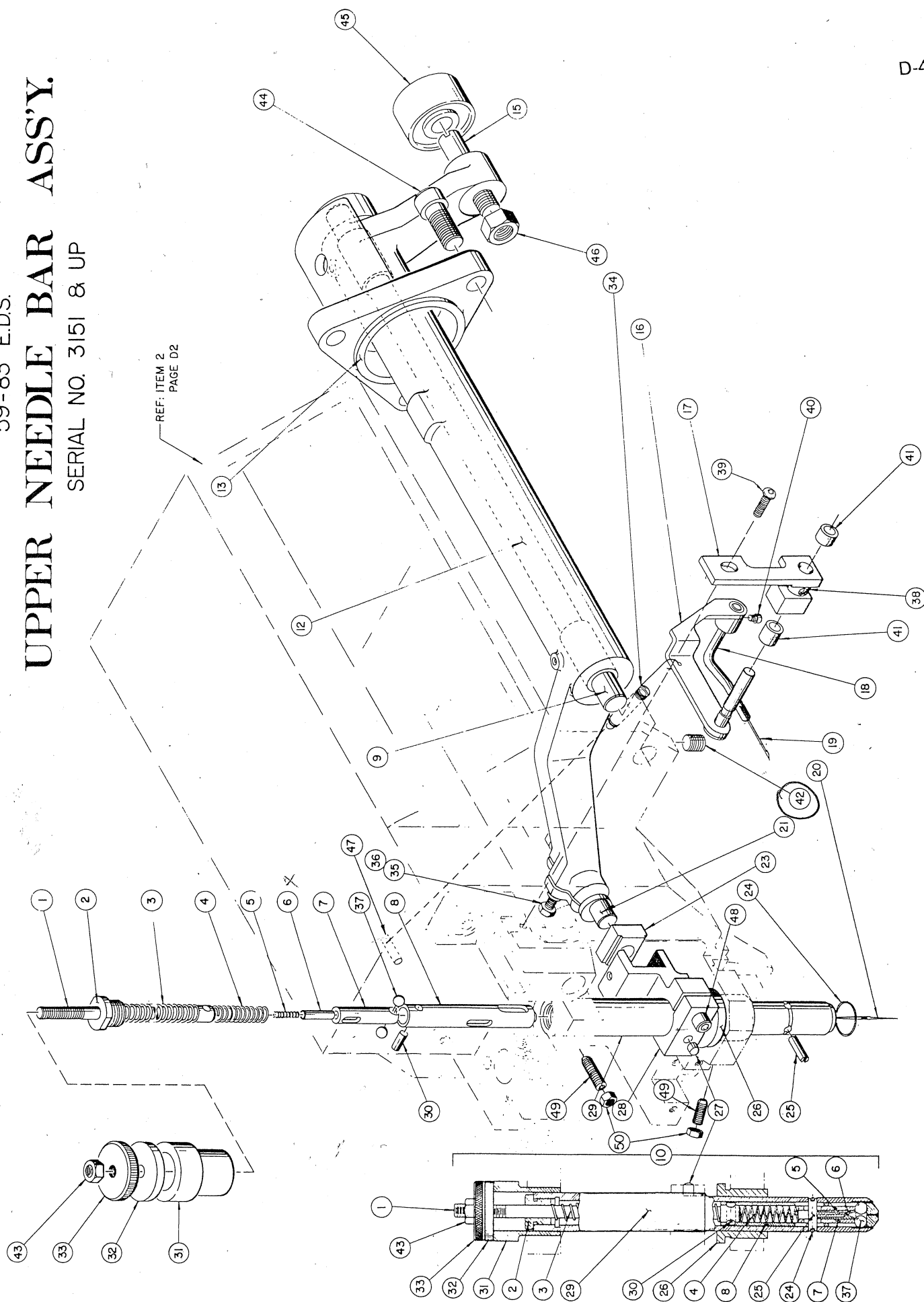
CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Sleeve Extension	(B) 31674-025	38	Collar, Shaft, "SDP" 702-11406	24117-520
2	Needle Bar Spring Cap	(B) 31695-011	39	Screw, Hx Soc. But. Hd. 10-32 x 3/8	1200-007
3	Needle Bar Spring	(B) 36532-021	40	Screw, Hx Soc. Hd. Cap. 5-40 x 1/8	1000-298
4	Needle Lock Spring	(B) 36532-022	41	Bushing "Oilite" AA309	23132-030
5	Needle Stop Spring	(B) 36531-010	42	Scr, Set Hx Soc Cup Pt. 1/4-20 x 1/4	3100-008
6	Needle Stop	(B) 36771-021	43	Nut, Hex S. Stl 10-32	6002-001
7	Needle Clamp Sleeve	(B) 31566-008	44	Screw, Hex. Soc. Hd. Cap 5/16-18 x 3/4	1000-039
8	Needle Support Sleeve	(B) 35511-021	45	Bearing, Ball, "Fafnir" 39KTT	23231-030
9	Rocker Arm Pivot	(B) 31723-007	46	Locknut, "Esna" 29 NTE-54	6104-001
10	Needle Bar Assembly	(B) 42531-081	47	Pin, Groove, "Drive Loc" 1/4 x 1 (Type G)	22913-039
11			48	Screw, Hex. Soc. Hd. Cap 8-32 x 1/2	1000-013
12	Needle Bar Rocker Arm	(C) 36691-014	49	Screw, Hex. Soc. Cone Pt. 8-32 x 1/2	3130-001
13	Rocker Arm Bearing	(B) 35521-048	50	Nut, Jam Hex. 8-32	6020-019
14					
15	Rocker Arm Bearing Stud	(B) 31773-015			
16	Assy-Threader Lever	(B) 36631-031			
17	Threader Bearing	(B) 33215-069			
18	Threader Arm	(B) 31996-006			
19	Threader Needle	(B) 37213-001			
20	Round Needle	(B) 37213-007			
21	Bearing Block Stud	(B) 36518-030			
22					
23	Needle Bar Bearing Block	(B) 33182-005			
24	Pin Retainer	(B) 35131-002			
25	Stop Pin	(B) 31264-001			
26	Needle Bar Small Bush.	(B) 36523-022			
27	Locating Pin	(B) 31151-001			
28	Needle Bar Clamp Upper	(B) 33441-003			
29	Needle Bar	(B) 31697-003			
30	Sleeve Ext. Conn. Pin	(B) 31111-009			
31	Large Bushing	(B) 36523-021			
32	Spring Plunger Washer	(B) 31412-001			
33	Sleeve Adjust. Nut	(B) 31593-007			
34	Spring, Threader	(B) 36546-023			
35	Screw, Mach. Hex. Hd. 10-32 x 5/8	4200-011			
36	Washer, Lock, Hi-Collar 10	7106-002			
37	Ball, Stl "New Departure" 11/64 Dia.	22965-006			

8 - NEEDLE NR: 38 = 0.033" = 0.87mm

59-83 E.D.S.
UPPER NEEDLE BAR ASS'Y.
SERIAL NO. 3151 & UP

REF: ITEM 2
PAGE D2





AMF Decorative Stitching Machine

APPAREL EQUIPMENT

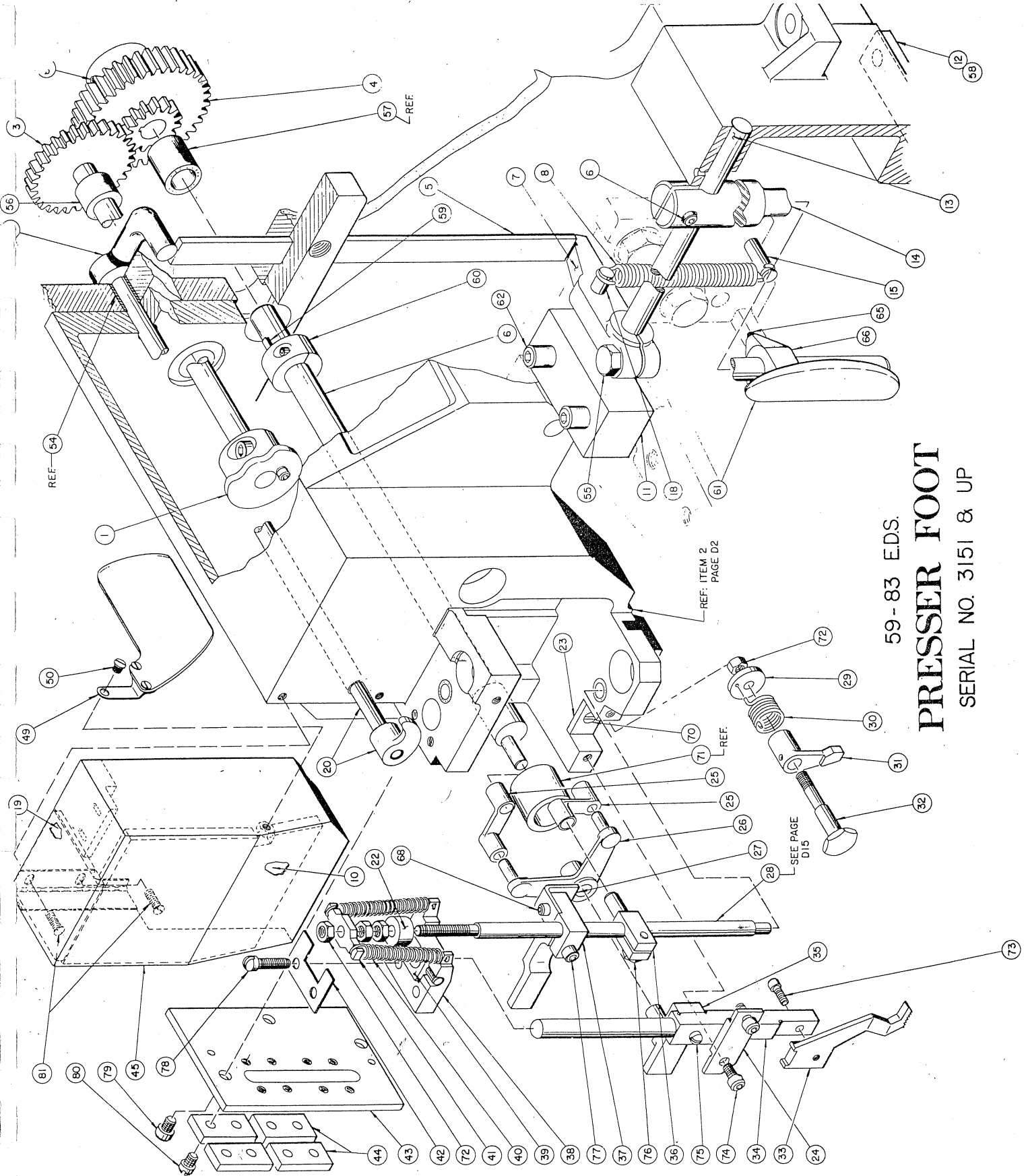
PRESSER FOOT D-5 42422-011
Serial No. 3151 & Up

CLASS 59 DIVISION 83

453

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Ass'y, Rt. Upper Looper Cam	(B) 42233-028	51	Bearing, "Oilite" AA520-3	23132-123
2	Lifter Lever	(B) 36651-001	52	Screw, Hex Hd. 1/4-20 x 3/4	4200-007
3	Assy-Shaft Right Looper Cam	(B) 36227-019	53	Bearing, "Oilite" AA630-1	23132-178
4	Assy-Presser Foot Drive Gear	(B) 36271-013	54	Bearing, "Oilite" AA627-4	23132-199
5	Lifter Rod	(B) 32111-012	56	Screw, Hex. Soc. Hd. Cap 1/4-20 x 5/8	1000-026
6	Operation Shaft	(B) 36518-077	57	Key "Hi-Pro" 504 (1/8 x 5/8)	9020-001
7	Lifter Lever	(B) 36651-002	58	Collar, Clamp 7/16	24117-011
8	Lever Spring	(B) 36543-018	59	Pad, Knee Lift, "Kennedy" For 2767	26913-025
9	Sound Suppressor	(B) 32731-026	60	Screw, Hx Soc. Hd. Cap. 1/4-20 x 3/4	1000-008
10	Presser Foot Bearing	(B) 35521-055	61	Screw, Set Hx. Soc. Cup Pt. 10-32 x 1/4	3100-012
11	Lever Stop	(B) 32712-011	62	Screw, Set Hx. Soc. Cup Pt. 5/16-18 x 3/8	3100-017
12	Presser Ft. Oper. Shaft	(B) 31133-018	63	Plate, Knee, "Kennedy" 2767	26913-030
13	Knee Oper. Shaft	(B) 31721-021	64	Screw, Hex. Soc. Cap 6-40 x 1/4	1000-059
14	Spring Post	(B) 31721-040	65	Screw, Flat Hd. 5-40 x 3/8	4000-053
15	Spring Post	(B) 31721-038	66	Bushing "Oilite" AA807-3	23132-297
16	Sound Suppressor	(B) 32115-013	67	Nut, Hex 10-32	6000-002
17	Shaft/Press. Ft. Lifter	(B) 36619-044	68	Screw, Hex. Soc. Cap 6-40 x 5/16	1000-301
18	Stationary Press, Foot Cap	(B) 31571-002	69	Screw, Hex. Soc. Cap 5-40 x 1/4	1000-004
19	Follower Side Guide Plate	(B) 32217-002	70	Screw, Fil Hd. 8-32 x 1/2	4120-001
20	Retainer Strap	(B) 33242-002	71	Screw, Hx. Hd. 10-32 x 3/8	4200-039
21	Connector Link	(B) 36621-001	72	Screw, Hx. Soc. Hd. Cap 8-32 x 1/2	1000-013
22	Lifting Bell Crank	(B) 36672-047	73	Screw, Fil Hd. 8-32 x 5/8	4120-009
23	Conn. Link Retainer	(B) 34221-010	74	Screw, Hx Soc Hd Cap 10-32 x 3/8	1000-032
24	Presser Foot Assembly	(C) 42711-008	75	Screw, Fil Hd. 8-32 x 1/4	4122-093
25	Adjusting Collar	(B) 31521-001	76	Screw, Binding Hd. 8-32 x 3/8	4100-054
26	Torsion Spring	(B) 36543-020	77		
27	Spring Lever	(B) 36613-036	78		
28	Lever Stud	(B) 31718-027	79		
29	Follower Presser Foot	(C) 36611-039	80		
30	Filwr. Press. Foot Shaft	(B) 31642-007	81		
31	Bell Crank Stud	(B) 35571-021			
32	Presser Foot Stud	(B) 31873-013			
33	Connector Link Block	(B) 33422-001			
34	Swivel Seat	(B) 33256-011			
35	Foot Swivel	(B) 31876-011			
36	Spring, Tension Follower Ft.	(B) 36541-005			
37	Clip, Spring	(B) 32729-001			
38	Swivel Seat Cover	(B) 32732-001			
39	Rear Cover	(B) 34732-023			
40	Bell Crank Stud Guide	(B) 32221-007			
41	Assy Front Cover	(C) 35771-051			
42					
43					
44					
45					
46					
47					
48					
49	Eyeguard Assy "Singer" 259832	26911-186			
50	Screw, Bind Hd. 1/4-20 x 3/8	4100-070			

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59-83 EDS.
PRESSER FOOT
 SERIAL NO. 3151 & UP



AMF Decorative Stitching Machine

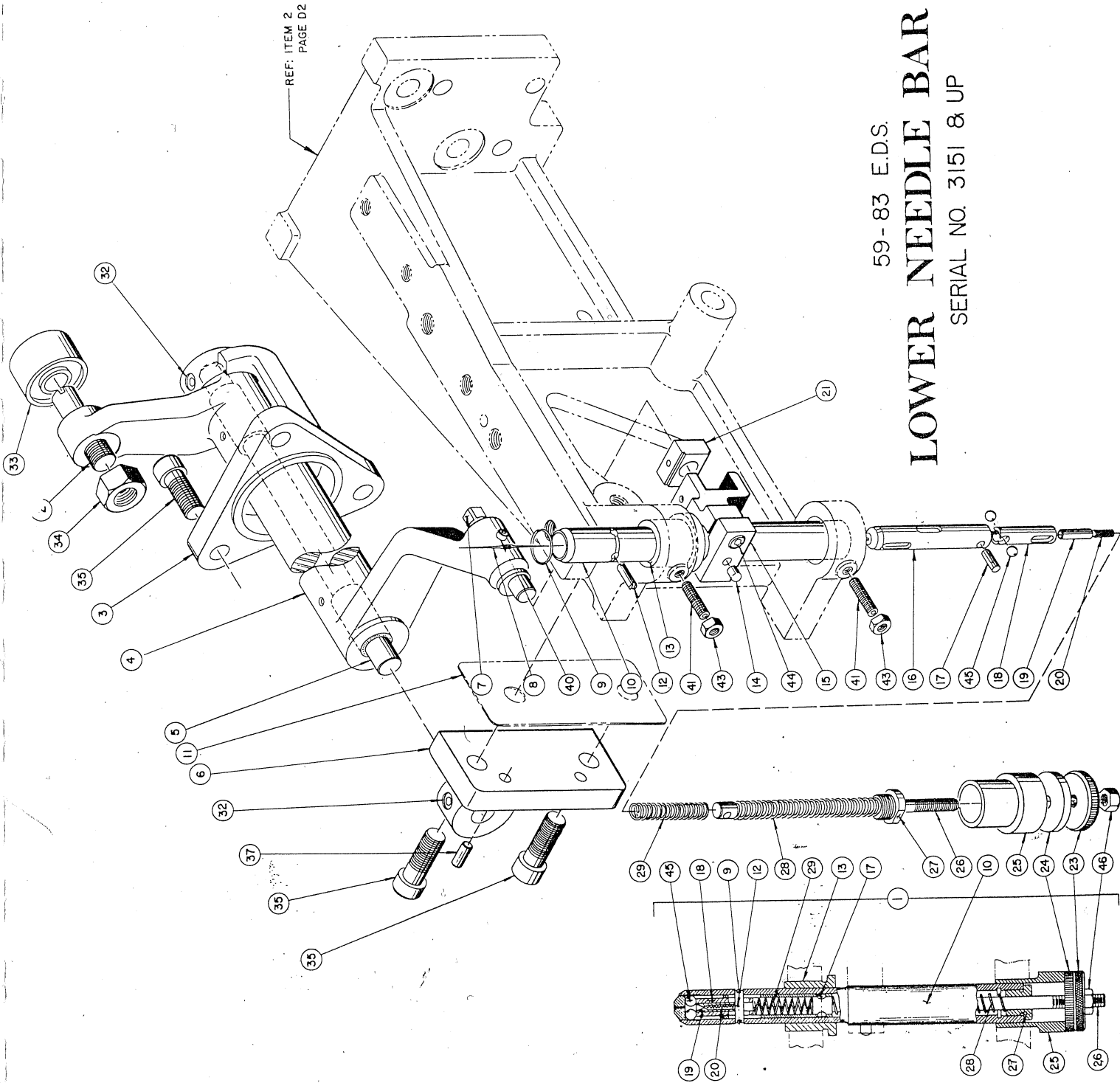
APPAREL EQUIPMENT

LOWER NEEDLE BAR ASSEMBLY D-6 44411-046
Serial No. 3151 & Up

CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Needle Bar Assembly	(C) 42531-081	38		
2	Rocker Arm Bearing Stud	(B) 31773-015	39		
3	Rocker Arm Bearing	(B) 35521-048	40	Screw, Hx Soc Hd Cap 10-32 x 5/8	1002-106
4	Rocker Arm	(C) 36691-014	41	Screw, Set Hx Soc. Cone Pt. 8-32 x 1/2	3130-001
5	Rocker Arm Pivot	(B) 31723-007	42		
6	Rocker Arm Bearing	(B) 35521-049	43	Nut, Jam Hex. 8-32	6020-019
7	Bearing Block Stud	(B) 36518-030	44	Screw, Cap Hx. Soc. 8-32 x 1/2	1000-013
8	Round Needle	(B) 37213-007	45	Ball, Stl. "New Departure" 11/64	22965-006
9	Pin Retainer	(B) 35131-002	46	Nut, Hex S. Stl. 10-32	6002-001
10	Needle Bar	(B) 31697-003			
11	Shim	(B) 32223-045			
12	Stop Pin	(B) 31264-001			
13	Small Bushing	(B) 36523-022			
14	Locating Pin	(B) 31151-001			
15	Lower Clamp, Needle Bar	(B) 33441-002			
16	Needle Support Sleeve	(B) 35511-021			
17	Sleeve Extn. Conn. Pin	(B) 31111-009			
18	Needle Clamp Sleeve	(B) 31566-008			
19	Needle Stop	(B) 36771-021			
20	Needle Stop Spring	(B) 36531-010			
21	Needle Bar Bearing Block	(B) 33182-005			
22					
23	Sleeve Adjtg. Nut	(B) 31593-007			
24	Spring Plunger Washer	(B) 31412-001			
25	Large Bushing	(B) 36523-021			
26	Sleeve Extension	(B) 31674-025			
27	Spring Cap	(B) 31695-011			
28	Needle Bar Spring	(B) 36532-021			
29	Needle Lock Spring	(B) 36532-022			
30					
31					
32	Screw, Set Hx Soc Cup Pt. 1/4-20 x 5/16	3100-066			
33	Bearing, Ball "Fafnir" 39KTT	23231-030			
34	Nut, Lock "ESNA" 29NTE-54	6104-001			
35	Screw, Hx Soc Hd Cap 5/16-18 x 3/4	1000-039			
36					
37	Pin, Dowel 3/16 x 7/8	8002-028			

59-83 E.D.S.
LOWER NEEDLE BAR ASS'Y.
 SERIAL NO. 3151 & UP





AMF Decorative Stitching Machine

APPAREL EQUIPMENT

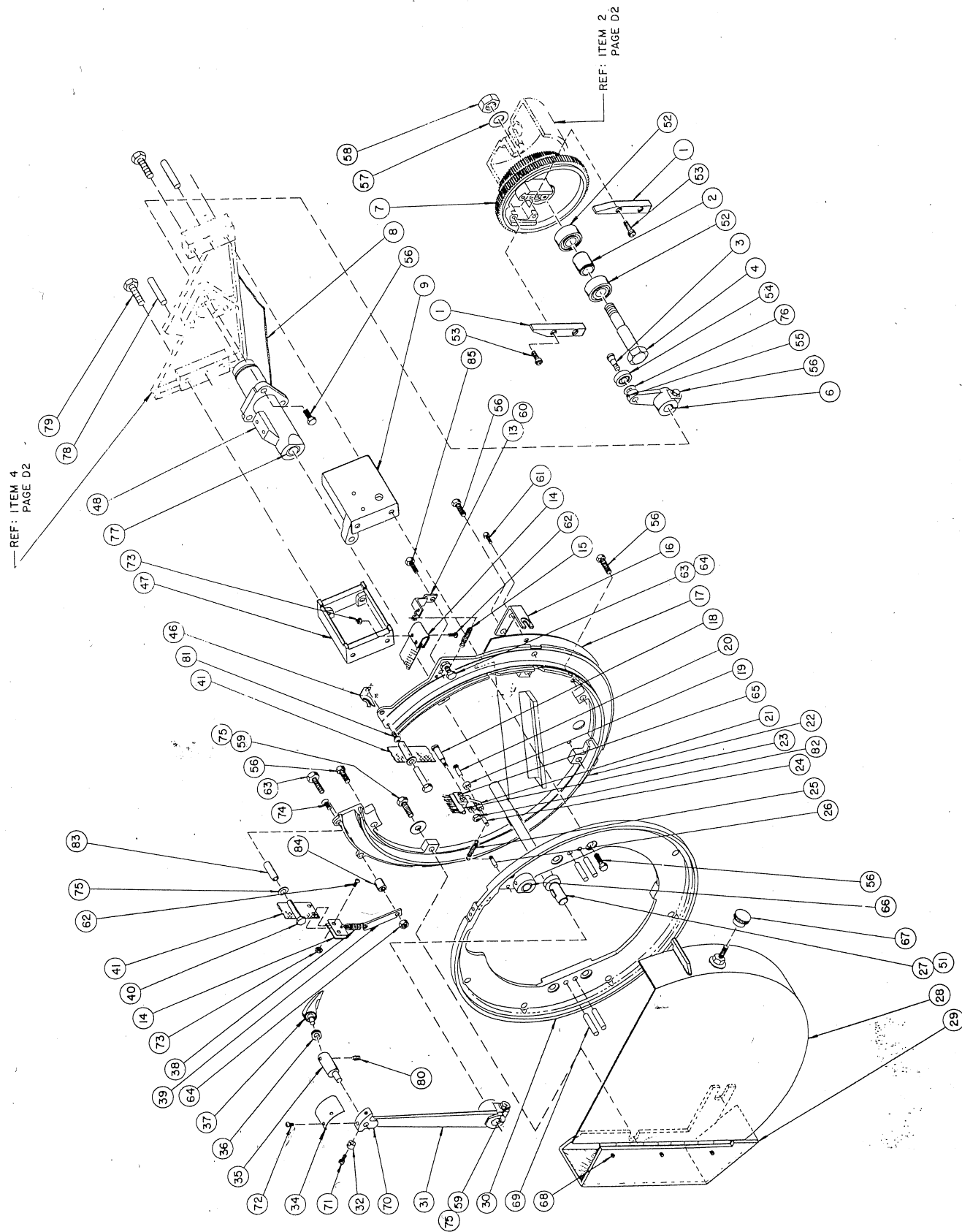
CLASS 59 DIVISION 83

LOWER LOOPER & THREAD DRUM ASSEMBLY D-7 44811-034
Serial No. 3151 & Up

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Drive Gib	(B) 32533-076	51	Key, Hi Pro 1/8 x 5/8	9020-002
2	Bearing Spacer	(B) 31464-002	52	Bearing, Ball N.D. Z99503	23231-235
3	Bearing Stud	(B) 31715-005	53	Screw, Hx, Soc. Hd. Cap 1/4-20 x 5/8	1000-026
4	Gear Stud	(B) 31845-002	54	Bearing, Ball N.D. 77039	23231-210
5			55	Screw, Set Hx, Soc. Cup Pt. 1/4-20 x 3/8	3100-013
6	Arm Crank	(B) 36651-008	56	Screw, Hx, Hd. 5/16-18 x 1.0	4200-027
7	Arm Crank Drive Gear	(D) 36271-006	57	Washer, Flat 5/8	7002-009
8	Crank Guard	(E) 35777-042	58	Nut, Hex 5/8-11	6030-014
9	Tie Bracket	(C) 35561-001	59	Screw, Hx, Hd. 5/16-18 x 1 1/4	4200-031
10			60	Hook, "S"-Gerw in Corp. 55-3/4	23914-009
11			61	Screw, Binding Hd. 10-32 x 3/8	4100-011
12			62	Screw, Binding Hd. 8-32 x 5/16	4100-053
13	Belt Tightener Arm	(B) 34647-001	63	Screw, Hx, Hd. 1/4-20 x 1 1/4	4202-013
14	Belt Spring Fastener	(B) 34111-085	64	Nut, Hex 1/4-20	6000-004
15	Thrd. Tightener Sprg.	(B) 36542-017	65	Screw, Fil. Hd. 5-40 x 3/8	4120-005
16	Lock Clip	(B) 34372-004	66	Bearing, "Oilite" FF-707-3	23161-073
17	R.S. Drum Cover	(B) 35778-014	67	Knob, Gray "Dimco" 228/1/4-20 Insert	22967-076
18	Brush Cam Lever Stud	(B) 31718-025	68	Rivets, Steel 4 x 580 (500)	22914-003
19	Cam Roller	(B) 31413-030	69	Pins, Dowel 3/16 x 3/4	8000-016
20	Roll Stud	(B) 31612-051	70	Insert, Heli-Coil 11852CNX0246	21951-001
21	Brush Holder Cam Lever	(B) 36691-007	71	Screw, Hx, Soc. Hd. Cap 8-32 x 5/8	1002-015
22	Thread Separator	(D) 35633-040	72	Screw, Hx, Soc. But. Hd. Cap 8-32 x 1/4	1200-011
23	Thread Brush	(B) 37274-009	73	Nut, Hex Jam 8-32	6020-019
24	Spring Post	(B) 31721-053	74	Screw, Flat Hd. 10-32 x 1/2	4000-020
25	Lever Spring	(B) 36541-006	75	Washer, Flat 5/16	7012-010
26	Spring Post	(B) 31721-054	76	Plain Washer, S.Stl. "SDP" 9 x 20-51	22912-066
27	Loop Arm Shaft	(B) 31781-006	77	Bushing, "Oilite" FF-843-2	23161-095
28	Drum Cover Assembly	(C) 41831-082	78	Pin, Dowel 5/16 x 1 1/4	8000-022
29	Drum Guard	(C) 35812-048	79	Screw, Cap Hex, Soc. 5/16-18 x 1 1/2	4200-051
30	Drum	(D) 35633-041	80	Screw, Set Hex, Soc. Cup 10-32 x 1/4	3100-012
31	Lower Looper Arm	(C) 36653-010	81	Screw, But. Hd. Hex, Soc. 6-32 x 1/2	1200-019
32	Locking Wedge	(B) 31572-004	82	Nut, Hex. 10-32	6000-002
33			83	Bearing, "Oilite" AA-401-8	23132-075
34	Belt Support	(B) 34585-001	84	Spacer, "RAF" 1223-25-SS-0	27511-894
35	Lower Lpr. Hook Extn.	(B) 36518-029	85	Screw, Hex, Hd. 1/4-20 x 1/2	4200-012
36	Lower Lpr. Hook Spacer	(B) 36341-050			
37	Lower Hook Assembly	(B) 37211-018			
38	Take-Up Spring	(B) 36543-019			
39	Take-Up Spring Lever	(B) 32241-004			
40	Belt Pulley Stud	(B) 31838-013			
41	Thread Belt	(B) 36572-009			
42					
43					
44					
45					
46	Assy Separator Guide	(B) 37112-030			
47	Drum Rear Tie Brkt.	(B) 35371-004			
48	Hook Arm Bearing	(C) 35541-070			
49					
50					

LOWER LOOPER AND THREAD DRUM ASS'Y.

SERIAL NO. 3151 & UP





AMF Decorative Stitching Machine

APPAREL EQUIPMENT

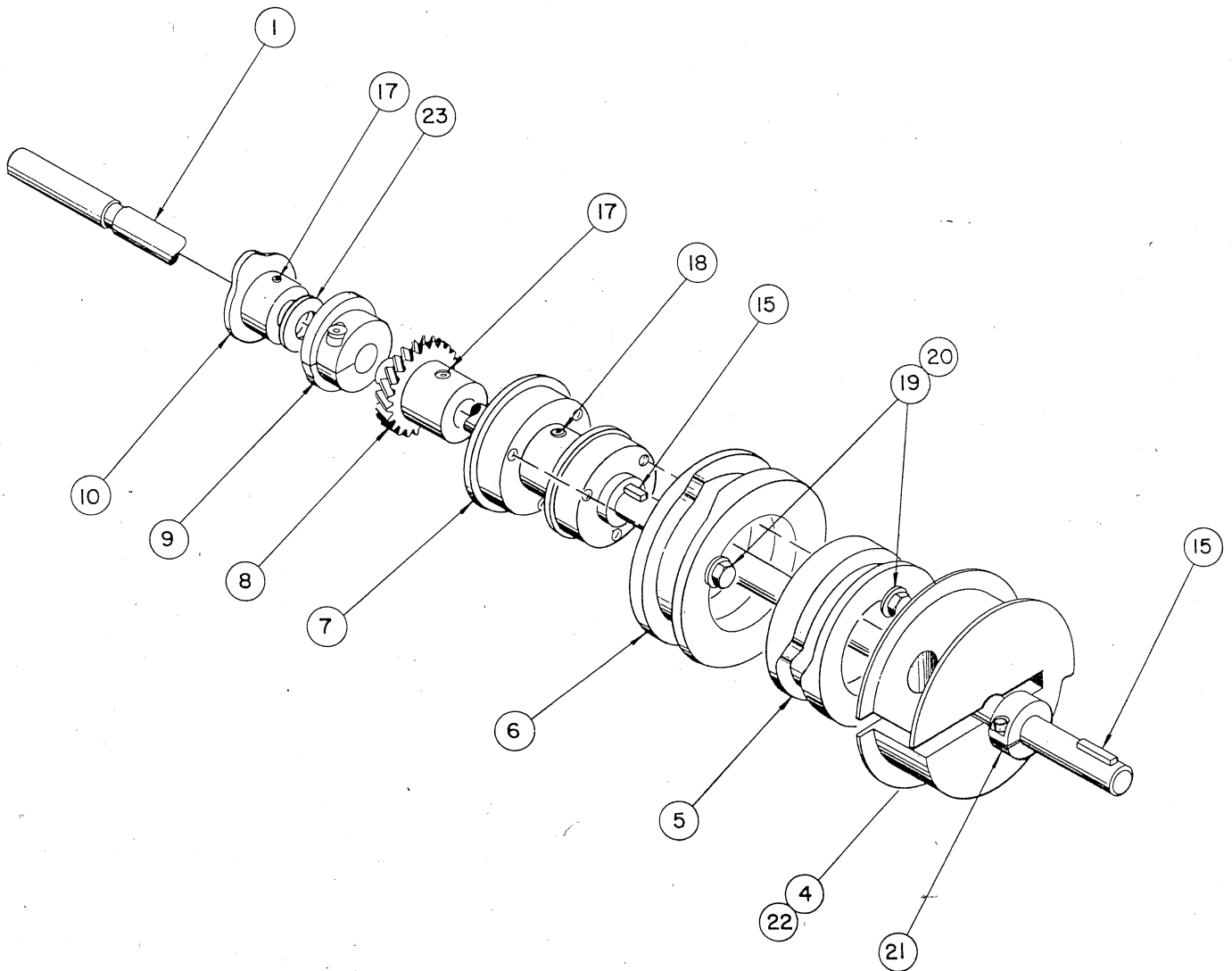
MAIN CAM SHAFT ASSEMBLY D-8 42233-027
Serial No. 3151 & Up

CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.
1	Cam Shaft -----	(C) 31734-013
2		
3		
4	Stitch Control Cam -----	(B) 36513-086
5	Thrd. Lifter Hook Cam -----	(B) 36513-046
6	Thread Clamp Cam -----	(B) 36516-014
7	Clamp Finger Cam Hub -----	(B) 31751-004
8	Tension Finger Drive Gear -----	(B) 36223-009
9	Angle Plate Cam -----	(B) 36514-046
10	Brush Oper. Cam -----	(C) 36515-033
11		
12		
13		
14		
15	Key, Hi Pro 1/8 x 5/8-----	9020-004
16		
17	Screw,Set Hx.Soc.Cup Pt. 10-32 x 1/4-----	3100-012
18	Screw,Hex.Soc.Cup Pt. 1/4-20 x 1/4-----	3200-020
19	Screw,Mach.Hx.Hd.Cap 10-32 x 3/8 AN3-3A----- <i>= 04200046</i>	22911-037
20	Washer,Flat 10-----	7012-001
21	Collar,Clamp "Maxwell" 1/2 I.D.(8L)-----	24117-012
22	Screw,Hx.Soc.Hd.Cap 10-32 x 3/4-----	1000-019
23	Shim, Arbor "SDP" 7C8-E16062-----	22912-058

59- 83 E.D.S.
**MAIN CAM SHAFT
ASS'Y**

SERIAL NO. 3151 & UP





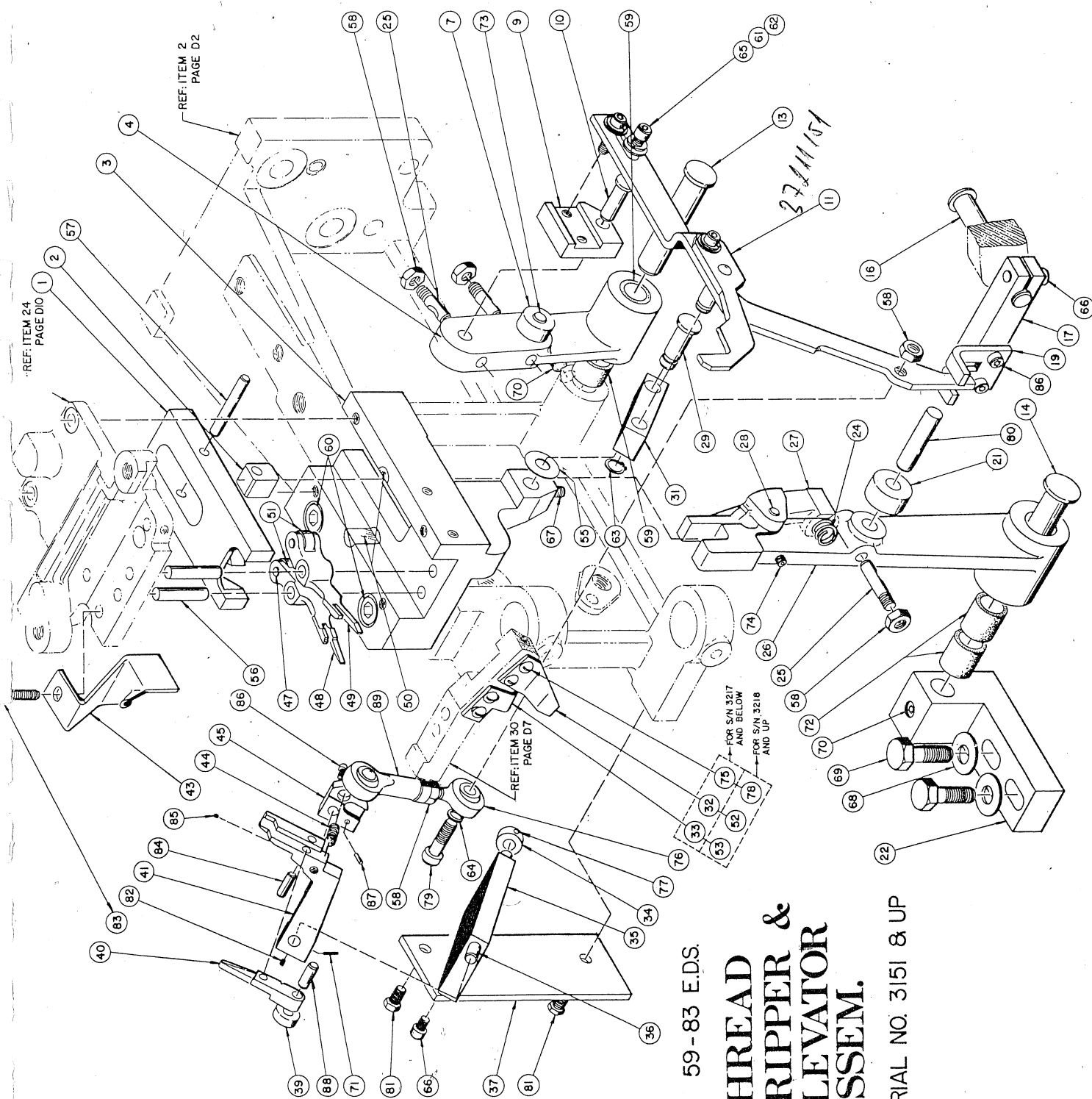
AMF Decorative Stitching Machine

APPAREL EQUIPMENT

THREAD GRIPPER AND ELEVATOR ASSEMBLY D-9 44821-029
Serial No. 3151 & Up

CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Clamp Finger Cam Slide	(B) 33257-001	51	Cam Roller	31413-029
2	Thread Clmp.Pivot Block	(B) 32434-001	52	Lower Opener Cam	(B) 34654-019
3	Thread Clmp.Finger Brkt.	(B) 35551-002	53	Upper Opener Cam	(B) 34546-004
4	Thread Lifter Hook Cam Lvr.	(B) 36661-001	54		
5			55	Washer,Thrust,"Oillite" TT400	23174-033
6			56	Pin,Dowel 3/16 Dia. x 1	8000-044
7	Cam Roller	31413-031	57	Pin,Dowel 5/32 x 1	8000-109
8			58	Nut, Hex 10-32	6030-007
9	Hook Adjust Block	(B) 33244-009	59	Bearing "Oillite" AA-507-13	23132-150
10	Cam Lever Stud	(B) 31611-010	60	Screw,Hx.Soc.Hd.Cap 5/16-18 x 1	1000-047
11	Lifter Hook Assembly	(B) 37211-150	61	Washer,Flat 8	7012-005
12			62	Washer,Lock Spring 8	7102-007
13	Cam Lever Stud	(B) 31641-015	63	Ring,Retainer 5100-25(1/4)	25379-218
14	Cam Lever Stud	(B) 31641-019	64	Washer,Lock Spring 10	7100-011
15			65	Screw,Hx.Soc.Hd.Cap 8-32 x 3/8	1000-002
16	Support Brkt.Shaft	(B) 31641-017	66	Screw,Hx.Soc.Hd.Cap 10-32 x 1/2	1000-025
17	Support Bracket Arm	(B) 32739-011	67	Screw,Set Hx.Soc.Cup Pt. 10-32 x 1/4	3100-012
18			68	Washer,Flat 1/4	7012-002
19	Support Bracket	(B) 34372-002	69	Screw,Hx.Hd. 1/4-20 x 1.0	4200-058
20			70	Screw,Set Hx.Soc.Cup Pt. 1/4-20 x 5/16	3100-066
21	Cam Roller	31423-068	71	Pin, Expansion 1/16 x 1/2	8200-001
22	Clamp Pivot Bracket	(B) 36613-038	72	Bearing, "Oillite" AA-521-1	23132-142
23			73	Pin,Dowel 7/32 Dia. x 5/8	8000-110
24	Clamp Finger Lever Spring	(B) 36532-025	74	Screw,Set Hx.Soc.Oval Pt. 8-32 x 3/8	3140-003
25	Clamp Stud	(B) 31288-023	75	Screw,Truss Hd. 5-40 x 1/4	4140-006
26	Clamp Finger Lever	(B) 36673-028	76	Rod End Bearing "Heim" HM-3	23912-021
27	Spring Piece	(B) 36647-001	77	Screw,Set Hx.Soc.Cup Pt. 6-40 x 1/8	3100-146
28	Piece Pin	(B) 31215-008	78	Screw,But.Hex.Soc. 8-32 x 3/8	1200-005
29	Thread Hook Lifter Lvr. Stud	(B) 31641-010	79	Screw,Cap Hex.Soc. 10-32 x 5/8	1000-021
30			80	Pin,Dowel 1/4 Dia. x 1.0	8000-007
31	Thread Hook Lifter Lever	(B) 33334-012	81	Screw,Hex.Hd. 10-32 x 1/2	4200-057
32	Lower Opener Cam	(B) 34654-020	82	Screw,Set Hx.Soc.Fl.Pt. 6-40 x 3/16	3120-014
33	Upper Opener Cam	(B) 34546-019	83	Screw,Hex.Soc.Hd.Cap 1/8 x 1/2	1000-001
34	Swivel Pin Collar	(B) 31571-003	84	Pin,Harden Dowel 1/8 x 1/2	8000-018
35	Swivel Bracket	(B) 32716-054	85	Screw,Set Hx.Soc.Cup Pt. 3-48 x 1/8	3100-028
36	Swivel Pin	(B) 31212-019	86	Screw,Hx.Soc.Hd.Cap 6-40 x 3/8	1000-027
37	Mounting Plate	(B) 32372-005	87	Pin,Dowel 3/32 x 3/8	8000-013
38			88	Pin,Dowel 5/32 Dia. x 3/8	8000-111
39	Roller	(B) 31413-006	89	Rod End Bearing, "Heim" HF-3	23912-024
40	Clamp	(B) 36641-013			
41	Thread Lifter Lever	(C) 36684-001			
42					
43	Lower Loop Sup. & Guard	(B) 35412-030			
44	Clamp Spring	(B) 36531-017			
45	Swivel Stud	(B) 35573-004			
46					
47	Roller Pin	(B) 31112-002			
48	Rear Finger	(B) 36645-004			
49	Front Finger	(B) 36645-002			
50	Slide Wick Oiler	(B) 32121-004			



59-83 E.D.S.

THREAD GRIPPER & ELEVATOR ASSEM.

SERIAL NO. 3151 & UP



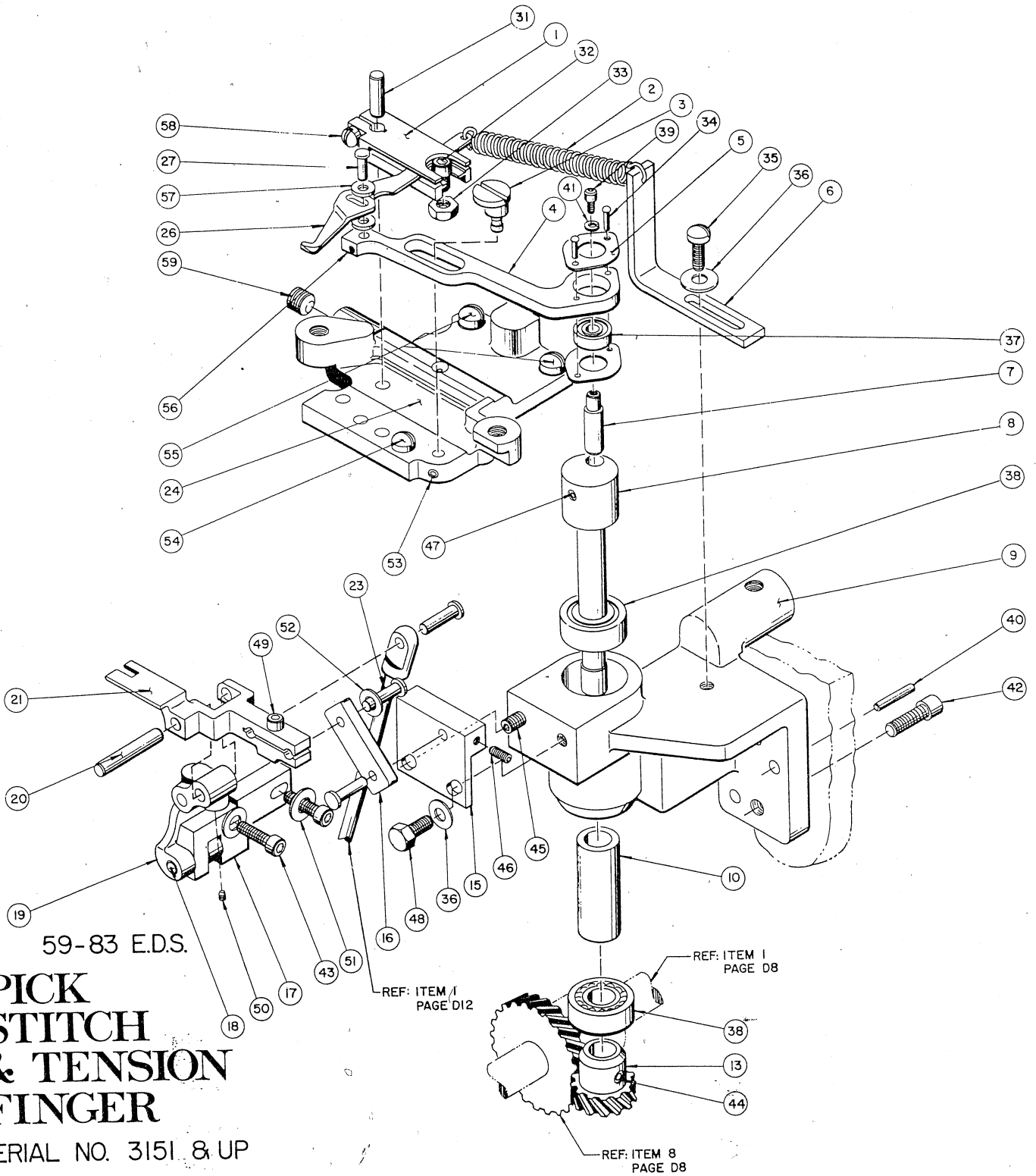
AMF Decorative Stitching Machine

APPAREL EQUIPMENT

CLASS 59 DIVISION 83

PICK STITCH AND TENSION FINGER D-10 42211-008
Serial No. 3151 & Up.

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Support Block	(B) 35511-045	38	Bearing,Ball "NewDep" Z99038	23231-226
2	Finger Spring	(B) 36542-018	39	Screw,Hex.Soc.Hd.Cup 8-32 x 1/4	1000-009
3	Stud Eccentric	(B) 36518-027	40	Pin,Dowel 3/16 x 1.0	8000-044
4	Slide Support	(B) 35526-005	41	Washer, Lock 8	7102-007
5	Ball Bearing Retainer	(B) 32691-001	42	Screw,Hx.Soc.Hd.Cup 5/16-18 x 1.0	1000-047
6	Finger Spring Tension Holder	(B) 34372-042	43	Screw,Hex.Soc.Hd.Cup 8-32 x 5/8	3100-154
7	Support Stud	(B) 31642-005	44	Screw,Set Hx.Soc.Cup Pt. 10-32 x 3/16	3102-026
8	Eccentric Shaft	(B) 36518-024	45	Screw,Set Hx.Soc.Cup Pt. 10-32 x 1/2	3120-001
9	Tension Finger Ball Brg. Brkt.	(C) 35542-007	46	Screw,Hx.Soc.Flat Pt. 8-32 x 1/4	3100-053
10	Bearing Spacer	(B) 31426-015	47	Screw,Set Hex.Soc.Cup 8-32 x 3/8	4200-039
11			48	Screw,Hex.Hd. 10-32 x 3/8	1000-027
12			49	Screw,Cap Hex.Soc. 6-40 x 3/8	3101-038
13	Driven Gear	(B) 36221-009	50	Scr,Set Self Lock Knurl Cup 6-40 x 1/4	7002-002
14			51	Washer, Flat 8	7012-004
15	Pusher Plate	(B) 33252-029	52	Washer, Flat 6	3100-038
16	Link (Pic Stitch)	(B) 32643-073	53	Screw,Set Hx.Soc.Cup 5-40 x 3/16	4120-012
17	Plate Brkt. Pivot Arm Sup.	(B) 33258-075	54	Screw,Fillister Hd. 8-32 x 5/16	4120-001
18	Lower Finger	(B) 31721-022	55	Screw,Fillister Hd. 8-32 x 1/2	3100-147
19	Pivot,Arm	(B) 36677-016	56	Screw,Set Hx.Soc.Cup Pt. 6-40 x 3/16	7016-002
20	Bracket Pin	(B) 31215-012	57	Washer,Flat (Brass) 5	4120-004
21	Bender Plate	(C) 36691-021	58	Screw,Fillister Hd. 8-32 x 3/8	3100-008
22			59	Screw,Hex.Soc.Cup Pt. 1/4-20 x 1/4	
23	10-6 Cam Roller Stud	(B) 31612-045			
24	Bracket Cover	(C) 35815-007			
25					
26	Thread Tension Finger	(B) 37211-130			
27	10-1 Plain Stud	(B) 31611-064			
28					
29					
30					
31	Pin,Dowel 3/16 Dia x 5/8 Lg	8000-015			
32	Screw,Hx Soc Hd Cap 8-32 x 3/16	1000-058			
33	Nut,Mach.Scr.Hex. 8-32	6000-003			
34	Rivet,Round Hd. (Alum) 1/16 x 5/16	8504-001			
35	Screw,Fillister Hd. 10-32 x 3/8	4120-002			
36	Washer,Flat 10	7012-001			
37	Bearing,Ball "NewDep" 77R3	23231-040			





AMF Decorative Stitching Machine

APPAREL EQUIPMENT

MATERIAL FEED D-11 42761-084
Serial No. 3151 & Up

CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Mtl. Feed Drive Gear	(B) 36226-011	51	Bushing "Oilite" FF-707-3	23161-073
2			52	Screw, Set Hx. Soc. Cup Pt. 8-32 x 1/8	3100-051
3			53	Screw, Hx. Soc. Hd. Cap 10-32 x 3/4	1000-019
4	Mtl. Feed Drive Shaft Brg.	(B) 31881-004	54	Washer, Lock 10	7100-011
5			55	Washer, Flat 10	7012-001
6	Feed Motion Brkt. Shaft	(B) 31773-013	56	Screw, Hx. Soc. Hd. Cap 6-40 x 1/4	1000-059
7	Mtl. Feed. Arm Suprt. Brkt.	(B) 31217-001	57	Screw, Set Hx. Soc. Cup Pt. 10-32 x 1/4	3100-012
8	Mtl. Feeder Arm Suprt. Bkt.	(B) 35523-018	58	Nut, Hex Jam 1/4-20	6020-004
9	Material Feeder	(C) 36611-036	59	Nut, Hex Jam L.H. 1/4-20	6020-021
10	Material Feeder Arm	(B) 36613-034	60	Stud, Cam Roller 10-6-1A1-67	31612-054
11	Mtl. Feeder Arm Lift. Fork	(B) 32739-004	61	Bearing, "Oilite" AA-520-8	23132-122
12			62	Collar, "Holokrome" 15014	24117-012
13	Feeder Lifter Rod	(B) 31852-015	63	Nut, Hex 10-32	6000-002
14	Feeder Lifter Rod Hd.	(B) 32428-002	64	Screw, Hex Hd. 10-32 x 5/8	4200-011
15	Lifter Fork Pin	(B) 31215-002	65	Nut, Hex 1/4-28	6000-005
16			66	Key, Hi-Pro 1/8 x 5/8	9020-002
17	Clamp Stud	31288-023	67	Washer, "Reid's" H. Duty FW-3	22912-090
18	Cam Roller	31423-068	68	Collar, Set SC31	24116-040
19	Cam Roller Stud	31612-052	69	Pot. (Maurey Instrument) 112-P200-502-CON	28891-028
20	Feeder Lifter Bell Crank	(C) 36691-022	70	Bushing "Oilite" FF-607-3	23161-048
21	Shaft Support Plate	(B) 32225-017	71	Pin, Dowel 3/16 x 1	8000-044
22	Feed Mtn. Brkt. Shaft Collar	(B) 31511-015	72	Key, "Woodruff" 211 (1/16 x 3/8)	9000-016
23			73	Screw, Hx. Soc. Hd. Cap 8-32 x 1/2	1000-013
24	Feed Mtn. Ecc. Stud Washer	(B) 31421-005	74	Nut, Hex 3/8-16	6000-014
25	Post, Spring	(B) 31721-039	75	Screw, Hx. Soc. Hd. Cap 6-32 x 3/8	1000-017
26	Feed Eccentric Arm	(C) 36667-012	76	Bearing, Thrust "Rulon" DRT0612-2	23181-235
27			77	Washer, Brass 5	7016-002
28	Feed Motion Cam Roller	(B) 36344-057	78	Bushing "Oilite" AA-507-2	23132-155
29	Material Feed Cam	(B) 36515-020	79	Screw, Hx. Soc. Hd. Cap 1/4-20 x 3/4	1000-008
30	Feed Motion Bracket	(B) 36678-019	80	Screw, Hex. Hd. 3/8-16 x 2	4200-046
31	Mtl. Feed Drive Shaft	(B) 31728-003	81	Washer, Spring Lock 3/8	7100-009
32	Pulley-Stitch Adj. Shaft Drive	(B) 31728-003	82	Washer, Flat 3/8	7012-003
33	Limit Stop Plate	(B) 36343-061	83	Bearing, "Oilite" FF-303	23161-008
34	Slide Block Limit Stop	(B) 36771-079	84	Screw, Hx. Soc. Hd. Cap 8-32 x 3/8	1002-014
35	Slide Bearing Block	(B) 35225-010	85	Screw, Hx. Soc. Hd. Cap 10-32 x 3/8	1000-032
36	Motor Plate Stitch Adj.	(C) 32718-032	86	Washer, Flat 8	7012-005
37	Stitch Adj. Slide Block	(B) 31644-004	87	Washer, Spring Lock 8	7100-003
38	Motor, Servo-Assy.	(B) 27378-510	88	Screw, Hx. Soc. Hd. Cap 8-32 x 5/8	1000-001
39	Ext. Spring	(B) 36546-024	89	Collar, Clamp "Holokrome" 15806	24117-005
40	Cam Roller Pin	31721-066	90	Screw, Hx. Soc. Hd. Cap 4-40 x 3/8	1000-074
41	Feed Motion Bracket Pin	(B) 31215-079	91	Belt, "SDP", Timing 6G6-10212	24381-033
42	Cable, Motor & Pot.	(B) 46331-015	92	Belt, Timing 140XL025	24381-032
43	Potentiometer, Hldg. Brkt.	(B) 33255-011	93	Bearing, "Oilite" AA-307-3	23132-069
44	Potentiometer Brkt.	(B) 32377-121			
45	Pulley Potentiometer	(B) 36343-062			
46	Pulley-Stitch Adj. Shaft Dr.	(B) 36343-059			
47	Pulley-Stitch Adj. Shaft Drive	(B) 36343-060			
48	Motor Shaft Support	(C) 33231-048			
49	Screw, Set Hx. Soc. Cup Pt. 1/4-20 x 3/8	3100-013			
50	Screw, Hx. Hd. Cap 5/16-18 x 3/4	4200-030			



AMF Decorative Stitching Machine

APPAREL EQUIPMENT

ANGLE STITCH MECH. D-12 44821-030
Serial No. 3151 & Up

CLASS 59 DIVISION 83

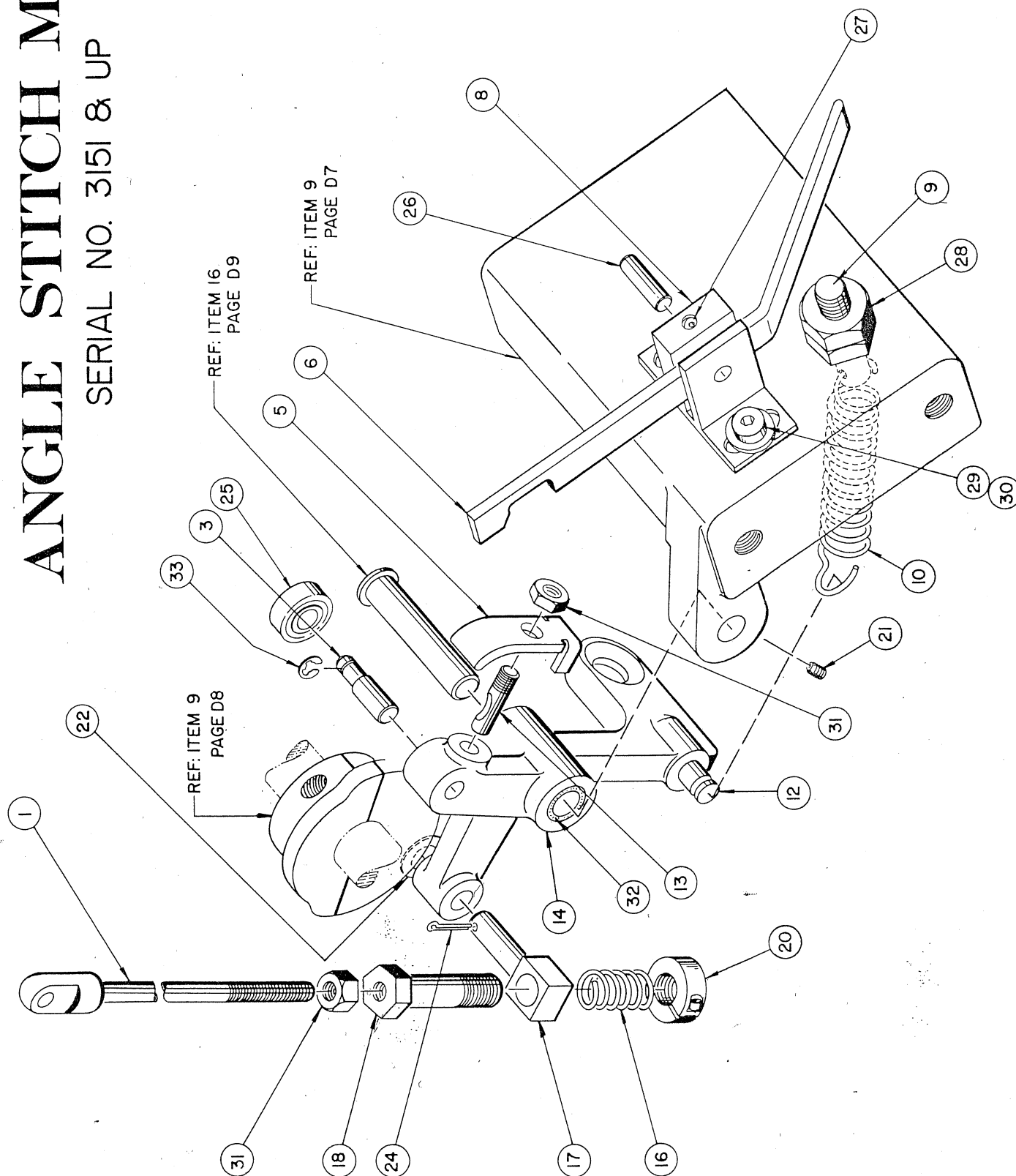
ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Bracket Rod -----	(B) 35111-007			
2					
3	Roller Stud -----	(B) 31613-007			
4					
5	Locking Latch Clip -----	(B) 34758-001			
6	Angle Plate Lock. Latch -----	(B) 34517-001			
7					
8	Locking Latch Brg. -----	(B) 32769-003			
9	Plate Cam Lever Spring Stud -----	(B) 31283-001			
10	Stitch Adj. Cam Lever Spring -----	(B) 36543-022			
11					
12	Spring Post -----	(B) 31721-038			
13	Clamp Stud -----	(B) 31288-023			
14	Cam Lever -----	(C) 36674-012			
15					
16	Rod Spring -----	(B) 36533-015			
17	Pusher Block -----	(B) 31873-011			
18	Adjusting Bushing -----	(B) 31839-020			
19					
20	Collar, Clamp, Steel 5/16-24 Threaded -----	24117-216			
21	Screw, Set Hex. Soc. Cup 8-32 x 3/16 -----	3100-002			
22	Washer, Flat 1/4 -----	7012-002			
23					
24	Pin, Cotter 1/16 x 1/2 -----	8322-001			
25	Bearing, Ball "New Departure" 77R3 -----	23231-040			
26	Pin, Dowel 3/16 x 5/8 -----	8000-015			
27	Screw, Set Hx. Soc. Oval Pt. 10-32 x 5/16 -----	3140-005			
28	Nut, hex Lock 5/16-18 -----	6130-002			
29	Screw, Hex. Soc. Cap 10-32 x 3/8 -----	1000-032			
30	Washer, Flat 10 -----	7012-001			
31	Nut, Hx. Lock 10-32 -----	6124-010			
32	Bushing, Oilite AA-401-1 -----	23132-115			
33	El-Ring, "Truarc" 5133-18 -----	25379-272			

59-83 E.D.S.

ANGLE STITCH MECH.

SERIAL NO. 3151 & UP

D-12





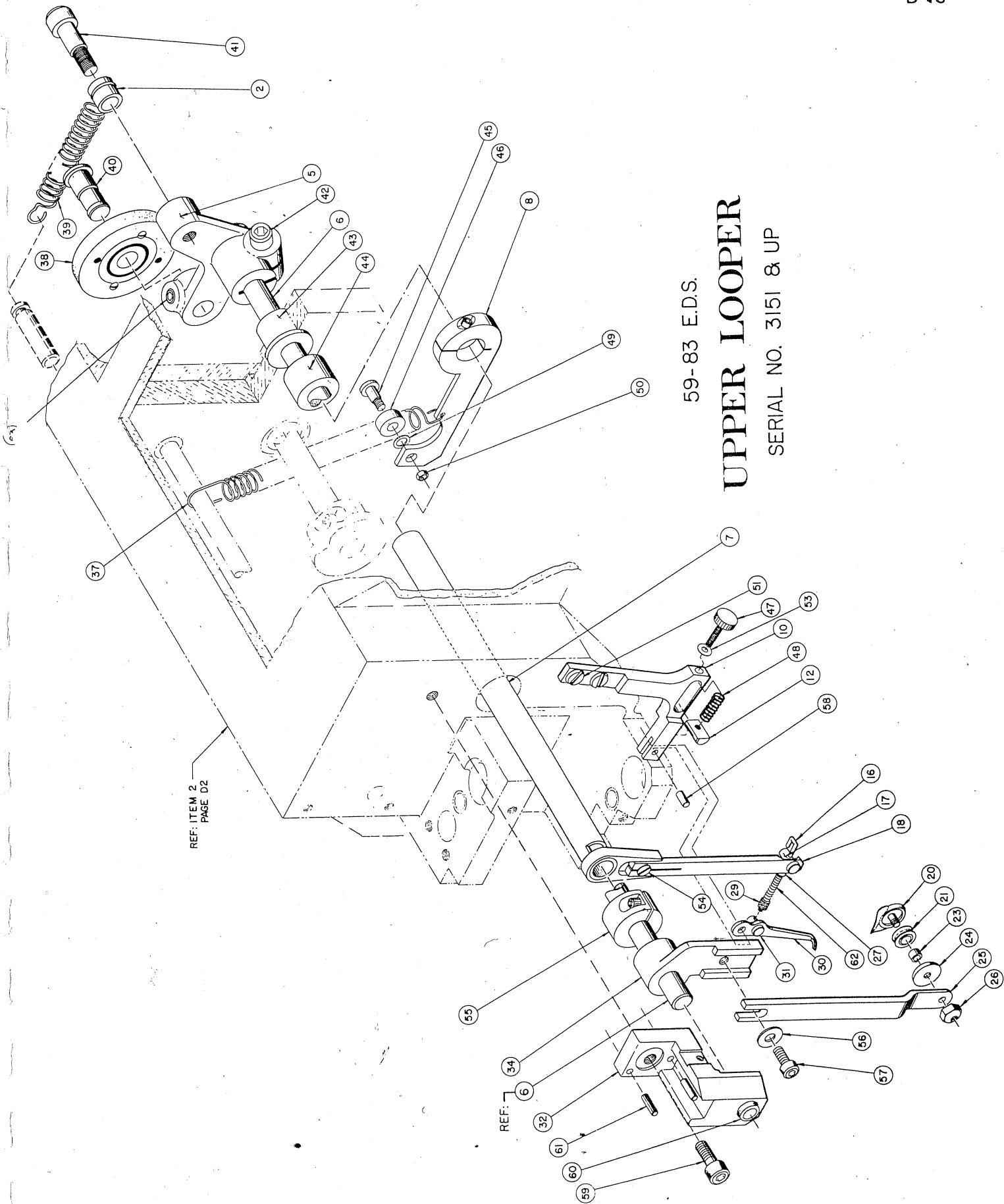
AMF Decorative Stitching Machine

APPAREL EQUIPMENT

UPPER LOOPER D-13 44811-035
Serial No. 3151 & Up

CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Sleeve	(B) 31722-010	38	Cam Roller Assembly	(B) 42241-009
2	Cam Lever	(B) 36691-024	39	Cam Lever Spring	(B) 36546-025
3	Left Upper Looper Arm Shaft	(B) 31268-001	40	Cam Roller	(B) 31741-013
4	Assy, Top Right Looper Shaft	(B) 36761-031	41	Screw, Shldr, Hex, Soc. 5/16 Dia x 1/2Lg	01300-127
5	Assy, Right Upper Looper Cam Lever	(B) 36613-099	42	Screw, Hx, Soc, Hd, Cap 1/4-20 x 3/4	1000-093
6	Finger Support	(B) 33251-105	43	Bearing, "Oilite" FF-607-2	23161-044
7	Arm Stop	(B) 31211-015	44	Bearing, "Oilite" AA-742-1	23132-253
8	Pusher Rod	(B) 31955-003	45	Screw, Shldr, Hx, Soc, Hd. 1/4 Dia x 1/4Lg	1300-029
9	Bearing Stud	(B) 31644-003	46	Bearing, "New Departure" 77R4	23231-045
10	Pusher Rod Arm	(B) 32542-111	47	Knurled Knob Scr, "Shearloc" 8-32x1.0 Gy	22967-033
11	Upper Looper Knife	(B) 37231-028	48	Spring, Comp, "Lee" LC-0320-8	24971-056
12	Looper Roller	(B) 36341-035	49	Washer, Lock Hi Collar 1/4	7106-001
13	Stud Spacer	(B) 31413-002	50	Nut, Flex Loc, Hex 21FK-1024	06220-001
14	Left Looper Roller Seat	(B) 31491-001	51	Screw, Binding Hd. 8-32 x 3/8	4100-054
15	Left Upper Looper Arm	(B) 36625-001	52	Screw, Hex, Soc, But, Hd. 5-40	06220-004
16	Left Upper Looper Nut	(B) 31815-017	53	Gasket, "Clippard" 11761-2	25311-013
17	Finger Pusher Rod Collar	(B) 31413-001	54	Screw, Flat Hd. 6-40 x 1/4	4030-200
18	Adj. Nut	(B) 31593-001	55	Collar, Clamp, "HoloChrome" 15010	24117-010
19	Right Looper Finger	(C) 37211-045	56	Washer, Flat 8	7012-005
20	Rod Support	(B) 31613-035	57	Screw, Hx, Soc, Hd, Cap 8-32 x 3/8	1002-014
21	Bearing Bracket	(B) 35521-118	58	Dowel Pin 1/8 Dia x 1/4	08000-017
22	Left Upper Looper Brkt.	(B) 35511-040	59	Screw, Hx, Soc, Hd, Cap 1/4-20 x 1	1000-037
23	Spring	(B) 36546-022	60	Bearing, "Oilite" AA516-6	23132-165
24			61	Pin, Roll 1/8 x 1/2	8000-018
25			62	Spring, "Lee" LC-018A-8	24971-021
26			63	Screw, Set Hx, Soc, Oval Pt. 1/4-20 x 1/4	3140-006



59-83 E.D.S.
UPPER LOOPER
 SERIAL NO. 3151 & UP

REF: ITEM 2
 PAGE D2

REF: 7



AMF Decorative Stitching Machine

APPAREL EQUIPMENT

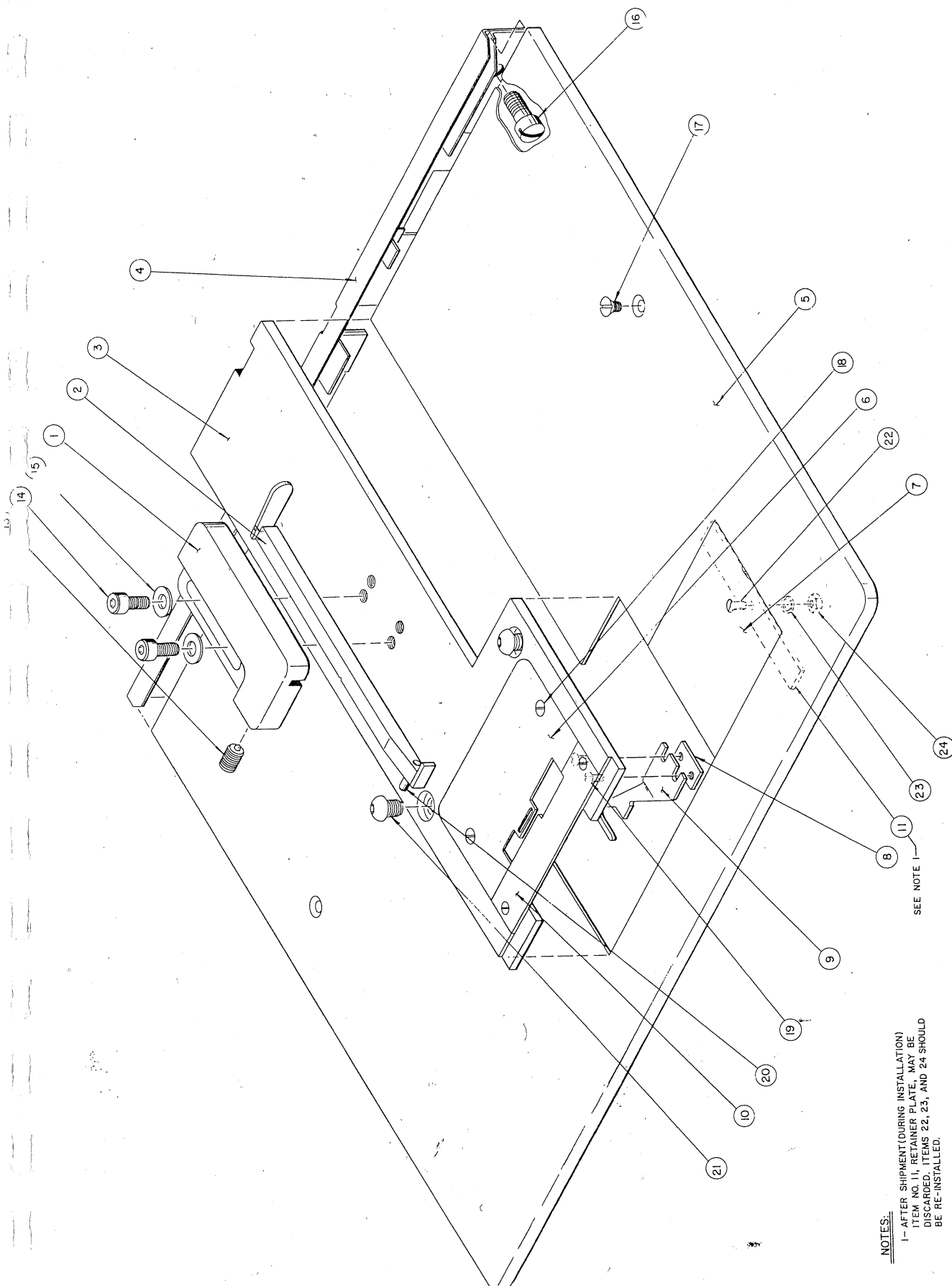
MATERIAL GUIDE D-14 44211-105
Serial No. 3151 & Up

CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Slide Material Gage -----	(B) 36741-023			
2	Assy Rod Material Gage -----	(B) 37771-022			
3	Throat Plate Holder -----	(C) 33258-076			
4	Table Rest Assembly -----	(B) 35421-064			
5	Metal Table -----	(D) 35411-109			
6	Throat Plate -----	(B) 32764-006			
7	Assy-Access Plate -----	(B) 35778-068			
8	Clamp Strip -----	(B) 32233-001			
9	Thread Guide Finger -----	(B) 37211-133			
10	Throat Plate Left -----	(B) 32732-021			
11	Retainer Plate -----	(B) 32215-130			
12					
13	Plunger,Ball "Vlier" BL-54N-----	22966-116			
14	Screw,Hx.Soc.Hd.Cap 10-32 x 3/8-----	1000-032			
15	Washer,Flat 10-----	7012-001			
16	Screw,Fillister Hd. 1/4-20 x 1/2-----	4120-070			
17	Screw,Flat Hd.(S.Stl.) 8-32 x 1/4-----	4002-109			
18	Screw,Flat Hd.(S.Stl.) 5-40 x 1/4-----	4002-086			
19	Screw,Flat Hd.(S.Stl.) 5-40 x 5/16-----	4002-087			
20	Pin,Roll 3/32 x 3/8-----	8200-003			
21	Screw,Hx.Soc.But.Hd. 1/4-20 x 3/8-----	1200-031			
22	Screw,Flat Hd.(S.Stl.) 4-40 x 1/2-----	4002-075			
23	Washer,Springlock 4-----	7102-005			
24	Nut,Hex. 4-40-----	6020-055			

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59-83 E.D.S.
MATERIAL GUIDE
 SERIAL NO. 3151 & UP



NOTES:

1- AFTER SHIPMENT (DURING INSTALLATION)
 ITEM NO. 11, RETAINER PLATE, MAY BE
 DISCARDED. ITEMS 22, 23, AND 24 SHOULD
 BE RE-INSTALLED.

SEE NOTE 1



AMF Decorative Stitching Machine

APPAREL EQUIPMENT

PRESSER FOOT AND SWIVEL TOE MECH. D-15 44241-107
Serial No. 3151 & Up

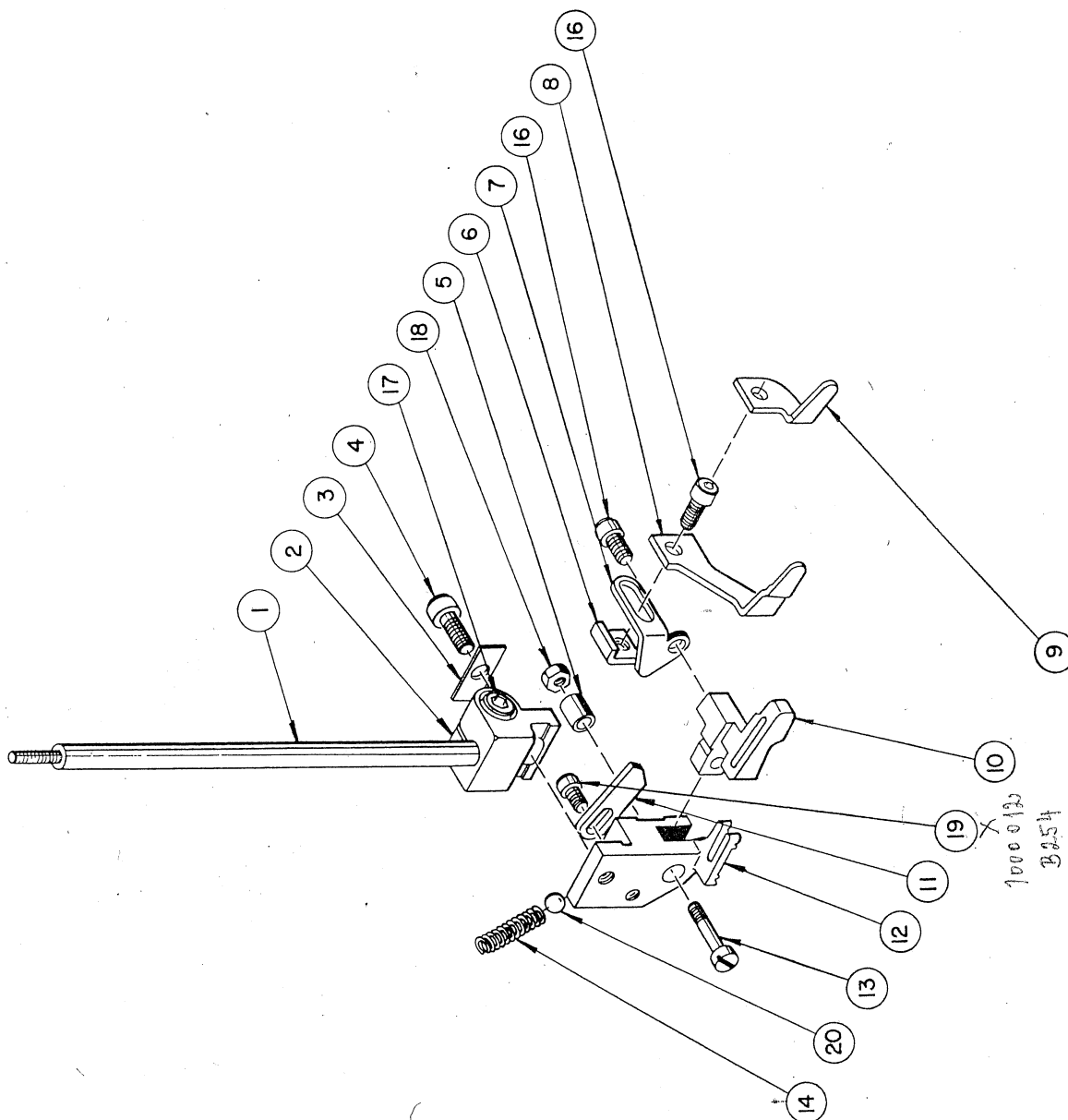
CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Pressure Foot Shaft -----	(B) 31772-035			
2	Toe Holder -----	(B) 35511-080			
3	Holder Washer -----	(B) 32215-003			
4	Cap Screw -----	(B) 31687-001			
5	Pin Sleeve -----	(B) 31413-003			
6	Material Guide Nut -----	(B) 34264-012			
7	Material Guide Brkt. -----	(B) 35414-016			
8	Material Guide -----	(B) 34658-001			
9	Material Guide -----	(B) 34458-002			
10	Swivel Toe -----	(C) 35511-079			
11	Swivel Toe Stop -----	(B) 32631-001			
12	Presser Foot -----	(C) 36615-007			
13	Hinge Pin -----	(B) 31685-012			
14	Plunger Spring -----	(B) 36531-018			
15					
16	Screw, Hex. Soc. Hd. Cap (5-40 x 1/4) -----	*1000-004			
17	Screw, Hex. Soc. Hd. Cap 8-32 x 3/8 -----	1002-002			
18	Nut, Hex 4-48 -----	6000-020			
19	Screw, Hx. Soc. Hd. Cap (5-40 x 1/4) -----	*1000-012			
20	Ball, Steel 5/32 Dia. -----	22965-005			

59-33 E.D.S.

PRESSER FOOT & SWIVEL TOE MECH.

SERIAL NO. 3151 & UP



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3254



AMF Decorative Stitching Machine

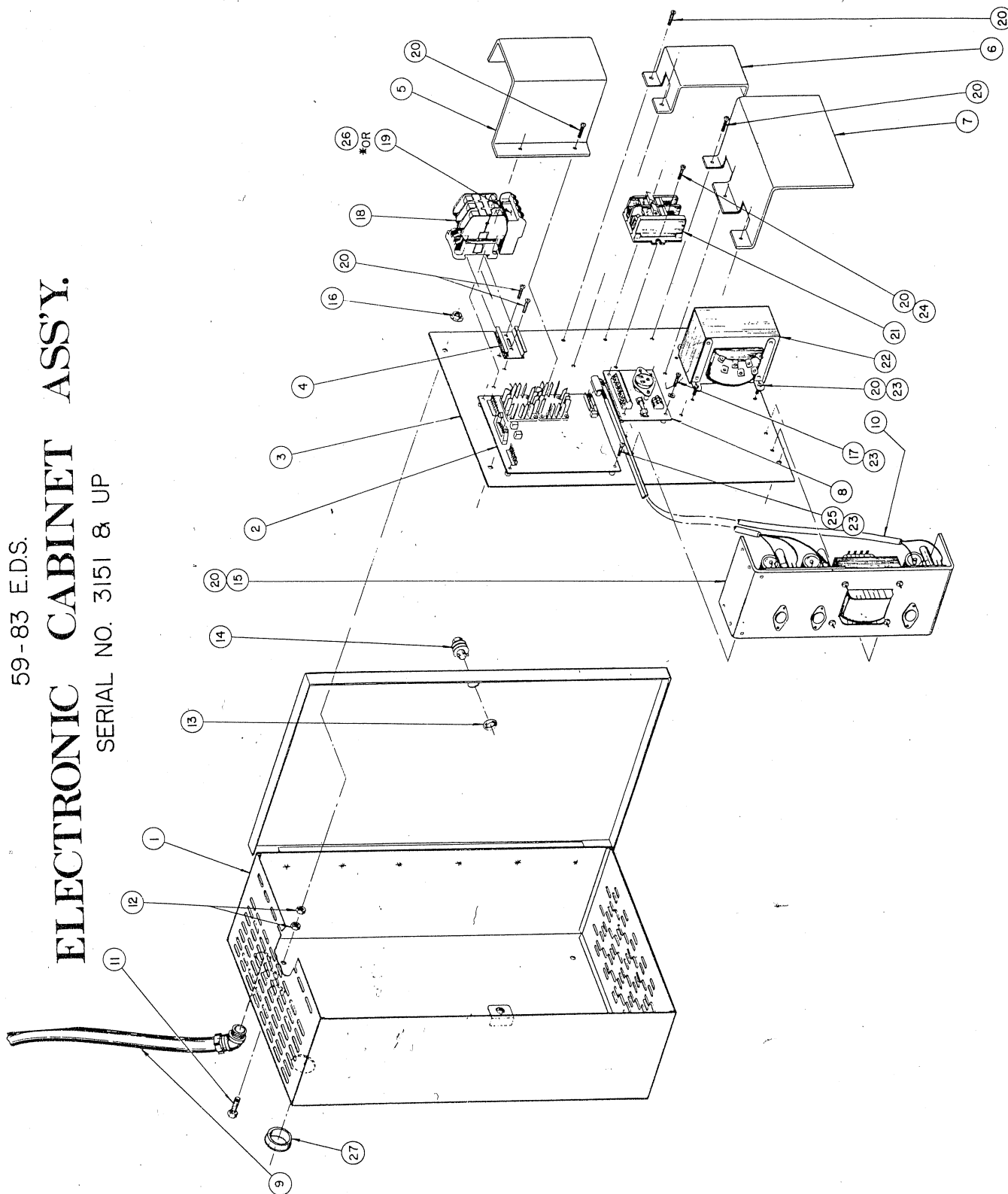
APPAREL EQUIPMENT

ELECTRONIC CABINET ASSEMBLY D-16 46551-436
Serial No. 3151 & Up

CLASS 59 DIVISION 83

ITEM NO.	DESCRIPTION	PART NO.	ITEM NO.	DESCRIPTION	PART NO.
1	Electrical Box -----	(E) 41651-095			
2	Logic Board -----	(B) 37631-080			
3	Elect. Mounting Panel -----	(D) 32375-149			
4	Contact. Bracket -----	(B) 35421-243			
5	Cover -----	(C) 34642-007			
6	Fuse Cover -----	(C) 34643-005			
7	Transformer Cover -----	(C) 34626-031			
8	84-14 A.C. Input Terminal Bd. -----	(B) 46261-010			
9	Ass'y Liquefite Cable -----	(C) 46318-004			
10	Cable, Power Supply -----	(B) 46331-013			
11	Screw, Hex. Hd. 1/4-20 x 1 -----	4200-008			
12	Nut, Hex 1/4-20 -----	6000-004			
13	Retaining Ring "Camloc" 91S45-1-1AA -----	25379-033			
14	Turn Stud Assy "Camloc" 91S-2-11 -----	22911-045			
15	Power Supply "Powerone" HCBB75 -----	27123-935			
16	Nut, Keps 1/4-20 KEPS -----	22912-059			
17	Screw, Phillip Hd. S. Tap 8-32 x 1.0 -----	2250-003			
18	Contact. K12/A215, 110V-60H -----	27891-009			
19	Relay, Thermal Overld. U12/16A2, 7-4A -----	27393-240			
20	Screw, Phillip Hd. S.T. 8-32 x 1/2 -----	2250-001			
21	Fuse Block, "Buchanan" 352 -----	27818-231			
22	Transformer, "Micro" CX250MBRDT13 -----	27123-760			
23	Washer, Spring Lock 8 -----	7102-007			
24	End Section, "Buchanan" 330 -----	27818-230			
25	Screw, Slotted Pan Hd. 8-32 x 1 1/4 -----	4060-056			
26	Relay, Thermal Overld U12/16A-8-12 -----	27393-241			
27	Heyco Bushing SB1500-21 -----	27511-892			

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 ITEM NO. 26 FOR ITEM NO. 19.

Turn centering sleeve (32) onto the clutch shaft (8) until it bottoms, Figure 6. The centering sleeve is supplied with every replacement shipment of discs. This sleeve is necessary to protect the shaft bearing and for correct adjustment of the clutch air gap "A".

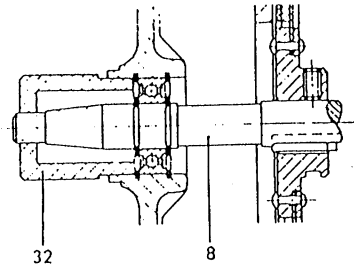


Figure 6.

Remove all 4 screws (16) and (17). Take off clutch housing, Figure 5.

Remove brake access plate from clutch housing.

Remove 3 screws (19), loosen cable clamp (20) and remove clutch magnet (7).

CAUTION

When removing, be careful not to damage the power leads to the clutch and brake.

Remove bearing (21) and retaining ring (22).

Loosen two set screws (24) in the hub (23) of the clutch disc and pull clutch disc from the shaft with a puller.

Remove brake disc in the same manner as the clutch disc.

Put new brake disc onto the clutch shaft and push it toward the brake magnet (12) until its linings touch lightly onto the brake surface of the brake magnet.

CAUTION

When mounting either the clutch or brake discs, do not apply any pressure on the outer ring so as not to damage the spring action. Apply any pressure necessary onto the hub only.

Tighten both set screws in the hub (26).

Place new clutch disc onto clutch shaft and push it toward the brake disc until the hubs touch lightly.

CAUTION

Exert any pressure necessary on the hub only, not on the outer ring as that could damage the spring action of the disc.

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Do not tighten the set screws of the clutch disc (24). Pull up on the set screws very lightly so that the disc does not drift on the shaft.

Fasten the clutch magnet (7) with all three set screws (19) in the clutch housing. Pull the clutch and brake leads out very carefully again.

Tighten cable clamp (20), securing leads to the housing.

Now slide the clutch disc to the rear in the direction of the clutch magnet.

CAUTION

Move by applying pressure to hub only of the clutch disc. Set air gap "A" between the clutch disc and the clutch magnet housing at exactly 0.8mm (.031 inches) using a feeler gauge. The disc must be set so there is no deflection of the disc when inserting the feeler gauge. Check setting by inserting a 0.9mm (.035 inches) feeler between the disc and the clutch magnet. A deflection of the clutch disc should then be noticed.

The above adjustments are made by inserting the feeler gauge through the access opening of the clutch housing.

Tighten set screws (24) in the hub of the clutch disc.

Replace retaining ring (22) and ball bearing (21) on clutch shaft (8).

Remove the fan cover from the back end of the motor.

Insert a 5mm (.196 inches) round pin into one of the holes in the rear bearing setting sleeve (27).

Turn setting sleeve (27) one full revolution in the direction of arrow "Y" in Figure 5. There are 6 holes in the sleeve. Therefore, it is necessary to use the pin 6 times to obtain one full revolution.

Remove the centering sleeve (32) Figure 6. from clutch shaft.

Remount the clutch onto the motor.

CAUTION

Ensure that the compression springs and the "O" ring are replaced in the flywheel of the motor before inserting the bearing.

Secure clutch to motor and control box using all 4 screws (16) and (17). Replace the plugs for the clutch, synchronizer, etc., into the control box.

Checking the clutch and brake air gaps is done as follows:

ADJUSTMENTS

Brake Adjustment

Checking the Brake Air Gap. The brake air gap "C", Figure 5, should be set so that there is a very slight engagement of the brake disc against the brake housing with the power turned off. Check as follows: Remove the "V" Belt, turn shaft by means of the round nut only (not the pulley). In this condition, the clutch shaft should be easily rotatable having a slight drag between the brake friction material and the brake housing. If the shaft turns completely free with no drag, the brake air gap "C" is too large and must be reset as follows:

Adjustment of the Brake Air Gap (with the entire clutch mounted, the pulley removed and the round nut screwed on) is done in the following sequence:

Loosen both set screws (25) in brake disc (26) through the access opening in the clutch housing, Figure 5, using the 3mm allen wrench supplied with the motor.

If the brake is too tightly adjusted put the tip of a screwdriver onto hub (26) in the direction of arrow "B". Introduce the screwdriver through the air openings of the clutch shaft. Tap lightly on the screwdriver pushing back the brake disc and turning the clutch shaft simultaneously until the brake runs free as described under Brake Adjustment.

If the brake is too loosely adjusted (air gap "C" between brake linings and brake magnet too large), place the tip of a screwdriver through the access opening of the clutch housing between the hubs of the clutch and brake disc (26) and (23) respectively. By then twisting the screwdriver slightly, the brake disc can be moved toward the brake magnet. Adjust as described under Brake Adjustment.

CAUTION

Exercise care not to damage brake or clutch disc while adjusting.

Tighten both set screws (25) in hub (26). Check brake air gap again in accordance with Brake Adjustment.

Remove round nut from clutch shaft. Insert spring washer. Mount pulley and secure with round nut.

Clutch Air Gap Adjustment

A setting sleeve (27) is installed on the rotor shaft between the motor fan and the rear end bell. The purpose of this sleeve is for setting the internal clutch air gap "A", Figure 5. This is done by moving the entire assembly of the flywheel, rotor and bearings within the end bells until the proper setting is obtained.

By turning clockwise (direction of arrow "Z"), the clutch air gap is reduced and by turning counter-clockwise (direction of arrow "Y"), the air gap is increased.

Proceed as Follows for Adjustment

With the power off and the fan cover in place, access to the setting sleeve is through the rear lateral cover in the fan guard. Insert a round steel pin, approximately 4mm (.156"), into one of the six holes in the setting sleeve (27). While turning the motor pulley by hand, also turn the setting sleeve in the direction "Z" until the motor fan just begins to turn with the motor pulley. This is done by moving the pin one hole at a time until the proper contact with the fan is made.

Now turn the setting sleeve (27) in the reverse direction (direction of arrow "Y") by two-third's (2/3) of a hole position. (NOTE: this is the same as backing up in a counter-clockwise direction by two-third's (2/3) of a window length.)

Motor is now completely adjusted. There are no set screws to be tightened at this point. Replace access plates and attach V-belt.

Proper motor operation is dependent upon proper setting of both clutch and brake. Should either require replacement, insure adjustments are correct before proceeding.

CAUTION

By turning the setting sleeve too far in the "Z" direction will cause a deflection of the clutch disc springs by the flywheel. This will damage the clutch disc.

By turning the setting sleeve too far in "Y" direction, the following faults might occur.

- a. If the setting sleeve has been set back to a point where the air gap "A" is close to zero, the metallic ring of the clutch disc will come in contact with the clutch magnet housing when operating. This will eventually cause sparks and will result in the clutch disc overheating. Thus in a short time the springs of the clutch will overheat causing them to lose their spring action. The motor will also be operating with a noisy metallic sound.

- b. If the setting sleeve has been set back to a point where the air gap "A" is less than zero, when operating, the metal ring of the clutch disc will come into positive contact with the clutch magnet and cause the motor to lockup. Then either the fuses will be blown or the motor winding might burn out.

TABLE II
MOTOR AND HANDWHEEL SPEED CHART

MOTOR PULLEY			1700 RPM MOTOR						3400 RPM MOTOR					
			HANDWHEEL PULLEY SIZE IN INCHES/RPM						HANDWHEEL PULLEY SIZE IN INCHES/RPM					
mm Size	Approx. Equiv. Inch	Motor Pulley Part No.	2	2-1/8	2-1/4	2-1/2	2-3/4	3-1/2	2	2-1/8	2-1/4	2-1/2	2-3/4	3-1/2
63	2-1/2	0-23/3	2125	2000	1890	1700	1550	1200	4250	4000	3780	3400	3100	2400
67	2-5/8	0-86/2	2230	2100	1980	1780	1620	1275	4460	4200	3980	3580	3240	2550
71	2-13/16	0-24/2	2390	2250	2125	1910	1740	1365	4780	4500	4230	3820	3480	2730
75	2-15/16	0-87/2	2500	2350	2220	2000	1815	1425	5000	4700	4440	4000	3630	2850
80	3-1/8	0-25/2	2560	2500	2360	2125	1930	1510	5320	5000	4720	4250	3860	3020
85	3-5/16	0-88/2	2815	2650	2500	2250	2050	1600	5630	5300	5000	4500	4100	3200
90	3-9/16	0-26/2	3025	2850	2690	2420	2200	1730	6050	5700	5380	4840	4400	3460
95	3-3/4	0-89/2	3185	3000	2830	2550	2310	1820	6370	6000	5660	5100	4620	3640
100	3-15/16	0-27/2	3350	3150	2975	2675	2430	1910	6700	6300	5950	5350	4860	3820
106	4-3/16	0-90/2	3560	3350	3160	2850	2590	2030	7120	6700	6320	5700	5180	4060
112	4-7/16	0-28/2	---	3550	3350	3015	2740	2150	7540	7100	6700	6030	5480	4300
118	4-5/8	0-91/2	---	---	3490	3145	2860	2245	---	7400	6980	6290	5720	4490
125	4-15/16	0-29/2	---	---	---	3355	3050	2400	---	---	7460	6710	6100	4800
132	5-3/16	0-371/1	---	---	---	3525	3200	2520	---	---	---	7050	6400	5040
140	5-1/2	0-126/2	---	---	---	---	3400	2670	---	---	---	7480	6800	5340

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TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Motor does not start when turning main switch on.	Power supply cord (plug, protection switch) not properly connected.	Correct connection in accordance with service manual.
	Power supply cord (plug, cord, protection switch) defective.	Replace defective parts.
	Fusetron blown.	Replace fuses.
Motor runs, but when activating sewing machine pedal, the machine does not start.	Plug for synchronizer or clutch brake not inserted.	Plug in.
	Plug for synchronizer or clutch, or clutch cord defective, connection in plug for clutch interrupted.	Replace defective parts or repair connections respectively.
	In machines with safety switches avoid a hazardous running of the machine: switch not correctly actuated (e.g. after tilting the machine head switch not fully engaged) or defective, cord to switch interrupted.	Check switch for correct function, replace switch or cord if necessary.
	In automatic units: synchronizer, plug or cord defective connection interrupted.	Replace defective parts or repair connections respectively.
	Control box at motor terminal improperly connected.	Correct connections in accordance with service manual.
	Fuses or circuit breaker in control box open.	Check fuse or circuit breaker in control box.
	Clutch and/or brake air gap too narrow, or after a long time of use clutch lining worn down or defective.	Adjust air gaps in accordance with service manual, if necessary, replace clutch and brake discs.

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Motor runs, but when activating sewing machine pedal, the machine does not start. (Continued)	Control box defective.	Replace control box.
Motor and machine run, but the needle does not go to its upper position or the machine will not start to run again.	Control discs in synchronizer incorrectly adjusted.	Adjust control discs correctly in accordance with VARIOSTOP control type Instruction Booklet.
	Sewing machine pedal is jammed or is improperly adjusted.	Repair pedal or adjust it correctly.
	In machines with safety switch at thread trimmer or other additional devices; switch not correctly actuated or defective, cord to switch interrupted.	Check switch for correct function and actuation, if necessary, replace switch, actuating means or cord.
	In automatic units, synchronizer, plug or cord defective, connection interrupted.	Replace defective parts or repair connections.
	Synchronizer defective.	Replace synchronizer.
	Control box defective.	Replace control box.
Repeated cut-off of motor protection switch.	Values of fuse-tron too low.	Use fuse-tron with values conforming to service manual.
	Switch defective.	Replace switch.
	Cord connection between protection switch and motor too weak or defective.	Replace cord.
	Motor winding at terminal incorrectly connected.	Correct connection in accordance with service manual.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Repeated cut-off of motor protection switch. (Continued)	Machine or devices (e.g. thread trimmer) binding or seized.	Repair machine and/or devices.
	Brake air gap too narrow.	Adjust air gap in accordance with service manual.
	Motor winding defective.	Have motor repaired by manufacturer.
Motor decreases speed considerably or stops entirely.	Voltage too low.	Have power supply checked.
	Machine or devices (e.g. thread trimmer) binding or seized.	Repair machine or devices.
	Brake and/or clutch air gap too narrow or after an extended period of use clutch lining worn down or defective.	Adjust air gaps in accordance with service manual. If necessary, replace brake and clutch disc.
	Power rating of motor too low for particular operation.	Exchange motor for another with higher power rating.
	Control box defective.	Replace control box.
Motor overheats.	Air screen filter filled with lint. Less frequently, air channels within motor and clutch filled with lint.	Clean filter, if necessary, take off clutch in accordance with service manual. Clean air channels in motor and clutch.
	Machine or devices (e.g. thread trimmer) binding or seized.	Repair machine or devices.
	Brake air gap too narrow.	Adjust brake air gap in accordance with service manual.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Machine starts to run after turning on main switch without pedal (start button in automatic units) having been actuated. Stop is only possible by turning switch off.	Machine pedal is jammed or actuates by own weight.	Replace or repair pedal.
	Clutch air gap too narrow.	Adjust clutch air gap according to service manual.
	Clutch bearing defective. NOTE: The bearing is defective when, after correct clutch adjustment, turning by hand causes clutch to turn.	Repair clutch using original spare parts.
	Control box defective. NOTE: Detach clutch plug from control box. Control box is only defective when machine stops.	Replace control box.
Machine runs at first actuation at full speed. Stop only possible by switching off.	In older designs: Plug of synchronizer not inserted in control box.	Plug in synchronizer.
	In automatic units: Defective synchronizer, plug or cord.	Replace synchronizer.
	Cord of synchronizer torn off, connection in synchronizer or plug broken.	Repair cord or connections.
	Synchronizer defective.	Replace synchronizer.
	Control box defective. NOTE: Control box is defective when exchange of synchronizer is no remedy.	Replace control box.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Machine stops irregularly or continues running at positioning speed after stop signal is given. Stop only possible by switching off.	Hub of synchronizer insecurely fixed on machine shaft.	Fix hub in accordance with service manual.
	Tension of V-belt not taut enough. V-belt slips.	Correct tension in accordance with service manual.
	Ambient temperature at synchronizer too low (below + 10°C) or too high (above + 50°C).	Check ambient temperature.
	Machine pedal is jammed or actuates by own weight.	Repair or replace pedal.
	In automatic units: Start button, selection switch or regulating means in main control of machine defective.	Replace defective parts.
	Positioning speed (speed of machine shaft on which synchronizer is mounted) too high.	Adjust correct positioning speed according to VARIO-STOP control type Instruction Booklet.
	Synchronizer defective.	Replace synchronizer.
	Control box defective. NOTE: Control box is only defective when by adjustment of the correct positioning speed and/or exchange of the synchronizer (in automatic units of the regulating means respectively) fault is not corrected.	Replace control box.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Intermediate speed ranges are fully or partly missing (machine runs only at positioning or maximum speed).	Maladjustment of potentiometer for intermediate speed ranges at control box.	Adjust potentiometer according to VARIOSTOP control type Instruction Booklet.
	In automatic units: Control key, selection switch or regulating means in main control of machine maladjusted or defective.	Correct adjustment in accordance with instructions given by manufacturer. If necessary, replace defective parts.
	Control box defective.	Replace control box.
No additional functions (e.g. trimming, lifting of presser foot, etc.)	Machine pedal is jammed or is improperly adjusted (mechanical trimmers can thus not be actuated).	Repair or replace pedal.
	In machines with safety switches at trimmer or other additional devices: switch not correctly actuated or defective, cord to switch interrupted.	Check switch for correct function and adjust accordingly. If necessary, replace switch, actuating means, or cord.
	Additional device not or improperly connected, cord wrong or defective. Cord not or improperly connected to the socket in the control box or in the additional device.	Correct connections according to VARIOSTOP control type Instruction Booklet. If necessary, replace cord.
	Additional device defective (e.g. actuating eccentric maladjusted, magnet or magnetic valve is jammed or burnt, knife jams, etc.)	Repair device.

