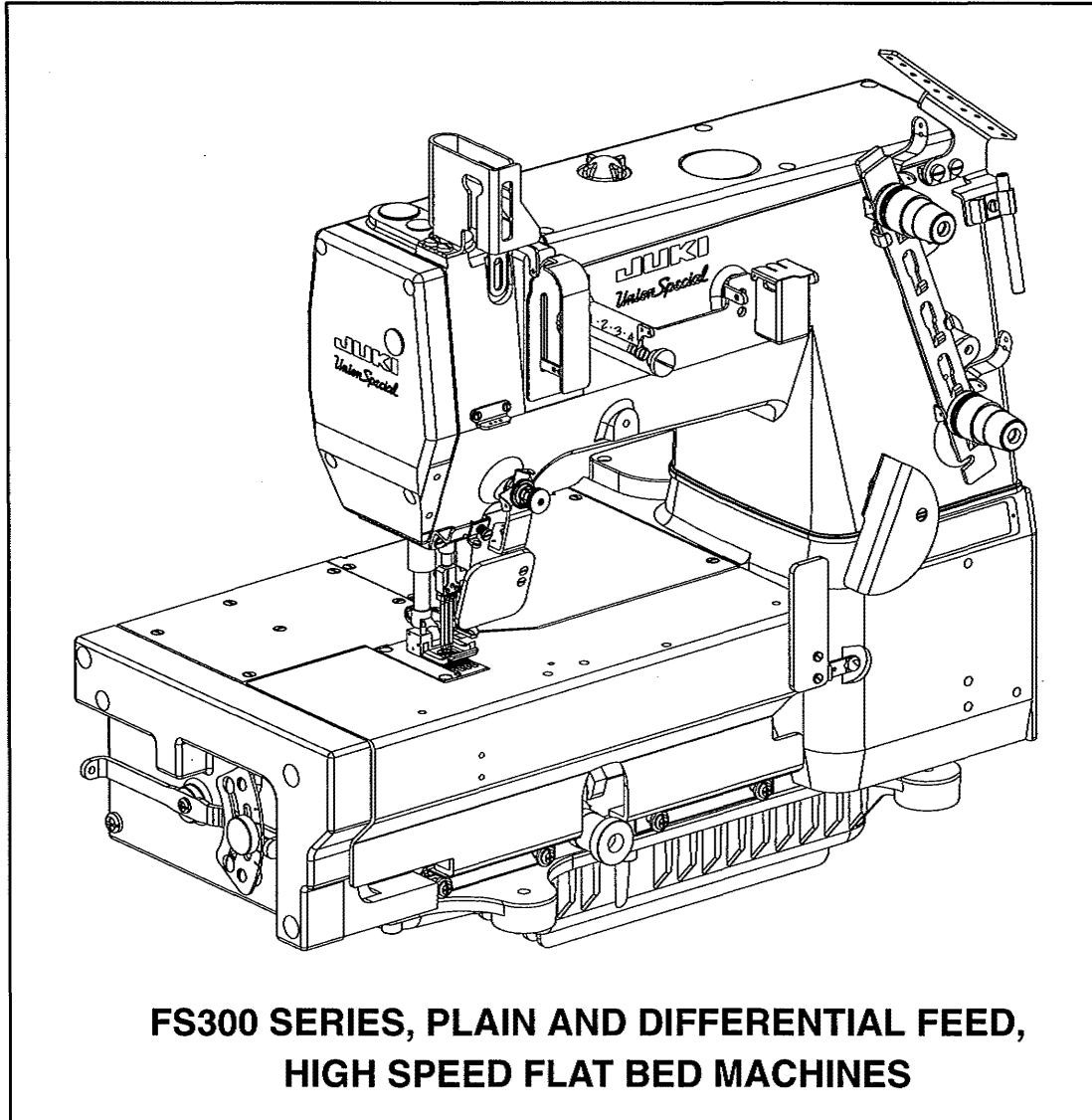




Union Special

INDUSTRIAL SEWING EQUIPMENT

OPERATOR / ILLUSTRATED PARTS MANUAL



**FS300 SERIES, PLAIN AND DIFFERENTIAL FEED,
HIGH SPEED FLAT BED MACHINES**

**MANUAL NO. PT9605
FOR STYLES**

| | |
|-----------------|-----------------|
| FS311S01 | FS311S13 |
| FS311S02 | FS311S14 |
| FS311S11 | FS311S21 |
| FS311S12 | |

Manual No. PT9605 Illustrated Parts List for FS300 Series Machines

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By

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PREFACE

This parts manual has been prepared to assist you in locating individual parts or assemblies on FS300 Series machines. It can be used in conjunction with Union Special Engineer's Manual EN9424.

It is the desire of Union Special that each machine run at its optimum performance. Parts listed in this manual are designed specifically for your machine and are manufactured with utmost precision to assure long lasting service.

This manual has been comprised on the basis of available information. Changes in design and/or improvements may incorporate a slight modification of configuration in illustrations or part numbers.

On the following pages are illustrations and terminology used in describing the parts used on FS300 Series machines.



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IDENTIFICATION OF MACHINES

Each UNION SPECIAL machine is identified by a style number, which is stamped into the style plate affixed to the middle of the machine under the tension assembly. The serial number is stamped into the serial number plate affixed to the right rear base of the machine.

CLASS DESCRIPTION

Precision high speed, single needle, plain or differential feed flat bed machines. Totally enclosed feed and looper drive mechanism, automatic forced feed lubrication system with easily replaceable filter. Main feed has thumbscrew adjustment and differential feed has lever adjustment and independently driven rear needle guard.

STYLE OF MACHINES

| | |
|----------------|--|
| FS311S01-1M | SEAMER. One needle, plain feed, medium capacity. Needle thread ratio index furnished. - Typical Application - For seaming side and inseams on work and dress pants. Seam Specifications 401SSa-1. Recommended needle 128 GBS sizes 075/029 - 090/036. Stitch range 7-10 S.P.I.. Maximum recommended speed 6500 R.P.M.. |
| FS311S01-1MCC2 | SEAMER. Same as style FS311S01-1M, except with Power "Air Klipp" Chain Cutter. |
| FS311S02-1M | SEAMER. Same as style FS311S01-1M, except foot with left yielding section. - Typical Application - For side-seaming trousers when crossing front pockets. |
| FS311S02-1MCC2 | SEAMER. Same as style FS311S02-1M, except with Power "Air Klipp" Chain Cutter. |
| FS311S11-1M | "FEEDING FOOT" SEAMER. Same as style FS311S01-1M, except with "Feeding Foot". - Typical Application - For seaming trousers, coats etc.. |
| FS311S11-1MCC2 | "FEEDING FOOT" SEAMER. Same as style FS311S11-1M, except with Power "Air Klipp" Chain Cutter. |
| FS311S12-1M | "FEEDING FOOT" SEAMER. Same as style FS311S11-1M, except foot with left yielding section. - Typical Application - For side-seaming trousers when crossing front pockets. |
| FS311S12-1MCC2 | "FEEDING FOOT" SEAMER. Same as style FS311S12-1M, except with Power "Air Klipp" Chain Cutter. |
| FS311S13-1M | "FEEDING FOOT" SEAMER. Same as style FS311S11-1M, except with NARROW "FEEDING FOOT". - Typical Application - For seaming trousers, coats, panels for baseball caps and similar operations. Recommended needle 128 GBS sizes 070/027 - 080/032. |
| FS311S13-1MCC2 | "FEEDING FOOT" SEAMER. Same as style FS311S13-1M, except with Power "Air Klipp" Chain Cutter. |
| FS311S14-1M | "LOW INERTIA FOOT" SEAMER. Same as style FS311S01-1M, except "Low Inertia" presser foot. - Typical Application - For seaming side and inseam trousers. |
| FS311S14-1MCC2 | "LOW INERTIA FOOT" SEAMER. Same as style FS311S14-1M, except with Power "Air Klipp" Chain Cutter. |
| FS312S21-1M | DIFFERENTIAL FEED "LOW INERTIA FOOT" SEAMER. Same as style FS311S14-1M, except tandem differential feed. |
| FS312S21-1MCC2 | DIFFERENTIAL FEED "LOW INERTIA FOOT" SEAMER. Same as style FS312S21-1M, except with Power "Air Klipp" Chain Cutter. |



ILLUSTRATIONS

This manual has been arranged to simplify ordering repair parts. Exploded views of various sections of the mechanism are shown so that the parts may be seen in their actual position in the machine. On the page opposite the illustration will be found a listing of the parts with their part numbers, description and the number of pieces required in the particular view being shown.

Numbers in the first column are reference numbers only, and merely indicate the position of the part in the illustration. The reference number should never be used in ordering parts. Always use the part number listed in the second column.

Component parts of sub-assemblies which can be furnished for repairs are indicated by indenting their descriptions under the description of the main sub-assembly. As an example refer to the following text.

| | | | |
|----|-------------|---|---|
| 5. | 50366B | Needle Thread Strike-Off Assembly | 1 |
| 6. | 50358V | Needle Thread Strike-Off | 1 |
| 7. | 50370F | Thread Strike-Off Component | 1 |
| 8. | SS7060310SP | Screw, for plate strike-off | 1 |

When a part is common to all machines covered in this manual, no specific usage will be mentioned in the description. However, when the parts for the various machines are not the same, the specific usage will be mentioned in the description and, if necessary, the difference will be shown in the illustration.

*Ref. No. showing no Part No. is for location only. Part is not for sale separately.

A numerical index of all the parts shown in this manual is located at the back. This will facilitate locating the illustration and description when only a part number is known.

IDENTIFYING PARTS

Where construction permits, each part is stamped with its part number. On some of the smaller parts and on those where construction does not permit, an identification letter is stamped in to distinguish the part from similar ones.

PLEASE NOTE: Part numbers represent the same part, regardless of which manual they appear. On all orders please include part number, name and style of machine for which the part was ordered.

For optimum performance use only genuine Union Special replacement parts.

NEEDLES

Each needle has both a type and size number. The type number denotes the kind of shank, point, length, groove, finish and other details. The size number, stamped on the needle shank, denotes the largest diameter of the blade measured between the shank and the eye. Collectively, the type number and size number represent the complete symbol which is given on the label of all needles packed and sold by Union Special.

| <u>TYPE</u> | <u>DESCRIPTION</u> |
|-------------|--|
| 128 GBS | Short, double groove, struck groove, ball eye, spotted, ball point, chromium plated- Sizes available 070/027, 075/029, 080/032, 090/036. |

When changing the needle, make sure it is fully inserted in the needle holder before the screw is tightened.

When ordering needles, please use the complete type and size numbers as printed on the package to ensure prompt and accurate processing of your order. A complete order should read as follows: "100 needles, type 128 GBS, size 075/029".



SAFETY RULES

1. Before putting the machines described in this manual into service, carefully read the instructions. The starting of each machine is only permitted after taking notice of the instructions and by qualified operators.

IMPORTANT! Before putting the machine into service, also read the safety rules and instructions from the motor supplier.

2. Observe the national safety rules valid for your country.
3. The sewing machines described in this instruction manual are prohibited from being put into service until it has been ascertained that the sewing units which these sewing machines will be built into, have conformed with the EC Council Directives (89/392/EEC, Annex II B).

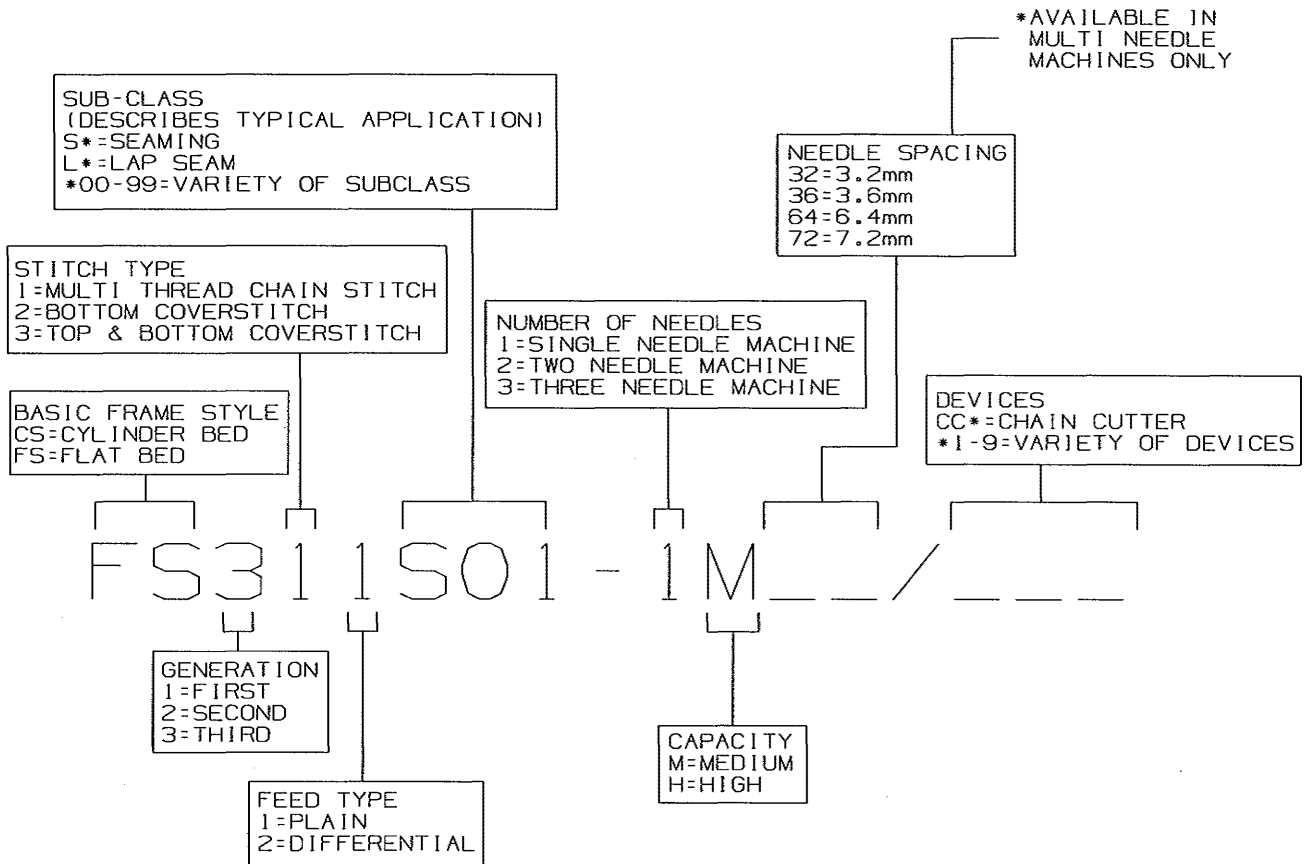
Each machine is only allowed to be used as foreseen. The foreseen use of the particular machine is described in paragraph "STYLES OF MACHINES" of this instruction manual. Another use, going beyond the description, is not as foreseen.

4. All safety devices must be in position when the machine is ready for work or in operation. Operation of the machine without the appertaining safety devices is prohibited.
5. Wear safety glasses.
6. In case of machine conversions and changes all valid safety rules must be considered. Conversions and changes are made at your own risk.
7. The warning hints in the instructions are marked with one of these two symbols:

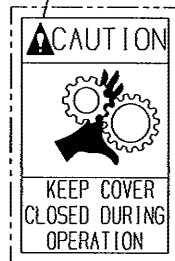
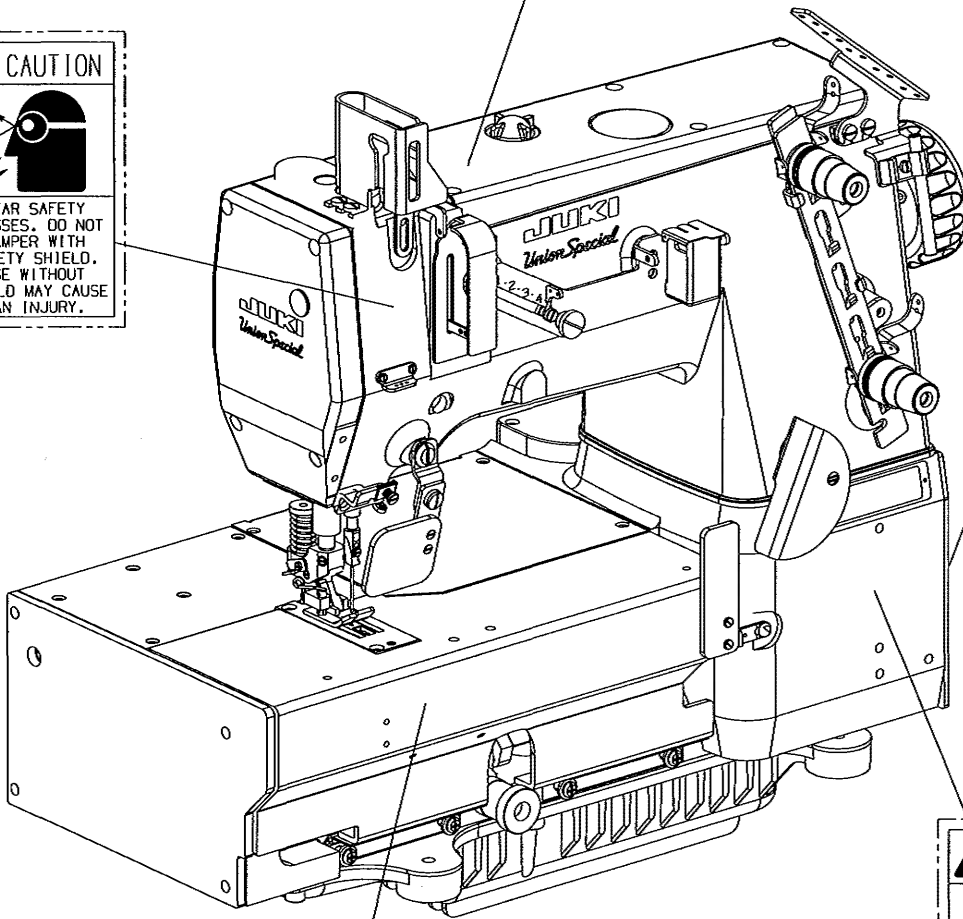
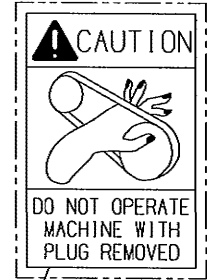


8. When doing the following the machine has to be disconnected from the power supply by turning off the main switch or by pulling out the main plug:
 - 8.1 When threading needle(s), looper, spreader etc.
 - 8.2 When replacing any parts such as needle(s), presser foot, throat plate, looper, spreader, feed dog, needle guard, folder, fabric guide etc.
 - 8.3 When leaving the workplace and when the workplace is unattended.
 - 8.4 When doing maintenance work.
 - 8.5 When using clutch motors without actuation lock, wait until the motor is stopped totally.
9. Maintenance, repair and conversion work (see item 8) must be done only by trained technicians or special skilled personnel under consideration of the instructions.
10. Any work on the electrical equipment must be done by an electrician or under direction and supervision of special skilled personnel.
11. Work on parts and equipment under electrical power is not permitted. Permissible exceptions are described in the applicable sections of standard sheet DIN VDE 0105.
12. Before doing maintenance and repair work on the pneumatic equipment, the machine has to be disconnected from the compressed air supply. In case of existing residual air pressure, after disconnecting from compressed air supply (i.e. pneumatic equipment with air tank), the pressure has to be removed by bleeding.

FS300 SERIES BUILDING BLOCK STYLE DESIGNATION SYSTEM



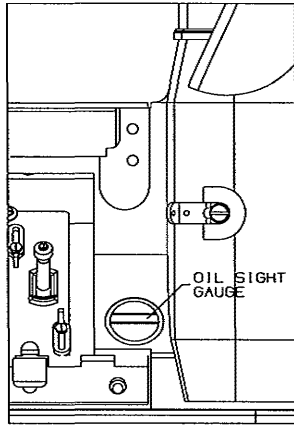
CAUTION AREAS:



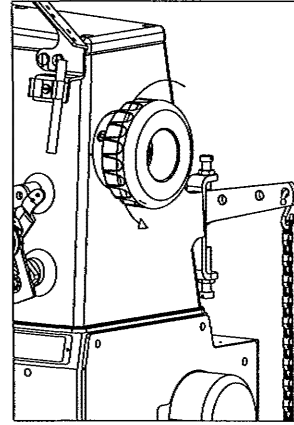
OPERATOR'S DAILY CHECK LIST:

The following should be checked daily and cleaned as required when it applies to your Union Special machine:

- Oil flow
- Oil level
- Lint area (clean with compressed air or brush)
- Needle bar bushings
- Under feed dogs & throat plates
- In knives
- In thread control eyelets
- Cooling airways
- In the machine
- In the motor
- In the cooling package
(package is an extra send charge)

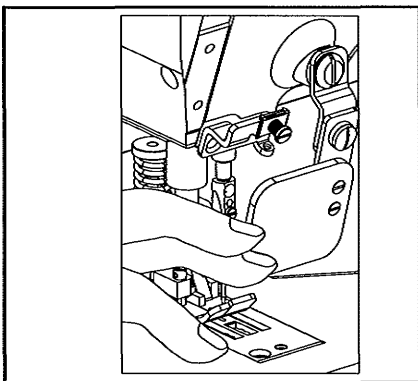


1. The oil level in the sight gauge should be between the two red lines when the machine is at rest. If not, fill with Union Special Specification 175 oil, (Union Special Part No. 28604R).

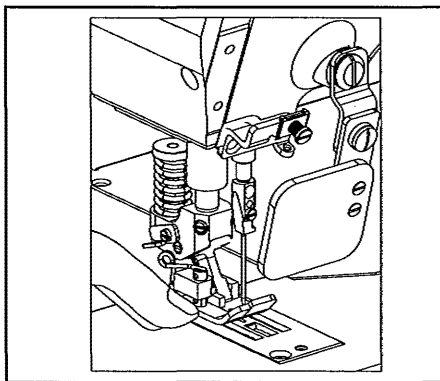


2. The correct rotating direction of the handwheel is counterclockwise, as viewed from the handwheel's side. NEVER run the machine in reverse direction.

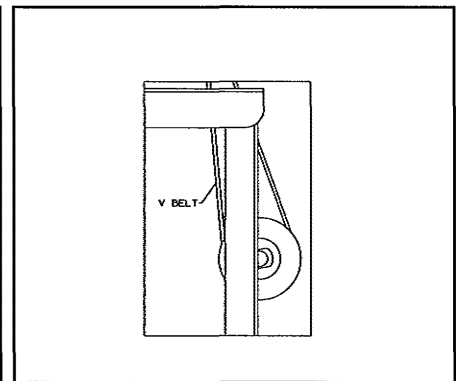
OPERATING CAUTIONS:



1. Do not put your hand under the needles when turning on the power switch or at any time.



2. Do not put your hand into the sewing area while the machine is running.



3. Turn off the power switch and make sure the clutch motor is at rest before removing the V belt.

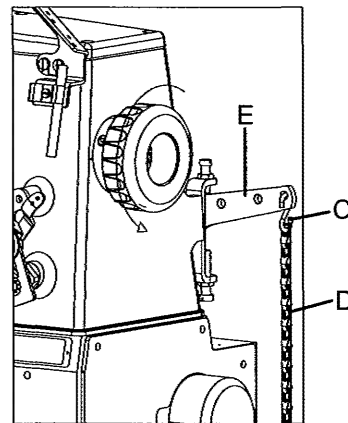
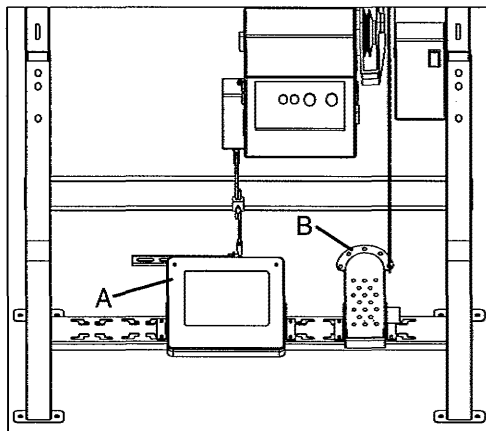


OPERATING CAUTIONS (CONT.):



4. During operation, do not allow head, hands or any instrument, tool etc. near handwheel, V belt and motor.
 5. Do not operate your machine without the proper belt guard, sewing guards or any other protectors that have been provided. Doing so is very dangerous.
 6. Before inspecting, adjusting, cleaning, threading the head or replacing needles, turn OFF the power switch. Make sure the flywheel on the motor has stopped, it will be kept running by inertia after turning OFF the power switch. DO NOT depress the foot pedal while the machine is running or it will cause the machine to rotate abruptly.
 7. Turn OFF the power switch when you leave your machine or in case of a power failure.
 8. Do not wipe the machine surface with lacquer thinner.
-

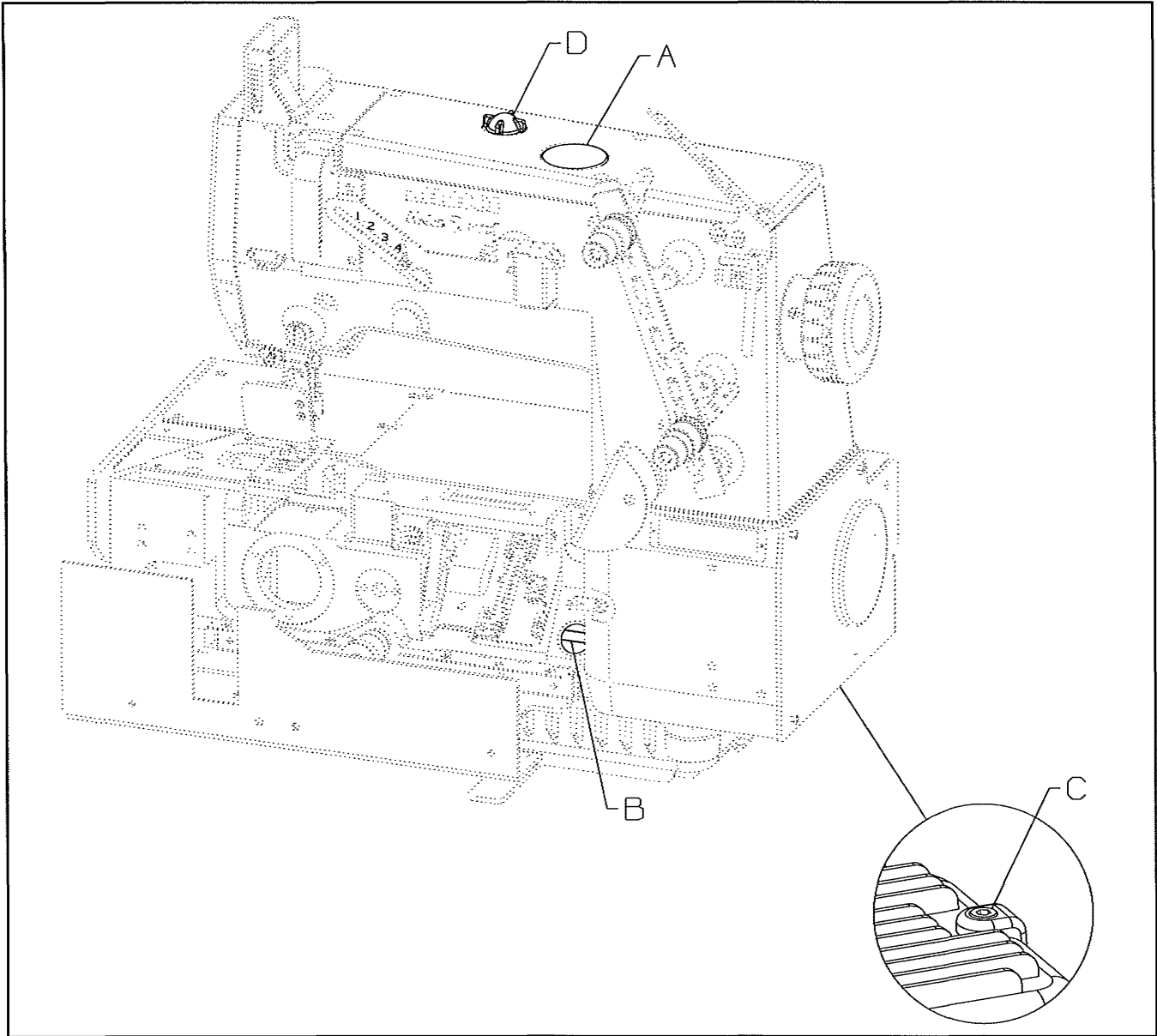
OPERATING THE PEDALS:



1. Locate the center of drive treadle (A) to be in line with the needles.
2. Locate presser lifter pedal (B) for operator comfort.
3. Use S-shaped hook (C) to connect presser lifter pedal chain (D) to presser lifting lever (E).



LUBRICATION:



The oil should be between the two red lines in sight gauge (B) when the machine is at rest.

1. If oil is required remove oil cap (A).
2. Fill between lines (B) with Union Special Specification 175 oil (Union Special Part No. 28604R).



CAUTION! Do not exceed the upper red marker line. Excessive oil in the machine will result in oil leakage and possible overheating.

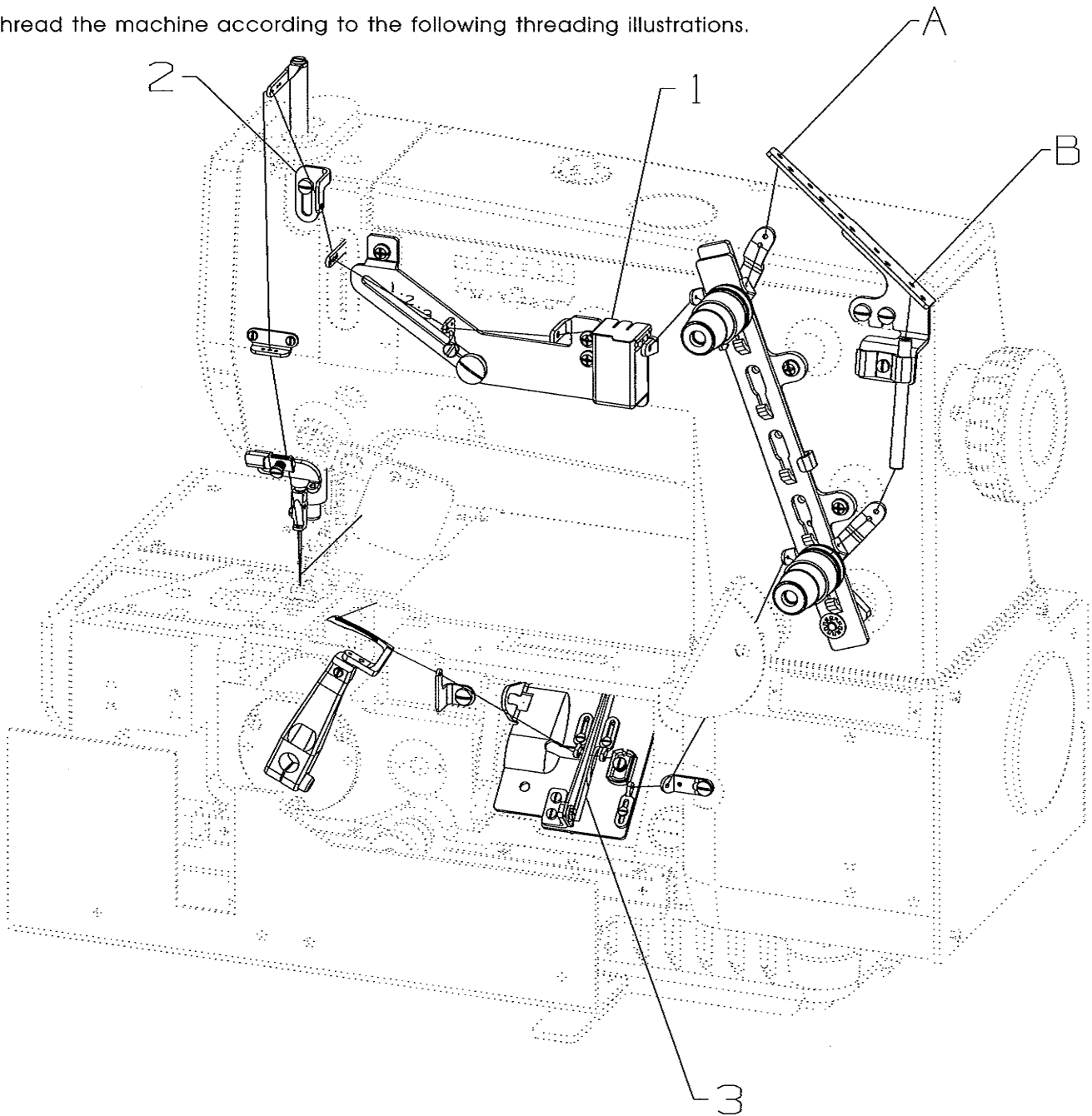
3. To drain oil reservoir, remove oil drain cap (C) on the underside of the machine.
4. To ensure oil flow through machine, check oil flow window (D).

THREADING THE MACHINE:



Turn off main power switch before threading! When using clutch motors without actuation lock wait until the motor has completely stopped.

Thread the machine according to the following threading illustrations.

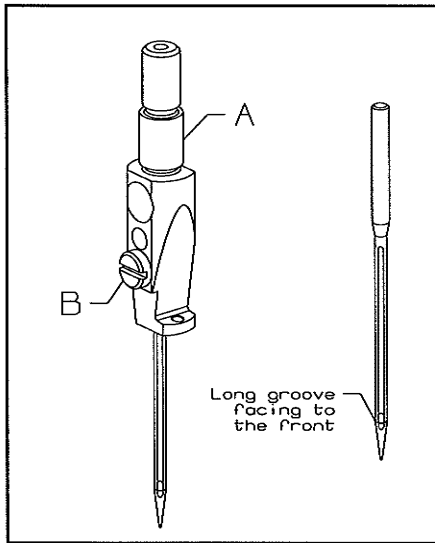


A Left Needle Thread
B Looper Thread

1 Thread Lubricator Area
2 Needle Bar Area
3 Thread Take-Up Area



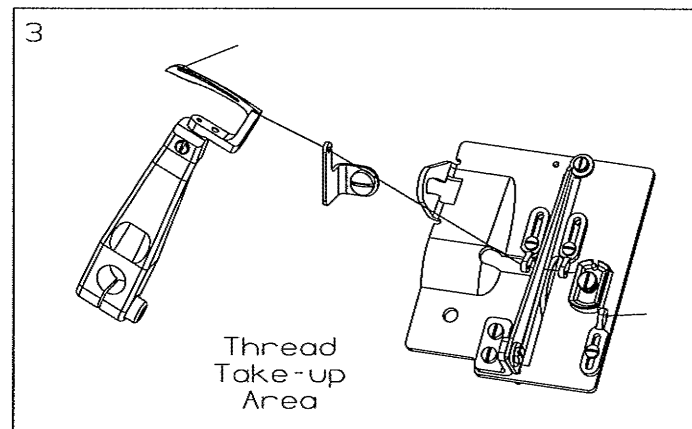
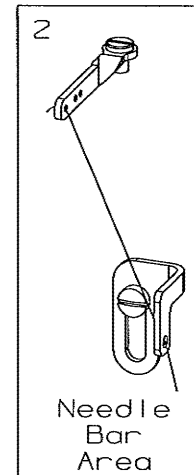
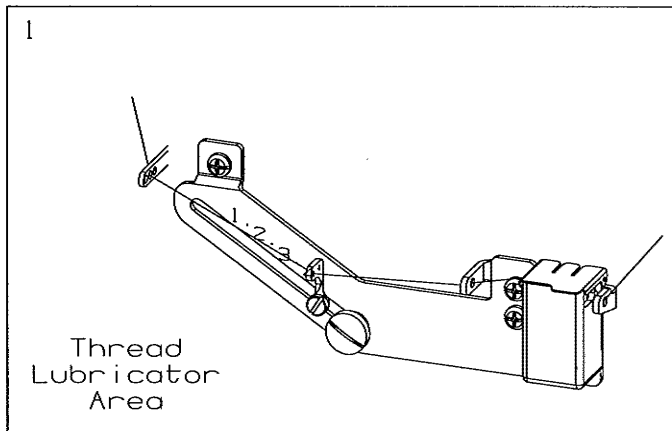
THREADING THE MACHINE (CONT.):



The standard needle is 128 GBS, needle range sizes "070/027 - 090/036."

Insert needle according to the following procedure:

1. Bring needle head (A) to the highest position.
2. Loosen screw (B), insert needle into holes. The needle scarf should face rearwards as viewed from the operator's side.
3. Retighten screw (B).



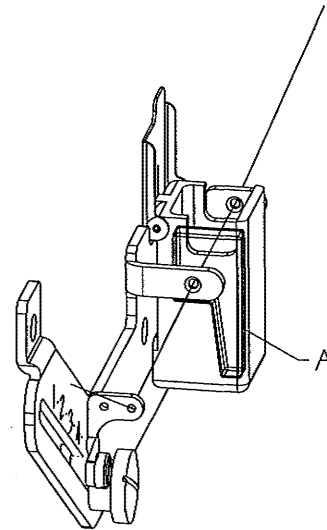
THREADING THE MACHINE (CONT.):

When the needle thread lubricator is used:

1. Saturate felt (A).
2. Pass thread over felt.

When the needle thread lubricator is not used:

1. Remove felt (A).



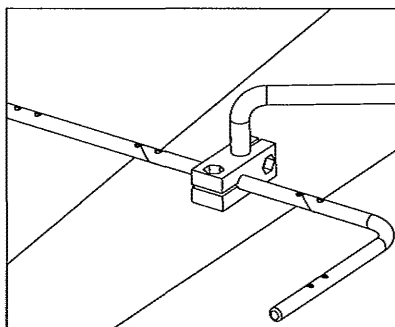
THREADING MEDTHODS



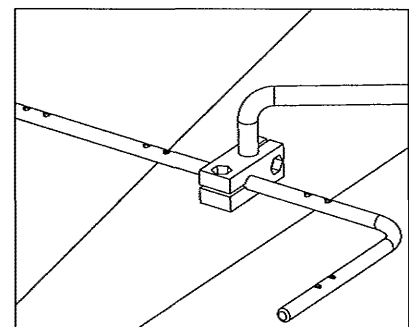
CAUTION!

When using an untwisted thread such as wooly nylon or weak thread, do not wind it around the intermediate thread guide.

Twisted Thread

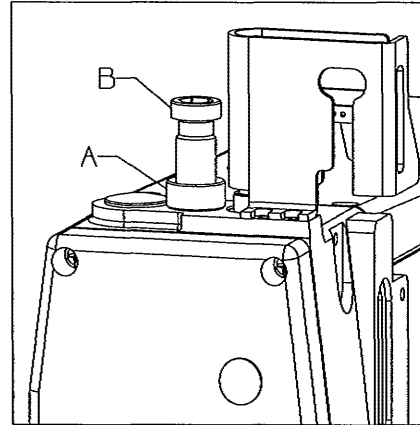


Non-Twist Thread



PRESSER FOOT PRESSURE AND LIFTER:

1. Adjust presser foot pressure by loosening nut (A) and turning presser foot adjust screw (B) clockwise to increase the pressure, counterclockwise to decrease the pressure.
2. Retighten nut (A).



ADJUSTING THE STITCH LENGTH:



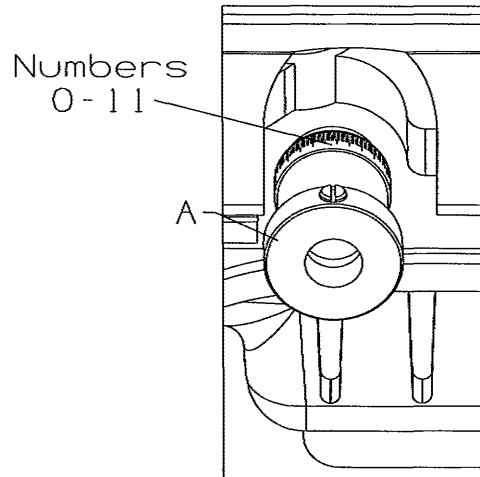
Turn off main power switch before setting the stitch length! When using clutch motors without actuation lock wait until the motor has completely stopped.

1. To change stitch length turn stitch regulating screw (A).

Clockwise to increase the stitches per inch/shorten the length of one stitch.

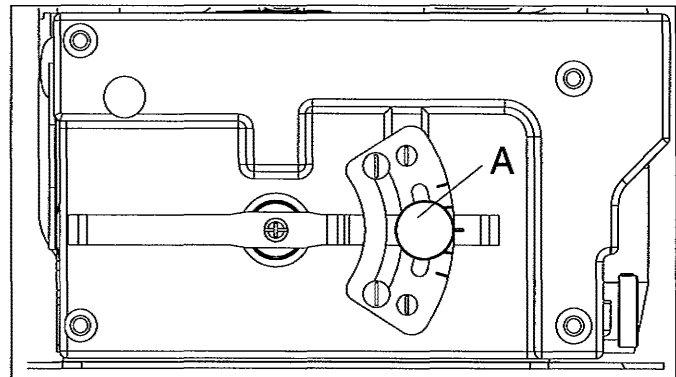
Counterclockwise to decrease stitches per inch/increase the length of one stitch.

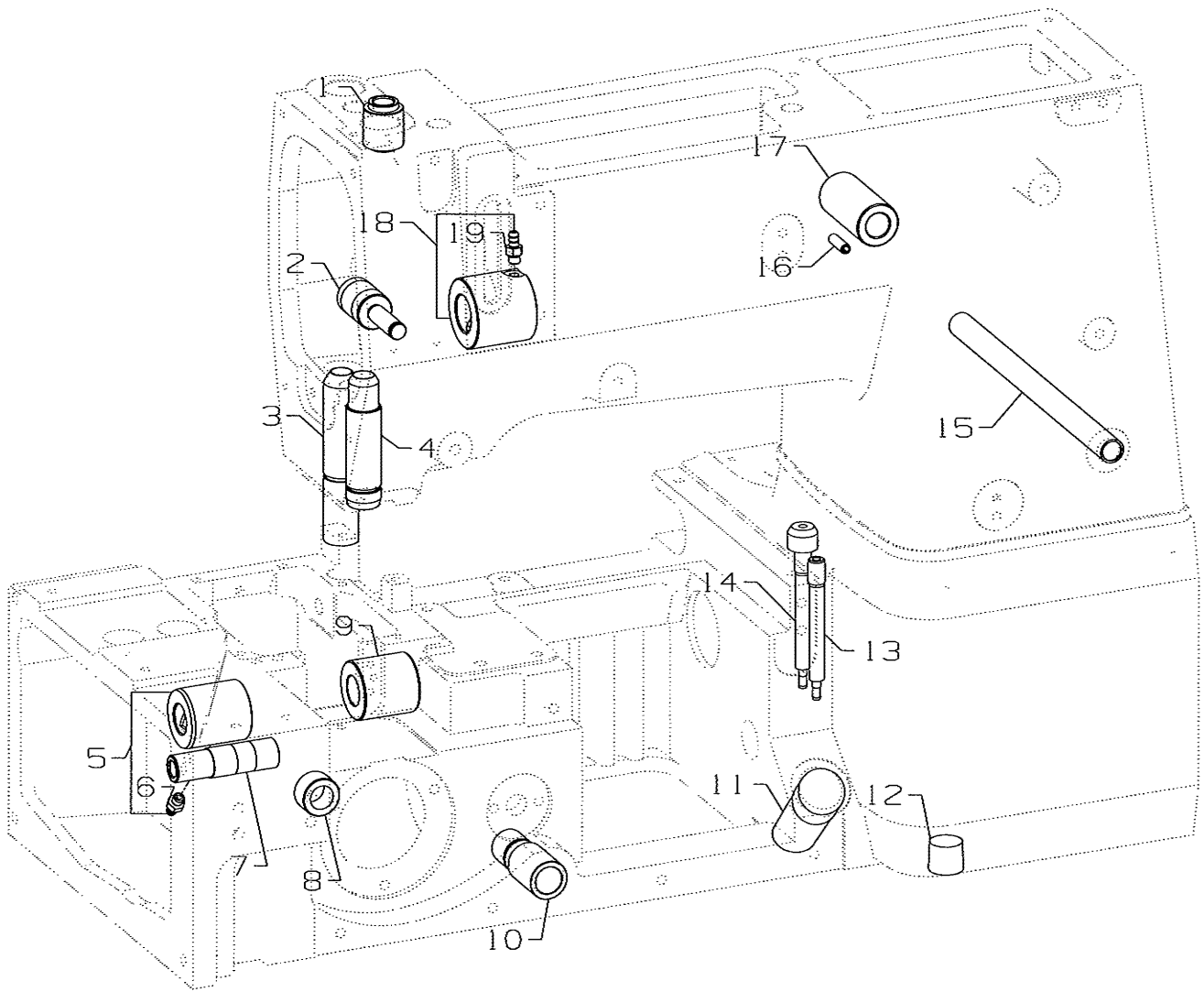
2. Numbers 0-11 on stitch regulating screw are for operator's reference only.



DIFFERENTIAL FEED MECHANISM:

1. Loosen screw (A) and move lever (B) up for gathering (+) and down (-) for stretch.
2. Retighten screw (A).
3. When the main stitch travel is set at .078" (2mm) the differential ratio for maximum gather is 1:1.5, maximum stretch is 1:0.6, depending on material.

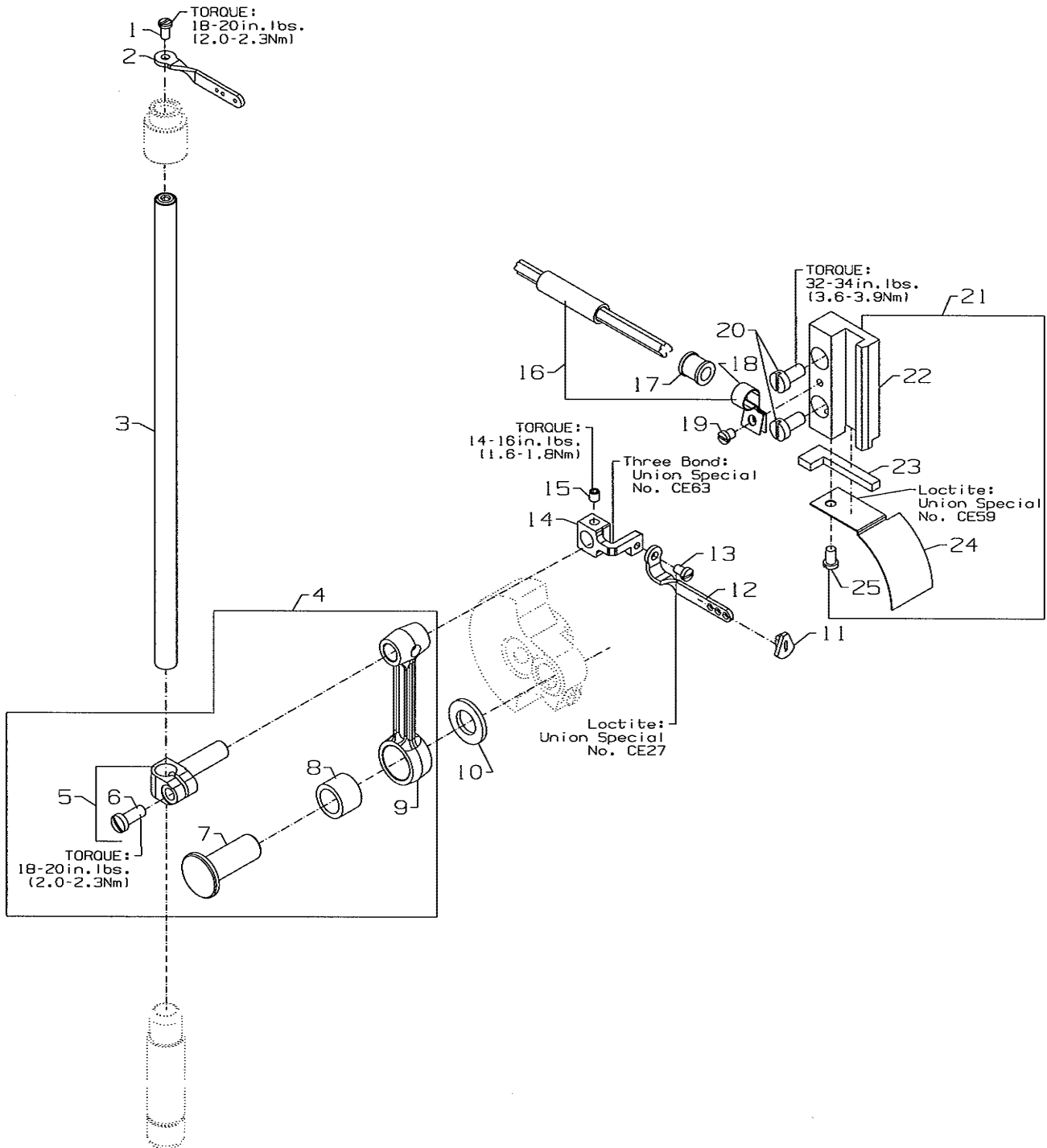




BUSHINGS

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---|--------------|
| 1. | 50654 | Bushing, for needle bar, upper | 1 |
| 2. | 50332U | Pin, for front lifter lever | 1 |
| 3. | 50330CZ | Bushing, for presser bar | 1 |
| 4. | 50654A | Bushing, for needle bar, lower | 1 |
| 5. | 50344BE | Bushing, for lower mainshaft, left | 1 |
| 6. | SQ1110401MZ | Fitting | 1 |
| 7. | 50344BC | Bushing, for needle lever | 1 |
| 8. | 50344E | Bushing | 1 |
| 9. | 50344BF | Bushing, for lower mainshaft, right | 1 |
| 10. | 35036BS | Stitch Regulator Bushing | 1 |
| 11. | 50393GE | Oil Sight Gauge | 1 |
| 12. | 22571L | Screw, for drain plug | 1 |
| 13. | 50393FU | Fitting, oil tube | 1 |
| 14. | 50393EY | Fitting, filter | 1 |
| 15. | 50392AB | Bushing, for tension release..... | 1 |
| 16. | PS0400142KH | Pin | 1 |
| 17. | 50381E | Bushing, for lifter lever, back | 1 |
| 18. | 50344BU | Bushing, front | 1 |
| 19. | SQ1110401MZ | Fitting | 1 |

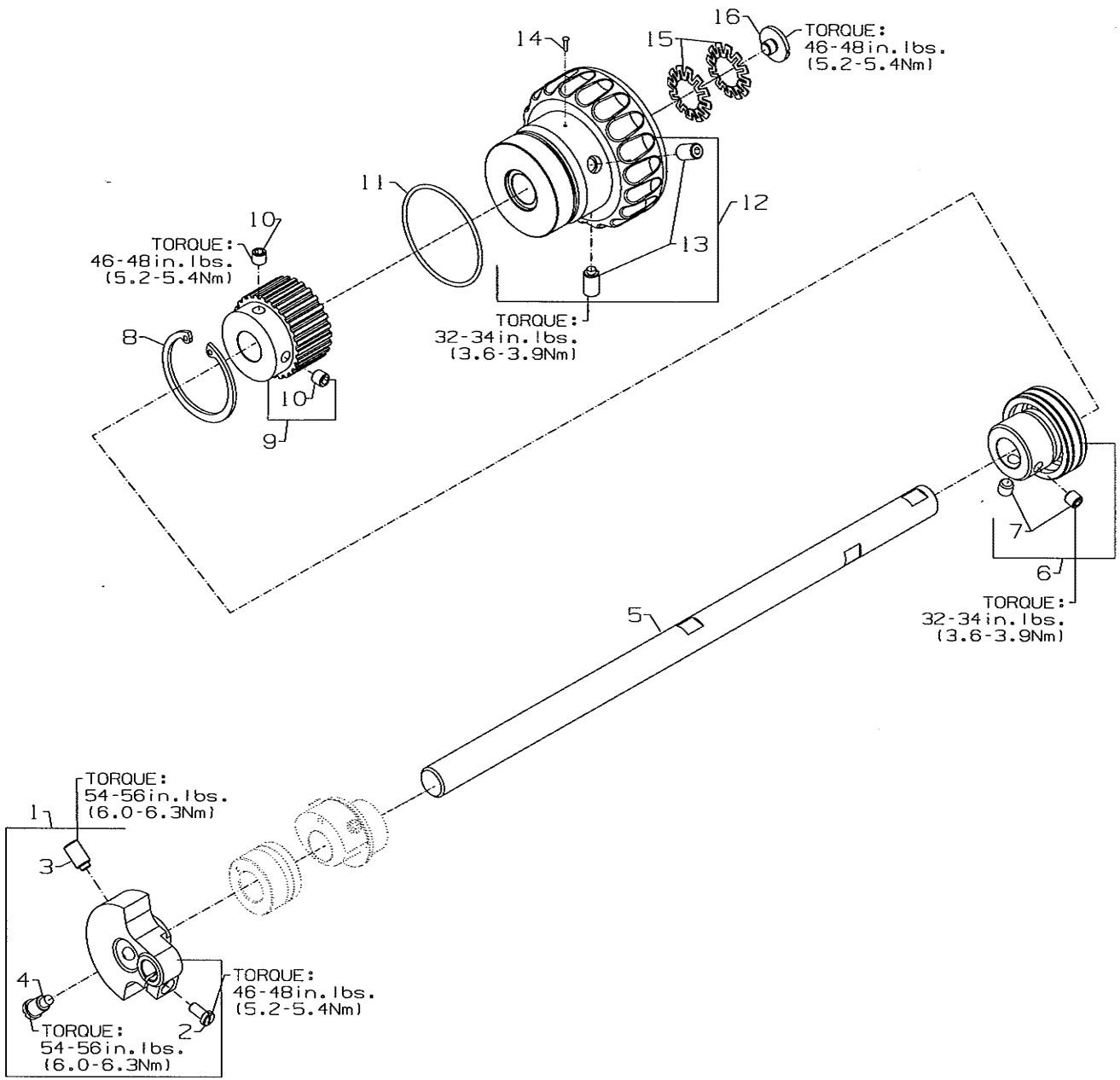




NEEDLE BAR

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---|--------------|
| 1. | SS4080620TP | Screw | 1 |
| 2. | 50323P | Needle Bar Eyelet | 1 |
| 3. | 50317B | Needle Bar | 1 |
| 4. | 50345W | Connecting Rod Assembly | 1 |
| 5. | 50355AM | Needle Bar Clamp | 1 |
| 6. | SS7111120TP | Screw | 1 |
| 7. | 50352 | Pivot Pin | 1 |
| 8. | 661-259B | Needle Bearing Cage | 1 |
| 9. | 50355AN | Connecting Rod | 1 |
| 10. | 50351A | Washer | 1 |
| 11. | 50393JP | Eyelet Seal | 1 |
| 12. | 50358X | Needle Thread Eyelet | 1 |
| 13. | SS7080520SP | Screw | 1 |
| - | CE27 | Loctite Adhesive, (not shown), for screw | - |
| 14. | 50354F | Slide Block | 1 |
| - | CE63 | Three Bond Adhesive, (not shown), for slide block | - |
| 15. | SS8110422TP | Screw | 1 |
| 16. | 29476TC | Oil Tube Assembly | 1 |
| 17. | 50393JZ | Oil Tube | 1 |
| 18. | 50393JW | Hose Clamp | 1 |
| 19. | SS6090440SP | Screw, for oil tube assembly | 1 |
| 20. | SS6121010SP | Screw | 2 |
| 21. | 29476VN | Slide Block Guide and Cover Assembly | 1 |
| 22. | 50338 | Guide, for slide block | 1 |
| 23. | 666-328 | Felt, for slide block | 1 |
| - | CE59 | Loctite Adhesive, (not shown), for felt | - |
| 24. | 50338A | Cover, for guide | 1 |
| 25. | SS6090620SP | Screw | 1 |

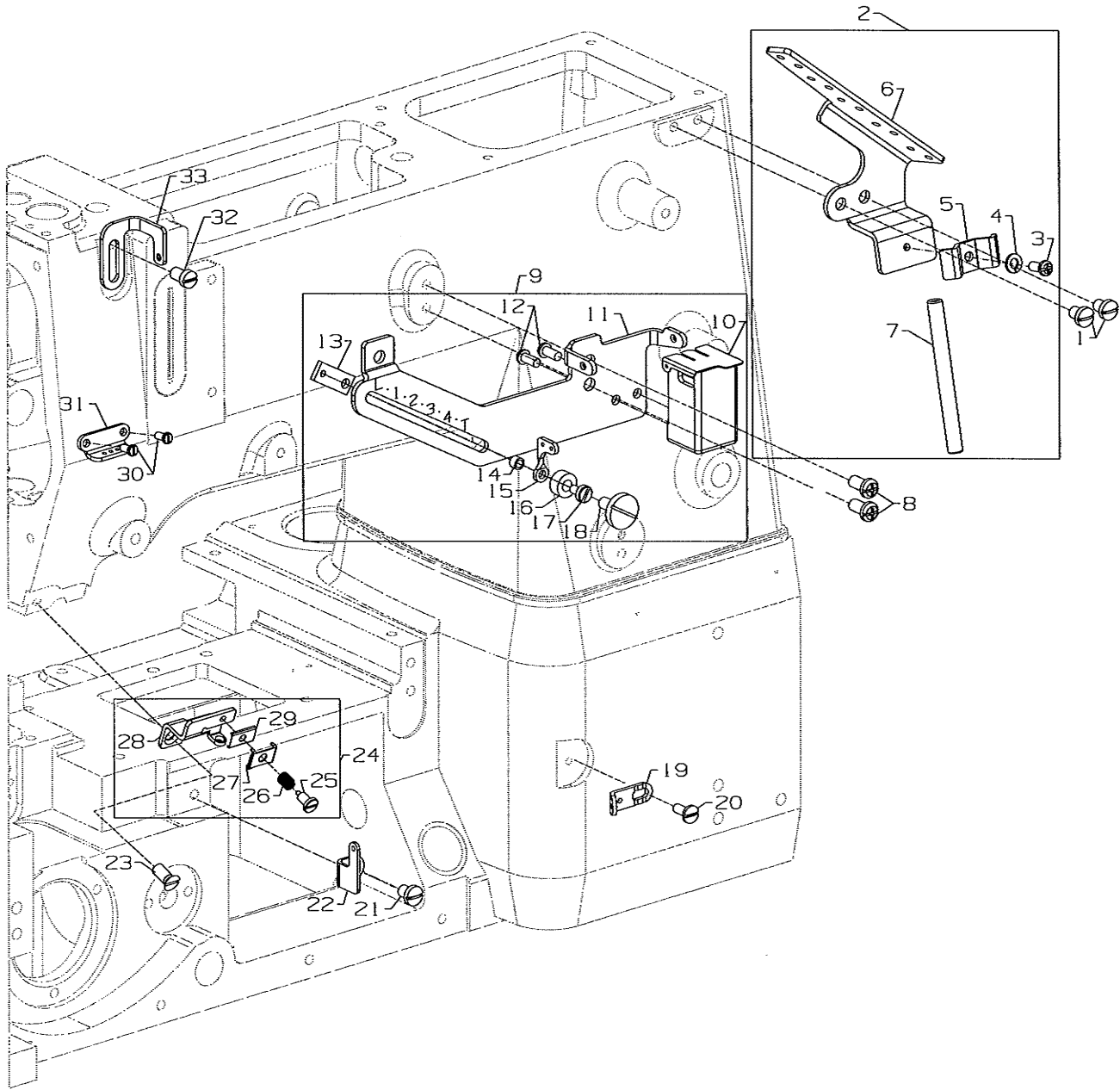




UPPER MAIN SHAFT

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---------------------------------------|--------------|
| 1. | 50391 | Counter Weight | 1 |
| 2. | SS7111120TP | Screw, for counter weight | 1 |
| 3. | SS8681412TP | Screw, for counter weight | 1 |
| 4. | SS7681410TP | Screw, for counter weight | 1 |
| 5. | 50322AF | Upper Main Shaft | 1 |
| 6. | 50335BD | Bearing Adapter Assembly | 1 |
| 7. | SS8660612TP | Screw, for bearing adapter | 2 |
| 8. | 661-262 | Retaining Ring | 1 |
| 9. | 50342BE | Sprocket, for upper main shaft | 1 |
| 10. | SS8661012TP | Set Screw, for sprocket | 2 |
| 11. | 660-1087 | "O" Ring..... | 1 |
| 12. | 50321F | Handwheel | 1 |
| 13. | SS8681412TP | Set Screw, for handwheel | 2 |
| 14. | 660-1043 | Tack Pin, for handwheel | 1 |
| 15. | 661-261 | Load Ring, for lower main shaft | 2 |
| 16. | SS7660520SP | Screw, for handwheel preload | 1 |

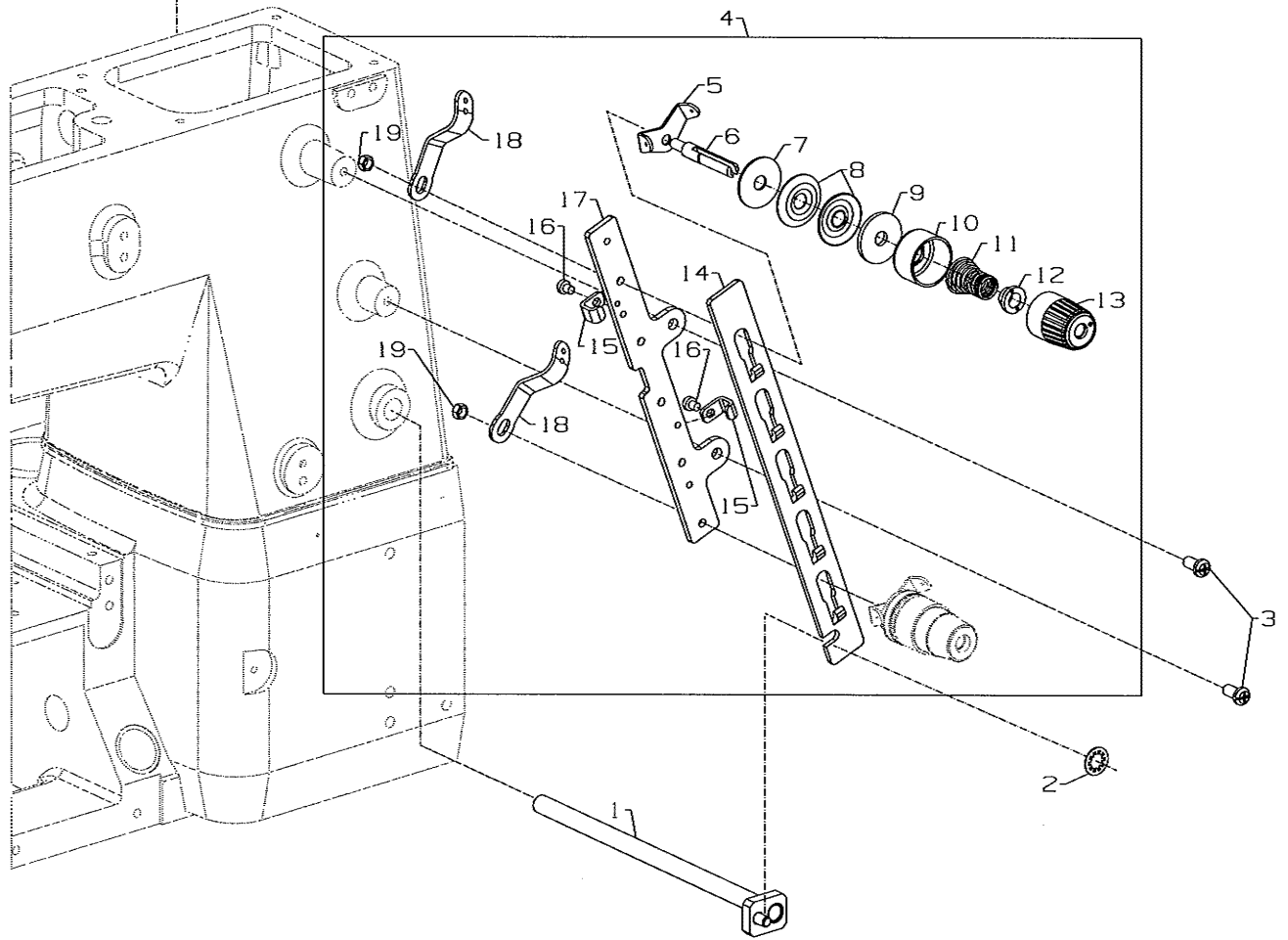
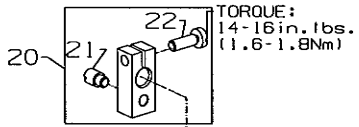




THREAD GUIDE

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|--------------|--|--------------|
| 1. | SS7120640SP | Screw, for lead-in eyelet | 2 |
| 2. | 50692H | Thread Eyelet Assembly | 1 |
| 3. | SS7090910TP | Screw | 1 |
| 4. | WS0410002KP | Split Washer | 1 |
| 5. | 50366A | Thread Eyelet Tube Bracket | 1 |
| 6. | 50392S | Lead-In Tension Eyelet | 1 |
| 7. | 50366 | Thread Eyelet Tube | 1 |
| 8. | SS4120915SP | Screw, for spreader thread guide | 2 |
| 9. | 29476TG | Thread Ratio Control Assembly | 1 |
| 10. | 50393HH | Silicone Thread Lubricator | 1 |
| 11. | 50683A | Thread Control Bracket | 1 |
| 12. | SS4090815SP | Screw, for silicone tank | 2 |
| 13. | 56358B | Guide Block | 1 |
| 14. | 56358C | Guide | 1 |
| 15. | 158B | Thread Eyelet | 1 |
| 16. | 56358D | Washer | 1 |
| 17. | 98A | Screw | 1 |
| 18. | 22837 | Screw | 1 |
| 19. | 12124202 | Looper Frame Eyelet | 1 |
| 20. | SS70906105SP | Screw | 1 |
| 21. | SS7120640SP | Screw | 1 |
| 22. | 50392AE | Looper Frame Eyelet | 1 |
| 23. | SS1121010SP | Screw, for thread guide | 1 |
| 24. | 50357AR | Nipper Plate Assembly | 1 |
| 25. | SD0380551SL | Screw | 1 |
| 26. | 50357AS | Nipper Spring | 1 |
| 27. | 50357Y | Nipper Spring Plate | 1 |
| 28. | 50366G | Thread Guide | 1 |
| 29. | 50357V | Nipper Plate | 1 |
| 30. | 605A | Screw, for needle thread guide | 2 |
| 31. | C50044E | Needle Thread Guide | 1 |
| 32. | SS7120710SP | Screw, for strike-off | 1 |
| 33. | 50663 | Needle Thread Strike-Off Eyelet | 1 |

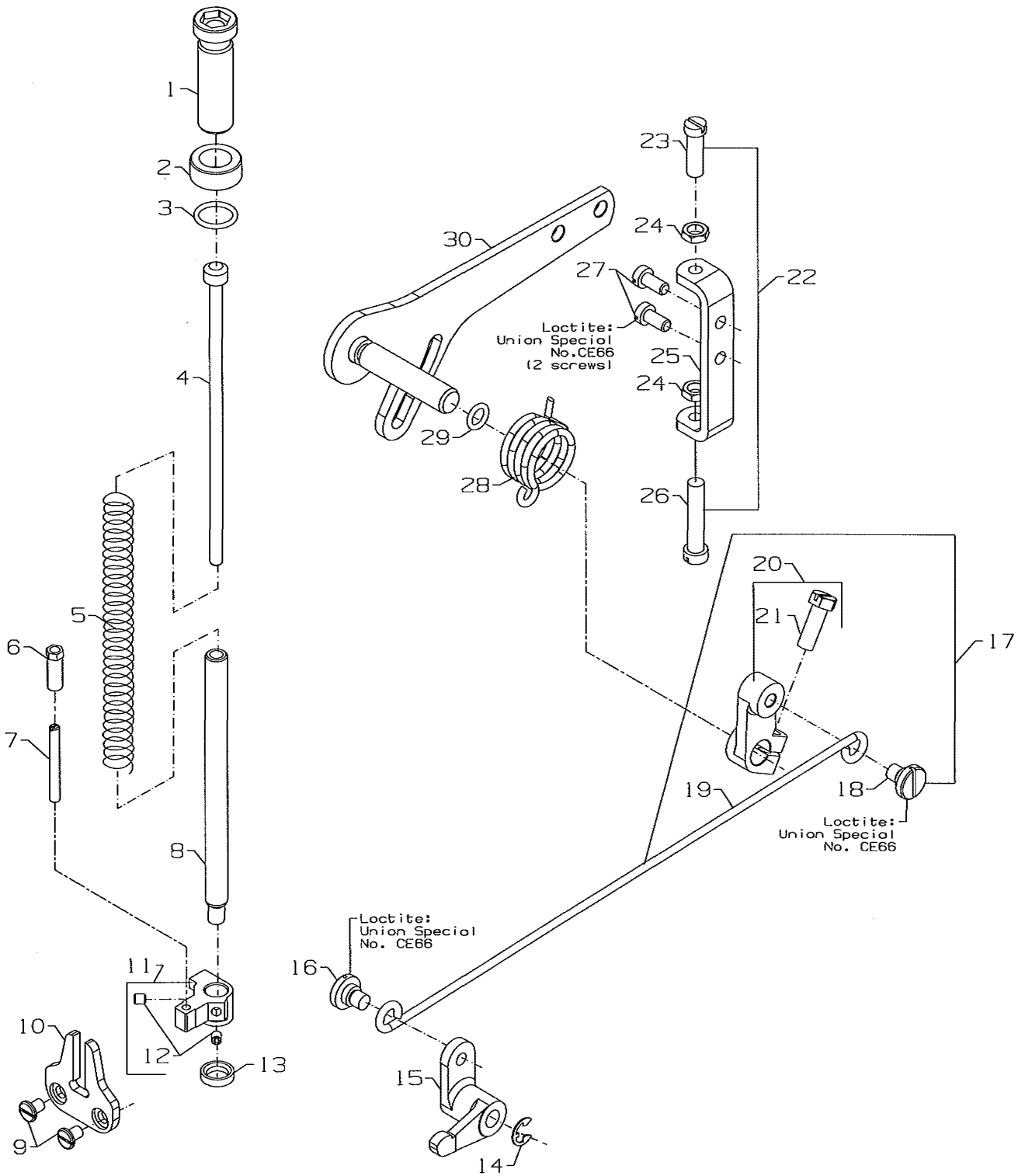




TENSION RELEASE & THREAD TENSION

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|--|--------------|
| 1. | 50392Z | Tension Needle Lever Assembly | 1 |
| 2. | 660-283A | Retainer Washer | 1 |
| 3. | SS4120915SP | Screw, for tension assembly | 2 |
| 4. | 50692B | Two Thread Tension Assembly | 1 |
| 5. | 57892K | Thread Tension Eyelet | 2 |
| 6. | 56392G | Tension Post | 2 |
| 7. | B3120352000 | Tension Disc Felt | 2 |
| - | 666-330 | Disc Felt | 4 |
| 8. | B3126012000 | Tension Disc | 4 |
| 9. | B3120704000 | Tension Disc Felt | 2 |
| 10. | 56392H | Spring Shield | 2 |
| 11. | 11550209 | Spring, needle (green) | 3 |
| - | B3103804000 | Spring, spreader (blue) | 1 |
| - | B3121804000 | Spring, looper (plain) | 1 |
| 12. | B3112704000 | Ferrule, tension spring | 2 |
| 13. | 50692G | Knob, needle (green) | 3 |
| - | 56392R | Knob, looper (plain) | 1 |
| 14. | 50392W | Tension Disc Separator | 1 |
| 15. | 50392AV | Guide, for tension disc separator | 2 |
| 16. | SS7090520SP | Screw, for guide | 2 |
| 17. | 50392X | Tension Bracket | 1 |
| 18. | 57865 | Lead-In Thread Guide | 2 |
| 19. | NS6110420SP | Nut | 2 |
| 20. | 50392BC | Tension Release Lever Shaft Connection | 1 |
| 21. | 22875N | Stop Screw | 1 |
| 22. | SS7121410TP | Binder Screw | 1 |

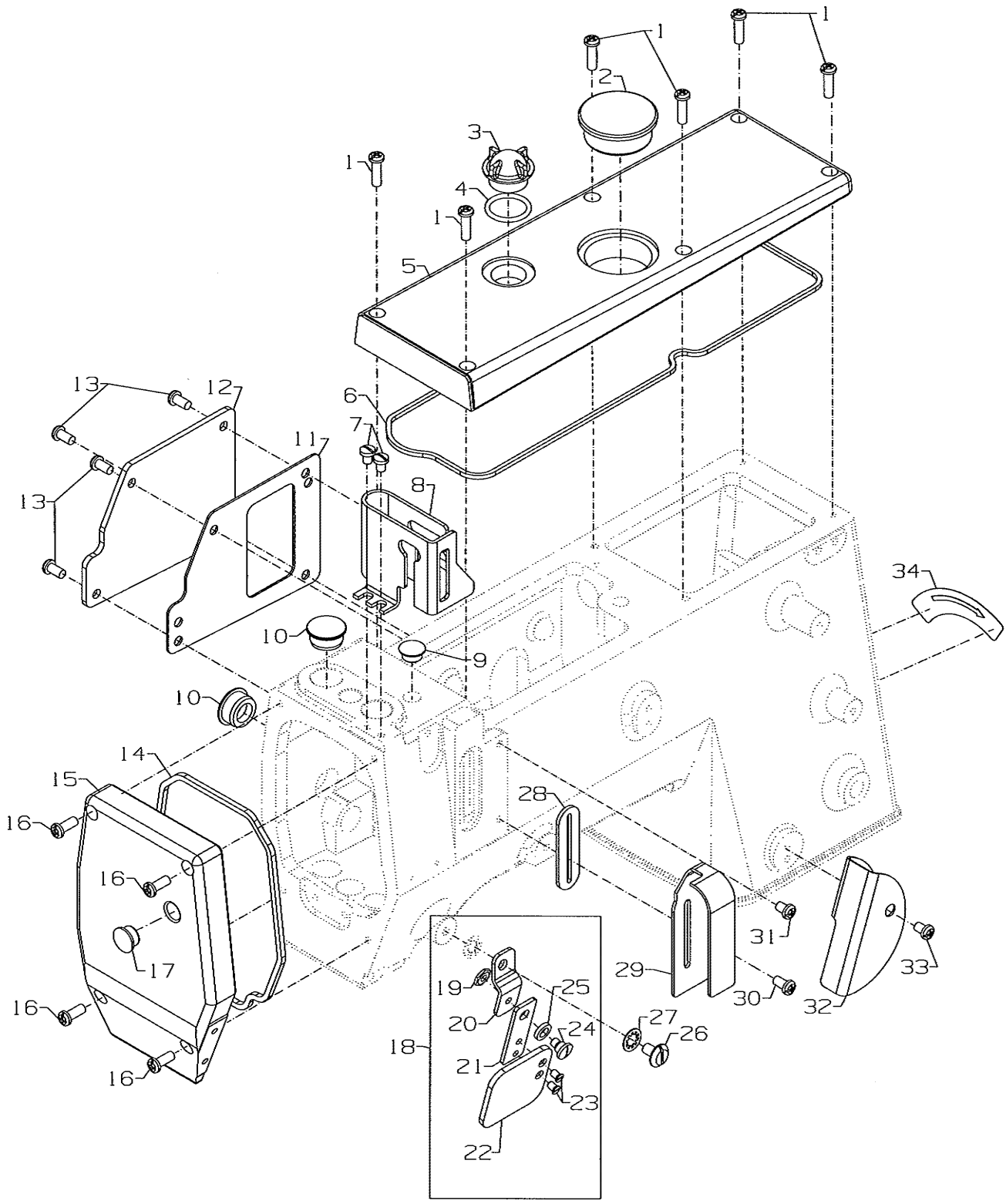




PRESSER FOOT LIFT

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---|--------------|
| 1. | 11071602 | Adjusting Screw, for spring | 1 |
| 2. | 11071701 | Locking Nut | 1 |
| 3. | 660-1014 | "O" Ring | 1 |
| 4. | C50056B | Spring Rod | 1 |
| 5. | 50357AA | Spring, for presser bar, for S01, S02 machine styles | 1 |
| - | 50357AP | Spring, for presser bar, for differential feed machines | 1 |
| 6. | C50056J | Lock Nut | 1 |
| 7. | 50643B | Screw | 1 |
| 8. | 50335AF | Presser Bar, for S01, S02 machine styles | 1 |
| - | 50643A | Pressr Bar | 1 |
| 9. | SS6110610TP | Screw, for guide plate | 2 |
| 10. | 50335AG | Guide Plate, for presser bar | 1 |
| 11. | 50335AH | Presser Bar Guide | 1 |
| 12. | SS8110422TP | Set Screw | 2 |
| 13. | 660-739 | Oil Seal | 1 |
| 14. | RE0500000K0 | E Ring, for pin | 1 |
| 15. | 50381F | Lever, for lifter, front | 1 |
| 16. | SD0790303SP | Screw, for wire connector | 1 |
| - | CE49 | Loctite Adhesive, (not shown), for screw | - |
| 17. | 29476TK | Rear Lifter Lever Assembly | 1 |
| 18. | SD0790303SP | Screw, for lifter lever assembly | 1 |
| 19. | 50355AR | Wire Connector | 1 |
| 20. | 50381G | Lifter Lever, rear | 1 |
| 21. | SS9151740CP | Hex Screw | 1 |
| 22. | 29476TT | Stop Assembly | 1 |
| 23. | SS6151920SP | Screw, for adjusting stopper | 1 |
| 24. | NS6150310SP | Hex Nut | 2 |
| 25. | 50332V | Stopper, for lifter lever | 1 |
| 26. | SS6153040SP | Screw, for adjusting stopper | 1 |
| 27. | SS4121215SP | Screw, for stopper | 2 |
| - | CE49 | Loctite Adhesive, (not shown), for screw | - |
| 28. | 50381 | Spring, for lifter lever | 1 |
| 29. | RO068190100 | "O" Ring | 1 |
| 30. | 50381B | Lifter Lever Assembly | 1 |

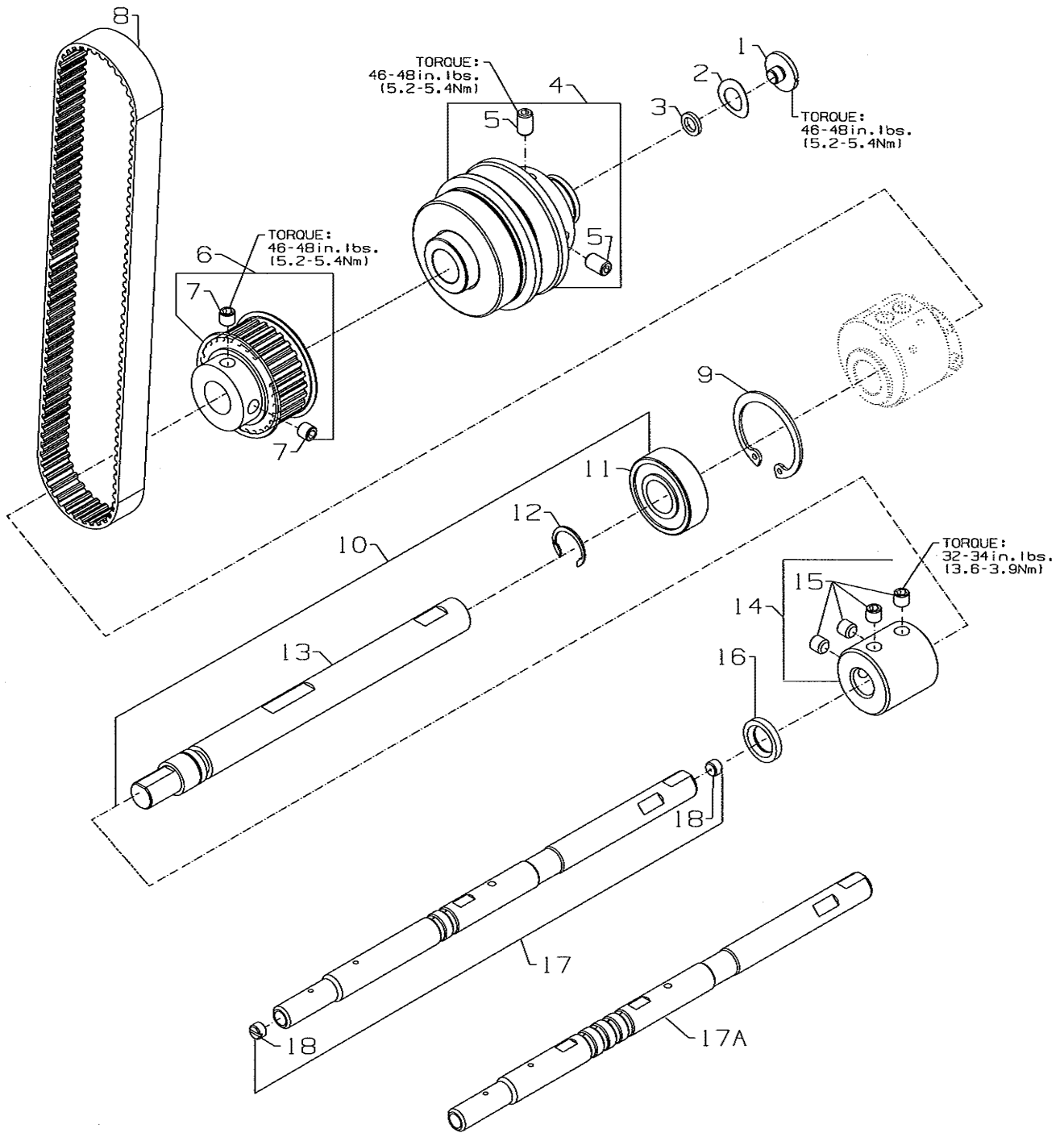




COVERS, UPPER ARM

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---------------------------------------|--------------|
| 1. | SS4121615SP | Screw, for top cover | 6 |
| 2. | 50393EU | Plug, for top cover | 1 |
| 3. | B3530555000 | Oil Sight Gauge, top | 1 |
| 4. | 660-212 | "O" Ring, for oil sight gauge | 1 |
| 5. | 50382FW | Top Cover | 1 |
| 6. | 50382FZ | Quad Ring, for top cover | 1 |
| 7. | SS7120640SP | Screw, for needle bar guard | 2 |
| 8. | 50317C | Needle Bar Guard | 1 |
| 9. | TA1050504RO | Plug, for bed | 1 |
| 10. | 50393HB | Plug, for bed | 2 |
| 11. | 50384L | Gasket, for puller drive cover | 1 |
| 12. | 50382GB | Puller Drive Cover | 1 |
| 13. | SS4120915SP | Screw, for puller drive cover | 4 |
| 14. | 50382FY | Quad Ring, for head cover | 1 |
| 15. | 50382FX | Head Cover | 1 |
| 16. | SS4121215SP | Screw, for head cover | 4 |
| 17. | TA1100604RO | Plug, for head cover | 1 |
| 18. | 99682XCB | Protection Shield Assembly | 1 |
| 19. | NS6620320SP | Nut | 1 |
| 20. | 50383AE | Bracket Holder | 1 |
| 21. | 50383AD | Bracket | 1 |
| 22. | 99682XC | Protection Shield | 1 |
| 23. | SS1110640SL | Counter Sunk Head Screw | 2 |
| 24. | SD0640323TP | Shoulder Screw | 1 |
| 25. | WZ0641510KP | Spring Washer | 1 |
| 26. | 22517B | Screw | 1 |
| 27. | 652C16 | Washer | 1 |
| 28. | 50393EW | Rubber Gasket, for needle lever | 1 |
| 29. | 50696 | Cover, for thread take-up | 1 |
| 30. | SS4120915SP | Screw, for thread take-up cover | 1 |
| 31. | SS4120615SP | Screw, for thread cover | 1 |
| 32. | 50382GM | Thread Cover | 1 |
| 33. | SS4120615SP | Screw, for thread take-up cover | 1 |
| 34. | LA452 | Label, direction of rotation | 1 |

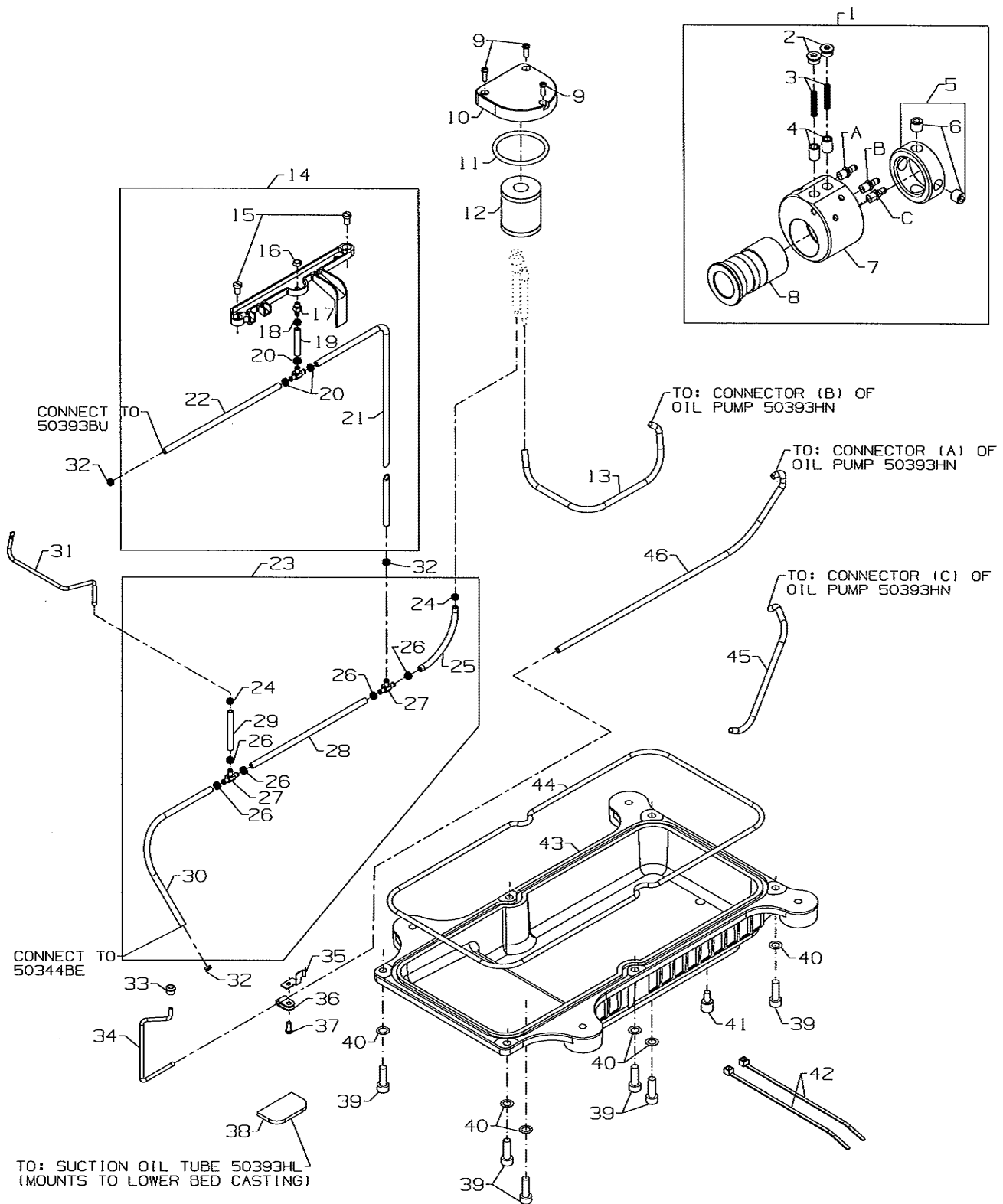




LOWER MAIN SHAFT

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|--|--------------|
| 1. | SS7660520SP | Shoulder Screw, for lower main shaft, right | 1 |
| 2. | 660-1062 | Spring Washer | 1 |
| 3. | 50374 | Spacer, for pulley assembly | 1 |
| 4. | 50321G | Pulley Assembly | 1 |
| 5. | SS8661012TP | Set Screw | 2 |
| 6. | 50342AX | Sprocket, for lower main shaft | 1 |
| 7. | SS8660612TP | Screw | 2 |
| 8. | 50342BS | Timing Belt | 1 |
| 9. | 50335AK | Retaining Ring, for ball bearing | 1 |
| 10. | 29476UH | Mainshaft Assembly, lower, right | 1 |
| 11. | 50322AL | Ball Bearing, for lower main shaft | 1 |
| 12. | 50335BB | Retaining Ring | 1 |
| 13. | 50322AG | Lower Main Shaft, right | 1 |
| 14. | 50333A | Coupling, for lower main shafts | 1 |
| 15. | SS8660612TP | Screw | 4 |
| 16. | 660-934 | Oil Seal | 1 |
| 17. | 50622D | Lower Main Shaft, left for plain feed..... | 1 |
| 17A. | 50622E | Lower Main Shaft, left for differential feed | 1 |
| 18. | SS8660410SP | Screw | 2 |

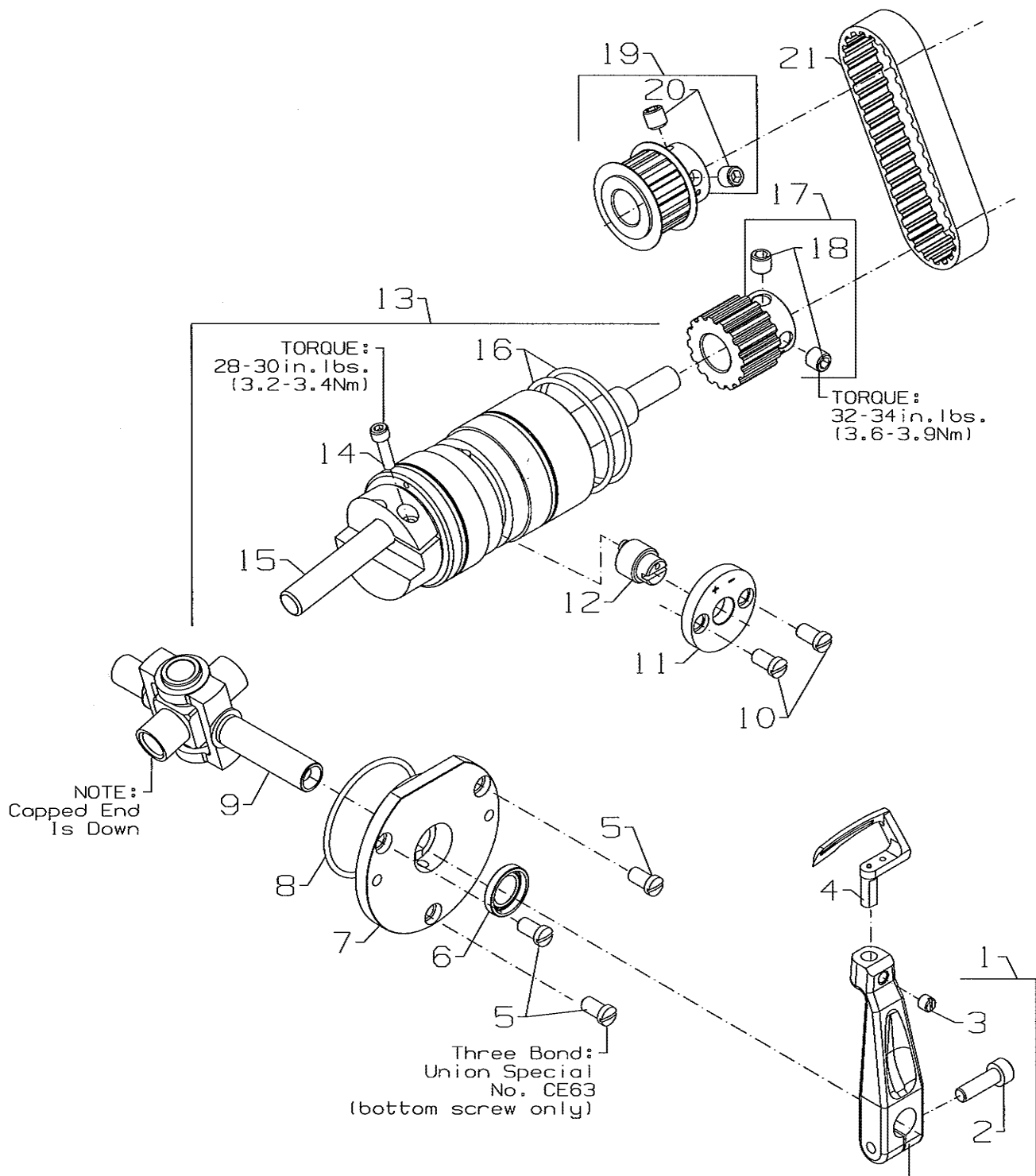




LUBRICATION, OIL TUBING & OIL PUMP

| Ref. No. | Part No. | Description | Amt. Req. |
|----------|-------------|-------------------------------------|-----------|
| 1. | 50393HN | Oil Pump Assembly, 2-stage | 1 |
| 2. | SS8660612TP | Screw | 2 |
| 3. | 50332S | Spring, for plunger..... | 2 |
| 4. | 34393D | Plunger..... | 2 |
| 5. | 50393EX | Collar, for oil pump | 1 |
| 6. | SS8660612TP | Screw | 2 |
| 7. | 50393GB | Oil Pump Housing, 2 Stage..... | 1 |
| 8. | 50393GD | Oil Pump Housing, 2 Stage..... | 1 |
| 9. | SS4091015SP | Screw, for oil filter cover..... | 3 |
| 10. | 50393FR | Cover, for oil filter..... | 1 |
| 11. | 50384 | "O" Ring, for oil filter cover..... | 1 |
| 12. | 11843208 | Oil Filter..... | 1 |
| 13. | 50393FV | Oil Tube, for supply (1) | 1 |
| 14. | 29476US | Oil Supply Assembly, upper | 1 |
| 15. | SS7120710SP | Screw, for front upper tube | 2 |
| 16. | NS6110310SP | Nut | 1 |
| 17. | SQ1110402MZ | Fitting | 1 |
| 18. | 50393KH | Tube Retaining, spring | 1 |
| 19. | 50393-27 | Oil Tube | 1 |
| 20. | 50393KM | Tube Retaining, spring | 3 |
| 21. | 50393-447 | Oil Tube | 1 |
| 22. | 50393-140 | Oil Tube | 1 |
| 23. | 29476UT | Oil Supply Assembly, lower | 1 |
| 24. | 50393KH | Tube Retaining, spring | 2 |
| 25. | 50393-70 | Oil Tube | 1 |
| 26. | 50393KM | Tube Retaining, spring | 5 |
| 27. | 13765607 | "T" Connector | 2 |
| 28. | 50393-140 | Oil Tube | 1 |
| 29. | 50393-40 | Oil Tube | 1 |
| 30. | 50393-170 | Oil Tube | 1 |
| 31. | 50393KF | Oil Tube | 1 |
| 32. | 50393KM | Tube Retaining, spring | 3 |
| 33. | 50393HR | Plug, for feed chamber | 1 |
| 34. | 50393HL | Oil Tube, for suction | 1 |
| 35. | 50393FS | Oil Tube Holder | 1 |
| 36. | 998-358F | Plastic Clip | 1 |
| 37. | SS4090815SP | Screw, for oil tube holder | 1 |
| 38. | 50393HK | Felt | 1 |
| 39. | SS6151812TP | Screw, for oil pan | 6 |
| 40. | WS0631510KP | Spring Washer | 6 |
| 41. | 22571E | Screw, for oil drain plug | 1 |
| 42. | RM2871B | Cable Tie | 2 |
| 43. | 50393EB | Oil Pan | 1 |
| 44. | 50384A | "O" Ring | 1 |
| 45. | 50393FT | Oil Tube, for suction | 1 |
| 46. | 50393HJ | Oil Tube, for suction | 1 |

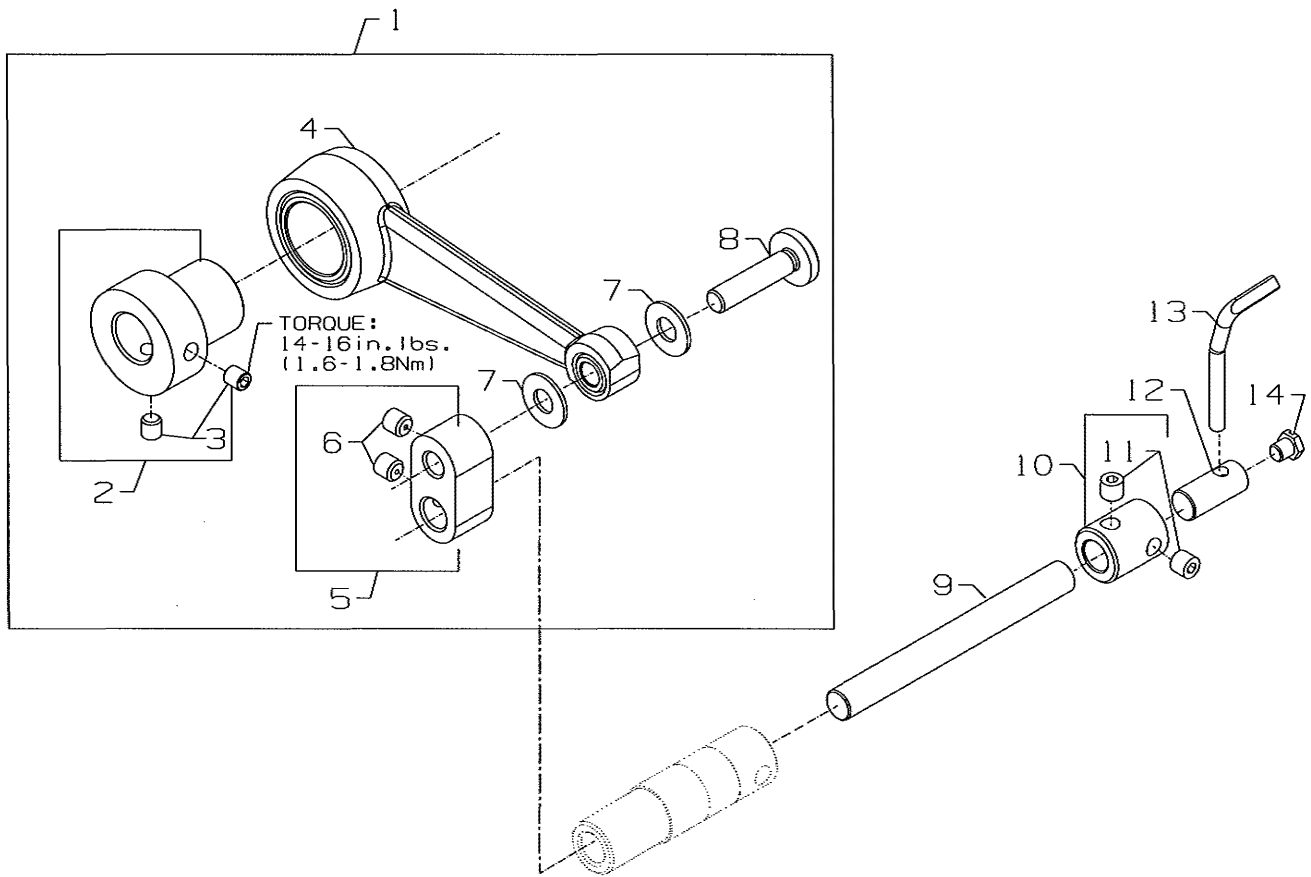




LOOPER DRIVE

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---|--------------|
| 1. | 50313 | Looper Holder | 1 |
| 2. | 22652B10 | Screw, for looper holder | 1 |
| 3. | 22565 | Screw, for looper holder | 1 |
| 4. | 50309F | Looper | 1 |
| 5. | SS7120910SP | Screw, for bearing housing | 3 |
| - | CE63 | Three Bond Adhesive, (not shown), for screw | - |
| 6. | 660-893 | Oil Seal, looper | 1 |
| 7. | 50344AM | Bearing Housing Assembly, for looper drive | 1 |
| 8. | 660-455 | "O" Ring, for bearing housing assembly | 1 |
| 9. | 50313J | Looper Rocker Assembly | 1 |
| 10. | SS7120910SP | Screw, for retaining plate | 2 |
| 11. | 50314F | Eccentric Retaining Plate | 1 |
| 12. | 50314E | Looper Avoid Adjusting Eccentric | 1 |
| 13. | 50642 | Looper Drive Assembly | 1 |
| 14. | 22653J8 | Screw | 1 |
| 15. | 667J33 | Crank Pin | 1 |
| 16. | 660-979 | "O" Ring | 2 |
| 17. | 50342BJ | Sprocket, for looper driven | 1 |
| 18. | SS8660612TP | Screw | 2 |
| 19. | 50342BK | Sprocket, for looper drive | 1 |
| 20. | SS8660612TP | Screw | 2 |
| 21. | 50342BP | Looper Drive Belt | 1 |

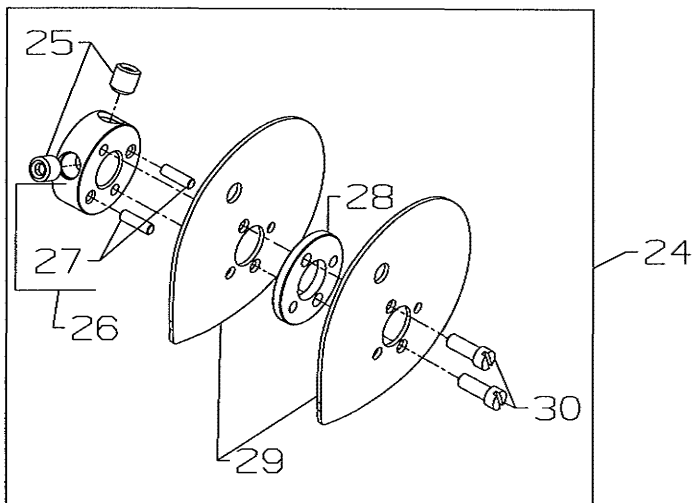
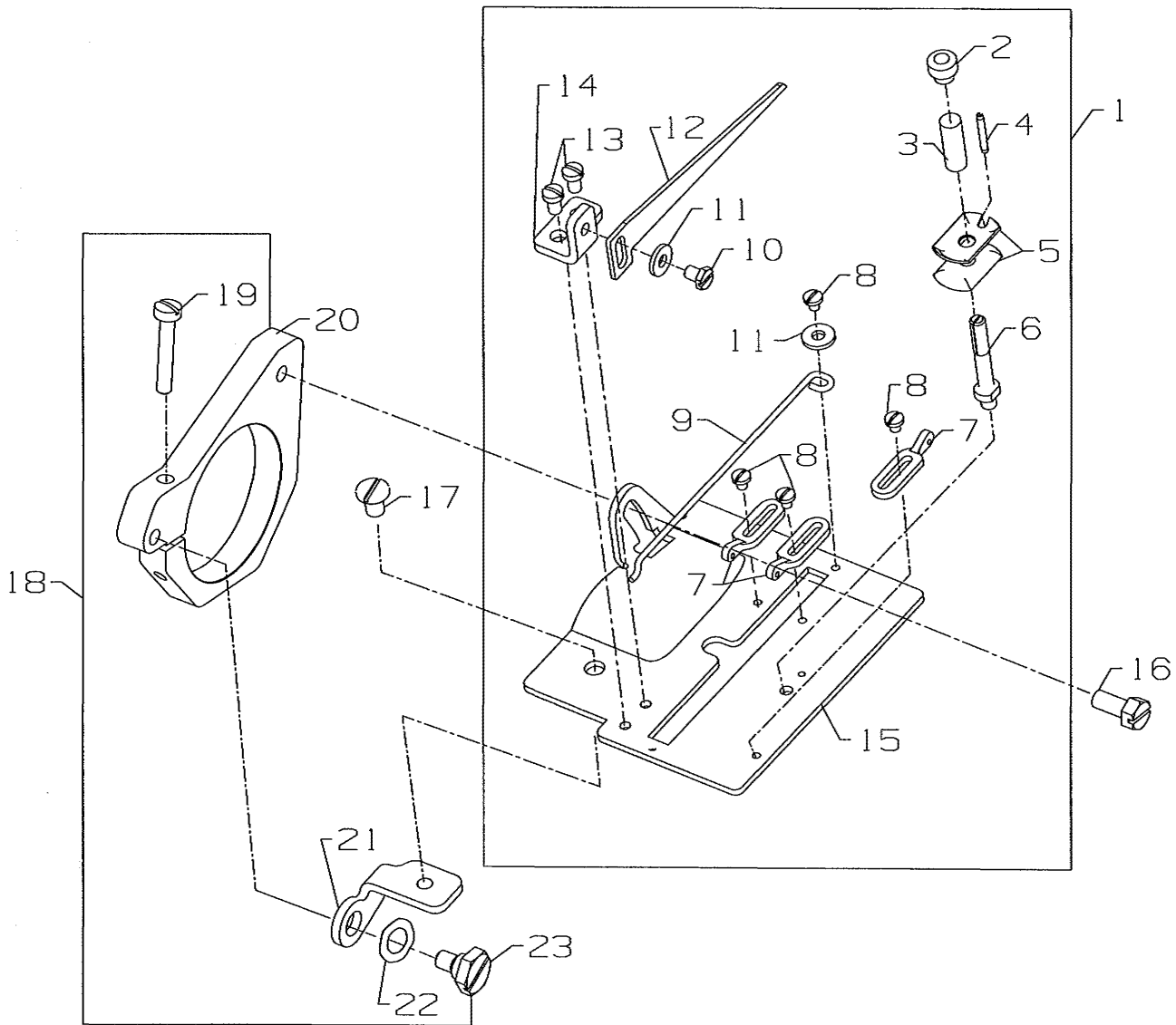




NEEDLE GUARD

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---|--------------|
| 1. | 29476UJ | Rear Needle Guard Drive Assembly | 1 |
| 2. | 50373DA | Needle Guard Eccentric | 1 |
| 3. | SS8110422TP | Screw, for needle guard eccentric | 2 |
| 4. | 50368W | Connecting Rod Assembly, for needle guard | 1 |
| 5. | 50368T | Pivot Link | 1 |
| 6. | SS8110422TP | Screw | 2 |
| 7. | 50368E | Washer | 2 |
| 8. | 50368A | Pivot Pin | 1 |
| 9. | 50368V | Shaft, for needle guard | 1 |
| 10. | 50354L | Coupling, for needle guard | 1 |
| 11. | SS8110422TP | Screw | 2 |
| 12. | 50325AF | Holder, for needle guard | 1 |
| 13. | 50325AE | Needle Guard, rear | 1 |
| 14. | SS9090420TP | Screw, for rear needle guard | 1 |

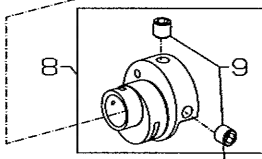
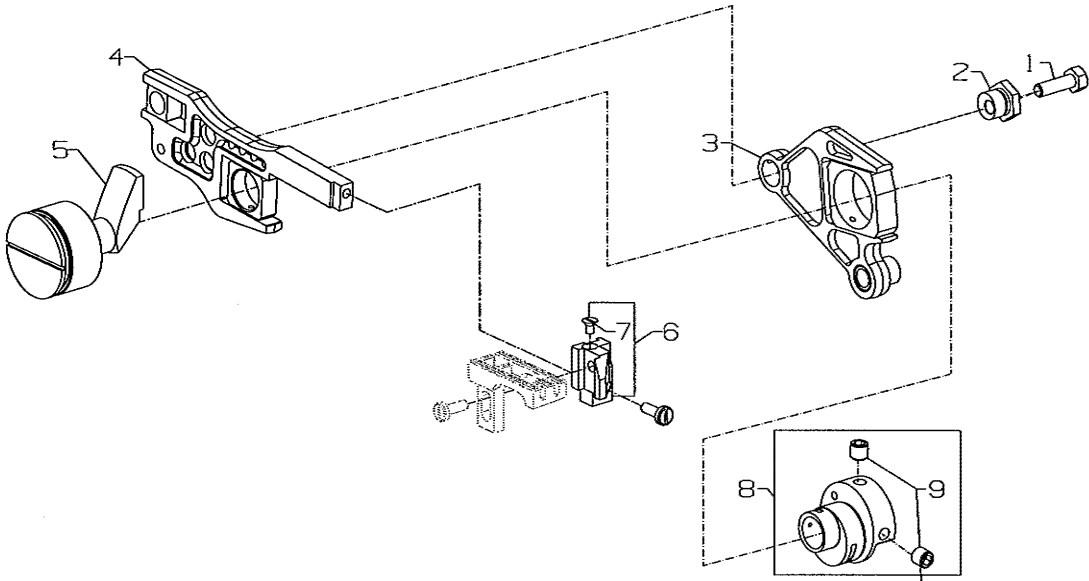




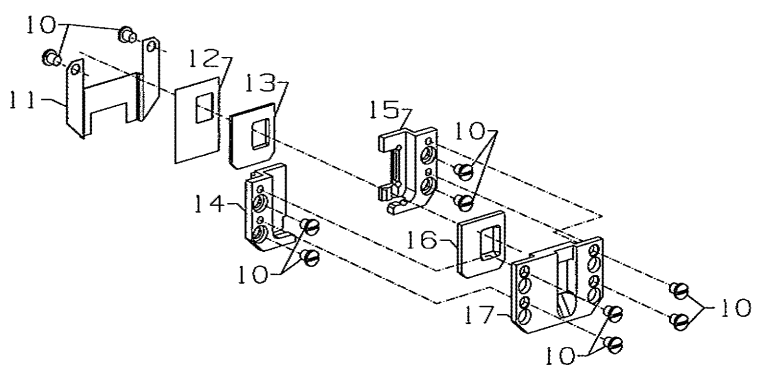
LOOPER THREAD TAKE-UP

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---|--------------|
| 1. | 50657 | Cast-Off Plate Assembly | 1 |
| 2. | 51959D | Knurled Nut | 1 |
| 3. | 51959K | Tension Spring | 1 |
| 4. | 51959L | Roll Pin | 1 |
| 5. | 51959B | Tension Disc | 2 |
| 6. | 51492 | Tension Post | 1 |
| 7. | 52958D | Take-up Eyelet | 3 |
| 8. | SS7060310SP | Screw | 4 |
| 9. | 50304H | Strike-Off Wire | 1 |
| 10. | SS9080410SP | Screw | 1 |
| 11. | 41358 | Washer | 2 |
| 12. | 50304L | Retaining Finger | 1 |
| 13. | SS7080520SP | Screw | 2 |
| 14. | 50383E | Mounting Bracket | 1 |
| 15. | 50357W | Cast-Off Plate | 1 |
| 16. | SS9111010SP | Screw, for collar bracket | 1 |
| 17. | SS6110610TP | Screw, for cast-off holder | 1 |
| 18. | 29476UK | Cast-Off Plate Holder Assembly | 1 |
| 19. | SS7092110TP | Screw, for collar bracket | 1 |
| 20. | 50383F | Take-up Collar Bracket | 1 |
| 21. | 50304K | Cast-Off Plate Holder | 1 |
| 22. | WZ0640200KP | Washer | 1 |
| 23. | SD0630275SP | Shoulder Screw, for cast-off plate holder | 1 |
| 24. | 50623 | Take-up Assembly | 1 |
| 25. | 22894C | Set Screw | 2 |
| 26. | 50323B | Take-up Hub | 1 |
| 27. | 22-348 | Pin | 2 |
| 28. | 50377R | Spacer | 1 |
| 29. | 50323H | Disc, for take-up | 2 |
| 30. | 77B | Screw, for take-up disc | 2 |





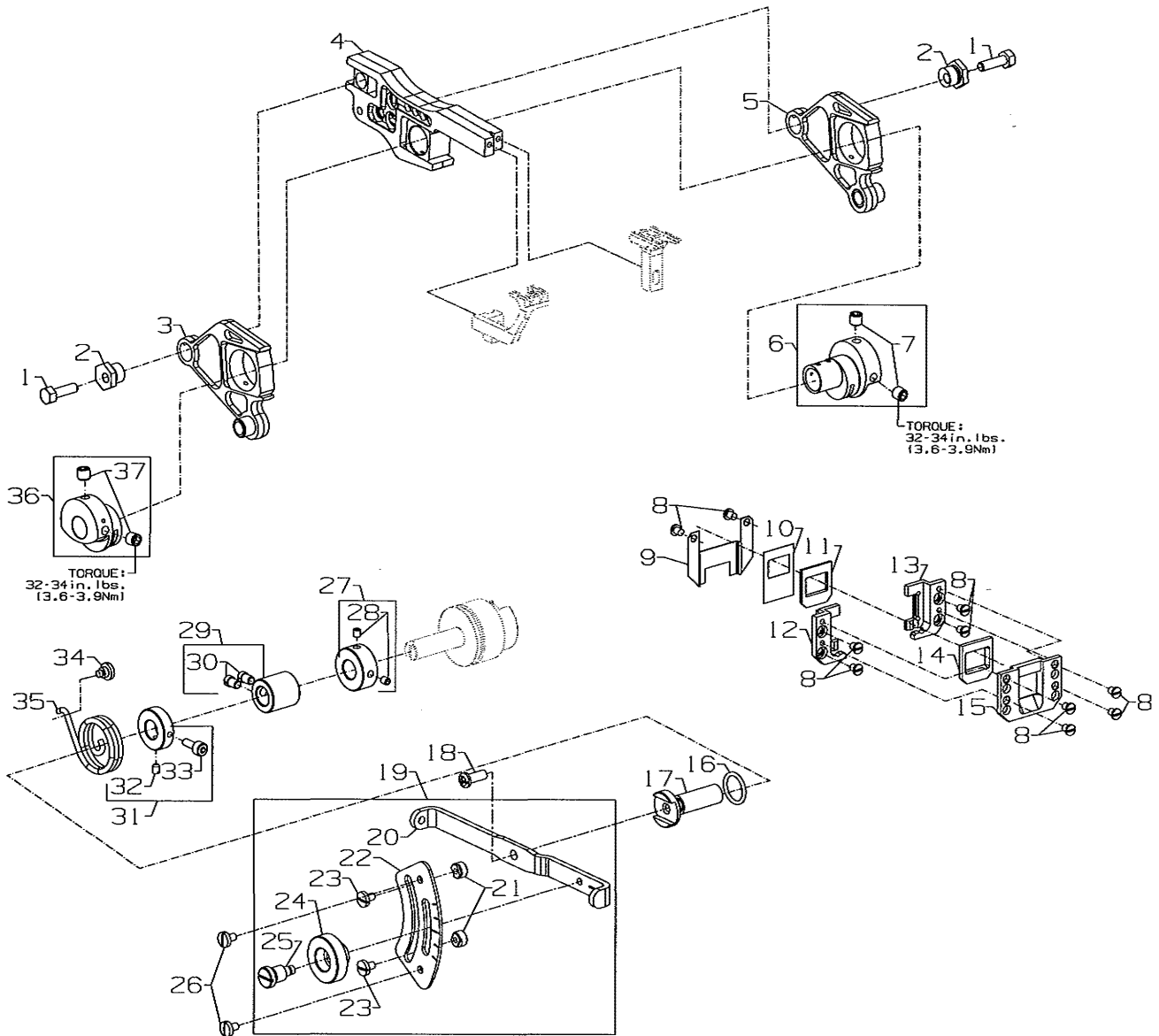
TORQUE:
32-34 in. lbs.
(3.6-3.9 Nm)



FEED DRIVE MECHANISM
FOR PLAIN FEED

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|----------------------------------|--------------|
| 1. | 18-1432 | Screw..... | 1 |
| 2. | 50334BD | Hex Eccentric Stud | 1 |
| 3. | 50334AX | Drive Fork Assembly, right | 1 |
| 4. | 50634 | Feed Bar Assembly | 1 |
| 5. | 50334A | Plain Feed Bar Guide | 1 |
| 6. | 50634E | Feed Dog Holder | 1 |
| 7. | 22637P24 | Screw | 1 |
| 8. | 50640-18 | Feed Eccentric, main | 1 |
| 9. | SS8660612TP | Screw | 2 |
| 10. | SS7090530SP | Screw | 10 |
| 11. | 50334Y | Oil Shield | 1 |
| 12. | 50334W | Oil Scraper | 1 |
| 13. | 50634C | Feed Bar Seal | 1 |
| 14. | 50637A | Guide Plate, left, rear | 1 |
| 15. | 50335BA | Guide Plate, right, rear | 1 |
| 16. | 50634D | Feed Bar Seal | 1 |
| 17. | 50637 | Guide Plate, front | 1 |

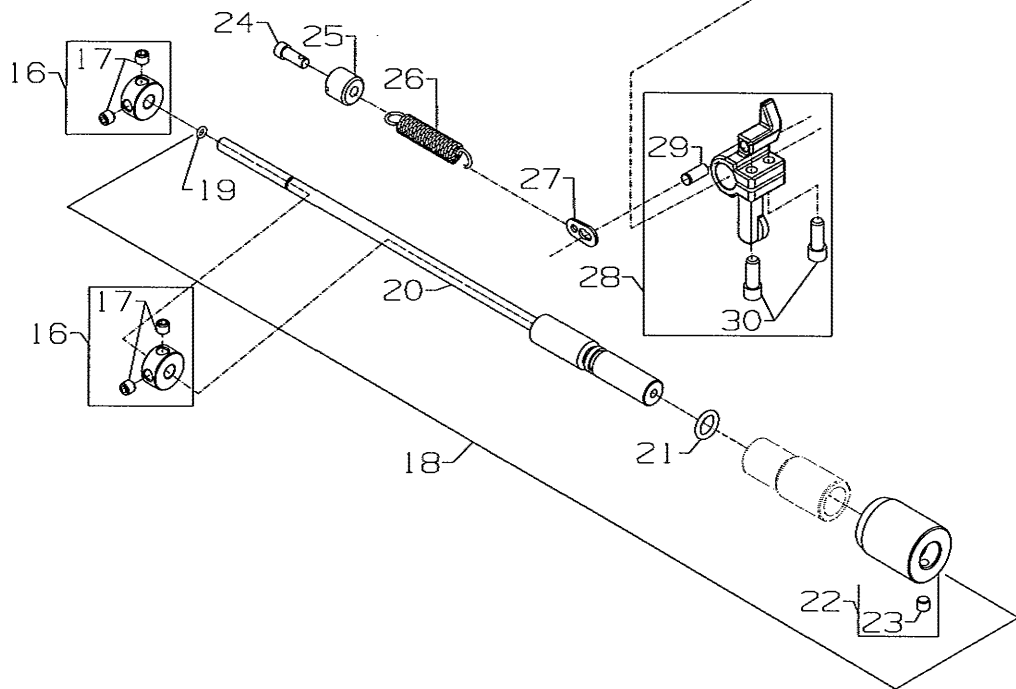
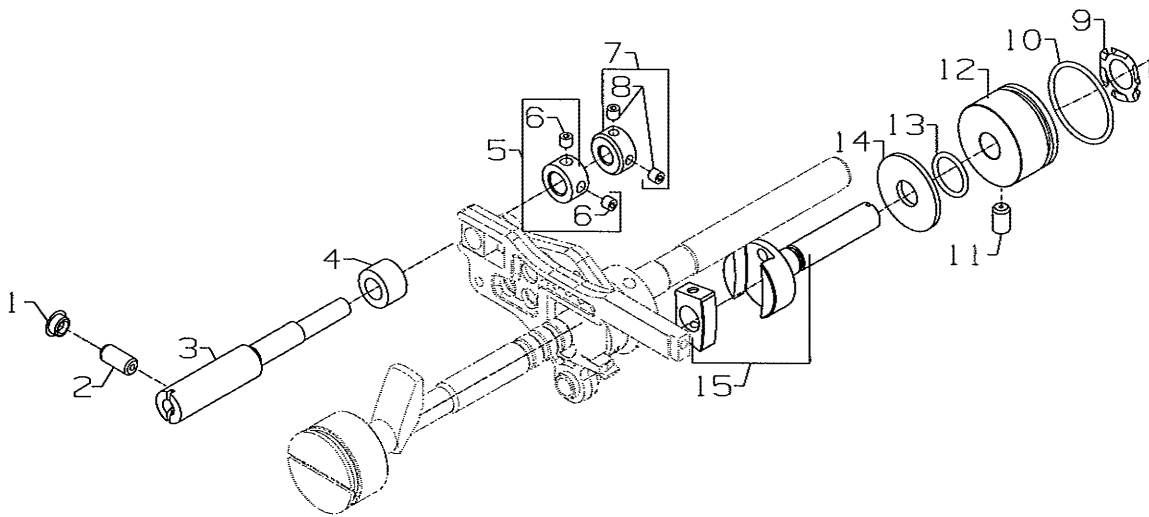




FEED DRIVE MECHANISM
FOR DIFFERENTIAL FEED

| Ref. No. | Part No. | Description | Amt. Req. |
|----------|--------------|---|-----------|
| 1. | 18-1432 | Screw..... | 2 |
| 2. | 50334BD | Hex Eccentric Stud | 2 |
| 3. | 50334AW | Drive Fork Assembly | 1 |
| 4. | 50334BE | Feed Bar Assembly | 1 |
| 5. | 50334AX | Drive Fork Assembly, right | 1 |
| 6. | 50340D | Feed Eccentric, main | 1 |
| 7. | SS8660612TP | Screw | 2 |
| 8. | SS7090530SP | Screw | 10 |
| 9. | 50334Y | Oil Shield | 1 |
| 10. | 50334V | Oil Scraper | 1 |
| 11. | 50334BH | Feed Bar Seal | 1 |
| 12. | 50335AM | Guide Plate, left, rear | 1 |
| 13. | 50335BA | Guide Plate, right, rear | 1 |
| 14. | 50334J | Feed Bar Seal | 1 |
| 15. | 50335AN | Guide Plate, front | 1 |
| 16. | RO681190100 | "O" Ring | 1 |
| 17. | 50337J | Stem, for differential feed lever | 1 |
| 18. | SS4121215SP | Screw, for stem | 1 |
| 19. | 29476UM | Differential Feed Lever Assembly | 1 |
| 20. | 50337H | Differential Feed Lever | 1 |
| 21. | 50337U | Stop | 2 |
| 22. | 50337K | Plate, for differential feed lever | 1 |
| 23. | SS7090610SP | Screw | 2 |
| 24. | B1647704000A | Knob, for differential feed lever | 1 |
| 25. | 50387 | Screw | 1 |
| 26. | SS7090610SP | Screw | 2 |
| 27. | 50337S | Collar | 1 |
| 28. | SS8110422TP | Screw | 2 |
| 29. | 50337L | Coupling, for differential feed lever | 1 |
| 30. | SS6110650TP | Screw | 2 |
| 31. | 50337R | Collar, for differential feed lever | 1 |
| 32. | SS8090710SP | Screw | 1 |
| 33. | SS6091022TP | Screw | 1 |
| 34. | SP0550271TP | Screw, for spring | 1 |
| 35. | 50337M | Spring, for differential feed lever | 1 |
| 36. | 50340E | Feed Eccentric, differential | 1 |
| 37. | SS8660612TP | Screw | 2 |

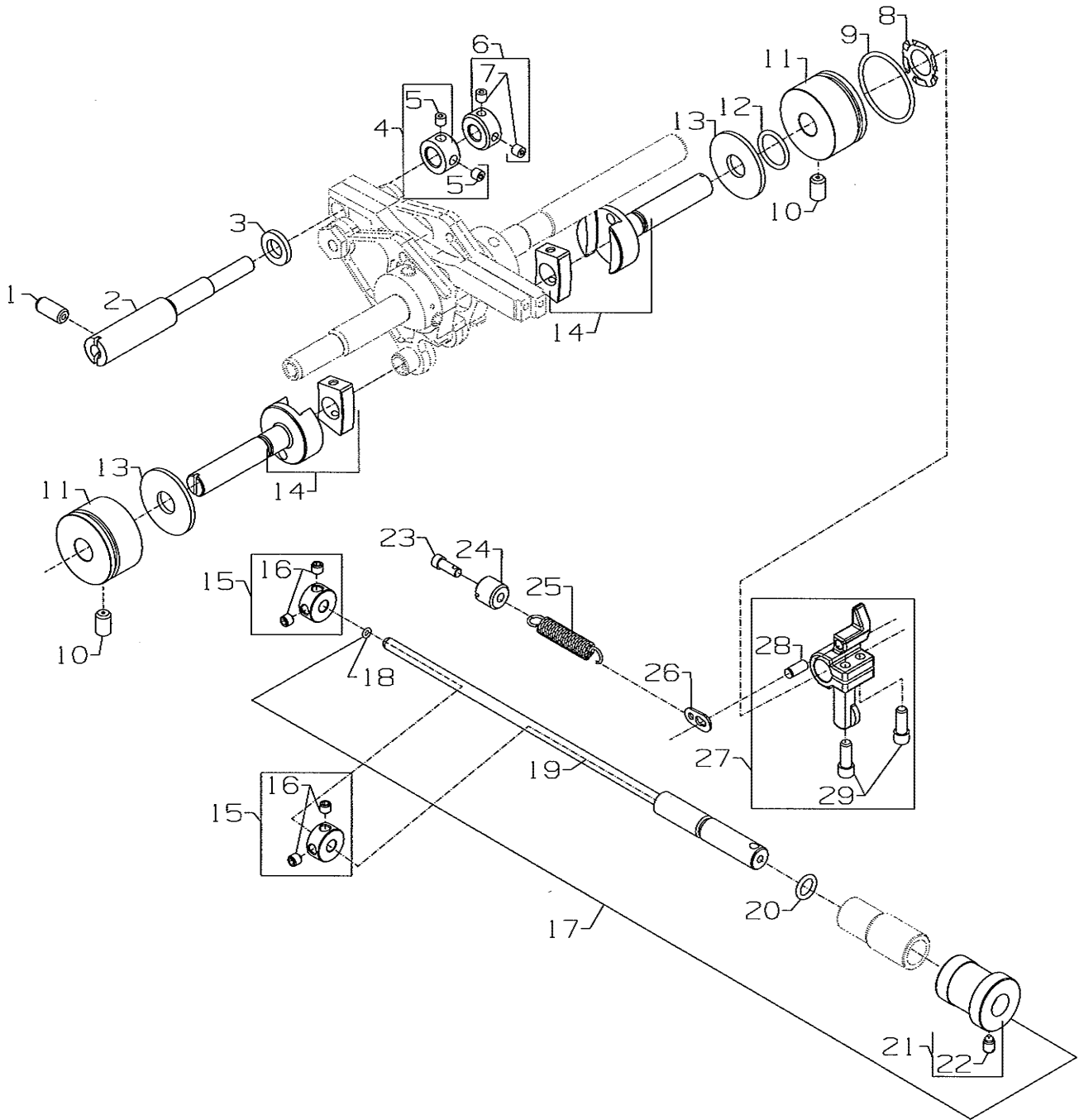




FEED DRIVE MECHANISM
FOR PLAIN FEED

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|--|--------------|
| 1. | TA075404RO | Plug, for eccentric shaft | 1 |
| 2. | 22591A | Screw, for eccentric shaft | 1 |
| 3. | 50334BC | Eccentric Shaft | 1 |
| 4. | 50674 | Washer, for eccentric shaft | 1 |
| 5. | 50334BB | Collar, for eccentric shaft | 1 |
| 6. | SS8110422TP | Screw, for collar | 2 |
| 7. | 50337T | Collar, for eccentric shaft | 1 |
| 8. | SS8110422TP | Screw, for collar | 2 |
| 9. | 661-96 | Spring Washer | 1 |
| 10. | 660-969 | "O" Ring, for bushing | 1 |
| 11. | SS8661012TP | Screw, for bushing | 1 |
| 12. | 35036F | Bushing, for stitch adjusting shaft | 1 |
| 13. | 660-220 | "O" Ring, for stitch adjusting shaft | 1 |
| 14. | 35036AZ | Brake Pad | 1 |
| 15. | 50634G | Stitch Adjusting Shaft Assembly | 1 |
| 16. | 50335D | Collar | 2 |
| 17. | 22894P | Screw | 4 |
| 18. | 29476UF | Stitch Length Adjusting Rod Assembly | 1 |
| 19. | 660-980 | "O" Ring, stitch control shaft | 1 |
| 20. | 50322AR | Shaft, for stitch control | 1 |
| 21. | 660-206 | "O" Ring, for stitch control shaft | 1 |
| 22. | 50336Y | Stitch Knob, indicator | 1 |
| 23. | SS8110422TP | Screw | 1 |
| 24. | 50335 | Spring Retainer | 1 |
| 25. | 22714C | Screw, for spring retainer | 1 |
| 26. | 50355 | Spring | 1 |
| 27. | 50335A | Spring Holder | 1 |
| 28. | 50336S | Stitch Control Lever | 1 |
| 29. | 661-35 | Pin | 1 |
| 30. | 22596H | Screw | 2 |

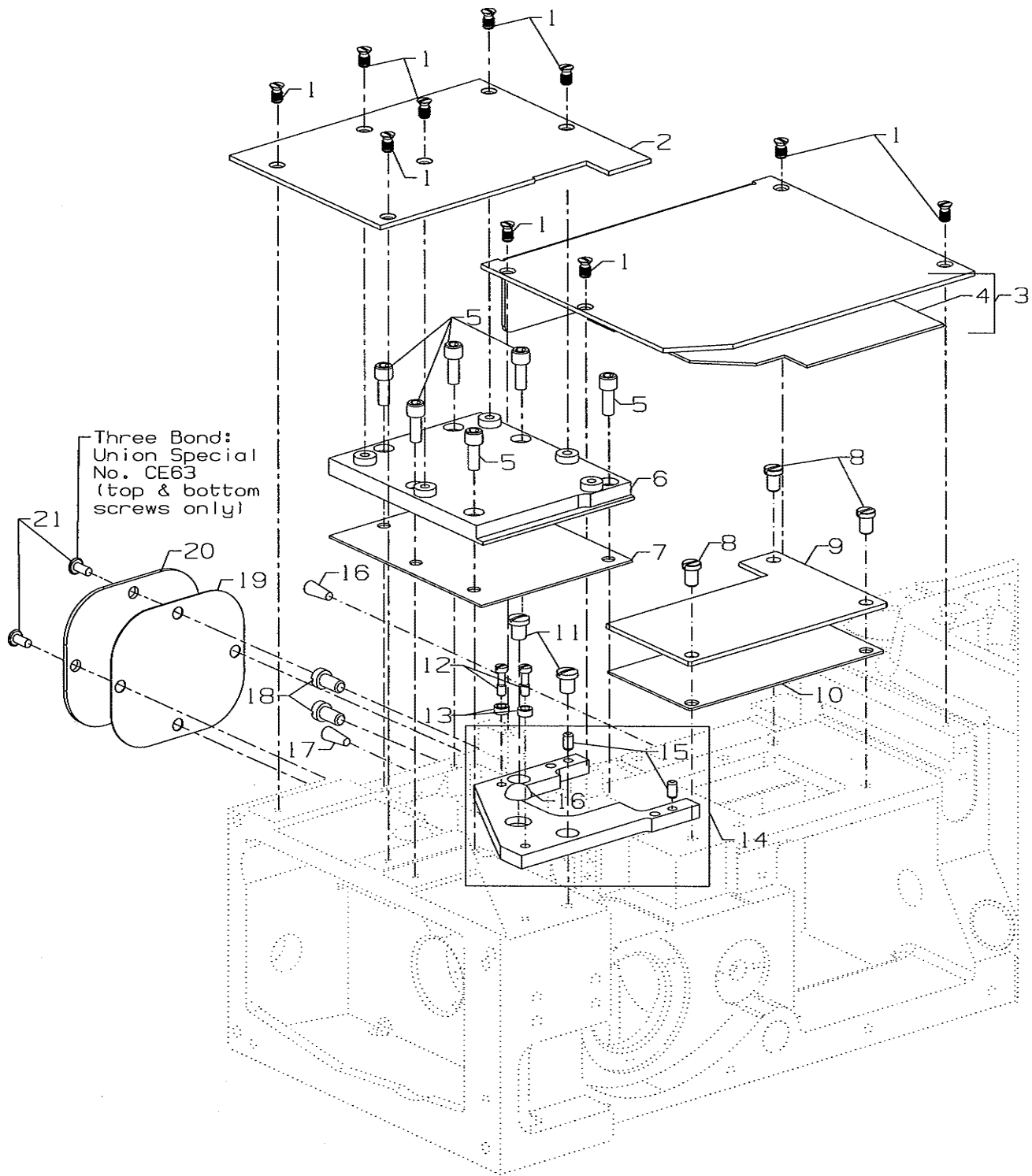




FEED DRIVE MECHANISM
FOR DIFFERENTIAL FEED

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|--|--------------|
| 1. | 22591A | Screw, for eccentric shaft | 1 |
| 2. | 50334BC | Eccentric Shaft | 1 |
| 3. | 50674 | Washer, for eccentric shaft | 1 |
| 4. | 50334BB | Collar, for eccentric shaft | 1 |
| 5. | SS8110422TP | Screw, for collar | 2 |
| 6. | 50337T | Collar, for eccentric shaft | 1 |
| 7. | SS8110422TP | Screw, for collar | 2 |
| 8. | 661-96 | Spring Washer | 1 |
| 9. | 660-969 | "O" Ring, for bushing | 1 |
| 10. | SS8661012TP | Screw, for bushing | 2 |
| 11. | 35036F | Bushing, for stitch adjusting shaft | 2 |
| 12. | 660-220 | "O" Ring, for stitch adjusting shaft | 1 |
| 13. | 35036AZ | Brake Pad | 2 |
| 14. | 50634G | Stitch Adjusting Shaft Assembly | 2 |
| 15. | 50335D | Collar | 2 |
| 16. | 22894P | Screw | 4 |
| 17. | 29476UF | Stitch Length Adjusting Rod Assembly | 1 |
| 18. | 660-980 | "O" Ring, stitch control shaft | 1 |
| 19. | 50322AR | Shaft, for stitch control | 1 |
| 20. | 660-206 | "O" Ring, for stitch control shaft | 1 |
| 21. | 50336Y | Stitch Knob, indicator | 1 |
| 22. | SS8110422TP | Screw | 1 |
| 23. | 50335 | Spring Retainer | 1 |
| 24. | 22714C | Screw, for spring retainer | 1 |
| 25. | 50355 | Spring | 1 |
| 26. | 50335A | Spring Holder | 1 |
| 27. | 50336S | Stitch Control Lever | 1 |
| 28. | 661-35 | Pin | 1 |
| 29. | 22596H | Screw | 2 |

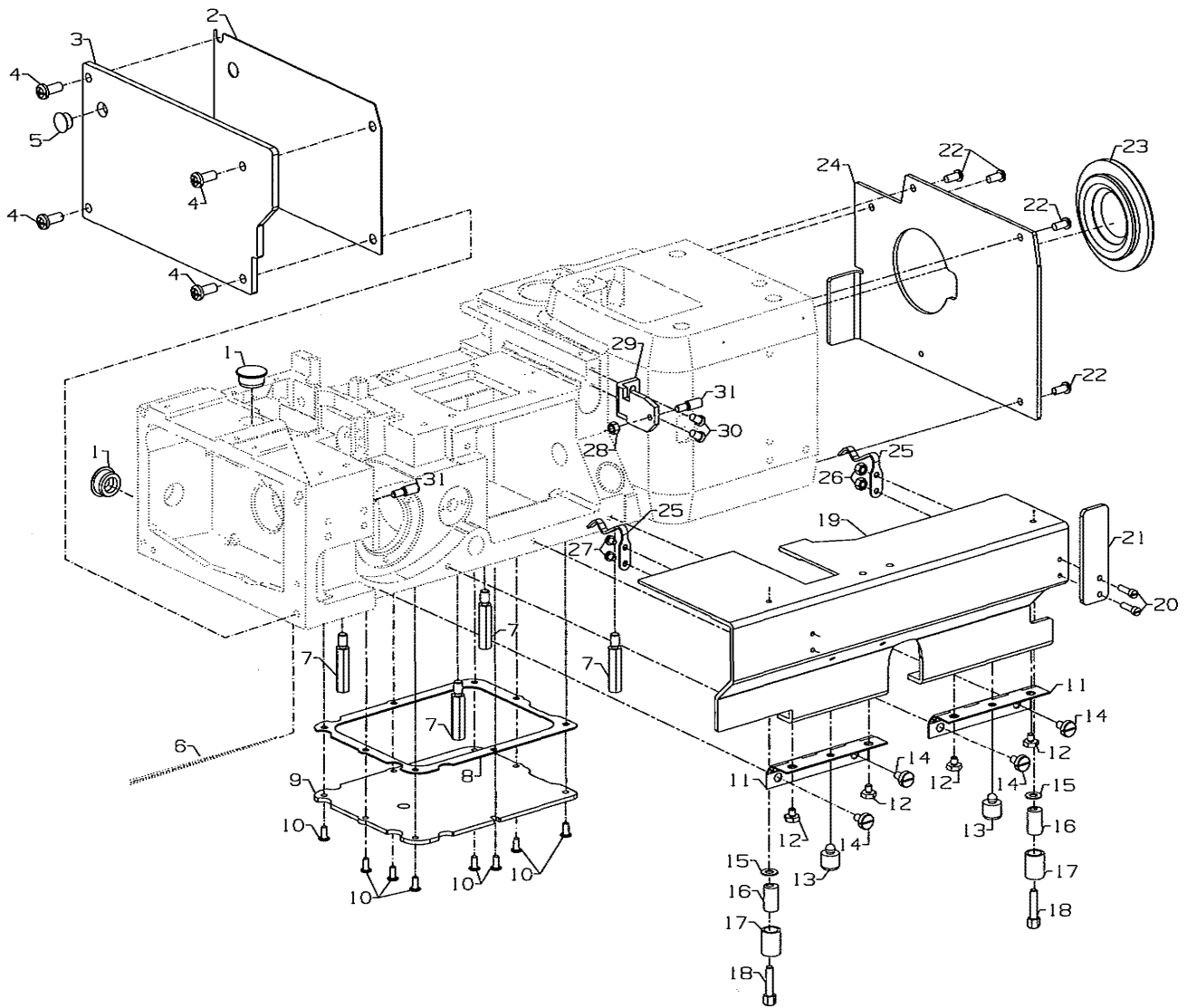




COVERS, LOWER BED

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---|--------------|
| 1. | 18-1448 | Screw | 11 |
| 2. | 50601F | Cloth Plate, left | 1 |
| 3. | 50601E | Cloth Plate, right | 1 |
| 4. | 50303B | Acoustic Pad | 1 |
| 5. | SS6121212TP | Screw, for cover | 6 |
| 6. | 50382CP | Cover, for feed chamber | 1 |
| 7. | 50382CS | Gasket | 1 |
| 8. | 22839C | Screw, for cover | 3 |
| 9. | 50382JR | Cover, for dry chamber | 1 |
| 10. | 50384K | Gasket, for dry chamber cover | 1 |
| 11. | SS7150740SP | Screw | 2 |
| 12. | 22587N | Screw | 2 |
| 13. | 35036AE | Ferrule, Locating | 2 |
| 14. | 50380D | Throat Plate Support, complete | 1 |
| 15. | 51280K | Pin | 1 |
| 16. | 660-939 | Rubber Bumper, for Throat Plate Support | 1 |
| 17. | C067D | Cork | 2 |
| 18. | 22517 | Screw, for bed | 2 |
| 19. | 50382CR | Gasket | 1 |
| 20. | 50382CL | Cover, rear, for feed chamber, | 1 |
| 21. | SS4120615SP | Screw, for cover | 2 |
| - | CE63 | Three Bond Adhesive, (not shown), for screw | - |



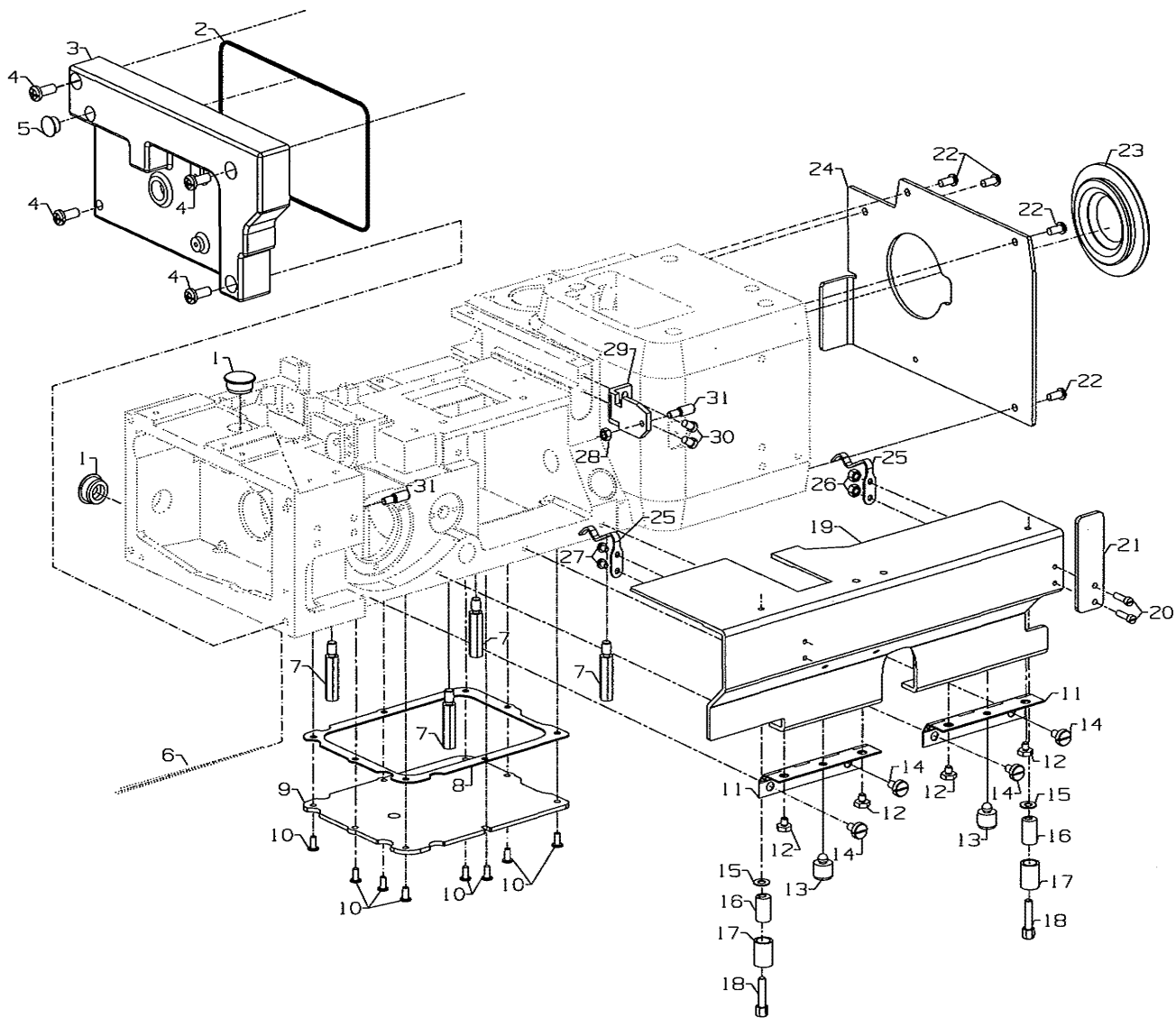


COVERS, LOWER BED

FOR PLAIN FEED

| Ref. No. | Part No. | Description | Amt. Req. |
|----------|-------------|---|-----------|
| 1. | 50393HB | Plug, for bed | 2 |
| 2. | 50684A | Quad Ring, for left end cover | 1 |
| 3. | 50682B | Left End Cover | 1 |
| 4. | SS4151415SP | Screw | 4 |
| 5. | 50393HA | Plug | 1 |
| 6. | WO3 | Oil Wick, for needle guard | 1 |
| 7. | 22841U | Machine Support Stud | 4 |
| 8. | 50383G | Gasket, for chamber cover | 1 |
| 9. | 50382CG | Dry Chamber Cover | 1 |
| 10. | SS7090850SP | Screw | 8 |
| 11. | 50378S | Hinge | 2 |
| 12. | SS9110543CP | Screw | 4 |
| 13. | 660-1020 | Rubber Bumper | 2 |
| 14. | SS6120930TP | Screw | 4 |
| 15. | 20 | Washer | 2 |
| 16. | 50382T | Stop, for front cover | 2 |
| 17. | 50393W | Rubber Bumper | 2 |
| 18. | 22519J | Screw | 2 |
| 19. | 50682D | Swing Down Cover | 1 |
| 20. | 22729D | Screw | 2 |
| 21. | 50363CH | Lever | 1 |
| 22. | SS4121015SP | Screw | 4 |
| 23. | 50393HU | Plug, right end, non-synchronizer | 1 |
| 24. | 50382CJ | Cover, for drive belt | 1 |
| 25. | 50332A | Latch Spring | 2 |
| 26. | 39250J | Nut | 2 |
| 27. | 22513D | Screw | 2 |
| 28. | 35569J | Nut | 1 |
| 29. | 50332B | Support Block | 1 |
| 30. | SS7120710SP | Screw | 2 |
| 31. | 22799AH | Spring Latch Stud | 2 |

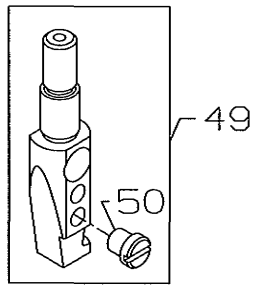
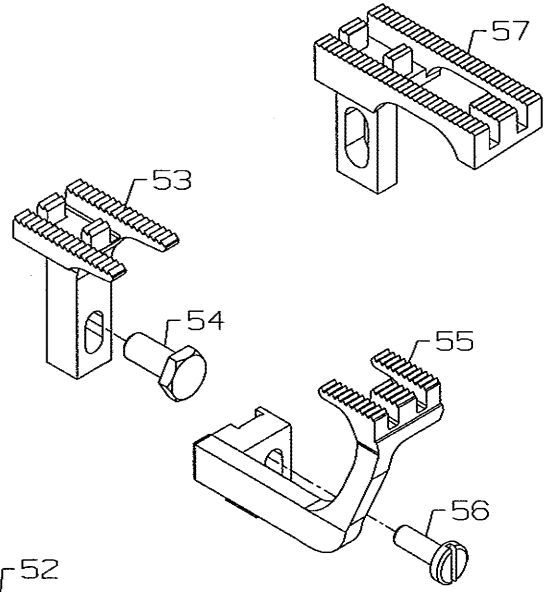
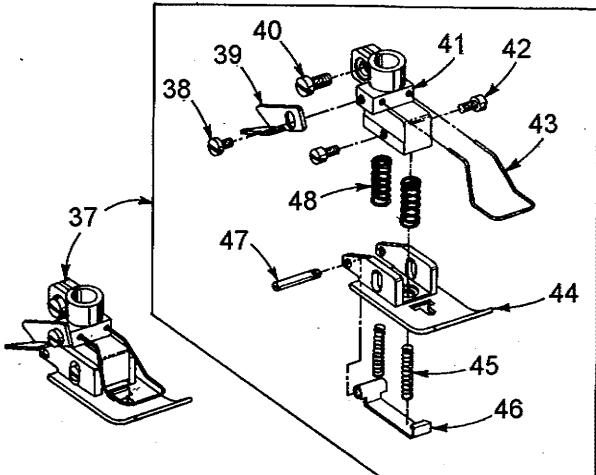
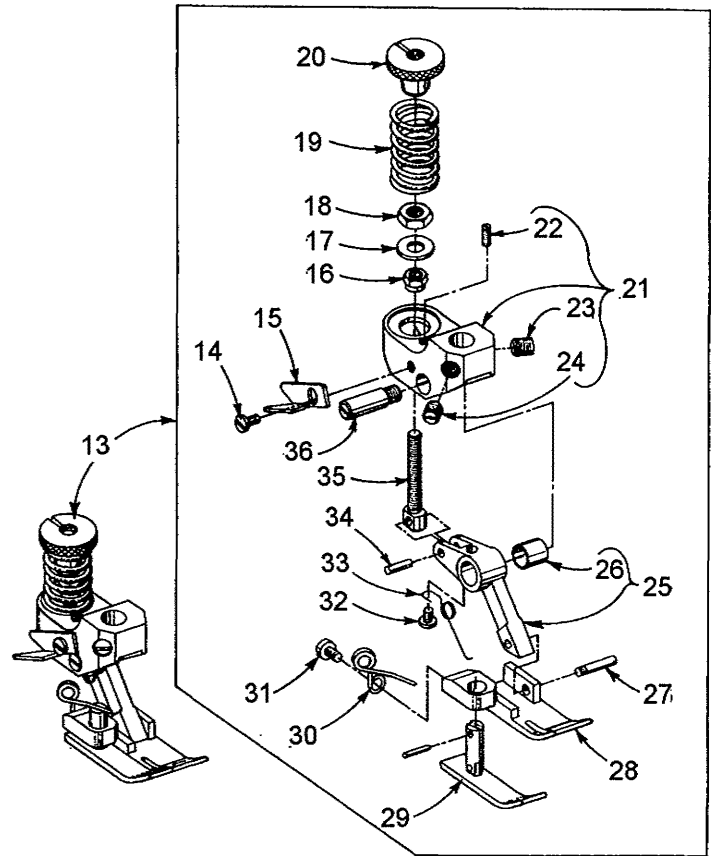
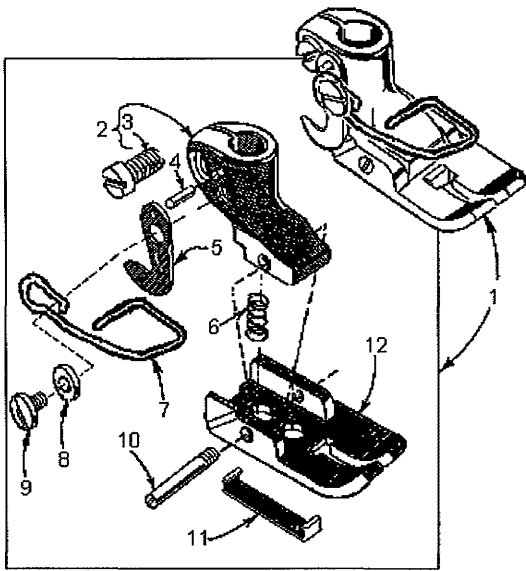




COVERS, LOWER BED
FOR DIFFERENTIAL FEED

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---|--------------|
| 1. | 50393HB | Plug, for bed | 2 |
| 2. | 50382CM | Quad Ring, for left end cover | 1 |
| 3. | 50382CH | Left End Cover | 1 |
| 4. | SS4151415SP | Screw | 4 |
| 5. | 50393HA | Plug | 1 |
| 6. | WO3 | Oil Wick, for needle guard | 1 |
| 7. | 22841U | Machine Support Stud | 4 |
| 8. | 50383G | Gasket, for chamber cover | 1 |
| 9. | 50382CG | Dry Chamber Cover | 1 |
| 10. | SS7090850SP | Screw | 8 |
| 11. | 50378S | Hinge | 2 |
| 12. | SS9110543CP | Screw | 4 |
| 13. | 660-1020 | Rubber Bumper | 2 |
| 14. | SS6120930TP | Screw | 4 |
| 15. | 20 | Washer | 2 |
| 16. | 50382T | Stop, for front cover | 2 |
| 17. | 50393W | Rubber Bumper | 2 |
| 18. | 22519J | Screw | 2 |
| 19. | 50682D | Swing Down Cover | 1 |
| 20. | 22729D | Screw | 2 |
| 21. | 50363CH | Lever | 1 |
| 22. | SS4121015SP | Screw | 4 |
| 23. | 50393HU | Plug, right end, non-synchronizer | 1 |
| 24. | 50382CJ | Cover, for drive belt | 1 |
| 25. | 50332A | Latch Spring | 2 |
| 26. | 39250J | Nut | 2 |
| 27. | 22513D | Screw | 2 |
| 28. | 35569J | Nut | 1 |
| 29. | 50332B | Support Block | 1 |
| 30. | SS7120710SP | Screw | 2 |
| 31. | 22799AH | Spring Latch Stud | 2 |



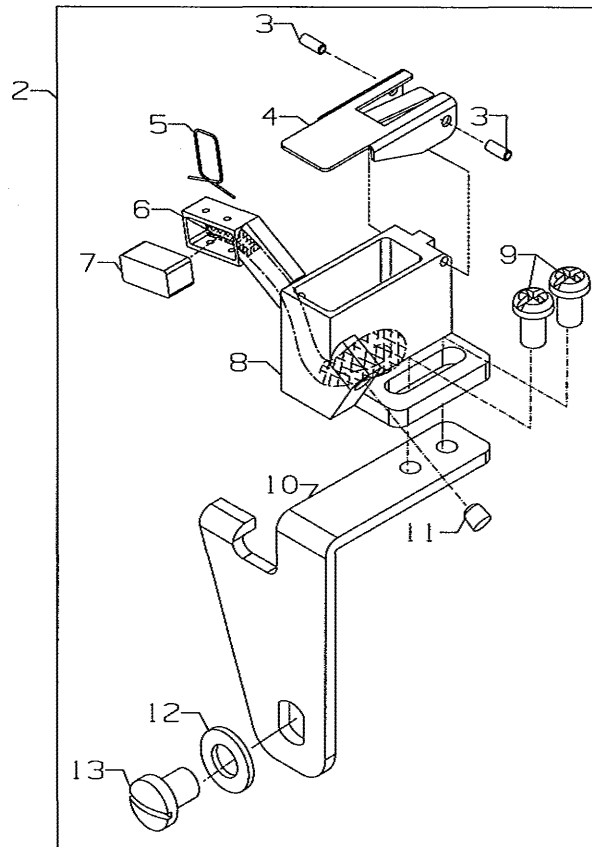
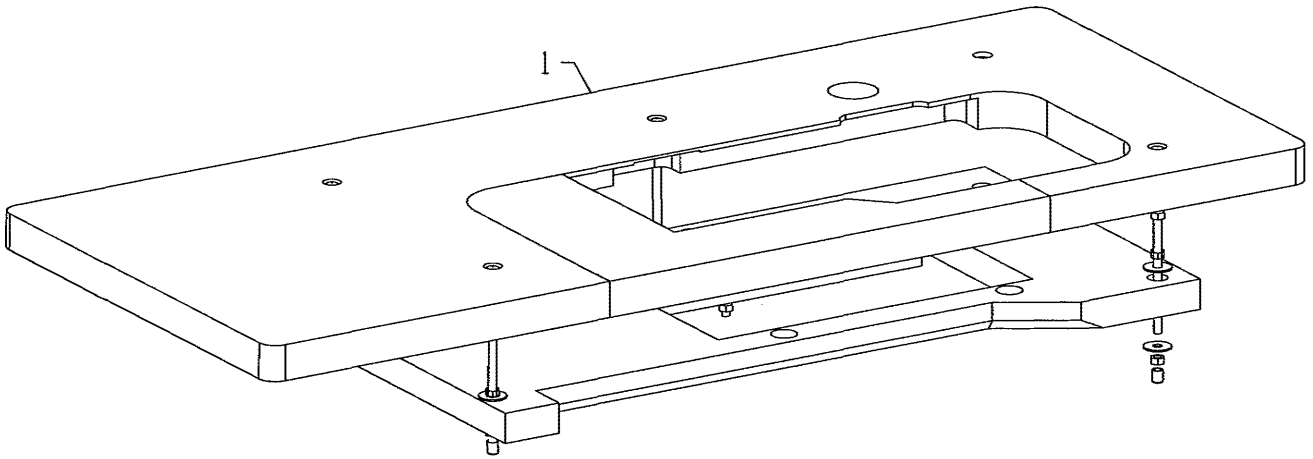


SEWING PARTS

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|--|--------------|
| 1. | G51320 | Presser Foot Assembly, for sewing comb., (see chart) | 1 |
| 2. | G51330C | Presser Foot Shank | 1 |
| 3. | 91 | Screw | 1 |
| 4. | 1741A | Pin | 1 |
| 5. | 1741B | Knife | 1 |
| 6. | 51390 | Spring | 1 |
| 7. | G21695P | Finger Guard | 1 |
| 8. | 41358 | Washer | 1 |
| 9. | 22768 | Screw | 1 |
| 10. | 1025104 | Pin | 1 |
| 11. | G51330B | Chaining Section | 1 |
| 12. | G51330A | Presser Foot Bottom | 1 |
| 13. | 56320H | Presser Foot Assembly, for sewing comb., (see chart) | 1 |
| 14. | 604 | Screw | 1 |
| 15. | 52930AC | Chain Cutting Knife | 1 |
| 16. | 51430F | Nut | 1 |
| 17. | 56330AU | Washer | 1 |
| 18. | 41071G | Lock Nut | 1 |
| 19. | 56330AD | Spring | 1 |
| 20. | 56330AH | Nut | 1 |
| 21. | 56330AK | Presser Foot Yoke | 1 |
| 22. | 22785 | Set Screw | 1 |
| 23. | 22560B | Screw | 1 |
| 24. | 88 | Screw | 1 |
| 25. | 56330AN | Presser Foot Link | 1 |
| 26. | 56330AP | Bushing | 1 |
| 27. | 22799G | Screw | 1 |
| 28. | 56330AL | Presser Foot Bottom | 1 |
| 29. | 56330AM | Yielding Section | 1 |
| 30. | 56330AR | Spring, for yielding section | 1 |
| 31. | 604 | Screw | 1 |
| 32. | 73A | Screw | 1 |
| 33. | 56330AX | Spring, tilting | 1 |
| 34. | 56330AJ | Pin | 1 |
| 35. | 56330AG | Screw | 1 |
| 36. | 56330AF | Screw | 1 |
| 37. | C50020 | Presser Foot Assembly, for sewing comb., (see chart) | 1 |
| 38. | 604 | Screw | 1 |
| 39. | 52930AC | Knife, chain cutter | 1 |
| 40. | 22562 | Screw | 1 |
| 41. | C50030 | Shank, presser foot | 1 |
| 42. | 22784M | Screw | 1 |
| 43. | C50031C | Guard, finger | 1 |
| 44. | C50030A | Presser Foot Bottom | 1 |
| 45. | C50030D | Spring | 2 |
| 46. | C50030AB | Yielding Section | 1 |
| 47. | C50030C | Spring | 2 |
| 48. | 22799B | Screw, hinge | 1 |
| 49. | 50618 | Needle Head | 1 |
| 50. | SS6080360SP | Screw | 1 |
| 51. | 22570 | Screw, for throat plate | 2 |
| 52. | ----- | Throat Plate, for sewing comb., (see chart) | 1 |
| 53. | ----- | Main Feed Dog, for differential feed, (see chart) | 1 |
| 54. | 18-677 | Screw, for main feed dog | 1 |
| 55. | ----- | Differential Feed Dog, for sewing comb., (see chart) | 1 |
| 56. | SS7091110TP | Screw, for differential feed dog | 1 |
| 57. | ----- | Main Feed Dog, for plain feed, (see chart) | 1 |

| SEWING COMB. | MODEL | NEEDLE HEAD | PRESSER FOOT ASSEMBLY | THROAT PLATE | FEED DOG MAIN | FEED DOG DIFFERENTIAL |
|-----------------|-------------|----------------|--------------------------|-----------------|------------------|--------------------------|
| FS01-1 | FS311S01-1M | 50618 | G51320 | 50624A | C50005G | |
| FS02-2 | FS311S02-1M | | 56320R | | | |
| FS11-1 | FS311S11-1M | | 56320F | 50624 | C50005F | |
| FS12-1 | FS311S12-1M | | 56320H | | | |
| FS13-1 | FS311S13-1M | | 56320E | 50624B | 56305C | |
| FS14-1 | FS311S14-1M | | C50020 | 50624 | C50005F | |
| FS21-1 | FS312S21-1M | | C50020 | | 50605 | |

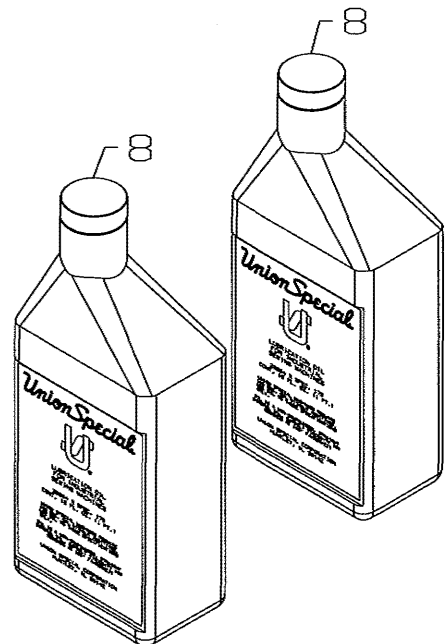
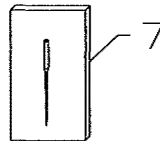
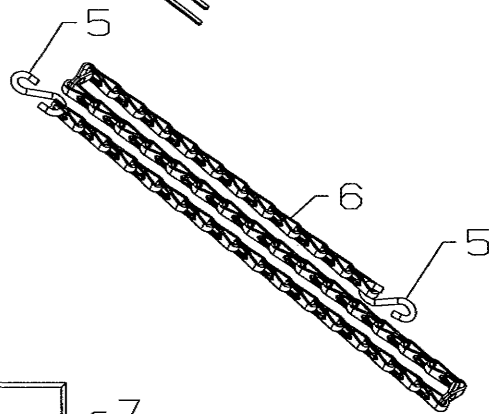
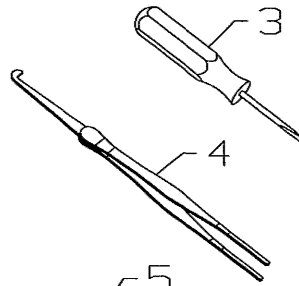
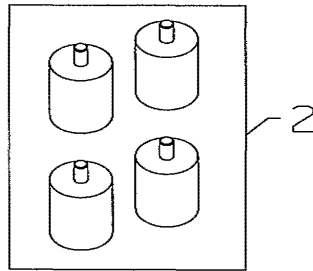
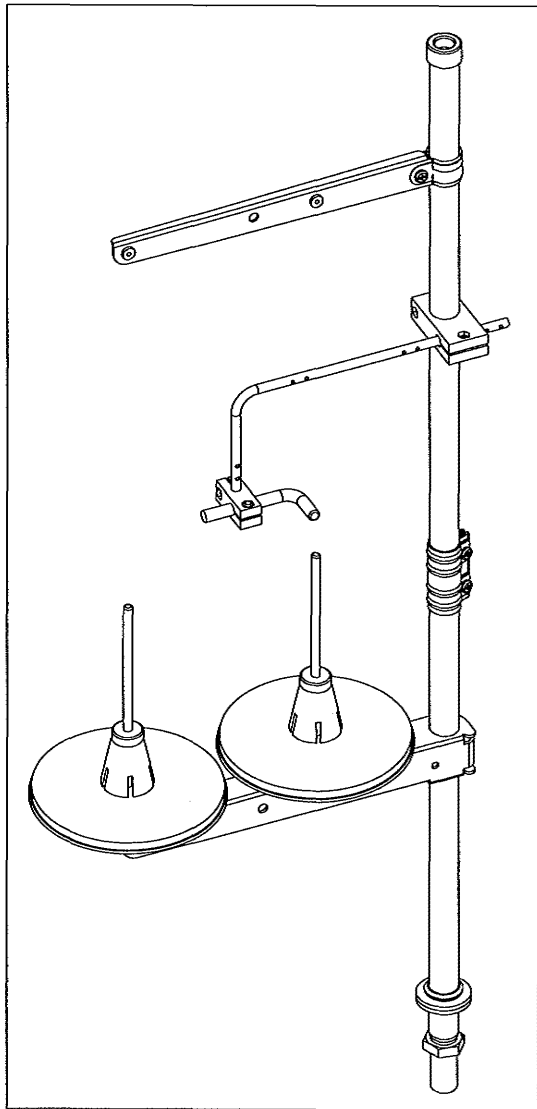




TABLING AND NEEDLE DIPPER ASSEMBLY
(EXTRA SEND CHARGE)

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|-------------|---|--------------|
| 1. | 21371AAE48 | Table Board, for differential feed machines | 1 |
| - | 21317AAH48 | Table Board, for plain feed machines | 1 |
| 2. | 29476RZ | Needle Dipper Assembly | 1 |
| 3. | PS0160042KH | Roll Pin | 2 |
| 4. | 50393JD | Needle Dipper Cover | 1 |
| 5. | 50393GS | Wire, for needle dipper | 1 |
| 6. | CQ202000000 | Oil Wick, for needle dipper | 1 |
| 7. | 50393GK | Felt, for needle dipper | 1 |
| 8. | 50393JC | Needle Dipper | 1 |
| 9. | SS4090615SP | Screw, for needle dipper | 2 |
| 10. | 50393GP | Silicone Oil Tank Holder | 1 |
| 11. | 50393GG | Plug | 1 |
| 12. | WP0531000SD | Washer | 1 |
| 13. | SS4120615SP | Screw, for needle dipper holder | 1 |





ACCESSORIES

| Ref. No. | Part No. | Description | Amt. Req. |
|-------------|---------------|-------------------------------------|--------------|
| 1. | 21101W2 | Thread Stand | 1 |
| 2. | 35095B | Isolator | 4 |
| 3. | G21201 | Screw Driver, for needle head | 1 |
| 4. | 660-240 | Thread Tweezer | 1 |
| 5. | 660-264 | S-Hook | 2 |
| 6. | 421D34 | Chain | 1 |
| 7. | 128GBS075/029 | Needles, (package of 10) | 1 |
| 8. | 28604R | Oil, (1 pint) | 2 |



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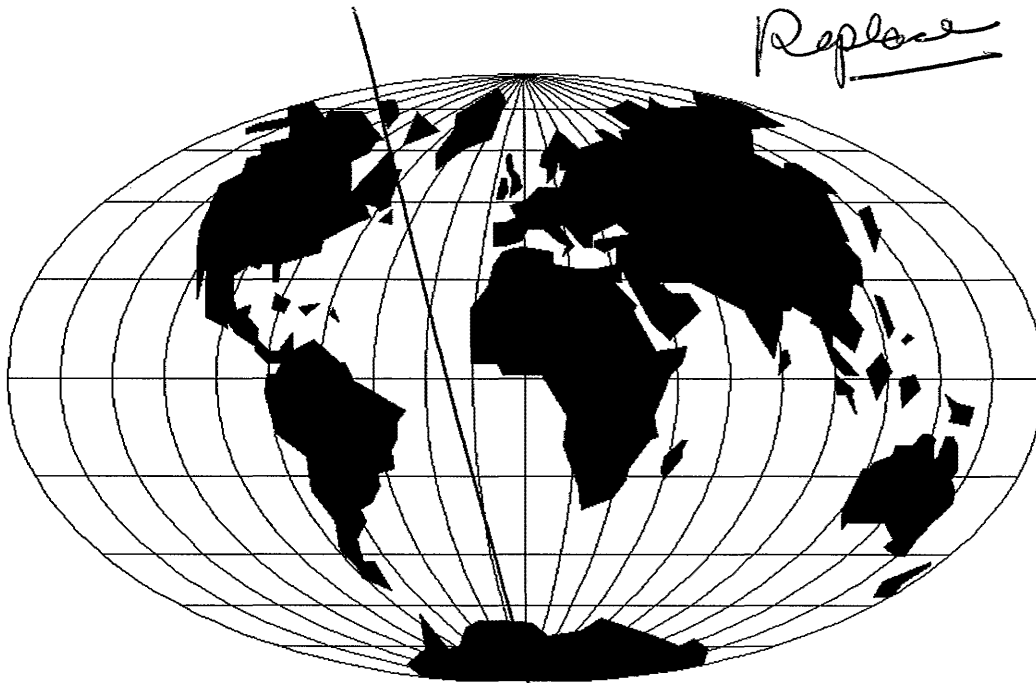
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