

**NR
TAPE EDGE
MACHINE**

COMPLETE WITH

**SINGER 300U HEAD
CARRIAGE
RISE & FALL TABLE**

NR TAPE EDGE INDEX

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Please read this manual thoroughly before operating the machine

1 ASSEMBLY INSTRUCTIONS

This heavy duty machine is shipped to you in a single case, with the completely assembled table and tabletop on a skid, and the boxed carriage and sewing head each strapped to it. The accessories are packed in with the sewing head.

When setting up the table in proper location, preparatory to putting the carriage on the tracks, remember that the legs are adjustable for height, to take care of irregularities in the floor, and also perhaps to regulate to the best suitable height for the operator. An adjusting screw with its lock nuts is found on the bottom of each leg.

To assemble the carriage to the table, first remove the roller and stud 0030A (Plate 14) from the bracket at upper track level. This roller normally runs against the narrow inside (back) face of the upper track. It must be removed to get the carriage on the track. When the carriage has been lifted on the track, running on its castor rollers, replace the roller and stud, and the carriage will be properly in place.

Attach the sewing head to the carriage, by means of the four hex head screws provided. These are put in from the bottom, and on two of them a little reaching under the carriage upper tilt plate will have to be done. The cover over the drive wheel and its belt should be removed so that the belt can be fastened over the pulley. (Plate 20). The screws fasten the belt cover on again.

The lamp holder bracket is fastened on the side of the head opposite the operator's position. Two screws for fastening the bracket will be found in place. The wire to plug in the work light should be fastened in two places with plastic loops before being plugged in on the outlet on the carriage.

Next, fasten the (Lower) thread cone platter and the (Upper) tape reel on the same side of the carriage, away from the table. A rubber guide loop for the main power wire is attached to the head with the same screw used to fasten the tape reel.

Three thread guides, consisting of a wire with a loop at each end are fastened to the carriage and sewing head below the tape reel. The right-hand (needle) thread uses two thread guides, a long one on the carriage and a shorter one on the head; the latter to the left to by-pass the reel. The looper thread, further to the left, uses only one (long) thread guide on the carriage. These guide the two threads to the bracket on top of the head.

The looper thread (on the left) passes from the bracket down through a tube provided. Just thread any needle to the thread and use it as a weight to pass the thread down through the tube to its lower tension post.

The other (needle) thread goes from the upper tension post over various thread guides across the top of the head and down the nose to the needle. The sewing head comes to you fully threaded, so please observe the various thread guides. For further threading information, consult fig.6.

Connect the carriage to the slip ring rod and plug in the electrical connection.

Check that the mains electricity supply is suitable for the machine. The required supply is shown on the label by the contactor.

Contact the mains supply and do the following checks:-

1.1 FIRST CHECK AFTER INSTALLATION

After the machine has been installed and the electricity supply connected, check for correct rotation.

Set the clutch hand lever to the engaged position and give the carriage a little push to make sure the dog clutch is engaged.

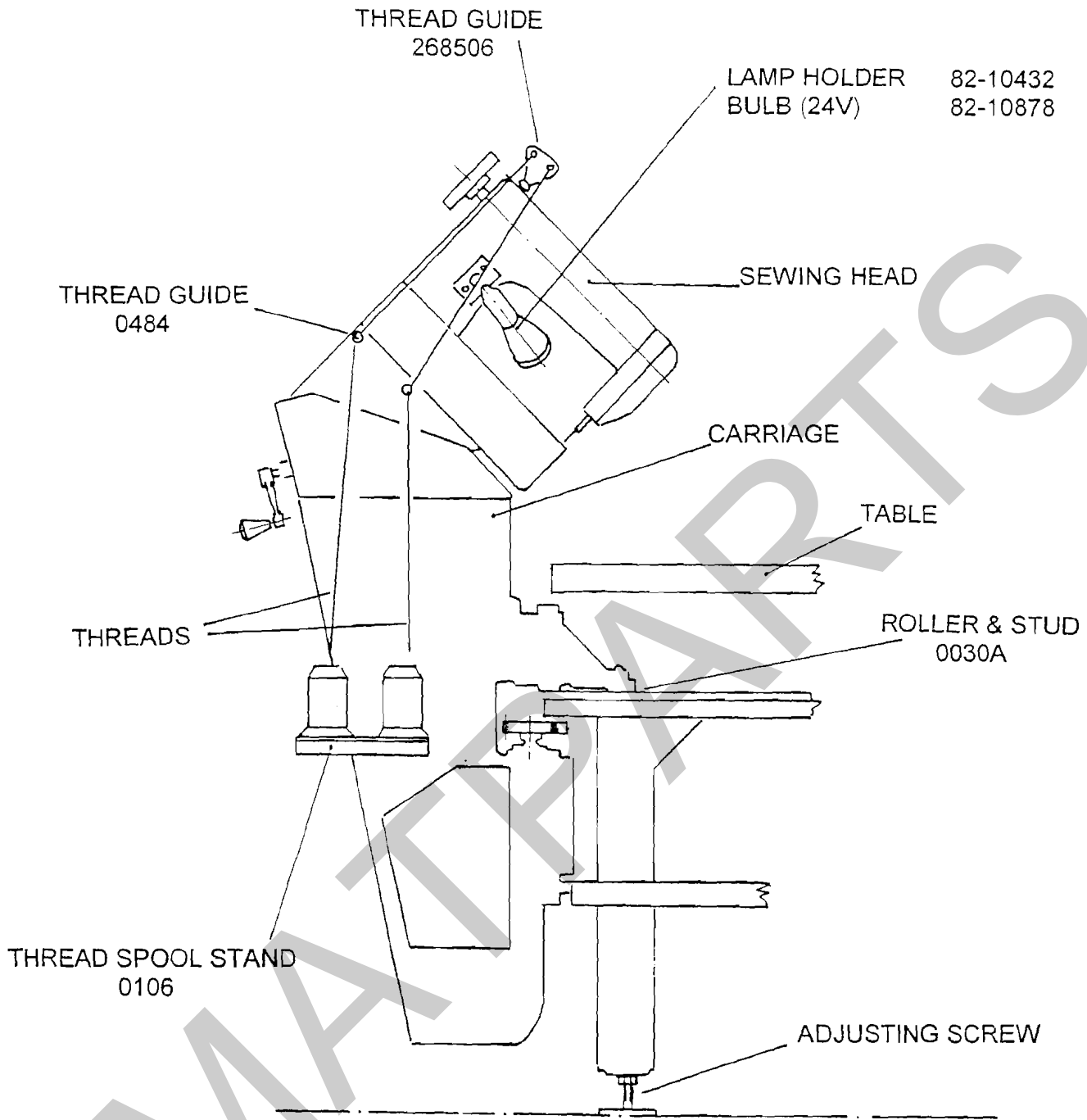
Press the knee pad in as far as it will go and switch on.

The motor will be heard running.

Let the knee pad out slowly and the carriage should move towards you.

If it moves away from you, switch off, disconnect the supply and reverse the connection of two of the three lines.

Repeat the above instructions, and when the carriage moves towards you check that the hand-wheel on the sewing head turns in an anti-clockwise direction, viewed from the drive pulley end of the head. Fig.6. If it does not turn correctly, check that the installation of the round head belt is according to the Plate 20.



THREADING CARRIAGE AND
 FITTING LAMP HOLDER

1.2 THE CONTROLS ARE :-

- 1.2.1 The Clutch Lever.** This controls the dog clutch which connects the drive to the track gear which pulls the carriage round the table. With the clutch lever in the vertical position the carriage is free to be pushed or pulled round the table by hand.
- 1.2.2 The Track Lock.** This is a knob on a shaft below the clutch lever. To use turn the clutch lever vertical to disconnect the drive and push the knob in until its shaft engages the track gear. When it has engaged the gear, the carriage is prevented from moving. It is used when it is required to use the sewing head without the carriage moving.
- 1.2.3 The Crank Handle** will adjust the angle of the head.
- 1.2.4 The On/Off Switch** turns the motor and needle cooling (when fitted) on or off and should only be turned on when the Knee Pad is fully pressed in.
- 1.2.5 The Knee Pad**, when fully pressed in, operates the motor clutch electronically to stop the drive and applies a brake.

2 BEFORE SEWING

The sewing head is usually supplied covered with a preservative oil. The machine must be cleaned before use and lubricated as described in Para 7. Care should be taken to clean the upper and lower thread tensions and all the thread guides to prevent faulty stitching.

2.1 TAPE GUIDE OR BINDER

Before attempting to close a mattress it is essential to check that the correct binder has been fitted to suit the tape being used.

Cut the end of the tape at a slight angle to produce a point and feed it through the binder. Turn the tape towards the needle to form a U shape ready to embrace the edges to be joined. Check that the tape completely fills the binder so that there is no sideways movement. If the tape is too narrow, great difficulty will be experienced, because the binder will be unable to guide an equal amount of tape on to the top and the bottom of the closed edge.

If there is variation in the tape width, it is better to be slightly oversize rather than undersize.

Binders can be supplied to suit any width of tape, also with a standard or wide mouth for the thicker tapes, such as are used on upholstery.

When ordering a new binder, it is essential to send a sample of the tape for which it is intended to be used.

3 CORRECTLY MADE MATTRESS

For maximum output it is advisable to present the Tape-Edge machine operator with a correctly assembled mattress for closing, this has the following characteristics:-

- 3.1** The materials should be accurately cut, so that the distance round the edge of the panel equals the length of the border to which it is to be joined.

A skilled operator can cope with small discrepancies between these two lengths, but the job becomes more difficult and takes longer, the greater the discrepancy.

- 3.2** The two edges of the material must be hemmed or overlapped to prevent the tape-edge stitches pulling out of the weave of the cloth. While an experienced tape-edge operator can turn a hem in the top panel with his fingers as he closes the mattress, the job is easier and can be done quicker, if both the panel and the border are hemmed or overlapped on separate sewing machines, before the tape-edge closing operation.

- 3.3** The ends of the border material should be joined to form a loop of accurately measured length and placed round the mattress with the join in the middle of one end. Pack out the corners equally with the loose filling material to form a tight fit on the mattress.

If the top panel is loose, it should be secured by joining its edges to the top edge of the border with upholstery skewers, which can be easily removed progressively during the closing operation.

If the top panel is a heavy quilted one, the upholstery of the quilting should be attached to the spring unit by stapling or hog-ringing before the border is put in place.

4 PREPARING TO CLOSE A MATTRESS

- 4.1** Using a good quality thread, thread the machine up as described on Para 9.1
- 4.2** Put the reel of tape onto the tape pan and thread the tape through the tensioner and into the binder, as described in Para 2.1 above.
- 4.3** Lift the presser foot by means of the lever (0426 - Head Plate 5) and pull about 15 cm. of tape through the binder and under the presser foot.
- 4.4** Turn the Clutch Lever up and push the carriage round to the middle of the end of the table. Turn the Clutch Lever down to reconnect the drive.
- 4.5** Place the correctly prepared mattress on the table with one end and one side about 2.5 cm. in from the edges of the table.

It is usually considered best to start and stop the tape-edge closing operation in the middle of the same end of the mattress as the vertical join in the border.

- 4.6** Adjust the height of the sewing head so that the binder is about 1 cm below the top edge of the border, and adjust the angle of the sewing head to 45° (See Note B Para 5.11)
- 4.7** Catch hold of the edge of the top panel with the thumb and index finger of the left hand and catch hold of the top edge of the border with the thumb and index finger of the right hand. Bring these two edges together and place them under the presser foot and in the middle of the jaws of the tape binder. Holding the two edges with the left hand, lower the presser foot lever.
- 4.8** Turn the sewing head Hand Wheel (top over towards you) until the needle is fully down.

5 CLOSING A MATTRESS FOR THE FIRST TIME

- 5.1** Press the Knee Pad fully in and switch the motor on.
- 5.2** Catch hold of the edges of the panel and the border with both hands, about 7 to 15 cm in front of the needle.

- 5.3** Slowly let the Knee Pad out until the carriage starts to move towards you. Control the speed with the Knee Pad and stop sewing about 2 cm short of your fingers.
- 5.4** Move both hands back 7 to 15 cms take another grip and repeat the above operation.

The correct action of the hands is to pull the two edges up into the binder and away from the operator towards the advancing sewing head. The inexperienced operator will find this the opposite action to his instinctive desire to pull the edges away from the advancing sewing head. Pulling the edges away from the head can result in overriding the grip of the sewing head feed, dragging the mattress along the table and bad taping.

- 5.5** Continue to sew short lengths until about 10 cm. short of the corner, then stop and switch off the motor.

5.6 EXAMINE THE STITCHING

First check that there are no slip stitches. If there are, check that the machine is correctly threaded and if the threads are not tight enough, adjust the thread tensions. (See Para 10)

Then check that the tape has been satisfactorily stitched to the mattress. The stitching should be from 1 to 2 mm in from the edge of the tape. If it is too much, loosen the two binder screws and move the binder in a little to the right and away from the needle. Make sure the binder screws are properly re-tightened or damage may be caused to the binder.

If the stitching goes off the tape or is too near the edge, loosen the binder screws and move the binder to the left nearer the needle. Re-tighten the binder screws.

5.7 EXAMINE THE TAPE

The fit of the tape in the binder should already have been checked. If it is not correct, the indication that the tape is too narrow for the binder is that the tape appears to roll round the edges of the mattress and border, presenting too small a width on either the top or bottom, so that the stitching runs off the edge of the tape on one side only.

If a woven tape is being used, a certain amount of tension can be applied by the tape tensioner. More tension can be obtained by putting a weight on the reel of tape. Two sizes of weight are

supplied.

Plastic and nylon tapes should have very little applied tension.

The tape should stitch onto the mattress straight and even with hardly any ripples.

If the tape is full of ripples (i.e. it looks as though the length of the tape is greater than the length of the mattress edge to which it is sewn), and the maximum tension is being applied, then the stitch length needs reducing. (See Para 13)

If the tape is very taut and the machine has a tendency to pull the mattress along the table, first try reducing the tape tension. If this is not enough, then the stitch length needs to be increased.

Larger and thicker tapes tend to need a slightly longer stitch length.

Larger tapes benefit by having their tension adjusted more by the weight applied to the reel than in the tensioner.

- 5.8** Having checked the stitching and the tape, if both are correct the beginner may attempt to sew round the corner. If they are not correct it is advisable to go back to the start position, make the necessary adjustments and try again.

To do this, pull some tape through the tensioner, swing the binder forwards and cut the tape just in front of the presser foot.

Turn the hand wheel over towards you until the needle is at its lowest point, then turn the hand wheel in the reverse direction until the needle is at its highest point.

Lift the presser foot lever and pull some slack thread through the needle and looper tensions just where the threads disappear into the machine. This will ensure that the threads will not break and the machine will not need re-threading when the mattress is pushed away from the sewing head. Push the mattress away from the sewing head. Push the mattress away from the head and cut the threads near the tape.

If more than one thread is seen coming out of the hole in the throat plate, pull them all gently and the loose threads will come away leaving the correct looper thread ready to start sewing again.

Turn the clutch lever up and push the carriage back to the start position. Then unpick the sewing and remove the incorrectly sewn tape.

material at the edges. After passing round the corner, the corner spring will return to its normal height.

After sewing round the corner, stop and look at the result.

If the taped edge has a very pulled over appearance, as though the length of the tape stitched onto the corner was too short, the probable cause was the incorrect positioning of the mattress in relation to the corner.

To correct this:

- Stop the motor,
- Turn the hand wheel forwards until the needle is at its lowest point
- Turn the clutch lever up
- Push only the carriage back 2 to 5 cms
- Turn the clutch lever down
- Press the knee pad fully in
- Start the motor

Carry on sewing

The above condition should only occur occasionally.

If the pulled over appearance occurs at every corner, the probable causes are one or more of the following:-

- The tape tension is too great – reduce the weight on the tape reel
- The filler cord (if used) tension is too great – ensure sufficient slack in the cord before taping round the corner
- The stitch length is too short – slightly increase the stitch length

5.11 FINISHING OFF

Having sewn round four corners and four edges of one side of the mattress, stop the machine just before where the taping started and cut off the loose starting end of the tape flush with the top of the mattress.

Continue taping over the start by 5 to 7 cms.

There are two ways to finish,

Either, cut the tape just before it enters the binder and continue to sew until you have sewn about 5 cms. passed the end of the tape.

Or, pull a little tape through the tensioner, swing the binder towards you and cut the tape between the binder and the presser foot. Then fold the cut end under and slowly continue to sew over the folded end and on for a further 5 cms. then :

- Turn the motor off
- Turn the hand wheel forward until the needle is in its lowest position
- Turn the hand wheel back until the needle is in its highest position
- Lift the presser foot lever
- Pull some slack thread through both needle and looper tensions just where the threads disappear into the machine
- Push the mattress away from the head
- Cut off the threads close to the taped edge
- Clear any loose threads from the hole in the throat plate by pulling gently until only the correct looper thread is left

If the above procedure is adopted, there will be no need to re-thread the machine before starting to sew again.

Turn the mattress over and close the other side in the same manner.

NOTE

- A)** It is advisable to keep the needle down whenever the machine is stopped for any reason. This ensures that the material will not slip out from under the presser foot and prevents a faulty stitch at the stopping point.
- B)** There is no absolutely correct height and angle for the sewing head. They must be varied to suit the work and the operator's preference. Many operators closing a tight mattress for example, find it helps to adjust the height of the head as the tightness increases while closing the mattress.

6 LUBRICATION

The sewing head has a semi-automatic lubricating system comprising a hollow arm shaft and a hollow bed shaft, which act as oil reservoirs. The oil is distributed to all of the principal bearings by centrifugal force through small jets in the shafts when the machine is in operation. Provision is also made for hand lubricating other movable parts which are not lubricated from the reservoirs. Figs. 1-3.

6.1 OIL

Recommended lubricant is TELESSO No:33, or SINGER types 'B' or 'D'. Do not use additives in sewing machine oil.

BEFORE STARTING

The machine must be oiled as instructed. Failure to do this may result in damage to the machine.

6.1.1 TO OIL ARM SHAFT

To fill arm shaft reservoir, insert spout of pressure oil can in hole. Fig.4, and inject 1 shot of oil into the shaft twice daily.

6.1.2 TO OIL BED SHAFT

To fill bed shaft reservoir, push spring cover, Fig.5, to the left, insert spout of pressure oil can into hole and inject 1 shot of oil into the shaft twice daily. Close oil hole spring cover.

Alternatively the bed shaft reservoir can be filled through the hole in the middle of the driving pulley at the right hand end.

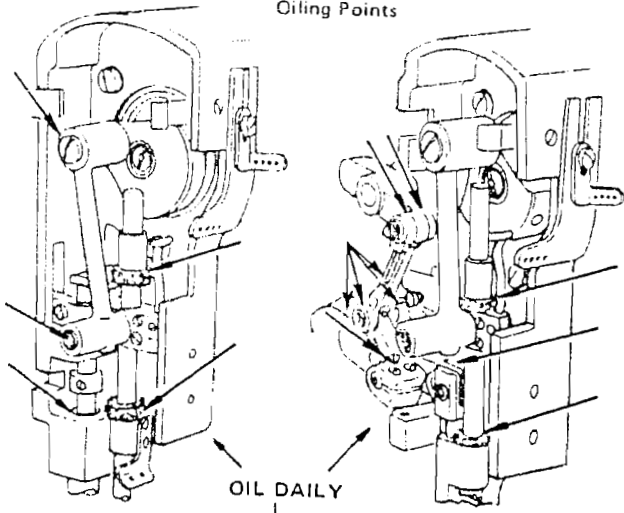
6.1.3 OTHER OILING POINTS

Apply oil to all work plate and arm oil holes, needle bar bearings and connections, needle bar rock frame bearings, looper rocker sleeve and presser lifting mechanism.

CAUTION

Machines in continuous use need to be oiled daily.

Oiling Points



OIL DAILY

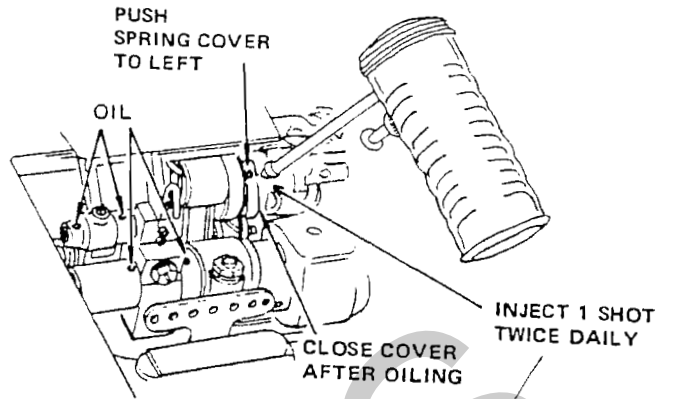


Fig. 5

Filling Bed Shaft Reservoir

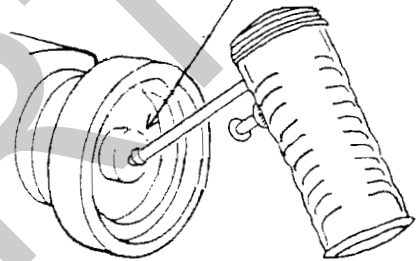


Fig. 4

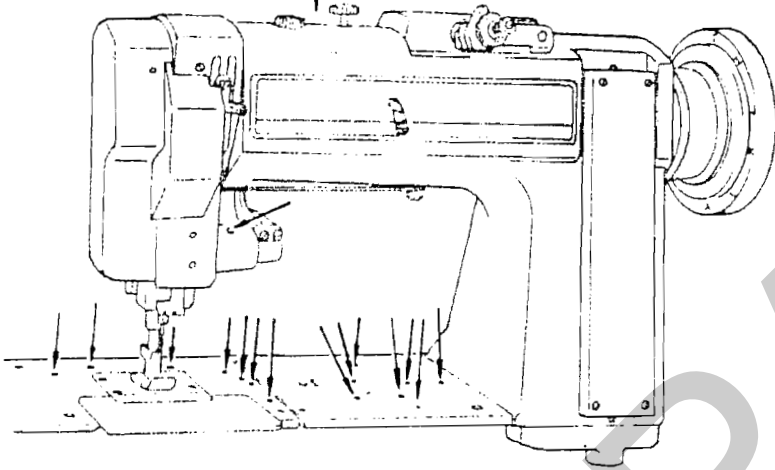


Fig. 1

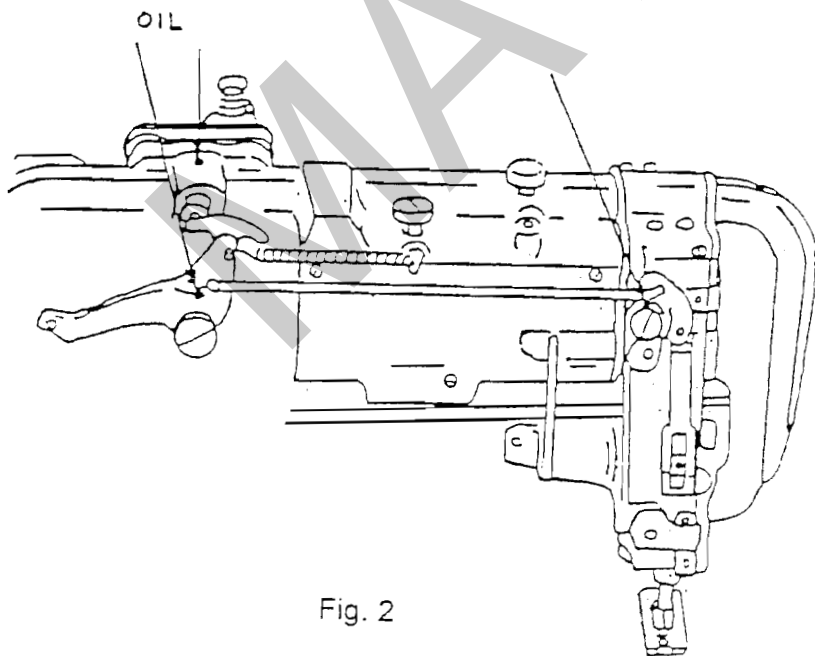


Fig. 2

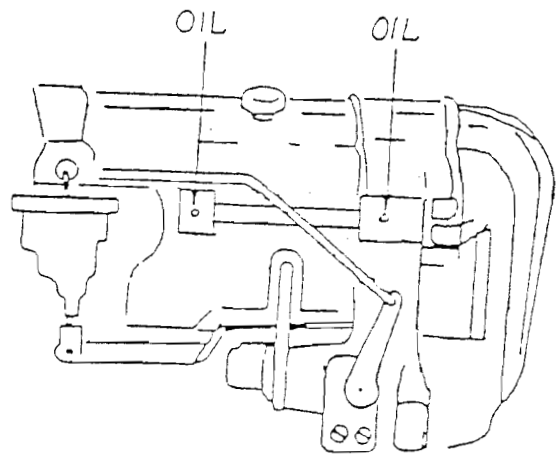


Fig. 3

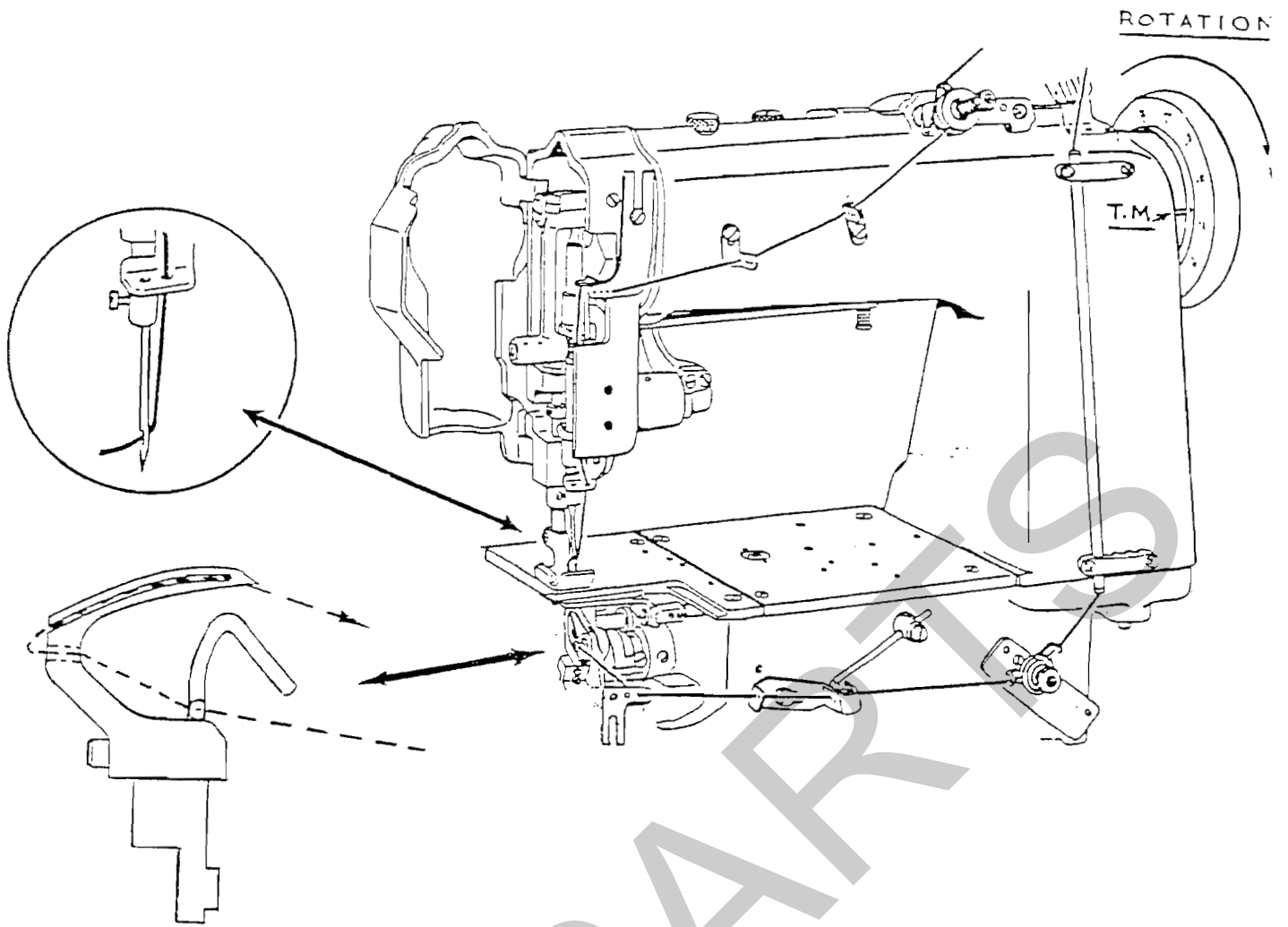


Fig. 6

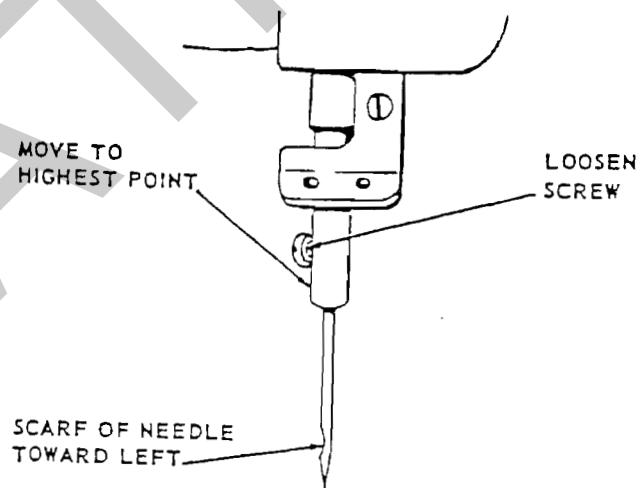


Fig. 7

7 NEEDLES

The recommended needle for normal tape-edge closing is type NR 470 (62 x 59) size 24.

7.1 TO SET THE NEEDLE

Turn the machine hand-wheel over towards the operator until the needle bar is at its highest point, as shown in Figs. 6 & 7.

Loosen the needle clamp screw and insert the needle into the needle bar. Make sure the needle is inserted as far as it will go and that the **scarf** faces to the left. Tighten the clamp screw.

8 THREAD

8.1 COTTON

A soft 30/3 cord thread is recommended for both the needle and the looper. Either left or right twist thread can be used.

For the piping attachment, a 24/3 cord thread is recommended for the needle only.

8.2 NYLON

"NYLOMEX F" is recommended for the needle, and "NYMOLON D" is recommended for the looper.

9 THREADING THE MACHINE

Turn the machine hand wheel over towards the operator as shown in Fig.6, until the needle is at its highest point.

Pass the threads through all the threading points, as shown in Fig.6, and draw approximately 50mm of thread through both the needle and looper eyes to start sewing.

10 TENSION

The tension on the thread should be as light as possible but sufficient to set the stitch correctly.

IMPORTANT. Adjust the needle thread tension only when the presser foot is down, because raising the presser foot automatically releases the needle thread tension.

11 PRESSURE

The pressure on the material should be as light as possible, but sufficient to ensure correct feeding.

To increase pressure, loosen the lower lock nut and loosen the lock screw (if fitted) see Fig.8. then tighten the upper lock nut. When the correct pressure is obtained, tighten the lock screw (if fitted), then tighten the lower lock nut.

To decrease pressure, loosen the upper lock nut and loosen the lock screw (if fitted) then tighten the lower lock nut. When correct pressure is obtained, tighten the lock screw (if fitted), then tighten the upper lock nut.

IMPORTANT If a substantial feed problem is experienced, first check that the feed of the feed dog is in synchronism and equal to the feed of the walking foot and then check that the feed of the sewing head is equal to the forward movement (or feed) of the carriage.

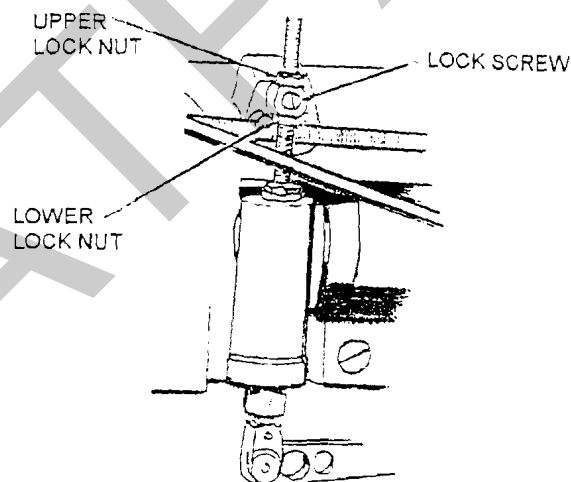
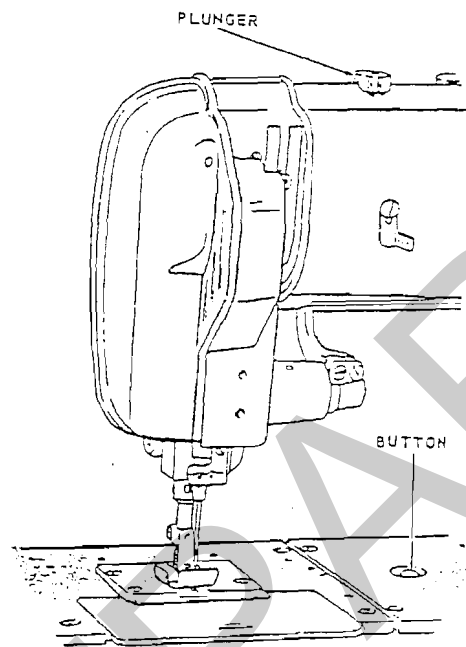


Fig. 8

12 EQUALISING THE FEEDING MOVEMENT

The needle feed (and walking presser foot) and the drop feed (feed dog) should not only be timed to move simultaneously, but should also move **THE SAME DISTANCE** during feeding. If the feed dog moves a greater or lesser distance than the needle feed, depress the stitch length button Fig.9, and turn the hand wheel until the pawl under the button engages a slot in the lower shaft eccentric. Then turn the hand wheel a little towards the operator to increase the feed away from the operator to decrease the feed. Release the button and check that the two feeds are equal. Repeat as necessary.



13 STITCH LENGTH

To adjust the stitch length, depress the plunger, Fig. 9, located on top of the arm. Continue to hold the plunger down and turn the hand wheel towards the operator until the plunger enters a notch in the arm shaft eccentric. Then turn the plunger to lock it in position. Without turning the hand wheel any further fully depress the button, Fig.9, located on the machine bed. This button engages a slot in the lower shaft eccentric. When both slots are engaged, further turning of the hand wheel will cause an equivalent adjustment to top and bottom feeds simultaneously.

Turn the hand wheel towards the operator to increase the length of stitch and away from the operator to decrease the length of stitch.

When the desired stitch length is achieved, indicated by the letter on the hand wheel ("A" is the longest) release the button and turn the plunger to right or left until it springs upwards.

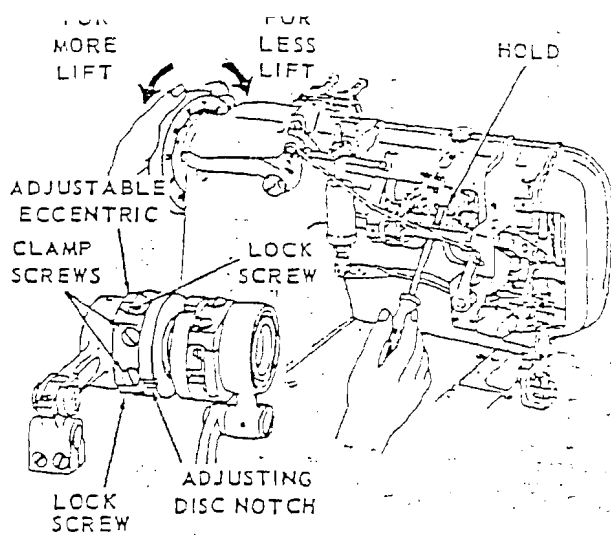


Fig. 10

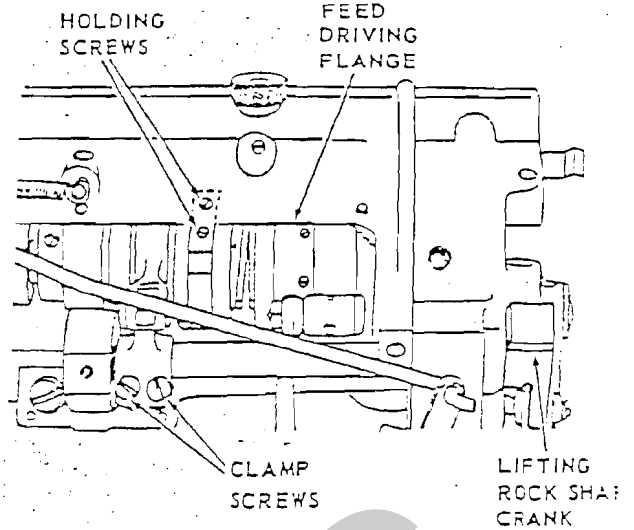


Fig. 11

14 PRESSER BAR LIFT

When the presser foot is raised and the needle is at its highest position, the point of the needle should not protrude below the presser foot.

The lift of the vibrating (walking) and lifting pressers is controlled by an adjustable eccentric. To adjust, remove the arm cover at the rear of the machine. Turn the hand wheel over towards the operator until the walking presser is down. Loosen the two lock screws, Fig 10 and the two clamp screws. Insert a screw driver into the notch of the adjusting disc to hold it still, and turn the hand wheel as indicated in Fig 10, then tighten the two clamp screws and the two lock screws.

When it is desirable to have either one of the pressers lift higher than the other, turn the machine hand wheel over towards the operator until the lifting presser is at its highest. Then loosen the two clamp screws Fig.11, and turn the lifting rock-shaft crank up or down until the desired lift of each presser is obtained. Then tighten the two clamp screws.

CAUTION Limit the lift of pressers to the minimum required for the work, as this permits higher speeds.

15 PRESSER BAR TIMING

The walking (vibrating) presser should be timed so that under normal sewing conditions, the presser foot will seat on the material at approximately the same time as the needle enters the material. This timing can be advanced or retarded slightly depending on the type of operation being performed, such as sewing over seams.

To adjust, loosen the two holding screws, Fig.11, not more than one half turn. Then turn the adjustable eccentric Fig.10, until the walking presser seats at the correct time. Securely tighten the two holding screws after the adjustment has been made.

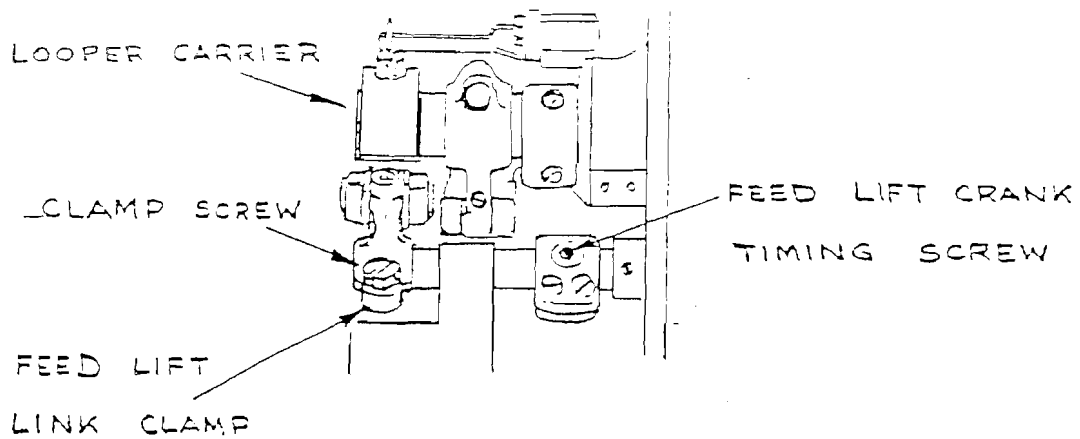


Fig.12

16 TO SET FEED BAR AT CORRECT HEIGHT

To adjust, remove the base plate and make certain that the feed lift crank timing screw Fig.12, engages the shaft spot correctly. Loosen the clamp screw and move the feed link clamp to the correct position. Then tighten the clamp screw. Rotate the hand wheel and check that the feed lift link does not touch the looper holder. Replace the base plate.

17 TIMING THE FEED LIFT ECCENTRIC

When the feed dog is at its highest position, the top of the teeth should be parallel with, and project above the upper surface of the throat plate by the full depth of the teeth. To adjust, loosen the two set screws, access to which may be obtained through the hole in the feed lift eccentric strap Fig.29. Move the feed lift eccentric forward for an earlier rise of the feed dog, or backwards for a later rise. Then tighten the two set screws.

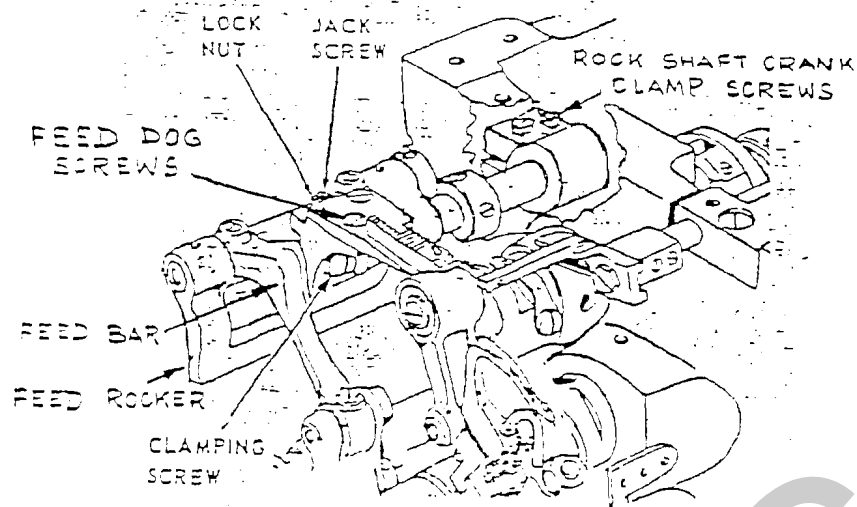


Fig.13

18 CENTRALISING THE FEED DOG

18.1 SIDEWAYS SETTING

The needle should enter the needle hole of the feed dog with the same clearance between the needle and each side of the hole. To adjust, loosen the feed dog screws, Fig.13. Move the feed dog until the correct clearance is obtained. Tighten the feed dog screws.

18.2 LENGTHWAYS SETTING

To adjust, set the feed for the desired stitch length. Loosen the two rock shaft crank screws Fig.13. Move the feed rocker forward or backward until the correct position is obtained. Then tighten the two clamp screws. The feed dog should have a clearance of approximately 0.8 mm. between it and the front of the slot in the throat plate at the point of its most forward movement.

19 SETTING THE FEED DOG AT CORRECT HEIGHT

When the feed dog height is set correctly, approximately the full depth of the teeth will show above the throat plate. To adjust, slightly loosen the feed dog clamping screw, Fig.13. To raise the feed dog turn the jack screws clockwise, to lower turn the jack screw anti-clockwise and tap the feed dog down. When the correct setting is obtained, tighten the clamp screw and lock nut.

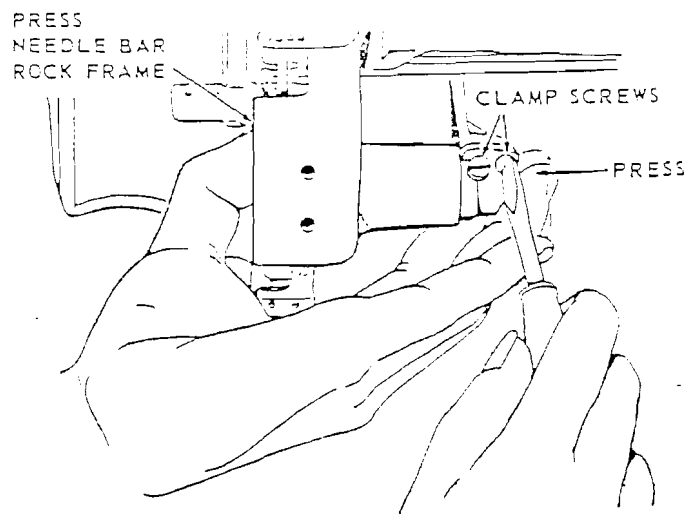
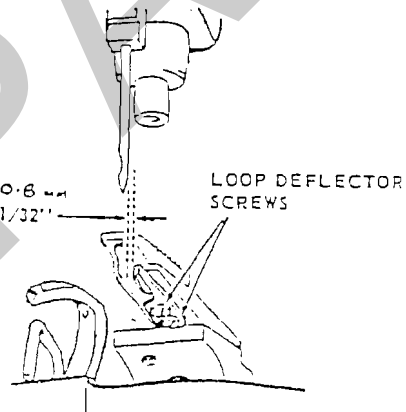


Fig.14

20 NEEDLE BAR POSITIONING

The needle should enter the needle hole of the feed dog towards the front of the hole with the same clearance to the front as to the sides.

To adjust, and at the same time loosen the two driving arm clamp screws. Continue holding the rock frame against the drive arm, tighten the clamp screws.



21 LOOP DEFLECTOR

Fig.15

When the loop deflector is positioned correctly on the underside of the feed dog, there should be a clearance of approximately 0.8 mm between it and the right hand side of the needle, see Fig.15.

22 LOOPER SETTING

When the looper is correctly positioned, the point of the looper just clears the scarf of the needle on the forward stroke of the looper and with the needle rising.

To adjust turn the hand wheel until the point of the looper is directly opposite the centre of the needle. Loosen the looper holder screw, Figs.16-17, and tap the looper holder sideways until the correct clearance is obtained. Tighten the looper holder screw.

Move the looper to the extreme forward position. Check the clearance between the heel of the looper and the loop deflector. This should be approximately 1.6 mm. To adjust, loosen the two looper screws, and turn the looper to the left or right until correct clearance is obtained. Securely tighten the two looper screws. Then recheck the clearance of the looper point with the scarf.

When correctly set, the point of the looper should be directly opposite the centre of the needle and at the centre of the scarf when the looper timing mark LT on the hand wheel is opposite the timing mark TM on the front of the arm. See Figs. 6 & 16

To adjust the looper, loosen the looper carrier clamp nut Fig.17 and move the carrier forward or backward until the point of the looper is directly opposite the centre of the needle. Then tighten the clamp nut.

To adjust the height of the needle so that the point of the looper passes the centre of the scarf, first make certain that the needle is inserted as far as possible into the needle bar and then loosen the needle bar clamp screws Fig.18, and adjust the needle bar up or down. Then tighten the needle bar clamp screws.

23 SETTING THE NEEDLE GUARD

When the needle guard is properly set, it should pass as close as possible to the needle without touching. To adjust, turn the hand wheel over towards the operator until the timing mark LT is 3.mm above the timing mark TM. Loosen the needle guard screw, Fig.16, and turn the needle guard as close to the needle without touching. Tighten the needle guard screw. Check by springing the needle to the left and turning the hand wheel a complete revolution to make sure that the point of the guard does not stroke the needle.

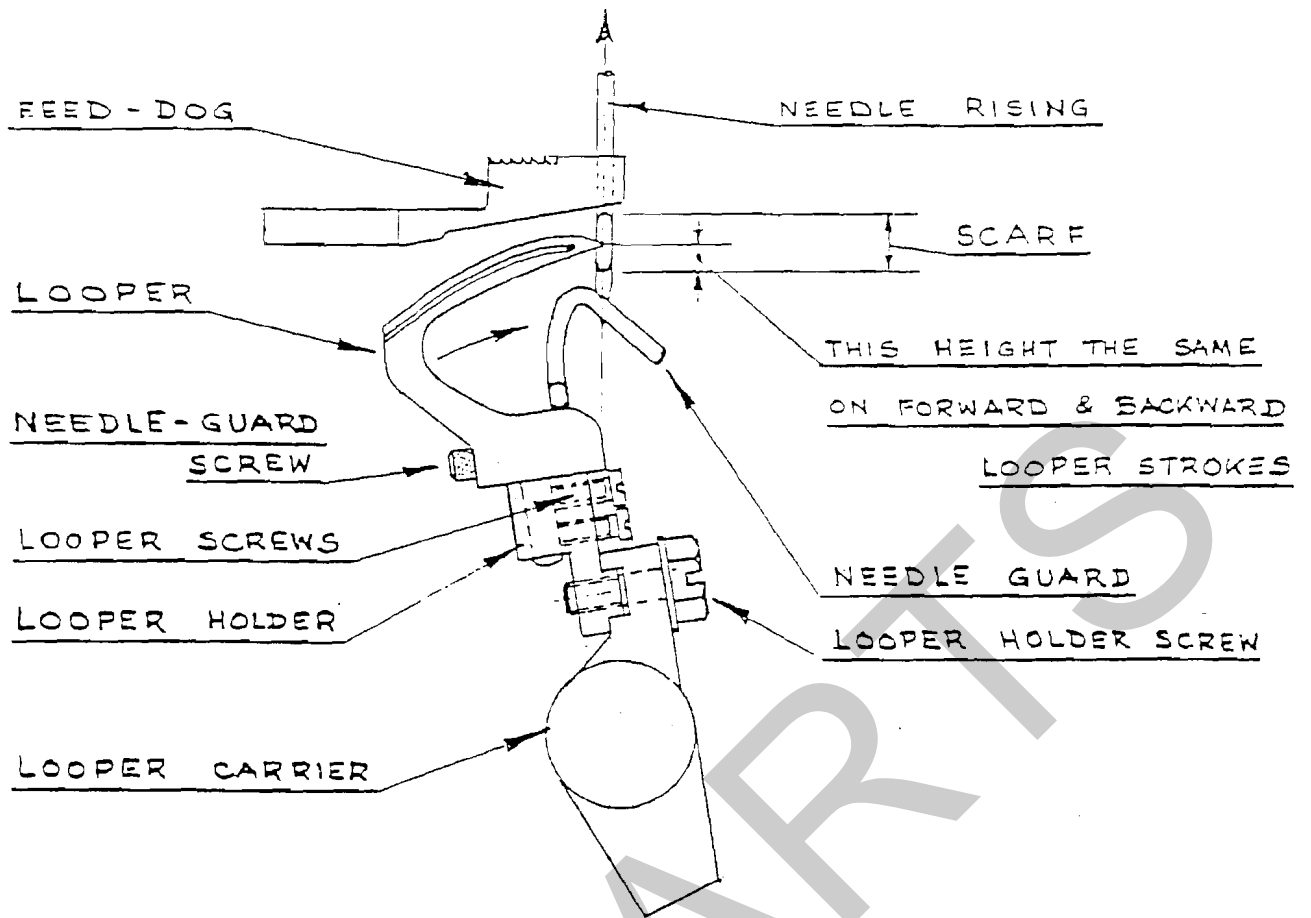


Fig.16

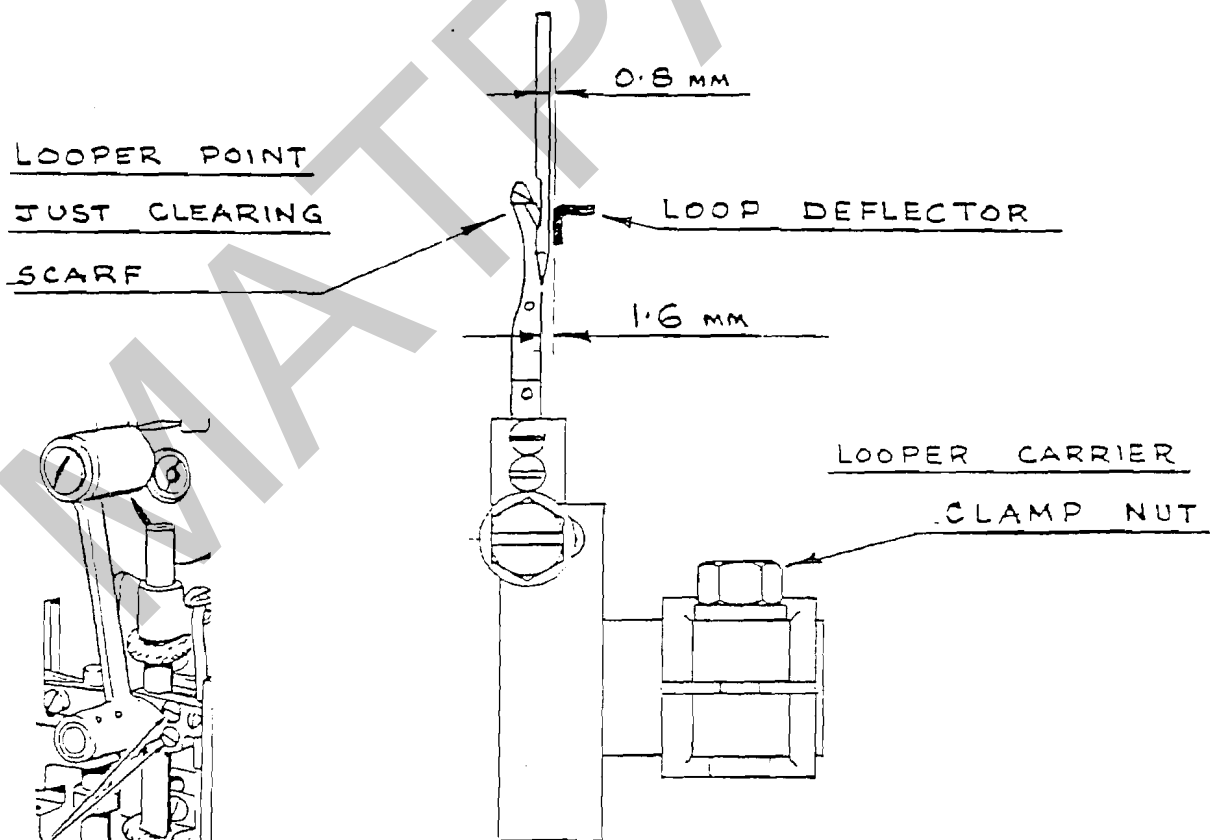


Fig.17

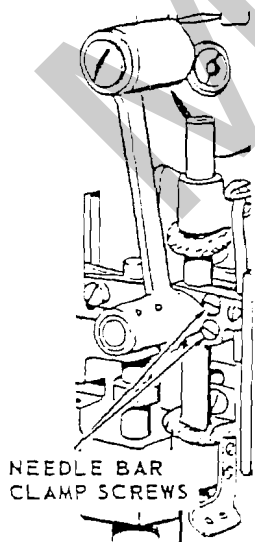


Fig.18

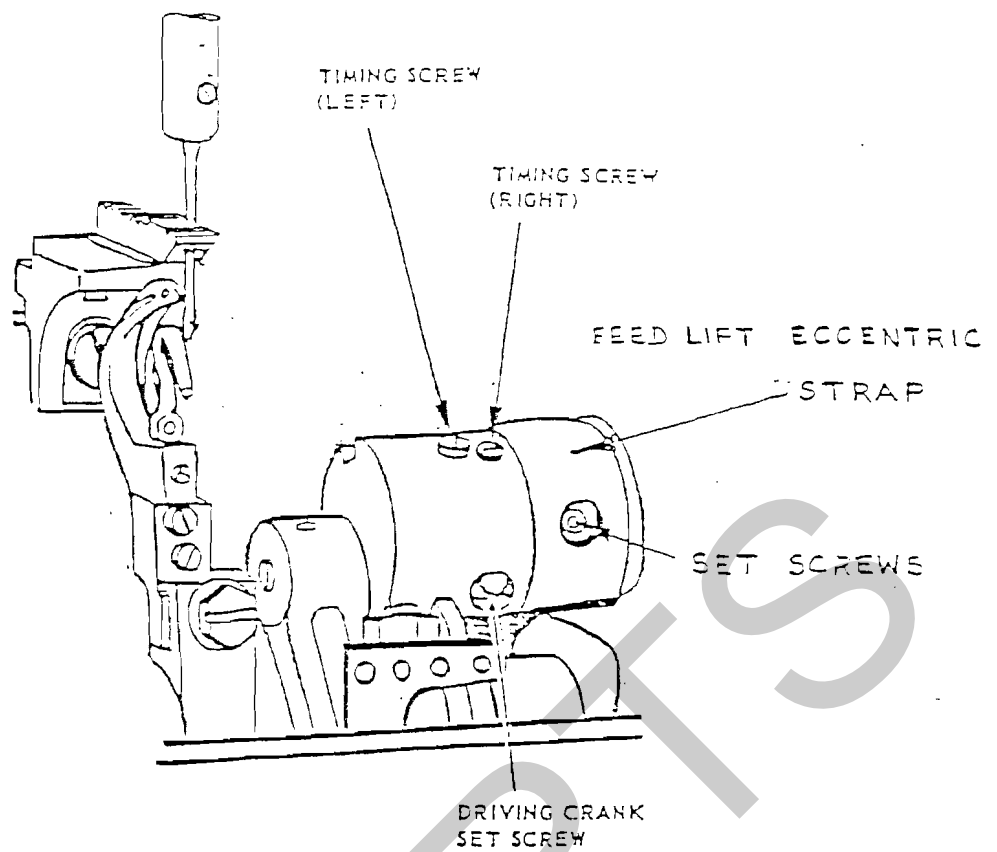


Fig. 19

24 TIMING LOOPER DRIVING CRANK

When the looper driving crank is properly timed, the point of the looper should pass above the eye of the needle at the same height on both the forward and backward strokes of the looper Fig. 16.

To adjust when the point of the looper passes higher on the forward stroke, loosen the looper driving crank set screw, Fig. 19. Loosen the looper crank timing screw (left) approximately 1/8th turn, and tighten the looper crank timing screw (right). Continue to adjust until the correct setting is achieved. Then securely tighten the set screw.

When the point of the looper passes higher on the backward stroke, reverse the adjustment by loosening the timing screw (right) and tightening the timing screw (left).

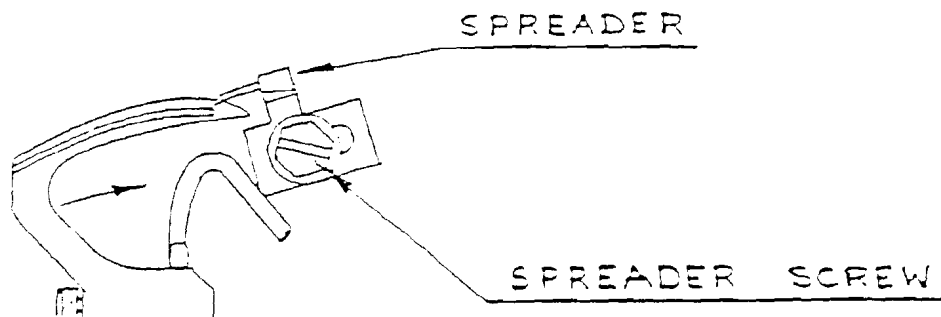


Fig. 20

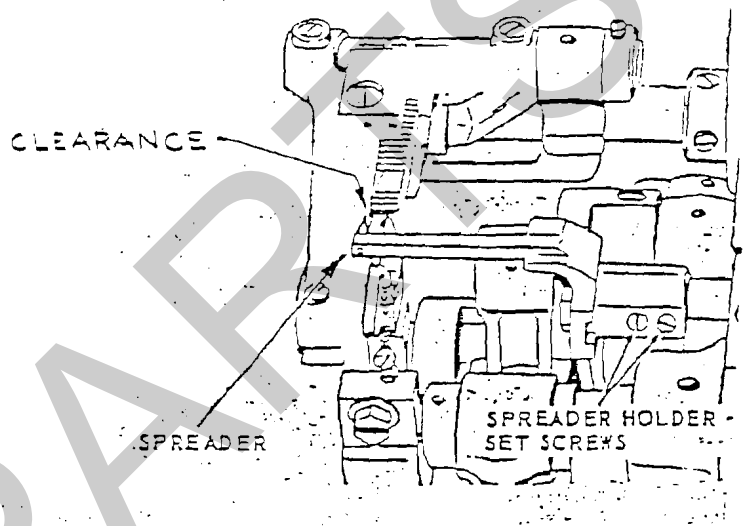


Fig. 21

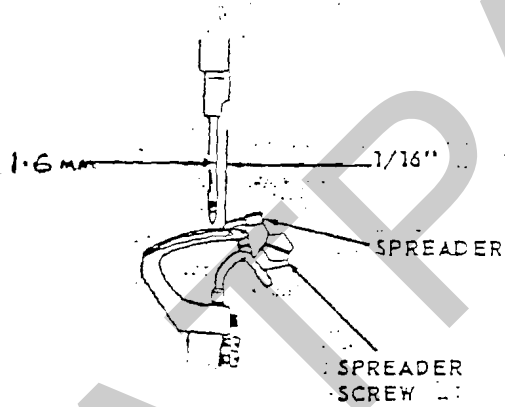


Fig. 22

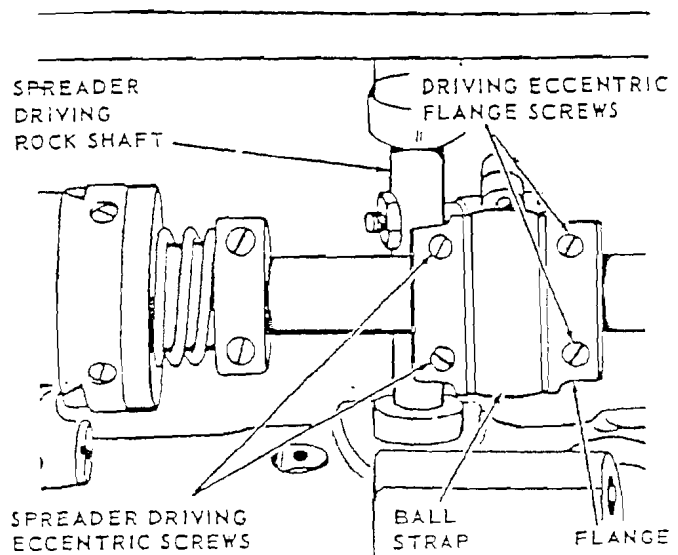


Fig. 23

25 SPREADER SETTING

When the looper on its forward stroke is passing the spreader

- the point of the spreader should be exactly opposite the top of the thread groove and to the left hand side of the looper Fig 20
- the clearance between the spreader point and the looper should be equal to two thicknesses of ordinary paper Fig 21

To adjust loosen the two spreader holder set-screws, move the spreader to the correct position and tighten the set-screws. The spreader should however not touch the underside of the throat plate.

When the point of the needle on its downward stroke is level with the point of the spreader, the clearance between the two points should be approximately 1.6 mm. To adjust, loosen the spreader screw and move the spreader backwards or forwards to the correct position. Then tighten the spreader screw. Fig.22.

26 CHANGING THE SPREADER MOVEMENT

The sideways movement of the spreader can be adjusted, but under normal conditions, the maximum spreader movement is generally used. To adjust, turn the sewing head on its side and remove the base plate. Loosen the two spreader driving eccentric screws and the two eccentric flange screws. Fig.23. Then move the eccentric to the left to increase the movement or to the right to decrease the movement. When correctly positioned, tighten the two driving eccentric screws first, then hold the flange against the ball strap and tighten the flange screws.

Caution, if the driving eccentric has been moved to the left, turn the machine by hand to make sure the eccentric will clear the spreader driving rock shaft. Then check the spreader setting.

27 ADJUSTING THE NEEDLE THREAD TAKE-UP

The needle thread take-up and thread guide may be adjusted to increase or decrease the amount of thread drawn at the top of the needle bar stroke.

To increase the amount, loosen the thread take-up set screw, Fig.24, and raise the take-up or loosen the guide screw and lower the thread guide. To decrease the amount, reverse the adjustment by lowering the take-up or raising the guide.

For average sewing conditions, the guide should be set with the upper end 16 mm above the guide screw. The thread take-up should be set with the lower end 13 mm below the bottom of its holder.

28 ADJUSTING NEEDLE THREAD TENSION RELEASER

When correctly adjusted, the tension releaser should release tension on the needle thread when the presser foot is raised and allow full adjusted tension when presser foot is down. To adjust, loosen set screw, Fig.25, and move tension releaser cap out for earlier release of tension or in for later release. Hold in position and tighten set screw. Should the tension releaser not release tension at the correct time after making the above adjustments, loosen the tension releaser plate screw and move plate sidewise to correct position. Then tighten screw.

29 ADJUSTING LOOPER THREAD TAKE-UP

The looper thread take-up and guide may be adjusted for handling more or less thread, according to thickness of material and length of stitch, and change the ratio of looper thread in the finished stitch.

To change the amount of thread handled, loosen looper thread guide screw, Fig.26 and looper thread take-up rod screw. Move thread guide and take-up rod to the left for more thread or to the right for less thread. Tighten the two screws making certain that take-up rod passes through the centre of the guide yoke.

To change ratio of looper thread in finished stitch, loosen thread guide screw, Fig.26 and lower the yoke or right end of thread guide for more thread. For less thread, raise end of guide. Hold in position and tighten guide screw.

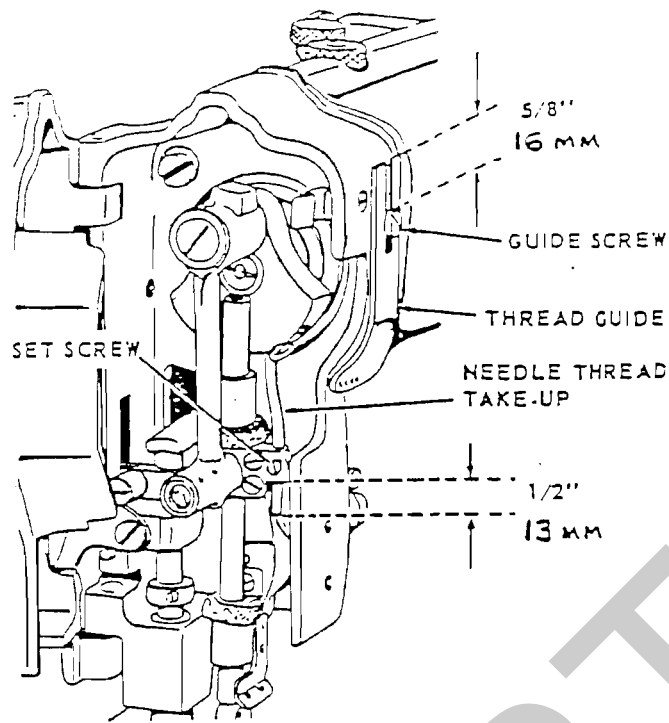


Fig. 24

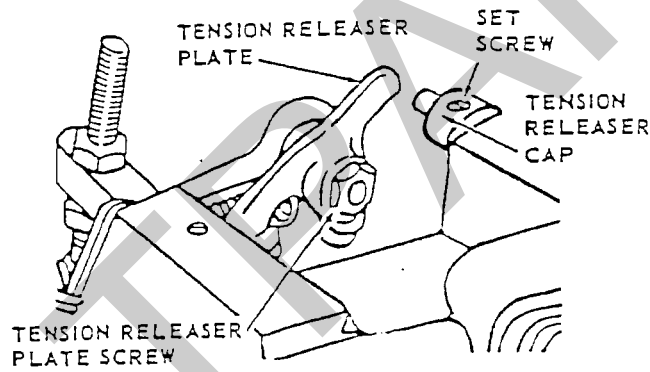


Fig. 25

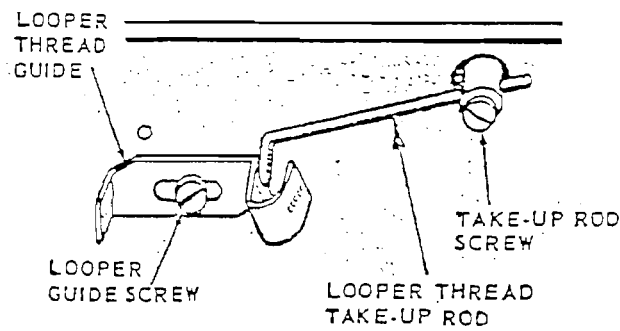


Fig. 26

30 SPECIAL OPTIONAL FEATURES

30.1 PIPING ATTACHMENT (PLATE 25/1)

A piping attachment is available, at an extra price, for the Model NR Tape Edge Machine. It consists of a bracket for holding the 12 lb. roll of roving, guide piece to feed the roving into the needle, and a binder for using 1-7/16" tape.

This attachment produces the effect of a miniature roll edge, and adds height to the box of the mattress. If the original machine is purchased with this piping attachment, there is no problem for the user to figure out the feed of the roving. The tape goes into the binder from the binder platen just as any other tape would, and is hand-fed into the binder by cutting off the tape on the bias to create a point for easier handling.

All machines are drilled in the factory for this piping attachment, so it can be put on with the aid of an instruction drawing.

The piping attachment NR-465 is sold separately for later attaching.

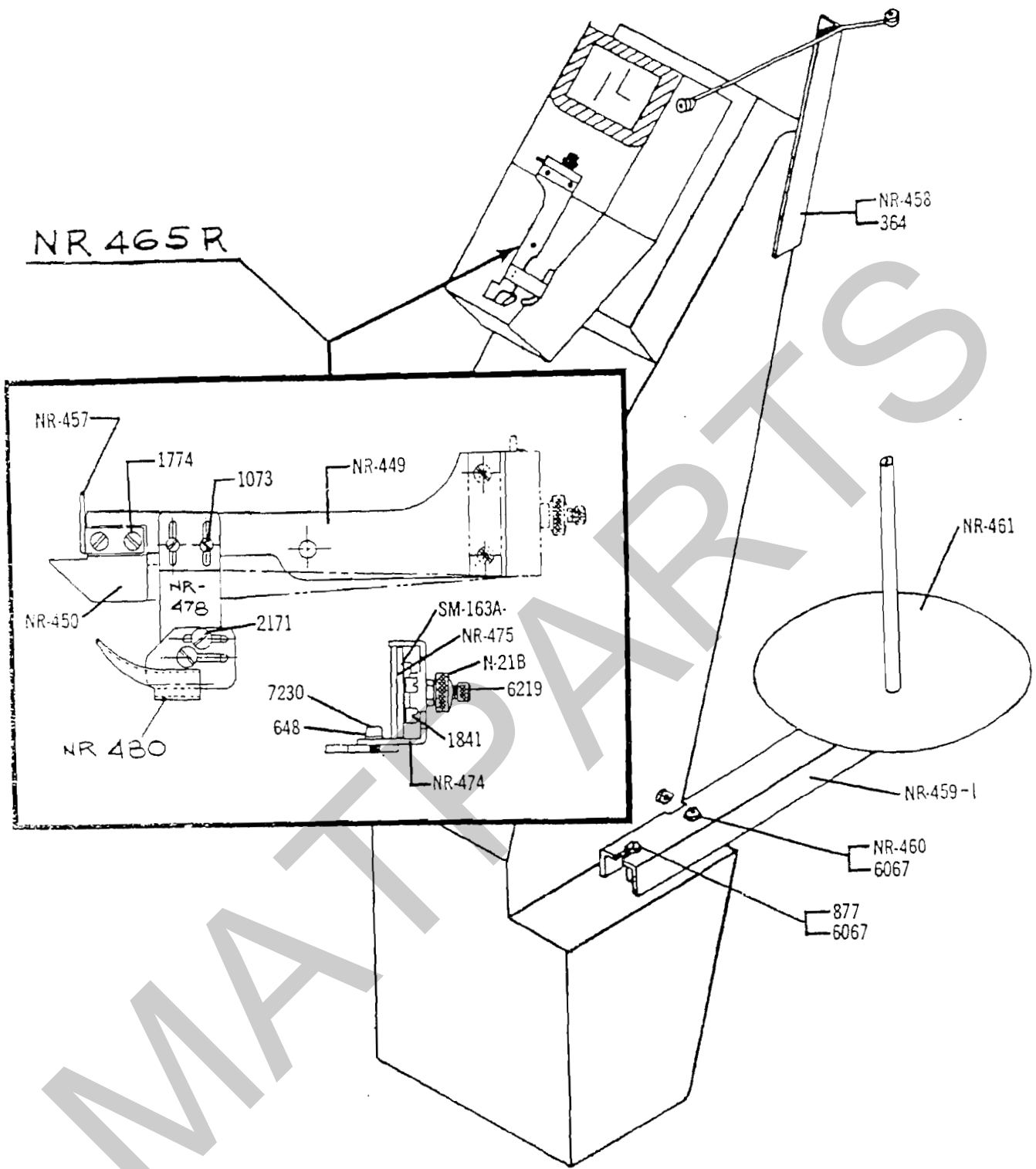
SPECIAL NOTE: When the piping attachment is used, we recommend changing from a 30/3 to a 24/3 cord thread on the needle.

Machines furnished with the piping attachment as original equipment also have a standard 9/16" tape binder and pivot arm furnished as a separate unit. The two binders with their pivot arms are inter-changeable so that the machine can be used for either a piping or a plain type.

To change over from one attachment to another, simply remove the knurled-head pivot screw, replace the one attachment and its arm with the other, and the machine is ready to sew. Of course, the different size tape (with or without the roving) has to be fed into the binder. To do this quickly, cut the tape on the bias with scissors to create a long (tapered) point, which will feed into the binder easily.

30.2 EXTENSION RACKS - 0720

The special optional extension rack for oversize mattresses easily slides out 18" on either side to give extra support for King and other oversize mattresses. Locks out of the way when working on standard size. (see plate 18).



PIPING ATTACHMENT

PART NO	DESCRIPTION	PLATE NO
N21B	NUT	25-1
NR449	SWING PLATE	25-1
NR450	BINDER (SIZE TO SUIT)	25-1
NR457	PIPING SUPPORT	25-1
NR458	PIPING GUIDE RING BRACKET	25-1
NR460	PIPING REEL HOLDER BRACKET	25-1
NR461	PIPING REEL HOLDER	25-1
NR465R	PIPING ATTACHMENT	25-1
NR474	BODY - TAPE TENSION	25-1
NR475	PLATE - TAPE TENSION	25-1
NR478	PIPING GUIDE BASE PLATE	25-1
NR480	PIPING GUIDE	25-1
SM163A	SPRING - TAPE TENSION	25-1
364	SCREW	25-1
1073	SCREW	25-1
1774	SCREW	25-1
1841	SCREW	25-1
2171	SCREW	25-1
6067	NUT	25-1
648	LOCKWASHER	25-1
7230	SCREW	25-1

SINGER PARTS IN SEWING HEAD.

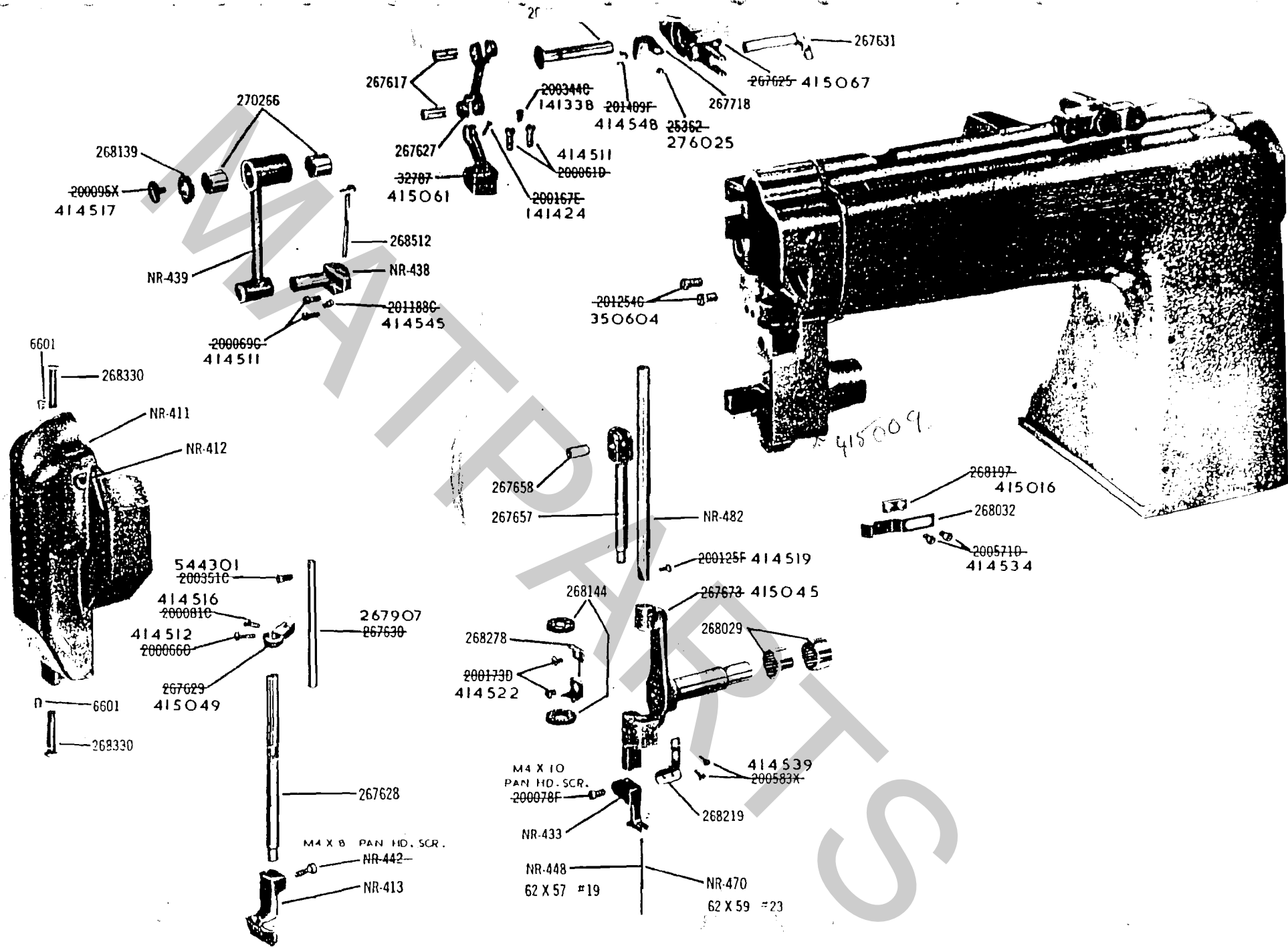
<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PLATE NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PLATE NO.</u>
2102	Flange	5	267626	Stud	1
10148	Spring	8	267627	Link	1
32572	Flange	5	267628	Presser Bar	1
32788	Rock Shaft Arm	3	267631	Presser Bar Crank	1
32789	Rock Shaft Assembly	3	267633	Rock Shaft	3
32848	Front Ball Bearing	2	267641	Pressure Control Spring	4
50326	Stud	5	267650	Spring Housing Support Retainer	4
51570	Nut	5	267651	Pressure Control Plunger	4
54279	Needle Thread Tension Guide Double	5	267654	Pressure Control Cap	4
131741	Spring for Needle Thread Tension	5	267655	Pressure Control Washer	4
141424	Screw	1,3	267657	Vibrating Presser Bar	1
141338	Screw	1	267658	Presser Bar Hinge Stud	1
143657	Bushing	5	267665	Loop Deflector	6
143658	Lock Spring	5	267704	Foot Lifter Lever Rod	4
2001698	Screw	8	267707	Needle Thread Tension Release Plate	4
200507	Screw	8	267714	Pressure Cylinder Support	4
201363C	Screw	4	267718	Ball Bearing Retainer	1
204348	Spring	4	267738	Lever	4
204365	Spring	5	267907	Presser Bar Guide Rod	1
204925	Washer	7	267933	Feed Lifting Rock Shaft	6
224742	Pin	8	268004	Back Bearing Housing	2
225708	Spring	8	268029	Needle Bearing	1,7
226206	Releasing Pin	5	268032	Face Plate Lock Spring	1
240245	Spring	8	268044	Oil Stop Ball Spring	7
241763	Ball	2,7	268044	Looper Thread Guide	8
259549	Binder	8	268051	Looper Thread Take-up Rod	9
267110	Bearing	2,3	268052	Connector	2
267604	Arm Side Cover	3	268060	Connector Assembly	2,7
267612	Foot Lifter Crank	3	268061	Eccentric	2,7
267617	Lifting Eccentric Hinge Pin	1,2	268064	Adjusting Flange	2,7
267618	Spring	2	268065	Adjusting Flange Spring	7
267623	Gib	2,7	268066	Feed Driving Rock Shaft	6
			268070	Feed Connection	7
			268074		

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PLATE NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PLATE NO.</u>
268078	Feed Lifting Link	6	412203	Flange	8
268079	Feed Link Hinge Pin	6	414501	Screw	6
268081	Feed Regulating Stud	8	414509	Screw	2,3
268082	Feed Stud Socket	8	414510	Screw	8
268102	Oil Hole Cover	7	414511	Screw	1,7
268121	Collar	5,8	414512	Screw	1
268123	Looper Thread Tube	5	414514	Screw	5
268139	Cap Washer	1	414516	Screw	1,6
268144	Oiling Felt	1	414517	Screw	1
268162	Spreader Point	9	414518	Screw	6
268167	Needle Thread Tension Bracket	5	414519	Screw	1
268190	Spreader Driving Pin	9	414522	Screw	1
268208	Looper Crank Hinge Pin	6	414525	Lock Screw	2
268214	Oil Stop Ball	7	414526	Position Screw	2
268216	Looper Driving Connection	6	414527	Set Screw	3
268219	Rock Frame Thread Guide	1	414528	Screw	7
268220	Thrust Washer	7	414529	Set Screw	2,6
268265	Oil Control Rod (Wood)	7	414530	Screw	3
268278	Needle Bar Oiling Felt Holder	1	414532	Screw	8
268310	Needle Guide	6	414534	Screw	1
268312	Needle Thread Guide	5	414536	Screw	7
268330	Face Plate Stud	1	414537	Screw	5
268333	Frame Guide	8	414539	Screw	1
268373	Thread Guide	8	414543	Screw	2,3
268492	Connection	2	414545	Screw	1
268493	Assembly	2	414546	Screw	2,7
268500	Tube Clamp	5	414548	Screw	1
268506	Top Thread Guide	5	414549	Screw	7
268512	Needle Bar Thread Guide	1	414552	Spreader Screw	9
268513	Arm Thread Guides (2)	5	414553	Looper Holder Screw	6
270026	Feed Regulating Stud Spring	8	414555	Screw	2,7
270266	Bearing	1	414556	Screw	8
276025	Ball	1	414557	Screw	2,7
350604	Screw	1	414558	Screw	6
412011	Adjusting Flange Collar	7	414559	Screw	6

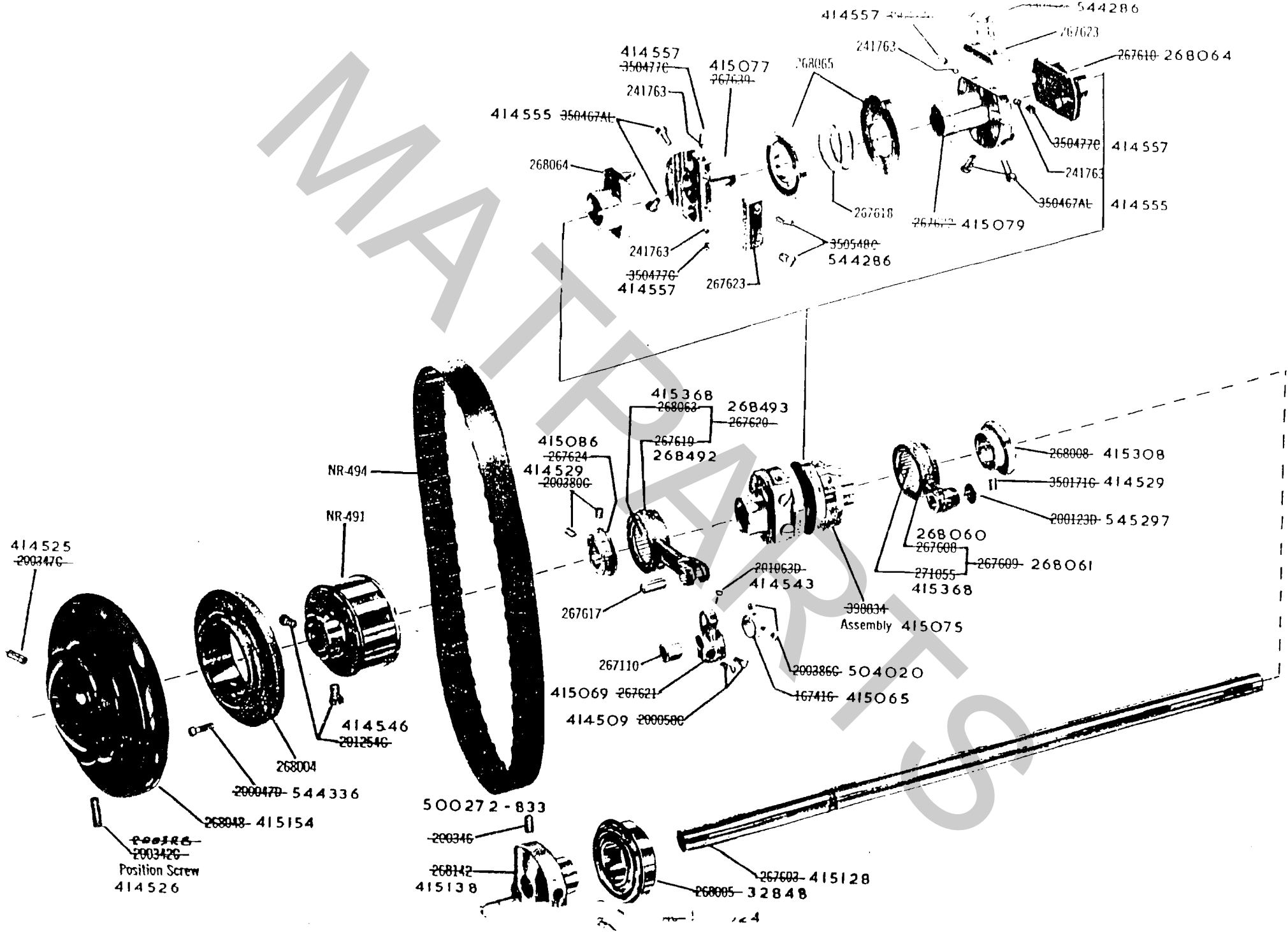
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414563	Screw	7	415187	Spreader Eccentric	7
414566	Screw	3	415190	Spreader Eccentric Counter Balance	7
414567	Shoulder Screw	4	415192	Spreader Rock Shaft	9
414570	Screw Eye	4	415194	Spreader Crank	9
414575	Screw Stud	7	415196	Spreader Holder	9
414577	Screw	4	415204	Feed Crank	6
414578	Screw	7	415206	Feed Rock Shaft Crank	7
414639	Looper Thread Tube	4	415210	Feed Eccentric	7
414790	Screw	3	415213	Feed Rock Shaft Crank	7
415016	Lock Spring Plate	1	415252	Needle Thread Tension Release Cap	5
415045	Rock Frame	1	415255	Plate	8
415049	Presser Bar Guide Block	1	415291	Stud	8
415061	Lifting Crank	1	415292	Clamp Stud	6
415065	Collar	6,9	415308	Top Shaft Flange	2
415067	Lifting lever	1	415357	Needle Thread Tension Release	5
415069	Eccentric Connection Crank	2,3	415361	Screw	8
415072	Assembly (Lower Shaft)	7	415368	Bearing	2
415074	Feed Driving Flange complete	7	500264-833	Screw	6,7
415075	Assembly (Top Shaft)	2	500272-833	Screw	2
415077	Eccentric Flange	2	504019	Screw	9
415079	Rock Frame Eccentric Flange	2	504020	Set Screw	2,3,6,9
415086	Collar	2	504048	Screw	5
415092	Pin	3,7	541166-003	Nut	4
415094	Rock Frame Driving Arm	3	541197	Nut	3,7
415098	Regulating Stud	3	541198	Nut	4,6
415106	Pressure Control	4	541200	Nut	6
415122	Foot Lifter Arm	3	541452	Nut	8
415128	Arm Shaft Assembly	2	543804-004	Washer	4,6
415138	Needle Bar Crank	2	543804-007	Washer	8
415153	Balance Wheel Assembly	2	543850-001	Plate Pin	4
415154	Balance Wheel	2	544204-001	Screw	7,9
415174	Looper Carrier Crank	6	544286	Screw	2,7
415176	Looper Driving Crank	7	544301	Set Screw	1
415183	Spreader Driving Connector	7			

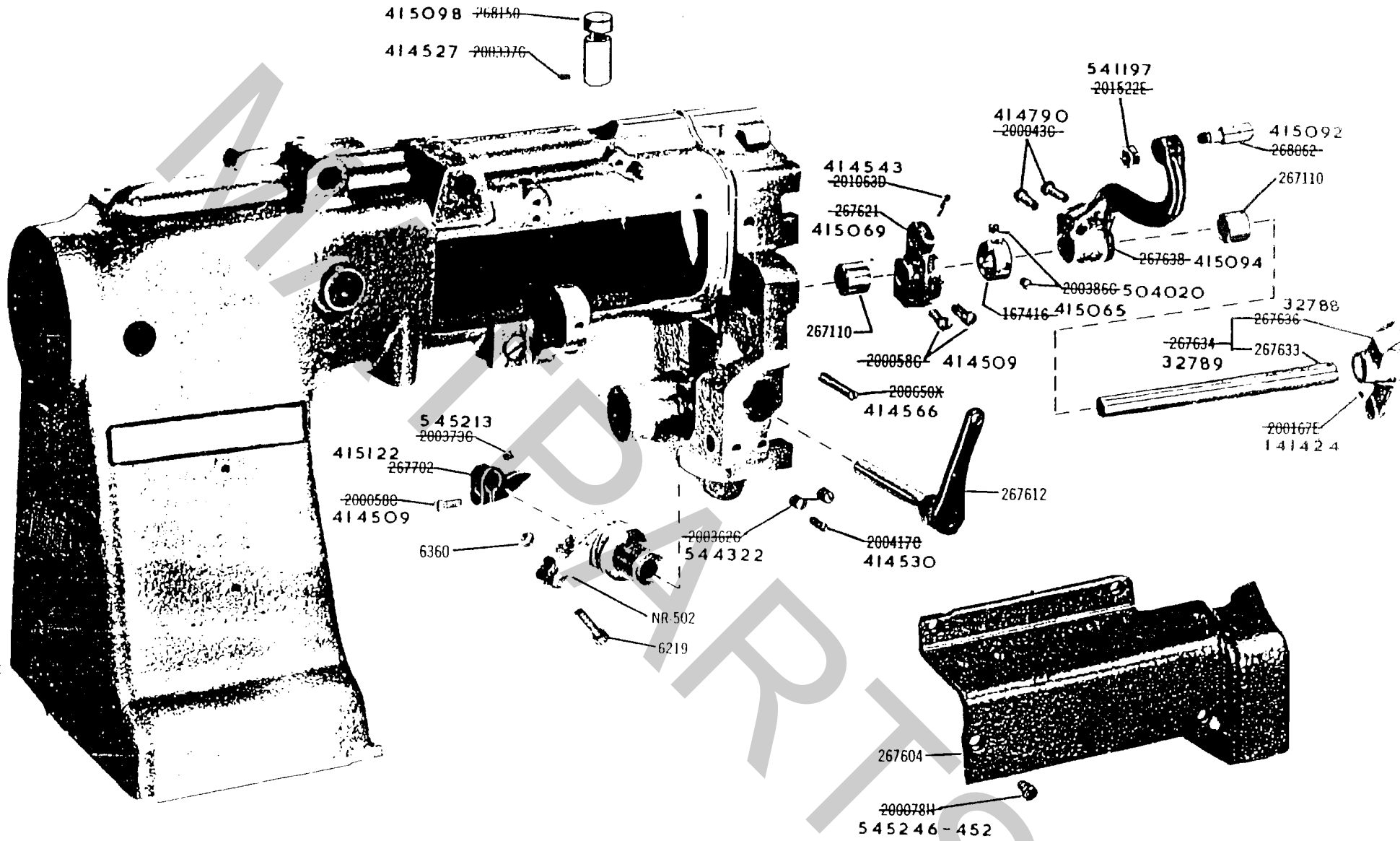
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544325	Screw	7
544336	Screw	2,4,5
544358	Screw	2
545103	Screw	7
545205-451	Set Screw	4
545213	Screw	3,6
545246-452	Screw	3
545297	Cap Screw	2,7
545405	Nut	4
545424	Nut	7
547670	Washer	9
548154	Washer	4
548459	Looper Carrier Crank Washer	6
549024	Screw	2,6
1268382	Looper	6

MAATP PARTS

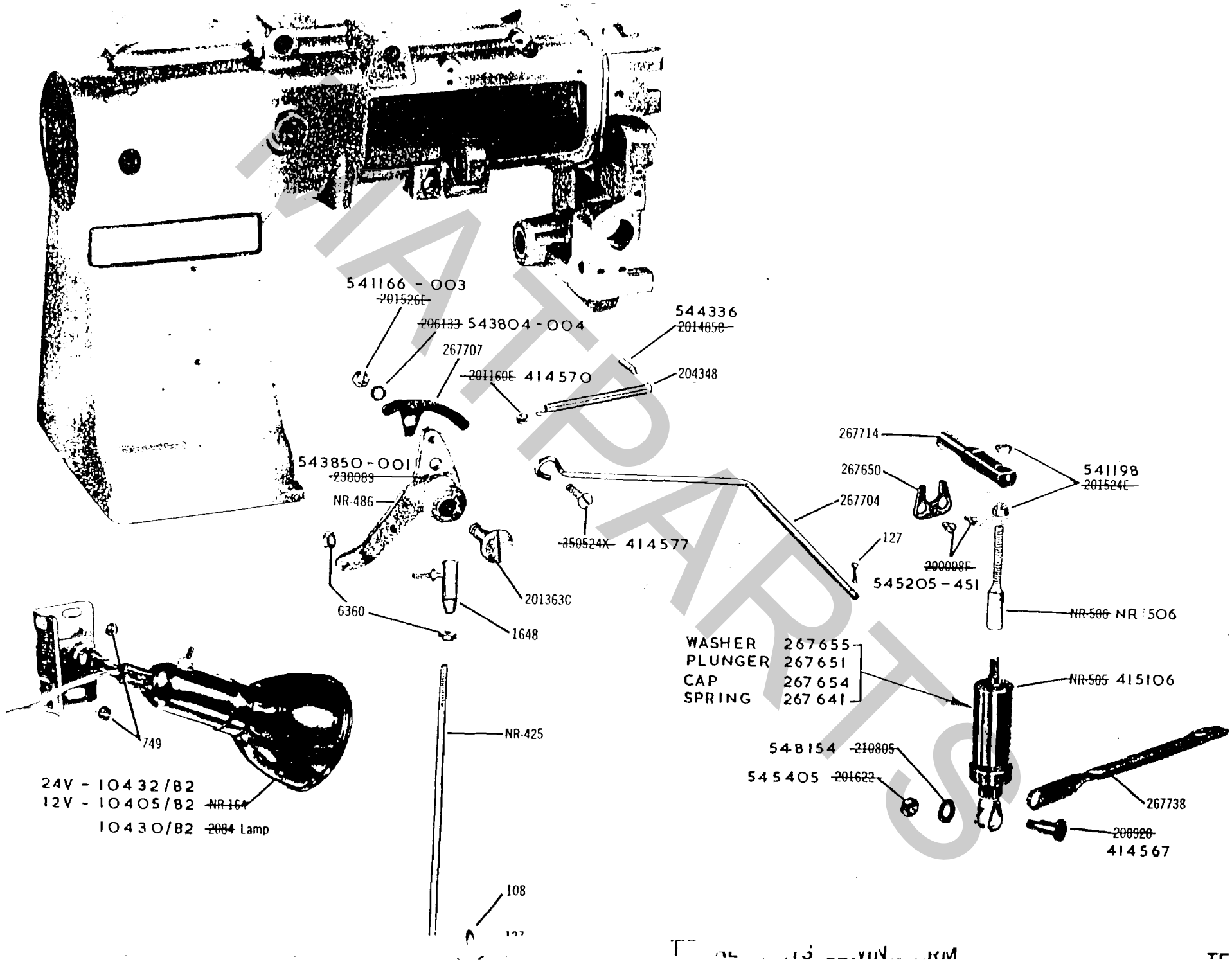


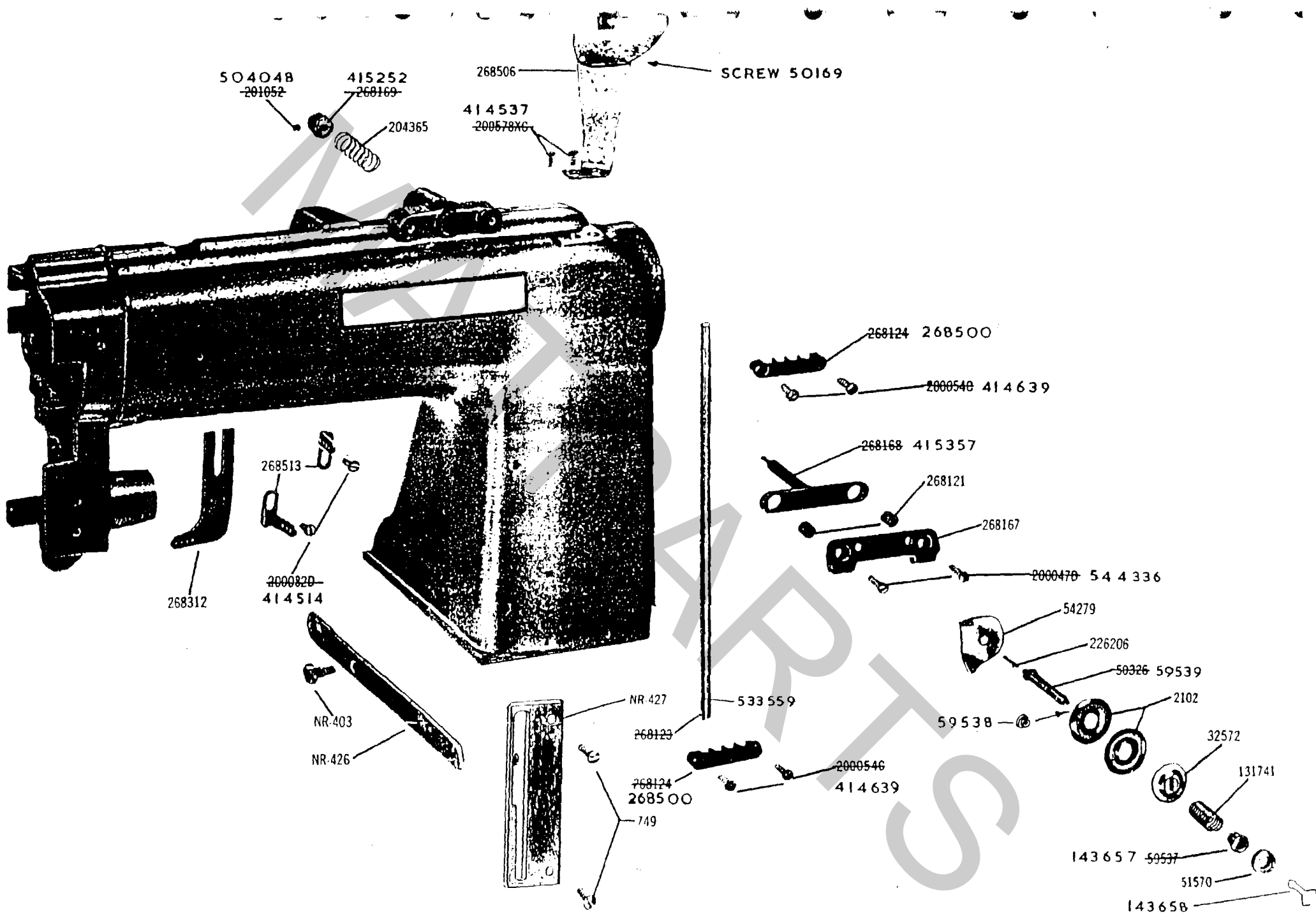
FRONT ASSEMBLY SEWING ARM



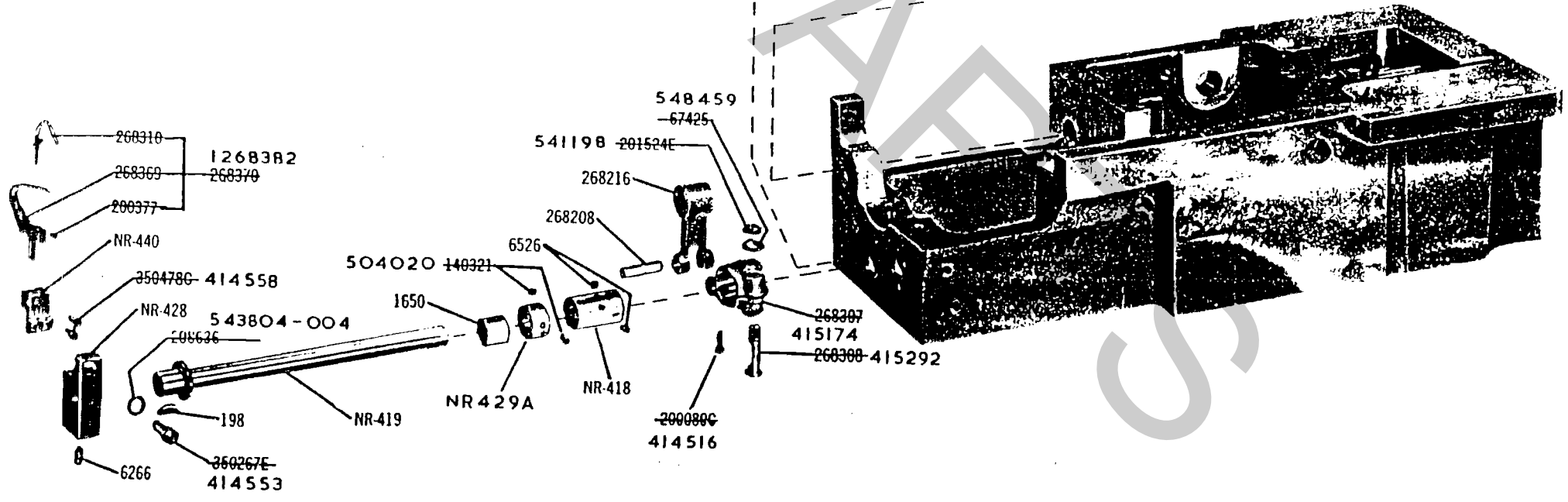
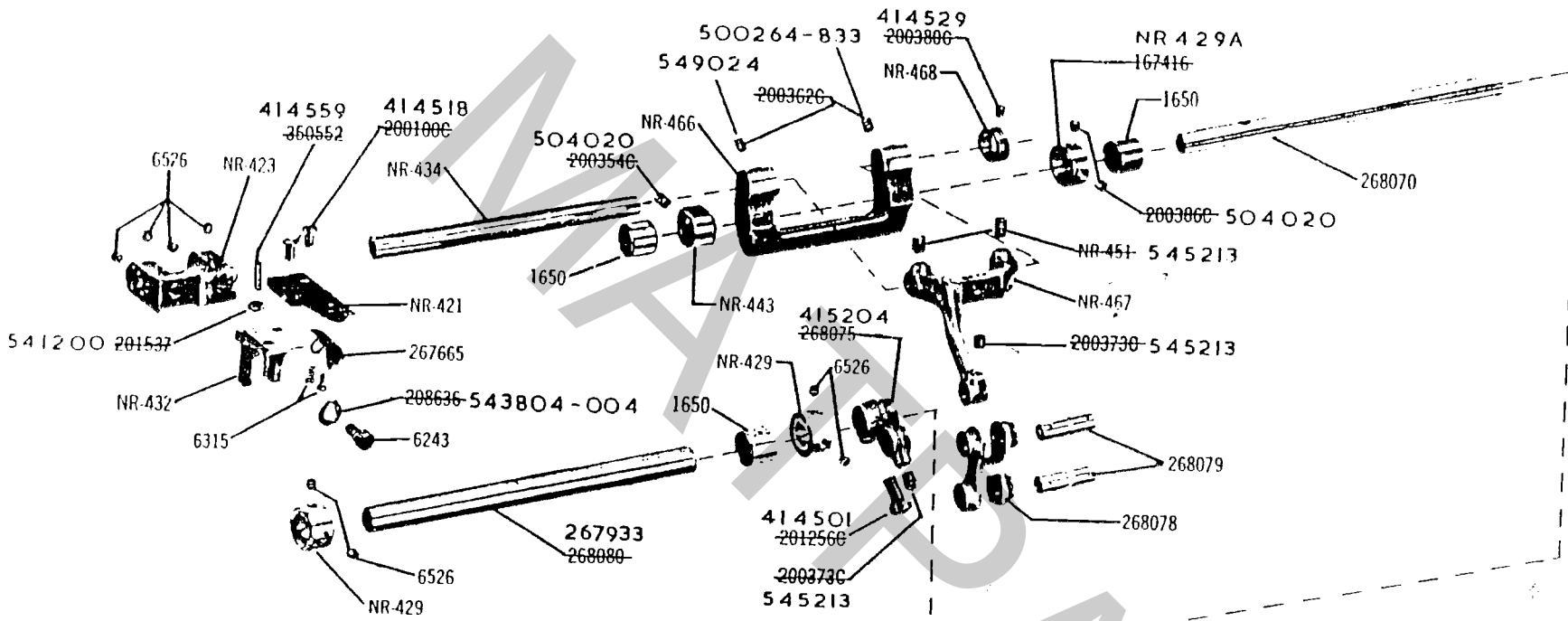


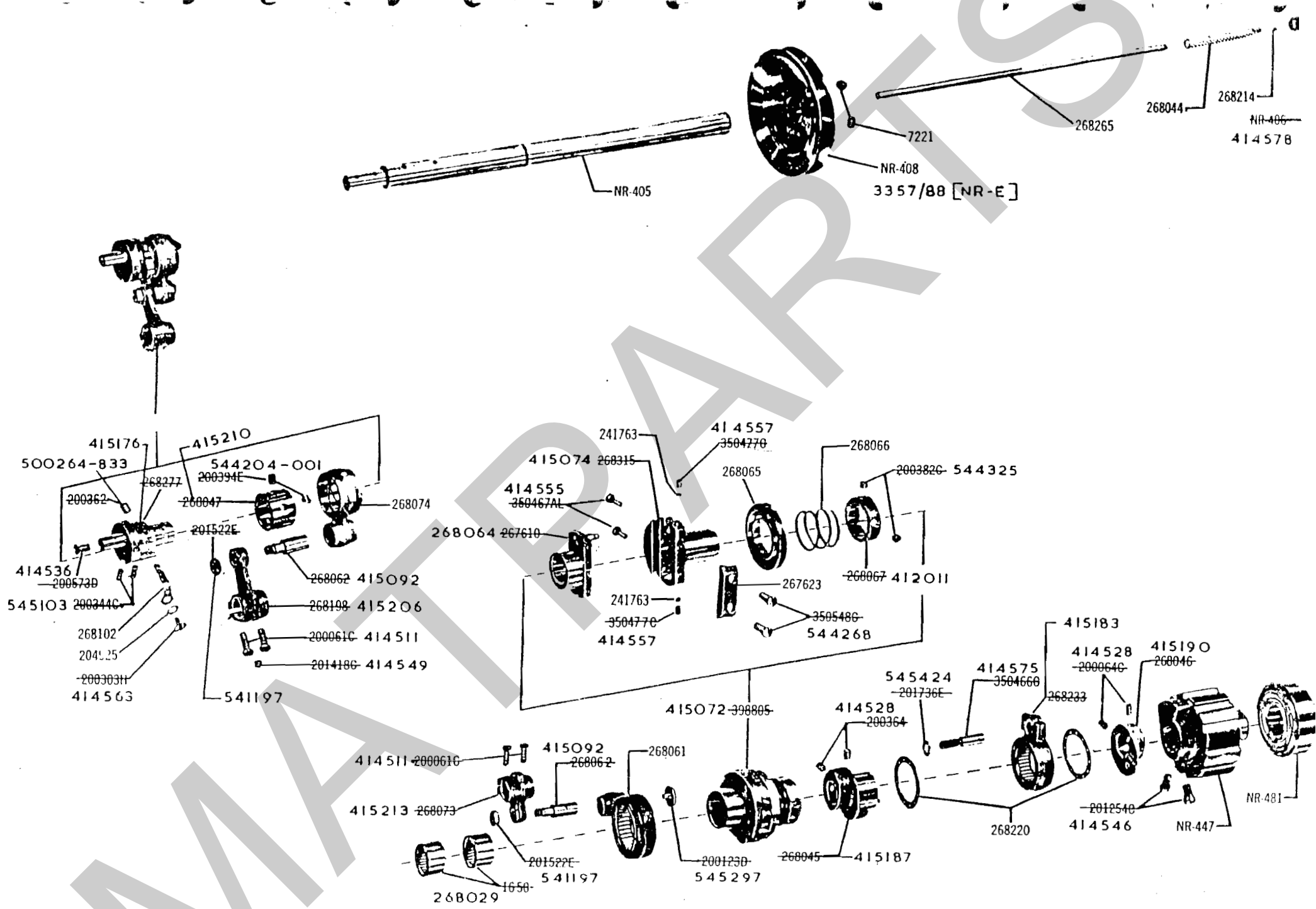
EXTERNAL PARTS SEWING ARM



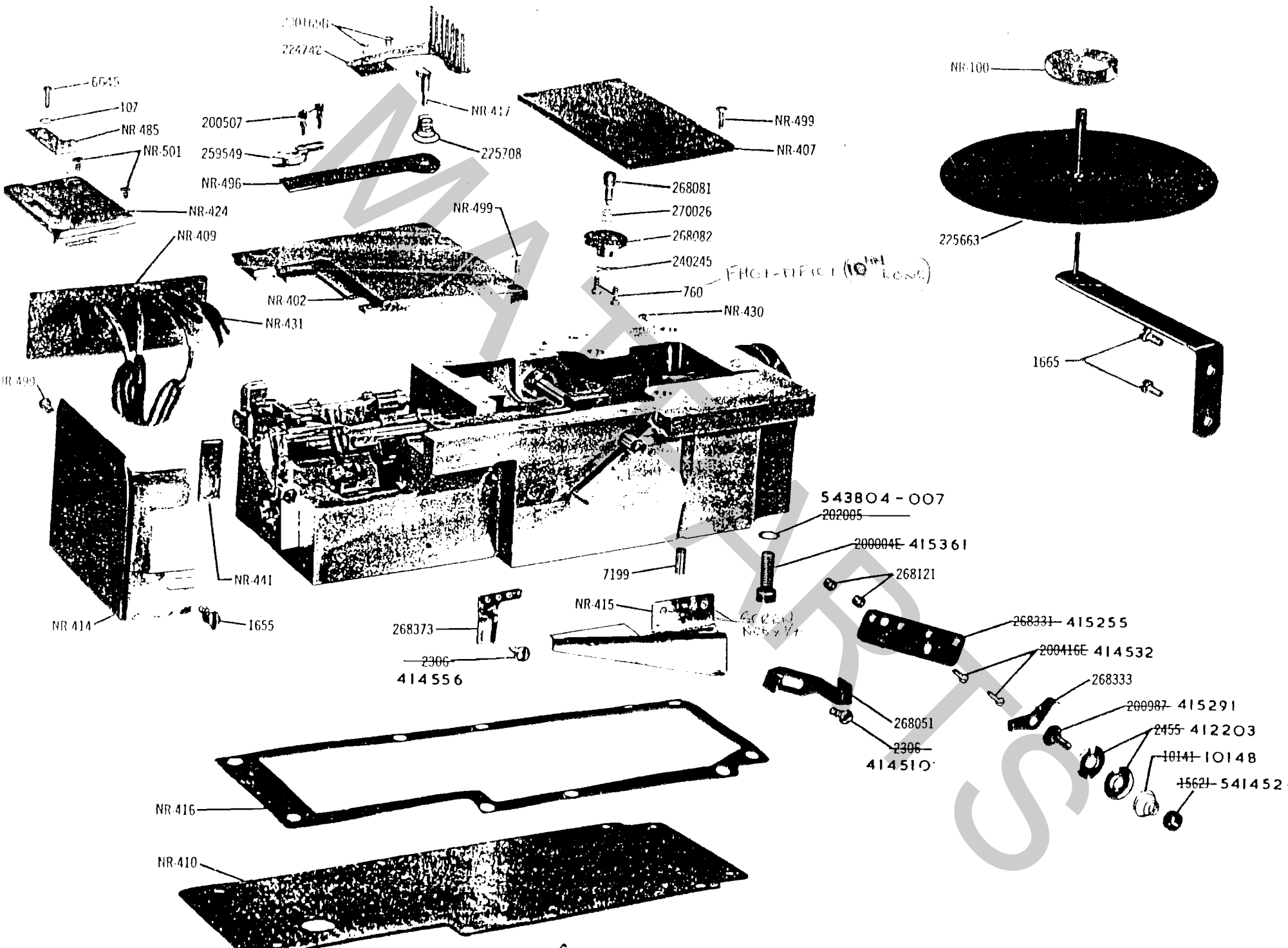


EXTERNAL PARTS SEWING ARM





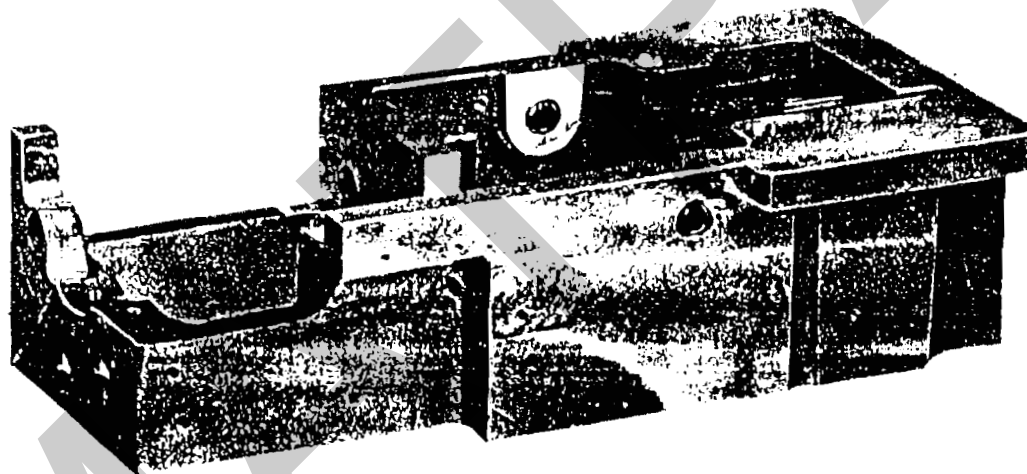
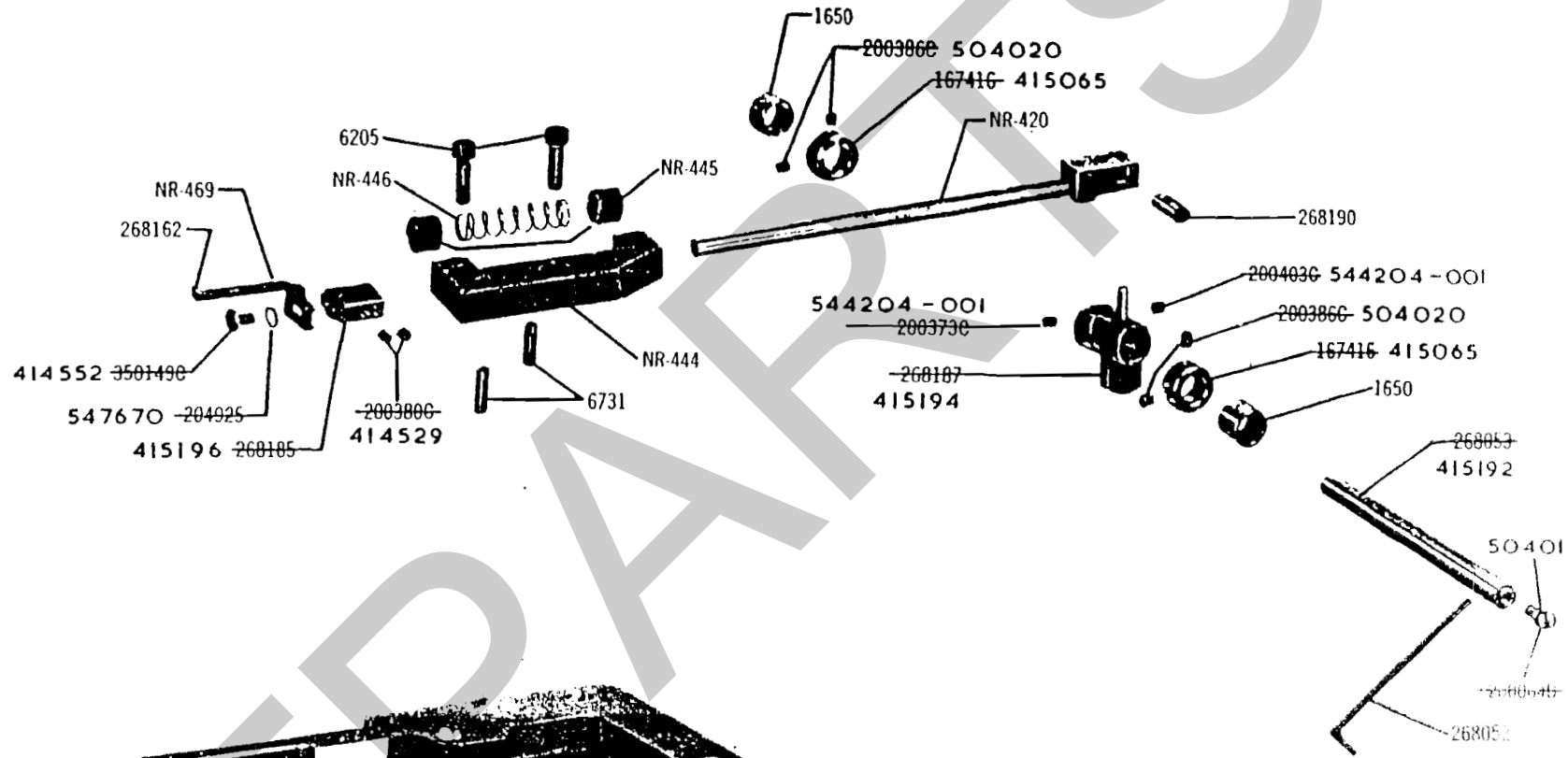
LOWER SHAFT ASSEMBLY



FRONT PLATE (10 1/2" LONG)

FRONT PLATE (10 1/2" LONG)

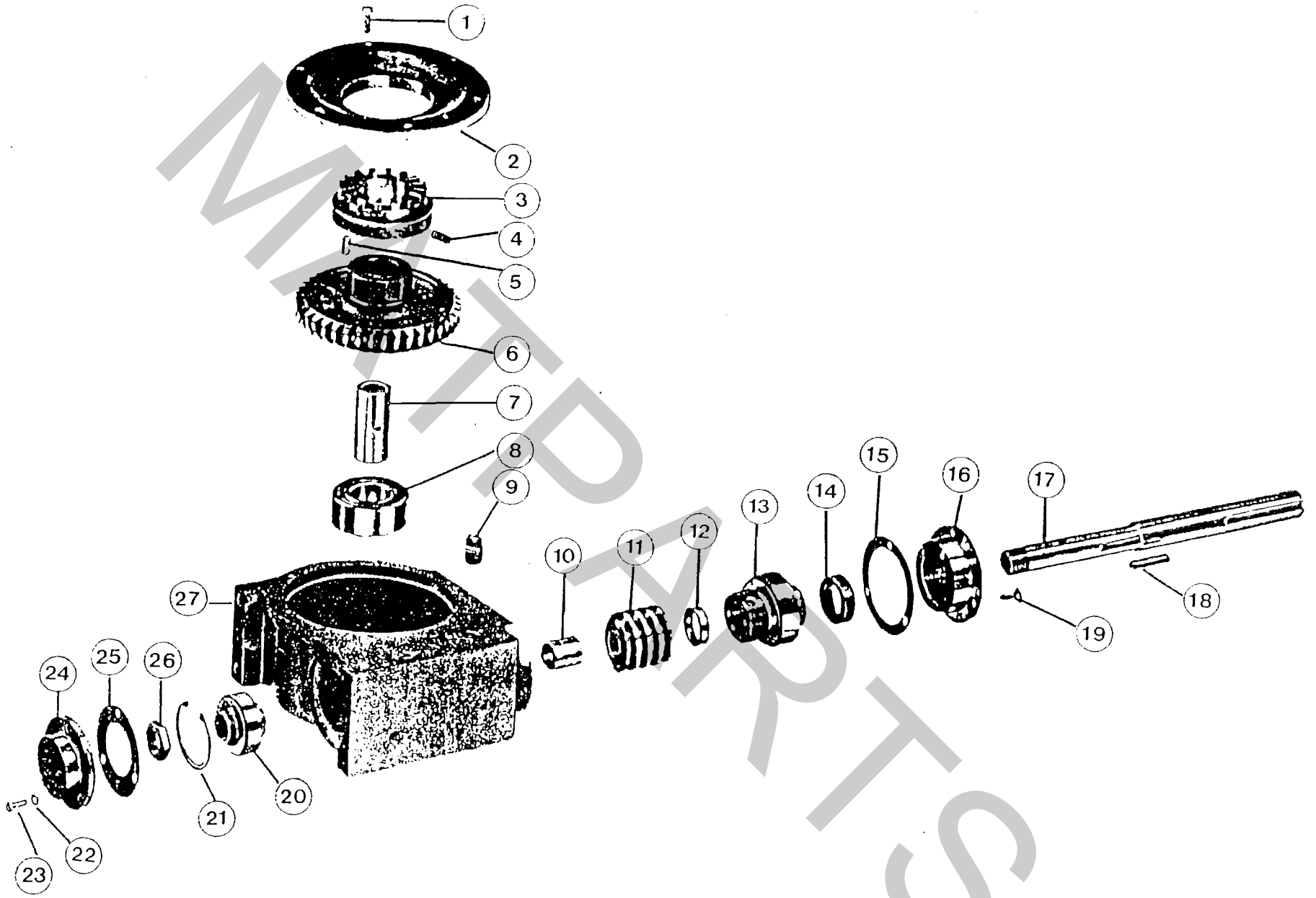
part no. 10148



CROSS SHAFT IN SEWING BED

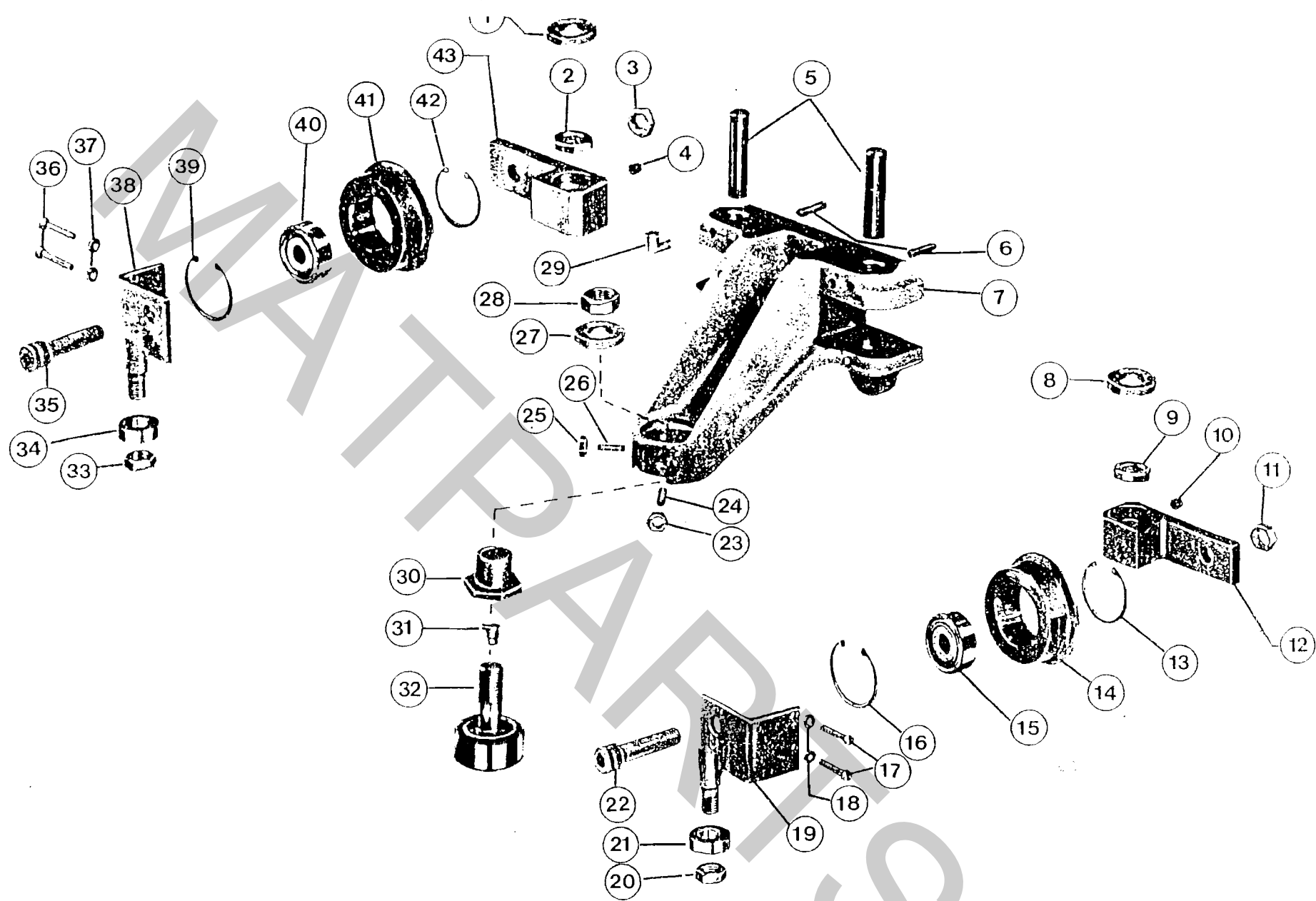
ITEM	PART NUMBER	DESCRIPTION
1	MF102	Screw
2	0018	Gear Box Cover Plate
3	0005	Ring
4	GC104	Screw
5	KO101	Key
6	0024	Main Drive Worm Gear
7	0023	Vertical Shaft
8	82-9676	Bearing
9	0075A	Pipe Lug
10	0165A	Sleeve Worm Spacer
11	0009	Drive Shaft Worm
12	0166A	Sleeve Worm Spacer
13	82-11298	Bearing
14	82-11234	Seal

ITEM	PART NUMBER	DESCRIPTION
15	0073	Gasket
16	0167A	Cap Gearbox Large
17	0004	Worm Drive Shaft
18	KB102	Key
19	MC101	Screw
20	82-11299	Bearing
21	82-11236	Circlip
22	W105	Lockwasher
23	MF101	Screw
24	0070	Cap - Gearbox
25	0071	Gasket
26	NN107	Nut - Worm Shaft
27	0003A	Gearbox



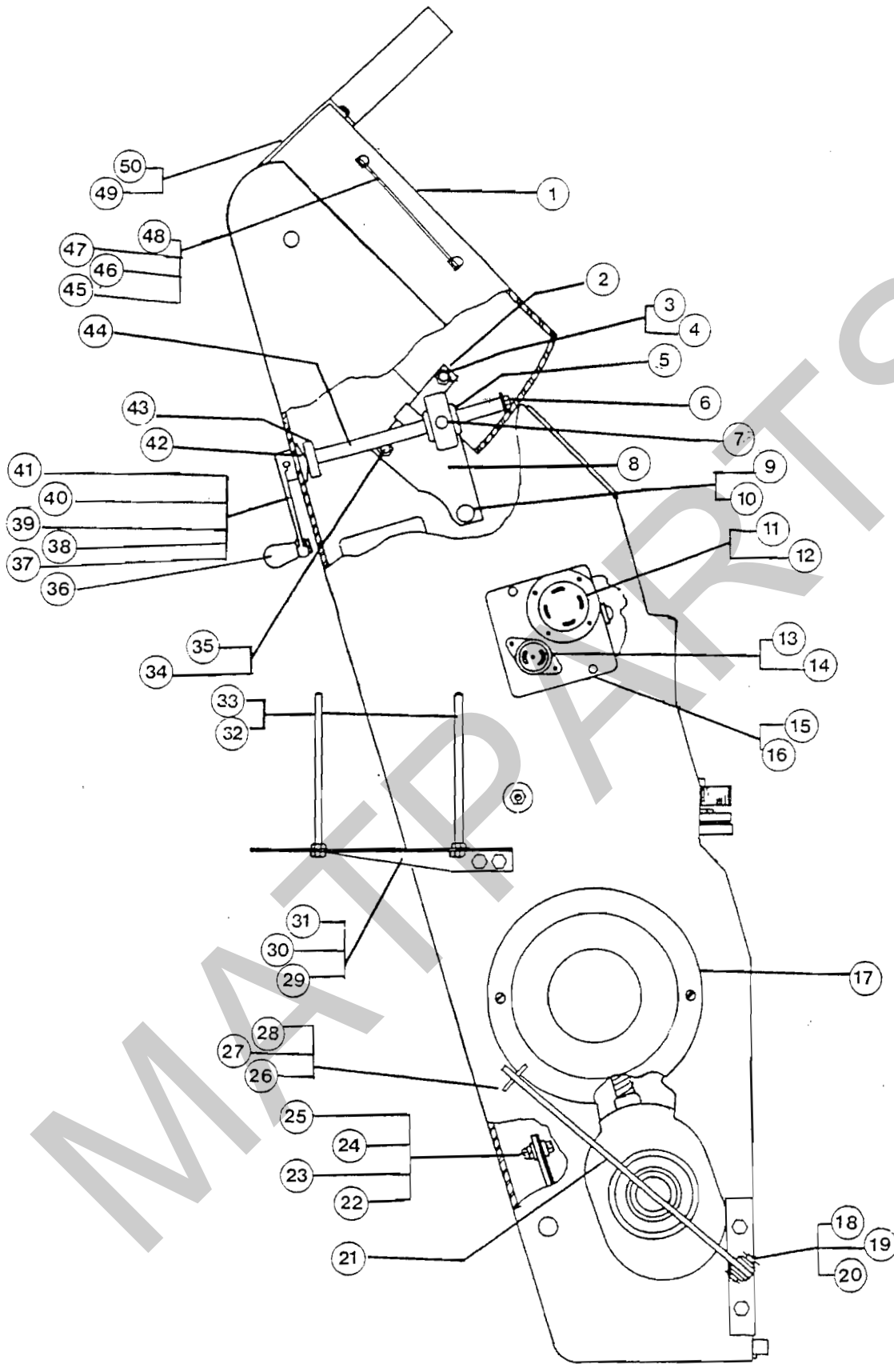
ITEM	PART NUMBER	DESCRIPTION
1	0036	Spacer
2	82-11291	Bearing
3	NN106	Nut
4	GC107	Screw
5	0157	Hinge Pin
6	82-11309	Rollpin
7	0027	Bracket
8	0036	Spacer
9	82-11291	Bearing
10	GC107	Screw
11	NN106	Nut
12	0848	Castor - RH
13	82-11236	Circlip
14	0065A	Roller Castor
15	82-11300	Bearing
16	82-11236	Circlip
17	MF104	Screw
18	N108	Nut
19	0067A	Bracket
20	NN105	Nut
21	82-9612	Bearing
22	SS106	Screw

ITEM	PART NUMBER	DESCRIPTION
23	NN101	Nut
24	GC102	Set Screw
25	NN101	Nut
26	GC102	Set Screw
27	0033	Washer
28	NN107	Locknut
29	82-11305	Oil Cup
30	0032	Sleeve
31	82-11306	Oil Cap Cover
32	0030A	Centre Pivot Roller
33	NN105	Nut
34	82-9612	Bearing
35	SS106	Screw
36	MF104	Screw
37	N108	Nut
38	0066A	Bracket
39	82-11236	Circlip
40	82-11300	Bearing
41	0065A	Roller Castor
42	82-11236	Circlip
43	0849	Castor - LH



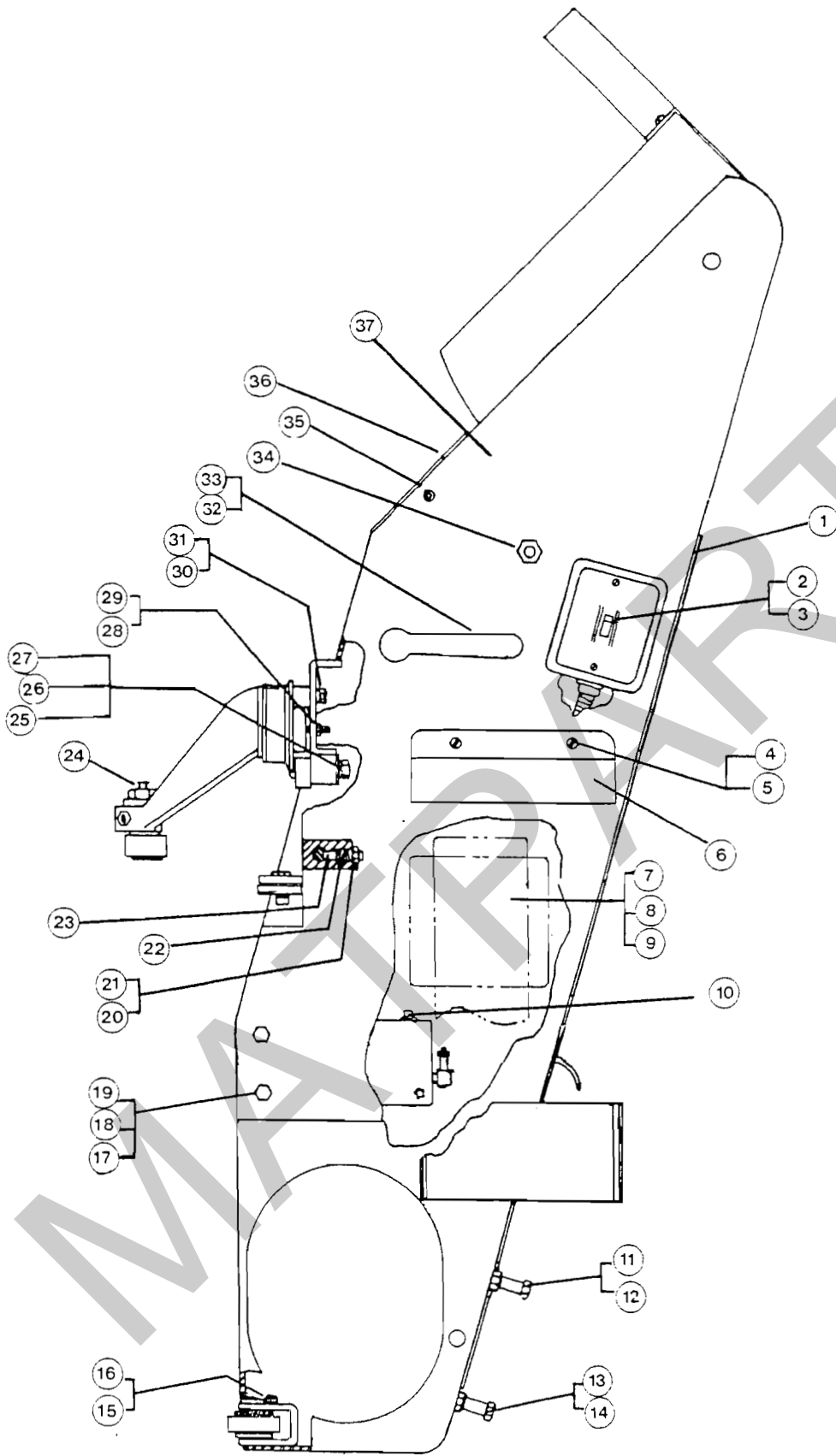
ITEM	PART NUMBER	DESCRIPTION
1	0034	Head Tilt Base
2	0041	Head Tilt Link
3	SC101	Screw
4	NN102	Nut
5	0039	Nut
6	C102	Cotter Pin
7	DO101	Dowel Pin
8	0040	Head Tilt Arm
9	SS105	Screw
10	WB103	Washer
11	82-11281	Flush Base
12	MP0305	Screw
13	82-11284	Female Connector
14	MP0305	Screw
15	0133A	Cover
16	MP0510	Screw
17	0105	Round Side Cover
18	0057	Pin
19	WB101	Washer
20	C101	Cotter Pin
21	0171	Arm
22	N103	Nut
23	W102	Washer
24	WA102	Washer
25	BB103	Screw

ITEM	PART NUMBER	DESCRIPTION
26	N104	Nut
27	WA102	Washer
28	BB105	Screw
29	W101	Lockwasher
30	BB101	Screw
31	0106	Thread Spool Bracket
32	N101	Nut
33	0336A	Thread Spool Holder
34	NN102	Nut
35	SS102	Screw
36	82-11288	Knob
37	MP102	Screw
38	GC106	Set Screw
39	WA103	Washer
40	0044	Sleeve
41	0042	Head Tilt Crank
42	0045	Head Tilt Pad
43	82-9672	Bearing
44	0038	Head Tilt Screw Shaft
45	MP103	Screw
46	WA104	Washer
47	W106	Washer
48	0484	Thread Guide
49	MP103	Screw
50	0109	Head Drive Sheave



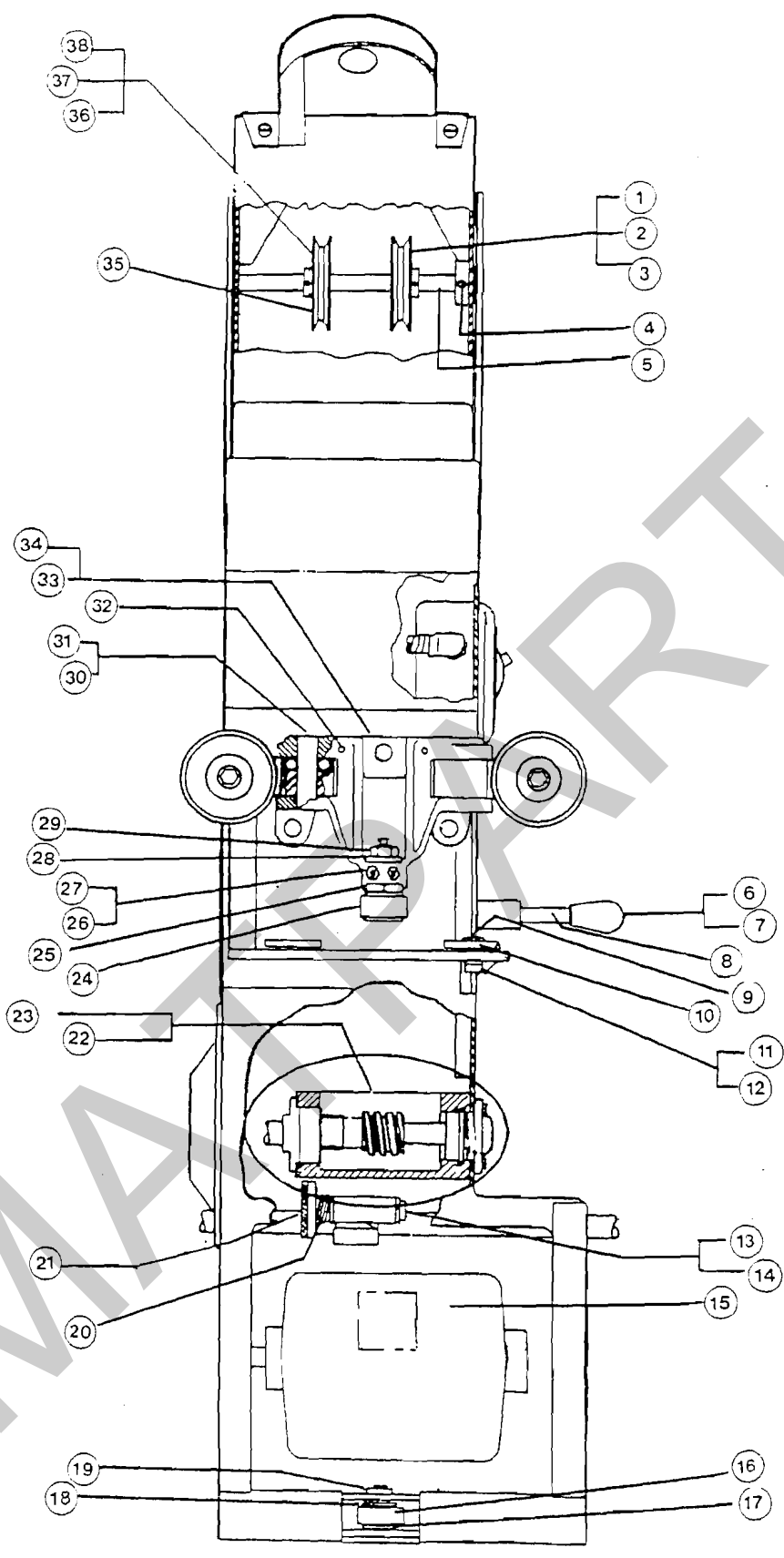
ITEM	PART NUMBER	DESCRIPTION
1	0108	Full Rear Cover
2	82-11287	Box & Cover
3	82-11286	Switch
4	MP103	Screw
5	W106	Washer
6	0099	Tool Tray
7	82-10431	Transformer 220v
8	82-10404	Transformer 380v +
9	0146A	Electrical Cabinet
10	0075A	Vent Plug
11	BB108	Screw
12	NN103	Nut
13	BB108	Screw
14	NN103	Nut
15	WA101	Washer
16	MP101	Screw
17	WA102	Washer
18	W102	Washer
19	BB102	Screw

ITEM	PART NUMBER	DESCRIPTION
20	GC109	Screw
21	NN103	Nut
22	82-11240	Spring
23	0094	Pin
24	82-11306	Oil Cup Cover
25	WB104	Washer
26	W104	Washer
27	B105	Screw
28	NN102	Nut
29	GC108	Screw
30	W104	Washer
31	BB109	Screw
32	PT101	Pin
33	0691	Handle
34	NN104	Nut
35	SC103	Screw
36	0107	Rectangular Rear Cover
37	0002A	Carriage



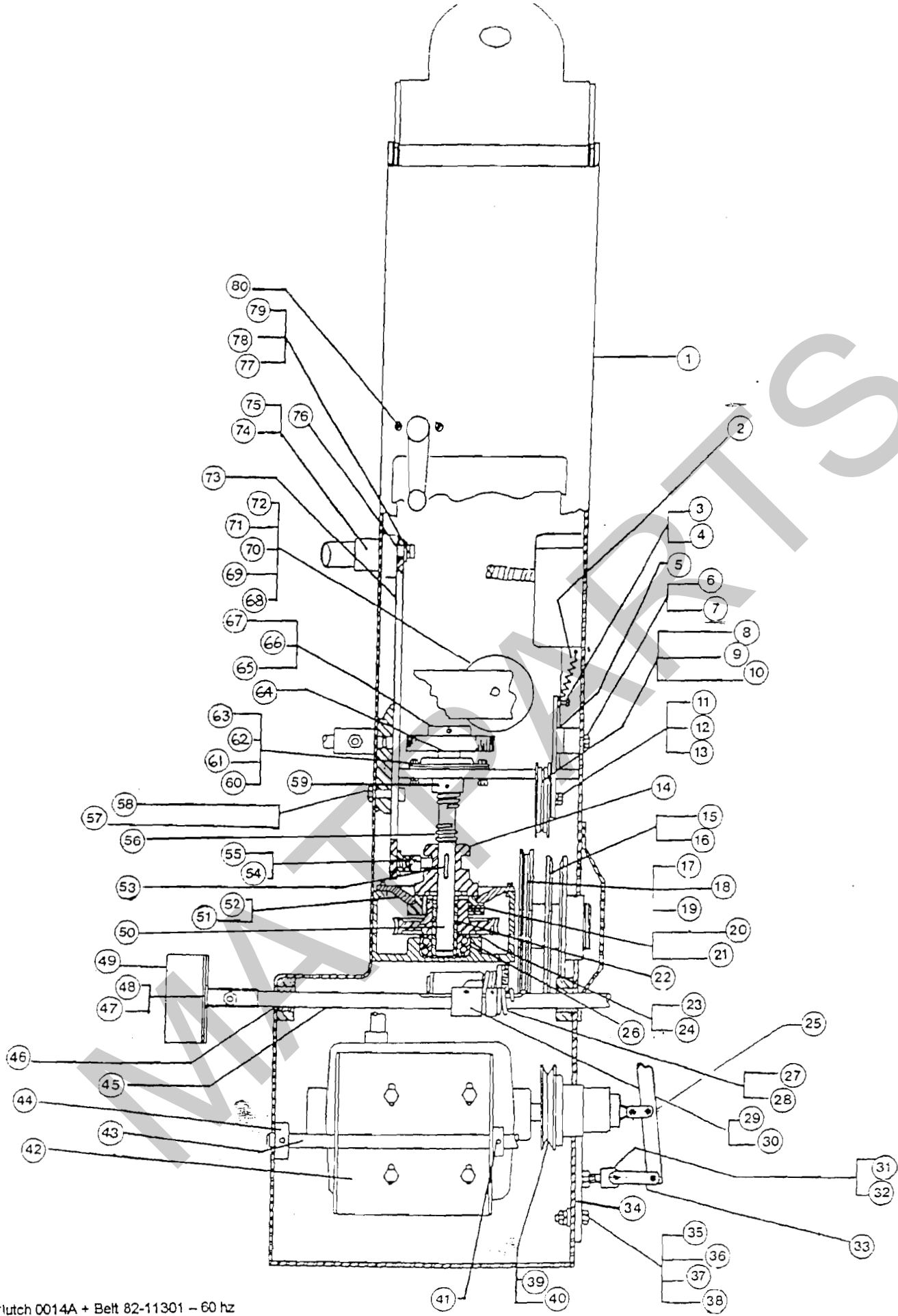
ITEM	PART NUMBER	DESCRIPTION
1	0333A	Pulley
2	82-11300	Bearing
3	82-11236	Circlip
4	GC101	Screw
5	0035	Head Tilt Pivot Shaft
6	82-11288	Knob
7	WA103	Washer
8	0095	Gear Lock Pin
9	0061	Leading Roller Stud
10	0060	Leading & Trailing Cam Roller
11	SS104	Screw
12	W103	Washer
13	0050	Brake Rod
14	82-11237	Circlip
15	82-11296	Motor
16	0089	Lower Roller
17	WB105	Washer
18	WB105	Washer
19	0068	Lower Roller Stud

ITEM	PART NUMBER	DESCRIPTION
20	0051	Spring
21	0052	Brake Disc
22	0123	Shim
23	0003A	Gearbox Casting
24	0030A	Centre Pivot Roller
25	0032	Sleeve
26	NN101	Nut
27	GC102	Screw
28	0033	Washer
29	NN107	Nut
30	GC107	Screw
31	0157	Hinge Pin
32	82-11309	Pin
33	0027	Centre Pivot Bracket
34	82-11305	Oil Cup
35	0015A	Belt
36	82-11236	Circlip
37	82-11300	Bearing
38	0333A	Pulley



ITEM	PART NUMBER	DESCRIPTION
1	0002A	Main Drive Assembly
2	82-11232	Spring
3	MF103	Screw
4	N108	Nut
5	0046	Head Belt Adjuster Arm
6	SC102	Screw
7	N106	Nut
8	0333A	Pulley
9	82-11300	Bearing
10	82-11236	Circlip
11	SC102	Screw
12	W103	Washer
13	N106	Nut
14	0335A	Drive Shaft Worm
15	0020B	Driven Adjustable Pulley
16	GC0606	Screw
17	0012	Sewing Drive Sheave
18	GC101	Screw
19	KO103	Key
20	0005	Ring
21	GC104	Screw
22	0023	Vertical Shaft Sleeve
23	0024	Main Drive Worm Gear
24	KO101	Key
25	WB101	Washer
26	82-9676	Bearing
27	82-11238	Spring
28	0844A	Collar
29	0049A	Brake Arm Bracket
30	GC105	Screw
31	0055	Stud - Clutch Arm Link
32	NN102	Nut
33	0054	Link - Clutch Arm
34	0056	Base - Clutch Link Stud
35	BB101	Screw
36	WA101	Washer
37	W101	Washer
38	N101	Nut
39	0014B	Clutch (50hz)
40	82-11302	Belt (50 hz)

ITEM	PART NUMBER	DESCRIPTION
41	GC105	Screw
42	0098A	Motor Pivot Base
43	0101A	Motor Pivot Shaft
44	0844A	Collar
45	0170A	Knee Plunger Rod
46	82-11303	Bushing
47	BB106	Screw
48	0102	Knee Pad Plate
49	0104	Knee Plate Pad
50	0022	Vertical Shaft
51	MF102	Screw
52	0018	Gearbox Cover Plate
53	KB101	Key
54	SC101	Screw
55	0091	Clutch Release Stud
56	82-11239	Feed Clutch Spring
57	NN102	Nut
58	0112	Screw
59	82-11233	Collar
60	N104	Nut
61	W102	Washer
62	BB104	Screw
63	0059	Flangette Stamping
64	82-11297	Bearing
65	GC103	Screw
66	KO102	Key
67	0086	Main Drive Gear
68	WA103	Washer
69	SC102	Screw
70	82-11236	Circlip
71	82-11300	Bearing
72	0334A	Pulley
73	0090	Clutch Release Arm
74	82-11308	Pin
75	0096	Clutch Eccentric
76	0097	Sleeve
77	WB102	Washer
78	W102	Washer
79	SS103	Screw
80	SC103	Screw



Clutch 0014A + Belt 82-11301 - 60 hz
 Clutch 0014B + Belt 82-11302 - 50 hz

ITEM	PART NUMBER	DESCRIPTION
1	0014B	Clutch
2	0054	Link - Clutch Arm
3	0055	Stud - Clutch Arm Link
4	NN102	Nut
5	0056	Base - Clutch Link Stud

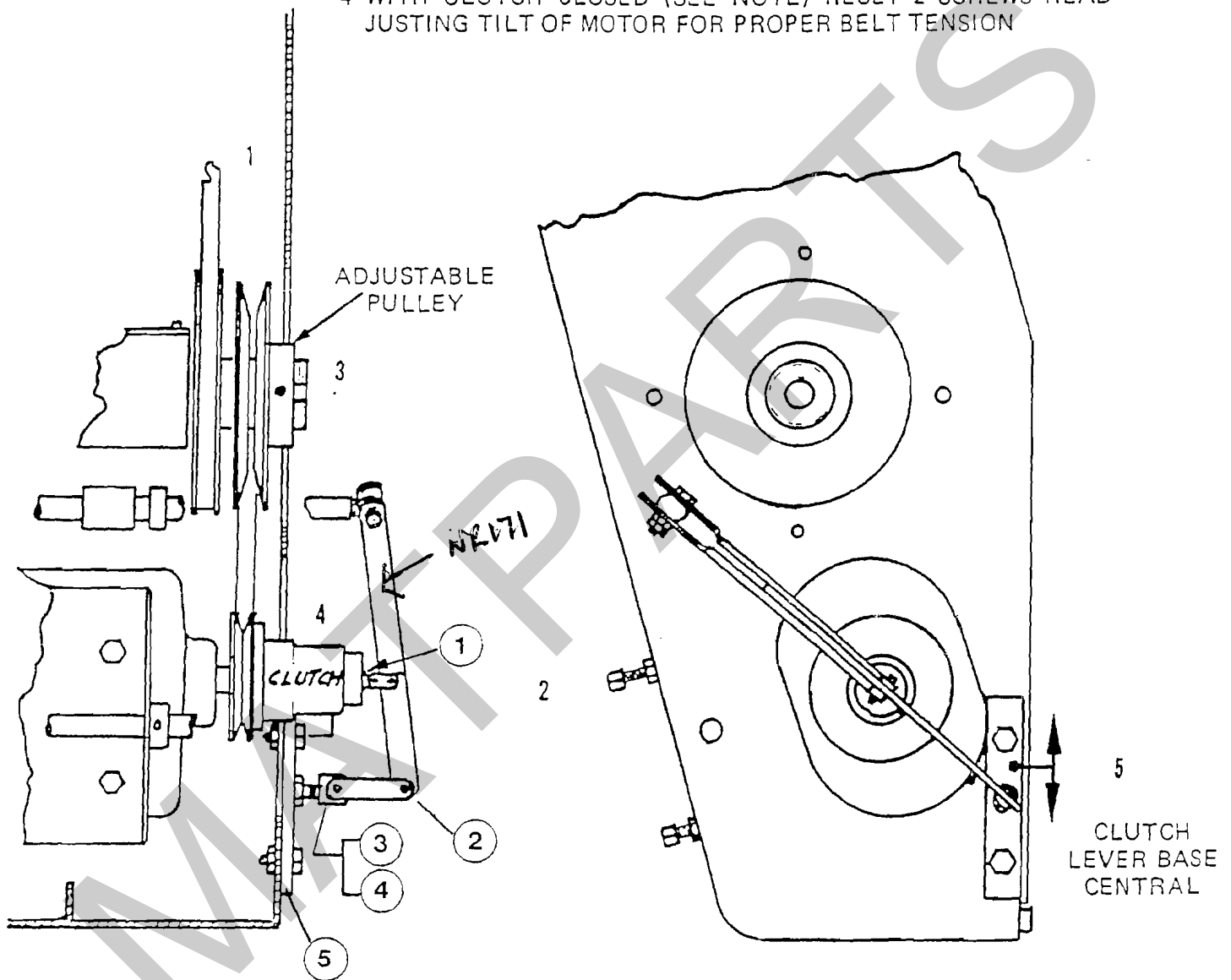
MATPARTS

1 SLIP HEAD DRIVE BELT FROM PULLEY

2 RELEASE UPPER MOTOR ADJUSTING SCREW 1/2" APPROX.

3 TO CHANGE MACHINE TRAVEL SPEED – RELEASE SET SCREW IN HUB & OPEN (FASTER) OR CLOSE (SLOWER) TO DESIRED POSITION—RESET SCREW ON FLAT

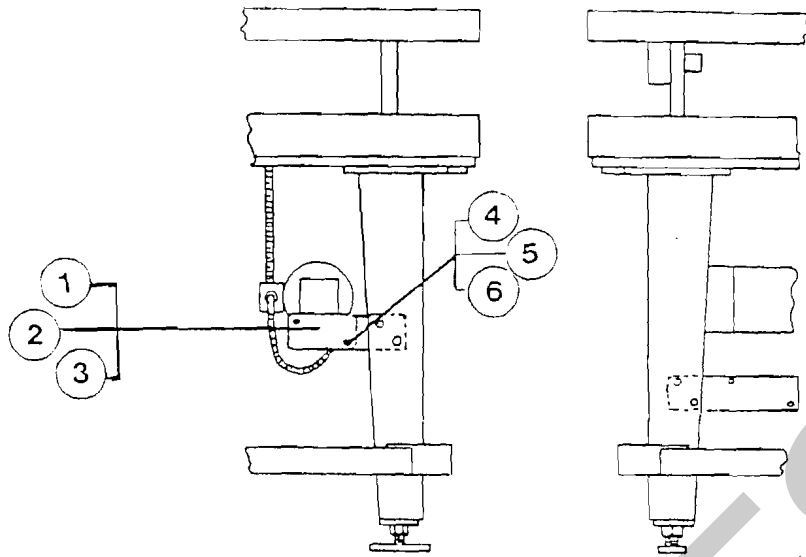
4 WITH CLUTCH CLOSED (SEE NOTE) RESET 2 SCREWS READJUSTING TILT OF MOTOR FOR PROPER BELT TENSION



NOTE
CLUTCH PULLEY IS COMPLETELY CLOSED
WHEN ADJUSTING MOTOR SCREWS FOR
BELT TENSION
ROTATE CLUTCH BY HAND & PUSH TOWARD
MOTOR TO CLOSE CLUTCH TO OPERATING
POSITION

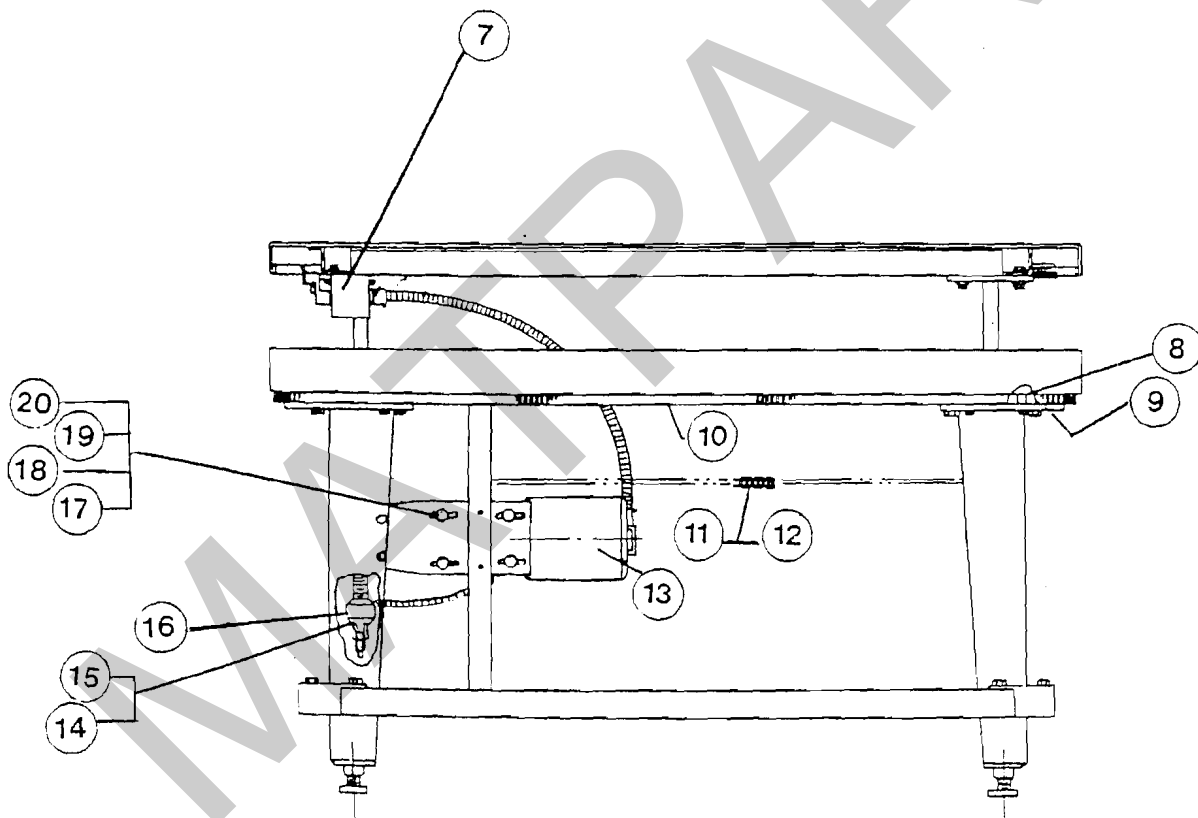
ITEM	PART NUMBER	DESCRIPTION
1	82-10179	Switch Head
2	82-11293	Switch Body
3	82-11294	Switch Arm
4	SS0545	Screw
5	WA05	Washer
6	N05	Nut
7	0337A	Reversing Switch
8	0077	Spacer
9	0064	Corner Cam
10	0083	Rack

ITEM	PART NUMBER	DESCRIPTION
11	0356A	Chain
12	82-11235	Link
13	82-11295	Motor Reduction Unit
14	W103	Washer
15	B103	Screw
16	0310	Elevating Limit Switch Trip
17	N103	Nut
18	W102	Washer
19	WA102	Washer
20	B102	Screw



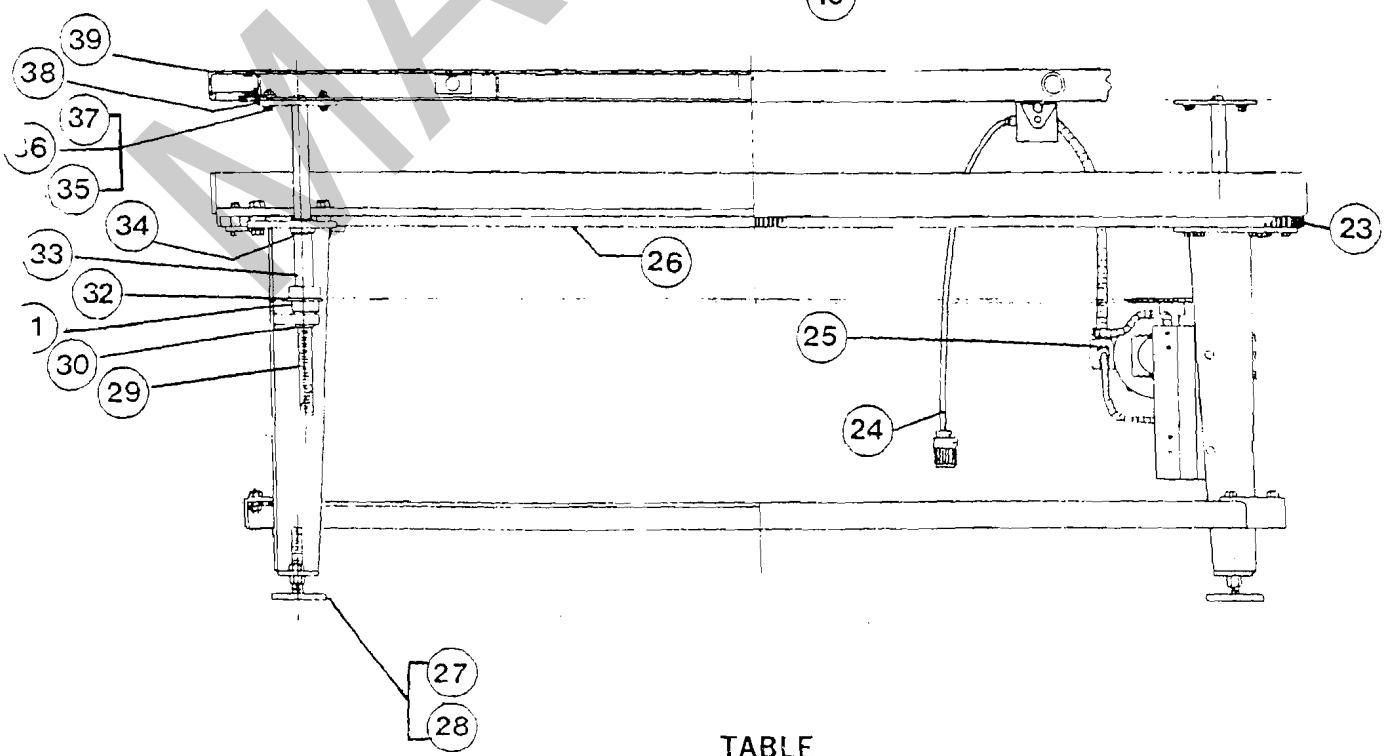
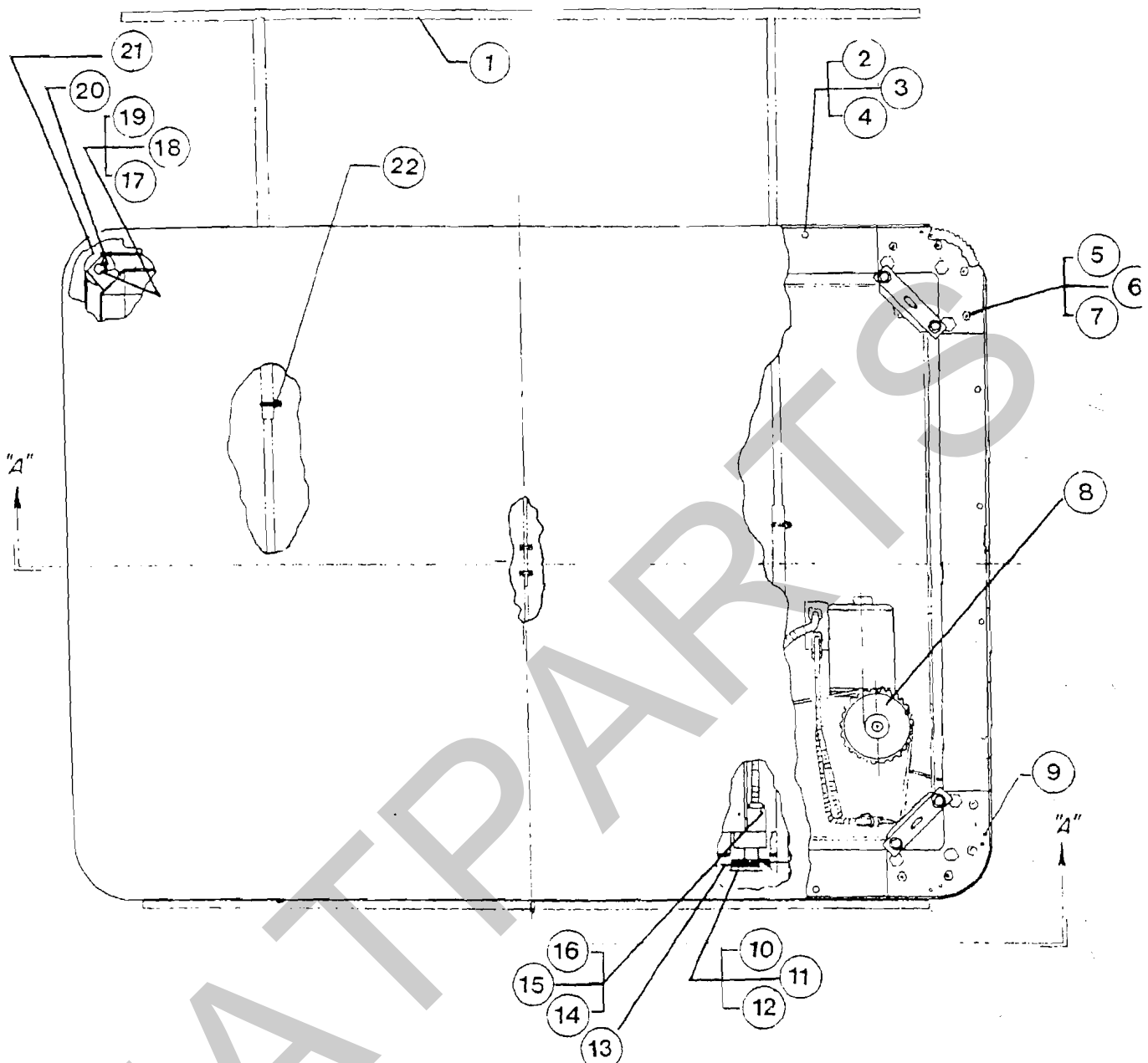
FOR 3 PH. APPLICATION

DETAIL "A"



ITEM	PART NUMBER	DESCRIPTION
1	0720	Table Extension Assembly
2	SS101	Screw
3	N102	Nut
4	W101	Washer
5	B104	Screw
6	W103	Washer
7	N106	Nut
8	0315B	Table Elevating Sprocket
9	82-11307	Roll Pin
10	0351A	Lever Switch Segment
11	BB104	Screw
12	0815A	Washer
13	0308	Reversing Switch Cord
14	N05	Nut
15	W05	Washer
16	SS0512	Screw
17	N102	Nut
18	W101	Washer
19	B101	Screw
20	0029A	Wheel Spacer

ITEM	PART NUMBER	DESCRIPTION
21	82-11292	Rev. Switch Cord Sheave
22	0727A	Clamp
23	0085	Corner Gear Segment
24	82-11282	Socket
25	0329A	Connector
26	0084	Rack
27	N107	Nut
28	0197A	Foot
29	0311	Elevating Screw
30	82-11304	Bushing
31	82-11290	Bearing
32	0312A	Elevating Sprocket
33	0313	Elevating Sprocket
34	82-11304	Bushing
35	N105	Nut
36	WA103	Washer
37	BB107	Screw
38	0601	Elevating Screw Top Plate
39	0600	Table Top

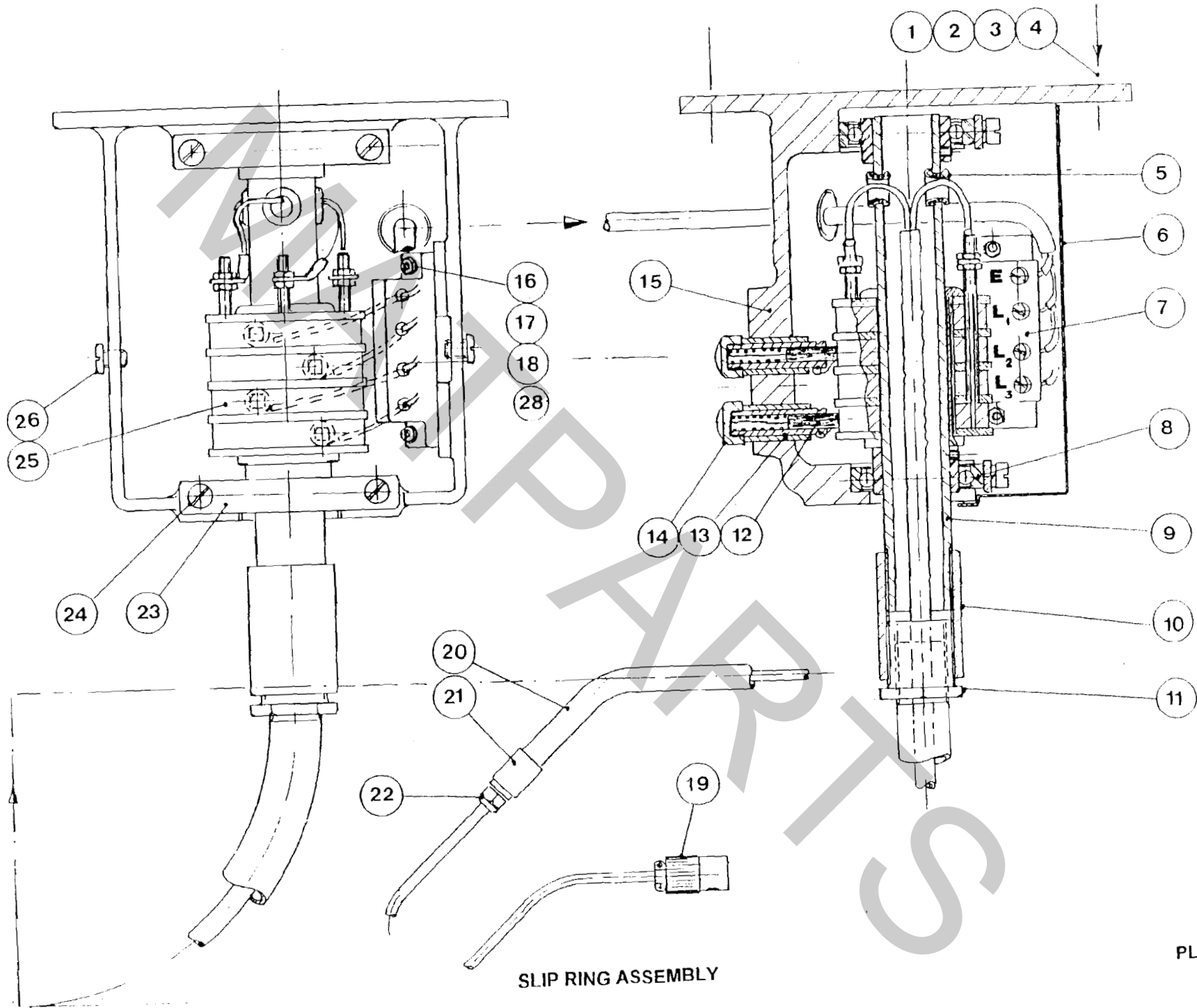


TABLE

ITEM	PART NUMBER	DESCRIPTION
1	W102	Washer
2	WA102	Washer
3	BB103	Screw
4	N103	Nut
5	82-11329	Rubber Grommet
6	9104	Cover
7	82-11326	Terminal Block
8	82-11327	Bearing
9	9102	Spindle
10	82-11328	Screwed Coupler
11	82-11321	Reducer
12	82-11325	Brush
13	82-11324	Brush Holder & Cap
14	82-11332	Cap
15	9101	Body

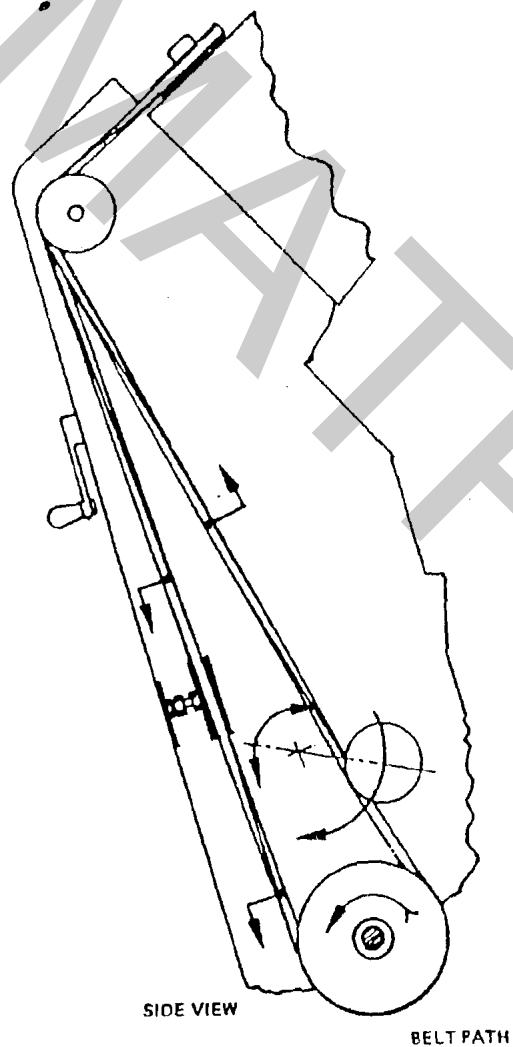
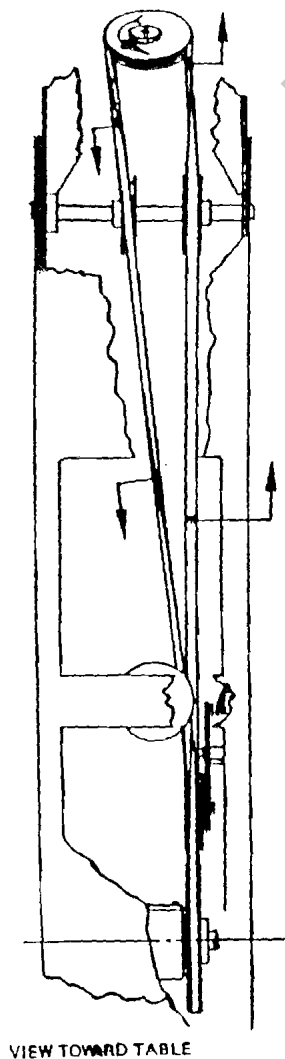
ITEM	PART NUMBER	DESCRIPTION
16	MP104	Screw
17	MR101B	Brass Screw
18	WA105B	Brass Washer
19	82-11283	Female Connector
20	9105	Swivel Arm
21	82-11330	Screwed Coupler
22	82-11322	Gland
23	9103	Bearing Clamp
24	MP104	Screw
25	82-11323	Slip Ring - 4 Rings
26	MP101	Screw
27	82-11331	Lightning Flash
28	N109B	Nut

27

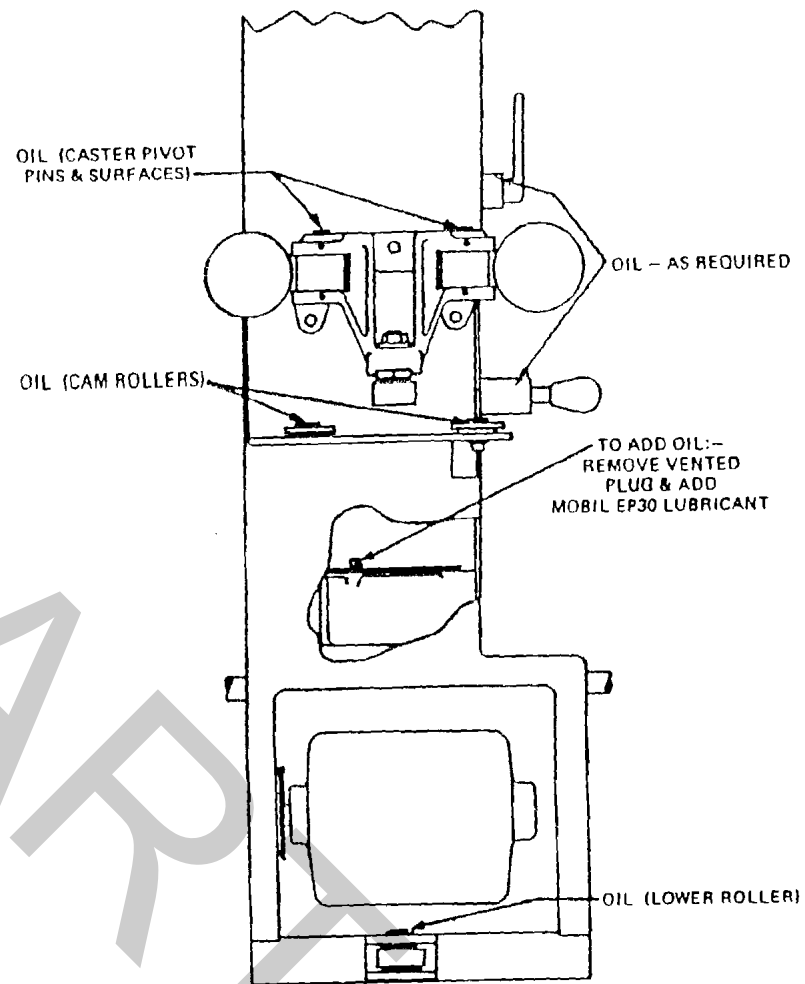


OCT '94

PLATE 19

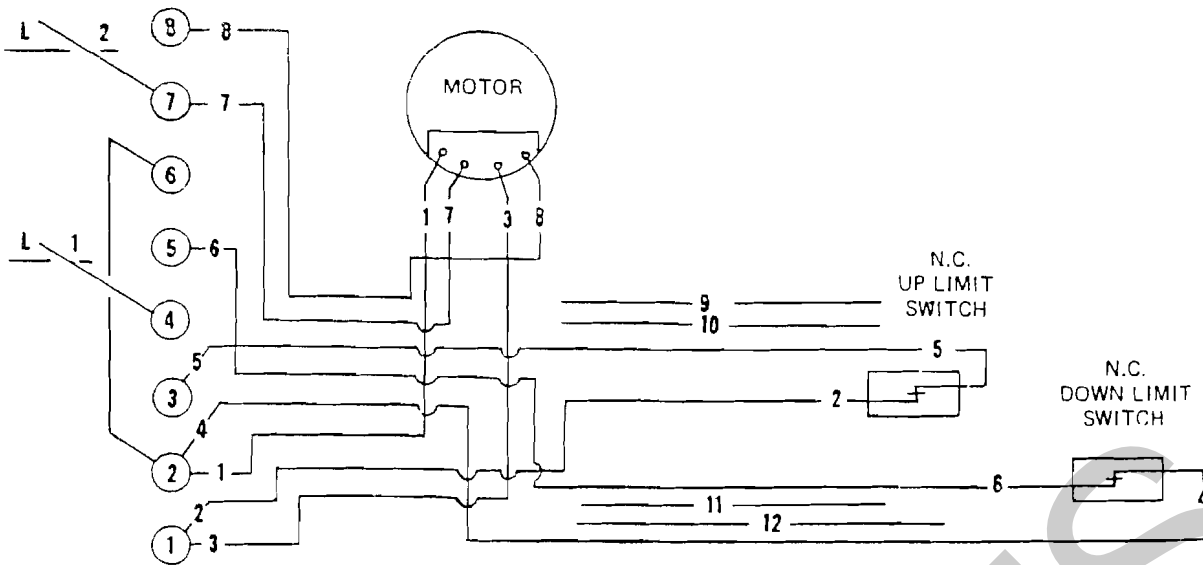


SEWING HEAD DRIVE BELT PATH



FOR MACHINES WITH GREASE FITTING IN PLACE OF OIL SIGHT GLASS - REMOVE VENTED PLUG & GREASE LEVEL SHOULD BE 1" TO 1 1/4" DEEP

LUBRICATION CHART

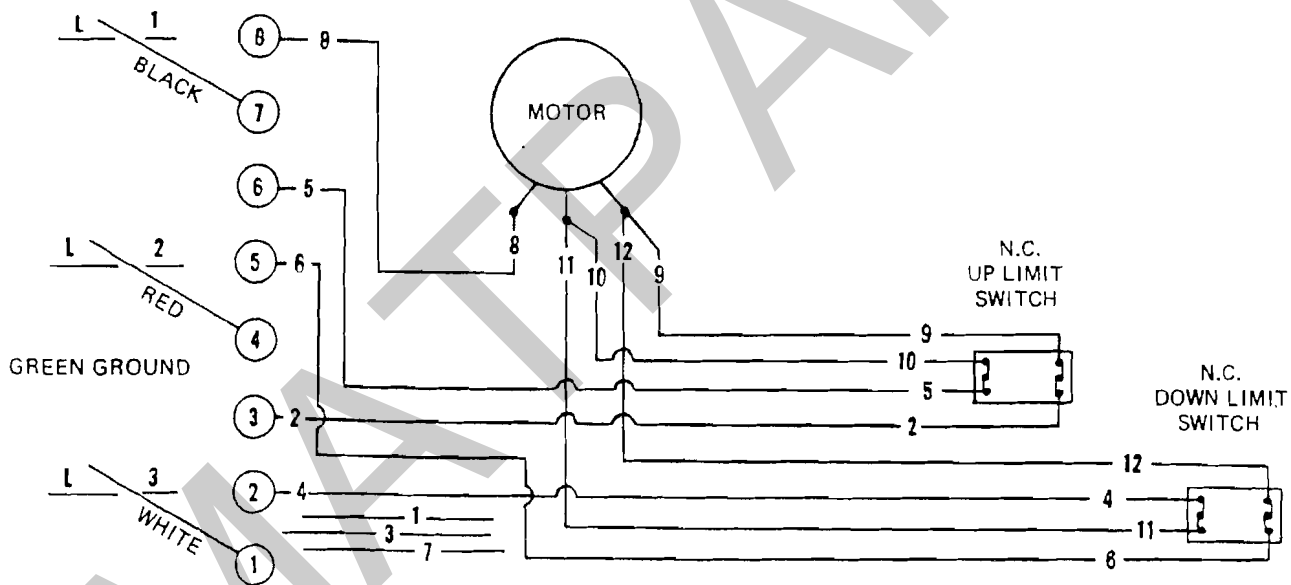


M & T 1721
REVERSING
SWITCH
C.C.W. FORWARD"-UP
C.W. REVERSE"-DOWN

WIRES 9-10-11-12 NOT USED

ALL HARNESS WIRE BLACK
USE UNIVERSAL HARNESS NR-392-N

SINGLE PHASE

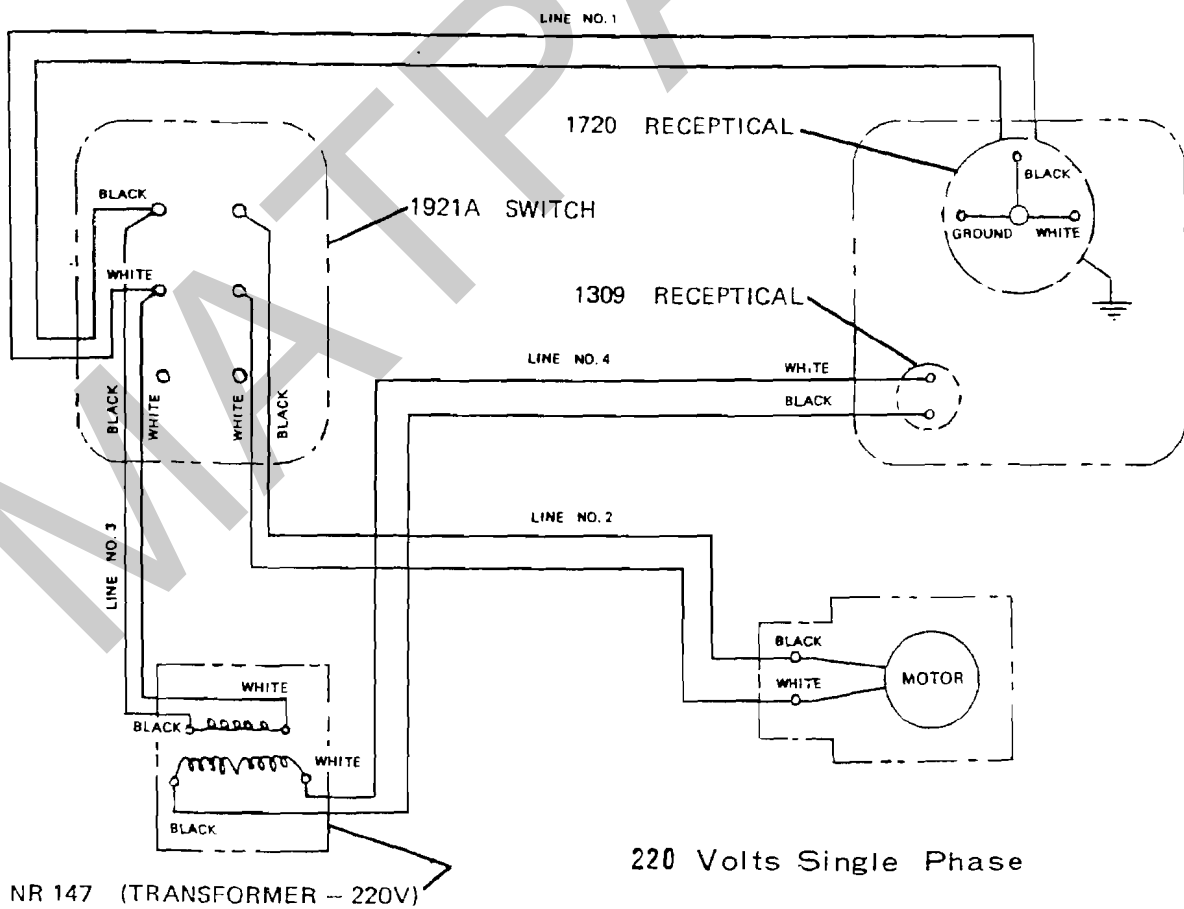
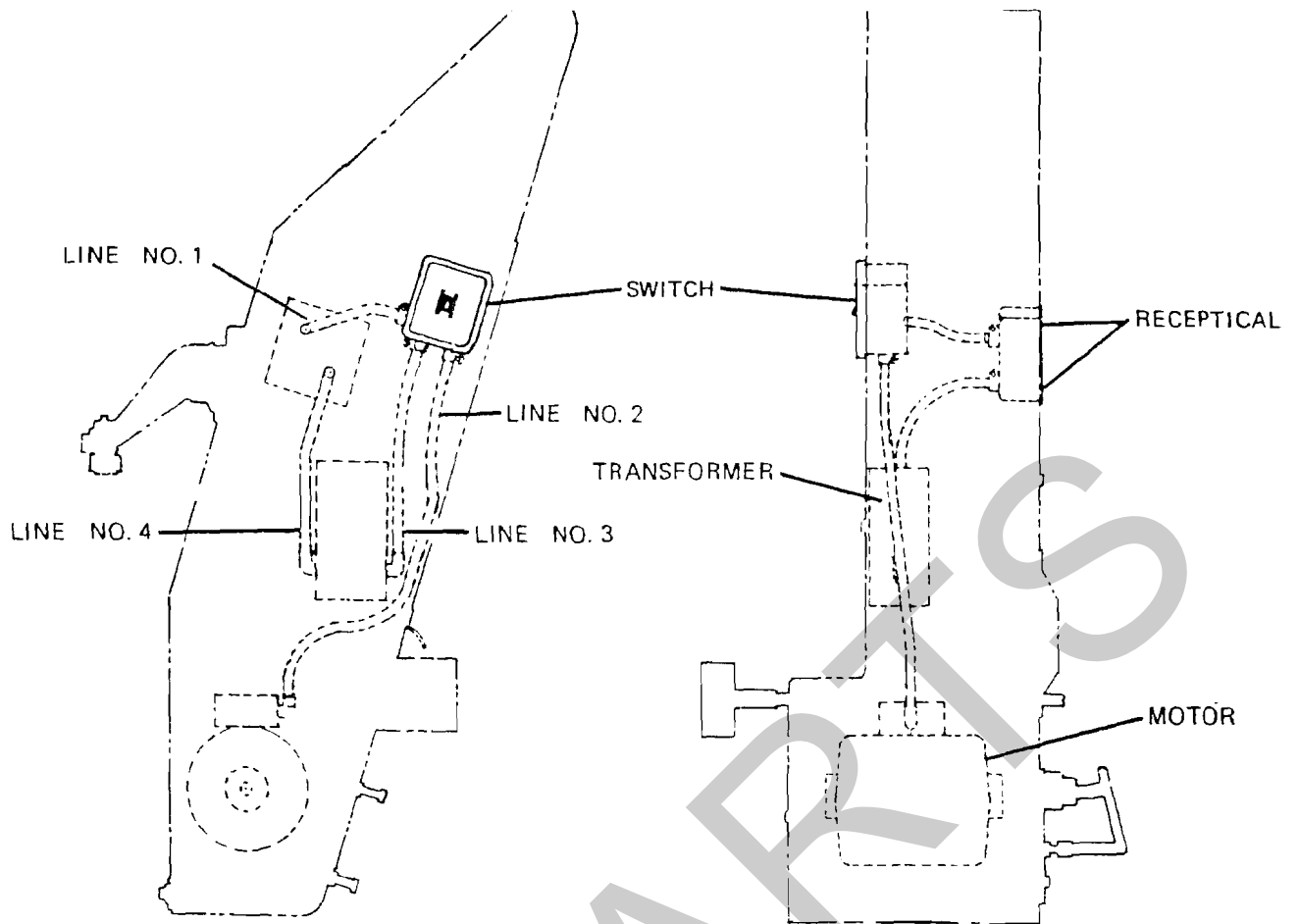


M & T 1721
REVERSING
SWITCH
C.C.W. FORWARD"-UP
C.W. REVERSE"-DOWN

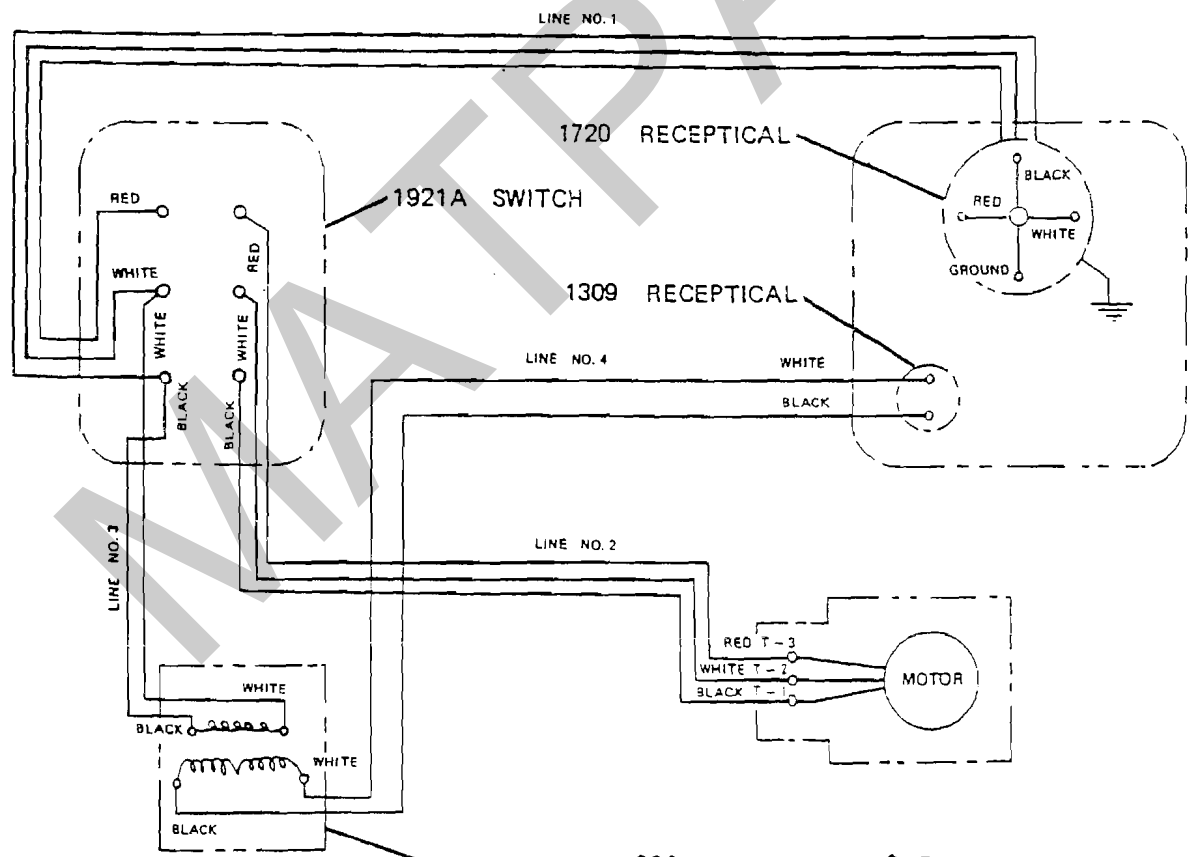
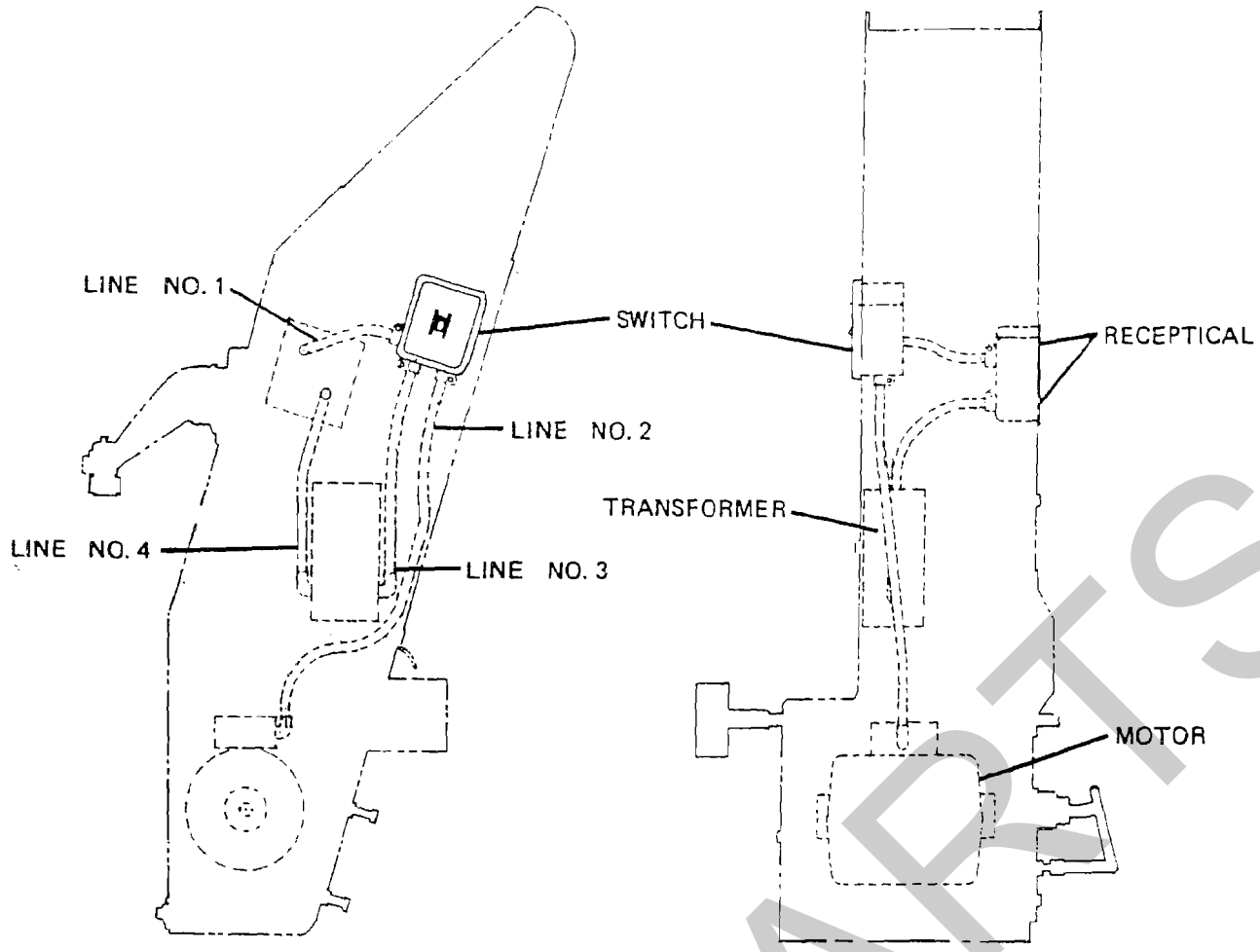
WIRES 1, 3 & 7 NOT USED

ALL HARNESS WIRE BLACK
USE UNIVERSAL HARNESS NR-392-N

3-PHASE



MAIN DRIVE WIRING DIAGRAM



220 Volts-Up - 3 Phase

NR 149 (TRANSFORMER - 220V - UP)