

**Maintenance  
And Spare Parts  
Manual**

**Matramatic**

**CNC Twin Head Panel Quilting  
Machine  
CQT-TC**

MATPARTS

**December 2001**

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# **1 Machine Description**

The machine consists of three major parts; the frame change table, the beam and the moving carriage assembly.

The beam is stationary and fixed to the floor. The two sewing heads, hook assemblies, drive shafts, pneumatic valves and the computer control system are all attached to the beam.

Each sewing head is driven by its own servo motor. Each motor is driven by its own servo drive which are controlled by the computer control system. The RH head has its motor at the RH end of the beam and the LH head has its motor at the LH end of the beam. Inside the two end cabinets there are toothed belt drives coupling the respective motor to the lower drive shafts and another belt coupling the upper and lower drive shafts. There are additional toothed belt drives from the upper and lower shafts to the sewing heads and hook assemblies.

The sewing heads are datumed during the start up procedure to identify the needle up position their position is then continually monitored and controlled by the computer.

The carriage is moved in X and Y directions (the X axis is parallel to the beam) on heavy duty rails and cast iron wheels. Each axis is driven by a low backlash geared servo motor and a low stretch toothed belt drive. The axes are datumed during the start up procedure and then controlled by the computer.

The frame change table consists of a table and a stacking mechanism; both of these are moved up and down by four cylinders in the corners. Each set of four cylinders is controlled by a solenoid valve mounted in the base. The top rails of the stacking mechanism pivot outwards by the operation of pneumatic cylinders. The operation of the frame change table works under computer control.

The material frames are designed to hold materials of various sizes up to the maximum capacity of the machine. While one frame is on the carriage being sewn the other is on the frame change table being unloaded and re-loaded with new materials. The frames incorporate two ganged clamp bars that can be easily positioned for different material widths. The end clamps on the size 3 machine can also be adjusted for different material lengths. The frames also have an effective stretching mechanism to ensure excellent product quality.

The head mounted thread cutters are pneumatically operated by their respective cylinders. They operate automatically at the end of the cycle when a frame is withdrawn from the carriage. Both top and bottom threads are dragged over the blade to ensure that they are both cut. When the withdrawn frame is fully back on the frame change table the stacking mechanism lowers ready for the next frame to be loaded and the cutter is automatically retracted.

## **2 Sewing Heads – Introduction**

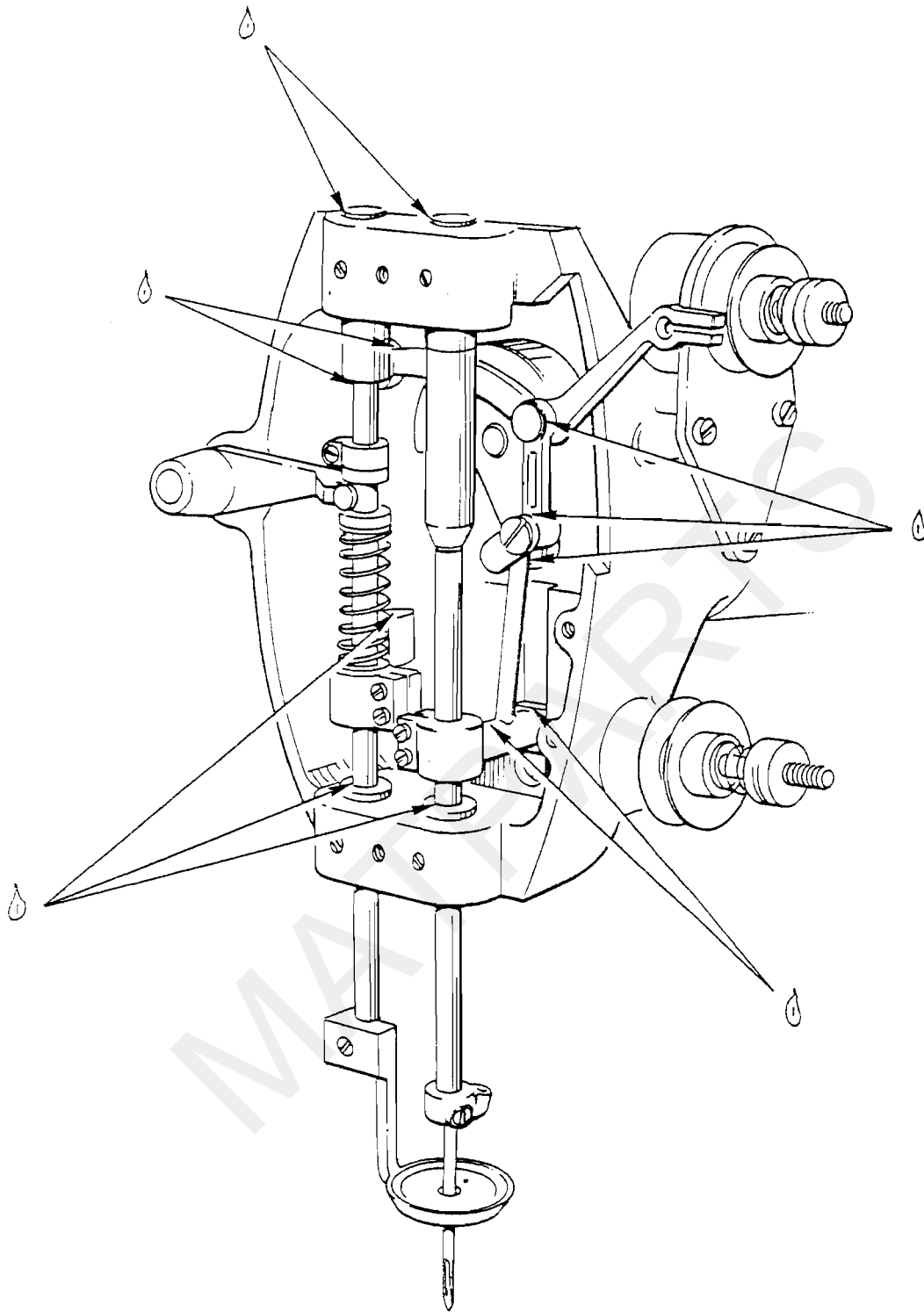
The sewing heads are modified Newlong DD5 heavy duty lifting presser foot lockstitch heads. The top castings have been modified to incorporate sealed bearings for the top shaft and presser lift mechanism. They are mounted on a tilting arrangement on the top beam. This allows the frames to slide under the heads.

The hook assemblies are assembled in purpose designed castings mounted on the lower beam. The assembly incorporates a special hook shaft mounted on sealed bearings.

Careful attention to the lubrication and timing of the sewing heads is essential for minimum down time. The settings of the sewing heads may require adjustment according to the materials to be sewn (see section 4)

As most of the wear on the machine will be in the sewing heads it is recommended that customers carry spares for the sewing heads. Our spares department carries a large stock of sewing machine spares, which can be dispatched within 24 hours.

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🔹 Oil Points Inside Cover One Drop Daily

### **3 Routine Maintenance**

#### **3.1 Daily**

Lubricate the sewing head. Use good quality oil.

BP: Maccurat 32 or Energol HP32

Shell Tellus T37

Mobil: Vactra Oil No. 1 or DTE 13

#### **3.2 Weekly**

Check the main air filter.

#### **3.3 Monthly**

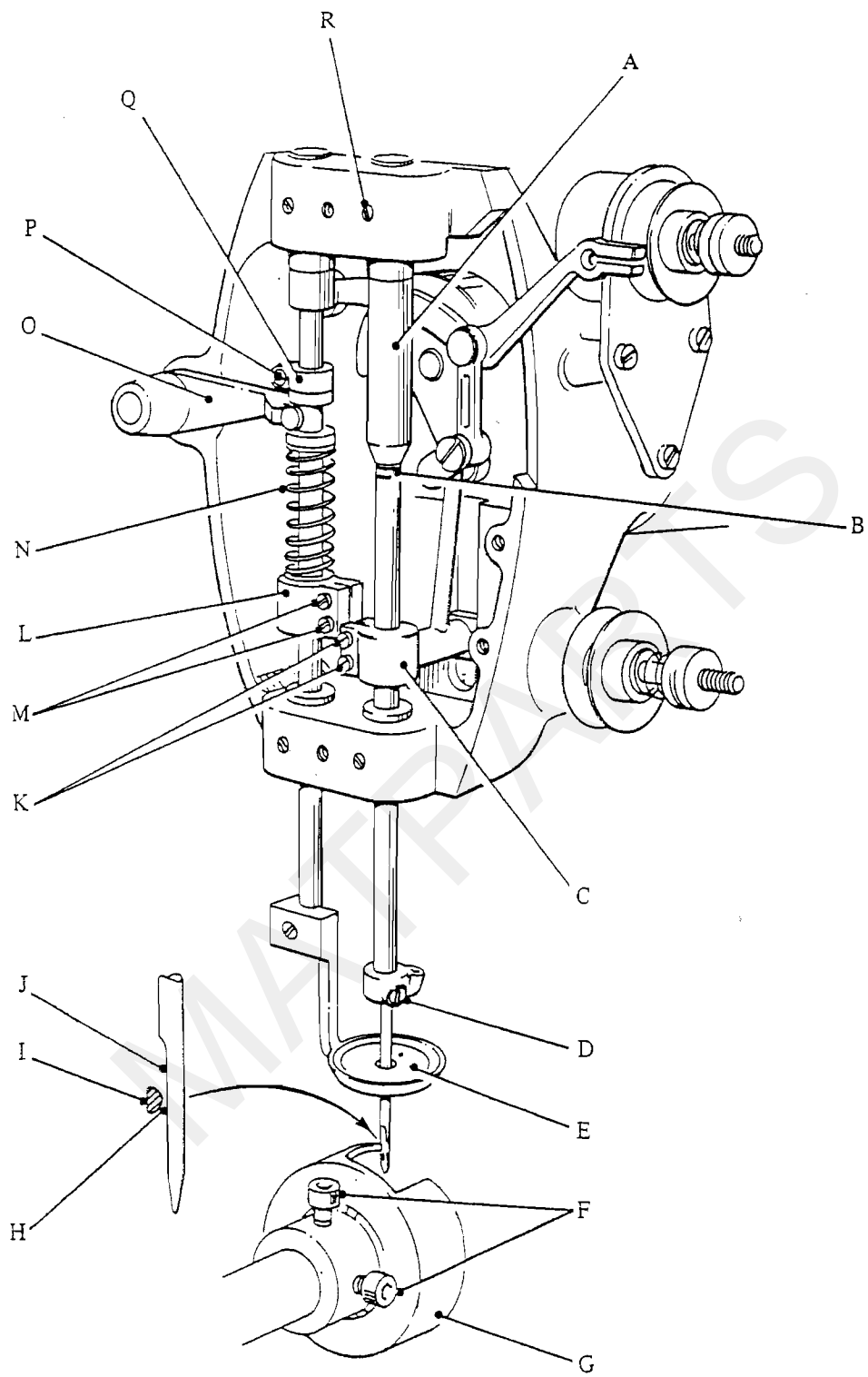
**REMOVE ALL COVERS** and check

- All shafts for play, replace bearings if necessary
- Tightness of all screws on bearings, drives and sewing heads
- Condition of all belts, clean out any debris and replace if in poor condition
- Debris and loose material removed especially from rotating shafts.

**REPLACE ALL COVERS**

#### **3.4 Six Monthly**

Check all pneumatic components for leaks – if necessary overhaul with spares kit or replace.



## 4 Sewing Heads – Timing and Setting

### READ THROUGH THE COMPLETE SECTION BEFORE SETTING

Remove the sewing head face plate by loosening the top screw, removing the bottom screw, push the face plate upwards and pull off.

#### 4.1 Needle in needle bar

The needle must be fully home in the needle bar – check by releasing clamp screw **(D)**, push the needle up and retighten.

The scarf in the needle must face the hook.

#### 4.2 Needle bar height

Turn the sewing machine handwheel anti clockwise towards you until the needle bar is at its lowest point – Bottom Dead Centre (BDC).

Two marks **(B)** should now be visible just below the upper needle bar bush **(A)**. These marks are 5 mm apart. The upper mark should just be visible.

To adjust the needle bar height loosen clamp screws **(K)** and move until the top mark is just visible. Re-tighten the clamp screws.

#### 4.3 Hook to needle setting

These settings are for the S290 small eyed needle 300/29

Remove the throat plate from above the hook.

Turn the handwheel towards you past bottom dead center until the lower mark **(B)** on the needle bar is still just visible.

The hook point **(I)** should now be level with the front edge of the needle and the full eye should be visible below the hook.

The clearance **(H)** between the hook point **(I)** and the back of the scarf **(J)** should be the thickness of the cotton being used.

To adjust the hook setting of the hook point to the needle front edge or the clearance between the hook point and the back of the scarf loosen the two hook capscrews **(F)**, move the hook ring on the hook shaft and then re-tighten the screws **(F)**.

If the hook point is not in the middle of the scarf when the lower mark is just visible the needle bar upper bush needs re-setting – see section 4.4.



#### 4.4 Upper needle bar bush

The setting of the upper needle bar bush (**A**) should only need adjusting if the bush has been replaced or the sewing head has been removed from the rest of the machine.

Before adjusting the upper bush check that the needle is correctly fitted.

Loosen the hook on the hook shaft.

Loosen screw (**R**) holding the upper needle bar bush.

Turn the handwheel towards you until the needle bar starts lifting and bring the tip of the hook level with the front of the needle. Continue turning, raising the needle until the top of the eye is just below the bottom of the hook.

Move the upper bush (**A**) until the lower groove in the needle bar is just visible below the bottom of the lower bush.

Tighten screw (**R**).

Reset needle bar height and hook to needle.

#### 4.5 Presser foot

When correctly set the presser foot (**E**) should be at its lowest point when the needle bar is at BDC, the gap between the presser bar spring clamp (**L**) and the top of the lower presser bar bush should be 25 mm and the gap between the presser foot and the throat plate should be 5 mm (this will vary for different thicknesses of materials). The presser foot should not start to rise until after the hook point has passed the needle.

Before setting the presser foot ensure that the needle bar timing has been set correctly. Then proceed as follows:

- Turn the hand wheel anticlockwise until the lifting presser bar eccentric link is at its furthest away. At this point the needle bar should be at bottom dead center. To adjust open the top cover of the sewing head and slacken the two screws that fix the eccentric to the top arm shaft. Keeping the eccentric link at its position furthest away rotate the hand wheel to BDC. Tighten both screws.
- At BDC the lifting presser bar front lever (**O**) should be lying with the center of the forks about 2 mm below the centerline of the lifting presser bar shaft. To adjust release the clamp screws of the lifting presser bar crank and move the lever to the correct position. Re-tighten the screws ensuring that the cam and link assembly is line.
- At BDC check the clearance under the foot is correct for the materials been sewn. To adjust set a spacer of the correct thickness between the presser foot and the throat plate release screw (**P**) in collar (**Q**) and set the presser foot on to the spacer. Re-tighten screw (**P**).

# Sewing Faults

## Top thread Breaks

### Possible Cause

- 1 Incorrectly inserted needle
- 2 Needle is blunt or bent
- 3 Thread is over tensioned
- 4 Thread is not strong enough
- 5 Thread incorrectly threaded
- 6 Damaged Hook
- 7 Sharp hook point
- 8 Thread badly wound on bobbin
- 9 Rough or sharp spots on bobbin
- 10 Damaged latch on bobbin case
- 11 Sharp bobbin case ring
- 12 Bobbin case ring screw damaged

### Remedy

- Slacken needle clamp, push needle fully up into needle bar with scarf facing hook.
- Insert a new needle.
- Slacken main tension.
- Use stronger thread. Recommended thread is core spun blended terylene/cotton 20 or 25.
- Check for correct threading.
- Polish or replace hook.
- Smooth out and polish or replace.
- Try another bobbin
- Smooth out and polish or replace.
- Replace.
- Polish or replace.
- Check fully tight or replace.

**Note:** Upper thread must pass smoothly and freely around bobbin case.

# Sewing Faults

## Bottom Thread Breaks

### Possible Cause

- 1 Thread is not strong enough
- 2 Bobbin is over tensioned
- 3 Bobbin badly wound
- 4 Damaged bobbin
- 5 Incorrectly inserted needle
- 6 Needle blunt or bent
- 7 Rough or sharp point on needle hole

### Remedy

- Use correct thread.
- Decrease tension by unscrewing adjusting screw on bobbin case.
- Rewind or use prewound bobbins
- Change bobbin
- Insert correctly
- Replace
- Smooth and polish. If hole too large replace throat plate.

## Mis-stitching

### Possible cause

- 1 Hook mechanism is dirty
- 2 Damaged or blunt hook point
- 3 Thread controlling spring broken
- 4 Incorrect timing of hook
- 5 No pressure on foot
- 6 Pressure foot timing out
- 7 Pressure foot too high
- 8 Bobbin case touches on needle

### Remedy

- Clean with paraffin
- Smooth and polish hook ring or replace
- Replace
- Re-time.
- Check for broken spring and/or adjust pressure.
- Re-time.
- Adjust height sufficiently to give clearance for work to pass underneath.
- Adjust or replace worn rotating hook or bobbin case ring.

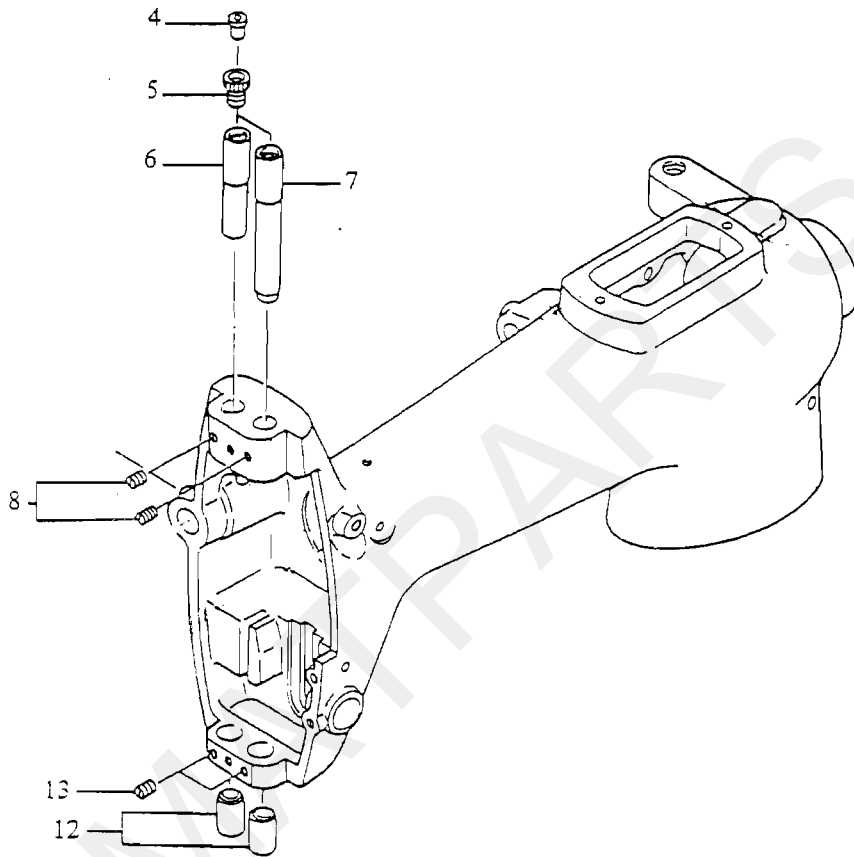
## Parts Lists

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## Main Casting Bushing Parts



## Sewing Head

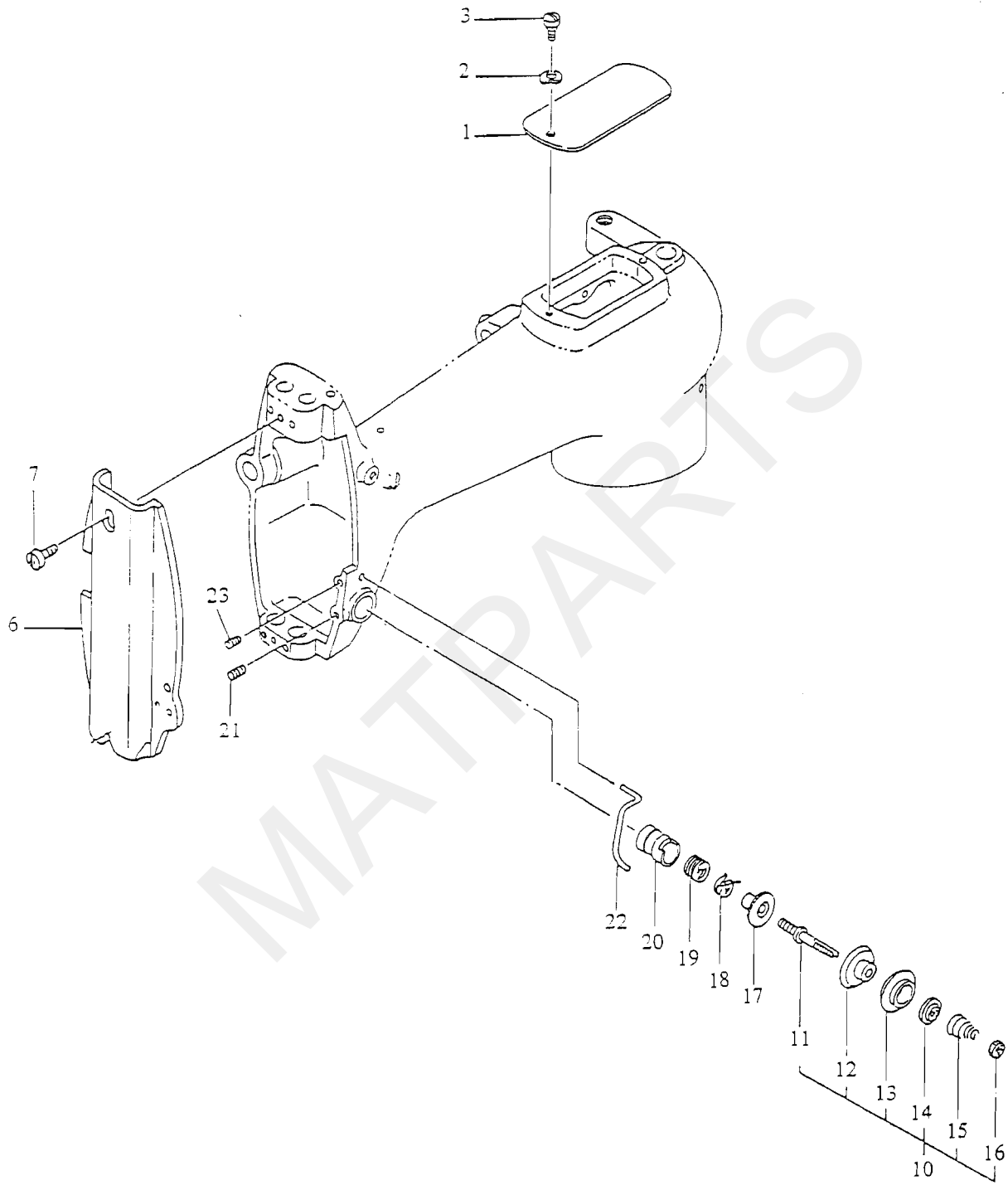
### Main Casting Bushing Parts (2 per machine)

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Item	Description	Qty	Part No.
4	Ball Cap	2	MAT-N503
5	Screw for MAT-N540	2	MAT-N540
6	LPB Bushing – Upper	1	MAT-N58
7	Needle Bar Bushing – Upper	1	MAT-N59
8	Screw for MAT N58, N59	2	MAT-N39
12	Needle bar and LPB Bushing – Lower	2	MAT-N60
13	Screw for MAT-N60	2	MAT-N39

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# Thread Tension and Cover Parts



## Sewing Head

### Thread Tension and Cover Parts (2 per machine)

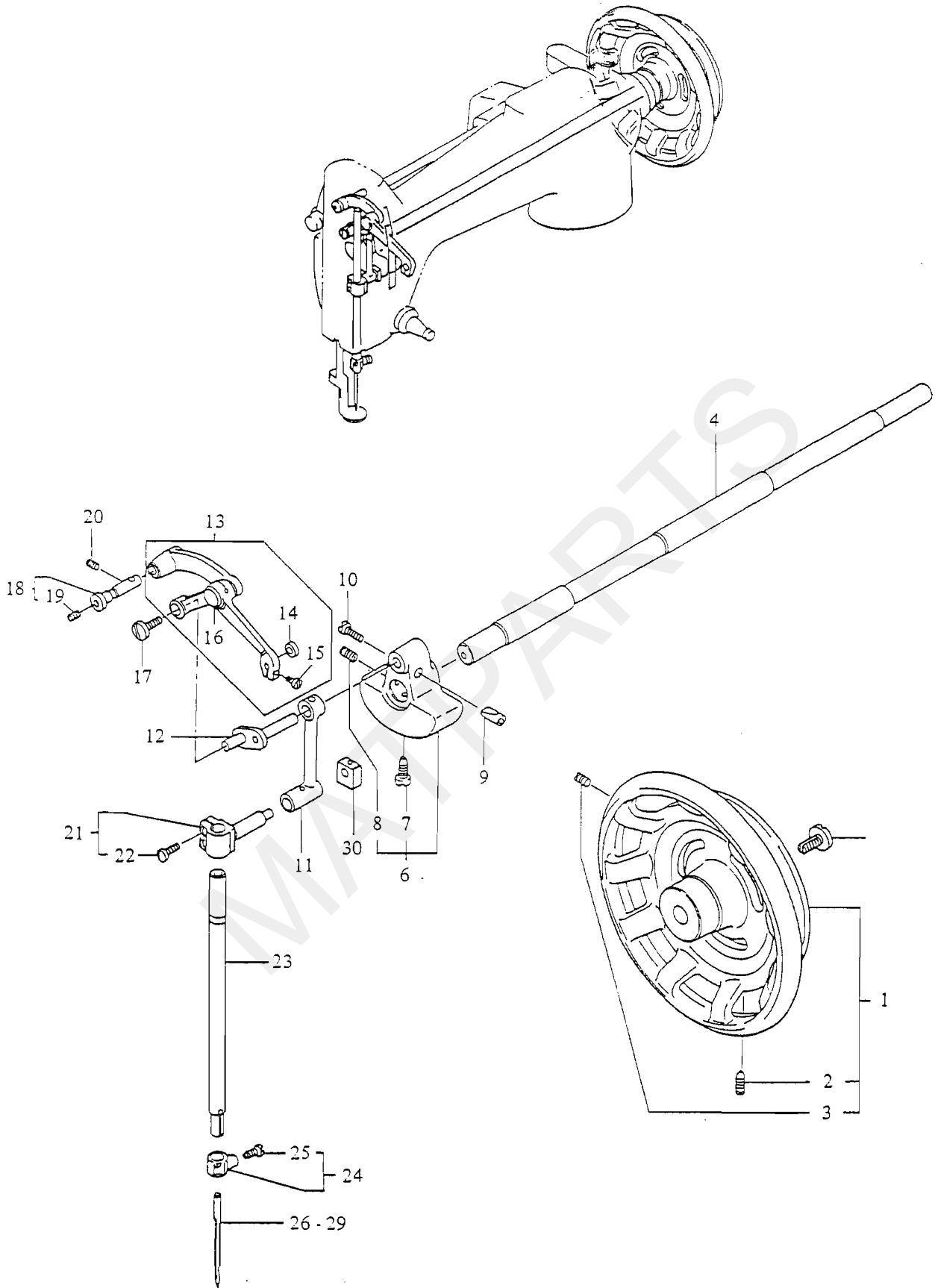
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Item	Description	Qty	Part No.
1	Top Cover	1	MAT-N528
2	Washer for MAT-N528	1	MAT-N558
3	Screw for MAT-N528	1	MAT-N559
6	Front Cover	1	MAT-41199
7	Screw for MAT-41198	2	MAT-N552
10	Thread Tension Assy.- Lower	1	MAT-N47
11	Tension Stud	1	MAT-N513
12	Tension Disc A	1	MAT-N514
13	Tension Disc B	1	MAT-N515
14	Tension Releasing Disc	1	MAT-N516
15	Tension Spring	1	MAT-N500
16	Tension Nut	1	MAT-N510
17	Tension Spring Presser	1	MAT-N512
18	Thread Take-up Spring Lever	1	MAT-N25
19	Check Spring	1	MAT-N6
20	Thread Tension Base	1	MAT-N505
21	Screw for MAT-N47	1	MAT-N534
22	Needle Thread Guide	1	MAT-N11
23	Screw for MAT-N11	1	MAT-N551
29	Needle Thread Guide	1	MAT-N7

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# Arm Shaft and Needle Bar Parts



## Sewing Head

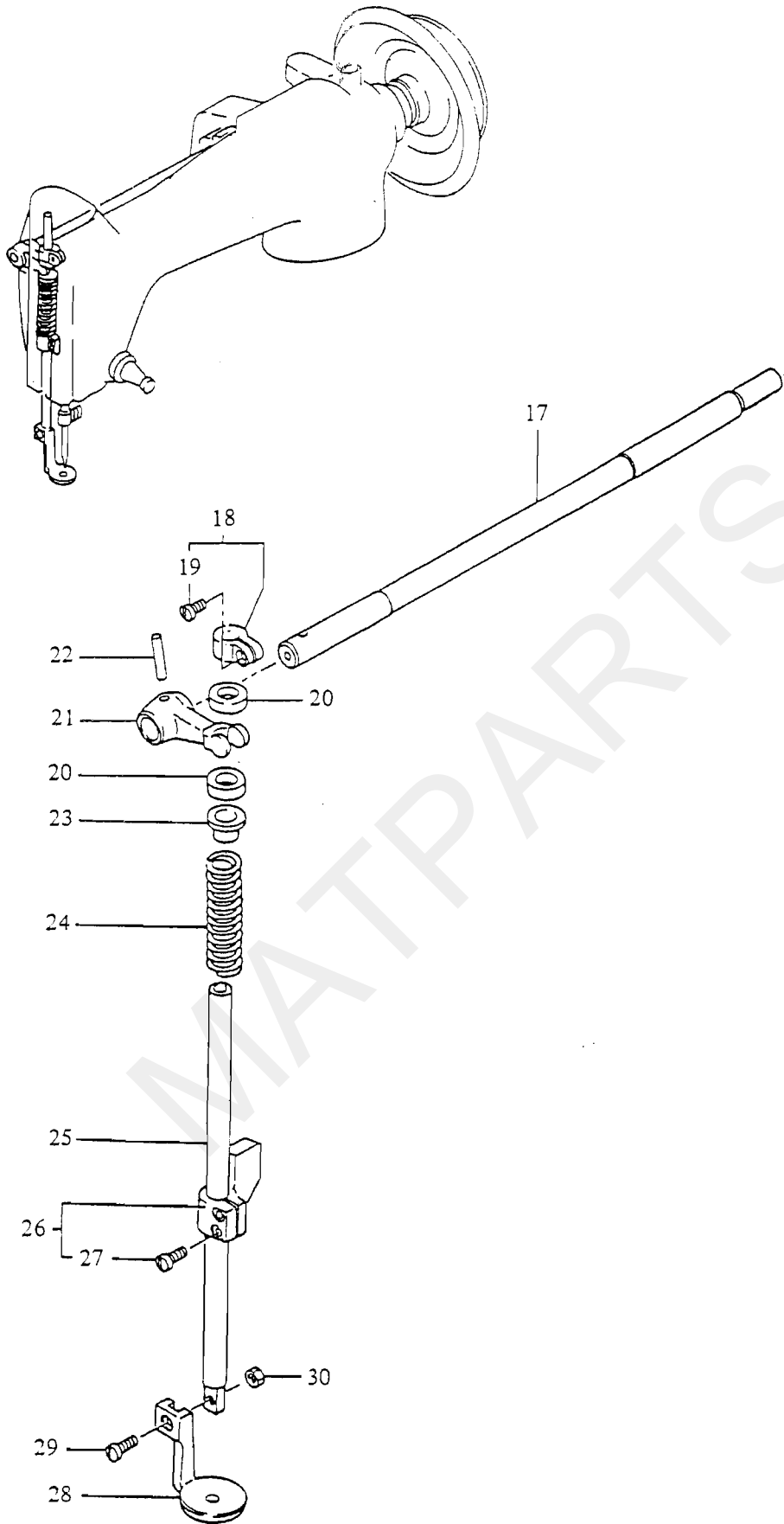
### Arm Shaft and Needle Bar Parts (2 per machine)

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Item	Description	Qty.	Part No.
1	Handwheel	1	MAT-42100
2	Screw for MAT-42100	1	MAT-N566
3	Screw for MAT-41200	1	MAT-N535
4	Arm Shaft	1	MAT-53019
6	Needle Bar Crank	1	MAT-N55
7	Screw for MAT N55	1	MAT-N46
8	Screw for MAT-N55	1	MAT-N537
9	Cotter Pin	1	MAT-N502
10	Screw for MAT-N502	1	MAT-N538
11	Needle Bar Connecting Link	1	MAT-N14
12	Thread Take-up Crank	1	MAT-N17
13	Needle Thread Take-up Assy.	1	MAT-N539
14	Eyelet	1	MAT-N9
15	Screw for MAT-N9	1	MAT-N541
16	Thread Take-up Lever Pin	1	MAT-N40
17	Screw for MAT-N17	1	MAT-N18
18	Thread Take-up Lever Link Hinge Pin	1	MAT-N523
19	Screw for MAT-N523	1	MAT-N560
20	Screw for MAT-N523	1	MAT-N561
21	Needle Bar Connecting Stud	1	MAT-N15
22	Screw for MAT-N15	2	MAT-N33
23	Needle Bar	1	MAT-N13
24	Needle Bar Clamp	1	MAT-N10
25	Screw for MAT-N10	1	MAT-N29
26	Needle - Size 24/180	1	MAT-S12
27	Needle - Size 29/300 (Small Eye)	1	MAT-S290
28	Needle - Size 22/140	1	MAT-S291
29	Needle - Size 23/160	1	MAT-S292
30	Needle bar Connecting Link Block	1	MAT-N16

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# Presser Foot and Lifting Bar



## Sewing Head

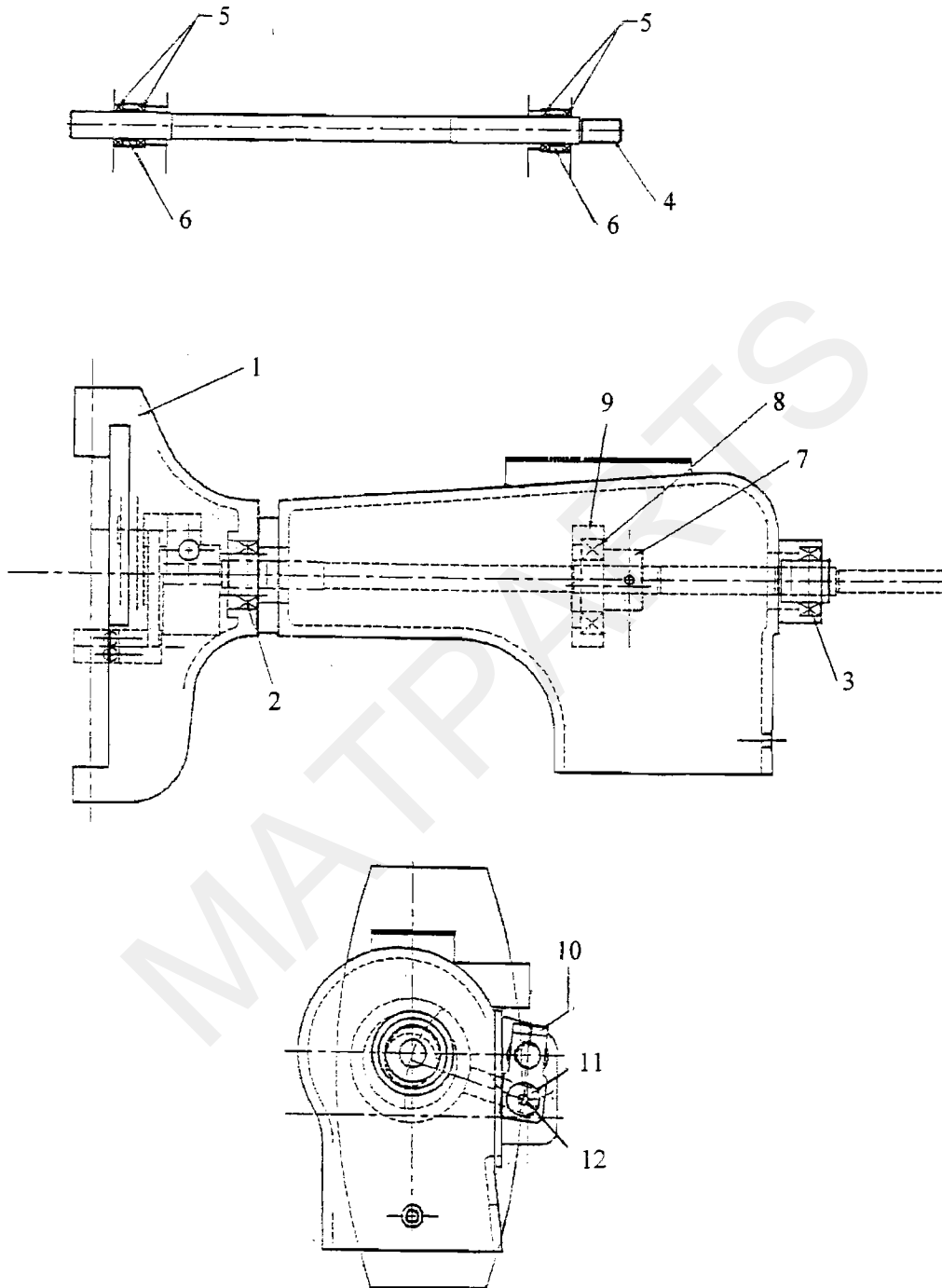
### Presser Foot and Lifting Bar (2 per machine)

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Item	Description	Qty.	Part No.
17	LPB Shaft	1	MAT-50232
18	LPB Lifting Collar	1	MAT-N42
19	Screw for MAT-N42	1	MAT-N35
20	LPB Pressure Washer	2	MAT-N45
21	LPB Front Lever	1	MAT-N62
22	Taper Pin for MAT-N62	1	MAT-N563
23	LPB Spring Sleeve	1	MAT-N43
24	LPB Spring	1	MAT-N24
25	Lifting Presser Bar	1	MAT-N20
26	LPB Guide Bracket	1	MAT-N56
27	Screw for MAT-N15	2	MAT-N33
28	Presser Foot	1	MAT-N175
29	Screw for MAT-N175	1	MAT-N28
30	Nut for MAT-N28	1	MAT-N27

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# Arm Shaft Bearings and Lifter Bar Eccentric



## Sewing Head

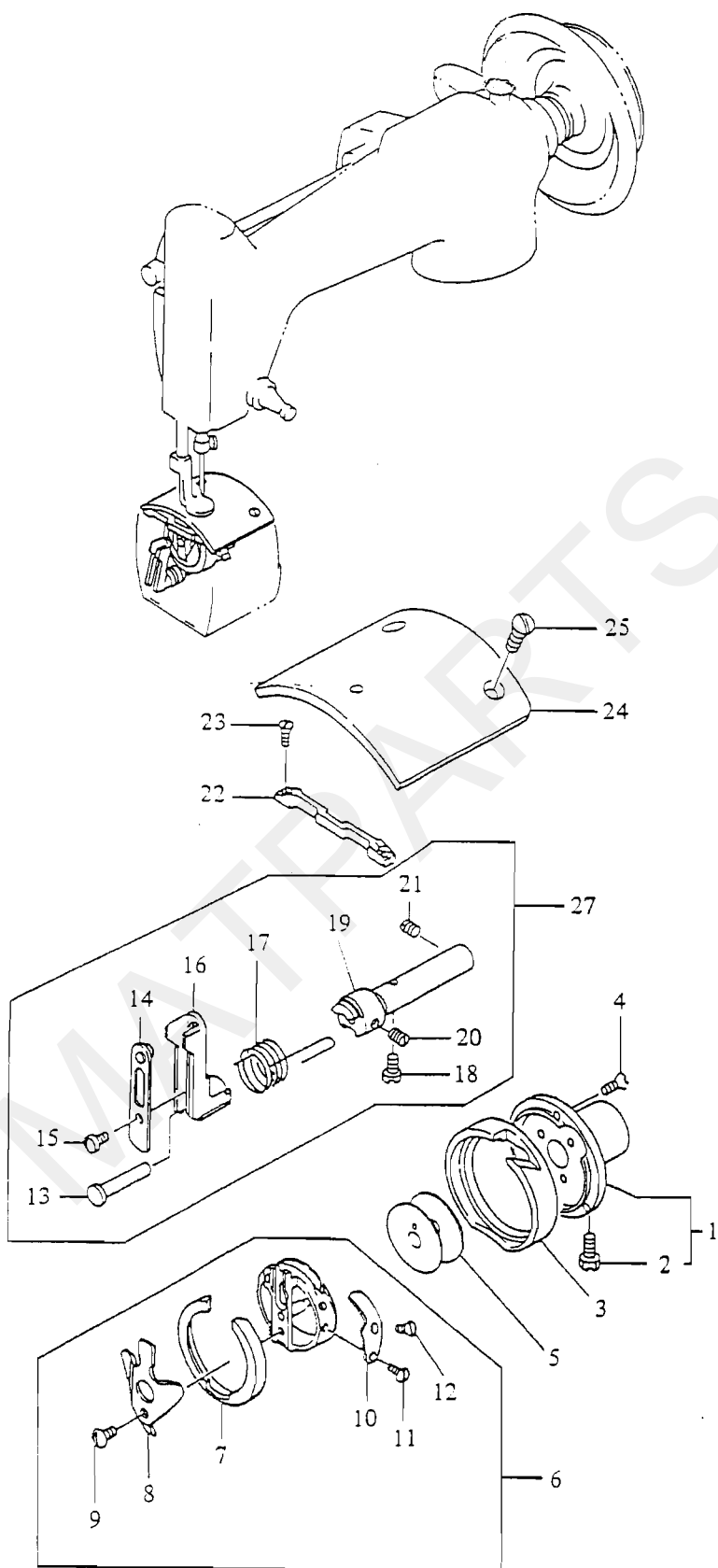
### Arm Shaft Bearings and Lifter Bar Eccentric (2 per machine)

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Item	Description	Qty.	Part No.
1	Machined Upper Casting	1	MAT-50231
2	Front Bearing	1	MAT-DE42
3	Rear Bearing	1	MAT-DE73
4	Lifting Bar Shaft	1	MAT-50232
5	Bearing	4	MAT-DE82
6	Spacer	2	MAT-50236
7	Eccentric Collar	1	MAT-50234
8	Bearing	1	MAT-DE9
9	Eccentric Bearing Housing	1	MAT-50233
10	Lifting Bar Link	1	MAT-50235
11	Bearing	2	MAT-DE81
12	Pin	1	MAT-50239

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# Shuttle Parts



## Sewing Head

### Shuttle Parts (2 per machine)

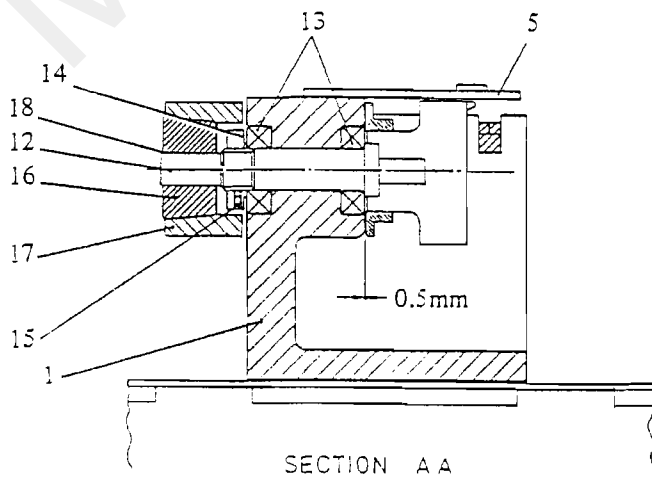
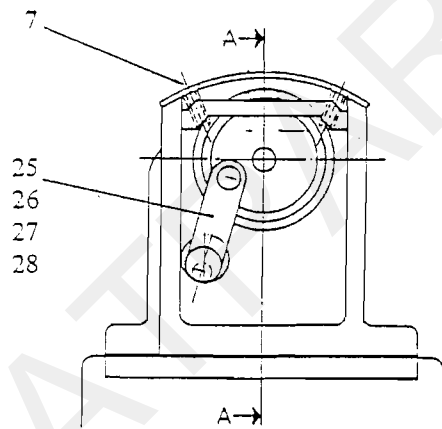
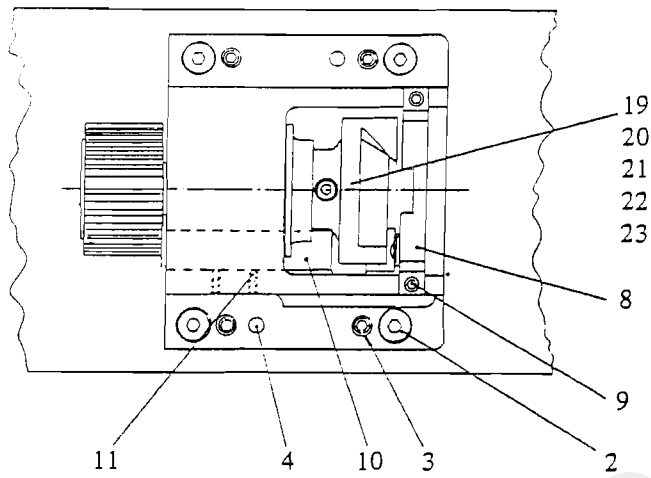
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Item	Description	Qty.	Part No.
1	Rotating Hook Base	1	MAT-41158
2	Screw	2	SL-551ME
3	Hook Ring	1	MAT-41143
4	Screw for MAT-41143	3	MAT-N102
5	Bobbin	1	MAT-N26
6	Bobbin Case Assembly	1	MAT-N124
7	Inner Base Ring	1	MAT-N2
8	Bobbin Case Ring Spring	1	MAT-N105
9	Screw for MAT-N105	1	MAT-N545
10	Bobbin Case Spring	1	MAT-N3
11	Screw for MAT-N3	1	MAT-N544
12	Screw for MAT-N3	1	MAT-N543
13	Bobbin Case Retainer Hinge Stud	1	MAT-N52
14	Bobbin Case Retainer Spring	1	MAT-N5
15	Screw for MAT-N5	1	MAT-N546
16	Bobbin Case Retainer Bracket	1	MAT-N51
17	Bobbin Case Retainer Shaft Spring	1	MAT-N48
18	Screw for MAT-N48	1	MAT-N34
19	Bobbin Case Retainer Shaft	1	MAT-N53
20	Screw for MAT-N52	1	MAT-N557
21	Screw for MAT-N53	1	SL-515ME
22	Bridge	1	MAT-41153
23	Screw	2	SL-504ME
24	Throat Plate	1	MAT-N4
25	Screw for MAT-N4	2	MAT-41195
27	Bobbin Case Retainer Assembly	1	MAT-N565

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# Hook Assembly



## Sewing Head

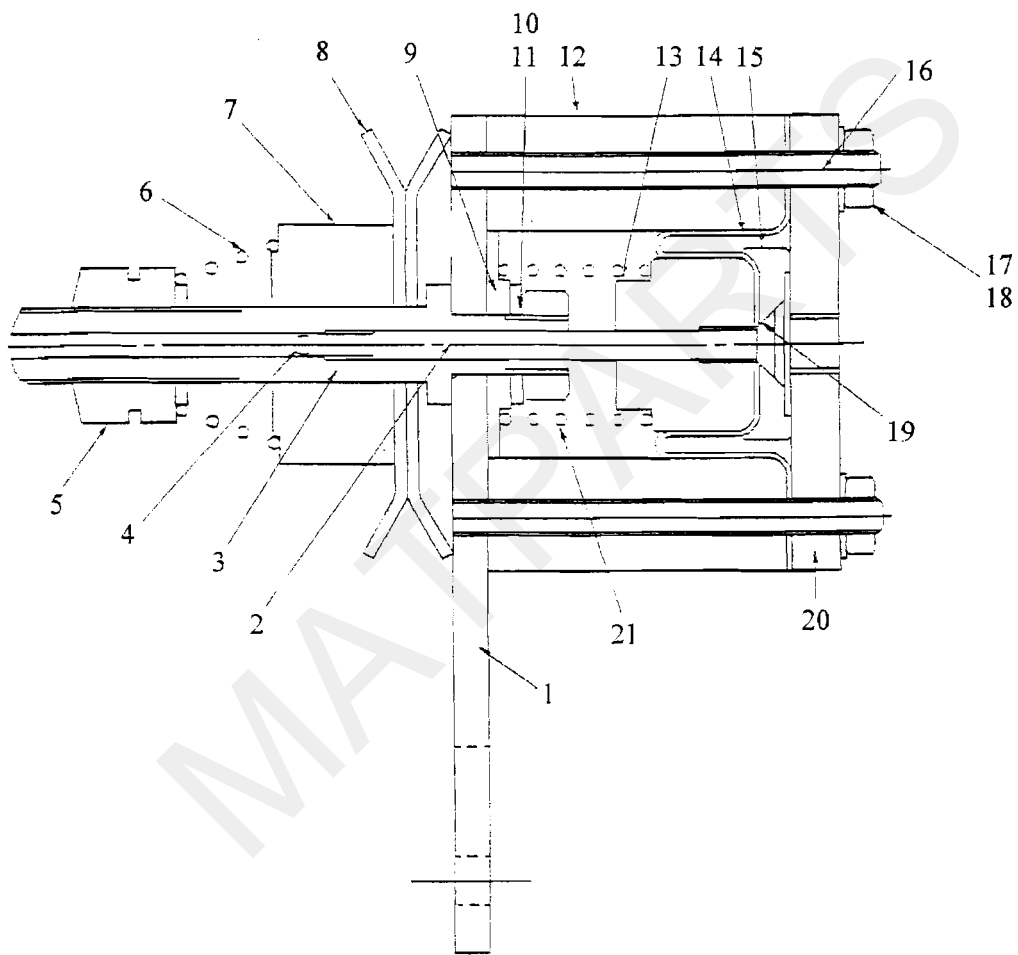
### Hook Assembly (2 per machine)

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Item	Description	Qty	Part No
1	Hook Casting	1	MAT-41151A
2	Screw for MAT-41151A	4	SL-551ME
3	Adjusting Screw	4	MAT-AC309
4	Spirol Pin	2	MAT-CS1
5	Throat Plate	1	MAT-N4
7	Screw for MAT-N4	2	MAT-41195
8	Bridge	1	MAT-41153
9	Screw for MAT-41153	2	SL-504ME
10	Bobbin Case Retainer Bracket	1	MAT-N51
	Bobbin Case Retainer Hinge Stud	1	MAT-N52
	Bobbin Case Retainer Shaft	1	MAT-N53
11	Screw for MAT-N53	1	SL-515ME
12	Shaft	1	MAT-41152
13	Bearing	2	MAT-DE5
14	Lock Ring	1	MAT-41154A
15	Screw	1	SL-500ME
16	Taper Lock Bush	1	MAT-JA39
17	Timing Pulley	1	MAT-EC1
18	Key	1	ZH-52M
19	Rotating Hook Base	1	MAT-41158
20	Bobbin (not with prewound bobbins)	1	MAT-N26
21	Hook Ring	1	MAT-41143
22	Screw for MAT-41158	2	SL-551ME
23	Screw for MAT-41143	3	MAT-N102
25	Bobbin Case Retainer Spring	1	MAT-N5
26	Screw for MAT-N48	1	MAT-N34
27	Bobbin Case Retainer Shaft Spring	1	MAT-N48
28	Screw for MAT-N5	1	MAT-N546

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# Thread Tension Release



## Sewing Head

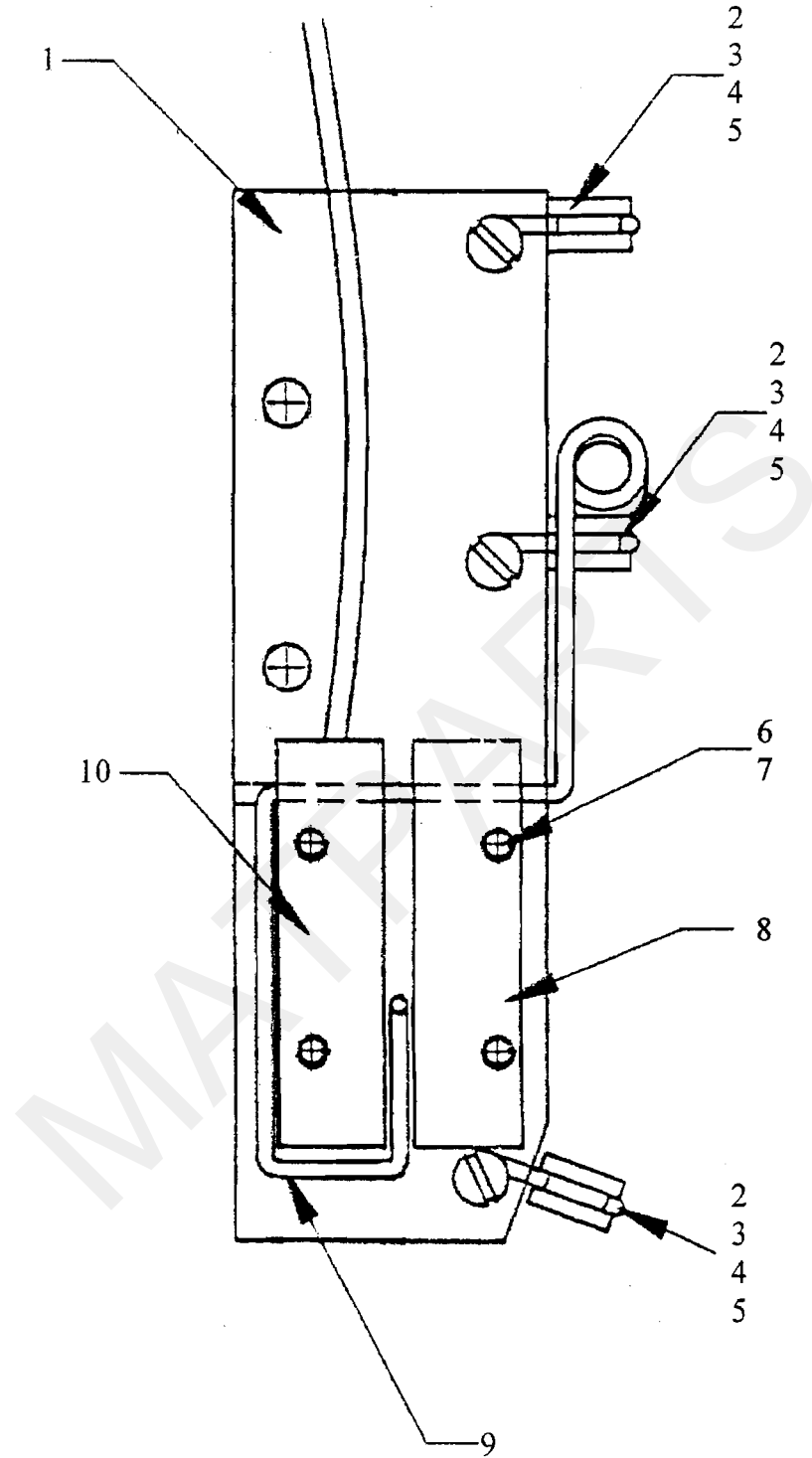
### Thread Tension Release –MAT-43095A (2 per machine)

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Item	Description	Qty	Part No.
1	Tension Release Plate	1	MAT-MT102
2	Tension Release Piston	1	MAT-MT107
3	Thread Tension Screw	1	MAT-MT103
4	Pin	1	MAT-1267
5	Tension Spring Nut	1	MAT-1249
6	Spring	1	MAT-N149
7	Actuator	1	MAT-43282
8	Tension Disc	2	MAT-N109
9	Tension Screw Spring Plate	1	MAT-MT104
10	Nut for MAT-MT103	1	NL-4ME
11	Washer for MAT-MT103	1	WL-4ME
12	Cylinder Body	1	MAT-MT106
13	Tension Release Piston	1	MAT-MT107
14	Diaphragm Seal	1	MAT-MT112
15	Piston Seal Cap Plate	1	MAT-MT108
16	Tie Rods	6	MAT-MT110
17	Nut for MAT-MT110	6	NL-2ME
18	Washer for MAT-MT110	6	WL-2ME
19	Screw for MAT-MT106	1	SL-6ME
20	Cylinder Plate	1	MAT-MT109
21	Compression Spring	1	SPGL-1094ME
22*	Banjo fitting	1	ZH-10354R
23*	Thread Guide	1	MAT-N7
24*	Spacer - short	1	MAT-43287
25*	Screw	2	MAT-AF305
26*	Nut	1	MAT-BA311
27*	Washer	1	MAT-CA211
28*	Spacer - long	1	MAT-43286
29*	Screw	1	MAT-AF201

\* Parts not shown

# Thread Break Switch Assembly



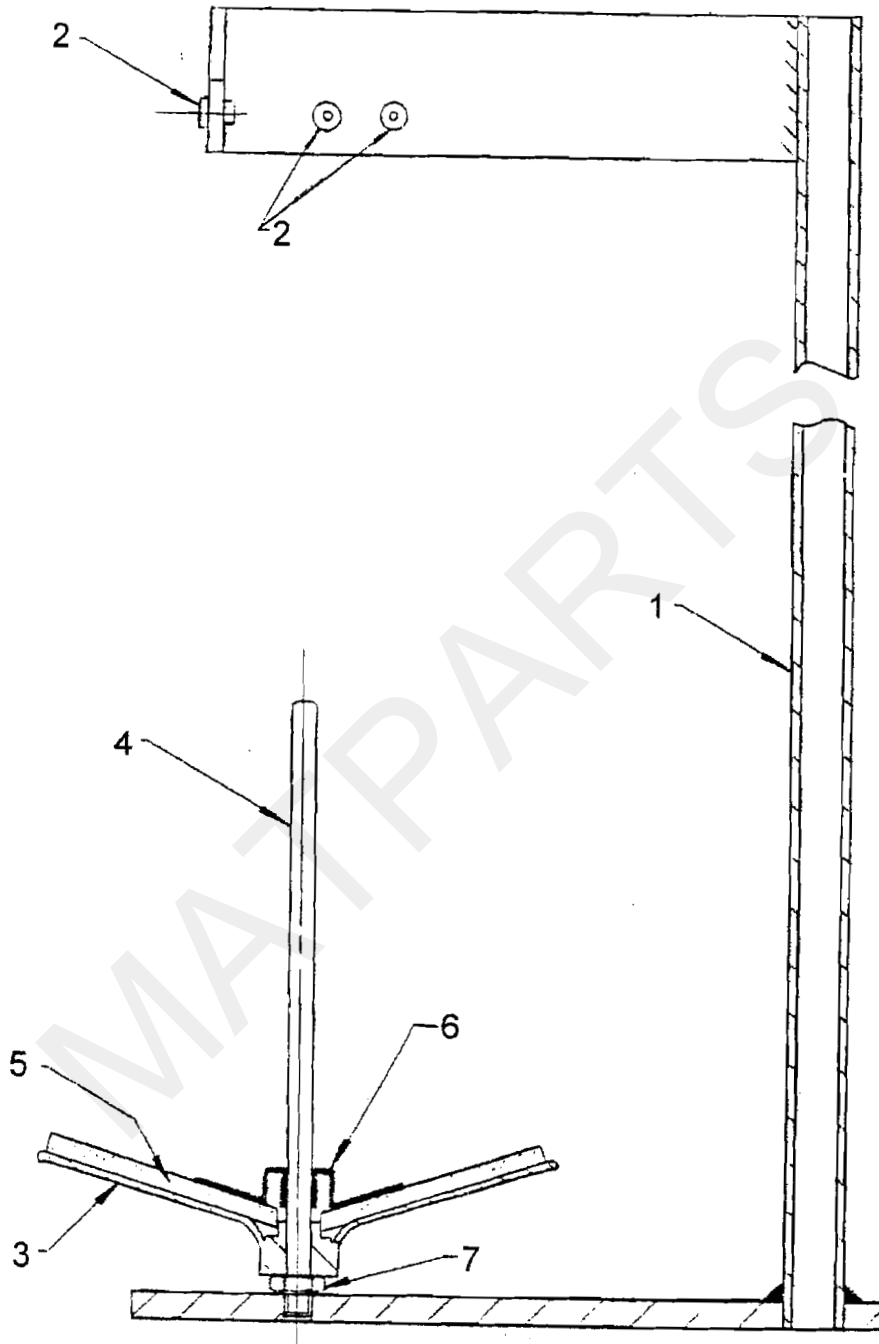
## Thread Break Switch Assembly MAT-41060B (2 per machine)

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Item	Description	Qty	Part No
1	Mounting Plate	1	MAT-50005
2	Guide Clip	3	MAT-41449
3	Eyelet	3	MAT-N9
4	Screw for MAT-41449	3	SL-391ME
5	Washer for MAT-41449	3	WL-2ME
6	Screw for MAT-ED1003 & 1005	4	SL-391ME
7	Washer for MAT-ED1003 & 1005	4	YWLU-0002Z
8	Magnet	1	MAT-ED1005
9	Actuating Wire	1	MAT-50006
10	Reed Switch	1	MAT-ED1003

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# Cotton Stand Assembly



## Cotton Stand Assembly – MAT-45145 (2 per machine)

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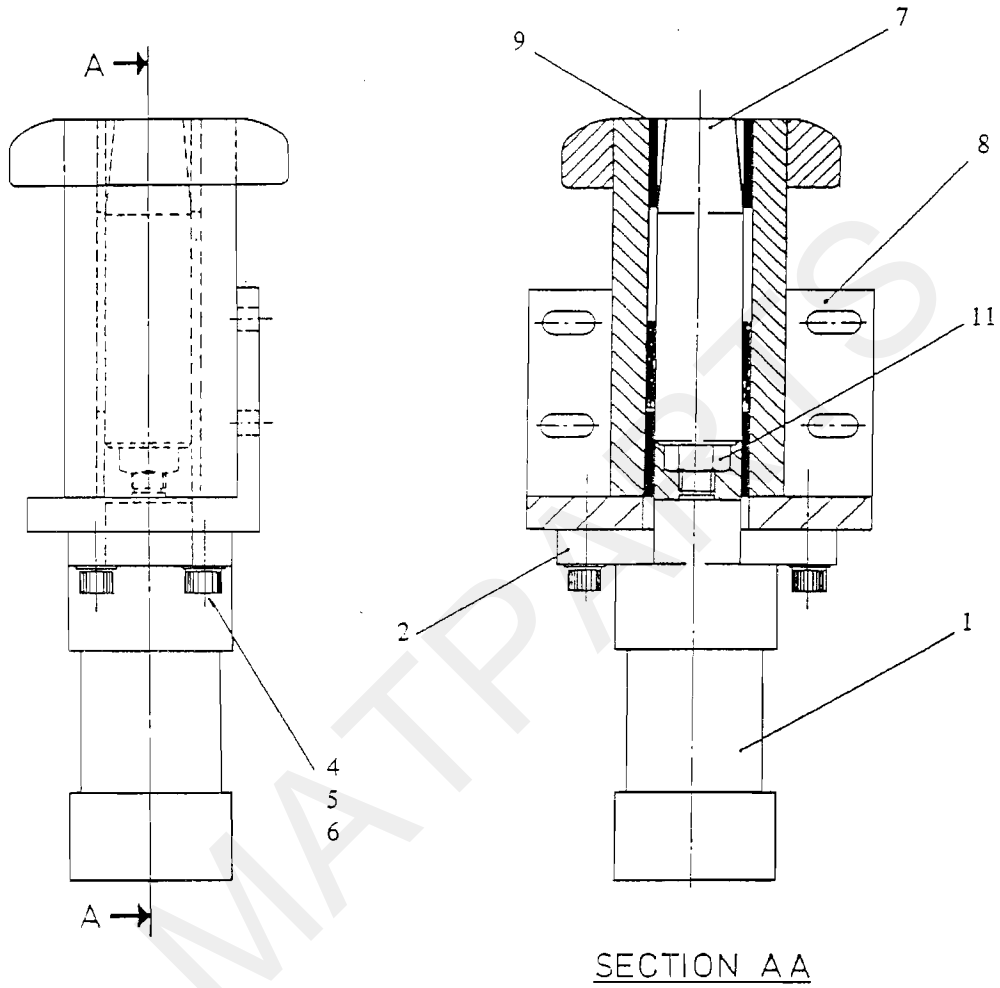
Item	Description	Qty	Part No
1	Cotton Stand	1	MAT-45387
2	Eyelet	3	MAT-MIS53
3	Thread Reel Disc	1	MAT-P535
4	Thread Reel Pin	1	MAT-P536
5	Foam Disc	1	MAT-P537
6	Retaining Ring	1	MAT-P538
7	Thread Reel Pin Nut	1	MAT-P539
8	Screw	4	SL-461ME

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# Frame Lock Assembly



## Frame Lock Assembly – MAT-41078

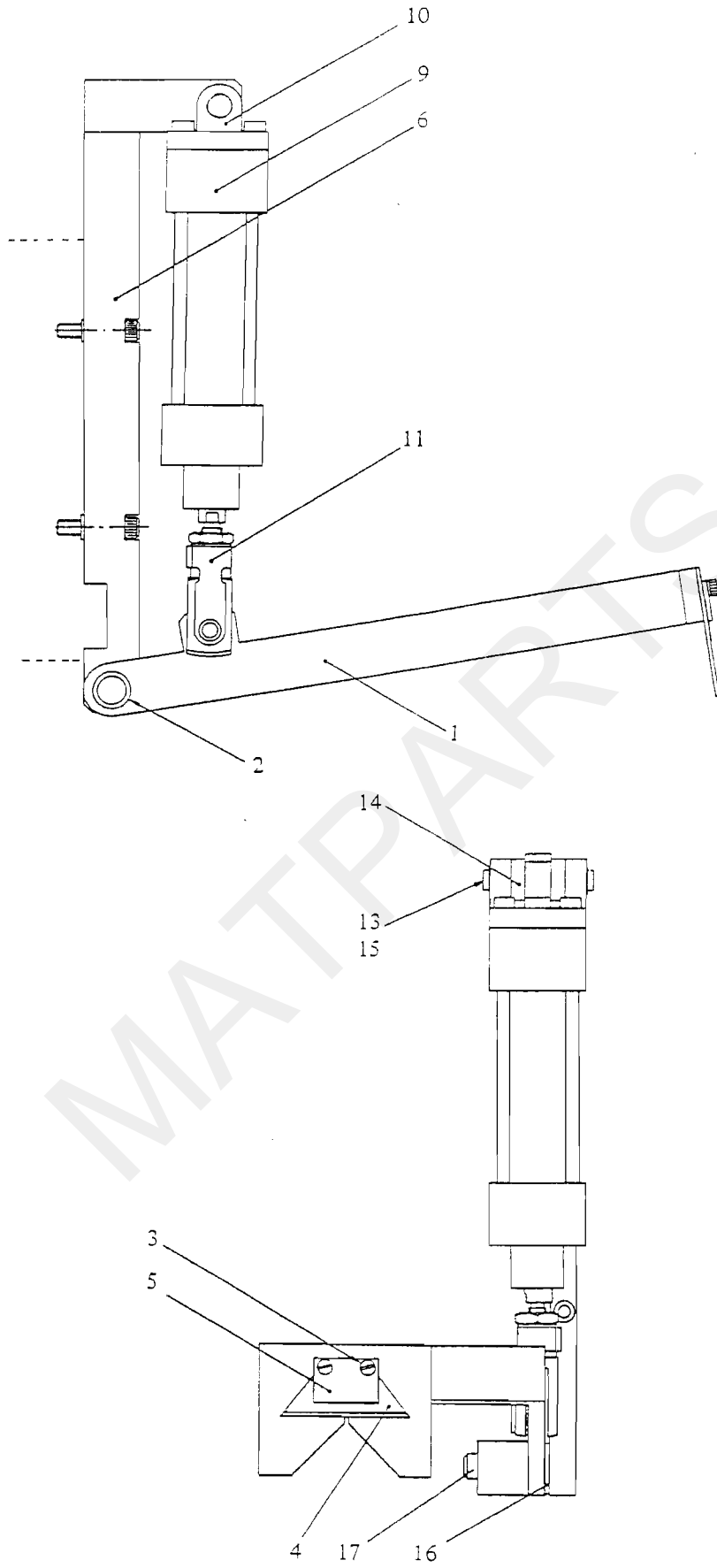
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Item	Description	Qty	Part No
1	Cylinder	1	MAT-KA74
2	Cylinder Flange	1	MAT-KT45
3*	Cylinder Elbow	2	MAT-KZC11
4	Screw	4	SL-538ME
5	Washer	4	WL-5ME
6	Washer	4	WL-119ME
7	Frame Lock Plunger	1	MAT-41226
8	Frame Lock Bracket	1	MAT-41225
9	Oilite Bush	3	MAT-HA76
11	Lock Nut	1	MAT-BB307

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\* Parts not shown

# Thread Cutter Assembly



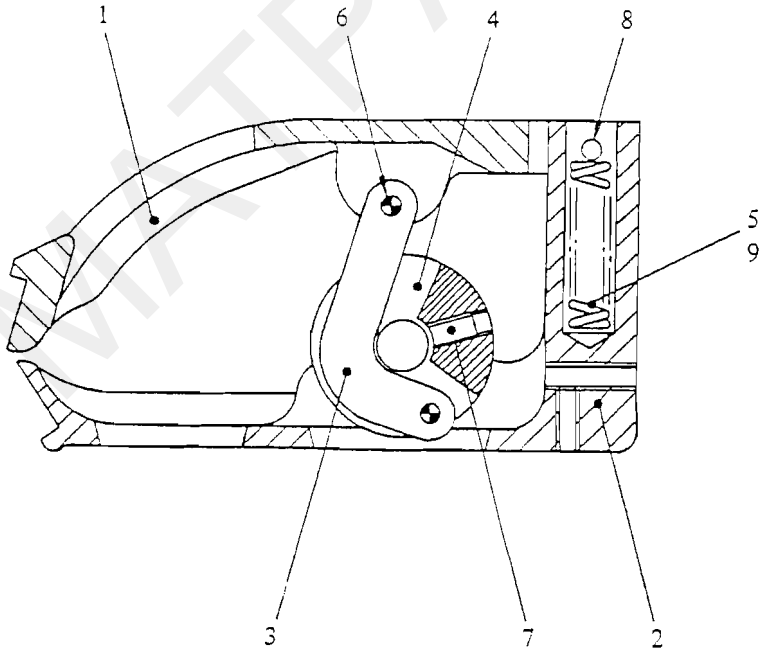
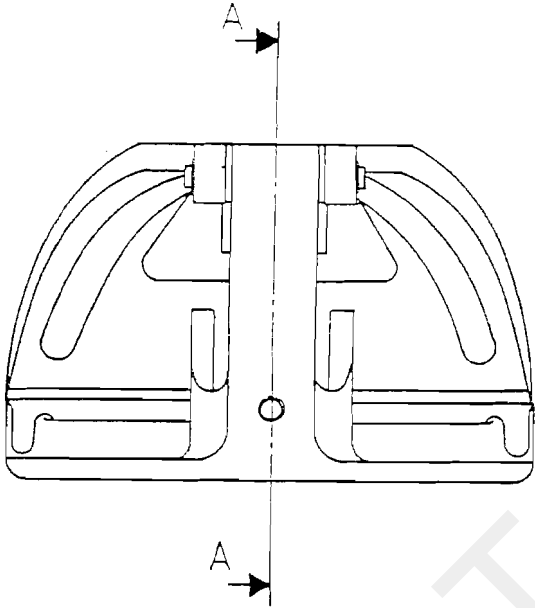
## Thread Cutter Assembly – MAT-41089 (2 per machine)

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Item	Description	Qty	Part No
1	Cutting Arm	1	MAT-41345
2	Oilite Bush	2	MAT-HA79
3	Screw	2	SL-511ME
4	Cutting Blade	1	MAT-MIS24
5	Blade Clamp	1	MAT-41346
6	Support Bracket	1	MAT-41347
7*	Screw	2	MAT-AB336
8*	Washer	2	WL-5ME
9	Cylinder	1	MAT-KA74
10	Trunnion Mounting	1	MAT-KT47
11	Clevis Assembly	1	MAT-KX8
12*	Elbow	2	MAT-KZC11
13	Circlip	2	ZH-703M
14	Spacer	2	MAT-41348
15	Shaft	1	MAT-41349
16	Washer	1	MAT-CA202
17	Star Ring	1	MAT-CO37

\* Parts not shown

# Strong Clip Assembly



SECTION A A

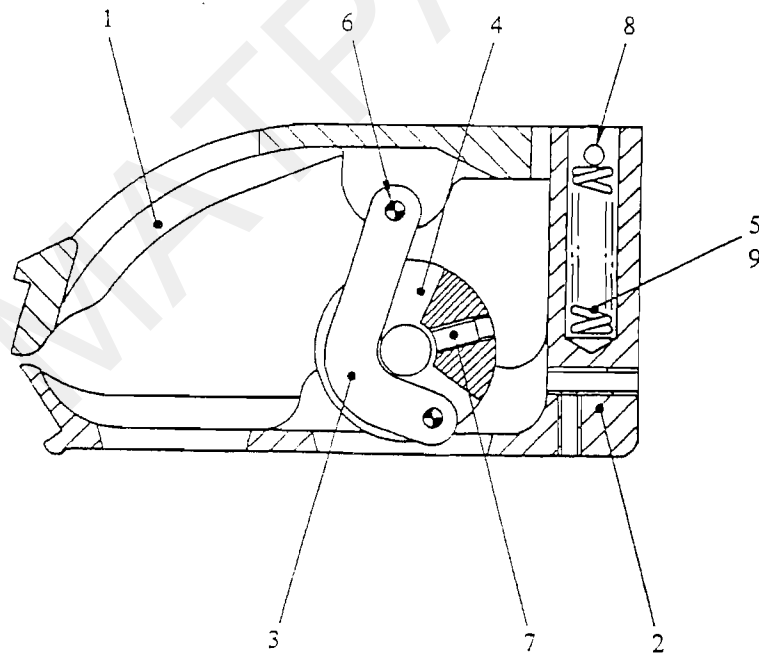
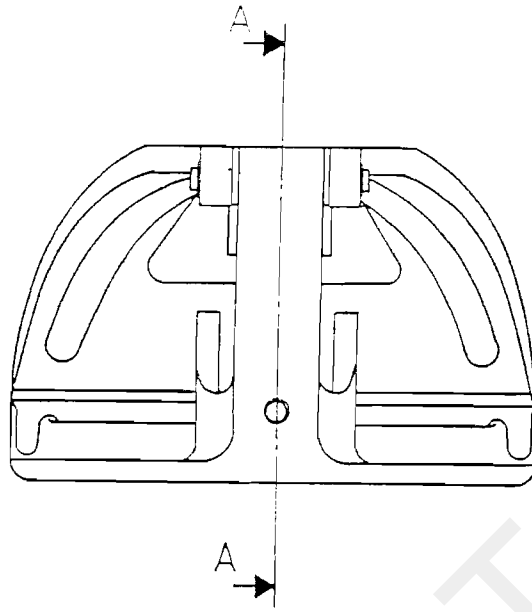
## Strong Clip Assembly – MAT-41091 (14 per machine)

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Item	Description	Qty	Part No.
1	Clip Top	1	MAT-37121
2	Clip Base	1	MAT-32122
3	Cranked Link	1	MAT-37123
4	Control Link	1	MAT-41387
5	Compression Spring	1	MAT-EB2
6	Pin	2	MAT-CS1
7	Screw	1	SL-79ME
8	Clip Pivot Shaft	1	MAT-41376
9	Star Ring	2	MAT-CO38

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# Weak Clip Assembly



SECTION A A

**Weak Clip Assembly – MAT-41092 (6 per machine)**

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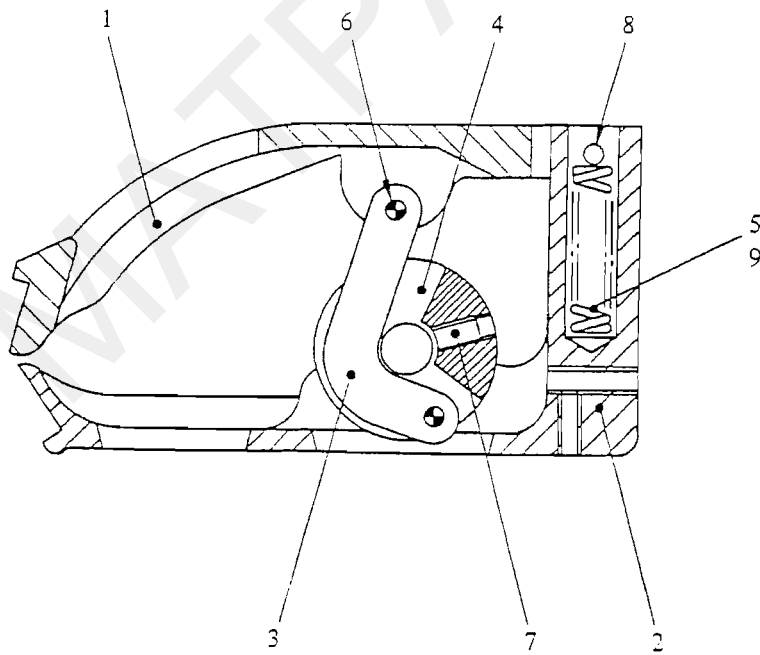
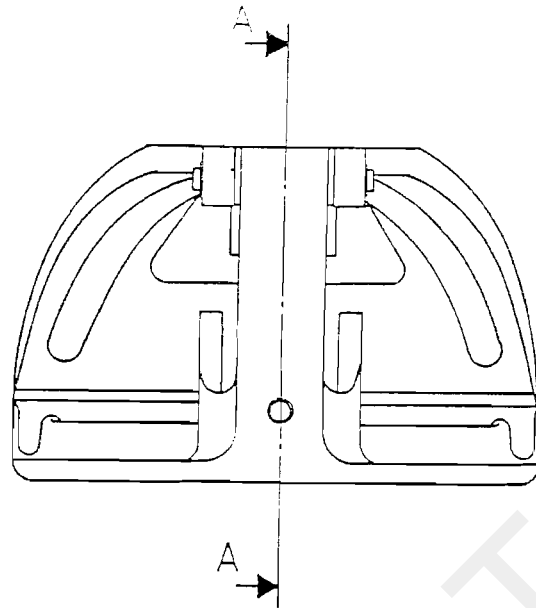
<b>Item</b>	<b>Description</b>	<b>Qty</b>	<b>Part No.</b>
1	Clip Top	1	MAT-37121
2	Clip Base	1	MAT-37122
3	Cranked Link	1	MAT-37123
4	Control Link	1	MAT-41387
5	Compression Spring	1	MAT-EB13
6	Pin	2	MAT-CS1
7	Screw	1	SL-79ME
8	Clip Pivot Shaft	1	MAT-41376
9	Star Ring	2	MAT-CO38

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MATPARTS



# Fixed Clip Assembly



SECTION A A

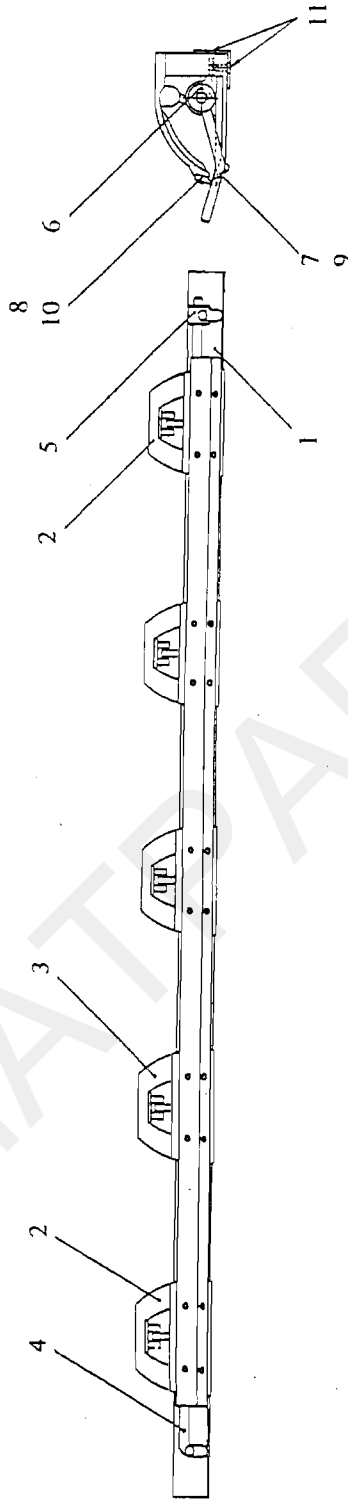
## Fixed Clip Assembly – MAT-41096 (8 per machine)

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Item	Description	Qty	Part No
1	Clip Top	1	MAT-37121
2	Clip Base	1	MAT-41406
3	Cranked Link	1	MAT-37123
4	Control Link	1	MAT-41387
5	Compression Spring	1	MAT-EB2
6	Pin	2	MAT-CS1
7	Screw	1	SL-79ME
8	Clip Pivot Shaft	1	MAT-41376
9	Star Ring	2	MAT-CO38
10*	Upper Clamp Bar	1	MAT-41382
11*	Pop Rivet	2	MAT-CE7
12*	Lower Clamp Bar	1	MAT-41383
13*	Pop Rivet	2	MAT-CE4
14*	Clamp Control Bar	1	MAT-41381
15*	Fixed Clip Bracket	1	MAT-41588
16*	Screw	2	SL-469ME

\* Parts not shown

# Stretcher Bar Assembly – Weak Grip

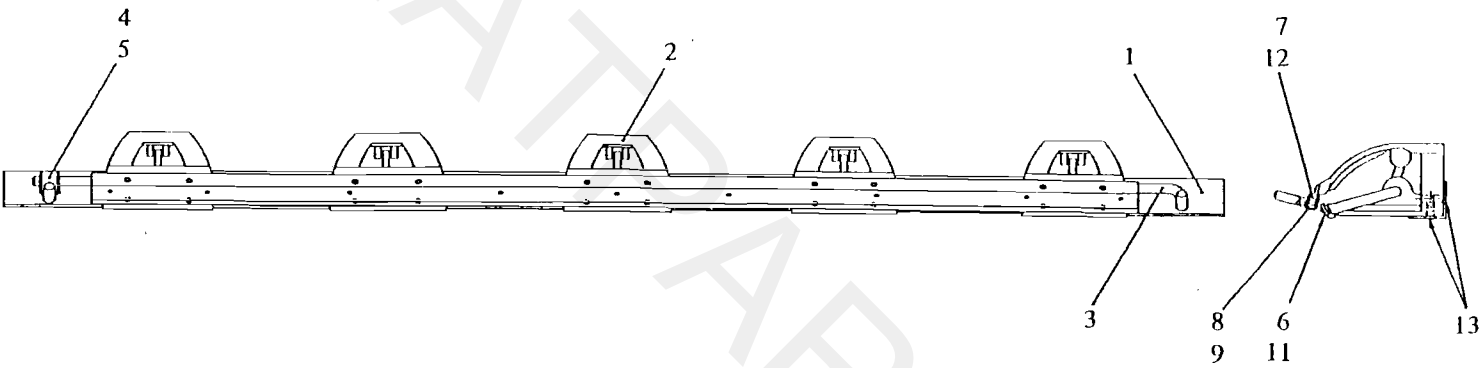


## Stretcher Bar Assembly – Weak Grip (2 per machine)

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Item	Description	Qty	Size 1	Size 3
			MAT-41131	MAT-43054
			Part No	Part No
1	Stretcher Bar	1	MAT-41121	MAT-43294
2	Strong Clip Assembly	2	MAT-41091	MAT-41091
3	Weak Clip Assembly	3	MAT-41092	MAT-41092
4	Long Clip Control Bar	1	MAT-41379	MAT-43296
5	Clip Control Bar Handle	1	MAT-41386	MAT-41386
6	Screw	2	SL-77ME	SL-77ME
7	Long Bottom Clip Bar	1	MAT-41384	MAT-43297
8	Long Top Clip Bar	1	MAT-41385	MAT-43298
9	Pop Rivet	10	MAT-CE4	MAT-CE4
10	Pop Rivet	10	MAT-CE7	MAT-CE7
11	Screw	10	SL-469 ME	SL-469ME

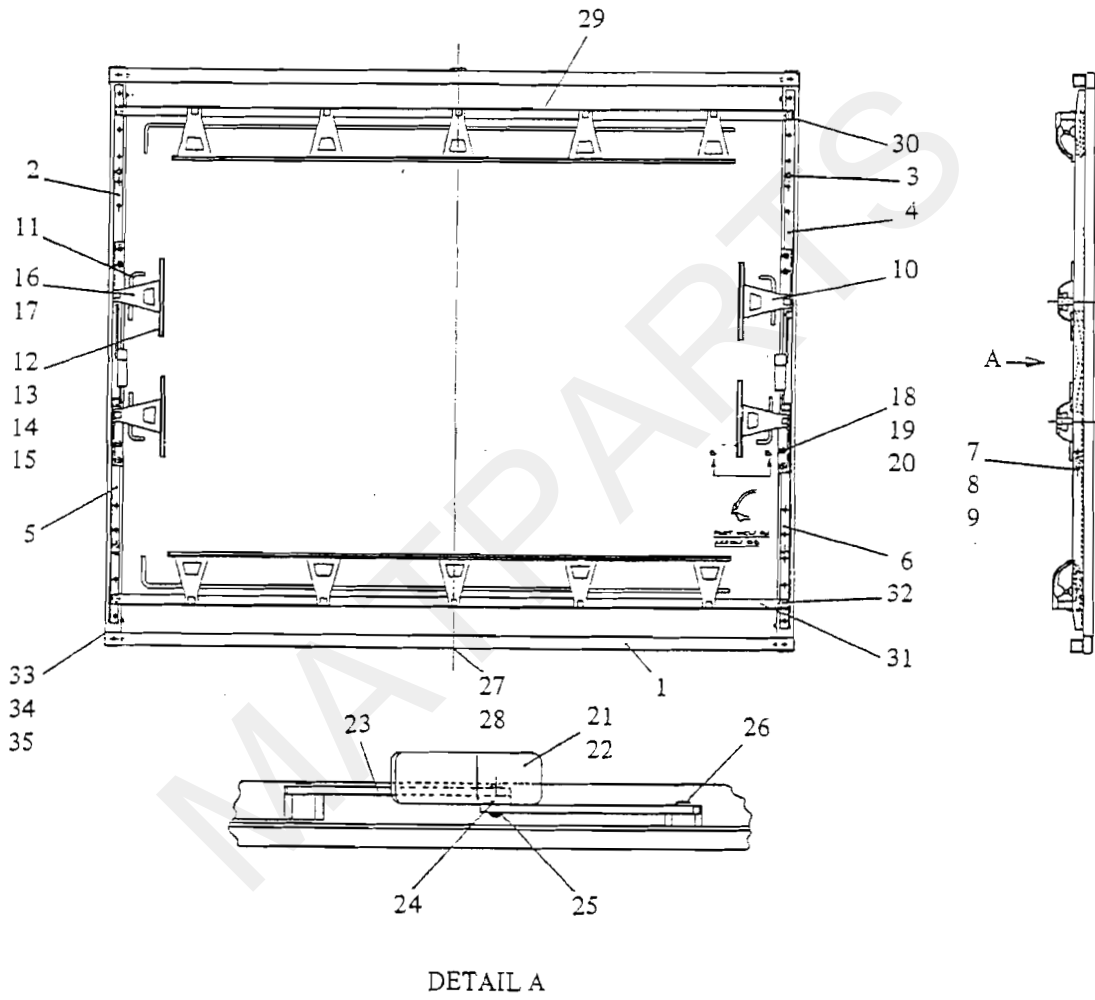
# Stretcher Bar Assembly – High Grip



## Stretcher Bar Assembly – High Grip (2 per machine)

Item	Description	Qty	Size 1	Size 3
			MAT-41130 Part No	MAT-43053 Part No
1	Stretcher Bar	1	MAT-41120	MAT-43293
2	Strong Clip Assembly	5	MAT-41091	MAT-41091
3	Long Clip Control Bar	1	MAT-41380	MAT-43295
4	Clip Control Bar Handle	1	MAT-41386	MAT-41386
5	Screw	2	SL-77ME	SL-77ME
6	Long Bottom Clip Bar	1	MAT-41384	MAT-43297
7	Long Top Clip Bar	1	MAT-41385	MAT-43298
8	Rubber Channel	1	MAT-MIS33	MAT-MIS33
9	Pop Rivet	18	MAT-CE1	MAT-CE1
10	Washer	18	WL-207ME	WL-207ME
11	Pop Rivet	10	MAT-CE4	MAT-CE4
12	Pop Rivet	10	MAT-CE7	MAT-CE7
13	Screw	10	SL-469 ME	SL-469ME

# Stretcher Frame Assembly

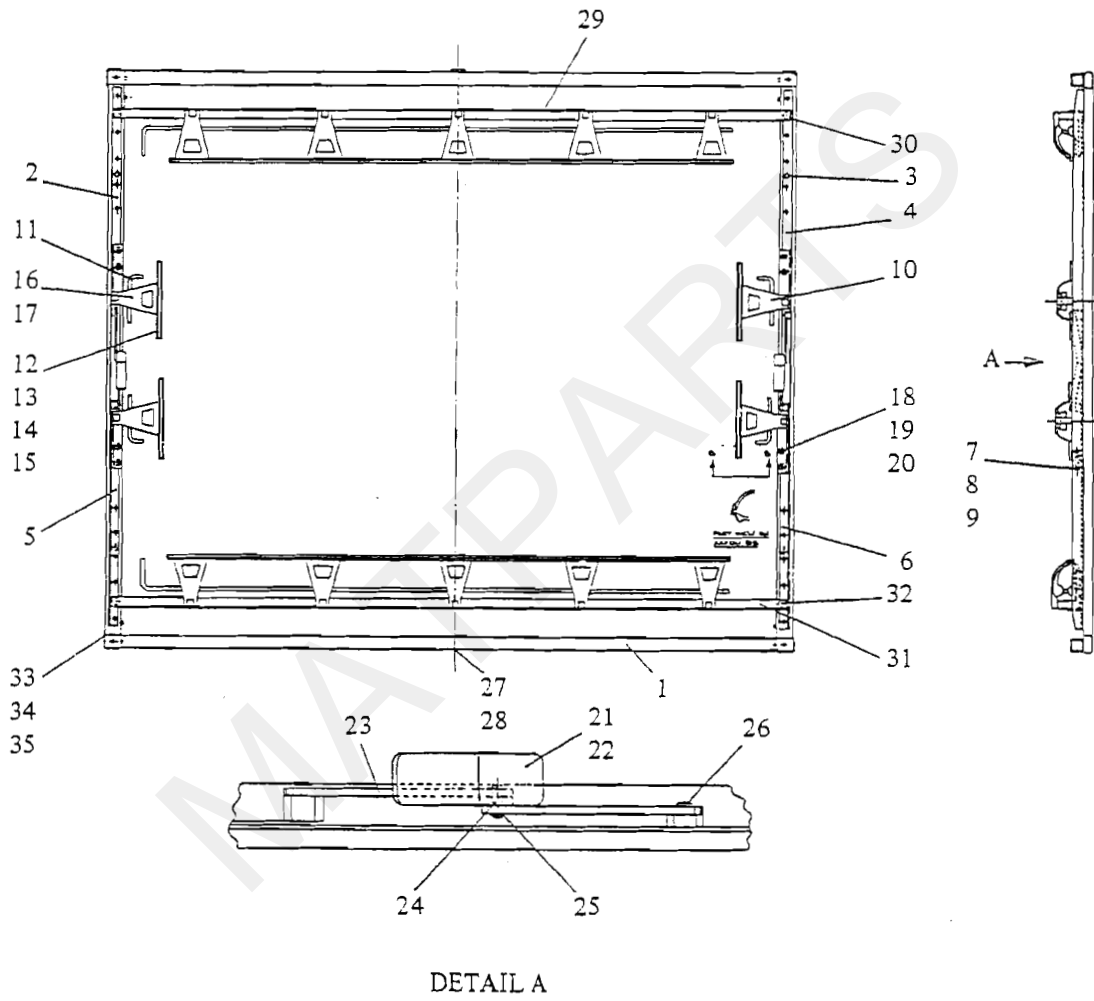


## Stretcher Frame Assembly – (2 per machine)

Item	Description	Qty	Size 1	Size 3
			MAT-41118 Part No	MAT-43037 Part No
1	Stretcher Frame	1	MAT-41566	MAT-43290
2	Fixed Rail L/H	1	MAT-41567	MAT-43291
3	Fixed Rail R/H	1	MAT-41568	MAT-43292
4	Screw	8	SL-469ME	SL-469ME
5	Sliding Rail L/H	1	MAT-41569	MAT-43278
6	Sliding Rail R/H	1	MAT-41570	MAT-43279
7	Double Coil Spring Washer	4	MAT-CC2	MAT-CC2
8	Washer	4	WL-1303E	WL-1303E
9	Nut	4	NL-5ME	NL-5ME
10	Fixed Clip Assembly	4	MAT-41096	MAT-41096
11	Short Clip Control Bar	4	MAT-41381	MAT-41381
12	Upper Clamp Bar	4	MAT-41382	MAT-41382
13	Lower Clamp Bar	4	MAT-41383	MAT-41383
14	Pop Rivet	8	MAT-CE4	MAT-CE4
15	Pop Rivet	8	MAT-CE7	MAT-CE7
16	Screw	8	SL-469ME	SL-469ME
17	Fixed Clip Bracket	4	MAT-41588	MAT-41588
18	Nut	8	NL-7ME	NL-7ME
19	Washer	8	WL-7ME	WL-7ME
20	Washer	8	WL-121ME	WL-12ME
21	Stretcher Lever R/H	1	MAT-41586	MAT-41586
22	Stretcher Lever L/H	1	MAT-41587	MAT-41587
23	Stretcher Link	2	MAT-41372	MAT-41372
24	Stretcher Lever Pivot Shaft	2	MAT-41373	MAT-41373
25	Circlip	4	ZH-805M	ZH-805M
26	Shoulder Bolt	4	MAT-CM39	MAT-CM39
27	Keep Plate	1	MAT-41129	MAT-41129
28	Screw	2	MAT-AD315	MAT-AD315
29	Stretcher Bar Assy -High Grip	1	MAT-41130	MAT-43053
30	Hand Nut	2	MAT-37142	MAT-37142
31	Stretcher Bar Assy -Weak Grip	1	MAT-41131	MAT-43054
32	Hand Nut	2	MAT-37142	MAT-37142
33	Wear Pad	4	MAT-41398	MAT-41398
34	Screw	8	MAT-AF214	MAT-AF214
35	Washer	8	WL-120ME	WL-120ME
36*	Frame Identity Pad (1 Frame Only)	1	MAT-45398	MAT-45398
37*	Screw	2	MAT-AD318	MAT-AD318



# Stretcher Frame Assembly

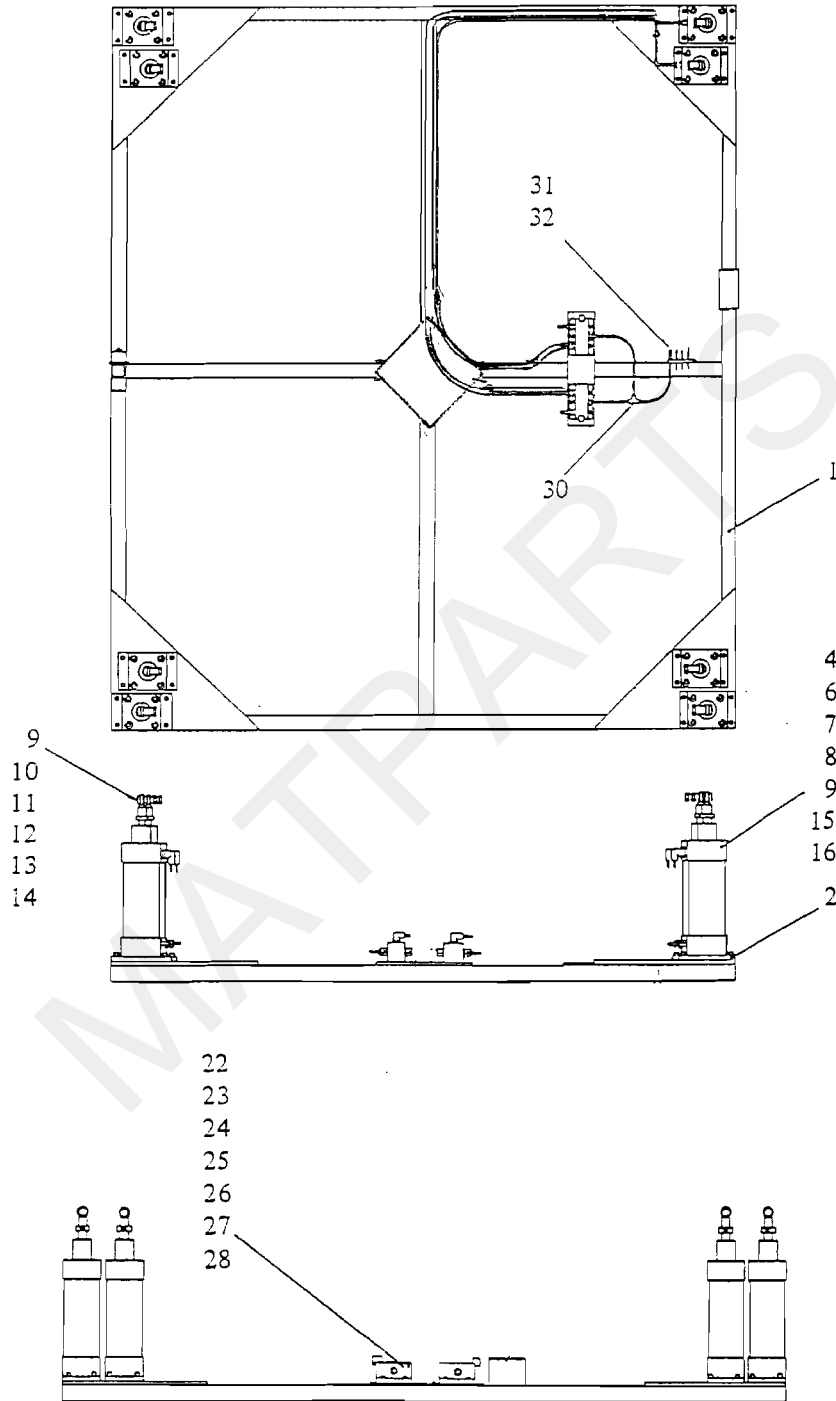


## Stretcher Frame Assembly – (2 per machine) Cont'd

Item	Description	Qty	Size 1	Size 3
			MAT-41118 Part No	MAT-43037 Part No
38*	Extension Plate (Size 3 Only)	4		MAT-43442
39*	Screw for MAT43442	8		SL-213ME
40*	Washer for MAT-43442	16		WL-7ME
41*	Washer for MAT-43442	8		WL-121ME
42*	Nut for MAT-43442	8		NL-7ME

\* Parts not shown

# Frame Change Assembly – Base

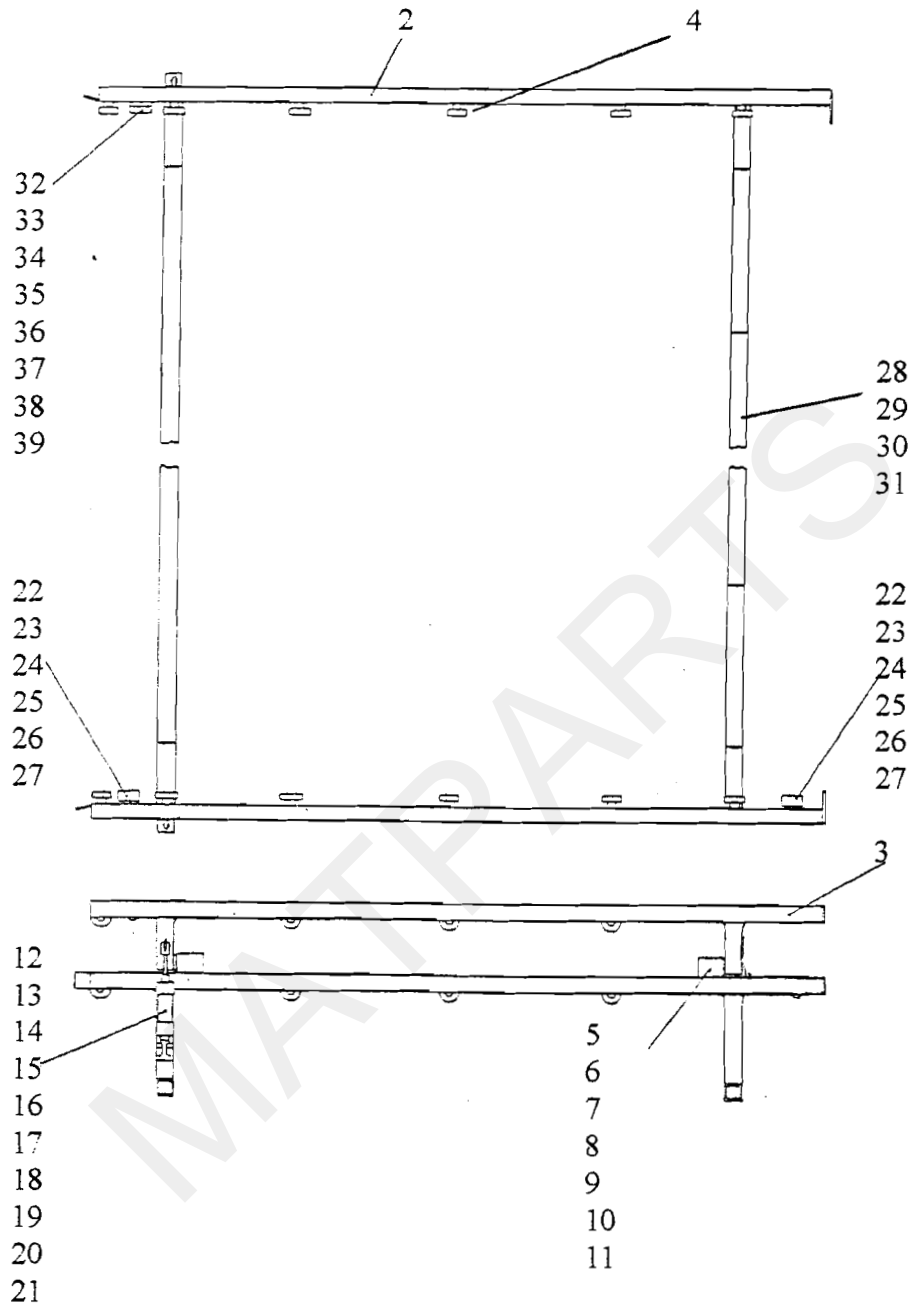


## Frame Change Assembly – Base

Item	Description	Qty	Part No
1	Base Fabrication	1	MAT-41409
2	Modified Flange	8	MAT-45414A
4	Cylinder	8	MAT-KA71
6	Screw	32	SL-569ME
7	Washer	32	WL-7ME
8	Washer	32	WL-121ME
9	Rod End Bearing	8	MAT-DN1
10	Shoulder Bolt	8	MAT-41405
11	Spacer	8	MAT-41407
12	Washer	8	MAT-9ME
13	Nut	8	NL-9ME
14	Washer	8	WL-123ME
15	Elbow 3/8 BSP to 6 mm	8	MAT-KZC10
16	Male Adaptor 3/8 BSP to 6 mm	8	MAT-KZA11
22	Solenoid / Spring Return Valve	2	MAT-KB157
23	Valve Base	2	MAT-KB38
24	Male Branch “Y” 3/8 BSP to 8 mm	4	MAT-KZT30
25	Male Elbow 3/8 BSP to 12 mm	2	MAT-KZC9
26	Silencer	4	MAT-KZU4
27	Screw	4	MAT-AB346
28	Washer	4	WL-19ME
30	Equal Tee	1	MAT-KZF20
31	Bulkhead Connector 12 mm	1	MAT-KZM8
32	Bulkhead Connector 4 mm	4	MAT-KZM7
33*	Equal Tee 12 mm	1	MAT-KZF20
34*	Reducer 12/8 mm	1	MAT-KZP7
35*	Blow Gun	1	MAT-KB119
36*	Adaptor	1	MAT-KZA4

\* Parts not shown

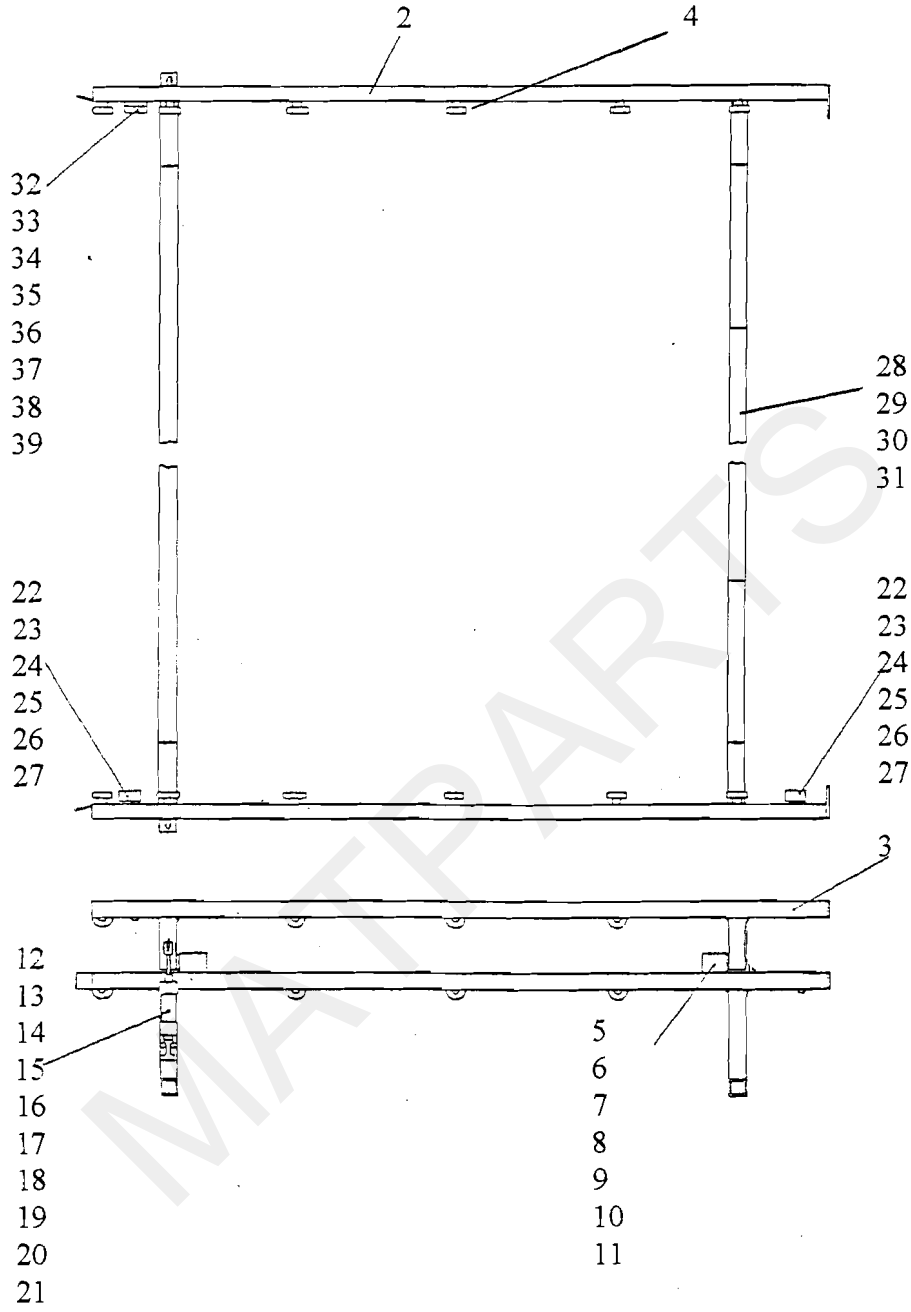
# Stacking Mechanism



## Stacking Mechanism

Item	Description	Qty	Size 1	Size 3
			MAT-41117 Part No	MAT-43065 Part No
1	Bottom Rail	1	MAT-41577	MAT-43267
2	Top Rail R/H	1	MAT-41575	MAT-43265
3	Top Rail L/H	1	MAT-41576	MAT-43266
4	Bearing	20	MAT-DE38	MAT-DE38
5	Bearing Block	4	MAT-41442	MAT-41442
6	Oilite Bush	8	MAT-HA76	MAT-HA76
7	Screw	8	SL-572ME	SL572ME
8	Washer	8	WL-7ME	WL-7ME
9	Washer	8	WL-121ME	WL-121ME
10	Thrust Washer	4	MAT-41446	MAT-41446
11	Grease Nipple	4	MAT-CD1	MAT-CD1
12	Cylinder	2	MAT-KA72	MAT-KA72
13	Clevis	2	MAT-KX8	MAT-KX8
14	Rear Trunnion	2	MAT-KT47	MAT-KT47
15	Hinge Bracket	2	MAT-KT46	MAT-KT46
16	Hinge Bracket Backing Plate	2	MAT-46072	MAT-46072
17	Cylinder Elbow	4	MAT-KZC11	MAT-KZC11
18	Screw for Backing Plate	4	SL-537ME	SL-537ME
19	Screw for Rear Trunnion	8	SL-537ME	SL-537ME
20	Washer	8	WL-5ME	WL-5ME
21	Washer	8	WL-119ME	WL-119ME
22	Proximity Switch	2	MAT-QC8	MAT-QC8
23	Screw	4	MAT-AD315	MAT-AD315
24	Proximity Switch Bracket	2	MAT-41445	MAT-41445
25	Screw	4	SL-171ME	SL-171ME
26	Washer	4	WL-5ME	WL-5ME
27	Washer	4	WL-119ME	WL-119ME
28	Balance Weight	1	MAT-41447	MAT-41447
29	Screw	2	SL-200ME	SL-200ME
30	Washer	2	WL-6ME	WL-6ME
31	Washer	2	WL-120ME	WL-120ME
32	Roller Valve	1	MAT-KB11	MAT-KB11
33	Valve Elbow	2	MAT-KZC11	MAT-KZC11
34	Roller valve Bracket	1	MAT-41375	MAT-41375
35	Screw for Valve	2	MAT-AE216	MAT-AE216
36	Washer	2	WL-3ME	WL-3ME
37	Washer	2	WL-19ME	WL-19ME

# Stacking Mechanism



## Stacking Mechanism - Cont'd

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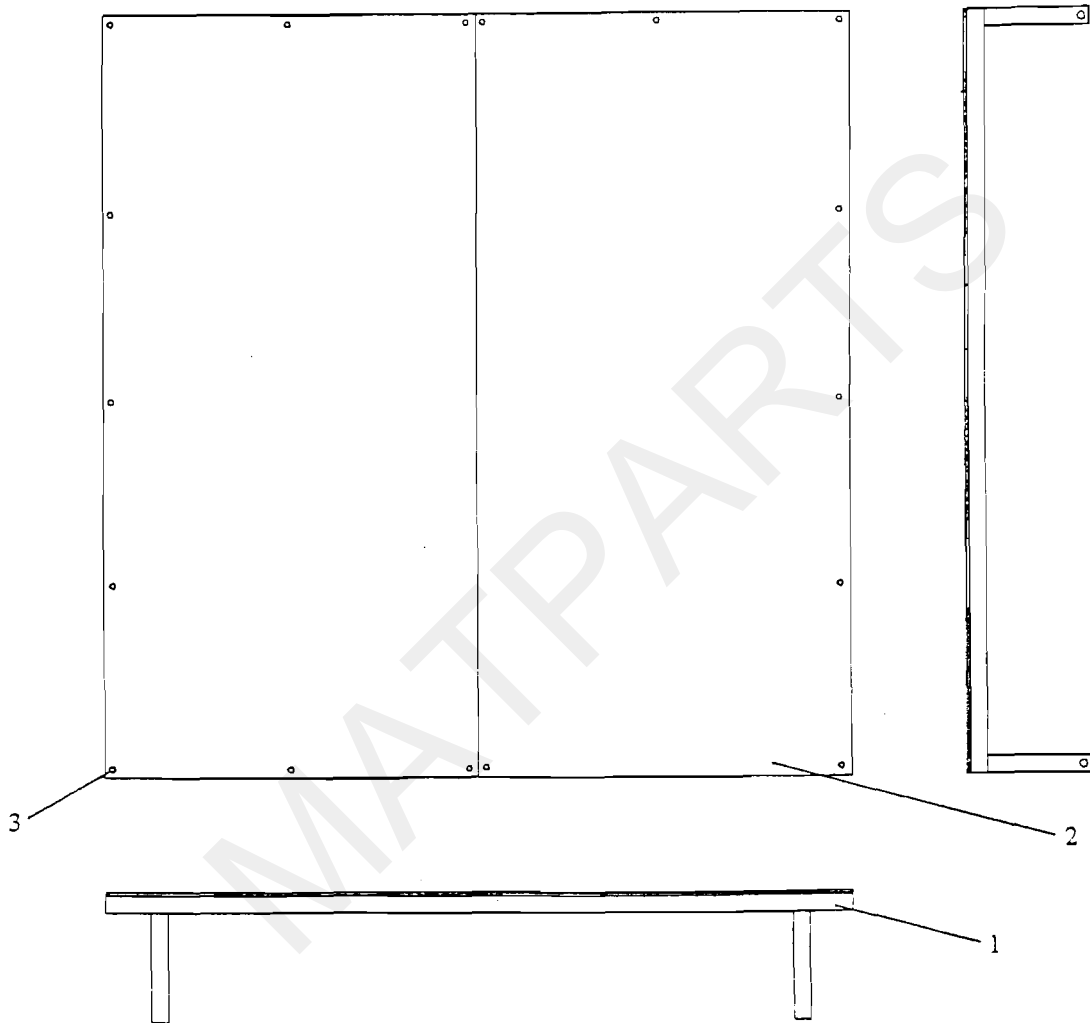
Item	Description	Qty	Size 1	Size 3
			MAT-41117	MAT-43065
			Part No	Part No
38	Screw for Bracket	2	SL-173ME	SL-173ME
39	Washer	2	WL-5ME	WL-5ME
40	Washer	2	WL-119ME	WL119ME

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MATPARTS



# Table Assembly



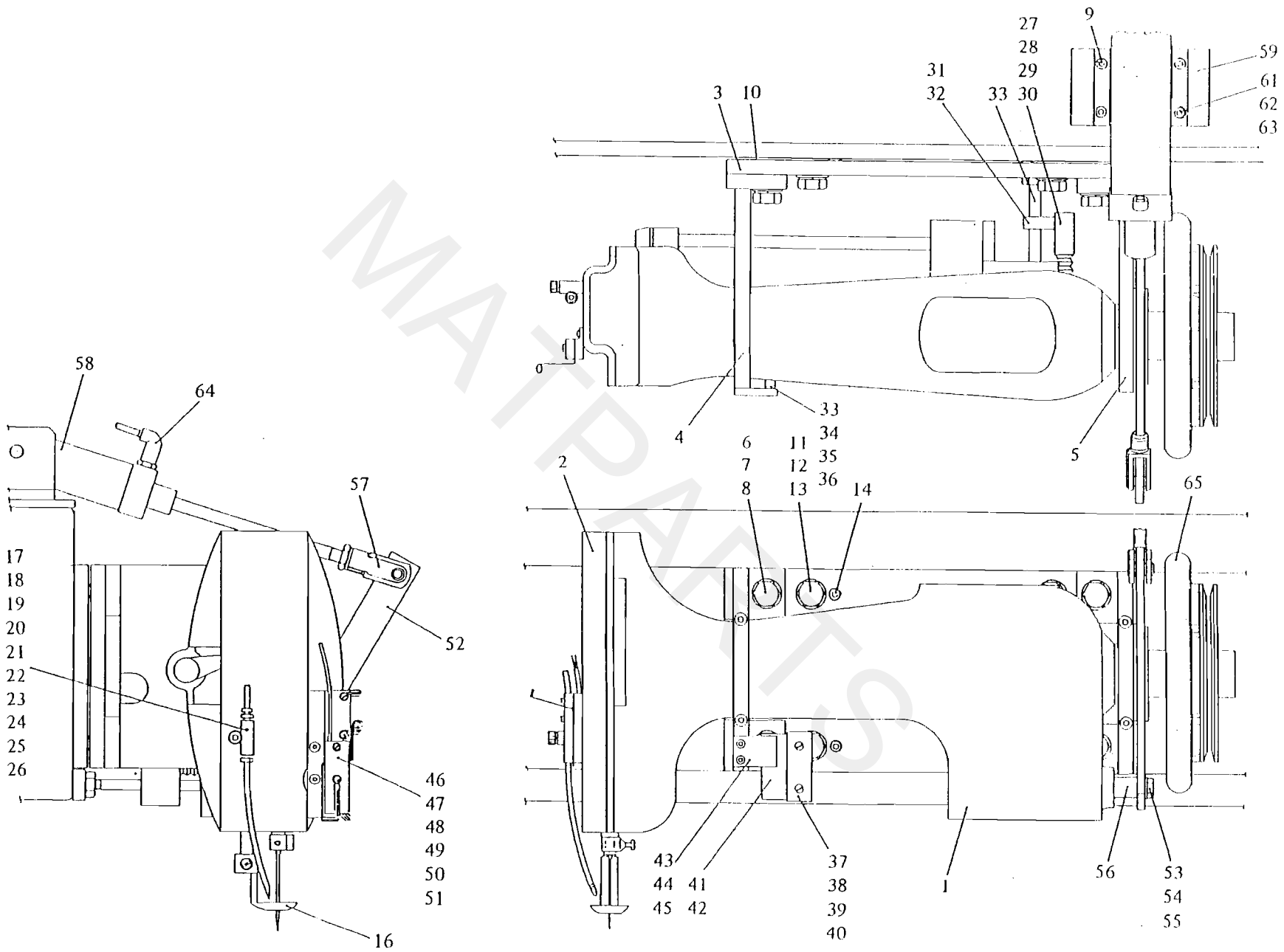
## Table Assembly

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Item	Description	Qty	Size 1	Size 3
			MAT-41117 Part No	MAT-43065 Part No
1	Table Fabrication	1	MAT-41572	MAT-43276
2	Table Boards	2	MAT-41571	MAT-43277
3	Screw	28	SL-470ME	SL-470ME

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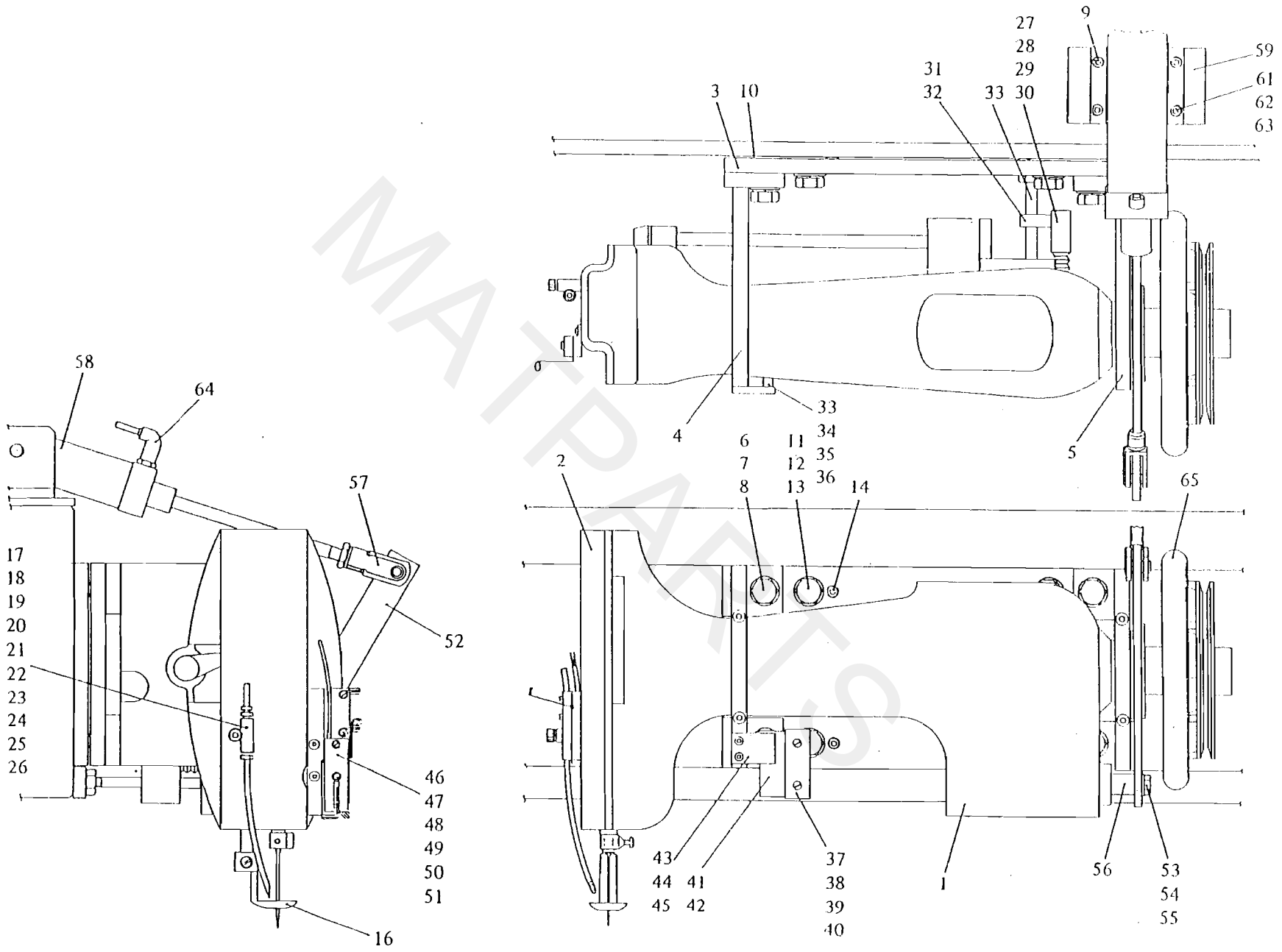
MATPARTS



Sewing Head Assembly

## Sewing Head Assembly – (2 per machine)

Item	Description	Qty	Part No
1	Modified Sewing Head	1	MAT-43425-BRG
2	Front Cover	1	MAT-41198
3	Base plate	1	MAT-37148
4	Support Plate L/H	1	MAT-50241
5	Support Plate R/H	1	MAT-37150
6	Screw	4	SL-213ME
7	Washer	4	WL-7ME
8	Washer	4	WL-121ME
9	Screw	4	MAT-AB303
10	Pin	4	MAT-CS1
11	Screw	4	SL-214ME
12	Washer	4	WL-7ME
13	Washer	4	WL-121ME
14	Screw	8	SL-98ME
15*	Pin	2	MAT-CS1
16	Presser Foot	1	MAT-N175
17	Copper Tube	1	MAT-KO26
18	Tubing Olive	1	MAT-KL9
19	Tubing Nut	1	MAT-KK9
20	Straight Connector	1	MAT-KR1
21	Male Adaptor	1	MAT-KZA2
24	Screw	1	SL-538ME
25	Washer	1	WL-5ME
26	Washer	1	WL-119ME
27	Microswitch	1	MAT-QC1
28	Screw	2	MAT-AE213
29	Washer	2	WL-4ME
30	Washer	2	WL-118ME
31	Mounting Block	1	MAT-37151
32	Screw	1	SL-76ME
33	Stop Pin	1	MAT-37152
34	Washer	1	WL-7ME
35	Washer	1	WL-121ME
36	Nut	1	NL-7ME
37	Microswitch	1	MAT-QC1
38	Screw	2	MAT-AE213
39	Washer	2	WL-4ME
40	Washer	2	WL-118ME
41	Mounting Block	1	MAT-37151



Sewing Head Assembly

## Sewing Head Assembly – (2 per machine) Cont'd

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Item	Description	Qty	Part No
42	Screw	2	SL-76ME
43	Mounting Block	1	MAT-41361
44	Screw	2	MAT-AF201
45	Washer	2	WL-118ME
46	Thread Break Switch Assembly	1	MAT-41060B
47	Screw	2	MAT-AF203
48	Single Clip	1	MAT-KJ7
49	Screw	2	MAT-AF201
50	Washer	2	WL-4ME
51	Washer	2	WL-118ME
52	Pivot Bracket	1	MAT-43424A
53	Screw	1	SL-195ME
54	Washer	1	WL-6ME
55	Washer	1	WL-120ME
56	Spacer	1	MAT-37183
57	Clevis Assembly	1	MAT-KX8
58	Cylinder with Centre Trunnion	1	MAT-KA73
59	Cylinder Bracket – Side	2	MAT-43422
60	Cylinder Bracket – Base	1	MAT-43423
61	Screw	4	SL-536ME
62	Washer	4	WL-5ME
63	Washer	4	WL-119ME
64	Banjo	2	MAT-KZK3
65	Handwheel	1	MAT-41200

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## Lower Drive Shafts

Item	Description	Qty	Part No
1	Lower Drive Shaft L/H	1	MAT-43141
2	Bearing	4	MAT-DB1
3	Screw	8	SL-569ME
4	Washer	8	WL-7ME
5	Washer	8	WL-121ME
6	Timing Pulley – 36L	1	MAT-EC13
7	Taperlock – 1610/20	1	MAT-JA46
8	Woodruff Key	1	MAT-HC37
9	Timing Belt	1	MAT-ED1
10	Timing Pulley – 72/8M	1	MAT-EC89
11	Taperlock – 2012/20	1	MAT-JA42
12	Timing Pulley – 32/8M	1	MAT-EC79
13	Taperlock – 1610/20	1	MAT-JA46
14	Key - Parallel	1	MAT-HD7
15	Timing Belt - 1040	1	MAT-ED102
16	Timing Belt – 800	1	MAT-ED109
17	Lower Drive Shaft R/H	1	MAT-43140
18	Bearing	4	MAT-DB1
19	Screw	8	SL-569ME
20	Washer	8	WL-7ME
21	Washer	8	WL-121ME
22	Timing Pulley – 36L	1	MAT-EC13
23	Taperlock – 1610/20	1	MAT-JA46
24	Woodruff Key	1	MAT-HC37
25	Timing Belt	1	MAT-ED1
26	Timing Pulley – 72/8M	1	MAT-EC89
27	Taperlock – 2012/20	1	MAT-JA42
28	Timing Pulley – 32/8M	1	MAT-EC79
29	Taperlock – 1610/20	1	MAT-JA46
30	Key - Parallel	1	MAT-HD7
31	Timing Belt - 1040	1	MAT-ED102
32	Timing Belt – 800	1	MAT-ED109
33	Servo Motor	2	MAT-XA59
34	Screw	8	SL-470ME
35	Washer	8	WL-119ME
36	Nut	8	NL-5ME
37	Motor Mounting Plate	2	MAT-43457C
38	Screw	8	SL-536ME
39	Washer	8	WL-67ME
40	Screw	8	WL-119ME

## Lower Drive Shafts Cont'd

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Item	Description	Qty	Part No
41	Timing Pulley – 24/8M	2	MAT-EC75
42	Taperlock – 1108	2	MAT-JA56

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MATPARTS



## Upper Drive Shafts

Item	Description	Qty	Part No
1	Drive Spigot	2	MAT-43144
2	Timing Pulley	2	MAT-41413
3	Screw	2	SL-77ME
4	Dowel Pin	2	MAT-CG3
5	Bearing – Pressed Steel Housing	2	MAT-DC101
6	Screw	4	SL-192ME
7	Washer	4	WL-6ME
8	Washer	4	WL-120ME
9	Cam Plate	2	MAT-43152
10	Screw	2	SL-76ME
11	Upper Drive Shaft L/H	1	MAT-43143
12	Bearing Mounting Bracket	1	MAT-43150
13	Bearing – Pressed Steel Housing	2	MAT-DC101
14	Screw	4	SL-193ME
15	Washer	4	WL-6ME
16	Washer	4	WL-120ME
17	Bracket – Proximity Switch	1	MAT-43151
18	Screw	2	SL-536ME
19	Washer	2	WL-5ME
20	Washer	2	WL-119ME
21	Proximity Switch	1	MAT-QC9
22	Timing Pulley	1	MAT-41413
23	Screw	1	SL-77ME
24	Dowel Pin	1	MAT-CG3
25	Timing Belt - 150	1	MAT-ED2
26	Oval Bearing	1	MAT-DD101
27	Screw	2	SL-213ME
28	Washer	2	WL-7ME
29	Washer	2	WL-121ME
30	Timing Pulley – 32/8M	1	MAT-EC79
31	Taperlock	1	MAT-JA46
32	Woodruff Key	1	MAT-HC37
33	Upper Drive Shaft R/H	1	MAT-43142
34	Bearing Mounting Bracket	1	MAT-43150
35	Bearing – Pressed Steel Housing	2	MAT-DC101
36	Screw	4	SL-193ME
37	Washer	4	WL-6ME
38	Washer	4	WL-120ME
39	Bracket – Proximity Switch	1	MAT-43151
40	Screw	2	SL-536ME

## Upper Drive Shafts Cont'd

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Item	Description	Qty	Part No
41	Washer	2	WL-5ME
42	Washer	2	WL-119ME
43	Proximity Switch	1	MAT-QC9
44	Timing Pulley	1	MAT-41413
45	Screw	1	SL-77ME
46	Dowel Pin	1	MAT-CG3
47	Timing Belt - 150	1	MAT-ED2
48	Oval Bearing	1	MAT-DD101
49	Screw	2	SL-213ME
50	Washer	2	WL-7ME
52	Washer	2	WL-121ME
53	Timing Pulley - 32/8M	1	MAT-EC79
54	Taperlock	1	MAT-JA46
55	Woodruff Key	1	MAT-HC37

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## Belt Tension Pulley

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Item	Description	Qty	Part No
1	Bracket	2	MAT-50001
2	Bearing	4	MAT-DF3
3	Screw	2	SL-213ME
4	Heavy Washer	2	MAT-41392/3
5	Washer	2	WL-121ME

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MATPARTS

## “X” Axis Drive Assembly

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Item	Description	Qty	Part No
1	“X” Axis Fabrication	1	MAT-43116
2	Servo Motor and Gearbox	1	MAT-XA58
3	Screw	4	SL-537ME
4	Washer	4	WL-119ME
5	Nut	4	NL-5ME
6	Mounting Bracket	1	MAT-43209A
7	Screw	4	SL-537ME
8	Washer	4	WL-5ME
9	Washer	4	WL-119ME
10	Timing Pulley and Bush	1	MAT-EC204
11	Timing Belt	1	MAT-ED203
12	Pillow Block Bearing	2	MAT-DB101
13	Screw	4	SL-569ME
14	Washer	4	WL-7ME
15	Washer	4	WL-121ME
16	Jacking Screw	4	SL-193ME
17	Driven Shaft	1	MAT-43221
18	Timing Pulley and Bush	1	MAT-EC205
19	Woodruff Key	2	MAT-HC37
20	Timing Pulley and Bush	1	MAT-EC202
21	Pillow Block Bearing – Pressed Steel	2	MAT-DC101
22	Screw	4	SL-522ME
23	Washer	4	WL-6ME
24	Washer	4	WL-120ME
25	Guide Pulley	1	MAT-43214
26	Screw	2	SL-77ME
27	Shaft for Guide Pulley	1	MAT-43222
28	Pillow Block Bearing – Pressed Steel	2	MAT-DC101
29	Screw	4	SL-522ME
30	Washer	4	WL-6ME
31	Washer	4	WL-120ME
32	Pulley Shaft	1	MAT-43223
33	Timing pulley and Bush	1	MAT-EC203
34	Guard	1	MAT-43192
35	Screw	3	MAT-AF201
36	Washer	3	WL-4ME
37	Washer	3	WL-118ME
38	Mounting Plate	1	MAT-43210
39	Screw	4	SL-213ME
40	Washer	4	WL-7ME

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## “X” Axis Drive Assembly Cont’d

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Item	Description	Qty	Part No
41	Washer	4	WL-121ME
42	Jacking Screw	1	MAT-AF327
43	Washer	1	WL-7ME
44	Nut	1	NL-7ME
45	Pillow Block Bearing	2	MAT-DB101
46	Screw	4	SL-215ME
47	Washer	4	WL-121ME
48	Washer	8	WL-7ME
49	Nut	4	NL-7ME
50	Pulley Shaft	1	MAT-43220
51	Timing Pulley and Bush	1	MAT-EC202
52	Woodruff Key	1	MAT-HC37
53	Guard	1	MAT-43189
54	Screw	4	SL-510ME
55	Long Belt	1	MAT-ED202
56	Belt Connector Plate – Top	1	MAT-45308
57	Belt Connector Plate – Bottom	1	MAT-45309
58	Connector Plate Screw	1	MAT-43154
59	Washer	1	WL-7ME
60	Washer	1	WL-121ME
61	Nut	1	NL-7ME
62	Tension Roller	4	MAT-43226
63	Flanged Oilite Bush	8	MAT-HB38
64	Spacer Shims	8	MAT-50021
65	Circlip	8	MAT-CO30
66	Roller Bracket – Inner	4	MAT-43224
67	Roller Bracket – Outer	4	MAT-43225
68	Screw	16	SL-536ME
69	Washer	16	WL-5ME
70	Washer	16	WL-119ME
71	Jacking Screw	16	SL-76ME
72	Stop Bracket L/H	1	MAT-43212
73	Screw	2	SL-555ME
74	Washer	2	WL-6ME
75	Washer	2	WL-120ME
76	Stop Bracket R/H	1	MAT-43211
77	Screw	2	SL-555ME
78	Washer	2	WL-6ME
79	Washer	2	WL-120ME
80	Microswitch Plate L/H	1	MAT-43215

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## “X” Axis Drive Assembly Cont’d

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Item	Description	Qty	Part No
81	Screw	2	SL-555ME
82	Washer	2	WL-6ME
83	Washer	2	WL-120ME
84	Microswitch Plate R/H	1	MAT-43216
85	Screw	2	SL-555ME
86	Washer	2	WL-6ME
87	Washer	2	WL-120ME
88	Microswitch	3	MAT-QC7
89	Belt Guard - Front	1	MAT-43194
90	Belt Guard – Rear	1	MAT-43195
91	Screw	8	SL-551ME
92	Washer	8	WL-6ME
93	Washer	8	WL-120ME
94	Belt Guard	1	MAT-43193
95	Screw	14	MAT-AF201
96	Washer	14	WL-4ME
97	Washer	14	WL-118ME

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## Floor Rails

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Item	Description	Qty	Part No
1	Floor Rail Tie R/H Rear	1	MAT-41181
2	Floor Rail Tie R/H Front	1	MAT-43444
3	Screw	4	SL-195ME
4	Washer	8	WL-6ME
5	Washer	4	WL-120ME
6	Nut	4	NL-6ME
7	Rear Member R/H	1	MAT-43203
8	Screw	2	SL-192ME
9	Washer	2	WL-6ME
10	Washer	2	WL-120ME
11	Screw	2	SL-193ME
12	Washer	4	WL-6ME
13	Washer	2	WL-120ME
14	Nut	2	NL-6ME
15	Front Member R/R	1	MAT-43204
16	Screw	2	SL-192ME
17	Washer	2	WL-6ME
18	Washer	2	WL-120ME
19	Screw	2	SL-193ME
20	Washer	4	WL-6ME
21	Washer	2	WL-120ME
22	Nut	2	NL-6ME
23	Centre Rail – Front	1	MAT-43201
24	Centre Rail – Rear	1	MAT-43205
25	Screw	4	SL192ME
26	Washer	4	WL-6ME
27	Washer	4	WL-120ME
28	Tie L/H	2	MAT-43206
29	Screw	4	SL-195ME
30	Washer	8	WL-6ME
31	Washer	4	WL-120ME
32	Nut	4	NL-6ME
33	Floor Member L/H	1	MAT-43202
34	Screw	4	SL193ME
35	Washer	8	WL-6ME
36	Washer	4	WL-120ME
37	Nut	4	NL-6ME
38	Floor Rail	2	MAT-43207
39	Screw	12	SL193ME
40	Washer	12	WL-6ME

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## Floor Rails Cont'd

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Item	Description	Qty	Part No
41	Washer	12	WL-120ME
42	Spacers – various	to suit	MAT-41392
43	Drag Chain Tray	1	MAT-43208
44	Screw	2	SL-171ME
45	Spacer	2	MAT-43323
46	Screw	2	SL-175ME
47	Washer	4	WL-5ME
48	Washer	4	WL-119ME
49	Tray Support - Large	1	MAT-45477
50	Screw	1	SL-171ME
51	Screw	1	SL-173ME
52	Washer	2	WL-5ME
53	Washer	2	WL-119ME
54	Tray Support – Small	1	MAT-45478
55	Drag Chain	1	MAT-QE36

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## “Y” Axis Drive Assembly

Item	Description	Qty	Part No
1	“Y” Axis Lower Carriage	1	MAT-43126
2	Lower Carriage Wheel Shaft	2	MAT-43230
3	Pillow Block Bearing	6	MAT-DB101
4	Screw	12	MAT-AA324
5	Washer	24	WL-7ME
6	Washer	12	WL-121ME
7	Nut	12	NL-7ME
8	Track Wheel - Wide	2	MAT-41583
9	Track Wheel – Narrow	2	MAT-41584
10	Servo Motor Mounting Bracket	1	MAT-43240A
11	Screw	4	SL-537ME
12	Washer	4	WL-5ME
13	Washer	4	WL-119ME
14	Servo Motor	1	MAT-XA58
15	Screw	4	SL-537ME
16	Washer	4	WL-119ME
17	Nut	4	NL-5ME
18	Timing Pulley and Bush - Motor	1	MAT-EC204
19	Belt	1	MAT-ED203
20	Driven Shaft	1	MAT-43221
21	Pillow Block Bearing	2	MAT-DB101
22	Screw	4	SL-569ME
23	Washer	4	WL-7ME
24	Washer	4	WL-121ME
25	Jacking Screw	2	SL-193ME
26	Timing Pulley and Bush - Driven	1	MAT-EC205
27	Key	1	MAT-HC37
28	Timing Pulley and Bush – Inter Driving	1	MAT-EC202
29	Key	1	MAT-HC37
30	Driven Pulley Plate	1	MAT-43241
31	Screw	4	MAT-AB324
32	Washer	4	WL-7ME
33	Washer	4	WL-121ME
34	Jacking Screw	1	SL223ME
35	Washer	2	WL-7ME
36	Washer	1	WL-121ME
37	Nut	1	NL-7ME
38	Pillow Block Bearing	2	MAT-DB101
39	Screw	4	SL-569ME
40	Washer	4	WL-7ME

## “Y” Axis Drive Assembly Cont’d

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Item	Description	Qty	Part No
41	Washer	4	WL-121ME
42	Pulley Shaft	1	MAT-43220
43	Timing Pulley and Bush – Tension	1	MAT-EC202
44	Key	1	MAT-HC37
45	Belt	1	MAT-ED202
46	Belt Top Plate	1	MAT-45308
47	Belt Bottom Plate	1	MAT-45309
48	Special Screw	1	MAT-43154
49	Belt Roller	4	MAT-43250
50	Flanged Bush	8	MAT-HB38
51	Spacing Shims	8	MAT-50004
52	Circlip	8	MAT-CO30
53	Belt Guard L/H	1	MAT-43250
54	Belt Guard R/H	1	MAT-43252
55	Screw	8	SL-192ME
56	Washer	8	WL-6ME
57	Washer	8	WL-120ME
58	Front Microswitch Bracket	1	MAT-43247
59	Microswitch	1	MAT-QC7
60	Screw	2	SL-523ME
61	Washer	2	WL-4ME
62	Washer	2	WL-118ME
63	Rear Microswitch Bracket	1	MAT-43248
67	Microswitch	2	MAT-QC7
64	Screw	2	SL-523ME
65	Washer	2	WL-4ME
66	Washer	2	WL-118ME
67	Drag Chain Fixing Upper	1	MAT-43434
68	Screw	2	SL-537ME
69	Washer	2	WL-5ME
70	Washer	2	WL-119ME
71	Screw – Drag Chain Box	2	SL-540ME
72	Washer	4	WL-5ME
73	Washer	2	WL-119ME
74	Nut	2	NL-5ME
75	“X” Axis Microswitch Actuator	1	MAT-43219
76	Screw	2	SL192ME
77	Washer	2	WL-6ME
78	Washer	2	WL-120ME

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## Upper Carriage Assembly

Item	Description	Qty	Size 1 Part No	Size 3 Part No
1	Upper Carriage	1	MAT-43135	MAT-43136
2	Carriage Shaft	2	MAT-41190	MAT-41190
3	Pillow Block Bearing – Pressed Steel	4	MAT-DC101	MAT-DC101
4	Screw	8	SL-200ME	SL-200ME
5	Washer	16	WL-6ME	WL-6ME
6	Washer	8	WL-120ME	WL-120ME
7	Nut	8	NL-6ME	NL-6ME
8	Track Wheel – Wide	2	MAT-41583	MAT-41583
9	Track Wheel – Narrow	2	MAT-41584	MAT-41584
10	Screw	8	SL-98ME	SL-98ME
11	Carriage Rail R/H	1	MAT-41562	MAT-43155
12	Carriage Rail L/H	1	MAT-41563	MAT-43156
13	Screw	4	SL-224ME	SL224ME
14	Washer	4	WL-7ME	WL-7ME
15	Washer	4	WL-121ME	WL-121ME
16	Bearing	12	MAT-DE38	MAT-DE38
17	Bulkhead Bracket	1	MAT-43289	MAT-43289
18	Screw	2	MAT-AF201	MAT-AF201
19	Washer	2	WL-4ME	WL-4ME
20	Washer	2	WL-118ME	WL-118ME
21	Bulkhead Connector	2	MAT-KZM7	MAT-KZM7
22	Shock Absorber	1	MAT-EB100	MAT-EB100
23	Shock Absorber Bracket	1	MAT-43128	MAT-43158
24	Screw	4	SL-536ME	SL-536ME
25	Washer	4	WL-5ME	WL-5ME
26	Washer	4	WL-119ME	WL-119ME
27	Proximity Switch Bracket - Lower	1	MAT-43305	MAT-43305
28	Screw	2	SL-536ME	SL536ME
29	Washer	2	WL-5ME	WL-5ME
30	Washer	2	WL-119ME	WL-119ME
31	Proximity Switch – Lower	1	MAT-QC8	MAT-QC8
32	Microswitch Activator	1	MAT-43249	MAT-43249
33	Screw	2	SL-192ME	SL-192ME
34	Washer	2	WL-6ME	WL-6ME
35	Washer	2	WL-120ME	WL-120ME
36	Board	1	MAT-43435	MAT-43435
37	Screw	4	SL-470ME	SL-470ME

## Computer and Electronic Drive

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Item	Description	Qty	Part No
1	4 Axis Drive PC	1	MAT-QK60
2	Axis Servo Drive Card 400W	2	MAT-QK57
3	Sewing Head Drive Card 750W	2	MAT-QK58
4	Axis Servo Card Filter	2	MAT-QP25
5	Sewing Head Servo Card Filter	2	MAT-QP26
6	Sewing Head Brake Resistor	2	MAT-QK59
7	Interface Card – 4 Axis Servos	1	MAT-QK63
8	Relay Interface Board	1	MAT-QK64
9	Cable – PC to 4 axis Interface Card 37 Way	2	MAT-QL48
10	Cable – PC to Relay Interface Board 37 Way	1	MAT-QL48
11	Cable – 4 Axis Interface Card to Servo Drives	4	MAT-QL47
12	Encoder Cable – 6m	2	MAT-QL43
13	Encoder Cable – 1m	2	MAT-QL44
14	Cable – Servo Motor Power – 6m	2	MAT-QL45
15	Cable – Servo Motor Power – 1m	2	MAT-QL46
16	Cable – PC to Servo Drive – RS232	1	MAT-QL49
17	Cable – Servo Drive Link – RS485	3	MAT-QL50
18	Touch Screen	1	MAT-QK61
19	Floppy Disc Drive	1	MAT-QK62
20	Software Dongle	1	MAT-QK65
21	Power Supply – DC	1	MAT-QK66