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Service Manual

AccuGlide™ Standard and Stainless Steel Taping Heads

STD Model 18500

SST Model 18900

AccuGlide™ Standard and Stainless Steel Taping Heads
Service Manual
Revision History

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Page	Date
All	10/94

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General

A standard or high speed taping head consists essentially of a frame assembly which contains an applying mechanism. This mechanism guides and applies tape to cases passing by the taping head on a conveying system. A blade in a cutoff mechanism cuts the tape at the proper time.

The tape supply is from a drum attached to the taping head frame or the machine frame.

A taping head is driven by the force of the case passing by. This causes it to perform a sequence of actions. These actions result in pressure-sensitive tape being applied to cases as they are conveyed past the taping head.

These taping heads operate at conveying speeds up to 80 feet per minute. Figure A1-1 shows a standard (linear) taping head.

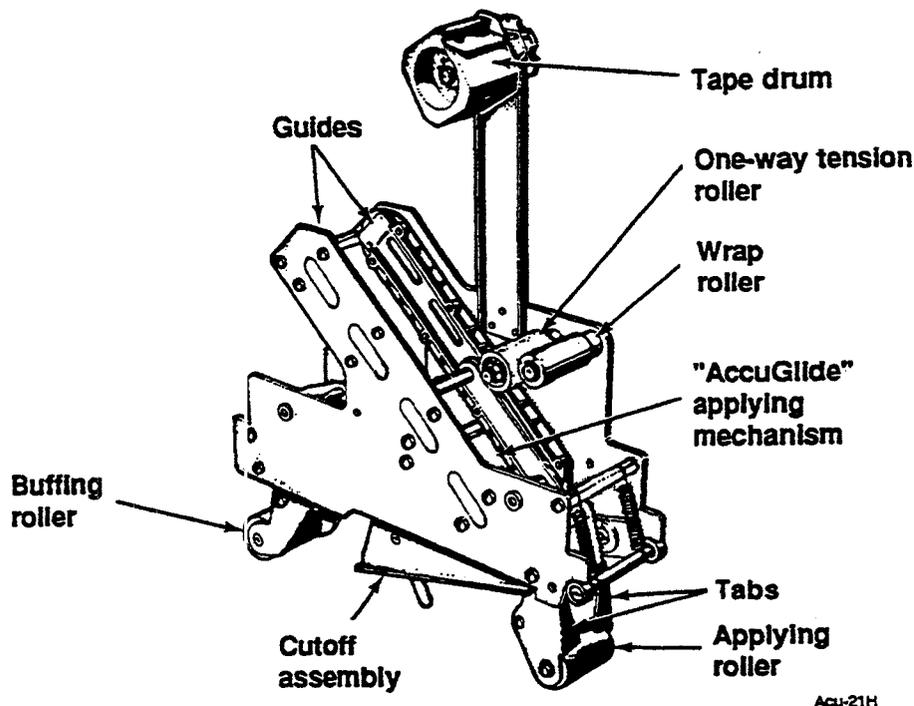


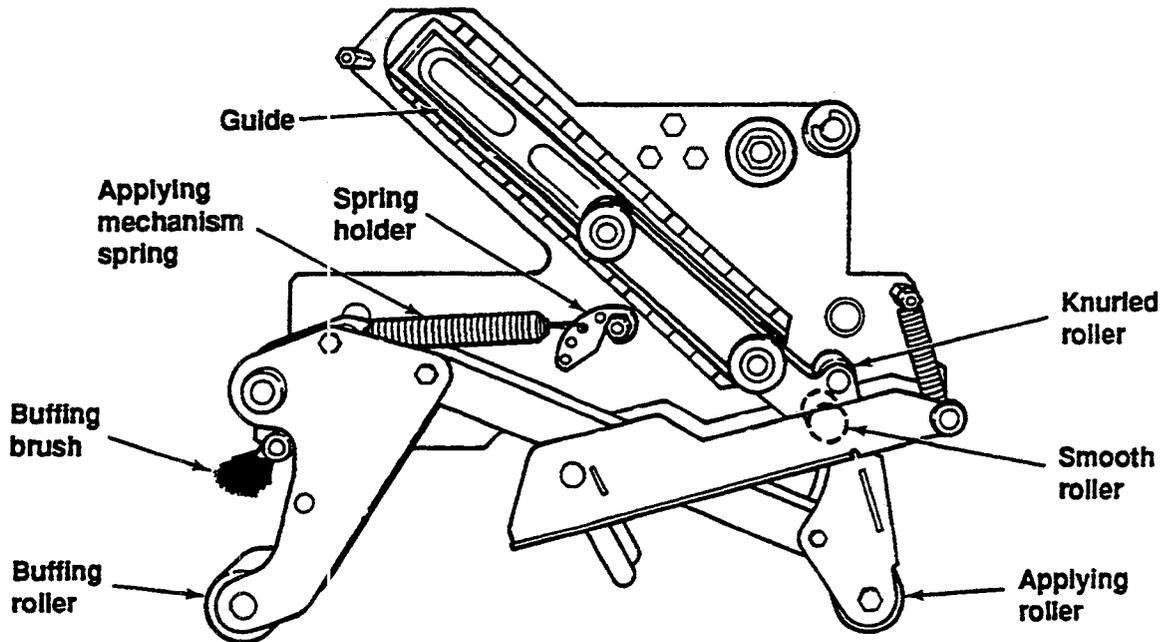
Figure A1-1

The major components of a standard taping are:

- **Tape Drum**
Serves two functions:
 - Holds a roll of tape.
 - Provides alignment adjustment for various tape widths.
- **Wrap Roller**
Causes the tape web to wrap around the tension roller.
- **One-way Tension Roller**
Serves two functions:
 - Puts a constant tension on the tape web. This allows a positive cut of the tape without stretching it.
 - Prevents the tape from backing up by means of an internal one-way clutch.
- **Applying Mechanism**
Provides a linear applying force during taping action.
- **Tabs**
Keep the tape in place (especially in a bottom-mounted taping head).
- **Applying Roller**
Adheres the tape to the case. The applying roller is solid to provide adequate initial adhesion. It has a friction spring to prevent freewheeling after a case passes.
- **Cutoff Assembly**
Contains a blade that cuts the tape after the proper amount is applied to a case.
- **Buffing Roller**
Adheres the tape to a case during taping and at end of tape. The buffing roller is relatively soft at the ends. This allows it to conform to under-filled cases.
- **Buffing Brush**
Adheres the tape to the case during taping action (not visible in figure A.1-1).
- **Guides**
Guide the AccuGlide applying mechanism as it slides in when a case contacts the applying roller and returns when taping is complete.

AccuGlide Applying Mechanism

Figure A1-2 shows the AccuGlide applying mechanism with a side plate removed for viewing.



Acu-22H

Figure A1-2

The AccuGlide applying mechanism provides a more constant force during taping than pivoting types of taping mechanisms. This results in more accurate and positive tape placement on the cases.

The applying mechanism has roller bearings attached to it. These roller bearings ride in guides mounted on a frame. The guides direct the applying force linearly for proper taping. SMTs have additional roller bearings for horizontal mounting.

The applying and buffing rollers are linked. Therefore, when one roller retracts the other also does. The applying mechanism spring supplies the required force.

The applying mechanism spring in a bottom-mounted taping head provides more force than in a top-mounted taping head. This is because the spring in a bottom-mounted head must cancel the effect of gravity as well as supply the necessary operating force.

These springs are color coded. The spring for a bottom-mounted head is black. In a top-mounted head, the spring is silver.

The spring holder allows adjustment of the applying mechanism spring. This provides greater or lesser force depending on the cases being taped.

The knurled and smooth rollers guide the tape to the application roller.

Cutoff Assembly

Figure A1-3 shows the cutoff assembly.

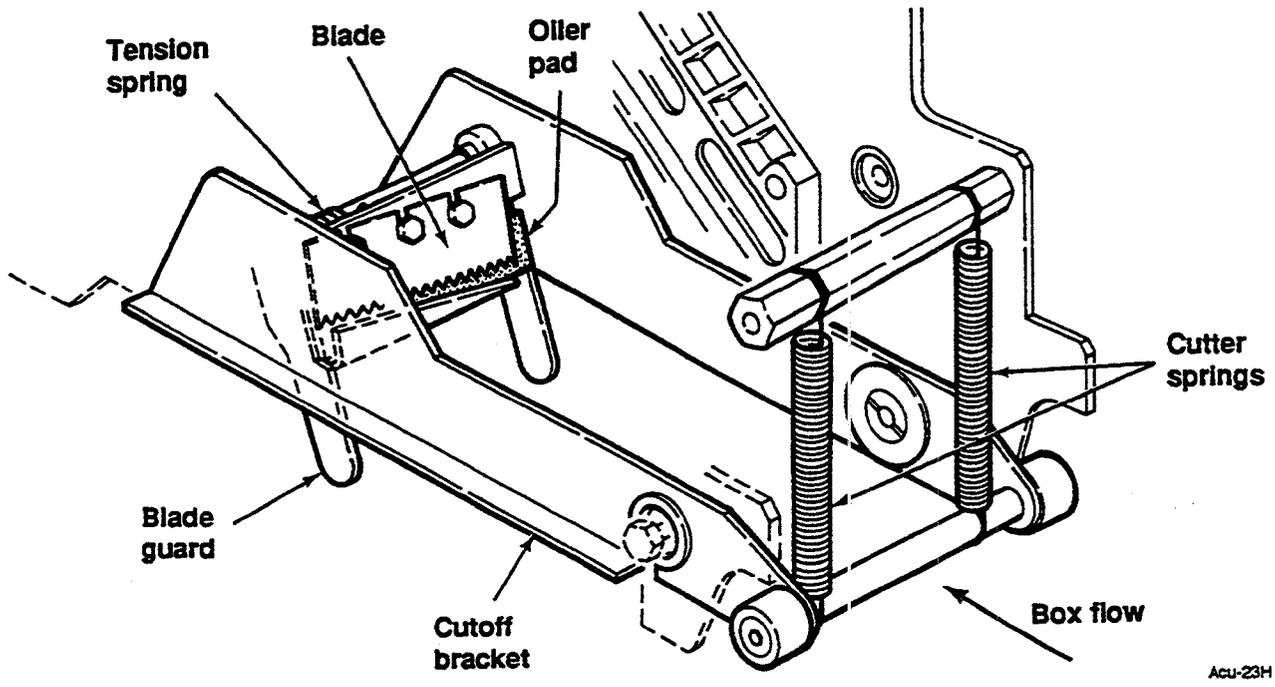


Figure A1-3

The cutoff bracket drives the blade so it cuts the tape after the proper amount is applied to a case.

A case passing the taping head forces the cutoff bracket upward (on a top-mounted head) and contacts the blade guard. This exposes the blade. When the trailing end of the case passes, the cutter springs force the blade end of the cutoff bracket downward cutting the tape.

An oiler pad on the blade guard provides lubrication for two purposes. It helps to provide better cutting of the tape. It also helps to keep adhesive from building up on the blade.

A tension spring keeps the blade guard in place when no cases are passing.

General

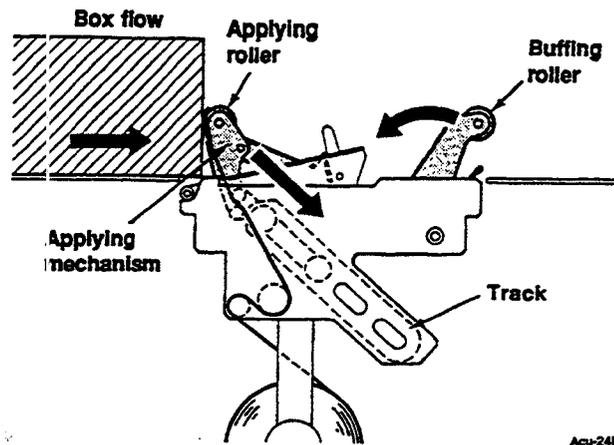
The taping process can be described as a series of events occurring as a case moves along a conveyor system. Although the taping process is similar for standard and high speed taping heads, there are some differences.

The Taping Process

The action of a bottom-mounted head is described. Top-mounted heads function similarly.

Figure A2-1. A case conveyed to the taping head contacts the tape on the applying roller. This causes:

- The applying roller to adhere tape to the case.
- The applying mechanism to begin moving down its track.
- The buffing roller to begin pivoting downward.

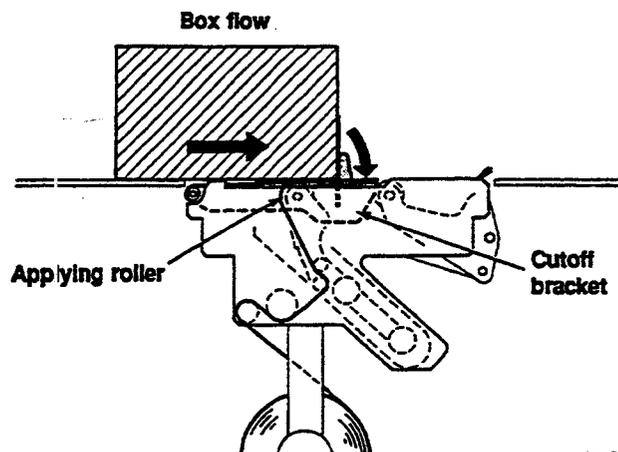


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Figure A2-1

Figure A2-2. The case continues to be conveyed past the taping head and:

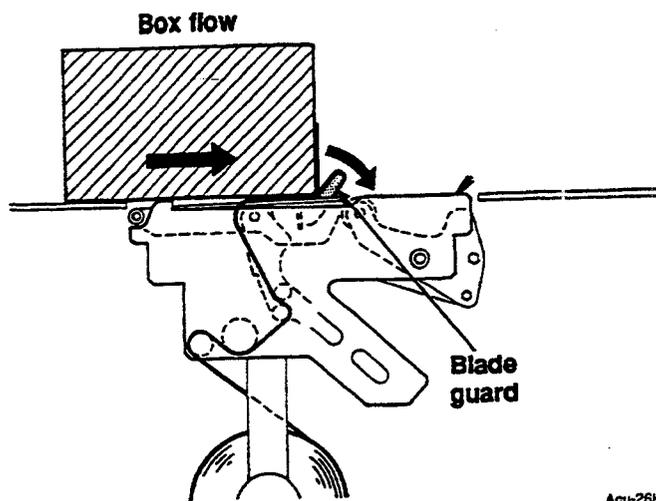
- Tape is pulled from the supply roll.
- The applying roller continues to adhere tape to the case.
- The cutoff bracket goes down as the case contacts it.



Acu-25H

Figure A2-2

Figure A2-3. The case forces the blade guard down and passes over the blade. This exposes the blade, while under the case, for cutting.

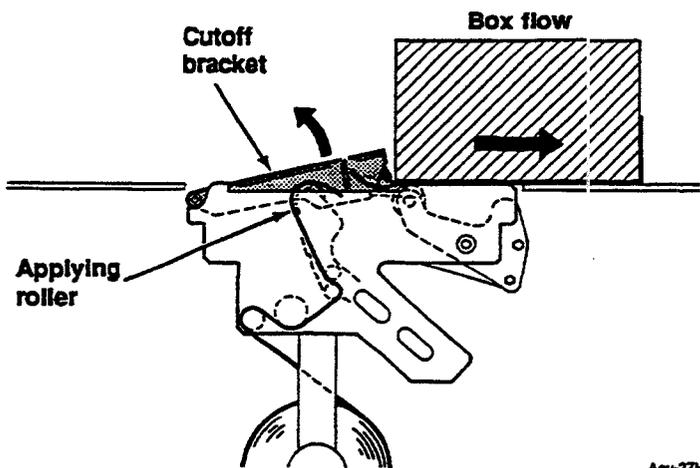


Acu-26H

Figure A2-3

Figure A2-4. The trailing edge of the case clears the cutoff bracket:

- The cutoff bracket snaps upward allowing the blade to cut the tape.
- The supply end of the tape drapes over the applying roller.
- Buffing roller positioned at trailing edge of case to support cut end of tape.

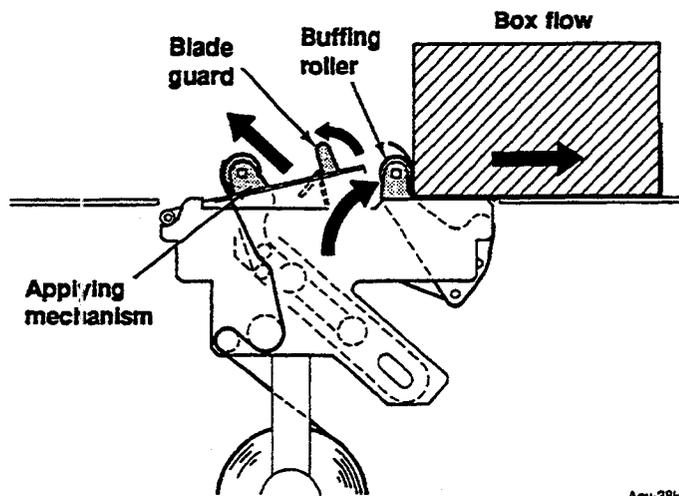


Acu-27H

Figure A2-4

Figure A2-5. The trailing edge of the case moves past the buffing roller.

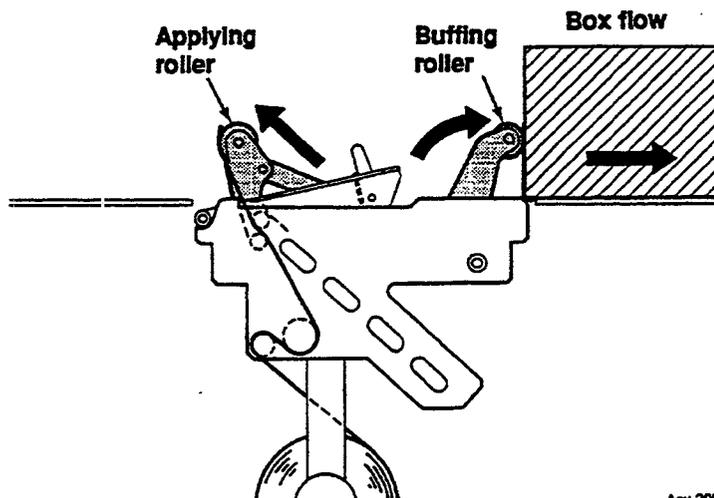
- The blade guard returns to cover the blade.
- The applying mechanism begins to return.
- The buffing roller extends and pivots back. This causes the buffing roller to adhere the trailing end of the tape to the end of the case.



Acu-28H

Figure A2-5

Figure A2-6. The case clears the buffing roller. The applying and buffing rollers return to the initial position.



Acu-29H

Figure A2-6

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Friction Brake (STD 3-Inch Taping Head Only)

The friction brake is factory set to prevent tape over travel. The procedure below tells how to adjust tension.

Refer to Figure A3-1.

1. Turn the self-locking nut clockwise to increase the braking force or counterclockwise to decrease the force.
2. Adjust for the minimum braking force that prevents over travel.

Note

Excessive braking force causes poor tape application and tape tabing on the trailing tape edge.

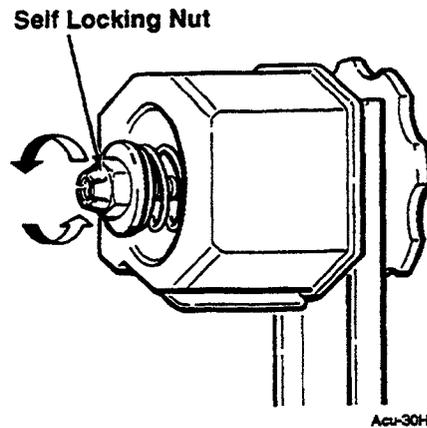
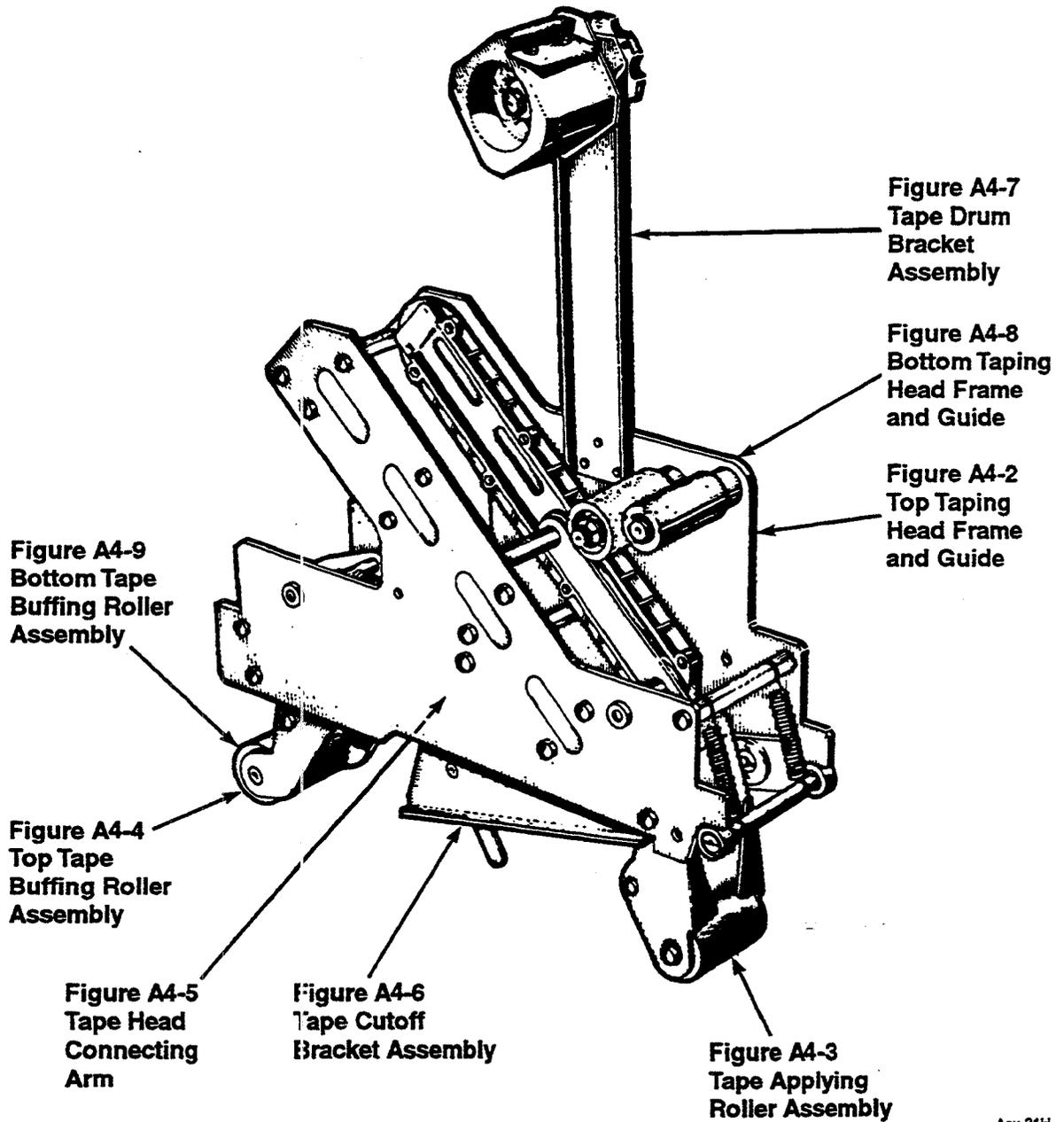


Figure A3-1

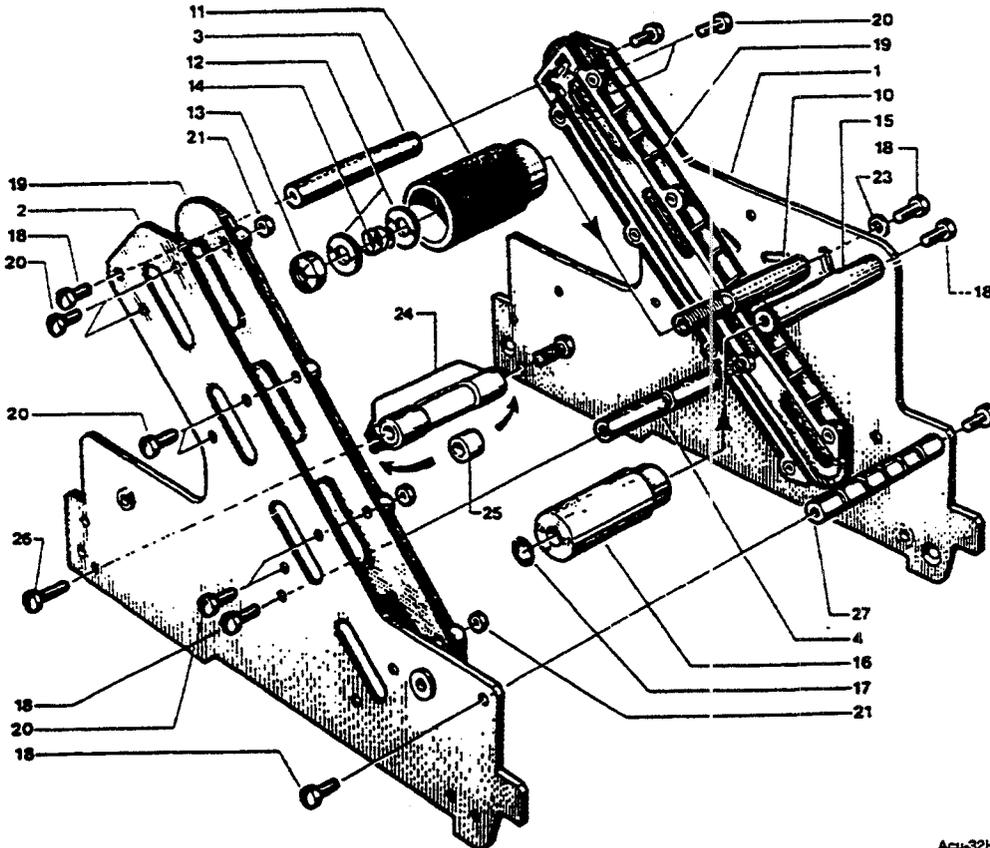
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Figure A4-1
TAPING HEAD ASSEMBLY (STD 3-INCH)



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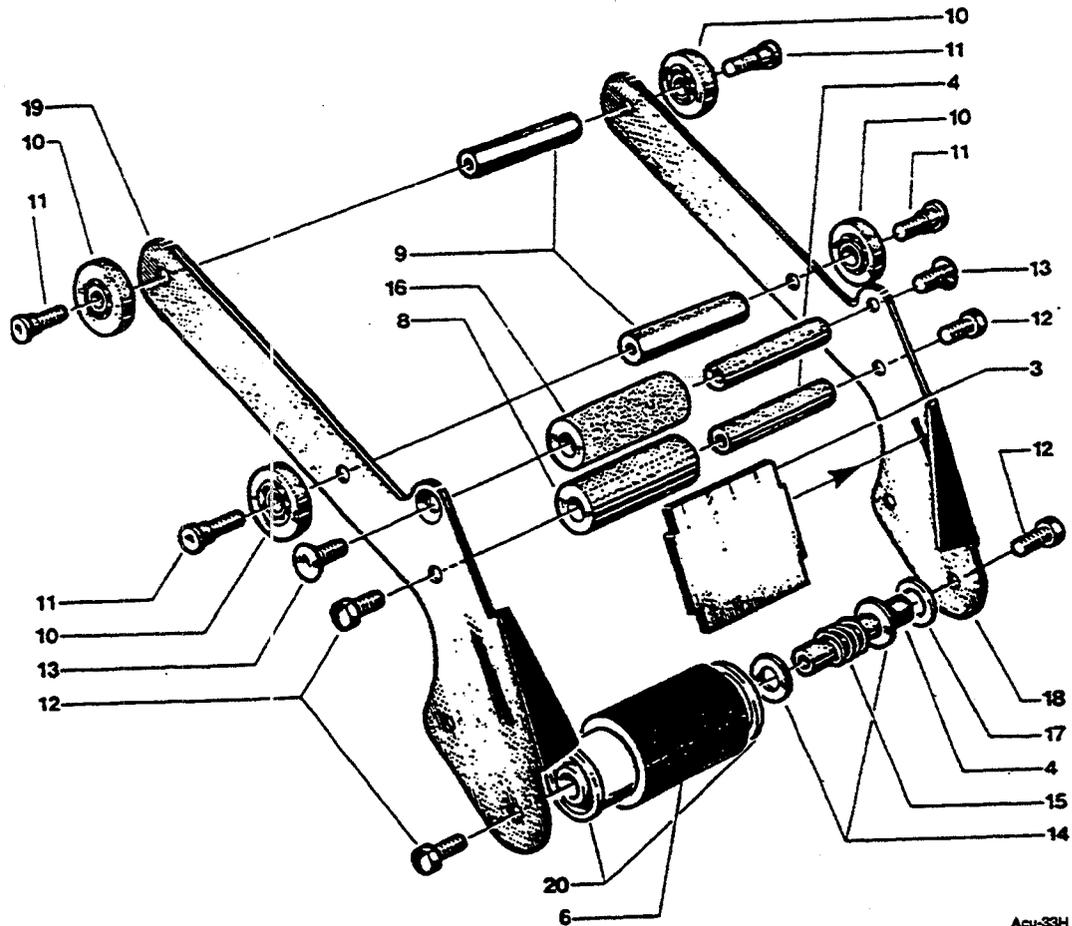
Figure A4-2
TOP TAPING HEAD FRAME AND GUIDE (STD 3-INCH)



Acu-32H

Item No.	Part Number	Description
1	78-8052-6556-4	FRAME, Right, Top
2	78-8052-6557-2	FRAME, Left, Top
3	78-8054-8792-9	SPACER, Hexagonal
4	78-8054-8793-7	SPACER, Upper
10	78-8054-8796-0	SHAFT, Tension Roller
11	78-8054-8797-8	ROLLER, Top Tension
12	78-8052-6566-3	WASHER, Friction
13	78-8017-9077-1	NUT, Self Locking, Hex, M10 x 1
14	78-8052-6567-1	SPRING, Compression
15	78-8054-8798-6	SHAFT, Wrap Roller
16	78-8054-8799-4	ROLLER, Wrap
17	26-1000-1613-3	RING, Retaining
18	26-1003-5828-7	SCREW, Hex Head, M6 x 10 Zinc Pl.
19	78-8052-6570-5	GUIDE
20	83-0002-7336-3	SCREW, Hex Head, M4 x 14 Zinc Pl.
21	78-8010-7416-8	NUT, Hex, M4, Zinc Pl.
23	26-1000-0010-3	WASHER, Flat, M6
24	78-8060-7936-0	ASSEMBLY, Brush
25	78-8060-7937-8	SPACER
26	78-8060-7938-6	SCREW, M6 x 25, Special
27	78-8060-7939-4	SPACER, 10 x 115, with Slots

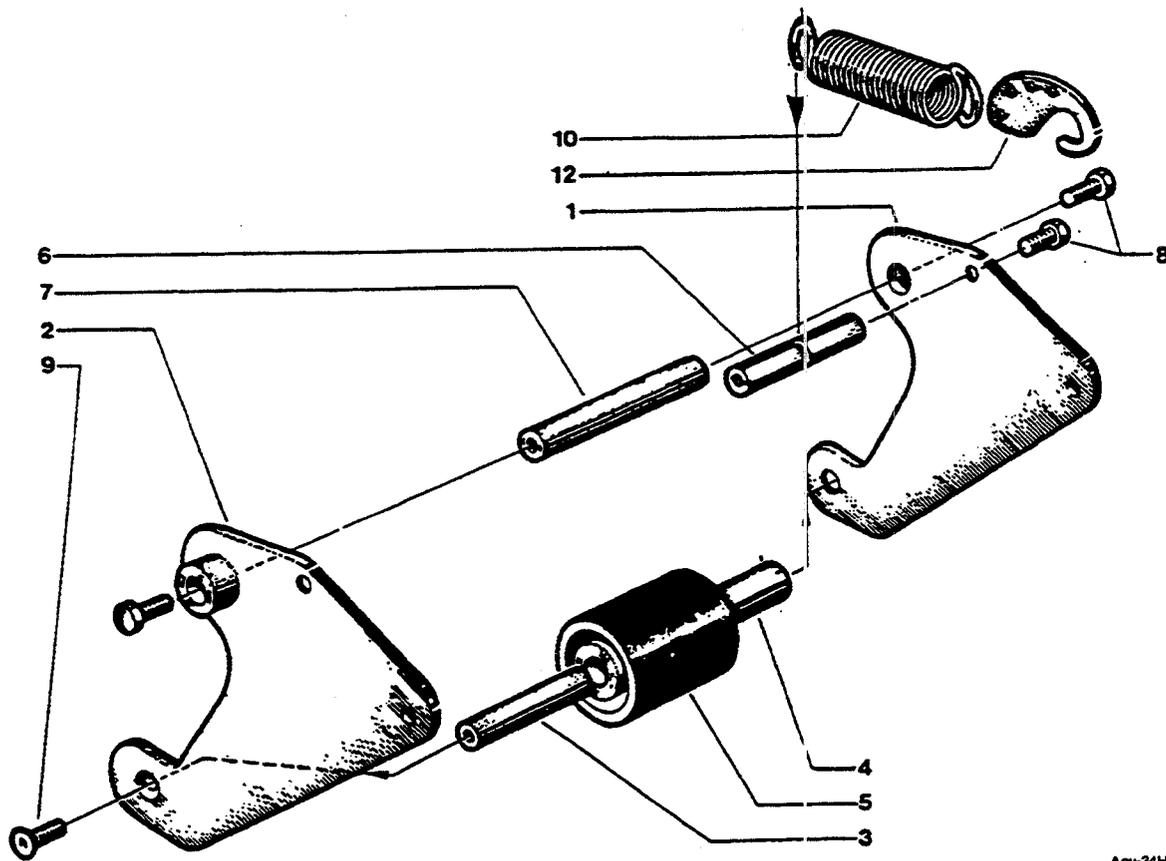
Figure A4-3
TAPE APPLYING ROLLER ASSEMBLY (STD 3-INCH)



Acu-33H

Item No.	Part Number	Description
3	78-8054-8800-0	PLATE, Back Up
4	78-8054-8801-8	SHAFT, Roller
5	78-8054-8802-6	BUSHING, Roller
6	78-8057-6181-0	ROLLER, Applying
8	78-8054-8805-9	ROLLER, Wrap
9	78-8054-8806-7	SPACER
10	78-8017-9082-1	BEARING, 30 mm, Special
11	78-8017-9106-8	SCREW, Bearing Shoulder
12	26-1003-5828-7	SCREW, Hex Head, M6 x 10 Zinc Pl.
13	26-1005-4759-0	SCREW, Flat Head, M6 x 12 Zinc Pl.
14	78-8052-6566-3	WASHER, Friction
15	78-8052-6567-1	SPRING, Compression
16	78-8060-7940-2	ROLLER, Knurled
17	78-8017-9074-8	WASHER, 15 mm, Nylon
18	78-8060-8170-5	FRAME, Applying, Right
19	78-8060-8171-3	FRAME, Applying, Left
20	78-8060-8396-6	BUSHING, Applying Roller

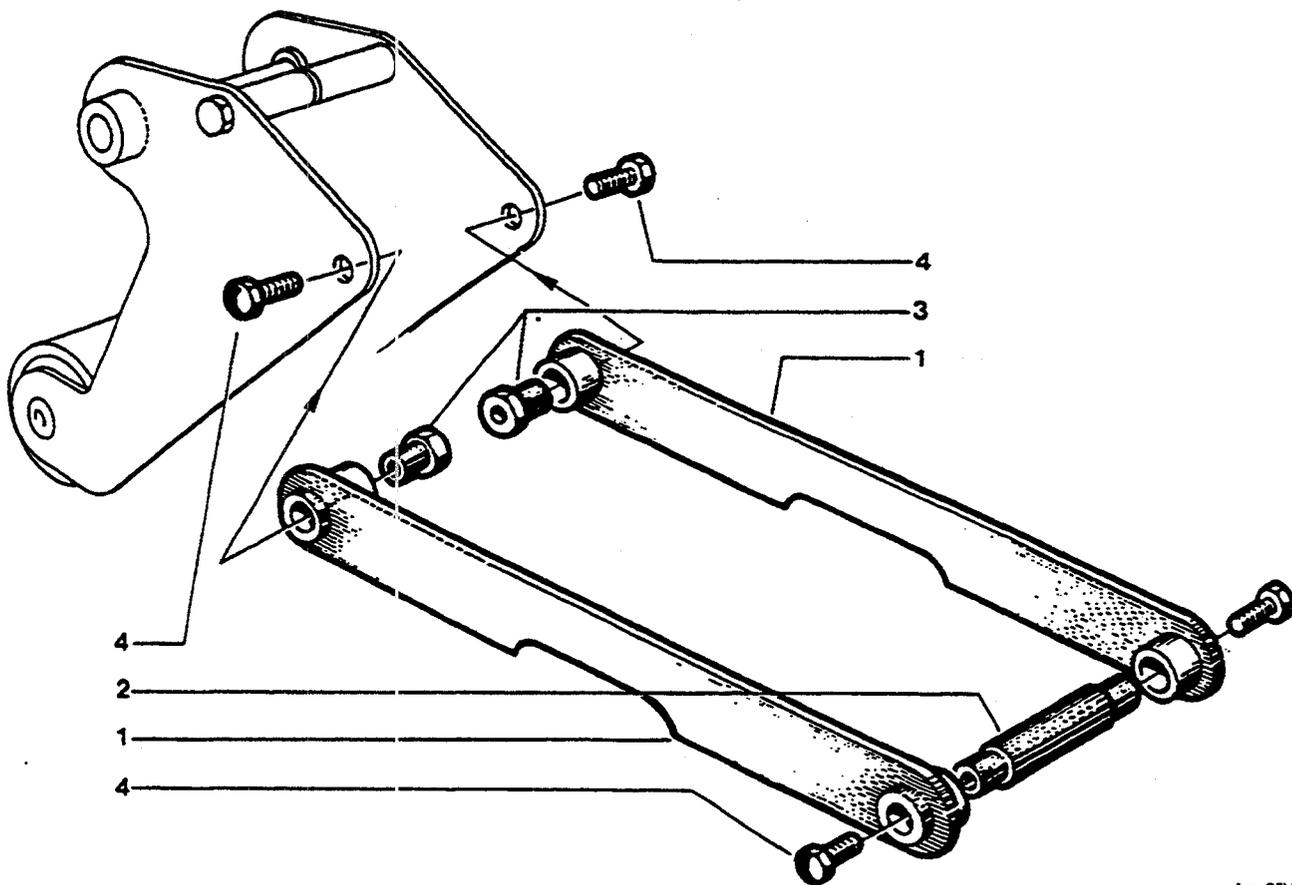
Figure A4-4
TOP TAPE BUFFING ROLLER ASSEMBLY (STD 3-INCH)



Accu-34H

Item No.	Part Number	Description
1	78-8052-6583-8	FRAME, Right
2	78-8052-6584-6	FRAME, Left
3	78-8054-8801-8	SHAFT, Roller
4	78-8054-8807-5	BUSHING, Buffing Roller
5	78-8057-6180-2	ROLLER, Buffing
6	78-8054-8809-1	SPACER, Spring
7	78-8028-7885-6	SHAFT, 10 x 115 mm
8	26-1003-5828-7	SCREW, Hex Head M6 x 10 Zinc Pl.
9	26-1005-4759-0	SCREW, Flat Head, M6 x 12
10	78-8052-6589-5	SPRING, Top Extension
12	78-8052-6590-3	HOLDER, Spring

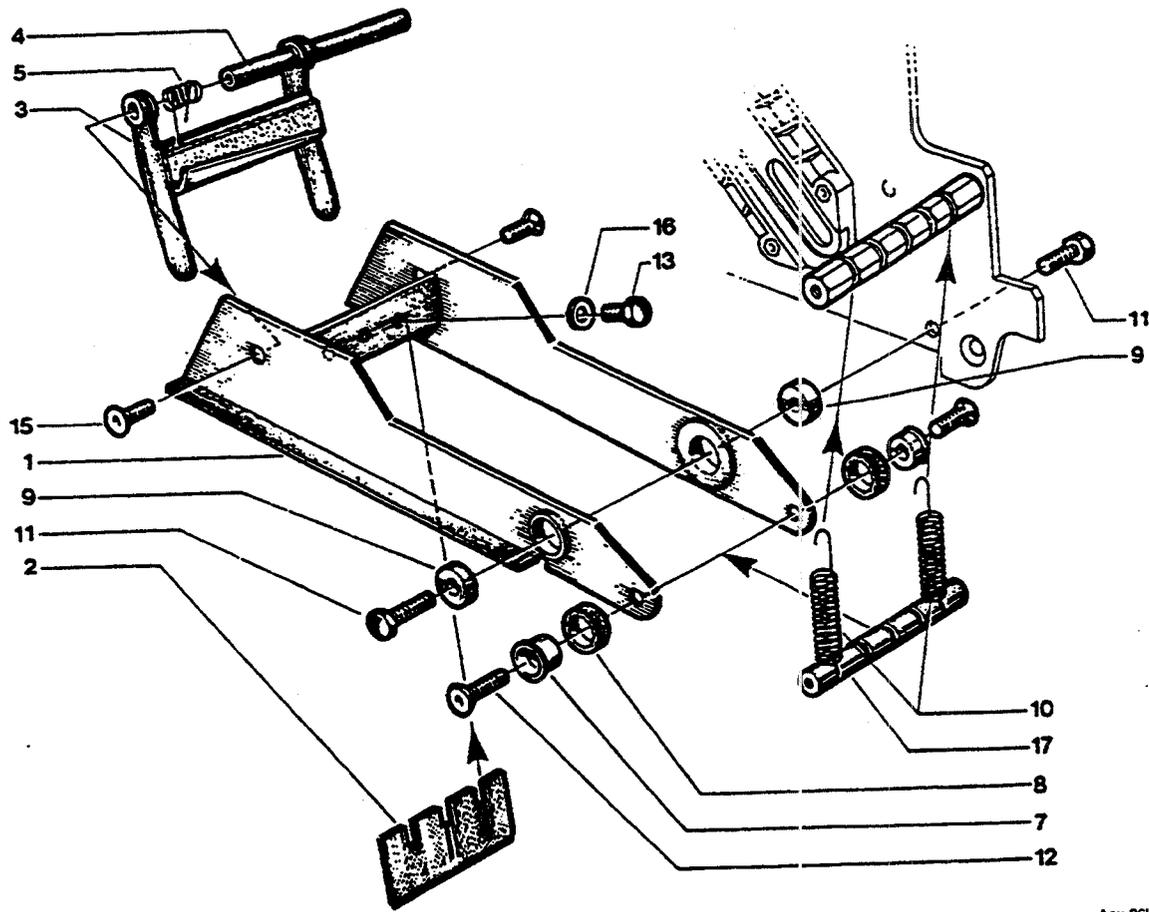
Figure A4-5
TAPE HEAD CONNECTING ARM (STD 3-INCH)



Acu-35H

Item No.	Part Number	Description
1	78-8052-6592-9	ARM, Link
2	78-8054-8810-9	SHAFT, Pivot
3	78-8052-6594-5	BUSHING, Pivot
4	78-8010-7163-6	SCREW, Hex Head, M5 x 10 Metric

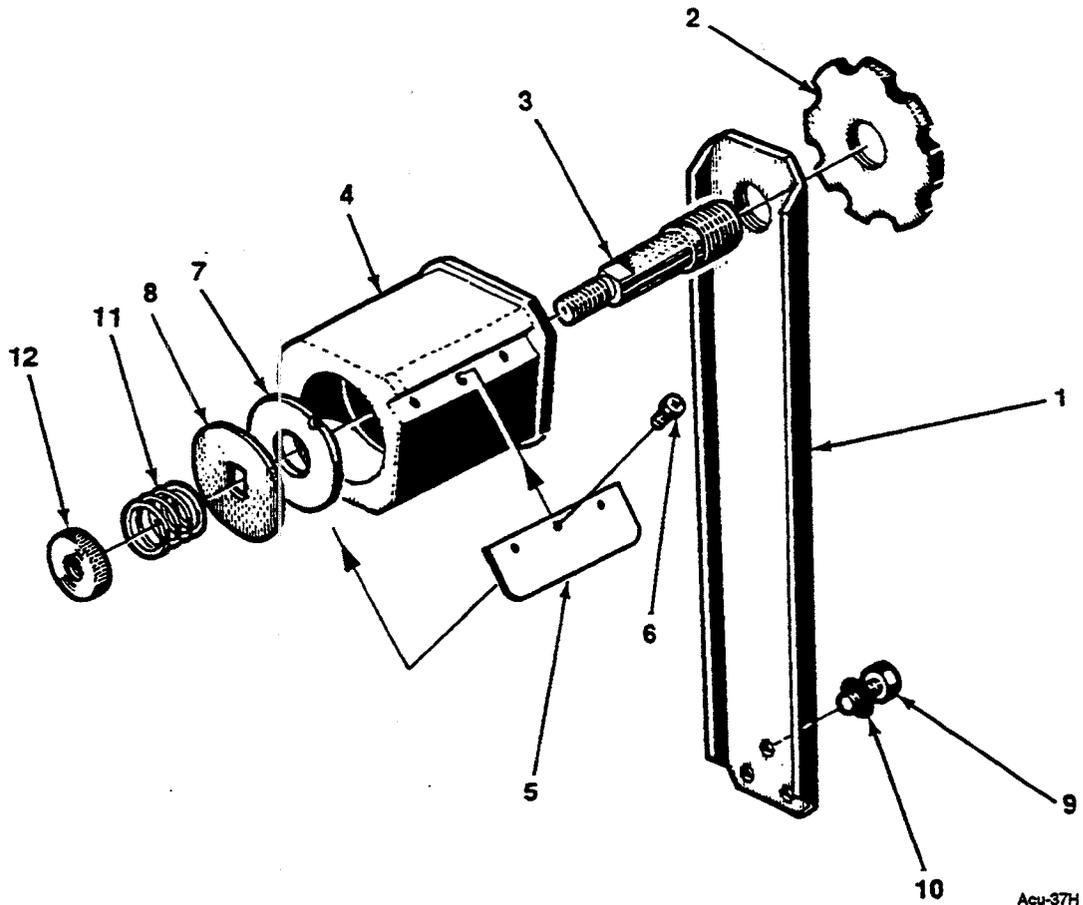
Figure A4-6
TAPE CUTOFF BRACKET ASSEMBLY (STD 3-INCH)



Acu-36H

Item No.	Part Number	Description
1	78-8060-8173-9	BRACKET, Cut-off
2	78-8028-7899-7	BLADE, 3.50 inch [89 mm]
3	78-8054-8812-5	GUARD, Blade
4	78-8054-8813-3	SHAFT, Blade Guard
5	78-8052-6598-6	SPRING, Tension
7	78-8052-6600-0	SLEEVE, Bumper
8	78-8017-9133-2	BUMPER
9	78-8017-9132-4	PIVOT, Cutter Lever
10	78-8052-6602-6	SPRING, Cutter
11	26-1003-5828-7	SCREW, Hex Head, M6 x 10 Zinc Pl.
12	26-1005-4758-2	SCREW, Flat Head, M5 x 20 Zinc Pl.
13	26-1002-5817-2	SCREW, Hex Head, M5 x 8
15	26-1005-4757-4	SCREW, Flat Head, M4 x 10 Zinc Pl.
16	78-8005-5741-1	WASHER, Plain M5 Metric
17	78-8060-7941-0	PIN, Spring Holder with Slots

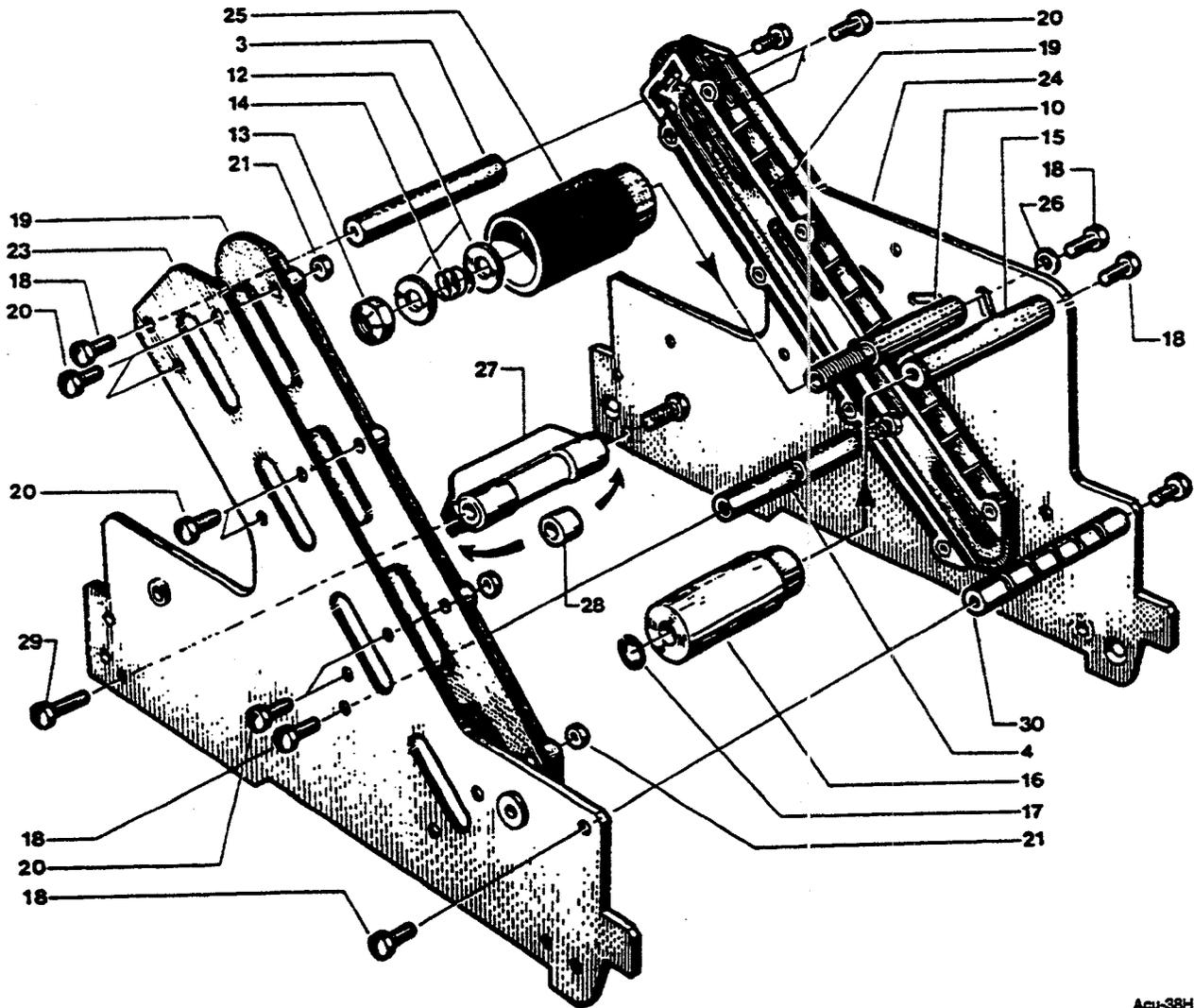
Figure A4-7
TAPE DRUM BRACKET ASSEMBLY (STD 3-INCH)



Acu-37H

Item No.	Part Number	Description
1	78-8052-6544-0	BRACKET, Tape Drum
2	78-8017-9091-2	PLATE, Locking, Tape Drum Shaft
3	78-8060-7850-3	SHAFT, Tape Drum
4	78-8054-8815-8	ASSEMBLY, Tape Drum
5	78-8054-8816-6	SPRING, Leaf
6	26-1002-5753-9	SCREW, Self Tapping
7	78-8060-8172-1	WASHER, Friction
8	78-8052-6271-0	WASHER, Tape Drum
9	26-1003-5828-7	SCREW, Hex Head, M6 x 12 Zinc Pl.
10	26-1000-0010-3	WASHER, Flat, M6
11	78-8054-8826-5	SPRING
12	78-8060-7851-1	NUT, Ring, Adjusting

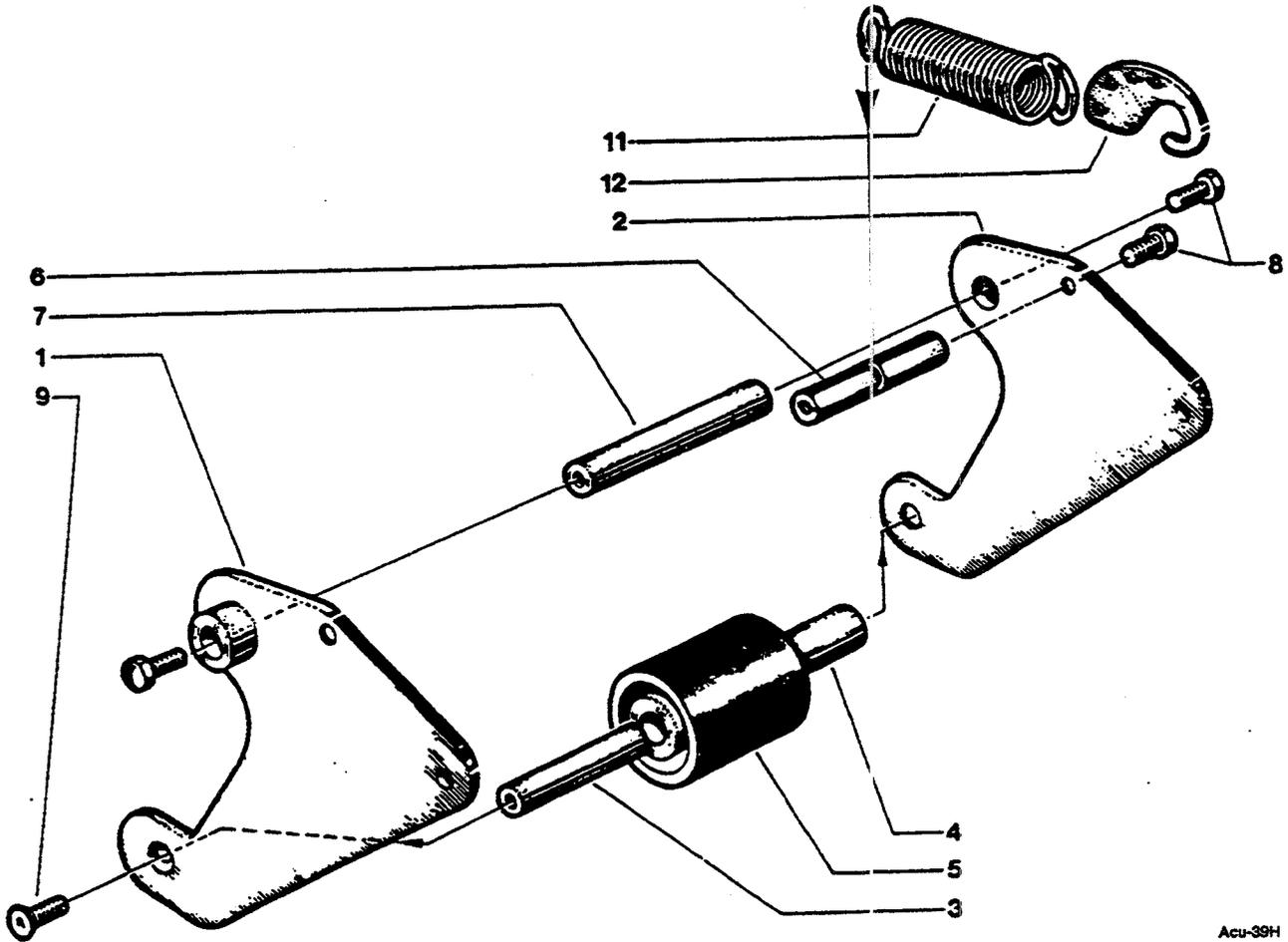
Figure A4-8
BOTTOM TAPING HEAD FRAME AND GUIDE (STD 3-INCH)



Accu-38H

Item No.	Part Number	Description
3	78-8054-8793-7	SPACER
4	78-8054-8792-9	SPACER, Spring Hook
10	78-8054-8796-0	SHAFT, Tension Roller
12	78-8052-6566-3	WASHER, Friction
13	78-8017-9077-1	NUT, Self Locking, M10 x 1
14	78-8052-6567-1	SPRING, Compression
15	78-8054-8798-6	SHAFT, Wrap Roller
16	78-8054-8799-4	ROLLER, Wrap
17	26-1000-1613-3	RING, Retaining
18	26-1003-5828-7	SCREW, Hex Head, M6 x 10, Zinc Pl.
19	78-8052-6570-5	GUIDE
20	83-0002-7336-3	SCREW, Hex Head, M4 x 14, Zinc Pl.
21	78-8010-7416-8	NUT, Hex, M4, Steel, Metric
23	78-8052-6604-2	FRAME, Left, Bottom
24	78-8052-6605-9	FRAME, Right, Bottom
25	78-8054-8817-4	ROLLER, Tension, Bottom
26	26-1000-0010-3	WASHER, Flat, H6
27	78-8060-7936-0	ASSEMBLY, Brush
28	78-8060-7937-8	SPACER
29	78-8060-7938-6	SCREW, M6 x 25, Special
30	78-8060-7939-4	SPACER, 10 x 115, with Slots

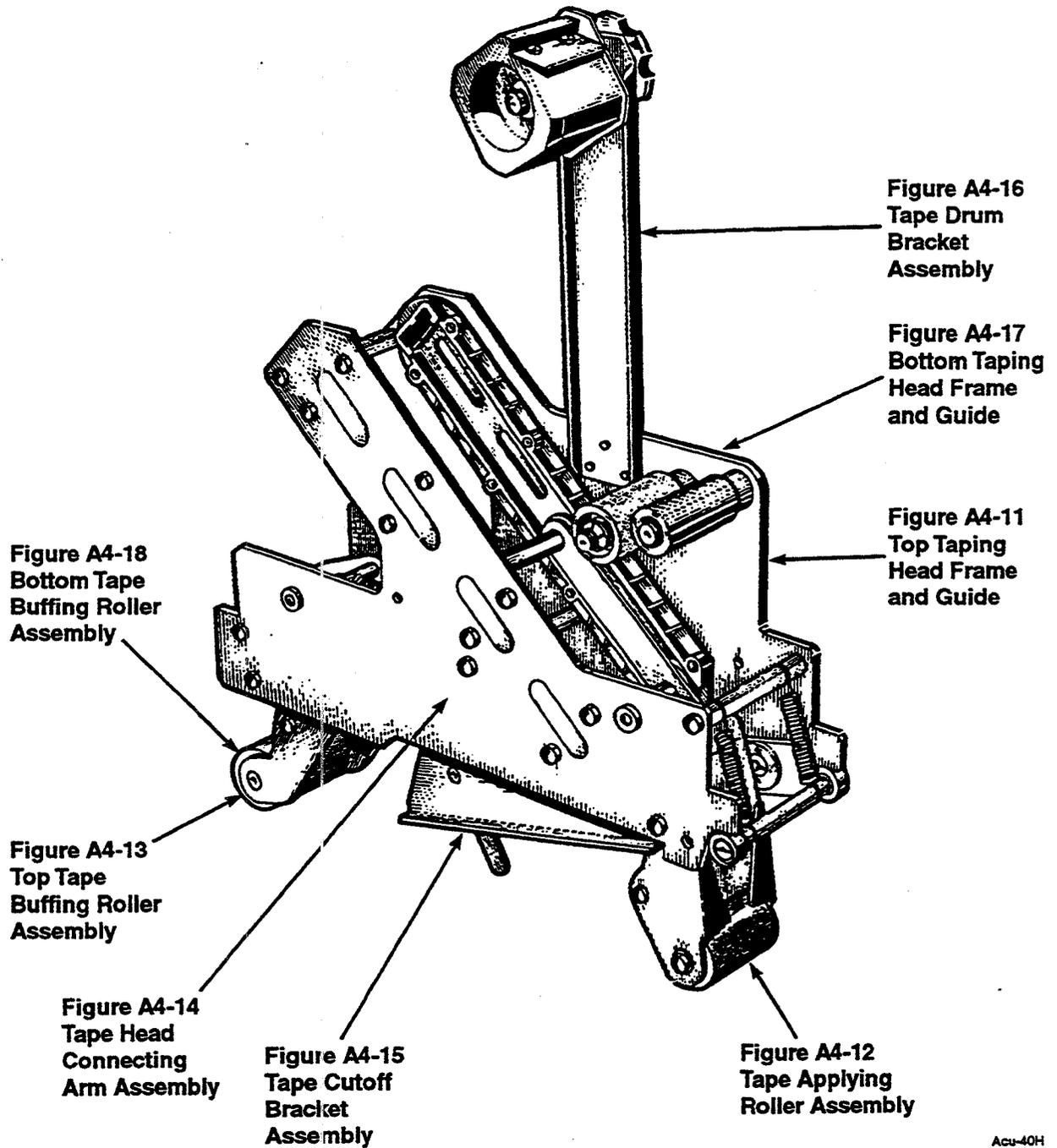
Figure A4-9
 BOTTOM TAPE BUFFING ROLLER ASSEMBLY (STD 3-INCH)



Accu-39H

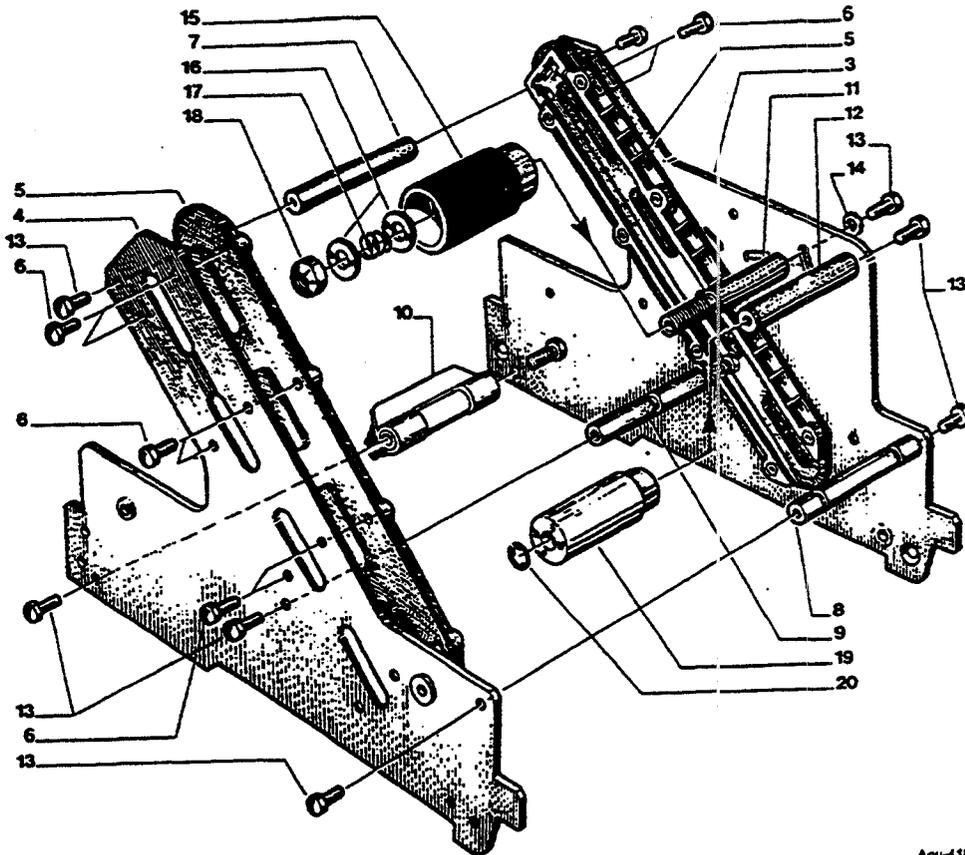
Item No.	Part Number	Description
1	78-8052-6583-8	FRAME, Right
2	78-8052-6584-6	FRAME, Left
3	78-8054-8801-8	SHAFT, Roller
4	78-8054-8807-5	BUSHING, Buffing Roller
5	78-8057-6180-2	ROLLER, Buffing
6	78-8054-8809-1	SPACER, Spring
7	78-8028-7885-6	SHAFT, 10 x 115 mm
8	26-1003-5828-7	SCREW, Hex Head, M6 x 10, Zinc Pl.
9	26-1005-4759-0	SCREW, Flat Head, M6 x 12
11	78-8054-8550-1	SPRING, Main, Bottom Head
12	78-8052-6590-3	HOLDER, Spring

**Figure A4-10
TAPING HEAD ASSEMBLY (SST)**



Accu-40H

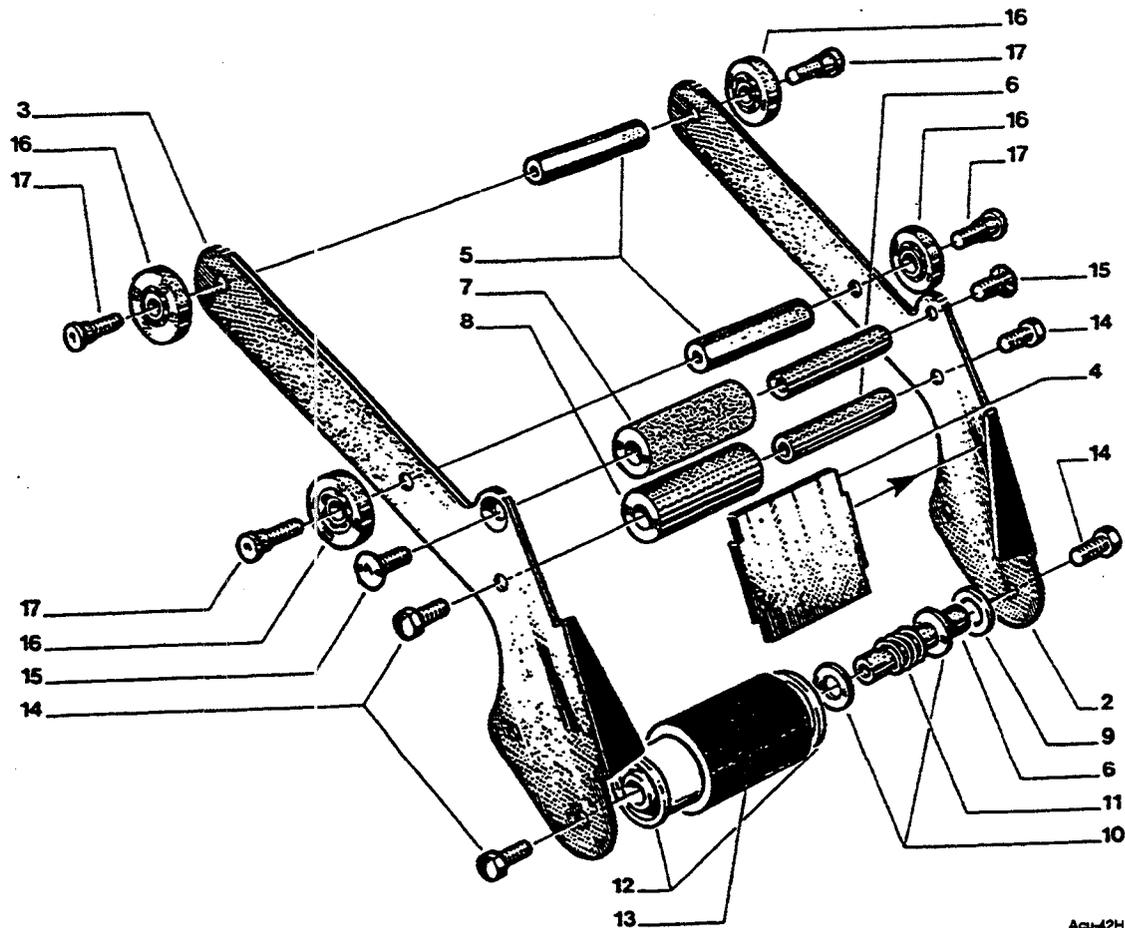
Figure A4-11
TOP TAPING HEAD FRAME AND GUIDE (SST)



A4-11H

Item No.	Part Number	Description
1	78-8060-8209-1	ASSEMBLY, Frame, Right
2	78-8060-8212-5	ASSEMBLY, Frame, Left
3	78-8060-8189-5	FRAME, Top, Right
4	78-8060-8191-1	FRAME, Top, Left
5	78-8060-8208-3	GUIDE, with Nut
6	78-8060-8205-9	SCREW, Hex Head, M4 x 14
7	78-8060-8193-7	SPACER, L 90
8	78-8060-8194-5	SPACER, Hex 10 x 90
9	78-8060-8192-9	SPACER, Hex 10 x 90
10	78-8060-8207-5	ASSEMBLY, Brush
11	78-8060-8200-0	SHAFT, Roller
12	78-8060-8202-6	SHAFT, Idler Roller
13	78-8060-8204-2	SCREW, Hex Head, M6 x 12
14	78-8060-8312-3	WASHER, Flat M6
15	78-8052-6565-5	ROLLER, Top Tension
16	78-8060-8315-6	WASHER, Friction
17	78-8060-8354-5	SPRING
18	78-8060-8201-8	NUT, M10 x 1 NHT70
19	78-8052-6569-7	ROLLER, Wrap
20	78-8060-8203-4	RING, 10DIN6799

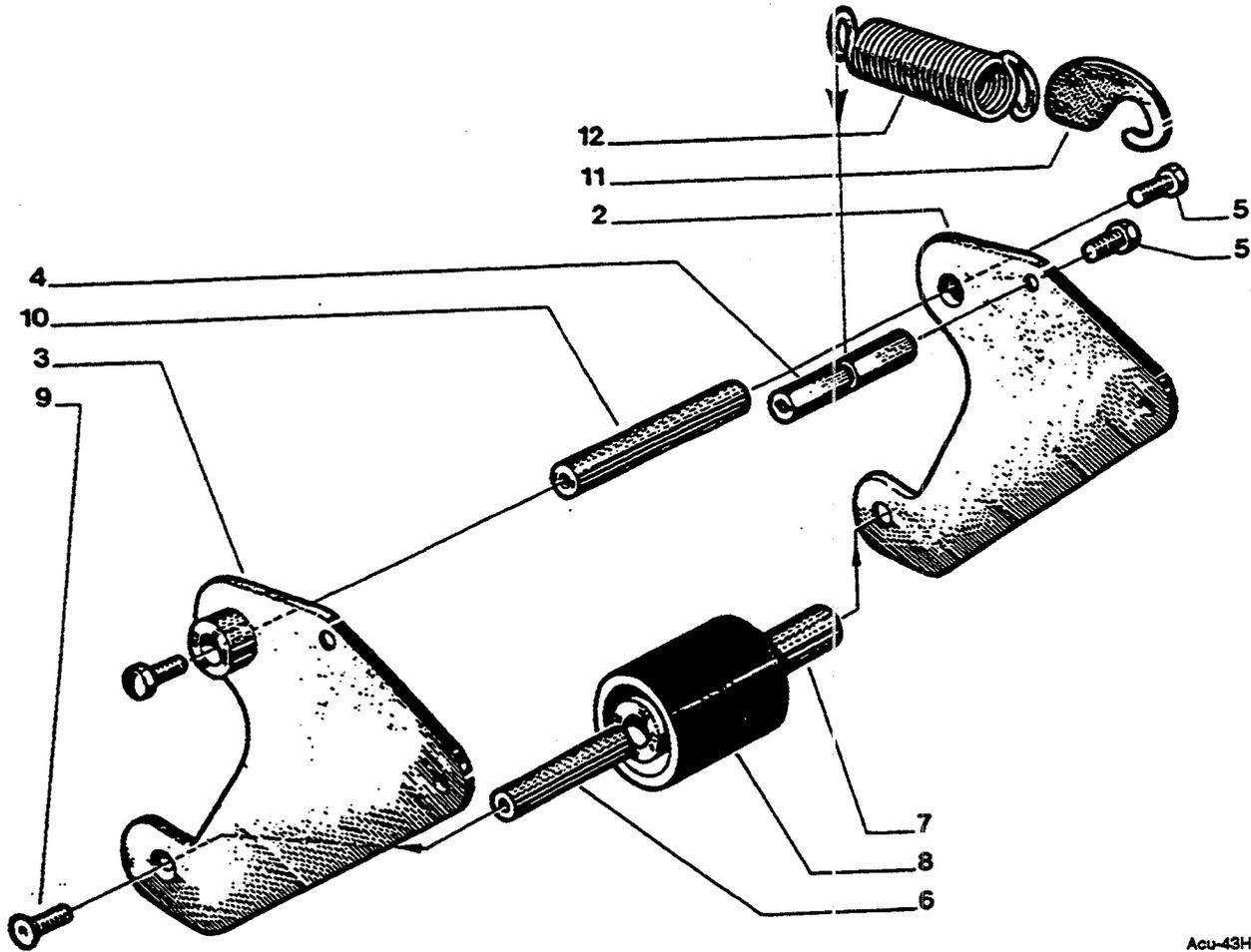
Figure A4-12
TAPE APPLYING ROLLER ASSEMBLY (SST)



A4-12H

Item No.	Part Number	Description
1	78-8060-8225-7	ASSEMBLY, Entry, Gr.
2	78-8060-8213-3	SHOULDER, Entry, Right
3	78-8060-8214-1	SHOULDER, Entry, Left
4	78-8060-8215-8	PLATE, Entry
5	78-8060-8220-8	SPACER, 10 x 59,5
6	78-8060-8217-4	SHAFT, 10 x 60
7	78-8060-8224-0	ROLLER, Knurled
8	78-8052-6579-6	ROLLER, Wrap
9	78-8017-9074-8	WASHER, Nylon, 15 mm
10	78-8060-8315-6	WASHER, Friction
11	78-8060-8354-5	SPRING
12	78-8060-8395-8	BUSHING, Applying Roller
13	78-8057-6179-4	ROLLER, Applying NM
14	78-8060-8204-2	SCREW, Hex Head, M6 x 12
15	78-8060-8223-2	SCREW, Flat Head, M6 x 12
16	78-8017-9082-1	BEARING, Special, 30 mm
17	78-8060-8241-4	SCREW, Bearing Shoulder

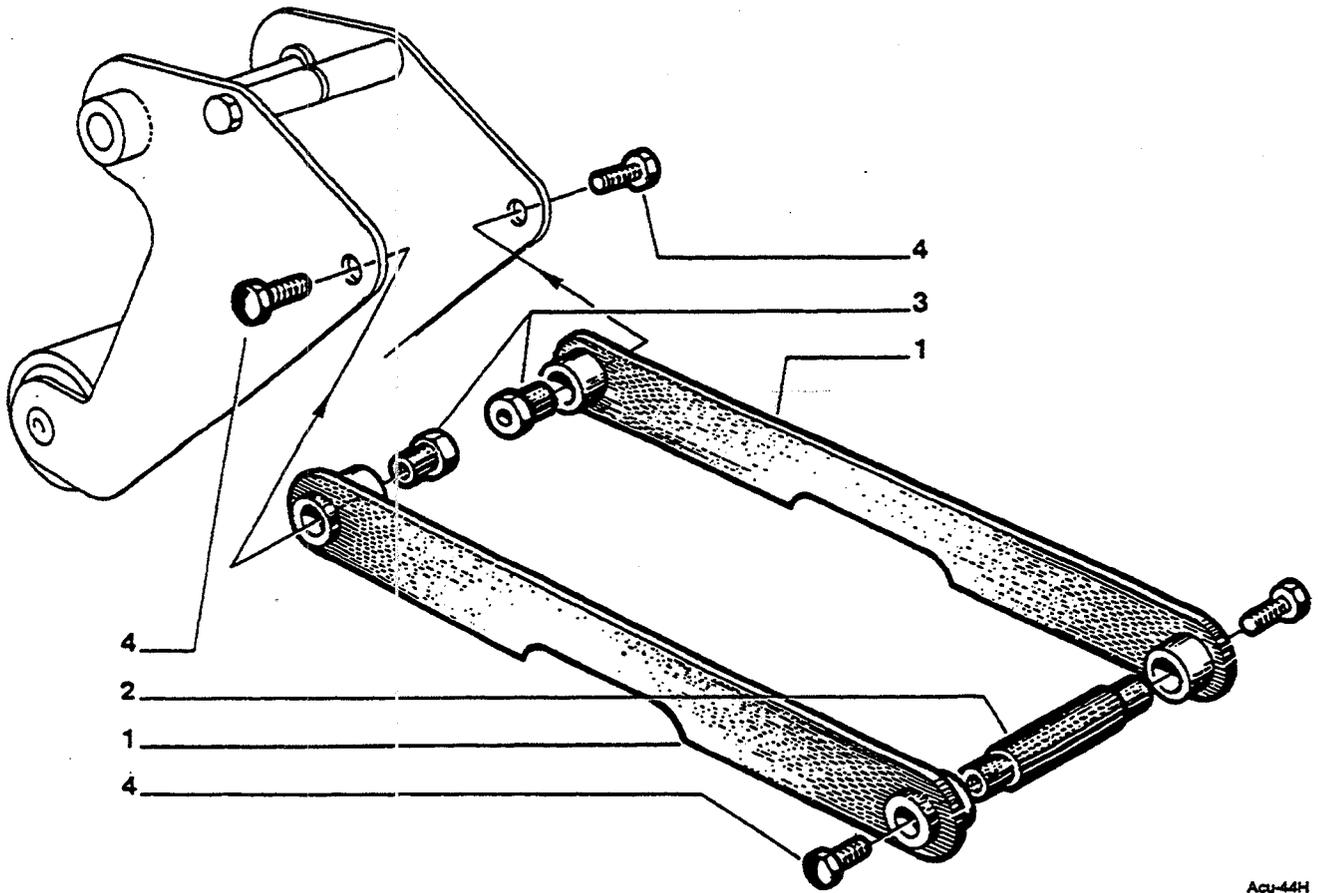
Figure A4-13
TOP TAPE BUFFING ROLLER ASSEMBLY (SST)



Acu-43H

Item No.	Part Number	Description
1	78-8060-8239-8	ASSEMBLY, Exit, Gr.
2	78-8060-8226-5	SHOULDER, Exit, Right
3	78-8060-8228-1	SHOULDER, Exit, Left
4	78-8060-8229-9	SPACER, Hex 10 x 60
5	78-8060-8204-2	SCREW, Hex Head, M6 x 12
6	78-8060-8217-4	SHAFT, 10 x 60
7	78-8052-6586-1	BUSHING, Buffing Roller
8	78-8057-6178-6	ROLLER, Buffing NM
9	78-8060-8223-2	SCREW, Flat Head, M6 x 12
10	78-8060-8234-9	SHAFT, 10 x 90
11	78-8060-8238-0	HOOK, Spring
12	78-8060-8237-2	SPRING, Main, Top

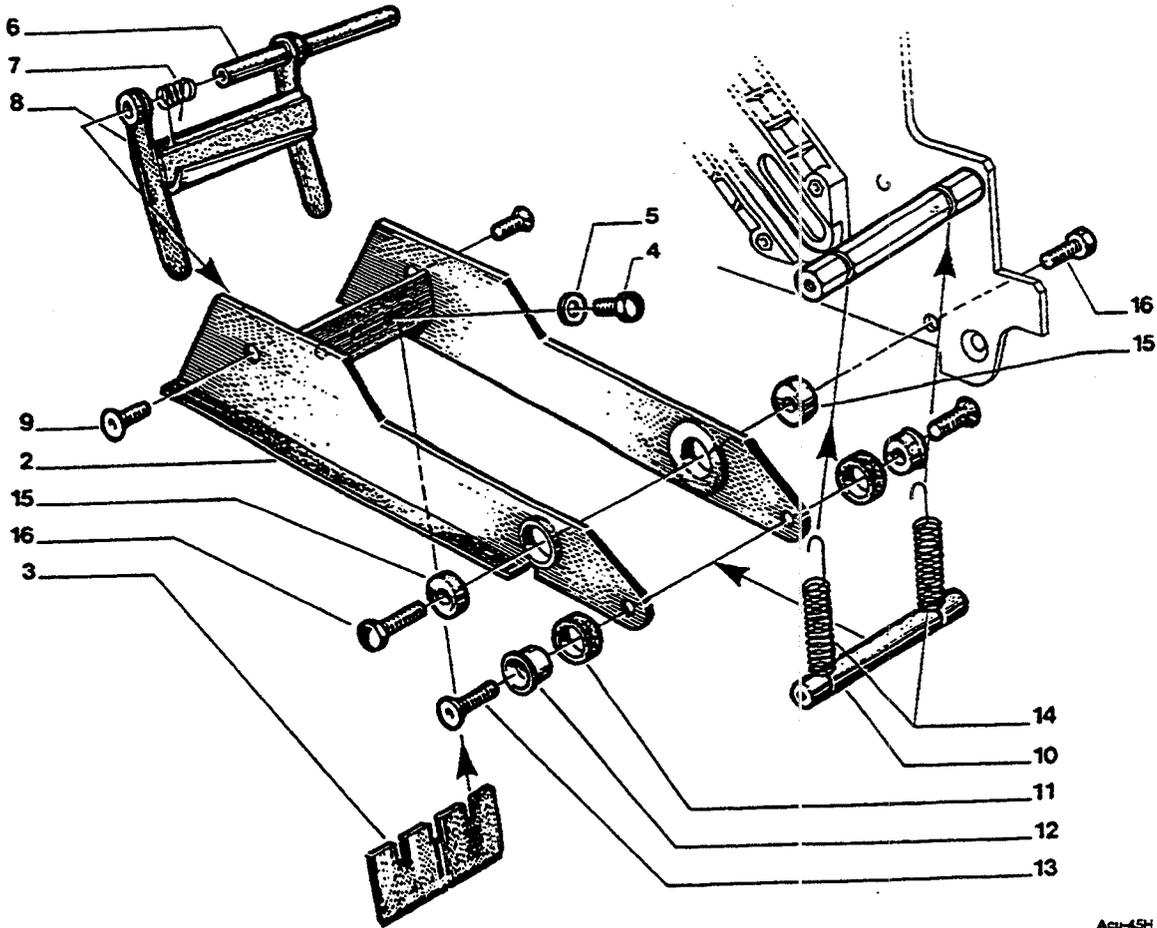
Figure A4-14
TAPE HEAD CONNECTING ARM ASSEMBLY (SST)



Acu-44H

Item No.	Part Number	Description
1	78-8060-8240-6	LEVER
2	78-8060-8249-7	SPACER, Lever
3	78-8060-8250-5	BUSHING, Lever
4	78-8060-8300-8	SCREW, Hex Head, M5 x 10, Metric

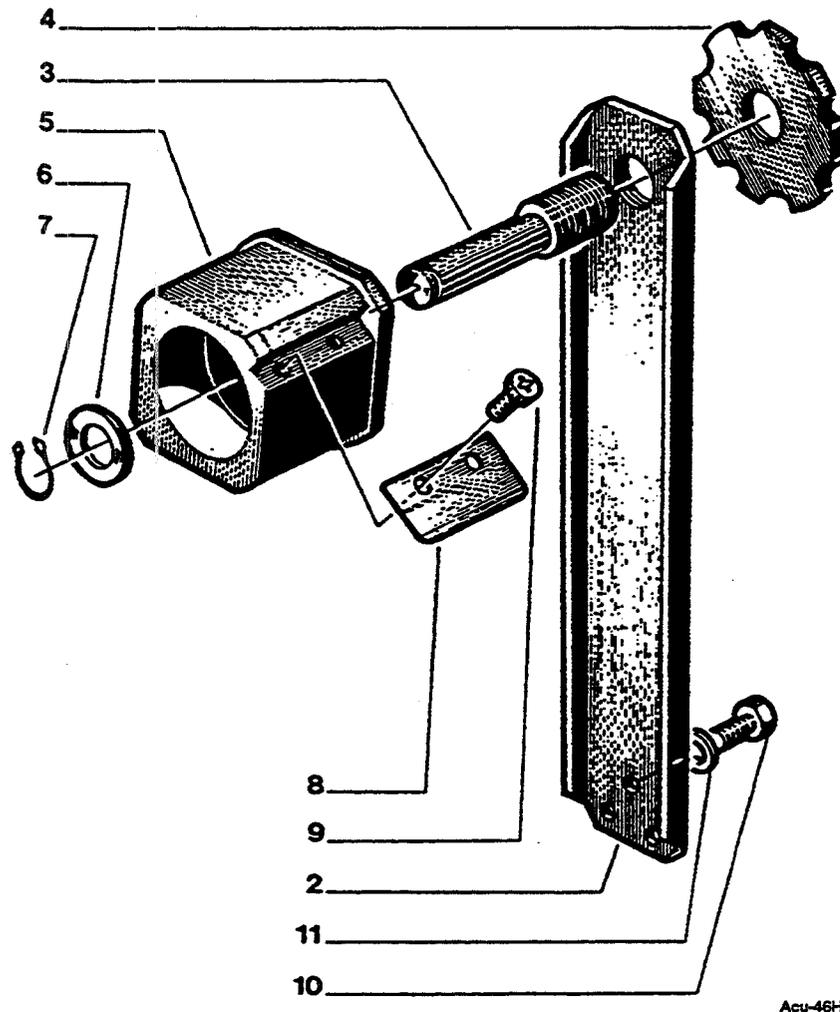
Figure A4-15
TAPE CUTOFF BRACKET ASSEMBLY (SST)



Acu-45H

Item No.	Part Number	Description
1	78-8060-8346-1	ASSEMBLY, Cutting Lever
2	78-8060-8259-6	LEVER, Cutting
3	78-8060-8419-6	BLADE, 2.56 inch [65 mm]
4	78-8060-8342-0	SCREW, Hex Head, M5 x 8
5	78-8060-8303-2	WASHER, Plain M5, Metric
6	78-8060-8265-3	SHAFT, Felter 6 x 82
7	78-8060-8275-2	SPRING, Felter
8	78-8060-8264-6	SUPPORT, Felter
9	78-8060-8341-2	SCREW, Flat M4 x 10
10	78-8060-8276-0	SHAFT, Spring, Cutting
11	78-8017-9133-2	SPACER
12	78-8060-8286-9	SUPPORT, Bumper
13	78-8060-8333-9	SCREW, Flat Head, M5 x 20
14	78-8060-8340-4	SPRING, Cutting
15	78-8060-8287-7	SPACER
16	78-8060-8204-2	SCREW, Hex Head, M6 x 12

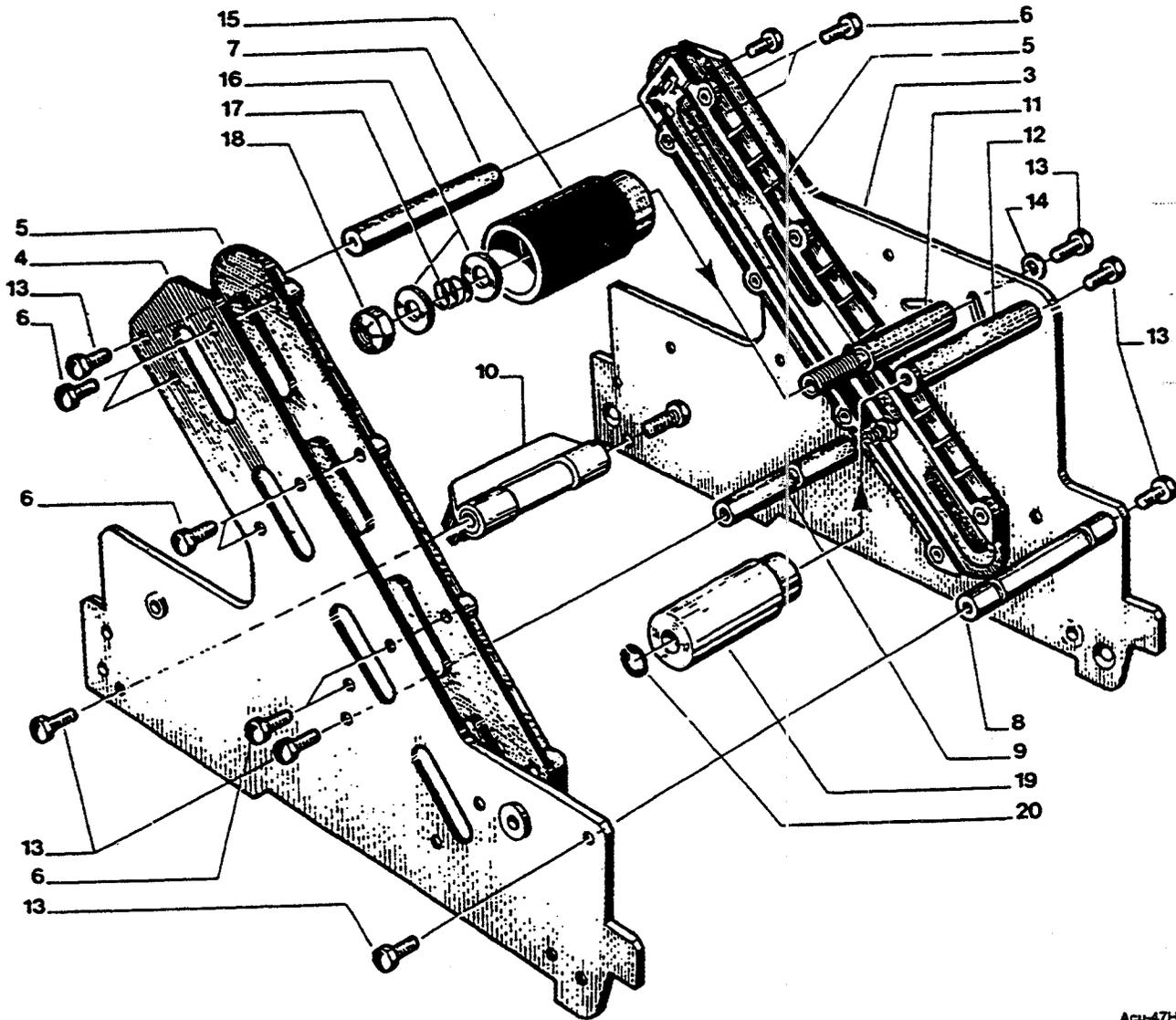
Figure A4-16
TAPE DRUM BRACKET ASSEMBLY (SST)



Acu-46H

Item No.	Part Number	Description
1	78-8050-8377-6	ASSEMBLY, Coreholder
2	78-8050-8347-9	BRACKET
3	78-8050-8350-3	SHAFT, Coreholder
4	78-8050-8349-5	NUT, Ring
5	78-8052-6749-5	ASSEMBLY, Tape Drum
6	78-8050-8364-4	WASHER, Coreholder
7	78-8050-8376-8	RING, /14
8	78-8050-8362-8	SPATULA, Coreholder
9	78-8050-8337-0	SCREW, Self Tapping
10	78-8050-8204-2	SCREW, Hex Head, M6 x 12
11	78-8050-8312-3	WASHER, Flat, M6

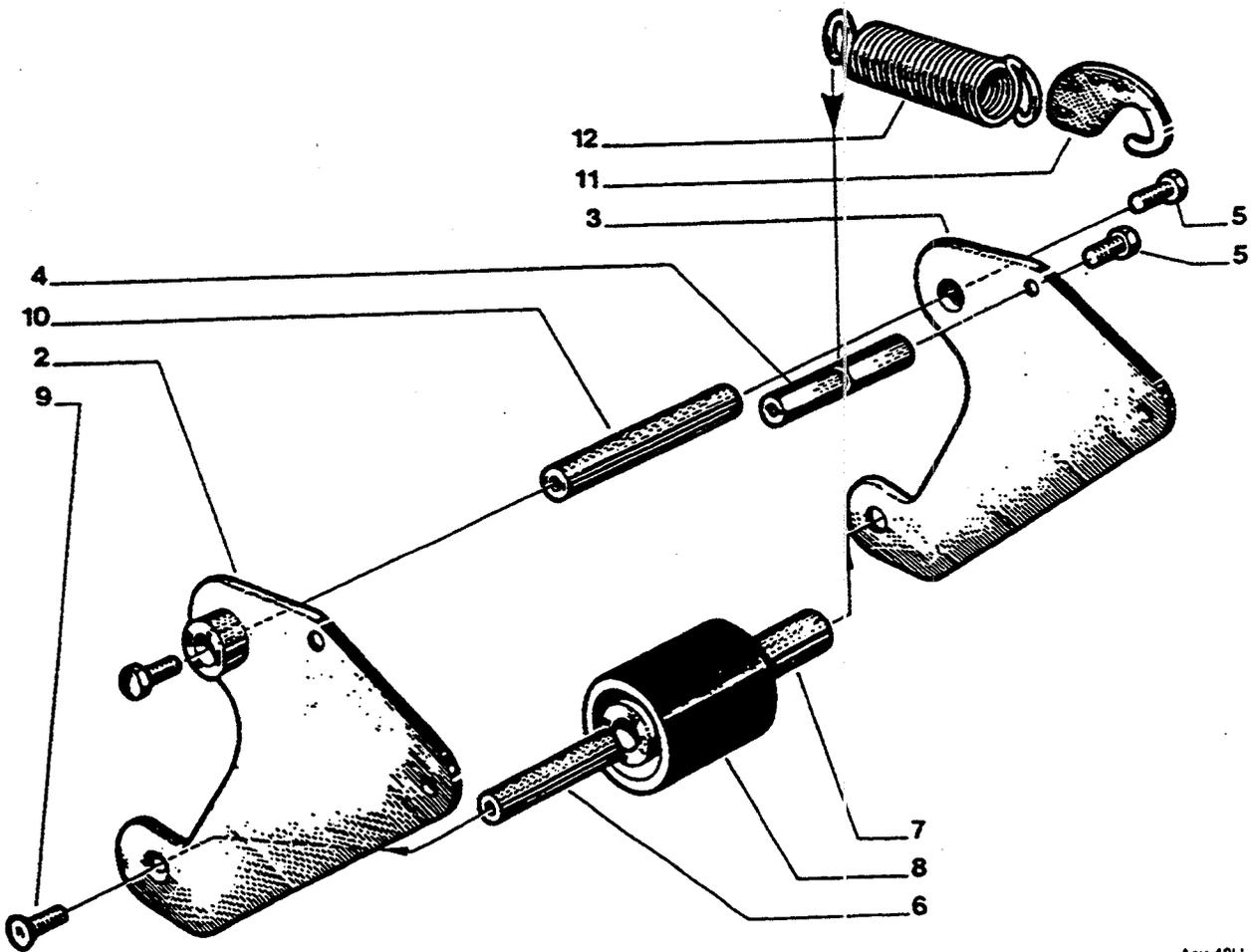
Figure A4-17
BOTTOM TAPING HEAD FRAME AND GUIDE (SST)



Acu-47H

Item No.	Part Number	Description
1	78-8060-8392-5	ASSEMBLY, Frame, Right
2	78-8060-8393-3	ASSEMBLY, Frame, Left
3	78-8060-8390-9	FRAME, Bottom, Right
4	78-8060-8378-4	FRAME, Bottom, Left
5	78-8060-8208-3	GUIDE, with Nut
6	78-8060-8205-9	SCREW, Hex Head, H4 x 14
7	78-8060-8193-7	SPACER, L90
8	78-8060-8194-5	SPACER, Hex, 10 x 90
9	78-8060-8192-9	SPACER, Hex, 10 x 90
10	78-8060-8207-5	ASSEMBLY, Brush
11	78-8060-8200-0	SHAFT, Roller
12	78-8060-8202-6	SHAFT, Idler Roller
13	78-8060-8204-2	SCREW, Hex Head, M6 x 12
14	78-8060-8312-3	WASHER, Flat, M6
15	78-8052-6606-7	ROLLER, Tension, Bottom
16	78-8060-8315-6	WASHER, Friction
17	78-8060-8354-5	SPRING
18	78-8060-8201-8	NUT, M10 x 1 NHT70
19	78-8052-6569-7	ROLLER, Wrap
20	26-1000-1613-3	RING, Retaining 10DIN6799

Figure A4-18
 BOTTOM TAPE BUFFING ROLLER ASSEMBLY (SST)



ACU-48H

Item No.	Part Number	Description
1	78-8060-8239-8	ASSEMBLY, Exit, Gr.
2	78-8060-8226-5	SHOULDER, Exit, Right
3	78-8060-8228-1	SHOULDER, Exit, Left
4	78-8060-8229-9	SPACER, Hex, 10 x 60
5	78-8060-8204-2	SCREW, Hex Head, M6 x 12
6	78-8060-8217-4	SHAFT, 10 x 60
7	78-8052-6586-1	BUSHING, Buffing Roller
8	78-8057-6178-6	ROLLER, Buffing NM
9	78-8060-8223-2	SCREW, Flat Head, M6 x 12
10	78-8060-8234-9	SHAFT, 10 x 90
11	78-8060-8238-0	HOOK, Spring
12	78-8060-8394-1	SPRING, Main Bottom