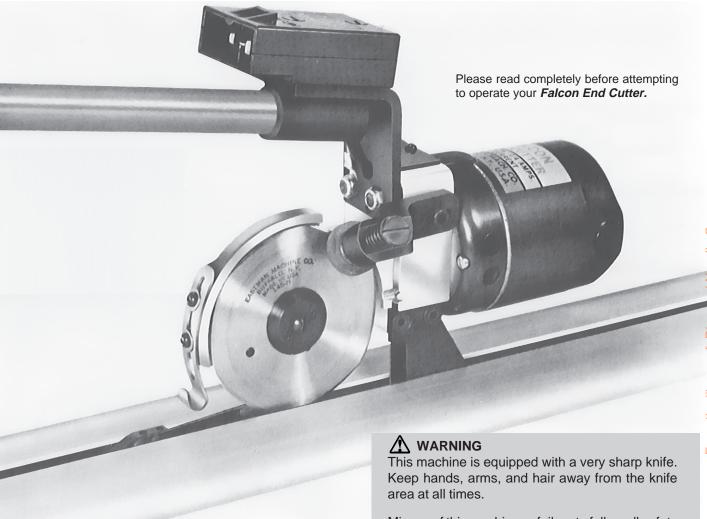
EASTMAN® Falcon End Cutter with Lifting Mechanism

Models: FAL-A FAL-E



Misuse of this machine or failure to follow all safety instructions on this machine and in the instruction manual may result in serious personal injuries.

Instruction Manual and Parts List



779 Washington St., Buffalo, N.Y. 14203-1396 U.S.A. • (716)856-2200 • Fax (716)856-1140 or (716)856-2068 Manufacturers of Eastman Cloth Cutting and Cloth Spreading Machines Website: www.EastmanCuts.com Limited Warranty. Eastman warrants to the buyer that the Falcon End Cutter shall be free from defects in materials or workmanship for a period of 90 days commencing on the date of invoice. Any goods or parts claimed by the buyer to be defective must be returned to Eastman, freight charges prepaid, within the 90–day warranty period. If Eastman determines that the goods or parts are defective in materials or workmanship, Eastman's sole obligation under this warranty shall be, at Eastman's sole option, to repair or replace the defective goods or parts or to provide to the buyer a credit equal to the portion of the purchase price allocable to the defective goods or parts. This warranty shall not apply if defects are caused by product misuse or neglect, if the machine has been altered or modified by the buyer, or if other than genuine Eastman belts, emery wheels, knives or parts are used in the machine. THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THIS PURCHASE. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANT-ABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Limitation of Liability. Eastman's liability to the buyer, and the buyer's remedies from Eastman, whether in contract, negligence, tort, under any warranty or otherwise, shall be limited to the remedies provided in the foregoing Limited Warranty. In no event shall Eastman have any responsibility or liability to the buyer for (a) any special, indirect, incidental, or consequential damages, including, but not limited to, loss of use, revenue, or profit, even if Eastman has been advised of the possibility of such damages, or (b) any claim against the buyer by any third party. The price stated for the product sold is a consideration for limiting Eastman's liability.

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IMPORTANT

This manual contains instructions and part numbers for the Falcon End Cutter machine. If you contact Eastman Machine Company for information or to order parts, always specify the machine name and model number.

If you are ordering electrical components, specify the voltage, frequency (Hz), and speed (RPM) of your machine. You can find this information on a label attached to your machine.

Patents Statement

Some parts of this manual and the equipment it describes may be protected by the following U.S. patents: 4,609,244, 4,761,878 and D281,416. Other patents pending.

Trademarks Statement

The names Eastman and Uni-Safe are registered trademarks of the Eastman Machine Company.





Safety Information

General Safety Precautions

Throughout this manual, safety information is presented by use of the terms *Warning, Caution,* and *Note.* These terms have the following meanings:

A warning contains critical information regarding potential safety hazards that can occur during proper use or misuse of the machine. Failure to follow these procedures may result in serious personal injury to the user.

A caution contains instructions for the use or maintenance of the machine. Failure to follow these procedures may result in damage to the machine.

Supplementary information may be given in a Note.

Safety and Indemnification

During the life of the machine, the purchaser agrees to provide to all machine users (including its own employees and independent contractors) all relevant safety information, including warning labels and instruction manuals. The purchaser also agrees to maintain the safety features and working condition of the machine, and to adequately train all users in the safe use and maintenance of the machine. The purchaser agrees to defend, protect, indemnify, and hold Eastman Machine Company harmless from and against all claims, losses, expenses, damages, and liabilities to the extent that they have been caused by the purchaser's failure to comply with the terms and instructions of this manual.

- This machine is equipped with a very sharp and dangerous knife. Keep hands, arms, and hair away from the knife area at all times. When the machine is not in use, keep the knife guard lowered at all times. Safety glasses and appropriate clothing may prevent serious personal injuries.
- Disconnect the power supply from the machine when it is not in use or during routine maintenance, including lubrication.
- The purchaser must ensure that the electrical power supply line complies with all the local electrical codes and regulations.
- The purchaser must instruct all operators in the proper use of the machine according to the instructions on the machine and in this manual. This training must include instruction on the potential safety hazards arising from the use or misuse of the machine. In addition to such training, the purchaser should provide written work instructions as necessary to ensure correct use of the machine for specific cutting applications.

- The purchaser must provide appropriate safety measures and equipment as recommended in this manual. Observe all statutory requirements concerning the use of hazardous machinery that apply to your location.
- Do not modify this machine or disable safety features. Unauthorized modification may result in serious personal injuries to the user. Electrical connections to this machine must be made by a qualified electrician familiar with applicable codes and regulations. To prevent electrocution, a ground lead must be connected to terminal "E" on the attachment plug.
- This machine is intended ONLY for hand-held operation. Misuse of this machine or use of this machine as part of another machine may result in serious personal injuries to the user.
- Safety labels must be kept clean and legible at all times. Call the Eastman Machine factory to order replacement labels.

Falcon End Cutter Operating Instructions

Description

The Falcon End Cutter Rotary Shear is designed for use with a lifting mechanism for cutting across a width of material while it compensates for the height of the lay. It cuts material squarely, accurately, quickly, and eliminates excessive waste throughout the height of the lay. The Rotary Shear Cutter is available with an electric or pneumatic motor. The electric motor is available in either 110 or 220 volts. The electric machine has a motor speed of 12,000 rpm while the pneumatic unit should be operated at 90 psi and will attain a motor speed of 18,000 rpm. A flexible handle attached to the cutter provides for a simple and easy execution of the cutting operation. Additional length handles can be made available depending on the length of the track.

🚹 Warning

This machine is equipped with a sharp knife. Keep hands away from knife area at all times. Use handle and control lever when operating or handling the machine. Knife guard should be raised only enough to clear the material being cut. When not in use, knife guard should be set at the lowest position..

DO NOT OPERATE THIS MACHINE WITH KNIFE GUARD REMOVED.

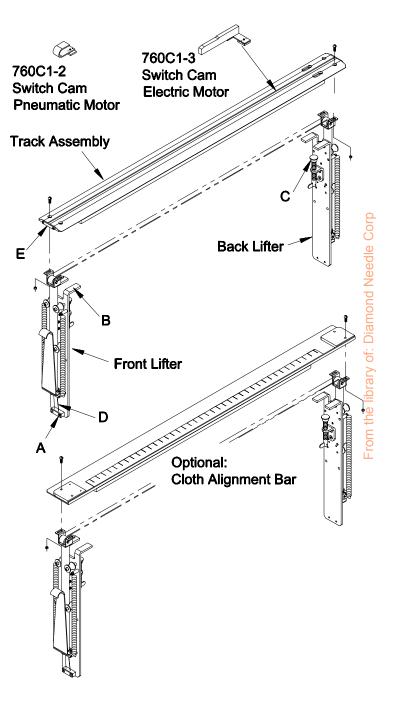
🔨 Caution

Read instructions carefully before starting motor. Be sure that voltage is the same as stamped on nameplate.

End Cutter, Track & Lifting Mechanism Installation

Remove your Falcon End Cutter from the shipping package. Locate and loosen the lift belt clamping screws (A). Mount the front lift assembly (B) and back lift assembly (C) to the cutting table. Pull the lift belt (D) tight and secure the clamping screws (A). Place the track in place and secure to the lifting mechanism. The track should be mounted squarely to the table.

Loosen the track latch screws (E) and swing latch up. Slide the switch cam in the track as shown. Slide the Falcon End Cutter in the track. Swing down the latch and secure in place. Connect Electric or Air line. The Falcon End Cutter is ready for operation.



Operation

Load the roll of material on a roll rack. Pull the material over the falcon track and to the desired length. Pull the Falcon End Cutter across to cut the material and return to the home position. Lift the track using the lift handle. The cut end of the material will lay under the track. The track will hold the material in position. The next ply can now be spread.

Maintenance

The Falcon End Cutter is designed to provide many years of trouble free service. The following information will aid in keeping your equipment running at its top efficiency.

\land Warning

Before performing any of the following procedures, make sure that the attachment plug or air line has been disengaged from the machine.

Knife Replacement--(see Page 9)

To replace knife (80C1-145HS), insert screwdriver in lock screw "B". Turn counter clockwise and remove screw. Remove knife flange cover "C" and replace blade. Be sure that when installing the new knife the name Eastman is shown outward. To reinstall the knife locknut, reverse procedure.

Shear Plate--(see Page 9)

When replacing shear plate (726C1-16), remove blade as outlined on page 5. Remove screws "D". Install shear plate by reversing procedure.

Lubrication--(See page 9)

Knife gear "Z" should be removed and filled with special Eastman libriko grease every three months (excessive grease with cause overheating). Felt wicking "L" and "M" should be oiled monthly.

Knife Sharpening

To obtain a fine, keen edge on the blade, press lightly against the sharpener button (20C12-160) with a constant pressure. To replace sharpener stone, remove screw (308C15-1) on sharpener bracket (35C5-60) and remove sharpener bracket from standard. Insert screwdriver in slotted button (20C12-160) and hold bushing (21C5-5) in place. Turn counter clockwise. Remove spring (34C10-158) and

set aside for later reassembly. Remove screw (301C10-9) by turning screw counter clockwise. The emery wheel (541C1-17) will disengage from sharpener bracket. Remove spring washer (12C15-57) and replace emery wheel. To resecure emery wheel to sharpener bracket, reverse procedure and relocate sharpener bracket on standard.

Motor Maintenance

<u>Electric Motor</u>-(Recommended for light weight material) the only maintenance required for the electric motor is the brush replacement. With a screwdriver, remove slotted cap screws on rear of motor. Remove brush (36C1-13) from slot. Install new brushes and replace brush caps.

Pneumatic Motor-

(Recommended for heavy weight material)

For best performance, an air pressure of 90 psi is recommended. An air line oiler and filter delivering two to three drops per minute of SEA5 weight spindle oil is recommended. * This air line filter and lubricator is mounted in line with the air inlet hose. Check your air line for presence of any foreign particles before installing machine.

*Not sold with machine.

Microswitch (Electric Motor) - (See page 9)

Remove two screws (300C3-3) securing the microswitch (580C1-94) to standard and remove two leads. Microswitch is wired in series and it is not necessary to mark the leads that mount to this switch. Replace the new microswitch and reverse procedure.

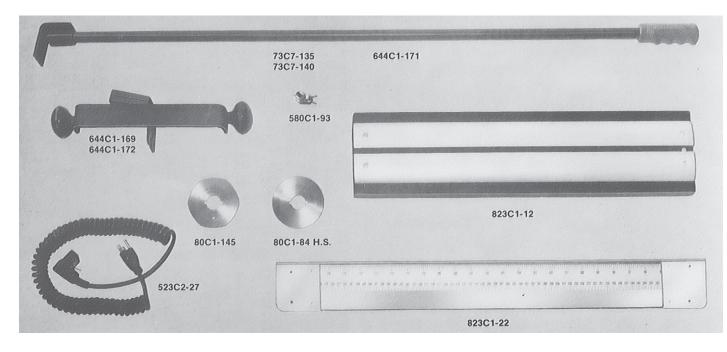
▲ Caution

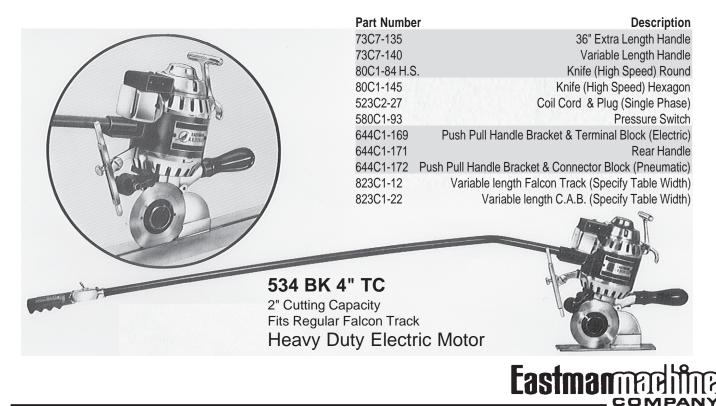
Excessive soldering heat will damage switch.

Switch in Operating Handle - (See page 9)

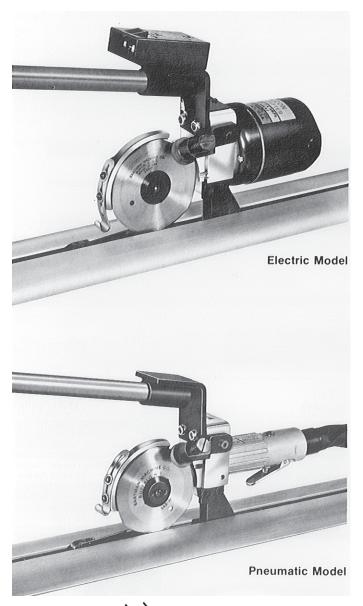
Remove the two screws (300C7-2) securing the switch plate (52C5-176) to handle and remove the switch (580C1-48). This switch is wired in series and it is not necessary to mark the leads that mount to this switch. Replace the new switch and reverse procedure.

Optional Parts and Supplies



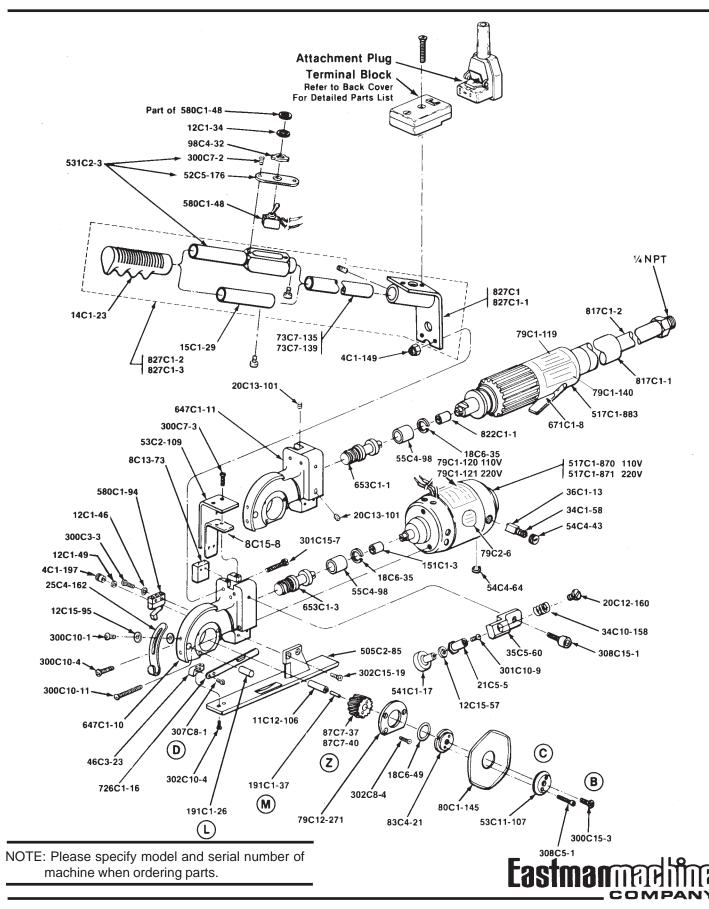


EASTMAN_____ Falcon End Cutter Illustrated Parts List



Part Number	Air	220 2007	101	Description
4C1-149	2	2	2	Elastic Stop Nut
4C1-197	2	2	2	Allen Nut
8C13-73	0	1	1	Micro Switch Insulation
8C15-8	0	1	1	Switch Cover Insulation
11C12-106	1	1	1	Gear Shaft
12C1-34	0	1	1	Lock washer
12C1-46	0	2	2	Lock washer

	4	1022	
Part Number	70	V N	Description
12C1-49		2 2	Washer
12C15-57 12C15-95	-	1 1 4 4	Spring Washer Washer, #6 Flat
14C1-23	1	1 1	Handle Grip Plastic
15C1-29		0 0	Stud Handle
8C6-35 8C6-49		1 1 1 1	Snap Ring Oil Seal Ring
20C12-160		1 1	Sharpener Screw, Button Head
0C13-95		1 1	Screw, 6-32 x 1/4 Self Tap Screw
0C13-101 1C5-5		00 11	Setscrew
5C4-162		1 1	Sharpener Bushing Knife Guard
4C1-58	0	22	Brush Spring
4C10-158		1 1 1 1	Sharpener Spring
85C5-60 86C1-13		2 2	Sharpener Bracket Brush
6C3-23	1	1 1	SpringBlock
2C5-176	-	1 1	Switch Base
3C2-109 3C11-107	-	1 1 1 1	Switch Cover Knife Flange Cover
4C4-43		2 2	Brush Cap
4C4-64	0	1 1	Hole Plug
5C4-98 3C7-135		1 1 1 1	Spacer Bearing Tube Handle 36"
3C7-139		0 0	Tube Handle 36
9C1-119		0 0	Falcon Air Decal
'9C1-120		1 0	Falcon Decal, 110v
79C1-121 79C1-140		0 1 0 0	Falcon Decal, 220v Caution Decal
9C2-6		1 1	Caution Decal
'9C12-271	-	1 1	Gear Retaining Plate
0C1-145		1 1 1 1	Knife (Hex)
3C4-21 7C7-37		1 1 0 0	Knife Flange 2-Lead Knife Gear
7C7-40	0	1 1	4-Lead Knife Gear
3C4-32		1 1	On-Off Switch Clip
51C1-3 91C1-26		1 1 1 1	Motor CHK Coupling Knife Pad Wipe
91C1-37		1 1	Felt Wick
00C3-3		22	Screw, 2-56 x 1/2 Round Head
00C7-2		22 44	Screw, 4-36 x 3/16 Round Head
00C7-3 00C10-1		4 4 2 2	Screw, 4-36 x 1/4 Round Head Screw, 6-32 x 3/16 Round Head
00C10-4		1 1	Screw, 6-32 x 3/8 Round Head
00C10-11		2 2	Screw, 6-32 x 1-1/8 Round Head
00C15-3 01C10-9		1 1 1 1	Screw, 10-32 x 3/8 Round Head Screw, 6-32 x 3/16 Fillister Head
01C10-9		2 2	Screw, 10-32 x 1-1/4 Fillister Head
02C8-4	3	3 3	Screw, 4-40 x 3/8 Socket Flat Head
02C10-4	2 2	22 22	Screw, 6-32 x 5/16 Flat Head
02C15-19 07C8-1		2 2	Screw, 10-32 x 1" Socket Flat Head Screw, 4-40 x 1/4 Button Head
08C5-1	2	22	Screw, 3/48 x 1/2 Socket Head
08C15-1	•	1 1	Screw, 10-32 x 1/2 Socket Head
09C12-2 05C2-85		1 1 1 1	Setscrew, 8-32 x 5/16 Base Plate Assembly
17C1-870		0 1	Motor Assembly 110v
17C1-871	-	1 0	Motor Assembly 220v
17C1-883 31C2-3		00 11	Motor Assembly, Pneumatic Complete Assembly
41C1-17		1 1	Emery wheel Assembly
580C1-48	-	1 1	Toggle Switch
80C1-94	-	1 1 1 1	Switch for Cam Standard w/Shaft & Felt Wick
47C1-10 47C1-11	-	1 1 0 0	Standard W/Shaft & Felt Wick
53C1-1		Ö Ö	Worm Shaft (Pneumatic)
53C1-3	-	1 1	Worm Shaft (Electric)
71C1-8		00 11	Motor Valve Shear Plate with Blank
26(1-16		0 0	Exhaust Over Hose
317C1-1 317C1-2	1	0 0	Air Intake Hose
726C1-16 317C1-1 317C1-2 322C1-1	1 1	0 0	Air Motor Coupling
317C1-1 317C1-2 322C1-1 327C1	1 1 0	0 0 1 1	Air Motor Coupling Handle Bracket Assembly
317C1-1 317C1-2 322C1-1	1 1 0 1 0	0 0	Air Motor Coupling



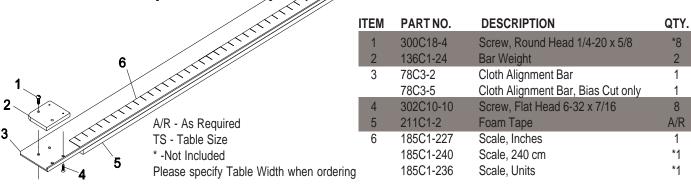
EASTMAN_____ Track & Lifter Assembly

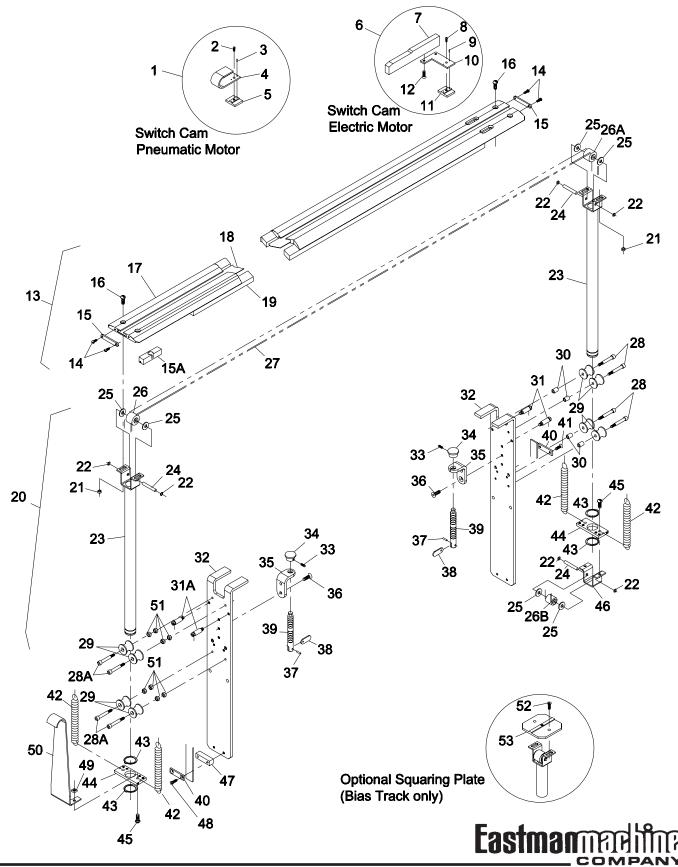
ITEM	PART NO.	DESCRIPTION	QTY.
1	760C1-2	Switch Bracket, Pneumatic "only"	1
2	300C15-3	Screw, Round Head 10-32 x 3/8	1
3	17C15-134	Roll Pin	2
4	64C1-11	Switch Cam, Air Valve	1
5	46C3-20	Clamp Block	1
6	760C1-3	Switch Bracket, Electric "only"	1
7	64C1-12	Switch Cam, Electric "only"	1
8	300C15-3	Screw, Round Head 10-32 x 3/8	1
9	17C15-134	Roll Pin	2
10	119C4-42	Support Plate	1
11	46C3-20	Clamp Block	1
12	302C15-3	Screw, Flat Head 10-32 x 1/2	2
13	823C1-12-TS	Falcon Track Assembly	1
	823C1-33-TS	Falcon Track Assembly, 96" & larger	1
	823C2-1-TS	Falcon Track Assembly, Bias "only"	1
14	20C12-156	Latch Screw	4
15	97C3-38	Track Latch	2
15A	67C6-1	Latch Mount, 96" & larger	2
16	300C18-4	Screw, Round Head 1/4-20 x 5/8	4
17	193C1-14-TS	Falcon Track, Solid	1
	193C1-19-TS	Hollow Falcon Track, 96" & larger	1
	193C1-25-TS	Bias Falcon Track	1
18	C9-27 Q	Track Wear Strip	A/R
19	211C1-2	Foam Tape	A/R
20	840C1-1	Lifter Assembly	1
	840C1-2	Bias Lifter Assembly	1
21	4C2-58	Nut, Hex 1/4-20	4
22	18C6-47	Grip Ring	6
23	763C1-27	Lift Tube	2
24	11C2-54	Shaft, Belt Roller	3
25	12C15-108	Washer, Flat 1/4	6
26	41C5-12	Belt Roller, Front	1
26A	41C5-14	Belt Roller, Back	1

ITEM	PART NO.	DESCRIPTION	QTY.
26B	41C5-15	Belt Roller, Lower	1
27	181C4	Lift Belt	A/R
28	311C14-2	Screw, Shoulder, 1/4 x 1-1/4	4
28A	311C14-1	Screw, Shoulder, 1/4 x 3/4	4
29	70C4-45	Roller Guide	8
30	55C4-118	Roller Spacer	4
31	15C13-59	Stud, Lift Spring, Long	2
31A	15C13-56	Stud, Lift Spring, Short	2
32	79C12-295	Main Frame, Lift Assembly	2
33	20C13-4	Setscrew 8-32 x 3/16	2
34	191C2-1	Swivel Pad	2
35	50C11-34	Clamp Base	2
36	302C18-2	Screw, Flat Head 1/4-20 x 1/2	4
37	17C15-126	Roll Pin 1/8 x 1/2	2
38	57C7-49	Clamp Lever	2
39	20C5-22	Clamp Screw	2
40	33C10-59	Belt Holder	2
41	302C15-3	Screw, Flat Head 10-32 x 1/2	2
42	34C10-181	Spring	4
43	18C6-65	Grip Ring, Large	4
44	35C7-35	Plate, Spring Mount	2
45	300C18-4	Screw, Round Head 1/4-20 x 5/8	4
46	62C16-265	Roller Bracket	1
47	55C4-117	Spacer, Front Belt Clamp	1
48	302C15-7	Screw, Flat Head 10-32 x 1	2
49	4C2-119	Square Nut, 1/4-20	2
50	22C3-9	Lift Handle	1
51	12C15-14	Spacer, Short	8
52	302C18-2	Screw, Flat Head 1/4-20 X 1/2	2
53	79C12-296	Slider Plate, Bias Track "only"	1

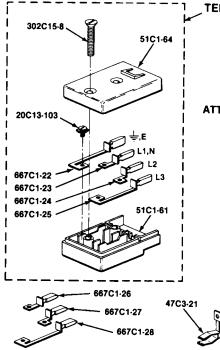
A/R - As Required TS - Table Size

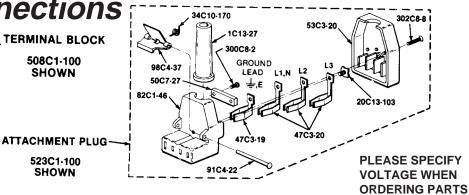
Cloth Alignment Bar 823C1-22-TS (Straight CAB) 823C1-39-TS (Bias CAB)





EASTMAN______





Electrical connections to this machine must be made by a qualified electrician ONLY. Failure to follow applicable codes and regulations and conduct a ground lead to terminal "E" on the attachment plug may result in serious personal injuries.

For user safety, connect a ground lead to terminal "E" on the attachment plug.

Always unplug the machine before performing maintenance, adjustment or repairs.

667C1-27							
667C1-27 667C1-28		EASTMAN	EASTMAN	EASTMAN	EASTMAN	EASTMAN	
00701-28	I	10A	10A	10A	15A	25A	
•	•	380V 3~	220V 3~	220V ~	120V ~	42V ~	
		3000 3~	2200 3~	2200 ~	1200 ~	42 V ~	
		Щ	<u> </u>	щ	<u> </u>	Щ	
		L3 L1,N	12 12 14 14	, <u></u> , ⊂	- 1 [−] 1 − 1 − 1	L3 L1 + L	
Description	Part No.						
Attachment Plug		523C1-99	523C1-100	523C1-101	523C1-102	523C1-103	
Cord Sleeve	1C13-27	1	1	1	1	1	
U-Lock Sleeve	20C13-103	4	4	3	3	3	
Spring	34C10-170	1	1	1	1	1	
Terminal Sleeve	47C3-19	1	1	1	1	1	
Terminal Sleeve (current)	47C3-20	2	3	1	1	1	
Terminal Sleeve (current)	47C3-21	1	_	1	1	1	
Cord Clamp	50C7-27	1	1	1	1	1	
Attachment Plug Cover		53C3-19	53C3-20	53C3-21	53C3-22	53C3-23	
Attachment Plug Body	82C1-45	1	-	—	—	—	
Attachment Plug Body	82C1-46	-	1	—	-	-	
Attachment Plug Body	82C1-47	-	-	1	-	-	
Attachment Plug Body	82C1-48	-	—	—	1	—	
Attachment Plug Body	82C1-49	-	-	-	-	1	
Rivet	91C4-22	1	1	1	1	1	
Thumb Clip	98C4-37	1	1	1	1	1	
Screw #4-40 x 3/8 Round Head	300C8-1	_	_	2	2	_	
Screw #4-40 x 1/2 Round Head	300C8-2	2	2		<u> </u>	2	
Screw #4-40 x 7/8 Round Head	302C8-8	1	1	1	1	1	
Terminal Block		508C1-99	508C1-100	508C1-101	508C1-102	508C1-103	
U-Lock Screw	20C13-103	4	4	3	3	3	
Terminal Block Bottom	51C1-61	1	1	1	1	1	
Terminal Block Top		51C1-63	51C1-64	51C1-65	51C-66	51C1-67	
Screw #10-32 x 1-1/8 Flat Head	302C15-8	2	2	2	2	2	
Terminal Contact w/Pin E	667C1-22	1	1	1	1	1	
Terminal Contact w/Pin L1,N	667C1-23	1	1	1	—	-	
Terminal Contact w/Pin L2	667C1-24	1	1	-	1		
Terminal Contact w/Pin L3	667C1-25	-	1	-		1	
Terminal Contact w/Pin L1,N	667C1-26	-	_		1	1	
Terminal Contact w/Pin L2	667C1-27	1	—	1	—	-	
Terminal Contact w/Pin L3	667C1-28	1	—	_	-	_	

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