Encore Hartco PNEUMATIC CLINCH CLIP CLOSURE TOOL

Eclipser 2800/2500

and Continuous Coil (CC) Clipping System

OPERATING MANUAL

It is the employer's responsibility to assure this manual is read and understood by all personnel assigned to use this tool, and this manual is kept on hand for future reference.

Eclipser 2500
shown with Black Housing (HR Color Style) and Standard Anvil

Encore Hartco Continuous Coil (CC) Clipping System
on pages 5-6

Eclipser 2800
with Black Housing ("HR" Color Style) and Double-Ended Anvil

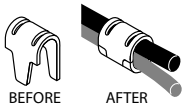
MADE IN THE U.S.A.

Green Housing
"EA" Color Style

Red Housing
"SN" Color Style

Encore HARTCO®

For best results, use genuine Encore Hartco E-Clips sold in rolls



SAFETY WARNING

READ THE ENTIRE MANUAL BEFORE OPERATING THE TOOL.

SAFETY GLASSES (ANSI A87) should always be worn by all in the work area while operating, maintaining or repairing a tool. Wear personal protective equipment as required.

NEVER use oxygen, carbon dioxide or any other bottled gas as a power source for this tool, as it will explode and cause serious injury.

BEFORE using tool, check work area for hidden electric cables, utility lines, gas pipes, etc. that can cause a hazard if damaged by the tool.

INSPECT TOOL BEFORE EACH USE. Make sure bolts and cap screws are tight and trigger moves freely. Never use a tool that leaks air, has missing parts, is damaged, or needs repair.

Do not modify this tool without consulting with an ENCORE HARTCO tool specialist first.

Use only parts, fasteners and accessories recommended and sold by ENCORE HARTCO and its authorized distributors.

TO PREVENT SERIOUS INJURY:

- Do not use the tool when you are tired or under the influence of drugs, alcohol or medication.
- Remove all fasteners from tool BEFORE connecting air.

KEEP HANDS AND FINGERS AWAY FROM BLADE AND ANVIL AREA when connecting air supply and operating tool.

- DISCONNECT THE AIR SUPPLY when mechanically clearing a jam, performing maintenance or repairs, and whenever the tool is not in use.
- NEVER POINT THE TOOL TOWARD YOURSELF OR ANYONE ELSE.
- ALWAYS KEEP YOUR FINGER OFF THE TRIGGER unless actually applying a clip. Unintended pressure on trigger could cause tool to eject a fastener.

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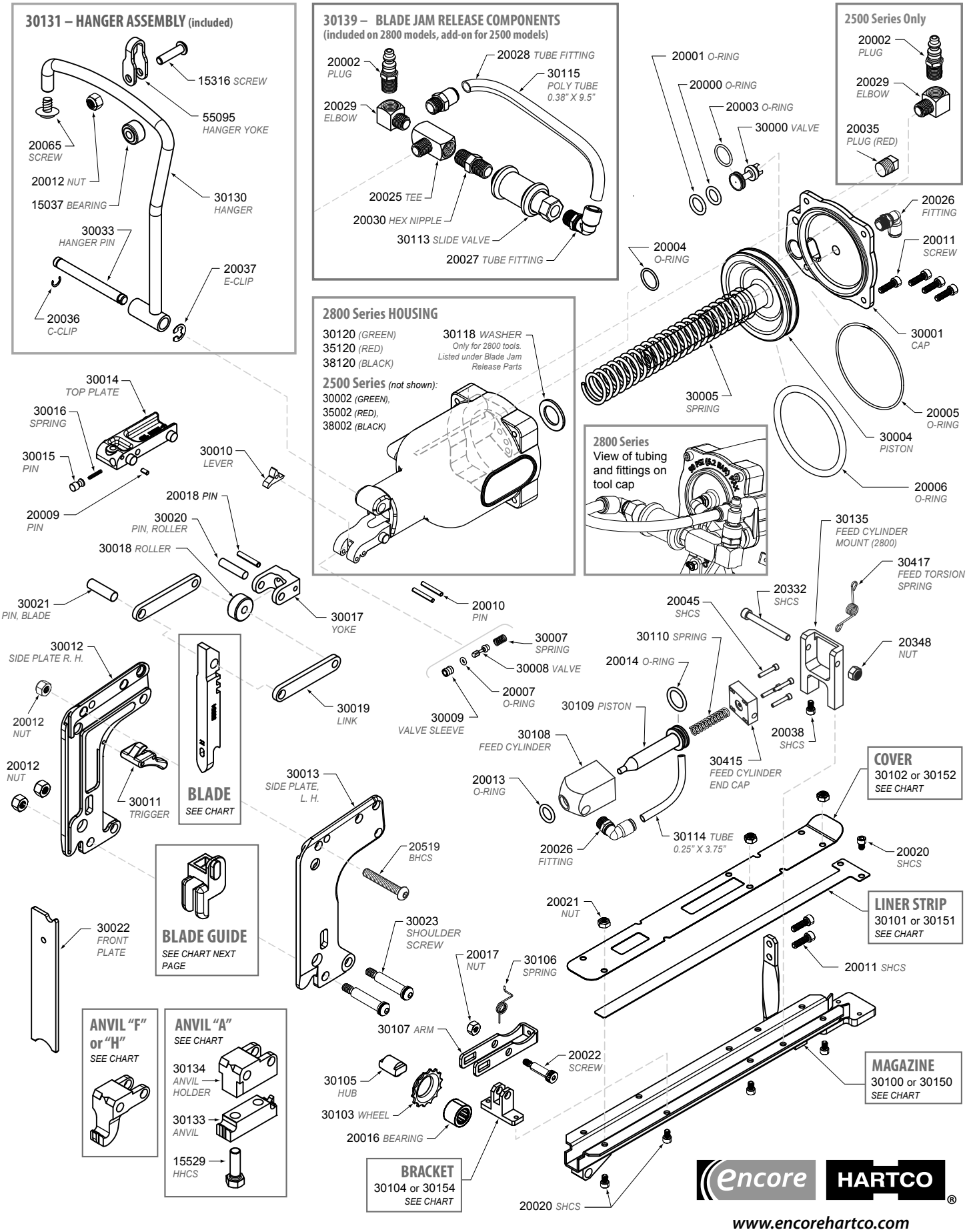
Eclipser 2800/2500 Series Parts & Options



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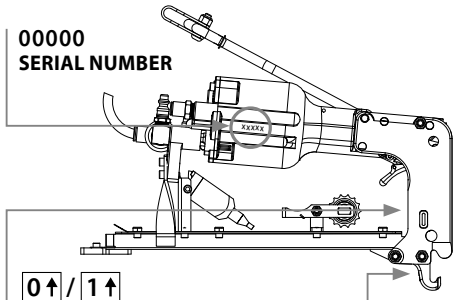
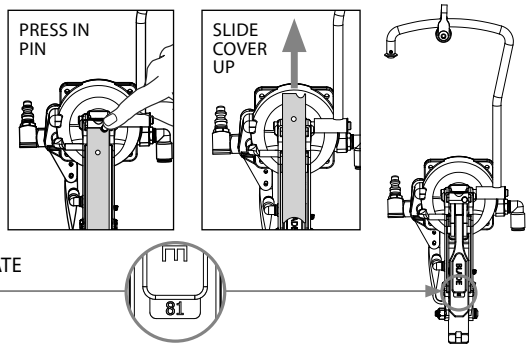
Eclipser 2800/2500 – Tool Identification, Specifications & Parts

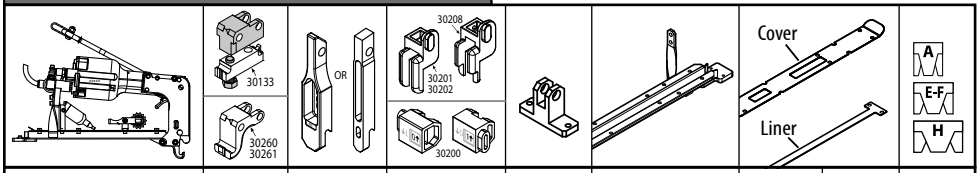
TOOL IDENTIFICATION



MODEL NUMBER = **2800-AABB**
2500-AABB



MODEL-SPECIFIC PARTS



Model #	Anvil*	Blade	Blade Guide (Orientation key only on #30200)	Bracket	Magazine	Cover	Liner	Fits Clip Width
2800/2500-3320	30133	30220	30202	30104	30100	30102	30101	A
2800/2500-3321	30133	30221	30201	30104	30100	30102	30101	A
2800/2500-3322	30133	30222	30201	30104	30100	30102	30101	A
2800/2500-3324	30133	30224	30208	30104	30100	30102	30101	A
2800/2500-6082	30260	30282	30200 0↑	30154	30150	30152	30151	F, H
2800/2500-6181	30261	30281	30200 0↑	30154	30150	30152	30151	F, H
2800/2500-6185	30261	30285	30200 0↑	30154	30150	30152	30151	F, H

* Models for "A" width clips use a 3-part Anvil: Anvil (#30133), Anvil Holder (#30134) and HHCS (#15529)

SPECIFICATIONS

WEIGHT:
2800 = 7.0 lbs (3.18 kg)
2500 = 6.2 lbs (2.81 kg)

DIMENSIONS:
2500 = 7.5 x 6 x 15" (190 x 152 x 381mm)
2800 = 8 x 7.5 x 15" (203 x 190 x 381mm)

COMPONENT MATERIALS:
Composite plastic housing, steel clip magazine

CLIP FEEDING METHOD:
Single acting spring extended cylinder

PRIMARY POWER UNIT:
Main cylinder - Bore 3.06" (78mm) spring return

AIR SUPPLY: 80-90 psi (5.5-6.2 bars) of dry, lubricated air

AIR CONSUMPTION (SCFM):
3.56, assuming 90 psi and 1 cycle per second
3.22, assuming 80 psi and 1 cycle per second

ECLIPSER 2800/2500 – UNIVERSAL PARTS

Item #	Qty	Description
20000	1	O-Ring
20001	1	O-Ring
20002	1	Plug, Swivel Coupling
20003	1	O-Ring
20004	1	O-Ring
20005	1	O-Ring
20006	1	O-Ring
20007	1	O-Ring
20009	1	Dowel Pin
20010	2	Dowel Pin
20011	6	SHCS (10-24 x 5/8)
20012	3	Nut, Nylock (¼-20)
20013	1	O-Ring
20014	1	O-Ring
20016	1	Bearing
20017	1	Nut, Nylock
20018	1	Dowel Pin
20020	10	SHCS (8-32 x ¼)
20021	6	Nut, Nylock
20022	1	Screw
20026	2	Tube Ftg (¼ x 1/8 NPT)
20029	1	Elbow (¼" NPT, 90°)
20038	2	SHCS (8-32 x 5/8)
20045	4	SHCS (4-40 x 5/8)
20332	1	SHCS (10-32 x 1 3/4)

Item #	Qty	Description
20348	1	SHCS (10-32 x 1 3/4)
20519	1	BHCS (¼-20 x 1 5/8)
30000	1	Main Valve
30001	1	Cap
30004	1	Piston Ass'y.
30005	1	Piston Spring
30007	1	Trigger Valve Spring
30008	1	Trigger Valve
30009	1	Trigger Valve Sleeve
30010	1	Valve Lever
30011	1	Trigger Assembly
30012	1	Side Plate, Right Hand
30013	1	Side Plate, Left Hand
30014	1	Top Plate
30015	1	Top Plate Pin
30016	1	Spring
30017	1	Yoke
30018	1	Roller
30019	2	Link (Hartco #55008)
30020	1	Pin, Roller
30021	1	Pin, Blade
30022	1	Front Plate
30023	2	Shoulder Screw
30103	1	Anti Backup Wheel
30104	1	ABW Bracket

Item #	Qty	Description
30105	1	ABW Hub
30106	1	Spring
30107	1	ABW Arm 2
30108	1	Feeder Cylinder
30109	1	Feeder Piston
30110	1	Feeder Spring
30114	1	Tubing (.25" x 3.75")
30135	1	Feed Cyl. Mount (2800)
30415	1	Feed Cylinder End Cap
30417	1	Feed Torsion Spring
30131	**1**	**Hanger Assembly**
15037	*1*	*Bearing*
15316	*1*	*Screw*
20012	*1*	*Nut*
20036	*1*	*C-Clip, 5/16"*
20037	*1*	*E-Ring*
20065	*1*	*Flange Head ¼-20 x 3/8"*
30033	*1*	*Hanger Pin*
30130	*1*	*Hanger*
55095	*1*	*Hanger Yoke*
PARTS for Double-Ended Anvil		
15529	1	HHCS, *5/16"-24 x 1"*
30133	1	Anvil, 9ga, Dbl-ended
30134	1	Anvil Holder

MODEL-SPECIFIC

Item #	Qty	Description
PARTS only for 2800 Series		
30120	1	Housing – ■ GREEN (EA2800)
35120		Housing – ■ RED (SN2800)
38120		Housing – ■ BLACK (HR2800)
30139	**1**	**Blade Jam Release Parts**
20025	*1*	*Tee, Branch*
20027	*1*	*Tube Ftg (3/8 x ¼ NPT)*
20028	*1*	*Tube Ftg (3/8 x 0.25 NPT)*
20030	*1*	*Hex Nipple*
30113	*1*	*Slide Valve Assembly*
30115	*1*	*Tubing (0.38" x 9.5")*
30118	*1*	*Washer, in housing w/BJR*
PARTS only for 2500 Series		
20035	1	Plug (Red)
30002	1	Housing – ■ GREEN (EA2500)
35002		Housing – ■ RED (SN2500)
38002		Housing – ■ BLACK (HR2500)

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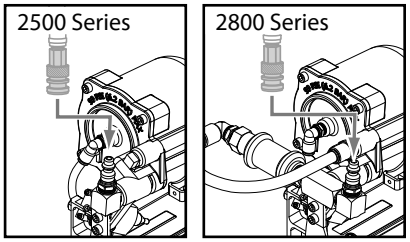
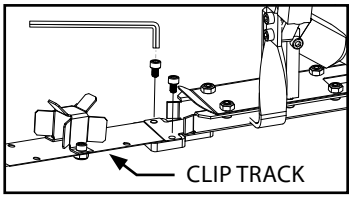
Eclipser 2800/2500 – Operating Instructions

TO GET STARTED



1. For both 2500 and 2800 tools, use suitable coupler to connect air hose to pre-installed fitting as shown at right.

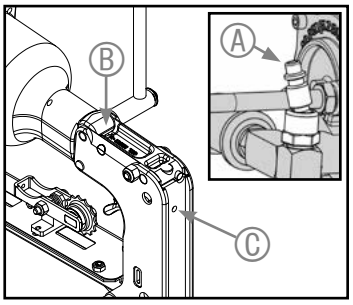
2. Attach clip track assembly (Part #30123 or #30157, included with Encore Hartco CC Clipping System or purchased separately) to tool using a 9/64" hex key.



BEFORE FIRST USE AND RECOMMENDED DAILY MAINTENANCE

Add 2-3 drops of air tool oil (10-weight recommended) to pre-installed air inlet hose fitting **(A)** and openings between the side plates at these two locations:

- in the gap at the back of the top plate and the housing **(B)**
- the opening on the front plate **(C)**, as shown on affixed label



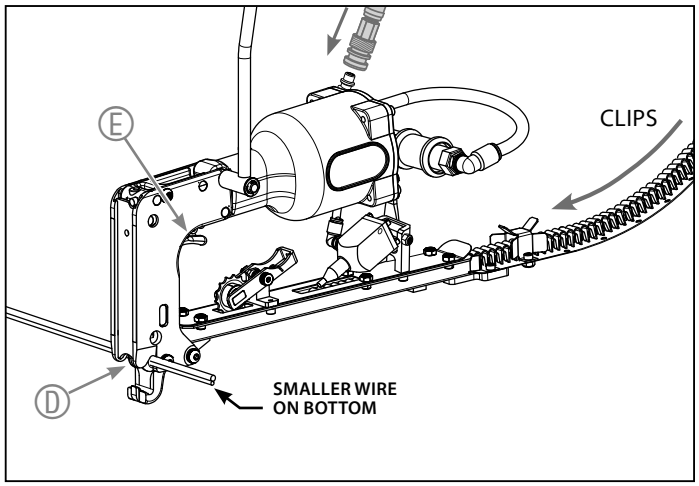
TOOL OPERATION

1. Connect air supply to air inlet hose fitting, keeping fingers and hands away from blade and anvil area. Recommended air supply is 80-90 psi (5.5–6.2 bars) of dry, lubricated air.

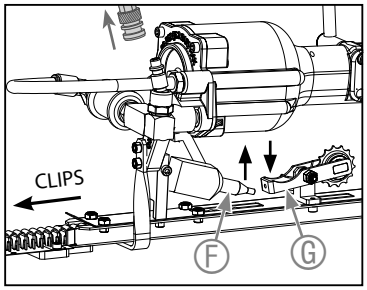
   Eclipser air consumption (SCFM), assuming 90psi and 1 cycle per second, is 3.56. Assuming 80psi and 1 cycle per second, SCFM is 3.22.

2. Feed clips into clip track assembly and tool, pushing forward until clips stop against the tool blade.

3. Set wires to be fastened into side plate notches **(D)**. For best results, smaller wire should be on the bottom. Squeeze trigger **(E)** to install clip.

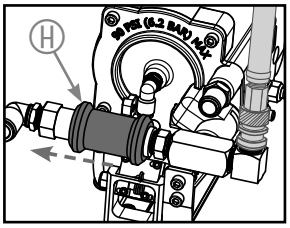


UNLOADING CLIPS



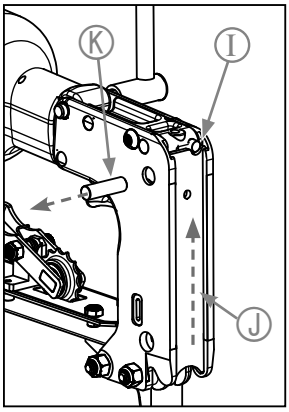
1. **DISCONNECT AIR.**
2. Lift cylinder assembly **(F),** used to advance clips forward, so it is not touching clips.
3. Push down on back of arm **(G)** holding backstop wheel against clips, raising wheel up.
4. Slide clips out of magazine.

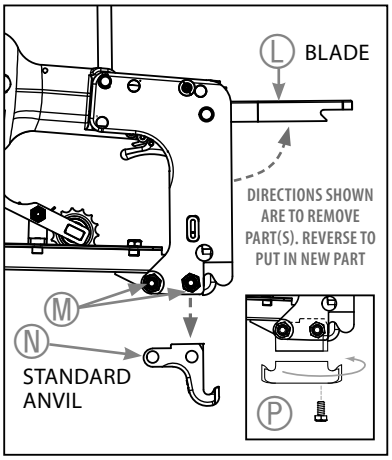
USING THE BLADE JAM RELEASE



1. While holding tool in right hand, with finger off the trigger, grasp auxiliary air valve **(H)** with left hand and slide it to the left. Hold valve open until driver blade activates.
2. Release valve and visually check for an obstruction. If found, disconnect air and then clear it manually.

PARTS REPLACEMENT





BLADE: **DISCONNECT AIR. REMOVE CLIPS FROM TOOL.**

1. Depress pin **(I)** at top of front plate **(J)**; slide plate up and remove.
2. Swing blade **(L)** from tool and align link pin **(K)** with holes in side plates. Remove pin through holes and remove blade.
3. Lubricate new blade.
4. With new blade at 90° angle, align blade hole with links (Part #30019) and side plate holes on both sides. Insert link pin **(K)** through aligned holes to secure blade. Firmly strike blade face to swing back into original position.
5. Re-lubricate front plate. Depress pin **(I)** and slide front plate down until pin returns to extended position, securing plate in place.

ANVIL: **DISCONNECT AIR. REMOVE CLIPS FROM TOOL.**

REGULAR ANVIL: Remove lower shoulder screws **(M).** Remove anvil **(N)** and replace.

DOUBLE -ENDED ANVIL (P) FLIP: Remove anvil (Part #30133) by unscrewing the HHCS located on the anvil's underside. Rotate 180°, reinsert screw in forward hole and tighten. Replace entire anvil if worn.

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TROUBLESHOOTING for the 2800/2500

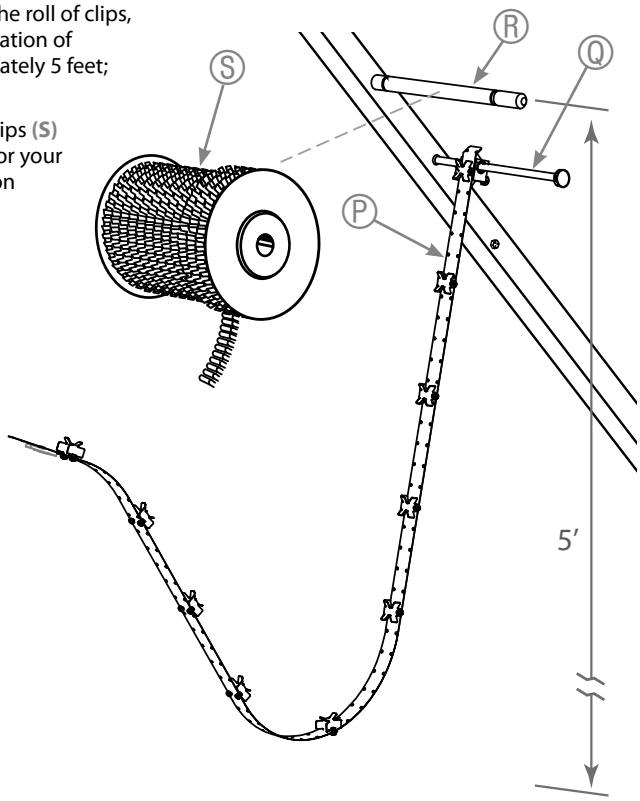
SAFETY	CAUSE	SOLUTION
Blade does not return	Sticky main valve	Lubricate main valve and check that main valve piston moves
	Loose screw in housing cap	Tighten all 4 screws in cap
Sluggish tool	Dry main valve	Lubricate main valve
Clips not feeding	Obstruction in magazine	Remove obstruction
	Clips caught in track	Inspect track, manually dislodge clips
Loose clips	Low air pressure	Increase pressure to 80 psi
	Worn blade or anvil	Replace blade or anvil
	Wrong clips for application	Review *E-Clips Guide, By Tool*, available at encorehartco.com/support
Clip jamming	Wrong size of clips loaded, or clip misaligned in chamber	Slide red auxiliary air valve to the side to relieve pressure, loosening clip
Tool not cycling	Clogged trigger valve	Clean trigger valve assembly
	Obstruction in chamber	Slide red auxiliary air valve to the side to loosen obstruction

WORK SITE SET UP

REQUIRED COMPONENTS

The Eclipser 2500 and 2800 series tools are designed to install clips from a continuous roll or coil. For proper operation of the Eclipser, the following additional components will be required:

- a compressed air source;
- a clip track **(P)**;
- a rod and track carriage system **(Q)**, such as that on the CC Clipping System, to guide clips, left to right and back again, as they unspool from the roll into the clip track;
- a heavy duty horizontal rod **(R)** on which to place the roll of clips, at an elevation of approximately 5 feet; and
- a roll of clips **(S)** suitable for your application and tool.



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Encore Hartco Continuous Coil (CC) Clipping System

Encore Hartco's complete stand-alone system has two major components: 1) an assembly that includes a heavy duty frame, spool rod, clip track, rod and track carriage system, tool balancer, hose, and air regulator; and 2) an Encore Hartco Eclipser 2500 or 2800 Series clipping tool. Each component is made to suit specific applications and is ordered separately. For the CC System (the frame and a tool), the customer provides:

- a 3/8" NPT air inlet fitting
- compressed air (3.5 SCFM at 80-90 psi)
- a suitable roll of clinch clips

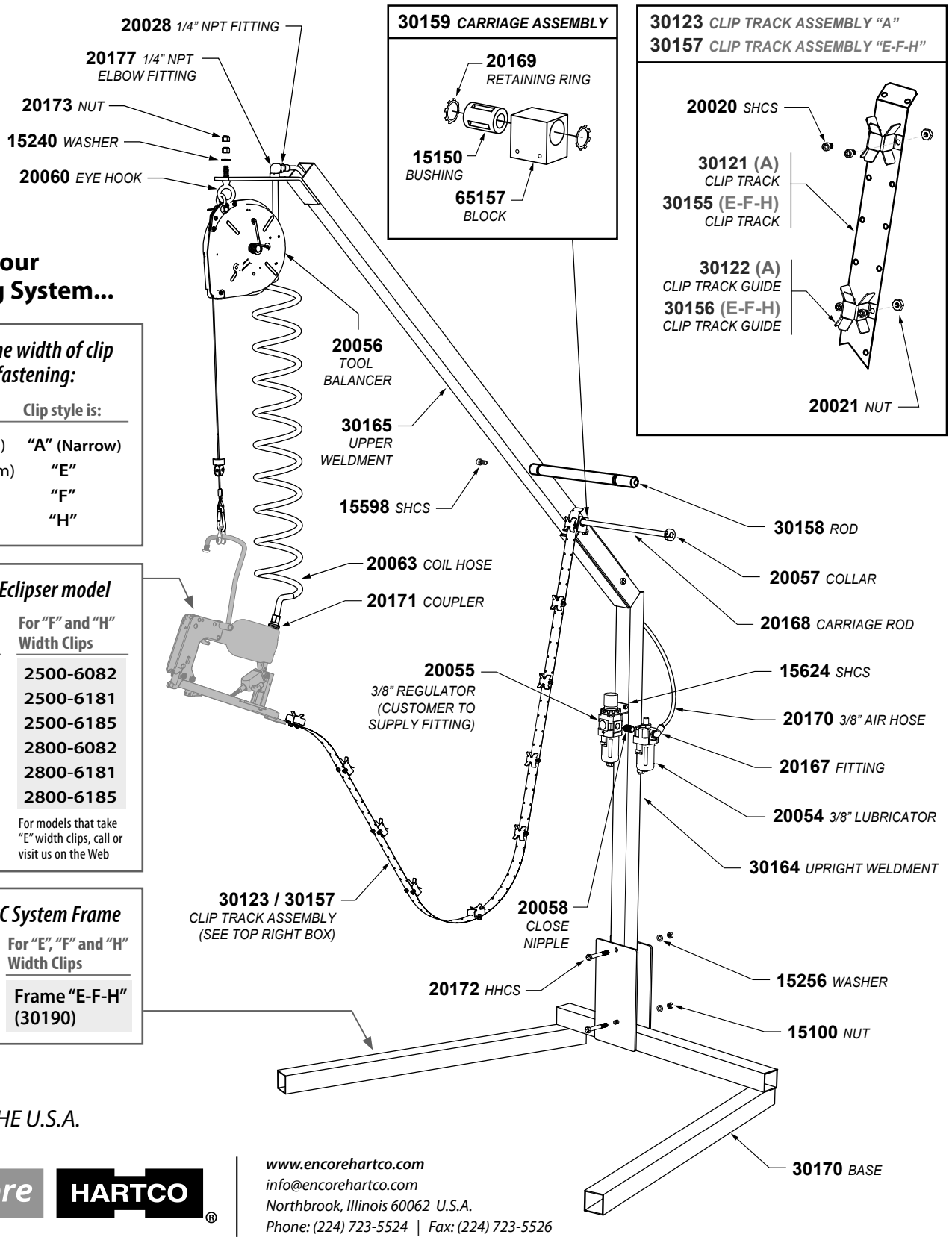
CC CLIPPING SYSTEM PARTS

Item #	Description	Qty
EA/HR 2800	**Eclipser 2800-XXXX** *(unique for each system)**	1
EA/HR 2500	**Eclipser 2500-XXXX** *(unique for each system)**	
***2800 or 2500 ECLIPSER TOOL #s (for each system)**		
"A"	**-3320, -3321, -3322, or -3324**	
"F-H"	**-6082, -6181, or 6185**	
30180 – CC SYSTEM FRAME "A"		
30123	**Clip Track Assembly "A"**	**1**
20020	*SHCS, 8-32 x 1/4"*	*28*
20021	*Hex Nut, 8-32 Thin Ht*	*24*
30121	*Clip Track "A"*	*1*
30122	*Clip Track Guide "A"*	*14*
30190 – CC SYSTEM FRAME "E-F-H"		
30157	**Clip Track Assembly "E-F-H"**	**1**
20020	*SHCS, 8-32 x 1/4"*	*28*
20021	*Hex Nut, 8-32 Thin Ht*	*24*
30155	*Clip Track "F-H"*	*1*
30156	*Clip Track Guide "E-F-H"*	*14*
UNIVERSAL PARTS for CC SYSTEM FRAMES		
15100	Nut, 3/8"-16 Hex	4
15240	Washer, 3/8"	1
15256	Washer, 3/8" Locking	4
15598	SHCS, 3/8"-16 x 3/4"	1
15624	SHCS, 1/4"-28 x 3/4"	2
20028	Push-In Straight Fitting, 1/4" NPT 3/8" Tube	1
20054	3/8" Lubricator	1
20055	3/8" Regulator	1
20056	Tool Balancer	1
20057	Collar, Single Split 1/2"	2
20058	Close Nipple, 3/8" NPT	1
20060	Eye Hook, 3/8"-16	1
20063	Coil Hose Assembly	1
20167	Push-In 90° Ftg, 3/8" NPT x 3/8" Tube	1
20168	Carriage Rod	1
20170	3/8" Air Hose	1
20171	Coupler Body, 1/4" NPT x 1/4" Female	1
20172	HHCS, 3/8"-16 x 2-3/4"	4
20173	Nut, 3/8"-16 Hex Nylock	2
20177	1/4" NPT Female 90° Elbow Ftg	1
30158	Spool Support Rod	1
30159	**Carriage Assembly Parts**	**1**
15150	*1/2" Linear Bushing*	*1*
20169	*Internal Retaining Ring*	*2*
65157	*Block, Track Carriage*	*1*
30164	Upright Weldment	1
30165	Upper Weldment	1
30170	Base Weldment	1

The Encore Hartco Continuous Coil (CC) Clipping System

Encore Hartco's Continuous Coil (CC) Clipping System has two major components:

1) An Encore Hartco Eclipser 2500 or 2800 Series clipping tool.
2) A sturdy, freestanding frame that holds a roll of clips, a clipping tool and an air hose.



Choosing your CC Clipping System...

1. Measure the width of clip to be used for fastening:

If clip width is:	Clip style is:
7/16" (11.0 mm)	**"A" (Narrow)**
11/16" (17.5 mm)	**"E"**
3/4" (19.0 mm)	**"F"**
7/8" (22.0 mm)	**"H"**

2. Choose an Eclipser model

For "A" Narrow Width Clips	For "F" and "H" Width Clips
2500-3320	2500-6082
2500-3321	2500-6181
2500-3322	2500-6185
2500-3324	2800-6082
2800-3320	2800-6181
2800-3321	2800-6185
2800-3322	
2800-3324	

For models that take "E" width clips, call or visit us on the Web

3. Choose a CC System Frame

For "A" Narrow Width Clips	For "E", "F" and "H" Width Clips
Frame "A" (30180)	Frame "E-F-H" (30190)

MADE IN THE U.S.A.

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