

# PNEUMATIC C-RING TOOL

# HC516



## HC516 WARNINGS !

- ⇒ Always read tool manual before operating tool.
- ⇒ Always wear safety glasses when operating or while in the area where a tool is being used.
- ⇒ When test cycling tool always point tool away from work piece and away from personnel.
- ⇒ Operate tool in an unobstructed area.
- ⇒ Disconnect air supply before maintenance or adjustment and service.
- ⇒ Use only clean, water free, lubricated compressed air, not to exceed 100 P.S.I. (7 bar)
- ⇒ Air consumption for HC516 is 8 SCFM @ 100 PSI for 50 cycles / rings per minute.
- ⇒ Do not use bottled gases like, oxygen, hydrogen, carbon dioxide, acetylene or other combustible gasses.
- ⇒ Tool must be operated using a quick disconnect or fitting that allows all compressed air to be discharged from the tool when disconnected.



The employer or user must insure the use of eye protection during tool use. All eye protection shall conform to ANSI Z87.1-2003 and provide frontal and side protection; all personnel located in the work area are required to use eye protection during loading, service or operation of the tool. Eye protection is needed to guard against possible flying particles and debris that could cause severe eye injury.

## WARNING! TOOL OPERATION

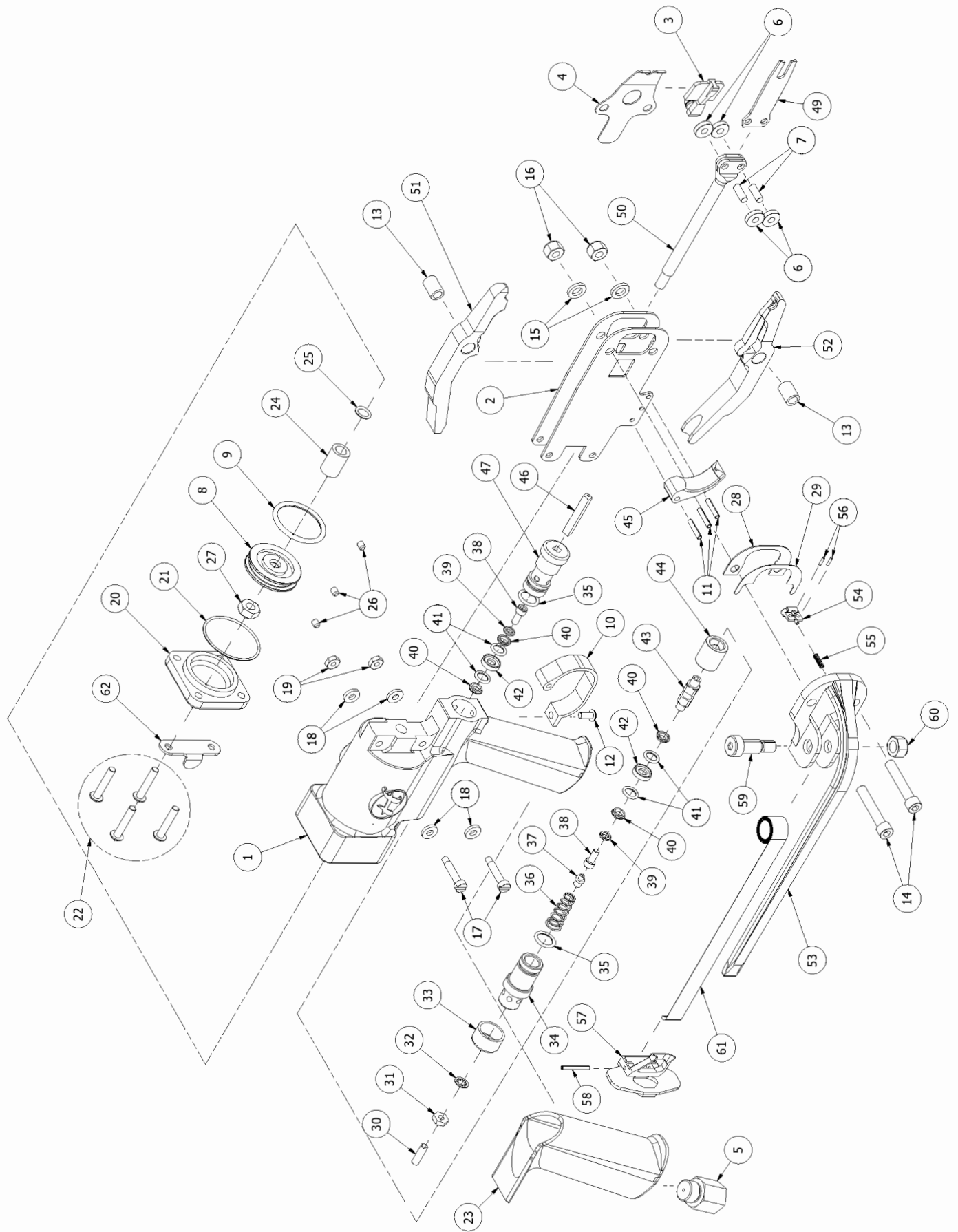
- ⇒ Always handle tool with care.
- ⇒ Never engage in horseplay.
- ⇒ Never pull trigger unless tool is pointed toward the work piece.
- ⇒ Keep the hands and bodies of the operator and all other personnel away from the tool jaws at all times.

## WARNING! LOADING TOOL

- ⇒ Never place hands or other body parts in the tool jaws while loading tool. Never point tool toward anyone.
- ⇒ Never actuate tool while loading as accidental injury may occur.

This tool is compliant with or conforms to the following: ANSI, SNT-101-2002





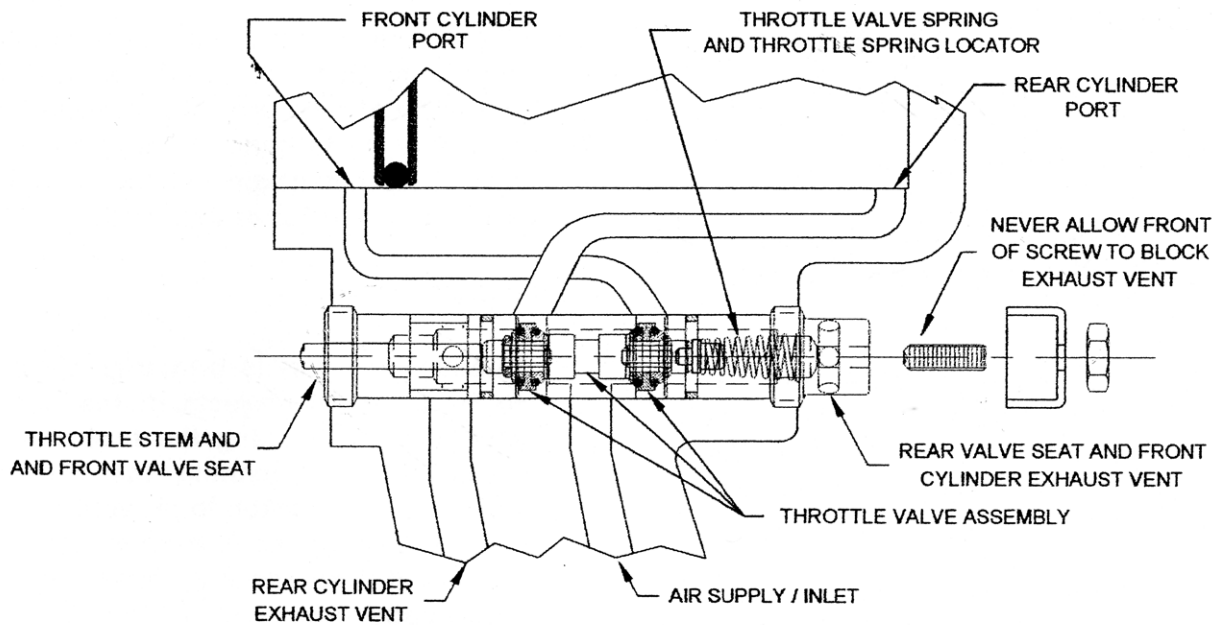
# HC516 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	HC5075-001	Housing	1
2	HC5075-005	Side Plate	2
3	HC5075-006	Latch	1
4	HC5075-007	Latch Spring	1
5	HC5075-008	Air Inlet Bushing	1
6	HC5075-010	Roller	4
7	HC5075-011	Roller Pin	2
8	HC5075-012	Piston	1
9	HC5075-013	Piston O-Ring	1
10	HC5075-015	Trigger Guard	1
11	HC5075-016	Trigger Group Pin	3
12	HC5075-017	Trigger Guard Screw	1
13	HC5075-020	Jaw Bushing	2
14	HC5075-021	Jaw Bolt	2
15	HC5075-022	Jaw Bolt Washer	2
16	HC5075-023	Jaw Bolt Nyloc	2
17	HC5075-024	Side Plate Bolt	2
18	HC5075-025	Side Plate Bolt Washer	4
19	HC5075-026	Side Plate Bolt Locknut	2
20	HC5075-042	End Cap	1
21	HC5075-043	End Cap O-Ring	1
22	HC5075-044	End Cap Screw	4
23	HC5075-048	Rubber Handgrip	1
24	HC5075-049	Piston Rod Bushing	1
25	HC1511-012	O-Ring	1
26	HC5075-053	Set Screw	3
27	HC5075-054	Piston Rod Locknut	1
28	HC5075-055A	.030 Shim	VARY
29	HC5075-055C	.010 Shim	VARY
30	HC1511-001	Set Screw	1
31	HC1511-002	Jam Nut	1

ITEM NO.	PART NO.	DESCRIPTION	QTY.
32	HC1511-003	Lock Washer	1
33	HC1511-004	Air Deflector	1
34	HC1511-005	Rear Valve Seat	1
35	HC1511-006	O-Ring	2
36	HC1511-007	Throttle Valve Spring	1
37	HC1511-008	Throttle Spring Locator	1
38	HC1511-009	SOC. HD. Cap Screw	2
39	HC1511-010	Throttle Valve Washer	2
40	HC1511-011	O-Ring End Support	4
41	HC1511-012	O-Ring	4
42	HC1511-013	O-Ring Center Support	2
43	HC1511-014	Throttle Valve Spacer	1
44	HC1511-015	Throttle Valve Bushing	1
45	HC1511-044	Trigger	1
46	HC1511-047	Throttle Stem	1
47	HC1511-048	Front Valve Seat	1
48	HC1511-075	CE Marker Label	1
49	HC516-008	Feeder Blade	1
50	HC16G-009	Piston Rod	1
51	HC516-018	Upper Jaw	1
52	HC516-019	Lower Jaw	1
53	HC516-027	Magazine	1
54	HC516-028	Magazine Shoe	1
55	HC516-029	Magazine Shoe Spring	1
56	HC516-030	Magazine Shoe Pin	2
57	HC516-033	Pusher	1
58	HC516-035	Pusher Spring Att. Pin	1
59	HC516-038	Pusher Spring Split Bolt	1
60	HC516-039	Pusher Spring Bolt Nyloc	1
61	HC516-045	Pusher Spring	1
62	HC516-051	Pusher Hook	1

# HC516 AVAILABLE RINGS

PART NO.	MATERIAL	POINT TYPE	WIRE GAUGE	PER CARTON	RING SIZE OPEN/CLOSED
516G100	GALVANIZED	SHARP	16	10,000	1/2" / 3/16"
516G100B	GALVANIZED	BLUNT	16	10,000	1/2" / 3/16"
516GF100	GALFAN	SHARP	16	10,000	1/2" / 3/16"
516SS100	STAINLESS	SHARP	16	10,000	1/2" / 3/16"
516SS100B	STAINLESS	BLUNT	16	10,000	1/2" / 3/16"
516AL100	ALUMINUM	SHARP	16	10,000	1/2" / 3/16"
516AL100B	ALIMINUM	BLUNT	16	10,000	1/2" / 3/16"



### THROTTLE VALVE ADJUSTMENT TIPS.

Refer to tool diagram for valve component orientation.

To remove the front valve seat, remove all hog rings from the magazine and jaws. Next remove all of the following parts: both jaw bolt nuts (item #16), jaw bolt washers (item #15), latch spring (item #4), latch (item #3), jaw bolts (item #14), and magazine shims (item #28 & #29) if applicable. Next remove the jaws: on HC516 (item #51 & #52), on HC715 & HC716 (item #67 & #68). Please note that the jaw bushings (item #13) will come out with the jaws. Next remove the trigger guard screw (item #12). Next remove the side plate bolt locknut (item #19), side plate bolts washers (item #18), and side plate bolts (item #17). Next remove the following parts as a single assembly and set aside: side plates (item #2), trigger guard (item #10), trigger (item #45), and trigger group pins (item #11). Finally set aside the set of four rollers (item #6).

To remove the throttle valve assembly, or adjust valve, follow the directions below. Loosen front set screw, unscrew valve seat and stem using a 3/16" open end wrench. To remove rear valve seat, first remove air deflector then loosen rear set screw. Now unscrew rear seat using 3/32" dia. pin in vent holes. To remove throttle valve assembly you will need 2 hex key wrenches to fit screws (item #38). Use caution as the valve components are very small. While the valve is disassembled replace all O-rings. Reverse order to assemble trigger valve.

**Presetting Valve:** With throttle valve assembly install rear valve seat and turn completely in until it stops. Now turn rear valve seat out 1-1/2 turns. Now place throttle stem into front valve seat and install into valve bore using a 3/16" open end wrench. Now turn stem and front valve seat in until it stops. Now turn front valve seat out 1-1/2 turns and preset is complete. Now replace all items in reverse order. Do not attach trigger guard screw at this time.

**Valve Adjustment:** First connect air supply to air inlet. To stop leak at bottom of handle / rear cylinder exhaust vent, turn front valve seat in slowly until leak stops. Now pull trigger fully back and check for leak at rear valve seat / front cylinder exhaust vent. If leaking, keep trigger pulled back and turn in rear valve seat slowly until leak stops. Now tighten front and rear set screws snug but not over tightened. Install trigger guard and screw to complete assembly.

# TROUBLESHOOTING

## Ring Does Not Form Correctly:

- ✓ Check air pressure (90-100 PSI)
- ✓ A 3/8" (9.5mm) air line should be used.
- ✓ Check for foreign debris in the jaw area, especially in the area between the side plates and rollers.
- ✓ The jaws may be worn from extended use. Check the land between the receiving grooves on the jaws. If the land area is worn excessively, replacing the jaws is recommended.
- ✓ When the tool is used in corrosive applications, light oil should be applied on a regular basis to the jaws, bushings and rollers.
- ✓ When the ring "teardrops", the latch is not backing the ring up properly. Replace the latch or latch spring to provide correct ring shape.

## General Care:

- ✓ Keeping the tool clean is essential for extending the tool life. Care should be taken to prevent the tool jaws and magazine from contacting dirt and sand. The abrasive effect of sand will greatly reduce the jaw life.

## Feeding Problems:

- ✓ If the rings do not feed smoothly down the magazine, check the pusher spring for proper tension. If the magazine is covered with dirt and debris, clean the magazine.
- ✓ When rings feed properly across the magazine, but do not feed into the jaws without spitting out of the magazine side of the tool, remove all rings from magazine. Pull pusher back and place on hook. Now cycle the tool to remove ring from jaws. Now disconnect the air supply. With a blunt object, push the feeder blade rearward about 2 inches (51mm). This will allow you to check for jaw clearance between the side plates. The jaws should be easily moved by hand. If there is resistance, tighten jaw bolt and nut tension tightened to 40 in. lb. (3.3 ft. lb.)
- ✓ If the pusher fingers show signs of spreading, this will cause the last few rings to not feed properly into the jaws. You may try to bend the fingers of the pusher back to original shape or replace with a new pusher at this time.

# CUSTOMER SERVICE



**King-Hughes  
Fasteners, Inc.**  
Made in the USA

**Congratulations!!!** You have just purchased the finest pneumatic hog ring tool available worldwide. Your tool was proudly engineered and built without compromise, in the U.S.A.!!

For additional information on the HC516, contact King-Hughes Fasteners, Inc. using the following numbers:

Phone: 1-810-721-0300 or Toll Free: 1-800-779-3762

Factory service on your tool can normally be completed within 48 hours. A recommended spare parts list is available from King-Hughes Fasteners, Inc. Your tool has been calibrated by the factory. If you are experiencing any problems, contact the King-Hughes Customer Service Department.

## Tips on using the HC516 tool:

Because of tool design, the trigger **must** be pulled completely to the rear to insure positive valve function. If the tool is short cycled, the feeding system will most likely jam.

If a jam occurs, pull the pusher back and remove remaining rings from the magazine. Point the tool away from yourself and others, and cycle the tool **slowly**. This should push the jammed ring(s) from the jaw mechanism.

If this does not clear the tool, **disconnect the air supply**, lay the tool on a clean flat surface and remove the top jaw nut and bolt. Remove bushing and jaw. Jammed ring(s) are now exposed and can be removed from the tool. Reassemble in reverse order.

Replace worn or damaged parts to keep tool in top operating condition.

Always use **genuine**, King-Hughes Hog Rings in the HC516. King-Hughes rings are manufactured to precise tolerances to ensure smooth operation. Competitor's rings may be of inferior design causing the tool to jam.

Keep the tool clean and dry, using clean, dry air not exceeding the recommended PSI.

Use the tool with the minimum air pressure to do the job; this will **greatly extend** the **life** of the tool.

**Do not drop** the tool; this is the most common cause for parts replacement and repair.

**Never** use **loose rings** in the HC516 Tool!

## Filter and Regulator:

The air supply line must be equipped with a **filter** and **regulator** to provide a constant supply of clean dry air. If moisture and contamination is allowed to enter the tool, the service life will be decreased.

## Tool Lubrication:

The HC516 is designed to be trouble-free with minimal lubrication. It is recommended that an **inline lubricator** be used and adjusted to a low setting. If an oiler is not available an **alternative oiling method** should be used. On a daily basis, place 2 drops of pneumatic tool oil into the inlet fitting where the supply line connects on the bottom of the handle.

	US	METRIC
Operating Pressure (at tool)	90 psi	6.2 bar
Maximum Pressure (at tool)	100 psi	6.9 bar
Air Consumption @ 50 cycles/min	8 SCFM	0.23 m <sup>3</sup> /min
Recommended Air Line	3/8"	9.5 mm
Jaw Bolt Torque	40 in. lb.	4.5 Nm
	3.3 ft. lb.	4.5 Nm

### LIMITED WARRANTY

*The manufacturer warrants this tool to be free of manufacturing defects. The warranty period is 90 calendar days from date of purchase. The warranty is issued to the original purchaser exclusively. The tool or part will be repaired or replaced at the manufacturers discretion. The warranty does not cover failure due to neglect, damage or normal wear. The manufacturer shall not be liable for any incidental or consequential damage due to tool failure.*



**King-Hughes  
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