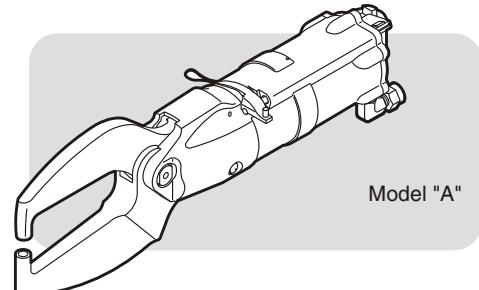




**CP0214**  
**Compression Riveter**  
P122323 PL Rev. A

# PARTS LIST & OPERATOR'S MANUAL



Chicago Pneumatic

<b>WARNING</b>		<b>DO NOT DISCARD SAFETY INSTRUCTIONS - GIVE TO USER</b>
	<b>English</b>	To reduce risk of injury, everyone using, installing, maintaining, changing accessories on, or working near this tool must read and understand these instructions before performing any such task.
<b>ADVERTENCIA</b>		<b>CONSERVAR LAS INSTRUCCIONES DE SEGURIDAD - ENTREGAR AL USUARIO</b>
	<b>E</b> <b>Español (Spanish)</b>	Con el fin de reducir el riesgo de lesión, toda persona que use, instale, mantenga, cambie accesorios o trabaje cerca de esta herramienta debe leer y comprender estas instrucciones antes de llevar a cabo cualquiera de las tareas antes mencionadas.
<b>ATTENTION</b>		<b>CES CONSIGNES DE SÉCURITÉ DOIVENT ÊTRE IMPÉRATIVEMENT REMISES À L'UTILISATEUR</b>
	<b>F</b> <b>Français (French)</b>	Pour réduire les risques d'accidents, il est impératif que toute personne qui utilise, installe ou répare cet outil, change des accessoires ou travaille à proximité, lise attentivement ces consignes de sécurité avant d'utiliser l'outil.
<b>AVVERTENZA</b>		<b>CONSERVARE LE PRESENTI NORME DI SICUREZZA - DA CONSEGNARE ALL'UTENTE</b>
	<b>I</b> <b>Italiano (Italian)</b>	Per diminuire il rischio di eventuali danni fisici, chiunque si appresti all'utilizzo, installazione, riparazione, manutenzione o sostituzione di accessori o comunque lavori in prossimità dell'utensile deve leggere e comprendere le presenti istruzioni.
<b>VARNING</b>		<b>SE TILL ATT ANVÄNDAREN LÄSER OCH FÖLJER SÄKERHETSANVISNINGARNNA</b>
	<b>S</b> <b>Svenska (Swedish)</b>	För att minska risken för skador ska alla som använder, installerar, underhåller och byter tillbehör på, eller arbetar i närheten av detta verktyg, ha läst och förstått dessa anvisningar innan arbetet påbörjas.
<b>ACHTUNG</b>		<b>BINTE NICHT WEGWERFEN SICHERHEITSHINWEISE DEM BENUTZER AUSHÄNDIGEN!</b>
	<b>D</b> <b>Deutsch (German)</b>	Um die Gefahr einer Verletzung so gering wie möglich zu halten, haben Personen, die dieses Werkzeug gebrauchen, installieren, instand setzen, warten, Zubehör austauschen oder sich in der Nähe des Werkzeugs aufhalten, die folgenden Hinweise zu beachten:
<b>AVISO</b>		<b>NÃO JOGUE FORA AS INSTRUÇÕES DE SEGURANÇA - DÊ AO USUÁRIO</b>
	<b>P</b> <b>Português (Portuguese)</b>	No sentido de reduzir o perigo de ferimentos, todas as pessoas que utilizarem, repararem, fizerem a revisão, trocarem acessórios ou trabalharem perto desta ferramenta, devem ler e compreender estas instruções antes de executar qualquer trabalho acima referido.
<b>ADVARSEL</b>		<b>IKKE KAST SIKKERHETSINSTRUKSENE - GI DEM TIL BRUKER</b>
	<b>N</b> <b>Norsk (Norwegian)</b>	For å redusere risikoen for skader skal enhver som bruker, installerer, reparerer, utfører vedlikehold, skifter tilbehør, eller arbeider i nærheten av dette verktøyet, lese og forstå disse anvisningene før oppgavene utføres.
<b>WAARSCHUWING</b>		<b>VEILIGHEIDSVOORSCHRIFTEN NIET WEGGOOIEN - AAN DE GEBRUIKER GEVEN</b>
	<b>NL</b> <b>Nederlands (Dutch)</b>	Om de kans op verwondingen zo klein mogelijk te maken, dient iedereen die dit gereedschap gebruikt, installeert, onderhoudt, onderdelen ervan vervangt of in de buurt ervan werkt, deze instructies te lezen en te begrijpen alvorens een dergelijke taak uit te voeren.
<b>ADVARSEL</b>		<b>DISSE SIKKERHEDSANVISNINGER MÅ IKKE KASTES BORT GIV DEM TIL BRUGEREN</b>
	<b>DK</b> <b>Dansk (Danish)</b>	For at mindske risikoen for tilskadekomst skal enhver, der bruger, installerer, reparerer, vedligeholder, skifter tilbehør på eller arbejder nær dette værktøj, læse disse anvisninger grundigt, før sådant arbejde udføres.
<b>VAROITUS</b>		<b>TURVAOHJEITA EI SAA HÄVITTÄÄ - ANNA NE KÄYTTÄJÄN LUETTAVAKSI</b>
	<b>FN</b> <b>Suomi (Finnish)</b>	Kaikkien tästä työkalusta käyttävien täytyy perheetä näihin turvaohjeisiin ennen työhön ryhtymistä työtapaturman välttämiseksi. Sama koskee siihen asennustöitä tekeviä, sitä korjaavia, huoltavia ja siihen lisälaitteita liittäviä tai sen läheisyydessä työskenteleviä.

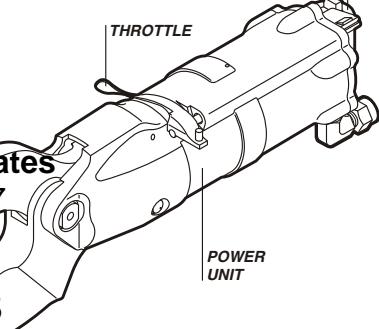
<b>POWER UNIT</b>	<b>SHORT STROKE DEVICE</b>	<b>YOKE</b>	<b>BACKHEAD</b>	<b>THROTTLE</b>
C C-Type Single Cylinder CR-1 Set Holder Pg. 5	E None	L C-Yoke 1.5" Reach CR-1 Set Holes Pg. 7	E Plain Pg. 4 or 5	L Self-Closing Safety Lever Pg. 4 or 5
F C-Type Tandem Cylinder CR-1 Set Holder Pg. 5	A None	B Alligator Jaws 1.5" Reach CR-1 Set Holes Pg. 4		
A Alligator Type Single Cylinder Pg. 4	N None	F Alligator Jaws 2.25" Reach CR-1 Set Holes Pg. 4		
E Alligator Type Tandem Cylinder Pg. 4		G Alligator Jaws 3" Reach CR-1 Set Holes Pg. 4		
S C-Type Single Cylinder CR-2 Set Holder Pg. 5		T C-Yoke 1.5" Reach CR-2 Set Holes Pg. 7		
K C-Type Tandem Cylinder CR-2 Set Holder Pg. 5		N C-Yoke Type without Yoke Pg. 7		
		D Alligator Jaws 1.5" Reach CR-2 Set Holes Pg. 4		
		K Alligator Jaws 2.25" Reach CR-2 Set Holes Pg. 4		
		S Alligator Jaws 3" Reach CR-2 Set Holes Pg. 4		
		P Alligator Type without Jaws Only Pg. 4		

Finding information using your Catalog Code Letter

Example:

**CP-0214-ANBEL**

POWER UNIT    SHORT STROKE DEVICE    YOKE    BACKHEAD    THROTTLE



### Lou Zampini & Associates

2 Douglas Pike, Rt. 7  
Smithfield, RI 02917  
1 800 353 4676  
FAX 1 401 679 0165

**PROTECT YOUR INVESTMENT IN THE WORLD'S FINEST AIR TOOLS USE GENUINE CP REPLACEMENT PARTS.** The use of parts other than genuine CP replacement parts can lead to sub-standard performance, early failure, possible damage of other parts and, in some instances, unsafe conditions.

**E** (Español-Spanish) **PROTEJA SU INVERSIÓN EN LAS MEJORES HERRAMIENTAS NEUMÁTICAS DEL MUNDO USE REPUESTOS GENUINOS DE CP.** El uso de piezas que no sean los repuestos genuinos de CP puede producir un desempeño inferior, fallas prematuras, posibles daños a otras partes y en algunos casos, condiciones poco seguras.

**F** (Français-French) **PROTÉGEZ VOTRE INVESTISSEMENT DANS LES MEILLEURS Outils Pneumatiques du Monde : UTILISEZ DES PIÈCES CP D'ORIGINE.** L'utilisation de pièces autres que les pièces de rechange CP d'origine peut entraîner une performance inadéquate, une défaillance prémature, l'endommagement d'autres composants et, dans certains cas, des conditions dangereuses.

**I** (Italiano-Italian) **PROTEGGETE L'INVESTIMENTO DA VOI EFFETTUATO CON L'ACQUISTO DEGLI UTENSILI PNEUMATICI MIGLIORI AL MONDO. USATE RICAMBI CP ORIGINALI.** L'uso di ricambi non originali può determinare prestazioni inferiori allo standard, guasti prematuri, danni ad altri componenti e, in alcuni casi, condizioni non sicure.

**S** (Svenska-Swedish) **SKYDDA DIN INVESTERING I VÄRLDENS FINASTE TRYCKLUFTSVERKTYG GENOM ATT ANVÄNDA ORIGINALDELEAR FRÅN CP.** Användning av andra än originalreservdelar från CP kan leda till sämre funktion, snabb förslitning, skador på andra delar och i vissa fall orsaka risker.

**D** (Deutsch-German) **ERHALTEN SIE IHRE INVESTITION IN DIE BESTEN PNEUMATISCHEN WERKZEUGE DER WELT VERWENDEN SIE NUR ORIGINAL-ERSATZTEILE VON CP.** Die Verwendung anderer als Original-CP-Ersatzteile kann zu verminderter Leistung, frühzeitigem Ausfall, möglicher Beschädigung anderer Teile und in manchen Fällen zu gefährdenden Zuständen führen.

**P** (Português-Portuguese) **PROTEJA O SEU INVESTIMENTO NAS MELHORES FERRAMENTAS PNEUMÁTICAS DO MUNDO. USE PEÇAS SOBRESSALENTES CP GENUÍNAS.** O uso de componentes que não sejam as peças sobressalentes CP genuínas pode resultar em um desempenho abaixo do padrão, falha precoce, possíveis danos a outras peças e, em alguns casos, condições inseguras.

**N** (Norsk-Norwegian) **BESKYTT INVESTERINGEN DIN I VERDENS BESTE LUFTVERKTØY BRUK EKTE CP RESERVEDELER.** Bruk av deler som ikke er ekte CP reservedeler kan føre til redusert ytelse, tidlig svikt, mulig skade på andre deler, og i enkelte tilfeller farlige driftsforhold.

**NL** (Nederlands-Dutch) **BESCHERM UW INVESTERING IN HET BESTE PNEUMATISCHE GEREEDSCHAP TER WERELD, GEBRUIK UITSLUITEND AUTHENTIEKE CP VERVANGSTUKKEN.** Het gebruik van onderdelen die geen authentieke CP vervangstukken zijn, kan leiden tot minderwaardige prestaties, voortijdige storing, mogelijke schade aan andere onderdelen en in sommige gevallen onveilige condities.

**DK** (Dansk-Danish) **BESKYT DIN INVESTERING I VERDENS BEDSTE LUFTVÆRKTOJ. BRUG ÆGTE CP RESERVEDELE.** Brugen af reservedele, der ikke er ægte CP reservedele, kan føre til forringet ydeevne, tidligt sammenbrud, mulig beskadigelse af andre dele og i nogle tilfælde, farlige arbejdsvilkår.

**FN** (Suomi-Finnish) **SUOJAA MAAILMAN PARHAISIIN PAINEILMATYÖKALUIIHIN TEKEMÄÄSI PANOSTUSTA, KÄYTÄ AITOJA CP-VARAOSIA.** Muiden kuin aitojen CP-varaosien käyttö voi johtaa ala-arvoiseen suorituskykyyn, ennenaikeiseen toimintahäiriöön, mahdolliseen muiden osien vioittumiseen ja joissakin tapauksissa epäturvalliseen toimintakuntaan.

## INSTRUCTION MANUAL

### Air Supply

For rated tool performance, 90 PSI of clean, dry air is required at the tool. Whip hose 5/16" I.D. may be used at the air inlet, but longer runs should be 3/8" I.D. with couplings of a minimum 9/32" I.D. The use of a CA048360 Chicago Pneumatic Air Line Separator and Filter and a CA048362 Chicago Pneumatic Air Line Pressure Regulator mounted as closely as possible to the tool is recommended.

### Lubrication

Daily before using, before putting a new or an old riveter into service, and after each shift, disconnect tool, blow out air line to clean it of accumulated dirt and moisture. Pour about 1/2 fl. oz. of recommended oil into air inlet. Connect tool and operate to allow oil to be carried to cylinder. In addition, the use of a CA048361 Chicago Pneumatic Air Line Lubricator installed at the end of each air pipe leading to this pneumatic tool is recommended to assure a constant and adequate supply of lubricant to valves and cylinder.

### Noise & Vibration Declaration\*

Sound pressure level 90 dB(A) in accordance with Pneurop PN8NTC1.2. For sound power, add 10 dB(A). Vibration value <2.5 m/s<sup>2</sup>, re. ISO 8662-1.

### Operation

Throttle lever (112) must first be moved forward axially before depressing to start cycle. This is a safety feature to reduce accidental actuations. Once throttle lever is depressed, compressed air forces the piston and wedge (41) forward, then one rivet set is driven toward the other exerting compressive force on the rivet. Force is exerted until the throttle lever is released, returning the tool to the ready position ending its cycle of operation.

### Maintenance

1. Keep tool properly lubricated.
2. Provide 90 PSI of clean, dry air at the tool.
3. Use hose and connections of proper size and in good condition.
4. Set up and maintain a repair and replacement program scheduled at regular intervals.
5. High wear parts are underlined in parts list.

\*These declared values were obtained by laboratory type testing in compliance with the stated standards and are not adequate for use in risk assessments. Values measured in individual work places may be higher than the declared values. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, the workplace and the workstation design, as well as upon the exposure time and the physical condition of the user. We, Chicago Pneumatic, cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a work place situation over which we have no control.

### EC DECLARATION OF CONFORMITY

We, Chicago Pneumatic Tool Company, 1800 Overview Drive, Rock Hill, SC 29730 USA, declare under our sole responsibility that the product to which this declaration relates, is in conformity with the requirements of the Council Directive of June 1998 on the approximation of the laws of the Member States relating to machinery (98/37/EC).

**Machine Name** CP0214 Compression Riveter

**Machine Type** Power Tool with 3/16" or 1/4" shank for use with rivet sets and various 3/16" or 1/4" shank accessories - No other use is permitted.

**Serial No.** Tools with No. 99090A or higher

#### Technical Data

Air pressure 90 psi (6.2 bar)

**Harmonized Standards Applied** EN292

National Standards Applied ISO 8662-1, Pneurop PN8NTC1.2

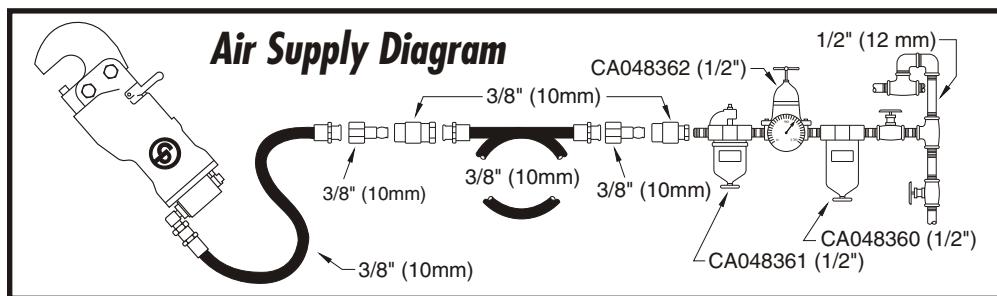
**Name and Position of Issuer** W. A. LeNeveu, President, Chicago Pneumatic Tool Company

**Signature of Issuer** 

**Place and Date of Issue** Rock Hill, SC 29730 USA, May 1999

### MANUFACTURER'S LIMITED WARRANTY

**Limited Warranty:** The "Products" of the Chicago Pneumatic Tool Company ("CP") are warranted to be free from defects in material and workmanship for one year from the date of purchase. This Warranty applies only to Products purchased new from CP or its authorized dealers. Of course, this Warranty does not apply to products which have been abused, misused, modified, or repaired by someone other than CP or its Authorized Service Representatives. If a CP Product proves defective in material or workmanship within one year after purchase, return it to any CP Factory Service Center or Authorized Service Center for CP tools, transportation prepaid, enclosing your name and address, adequate proof of date of purchase, and a short description of the defect. CP will, at its option, repair or replace defective Products free of charge. Repairs or replacements are warranted as described above for the remainder of the original warranty period. CP's sole liability and your exclusive remedy under this Warranty is limited to repair or replacement of the defective Product. (Tandem Cylinder 10,000 Cycles) **(There Are No Other Warranties Expressed Or Implied And CP Shall Not Be Liable For Incidental, Consequential, Or Special Damages, Or Any Other Damages, Costs Or Expenses Excepting Only The Cost Or Expense Of Repair Or Replacement As Described Above.)**



### Recommended Lubricants

Chicago Pneumatic Airoilene oil which contains moisture absorbent, rust inhibiting additives and will not separate while the tool is idle, is recommended for use with this tool and may be purchased under the following symbols: 1 gallon can-P089507, 5 gallon can-P089508. If recommended oil is not available, use a turbine or spindle grade oil with a viscosity of 100-150 SUS at 100°F. which contains a rust inhibitor.

### Loss of Power / Erratic Action

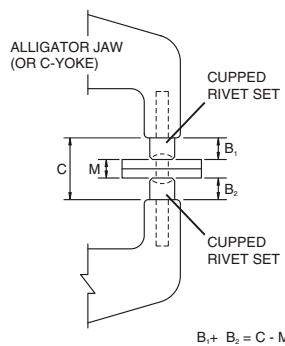
Loss of power or tool failure may be caused by factors outside the tool. Make the following checks:

1. Check air pressure. For rated performance, 90 PSI air pressure is required at the tool. A drop in air pressure may be caused by lowered compressor output, excessive drain on the air line, or by the use of hose or connections of improper size or in poor condition.
2. Check for wet or dirty air. wet air tends to wash lubricant away from cylinder and cause the tool to rust and corrode. Dirt and foreign matter in the air supply will impede the action of the piston and damage the tool.

If the previous factors are in order:

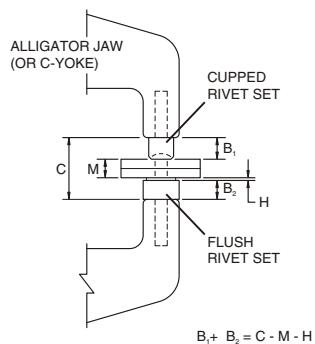
1. Check lubrication. Disconnect tool and pour a liberal quantity of recommended oil cut with an equal amount of kerosene into the air inlet. Operate tool to flush out gum and foreign matter.

To develop maximum power, the riveter must drive the rivet near the end of the riveter's stroke. Therefore, the combined length of the two rivet sets must be correct. **Determine the correct length as follows:**



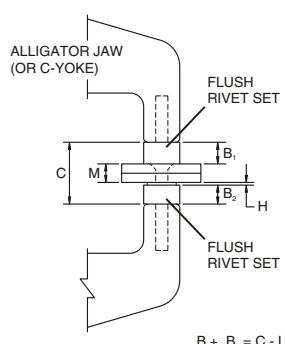
#### When two cupped rivet sets are used:

The length of the body dimensions of the rivet sets (B<sub>1</sub>, B<sub>2</sub>) should equal the closed height dimension of the yoke (C) minus the total thickness of material being riveted (M).



#### When one cupped and one flush set are used:

The length of the body dimensions of the two rivet sets (B<sub>1</sub>, B<sub>2</sub>) should equal the closed height dimension of the yoke (C) minus the total thickness of the material being riveted (M) and the height of the finished rivet head driven by the flush set (H).



#### When two flush sets are used:

The length of the body dimensions of the two rivet sets (B<sub>1</sub>, B<sub>2</sub>) should equal the closed height dimension of the yoke (C) minus the overall length of the rivet after it is driven (L).

2. Check mechanical parts of tool. If surface scratches or minor cracks are apparent on wedge (41), polish smooth. If wedge (41), rivet (42), or spacer (43) is broken, replace with new parts. Check "O" ring seals (24), and (34) on tandem cylinder model, and replace if worn. Replace throttle valve bushing (106) if throttle valve (107) fits loosely. Inspect roller bearings and rollers for breakage or excessive wear.

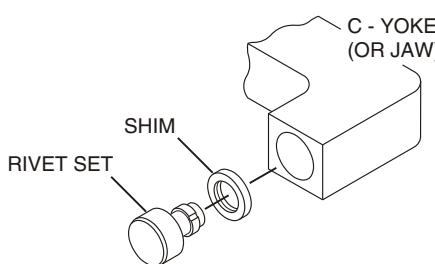
**NOTE:** Cylinder head gasket (55) and air inlet swivel gasket (120) should be replaced with **new** parts at each second disassembly.

3. Check length of rivet set bodies. To develop maximum power the riveter must drive the rivet as close to the end of the riveter's stroke as possible.

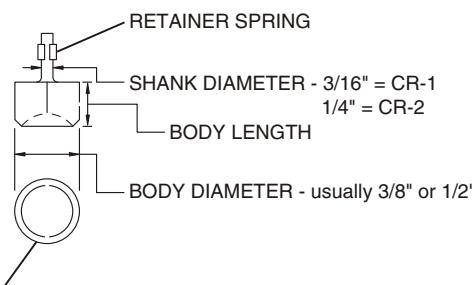
### Assembly Cautions

When pressing bushings into cylinder heads, be very careful to press the bushing in square with the bore in the aluminum head. If a cocked bushing starts a chip, it will damage the head irreparably. After assembly, bushings must be reamed.

The closed height dimension of the yoke referred to is the opening available when the jaws or plunger are in extreme closed or forward position with both rivet sets removed.



If necessary, select rivet sets a little short and shim to proper length with hardened shims (1/64", 1/32", 1/16", or 1/8" thick).  
- see CP Catalog for part numbers.

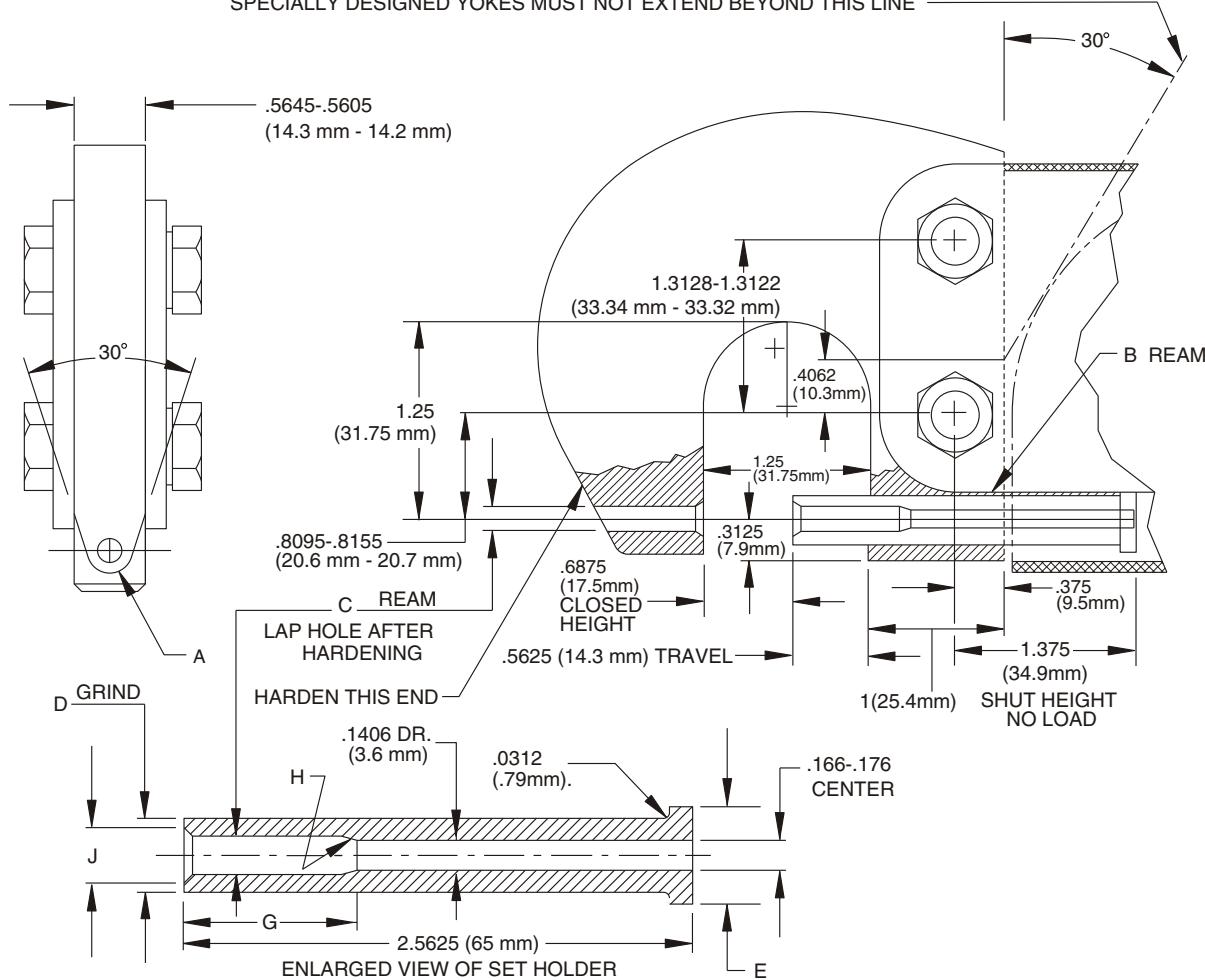


HEAD OR DIE CONFIGURATION - cupped or flush; available in button, round, brazier, modified brazier, universal or flat head configurations.  
- see CP Catalog for Compression Riveter Accessories.

Consult your Chicago Pneumatic Representative for special application yokes.

## C-YOKE DATA

SPECIALLY DESIGNED YOKES MUST NOT EXTEND BEYOND THIS LINE

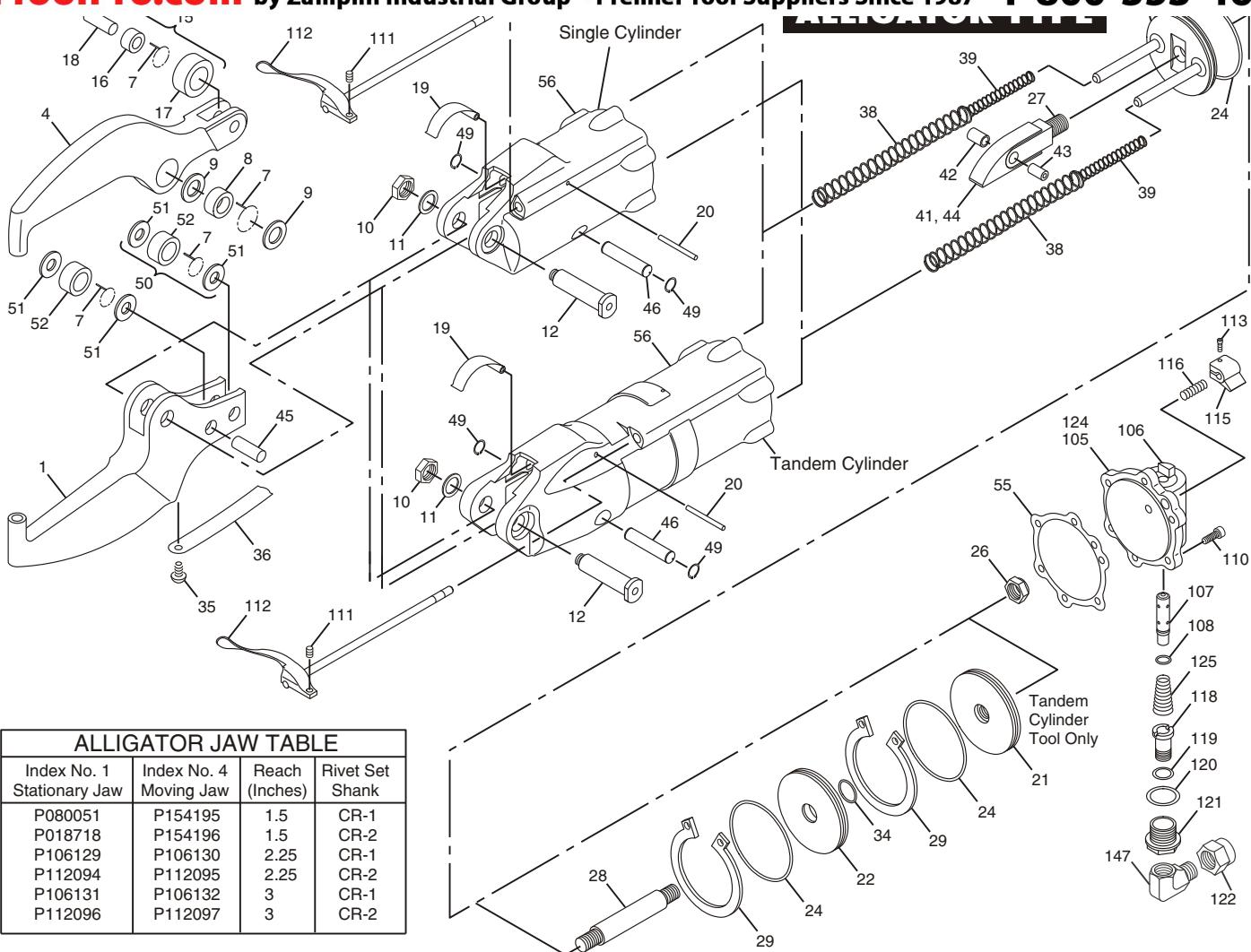


- Set Holder specifications:  
SAE 41L50 steel or equivalent harden and grind (54-59 Rc)
- C-Yoke specifications: SAE 4140 steel or equivalent heat treat all over (20-25 Rc) harden end shown (50-55 Rc)

YOKE & SET HOLDER DESIGN DATA		
Let.	CR-1	CR-2
A	.1875 (4.76 mm)	.25 (6.35 mm)
B	.3747-.3753 (9.52 mm-9.53 mm)	.4372-.4378 (11.10 - 11.12 mm)
C	.187-.188 (4.75 mm-4.775 mm)	.2497-.2503 (6.34 - 6.36 mm)
D	.3745-.3740 (9.51 mm-9.49 mm)	.4370-.4365 (11.10 - 11.09 mm)
E	.485-.480 (12.3 mm-12.2 mm)	.563-.560 (14.30 -14.22 mm)
F	.0156 R. (.396 mm R)	.040 (1 mm)-.050 (1.27 mm) x 45°
G	.875 (22.2 mm)	.875-.906 (22.2 mm - 23 mm)
H	.0938 (2.38 mm)	.125 (3.175 mm)
J	.281(7.13 mm)-.291(7.39 mm) x 90°	.353 (9 mm)-.363 (9.2 mm) x 90°

\*all dimensions are inches/millimeters

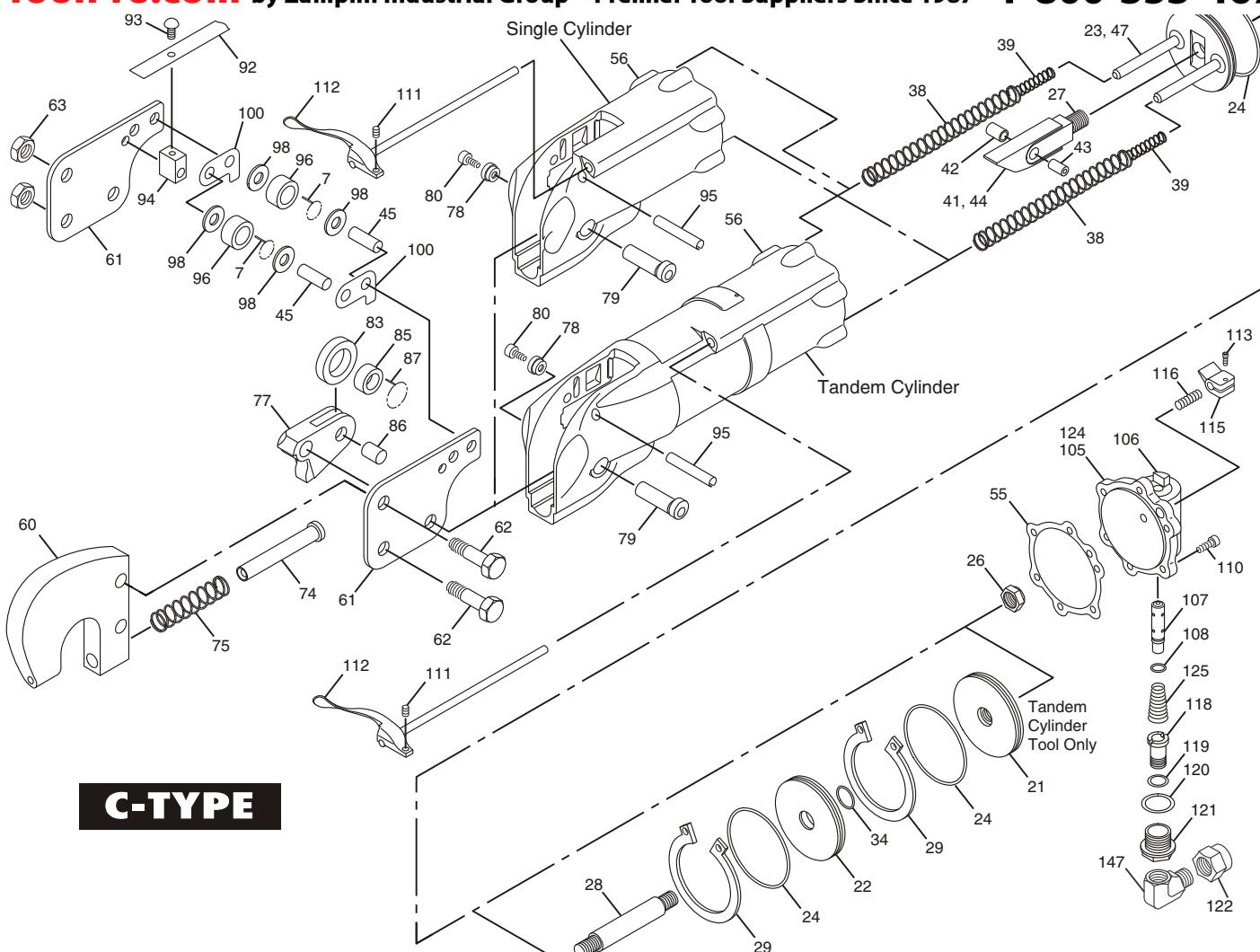
When ordering spare parts, give Name, Speed or Size, Model and Serial Number of the tool, and Part Number and Description of each part desired.



ALLIGATOR JAW TABLE

Index No. 1 Stationary Jaw	Index No. 4 Moving Jaw	Reach (Inches)	Rivet Set Shank
P080051	P154195	1.5	CR-1
P018718	P154196	1.5	CR-2
P106129	P106130	2.25	CR-1
P112094	P112095	2.25	CR-2
P106131	P106132	3	CR-1
P112096	P112097	3	CR-2

Index No.	Part No.	Description	No. Req'd.	Index No.	Part No.	Description	No. Req'd.
1		Jaws-Stationary (See Jaw Table)	1	45	P080069	Shaft-Roller (Short)	
4		Jaw-Moving (See Jaw Table)	1	46	P080070	Shaft-Roller (Long)	1
7	S067191	Roller-Needle	104	47	P078248	Piston & Guide	1
8	P080081	Race-Inner	1	49	S082840	Ring-Retaining	1
9	P080082	Washer-Thrust	1	50	P078599	Roller Assembly-Stationary Jaw	2
10	P074811	Nut-Bolt	1	51	P080072	(Incl: 1 of Index No. 52 & 20 of Index No. 7)	1
11	P080084	Washer-Bolt	1	52	P080067	Washer-Roller Thrust	4
12	P080083	Bearing-Bolt	1	55	P080085	Roller-Jaw	2
15	P078601	Roller Assembly-Moving Jaw	1	56	P089357	Gasket-Cylinder Head	1
		(Incl: Index Nos. 16, 17 & 29 of Index No. 7)		57	P057195	Cylinder	1
16	P080079	Race-Inner	1	58	C086065	Cylinder (Tandem Cylinder Tool)	4
17	P080078	Roller-End	1	59	P126226	Screw-Nameplate (Not Shown)	1
18	P080080	Shaft-Bearing	1	105	P032454	Nameplate (Not Shown)	1
19	P080037	Spring-Return	1	106	P088839	Head-Cylinder (Incl: Index No. 106)	1
20	P156847	Pin-Spring	1	107	P084203	Bushing-Throttle Valve	1
21	P057186	Piston-Tandem (Tandem Cylinder Tool)	1	108	C079489	Valve-Throttle	1
22	P057190	Separator (Tandem Cylinder Tool)	1	109	P073153	O-Ring (-008)	6
23	P057192	Piston & Guide	1	110	C112829	Screw-Hex Skt (#10-24x 1/2")	1
24	P057185	O-Ring (-136)	2	111	C112829	Screw-Hex Skt (#10-24x 3/8")	1
26	S086843	Nut-Piston Rod	1	112	P117653	Lever-Throttle (Incl: Index No. 111)	1
27	P080060	Fork-Piston Rod	1	113	P083234	Screw-Hex Skt (#6-32x 3/8")	1
		Fork-Piston Rod (Tandem Cylinder Tool)	1	115	P117655	Arm-Lever	1
28	P057191	Rod-Piston (Tandem Cylinder Tool)	1	116	P032986	Spring	1
29	P057588	Ring-Retaining (Tandem Cylinder Tool)	2	118	P080103	Swivel-Air Inlet	1
34	P083082	O-Ring (-112) (Tandem Cylinder Tool)	1	119	P080104	Seat-Swivel	1
35	P004149	Screw-Machine (#8-32x 1/4")	1	120	P080101	Gasket-Swivel Nut	1
36	P113149	Guard-Roller	1	121	P080102	Nut-Swivel	1
38	P080066	Spring-Piston Return (Outer)	2	122	P080105	Connector-Swivel Head	1
39	P080065	Spring-Piston Return (Inner)	2	124	P121598	Head Assembly (Incl: Index Nos. 105 thru 108, 118 thru 122, 125 & 147)	1
41	P080062	Wedge	1	125	P121581	Spring-Throttle Valve	1
42	P057187	Wedge (Tandem Cylinder Tool)	1	147	C091451	Elbow	1
43	P080064	Rivet-Wedge Spacer	1				
44	P080063	Spacer-Wedge	1				
		Wedge Assembly-Fork	1				
		(Incl: Index Nos. 27, 41, 42 & 43)					
		Wedge Fork Assembly (Tandem Cylinder Tool)	1				
		(Incl: Index Nos. 27, 41, 42 & 43)					



## C-TYPE

<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>No. Req'd.</b>	<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>No. Req'd.</b>
7	S067191	Roller-Needle	40	78	P080216	Washer-Screw	1
21	P057186	Piston-Tandem (Tandem Cylinder Tool)	1	79	P080215	Shaft-Lever	1
22	P057190	Separator (Tandem Cylinder Tool)	1	80	P105978	Screw-Hex Skt (#10-32x 3/8")	1
23	P057192	Piston & Guide	1	83	P080212	Roller-Lever	1
24	P057185	O-Ring (-136) (3 required for Tandem)	1	84	P078600	Roller Assembly-Lever (Incl: Index Nos. 83, 85 & 87)	1
26	S086843	Nut-Piston Rod	1	85	P080213	Race-Inner	1
27	P080060	Fork-Piston Rod	1	86	P080214	Shaft-Roller	1
	P057188	Fork-Piston Rod (Tandem Cylinder Tool)	1	87	P073927	Roller-Needle	32
28	P057184	Rod-Piston (Tandem Cylinder Tool)	1	92	P080203	Guard-Roller	1
29	P057588	Ring-Retaining (Tandem Cylinder Tool)	2	93	P004149	Screw-Machine (#10-32x 1/4")	1
34	P083082	O-Ring (-112) (Tandem Cylinder Tool)	1	94	P080204	Block-Guard	1
38	P080066	Spring-Piston Return (Outer)	2	95	S092110	Pin-Block	1
39	P080065	Spring-Piston Return (Inner)	2	96	P080067	Roller-Stationary	2
41	P080110	Wedge	1	97	P078599	Roller Assembly-Frame (Incl: 1 of Index No. 96 & 20 of Index No. 7)	2
	P057189	Wedge (Tandem Cylinder Tool)	1	98	P080072	Washer-Thrust	4
42	P080064	Rivet-Wedge Spacer	1	100	P080206	Plate-Guide	2
43	P080063	Spacer-Wedge	1	105	P032454	Head-Cylinder ( Incl: Index No. 106)	1
44	P106075	Wedge Fork Assembly	1	106	P088839	Bushing-Throttle Valve	1
	(Incl: Index Nos. 27, 41, 42 & 43)			107	P084203	Valve-Throttle	1
	P106077	Wedge Fork Assembly (Tandem Cylinder Tool)	1	108	C079489	O-Ring (-008)	1
	(Incl: Index Nos. 27, 41, 42 & 43)			110	P073153	Screw-Hex Skt (#10-24x 1/2")	6
45	P080069	Shaft-Roller (Short)	2	111	C112829	Screw-Hex Skt (#10-24x 3/8")	1
47	P078248	Piston (Consists of Index Nos. 23 & 24)	1	112	P117653	Lever-Throttle (Incl: Index No. 111)	1
55	P080085	Gasket-Cylinder Head	1	113	P083234	Screw-Hex Skt (#6-32x 3/8")	1
56	P113834	Cylinder	1	115	P117655	Arm-Lever	1
	P057196	Cylinder (Tandem Cylinder Tool)	1	116	P032986	Spring	1
58	C086065	Screw-Nameplate (Not Shown)	4	118	P080103	Swivel-Air Inlet	1
59	P126266	Nameplate (Not Shown)	1	119	P080104	Seat-Swivel	1
60	P098699	Yoke (CR-2)	1	120	P080101	Gasket-Swivel Nut	1
	P080217	Yoke (CR-1)	1	121	P080102	Nut-Swivel	1
61	P080202	Plate-Side	2	122	P080105	Connector-Swivel Head	1
62	P080220	Bolt-Yoke	2	124	P121598	Head Assembly (Incl: Index Nos. 105 thru 108, 118 thru 122, 125 & 147)	1
63	P073757	Nut-Yoke Bolt	2	125	P121581	Spring-Throttle Valve	1
74	P091971	Holder-Set (CR-2)	1	147	C091451	Elbow	1
	P080218	Holder-Set (CR-1)	1				
75	P091972	Spring-Set Holder (CR-2)	1				
	P080219	Spring-Set Holder (CR-1)	1				
77	P080211	Lever	1				