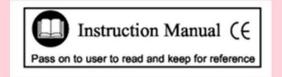
## **Original Instructions**



# G704B

COMPACT CHERRYMAX® POWER TOOL



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## THE G704B TOOL

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TM-G704B Rev.: C

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| •   |    |

#### WARRANTY

Seller warrants the goods conform to applicable specifications and drawings and will be manufactured and inspected according to generally accepted practices of companies manufacturing industrial or aerospace fasteners. In the event of any breach of the foregoing warranty, Buyer's sole remedy shall be to return defective goods (after receiving authorization from Seller) for replacement or refund of the purchase price, at the Seller's option. Seller agrees to any freight costs in connection with the return of any defective goods, but any costs relating to removal of the defective or nonconforming goods or installation of replacement goods shall be Buyer's responsibility. SELLER'S WARRANTY DOES NOT APPLY WHEN ANY PHYSICAL OR CHEMICAL CHANGE IN THE FORM OF THE PRODUCT IS MADE BY BUYER.

THE FOREGOING EXPRESS WARRANTY AND REMEDY ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES; ANY IMPLIED WARRANTY AS TO QUALITY, FITNESS FOR PURPOSE, OR MERCHANTABILITY IS HEREBY SPECIFICALLY DISCLAIMED AND EXCLUDED BY SELLER. THIS WARRANTY IS VOID IF SELLER IS NOT NOTIFIED IN WRITING OF ANY REJECTION OF THE GOODS WITHIN ONE (1) YEAR AFTER INITIAL USE BY BUYER OF ANY POWER RIVETER OR NINETY (90) DAYS AFTER INITIAL USE OF ANY OTHER PRODUCT.

Seller shall not be liable under any circumstances for incidental, special or consequential damages arising in whole or in part from any breach by Seller, AND SUCH INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES ARE HEREBY EXPRESSLY EXCLUDED.

For more information please contact our Technical Services Department at Tel. 714-850-6022

## **DESCRIPTION**

The Cherry® G704B riveter is a compact but powerful riveter designed for high productivity, reliable installation of the most popular sizes of aircraft blind fasteners.

## TECHNICAL SPECIFICATIONS

Cherry® Aerospace (CHERRY®) policy is one of continuous development. Specifications shown in this document may be subject to change which may be introduced after publication. For the latest information always consult CHERRY®.

AIR PRESSURE 90 to 110 PSI (6.2 to 7.6 bar)

STROKE ½ inch (11.1 mm)

MIN. PULLING-FORCE: 3,100 lbs @ 90 psi (16.7 kN @ 6.2 bar)

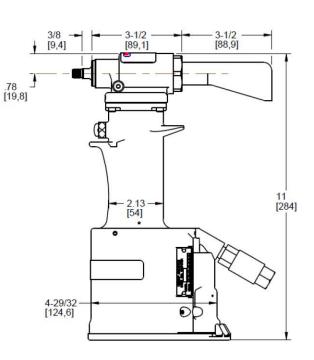
WEIGHT 4.25 lbs. (2.25 kg)

CYCLE TIME One Second Approximately

NOISE LEVEL 71 dB (A)

VIBRATION Less than 2.5 m/s<sup>2</sup>

AIR CONSUMPTION 3.9 CFM (110.5 liters/M) at 20 Cycles/Minute



## PUTTING THE TOOL IN SERVICE

The tool must be used with an air pressure regulator. Even if your shop air pressure is below the maximum recommended range, pressure spikes in your air-lines could cause serious damage to the tool or cause safety concerns.





|  | GENERAL OPERATION and SAFETY WARNINGS  |
|--|--|
|  | Wear proper PPE(Personal Protection equipment) when operating, servicing or repairing this tool  |
|  | Read Manual; operators must be trained in safety and correct tool operation  |
|  | Service and repairs shall be performed only by trained personnel.  |
| 77                                       | Do not pull rivet in the air or directed at any person.  |
|  | Do not use the tool with a damaged or missing stem deflector   |
|  | Rotate the Stem Deflector facing away from the operator or critical aircraft structure; use a Stem Catcher if possible.                    |
|  | Do not pound on the rear of the tool head to force rivets into holes.  |
|  | Make sure that the air muffler is not obstructed and is directed away from people.   |
| 110pai                                   | Do not exceed the recommended air pressure. To ensure safety, use the pre-set air pressure regulator P/N P1505.                            |
| *  | Make sure to disconnect from the air supply before service or repair.  |
|  | Wash thoroughly after handling hydraulic fluid.  |
| WRA/VOID  BY UN-AUTHORIZED MODIFICATIONS | Unauthorized modifications, including using substitute components will void warranty and shall be at the customer's entire responsibility. |

ACCEPT NO SUBSTITUTES

• Do not use any substitutions as they will impact the tool safety and reliability life.

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#### **OPERATING INSTRUCTIONS**







#### Before using the tool:

## **△** CAUTION **△**

- Read the tool manual instructions; before first using the tool.
- Read and comply to all safety instructions given in this document in addition to the general safety rules applicable
- Make sure the tool is connected to an air source operating within the recommended pressure range
- Before installing the permanent fasteners, make sure that the structure is properly clamped with temporary fasteners
- Make sure that the correct pulling head is selected for the fastener to be installed and that the tool is in good working condition

<u>Installing Fasteners:</u> Place the fastener into the prepared hole then place the pulling head over its stem and depress the trigger.

## PULLING HEAD SELECTION FOR BLIND FASTENERS

The lists given below are for reference only; for more up to date and detailed information, please check on the Cherry
Aerospace webpage as following: <a href="Installation Tooling Manuals">Installation Tooling Manuals</a>(links to current tool manuals) and <a href="Product Expert">Product Expert</a> (interactive database for tool recommendations)

| Fastener Type                            | Part Number<br>PH to use           | Туре        | Adapter                      | Rivet Diameters               | Max. Grip <sup>1</sup> |
|--|------------------------------------|-------------|------------------------------|-------------------------------|------------------------|
|  | H701B-456                          | Straight    | NONE                         | -4, -5 & -6 <sup>2</sup>      | All                    |
| CherryMAX <sup>®</sup> Bulb              | H747-456 <sup>5</sup>              | Straight    | NONE                         | -4, -5 & -6 <sup>2</sup>      | All                    |
| (CR3XXX)                                 | H753A-456 <sup>5</sup>             | Right Angle | NONE                         | -4, -5 & -6 <sup>2</sup>      | All                    |
| Cherry SST                               | H781-456, H781A-456                | Offset      | NONE                         | -4, -5 & -6 <sup>2</sup>      | All                    |
| (CR6XXX)                                 | H782                               | Oliset      | NONE                         | -4, -5 & -6 <sup>2</sup>      | All                    |
|  | H701B-456                          | Ctrainlet   | NONE                         | -4, -5 & -6 <sup>2</sup>      | -04 <sup>1</sup>       |
|  | H747-456 <sup>5</sup>              | Straight    | NONE                         | -4, -5 & -6 <sup>2,3</sup>    | -04 <sup>1</sup>       |
| CherryMAX <sup>®</sup> AB                | H753A-456 <sup>5</sup>             | Right Angle | NONE                         | -4, -5 & -6 <sup>2,3</sup>    | -04                    |
| (CR4XXX)                                 | H781-456, H781A-456                | 0554        | NONE                         | -4, -5 & -6 <sup>2,3</sup>    | -04 <sup>1</sup>       |
|  | H782                               | Offset      | NONE                         | -4, -5 & -6 <sup>2,3</sup>    | -04 <sup>1</sup>       |
|  | H701B-456                          | Ctualulat   | NONE                         | -4 & -5 only                  | All                    |
| ® -                                      | H747-456 <sup>5</sup>              | Straight    | NONE                         | -4 & -5 only                  | All                    |
| MaxiBolt <sup>®</sup> S                  | H753A-456 <sup>5</sup>             | Right Angle | NONE                         | -4 & -5 only                  | All                    |
| (CR7XXXS)                                | H781-456, H781A-456                | Offset      | NONE                         | -4 & -5 only                  | All                    |
|  | H782                               | Oliset      | NONE                         | -4 & -5 only                  | All                    |
|  | H701B-456                          | Straight    | NONE                         | -4, -5 & -6                   | -04                    |
| MDC L/C                                  | H747-456 <sup>5</sup>              | Ottalgrit   | NONE                         | -4, -5 & -6                   | -04 <sup>1</sup>       |
| MBC L/C<br>(Lock Creator)                | H753A-456 <sup>5</sup>             | Right Angle | NONE                         | -4, -5 & -6                   | -04                    |
| (Lock oreator)                           | H781-456, H781A-456                | Offset      | NONE                         | -4, -5 & -6                   | -04 <sup>1</sup>       |
|  | H782                               | - Oliset    | NONE                         | -4, -5 & -6                   | -04 <sup>1</sup>       |
| MBC<br>(No Lock Creator)                 | H746-4MBC (0R 5MBC, 6MBC)          | Straight    | None                         | -4, -5 OR -6                  | -04 <sup>1</sup>       |
|  | H747-3A                            | Ctroight    | NONE                         | -3 ONLY                       | -04 <sup>1</sup>       |
| CherryLock "A"<br>(CR2X7X)               | H955-3 (or -4, -5, -6)             | - Straight  | NONE                         | -3, -4, -5 OR -6 <sup>3</sup> | -04 <sup>1</sup>       |
| (CNZX/X)                                 | H886-3 (or -4, -5, -6) Right Angle | NONE        | -3, -4, -5 & -6 <sup>3</sup> | -04                           |                        |
| MS <sup>4</sup> (CR9XXX)<br>NPR (CCR264, | H747-3NPR,<br>H902-3NPR            |             | NONE                         | -3 DIA. ONLY                  | -04 <sup>1</sup>       |
| CCR274)                                  | H902-4NPR                          | Straight    | NONE                         | -4 DIA. ONLY                  | -04 <sup>1</sup>       |
| SPR (CR1122)                             | H9015-3C (or -4C, -5C, -6C)        |             | 704A9                        | -3, -4, -5 & -6               | -04 <sup>1</sup>       |
| Tacking Rivet<br>(CCR284, CCR294)        | H9040-4C (or -5C, -6C, -8C)        | 1           | 704A6                        | -4, -5, -6 & -8               | -04 <sup>1</sup>       |

#### Notes:

- $^{1}$  On the first trigger; Longer grips may require a second activation of the trigger .
- <sup>2</sup> Nominal and oversized diameters.
- <sup>3</sup> Alloy Steel and Monel only; no -6 diameter (3/16) Aluminum.
- <sup>4</sup> Serrated stems only.

<sup>&</sup>lt;sup>5</sup> This tool may be set-up to install other types and sizes of fasteners; see Tool Manual for details.

## PULLING HEAD SELECTION FOR RIVETLESS NUTPLATE PRODUCTS

| Structures | Installation<br>Pulling Head | Removal Tool | For use with these RNP products |
|------------|------------------------------|--------------|---------------------------------|
|            | H704-223NP                   | -            | CNP06C3                         |
|            |                              |              | CNP01C3                         |
|            |                              |              | CNP03C08, CNP03C3               |
|            | H704-249NP                   | R721-3-30    | CNP05C3                         |
|            |                              |              | CNP14C3                         |
|            |                              |              | CNP15CM4, CNP15CM5              |
|            | H704-273NP                   | -            | CNP56C3                         |
|            | H704-280NP                   | R721-3-60    | CNP11C08                        |
|            | 1704-200NP                   | K121-3-00    | CNP11C3                         |
| ALUMINUM   | H704-295NP                   | -            | CNP20C3                         |
| ALUMINUM   | H704-311NP                   | R721-4-30    | CNP03C4                         |
|            |                              |              | CNP14C4                         |
|            |                              |              | CNP15CM6                        |
|            |                              |              | CNP16C3                         |
|            | H704-343NP                   | R721-4-60    | CNP02C4                         |
|            |                              |              | CNP11C4                         |
|            |                              |              | CNP16C3                         |
|            | H704-358NP                   | R721-5-12    | CNP20C4                         |
|            | H704-223NP                   | -            | CNP06C3                         |
|            | H704-295NP                   | -            | CNP20C3                         |
|            | H704-275NPC                  | R721-275     | CNP53C3                         |
|            | H704-290NPC                  | -            | CNP63C3                         |
| COMPOSITE  | H704-305NPC                  | -            | CNP51C3                         |
|            | H704-320NPC                  | -            | CNP61C3                         |
|            | H704-368NPC                  | -            | CNP51C4                         |

## **PULLING HEAD EXTENSIONS AVAILABLE**

| Extension P/N | Extends Pulling Head by | Removal Tool                         |
|---------------|-------------------------|--------------------------------------|
| 704A12-2      | 2"                      | Extension for straight pulling heads |
| 704A12-4      | 4"                      | Extension for straight pulling heads |
| 704A12-6      | 6"                      | Extension for straight pulling heads |
| 704A12-12     | 12"                     | Extension for straight pulling heads |
| 753B21        | 2-3/16"                 | Extension for H753A-456 and H886     |

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#### RIVETER REPAIR AND MAINTENANCE







This riveter has been manufactured to give maximum service with minimum care. In order to keep the tools in optimum operating condition, it is advisable to set-up a Preventive Maintenance check list including, at a minimum, the following:

- Visually inspect the tool to make sure it is in good working condition and there are no fluid leaks
- Make sure the tool is bled regularly (page 15)
- Check the service sticker due date; service the tools on a regular basis.

Should repair or service be necessary, follow the instructions given below.

## **△** CAUTION △

- Read the tool manual instructions; it is advised that repair is conducted only by properly trained personnel.
- · Make sure the air is disconnected.
- Protect the sealing surfaces to avoid damage.

## **Tools and Service Kits Needed**

- Make sure that the proper service kit (*ordered separately*) and tools are available.
  - o SERVICE KIT: G704KS –(contains Springs, Seals, O-Rings and Back-up Rings
  - o TOOLS: G701/G704KT tool kit and a Needle Nose Pair of Pliers



## SERVICE PROCEDURE

#### Tools Needed:

700B65 (Packing Plug Wrench), 700A61 (Piston Rod Wrench), 700A62 (Power Cylinder Tool), 700A60 (Seal Guide), 9/64" Hex Key, A Bent Hook

#### **Disassembly Instructions:**

• Remove the Pulling Head (if any installed) then remove the Head Cylinder (1) by unthreading the four Cap Screws (18)

#### **HEAD SUBASSEMBLY**

#### Tools Needed:

701A67 (Seal Guide), 1-3/8 Standard Wrench, 1/8" and 9/64" Hex Keys

#### **Disassembly Instructions:**

- Remove end cap (12) and push the head piston (7) out carefully.
- O-rings (5, 8) and Back-up Ring (6) can be removed and replaced using a bent hook.

#### Re-assembly Instructions – Use the 701A67 Guide over the Piston threads to protect the seals.

Replace all O-Rings and Backup rings then re-assemble by reversing the directions given above.

## POWER HANDLE SUBASSEMBLY

#### **Tools Needed:**

700B65 (Packing Plug Wrench), 700A61 (Piston Rod Wrench), 700A62 (Power Cylinder Tool), 700A60 (Seal Guide), 9/64" Hex Key, A Bent Hook

#### **Disassembly Instructions:**

- Remove the Head Cylinder (1) and set it aside
- Drain all the fluid, then turn up-side down and remove the bottom covers (38 through 42);
- Push the power piston all the way down and unthread the locknut (37) and then remove the air piston (36) by using wrench 700B65; hold the top of the piston with tool 700A61 to prevent it from turning. Push piston out when completely unthreaded
- Remove packing plug (33) with the help of wrench 700B65.
- Tap the power cylinder (25) from the top (use tool 700A62); when loosened, it will fall through the bottom of the handle.
- Remove all the seals and inspect all components for wear. Replace all seals and worn components

#### **Assembly Instructions:**

- The re-assembly sequence is the opposite of disassembly; to prevent damage to piston threads; suggested tightening torque for the locknut (37) between 50 and 59 in.-lb. (5.65 and 6.67 N-m).
- After service, the riveter must be primed and bled (page 14)

## **AIR VALVE SUBASSEMBLY**

#### Tools Needed:

P1178 (Valve Extractor), 836B700 (Spring Installation Tool), 837B700 (Valve Sleeve Removal Tool), Needle Nose Pliers

#### **Disassembly Instructions:**

- Remove retaining ring (54) and muffler (53).
- Pull out the valve plug (52) and the Valve Spool (47) with the help of extractor P1178;
- Dislodge and pull the spring (45) out using needle-nose pliers
- In the unlikely event that you want to pull the Valve Sleeve (44), use the tool 837B700 (internal expansion collet).

#### Assembly Instructions:

- Replace all O-Rings and apply an O-ring lubricant (Parker® silicone lube or equivalent).
- To re-assemble, reverse the procedure given above; snap the Spring (45) into its groove with the help of tool 836B700

## G704B - COMPONENT LIST AND OTHER ACCESSORIES\*

|    | lte | m  | P/N     | Description       | Qty |    | ltem | P/N     | Description             | Qty |
|----|-----|----|---------|-------------------|-----|----|------|---------|-------------------------|-----|
| 94 | 1   | l  | 704B35  | Head assy         | 1   | 19 |      | 704-086 | Handle assy (continued) | 1   |
|    |     | 2  | 704C18  | Head Cylinder     | 1   |    | 28   | P830    | O-ring                  | 1   |
|    |     | 2A | 704B2-2 | Nose fitting      | 1   |    | 29   | 700-248 | Power piston rod        | 1   |
|    |     | 3  | P701    | O-ring            | 2   |    | 30   | P727    | O-ring                  | 1   |
|    |     | 4  | P998    | Back-up ring      | 1   |    | 31   | P838    | O-ring                  | 2   |
|    |     | 5  | P931    | O-ring            | 1   |    | 32   | P115    | Back-up ring            | 2   |
| 1  |     | 6  | P1000   | Back-up ring      | 1   |    | 33   | 700B93  | Packing plug            | 1   |
| 1  |     | 7  | 704C3   | Head piston       | 1   |    | 34   | P731    | Back-up ring            | 2   |
|    |     | 8  | P870    | O-ring            | 2   |    | 35   | P730    | Quad ring               | 1   |
|    |     | 9  | P572    | Stat-o-seal       | 1   |    | 36   | 700B6   | Air piston              | 1   |
|    |     | 10 | P573    | Button head screw | 1   |    | 37   | P737    | Canelok nut             | 1   |
|    |     | 11 | P112    | O-ring            | 1   |    | 38   | P725    | O-ring                  | 1   |
| ı  |     | 12 | 704B4   | Back cap          | 1   |    | 39   | 700B4   | Handle base             | 1   |
|    |     | 13 | P880    | Retaining ring    | 1   |    | 40   | P735    | Retaining ring          | 1   |
| ı  |     | 14 | 703A13  | Deflect fitting   | 1   |    | 41   | 700D107 | Base cover              | 1   |
|    |     | 15 | 530A16  | Pin deflector     | 1   |    | 42   | P736    | Retaining ring          | 1   |
|    | 1   | 6  | P832    | O-ring            | 1   |    | 43   | P653    | O-ring                  | 4   |
|    | 1   | 7  | 700A22  | Gasket            | 1   |    | 44   | 700B96  | Valve sleeve            | 1   |
|    | 1   | 8  | P27     | Soc hd cap screw  | 4   |    | 45   | 700A67  | Spring                  | 1   |
|    | 1   | 9  | 704-086 | Handle assy       | 1   |    | 46   | P829    | O-ring                  | 3   |
| 1  |     | 20 | 703A33  | Trigger assy      | 1   |    | 47   | 700A94  | Spool Valve Assy.       | 1   |
|    |     | 21 | P223    | O-ring            | 1   |    | 48   |         | Valve spool             | 1   |
|    |     | 22 | 703A32  | Trigger sleeve    | 1   |    | 49   |         | Filter                  | 1   |
|    |     | 23 |         | Trigger           | 1   |    | 50   |         | Metering screw          | 1   |
|    |     | 24 | 703A11  | Handle            | 1   |    | 51   | P834    | O-ring                  | 2   |
|    |     | 25 | 700-247 | Power cylinder    | 1   |    | 52   | 700A16  | Valve plug mold         | 1   |
|    |     | 26 | P833    | O-ring            | 2   |    | 53   | 700A17  | Muffler                 | 1   |
|    |     | 27 | P739    | Back-up ring      | 1   |    | 54   | P279    | Retaining ring          | 1   |

Do not use third party or substitute components, as it may cause significant damage to the tool.

#### Also recommended but not included with the riveter:

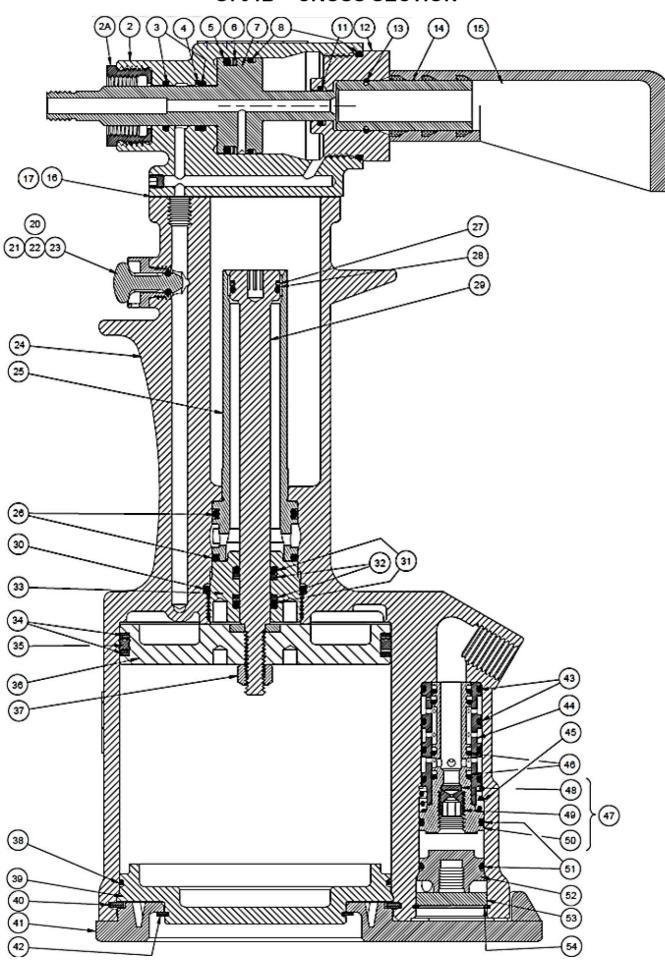
| P/N          | Description              | Qty. | Comment  |
|--------------|--------------------------|------|--|
| 700A77       | Air Bleeder              | 1    | For Regular Up-Keep Of The Hydraulic System              |
| P1505        | In-Line Press. Regulator | 1    | To Prevent Air Spikes, If Regulated Air Is Not Available |
| 670A20       | Canvas Bag               | 1    | For FOD Control (To Contain Spent Pins)                  |
| RIVAC 220-03 | Vacuum Stem Collector    | 1    | Use This Instead Of 670A20 For FOD Control               |

<sup>\*</sup>Reference Cross Section Drawing G704B

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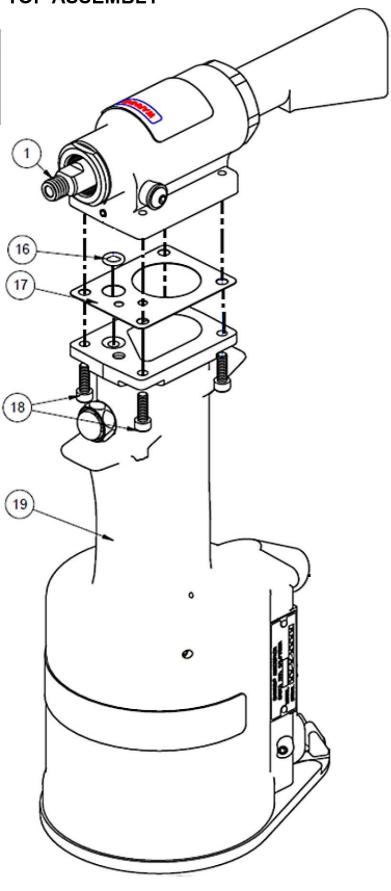
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## **G704B - CROSS SECTION**



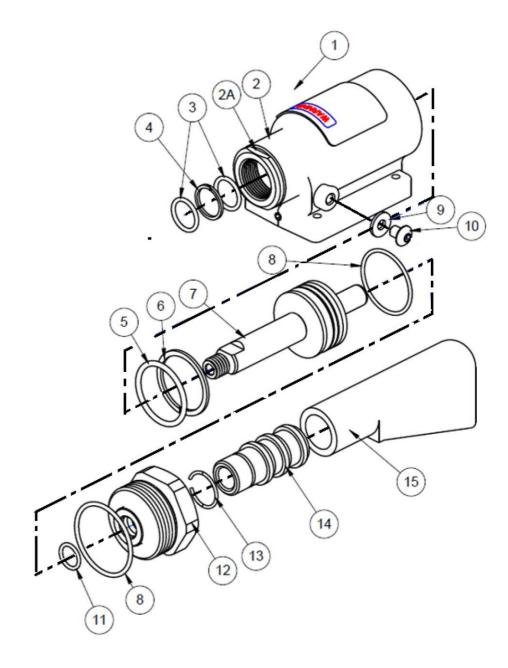
## G704B TOP ASSEMBLY

| ITEM | P/N     | DESCRIPTION        | QTY. |
|------|---------|--------------------|------|
| 1    | 704B35  | Head assy.         | 1    |
| 16   | P832    | O-ring             | 1    |
| 17   | 700A22  | Gasket             | 1    |
| 18   | P27     | Soc. hd. cap screw | 4    |
| 19   | 704-086 | Handle assy.       | 1    |



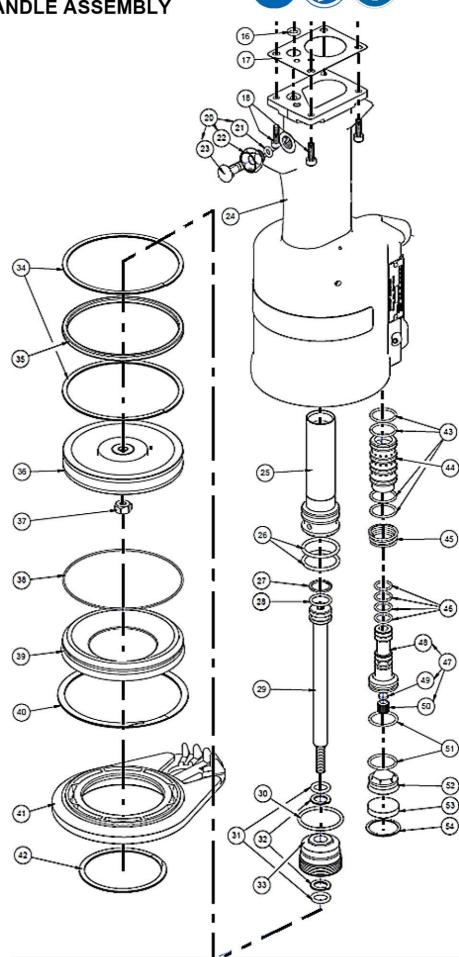
## 704B35 HEAD CYLINDER ASSEMBLY

|          | P/N     | Description       | Qty |
|----------|---------|-------------------|-----|
| 2 704C18 |         | Head Cylinder     | 1   |
| 2A       | 704B2-2 | Nose fitting      | 1   |
| 3        | P701    | O-ring            | 2   |
| 4        | P998    | Back-up ring      | 1   |
| 5        | P931    | O-ring            | 1   |
| 6        | P1000   | Back-up ring      | 1   |
| 7        | 704C3   | Head piston       | 1   |
| 8        | P870    | O-ring            | 2   |
| 9        | P572    | Stat-o-seal       | 1   |
| 10       | P573    | Button head screw |     |
| 11       | P112    | O-ring            | 1   |
| 12       | 704B4   | Back cap          |     |
| 13       | P880    | Retaining ring    |     |
| 14       | 703A13  | Deflect fitting   | 1   |
| 15       | 530A16  | Pin deflector     | 1   |



## 704-086 POWER HANDLE ASSEMBLY

| Item |                | P/N     | Description       | Qty |
|------|----------------|---------|-------------------|-----|
| 2    | 20             | 703A33  | Trigger assy      | 1   |
|      | 21             | P223    | O-ring            | 1   |
|      | 22             | 703A32  | Trigger sleeve    | 1   |
|      | 23             | 530A38  | Trigger           | 1   |
| 2    | 24             | 703A11  | Handle            | 1   |
| 2    | 25             | 700-247 | Power cylinder    | 1   |
| 2    | 26             | P833    | O-ring            | 2   |
| 2    | 27             | P739    | Back-up ring      | 1   |
| 2    | 28             | P830    | O-ring            | 1   |
| 2    | <u> 1</u> 9    | 700-248 | Power piston rod  | 1   |
| (r)  | 30             | P727    | O-ring            | 1   |
| 3    | 31             | P838    | O-ring            | 2   |
| (T)  | 32             | P115    | Back-up ring      | 2   |
| 3    | 33             | 700B93  | Packing plug      | 1   |
| (r)  | 34             | P731    | Back-up ring      | 2   |
| (1)  | 35             | P730    | Quad ring         | 1   |
| m    | 86             | 700B6   | Air piston        | 1   |
| m    | 37             | P737    | Canelok nut       | 1   |
| (1)  | 88             | P725    | O-ring            | 1   |
| (T)  | 89             | 700B4   | Handle base       | 1   |
| 4    | Ю              | P735    | Retaining ring    | 1   |
| 4    | <b>l</b> 1     | 700D107 | Base cover        | 1   |
| 4    | <b>l</b> 2     | P736    | Retaining ring    | 1   |
| 4    | 13             | P653    | O-ring            | 4   |
| 4    | 14             | 700B96  | Valve sleeve      | 1   |
| 4    | <b>!</b> 5     | 700A67  | Spring            | 1   |
| 4    | <del>l</del> 6 | P829    | O-ring            | 3   |
| 4    | 17             | 700A94  | Spool Valve Assy. | 1   |
|      | 48             | 700B95  | Valve spool       | 1   |
|      | 49             | 700A18  | Filter            | 1   |
|      | 50             | 700A69  | Metering screw    | 1   |
| 5    | 51             | P834    | O-ring            | 2   |
| 5    | 52             | 700A16  | Valve plug mold   | 1   |
| 53   |                | 700A17  | Muffler           | 1   |
| 5    | 54             | P279    | Retaining ring    | 1   |



Open flash point:

#### PRIMING THE HYDRAULIC SYSTEM

## RECOMMENDED HYDRAULIC FLUID

The riveter is supplied with **Dexron® III ATF type "A"**.

Specific gravity: 0.863
Weight per gallon: 7.18 lbs.



>200°C (392°F)



#### COMPATIBLE ALTERNATE FLUIDS

- Automatic Transmission Fluids: DEXRON IV, MERCON, Allison C4 or equivalent.
- Hydraulic Fluids: Hyspin® VG32, Aeroshell fluid 4

## **△** CAUTION **△**

- DO NOT MIX DIFFERENT TYPES OF HYDRAULIC OILS AND TRANSMISSION; HYDRAULIC AND TRANSMISSION FLUIDS ARE NOT COMPATIBLE DIFFERENT TYPES OF FLUIDS MAY NOT BE COMPATIBLE WITH EACH OTHER.
- PHYSICAL PROPERTIES AND MATERIAL SAFETY DATA SHEETS FOR DIFFERENT FLUIDS MAY DIFFER FROM THE ONE GIVEN BELOW, BUT THE SAFETY INFORMATION STILL APPLIES; CHECK WITH THE FLUID MANUFACTURER FOR ADDITIONAL MSDS AND SPECIFIC PROPERTIES.

#### **FLUID HANDLING SAFETY**

|                |   | ,   |
|----------------|---|---|
|                | <b>v</b>  | Waste Disposal in accordance with the applicable regulations  |
|                |   | Soak up spills with diatomaceous earth or other inert materials.  |
|                |   | Keep from drains, sewers and water courses.   |
| ENVIRONMENTAL  |   | Filter and recycle used fluid; otherwise store and dispose of according to the applicable regulations.  |
| HANDLING       | Approved Personal Protective Equipment must be worn | <ul> <li>Eye protection is required.</li> <li>Protective gloves, chemically resistant boots and apron are recommended.</li> </ul>   |
|                |   | Florit the second leavest the second s  |
|                |   | Flush eyes thoroughly with water.  It is in the standard and a standard and  |
|                |   | If irritation develops, consult a physician.  |
|                |   | To prevent inhalation, use in well-ventilated area.   |
|                |   | Short term exposure should pose no adverse health effects.  |
|                |   | If inhalation occurs, remove the affected person from the   |
|                |   | contaminated area and apply artificial respiration if needed.   |
|                |   | DO NOT INDUCT VONITING  |
|                |   | DO NOT INDUCE VOMITING.  Cook was disclosed at the state of the s |
| FIRST AID      |   | Seek medical attention immediately.   |
| -              | #   | In case of skin contamination:  |
|                |   | Wash thoroughly with soap and water as soon as possible.  |
|                |   | Brief skin contact requires no immediate attention.   |
|                |   | If irritation develops, consult a physician.  |
|                | CAUTION   | It is slightly combustible when heated above flash point.   |
|                | CAUTION   | It will release flammable vapors which can burn in open or be   |
|                |   | explosive in confined spaces if exposed to source of ignition.  |
|                |   | Do not store near open flames or other sources of ignition.   |
|                | <b>5</b>  | In case of fire, use only suitable extinguishing media:   |
| COMBUSTIBILITY |   | CO2, dry powder, foam or water fog.   |
|                |   | CAUTION: DO NOT USE WATER JETS.   |
|                |   |   |

#### PRIMING THE TOOL

After service, the riveter must be primed with hydraulic fluid before re-assembling the head cylinder.

What is needed: 1/8" and 9/64" Hex Keys; 700A77 Bleed Bottle

Before priming, push power piston (29) all the way down.

- Fill the handle subassembly (19) with hydraulic fluid to about 1/8" below the top.
- Make sure that the O-Ring (16) and Gasket (17) are in place and assemble the Head Cylinder (1) by tightening the cap screws (18) evenly, one at a time.
- Bleed the system per instructions below.

### **BLEEDING INSTRUCTIONS**

This operation should be done when priming a serviced tool and as part of regular tool maintenance in order to replenish the hydraulic fluid and remove the air bubbles from the hydraulic fluid.

What is needed:, an 1/8" Hex Key; 700A77 Bleed Bottle

- Remove the side Screw (10) and attach the Bleeder Bottle 700A77 upside down (see on the right).
- Cycle several times, changing the position of the tool every few cycles; make sure the empty part of
  the bleed bottle is always the highest part of the tool; note if there are air bubbles coming through
  the bleed bottle. Continue cycling the tool until no more air bubbles are released into the bottle.
- When done, re-assemble the Screw (10) and Stat-O-Seal (9)



## TROUBLESHOOTING GUIDE

| PROBLEM   | POSSIBLE CAUSE   | LIKELY SOLUTION  |
|---|--|--|
| Piston (7) does not<br>move after depressing<br>Trigger | No air supply is connected     Faulty trigger (20)     Faulty power piston( 27-29)     Valve Spring (45) not correctly installed | Make sure the riveter is connected to an air source.     Remove and replace trigger assembly.     Service the Handle Subassembly (19).     Service the Air Valve; make sure the Spring is properly engaged in its groove |
| Short piston stroke or low pulling force                | Air bubbles in the hydraulic fluid   | Bleed per instructions above   |
| Head piston (7) is slow<br>or it seizes                 | Possible Head Cylinder (1) damage.     Dirty/Clogged air muffler (53)  | Service the Head Cylinder     Clean muffler thoroughly with solvent and back-blow with compressed air; replace if necessary.   |
| Fluid leakage at the<br>Head Cylinder (1)               | Leaks around the gasket (17)     Leaks at the front or back of head cylinder (1)   | Tighten screws (18) until no more leaks are observed; if it still leaks, the gasket and O-Ring (16,17) must be replaced.     Replace O-Rings (3) and Backup ring (4)   |
| Fluid leakage at the side hole of the handle            | Worn Packing Plug Seals (31,32)  | Service Handle (19)  |
| Air leakage at the air valve                            | <ol> <li>Broken or dislodged valve spring (45)</li> <li>Worn or damaged Valve Spool seals (46,51)</li> </ol>                     | Service the Air valve (43 through 54)  |
| Slow / Sluggish cycle                                   | Muffler(53) or Spool (47) are clogged up   | Service the Air valve (43 through 54)  |

USATCO U.S. Air Tool Company, Inc.

Info@usatco.com

# **Declaration of Conformity**

We, Cherry Aerospace

Located at 1224 East Warner Avenue, Santa Ana, CA 92705-0157, USA,

In accordance with the provisions of

#### Machine Directive 2006/42/EC

Hereby declare under our sole responsibility that:

Equipment: Pneumatic Hydraulic Hand Riveter

Model Number: G704B

| Serial Number:           | Date:   |
|--------------------------|---|
| Is in conformity with th | e applicable requirements of the following standards:                           |
| EN ISO 12100:2010        | Safety of Machinery; General Principles; Risk Assessment and Reduction          |
| ISO/TR 14121-1&2:2007    | Safety of Machinery, Risk assessment  |
| EN 792-1:2000 + A1:2008  | Safety requirements; Assembly power tools for non-threaded mechanical fasteners |
| ISO 8662-11              | Hand-held portable power tools Measurement of vibrations at the handle          |
| ISO 3744                 | Acoustics – Determination of sound power levels of noise sources                |
| ISO 4413:2010.           | Hydraulic fluid power - General Rules of safety                                 |
| ISO 4414:2010.           | Pneumatic fluid power - General Rules of safety                                 |
|                          |   |
|                          |   |

Signed by:

Cris Cobzaru, Sr. Technical Services / Installation Tooling Engineer

Master of Science in Mechanical Engineering

## The Technical documentation for the machinery is available from:

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Position: CE Representative and Western Europe Sales Manager

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Or e-mail Cherry Technical Services at: SAO.TechSvcs@cherryaero.com