
CRT-90

COLLAR REMOVING TOOL
For 90 mm Collars

INSTALLATION AND OPERATION INSTRUCTION MANUAL



**Warning! Warranty is voided if Enerpac® Oil is not used exclusively in the foot pump. Warranty is also void if the foot pump is not vented before use!
See section 5.0 for details.**

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!!!DANGER!!!

**DO NOT USE THIS EQUIPMENT TO
PURGE TOXIC OR FLAMMABLE GAS**

AND

**DO NOT USE THIS EQUIPMENT
UNDER FLAMMABLE, VOLATILE OR
TOXIC ENVIRONMENTAL
CONDITIONS**

1.0 INTRODUCTION

The CRT-90 Collar Removing Tool is a tool designed to remove 90 mm Collars from a Cylinder in 60 seconds or less. The CRT-90 removes the Collar by use of Hydraulic Ram force. The Collar is released from the tool by disassembly of the tool from the Collar. The CRT-90 has been designed with a convenient Lifting Eye for use with an Overhead Hoist.

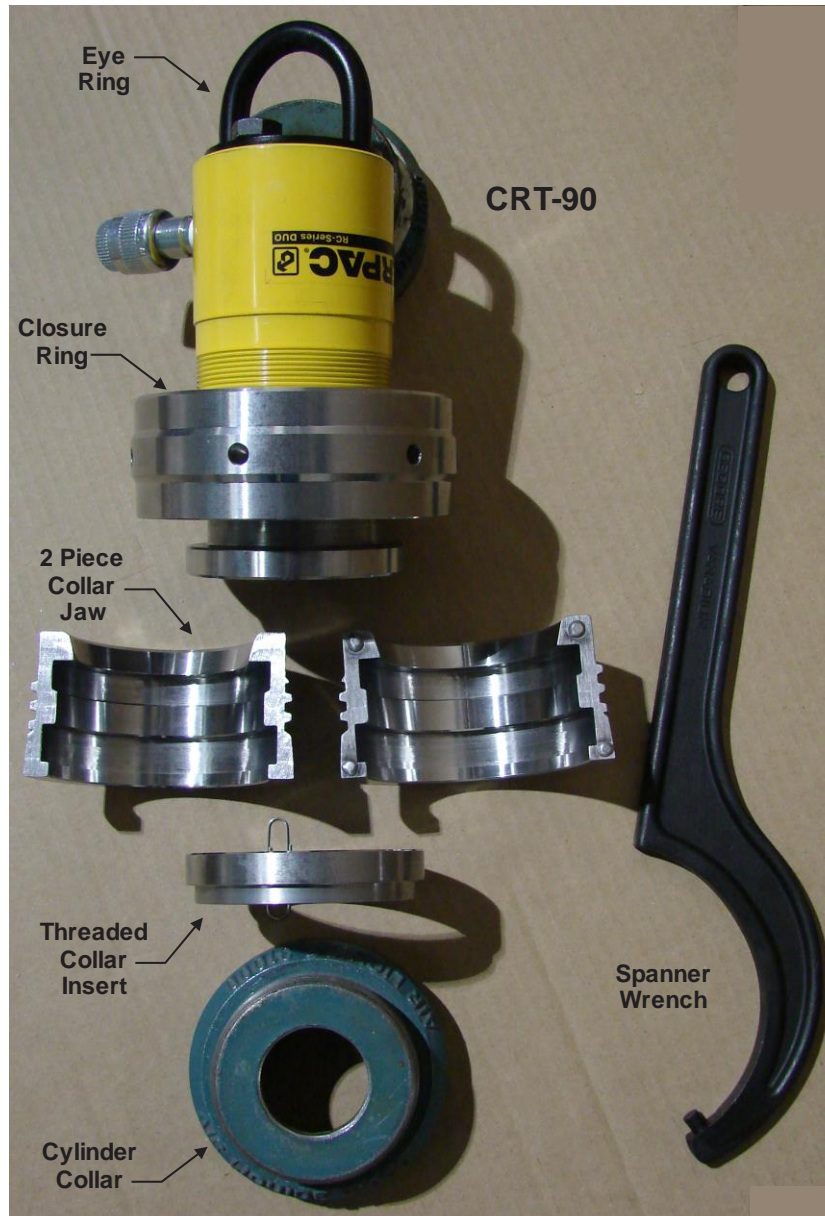


Figure 1, CRT-90 Components

2.0 SPECIFICATIONS

Dimensions: 11"H x 6.5" Dia.

Weight: 25.5 lbs

Capability: Removal of a minimum of 30 collars per hour. Collar removal time is approximately 60 seconds. Ram return time is approximately 20 seconds.

Removing Force: 25 tons

Collar size: 90 mm

Requirements: Hydraulic 10 cu. In. per minute at 10,000psi.

Hydraulic Oil Viscosity: 100 min.

An air operated 10,000 psi hydraulic Foot Pump is available from Galiso[®], Incorporated part number 14-41-1410. An air supply line of .375" I.D. @ 90psi is required for the Foot Pump operation.

3.0 SAFETY

- A. Read all instructions before attempting to install or operate the CRT-90. GALISO[®] INCORPORATED CANNOT BE RESPONSIBLE FOR DAMAGE OR INJURY CAUSED BY UNSAFE USE, MAINTENANCE OR APPLICATION OF THIS MACHINE.
- B. Face shield and gloves are mandatory Personal Protection Equipment (PPE) for the use of the CRT-90.
- C. NEVER put fingers between the CRT-90 and a Collar.
- D. Do NOT operate the CRT-90 if it has worn threads or broken parts. For any questions or concerns, or if you are in need of replacement parts, contact Galiso[®] Customer Service at 1-800-854-3789.
- E. Do NOT attach a worn or cracked hydraulic line to the CRT-90.
- F. Keep a clean, dry floor area for proper footing while operating the CRT-90.
- G. Do NOT operate the CRT-90 under flammable, volatile, or toxic conditions.
- H. For safe handling and grip of the CRT-90, keep it clean and dry with no hydraulic oil on or around the tool.

4.0 INSTALLATION

- A. Attach 90-120 psi (6.2-8.2 bar) shop air supply to the Foot Pump.
- B. Attach the Hydraulic Line from the Foot Pump to the CRT-90.

5.0 OPERATION

- A. Carefully follow the installation procedure, described in Section 4, to assure the proper connection to the hydraulic supply.
- B. Vent the Foot Pump before use. Use either the Vent Screw or Vent/Fill Plug to vent pressure BEFORE using the Pump. Failure to do so may cause cavitation and Pump damage. Failure to properly vent will also void the warranty.
 - 1) With the Pump in the horizontal position, slowly unscrew the Vent Screw. Do not open the Vent Screw with the Pump in a vertical position. The Vent Screw is located near the hydraulic Outlet Port on the top of the Reservoir. (See Figure 2, below.)



Figure 2 Vent Screw

5.0 OPERATION, continued

- 2) The Vent/Fill Plug can also be used for venting. To use, simply pull up on the outer hex of the Plug for venting. Remove to fill with hydraulic fluid. The Foot Pump should be kept full of Enerpac[®] Oil (see Section 6 Maintenance).



Figure 3 Vent/Fill Plug

- C. Screw the Threaded Collar Insert onto the Cylinder Collar.
- D. Using a Hoist connected to the Eye Ring, align the CRT-90 to the approximate center of the Cylinder and Collar. The height may need adjusted to properly install the 2 piece Collar Jaw (next step).
- E. Place both halves of the 2 piece Collar Jaw into position. The top notch in these pieces should enclose around the CRT-90 and the bottom notch should enclose the Threaded Collar Insert (installed on the Cylinder Collar).
- F. Thread the Closure Ring onto the 2 piece Collar Jaw until hand-tight. Use the included Spanner Wrench to tighten fully.
- G. Apply pressure by actuating the Foot Pedal on the Pump. This will extend the hydraulic Ram and pull the Cylinder Collar off of the Cylinder Neck.
- H. Relieve the hydraulic pressure from the CRT-90 by applying pressure to the heel end of the foot pedal to retract the Ram.

5.0 OPERATION, continued

- A. Lift the CRT-90 and extracted Collar off the Cylinder and disassemble the CRT-90 to release the Collar from the CRT-90.

! CAUTION !

Be certain that all pressure has been released, and the Ram is in the fully retracted position before attempting to disassemble the CRT-90. If the Hydraulic Ram is not fully retracted, the CRT-90 may be damaged.

6.0 MAINTENANCE

- A. Check the threads and CRT-90 periodically for wear. Do not operate the CRT-90 if it has worn threads, or broken parts. Replacement parts are available from Galiso[®], Incorporated at 1-800-854-3789.
- B. Inspect the hydraulic Fittings for leaks or signs of wear. Replace the Fittings if needed.
- C. Regularly clean or replace the Filter Element that supplies air to the hydraulic Pump.
- D. Maintain a full level of Enerpac[®] Oil in the Foot Pump. Check the sight glass in the front of the Pump, and keep the level of fluid, half way in the middle of the sight.
- E. Regularly check all lines for leaks. Repair or replace damaged lines as needed. Do not operate the CRT-90 with a worn or cracked hydraulic line.
- F. Check the 2 piece Collar Jaw, daily (or more often with heavy use), to ensure that the internal area is free from debris. Make sure the outside threaded areas of the 2 piece Collar Jaw are clean and greased. Galiso recommends using Dow Corning Molykote 33 Medium. Galiso p/n: 54-11-0008.
- G. Check the Ram Adapter inside of the CRT-90 for tightness.
- H. When replacing the Enerpac 25 ton ram, leave only 11 or 12 threads showing above the housing.

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1. **DURATION:** Galiso provides a one-year warranty from date of purchase, to the original purchaser, for standard products, unless otherwise specified. For all spare parts purchases, Galiso provides a 90-day warranty unless otherwise specified. Soft goods such as our speed seals, and O-rings, which are subject to wear in the normal course of operation, are not covered under this warranty.
2. **COVERAGE:** Galiso manufactured equipment is warranted against defective materials or workmanship. THIS WARRANTY IS VOID IF:
 - A) THE EQUIPMENT HAS BEEN DAMAGED BY ACCIDENT OR UNREASONABLE USE, IMPROPER SERVICE/MAINTENANCE, IMPROPER INSTALLATION, ABNORMAL OPERATING CONDITIONS, NEGLIGENCE, REPAIR BY ANY PERSON NOT AUTHORIZED BY GALISO, INC. OR OTHER CAUSES NOT RELATED TO MATERIAL DEFECTS OR WORKMANSHIP.
 - B) THE SERIAL NUMBER HAS BEEN ALTERED OR DEFACED.
3. **PERFORMANCE:** Galiso reserves the right to make warranty determination only after inspecting the item at the Galiso manufacturing facility. If the warranty determination indicates that the defective item is covered under warranty, the item will be repaired or replaced with the same parts/items or parts/items of equivalent quality, at the option of Galiso. In the event of replacements, the replacement unit will continue under the original equipment warranty or carry a 90-day warranty, whichever is longer. No charge will be made for warranty repairs, and/or replacements. All freight charges to and from Galiso Inc. or a Galiso Inc. authorized repair facility, are the responsibility of the customer requesting warranty service.

If the warranty determination indicates that the item is **not** covered by warranty, a repair/replacement cost estimate will be submitted to the customer/purchaser for approval prior to initiating any repair work.

4. **CLAIMS:** In the case of equipment malfunction, notify Galiso (1-800-854-3789) and provide the Model Name, Model Number, Serial Number and a description of the problem. Return Authorization Number, shipping and/or service information will be provided on receipt of the required information.
5. **SERVICE EQUIPMENT:** Galiso attempts to make available, whenever possible, a limited amount of service equipment at a minimal use charge, plus freight expense, for those customers wishing to avoid downtime during repair of their equipment. Such items are available on a first come, first served basis and are billable at the specific service charge applying with a one-month minimum.
6. **MODEL CHANGES:** Galiso reserves the right to make changes in materials and specifications, without notice. Galiso may offer, for a stipulated fee, the opportunity to upgrade your equipment to the latest configuration.
7. **DISCLAIMERS:** Galiso provides technical data and assistance to aid customers in the selection and use of our products. There are no implied warranties of merchantability nor suitability for a particular purpose associated with the transmittal of technical data and/or customer assistance.

Galiso does not assume liability for any consequential, incidental, or special damages. Liability under this warranty is limited to repairing, or replacing Galiso equipment items returned to the factory or an authorized facility.

8. **COMPUTER AND NETWORK VIRUS PROTECTION:** Galiso Inc. equipment, which utilizes internet access, comes equipped with a subscription to virus protection software. It is the responsibility of the equipment owner to maintain this virus protection subscription or other virus protection at their cost. Current virus subscriptions are mandatory to maintain the benefits of this warranty. Galiso does not assume liability for any or all damages related to or are the result of internet or network failure or malware or computer viruses or any other type of internet or network malfunction or attack.