	Cincinnati Fire Department Fire Training Supplement DRILL BOOK	SECTION #5 Tools & Equipment
Date: November 2019	TOPIC TITLE: HYDRA RAM	Total # of Pages: Page 1 of 4
Section #: 5		Topic #: 27

HYDRA RAM - TOPIC #27

1. The Hydra Ram is a hydraulically operated forcible entry tool.
2. It requires no priming and will extend to 3/4 of an inch per stroke to a maximum opening of 4 inches.
3. The maximum force is 10,000 pounds. There are no hoses attached to it.
4. The tool weighs 12 pounds and is 13 inches long, has an adjustable shoulder strap, and a storage case.
5. The Hydra Ram does not have the same usage limitations as the Rabbit Tool.
6. Its main purpose is for forcible entry of outward and inward opening doors. Other applications can be to provide an opening from the side of a vehicle hood or trunk for placement of an extinguishing agent.
7. The Hydra Ram can be used under water.
8. Whatever procedure is used safety must be the first consideration.

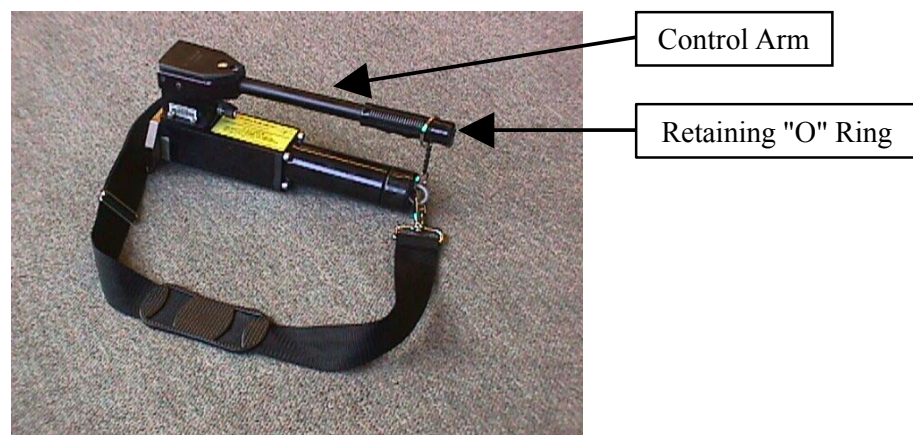

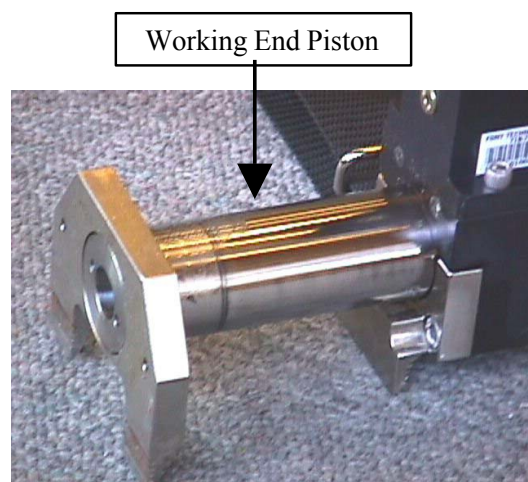
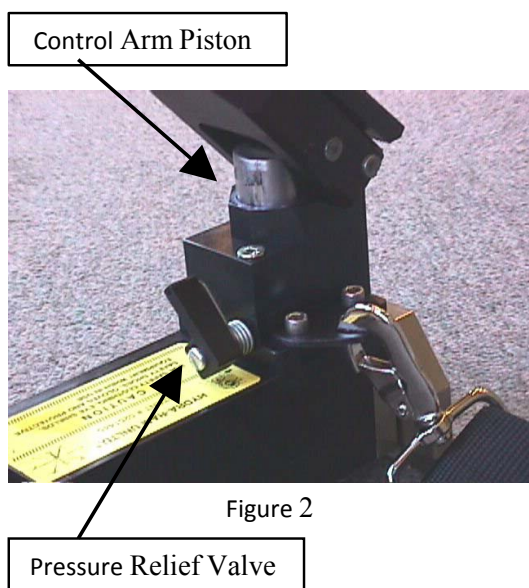



Figure 1

	Cincinnati Fire Department Fire Training Supplement DRILL BOOK	SECTION #5 Tools & Equipment
Date: November 2019	TOPIC TITLE: HYDRA RAM	Total # of Pages: Page 2 of 4
Section #: 5		Topic #: 27

OPERATION

1. If necessary, use a Halligan to help make the initial purchase.
2. Good control and a firm grip are essential when operating the Hydra Ram.
Always position yourself in a fashion that would protect you in the event that the tool slips out from the work. Always maintain control of door or object being forced.
3. The tool is designed to operate in any position.
4. When the operation is completed, bleed the system by placing the operating arm in the down position, attach the retaining "O" ring (Fig. 1) and depress the pressure relief valve (Fig. 2) until the working piston is totally retracted. The pressure relief valve must be released quickly in order for it to re-seat itself correctly. If the working piston (Fig. 3) does not retract by itself apply steady pressure. As soon as possible clean and lubricate the working piston so that it will retract on its own.




	Cincinnati Fire Department Fire Training Supplement DRILL BOOK	SECTION #5 Tools & Equipment
Date: November 2019	TOPIC TITLE: HYDRA RAM	Total # of Pages: Page 3 of 4
Section #: 5		Topic #: 27

SAFETY

1. Use full firefighting gear with eye shields down or safety goggles when operating Hydra Ram.
2. Never strike the Hydra Ram with a tool to gain a purchase.
3. Once the Hydra Ram reaches its maximum opening of 4 inches and resistance is felt, discontinue pumping. Any excessive pumping may cause the piston to over-extend and rupture the seal, resulting in loss of fluid under pressure. If the 4-inch opening is not enough, retract the piston and place an axe head or other substantial spacer flat on the door to provide additional opening distance.

MAINTENANCE

1. Do not take the Ram apart or make any adjustments. The Ram requires no replenishment of fluids and will provide good service when maintained according to this document.
2. The Ram does **not** use Hydraulic Fluid, which can be injurious to skin. The Ram uses Propylene Glycol, which will not cause injury to your skin.
3. After each use the tool should be inspected for damage, tested for leaks, cleaned and lubricated.
4. Testing for leaks - After fully extending the working piston, the operating arm should not be able to move except for when the relief valve is depressed.
5. Cleaning and lubricating - The entire tool can be cleaned with soap and water, including the pistons. It is important that all dirt be removed from the pistons prior to lubricating. Both the piston under the operating arm and the working end piston should be lubricated with "3 In 1" oil (available from Fire Tools and Equipment Unit). Do not use spray type lubricants such as WD40 as they

	Cincinnati Fire Department Fire Training Supplement DRILL BOOK	SECTION #5 Tools & Equipment
Date: November 2019	TOPIC TITLE: HYDRA RAM	Total # of Pages: Page 4 of 4
Section #: 5		Topic #: 27

can damage the rubber seals. The working piston should be extended and retracted several times, lubricating each time.

6. When not in use the Hydra Ram should be kept in the storage case.
7. The Hydra Ram can be affected by storage at or near areas of the apparatus where heat comes in contact with the tool. The heat dries out the pistons and seals.

