



Hy-Ram[®]

Allied's Hy-Ram[®] hydraulic impact hammers

The Hy-Ram® is in a

The concept of the high performance boom-mounted hydraulic hammer was pioneered by Allied Construction Products, LLC. The development of the Allied Hy-Ram® concept is legendary in the demolition industry that demands reliability.

Allied, which continues to lead the demolition industry, has combined performance, efficiency and reliability in their boom-mounted Hy-Ram impact hammer to offer several design advantages over other hammer manufacturers.

Simple, proven design

With continuous improvements over the years, the Allied Hy-Ram still uses the same simple, proven design that first gained industry-wide acceptance for the hydraulic hammer concept.

Fewer moving parts

Several other manufacturers of hammers employ highly complex designs, but an Allied Hy-Ram offers a reliable internal design that requires only three moving parts for less maintenance and more up-time.

Oil and gas operation

One of the many features that contribute to the efficiency of the Allied Hy-Ram is the oil and gas operation. The Allied design of gas assist using low pressure nitrogen improves the efficiency by reducing demand on the carrier's hydraulic system. There is no dependency on hydraulic accumulators. The accumulators are merely used to eliminate hydraulic "spikes". And, pressurized oil is always present at the bottom of the piston which prevents internal cavitation.

Long-stroke design

Another feature that contributes to the reliability of the Allied Hy-Ram is the long-stroke design which minimizes recoil, reduces vibration and eliminates mechanical springs.

Top-down lubrication

In addition, the Allied Hy-Ram features top-down lubrication which includes an internal lubricant passage that runs the length of the hammer extending the service life of the demolition tool and tool wear bushings.

Select-Start System™

Features two modes of operation — Easy Start and Auto Shut-Off. Easy Start allows the hammer to be started with minimal downpressure. Auto Shut-Off allows the hammer to begin work only when full downpressure is applied (the tool needs to be pushed up against the piston).

Compact System (CS) design

The Allied Hy-Rams feature a Compact System (CS) design that suspends the internal working body inside a full-box enclosure to protect the hammer, reduce noise and minimize vibration and wear to the carrier. The Compact System box design is enclosed at the bottom and fitted with a unique dust seal for dust protection, longer life and better lubrication.

Guardian DustProtection™

The Guardian DustProtection system which is available only on the Guardian version provides superior sealing qualities to the lower bushing and tool holder components by using a two-stage seal design.

AutoControl

Allied's large-size hammers (Model 755B through Model 905B) are equipped with a standard variable operation control system which automatically regulates blow energy and frequency by monitoring tool penetration into the material being broken.

AutoLube II™

Hy-Rams can also have an optional AutoLube II mounted on the hammer which is an automatic lubrication system that dispenses lubricant each time the hammer is activated. The AutoLube II uses a high-grade chisel paste in handy replaceable cartridges, has a built-in indicator and requires only a one-minute re-fill.

AutoLube CML II System™

In addition, the Allied Hy-Rams offer an optional AutoLube Carrier Mounted Lubrication II System that provides continuous lubrication to the Hy-Ram demolition tool and tool bushings during operation.

Installation Kits

The Hy-Ram, which operates off of the carrier's hydraulic system, requires an installation kit in order to be mounted on the loader/backhoe, excavator or similar carrier. Allied offers over 2,500 installation kits to fit virtually every make and model carrier.



▲ Hy-Ram® Model 805B

Hy-Ram® Model 775B ▶

Hy-Ram® Model 797B ▼



league of its own with a simple, proven design, reliable performance



▲ Hy-Ram® Model 905B

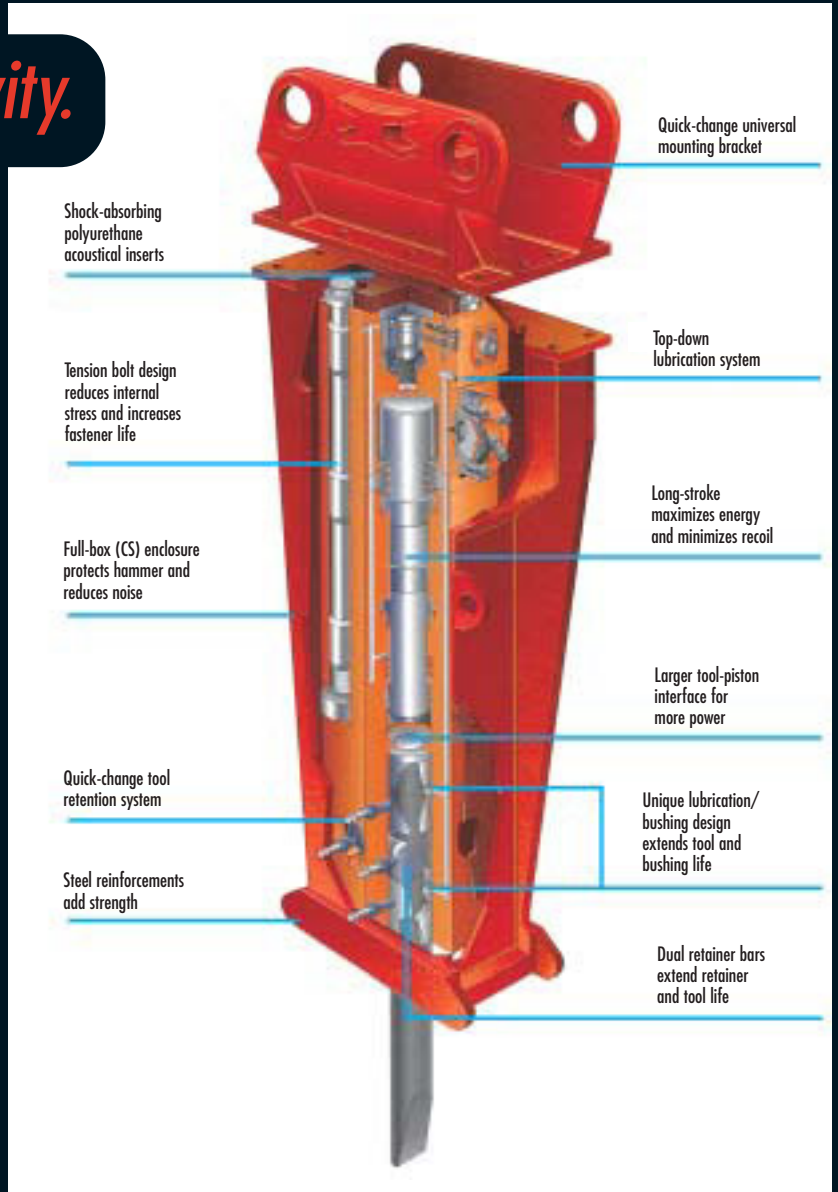
ce and superior productivity.



▲ Hy-Ram® Model 755B



▲ Hy-Ram® Model 745



Hy-Ram® Model 735 ▶



The Hy-Ram is available in 14 different models ranging from working weights of 1,250 to 16,500 pounds and tool diameters of 3.54 to 8.27 inches.

Demolition Tools and Accessories



A. The **Conical Tool** is extremely useful when solid materials are being broken. With no seam or relieved sections to break toward, the “pencil” point easily penetrates materials because its shape allows trapped dust to escape on all sides of the tool.

B. The **Cross-Cut Chisel** is the most commonly used demolition tool because it is compatible with a wide variety of rocks and concrete. It lends itself to following the seam of materials to accelerate the breaking action.

C. The **In-Line Chisel** demolition tool, which breaks trench rock and concrete, has all the features of the Cross-Cut Chisel, but its chisel is positioned “in-line” with the carrier. As a result, it creates a break in the same direction as the carrier is traveling.

D. The **Blunt Tool** has a large, flat surface on the working end which increases stability when breaking brittle surfaces like concrete and magmatic materials. It is designed to crack materials without penetration. The impact force is applied in all directions causing multiple fractures in the material.

The demolition tools pictured above are representative of typical Hy-Ram tools and may vary according to model.



The **AutoLube II™** provides lubrication of the Hy-Ram hydraulic hammers with a compact cartridge mounting on the hammer. Each time the hammer is activated, the pressure from the carrier’s hydraulic system pulls the lubricant from the cartridge and dispenses it around the demolition tool and wear bushings. The simple design, which has one moving part, is mounted with a clamp or on a bracket that is welded to the CS Box.



The **AutoLube Carrier Mounted Lubrication (CML) II System™** provides easy lubrication maintenance for the Hy-Ram hydraulic hammers with a convenient mounting near the cab. Each time the hammer is activated, an electric powered pump moves chisel paste to the hammer tool holder through 60 feet of lubricant hose. As the hammer continues to operate, the AutoLube CML II System provides continuous lubrication to the demolition tool and wear bushings.



The **Guardian DustProtection™** system provides superior sealing qualities to the lower bushing and tool holder components by using a two-stage seal design. A “floating ring” tightly fitted to the demolition tool is the first line-of-defense. It is free to follow the tool as the hammer moves inside the box. The second line-of-defense is the “tool wiper seal”. It does a superior job of keeping any particles from entering the tool holder.

Hy-Ram® Specifications

Model		735	745	745	755B	775B	785B	797B	805B	905B G*
Mounting Group		SCS	SSF	SCS	MCS	MCS	LCS	LCS	LCS	OEM CS
Operating Ranges										
Frequency	bpm	600-1,000	350-800	350-800	350-680**	360-600**	280-550**	320-600**	240-530**	280-450**
Hydraulic Flow Required	gpm (lpm)	16-26 (60-100)	18-32 (70-120)	18-32 (70-120)	27-37 (100-140)	34-42 (130-160)	37-48 (140-180)	64-79 (240-300)	66-85 (250-320)	95-119 (360-450)
Hydraulic Pressure	psi (bar)	1,600-2,300 (110-160)	1,750-2,600 (120-180)	1,750-2,600 (120-180)	2,200-2,600 (150-180)	2,300-2,600 (160-180)	2,300-2,600 (160-180)	2,300-2,600 (160-180)	2,300-2,600 (160-180)	2,300-2,600 (160-180)
Working Weight	lbs. (kg)	1,250 (567)	1,600 (726)	2,200 (998)	2,900 (1315)	3,900 (1769)	5,560 (2522)	7,200 (3265)	9,410 (4268)	16,500 (7484)
Overall Length	in. (cm)	77 (196)	81 (206)	83 (211)	101 (256)	113 (287)	126 (320)	142 (361)	149 (377)	161 (409)
Standard Demolition Tool		Cross-Cut	Cross-Cut	Cross-Cut	Cross-Cut	Cross-Cut	Cross-Cut	Cross-Cut	Cross-Cut	Cross-Cut
Tool Diameter	in. (mm)	3.54 (90)	3.94 (100)	3.94 (100)	4.72 (120)	5.51 (140)	5.91 (150)	6.50 (165)	7.09 (180)	8.27 (210)
Recommended Carrier Weight-Backhoe	lbs.	14,000 - 25,000	16,000 - 25,000	20,000 - 25,000	NA	NA	NA	NA	NA	NA
Recommended Carrier Weight-Excavator	lbs.	15,000 - 30,000	20,000 - 40,000	25,000 - 45,000	33,000 - 60,000	44,000 - 76,000	55,000 - 80,000	74,000 - 110,000	90,000 - 150,000	145,000+
Measured Values										
Energy Rating***	ft. lbs. (joules)	792 (1074)	1,045 (1417)	1,045 (1417)	1,998 (2709)	2,638 (3577)	3,528 (4784)	4,955 (6719)	5,834 (7910)	10,247 (13895)
Frequency	bpm	995	819	819	657	643	538	708	500	449
Hydraulic Flow Required	gpm (lpm)	25.5 (97)	32.0 (121)	32.0 (121)	36.9 (140)	42.2 (160)	47.8 (181)	78.7 (298)	74.6 (282)	126.0 (477)
Supply Pressure	psi (bar)	2,323 (160)	2,593 (179)	2,593 (179)	2,607 (180)	2,611 (180)	2,484 (171)	2,604 (180)	2,595 (179)	2,736 (189)
Guardian Version (G)		NA	NA	NA	755B G	775B G	785B G	797B G	805B G	905B G*
Working Weight	lbs. (kg)				2,990 (1356)	4,000 (1814)	5,800 (2630)	7,315 (3318)	9,820 (4454)	16,500 (7484)

*The Guardian version is standard on the Model 905B.

**Models feature variable impact and frequency.

***The hammer energy rating is in accordance with the Certified AEM (formerly CIMA) Tool Energy Rating method.

Mounting Type Descriptions:

- SCS-Small Excavator/Backhoe Top-Mounting
- SSF-Small Excavator/Backhoe Side-Frame Mounting
- MCS-Medium Excavator Top-Mounting
- LCS-Large Excavator Top-Mounting

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