



HY-RAM[®]

**ALLIED'S BOOM MOUNTED HYDRAULIC
IMPACT HAMMER**

Mounted on a skid steer, backhoe loader or excavator, Allied Hy-Rams® break rock and concrete more productively and safely than alternative methods. Several design and performance

advantages make our hammers, quite simply — the best. Efficient, productive, reliable — they meet the rigid standards demanded by the construction industry.



THE DESIGN ADVANTAGE

A simple, patented design distinguishes Allied Hy-Rams® from all other breakers:

The key to this design is the hammer's hydraulic efficiency. It utilizes a minimum of oil fed by your carrier's pump. The Hy-Ram's® hydraulic operation is also assisted by a low pressure gas charge. The gas charge reduces the hammer's oil requirement and increases energy output.

Another design advantage is the unique energy recovery system found in most Hy-Rams®. This system stores the hammer's reflective energy for subsequent blows, and enables the Hy-Ram® to break hard materials more productively.



710



700

Model 700

- 200 ft. lb. energy class
- 450-1200 b.p.m.
- For skid steer loaders and mini-excavators up to 1-3 tons

Model 710

- 400 ft. lb. energy class
- 500 - 1000 b.p.m.
- For skid steer loaders, mini-excavators and small backhoe/loaders up to 3-7 tons

Model 720

- 500 ft. lb. energy class
- 750 b.p.m.
- Carrier size 3-8 tons

Model 77

- 750 ft. lb. energy class
- 600 b.p.m.
- Fits 5-15 ton size carriers



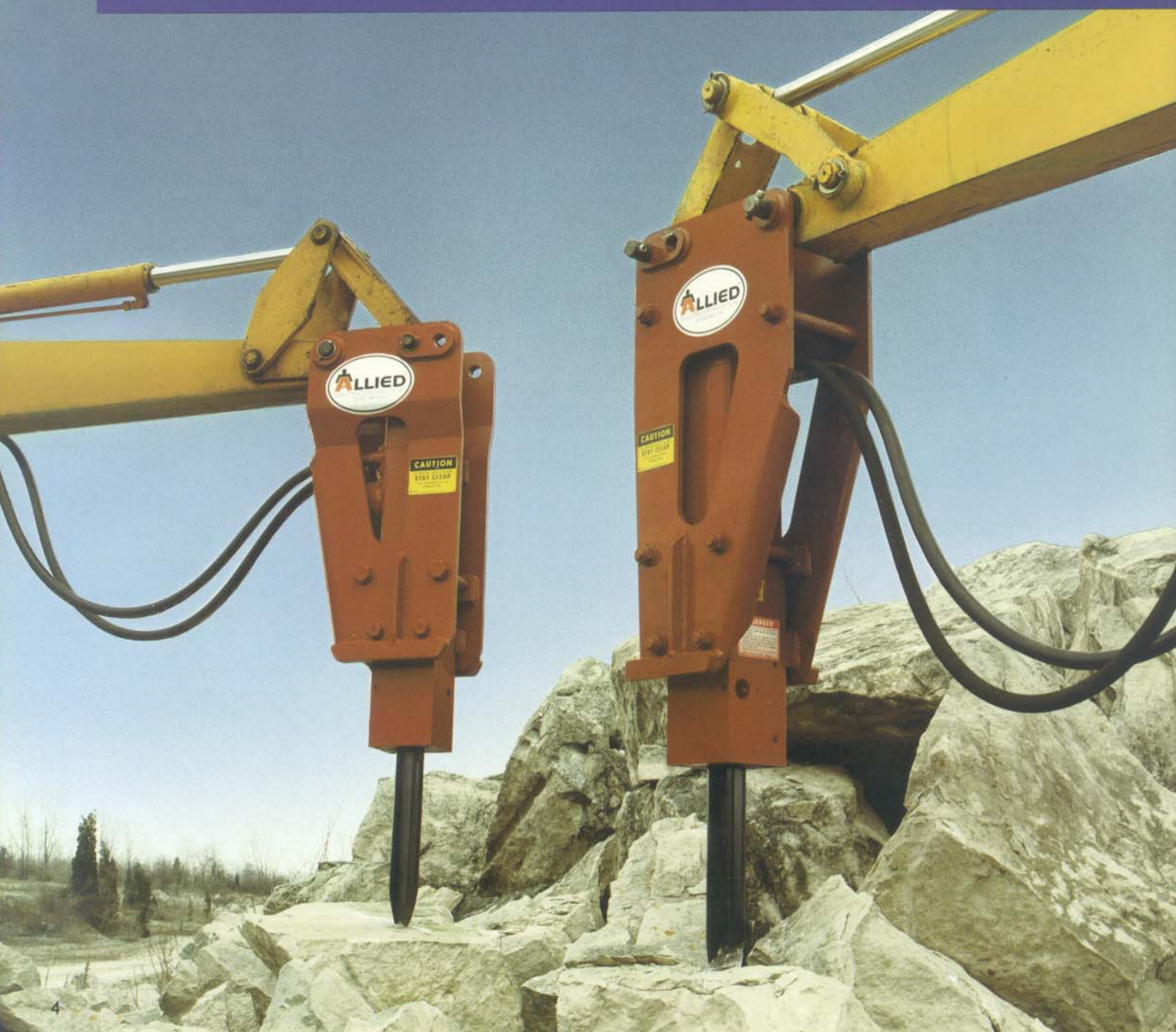
720



77

Our design is so efficient that it requires a minimum of moving parts, and so simple — that only a few seals are needed. The Hy-Ram's® small number of components allows our distributors to fully stock all replacement parts. Expensive delays are eliminated and your equipment investment remains profitable.

Allied impact breakers, tools and brackets are manufactured from high strength steels heat-treated to the toughest tolerances. Their simple design combined with quality manufacturing eliminates cavitation. No internal sleeves or external springs are needed for added protection. In addition, the Hy-Ram's® long stroke design protects booms from damaging recoil.



THE PERFORMANCE ADVANTAGE

Outstanding performance features characterize every Hy-Ram® job:

Most Hy-Rams® can be adjusted for variable blow frequency. Let the operator choose the best speed for the job. For faster production in soft materials, set the speed at half power to double blow frequency. The

hammer's electric shut-off also gives the operator better control. The shut-off protects the Hy-Ram® from heat build-up and blank firing too.



740



730



88



750B

Model 730

- 1,000 ft. lb. energy class
- 1,000 b.p.m.
- Carrier size 5-15 tons

Model 88

- 1,300 ft. lb. energy class
- 450 b.p.m.
- Fits 10-20 ton size carriers

Model 740

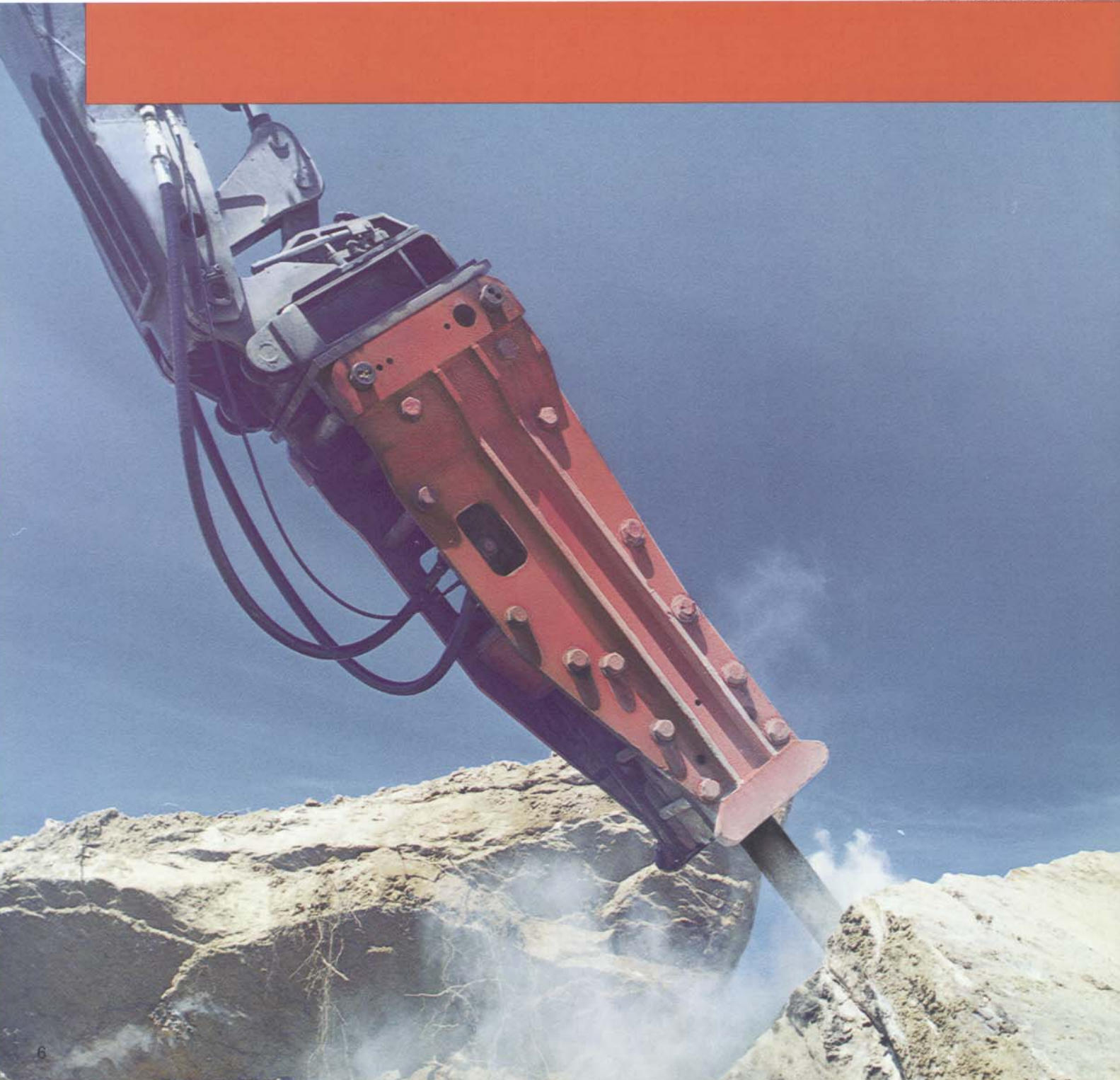
- 1,500 ft. lb. energy class
- 750 b.p.m.
- For backhoe/loaders and excavators 10-20 tons

Model 750B

- 2,000 ft. lb. energy class
- 500/1,000 b.p.m.
- For backhoe/loaders and excavators 15-30 tons
- Also available - Model 750E with a specially designed top mounting bracket for larger excavators

Many Allied breakers feature an accumulator that dampens hydraulic pulsations. The accumulator reduces pump wear and limits your maintenance and downtime costs as well.

Each Hy-Ram® is supplied with a cross-cut or conical chisel. Replaceable bushings protect the tool holder from performance stress. The tool is simply secured and can be quickly interchanged with other accessories.



ALLIED - THE PROVEN ADVANTAGE

Allied introduced its first hydraulic breaker in 1969. We now offer 12 Hy-Rams®, ranging from the 200 to 10,000 ft./lb. energy class, for every breaking application. Their patented design and performance features make Allied the industry leader. Our Hy-Rams® perform the best. We'd like a chance to show you.



790



780



770B



800

Model 770B

- 3,000 ft. lb. energy class
- 475/950 b.p.m.
- For excavators 20-50 tons

Model 780

- 5,000 ft. lb. energy class
- 450/900 b.p.m.
- Fits medium to large size excavators from 26-65 tons

Model 790

- 7,500 ft. lb. energy class
- 450/600 b.p.m.
- Carrier size 30-65 tons

Model 800

- 10,000 ft. lb. energy class
- 350/450 b.p.m.
- Fits 35-75 ton size excavators

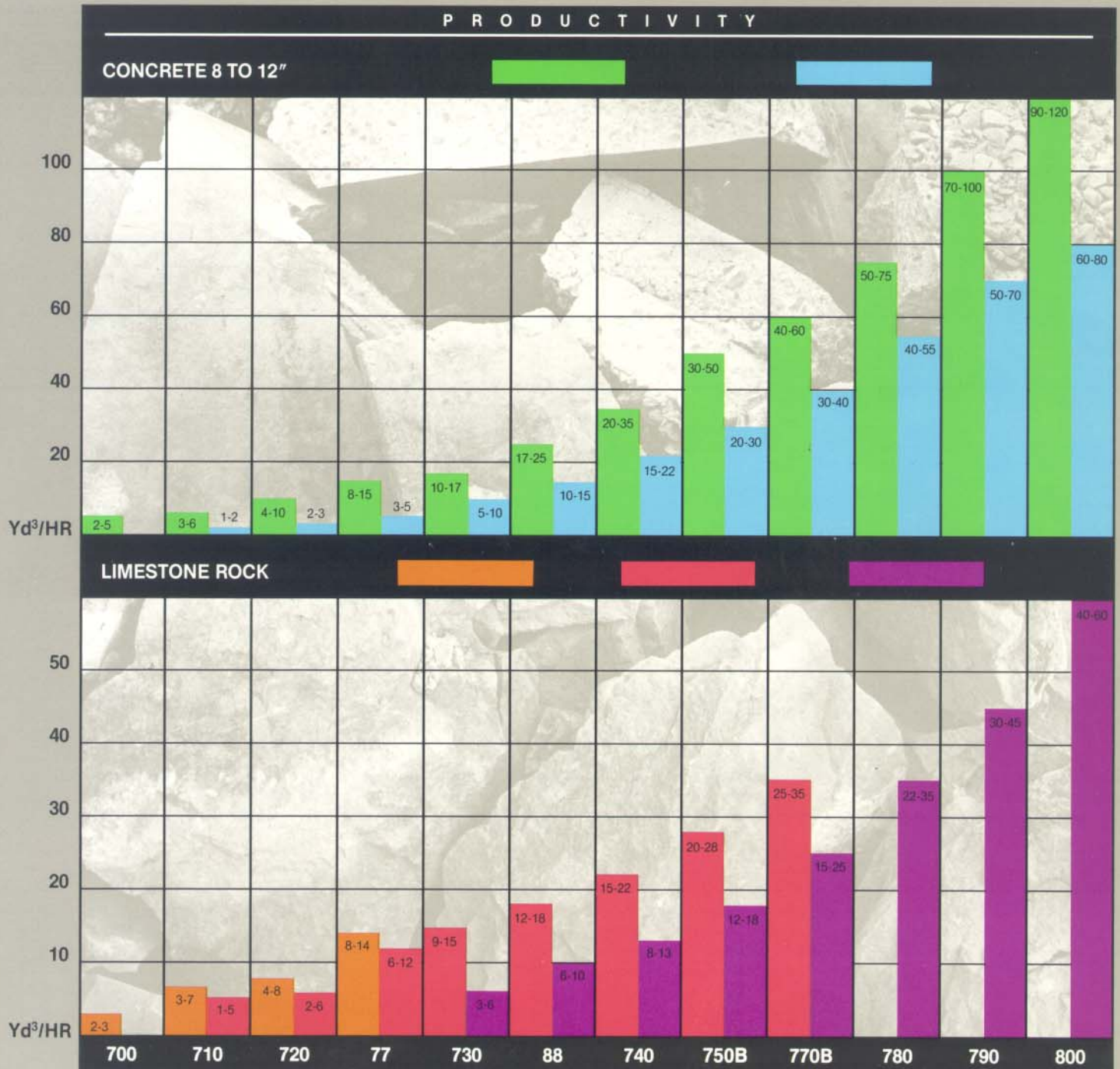
PRODUCTIVITY AND PERFORMANCE



Whatever the application — from the breaking of hard trench rock to sidewalk demolition — Allied Hy-Rams® provide superior productivity and performance.

Our hammers are more productive, more dependable. They have fewer moving parts and seals than competitive

models, and operate with less downtime. State-of-the-art metallurgy and patented design ensure that the Hy-Ram® works harder, lasts longer. Most importantly, the hammer's efficient hydraulic operation maximizes output in minimum hours — for productivity you can't beat!



SPECIFICATIONS

Allied Hy-Ram® specifications are designed and engineered to the highest standards. In our continued efforts to upgrade the performance of Allied Hy-Rams® — these specifications may be revised.



OPERATIONAL SPECIFICATIONS

Hy-Ram® Model	Impact Energy Class Ft. lbs./n.m.	Frequency blow per minute	Hydraulic Flow g.p.m./l.p.m.	Maximum Operating Pressure psi/bar	Gross Weight lbs./kgs.
700	200/271	450-1200	4-9/15-34	1800/125	200/90
710	400/540	500-1000	5-10/20-40	1800/125	375/170
720	500/680	750	11-13/42-51	1800/125	500/227
77	750/1020	600	14/53	2200/155	900/408
730	1000/1355	1000	22/83	2200/155	825/375
88	1300/1760	450	22/83	2200/155	1600/726
740	1500/2030	750	29/110	2400/165	1500/680
750B	2000/2710	500/1000	30/114	2200/155	2450/1111
770B	3000/4070	475/950	45/170	2000/140	3350/1520
780	5000/6780	450/900	53/200	2600/180	4400/2000
790	7500/10,170	450/600	70/265	2600/180	12,125/5500
800	10,000/13,560	350/450	85/320	2600/180	16,535/7500
Hy-Ram® Model	Overall Length in/cm.	Spacing Inside Mounting Bracket in/mm.	Boom Pin Diameter in/mm.	Demolition Tool Dia. in/mm.	Demolition Tool Working Length in/mm.
700	44/112	5-3/4/146	1-1/4/31.7	1-3/4/144	12/305
710	47/119	10-1/4/260	1-1/2/38.1	2-3/16/55	12/305
720	56/142	10-1/4/260	1-1/2/38.1	2-1/2/63	16/41
77	61/155	10-1/4/260	1-1/2/38.1	3-1/4/80	18/46
730	66/168	10-1/4/260	1-3/4/44.4	3-1/4/80	18/46
88	72/183	Varies	Varies	4/100	20/51
740	78/198	11-1/16/281	2/51	4/100	20/51
750B	90/230	Varies	Varies	4-1/2/115	20/51
770B	97/246	Varies	Varies	5-1/4/135	24/61
780	106/270	16-5/16/415	Varies	5-7/8/150	26/660
790	118/300	18-1/4/464	Varies	6-1/4/159	32/813
800	126/320	18-1/4/464	Varies	7-1/16/180	34/864

ENGINEERING AND DESIGN

Low Pressure Gas Assist
Allows hammer to operate with less oil

Precision Quality Engineering
Eliminates need for internal sleeves

Tool/Piston Interface
Transmits more energy into rock or concrete

Brackets
Tough bracketing designed to match carrier needs

Energy Recovery System
Recaptures energy for increased blow frequency

Accumulator
Dampens hydraulic pulsations to reduce pump wear

Long Stroke Design
Minimizes recoil to the boom

Precision quality engineering and patented design are at the heart of all Allied breakers. Our hammers utilize minimum parts for maximum productivity. Their design components work together to make Hy-Rams® the best hydraulic hammer on the market.

NOTE: The above illustration depicts a Model 770B Hy-Ram®. It represents those design features common to most Hy-Rams®.

APPLICATIONS

Breaking applications for Hy-Ram® hydraulic hammers are virtually unlimited. Here's a look at some of the most popular and unique applications:



**Pavement Breaking
(concrete, brick, asphalt)
Curb and gutter breakage
Bridge demolition
Airport runway demolition**

**Retaining/masonry wall
removal
Controlled building
demolition**

**Trench rock excavation
Frost excavation
Foundation excavation**

Underwater demolition

**Breaking work where
blasting is prohibited
Demolition after blasting**

**Industrial breaking
Slag skulls/slag pit
breaking
Furnace lining removal**

**Secondary breaking in
mines & quarries
Removal of lining at
gyratory crushers
Breaking of oversize,
bridged & frozen materials
at primary and portable
crushers**

**Pile driving
Driving wood & metal
sheeting
Driving aluminum
retaining walls
Soil compaction**

Heavy-Duty Applications

Hy-Rams® are available in heavy-duty versions for selected models. These hammers feature heavy-duty, abrasion resistant side plates and longer length working tools for extended reaching. They are commonly used for mine and quarry operations. See your Allied distributor for exact specifications.

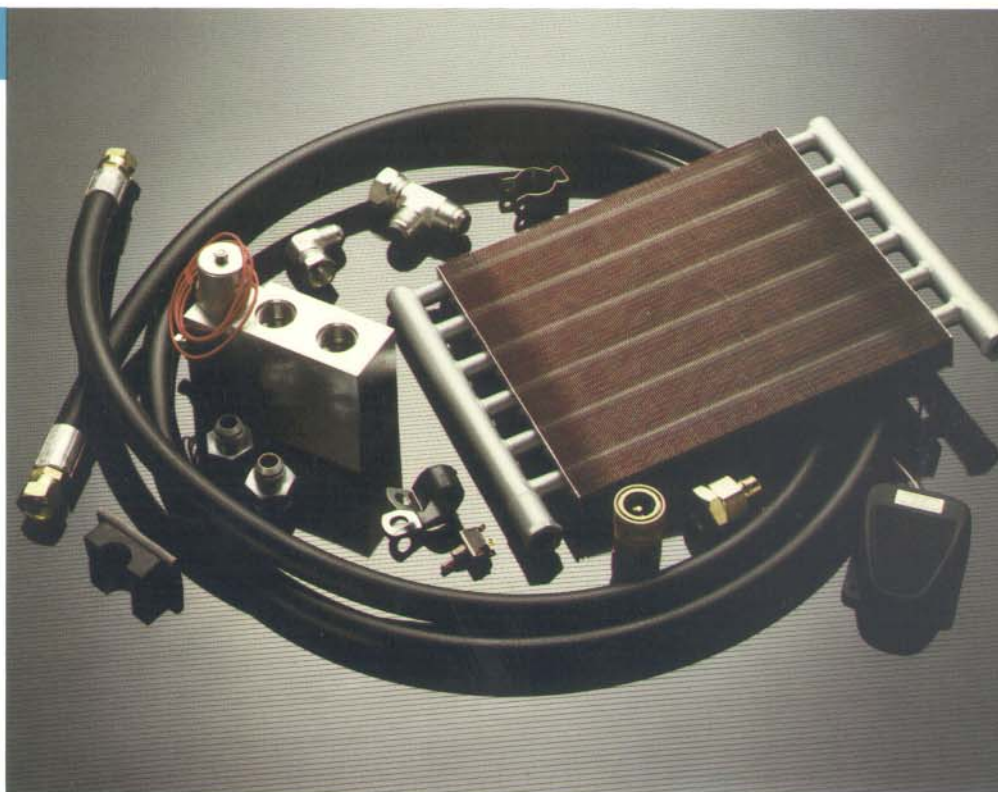
KITS AND ACCESSORIES

All Hy-Rams® require an installation kit for mounting to your machine. These kits permit simultaneous operation of the hammer and positioning function of the carrier, while protecting both the hammer and carrier.

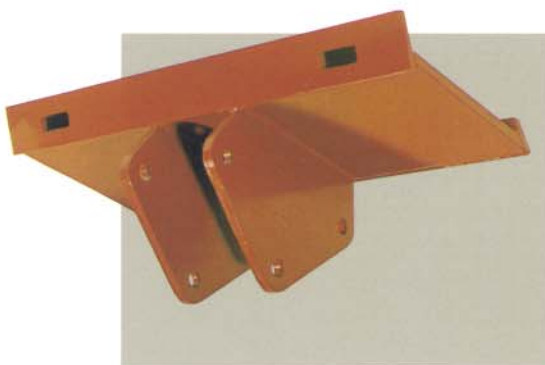
The Allied Installation Kit allows the Hy-Ram® to become an integral part of your carrier's hydraulic system. Each kit is designed to maximize the efficiency of your Hy-Ram® and carrier. Hoses, fittings, valves, as well as heat exchangers, cooling packages and tailored adapter brackets, make your Hy-Ram® and carrier one.

Allied Hy-Rams® fit virtually every make and model carrier. More than 900 installation kits have been designed. They are available for these manufacturers' carriers and many more:

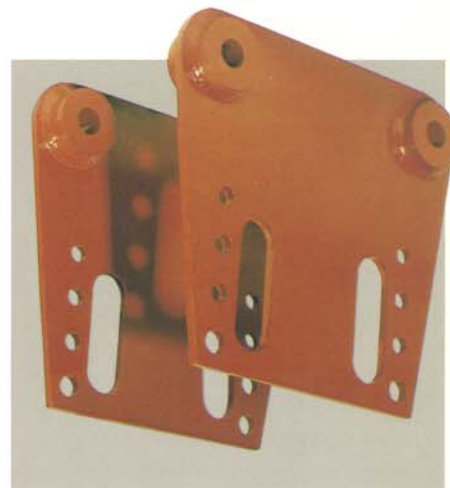
Akerman
Allis Chalmers
American
Bantam
Bobcat
Bucyrus-Erie
Case
Caterpillar
COS
Drott
Dynahoe
Fiat Allis
Ford
Gehl
Gradall
Hein-Werner
Hitachi
Hopto
Hydra-Unit
Insley
International
JCB
John Deere
Kato
Kobelco
Koehring
Komatsu
Kubota
Liebherr
Linkbelt
Massey-Ferguson
Mitsubishi
New Holland
Northwest
P&H
Parsons-Unihoe
Poclain
Takeuchi



Installation Kit with heat exchanger



Skid Steer Adapter Bracket



Backhoe Top Mounting Adapter Bracket

Boost your hammer's versatility with Allied's Hy-Ram® attachments . . .

Allied's attachments are available on selected Hy-Ram® models. They eliminate the need for additional tools, equipment and labor. Our hammer attachments can put your Hy-Ram® to work on the job site in more ways than ever before:

- You can equip your hammer with a compaction plate as a quick, cost-efficient alternative to men with hand-held tampers.
- Easily drive sheeting, post and pipe in many types of soils with Allied post and pipe driver attachments.
- Use the frost cutter to break frozen ground, and cut asphalt up to 12" thick with the Hy-Ram® asphalt cutter.



Demolition Tools

Our selection of demolition tools includes relieved moil, offset wedge, blunt, bell, conical, cross-cut and in-line chisels. All tools are secured with hardened retaining pins and can be interchanged in minutes.



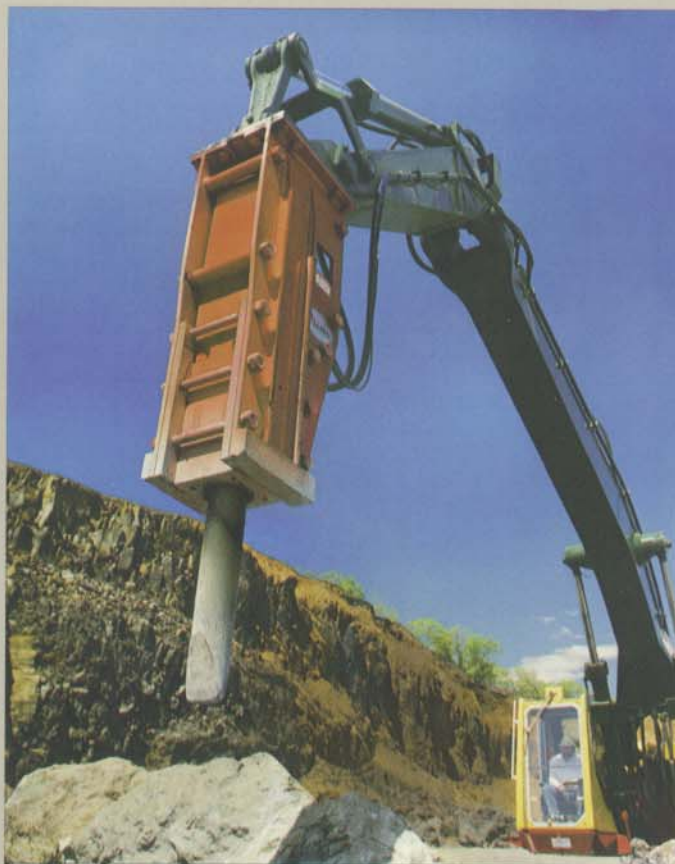
Compaction Plate



Post and Pipe Drivers



Frost Cutter and Asphalt Cutter



Sales, Service, Distribution

Allied Hy-Rams® are available throughout North America. Through our network of more than 130 Authorized Allied Distributors, you will receive the most comprehensive Sales, Rental, and Technical Service Support available.

Allied has a policy of continuous product improvements and reserves the right to change specifications, design or prices anytime without notice or the incurring of any obligations.

For Sales and Service Contact
Your Allied Distributor.



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