



# HYDRAULIC SPLITTERS

for Demolition of  
**CONCRETE and ROCK**

## SOME DEMOLITION APPLICATIONS

*Bridge Decks*  
*Bridge Abutments*  
*Retaining Walls*  
*Concrete Walls*  
*Floor Slabs*  
*Reinforced Concrete*  
*Foundations*  
*Wall Openings*  
*Brick and Rock Walls*  
*Culverts*  
*Locks*  
*Dams*  
*Road Barriers*  
*Underwater Demolition*  
*Sidewalks*  
*Curbs*  
*Most Types of Rock*  
*Machine Blocks*

**Proven  
Performance  
On Job Sites  
Throughout  
The World**

**darda**



- BREAKS REINFORCED CONCRETE • BREAKS ALL TYPES OF ROCK
- NO SHOCKS OR VIBRATIONS • OVER 700,000 LBS. OF BREAKING FORCE
- CONTROLS DIRECTION OF BREAK • SAFE • ONE MAN OPERATION
- MORE PRODUCTION THAN PAVING BREAKERS

# HYDRAULIC SPLITTING...

**WORLD'S MOST POWERFUL HAND OPERATED DEMOLITION TOOL  
...WITH OVER 700,000 LBS. OF BREAKING FORCE – PLUS\* ...  
Splitting Force More Powerful than Large or Small Impact Breakers.**



Work crew uses two hydraulic splitters with breaking force of 770 tons to cut two feet off of top of bridge piers. Split was made in less than two minutes along the drill hold line. No impact cracks were left in the remaining lower section to be saved.



A backhoe quickly topples two ton section off pier top in a few seconds. A new top will be placed on the remaining section to widen the highway from 4 to 6 lanes. Hydraulic splitting method speeds up demolition and reduces costs.

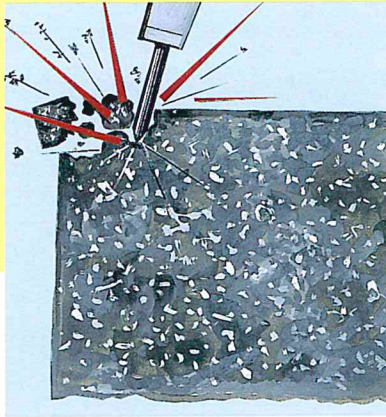


\*Three hydraulic splitters powered by a single pump generate over 2 million lbs. (1155 tons) of breaking force to split a 8 ft. x 22 ft. block of granite cap rock in a Midwest quarry. The Elco pump, with manifold, can power 4 splitters if more force is required.



Using two hydraulic splitters, this 8 ft. to 12 ft. thick concrete wall was broken into pieces and removed by a 988 Cat. The contractor speeded up demolition work on this 800 ft. wall many times over other breaking methods.

## IMPACT BREAKING

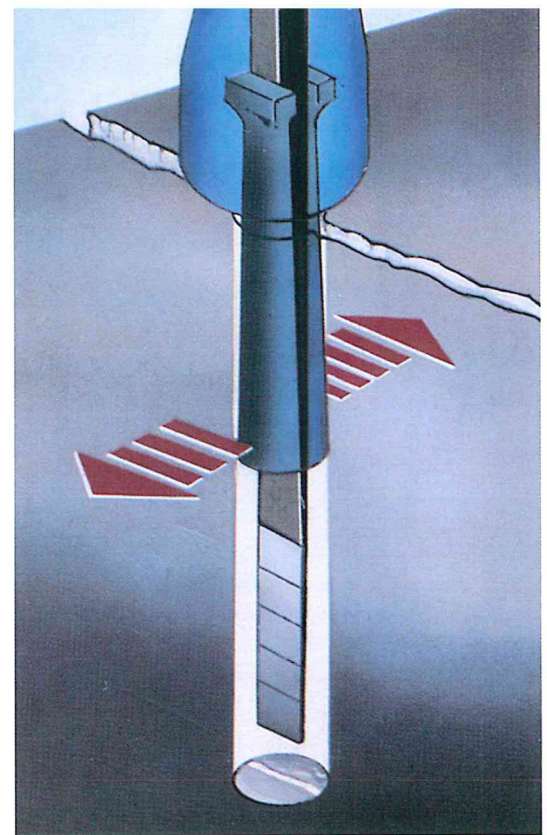


Paving breakers and large mounted impact rams are limited to breaking rock or concrete in small pieces. Noisy impact demolition requires more energy, time and usually more expensive.

## HYDRAULIC SPLITTING



Pieces, as large as your equipment can handle, are broken in seconds for removal. The larger pieces can increase production and reduce costs. The method is quiet and direction of breaks can be controlled.



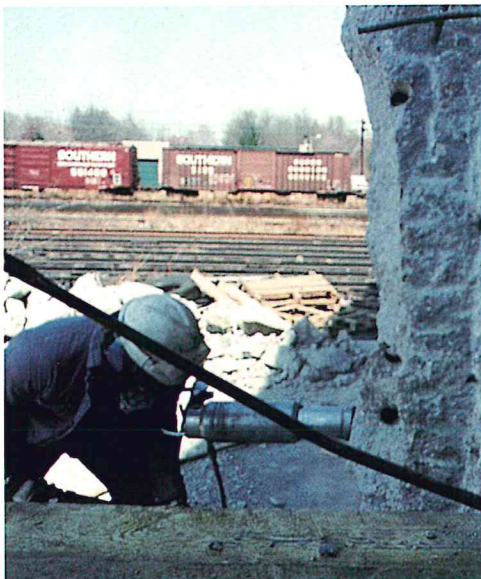
## HOW SPLITTER WORKS

The hydraulic splitter is powered by a 10,000 P.S.I. pump. (See back page). The cylinder contains a control valve and a piston that moves a plug between two feathers. The plug and feather end is placed into a drilled hole. The plug moves down between the two feathers forcing them against the wall of the hole. When the tension increases beyond the tensile strength of the material, a split will occur. The entire operation of the cylinder is controlled by a single lever on top of the tool. The plug can be advanced and retracted with this lever. An automatic built-in valve reduces pressure after break.

*\*Two or more hydraulic splitters can be operated at one time increasing the breaking. Example, two cylinders produce 1,400,000 lbs. of breaking force. Up to four splitters can be operated with one pump.*

## CONTROLLED DEMOLITION FOR INFRASTRUCTURE WORK

Many contractors find they can reduce costs, save time and make demolition work profitable using the hydraulic splitting method. Hydraulic splitting means controlled demolition. As the direction of breaks can be determined, concrete can be cut in sections as large as your equipment can handle. Hydraulic splitting eliminates both shocks and vibrations associated with large impact tools. Engineered for heavy duty work, hydraulic splitters will out perform even large mounted impact machines. It can break large pieces of concrete or rock many times faster than paving breakers. Years of research and the use of hydraulic splitting on hundreds of job sites has proved this new method to be one of the most practical tools for demolition of concrete and rock. With a hydraulic splitter, the operator now has a very powerful tool at his command. With little effort, he can control the demolition as the job requires. The applications for the splitter are many, such as bridge decks, abutments, retaining walls, concrete walls, floor slabs, foundations, wall openings, reinforced concrete, rock and brick walls, locks, dams, culverts, road barriers and underwater demolition of concrete and rock.



Left, Hydraulic splitter was used to remove ends of overpass supports to form a keyway. The concrete was separated wide enough to cut reinforcing rods using enlarging feathers. Right, Workman carries splitter used to cut 14 ft. tunnel through base of dam for new penstock.

Trench rock and boulders below grade can be broken with one or more hydraulic splitters. Hydraulic splitting eliminates dangers associated with blasting. These hydraulic splitters will also operate underwater without any modifications.

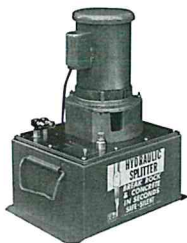
## Elco Offers a Complete, Compact and Powerful Hydraulic Demolition System DARDA CYLINDER SPECIFICATIONS

Model	#12	#9	#2
Weight	68 lbs.	50 lbs.	45 lbs.
Overall Length	50 3/4"	40"	30"
Maximum Expansion	.75"-1.87"	.78"	.33"
Size Hole Required	1 3/4"	1 3/4"	1 3/16"
Minimum Hole Depth	26"	18"	12"
Maximum Splitting Force	385 Tons	220 Tons	220 Tons

The No. 12 cylinder, the largest and most powerful, is recommended for heavy duty jobs and reinforced concrete. The No. 9 and No. 2 are recommended where work is light or in a confined area. All cylinders operate up to 7100 P.S.I. A complete unit consists of a cylinder, 30 ft. high and low pressure hoses, high and low pressure whips, quick connect couplings, hydraulic pump and lubricant.

### ELCO PUMP SPECIFICATIONS

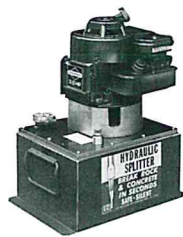
Model	Electric 03	Air 02	Gasoline 01
Weight	74 lbs.	70 lbs.	78 lbs.
Height	24"	19 1/4"	21 1/4"
Width	18"	18"	18"
Depth	12 1/2"	12 1/2"	12 1/2"
Oil Capacity	5 Gal.	5 Gal.	5 Gal.
Motor	3450 RPM, 115 Volts at 20 Amps & 220 Volts at 10 Amps.	Air Motor requires 50-80 cfm at 100 P.S.I.	3.75 h.p. B & S gas engine



Electric 03



Air 02

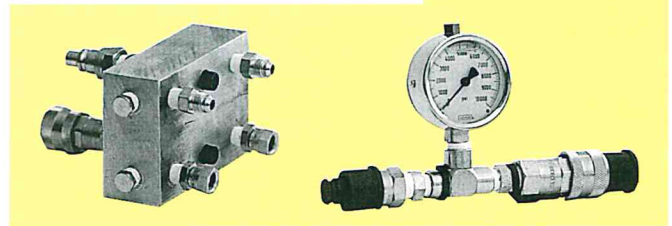


Gasoline 01

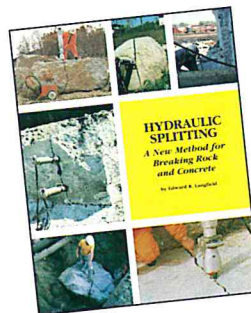
The hydraulic pumps listed are set at 7,100 P.S.I. All pumps have built-in automatic control valves and hose connections. Pump Models 01, 02 and 03 will power up to 4 cylinders with flow bar.

### ACCESSORIES

- Enlarging feathers to extend cracks.
- Lubricant packed in 1/2 and 1 pint cans to lubricate plug and feathers.
- Flow bar to run extra splitters off one pump.
- Pressure gauge to check pump output and all components.



### MANUAL ON HYDRAULIC SPLITTING APPLICATIONS



Illustrated booklet describes many of the applications for hydraulic splitting for both large and small projects. It also shows the various drill hole patterns and sequence of breaks. Send for your copy today. If you would like more information on how hydraulic splitting could be used on your demolition project, call our toll free number. Hydraulic splitting is a completely new modern method that has a proven performance on thousands of job sites for all types of demolition work.

**SPLITTERS FOR RENT OR SALE AT YOUR LOCAL DEALER.**



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