

VOLVO EXCAVATOR

# HYDRAULIC HAMMERS



**MORE CARE. BUILT IN.**





# FOR EXTRA-TOUGH CONDITIONS, VOLVO HAMMERS DELIVER HIGH IMPACT

Stubborn rock. Concrete debris. Frost-locked earth. These are the kinds of conditions that can damage an excavator's bucket, arm and boom. Contractors need a rugged tool designed for extreme duty and high impact to break up hard materials and keep projects on schedule. Volvo brings home the solution with hydraulic hammers, built to leverage the power and performance of Volvo excavators.

Volvo Hydraulic Breaker Series has the power, durability and maximum breaking force to dispose of a wide range of troublesome materials. So whether your challenge is trenching rock for utilities, breaking riprap\* or chipping a bridge deck, Volvo delivers with maximum impact.

## **Productivity from powerful strokes**

No matter what materials you face, job success depends on disposing of materials quickly. Volvo hammers are engineered as a well-matched extension of the excavator, with superior power-to-weight ratios, maximum impact on every blow and outstanding cushioning for operator comfort.

The long, heavy piston matches the diameter and weight of the work tools for maximum transfer of energy from the hammer to the ground material. An integrally top-mounted accumulator guards against pressure peaks and helps the piston keep consistent power. And the pressure-control valve keeps the hammer striking at full force, even if hydraulic pressure from the excavator changes.

A one-piece dampening spring with rubber side buffers shields the excavator the operator from reflection and recoil forces, enhancing comfort and increasing productivity. The low noise design and low noise option also reduce fatigue for the operator and work-site laborers.

## **Built for durability and long life**

The superior engineering of the Volvo Hydraulic Breaker Series evenly distributes stresses and pressures during operation to extend component life and maximize uptime. The tie rod and control valves are designed for protection from pressure peaks and other stresses for maximum durability even in severe applications.

Working in abrasive rock and concrete can prematurely wear down a hammer,

but hammers in the Volvo Hydraulic Breaker Series are built into a fabricated severe-duty box housing that keeps debris out and shields key components from damage. The replaceable lower boot is made from abrasion-resistant steel for maximum protection.

Composite wear plates provide excellent guidance for the power cell and are easily replaced for quick maintenance and minimum down time. Volvo work tools are heat treated for maximum strength, long life and optimum performance in breaking up a wide range of materials.

## **Serviceability aids uptime**

Smart design of the bushings delivers excellent retention of lubricants and ensures proper alignment of the piston and work tool. Multi-ring grooves provide visual indication of wear, allowing early replacement of worn parts. A slip-fit feature makes it easy to replace bushings in the field, increasing uptime.

A standard, built-in grease channel accommodates auto-greasing systems and extends the life of tools and bushings. No charging equipment is needed for continuous operation of the accumulator.

## **Integrated solutions from Volvo**

Now the same Volvo dealers who bring you world-class Volvo excavators have the best solutions to handle extreme materials. Volvo excavators and hammers deliver performance, backed by a strong Volvo warranty and complete service. All in one place. Now that is real impact.



## **Customer Benefits**

### **One stop shop**

- One package and delivery of excavator with Volvo hammer

### **Well-matched system for good productivity**

- Maximum stroke forces for material penetration, fracture
- Hammer piston, tools matched for best energy transfer
- Good operator visibility to the hammer

### **Long life, durability**

- Standard built-in grease channel for longer component life
- Top-mounted hose connection keeps supply/return hoses away from debris
- High reliability, minimal maintenance and quick turnaround upon rebuild

### **Comfort, ease of use**

- Easily change to hammer with a Volvo quick fit
- Easy to set/adjust hydraulic flows, pressures

### **Well prepared Volvo hammer option**

- Hydraulic hammer system (X1)
- Safety front net
- FOG & FOPS for safety
- Hammer (hammer body, tool, bracket, piping)
- Optimal hoses and attachment brackets, either pin-on or for Volvo quick fits

### **A wide range of applications**

- Quarries (primary and secondary breaking)
- Trenching for utilities
- Foundation digging in residential, commercial construction
- Road rehab and construction (breaking roadbed, traffic islands)
- Demolition of concrete, brick, wood structures

\*a foundation or sustaining wall of stones or chunks of concrete thrown together without order



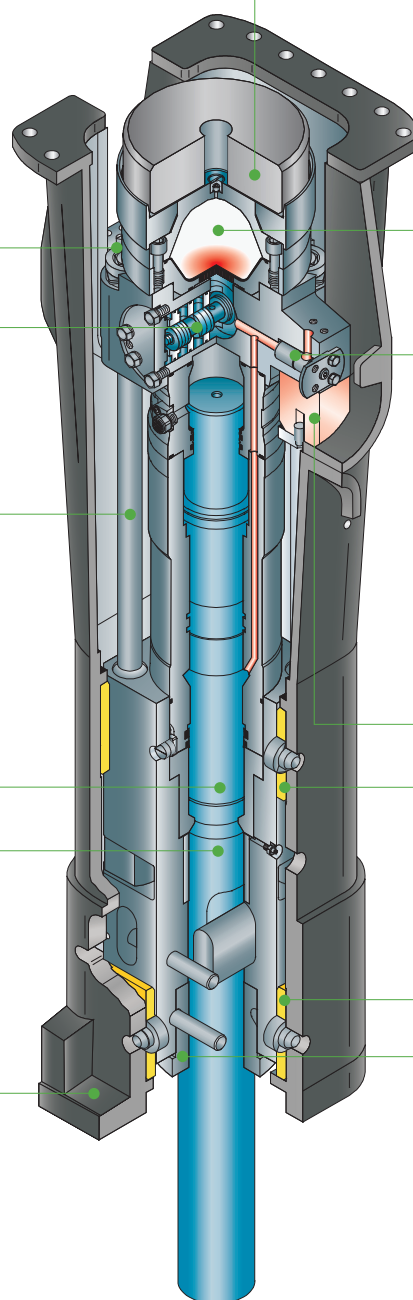
The pressure-control valve ensures maximum force always - consistently get the most out of your hammer all the time with no degradation.

The main valve directs the firing sequence and protects the hydraulics from pressure peaks.

The tie rods feature a heat-torqued design that provides more reliable tension and evenly distributes shock loads.

The long, heavy piston is closely matched with tool weight and diameter to deliver maximum blow forces through a long stroke cycle.

The fabricated, wear-resistant steel housing provides excellent protection for the power cell and components, and suppresses noise levels.



The excavator and operator are isolated from long- and short-duration recoil forces by the single-piece rubber buffer.

Top-mounted accumulator boosts the piston in its power stroke and dampens pressure spikes inside the hammer.

The check valve guards against pressure spikes by closing off the supply port to ensure consistent operation.

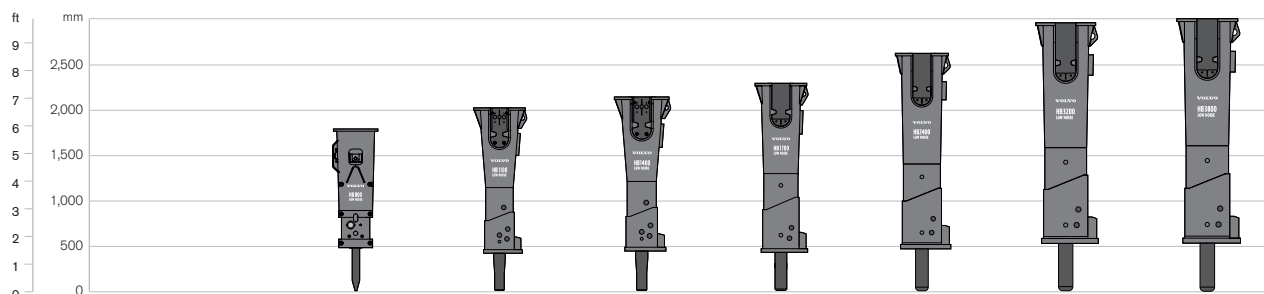
Natural-rubber side buffers work to cushion the excavator arm and boom from undue stress and shock.

Easily replaceable composite wear plates guide the power cell within the housing.

Field-replaceable lower tool bushing. This bushing can be turned 90 degrees for 2x wear before replacement.







Description	Unit	HB800	HB1100	HB1400	HB1700	HB2400	HB3200	HB3800
Impact energy	lb.ft	1,600	2,000	2,500	3,500	6,000	8,000	12,000
Operating weight	kg lb	830/820 1,830/1,808	1,040 2,293	1,330 2,932	1,710 3,770	2,350 5,181	3,150 6,945	3,800 8,378
Length	mm ft-in	1,856/1,853 6' 1" / 6' 1"	1,965 6' 5"	2,141 7' 0"	2,282 7' 6"	2,621 8' 7"	2,903 9' 6"	3,010 9' 10"
Tool diameter	mm in	95 3.74	115 4.53	125 4.92	130 5.12	140 5.51	160 6.30	175 6.89
Acceptable oil flows	lpm gpm	60-120 16-32	80-130 21-34	120-170 32-45	120-200 32-53	160-230 42-61	210-310 55-82	220-320 58-85
Operating pressure	bar psi	125-150 1,813-2,176	135-145 1,958-2,103	135-145 1,958-2,103	135-145 1,958-2,103	120-150 1,740-2,176	120-150 1,740-2,176	120-155 1,740-2,248
Impact rate	bpm	500-1,000	450-800	450-800	330-580	300-625	300-630	300-700
Excavator weight limits	ton lb	9-18 19,841-39,683	12-20 26,455-44,092	18-26 39,683-57,320	21-32 46,297-70,547	25-40 55,116-88,184	32-55 70,548-121,254	40-70 88,184-154,323

### Hammer solution for a wide range

Applications	HB800	HB1100	HB1400	HB1700	HB2400	HB3200	HB3800
EC140C/EC140B	○	○					
EC160C/EC160B/EW160C/EW160B	○	○					
EW180C/EW180B*		○	○				
EC210C/EC210B			○	○			
EC240C/EC240B/EC290C/EC290B				○	○		
EC330C/EC330B/EC360C/EC360B					○	○	
EC460C/EC460B						○	○

\* EW180B & EW180C & HB1400 combination: applicable 2.45 m, **8' 0"** & 2.6 m, **8' 6"** arm only.

Applications	HB800	HB1100	HB1400	HB1700	HB2400	HB3200	HB3800
Frozen or hard ground	○	○	○	○	○	○	○
Concrete breaking	○	○	○	○	○	○	○
Road surface breaking	○	△	△	△	△	△	△
Boulder breaking	□	□	□	○	○	○	○
Bedrock trenching	□	□	□	□	○	○	○
Primary breaking of rock	-	-	-	-	□	○	○

○: Recommended / △: Recommended in special applications / □: Only in soft material

### General use for trenching, benching and demolition



The **moil** is a standard tool for almost any application. The moil point is ideal for general use in trenching or demolition.



The **chisel** is the standard recommendation for rock excavation and concrete demolition.



The **blunt** is often used in breaking blasted rock and reduction of oversize rock in crusher operations.





Volvo Construction Equipment is different. Our machines are designed, built and supported in a different way. That difference comes from an engineering heritage of over 175 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different – **More care. Built in.**



*Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.*

# **VOLVO**

**Construction Equipment**  
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