

H70, H70 S, H90C, H90C S, H100, H100 S

Hydraulic Hammers for Small Hydraulic Excavators



Features

Silenced option available

High oil flow acceptance

Slip fit bushing

Sealed accumulator

Benefits

For operation in residential and noise-sensitive applications where compliance with regulations must be met.

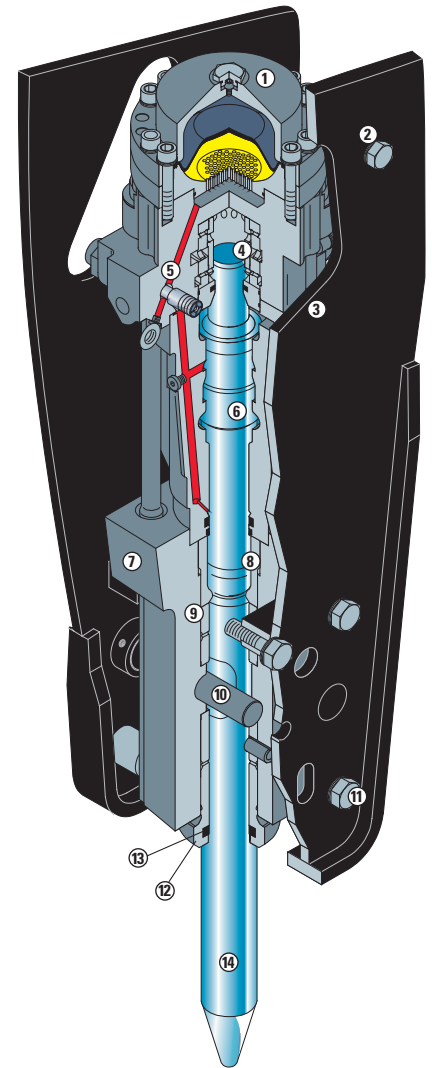
The hammer has a high frequency and high productivity to get the job done fast. Due to the wide oil flow acceptance range, the hammer can be used across a wide range of carrier brands for maximum utilization within a mixed carrier fleet.

The lower bushing is a slip fit design which can be changed in the field without the need for special tooling thus increasing hammer up-time and productivity by eliminating the need to send the hammer to a workshop.

The hammer has a sealed accumulator providing constant blow energy and delivering full power with each and every blow without the need for recharging the nitrogen at site.

Hydraulic Hammers for Small Hydraulic Excavators

- 1 **Low Pressure Accumulator** – Assists in the power stroke of the piston.
- 2 **Custom Sideplates** – Designed for Caterpillar carrier geometry. Protects the powercell and front end.
- 3 **High Pressure Accumulator** – Dampens pressure peaks thus protecting the carrier hydraulic system (not shown).
- 4 **Distributor** – High oil volume for greater blow frequency.
- 5 **Pressure Adjusting Valve (PAV)** – Assures that all blows are delivered at a constant blow energy.
- 6 **Piston** – Long heavy piston delivers maximum impact energy and minimizes recoil forces to carrier.
- 7 **Long Front End** – Ensures proper piston tool alignment.
- 8 **Slip Fit Thrust Ring** – Dissipates harmful shock loads in abusive applications.
- 9 **Slip Fit Upper Tool Bushing** – Positive alignment for the tool.
- 10 **Tool Retention Pin System** – Allows quick and easy removal of tool.
- 11 **Side Plate Fastener** – Working forces carried through cap screws and front end.
- 12 **Slip Fit Lower Tool Bushing (Field Replaceable)** – Grease retention grooves for extended lubrication and wear indication.
- 13 **Dust Seal** – Dust Seal helps prevent foreign material from entering the housing. This reduces the wear on the power cell and other major components.
- 14 **Tool** – Heat treated for longer life. Ideally matched to piston for greater transfer of stress waves.

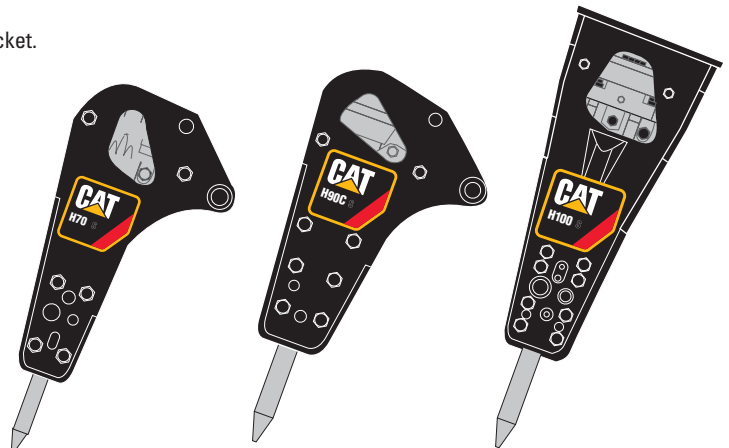


Specifications

		H70/H70 S	H90C/H90C S	H100/H100 S
Recommended carrier weight	tonnes	5-8	7-12	8-14
Working weight*	kg	430/435	590/600	820/830
Impact frequency	bpm	600-1850	500-1450	430-1300
Acceptable oil flow	liter/min	50-150	60-150	60-120
Operating pressure	bar	140	135	145

H70 and H90C are available in either flat top or pin-on version

* Working weight includes hammer, standard tool and average mounting bracket.



Applications Guide with Standard Tools



Chisel

Applications

- Sedimentary and weak metamorphic rock into which tool penetrates
- Concrete

C

Select when:

- Working in non-abrasive but ductile rock
- Needing medium penetration rate into rock



Moil

Applications

- Sedimentary and weak metamorphic rock into which tool penetrates
- Concrete

M

Select when:

- Working in soft, non-abrasive rock
- Needing greater protection against excessive retaining pin groove wear



Blunt

Applications

- Igneous and tough metamorphic rock into which tool doesn't penetrate
- Concrete

B

Select when:

- Working in low or medium abrasive rock
- Tool wear rate is low

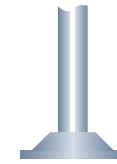


Spade (parallel or transverse)

Applications

- Frozen or compact ground
- Asphalt

S



Compacting Plate

Applications

- Ground compacting

CP

Roadbuilding/construction

	H70/H70 S	H90C/H90C S	H100/H100 S
Breaking of road surface	C, M, S	C, M, S	C, M, S
Breaking uneven bedrock to lay a road			C, M
Asphalt cutting to shape or area	C, S	C, S	C, S
Trench excavation for drainage	C, M	C, M	C, M
Demolition of bridges	C, M	C, M	C, M
Compacting soils	CP		
Making holes (for traffic signs, lamp posts)	M	M	M
Breaking of frozen ground	C, M, S	C, M, S	C, M, S

Demolition/housing development

Demolition of concrete walls, roofs, floors	C, M	C, M	B, C, M
Demolition of light, reinforced concrete foundation (<.5m)	M	M	B, M
Brick walls	C, M	C, M	C, M
Rock trenches for mains/water supply/utilities	C, M	C, M	C, M
Rock excavation for foundation		C, M	C, M
Separating rebar from concrete (for recycling)	C, M	C, M	B, C, M

Quarrying/open cast mining

Breaking oversizes on a crusher/feeder/feed chute		C, M	B, C, M
---	--	------	---------

Underground applications

Scaling	C	C	C
---------	---	---	---

Metallurgical applications

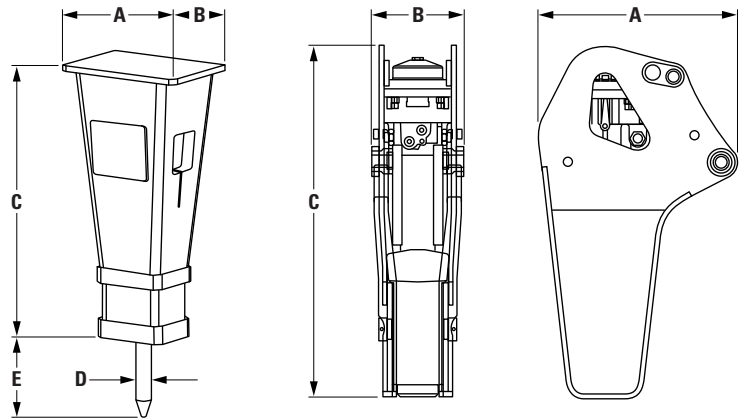
Breaking of slag in casting ladles		C, M	C, M
Cleaning of castings		C, M	C, M
Breaking of refractory linings in furnaces	C, M	C, M	C, M

- C Chisel
- M Moil
- B Blunt
- S Spade
- CP Compacting Plate

H70, H90C, H100C Hydraulic Hammers

Dimensions

		H70	H70	H90C	H90C	H100
		H70 S	Pin-on	H90C S	Pin-on	H100 S
		Flat-top		Flat-top		Flat-top
A	mm	470	690	510	749	585
	mm	520		520		585
B	mm	380	348	380	348	540
	mm	400		400		540
C	mm	1134	1228	1286	1325	1397
	mm	1150		1294		1394
D	mm	70	70	84	84	95
	mm	70		84		95
E	mm	402	355	417	417	459
	mm	390		417		459



Hydraulic Requirements

Single action tool control, high pressure lines.

Matching Guide

Hammer	Hydraulic Excavators
H70/H70 S	307D, 308D CR
H90/H90C S	307D, 308D CR, 311D, 312D
H100/H100 S	311D, 312D, 314D CR, 315D, M313D, M315D, M316D

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

HEHX3220-4 (09/2008) hr

© 2007 Caterpillar -- All Rights Reserved

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Caterpillar dealer for available options.

CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the POWER EDGE™ trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

CATERPILLAR®
TODAY'S WORK. TOMORROW'S WORLD.™