

H65D S, H70, H70 S, H90C, H90C S

Hydraulic Hammers for Backhoe Loaders



Features

High oil flow acceptance

Slip fit bushing

Tuck under design

Sealed accumulator

Benefits

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.

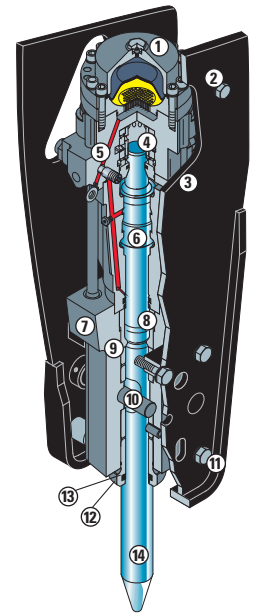
The lower bushing is a slip fit design which can be changed in the field without the need for special tooling thus increasing hammer up-time and productivity by eliminating the need to send the hammer to a workshop.

Allows the hammer to be tucked under the boom of Caterpillar backhoe loaders equipped with the high rotation linkage for travelling without having to dismount the hammer and transport it separately.

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.

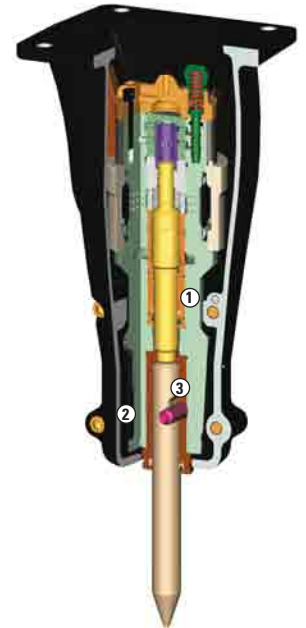
Hydraulic Hammers for Backhoe Loaders

- 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.



Additional Features of H65D S

- 1 **One Piece Body** – Reduces components and eliminates tie rods and nuts.
- 2 **6-Piece Isolation System** – Significantly reduces shock loads transferred to the machine during hammer operation, to improve operator comfort and extend life of critical machine components.
- 3 **Single Bushing Design** – Slip fit field replaceable one piece bushing (includes lower, upper and thrust ring).
- 4 **Less Parts** – Owning and operating costs are minimized. Wear parts are field replaceable without the need for special tools thus minimizing downtime and increasing up time and productivity.
- 5 **Silenced as Standard** – For operation in residential and noise-sensitive applications where compliance with regulations must be met.

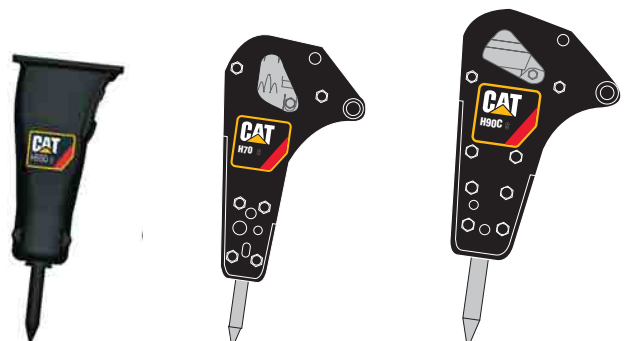


Specifications

		H65D S Flat-top	H70/H70 S**	H90C/H90C S**
Recommended carrier weight	tonnes	4,5-9,0	5-8	7-12
Working weight*	kg	385	430-435	590-600
Impact frequency	bpm	700-2000	600-1850	500-1450
Acceptable oil flow	liter/min	40-105	50-150	60-150
Operating pressure	bar	170	140	135

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

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



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

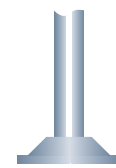


S

Spade (parallel or transverse)

Applications

- Frozen or compact ground
- Asphalt



CP

Compacting Plate

Applications

- Ground compacting

Roadbuilding/construction

	H65D S	H70/H70 S	H90C/H90C S
Breaking of road surface	C, M, S	C, M, S	C, M, S
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	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	C, M
Demolition of light, reinforced concrete foundation (<.5m)	M	M	M
Brick walls	C, M	C, M	C, M
Rock trenches for mains/water supply/utilities			C, M
Rock excavation for foundation			C, M
Separating rebar from concrete (for recycling)	C, M	C, M	C, M

Quarrying/open cast mining

Breaking oversized on a crusher/feeder/feed chute			C, M
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Underground applications

Scaling	C	C	C
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Metallurgical applications

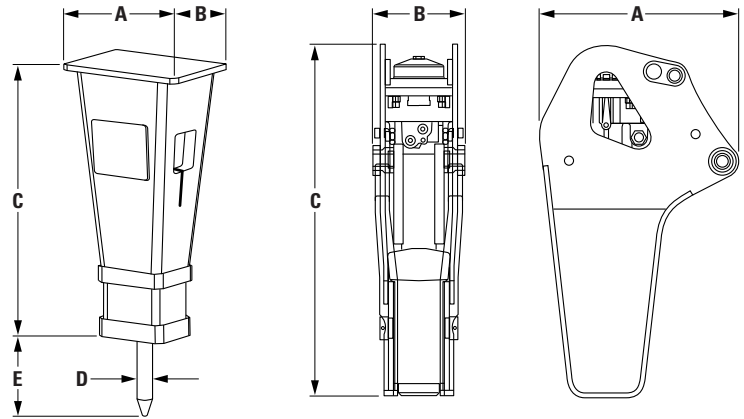
Breaking of slag in casting ladles			C, M
Cleaning of castings			C, M
Breaking of refractory linings in furnaces	C, M	C, M	C, M

C Chisel
M Moil
S Spade
CP Compacting Plate

H65D S, H70, H70 S, H90C, H90C S Hydraulic Hammers

Dimensions

		H65D S	H70 H70 S	H70	H90C H90C S	H90C
		Flat-top	Flat-top	Pin-on	Flat-top	Pin-on
A	mm	535	470	690	510	749
	mm		520		520	
B	mm	415	380	348	380	348
	mm		400		400	
C	mm	895	1134	1228	1286	1325
	mm		1150		1294	
D	mm	65	70	70	84	84
	mm		70		84	
E	mm	330	402	355	417	417
	mm		390		417	



Hydraulic Requirements

Backhoe hydraulic 5/6 function, 1-way auxiliary lines

Matching Guide

Hammer	Backhoe Loaders
H65D S	416E, 420E, 422E, 428E, 430E, 432E, 434E, 442E, 444E
H70/H70 S	416E, 420E, 422E, 428E, 430E, 432E, 434E, 442E, 444E
H90C/H90C S	416E, 420E, 422E, 428E, 430E, 432E, 434E, 442E, 444E

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

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