



# Cat<sup>®</sup> Hammers

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

## FEATURES & BENEFITS:

### High Blow Rate

- Ultra high blow rate means very high productivity for all hammers.

### Wide Carrier Versatility

- Wide range of oil flow ideally matches Cat<sup>®</sup> and other machines and reduces likelihood of improper machine setting.

### Constant Blow Energy

- Maximum and constant blow energy regardless of the oil flow adjustment (within the given min and max oil flow specifications).

### Full Length Side Plates

- Powercell completely protected through full-length side plates. Front head is not exposed.

### Energy Efficient

- Matching the mass and diameter of the piston to the mass and diameter of the tool helps ensure optimum energy transfer.

### Slip Fit Lower Tool Bushing

- Slip fit field serviceable lower tool bushing with internal dust seal. Bushing includes grease retention grooves for better lubrication. Dust seal helps keep dirt out to provide longer life of the bushing and tool.

### Silenced Option Available

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

### Membrane Style Accumulator

- Membrane accumulator versus gas accumulator provides less maintenance and downtime resulting in greater productivity.

### High Pressure Accumulator

- High-pressure accumulator located on the back side of the hammer protects the carrier pumps from hydraulic pressure spikes.

### Dependability

- Service and parts available through the worldwide Cat<sup>®</sup> Parts System.

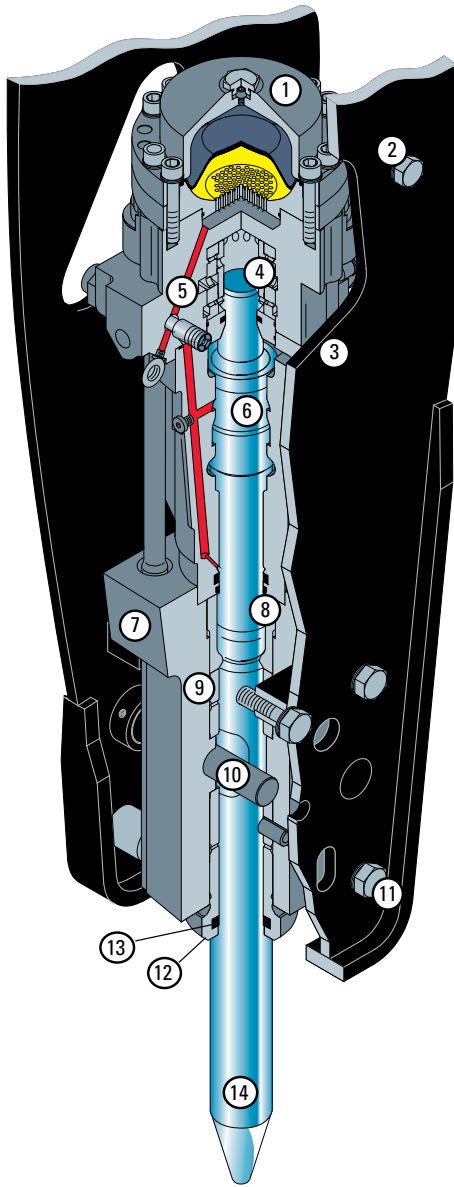
## Hammers / Machines Compatibility

Small Hydraulic Excavators, Wheel Excavators, Backhoe Loaders

Model	Machines
H70 / H70 S	307C, 308C CR, 416D/E, 420E, 422E, 428E, 430E, 432E, 442E
H90C / H90C S	307C, 308C CR, 311C, 312C, 416D/E, 420E, 422E, 428E, 430E, 432E, 442E, 446D
H100 / H100 S	311C, 312C, 314C CR, 315C, M313D, M315D, M316D, 446D

# Cat Hammers

## Hammer Illustrations




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 grease between the lower tool bushing and tool. This reduces the wear on the lower tool bushing and tool.
14. **Tool** – Heat treated for longer life. Ideally matched to piston for greater transfer of stress waves.

	<b>H70 / H70 S</b>	<b>H90C / H90C S</b>	<b>H100 / H100 S</b>
Recommended carrier weight	11,000-17,600 lb	15,400-26,400 lb	17,600-30,800 lb
	5,000-8,000 kg	7,000-12,000 kg	8,000-14,000 kg
Working weight*	948/959 lb (430/435 kg)	1,298/1,320 lb (590/600 kg)	1,804/1,826 lb (820/830 kg)
Impact frequency	600-1,850 bpm	500-1,450 bpm	430-1,300 bpm
Energy Class	900 ft-lb (1,220 J)	1,200 ft-lb (1,627 J)	1,700 ft-lb (2,305 J)
Acceptable oil flow	13-39 gpm (50-150 lpm)	16-39 gpm (60-150 lpm)	16-31 gpm (60-120 lpm)
Operating pressure	2,030 psi (140 bar)	1,958 psi (135 bar)	2,103 psi (145 bar)
Sound power level Lwa**	133 / 127 dB(A)	133 / 127 dB(A)	136 / 126 dB(A)

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

\*\* Sound power level Lwa as tested per Directive 2000/14/EC.

## Applications Guide with Standard Tools



**Chisel**


*Applications*

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

*Select when:*

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

**C**



**Moil**


*Applications*

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

*Select when:*

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

**M**

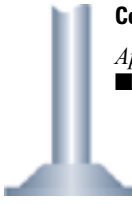


**Spade (parallel or transverse)**

*Applications*

- Frozen or compact ground
- Asphalt

**S**



**Compacting Plate**

*Applications*

- Ground compacting

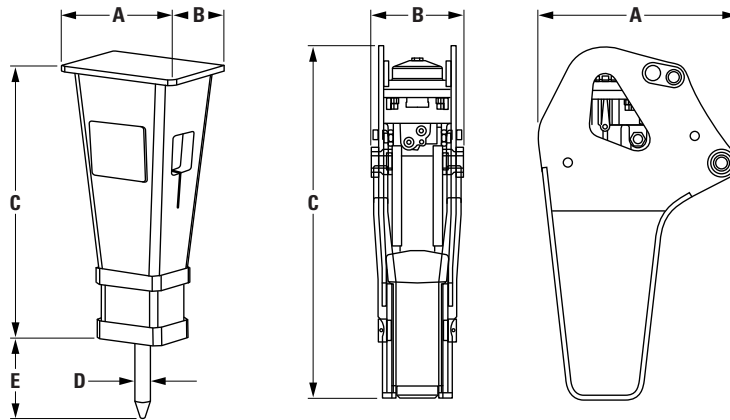
**CP**

**C - Chisel**  
**M - Moil**  
**S - Spade**  
**CP - Compacting Plate**

	<b>H70 / H70 S</b>	<b>H90C / H90C S</b>	<b>H100 / H100 S</b>
<b>1. Roadbuilding/Construction</b>			
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
<b>2. Demolition/Housing Development</b>			
Demolition of concrete walls, roofs, floors	C,M	C,M	C,M
Demolition of light, reinforced concrete foundation [<.5m (19' 7")]	M	M	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	C,M
<b>3. Quarrying/Open Cast Mining</b>			
Breaking oversizes on a crusher/feeder/feed chute		C,M	C,M
<b>4. Underground Applications</b>			
Scaling	C	C	C
<b>5. Metallurgical Applications</b>			
Breaking of slag in converter openings			C,M
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

# Cat Hammers

## Dimensions



	H70 / H70 S	H70	H90C / H90C S	H90C	H100 / H100 S
	Flat-top	Pin-on	Flat-top	Pin-on	Flat-top
A. Length	18.5 / 20.5 in 470 / 520 mm	27.1 in 690 mm	20.1 / 20.5 in 510 / 520 mm	29.4 in 749 mm	23.0 / 23.0 in 585 / 585 mm
B. Width	15 / 15.7 in 380 / 400 mm	13.7 in 348 mm	15.0 / 15.7 in 380 / 400 mm	13.7 in 348 mm	21.3 / 21.3 in 540 / 540 mm
C. Height	44.6 / 45.3 in 1134 / 1150 mm	48.3 in 1228 mm	50.6 / 50.9 in 1286 / 1294 mm	52.1 in 1325 mm	54.9 / 54.8 in 1397 / 1394 mm
D. Tool Diameter	2.8 / 2.8 in 70 / 70 mm	2.8 in 70 mm	3.3 / 3.3 in 84 / 84 mm	3.3 in 84 mm	3.7 / 3.7 in 95 / 95 mm
E. Tool Working Length	15.8 / 15.3 in 402 / 390 mm	14.0 in 355 mm	16.4 / 16.4 in 417 / 417 mm	16.4 in 417 mm	18.1 / 18.1 in 459 / 459 mm

## Productivity

	H70 / H70 S	H90C / H90C S	H100 / H100 S
Non-Reinforced Concrete	85-140 yd <sup>3</sup>	90-160 yd <sup>3</sup>	125-280 yd <sup>3</sup>
	65-107 m <sup>3</sup>	69-122 m <sup>3</sup>	96-214 m <sup>3</sup>
Reinforced Concrete	25-60 yd <sup>3</sup>	50-80 yd <sup>3</sup>	130-175 yd <sup>3</sup>
	19-46 m <sup>3</sup>	38-61 m <sup>3</sup>	99-134 m <sup>3</sup>
Sedimentary Rock			110-250 yd <sup>3</sup>
			84-191 m <sup>3</sup>
Volcanic Rock			55-130 yd <sup>3</sup>
			42-99 m <sup>3</sup>

\* Production rates listed are based on 8-hr shift. The above figures are for general estimation purpose only and must not be used to guarantee any production figure to the customer. The actual working results may vary according to the quality and structure of the material to be broken, required degree of material size reduction, installation, condition of the carrier, conditions at the worksite, haulage of the broken material, skills of the operator etc.

For more complete information on Cat products, dealer service, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

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