# **B MODEL HAMMERS**

SKID STEER LOADERS · COMPACT TRACK LOADERS BACKHOE LOADERS · MINI HYDRAULIC EXCAVATORS

HAT

**B8** 

S



Cat<sup>®</sup> B Hammers are suitable for use in a wide range of construction and general demolition applications – such as breaking concrete sidewalks and driveways, pavement, roads, masonry, site prep and landscaping, and breaking frozen ground for utility repairs. Each model of B Hammer is available in either silenced or non-silenced configurations. The silenced version is identified by an 's' suffix.

# **FEATURES**



#### **GAS FIRED DESIGN**

Gas fired design delivers consistently high production over time making the breaker reliable in applications such as concrete, asphalt, rock and light trenching.



#### **SLIP FIT BUSHINGS**

Field replaceable and easy to maintain due to one locking pin, extending wear life and reducing owning and operating costs.



**MAINTENANCE** All Cat hammers have easily accessible maintenance points.



**STANDARD 2 YEAR WARRANTY** 

Standard 2 year warranty gives you piece of mind when purchasing a quality Cat hammer.



**TOP MOUNT STYLE HAMMERS** Top mount style hammers offer the flexibility to be used on a various machine families with supporting brackets for different host machines.



#### ERGONOMICALLY POSITIONED HYDRAULIC LINES

Designed to optimize serviceability, are easily accessible and require no special tools.



#### **INCLUDED WITH EACH HAMMER**

+ Two tools, cone and crosscut/ transverse chisel.

A toolbox containing standard service items to help maintain the hammer.

Items included are:

- + NITROGEN CHARGE GAUGE
- + HAMMER PASTE TUBE
- + TOOL PIN
- + RETENTION SPRING PINS
- + OPERATION MAINTENANCE MANUAL
- + OTHER KEY SERVICE ITEMS.

# **B MODEL HAMMERS** ANATOMY

- 1) Tool pin Installed in the front head to prevent tool from coming off.
- 2) **Upper tool bushing** Provides alignment between the tool and the piston. Bushing is secured in the head by a retaining pin.
- 3) Grease fitting Apply grease only when tool has pushed up fully to ensure no grease gets between piston and tool, as seal damage may occur.
- 4) Cylinder Contains moving piston which strikes the tool. Seals for both ends of the piston are also located in the cylinder. Seals for the upper end of the piston are in a removable seal retainer while the seals for the lower end of the piston are in grooves, machined directly into the cylinder.
- 5) Valve Controls piston reciprocation with hydraulic fluid distribution.
- 6) Back head assembly Contains cushion chamber charged with nitrogen (N2) gas that is compressed during upward strokes of the piston. Serves to provide maximum absorption of piston recoil, efficiently storing this energy for the next blow.
- 7) Charging port Used to charge back head with N2 and to check pressure.
- Through bolt Used to assemble the front head, cylinder and the back head. Bolts must constantly be tightened to specified torque. Inspect bolts on a regular basis as loosening may occur.
- 9) **Seal retainer** Retainer has oil seals to seal N2 gas in back head and prevent hydraulic oil leakage.
- Air check valve Allows air pressure to be vented during hammer operation, preventing lower cylinder seals from pushing out of place.
- 11) Piston Transfers impact power to the tool, generated by hydraulic power.
- 12) **Front head assembly** Retains the tool using the tool pins. Removing these pins will allow the tool to be replaced.
- Lower tool bushing Provides alignment between tool and piston. Bushing is secured in the head by a retaining pin.

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- 14) **Tool** Transfers piston impact power to the objects. Various tool shapes are recommended according to working application.
- 15) **Buffers** Silenced hammers have several buffers (quantity and placement are model dependent) that aid in providing for a quieter operation sound level.

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# **B MODEL HAMMERS** BRACKETS

All Cat hammer brackets are interchangeable with B model hammers, H model hammers and vibratory plate compactors (CVP). Brackets are identified by size to help with matching. For example, the small-medium bracket has holes for 230 mm × 230 mm and 230 mm × 290 mm. It will accept B1, B2, B4, H35, and H45 Hammers as well as CVP16 and CVP28.

CHOOSE HAMMER ATTACHMENT				CHOOSE BRACKET							
Hammer Bracket Size	Hole Spacing (mm × mm)	B Model Hammer	H Model Hammer	CVP Model	Small	Small- Medium	Medium	Medium- Large	Small Large	Large	Extra Large
Small	230 × 230	B1, B2, B4		CVP16, CVP28	•	•			•		
Medium	230 × 290	B4	H35, H45			•	•	•			
Large	230 × 390	B6, B8	H55, H65	CVP16, CVP28				•	•	•	
Extra Large	360 × 480	B9	H80, H95	CVP40, CVP55							•

## **Bracket Hole Configurations**



## Hammer Bracket Interface Types



Skid Steer Loader Bolt-On



Skid Steer Loader (SSL)/Mini Excavator (MHE) Pin On



Pin On (pin grabber)



CW





Pin Lock



S Type

# **B MODEL HAMMERS** CONFIGURATIONS

How to configure a hammer for your needs:

- 1. Choose hammer (based on machine type)
- 2. Choose bracket (that matches your hammer and machine)
- 3. Choose correct jumper lines for your machine

### Mini Hydraulic Excavators/Backhoe Loaders



## Skid Steer Loaders/Compact Track Loaders/Mini Hydraulic Excavators (3-6 ton)

The Cat SSL/MHE pin on hammer bracket is designed to facilitate quickly changing between MHE and SSL machines. When used with the appropriate pin on top mount bracket, this bracket will allow hammers to be switched between 3-4 ton and 5-6 ton MHE and compact track loader (CTL) and SSL machines *without the use of wrenches*.





Both configurations above require the same set of hydraulics lines. Lines for the skid steer bracket will be long enough to work for all applicable mini hydraulic excavator setups.

## **B MODEL HAMMERS** AVAILABLE TOOLS



# **B MODEL HAMMERS** THE RIGHT TOOL FOR THE JOB

Road Building/Construction	B1	<b>B2</b>	<b>B</b> 4	<b>B</b> 6	<b>B</b> 8	<b>B</b> 9
Breaking of road surface	CH, M, C	CH, M, C, S				
Asphalt cutting	СН	CH, S				
Trench excavating for drainage						CH, M, C
Demolition of bridges	CH, M, C	CH, M, C	CH, M, C	CH, M, C	CH, M, C	CH, M, C
Making holes (for traffic signs, lamp, posts)		M, C				
Breaking of frozen ground	CH, M, C	CH, M, C, S				
Compacting Solid		СР	СР	CP	СР	CP
Demolition/Housing Development						
Demolition of concrete walls, roofs, floors	CH, M, C	CH, M, C	CH, M, C	CH, M, C	CH, M, C	CH, M, C
Demolition of light reinforced concrete <20%	M, C	M, C	M, C	M, C	M, C	M, C
Brick walls	CH, M, C	CH, M, C	CH, M, C	CH, M, C	CH, M, C	CH, M, C
Rock trenches for mains/water supply/utilities						CH, M, C
Rock excavation for foundation						
Separating rebar from concrete (for recycling)	CH, M, C	CH, M, C	CH, M, C	CH, M, C	CH, M, C	CH, M, C
Quarrying/Open Cast Mining						
Breaking oversized on a crusher/feeder/feed chute						
Scaling						СН
Metallurgical Applications						
Breaking of slag in casting ladles						
Cleaning of castings						
Breaking of refractory linings in furnaces	CH, M, C	CH, M, C	CH, M, C	CH, M, C	CH, M, C	CH, M, C
Post Driving						
Driving round and square posts into various ground conditions				Р	Р	

CH = Chisel, M = Moil (pyramid), C = Cone, S = Spade, B = Blunt, CP = Compaction Plate, P = Post Driver

## **Quick Tool Changes**

With access to the underside of the B model hammers, owner/operators can easily change out tools. Please refer to the Operators Maintenance Manual for proper procedures.



## **B MODEL HAMMERS** RECOMMENDED APPLICATIONS CHART

			B1	B2	<b>B</b> 4	B6	<b>B</b> 8	B9
Construction								
Site Prep,	Ground excavation	Pipelines municipalities	0	0	0	0		
Landscaping		Frozen ground	0	0	0	0	0	
		Foundation prep						
	Asphalt cutting	Driveways, roads	0	0				
	Compacting	Municipalities	0	0				
Rock	Trenching	Utilities and pipelines					0	0

Demolition								
Concrete	Light Sidewalks, driveways		0	0	0			
	Standard	Reinforced concrete 76-510 mm (3-20 in)			0	0	0	0
	Heavy	Bridge pillars, heavily reinforced						
Masonry	Cinder block, brick	Walls					0	0
Pavement	Asphalt breaking	Driveways, roads	0	0				
	Concrete, composite	Roads						

Metallurgical						
Cleaning	Cleaning castings				0	0
De-bricking	Slag in casting ladles				0	0
	Refractory linings in furnaces	0	0	0	0	0

Mining			
Rock	Secondary breaking	Softer material (shale, decomposed limestone)	O
		Harder material (limestone, granite)	
		Scaling	
	Primary breaking	Tunneling	
• Optimal		O Acceptable	Not Recommended





#### **B MODEL HAMMER SPECIFICATIONS**





Silenced



Non-Silenced

- D

HAMMERS					
Model	B1 Pin On	B1	B1s	B2	B2s
A Overall Length – mm (in)	208 (8)	340 (13.4)	340 (13.4)	340 (13.4)	340 (13.4)
<b>B</b> Overall Width – mm (in)	199 (7.8)	300 (11.8)	300 (11.8)	300 (11.8)	300 (11.8)
<b>C</b> Height (with tool) – mm (in)	958 (37.7)	968 (38.1)	977 (38.5)	1080 (42.5)	1091 (43)
<b>D</b> Tool Shaft Diameter – mm (in)	40 (1.6)	40 (1.6)	40 (1.6)	45 (1.8)	45 (1.8)
E Tool Working Length – mm (in)	210 (8.3)	280 (11)	250 (9.8)	326 (12.8)	296 (11.7)
Energy Class – J (ft-lbf)	200 (147.5)	200 (147.5)	200 (147.5)	290 (213.9)	290 (213.9)
Impact Frequency — bpm	800-1400	800-1400	800-1400	700-1200	700-1200
Minimum Carrier Weight – kg (lb)	898 (1,979.7)	1098 (2,420.7)	1098 (2,420.7)	1497 (3,300.3)	1497 (3,300.3)
Optimal Hydraulic Flow – L/min (gpm)	15-25 (4-6.6)	15-25 (4-6.6)	15-25 (4-6.6)	20-30 (5.3-7.9)	20-30 (5.3-7.9)
Minimum Operating Pressure – kPa (psi)	8798 (1,276)	8798 (1,276)	8798 (1,276)	8798 (1,276)	8798 (1,276)
Operating Weight – With Tool – kg (lb)	74 (162)	83 (183)	86 (190)	115 (253)	117 (258)
Sound – dB(A)	122	122	118	128	122
Machine Compatibility	300.9D	MHE 1-2 Ton	MHE 1-2 Ton	MHE 1-3 Ton	MHE 1-3 Ton

MHE = mini hydraulic excavators

## **B MODEL HAMMER SPECIFICATIONS**

HAMMERS								
Model	<b>B</b> 4	B4s	B6	B6s				
A Overall Length – mm (in)	340 (13.4)	340 (13.4)	440 (17.3)	440 (17.3)				
<b>B</b> Overall Width – mm (in)	300 (11.8)	300 (11.8)	316 (12.4)	316 (12.4)				
<b>C</b> Height (with tool) – mm (in)	1190 (46.9)	1375 (54.1)	1195 (47)	1370 (53.9)				
<b>D</b> Tool Shaft Diameter – mm (in)	53 (2.1)	53 (2.1)	68 (2.7)	68 (2.7)				
E Tool Working Length – mm (in)	360 (14.2)	510 (20.1)	247 (9.7)	377 (14.8)				
Energy Class – J (ft-lbf)	370 (272.9)	370 (272.9)	680 (501.5)	680 (501.5)				
Impact Frequency — bpm	600-1100	600-1100	500-900	500-900				
Minimum Carrier Weight – kg (lb)	2540 (5,600)	2540 (5,600)	3629 (8,000)	3629 (8,000)				
Optimal Hydraulic Flow – L/min (gpm)	25-50 (6.6-13.2)	25-50 (6.6-13.2)	40-70 (10.6-18.5)	40-70 (10.6-18.5)				
Minimum Operating Pressure – kPa (psi)	10 286 (1,491.9)	10 286 (1,491.9)	12 238 (1,775)	12 238 (1,775)				
Operating Weight – With Tool – kg (lb)	159 (350.5)	162 (357.1)	259 (571)	277 (610.7)				
Sound – dB(A)	128	124	128	124				
Machine Compatibility	MHE 2-6 Ton	MHE 2-6 Ton	MHE 3-9 Ton SSL/CTL 216-299	MHE 3-9 Ton SSL/CTL 216-299				

HAMMERS				
Model	B8	B8s	B9*	B9s*
A Overall Length – mm (in)	440 (17.3)	440 (17.3)	530 (20.9)	530 (20.9)
<b>B</b> Overall Width – mm (in)	316 (12.4)	316 (12.4)	400 (15.7)	400 (15.7)
<b>C</b> Height (with tool) – mm (in)	1413 (55.6)	1402 (55.2)	1753 (69)	1733 (68.2)
<b>D</b> Tool Shaft Diameter – mm (in)	75 (3)	75 (3)	85 (3.3)	85 (3.3)
E Tool Working Length – mm (in)	408 (16.1)	358 (14.1)	455 (17.9)	437 (17.2)
Energy Class – J (ft-lbf)	1150 (848.2)	1150 (848.2)	1300 (958.8)	1300 (958.8)
Impact Frequency — bpm	400-800	400-800	400-800	400-800
Minimum Carrier Weight – kg (lb)	6350 (14,000)	6350 (14,000)	8233 (18,151)	8233 (18,151)
Optimal Hydraulic Flow – L/min (gpm)	50-90 (13.2-23.8)	50-90 (13.2-23.8)	60-100 (15.9-26.4)	60-100 (15.9-26.4)
Minimum Operating Pressure – kPa (psi)	11 749 (1,704)	11 749 (1,704)	12 728 (1,846)	12 728 (1,846)
Operating Weight – With Tool – kg (lb)	349.7 (771)	344 (758.4)	529 (1166.2)	518 (1142)
Sound – dB(A)	133	129	135	125
Machine Compatibility	MHE 6-9 Ton SSL/CTL 216-299 BHL 415-444	MHE 6-9 Ton SSL/CTL 216-299 BHL 415-444	MHE 7-10 Ton BHL 415-450	MHE 7-10 Ton BHL 415-450

MHE = mini hydraulic excavators, SSL/CTL = skid steer loaders/compact track loaders, BHL = backhoe loaders

 $\ensuremath{^*\text{Not}}$  compatible with side shift backhoe loaders.



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