Hammer / Machine Compatibility

Small and Medium Hydraulic Excavators. Contact your Cat dealer for specific machine configurations.

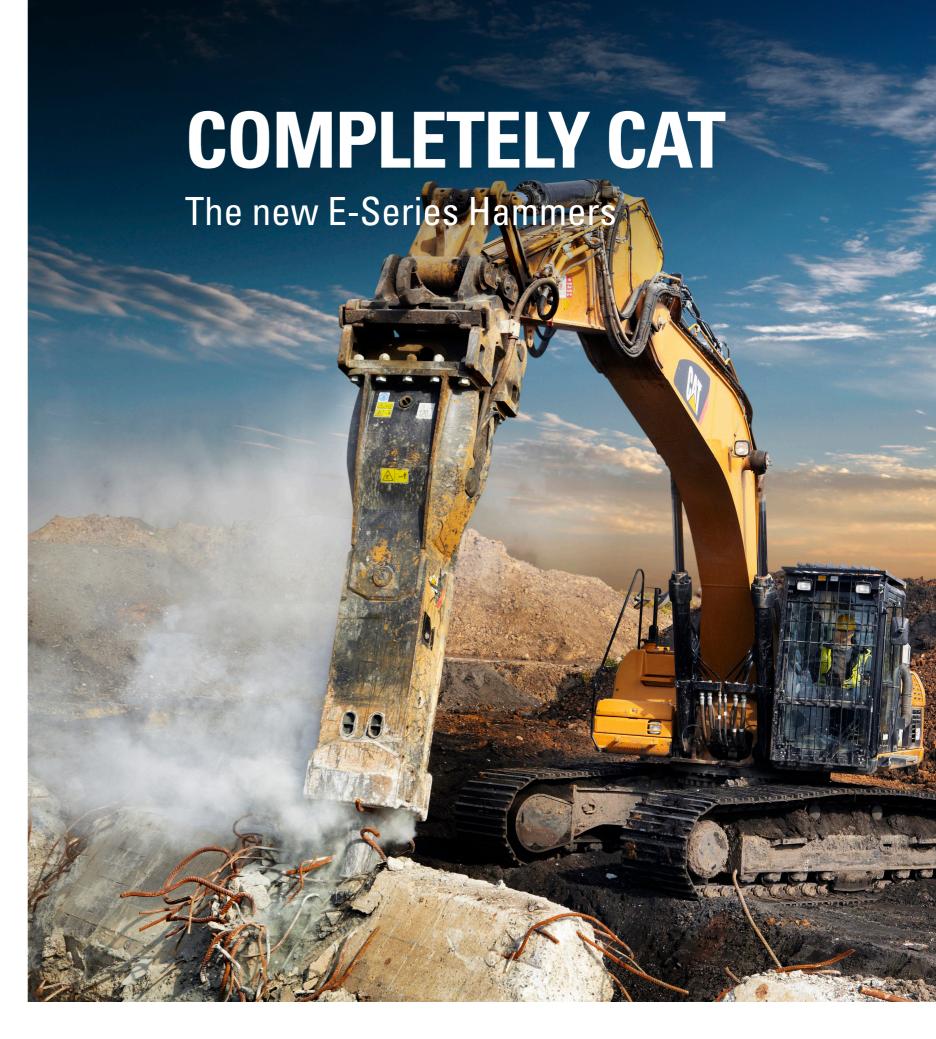
Model	Machines
H35E/Es	301.4, 301.7, 301.8, 302.2, 302.4
H45E/Es	301.7, 301.8, 302.2, 302.4, 302.5, 302.7
H55E/Es	216, 226, 236, 242, 246, 247, 252, 257, 259, 262, 272, 277, 279, 287, 289, 297, 299, 302.5, 302.7, 303.5, 304, 305, 305.5
H65E/Es	216, 226, 236, 242, 246, 247, 252, 257, 259, 262, 272, 277, 279, 287, 289, 297, 299, 303.5, 304, 305, 305.5, 307, 308, 416, 420, 430
H75Es	416, 420, 422, 424, 428, 430, 432, 434, 442, 444, 446, 307, 308
H95Es	307, 308, 311, 312
H110Es	311, 312, M313, 314, 315, M315, M316, M318
H115Es	311, 312, M313, 314, 315, M315, M316, 318, M318, 319, 320, M320, M322
H120Es	315, M315, M316, 318, M318, 319, 320, M320, 321, 322, M322, 324, 325, 329
H130Es	318, M318, 319, 320, M320, 321, 322, M322, 324, 325, 328, 329, 330, 336
H140Es	324, 328, 329, 336
H160Es	336, 345, 349
H180Es	345, 349, 374

Scan QR code to see Cat Hammers in action!



WWW.CAT.COM

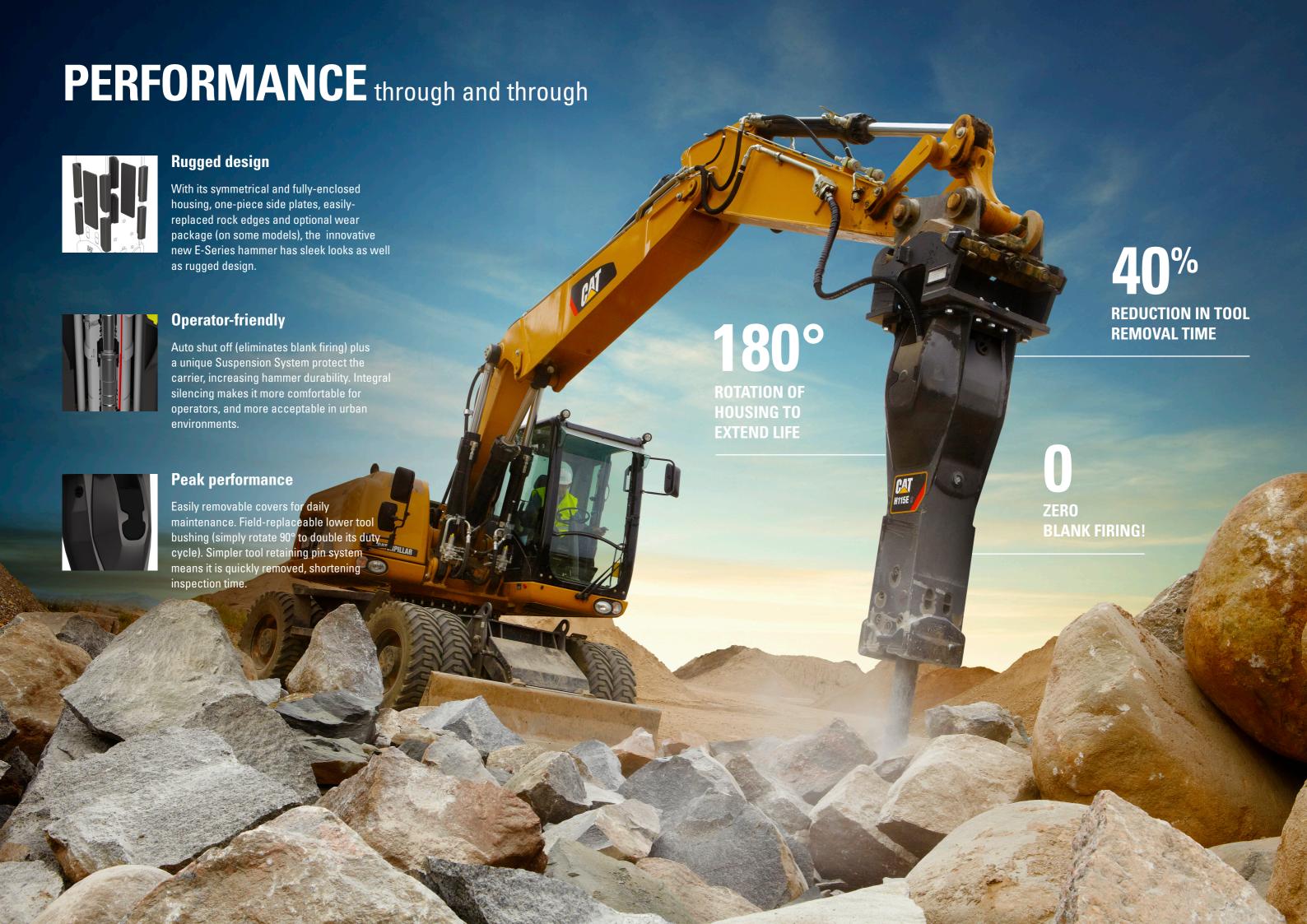
©2015 Caterpillar Inc. All rights reserved. CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the POWER EDGE trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission















QUIETER on site





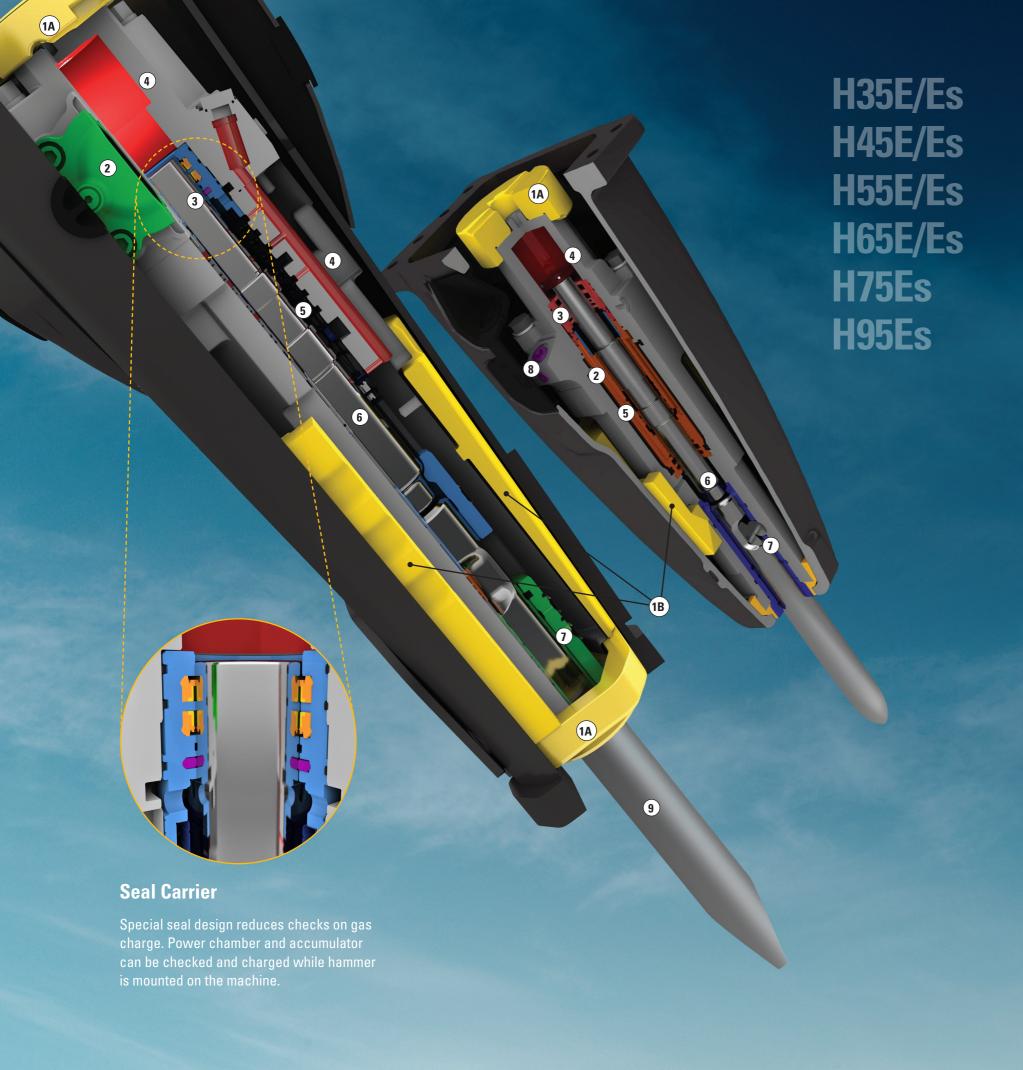
Silenced or not

Each of the four models is available in both 'silenced' and side-plate versions. Silenced hammers use a fully enclosed housing to suppress noise; a valuable feature in sensitive work environments and when the hammer is in close proximity to the operator.

BUILT FOR CONSTRUCTION AND DEMOLITION

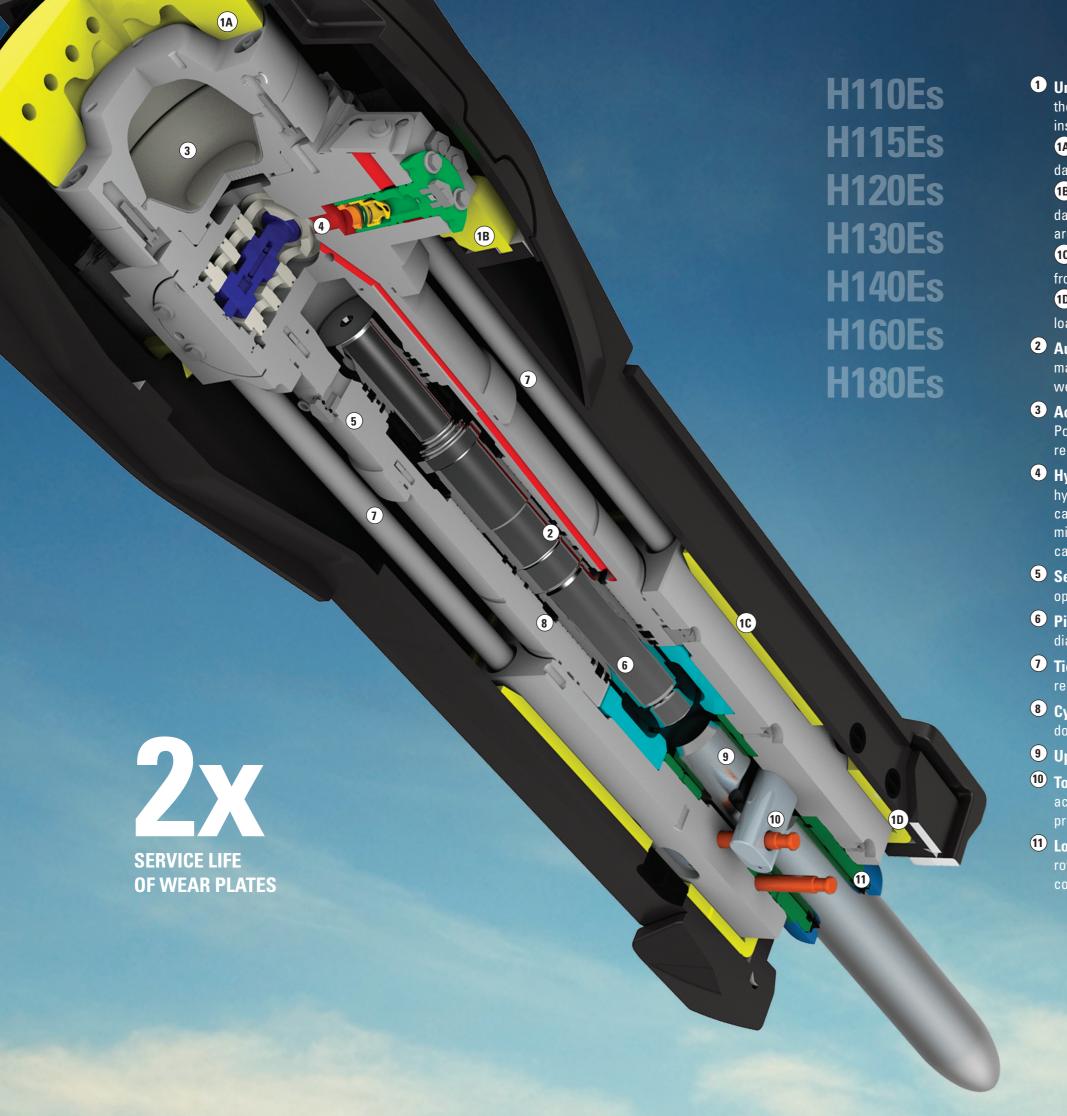
Application	ons		Mini-Excavator								
			100		Skid Steer & M	lulti Terrain Load					
						Backhoe Load					
			H35E/Es	H45E/Es	H55E/Es	H65E/Es					
Construction			ALC: 1								
Site prep,	Ground excavation	Pipelines, municipalities	√	1	/	1					
Landscaping		Frozen ground	1	1	1	✓					
	Asphalt cutting	Driveways, roads	1	1	✓	✓					
	Compaction	Municipalities	1	1	/	1					
Demolition		4 T A									
Concrete	Light	Sidewalks, driveways	√	✓	✓	1					
	Standard	Reinforced concrete 3"-20"			1	1					
Masonry	Cinder block, brick	Walls	1	1	√ 6	1 1 1 m					
Pavement	Asphalt breaking	Driveways, roads	V	1	1						
	Concrete, composite	Roads	De.		1						
Metallurgical					-						
Cleaning		Refractory linings in furnaces			81	/					





QUALITY is in the details

- 1 Tri-Suspension System This unique suspension system comprises the suspension jacket, the upper and lower buffers. Suspension aligns the power cell and gives manageable, smooth performance.
 - Upper & Lower Buffers Buffers at both ends of the power cell absorb reflective forces, isolating them from the machine. Result is quiet, reliable operation and reduced operator fatigue.
 - **1B** Suspension Jacket The front head is isolated by the one-piece suspension jacket, which dampens vibration and sound. A lower dBa allows the hammer to be used in urban and other noise restricted areas.
- 2 Front Accumulator An integral accumulator protects carrier pumps from spiking. Machine hydraulic system is protected.
- 3 Seal Carrier Gas is retained in the power chamber by a series of five seals. These are engineered using technology developed for Cat Engines, and provide maximum gas retention between scheduled service intervals. When service is needed, the seal carrier is easily removed.
- **Valve Body & Front Head** Power cell is efficiently designed, with only two major components. They are held together by head bolts rather than tie rods. Bolts are simpler to install and service.
- **Piston Sleeve** The sleeve of the piston cylinder is serviceable if hydraulic contamination results in damage. This hammer is designed for cost-effective rebuilds, protecting your hammer investment.
- **Auto Shut Off (ASO)** Instantly stops the piston when breaking through material. Prevents blank firing, which is a top cause of hammer wear. Internal stresses are reduced, providing more productive hours of work. Hammer is protected, regardless of operator skill level.
- **Tool Bushing** Lower tool bushing is rotatable 90 degrees to provide a second life and lowering owning and operator costs. Bushing can be serviced in the field with common hand tools, typically in about thirty minutes.
- 8 Plug & Perform Designed for convenient installation on Cat machines.
 - Ports positioned for hose protection Improved routing eliminates downtime from breakage.
 - No adjustment necessary for hydraulic pressures or flows. Hammer handles full auxiliary flow and pressure, automatically adjusting to match your Cat machine. Hammer over speeding and shortened service are prevented.
- 9 **Tool** Cat Hammer tools are robust, and feature an increased diameter for better reliability.

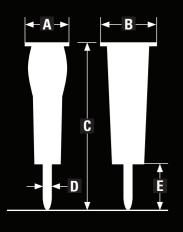


- 1 Unique Suspension System Improved recoil, support and guidance protects the carrier, increases hammer durability. Entire power cell is secured firmly inside housing. Noise suppression, operator feel and control is improved.
 - Large Top Buffer Absorbs vibration from the hammer, preventing damaging impulses from reaching the carrier.
 - **Two Side Buffers** Suspend the power cell, stabilize reflective forces and dampen tie rod loading. Side buffers can be easily inspected during daily walkaround.
 - Interlocking Quad Wear System Wear plates guide and supports the front head. Plates can be rotated 90° doubling their service life.
 - Lower Buffer New bottom covers and absorbs vibration, dampens tie rod loading, enhances noise suppression.
- 2 Auto Shut Off (ASO) Instantly stops the piston when breaking through material. Prevents blank firing, which is a top cause of hammer wear. Reducing wear improves maintenance and more productive hours of work.
- 3 Accumulator Self-contained membrane accumulator designed for long life. Port is accessible while hammer is mounted on the machine making testing and recharging a routine task achievable in the field.
- 4 Hydraulic Valves A Pressure Control Valve (PCV) maintains maximum hydraulic pressure to ensure the hammer delivers all blows at full power. PCV can be easily checked and adjusted from outside the hammer in about 30 minutes. A check valve (not shown) isolates harmful pulsation spikes from the carrier hydraulic circuit.
- 5 Seal Carrier Contains special high performance seals to extend leak-proof operation.
- **Piston** Long piston transfers a long shock wave into the rock. Tool-piston diameters are matched for maximum energy transfer.
- 7 Tie-Rods Larger threads improve load carrying capability, durability and
- 8 **Cylinder** Engineered to be durable and reliable with minimal maintenance and down time.
- 9 Upper Tool Bushing Guides the tool to optimize in-line piston to tool contact.
- Tool Retaining Pins & Keepers Tool removal process is simplified, achievable with common hand tools. Removal time reduced by 40% over previous models.
- **10 Lower Tool Bushing** As bushing reaches the wear limit, it can be easily rotated (90°) or replaced to bring it back into specification. Dust seals keep contaminants out.

Specifications

			H35Es		H35E		H45Es		H45E		H55Es		H55E		H55E*		H65Es		H65E		H65E*					
Recommended carrier weight range	t	t 1.1 – 2.4			1.1 – 2.4		1.5 – 3.2		1.5 - 3.2		2.5 - 6		2.5 - 6		2.5 - 6		3 – 9		3 – 9		3 – 9					
	(lb)	(lb) (2,430 – 5,300)		(2,430 – 5,300)		(3,310 – 7,060)		(3,310 – 7,060)		(5,500 – 13,200)		(5,500 – 13,200)		(5,500 – 13,200)		(6,600 - 19,800)		(6,600 – 19,800)		(6,610 – 19,800)						
Operating weight**	kg	kg		g 125 – 130		125 – 130		145 – 250		145 – 250		260 – 345		250 – 340		220 – 315		315 – 390		305 – 380		260 – 355				
	(lb)		(276 – 28	(276 – 287)		87)	(320 – 551)		(320 – 551)		(573 – 761)		(551 – 750)		(485 - 695)		(695 - 860)		(673 - 838)		(573 – 783)					
Impact frequency	blows/min.		blows/min.		blows/min. 600 – 1,80		600 – 1,800		600 – 1,8	300	780 – 1,8	800	780 – 1,800		600 – 1,680		600 – 1,680		600 – 1,680		720 – 1,7	740	720 – 1,	740	720 – 1,7	40
Energy Class	J	(ft. lb.)	407	(300)	407	(300)	542	(400)	542	(400)	813	(600)	813	(600)	813	(600)	1,085	(800)	1,085	(800)	1,085	(800)				
Acceptable oil flow	lpm	(gpm)	12 – 35	(3.2 - 9.2)	12 – 35	(3.2 - 9.2)	25 – 62	(6.6 – 16)	25 – 62	(6.6 – 16)	30 – 85	(7.9 - 22)	30 – 85	(7.9 - 22)	30 – 85	(7.9 – 22)	40 – 115	(10 – 30)	40 – 115	(10 – 30)	40 – 115	(10 – 30)				
Operating pressure	kPa	(psi)	16,500	(2,393)	16,500	(2,393)	17,000	(2,465)	17,000	(2,465)	16,500	(2,393)	16,500	(2,393)	16,500	(2,393)	16,500	(2,393)	16,500	(2,393)	16,500	(2,393)				
Dimensions																										
A Length	mm	(in)	300	(11.81)	284	(11.17)	300	(11.81)	296	(11.65)	346	(13.62)	328	(12.91)	333	(13.09)	345	(13.06)	332	(13.07)	337	(13.26)				
B Width	mm	(in)	311	(12.22)	345	(13.58)	311	(12.22)	345	(13.58)	451	(17.76)	445	(17.52)	344	(13.56)	451	(17.76)	445	(17.52)	453	(17.83)				
C Hight	mm	(in)	860	(33.86)	871	(34.29)	1,006	(39.61)	1,017	(40.04)	1,108	(43.62)	1,156	(45.51)	1,323	(52.08)	1,324	(52.13)	1,306	(51.43)	1,454	(57.23)				
D Tool Diameter	mm	(in)	40	(1.57)	40	(1.57)	50	(1.97)	50	(1.97)	58	(2.28)	58	(2.28)	58	(2.28)	68	(2.68)	68	(2.68)	68	(2.68)				
E Tool Working Lenght	mm	(in)	240	(9.45)	240	(9.45)	269	(10.59)	269	(10.59)	598	324	324	(12.76)	324	(12.76)	371	(14.61)	371	(14.61)	371	(14.61)				

SPECIFIED to suit your needs







^{*} Pin-on model

^{**} Working weight includes hammers, standard tool and average mounting bracket.

Specifications

			H75Es		H95Es		H110Es		H115Es		H120Es		H130Es		H140Es		H160Es		H180Es	
Recommended carrier	t (lb)		6–10(7–14		8–16		12–20		17–32		19–36		24-42		32-55		42-76	
weight range			(13200-22100)		(15400-30900)		(17600-35200)		(26400-44000)		(37400-57200)		(41800-70400)		(52,920-92,610)		(70,560-121,275)		(92,610–	-167,580)
Operating weight*	kg	(lb)	500	(1103)	627	(1382)	1017	(2237)	1180	(2596)	1582	(3480)	1890	(4158)	2,410	(5,314)	3,230	(7,122)	3,990	(8,798)
Impact frequency	blows	blows/min. 840–1650			700–1260		450–1000		370–800		350–620		320-600		325-540		400-505		275-450	
Energy Class	J	(ft. lb.)	1356	(1000)	2034	(1500)	2305	(1700)	3390	(2500)	4067	(3000)	4745	(3500)	8,135	(6,000)	11,524	(8,500)	16,270	(12,000)
Acceptable oil flow	lpm	(gpm)	70–130	(18–34)	70–150	(18–40)	60–120	(16-32)	70–130	(18–34)	100–170	(26–45)	120–220	(32–58)	160-230	(42-60)	220-300	(58-79)	220-300	(58-79)
Operating pressure	kPa	(psi)	14500	(2100)	14500	(2100)	16000	(2320)	15000	(2175)	15000	(2175)	15000	(2175)	16,000	(2,320)	16,000	(2,320)	16,000	(2,320)
Dimensions																				
A Length	mm	(in)	520	(20.47)	520	(20.47)	552	(21.73)	552	(21.73)	594	(23.39)	624	(24.57)	585	(23.0)	730	(28.7)	730	(28.7)
B Width	mm	(in)	512	(20.16)	512	(20.16)	585	(23.00)	585	(23.00)	585	(23.00)	585	(23.00)	670	(26.4)	736	(29.0)	758	(29.8)
C Hight	mm	(in)	1493	(58.79)	1666	(65.61)	2024	(79.68)	2191	(86.26)	2372	(93.39)	2560	(100.79)	2759	(108.62)	3057	(120.35)	3257	(128.23)
D Tool Diameter	mm	(in)	74.5	(2.93)	87.5	(3.4)	99.5	(3.92)	109.5	(4.31)	119.5	(4.70)	130.0	(5.10)	139.5	(5.49)	159.5	(6.28)	179.5	(7.07)
E Tool Working Lenght	mm	(in)	376.1	(14.81)	416.3	(16.39)	496	(19.53)	549	(21.61)	598	(23.54)	647	(25.47)	652	(25.66)	753	(29.65)	760.5	(29.94)



^{*} Working weight includes hammers, standard tool and average mounting bracket.

TOOLS that match the job

Applications guide with standard tools



Chisel (C)

Applications

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

Select when:

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



Moil (M)

Applications

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

Select when:

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



Blunt (B)

Applications

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

Select when:

- Demolishing concrete structure
- Boulder breaking



Spade (S)

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

Select when:

- General breaking
- Asphalt cutting



Compacting Plate (CP)

Applications

Soil

Select when:

Needing to compact soil

	H35E/Es	H45E/Es	H55E/Es	H65E/Es	H75E s*	H95E s*	H110E s*	H115E s*	H120E s*	H130E s*	H140Es*	H160Es*	H180Es*
1. Road building / construction													
Breaking of road surface	C, M, S	C, M, S	C, M, S	C, M, S	C, M	C, M	C, M	C, M	C, M	C, M	C, M	C, M	C, M
Asphalt cutting	C, S	C, S	C, S	C, S	С	С					C, M	C, M	C, M
Breaking uneven bedrock to lay a road							C, M	C, M	C, M	C, M	C, M	C, M	C, M
Trench excavation for drainage					C, M	C, M	C, M	C, M	C, M	C, M	C, M	C, M	C, M
Demolition of bridges	C, M	C, M	B, C, M	B, C, M	B, C, M	B, C, M	B, C, M	B, C, M					
Heavily reinforced bridge pillars											В	В	В
Compacting soils	СР	СР	СР	СР									
Making holes (for traffic signs, lamp posts)	М	М	М	М	М	М	М	М	М	М	M	М	М
Breaking of frozen ground	C, M, S	C, M, S	C, M, S	C, M, S	C, M	C, M	C, M	C, M, P	C, M	C, M	C, M	C, M	C, M
2. Demolition / housing development													
Demolition of concrete walls, roofs, floors	C, M	C, M	B, C, M	B, C, M	B, C, M	B, C, M	B, C, M	B, C, M					
Demolition of light, reinforced concrete (<20")	М	М	М	М	М	М	М	B, M	B, M	B, M			
Brick walls	C, M	C, M	B, C, M	B, C, M	B, C, M	B, C, M	B, C, M	B, C, M					
Rock trenches for mains/water supply/utilities					C, M	C, M	C, M	C, M	C, M	C, M	C, M	C, M	C, M
Rock excavation for foundation					C, M	C, M	C, M	C, M	C, M	C, M	C, M	C, M	C, M
Mass excavation of rock for industrial building bases										C, M	C, M	C, M	C, M
Massive reinforced concrete foundations											M	М	М
Separating rebar from concrete (for recycling)	C, M	C, M	B, C, M	B, C, M	B, C, M	B, C, M	B, C, M	B, C, M					
3. Quarrying / open cast mining													
Secondary boulder breaking							В	В	В	В	В	В	В
Primary breaking of rock										C, M	C, M	C, M	C, M
Breaking oversizes on a crusher/feeder/feed chute						B, C, M,	C, M	B, C, M,	B, C, M	B, C, M	B, C, M	B, C, M	
4. Underground applications													
Scaling					С	С	С	С					
5. Metallurgical applications													
Breaking of slag in casting ladles						C, M	C, M	C, M					
Breaking of slag in converter openings						C, M	C, M	i i					
Cleaning of castings						C, M	C, M	C, M					
Breaking of massive steel slag												C, M	C, M
Breaking of aluminum electrolyze slag					C, M	C, M	C, M	C, M	C, M	C, M	C, M		
Breaking of refractory linings in furnaces	C, M												
6. Other applications													

C,M

C, M

C, M

C,M

C,M

Demolition/Rock breaking under water

^{*}E series tools not compatible for use with previous hammer models.

SOLUTIONS that are fit for purpose

50 - 82 (65 - 107)

- 46 (25 - 60)

H75Es

14-23 (18-30)

H35E/Es H45E/Es H55E/Es H65E/Es

8-18 (10-23)

6-12 (8-16)

- 47 (38 - 61)

29 .



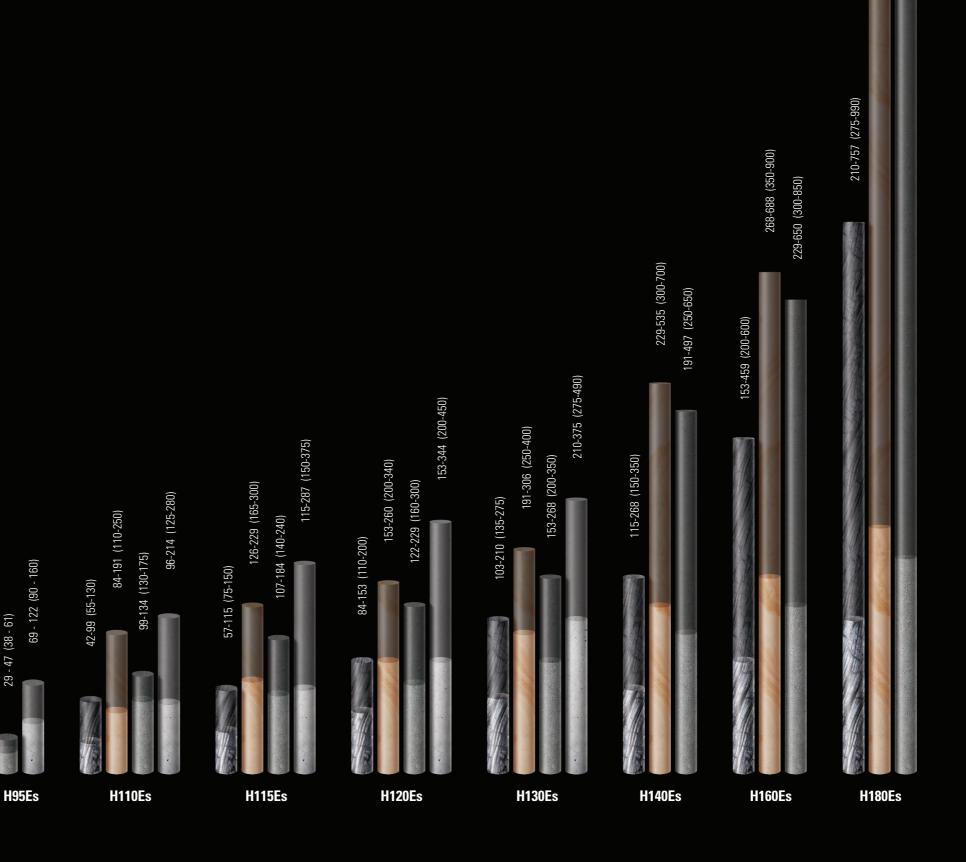
Non-Reinforced Concrete

Reinforced Concrete

Sedimentary Rock

Volcanic Rock

Production rates listed are based on 8-hour shift. Figures are for general estimation purpose only. Actual working quality and structure of the material to be broken, required degree of material the carrier, conditions at the work site, haulage of the broken material, skills of



295-1,301 (385-1,705)

UNIQUE capabilities

THE INSIDE STORY

Take a look inside the birthplace of the E-Series Hammers

THE RESERVE OF THE PARTY OF THE

Designed to address your needs

The Cat E-series hammers are designed & developed by Cat specialists from several disciplines. Together, they form a world-class team with decades of experience in hammer design. Cat designers are responsible for the complete hammer concept, ensuring that our hammers and machines work as a seamless system.

Engineered to last

Cat engineering turns our designers' vision into reality. Ensuring that each Cat hammer inherits the DNA of Cat machines and their reputation for performance, quality and serviceability. In this dedicated hammer facility, E-Series hammers are engineered using proven Cat methods and tested according to stringent Cat specifications.

Manufactured to the highest standards

As the world's number one producer of construction and mining equipment, and the industry's largest manufacturer of work tools, Cat's record of manufacturing excellence is unsurpassed. Leveraging the Caterpillar Production System and 6 sigma principles, you can be assured that Cat hammers are made to be the best. And that's a commitment!















