



Cat[®] Scrap & Demolition Shears for Cat Excavators

S2050/S3050, S2070/S3070, S2090/S3090

Cut more, cut faster

- Cutting force is designed to handle the heaviest cutting tasks.
- Power is optimized through the entire cutting cycle; compressing, piercing, and cutting with equal efficiency.
- Cutting edges are kept aligned, focusing cutting force and reducing drag, by tapered spacer plates.
- Industry leading cycle times for maximum production.
- Operator can see the cut for total control.
- Pick up material flat on the ground.

Tougher than any scrap pile

- Shear body is designed with a structural safety factor (stress resistance) almost double that of some competitors.
- Lower and upper jaw are made with Hi Tuff steel that is work hardened. High strength and abrasion resistant.
- Solid, laminated steel jaw is stronger than typical box section designs.
- Blades taper toward each other to minimize drag and wear.
- The cylinder rod stays protected inside the shear housing.
- The cylinder endures the worst impact and pressure spikes with a 2:1 pressure safety margin. Key components have a 4:1 margin.

Takes a wrench, not a machine shop

- The entire shear can be greased from the ground.
- The piercing tip is bolt-on, easily serviced, and designed to prevent bolt loosening and tip failure.
- Only replace what needs to be replaced – every cutting blade can be independently replaced as needed.
- The swivel and rotator motor are serviceable while the shear is mounted on the machine.
- Hub is field-serviceable and can be tightened to address loose tolerances.

Single-source solution

- Cat[®] shears, excavators, and hydraulics are designed to work together as a system.
- There's one point of service for everything – your local Cat dealer.
- Mounting options available for competitive carriers.



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Features of Cat Shears

All blades and the piercing tip are field serviceable and individually replaceable.

Locking dowels and lock bushing secure the piercing tip, protecting the tip, jaw, and pocket from damage.

Dual apex jaw design – cuts efficiently, pushes material to the throat, doesn't get bound in the apex.

Tapered spacers align blades to only contact at the edge – improves cutting efficiency 10%, minimizes wear.

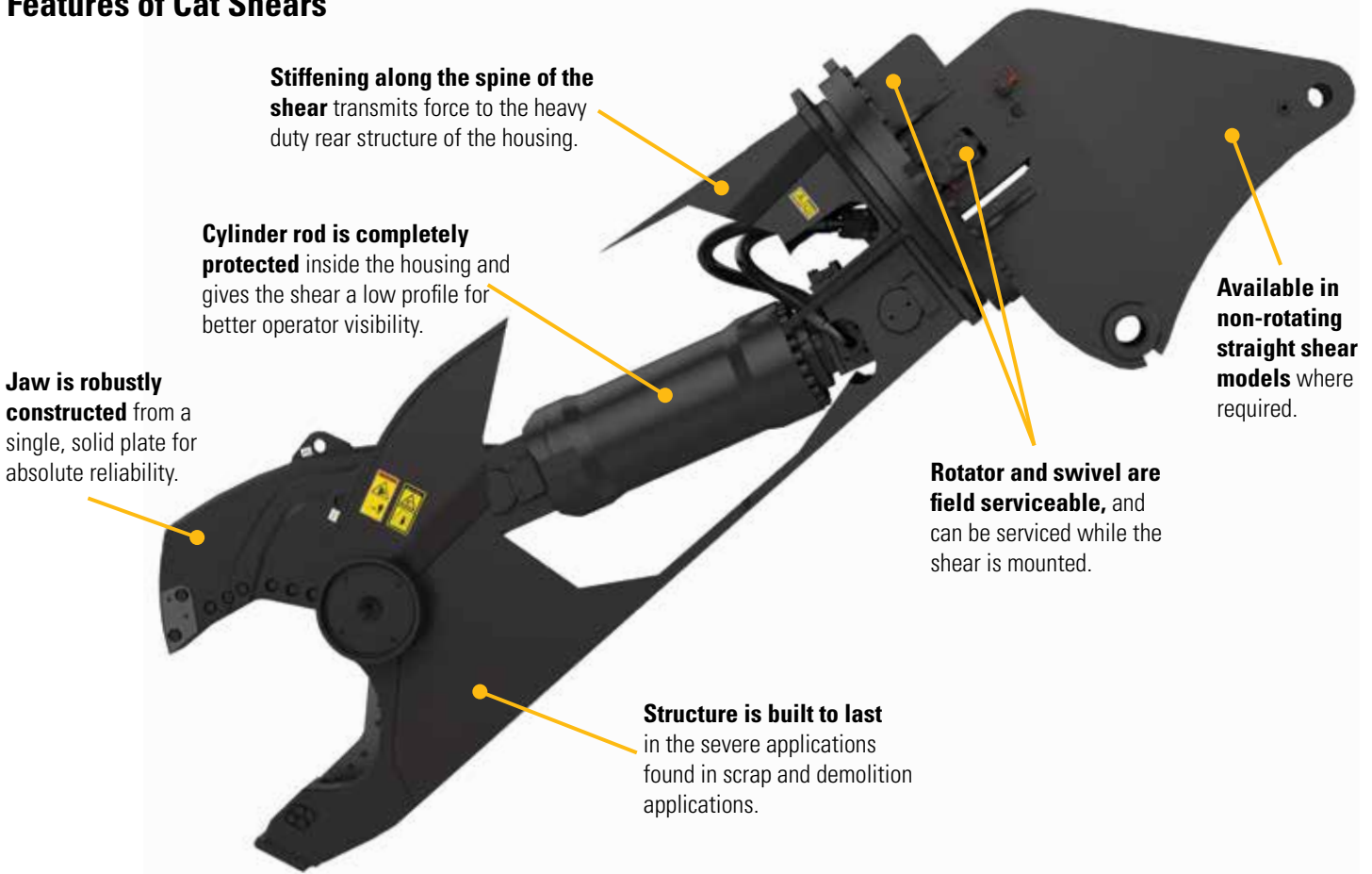
Tip engages in lower jaw early in the cutting cycle to keep jaws aligned as cutting starts.

Cut material falls cleanly away, leaving you ready for the next cut, thanks to a deep jaw relief.



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Features of Cat Shears



Stiffening along the spine of the shear transmits force to the heavy duty rear structure of the housing.

Cylinder rod is completely protected inside the housing and gives the shear a low profile for better operator visibility.

Jaw is robustly constructed from a single, solid plate for absolute reliability.

Available in non-rotating straight shear models where required.

Rotator and swivel are field serviceable, and can be serviced while the shear is mounted.

Structure is built to last in the severe applications found in scrap and demolition applications.

Material in excess of the dimensions illustrated below can be processed in two or more cuts by first piercing the material. For questions about cutting material sized larger than shown or other than mild steel, contact your Cat dealer.

I-beams	Model		S3050/S2050		S3070/S2070		S3090*/S2090*	
Height	mm	(in)	381	(15.00)	600	(23.60)	686	(27.00)
Flange Width	mm	(in)	142	(5.60)	220	(8.70)	249	(9.80)
Web Thickness	mm	(in)	14.0	(0.55)	12.0	(0.47)	14.0	(0.55)
Flange Thickness	mm	(in)	15.7	(0.62)	19.0	(0.75)	21.1	(0.83)
Weight	kg/m	(lb/ft)	74.4	(50.00)	122.0	(82.00)	153.3	(103.00)
H-beam								
Height	mm	(in)	311	(12.25)	440	(17.30)	540	(21.30)
Flange Width	mm	(in)	305	(12.00)	300	(11.80)	300	(11.80)
Web Thickness	mm	(in)	10.9	(0.43)	11.5	(0.45)	12.5	(0.50)
Flange Thickness	mm	(in)	17.0	(0.67)	21.0	(0.83)	24.0	(0.95)
Weight	kg/m	(lb/ft)	107.1	(72.00)	139.9	(94.00)	166.0	(111.00)
Round								
Diameter	mm	(in)	89	(3.50)	114.3	(4.50)	127.0	(5.00)
Square								
Width	mm	(in)	89	(3.50)	101.6	(4.00)	114.3	(4.50)
Pipe (Schedule 40)								
Diameter	mm	(in)	356	(14.00)	457.2	(18.00)	508.0	(20.00)
Wall Thickness	mm	(in)	11	(0.44)	14.0	(0.56)	15.0	(0.59)
Plate (piercing)								
Thickness	mm	(in)	22	(0.88)	25.4	(1.00)	28.7	(1.13)

*I-Beam numbers shown are calculations. Test results not available at time of publication.

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Shear/Machine Compatibility

Contact your Cat dealer for specific shear and machine matching details.

Rotating Shear Models		
Model	Boom-mount	Stick-mount
S3050	326, 329, 340	352
S3070	326, 329, 340, 352	374, 390
S3090	349, 352	390

Straight Shear Models	
Model	Boom-mount
S2050	323, 326
S2070	329, 340
S2090	336, 340, 352

Specifications and Dimensions

	Model		S3050	S2050	S3070	S2070	S3090	S2090
Operating Weight ¹ , boom-mount	kg (lb)		5,080 (11,201)	4,175 (9,206)	7,065 (15,578)	5,815 (12,822)	9,020 (19,889)	7,480 (16,493)
Operating Weight ¹ , stick-mount	kg (lb)		4,830 (10,650)		6,920 (15,259)		8,760 (19,316)	

Carrier Weight

Boom mount, minimum	t (sh tn)	20 (22)	18 (40)	30 (66)	24 (53)	45 (99)	30 (66)
Boom mount, maximum	t (sh tn)	50 (110)	29 (64)	54 (119)	40 (88)	75 (165)	54 (119)
Stick mount, minimum	t (sh tn)	42 (93)		70 (154)		90 (198)	
Stick mount, maximum	t (sh tn)	60 (132)		92 (203)		110 (243)	

Dimensions

Length	mm (in)	4,475 (176)	3,555 (140)	4,890 (193)	3,875 (153)	5,370 (211)	4,325 (170)
Height	mm (in)	1,480 (58)	1,520 (60)	1,685 (66)	1,770 (70)	1,810 (71)	1,890 (74)
Width	mm (in)	1,060 (42)	635 (25)	1,160 (46)	720 (28)	1,300 (51)	760 (30)
Jaw Width, fixed	mm (in)	476 (19)	476 (19)	546 (21)	546 (21)	602 (24)	602 (24)
Jaw Width, moving	mm (in)	135 (5)	135 (5)	158 (6)	158 (6)	168 (7)	168 (7)
Jaw Opening	mm (in)	681 (27)	681 (27)	819 (32)	819 (32)	910 (36)	910 (36)
Jaw Depth	mm (in)	635 (25)	635 (25)	755 (30)	755 (30)	900 (35)	900 (35)

Shear Forces²

Throat ³	kN (tonf)	6,592 (741)	6,592 (741)	9,037 (1,016)	9,037 (1,016)	11,746 (1,320)	11,746 (1,320)
Apex	kN (tonf)	3,029 (340)	3,029 (340)	3,880 (436)	3,880 (436)	4,754 (534)	4,754 (534)
Tip	kN (tonf)	1,667 (187)	1,667 (187)	2,110 (237)	2,110 (237)	2,513 (282)	2,513 (282)
Cycle Time (at maximum rated flow rate), open	seconds	4.0	4.0	4.3	4.3	4.5	4.5
Cycle Time, close	seconds	3.3	3.3	3.4	3.4	3.4	3.4
Cycle Time, total	seconds	7.3	7.3	7.7	7.7	7.9	7.9

Hydraulic Requirements, Cutting Circuit

Maximum operating pressure	kPa (psi)	35,000 (5,075)	35,000 (5,075)	35,000 (5,075)	35,000 (5,075)	35,000 (5,075)	35,000 (5,075)
Maximum recommended flow	L/min (gpm)	350 (92)	350 (92)	530 (140)	530 (140)	700 (185)	700 (185)

Hydraulic Requirements, Rotation Circuit

Maximum relief pressure	kPa (psi)	14,000 (2030)		14,000 (2030)		14,000 (2030)	
Maximum recommended flow	L/min (gpm)	40 (11)		80 (21)		80 (21)	

¹Weight includes mounting bracket

²Calculated with a maximum operating pressure of 35 MPa (5,075 psi).

³Measured at innermost cutting point of the jaw.

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

GEHQ9224-00

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