



Cat[®] Mobile Scrap & Demolition Shears

HYDRAULIC EXCAVATORS
SKID STEER LOADERS

FEATURES:

C series Shears with Bolt-on Piercing Tip!



Bolt-on Piercing Tip

C series shears incorporate a bolt-on piercing tip — a key feature for enhancing up-time.

Dual sided

Fully reversible

Identical piercing blades

Straight Lower Jaw, Apex Upper Jaw Design

- A unique straight lower jaw design effectively enhances the cutting force by spreading out material along the length of the jaw. Competition concentrates material in the apex where compressed steel mass can often exceed cutting capacity of the shear.

Cutting Edge Design

- The four main blades (front and side) and cutter are fully reversible utilizing all four sides of the cutting blades for optimum owning and operating cost.
- Clamping design includes bushings to keep bolts tight on front, side and cutter blades. Bolt retention through bushings helps prevent breakage, loosening or missing parts, and damage to blade pocket areas. Constant bolt torquing process is eliminated.

360° Rotation

- All Cat Shears are equipped with a rugged 360° rotation system specifically designed to withstand the forces excavators are capable of applying to the rotator area. Recognize greater productivity with a rotating shear because of the speed and ease with which shear jaws can be placed into optimum cutting position.

Integrated System Support

- Only Cat offers an integrated machine-hydraulics-shear system supported by Caterpillar throughout the life of the system.
- Cat Shears can be boom-mounted, or stick-mounted, or stick-mounted with a quick coupler.

Essential Tool for Scrap and Demolition Sites

- Caterpillar offers a range of six shear models designed for Cat[®] excavators and wheeled excavators sized from 307 to 390. The smallest shear — the S305 — can be mounted to skid steer loaders or mini-excavators.

Optimized Stability and Productivity

- Cat Shears are designed for Cat machines — taking full advantage of the hydraulic flows and pressures to enhance productivity without compromising safety or causing premature wear of the shear and carrier.



Americas North



Cat Mobile Scrap & Demolition Shears

Bolt-on Piercing Tip: S365C and S385C

C series shears incorporate a bolt-on piercing tip, a key feature for enhancing up-time for shears. Changeable with common hand tools, the tip has several key features:

Dual sided

The Cat tip assembly protects the moving jaw on both sides. There is sufficient length to protect the parent material as the moving jaw enters into the fixed jaw.

Fully reversible

The bolt-on tip is comprised of two identical, symmetrical piercing blades; each of which has two functional edges. If the tip wears or breaks, the piercing blades can be quickly reversed, putting the shear quickly back in production.

Identical Piercing Blades

As mentioned above, the Cat bolt-on piercing tip uses a single part for both sides of the jaw, and identical mounting hardware. Managing spare parts is more economical, maintenance process is simpler resulting in lowering owning and operating costs.



Features of Cat Shears

Bolt-On Piercing Tip – This innovative design brings Cat shears the flexibility of a bolt-on tip with features like total reverse-ability and dual-sided protection.

Protective Housing – The shape of the housing protects the cylinder rod through the entire cutting cycle without the need for additional guarding.

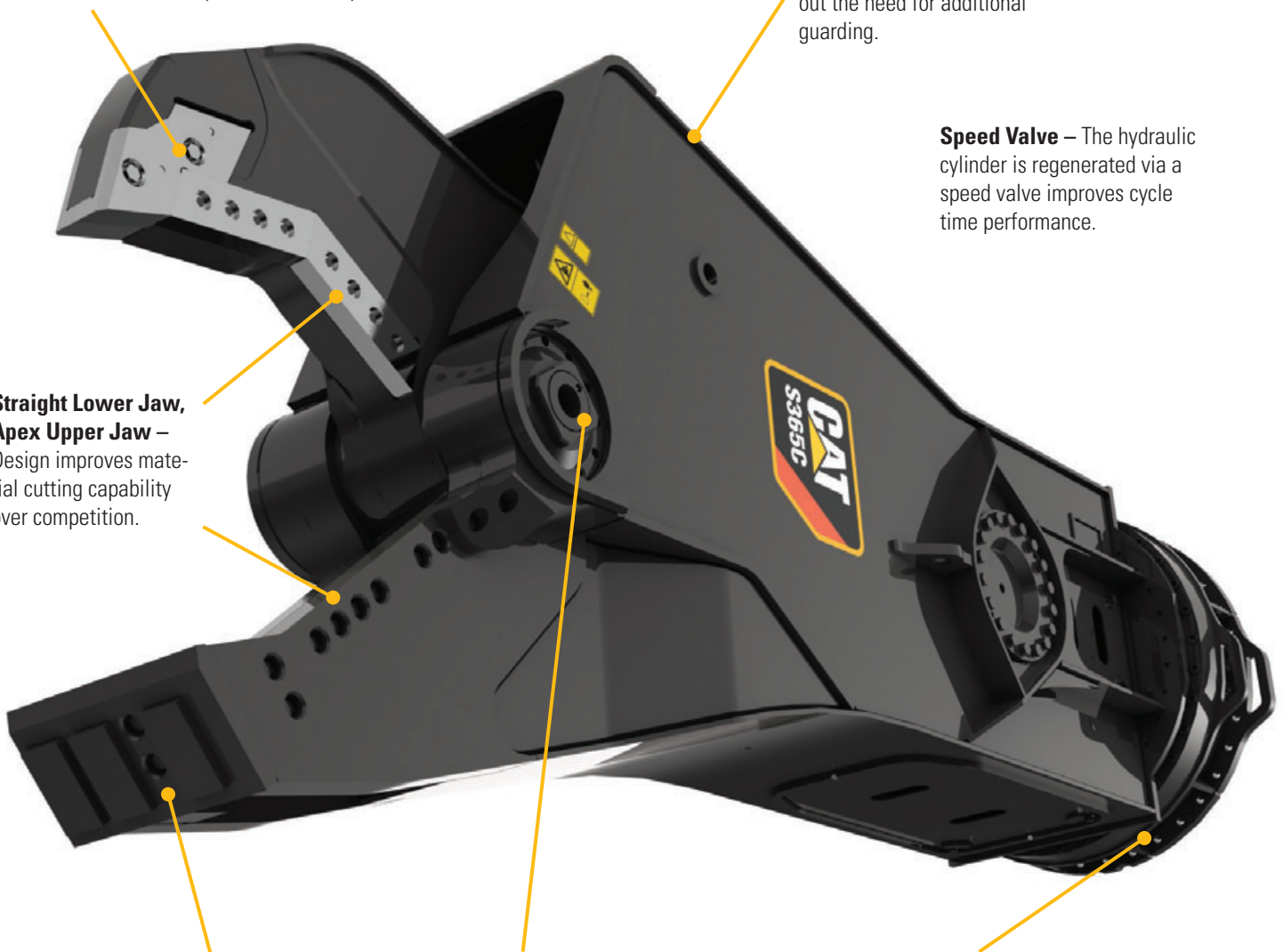
Speed Valve – The hydraulic cylinder is regenerated via a speed valve improves cycle time performance.

Straight Lower Jaw, Apex Upper Jaw – Design improves material cutting capability over competition.

Wear Plates – The front of the fixed jaw is protected by weld-on wear plates, protecting the parent metal when is working in scrap piles.

Adjustable Hub – An unique feature of Cat Shears is the adjustable hub. It allows for jaw realignment as required, and is field serviceable.

Slewing Ring Rotation – Cat shears feature a 360 degree, bi-directional rotation system. The shear can be quickly positioned for optimum cutting, improving productivity in both scrap and demolition applications. The heavy-duty rotator is built to withstand the forces generated by the excavator and shear.



Cat Mobile Scrap & Demolition Shears

B series Shears: S340B, S325B and S320B

Cat S320B, S325B and S340B Shears share almost all the same benefits as the C series. There are a couple of key differences.

B series shears utilize a **weld-on** piercing tip. This tip is made of hardened steel and features excellent wear characteristics. It can be repeatedly hard-faced for long life and effective piercing at a low operating cost.

Drop side of the jaw is protected by a bolt-on replaceable wear plate. This protects the jaw as it passes through the lower jaw. It is constructed from the same durable material as the blades.



Bolt-on, Replaceable Wear Plate

Weld-on Piercing Tip

S305: for Skid Steer Loaders and Mini-Excavators



The S305 Mobile Scrap and Demolition Shear, mounted on a mini-excavator or skid steer loader is a very productive tool in processing of lighter steel or non-ferrous material such as cable, rebar, small beams and small diameter pipe.

The S305 is designed for use on skid steer loaders and mini-excavators creating a cutting system that keeps machine stability and productivity in mind. The S305 is matched to the machine's horsepower and auxiliary hydraulic circuit for maximum system performance and reliability.

The S305 is designed and matched for maximum performance on skid steer loaders sized 236B3/D and larger, all multi-terrain loaders, boom-mount on the 303.5, 304, 305, 305.5; stick-mount on 307 and 308 hydraulic excavators.

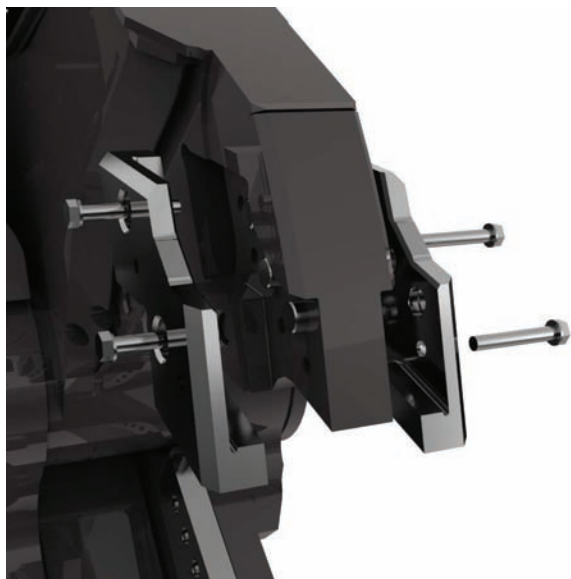
The S305 is equipped with a heavy duty 360° rotation system designed to withstand forces mini-Excavators and Skid Steer Loaders are capable of applying to the rotator area.



Cat Mobile Scrap & Demolition Shears

S365C, S385C Bolt-on Tip: Easy to Maintain

The Cat Bolt-On Piercing Tip greatly enhances the maintainability of Cat Shears. The bolt-on tip can be replaced in a very short time using common hand tools.



Durable, Reversible Blades

Blades are very durable with long wear – 150 to 250 hours per blade edge (depending on application). Blades are fully reversible and can be flipped and rotated to utilize four cutting edges on each section.



Quick Blade Change

Blades in both jaws are held in place with threaded bolt holes and shims making change-out quick and easy. Bushings prevent bolts from loosening and breaking. Shims maintain the gap between the blades for effective cutting.

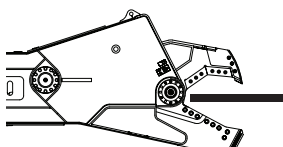
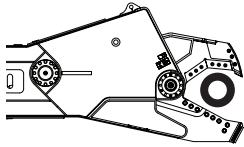
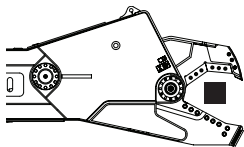
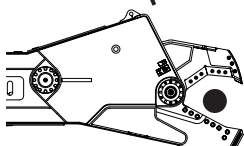
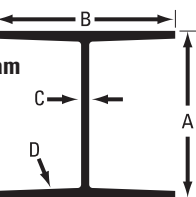
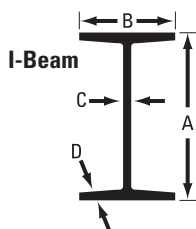
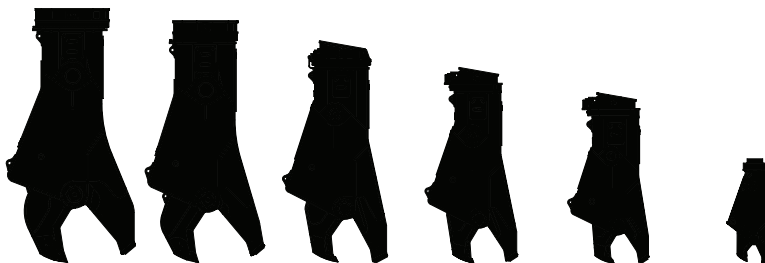
Panels for Easy Access

Large access panels provide serviceability to internal components and are strategically located on the housing

Cutting Guide

Cat Mobile Scrap & Demolition Shears are designed to cut and reduce the size of metal items commonly found in scrap yards, buildings, and other structures.

The profiles below approximate shear cutting capacity. Cutting capacities listed below were achieved by cutting the specified steel profiles with a shear operating pressure at 5075 psi and blades in slightly used condition. Lower operating pressures, dull blade edges, and harder steels will obviously reduce cutting capability.



		S385C	S365C	S340B	S325B	S320B	S305
I-beams							
A Height	mm (in)	635 (25)	612 (24.1)	457.2 (18)	407 (16)	358 (14.1)	207 (8.1)
B Flange Width	mm (in)	329 (13)	229 (9)	191 (7.5)	178 (7.0)	172 (6.8)	112 (4.4)
C Web Thickness	mm (in)	18 (0.7)	12 (0.5)	9.017 (0.4)	7.7 (0.3)	7.8 (0.3)	5.8 (0.2)
D Flange Thickness	mm (in)	31 (1.2)	20 (0.8)	15.24 (0.6)	12.7 (0.5)	12.7 (0.5)	8.4 (0.3)
E Weight	kg/m (lbs/ft)	241 (162)	125 (84)	74.4 (50)	59.5 (40)	56.5 (38)	22.3 (15)
		Wide I-beam		H-beam			
A Height	mm (in)	476 (18.7)	472 (18.6)	311 (12.2)	256 (10.1)	204 (8)	107 (4.2)
B Flange Width	mm (in)	284 (11.2)	284 (11.2)	306 (12)	255 (10)	206 (8.1)	103 (4.1)
C Web Thickness	mm (in)	24 (0.9)	13 (0.5)	10.9 (0.4)	9.4 (0.4)	7.9 (0.3)	7.11 (0.3)
D Flange thickness	mm (in)	15 (0.6)	22 (0.9)	10.9 (0.4)	9.4 (0.4)	7.9 (0.3)	8.8 (0.3)
E Weight	kg/m (lbs/ft)	158 (106)	144 (97)	107 (71.9)	80 (53.8)	52 (34.9)	19.4 (13)

Round							
Diameter	mm (in)	125 (5)	120 (4.75)	115 (4.5)	100 (4)	90 (3.5)	50.8 (2)

Square							
Width	mm (in)	120 (4.75)	100 (4)	90 (3.5)	90 (3.5)	65 (2.5)	40 (1.5)

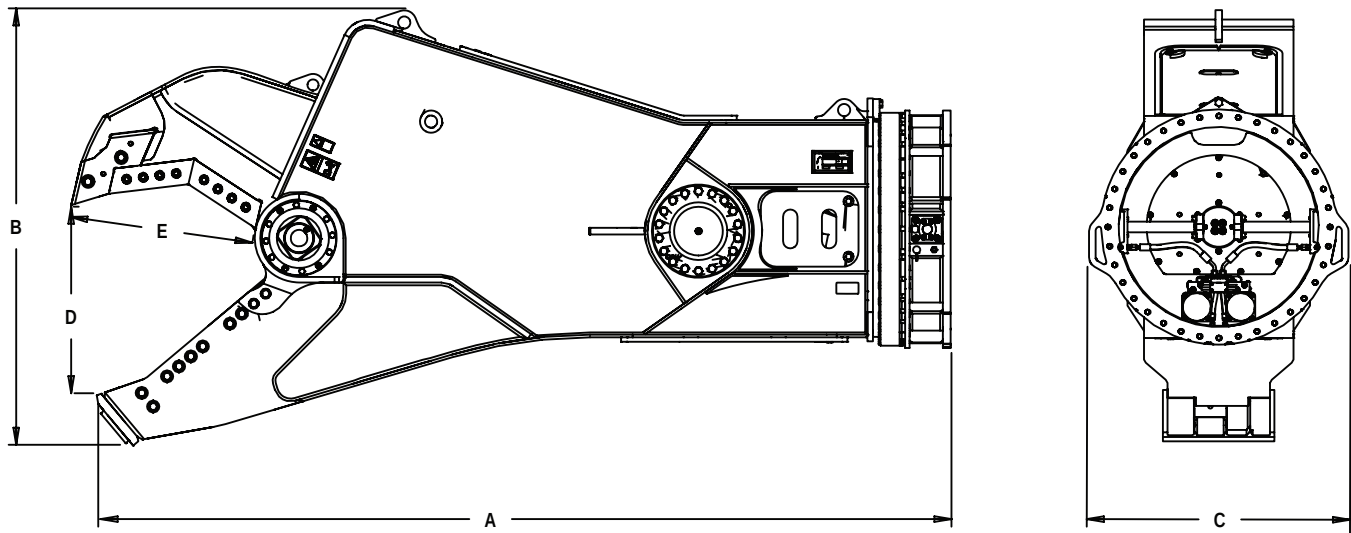
Pipe (Schedule 40)							
Diameter	mm (in)	508 (20)	458 (18)	406 (16)	356 (14)	325 (12.8)	220 (8.6)
Wall Thickness	mm (in)	15 (0.6)	15 (0.6)	13 (0.5)	11 (0.4)	10 (0.4)	8 (0.3)

Piercing							
Thickness	mm (in)	33 (1.38)	27 (1.25)	22 (0.88)	19 (0.75)	16 (0.63)	10 (0.38)

When cutting hardened and exotic steels contact your local Cat dealer for more information.

Cat Mobile Scrap & Demolition Shears

Specifications



			S385C	S365C	S340B	S325B	S320B	S305		
Weight*, boom-mount	kg	(lb)	8,320 (18,345)	6,870 (15,145)	4695 (10,351)	3,390 (7,474)	2,570 (5,666)	608 (1,340)		
Weight*, stick-mount	kg	(lb)	7,975 (17,580)	6,700 (14,770)	4386 (9,670)	2,996 (6,604)	2,165 (4,774)	580 (1,280)		
Dimensions										
A Length	mm	(in)	4,260 (168)	3,840 (151)	3,638 (143)	3,177 (125)	2,792 (110)	1,709 (67.3)		
B Height	mm	(in)	2,121 (84)	1,900 (75)	1,723 (68)	1,525 (60)	1,340 (53)	660 (26)		
C Width	mm	(in)	1,400 (55)	1,180 (46)	975 (38)	792 (31)	792 (31)	390 (15)		
Jaw Width, fixed	mm	(in)	466 (18)	466 (18)	396 (16)	342 (13)	304 (12)	230 (9)		
Jaw Width, moving	mm	(in)	150 (6)	150 (6)	120 (5)	100 (4)	90 (3)	60 (2)		
D Jaw Opening	mm	(in)	879 (35)	845 (33)	563 (22)	528 (21)	409 (16)	240 (9.4)		
E Jaw Depth	mm	(in)	903 (35)	840 (33)	703 (28)	571 (22)	459 (18)	290 (11.4)		
Shear Forces †										
Throat**	kN	(st)	12,509 (1,405)	10,342 (1,162)	6,818 (766)	5,562 (625)	3,706 (417)	1,812 (204)		
Apex	kN	(st)	4,696 (528)	3,754 (422)	2,751 (309)	2,221 (250)	1,583 (178)	653 (73)		
Tip	kN	(st)	2,481 (279)	2,008 (226)	1,558 (175)	1,274 (143)	892 (100)	385 (43)		
Shear Arm Torque	kN m	(ft lb)	2,779 (2,050,000)	2,083 (1,536,000)	1,374 (1,013,700)	931 (686,900)	534 (394,100)	140 (103,600)		
Cycle Time, open	seconds		5	5	5	5	4	3.5		
Cycle Time, close	seconds		3	3	3	3	3	2.5		
Hydraulic Requirements, Cutting Circuit										
Maximum relief pressure	kPa	(psi)	35,000 (5,075)	35,000 (5,075)	35,000 (5,075)	35,000 (5,075)	35,000 (5,075)	25,000 (3,625)		
Maximum Recommended flow	L/min. (gpm)		690 (182)	530 (140)	300 (79)	200 (53)	150 (40)	60 (16)		
Hydraulic Requirements, Rotation Circuit										
Maximum relief pressure	kPa	(psi)	14,000 (2,030)	14,000 (2,030)	14,000 (2,030)	14,000 (2,030)	14,000 (2,030)	10,000 (1,450)		
Maximum Recommended flow	L/min. (gpm)		80 (21)	80 (21)	40 (11)	40 (11)	40 (11)	20 (5)		

*Weight includes mounting bracket.

**Measured at innermost cutting point of the jaw.

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

Mounting Options

Brackets are available to boom-mount or stick-mount Cat Shears to a variety Cat Excavators.

Boom-mount



Cat Shears can be boom-mounted for use in scrap yards and other applications where a large shear is required to reduce metal and reach is not as important.

Stick-mount



Cat Shears are commonly stick-mounted for use in demolition applications where reach is critical.

The shear can be pinned directly to the stick, or utilized with either a pin grabber quick coupler or dedicated coupler. The addition of a coupler allows quick tool change and is ideal for situations in which multiple tool options are desired.

Cat Mobile Scrap & Demolition Shears

Shear/Machine Matching

Contact your Cat Dealer for specific machine configurations.

Track Excavators, Stick-Mount

Shear	Compatible Machines
S305	307, 308
S320B	319, 320, 321, 324, 326, 328, 329; 330 - 385 UHD
S325B	324, 326, 328, 329, 336; Apex 70 & 100
S340B	349; Apex 70
S365C	374, 390
S385C	390



Track Excavators, Boom-Mount

Shear	Compatible Machines
S305	303.5, 304, 305, 305.5
S320B	311, 312, 314, 315, 316, 318, 319
S325B	315, 316, 318, 319, 320, 321
S340B	324, 326, 328, 329, 336
S365C	336, 349; Apex 70
S385C	349, 374; Apex 70



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Shear/Machine Matching, *(continued)*

Wheeled Excavators, Stick-Mount

Shear	Compatible Machines
S320B	M318, M322



Wheeled Excavators, Boom-Mount

Shear	Compatible Machines
S320B	M313, M315, M316
S325B	M315, M316, M318, M322
S340B	M318



Skid Steer and Multi-Terrain Loaders

Shear	Compatible Machines
S305	236 and Larger



Cat® Mobile Scrap & Demolition Shears

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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