

# S305, S320B, S325B, S340B

## S300 Series Mobile Scrap and Demolition Shears



### Features

Enhanced Performance

Improved Durability

Optimized Serviceability

Enhanced Safety

### Benefits

Cat shears are designed to cut and reduce the size of metal items commonly found in scrap yards and demolition sites. The straight lower jaw works with the apex of the upper jaw, compressing and flattening the steel before the cut. The straight lower jaw maximizes shear force and creates a more efficient cut. The hardened, welded-on tip penetrates material and maximizes productivity when piercing is required.

The new shape of the housing provides improved protection for shear components and better positions the jaw relative to the stick. The cutting edge design greatly improves the protection of the cylinder, which eliminates the use of a cylinder guard by extending the housing to cover the cylinder rod. A newly designed hub is better protected against damage.

Large access panels on the top, bottom and sides of the shear housing make it easier to service inside components. The unique hub adjustment quickly compensates knife wear. The threaded pivot-pin holds the jaw in positive alignment without the need for "pucks" or other external retention. The gap between upper and lower jaw can be easily adjusted, keeping cutting capability high – even as the blades wear. The piercing tip in the upper jaw is made of hardened steel and can be repeatedly hard-faced – helping increase the interval between the tip replacements.

Safety during maintenance work is enhanced with an improved jaw and rotation service locks. A standard flagged pin is used to secure the cylinder rod to the moving jaw. This pin design is very similar to those used elsewhere on an excavator and makes maintenance more intuitive and lets techs use standard tooling.

**CATERPILLAR**<sup>®</sup>

# S305, S320B, S325B, S340B Hydraulic Shears

## Specifications and Dimensions

		S305	S320B	S325B	S340B
Weight*, boom-mount	kg	608	2570	3390	4695
Weight*, stick-mount	kg	580	2165	2996	4386
<b>A</b> Length	mm	1709	2792	3177	3638
<b>B</b> Height	mm	660	1340	1525	1720
<b>C</b> Width	mm	390	792	792	975
<b>D</b> Jaw opening	mm	240	409	528	563
<b>E</b> Jaw depth	mm	290	459	571	703

### Shear forces

Tip	kN	392	892	1274	1558
Primary blade center	kN	653	1583	2221	2751
At throat	kN	1812	3706	5562	6818

### Hydraulic for cutting

Max. operating pressure	bar	250	350	350	350
Recommended flow	l/min	100	150	200	300
Opening time jaw	sec	3.5	4	5	5
Closing time jaw	sec	2.5	2	3	3

### Hydraulic for rotating

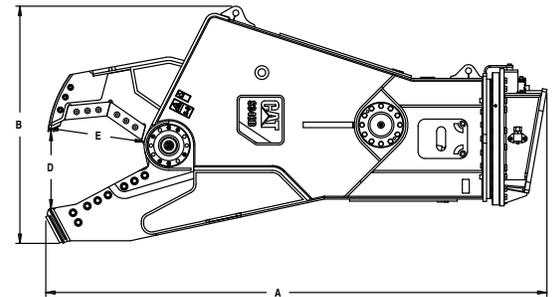
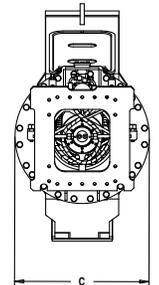
Max. operating pressure	bar	100	140	140	140
Recommended flow	l/min	20	40	40	80

### Cutting guide\*\*

I beams	kg	IPN 200	IPE 360	IPE 400	IPE 450
Columns	kg	HE 120 A	HP 200x53	HE 240 B	HE 300 B
Round	mm	51	90	100	115
Square	mm	40	65	90	90
Pipe		DN 200	DN 300	DN 350	DN 400
Piercing	mm	10	16	19	22

\* Weight includes mounting bracket

\*\* All steel A36 equivalent. The profiles above provide an approximation of shear cutting capabilities. Cutting capacities shown are based on material made of mild steel, HEX operating pressure of 350 bar, and shear knives in good condition. Lower operating pressures, dull knife edges, and harder steel will reduce cutting capacities.



## Hydraulic Requirements

Two way hydraulic high pressure lines for opening/closing and two way hydraulic medium pressure lines for rotation controlled by joystick in the cab or pedal according to customer's choice.

## Matching Guide – Hydraulic Excavators

Shears	HEX - stick mounted	HEX - boom mounted	Ultra High Demolition
S305	307D		
S320B	M315D, M316D, M318D, 319DL, 320DL, M322D, 323DL, 324DL, 329DL	M313D, M315D, M316D, M318D, 312DL	325D, 330D, 345C, 365C, 385C
S325B	324DL, 329DL, 336DL	M313D, M315D, 315DL, M316D, M318D, 319DL, 320DL, M322D, 323DL, M318DMH, M322DMH	325D
S340B	345D	M318DMH, M322D, M322DMH, 324DL, M325DMH, M325DLMH, 329DL	

Matches indicated above are based on counterweight and grouser width on standard machines. Using different counterweight and grouser options may affect machine stability. Matches indicated above are calculated with standard boom (1-piece or Reach), pin on connection and, cases where this is applicable, with all four stabilizers down. Any variation from this could result in a less than stable match. For Cat shears matched to machine and other machine variations not listed above, please contact your local Cat dealer.

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

HEHX3156-3 (12/2008) hr

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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Caterpillar dealer for available options.

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