



**S225/S230**  
**S240/S250**  
**S280/S2130**  
 Mobile Scrap and  
 Demolition Shears



Shear Model	Cat Excavator
S225	315B
	318B
	320B
	322B

Shear Model	Cat Excavator
S230	320B
	322B
	325B
	330B

Shear Model	Cat Excavator
S240	325B
	330B
S250	330B
S280	345B
	350
S2130	375

Reach Boom Mounted

# Cat® S225, S230, S240, S250, S280, S2130 Mobile Scrap And Demolition Shears

*180° Rotation increases productivity and reduces system cost.*

The Cat Mobile Scrap and Demolition Shears are built to optimize productivity and cost effectiveness of the excavator/shear system while minimizing maintenance cost and downtime.

The shears are widely used for demolishing steel structures, cutting up cars, trucks, farm machinery, railroad cars, larger rubber tires, reinforced concrete structures, cables and scrap in general.



## Key features of the shears are:

- Compared with shears with top mounted 360° rotation, the center of gravity of the 180° side mounted rotator is much closer to the excavator. This means a Cat Shear of any given size can be operated on a smaller excavator than competitive shears with 360° rotation. Or, if a hydraulic excavator of a certain size is a given, a larger more powerful Cat shear may be mounted on that excavator.
- The large diameter main bolt supporting the moving arm is precision machined and seated in a matching steel bushing. It is field removable. Adjustment of the fasteners in the hub area is rarely necessary as long as normal maintenance welding of the moving arm tip is undertaken.
- 500 Brinell hardness wear plates are used extensively throughout the upper and lower jaws to reduce regular maintenance welding.
- The cylinder is equipped with swivel bearings. Oil supplied through the cylinder rod, pushes the cylinder housing out when closing the jaws. This leaves the rod protected inside the housing.



## Specifications

All dimensions and weights are approximate.

Model	S225	S230	S240	S250	S280	S2130
Approx. service weight excluding adapter bracket	<b>2500 kg</b> 5,520 lb	<b>3400 kg</b> 7,505 lb	<b>5000 kg</b> 11,040 lb	<b>5900 kg</b> 13,024 lb	<b>7500 kg</b> 16,556 lb	<b>12 300 kg</b> 27,200 lb
Length	<b>3135 mm</b> 123.4 in	<b>3590 mm</b> 141.3 in	<b>4120 mm</b> 162.2 in	<b>4430 mm</b> 174.4 in	<b>5060 mm</b> 199.2 in	<b>5835 mm</b> 229.7 in
Jaw Opening	<b>533 mm</b> 21.0 in	<b>530 mm</b> 20.9 in	<b>710 mm</b> 28 in	<b>625 mm</b> 24.6 in	<b>785 mm</b> 30.9 in	<b>1060 mm</b> 41.8 in
Jaw Depth	<b>530 mm</b> 20.9 in	<b>540 mm</b> 21.2 in	<b>725 mm</b> 28.5 in	<b>812 mm</b> 32.0 in	<b>820 mm</b> 32.3 in	<b>910 mm</b> 35.8 in
Primary Cutter Length	<b>300 mm</b> 11.8 in	<b>300 mm</b> 11.8 in	<b>330 mm</b> 13 in	<b>450 mm</b> 17.7 in	<b>450 mm</b> 17.7 in	<b>550 mm</b> 21.7 in
Max. Shear Force* Throat/ Primary Blade Center	<b>3495/1800 kN</b> 393/202 st	<b>4620/2400 kN</b> 519/270 st	<b>6987/3538 kN</b> 785/398 st	<b>8189/3580 kN</b> 920/402 st	<b>8809/4259 kN</b> 990/480 st	<b>11931/5429 kN</b> 1340/610 st
Maximum Oil Flow —						
Hydraulic Cylinder	<b>350 L/min</b> 92.6 gpm	<b>350 L/min</b> 92.6 gpm	<b>350 L/min</b> 92.6 gpm	<b>350 L/min</b> 92.6 gpm	<b>579 L/min</b> 152.9 gpm	<b>1000 L/min</b> 264 gpm
Cycle Time* -	<b>5.2 sec</b>	<b>7.1 sec</b>	<b>13.3 sec</b>	<b>14.2 sec</b>	<b>10.2 sec</b>	<b>10.1 sec</b>
Rotation	<b>15 L/min</b> 4 gpm	<b>17 L/min</b> 4.5 gpm	<b>23 L/min</b> 6.1 gpm	<b>31 L/min</b> 8.2 gpm	<b>53 L/min</b> 14 gpm	<b>47 L/min</b> 12.4 gpm
Maximum Working Pressure						
Hydraulic Cylinder	<b>34 300 kPa</b> 4980 psi	<b>34 300 kPa</b> 4980 psi	<b>34 300 kPa</b> 4980 psi	<b>34 300 kPa</b> 4980 psi	<b>34 300 kPa</b> 4980 psi	<b>34 300 kPa</b> 4980 psi
Rotation	<b>20 200 kPa</b> 2900 psi	<b>20 200 kPa</b> 2900 psi	<b>20 200 kPa</b> 2900 psi	<b>20 200 kPa</b> 2900 psi	<b>20 200 kPa</b> 2900 psi	<b>20 200 kPa</b> 2900 psi
Hydraulic Rotation	180 degrees	180 degrees	180 degrees	180 degrees	180 degrees	180 degrees
Base Machine Operating Weight						
Boom	<b>16 400 kg</b> 36,000 lb	<b>20 000 kg</b> 44,000 lb	<b>28 600 kg</b> 63,000 lb	<b>33 700 kg</b> 74,000 lb	<b>41 800 kg</b> 92,000 lb	<b>75 000 kg</b> 165,000 lb
Stick	<b>26 000 kg</b> 57,000 lb	<b>32 700 kg</b> 72,000 lb	<b>42 700 kg</b> 94,000 lb	<b>54 500 kg</b> 120,000 lb	<b>80 000 kg</b> 176,000 lb	<b>NA</b> <b>NA</b>

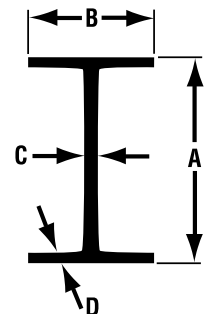
\* Shear Force measured at 34,300 kPa (4980 psi)

\*Cycle time may vary due to machine configuration and operating conditions.

## Shearing Capability

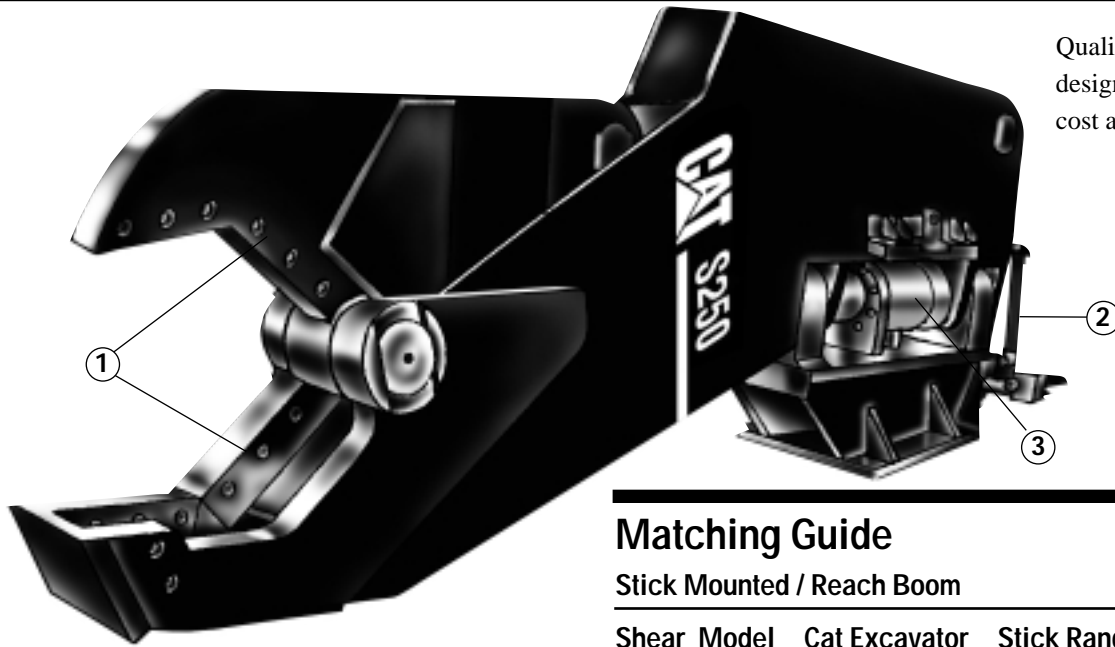
All dimensions are approximate

Model	S225	S230	S240	S250	S280	S2130
Narrow I-Beams	<b>mm in</b>	<b>mm in</b>	<b>mm in</b>	<b>mm in</b>	<b>mm in</b>	<b>mm in</b>
<b>A Height</b>	320 12.6	400 15.7	425 16.7	500 19.7	550 21.7	600 23.6
<b>B Flange Width</b>	131 5.2	115 6.1	163 6.4	185 7.3	200 7.9	215 8.5
<b>C Web Thickness</b>	11.5 0.45	14.4 0.57	15.3 0.6	18.0 0.7	19 0.75	21.6 0.85
<b>D Flange Thickness</b>	17.3 0.68	21.8 0.86	23 0.9	27.0 1.1	30 1.2	32.4 1.28
Wide I-Beams						
<b>A Height</b>	171 6.7	230 9.1	250 9.8	330 13	390 15.4	440 17.3
<b>B Flange Width</b>	180 7.1	240 9.4	260 10.2	300 11.8	300 11.8	300 11.8
<b>C Web Thickness</b>	6 0.24	7.5 0.3	7.5 0.3	9.5 0.37	11 0.43	11.5 0.45
<b>D Flange Thickness</b>	9.5 0.37	12 0.47	12.5 0.49	16.5 0.65	19 0.75	21 0.83
Hot rolled solid round steel						
Diameter	72 2.8	83 3.25	88 3.5	105 4.125	115 4.5	140 5.5



The above profiles provide an indication of the shears relative cutting capability. The exact cutting dimensions depend on excavator operating pressure, the conditions of the shear knives and jaws and the steel's tensile strength.

# Mobile Scrap and Demolition Shears



Quality steel and unique design reduce maintenance cost and downtime.

- ① **The steel cutting knives** are made of 500 Brinell hardness steel or similar quality steel combining inherent hardness with exceptional tensile strength. When worn down the cutting edges can be built up with suitable welding rods.
- ② **The transportation safety bars** are designed to convert the shears to straight shears if required.
- ③ **A 180° rotator increases shear** productivity by 35-65% over straight shears. The reduced need to move the excavator also cuts undercarriage repair costs.

Caterpillar recommends falling object guards in applications where there is a possibility of falling objects. Please consult your Caterpillar dealer for these guards.

## Matching Guide

### Stick Mounted / Reach Boom

Shear Model	Cat Excavator	Stick Range	
S225	320B	1.9 m	6' 3"
	322B	2.5 - 3.6 m	8' 2" - 11' 10"
	325B	2.0 - 4.2 m	6' 7" - 13' 9"
	330B	2.15 - 4.8 m	7' 1" - 15' 9"
S230	325B	2.0 - 2.7 m	6' 7" - 8' 10"
	330B	2.15 - 3.9 m	7' 1" - 12' 10"
	345B	2.9 - 4.8 m	9' 6" - 15' 9"
	350	3.1 - 4.8 m	10' 2" - 15' 9"
S240	345B	2.9 - 3.9 m	9' 6" - 12' 10"
	350	3.1 - 3.7 m	10' 2" - 11' 10"
S250	375	2.9 - 5.5 m	9' 6" - 18' 1"
S280	375	2.9 - 3.4 m	9' 6" - 11' 2"
	375 *	2.9 - 4.4 m	9' 6" - 14' 5"

\* GP Boom.

### Reach Boom Mounted

Shear Model	Cat Excavator	Shear Model	Cat Excavator
S225	315B	S240	325B
	318B		330B
	320B	S250	330B
	322B		345B
	S230	320B	S280
322B		S2130	
325B			
330B			

© 1999 Caterpillar  
Printed in U.S.A.

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