



Cat[®] Orange Peel Grapples

MATERIAL HANDLER EXCAVATORS

FEATURES:

High Production in Scrap & Recycling Processing

- **Perfect solution.** A Cat[®] Orange Peel Grapple is the perfect solution for material handlers in scrap yards, recycling plants and transfer stations. A 360° rotation system and 4- or 5-tine configuration efficiently and safely handle shredded scrap, waste, long structural beams, car bodies and many other materials.
- **Achieve Maximum Penetration.** Tine angle and tip shape of the Cat grapple work together like daggers, punching deep into the scrap pile. The grapple's high contoured center profile further enhances penetration for a full load every time.
- **Stack Higher.** Cat Orange Peel Grapples have a low profile and short overall height, allowing the operator to reach and stack higher.
- **Maximize Production.** Achieve faster cycle times. Heavy duty cylinders and penetrating tines work together securely grabbing full loads with each pick for maximum production.
- **Easily Switch to a Magnet.** Grapple can be quickly removed using a single pin. The crosshead bracket remains on the machine and has a bushing and clevis designed to accept a magnet.
- **Ten Models to Fit Your Application.** Cat Orange Peel Grapples come with either four- or five-tines and range in capacities from 0.75–2.50 yd³. (600–2,000 liters).

Reliable, Durable Grapple

- **Reduced Stick Stress.** The grapple's short overall height reduces stress on the stick caused by swinging loads.
- **Reliable Design.** The Cat gear and slew ring design have been proven in the field to be the most reliable rotational system for rotating attachments.
- **Reduced Damage & Downtime.** Cat cylinders and hoses are located inside the grapple, protected against cutting and scoring from scrap impact. Four exposed connector lines to the machine are guarded — protecting them from damage.

- **Cylinders Protected.** Mechanical tine stops protect cylinders from over-extension and permanent damage as the tips wear. Stops limit movement on both the open and close—so cylinders never move beyond their limit.
- **Increased Cylinder Life.** Dampening system reduces stress and increases cylinder service life by slowing the cylinder toward the end of its stroke.
- **High Abrasion Steel.** Tines and tips are made from HB400 steel — formulated for high abrasion applications and resist metal-on-metal wear.
- **Reinforced in Key Areas.** For increased service life high stress areas around pins and load points are reinforced with additional plating—just enough to deflect stress without adding unnecessary weight.
- **Large Pins.** Carry more load with large pins, made of hardened steel and an integral grease groove for endurance. Cat bushings and seals add to the durability of the grapple pin and crosshead bracket.

Easy to Maintain

- **Field Replaceable.** Tine tips and the optional inner wear wrappers are weld-on and field replaceable.
- **Easy Inspection.** Rotator and motor placement allows for easy inspection.
- **Easy Access.** Maintenance panels on the housing and tines are conveniently located and easy to open for inspection and routine service. Bolt-on covers allow access to cylinders, hoses and grease points without the need to remove the tine.
- **Caterpillar Support.** Orange Peel Grapples come with the same legendary level of support as our Cat Excavators. Cat standard parts are used, in the parts system, and readily available worldwide.

Cat Orange Peel Grapples

High Production

Maximum Penetration

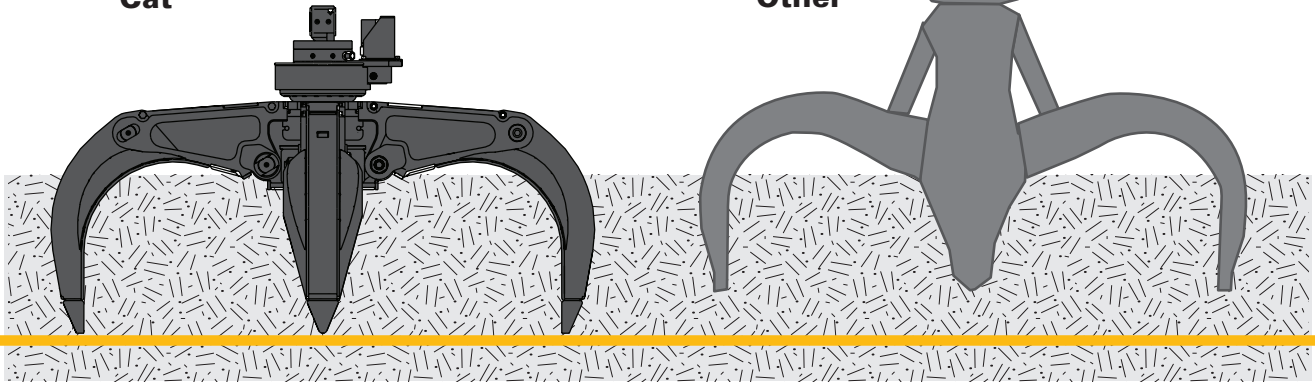
Tine angle and tip shape of the Cat grapple work together—punching tines into the scrap pile like daggers.

A high center contour allows the tines to penetrate deep before the body comes into contact with the pile.

Heavy duty cylinders create the clamping force required to penetrate through the pile.

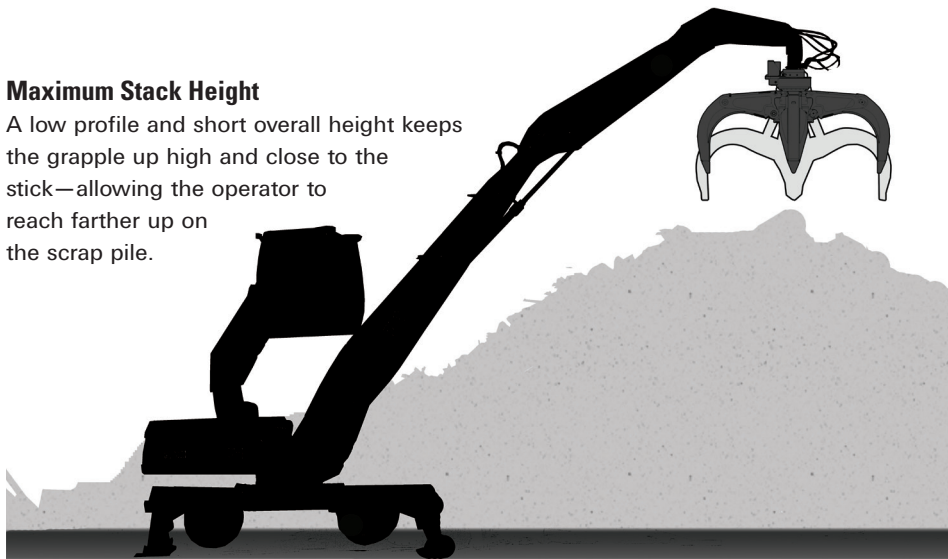
Cat

Other

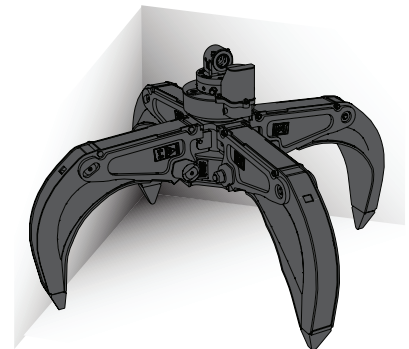


Maximum Stack Height

A low profile and short overall height keeps the grapple up high and close to the stick—allowing the operator to reach farther up on the scrap pile.

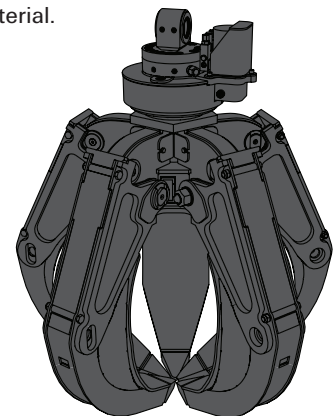


Configuration Options

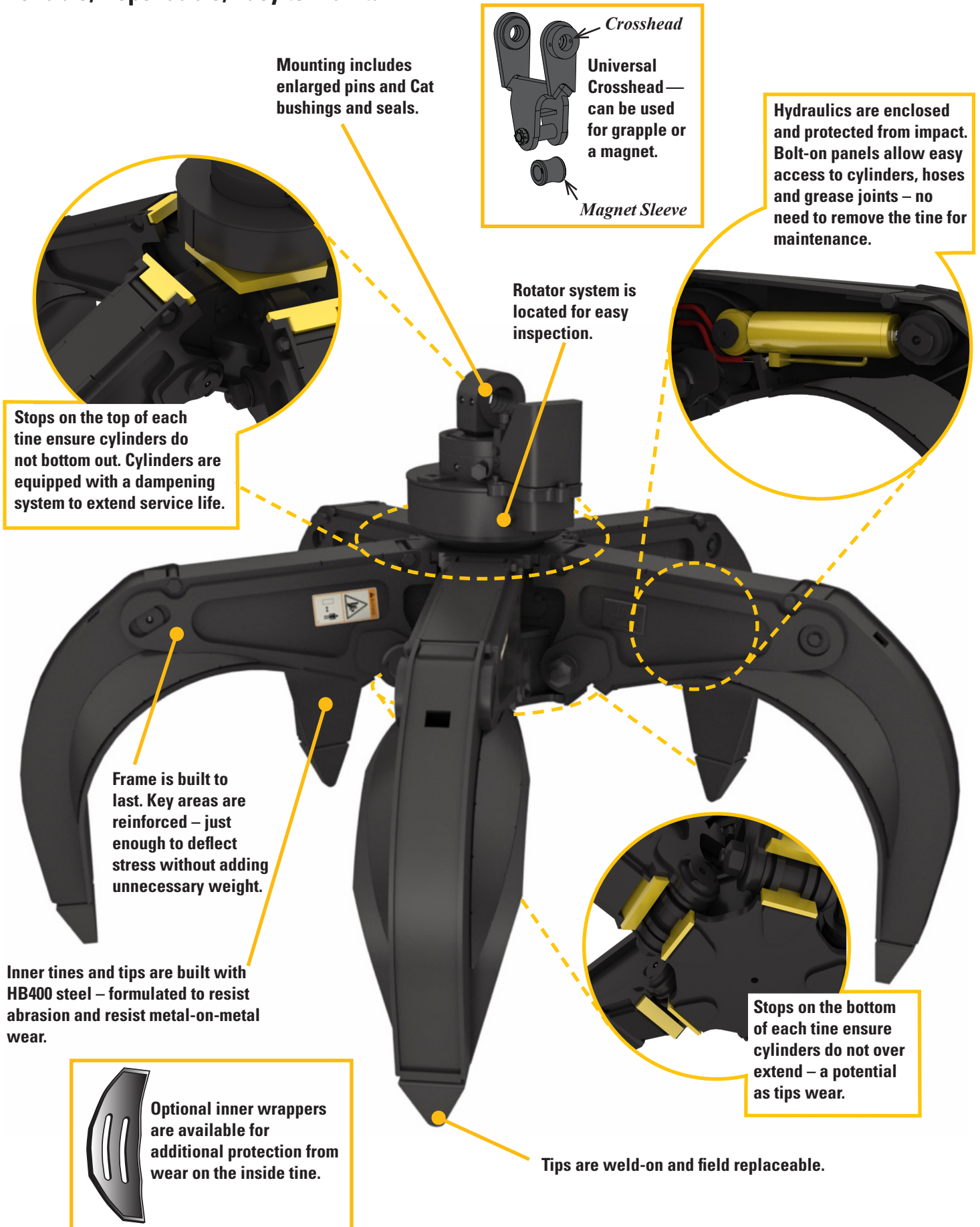


Square footprint of the four-tine grapple lends this configuration to more easily fit inside trucks, containers and rail cars. Four tines are beneficial when handling larger scrap like an automobile.

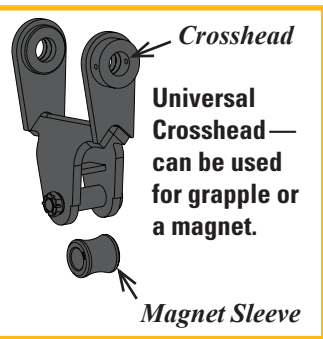
Five-tines provide close tine spacing and good retention of smaller loose material.



Reliable, Dependable, Easy to Maintain



Mounting includes enlarged pins and Cat bushings and seals.



Hydraulics are enclosed and protected from impact. Bolt-on panels allow easy access to cylinders, hoses and grease joints – no need to remove the tine for maintenance.

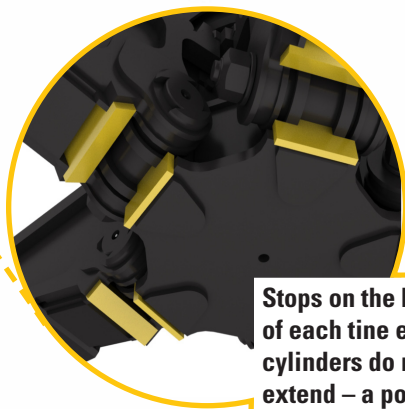
Stops on the top of each tine ensure cylinders do not bottom out. Cylinders are equipped with a dampening system to extend service life.

Rotator system is located for easy inspection.



Frame is built to last. Key areas are reinforced – just enough to deflect stress without adding unnecessary weight.

Inner tines and tips are built with HB400 steel – formulated to resist abrasion and resist metal-on-metal wear.



Stops on the bottom of each tine ensure cylinders do not over extend – a potential as tips wear.



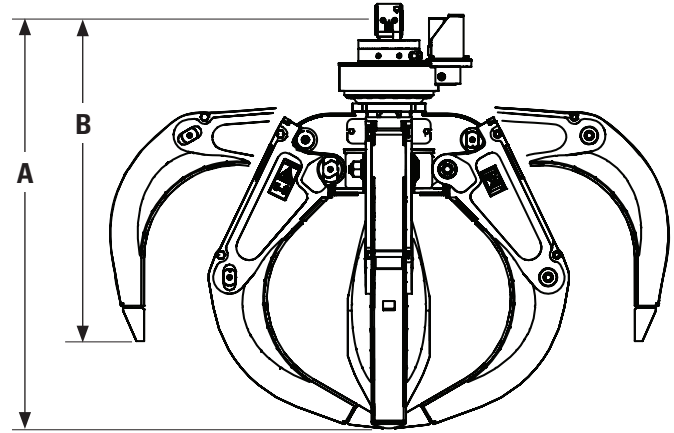
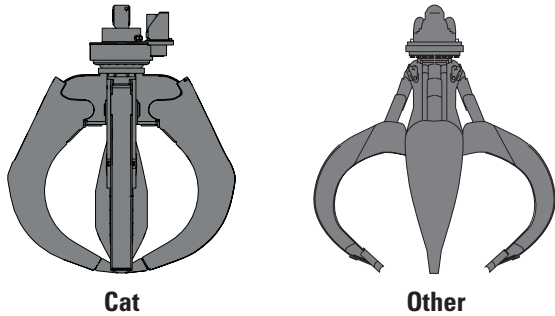
Tips are weld-on and field replaceable.

Cat Orange Peel Grapples

Specifications

Capacity Rating

There is no industry standard for rating orange peel grapple capacity. Cat Orange Peel Grapples are rated with tines fully closed. Competitors vary in their capacity ratings from fully closed to partially open tines.

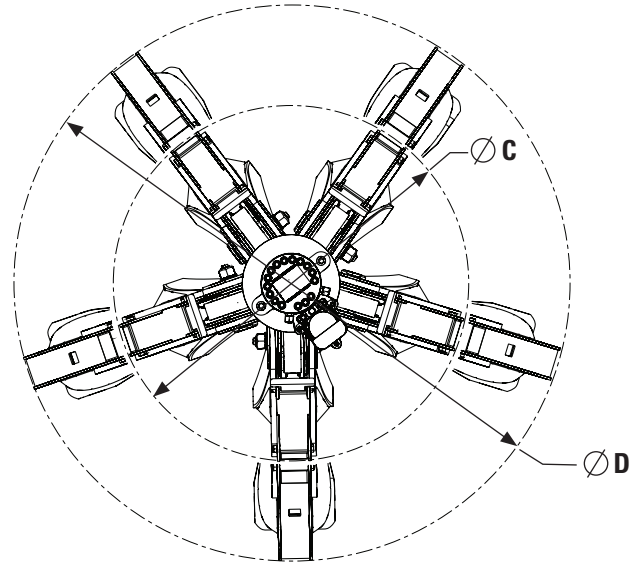
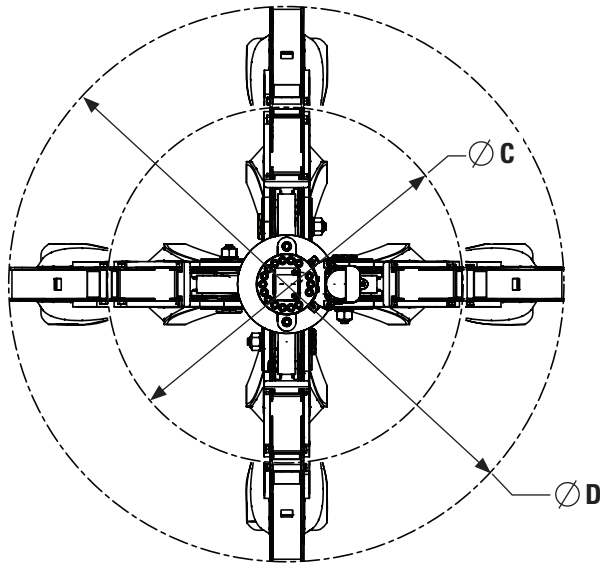


	GSH15B				GSH20B			
	Tine Configuration	4-tine	5-tine	5-tine	4-tine	4-tine	4-tine	4-tine
Capacity, tines closed	L (yd ³)	600 (0.75)	600 (0.75)	600 (0.75)	800 (1.00)	1,000 (1.25)		
Operating Weight*	kg (lb)	1,215 (2,679)	1,450 (3,197)	1,575 (3,472)	1,615 (3,660)	1,660 (3,660)		
Maximum Lift Capacity	kg (lb)	4,000 (8,818)	4,000 (8,818)	8,000 (17,637)	8,000 (17,637)	8,000 (17,637)		
Dimensions								
A Height, tines closed	mm (in)	1,740 (68.50)	1,760 (69.29)	1,720 (67.72)	1,860 (73.23)	2,010 (79.13)		
B Height, tines open	mm (in)	1,385 (54.53)	1,400 (55.12)	1,440 (56.69)	1,510 (59.45)	1,590 (62.60)		
C Diameter, tines closed	mm (in)	1,540 (60.63)	1,500 (59.05)	1,735 (68.31)	1,735 (68.31)	1,735 (68.31)		
D Diameter, tines open	mm (in)	2,415 (95.08)	2,340 (92.13)	2,390 (94.09)	2,595 (101.97)	2,855 (102.40)		
Ground clearance, tines open	mm (in)	640 (25.20)	650 (25.59)	645 (25.40)	715 (28.15)	790 (31.10)		
Pin diameter	mm (in)	70 (2.76)	70 (2.76)	80 (3.15)	80 (3.15)	80 (3.15)		
Width of crosshead	mm (in)	114 (4.49)	114 (4.49)	150 (5.91)	150 (5.91)	150 (5.91)		
Overall width	mm (in)	1,810 (71.26)	2,230 (87.8)	1,800 (70.87)	1,930 (75.98)	2,125 (83.66)		
Maximum opening	mm (in)	2,121 (83.50)	2,121 (83.5)	2,064 (81.26)	2,305 (90.75)	2,552 (100.47)		
Hydraulic open/close								
Maximum pressure	bar (psi)	350 (5,076)	350 (5,076)	350 (5,076)	350 (5,076)	350 (5,076)		
Optimum flow	L/min (gpm)	100 (26.42)	100 (26.42)	150 (39.63)	150 (39.63)	150 (39.63)		
Hydraulic rotation								
Maximum pressure	bar (psi)	180 (2,610)	180 (2,610)	200 (2,900)	200 (2,900)	200 (2,900)		
Optimum pressure	bar (psi)	140 (2,030)	140 (2,030)	160 (2,320)	160 (2,320)	160 (2,320)		
Optimum flow	L/min (gpm)	20 (5.28)	20 (5.28)	20 (5.28)	20 (5.28)	20 (5.28)		

* Excludes crosshead mounting bracket.

GHS20B & GSH22B continued on next page →

Specifications



		GSH20B				GSH22B						
		Tine Configuration		5-tine		5-tine		4-tine		4-tine		
Capacity, tines closed	L	(yd ³)	800	(1.00)	1,000	(1.25)	1,200	(1.50)	1,500	(2.00)	2,000	(2.50)
Operating Weight*	kg	(lb)	1920	(4,232)	1,975	(4,354)	2,390	(5,269)	2,410	(5,313)	2,430	(5360)
Maximum Lift Capacity	kg	(lb)	8,000	(17,637)	8,000	(17,637)	12,000	(26,455)	12,000	(26,455)	12,000	(26,455)
Dimensions												
A Height, tines closed	mm	(in)	1,860	(73.23)	2,010	(79.13)	2,175	(85.63)	2,265	(89.17)	2,345	(92.32)
B Height, tines open	mm	(in)	1,510	(59.45)	1,590	(62.60)	1,830	(72.05)	1,880	(72.36)	1,930	(75.98)
C Diameter, tines closed	mm	(in)	1,735	(68.31)	1,735	(68.31)	2,050	(80.71)	2,050	(80.71)	2,058	(81.02)
D Diameter, tines open	mm	(in)	2,595	(101.97)	2,855	(102.40)	2,950	(116.14)	3,050	(120.08)	3,190	(125.59)
Ground clearance, tines open	mm	(in)	715	(28.15)	790	(31.10)	900	(35.43)	955	(37.60)	1,000	(39.37)
Pin diameter	mm	(in)	80	(3.15)	80	(3.15)	90	(3.54)	90	(3.54)	90	(3.54)
Width of crosshead	mm	(in)	150	(5.91)	150	(5.91)	200	(7.87)	200	(7.87)	200	(7.87)
Overall width	mm	(in)	2,395	(94.29)	2,635	(103.74)	2,230	(87.80)	2,320	(91.34)	2,320	(91.34)
Maximum opening	mm	(in)	2,305	(90.75)	2,552	(100.47)	2,522	(99.29)	2,675	(105.31)	2,853	(112.32)
Hydraulic open/close												
Maximum pressure	bar	(psi)	350	(5,076)	350	(5,076)	350	(5,076)	350	(5,076)	350	(5,076)
Optimum flow	L/min	(gpm)	150	(39.63)	150	(39.63)	200	(52.83)	200	(52.83)	200	(52.83)
Hydraulic rotation												
Maximum pressure	bar	(psi)	200	(2,900)	200	(2,900)	200	(2,900)	200	(2,900)	200	(2,900)
Optimum pressure	bar	(psi)	160	(2,320)	160	(2,320)	160	(2,320)	160	(2,320)	160	(2,320)
Optimum flow	L/min	(gpm)	20	(5.28)	20	(5.28)	20	(5.28)	20	(5.28)	20	(5.28)

* Excludes crosshead mounting bracket.

Cat Orange Peel Grapples

Matching Guide

	Boom Length	Stick Length	GSH15B		GSH20B					GSH22B		
			4-tine	5-tine	4-tine	4-tine	4-tine	5-tine	5-tine	4-tine	4-tine	4-tine
			600 liter (0.75 yd ³)	600 liter (0.75 yd ³)	600 liter (0.75 yd ³)	800 liter (1.00 yd ³)	1,000 liter (1.25 yd ³)	800 liter (1.00 yd ³)	1,000 liter (1.25 yd ³)	1,200 liter (1.50 yd ³)	1,500 liter (2.00 yd ³)	2,000 liter (2.50 yd ³)
m (ft. in)	m (ft. in)											
M318C MH	6.4 (20'3")	4.9 (16'1")	●	●								
M318D MH			●	●	●	⊖	⊖	⊖	⊖			
M322C MH	6.8 (22'3")	4.9 (16'1")	●	●	●	●	●	●	⊖			
		5.9 (19'4")	●	●	●	●	⊖	⊖	⊖			
M322D MH	6.8 (22'3")	4.9 (16'1")	●	●	●	●	●	●	●			
		5.9 (19'4")	●	●	●	●	⊖	●	⊖			
M325C MH	8.9 (29'0")	6.0 (19'8")			●	●	●	●	⊖	⊖		
		7.4 (24'4")			●	⊖						
M325C L MH	8.9 (29'0")	6.0 (19'8")			●	●	●	●	●	●	⊖	
		7.4 (24'3")			●	●	⊖	⊖	⊖			
M325D MH (30 ton counterweight)	9.3 (30'6")	5.7 (18'7")			●	●	⊖	⊖	⊖			
		7.1 (23'3")			●	⊖	⊖	⊖				
M325D L MH (36 ton counterweight)	9.3 (30'6")	5.7 (18'7")			●	●	●	●	●	●	⊖	
		7.1 (23'3")			●	●	●	●	●	⊖		
		9.9 (32'6")			●	●	●	●	●	●	⊖	
		7.1 (23'3")			●	●	●	●	●	⊖		
320C MH	6.7 (21'10")	5.5 (17'11")	⊖	⊖								
325C MH	8.4 (27'5")	5.5 (17'11")			●	⊖	⊖	⊖				
325D MH	8.9 (29'0")	6.0 (19'8")			●	⊖	⊖	⊖				
		7.4 (24'3")			⊖							
330C MH	9.1 (29'10")	6.0 (19'8")			●	●	⊖	⊖	⊖			
330D MH	9.2 (30'2")	6.1 (20'0")			●	●	●	●	●	⊖		
		7.6 (24'11")			●	●	⊖	⊖	⊖			
345C MH	9.9 (32'6")	7.4 (24'4")								●	●	⊖
		9.1 (29'20")								●	●	⊖
MX447	9.5 (31'3")	6.6 (21'8")				●	●					
	10.6 (35')	8.0 (26'3")				●	●					
MX457	10.8 (35'5")	9.0 (29'6")								●	●	

●	1,800 kg/m ³ (3,024 lb/yd ³) Primary match for good stability in average scrap handling situations
⊖	1,200 kg/m ³ (2,025 lb/yd ³) Secondary match, for less dense material
⊙	3,000 kg/m ³ (5,049 lb/yd ³) Secondary match, for more dense material
	No match

Orange Peel Grapples are also available for mounting on excavators with standard fronts, as well as on competitive material handlers. Contact your local Cat dealer for more details.

Cat Orange Peel Grapples



Cat Orange Peel Grapples

More Work Tool Attachments for Excavators

Caterpillar offers a complete range of Work Tool attachments for excavators.



Compactors

Cat Compactors are available in four models (CVP16, CVP40, CVP75 and CVP110) for excavators up to 336 size.



Scrap & Demolition Shears

Scrap & Demolition Shears with 360° rotation are available in six models and can be used on 303.5–390 size excavators.



Multi-Processors

Multi-Processors are available in four models (MP15, MP20, MP30 and MP40) with six different jaw options. They are available for 319–390 size excavators.



Grapples

Grapples are available two different styles and a range of sizes for 307–390 size excavators.



Hammers

Cat Hammers are available in models ranging from H25 through H180 and can be used on excavators up to 374 size.



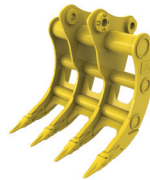
Secondary Pulverizers

Pulverizers are available in three models (P215, P225, P235). They are sized for use on 315–349 excavators.



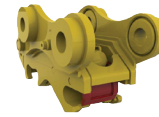
Rippers

Rippers are available for 330 size excavators and up.



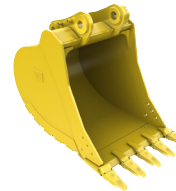
Rakes

Rakes are available for 320–336 size excavators.



Couplers

Cat Center-Lock Pin Grabber Coupler is available for 311–390 size excavators.



Buckets

Buckets are available in four standard durabilities, and several specialty styles for 311–390 size excavators.



Thumbs

Hydraulic and Stiff Link Thumbs are available for 311–349 excavators.

For more information on the variety of Work Tool attachments available for Excavators contact your local Cat dealer.

Hydraulic Solutions

- Caterpillar provides field-installed hydraulic kits connecting Work Tools attachments to current and non-current excavators.
- Compatibility and performance with the Cat Work Tool attachments and Cat excavator is guaranteed.
- Available for 311–390 excavators.



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

GEHH0011-02 (03-12)

©2012 Caterpillar
All Rights Reserved
Printed in U.S.A.

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

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.

