G310B/G315B G320B Multi-Grapples

EAT®

For Demolition and Recycling applications

Cat® G310B, G315B and G320B Multi-Grapples

For Demolition and recycling applications



Caterpillar[®] G310B, G315B and G320B Multi-Grapples are equally well suited for demolition of brick and wood structures. These Multi-Grapples are extremely effective for sorting and loading a variety of different materials as found in demolition and scrap piles. The speed, dexterity, clamping force and rugged construction make these Multi-Grapples ideal tools for

demolition of (non-) concrete structures. They can accomplish all required operations such as the demolition itself, sorting of the debris, loading and site clean up. Multi-Grapples are also well suited for most recycling operations because of the efficiency with which the operator can sort and pile the different materials normally found in wasteprocessing applications.

Performance and Versatility

The Caterpillar G300B Series Multi-Grapples are designed to deliver maximum performance and efficient operation when matched to Caterpillar and competitive excavators. They feature 360 degree hydraulic rotation, robust yoke, high closing force, high parts communality, improved durability and less maintenance. The G300B Series Multi-Grapples have a unique design and are available in two versions to ensure an optimal performance in your application. There is a purpose designed version for demolition applications or a purpose designed version for waste processing applications.

New Features

The G300B Series Multi-Grapples include a number of new and improved features designed to maximize productivity and minimize downtime. These include the following:

Design

- Perfect match with Caterpillar machines and improved matching with competitive machines.
- Increased closing force (G315B and G320B only).
- Better force distribution by using 1 cylinder with 2 push rods
- High performance rotator with more torque.
- Differentiation, for optimal performance in different applications. Demolition version: heavy-duty design for demolition and sorting applications. Like stripping buildings or constructions, selective demolition and sorting construction and demolition waste. Recycling-version: designed for waste sorting and loading applications. The ability of this grapple to precisely sort and pick out certain materials to be processed separately makes it the perfect grapple for this application.
- 90° angled shells (angle versus ground level) in fully opened position.

Durability

- Robust construction with better weight distribution.
- Improved durability of hinges by using high quality bushings with lubrication grooves, hardened pins and dust seals.
- Dust seals are applied inside which makes this a unique design with reduced axial play, optimal protection against damaging and less grease consumption.
- Machined hinges to minimize axial play.
- Bolt-on cutting edge standard included.
- Parts reduction in upper head. Rotator replaces swivel and hydraulic motor for rotation. The number of hydraulic lines and connectors is reduced significantly to reduced possibility of leakage.

- Maximum protection of hydraulic components. Rotator is mounted inside upper head instead of outside mounted hydraulic motor. For better protection of connecting lines all hydraulic connections are mounted at the left and right side of upper head instead of at the front.
- Vibration-free rotator due to unique construction with silent blocks.
- Enlarged pivot points for increased wear life. By having increased contact area pin fatigue is minimized and forces are better distributed.
- Better stress distribution and extended lifetime by applying a cushioned cylinder and bolt-on cutting edges as standard. These two features limit shell movement on the G300B Multi-Grapple instead of endstops.

Commonality

- Standardized drill pattern for better interchange ability of mounting brackets.
- ORFS hydraulic connections standard included for easy connection to Caterpillar machines.

Maintenance

- 100 hours service interval
- Maintenance-free rotator
- Main components are easily accessible through large inspection covers.
- Easy assemble/disassemble of main components
- No special tools required

Features



Tool Selection

Caterpillar Multi-Grapples give you the ability to match the machine to your application.

	Grapple Application	Demolition	Recycling
B 1141 1	Strip buildings or construction		
Demolition and Sorting applications	Selective demolition		
at demolition sites	Sorting construction and demolition waste		
	Loading and unloading containers		
Waste handling	Extract recyclable from waste stream before transfer or landfilling		
applications at	Cleaning sites, wharves		
Transfer/Recycling stations	Loading and unloading containers (Or bins, loading trucks, hoppers, railcars)		
Very Good	Good Not Recommended		

Specifications

All dimensions and weights are approximate.

Specifications		G310B-R	G310B-D	G315B-R	G315B-D	G320B-R	G320B-D
Recommended carrier weight	metric ton	10-16	10-16	15-22	15-22	20-29	20-29
Capacity	Liters	400	375	600	550	800	750
Operating weight*	kg	980	990	1320	1330	1860	1870
Closing force	kN	37	37	54	54	68	68
Maximum pressure open/close	bar	350	350	350	350	350	350
Optimal flow open/close	l/min	60	60	90	90	120	120
Maximum pressure rotation	bar	320	320	320	320	320	320
Optimal flow rotation	l/min	25	25	25	25	25	25

* Including bolt-on mounting bracket

Dimensions		G310B-R	G310B-D	G315B-R	G315B-D	G320B-R	G320B-D
W Width	mm	850	850	1000	1000	1100	1100
A Width closed	mm	1225	1245	1360	1375	1505	1540
B Width opened	mm	1800	1800	2000	2000	2200	2200
H Height	mm	520	520	570	570	625	625
H1 Height closed*	mm	1435	1435	1540	1540	1695	1695
H2 Height opened*	mm	1345	1345	1445	1445	1600	1600

* Including bolt-on mounting bracket for CW quick coupler



Work Tools Matching Guide

Choosing the proper Multi-Grapple can increase productivity and lower your cost per ton.

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	Stick mm	G310B-D	G315B-D	G320B-D	G310B-R	G315B-R	G320B-R	G310B-D	G315B-D	G320B-D	G310B-R	G315B-R	G320B-R		Stick mm	G310B-D	G315B-D	G320B-D	G310B-R	G315B-R	G320B-R	G310B-D	G315B-D	G320B-D	G310B-R	G315B-R	G320B-R
	2100														1900	\vdash						-		-	-	-	—
312C	2500													320C	2500												_
500 mm shoes	3000													Reach boom	2920												_
2120 1	2100													2000	1900	\square											
312C L	2500													320C	2400												
600 mm shoes	3000													ME boom	2920												_
	1850														1900	\square											
315C L	2250													320C	2400												
500 mm shoes	2600													VA boom	2920												_
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	1850													320C L	2500												
315C L	2250													Reach boom	2920												-
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315C L	2250														1900	\vdash											
700 mm shoes	2600									-				320C L	2400	\vdash											
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318C	2250													320C LN	2500												-
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	3200									-					1900	⊢											
	1800				-									320C LN	2400	\vdash											-
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318C N	2250														1900	⊢											-
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318C L	2250	-		-	1			-			-			320C S	2400	1	-					-					
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000 11111 011000	3200			-			-			-					1900	\vdash						-					—
	1800			-	-		-							320C S	2400	-	-					-	<u> </u>				-
318C L	2250			-							-			VA boom	2400	-											-
800 mm shoes	2250							-						2200 111	2920	⊢						-					
ooo mini shoes	3200	-		-	-		-	-		-				320C LU Reach boom	<u>2500</u> 2920	1											
	3200										<u> </u>	<u> </u>		neach buull	2920	1											

Contact your dealer for assistance in matching the right Multi Grapple to your application and machine.

Working Range Full 360°

Working Range only Front

Work Tools Matching Guide

Choosing the proper Multi-Grapple can increase productivity and lower your cost per ton.

				Wit ck (t pler			Qui	W ick ('ith Cou	pler	
		Grappels Grappels							S				
	Stick	G310B-D	G315B-D	G320B-D	G310B-R	G315B-R	G320B-R	G310B-D	G315B-D	G320B-D	G310B-R	G315B-R	G320B-R
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	2000										<u> </u>		
322C L Reach boom	2500												
neach buun	<u>2950</u>										-		
322C L	HD 2950												
ME boom	2000 2500		-			-			-		-	-	
322C L	2500		-		-	-		-	-		-	-	
VA boom	<u>2000</u> 2500										-		
WY BOOM	2000							-			-		
322C LN	2500				-						-		
Reach boom	2950										-		
	HD 2950												
322C LN	2000												
ME boom	2500												
322C LN	2000												
VA boom	2500												
	2000												
325C L	2650												
Reach boom	3200												
	HD 3200												
325C L	2000												
ME boom	2500												
325C L	2000												
VA boom	2500												
	2000												
325C LN	2650												
Reach boom	3200												
	HD 3200												
325C LN	2000												
ME boom	2500												
325C LN	2000												
VA boom	2500												

					Wit ck (t pler			Qui	W ick ('ith Cou	pler	
					Grap		-				Grap		-	
		Stick mm	G310B-D	G315B-D	G320B-D	G310B-R	G315B-R	G320B-R	G310B-D	G315B-D	G320B-D	G310B-R	G315B-R	G320B-R
M313C	DL	2000												
1 piece boom		2300 2600							_					
M313C	DL	2000										┢		
VA boom	DL	2300												
		2600												
M313C	SSL	2000												
1 piece boom		2300												
		2600												\square
M313C	SSL	2000 2300			-									$\left - \right $
VA boom		2600								-	-		-	$\left - \right $
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M313C	SDL	2300												
1 piece boom		2600												
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VA boom	JDL	2300												
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M316C	DL	2400								-				
1 piece boom		2600												
M316C	DL	2100												
VA boom	υL	2400												
		2600												
M316C	SSL	2100												
1 piece boom	552	2400												
		2600												

- DL Dozer lowered
- SSL 2 sets of stabilizer lowered
- **SDL** Dozer and stabilizer lowered

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Working Range Full 360°

Working Range only Front

					Wit ick (t pler		Γ	Qui	W	'ith Cou	pler	
					Grap		-				Grap		-	
		Stick mm	G310B-D	G315B-D	G320B-D	G310B-R	G315B-R	G320B-R	G310B-D	G315B-D	G320B-D	G310B-R	G315B-R	G320B-R
M316C	SSL	2100												
VA boom		2400 2600			-									
		2000									-			\vdash
M316C	SDL	2400												
1 piece boom		2600												
Matco	CDI	2100												
M316C	SDL	2400												
VA boom		2600												
M318C	DL	2200												
1 piece boom	DL	2500												
T piece boom		2800												
M318C	DL	2200												
VA boom		2500												
		2800												
M318C	SSL	2200							_					
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		2800 2200	-									⊢		
M318C	SSL	2500												
VA boom		2800									-			
		2200										⊢		
M318C	SDL	2500												
1 piece boom		2800												
M2100	SDL	2200												
M318C VA boom	2DL	2500												
VA DOOM		2800												
M322C	DL	2200												
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VA boom		2500												
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VA boom		2900			-				-					\vdash
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M322C	SDL	2500												
1 piece boom		2900												\square
Maaa	פחו	2200												
M322C	SDL	2500												
VA boom		2900												

Without Quick Coupler

Special Applications – Ultra High Demolition (UHD)

Without Qu	ick Coupler	
	Undercarriage	G320B-D
	Standard	
	VG	
330C L	Long Narrow	
	345B II	
	HW	
345B L II	VG	
365B L II	Standard	
5090B L	Standard	

With Quick	c Coupler	
	Undercarriage	G320B-D
	Standard	
	VG	
330C L	Long Narrow	
	345B II	
	HW	
345B L II	VG	
365B L II	Standard	
5090B L	Standard	

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Working Range Full 360°

Working Range only Front

G310B, G315B, G320B Multi-Grapples

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

HEHX2907 (10/2003) hr

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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