# **BUCKETS** EXCAVATOR ATTACHMENTS

Tracked Excavators Wheeled Excavators 311-395 M313-M322



Not all attachments are available in all regions. Consult your Cat dealer for specific attachments available in your region.

# CAT® EXCAVATOR BUCKETS STANDARD DUTY BUCKETS

Cat® buckets are more than just an add-on, they are an extension of your Cat machines. Each one is perfectly balanced to our excavators so you can take on heaping loads without compromising fuel efficiency or machine health. We built them to fill faster, retain your load, and get your job done.



#### **BUCKETS TO FIT YOUR NEEDS**

Productivity is at its best when you pair your Cat machine with a Cat bucket, which we purpose-design to optimize the breakout force and power of the machine. With a wide range of standard and specialized excavator buckets, there is a solution for your trenching, excavating, loading and finishing needs. Each bucket is designed and tested as an integral part of your excavator.

- + GENERAL DUTY: FOR GENERAL EXCAVATION AND TRUCK LOADING OF DIRT, LOAM AND GRAVEL.
- + HEAVY DUTY: FOR GENERAL CONSTRUCTION APPLICATIONS IN A WIDE RANGE OF MATERIALS WITH A SMALL AGGREGATE SIZE.
- + **SEVERE DUTY:** FOR SMALL TO MEDIUM SIZED MATERIALS LIKE SANDSTONE, SHOT LIMESTONE, SHOT GRANITE AND THE LIKE.
- + **EXTREME DUTY**: FOR AGGRESSIVE DIGGING AND LOADING APPLICATIONS IN BROKEN SLAG, LIMESTONE, BROKEN GRANITE, BASALT, HEMATITE AND IRON ORE.



# BUILT FOR **PERFORMANCE**

Cat buckets are designed to cut through material quickly to enhance your machine's overall operating efficiency.

# LASTING **DURABILITY**

High-strength, abrasion resistant steel constructed buckets, paired with the right Ground Engaging Tools (GET) for your application can increase productivity and extend the life of your bucket.

# BOOST EFFICIENCY AND PRODUCTIVITY WITH INTEGRATED TECHNOLOGIES

The Cat PL161 Attachment Locator is the most advanced OEM integrated solution for attachment location and productivity data tracking.





Side bar protector protects bucket corners and side bars from wear. Side bar protectors are pin-on for easy installation and removal.



Extra protection for the inside of the bucket in extremely abrasive materials for 374-395 sized buckets.





The base edge is available as a straight edge or spade edge, depending on application. Spade Edges dig deeper into rock-type, bulky materials and guide them into the bucket.

Not all wear components are available for each bucket. Buckets meant for tougher applications will accept the most wear components. See your Cat dealer for details.

TEETH



Replaceable bottom wear plates protect the wrapper area and reinforces the bucket for greater strength and rigidity.



Side wear plates are constructed of high strength steel for extra protection. The side wear plates provide full coverage to the bottom wear plates.



Safeguard high wear areas on the bottom of your bucket in highly abrasive materials.



Helps bucket dig into materials and guides materials into bucket. Optional for general duty and heavy.



# HIGH PERFORMANCE EFFICIENCIES TO SAVE YOU MONEY

Fuel consumption peaks during digging. Productivity is at its best when you pair your Cat machine with a Cat bucket, which we purpose-design to optimize the breakout force and power of the machine. Load more material in less time. Bucket shape and sidebars keep the most material in your bucket for every load. These added efficiencies keep fuel in your tank and money in your pocket.





# RELIABLE DURABILITY

### TOUGHNESS WHERE YOU NEED IT

Count on the structural integrity of your bucket long-term. The integrated hinge plate helps distribute force better than a weld-on hinge plate. Buckets have GET to protect the high wear areas coming into contact with the materials the most. Reduce maintenance costs by selecting the right GET for your bucket and application combination. Bucket tips are available in a variety of options to suit your specific application needs.

Bucket tips come in so many different shapes and sizes, you might think it takes an expert to pick the right one. Not so. It can all be reduced to a few simple guidelines.

- + STRENGTH: THE ABILITY TO WITHSTAND DIGGING SHOCKS AND HIGH BREAKOUT FORCES. LONGER TIPS GENERALLY HAVE A GREATER POTENTIAL FOR BREAKAGE.
- + PENETRATION: THE ABILITY TO PENETRATE TIGHT, ROCKY, FROZEN OR POORLY SHOT MATERIALS AND RESIST BECOMING BLUNT WITH WEAR.
- + WEAR LIFE: THE ABILITY TO WITHSTAND WEARING, SCOURING AND ABRASIVE ACTION OF THE MATERIAL BEING HANDLED.

Choose tips that have the right balance of these for your work, and you'll get the full return from your investment.



# **QUICK COUPLERS** VERSATILITY AND CONVENIENCE FOR YOUR OPERATION

Quick Couplers make Cat attachments interchangeable, so a fleet of machines can share a common tool inventory. One person can effortlessly switch tools and move from task to task. Quick Couplers increase the machine's versatility on the job site. Caterpillar offers buckets hinged for each of the following coupler styles.



#### **PIN GRABBER COUPLERS**

Pin grabber style couplers allow the machine to pick up and engage virtually any bucket and attachment equipped with standard pins, no modifications are required. It's easy to activate, easy to engage, and the easiest way to improve productivity on your job site. Coupler weight allows big bucket payloads. It is sized right to maintain excellent breakout force and digging power.



#### **CW DEDICATED COUPLERS**

This wedge-style coupler engages tools equipped with hooks. Tip radius of Dedicated Coupler Buckets is identical to pin on. Full breakout force is available at all times. Both hydraulic and manual versions are available.



#### TILTROTATORS

Tiltrotators provide 40° left and right tilt, plus 360° rotation capability to normally fixed buckets. This combination is ideal for trenching or grading applications on an angle.

# ATTACHMENT TRACKING MADE EASY PL161 ATTACHMENT LOCATOR



## TRACK YOUR ASSETS

Cat PL161 Attachment Locator is the most advanced OEM integrated solution for attachment tracking. The PL161 mounts easily to your attachments to track location and utilization without interfering with the work it's doing.

# WORK TOOL RECOGNITION

Save more time and energy with the available work tool recognition feature. A simple shake of the attached tool confirms its identity; it also ensures all the attachment settings are correct so you can get to work quickly and efficiently. Recognition features available on select machine models.

# ASSET SECURITY

Keep your assets secure. Buckets with an asset tracker send an alert if they leave an easy-to-setup site boundary.



### ADVANSYS<sup>™</sup> TIP TYPES



#### **HEAVY DUTY**

Heavy Duty and Heavy Duty A.R.M.\* tips include approximately 60% more wear material in the tip body. The A.R.M. wears around the profile to increase penetration.



#### PENETRATION

Penetration tips are ideal for deeply compacted materials. They feature a leading edge with 60% less cross-sectional area allowing for maximum penetration - and a single center rib that self-sharpens as it wears. These tips are available with A.R.M.\*



#### **GENERAL PURPOSE**

General Purpose tips are symmetrical and the baseline for other tip styles. All wear comparisons are to the General Purpose tip unless otherwise noted.



#### PENETRATION PLUS

Penetration plus tips feature 25% more wear material and a leading edge with 25% less cross-sectional area. They selfsharpen as they wear.

\*Abrasion Resistant Material (A.R.M.) is a welding process that bonds very hard tungsten carbide particles to Cat ground engaging tools to create a protective shield over the component. Typically, the A.R.M. process doubles wear life and can last even longer in some applications.

# THE RIGHT TIP TYPE FOR YOUR WORK

## **ADVANSYS™ TIP TYPES**



Spike tips are used to achieve maximum penetration. They are typically used in cohesive material and stay sharp during the life of the tip.



Wide tips are used to maintain smooth trench floors and in low abrasion, easy to penetrate soils.



**DOUBLE SPIKE** 

Double Spike tips are used in the corner positions with the spike tips for hard-to-penetrate, fracturable materials.



# SPECIALTY **BUCKETS** TO MEET ANY NEED

A wide range of specialty buckets to fit your specialty applications. These buckets are designed with specific tasks or applications in mind such as ditch cleaning, grading, and trenching.

#### **CLEAN-UP**

Clean-up buckets combine the straight edge and width options of a Ditch Cleaning bucket with the capacity and durability of a General Duty bucket, creating the ideal bucket for digging, grading, and finishing work.

#### **GRADING AND TRENCHING**

Grading and Trenching buckets are primarily used to create a smooth finish or grade to a job. Primarily used with the Tiltrotator, the bucket gains the capability to create a smooth finish from multiple angles. The narrower profile of Trenching buckets allows for digging specific widths when necessary.

#### DITCH CLEANING AND DITCH CLEANING TILT

Ditch Cleaning buckets work best for cleaning ditches, sloping, grading, and other finish work as the only style with side liquid drainage holes, making it easier to move solid materials. Ditch Cleaning Tilt buckets have 90° of hydraulic tilting capability, 45° left and 45° right powered by two, double-acting cylinders.

#### **SKELETON**

Some applications may require the removal of larger materials while sifting out finer materials, for example removing large rocks from a sandy area. Skeleton buckets are ideal for these situations. Skeleton buckets can excavate, sort, and sift due to their mesh design.





**CLEAN-UP** 

DITCH DITCH **CLEANING CLEANING** 

TILT





GRADING PROFILE



**SEVERE** 

DUTY

**EXTREME** 







**SKELETON** 

TRENCHING

UTILITY DUTY

## **UTILITY DUTY**

Utility Duty buckets are a cost-effective solution for your basic digging needs. Ideal applications are low-impact, low-abrasion materials. The shallow profile makes it easier to empty sticky materials such as loam or clay.

## SEVERE DUTY EXTREME

Severe Duty Extreme buckets are capable of handling, loading, and face scraping of high-impact materials such as high quartzite granite, ore, coal, and shot rock. Designed specifically for 35 ton and higher excavators in highly abrasive applications.

## PROFILE

Trench digging is an easy task with the use of a Profile bucket, which has fixed or have adjustable wings, allowing the operator to conform to the size and shape of certain trenches. Profile buckets with wings are adjustable from 30-45° relative to the plane being dug.

# BUCKET SELECTION CHOOSING THE RIGHT BUCKET

When it comes to selecting buckets, the options can seem endless. It's tempting to pick the biggest one for your machine and hope for the best. But making the wrong choice can have dire consequences – reducing your productivity, increasing your fuel burn and causing premature wear. That's why it pays to go into the bucket selection process with a strategy. Start with some of the following considerations:



#### **MATERIAL TYPE**

The density of the material you're working with plays perhaps the biggest role in bucket selection. It's a good idea to make your choice based on the heaviest material you handle most of the time – keeping in mind that with very heavy, hard-to-getthrough material, you might not be able to load a large bucket to full capacity. In those conditions, a smaller bucket may out-dig a larger one by allowing your machine to cycle faster.

#### **BUCKET TYPE**

You pay close attention to features and options when you buy a machine – be sure to do the same when you choose a bucket. (It's doing the hard work on the job, after all.) A bucket with qualities such as hardness and thickness, quality wear parts, quick coupler compatibility, and add-on options will help you get more done in less time for less cost.

#### **BUCKET SIZE**

A bigger bucket doesn't necessarily mean more production. Any short-term gains likely will get wiped out by repairs and downtime. That's because using a bucket that pushes your machine over the recommended capacity limit – even by just a few percentage points – accelerates wear, reduces component life and risks unplanned failure.

#### **MORE CHOICES, MORE QUESTIONS**

New buckets and bucket options are being developed all the time to increase productivity and life in every application. Still, you can't go wrong if you start with these basics. When it comes to selecting a bucket for your heavy equipment, the wrong decision could increase your costs by 10 to 20% and cut productivity at the same time.

#### **ADDITIONAL CONSIDERATIONS**

Consider these and more when selecting the right bucket for your operation.

It seems natural to pick a machine first, then choose the bucket. But some experts say it makes more sense to use the following logic. Start with the material you'll be handling. Consider the capacity of the machine you'll be loading. Once you know what size bucket is required, select the machine that can accommodate it. Buckets have changed a lot, so take time to find out what's new. You may discover that the bucket you've been using forever is no longer the best option for your application. Bigger isn't always better. It can be tempting to chase higher production numbers with a bucket that's a bit too large for the machine you're running. But overloading – even a few percentage points above the recommended capacity limit – accelerates wear, reduces component life and sets you up for unplanned failure, unexpected downtime and high cost repairs.

## **BUCKETS FOR YOUR EXCAVATOR**

Not all bucket types are available in all regions. Consult your Cat dealer for details.

SMALL EXCAVATORS: 311-318												
Bucket Type	Width					Capa	acity		Weight			
	Minimum		Maximum		Minimum		Maximum		Minimum		Maximum	
	mm	in	mm	in	m <sup>3</sup>	yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>	kg	lb	kg	lb
General Duty	450	18	1,410	56	0.20	0.26	1.18	1.54	253	558	905	1,995
Heavy Duty	450	18	1,400	55	0.20	0.26	1.38	1.80	266	586	833	1,836
Severe Duty	600	24	1,224	48	0.31	0.41	1.19	1.56	351	774	738	1,627
Clean-up	1,500	59	1,800	71	0.79	1.03	1.53	2.00	487	1,074	769	1,695
Ditch Cleaning	1,100	43	2,800	110	0.57	0.75	1.45	1.90	326	719	746	1,645
Ditch Cleaning Tilt	1,200	47	2,000	79	0.48	0.63	0.90	1.18	502	1,107	1,017	2,242
Grading	1,500	59	1,800	71	0.52	0.68	0.90	1.18	513	1,131	643	1,418
Profile	200	8	500	20	0.51	0.67	1.47	1.92	490	1,080	843	1,858
Skeleton	1,200	47	1,350	53	0.70	0.92	0.97	1.27	533	1,175	695	1,532
Trenching	540	21	660	26	0.33	0.43	0.45	0.59	321	708	395	871
Utility Duty	450	18	1,200	47	0.20	0.26	1.34	1.75	245	540	585	1,290

MEDIUM EXCAVATORS: 320-335													
		Wi	dth			Capa	acity			Weight			
Bucket Type	Minimum		Maximum		Minimum		Maximum		Minimum		Maximum		
	mm	in	mm	in	m <sup>3</sup>	yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>	kg	lb	kg	lb	
General Duty	450	18	1,800	71	0.26	0.34	3.09	4.04	469	1,034	1732	3,818	
Heavy Duty	500	20	2,000	79	0.34	0.44	2.60	3.40	546	1,204	3077	6,784	
Severe Duty	600	24	1,850	73	0.46	0.60	2.41	3.15	656	1,446	2268	5,000	
Extreme Duty	935	37	1,650	65	0.91	1.19	2.15	2.81	1,004	2,213	2038	4,493	
Clean-up	1,500	59	2,400	94	1.71	2.24	4.42	5.78	769	1,695	1645	3,627	
Ditch Cleaning	1,500	59	2,410	95	0.86	1.12	3.00	3.92	503	1,109	1659	3,657	
Ditch Cleaning Tilt	1,500	59	2,400	94	0.86	1.12	1.40	1.83	873	1,925	1594	3,514	
Grading	1,800	71	2,000	79	0.84	1.10	1.15	1.50	800	1,764	891	1,964	
Profile	300	12	500	20	1.29	1.69	1.59	2.08	750	1,653	1135	2,502	
Severe Duty Extreme	1,700	67	1,700	67	2.05	2.68	2.05	2.68	2,105	4,641	2164	4,771	
Skeleton	1,300	51	1,300	51	1.09	1.43	1.09	1.43	783	1,726	783	1,726	
Trenching	600	24	660	26	0.51	0.67	0.58	0.76	512	1,129	536	1,182	
Utility Duty	600	24	1,800	71	0.40	0.52	2.47	3.23	493	1,087	1,618	3,567	

## **BUCKETS FOR YOUR EXCAVATOR**

Not all bucket types are available in all regions. Consult your Cat dealer for details.

LARGE EXCAVATORS: 336-395												
Bucket Type	Width				Capacity				Weight			
	Minimum		Maximum		Minimum		Maximum		Minimum		Maximum	
	mm	in	mm	in	m <sup>3</sup>	yd <sup>3</sup>	m <sup>3</sup>	yd³	kg	lb	kg	lb
General Duty	500	20	2,800	110	0.73	0.95	7.00	9.16	813	1,792	7,595	16,744
Heavy Duty	610	24	2,650	104	0.53	0.69	6.60	8.63	810	1,786	6,312	13,916
Severe Duty	750	30	2,700	106	0.68	0.89	6.80	8.89	990	2,183	7,293	16,078
Clean-up	1,100	43	2,800	110	1.30	1.70	6.70	8.76	1,551	3,419	8,604	18,969
Ditch Cleaning	1,800	71	2,400	94	2.25	2.94	6.52	8.53	1,302	2,870	4,730	10,428
Ditch Cleaning Tilt	1,800	71	2,500	98	1.96	2.56	3.25	4.25	1,009	2,224	2,659	5,862
Grading	2,210	87	2,210	87	1.13	1.48	1.13	1.48	1,542	3,400	1,542	3,400
Profile	1,500	59	2,600	102	2.05	2.68	6.00	7.85	2,105	4,641	7,592	16,737
Skeleton	1,700	67	1,700	67	2.81	3.68	2.81	3.68	3,122	6,883	3,122	6,883
Trenching	1,600	63	1,800	71	2.03	2.66	2.47	3.23	1,031	2,273	1,124	2,478

WHEELED EXCAVATORS: M313-M322												
Bucket Type	Width					Cap	acity		Weight			
	Minimum		Maximum		Minimum		Maximum		Minimum		Maximum	
	mm	in	mm	in	m <sup>3</sup>	yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>	kg	lb	kg	lb
General Duty	450	18	1,410	56	0.20	0.26	1.18	1.54	264	582	1,261	2,780
Heavy Duty	450	18	1,400	55	0.20	0.26	1.38	1.80	266	586	833	1,836
Severe Duty	600	24	1,224	48	0.31	0.41	0.91	1.19	351	774	738	1,627
Clean-up	1,500	59	1,800	71	0.79	1.03	1.53	2.00	582	1,283	911	2,008
Ditch Cleaning	1,100	43	2,800	110	0.57	0.75	1.45	1.90	386	851	723	1,594
Ditch Cleaning Tilt	1,200	47	2,000	79	0.48	0.63	0.86	1.12	563	1,241	1,122	2,474
Grading	1,500	59	1,800	71	0.52	0.68	0.90	1.18	513	1,131	643	1,418
Profile	200	8	500	20	0.51	0.67	1.47	1.92	490	1,080	843	1,858
Skeleton	1,200	47	1,350	53	0.70	0.92	0.97	1.27	533	1,175	695	1,532
Trenching	540	21	660	26	0.33	0.43	0.45	0.59	321	708	395	871
Utility Duty	450	18	1,200	47	0.20	0.26	1.34	1.75	245	540	585	1,290

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