

# Mini Excavator Skeleton Bucket

## User Manual



Read Carefully Before Use  
Keep for Future Reference

## Contact Us

Thank you for choosing our products! If you have any questions or comments, contact us at [help@cs-supportpro.com](mailto:help@cs-supportpro.com) and we'll resolve your issue ASAP!

For a .pdf copy of the latest version of these instructions, use the appropriate app on your smartphone to scan the QR code to the right.



# Safety Information

## Symbol Guide

The following symbols and safety signal words are used in this manual. **DO** obey the accompanying messages to avoid possible injury or death.



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.



Indicates practices or situations which may result in the malfunction of, or damage to equipment.

## General Safety

### **Danger**

- **ALWAYS** follow federal, state, and local laws, codes, and regulations concerning the use of construction machinery.
- Follow all other applicable instructions and precautions as stated in your excavator's manual.
- Read this manual before actually attaching this bucket to your compatible excavator. Familiarize yourself with the instructions that provide crucial information on the installation, operation, and maintenance.
- **ONLY** use with compatible excavator models. Though this bucket has a wide fitment, **DO** research compatibility before actually mounting this bucket. For details, see **Specifications**.
- **ALWAYS** use personal protective equipment (PPE) suitable to your task. Always wear ANSI and OSHA-approved eye, breathing, and hand protection while using this product. Nonslip and steel-toe footwear is also highly recommended. Other equipment such as ear, head, and body protection may also be necessary depending on your work, work environment, and other equipment.
- **DO NOT** operate, inspect, or maintain the excavator when your faculties or judgment are impaired by alcohol, drugs, medicines, fatigue, or lack of sleep. **NEVER** allow any persons under such conditions to operate, inspect, or maintain this heavy machinery.
- Operating heavy equipment requires your full attention. Avoid distractions and remain focused on the task at hand.
- **IMMEDIATELY** cease to use and contact Customer Service if the bucket shows any sign of anomalies or malfunctions, say noise, vibration, breakage, etc. **NEVER** attempt to resume use if the issues remain unsolved.

# Operation Safety

- **ALWAYS** remain focused on the task at hand. Operating heavy equipment requires your full attention.
- Use two or more persons to attach the bucket to the excavator's arm.
- **ONLY** operate the bucket from the excavator's cabin.
- **NEVER** lift heavy objects above the excavator's cabin.
- **NEVER** operate the excavator in an area with people present. You should maintain at least 100 yards of distance between the bucket and people, animals, or property.
- Do not lift a load that cannot be contained in the bucket or has objects smaller than the openings in the bucket.
- Make sure the machine is stopped on solid, level ground before raising the load to dump. To maintain stability, raise the load only to the height necessary to complete the dump.
- Keep the load positioned forward enough to prevent accidental spillage on the operator and machine.
- Never dump a load around gas lines, overhead power lines, utilities, or other hazards that can cause serious injury or death from electrocution, explosion, or fire.
- Be extremely careful when working on inclines or near loose fill, rocks, and holes as they can cause tipping or upsetting which may result in serious injury or death.
- Be certain to avoid overhead electrical wires when operating the excavator. Contact with power lines may cause serious injury or death.
- Do not drive up to anyone or an animal in front of a fixed object such as a wall or bench. Never assume that the machine will stop in time.
- Use a "spotter" when it is hard to see in the direction you are traveling and when placing a load that obstructs your vision. A person or animal could be nearby in a blind spot.
- Keep the load slightly tilted back to secure its weight against the hitch frame when transporting. Tilting the top of the hitch frame too far back can cause the load to shift and fall rearward onto the machine and/or operator. Tilting the top of the hitch frame too far forward can cause the load to shift and fall forward.
- Always secure the bucket with solid, non-concrete supports before working under it. Never go under it supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to hydraulics is off.

## Warning

- **DO NOT** drop the bucket rapidly toward an object. Sudden impact may result in structural failure and possible serious injury or death.
- **NEVER** suddenly stop when lowering or lifting the excavator boom to prevent loss of control over the machine and/or load, which may result in serious injury or death.
- **DO NOT** operate underwater. Do not allow the excavator's cylinder to go underwater. Otherwise, the cylinder **WILL** be damaged from chronic rust.
- **DO NOT** dismount from a moving excavator with this bucket or leave the excavator with this bucket unattended with the engine running.
- Stop the excavator, place all the control rods in neutral, set the parking brake, shut off the engine, and make sure **ALL** moving parts have been stopped before dismounting the excavator for any reason.

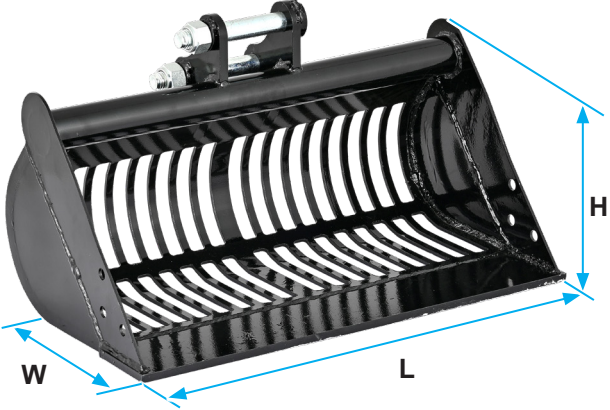

- Keep all bystanders away from the work area, especially children.
- Transport the excavator with the bucket at the slowest speed possible, and with the excavator boom at the lowest position to avoid tipping or upsetting, which may result in serious injury or death.
- Do not abuse equipment. Incorrect use of the attachment can damage equipment structurally and cause serious injury or death.
- The backup alarm must be in good working order to warn others. Use a backup camera or rear-view mirror that is in good condition to ensure the area behind the unit is clear. Drive at a slower speed to compensate for blind spots.
- Consult your power machine's Manual for operating capacity, lifting capacity, and operating specifications. Exceeding rated capacities and specifications can result in loss of control, roll-over or other serious hazard.
- Keep load centered, even when stopped. This will optimize load stability and protect against load shifting.
- Do not chain or strap loads to the loader arms, hitch, or attachment. Hitting solid objects with a load fastened to the attachment or machine can cause frame damage and/or tipping resulting in the loss of operator control.
- Do not use this attachment as a lifting device for people or as a work platform. It is not properly designed or guarded for this use.
- Do not use this attachment to lift, carry, push, or tow other equipment or objects. It is not properly designed or guarded for this use. The operator could lose control resulting in equipment damage and/or tipping hazard.
- Do not use this attachment to pull and/or pry objects out of the ground or for digging into the ground. It is not properly designed or guarded for this use.
- Do not use this attachment to lift the front or back of the power machine off the ground. Doing so can damage the attachment, and power machine, and/or cause serious injury or death.

## Transport Safety

### **Danger**

- Always transport loads as close to the ground as possible without hitting objects. A load carried high could shift causing the load to fall, tipping of the machine, and/or loss of control.
- Always transport over ramps and inclines with the heavy end of the power machine on the "uphill" side. This may require one to drive up or back down inclines.
- Always travel straight up and straight down inclines. Never make turns on the incline.
- Transporting loads across inclines, over ramps, and on bumpy, soft, or slippery surfaces reduces machine stability and lift capacity. Transporting and lifting loads under these conditions is extremely dangerous. Follow all transport instructions in your power machine's Manual.
- When traveling on public roads whether at night or day, use accessory lights and other warning devices to warn operators of other vehicles. Comply with all federal, state, and local laws.

# Specifications

<b>Name</b>		Mini Excavator Skeleton Bucket	
<b>Skeleton Bucket</b>	<b>Dimensions (L×W×H)</b>	23.62×13.78×14.17 (in.)	600×350×360 (mm)
			
	<b>Net Weight</b>	39.8 lb.	18.05 kg
<b>Hinge Pin</b>	<b>Length (with Nut)</b>	6.8 in.	172 mm
	<b>Length (without Nut)</b>	6.2 in.	158 mm
	<b>Diameter</b>	0.98 in.	25 mm
	<b>Hinge Pin Hole Spacing</b>		
<b>Compatible Excavator Specs.</b>	<b>Arm Pin I.D.</b>	0.98 in.	25 mm
	<b>Arm Pin Hole No.</b>	2	
	<b>Weight</b>	<3310 pounds	<1.5 metric tons

# Package List



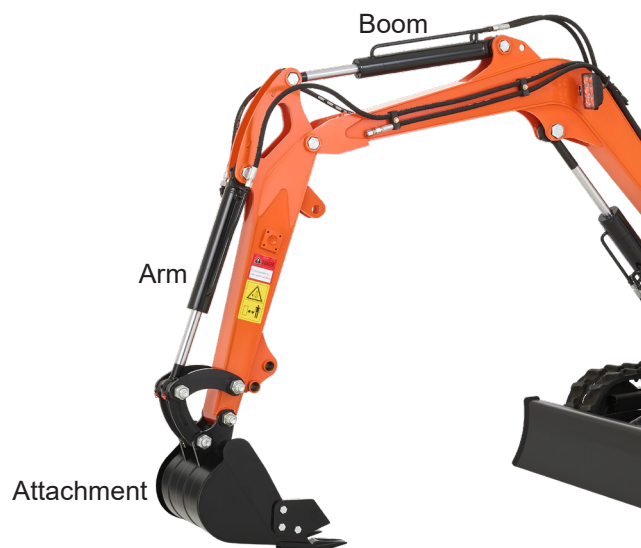
No.	Item	Qty.
A	Skeleton Bucket	1
D	Hinge Pins with Nuts	2

## Installation

### Removing the Current Attachment

**Note:** This chapter only provides general guidance on the excavator's current attachment removal. For more specific information, refer to your excavator's manual or your attachment's manual.

1. Start the engine of the excavator following the normal protocols.
2. Park the excavator on level ground as shown, with the boom horizontal, the arm vertical, and lowering the attachment to the ground.



3. Shut off the engine.
4. Wait until the engine and hydraulic oil have cooled to ambient temperature.
5. Remove the nuts from the two pins connecting the attachment.





6. Tap out the pins with a hammer, keeping them clean.
7. Start the engine, raise the boom, and remove the current attachment.

## Attaching the Skeleton Bucket

1. Remove the preinstalled hinge pins and their nuts on the bucket.
2. Use 2 or more people or a hoist to stand the bucket up on a level surface.
3. Start the engine of the excavator following the normal protocols.
4. Drive the excavator to the rear of the bucket.
5. Align the hinge pin holes on the bucket with the ones on the bottom of the excavator arm by moving the boom and arm.
6. Shut off the engine.
7. Insert the removed hinge pins through the holes and secure the pins with their removed nuts.



8. Restart the engine and test the bucket by performing light loading operations to confirm its stability.

# Operation

 **Warning**

*Be sure to read and understand all safety information in Operation Safety on page 2 .*

## Picking up a Load

1. Center the bucket on the material to be picked up.
2. Make a complete stop in front of the material and position the bucket at the proper height to enter the pile.
3. Slowly drive into the pile. Do not ram the bucket into the pile.
4. Lift the load a few inches and tilt the bucket back slightly.
5. Make sure the bucket has control of the load. If the load is not secure in the bucket, release and recapture the load in the bucket.
6. Back the load out of the pile slowly while making sure it clears all other obstacles.
7. Position the load at a safe, low traveling height before transferring to the unloading site.

## Dumping a Load

1. Stop in front of the unloading site.
2. Slowly raise the load to a height just above the pile.
3. Move forward slowly while checking to make sure the bucket and load are clear of all obstacles until the load is positioned over its dump location.
4. Tilt the front of the bucket down to release the load and if necessary, raise the bucket up to allow the load to fully discharge from the bucket.
5. Once the load has settled onto the pile, rotate the front of the bucket level.
6. Begin backing up slowly while watching for clearances, pedestrians, and other traffic.
7. Lower the bucket to transporting height (low to the ground) and continue moving.



# Maintenance

 **Warning**

- **ALWAYS** lower the bucket to the ground and shut off the engine before any maintenance.
  - **ALWAYS** wear **PPE** appropriate and adequate for maintenance.
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- Periodically clean the bucket, removing all mud and dirt.
  - Lubricate the hinge pins with lithium grease every 10 hours of continuous operation. Shorten the schedule if the pins become unusually squeaky.
  - Apply a light coating of oil to all exposed metal parts to prohibit corrosion.
  - Periodically check the fasteners, retightening as needed.
  - Repaint parts where paint is worn or scratched to prevent rust.
  - Inspect for visible signs of wear, breakage, or damage. Replace or repair damaged components.
  - Dispose of the used material and waste products from the replacement appropriately.
  - Store this bucket in a safe and secure place away from direct sunlight and inaccessible to children.