

Mini Excavator Auger 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** 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.



Preface

Thank you for purchasing this Auger. We are thrilled to provide you with guidance on operating and maintaining this powerful auger attachment.

Your safety as an operator of our product is important to us. Therefore, before you assemble, operate, or maintain this auger, read and understand this manual thoroughly. By prioritizing safety, you're not only protecting yourself but also creating a secure environment for your team and work site.

Your satisfaction with the performance and longevity of our product is also important to us. The longevity can be prolonged by proper assembly, installation, operation, and maintenance as instructed in this manual.

Thank you again for your business and trust. Please feel free to contact us at **contact@cssupportgroup.com** at any time for further assistance.

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1. 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.



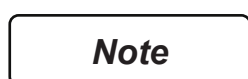
Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



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.

2. Safety Information

2.1 General Safety



- **ALWAYS** follow federal, state, and local laws, codes, and regulations concerning the use of construction machinery.
- Consult local utility companies to confirm there are no buried gas lines, electrical cables, and others in the work area or how close you can work to the marks they positioned before operation. For the USA, call 811. For Canada, go check: <http://www.clickbeforeyoudig.com>.
- Follow all other applicable instructions and precautions as stated in your excavator's manual.
- Read this manual before actually attaching this auger 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 auger has a wide fitment, **DO** research compatibility before actually working with this auger. 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 auger shows any sign of anomalies or malfunctions, say noise, vibration, breakage, and so on. **NEVER** attempt to resume using the auger if the issues remain unsolved.

2.2 Operation Safety

Danger

- Flying debris can cause injury. It is recommended to wear safety goggles in the work area.
- **ONLY** operate the auger from the excavator's cabin.
- **NEVER** demolish a structure overlooking the excavator with even the excavator well-protected.
- Use two or more persons to attach the auger to the excavator arm and arm cylinder.

Caution

- **DO NOT** use the auger as a hoist. The auger is not intended to lift an object. To do so may cause the excavator to turn over.
- **DO NOT** slant the auger. Slanting the auger can shorten the service life of the auger.
- **DO NOT** drop the auger rapidly toward an object.
- **DO NOT** use the auger to move or nudge large objects, as they can cause excess wear around the chisel bushing.
- **DO NOT** operate the auger with its cylinder fully extended or depressed. Prolonged time of over-extension or depression incurs excess wear and tear, thus shortening the service life of the cylinder.
- **DO NOT** operate the auger underwater. Otherwise, the hydraulic system **WILL** be damaged.
- **DO NOT** immerse the auger tip in water when it is hot. The tip may heat up as it drills through hard rocks, concrete, or other similar hard materials. If submerged under water, the sudden cooling may embrittle or even break the tip. Either way, the auger tip is ruined.
- **DO NOT** operate this auger on steep hillsides. When drilling on uneven or hilly terrain, position the excavator with this auger **UPHILL**. With the auger downhill, the excavator could tip when attempting to raise the auger from its hole.
- **DO NOT** dismount from a moving excavator with this auger or leave the excavator with this auger unattended with the engine running.
- Maneuver the auger clear of the excavator boom, especially when tucking the auger into the boom for transportation.
- Keep all bystanders away from this auger and the work area.
- Keep children away from the work area.

2.3 Maintenance Safety

- Wear personal protective equipment (PPE) appropriate and adequate for the work at all times.
- **ONLY** use the recommended lubricant for the auger. For the specific type, see **Maintenance**.

3. Specifications

Name		Mini Excavator Hydraulic Auger	
Auger	Material	Steel	
	Weight with Package	119.3 lb.	54.1 kg
	Speed	40–82 rpm	
	Max. Torque	1794 lbf·ft	2432 N·m
	Max. Drilling Diameter	8 in.	200 mm
	Max. Drilling Depth	47.2 in.	1200 mm
	Hydraulic Ports	 Female thread M18×1.5	
	Mounting Screw Spacing	 3.6 in. (92 mm)	
	Mounting Screw Length	6.3 in.	160 mm
	Mounting Screw Diameter	1 in.	25 mm

3. Specifications

Hydraulic Hose	Length	4.9 ft.	1.5 m
	Port Size	M18×1.5 (to Auger), M16×1.5 (to Excavator)	
	Flow	8-16 gpm	30-60 L/min
Compatible Excavator Specs.	Arm Pin I.D.	25 mm	
	Arm Pin Housing Distance	3.6 in.	92 mm
	Arm Pin Hole No.	2	
	Hydraulic Hose Port Size	M14×1.5, M16×1.5	
	Weight	<3310 pounds	<1.5 metric tons

4. Product Diagram



5. Package list



No.	Item	Qty.
A	Auger Bit	1
B	Driver Unit	1
C	Bolt and Nut	2
D	Axis Pin	2
E	Hose	1
F	M14×1.5 Male to M16×1.5 Male Thread Adapters	2
G	M14×1.5 Male to M14×1.5 Male Thread Adapters (These adapters can be used for other attachments as needed)	2

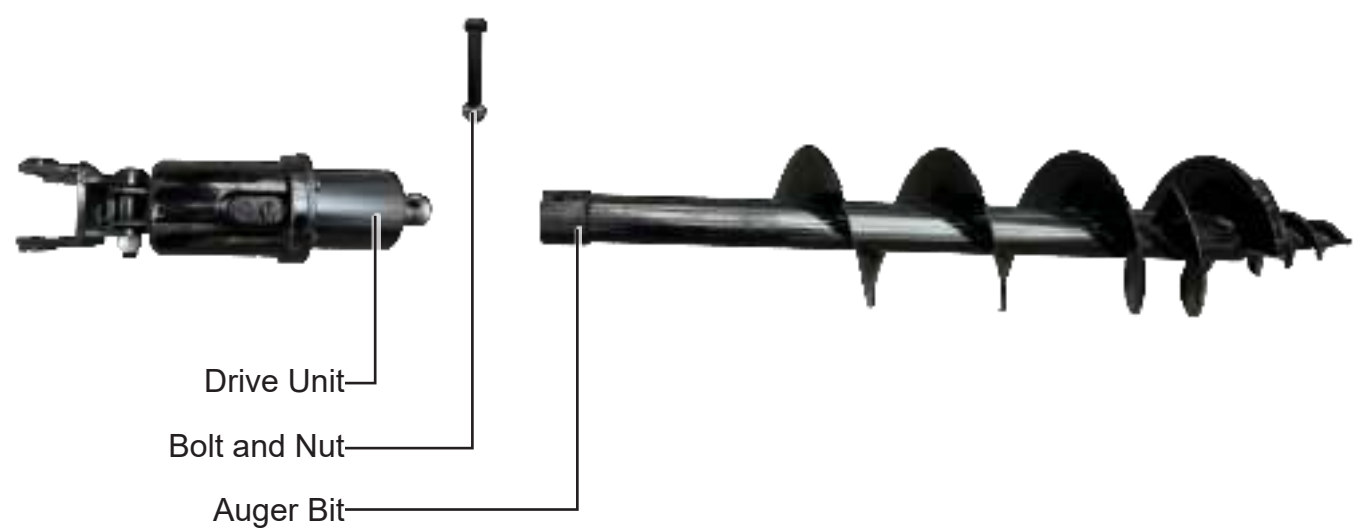
6. Assembly

Review the checklist before beginning the assembly process.

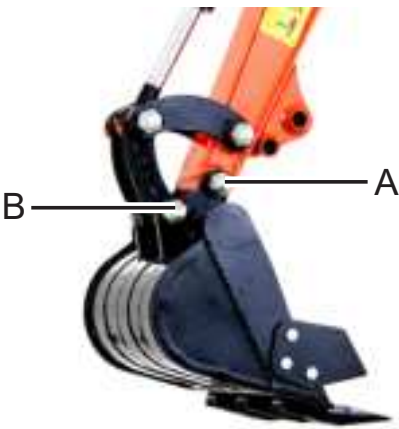
Pre-Assembly Checklist	✓
Have a minimum of two people as help available during assembly.	
Make sure all components are included by checking Package List .	
Make sure the excavator is compatible by checking Specifications .	

6.1 Auger Assembly

1. Assemble the auger bit and the drive unit by using the bolt and nut.



2. Remove the axis pins and the bucket (for example).



6. Assembly

3. Assemble the auger on the excavator.

- a. First align the auger with the excavator arm hole and then the attachment bracket hole.
- b. Secure the auger with axis pins (D).

Note: Axis pins are included in the package. But in case your package doesn't have them, you can also use the old axis pins detached from step 2.



6.2 Hydraulic Hose Connection

Depending on if the excavator has hydraulic valves, there are two ways to connect the hydraulic hoses. Choose the method suitable for your excavator.

For excavators with a hydraulic valve for its hoses as below (**EXC-1203 for example**):



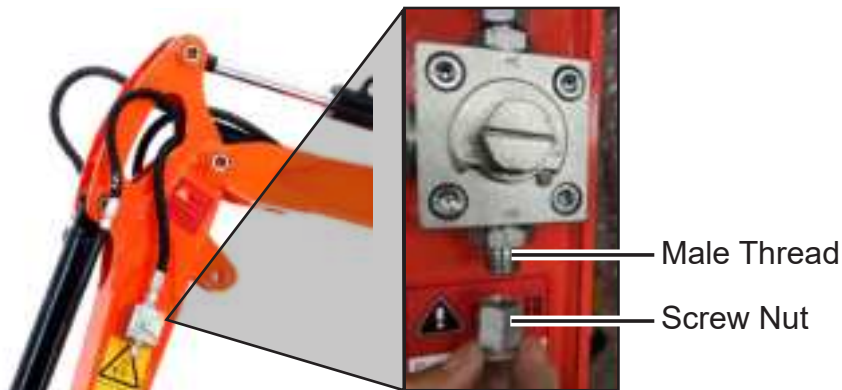
1. Park the excavator on level ground.
2. Lower the arm to a height that is easily accessible for mounting, and shut the engine.
3. Wait until the engine and hydraulic oil have cooled to ambient temperature.
4. Close the hydraulics by turning the hydraulic valves clockwise 90° until their debossing is perpendicular to the arm.



6. Assembly

5. Remove the screw nut of the valve to expose the male thread by holding the male thread still. Cover the exposed thread with plastic wrap (not included).

Note: *DO NOT* remove the male thread.



If you accidentally only removed the shell of the screw nut, remove the core of the screw nut too to expose the male thread.

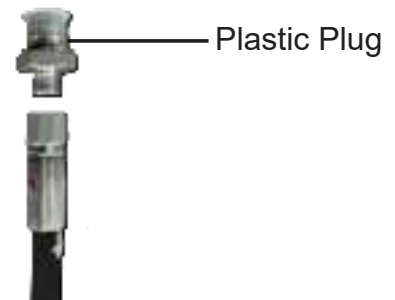


Note: *Keep the screw nut at a well-protected place. They may come in handy when the auger needs to be detached and the valves need to be sealed again.*

6. (Optional) If the male port on your excavator is not M16 but M14, convert the port to an M16 male port by replacing it with the provided M14×1.5 male to M16×1.5 male thread adapter.
7. Repeat steps 5 and 6 for the other side.
8. Remove the two nuts sealing the hydraulic ports on the auger, again covering the exposed ports with plastic wrap.

Note:

- *If the hoses come with plastic plugs sealing the male ends, remove the plastic plugs.*
- *If no plugs, check if the inside of the ports is clean. If not, clean with pressurized air.*
- *Cover all exposed ends with plastic wrap.*



Caution

Contamination inside the port may damage your excavator's main pump.

9. Having removed the piece of plastic wrap on the ends of one provided hose, the **UPPER** port of the auger, and the male thread on the **LEFT** (from the driver's view) valve, connect the male end of the hose to the **UPPER** port of the auger, and its female end to the **LEFT** (from the driver's view) valve on the excavator.



10. Having removed the piece of plastic wrap on the ends of the other provided hose, the **LOWER** port of the auger, and the male thread on the **RIGHT** (from the driver's view) valve, connect the male end of the hose to the **LOWER** port of the auger, and its female end to the **RIGHT** (from the driver's view) valve on the excavator.



11. Turn the hydraulic valves counterclockwise 90° until their debossing is parallel to the arm.
12. Test the excavator to make sure you have enough hose length to perform the full range of the excavator's operating heights, but be careful not to over-extend the cylinders. Check hydraulic hoses and connections for leaks.

For excavators without hydraulic valves for its hoses as below (**EXC-1501/1601/1204/NW12 for example**):



1. Park the excavator on level ground.
2. Lower the boom to a height that is easily accessible for mounting, slant the boom upward so that no hydraulic oil is leaking, and shut the engine.
3. Wait until the engine and hydraulic oil have cooled to ambient temperature.
4. Remove the screw nut of the hose on the excavator to expose the male thread by holding M still. Cover the exposed thread with plastic wrap (not included).

Note: *DO NOT remove the male thread.*



If you accidentally only removed the shell of the screw nut, remove the inside of the screw nut too to expose the male thread.

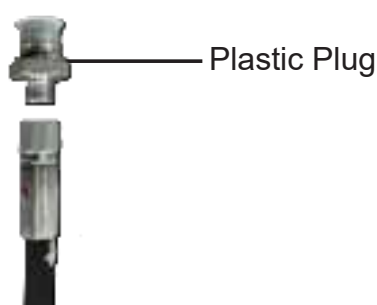
Note: *Keep the screw nut at a well-protected place. They may come in handy when the auger needs to be detached and the valves need to be sealed again.*



5. (Optional) If the male port on your excavator is not M16 but M14, convert the port to an M16 male port by replacing it with the provided M14×1.5 male to M16×1.5 male thread adapter.
6. Repeat step 4 and 5 for the other side.
7. Remove the two nuts sealing the hydraulic ports on the auger, again covering the exposed ports with plastic wrap.

Note:

- If the hoses come with plastic plugs sealing the male ends, remove the plastic plugs.
- If no plugs, check if the inside of the ports is clean. If not, clean with pressurized air.
- Cover all exposed ends with plastic wrap.



⚠ Caution

Contamination inside the port may damage your excavator's main pump.

7. Having removed the piece of plastic wrap on the ends of one provided hose, the **UPPER** port of the auger, and the male thread on the **LEFT** (from the driver's view) valve, connect the male end of the hose to the **UPPER** port of the auger, and its female end to the **LEFT** (from the driver's view) valve on the excavator.



6. Assembly

8. Having removed the piece of plastic wrap on the ends of the other provided hose, the **LOWER** port of the auger, and the male thread on the **RIGHT** (from the driver's view) valve, connect the male end of the hose to the **LOWER** port of the auger, and its female end to the **RIGHT** (from the driver's view) valve on the excavator.



9. Test the excavator to make sure you have enough hose length to perform the full range of the excavator's operating heights, but be careful not to over-extend the cylinders. Check hydraulic hoses and connections for leaks.

7. Operation

1. Contact local utility companies if needed to confirm there are no buried gas lines, electrical cables, or others in the work area.

Note: *Clear objects that could get entangled into the auger or might be thrown in the work area. Check for ditches, stumps, holes, or other obstacles that could cause the excavator to roll over.*

2. Mark where you want to drill holes.

Note: *It is best to stop the excavator on a surface that is level side to side or on an incline with this auger **UPHILL**.*

3. Lower the auger tip slowly to the ground by lowering the boom with the auger not powered. Stand it vertically by adjusting the bucket cylinder.
4. Actuate the hydraulics to start the auger's rotation in the clockwise direction. If the auger is not vertical while digging, swivel the boom left or right and arm forward or backward as needed to keep the auger vertical while drilling.
5. Apply down pressure with the boom to facilitate penetration.

Note: *Use only enough down pressure to ensure positive penetration of the auger into the ground. Ease up on down pressure if auger rotation slows down drastically or stalls. Excessive down pressure will cause the auger to frequently stall.*

6. Increase the spinning speed as needed.

Note: *Run at higher auger speeds when digging in soft and/or sandy soils and at lower auger speeds when digging in hard, rocky, or frozen soils.*

7. Raise the auger almost out of the hole to clear the dirt when it has been lowered about 24 inches into the ground, then drill deeper and raise it to clear the dirt again.
8. Repeat steps 5, 6, and 7 until the desired hole depth is reached.
9. When the auger has reached the full depth required, allow the auger to dwell momentarily at this depth at a slower speed to assist in cleaning out the hole.
10. Deactivate the auger, and raise it from the hole.
11. Lift the auger out of the hole and remove loose dirt from the auger by momentarily actuating the auger and spinning it at a faster speed than used for drilling.
12. Deactivate the auger and place the drive unit in the cradle when moving between holes.
13. When finished, lower the attachment to the ground, shut the engine off, remove the switch key, and lock control levers before dismounting the excavator.

8. Maintenance

- Check all parts for wear and loosen fit before each use, and replace as necessary. Dispose of the used material and waste products from the replacement appropriately.
- Clean dirt and grease that may have accumulated on this auger. Scrape off compacted dirt and then wash thoroughly with a garden hose.
- Repaint parts where paint is worn or scratched to prevent rust.
- Inject general-purpose lithium base grease to the auger grease fitting by using the provided grease gun regularly.



- Store this auger in a safe and secure place away from direct sunlight and inaccessible to children.