Attachlots

AUGER DRILL
OPERATION MANUAL

Contents

Foreword

Machinery Directive

The Machinery Directive 2006/42/EC (formerly 98/37/EEC), by combining rigid health and safety requirements and recommendations.
These instructions only apply to the plan for the first time.
Products that enter or participate in market applications.

The manufacturer or authorized representative must prepare a Declaration of Conformity.

Declaration of conformity

If the auger device is supplied together with the mounting frame and drill rod made by Attachlots. Attachlots controlled the practicability of the supplied components. To indicate right Applicability control and in order to meet the statutory requirements of the Machinery Directive, a Declaration of Conformity was issued. If the auger device is supplied together with the mounting frame and drill rod manufactured by Attachlots to form a Attachlots controlled the practicability of the supplied components. To indicate right Applicability control and to meet the statutory requirements of the Machinery Directive, a Declaration of Conformity was issued.

Registration form

Please fill out this form and keep it together with the manual


Model：
Serial number：
Date of manufacture：
Supplier/Reseller：
Supplier/Reseller purchase date：
Original end user purchase date：
Owner or operator：
Machine structure and model：
Note: When communicating with your supplier or distributor, be sure to provide the serial number

Introduction

Attachlots Thank you for purchasing this product. This operation manual can guide you to operate the equipment safely. The spiral drilling rig device of Attachlots is equipped with a special mounting frame, drill rod, drill rod extension and drill rod wear parts for your use. If you use and maintain this device and its accessories correctly, it can ensure that you can drill holes in the ground in a safe and reliable manner. (For information on the intervals between lubrication and maintenance, see pages 37 to 42.)

Before operating the auger, please note:

The auger rig is fully configured and the oil injection volume is correct. There is no need to check the oil level.

The hydraulic hose must be installed and tightened to achieve the specified torque (see page 21)

If a tank drain hose is installed on the device, the tank drain hose must be connected correctly (see page 23)
This device must be operated in accordance with the recommended procedure (see page 33)

	**Warning, caution and attention:** This symbol is used to emphasize important information. Once you see this symbol, it indicates that it may cause harm to you or others. Please read the text information around the logo carefully.

Note:
This operating manual should be used together with the operating instructions of the parent machine.
The operating instructions should be regarded as an integral part of this machine.
The operating instructions must be kept together with the machine for easy and quick reference.
New copies or other copies of the operating instructions can be obtained from Attachlots or distributors.
The special mother machine of Attachlots, as well as various mounting brackets, drill rods, drill rod extension rods and drill rod wear parts, are available for your use. If you use and maintain this device and its accessories correctly, it can ensure that you can drill holes in the ground in a safe and reliable manner.

Attachlots is constantly working to improve and increase the variety of products, and reserves the right to revise product technical specifications at any time without prior notice or any obligation. The company is not responsible for differences that may exist between the machine's technical specifications and the relevant instructions contained in the publication.
When ordering spare parts, please provide the serial number of the auger so that it can be identified by the factory number.

Safety first

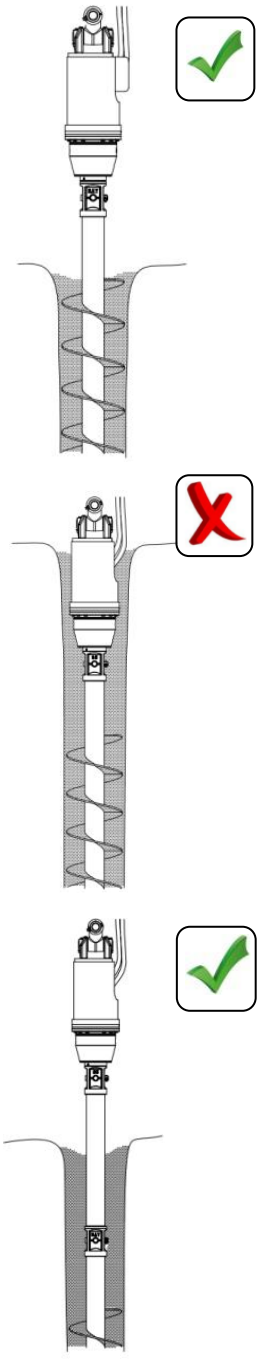
	Do not compromise on safety issues, otherwise it will cause serious injury or death. Before using the auger device, all operators must read and fully understand all safety, operation and maintenance instructions.

If you have any questions about any instructions or information provided, please be sure to contact Attachlots before attempting to use the auger device.

Security

Do not operate or assemble the auger drill until the operating instructions of the auger rod device and the mother machine are safely understood.

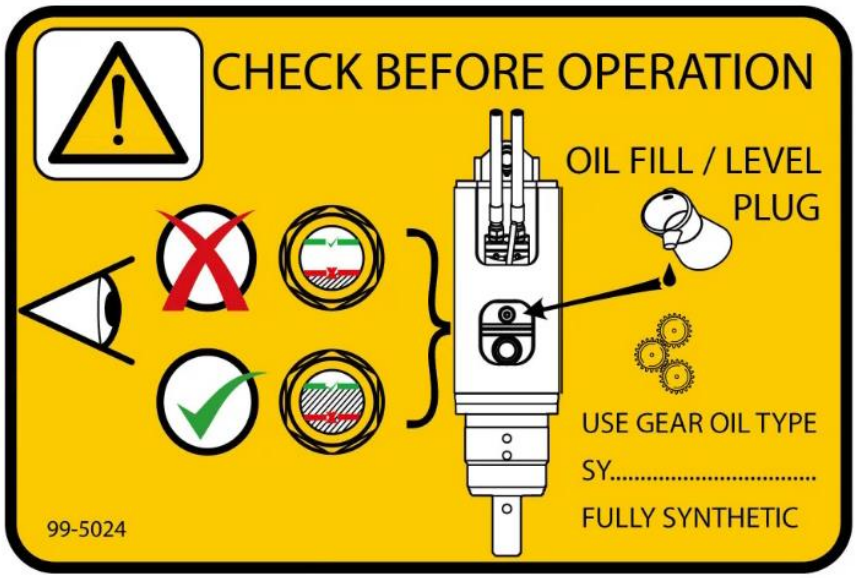
Attachlots recommends that you obtain the dealer's operating instructions before operating the auger device. Do not operate auger rigs when physical and mental conditions are poor.

	Do not operate the auger when it is affected by any substance (including taking medicine and drinking alcohol), otherwise it will cause loss of vision, flexibility or judgment. Before carrying out the work, remember to check the work area. When drilling holes underground, touching dangerous materials such as cables and natural gas pipelines in the dark will cause electric shock death and explosion. Before carrying out any maintenance work, remember to ensure that the parent machine is in a safe and stable state and the engine is turned off. Never use worn, damaged or missing parts to operate the auger. Only genuine replacement parts can be used. Do not allow casual personnel (including animals) to enter the working area within 6 meters or let minors operate the auger device. When drilling, do not exceed the length of the drill pipe Do not expose fuel or lubricant to any ignition sources that may be present. Remember to pay attention to protect your own safety and environment. Hydraulic oil, lubricating oil and exhaust gas are toxic. Before working, remember to tie your long hair behind your head and remove the jewelry. Wear appropriate work clothes that are both close-fitting and easy to move around. Do not wear work clothes that can easily become entangled with the drill pipe or its transmission parts. The drill pipe parts are sharp, and remember to protect your hands. Use non-slip gloves that increase grip and prevent hands from contacting oil and grease. Remember to wear safety boots (slip-resistant soles and steel-toed work boots are recommended) to protect your feet. The drill rod and transmission components are heavy and sharp. When working on the auger, remember to wear a safety helmet and eye protection. Remember to operate in accordance with the noise protection manual of the parent machine.	

Daily inspection of large installations

special attention items
This page is only suitable for the following models:
15000, 20000, 25000, 30000, 50000

Before operating the auger device, the following daily inspections must be carried out.



OIL LEVEL CHECK LABEL

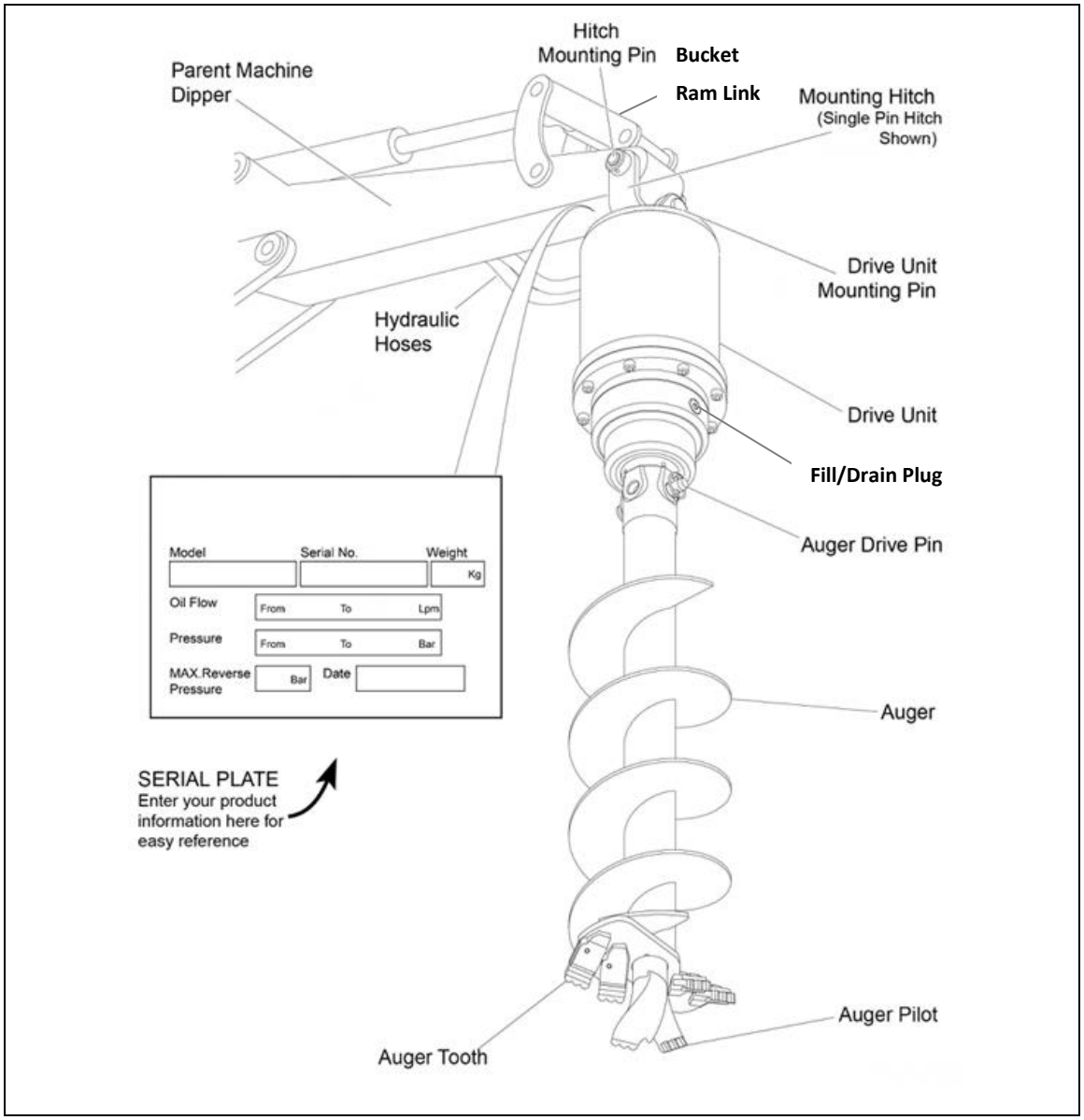
CHECK BEFORE OPERATION	Check before operation
USE GEAR OIL TYPE SY..... FULLY SYNTHETIC	All use synthetic gear oil

1.Fix the auger device in a vertical position. Remove the protective plate of the observation hole and enter the observation hole to check the oil level.

2.If the observation hole is filled with oil, it means that the device has reached the specified oil level.

3.If the observation hole is only partially filled with oil, add oil through the oil filling point/oil level point until the specified oil level is reached. Make sure to use the correct grade of oil. The label attached to the auger device (see above) indicates the oil grade information.

Recognition-typical settings



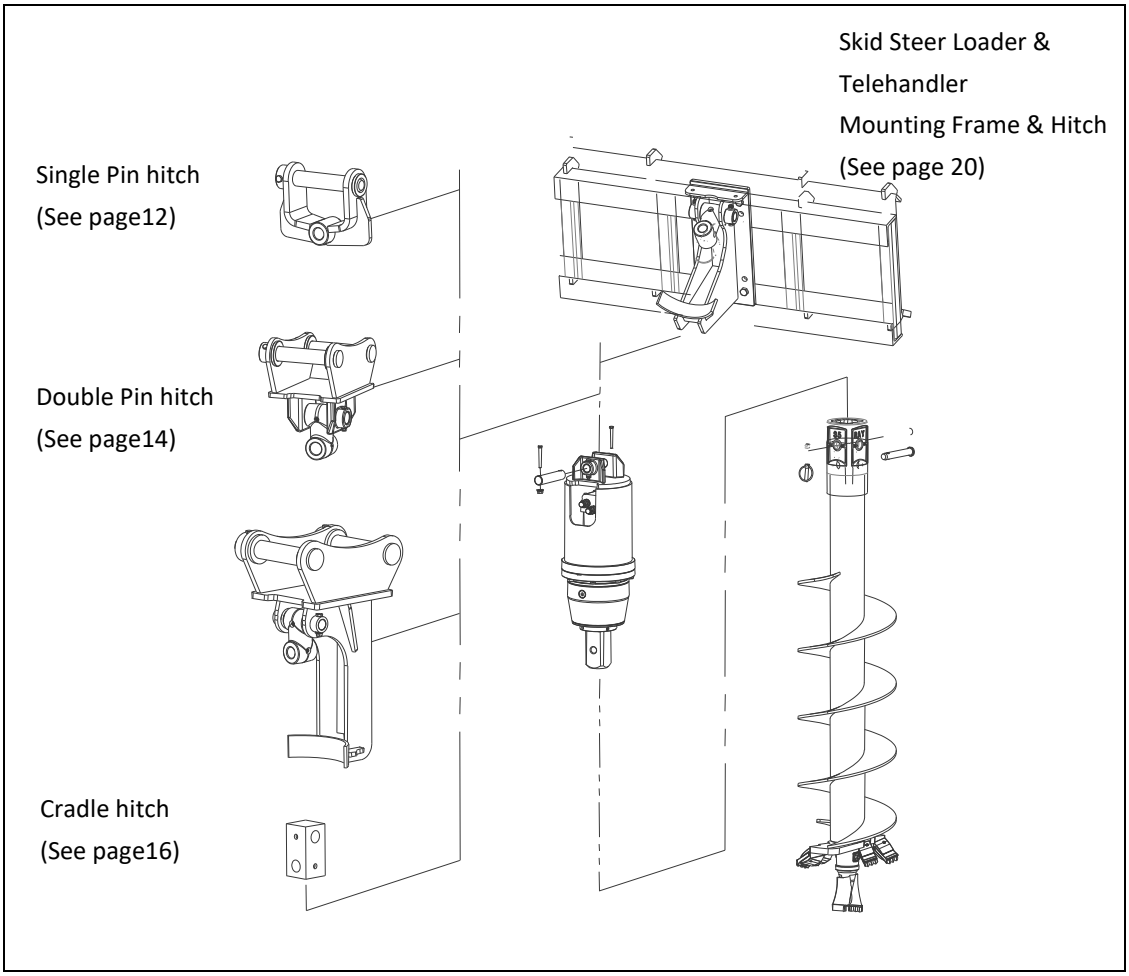
Parent Machine Dipper
Bucket Ram Link
Hitch Mounting Pin
Mounting Hitch (Single Pin Hitch Shown)

Hydraulic Hoses
Earth Drill
Fill/Drain Plug
Auger Drive Pin
Auger
Auger Pilot
Auger Tooth
Attachlots
Model:
Serial No:
Weight:
Flow Range:
Pressure Range:
Max.Back Pressure:
From:
To:
Bar:
Date of Manufacture:
SERIAL PLATE Enter your product information here for easy reference

Identification-connector

	When assembling components of the auger rig or disassembling it from the mother machine, remember to operate in groups of two (two skilled technicians), and remember to check the weight of the accessories to ensure that the appropriate equipment is used to lift the accessories.

First, fix the mounting piece on the mother machine. Find the correct installation instructions you need from the picture below.



Skid Steer Loader & Telehandler Mounting Frame & Hitch
Single Pin Hitch
Double Pin Hitch
Cradle Hitch

Attachment of Suspension Device-Single Pin Suspension Device

Safety first

<table>
<tr><td>  </td><td>When assembling components of the auger rig or disassembling it from the mother machine, remember to operate in groups of two (two skilled technicians). Remember to check the weight of the accessories to ensure that the appropriate equipment is used to lift the accessories

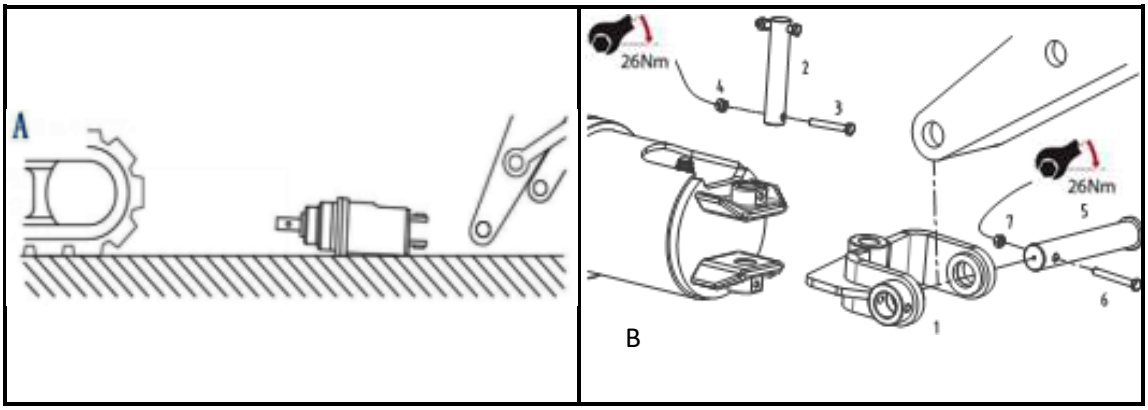
Remember to check the parent machine:
● Operation sequence is correct
● Park properly on flat ground
● The handbrake is on, the hydraulic circuit is locked, and the engine is off</td></tr>
<tr><td colspan="2">Check whether the model and category of the mounting bracket are suitable for installing the mother machine.
Make sure the mounting parts and connection points are clean before installation.
If necessary, use appropriate lifting equipment with the rated lifting capacity (see the nameplate for weight)
Note: Single-pin suspension devices must not be installed on quick suspension devices.
Installation: Ensure that all components on the assembly are coated with lubricant: Install the auger device horizontally with the output shaft facing the mother machine, as shown in Figure A</td><td> 
</td></tr>
</table>

Fix the hood to the mounting suspension (1):

When installing the through-bolt mounting pin (item B, item 2), align the device (1) with the hood pin hole, push the pin (2) completely, and pay attention to the alignment with the through-bolt hole. At both ends of the pin, install through bolts (3) and nylon rivet nuts (4) and tighten to a torque of 26 Nm.

Install the installation suspension device (1) on the mother machine:

Align the pin hole of the device (1) with the mother machine, push the pin (5) completely, pay attention to the alignment with the through bolt hole, install the through bolt (6) and nylon rivet nut (7), and tighten to a torque of 26 Nm . After installation, check whether the auger can swing freely in all directions.



Attachment of Suspension Device-Double Pin Suspension

Safety first

<table>
<tr><td>  </td><td>When assembling components of the auger rig or disassembling it from the mother machine, remember to operate in groups of two (two skilled technicians). Remember to check the weight of the accessories to ensure that the appropriate equipment is used to lift the accessories

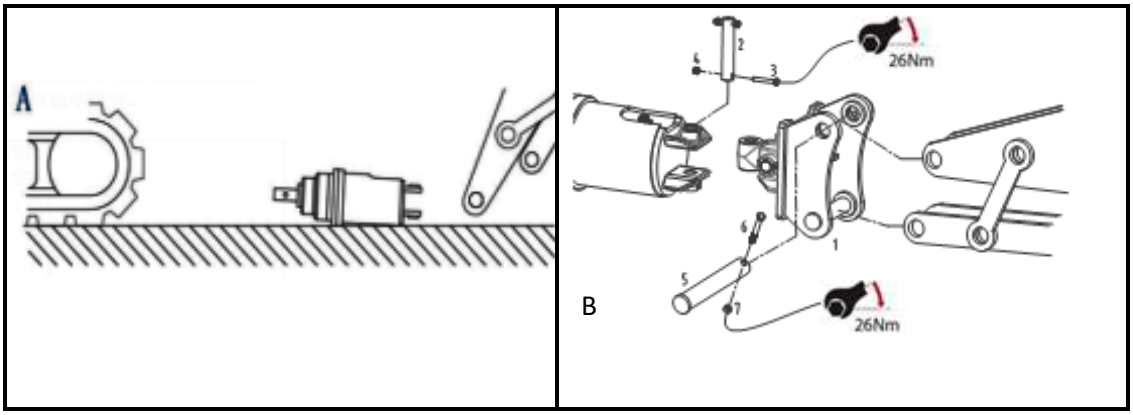
Check the machine:
● Operation sequence is correct
● Park properly on flat ground
● The handbrake is on, the hydraulic circuit is locked, and the engine is off</td></tr>
<tr><td colspan="2">Check whether the model and category of the mounting bracket are suitable for installing the mother machine.
Make sure the mounting parts and connection points are clean before installation.
If necessary, use appropriate lifting equipment with the rated lifting capacity (see the nameplate for weight)
Note: If you need to install the quick suspension device to the mother machine, please refer to the installation manual of the manufacturer of the quick suspension device for the correct installation steps.
Installation: Ensure that all components on the assembly are coated with lubricant:
Install the auger device horizontally with the output shaft facing the mother machine, as shown in Figure A</td><td>  </td></tr>
</table>

Fix the hood to the mounting suspension (1):

When installing the through-bolt mounting pin (item B, item 2), align the connection block of the device (1) with the hood pin hole, and push the pin (2) completely, paying attention to the alignment with the through-bolt hole. At both ends of the pin, install through bolts (3) and nylon rivet nuts (4) and tighten to a torque of 26 Nm.

Install the installation suspension device (1) on the mother machine:

Align the pin hole of the device (1) with the mother machine, push the pin (5) completely, pay attention to the alignment with the through bolt hole, then install the through bolt (6) and the nylon rivet nut (7), and tighten to 26 Nm Torque.



Installing suspension device accessories-hanger suspension device

Safety first

<table>
<tr><td>  </td><td>When assembling components of the auger rig or disassembling it from the mother machine, remember to operate in groups of two (two skilled technicians). Remember to check the weight of the accessories to ensure that the appropriate equipment is used to lift the accessories

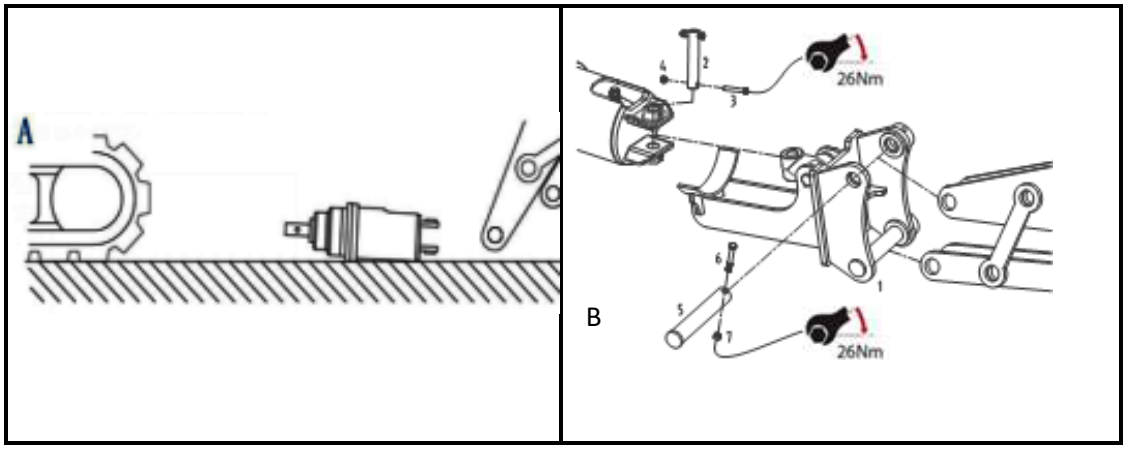
Remember to check the parent machine:
● Operation sequence is correct
● Park properly on flat ground
● The handbrake is on, the hydraulic circuit is locked, and the engine is off</td></tr>
<tr><td colspan="2">Check whether the model and category of the mounting bracket are suitable for installing the mother machine. Make sure the mounting parts and connection points are clean before installation.
If necessary, use appropriate lifting equipment with the rated lifting capacity (see the nameplate for weight)
Note: If you need to install the quick suspension device to the mother machine, please refer to the installation manual of the quick suspension device manufacturer for the correct installation steps.
Installation: Ensure that all components on the assembly are coated with lubricant: Install the auger device horizontally with the output shaft facing the mother machine, as shown in Figure A</td><td>  </td></tr>
</table>

Fix the hood to the mounting suspension (1):

When installing the through bolt mounting pin (item B, item 2), align the connection block of the device (1) with the pin hole of the hood (note the direction), push the pin (2) completely, and pay attention to the alignment with the through bolt hole. At both ends of the pin, install through bolts (3) and nylon rivet nuts (4) and tighten to a torque of 26 Nm.

Install the installation suspension device (1) on the mother machine:

Align the pin hole (higher end) on the side of the connecting block of the suspension device (1) with the arm hole of the mother machine, push the pin (5) completely, pay attention to the alignment with the through bolt hole, and then install the through bolt (6) With nylon rivet nut (7), tighten to a torque of 26 Nm; align the pin hole of the connecting rod with the other pin hole (shorter end) of the device (1), the same operation as above, tighten to 26 Nm Of torque.



Connecting slider accessories-car crane

Safety first

When assembling components of the auger rig or disassembling it from the mother machine, remember to operate in groups of two (two skilled technicians). Remember to check the weight of the accessories to ensure that the appropriate equipment is used to lift the accessories

Remember to check the parent machine:

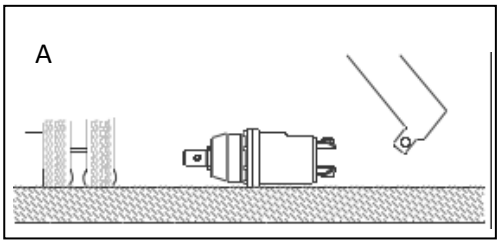
- Operation sequence is correct
- Park properly on flat ground
- The handbrake is on, the hydraulic circuit is locked, and the engine is off

Check whether the model and category of the mounting bracket are suitable for installing the mother machine.

Make sure the mounting parts and connection points are clean before installation. If necessary, use appropriate lifting equipment with the rated lifting capacity (see the nameplate for weight) On the car crane, the auger rig is connected by connecting sliders. The connecting slider is installed between the hook connecting lugs.

Installation: Ensure that all components are coated with lubricant:

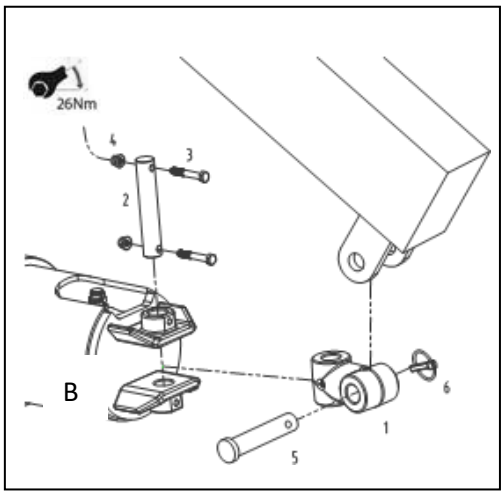
Install the auger device horizontally with the output shaft facing the parent machine as shown in Figure A.



When installing the through bolt safety pin (as shown in item B of Figure B), align the pin hole and push the pin (2) completely, pay attention to the alignment with the through bolt hole, install the through bolt (3) at both ends of the pin And nylon rivet nut (4), tighten to 26 Nm.

Align the holes in the connecting slider (1) with the connecting lugs on the mother machine, as shown in Figure B.

Insert the mounting pin (5) and spring clip (6). After installation, check whether the



connecting slider can swing freely.	
	

Fitting of suspension equipment accessories-skid steer loader and telescopic handler

When assembling components of the auger rig or disassembling it from the mother machine, remember to operate in groups of two (two skilled technicians). Remember to check the weight of the accessories to ensure that the appropriate equipment is used to lift the accessories.

Remember to check the parent machine:

- Operation sequence is correct
- Park correctly
- The handbrake is on, the hydraulic circuit is locked, and the engine is off

Check whether the model and type of the mounting bracket are suitable for installing the mother machine.

Make sure that the mounting bracket and connection points are clean before installation.

If necessary, use appropriate lifting equipment with the rated lifting capacity (see the nameplate for weight)

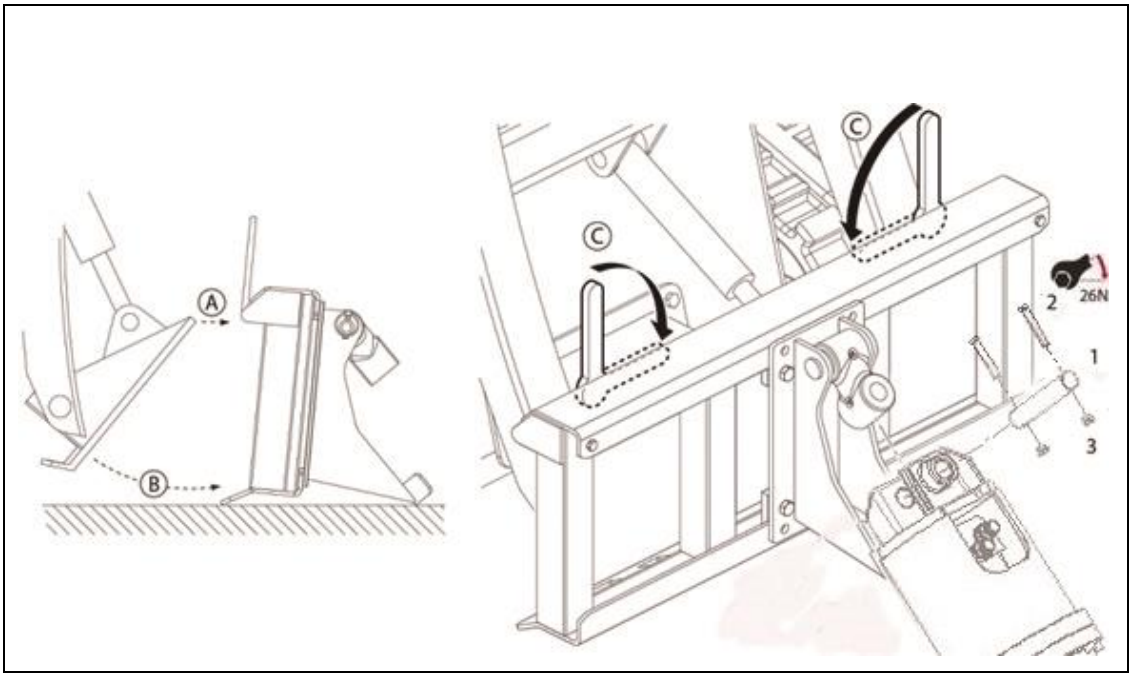
Installation: Ensure that all components are coated with lubricant:

A Slot the top of the parent machine frame below the top edge of the mounting bracket.

B Adjust the parent machine frame to a vertical position.

C Carry out the operation according to the operator's manual of the mother machine, and ensure that the mounting bracket is firmly locked in place.

D During operation, lift two augers in place with the orifice facing up. Align the hanger of the hood with the hole in the connecting slider, fix the auger with pins (1), bolts (2) and nylon rivet nuts (3), and tighten to a torque of 26 Nm.



Hydraulic connection

caveat:

Hydraulic fluid under pressure can penetrate the skin or eyes, causing serious personal injury, blindness, or death. Fluid leakage under pressure may not be detected by the naked eye. Use a card or wood chip to detect the leak. Do not check leaks by hand. Wear goggles to protect your eyes. If the fluid splashes on the skin, it must be removed surgically. Seek medical attention immediately.

All auger devices of Attachlots require hydraulic oil to "flow" and "return" from the auxiliary hydraulic power source of the mother machine. All gear boxes can be reversed, but the host requires a bidirectional flow auxiliary circuit. (Please consult the dealer of the parent machine) When installing hydraulic hoses, be sure to tighten to the correct hose installation torque (Figure A).

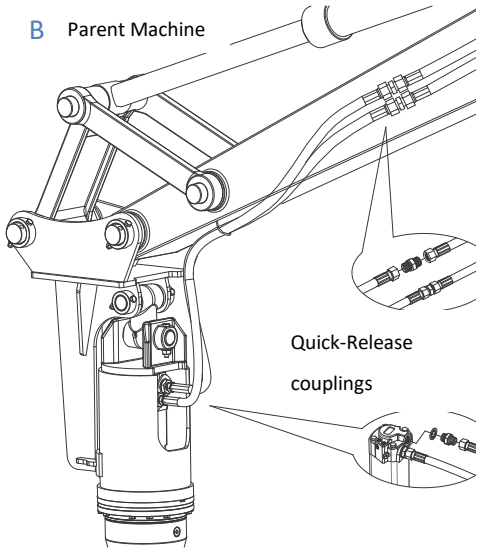
When connecting with a parent machine, you need to use a quick release connector, but this part may not be provided with the device at any time. Quick-release couplings can be purchased locally and must be matched with the auxiliary hydraulic quick-release coupling on the parent machine (Figures B and C).

The mother machine auxiliary hydraulic joint is usually located near the end of the loader arm, excavator bucket or truck crane boom.

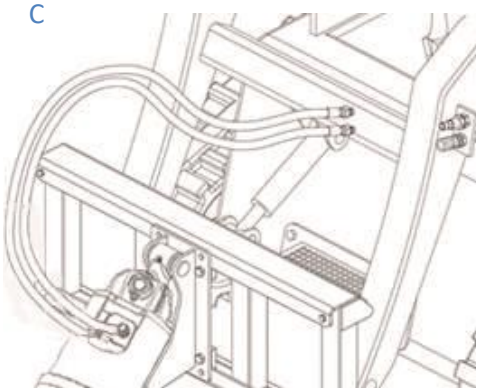
Make sure that the direction of rotation of the auger device is clockwise.

For specific types of auger rigs, it is important to provide oil products within the specified flow and pressure limits. Please refer to the factory number plate on the top of the auger hood (see page 9)

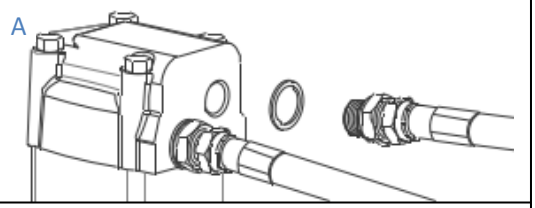
B



C



A



1/2 " BPS	56Nm
3/4 " BPS	73Nm
1 " BPS	112Nm
1-1/4 " BPS	137Nm

Quick-Release couplings

Parent Machine

Hydraulic connection

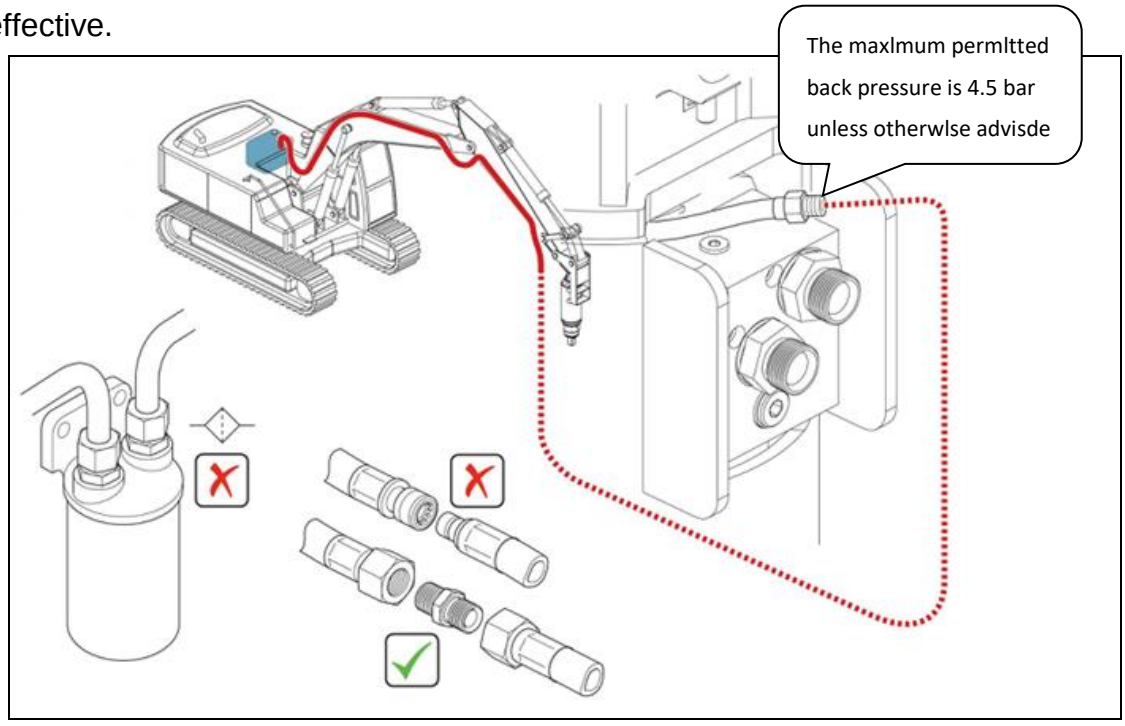
Box oil drain line accessories

Attachlots's large-scale auger is equipped with a box oil drain line.

This is a flexible hose that extends out of the hood of the auger and must be connected to the return line of the machine's hydraulic fluid container. The components required to build a circuit vary depending on the machine and the hydraulic equipment installed. Therefore, the parts of the tank oil drain line are not provided with the auger, and must be purchased separately.

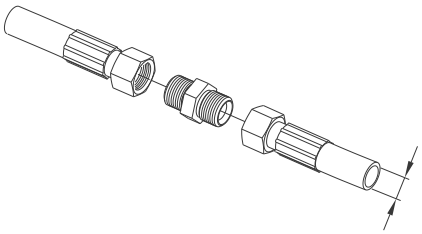
When installing the tank drain line, there is no limit to the flow between the auger and the oil reservoir. Never use quick-release couplings.

You will receive an installation form when you purchase the device. Please be sure to fill out the form and return it to Attachlots in order to make the warranty effective.



The max lmum per mltted back pressure is 4.5 bar unless otherwise advise
Minimum hose inner diameter, please refer to the table on page 18

Hydraulic connection

Minimum inner diameter	

Minimum working pressure (Pa/lb/square inch)

Minimum requirements for hydraulic hoses		
model	**Minimum inner diameter of hose (inch/mm)**	**Minimum working pressure (Pa/lb/square inch)**
2000	1/2”/12.7mm	205pa/2937lb/square inch
2500	1/2”/12.7	205pa/2937lb/square inch
3000	1/2”/12.7mm	240pa/3480lb/square inch
3500	1/2”/12.7mm	240pa/3480lb/square inch
4500	1/2”/12.7mm	240pa/3480lb/square inch
5000	1/2”/12.7mm	240pa/3480lb/square inch
5500	1/2”/12.7mm	240pa/3480lb/square inch
6000	1/2”/12.7mm	260pa/3771lb/square inch
7000	3/4”/19.0mm	260pa/3771lb/square inch
8000	3/4”/19.0mm	240pa/3480lb/square inch
10000	3/4”/19.0mm	240pa/3480lb/square inch
12000	3/4”/19.0mm	240pa/3480lb/square inch
15000	3/4”/19.0mm	240pa/3480lb/square inch
20000	1”/25.4mm	240pa/3480lb/square inch
25000	1”/25.4mm	240pa/3480lb/square inch
30000	1”/25.4mm	240pa/3480lb/square inch
50000	11/4”31.8mm	320pa/4640lb/square inch

Drill pipe installation

Safety first

When removing the components of the auger from the mother machine, always have two people (two skilled operators) work together.

Always check the parent machine to see:

□ Whether it is in normal operation.

□ Whether it is properly parked on flat ground.

□ Whether the handbrake is on, whether the hydraulic circuit is blocked, and whether the engine is off.

Whether the handbrake is on, whether the hydraulic circuit is blocked, and whether the engine is off.

Make sure the drill pipe joint is clean before installation.

If necessary, use appropriate rated lifting equipment (refer to the weight on the nameplate).

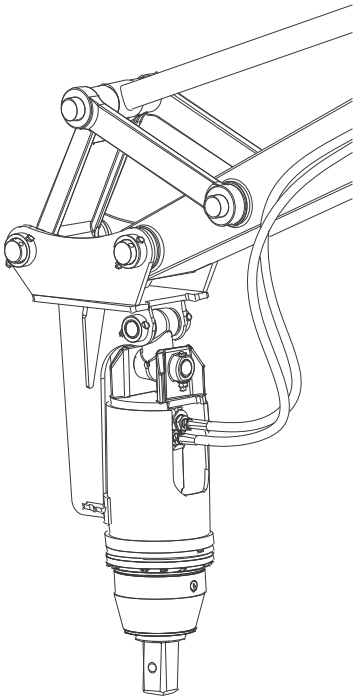
Place the drill rod in a vertical working position and align it to provide support to prevent it from tipping.

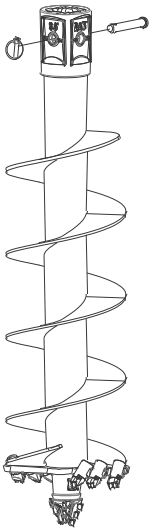
Position the auger above the drill rod and align the pin hole.

Lower the auger and place it on the drill pipe.

Determine the position of the drill rod drive pin.

Use snaps to secure the drive pin of the drill pipe.





Ready

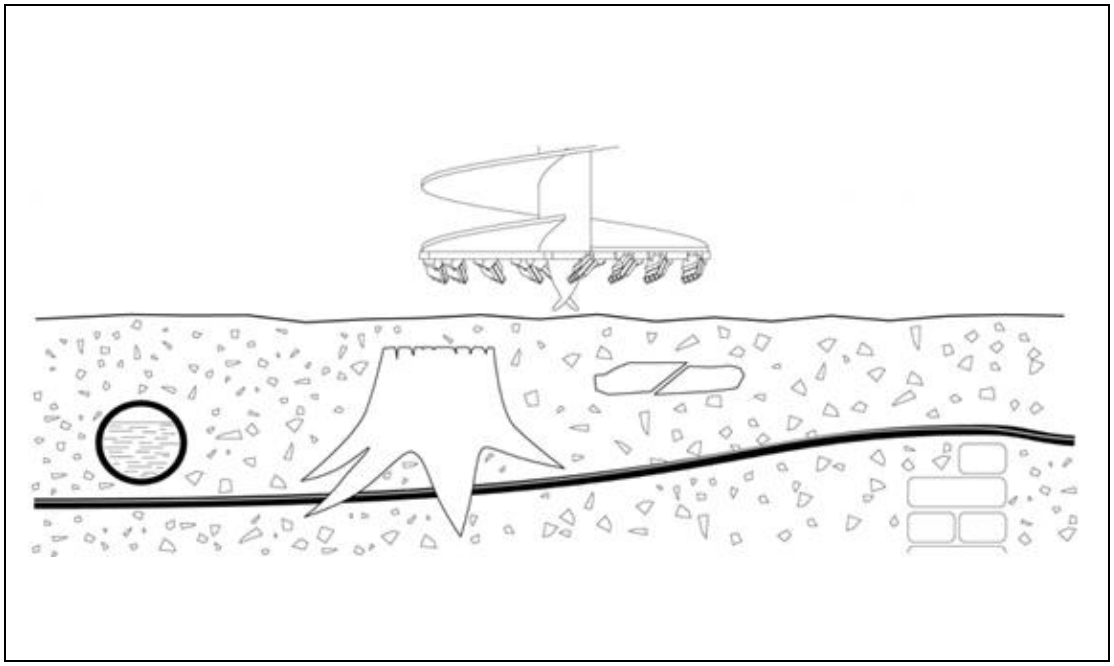
Ready to work

Consider the landform (as follows: sunk risk, slope angle, embankment and any previous excavation)

Pay attention to the type and location of the soil, so as to select the appropriate bit and bit.

Before starting work, on-site investigation and risk assessment activities must be carried out.

Avoid underground risks, such as water/gas/electricity/communication lines, etc. If there is any doubt about the detection device and expert opinions, it should be fully considered before any work is carried out.



Drilling with fixed extension rod

When the specified hole length is longer than the length of the drill rod, an extension rod should be used. Do not drill the auger deep into the hole, as the spoil removed will damage the seal.

Safety first

When disassembling the components of the auger on the mother machine, two people (two skilled operators) are always required to work together. When installing components, the parent machine must be checked to see its

□ Whether it is in normal operation.

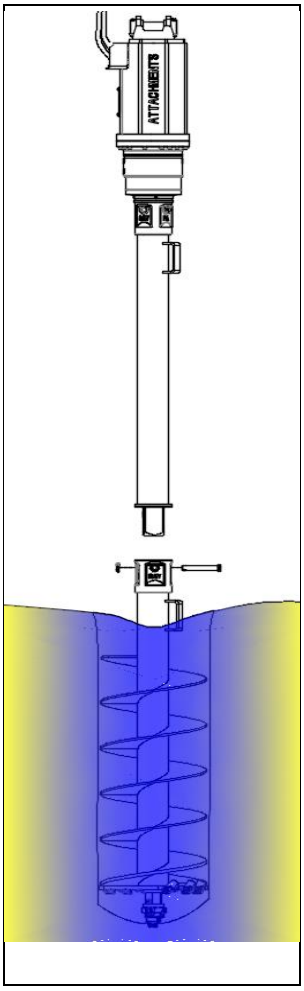
□ Whether it is properly parked on flat ground.

□ Whether the handbrake is on, whether the hydraulic circuit is blocked, and whether the engine is off.

Check whether the model and type of extension rod are correct and suitable for auger rigs.

If necessary, use appropriate rated lifting equipment

When using the extension rod for drilling operations, the length of the wood needs to support the drill rod and be able to remove the extension rod. The minimum size of the wood is 150mm*50mm (height*width), and it is long enough to span the drilled hole and add 300m length at each end.



Installation of fixed extension rod

When drilling to the point where the top of the drill pipe is within 20mm (8”) above the ground in two weeks:

□ Stop drilling；

□ Lift the spiral drill rod from the drill hole to remove the spoil on the surface of the spiral drill rod;

□ Put the spiral drill rod back into the drill hole to support its weight, and at the same time take out the buckle and the transmission pin of the spiral drill rod;

□ Lift the auger, be careful not to touch the drill rod, tilt to one side, be careful not to touch the drill hole,

Setting the corresponding height allows the extension rod to be easily installed.

□ Place the extension rod in a vertical working position and support it to prevent it from tipping over.

□ Position the auger above the extension rod and align the pin hole.

□ Lower the auger and place it on the extension rod.

- □ Insert the extension pin drive pin.
- □ Use a snap to secure the extension rod drive pin.
- □ Place the extension rod of the auger machine above the pin hole.
- □ Lower the drill rod extension rod and place it on the drill rod.
- □ Insert the drill rod drive shaft.
- □ Use snaps to secure the drill rod drive shaft.
- □ Continue drilling

Removal of fixed extension rod

If the size arm of the mother machine is long enough to lift the auger rod above the ground and remove spoil, there is no need to remove the extension rod. For smaller machines, when using multiple extension rods, it is necessary to remove the extension rod first.

□ Lift the auger (A) until the drill rod handle is off the ground and insert the wooden support into the handle (B).

□ Lower the auger (C) until the wood touches the ground to support the drill rod and extension rod. Make sure that the weight of the drill is evenly distributed on both sides of the board.

□ Remove the buckle and drill rod drive pin.

□ Lift the extension rod (D), taking care not to tilt it to one side, to prevent damage to the drilling rig or the extension rod, and lift to a certain height, so as to achieve the safe removal of the extension rod.

□ Support the weight of the extension rod.

□ Remove the buckle and extension rod drive pin.

□ Remove the extension pole and place it on the ground.

□ Move the mother machine to position the auger above the drill rod and align the pin hole.

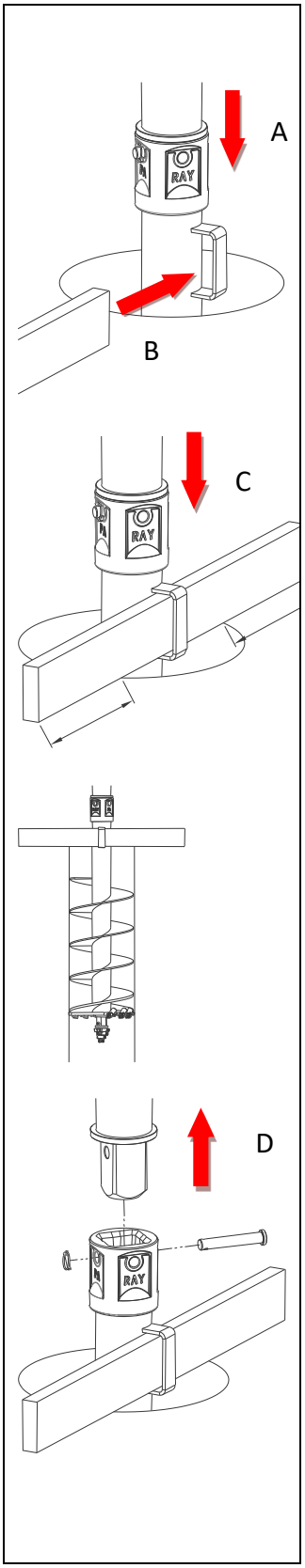
□ Lower the auger and place it on the drill pipe.

□ Insert the drill rod drive pin.

□ Use snaps to secure the drill rod drive pin.

□ Lift the auger and remove the heavy objects on the wooden support.

□ Remove the wooden bracket.



Multiple fixed extension rods

According to the above steps, multiple fixed extension rods can be added to further increase the depth of the drilling. Like drill rods, each extension rod is equipped with a handle, and a wooden support is inserted through the handle to support the extension rod, while adding or removing other extension rods.

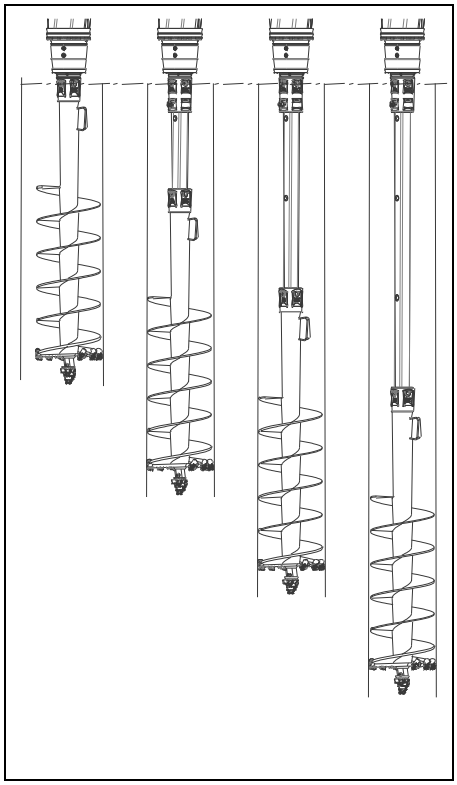
Drilling with inner telescopic extension rod

The inner telescopic extension rod can make the drilling length longer than the length of the drill rod, without removing the extension rod and retracting the drill rod. Never drill the auger deep into the hole because the spoil removed will damage the seal.

The inner telescopic extension rod can make the drilling length longer than the length of the drill rod, without removing the extension rod and retracting the drill rod.

Never drill the auger deep into the hole because the spoil removed will damage the seal.

Safety first



When disassembling the components of the auger from the mother machine, always have two people (two skilled operators) work together. When installing components, always check the parent machine to see:

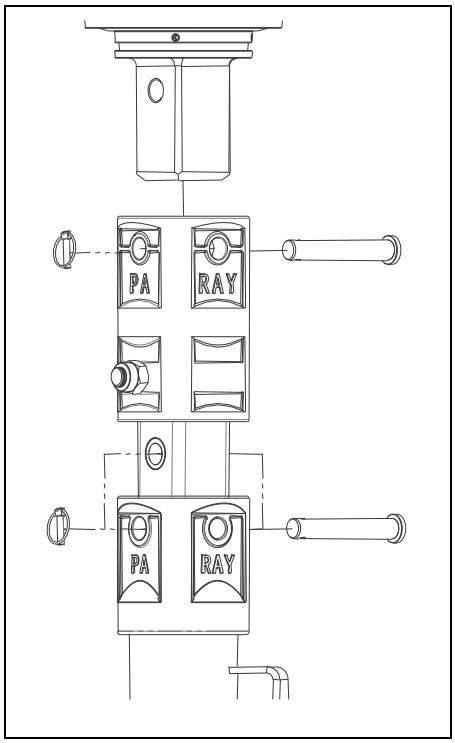
- □ Whether it is in normal operation.
- □ Is it properly parked on flat ground?
- □ Whether the handbrake is on, whether the hydraulic circuit is blocked, and whether the engine is off.

Check whether the model and type of the telescopic rod are correct and whether they are suitable for auger rigs and drill rods.

Before drilling, ensure that the auger, drill pipe and extension rod joints are cleaned.

If necessary, use appropriate rated lifting equipment. When using the inner telescopic extension rod for drilling operations, the length of the wood needs to support the drill rod and the extension rod can be removed. The minimum size of the wood is 150mm*50mm (height*width), and it is long enough to span the drilled hole and add a length of 300m at each end.

Installation of inner telescopic extension rod



Note: Bolt the inner telescopic rod to the extension rod connection sleeve. Never remove bolts. Use pins and fasteners to secure the extension rod to the drill rod. The inner telescopic extension rod can be installed before drilling begins:

□ Insert the inner telescopic extension rod into the drill rod to ensure that the pin holes are lined up.

□ Fix the extension rod and drill rod at the top of the pin hole (the setting with the shortest distance).

□ Place the drill rod and extension rod in a vertical working position and support it to prevent it from tipping over.

□ Place the auger on top of the drill rod and extension rod and align the pin hole.

□ Lower the auger and place it on the extension rod.

□ Insert the extension shaft.

□ Use snaps to secure the drive shaft of the drill pipe.

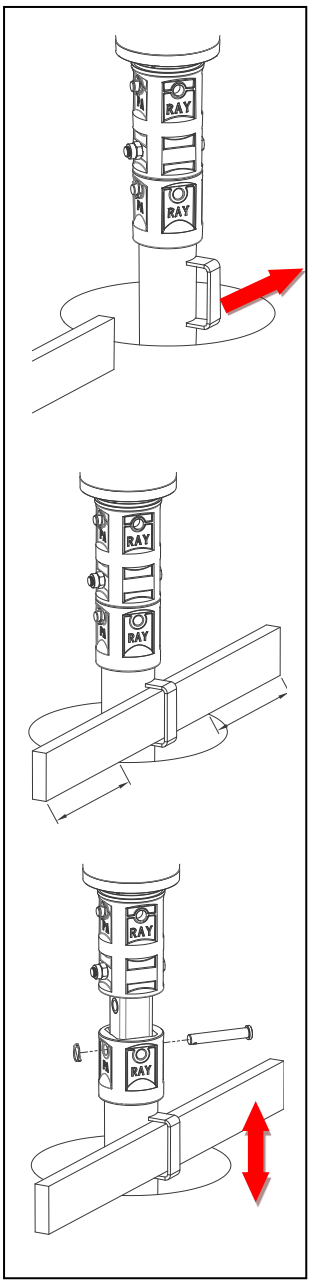
□ Start drilling.

Adjustment of inner telescopic extension rod

To adjust the length of the extension rod:

□ Lift the auger until the drill rod handle is off the ground, and at the same time insert the wooden support into the handle.

□ Lower the auger until the weight of the drill rod and extension rod is supported by the wood. make sure The load is evenly distributed on both sides of the borehole.



□ Remove the buckled an drill pin drive pin.

□ Lift the auger until it reaches the expect ed length of the extension rod and drill rod Line up the holes of the extension rod.

Note: The shaft of the inner telescopic extension rod has a red painted part at the bottom.

When it is proposed that the shaft has been extended by the length of the rod, the red

The appearance surface of the colored area is approaching the longest setting and the end of the shaft. in

Height adjustment in this area prevents the shaft from falling out of the drill pipe.

Must be lined up and reinserted.

□ Insert the drill rod drive pin.

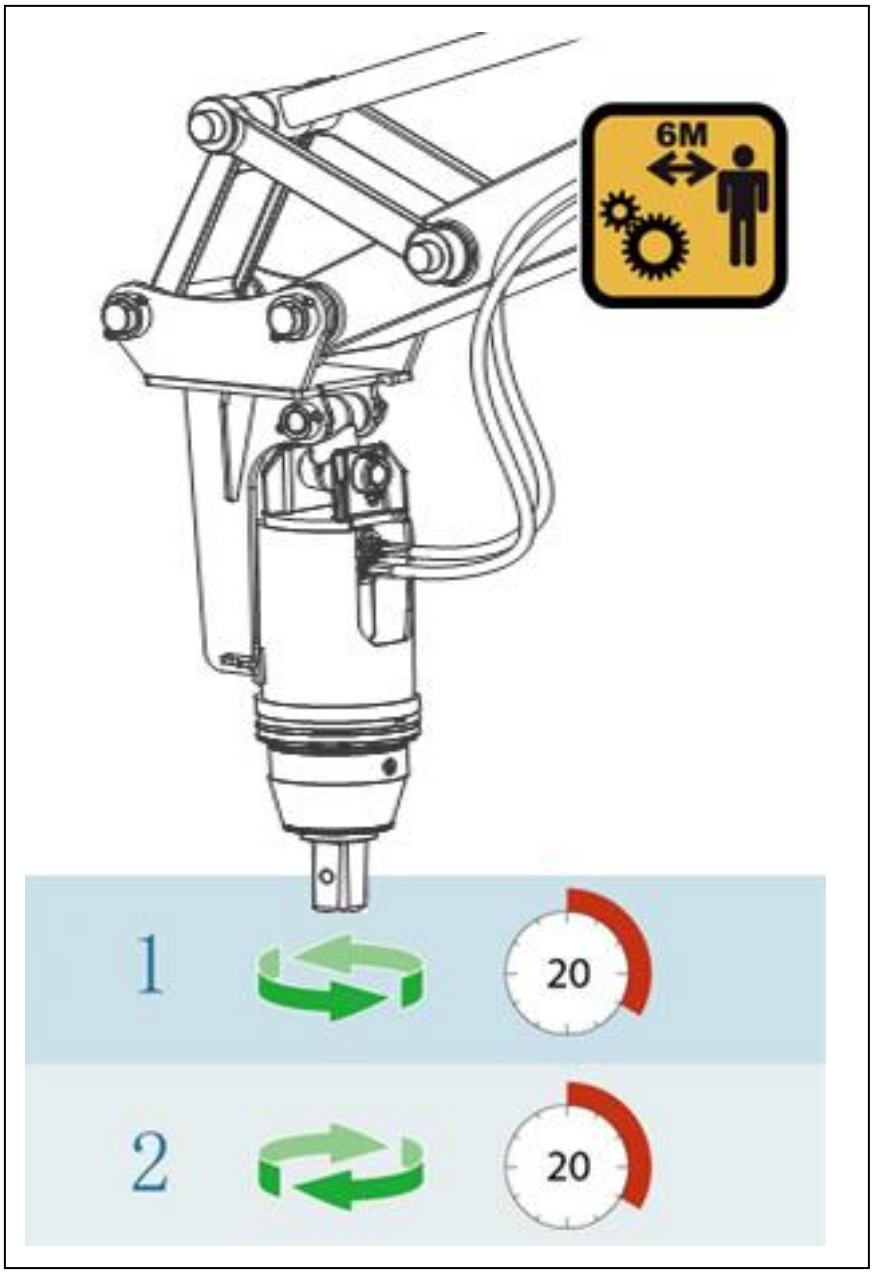
□ Use snaps to secure the drill rod drive shaft.

□ Lift the auger and remove the heavy objects on the wooden support.

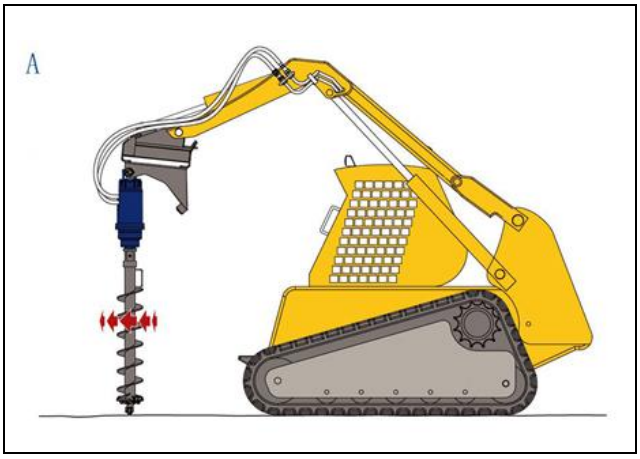
□ Remove the wooden support

Run-in

In order to maximize the life of the equipment, it must be run in for a period of time. When implementing the running-in procedure, suspend the auger in a vertical working position. For the duration of the break-in procedure, ensure that no idle personnel (including animals) enter the working area within 6M. Before using full operating load, operate the motor at 30% rated pressure in all directions for 20 minutes. To further ensure optimal motor life and maintain warranty, refer to the lubrication instructions on page 38.



Steps



Before starting the operation, make sure:

Correctly install and tighten the correct hose (see page 21)

To effectively break in the equipment (see page 33)

No idle personnel enter the operation area within 6M.

The drill rod is in the vertical drilling position (Figure A).

Make sure the direction of rotation is clockwise.

On-site investigation of a pre-marked safe location

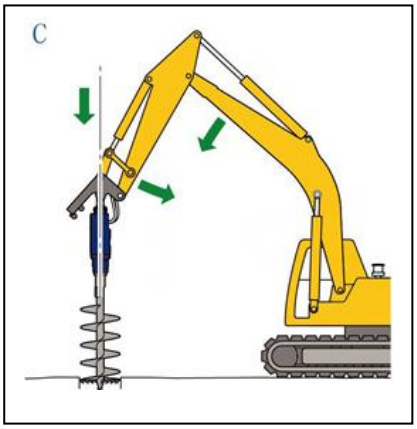
After that, start drilling again (see page 26)

Gradually lower the mother arm to apply downward force on the drill pipe.

The harder the ground, the greater the downward force required.

Maintain the drilling speed, do not use excessive downward force

Continuously press the auger rig.



Keep the drill pipe vertical.

For skid steer loaders (Figure B)

If necessary, adjust the angle of the arm, install the frame and the mother machine s position.

For the excavator (Figure C):

Adjust the angle of the arm.

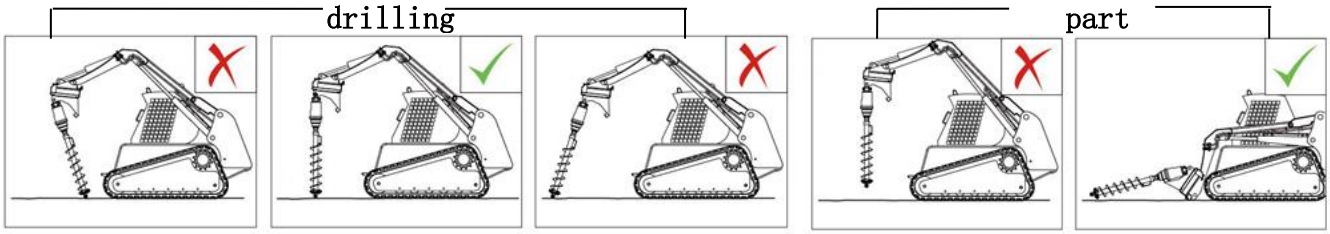
Maximize efficiency.

By keeping the drill pipe vertical, damage to the drill pipe equipment is avoided.

Lift the drill pipe off the ground regularly to remove material from the surface of the drill pipe. To maintain the effectiveness of drilling and ensure the stability of machinery and equipment.

The drilling depth should not exceed the length of the drill pipe

Do not leave the drill pipe equipment suspended. Always park the drill pipe on the ground.


drilling
part

Transport

When connected with the parent machine, the standard drill pipe equipment can swing freely, which will bring great danger during transportation.

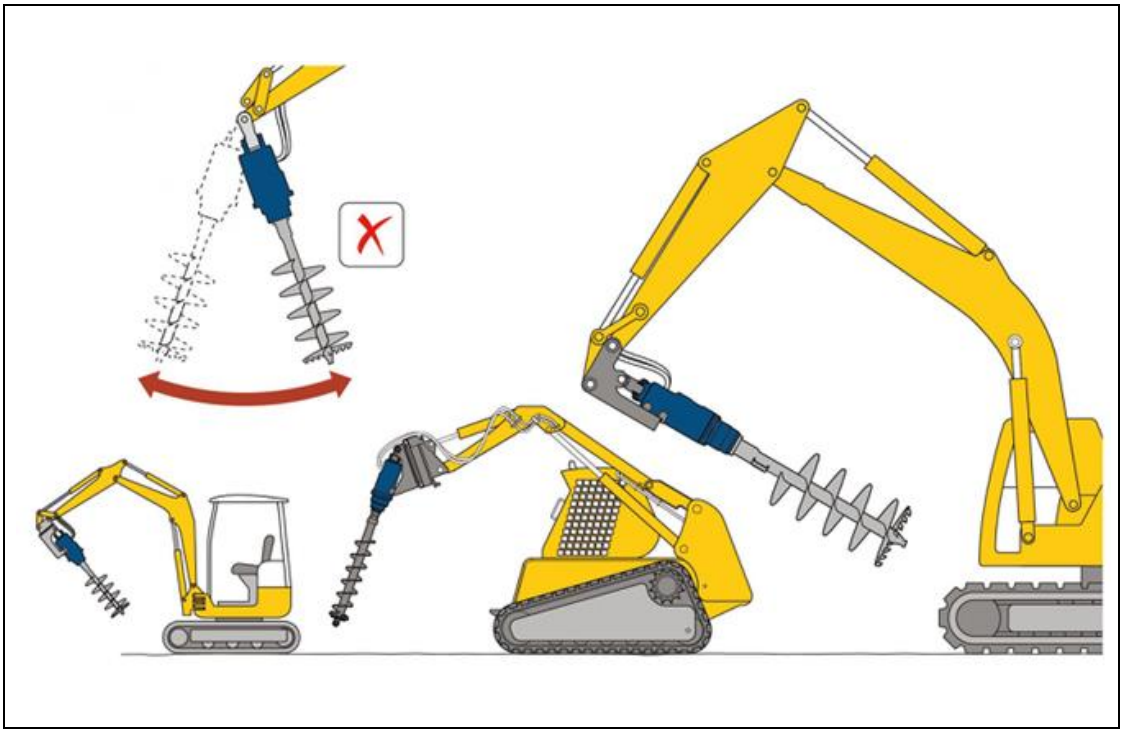
Transportation on the road

When transporting the mother machine on the road, always pay attention to dismantle the drill pipe and auger. After removing the drill pipe and auger from the mother machine, always store the equipment safely and securely, paying attention to the hydraulic oil pipes and joints.

Transportation on the construction site

Always pay attention to the slow operation of the mother machine at the scene, and pay special attention to prevent the drill pipe from swaying.
Suggestion: When installing, please use the suspension pivot mechanism to support the mobile auger in the field.

Suspension support



Maintenance and Lubrication-Safety Instructions

Always pay attention to safety

Ensure the safety of the environment and properly dispose of waste oil:Never dump waste oil downwards!

Pevent fire or explosion:

Do not smoke or expose the combustion source to lubricant near any possible sources of combustion (such as fire, electric sparks, or heat).

All lubricants are toxic and are likely to cause cancer (carcinogenic).

Avoid contact with skin and eyes:

Please wear appropriate protective clothing or protective socks. In case of contact with skin, be sure to apply appropriate barrier cream.

Always wear eye protection equipment:

In case of skin contact, wash with soap and water. In case of getting into the eyes, wash with water and consult a doctor.

Do not swallow:

If swallowed accidentally, seek medical attention immediately.

Maintenance and lubrication --- maintenance cycle

The characteristic of auger rig is that it has a sealed gearbox filled with gear oil, so as to realize the lubrication of planetary gear components and bearings in the gearbox. The spiral drilling rig does not need excessive maintenance. However, it is recommended to regularly check the oil leakage and observe the maintenance schedule to ensure that the product does not have any failures.

Weekly:

Apply grease to the pivot mechanism and pivot pin of the auger.

Oil lubrication

The auger has been pre-coated with gear oil. This oil needs to be replaced regularly. Regular oil replacement can be extend equipment life. Refer to the diagram on page 39 for oil change cycle records.

Important: To protect the product warranty, create a pipe industry. Dealers must record the first oil change certificate.

Please note: There is no charge for the first oil change, but the prerequisite is that it is authorized

Service representative implementation.

See page 40 for oil change procedures.

First maintenance certificate stamp

Dealer name:_____

Maintenance date: _____

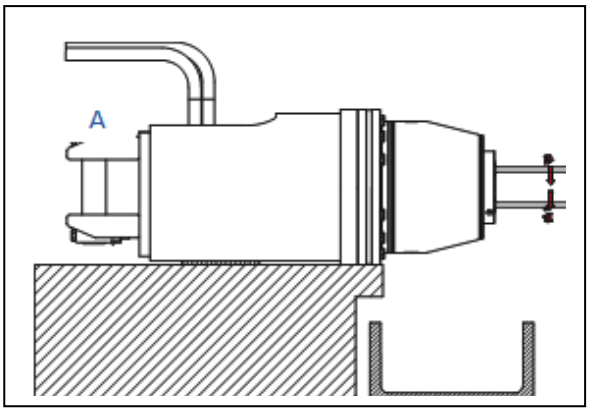
Maintenance and lubrication-maintenance cycle (connected)

Oil change frequency		
model	**The first exchange for the first use**	**Subsequent oil change frequency**
2000	3 months or 200 hours	12 msonths or 800 hours
2500	3 months or 200 hours	12 months or 800 hours
3000	3 months or 200 hours	12 months or 800 hours
3500	3 months or 200 hours	12 months or 800 hours
4500	3 months or 200 hours	12 months or 800 hours
5000	3 months or 200 hours	12 months or 800 hours
5500	3 months or 200 hours	12 months or 800 hours
6000	3 months or 200 hours	12 months or 800 hours
7000	3 months or 200 hours	12 months or 800 hours
8000	2 months or 120 hours	12 months or 720 hours
10000	2 months or 120 hours	12 months or 720 hours
12000	2 months or 120 hours	12 months or 720 hours
15000	2 months or 120 hours	12 months or 720 hours
20000	1 month or 50 hours	4 months or 200 hours
25000	1 month or 50 hours	4 months or 200 hours
30000	1 month or 50 hours	4 months or 200 hours
50000	1 month or 50 hours	4 months or 200 hours

* Whichever occurs first

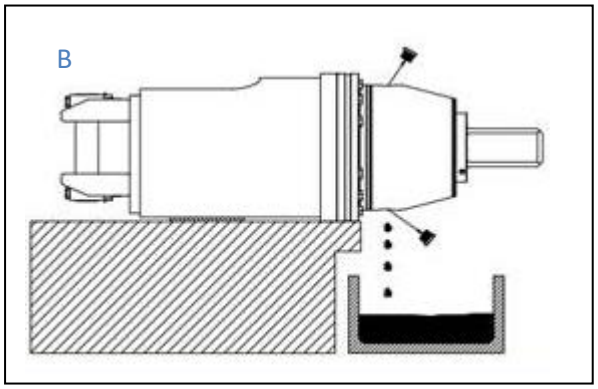
Maintenance and lubrication

Oil change steps:



Before starting maintenance on the equipment, please read the relevant instructions carefully Make sure you have the right tools, materials and safety equipment. Note: The steps described below should have skilled and capableworkers Engineer implementation.

1. Run the equipment for 15 minutes to preheat the oil (Figure A).

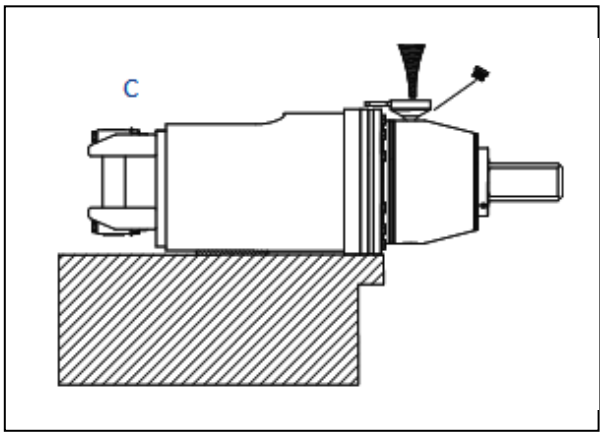


Make sure the horizontal position of the equipment is safely supported, adjust the drive head Orient the oil filling port upward and the oil drain port downward.

2. Use a tool to remove the oil drain plug (figure B) and filling plug (figure B) Above), to make the oil flow out, the shortest time is 10 minutes, in order to achieve For best results, oil can be drained overnight.

3. Reinstall the oil drain plug (Figure C) and fill it with oil.

Please refer to page 41 for the correct oil grade and quantity.



4. Reinstall the filler plug.

5. Check for signs of oil leakage and refill if necessary.

Maintenance and lubrication

Recommended lubricant						
Type	**Oil volume (ML)**	**Level**	**manufacturer**		**planet**	**type**
			Millers	Mobil		
2000	400	EP320	EP320	600series	Yes	mineral
2500	400	EP320	EP320	600series	Yes	mineral
3000	850	EP320	EP320	600series	Yes	mineral
3500	850	EP320	EP320	600series	Yes	mineral
4500	850	EP320	EP320	600series	Yes	mineral
5000	1250	EP320	EP320	600series	Yes	mineral
5500	1250	EP320	EP320	600series	Yes	mineral
6000	1250	EP320	EP320	600series	Yes	mineral
7000	1250	EP320	EP320	600series	Yes	mineral
8000	1250	EP320	EP320	600series	Yes	mineral
10000	2150	EP320	EP320	600series	Yes	mineral
12000	2150	EP320	EP320	600series	Yes	mineral
15000	2150	EP320	EP320	600series	Yes	mineral
20000	6750	EP320	EP320	600series	Yes	mineral
25000	6750	EP320	EP320	600series	Yes	mineral
30000	7500	SY320	SY320	SHC632	Yes	composite
50000	8800	SY320	SY320	SHC632	Yes	composite

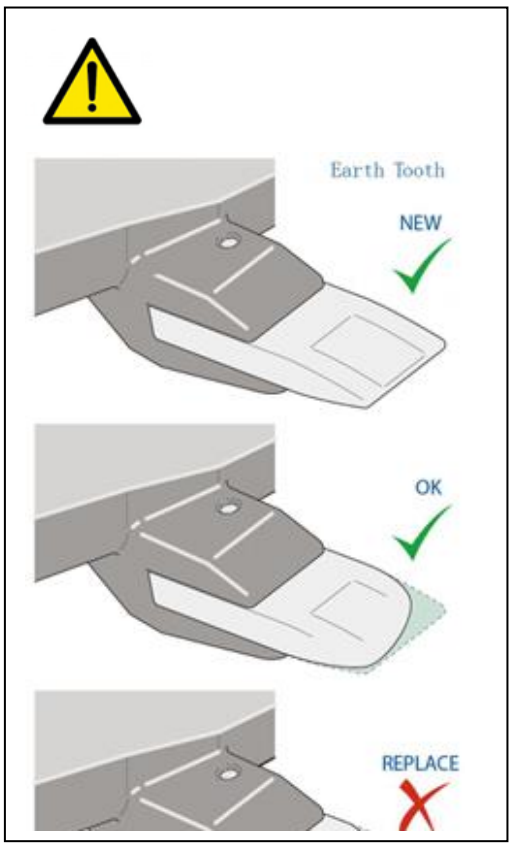
All equipment provides oil with a viscosity of 320, except for other requirements. When using or storing equipment below -15°C, oil with a viscosity of 150 must be used.

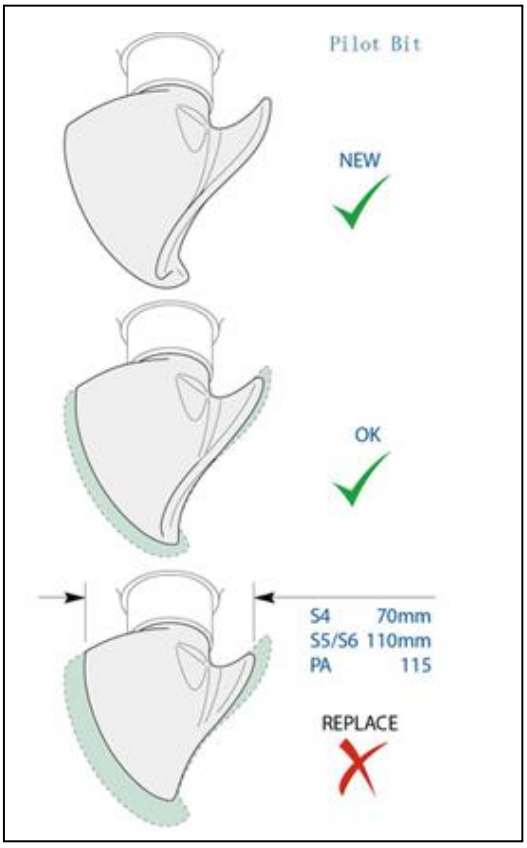
When using or storing equipment above 35°C, oil with a viscosity of 460 must be used.

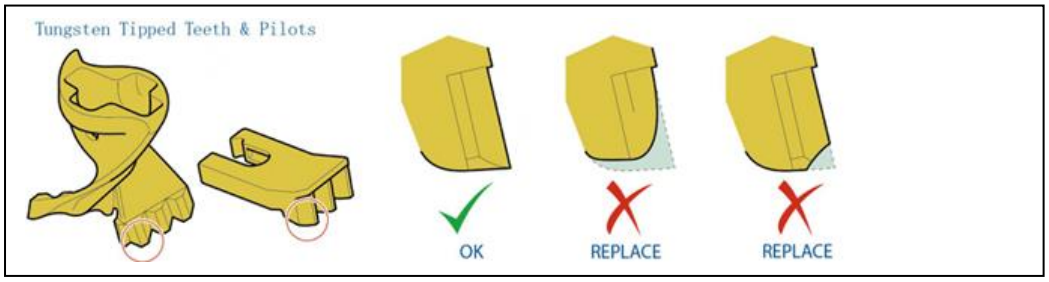
Wear parts

The cutting teeth and drill bits should be inspected regularly. The following figure shows acceptable wear levels.

Note: Excessive wear of cutting teeth and drill bit can cause damage to the drill rod.







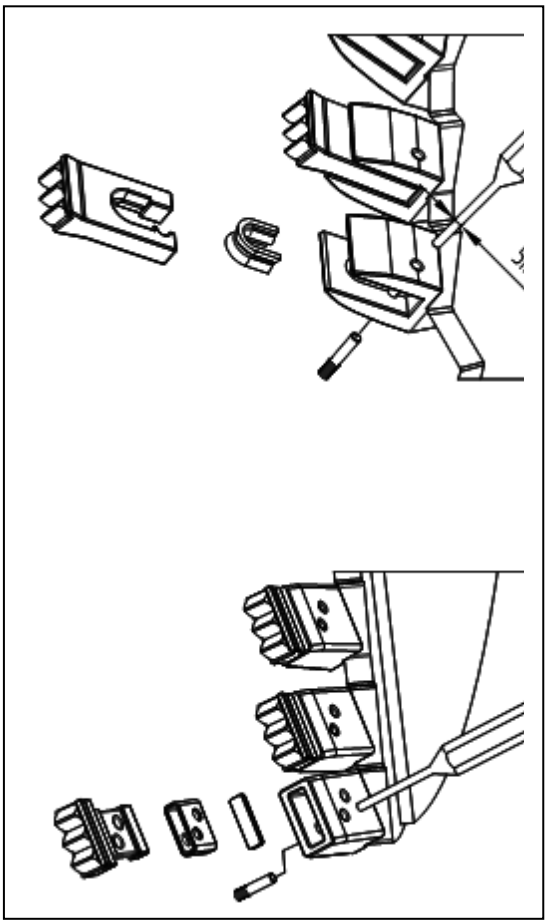
Earth Tooth
Pilot Bit
NEW
REPLACE
OK
Tungsten Tipped Teeth and Pilots

Note: By pulling out the original drill bit in the corresponding position, you can replace it with a new drill bit. For the replacement of the drill teeth, please refer to page 44

Replacement of auger teeth

Note: Before removing the auger drill teeth, make sure that the drill pipe is level and supported by easily accessible teeth. Always pay attention to the use of appropriate protective clothing.

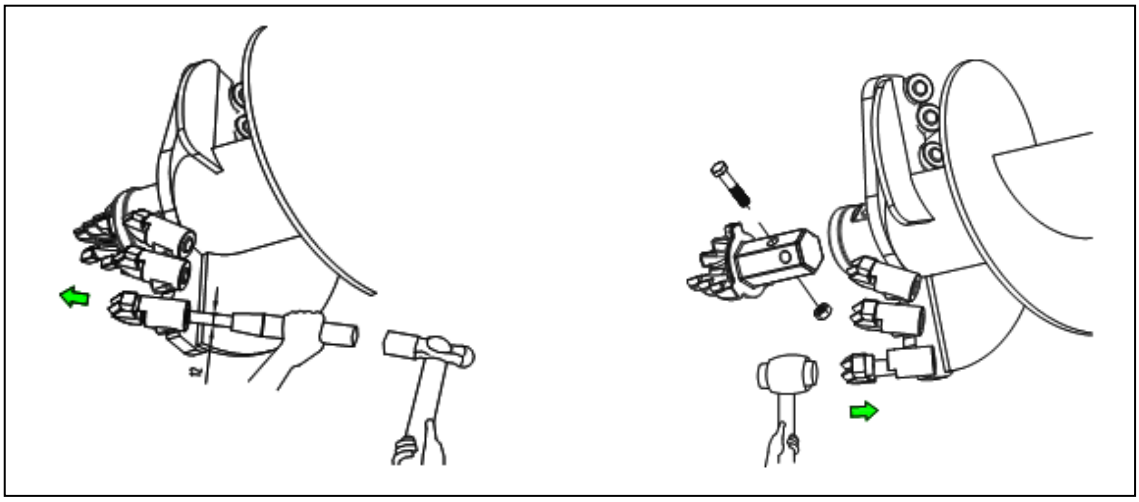
Shock lock teeth



Use a 5MM pointed punch to strike the fixing pin and let it pass through the vibration lock The top of the seat, and then remove the vibration lock teeth and vibration lock rubber. In Ann When installing the vibration lock teeth, put the rubber into the tooth groove. Press the vibration lock teeth and rubber into the lock gear seat to ensure the cutting of the pin Partly in the right time. Need to use a soft-faced hammer to strike thoroughly. Insert a new fixing pin on top of the lock tooth seat, first with a flat end. Knock the pin in, making sure to find the proper position in the tooth. Use a pointed punch to ensure that the embossed end of the pin fully enters the hole.

Rock tooth

Use a 12MM pointed punch to knock out the rock teeth from the back. When installing new rock teeth, make sure that the flat end The grooves are arranged in a row, and then use a soft-faced hammer to knock the teeth firmly.



Troubleshooting

If you have any questions, please consult Attachlots for repair. To ensure safety, please use only genuine accessories/distributor parts produced by Attachlots.

Mounting rack---installation		
malfunction	possible reason	Measures
The mounting bracket does not match the mother machine	The mounting bracket used is incorrect or not genuine Damaged/worn parts	Refer to this manual and the operation and installation instructions of the parent machine Repair or replace genuine mounting bracket
Mounting rack---operation		
malfunction	possible reason	Measures
Excessive positioning pin movement	Incorrect or worn positioning pins The position of the base pin/linkage pin is worn Damaged parts	Use new genuine parts Consult the dealer of the parent machine Consult the opinion of Attachlots. Use only genuine spare parts
Drill rod transmission device --- installation		
malfunction	possible reason	Measures
The auger does not match the mounting bracket Excessive positioning pin movement	The mounting bracket/spiral rig is incorrect/mismatched or not genuine Damaged parts Pins are incorrect or worn	Obtain and install the correct compatible genuine parts Consult the opinion of Attachlots. Use only genuine parts Replace with new genuine parts
Drill rod transmission device --- operation		
malfunction	possible reason	Measures
The output shaft of the auger does not match	No oil flowing out	Check whether the quick release coupling is properly engaged with the rage machine. Check that the hydraulic system of the parent machine is operating correctly and that

		there is sufficient oil of the correct grade (see the operating instructions of the parent machine).

Troubleshooting (connected)

Spiral drill pipe-operation (connected)）		
malfunction	possible reason	Measures
The output shaft of the auger does not match	The mother machine pressure relief valve is faulty or set too low	Test, reset or replace according to the specifications of the parent machine.
	Clipped on auger	Consult with Attachlots for advice.
	Rig stuck on the ground	Before starting the machine, remove the ground auger rod.
	Insufficient mother oil flow	Check whether the hydraulic system of the mother machine is running normally, and whether the oil inspection specification of the correct grade is sufficient.
	The auger does not match the mother machine	Consult the opinions of Attachlots.
Excavation speed is too slow/rotation speed of auger output shaft is too slow	Improperly installed drill pipe, drill tip or drill bit or worn drill tip/bit	Ensure that the size of the drill rod is compatible with the size of the auger (not too large), the drill tip/bit is suitable for ground conditions, and no wear occurs.
	Worn auger hydraulic motor may be improper or supplied oil contaminated	Consult the opinions of Attachlots. Use only genuine spare parts. Before installing and replacing the transmission, replace the hydraulic oil filter of the mother machine.
The drill pipe is turned off during work	The relief valve of the parent machine is faulty or the set position is too low	Reset/replace the relief valve according to the specifications of the host machine.
	Limited oil	Check for damaged or incorrect hydraulic hose machine connectors.
	Hydraulic oil filter clogged	Replace the parent machine filter and oil.
	The force exerted by the mother machine on the drill rod is too large	Reduce downward force.
	Spiral drilling rig/drill rod size/master machine is not compatible	Check specifications. Consult with Attachlots.

Warranty statement

We guarantee that all new products produced by Attachlots will have no defects in materials and workmanship, and may fail during the normal use and maintenance of the designated purpose.

Attachlots Guarantees that its equipment is guaranteed for twelve (12) months after delivery to the original user. This warranty statement covers the faulty process and defective parts of Attachlots, and is limited to the risk or replacement of the faulty product determined by the company itself.

This warranty statement does not cover the following:

1. Normal wear and tear;
2. Failures caused by improper dealer assembly, pre-delivery inspection or improper installation;
3. Failures caused by usage exceeding the design specifications under load conditions;
4. Engagement parts such as drill pipe blades, drill tips or drill bits;
5. Transportation cost of parts;
6. Indirect losses caused by appealing for any reason.

Attachlots must operate in accordance with the specifications recommended in the operation manual and the specified range of auger rigs.

Any claims under this warranty must be given in writing within fourteen (14) days of the failure. If Attachlots receives any claims for 14 days, it is considered invalid.

Operate Attachlots. It is not responsible and does not approve of the charges arising from the maintenance work carried out by unauthorized repair personnel. Unless authorized in writing by Attachlots charges including parts costs will not be accepted.

All goods that are returned to Attachlots for warranty or maintenance must be borne by the customer, except for the written authorization of Attachlots.

Hereby declare the following products

manufacturer	Attachlots
model	
serial number	

Compliant with Machinery Directive 2006/42/EC

The product also meets basic health and safety requirements, national standards and uniform transposition standards applicable to the product

Signatory (person in charge): Date: