Secoroc Y26, Y19A rock drills

Operator's instructions
Spare parts list

Epiroc

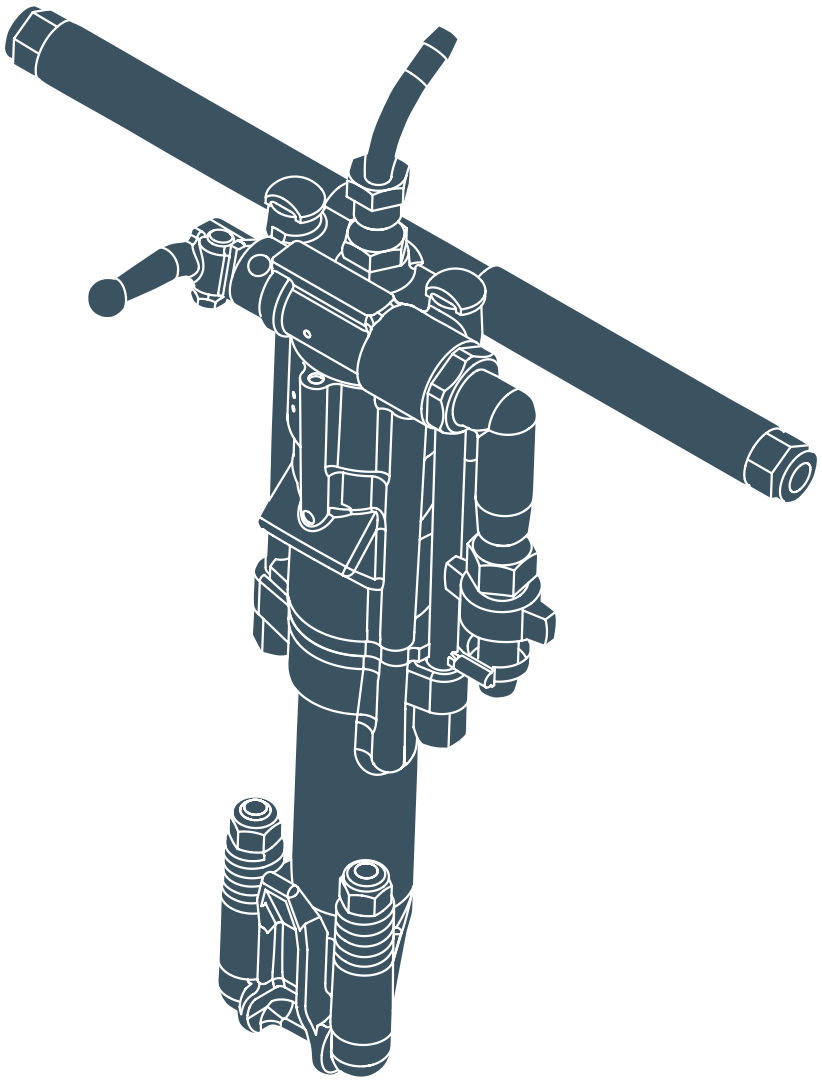


Table of contents

Introduction **3**
Safety instructions **3**
Scope of application **8**
Specification 8
Operation **9**
Using the rock drill for the first time 9
Preparations before starting 9
Drill steel 9
Fitting and removing the drill steel 10
Before fitting the drill steel 10
Fitting the drill steel 10
Removing the drill steel 10
Controls 10
Throttle lever 10
Extra blowing lever 10
Drilling 11
Starting the rock drill 11
Checking the lubrication 11
Stopping the rock drill 11
Blow-cleaning the drill hole 11
When you have finished drilling 11
Maintenance 11
Once a shift (after 8 hours of operation) 11
Once a week (after 40 hours of operation) 12
Once a month (after 200 hours of operation) 12
Selection of spare parts 12
Storage 12
Scrapping and waste disposal 12
Noise and vibration declaration statement 12
CE Declaration of Conformity 13
Trouble shooting **14**
Spare parts list and exploded drawing **16**

Foreword

Thank you for selecting the Secoroc hand held rock drill Y26/Y19A.

These instructions were developed to help you get the best performance and productivity from the use of your new rock drill.

Please refer to them also for the correct maintenance of the rock drill.

Introduction

Thank you for choosing a product from Epiroc. We have a strong global sales and service network, consisting of customer centers and distributors worldwide. Our experts are highly trained professionals with extensive product knowledge and application experience. In all corners of the world, we can offer product support and expertise to ensure that our customers can work at maximum efficiency at all times.

For more information please visit: epiroc.com

About the Safety and operating instructions

The aim of the instructions is to provide you with knowledge of how to use the rock drill in an efficient, safe way. The instructions also give you advice and tell you how to perform regular maintenance on the rock drill. Before using the rock drill for the first time you must read these instructions carefully and understand all of them.

Safety instructions

To reduce the risk of serious injury or death to yourself or others, read and understand the Safety and operating instruction before installing, operating, repairing, maintaining, or changing accessories on the machine. Post this Safety and operating instruction at work locations, provide copies to employees, and make sure that everyone reads the Safety and operating instruction before operating or servicing the machine. In addition, the operator or the operator's employer must assess the specific risks that may be present as a result of each use of the machine.

Safety signal words

The safety signal words Danger, Warning and Caution have the following meanings:

DANGER

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

WARNING

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

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

Personal precautions and qualifications

Only qualified and trained persons may operate or maintain the machine. They must be physically able to handle the bulk, weight, and power of the tool. Always use your common sense and good judgement.

Personal protective equipment

Always use approved protective equipment. Operators and all other persons in the working area must wear protective equipment, including at a minimum:

- Protective helmet
- Hearing protection
- Impact resistant eye protection with side protection
- Respiratory protection when appropriate
- Protective gloves
- Proper protective boots
- Appropriate work overall or similar clothing (not loose-fitting) that covers your arms and legs.

⚠ WARNING

Drugs, alcohol or medication.

Drugs, alcohol or medication may impair your judgment and powers of concentration. Poor reactions and incorrect assessments can lead to severe accidents or death.

• Never use the machine when you are tired or under the influence of drugs, alcohol or medication.

• No person who is under the influence of drugs, alcohol or medication may operate the machine.

Installation, precaution

⚠ DANGER

Whipping air hose.

A compressed air hose that comes loose can lash around and cause personal injury or death. To reduce this risk:

• Check that the compressed air hose and the connections are not damaged, replace if necessary.

• Check that all compressed air connections are properly attached.

• Never carry a pneumatic machine by the air hose.

• Never attempt to disconnect a compressed air hose that is pressurized. First switch off the compressed air at the compressor and then bleed the machine by activating the start and stop device.

• Do not use quick disconnect couplings at tool inlet.

Use hardened steel (or material with comparable shock resistance) threaded hose fittings.

• Whenever universal twist couplings (claw couplings) are used, we recommend that lock pins are installed and whipcheck safety cables are used to safeguard against possible hose to tool and hose to hose connection failure.

⚠ WARNING

Ejected insertion tool.

If the tool retainer on the machine is not in a locked position, the inserted tool can be ejected with force, which can cause personal injury.

• Never start the machine while changing the insertion tool.

• Before changing the insertion tool or accessories, stop the machine, switch off the power supply and bleed the machine by activating the start and stop device.

• Never point the inserted tool at yourself or anyone else.

• Make sure that the insertion tool is fully inserted and the tool retainer is in a locked position before the machine is started.

• Check the locking function by pulling the inserted tool outwards forcefully.

⚠ WARNING

Moving or slipping insertion tool.

An incorrect dimension of the inserted tool's shank can result in that the inserted tool is lost or is slipping out during operation. Risk of severe injury or crushed hands and fingers.

• Check that the insertion tool has the shank length and dimensions that the machine is intended for.

• Never use an insertion tool without a collar.

Operation, precautions

⚠ DANGER

Explosion hazard.

If a warm insertion tool comes into contact with explosives, an explosion could occur. During operation with certain materials as well as use of certain materials in machine parts, sparks and ignition can occur. Explosions will lead to severe injuries or death.

• Never operate the machine in any explosive environment.

• Never use the machine near flammable materials, fumes or dust.

• Make sure that there are no undetected sources of gas or explosives.

• Never drill in an old hole

If a warm insertion tool comes into contact with explosives, an explosion could occur. During operation with certain materials as well as use of certain materials in machine parts, sparks and ignition can occur. Explosions will lead to severe injuries or death.

• Never operate the machine in any explosive environment.

• Never use the machine near flammable materials, fumes or dust.

• Make sure that there are no undetected sources of gas or explosives.

• Never drill in an old hole.

⚠ WARNING

Unexpected movements.

The inserted tool is exposed to heavy strains when the machine is used. The inserted tool may break due to fatigue after a certain amount of use. If the inserted tool breaks or gets stuck, there may be sudden and unexpected movement that can cause injuries. Furthermore, losing your balance or slipping may cause injury.

• Make sure that you always keep a stable position with your feet as far apart as your shoulder width, and keeping a balanced body weight.

• Always inspect the equipment prior to use. Never use the equipment if you suspect that it is damaged.

• Make sure that the handles are clean and free of grease and oil.

• Keep your feet away from the inserted tool.

• Stand firmly and always hold on to the machine with both hands.

• Never drill in an old hole.

• Never start the machine when it is lying on the ground.

• Never 'ride' on the machine with one leg over the handle.

• Never strike or abuse the equipment.

• Check regularly for wear on the insertion tool, and check whether there are any signs of damage or visible cracks.

• Pay attention and look at what you are doing

⚠ WARNING

Stalling hazard.

If the insertion tool gets caught during operation, the whole machine will start to rotate if you lose your grip on it. This unexpected rotation of the entire machine may cause serious injury or death.

• Stand firmly and always hold onto the machine with both hands.

• Make sure that the handle or handles are clean and free from grease and oil.

• Never drill in an old hole.

⚠ WARNING

Trapping hazard.

There is risk of neck ware, hair, gloves and clothes getting dragged into or caught by a rotating insertion tool or accessories. This may cause choking, scalping, lacerations or death. To reduce the risk:

• Never grab or touch a rotating drill steel.

• Avoid wearing clothing, neck ware or gloves that may get caught.

• Cover long hair with a hair net

⚠ CAUTION

Always make sure that the rock drilling tools are in good condition before use.

⚠ WARNING

Dust and fume hazard.

Dusts and/or fumes generated or dispersed when using the machine may cause serious and permanent respiratory disease, illness, or other bodily injury (for example, silicosis or other irreversible lung disease that can be fatal, cancer, birth defects, and/or skin inflammation). Some dusts and fumes created by drilling, breaking, hammering, sawing, grinding and other construction activities contain substances known to the State of California and other authorities to cause respiratory disease, cancer, birth defects, or other reproductive harm. Some examples of such substances are:

• Crystalline silica, cement, and other masonry products.

• Arsenic and chromium from chemically-treated rubber.

• Lead from lead-based paints.

Dust and fumes in the air can be invisible to the naked eye, so do not rely on eye sight to determine if there is dust or fumes in the air. To reduce the risk of exposure to dust and fumes, do all of the following:

• Perform site-specific risk assessment. The risk assessment should include dust and fumes created by the use of the machine and the potential for disturbing existing dust.

• Use proper engineering controls to minimize the amount of dust and fumes in the air and to minimize build-up on equipment, surfaces, clothing, and body parts. Examples of controls include: exhaust ventilation and dust collection systems, water sprays, and wet drilling. Control dusts and fumes at the source where possible. Make sure that controls are properly installed, maintained and correctly used.

• Wear, maintain and correctly use respiratory protection as instructed by your employer and as required by occupational health and safety regulations. The respiratory protection must be effective for the type of substance at issue (and if applicable, approved by relevant governmental authority).

• Work in a well ventilated area.

• If the machine has an exhaust, direct the exhaust so as to reduce disturbance of dust in a dust filled environment.

• Operate and maintain the machine as recommended in the operating and safety instructions

• Select, maintain and replace consumables/ working tools/ other accessory as recommended in the operating and safety instructions. Incorrect selection or lack of maintenance of consumables/ inserted tools/ other accessories may cause an unnecessary increase in dust or fumes.

• Wear washable or disposable protective clothes at the worksite, and shower and change into clean clothes before leaving the worksite to reduce exposure of dust and fumes to yourself, other persons, cars, homes, and other areas.

• Avoid eating, drinking, and using tobacco products in areas where there is dust or fumes.

• Wash your hands and face thoroughly as soon as possible upon leaving the exposure area, and always before eating, drinking, using tobacco products, or making contact with other persons.

• Comply with all applicable laws and regulations, including occupational health and safety regulations.

• Participate in air monitoring, medical examination programs, and health and safety training programs provided by your employer or trade organizations and in accordance with occupational health and safety regulations and recommendations. Consult with physicians experienced with relevant occupational medicine.

• Work with your employer and trade organization to reduce dust and fume exposure at the worksite and to reduce the risks. Effective health and safety programs, policies and procedures for protecting workers and others against harmful exposure to dust and fumes should be established and implemented based on advice from health and safety experts. Consult with experts.

• Residues of hazardous substances on the machine can be a risk. Before undertaking any maintenance on the machine clean it thoroughly.

⚠ WARNING

Projectiles.

Failure of the work piece, of accessories, or even of the machine itself may generate high velocity projectiles. During operating, splinters or other particles from the working material may become projectiles and cause personal injury by striking the operator or other persons. To reduce these risk:

- Use approved personal protective equipment and safety helmet, including impact resistant eye protection with side protection.
- Make sure that no unauthorised persons trespass into the working zone.
- Keep the workplace free from foreign objects.
- Ensure that the work piece is securely fixed.

⚠ WARNING

Splinters hazard.

Using the insertion tool as a hand struck tool can result in splinters hitting the operator and can cause personal injury.

- Never use an insertion tool as a hand struck tool. They are specifically designed and heat-treated to be used only in a machine.

⚠ WARNING

Slipping, tripping and falling hazards.

There is a risk of slipping or tripping or falling, for example tripping on the hoses or on other objects. Slipping or tripping or falling can cause injury. To reduce this risk:

- Always make sure that no hose or other object is in your way or in any other person's way.
- Always make sure you are in a stable position with your feet as far apart as your shoulders width and keeping a balanced body weight.

⚠ WARNING

Motion hazards.

When using the machine to perform work-related activities, you may experience discomfort in the hands, arms, shoulders, neck, or other parts of the body.

- Adopt a comfortable posture whilst maintaining secure footing and avoiding awkward off-balanced postures.
- Changing posture during extended tasks may help avoid discomfort and fatigue.
- In case of persistent or recurring symptoms, consult a qualified health professional.

⚠ WARNING

Vibration hazards.

Normal and proper use of the machine exposes the operator to vibration. Regular and frequent exposure to vibration may cause, contribute to, or aggravate injury or disorders to the operator's fingers, hands, wrists, arms, shoulders and/or nerves and blood supply or other body parts, including debilitating and/or permanent injuries or disorders that may develop gradually over periods of weeks, months, or years. Such injuries or disorders may include damage to the blood circulatory system, damage to the nervous system, damage to joints, and possibly damage to other body structures. If numbness, persistent recurring discomfort, burning sensation, stiffness, throbbing, tingling, pain, clumsiness, weakened grip, whitening of the skin, or other symptoms occur at any time, when operating the machine or when not operating the machine, stop operating the machine, tell your employer and seek medical attention. Continued use of the machine after the occurrence of any such symptom may increase the risk of symptoms becoming more severe and/or permanent. Operate and maintain the machine as recommended in these instructions, to prevent an unnecessary increase in vibration. The following may help to reduce exposure to vibration for the operator:

- Let the tool do the job. Use a minimum hand grip consistent with proper control and safe operation.
- If the machine has vibration absorbing handles, keep them in a central position, avoid pressing the handles into the end stops.
- When the percussion mechanism is activated, the only body contact with the machine you should have are your hands on the handle or handles. Avoid any other contact, for example supporting any part of the body against the machine or leaning onto the machine trying to increase the feed force. It is also important not to keep the start and stop device engaged while extracting the tool from the broken work surface.
- Make sure that the inserted tool is well-maintained (including sharpness, if a cutting tool), not worn out, and of the proper size. Insertion tools that are not well-maintained, or that are worn out, or that are not of the proper size result in longer time to complete a task (and a longer period of exposure to vibration) and may result in or contribute to higher levels of vibration exposure.
- Immediately stop working if the machine suddenly starts to vibrate strongly. Before resuming the work, find and remove the cause of the increased vibrations.
- Never grab, hold or touch the inserted tool when using the machine.
- Participate in health surveillance or monitoring, medical exams and training programs offered by your employer and when required by law.
- When working in cold conditions wear warm clothing and keep hands warm and dry.
- The exhaust air is strongly chilled and shall not make contact with the operator. Always direct the exhaust air away from hands and body.

See the "Noise and vibration declaration statement" for the machine, including the declared vibration values. This information can be found at the end of these Safety and operating instructions.

- Comply with the recommended air-pressure when operating the machine. Either higher or lower air-pressure has the potential of resulting in higher levels of vibration.

DANGER

Electrical hazard.

The machine is not electrically insulated. If the machine comes into contact with electricity, serious injuries or death may result.

- Never operate the machine near any electric wire or other source of electricity.
- Make sure that there are no concealed wires or other sources of electricity in the working area.

WARNING

Concealed object hazard.

During operating, concealed wires and pipes constitute a danger that can result in serious injury.

- Check the composition of the material before operating.
- Watch out for concealed cables and pipes for example electricity, telephone, water, gas and sewage lines etc.
- If the inserted tool seems to have hit a concealed object, switch off the machine immediately.
- Make sure that there is no danger before continuing.

WARNING

Involuntary start.

Involuntary start of the machine may cause injury.

- Keep your hands away from the start and stop device until you are ready to start the machine.
- Learn how the machine is switched off in the event of an emergency.
- Release the start and stop device immediately in all cases of power supply interruption.
- Whenever fitting or removing the insertion tool, switch off the air supply, bleed the machine by pressing the start and stop device and disconnect the machine from the power source.

WARNING

Noise hazard.

High noise levels can cause permanent and disabling hearing loss and other problems such as tinnitus (ringing, buzzing, whistling, or humming in the ears). To reduce risks and prevent an unnecessary increase in noise levels:

- Risk assessment of these hazards and implementation of appropriate controls is essential.
- Operate and maintain the machine as recommended in these instructions.
- Select, maintain and replace the working tool as recommended in these instructions.
- If the machine has a silencer, check that it is in place and in good working condition.
- Always use hearing protection.
- Use damping material to prevent work pieces from 'ringing'.

Maintenance, precautions

WARNING

Machine modification.

Any machine modification may result in bodily injuries to yourself or others.

- Never modify the machine. Modified machines are not covered by warranty or product liability.
- Always use original parts, working tools and accessories approved by Epiroc.
- Change damaged parts immediately.
- Replace worn components in good time.

CAUTION

Hot insertion tool.

The tip of the insertion tool can become hot and sharp when used. Touching it can lead to burns and cuts.

- Never touch a hot or sharp insertion tool.
- Wait until the insertion tool has cooled down before carrying out maintenance work.

WARNING

Working tool hazards.

Accidental engagement of the start and stop device during maintenance or installation can cause serious injuries, when the power source is connected.

- Never inspect, clean, install, or remove the working tool while the power source is connected.

Storage, precautions

- Keep the machine and tools in a safe place, out of the reach of children and locked up.

WARNING

The machine should not be used in environment where there is a risk of explosions. Local regulations must be followed. The machine is not certificated according to ATEX requirements.

Scope of application

Hand held rock drill model Y26/Y19A is mainly used for drilling, secondary blasting and other work in mines, railway and water conservancy projects. It is designed for both dry and wet rock drilling on hard and medium hard rock, vertically downwards or inclined blast hole. For wet drilling, the water pipe nut must be replaced with the air pipe nut and the water pipe.

Specification

Pneumatic rock drill	Y19A	Y26	
Weight	19	26	kg
Dimension (L x W xH)	600x534x157	650x534x125	mm
Cylinder Diameter	65	65	mm
Piston Stroke	54	70	mm
Working Pressure	4-5	4-5	Bar
Impact Energy (at 5 bar (e))	≥40	≥48	J
Air Consumption (at 5 bar (e))	≤43	≤50	l/s
Impact Frequency (at 5 bar (e))	≥35	≥27	Hz
Water Pressure	Working Pressure -1	Working Pressure -1	Bar
Air Hose Inner Diameter	19	19	mm
Water Hose Inner Diameter	13	13	mm
Drilling Diameter	34-40	34-42	mm
Max Drilling Depth	5	5	m
Working Temperature	-30 to +50	-30 to +50	°C
Shank Size	Hex 22x108 mm	Hex 22x108 mm/ Hex 25x108 mm	mm

Safety instructions

To reduce the risk of serious injury or death to yourself or others, carefully read through this instruction booklet before putting the rock drill to use. Always follow the instructions given in this manual.

• Always wear a safety helmet, impact resistant eye protection with side protection and ear protectors during drilling. Any local regulations that exist must also be observed.

• When drilling in certain minerals, there is a risk of spark generation. Before starting work, check that the machine is approved (in accordance with local regulations) for work under such conditions.

• Always take great care when using the machine. The drill steel is subjected to heavy loading and can break, with a risk of injury to personnel.

• Check that the hoses used are of the right quality, and that all hose connections are in good condition and properly tightened.

• Before starting work on any of the systems, make sure that the air and water systems are un-pressurized.

• Make sure that there are no concealed wires or other sources of electricity.

• Never drill near any electric wires or other sources of electricity.

• Exposure to crystalline silica (sometimes called 'silica dust') as a result of drilling in rock may cause silicosis, cancer or death. To reduce silica exposure, use water flushing.

• Always make sure that main valve on the main hose is switched off when the rock drill is not in use. This is needed to avoid the risk of unintentional start of the machine.

• During drilling, stand firmly and always hold the machine with both hands. Do not hang or lean over the machine during operation, as there is a risk of injuries due to falling.

Always use PPE (Personal Protective Equipment) when operating the rock drill.

• A compressed air hose that comes loose can lash around and cause personal injury or death. Check that the compressed air connections are not damaged and that they are properly attached.

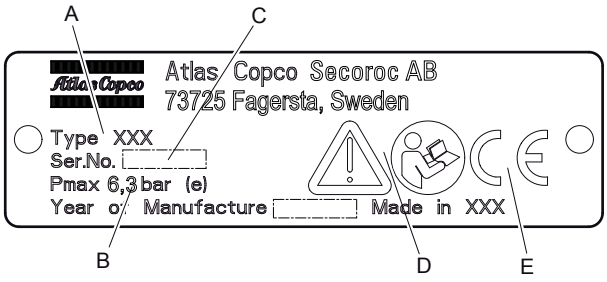
Overview

To reduce the risk of serious injury or death to yourself or others, read the Safety instructions section found on the previous pages of thismanual before operating the machine.

Labels

The machine is fitted with labels containing important information about personal safety and machine maintenance. The labels must be in such condition that they are easy to read. New labels can be ordered from the spare parts list.

Data plate



A. Machine type

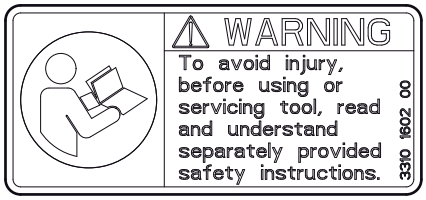
B. Maximum permitted compressed air pressure

C. Serial number

D. The warning symbol together with the book symbol means that the user must read the safety and operating instructions before the machine is used for the first time.

E. The CE symbol means that the machine is EC-approved. See the EC declaration which is delivered with the machine for more information. If the CE symbol is missing, it means that the machine is not EC-approved.

Safety label



To avoid injury, before using or servicing tool, read and understand separately provided safety instructions.

Operation

Using the rock drill for the first time

When the rock drill arrives from the factory, the inside of the tool is coated with heavy oil to prevent corrosion.

After unpacking and installing the tool, pour a small amount of lubrication oil into the air connection and operate the tool on partial throttle to clean the interior. Follow this immediately with a liberal amount of air tool oil.

The rock drill is lubricated with oil mixed with compressed air, which is taken to the parts that need continuous lubrication. Oil is metered into the compressed air from the lubricator located on top of the cylinder.

Preparations before starting

1. Check the drilling equipment

- Check that all of the drilling equipment is in good working order.
- Check that the impact surface of the drill steel shank is flat with no signs of wear.
- Make sure that the air inlet and exhaust ports are free from obstructions.
- Check that the flushing holes in the drill steel and drill bit are not blocked and that the flushing air/water flows through without obstruction.
- Ensure that the fittings are tight and leak-proof.

⚠ WARNING

A compressed air hose that comes loose can lash around and cause personal injury or death. Check that the compressed air connections are not damaged and that they are properly attached.

2. Blow out the air hose

Every day before using the drill, blow out the air hose to clear it from accumulated dirt and moisture.

3. Check the lubrication oil level

- Fill the lubricator (located on top of the cylinder) with oil if necessary. The rock drill is lubricated with oil mixed with compressed air, which is taken to the parts that need continuous lubrication. Oil is metered into the compressed air.
- Use Atlas Copco Rock Drill AIR-OIL as a lubricant.

Lubricant recommendation	
Use a mineral-based air tool oil	
Ambient temperature °C	Viscosity grade (ISO 3448)
-30 to 0	ISO VG 32-68
-10 to +20	ISO VG 68-100
+10 to +50	ISO VG 100-150

4. Air/water pressure and hose dimensions

Air pressure

Ensure that the compressor can deliver the required air pressure of 5 bar at the machine.

- High pressure (>6.3 bar) causes rough operation and damage.
- Low pressure (<4 bar) results in a slow drilling speed.

Water pressure

Set the water preassure to around 3 bar. Maximum water pressure is 1 bar less than the air pressure. For example if the air pressure is 5 bar, the water pressure must be below 4 bar to prevent water entering the impact mechanism.

Air hose dimensions

The air hose diameter must be no less than 25 mm. The inner diameter of connection nipples and hoses must be no less than 19 mm. The ideal overall air hose length is less than 30 m.

Water hose dimensions

The water hose inner diameter must be no less than ½".

5. Prevent freezing

In low ambient temperatures, ice can form in the machine. This can be avoided if the water in the compressed air is removed. This can be done by equipping the air lines with water separators and drainage points for water condensate.

If the rock drill ices up, it must not be heated to melt the ice. Let the ice thaw at room temperature.

Do not pour methylated spirits or similar substances into the rock drill, as they will interfere with the lubrication and lead to increased wear.

6. Conversion to water flushing

The Y26 is normally used for dry drilling. When wet drilling is required, remove the air pipe nut (spare parts list, No. 53). Replace it with the water pipe nut (spare parts list, No. 2) and the water pipe (spare parts list, No. 1). Connect the water hose to the water pipe and turn on the water supply.

Drill steel

⚠ WARNING

Ejected insertion tool.

If the tool retainer on the machine is not in a locked position, the inserted tool can be ejected with force, which can cause personal injury.

- Before changing the insertion tool, stop the machine, switch off the compressed air supply and bleed the machine by activating the start and stop device.

Before fitting the insertion tool

Check that the tool shank is of the correct size and length for the chuck used. The shank must be clean and the tool must be in good condition. Shanks which are chipped, rounded, out of square or too hard on the striking end will operate inefficiently and cause premature piston failure. Inspect the drill steel: A dull drill steel will slow down the drilling speed and overstrain the drill mechanism. When changing drill steel make sure that the new one is the correct size to follow your previous bore.

Before drilling, check that the flushing hole in the drill steel is not blocked.

- Remove sharp edges from the shank's end face. A rough shank surface will cause premature piston failure.
- Inspect the drill steel: A dull drill steel will slow down the drilling speed and overstrain the drill mechanism. When changing drill steel make sure that the new one is the correct size to follow your previous bore.

• Before drilling check that the flushing hole in the drill steel is not blocked.

⚠ CAUTION

Hot insertion tool.

The tip of the insertion tool can become hot and sharp when used. Touching it can lead to burns and cuts.

• Never touch a hot or sharp insertion tool.

• Wait until the insertion tool has cooled down before carrying out maintenance work.

Note: Never cool a hot insertion tool in water, it can result in brittleness and early failure.

Fitting the drill steel

Whenever fitting the drill steel the following instructions must be observed:

Fitting and removing the drill steel

Before fitting the drill steel

• Check that the drill steel shank is of the correct size and length for the chuck used.

• The shank must be clean and the drill steel must be in good condition.

• The suitable quenching hardness of the shank is HRC48-53. A harder end face will cause piston damage and breakage of the end face of the piston. If the shank face is too soft it will be easily deformed by the piston which will result in difficulty in removing the drill steel.

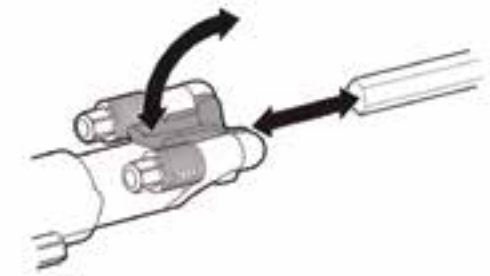
• The shank end face shall be flat and perpendicular to the axis.

Fitting the drill steel

1. Push the retainer outwards in the direction of the arrow (see picture below), until the front portion of the retainer is able to accommodate the drill steel collar.

2. Insert the drill in the chuck.

3. When the drill bottoms, push back the retainer to lock it.



Removing the drill steel

1. Push the retainer outwards in the direction of the arrow until the drill steel collar disengages from the front of the retainer.

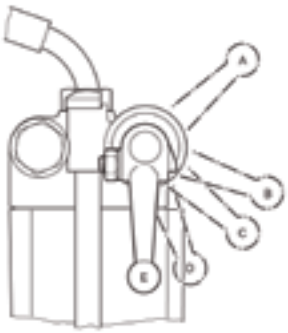
2. Pull the drill steel out.

3. Push back the retainer.

Controls

Throttle lever

The rock drill is equipped with a throttle lever for regulating the compressed air to the percussion mechanism.



A. Stop

B- Slight running

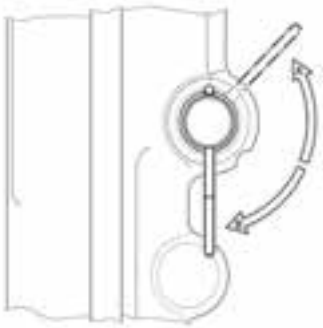
C. Low throttle

D. Medium throttle

E. Full throttle

Extra blowing lever

Start and stop extra blowing using the extra blowing lever. The lever has two positions:



A. Pulling the lever to this position will start extra blowing and stop the machine.

B. Pushing the lever to this position will stop extra blowing and start the machine

Operation

⚠ WARNING

Involuntary start.

Involuntary start of the machine may cause injury.

• Keep your hands away from the start and stop device until you are ready to start the machine.

• Learn how the machine is switched off in the event of an emergency.

• Stop the machine immediately in all cases of power supply interruption.

Drilling

Starting the rock drill

1. Open the main valve for compressed air.

2. Align the rock drill so that the drill steel touches the desired collaring point.

3. Move the throttle lever forward a little, which will start water flushing, percussion and rotation.

4. Collar the hole with reduced feed force.

5. Move the throttle lever fully forward once the drill steel has gained a secure footing in the rock.

The start-and-stop device of Pusher Leg Rock Drill Y26A can cause a risk of an unimtentional start. To reduce and avoid causing the risk of unintentional start, the control valve og inlet hose must be switched off while the rock drill is put aside for long time.

Note! Do not bend the drill steel as this will increase wear of the shank bushing and piston. Furthermore, it can also affect drilling efficiency and increase the risk of drill steel breakage.

Stopping the rock drill

Pull the throttle lever backwards, which will stop percussion, rotation and flushing water.

Checking the lubrication

The chuck and drill steel shank must always be covered by a film of oil.

Blow-cleaning the drill hole

⚠ DANGER

Whipping air hose.

A compressed air hose that comes loose can lash

around and cause personal injury or death

- Check that the compressed air hose and the connections are not damaged.
- Check that all compressed air connections are properly attached.

⚠ CAUTION

When blow-cleaning, particles and dirty flushing water can emerge at speed from the drill hole.

- Move to the side and cover your eyes before starting to blow-clean the drill hole.
- Always wear impact resistant eye protection with side protection to avoid injury.
- Make sure that no co-workers are in range when blow-cleaning.

If powerful blow-cleaning of the drill hole is required, turn the extra blowing lever fully backwards, whereupon the rock drill stops. This can be done during drilling. When the drill hole is clean, turn the extra blowing lever forwards again to re-start the rock drill.

When you have finished drilling

Run the rock drill at medium speed when retracting the drill steel from the drilled hole.

Lay down the rock drill on a stone, wooden plank or similar object, so as to prevent drill cuttings and other foreign matter from entering the chuck.

Turn off the water pressure before the air pressure. Run the rock drill for a few seconds to clean out water and moisture after the water has been shut off.

Always switch off the main control valve on the air inlet hose to prevent unintentional start of the rock drill.

Maintenance

Regular maintenance is a prerequisite for machine safety. Replace damaged and worn components in good time.

Check the machine and drill steel for wear and damage at regular intervals. Do not use a very worn or damaged drill steel.

When cleaning mechanical parts with a solvent, make sure that you comply with current health and safety regulations and ensure that there is sufficient ventilation.

Daily maintenance, regular checking of wearing parts and carrying out repairs in good time prevents breakdowns and increases the service life of the machine.

- Make sure that no foreign matter enters the machine.

Always hose down and wipe clean the rock drill after use.

Once a shift (after 8 hours of operation)

- Check the wear in the chuck bushing. If the wear limit has been exceeded, the drill steel shank will wear more quickly, or become deformed. This will lead to stoppages and increased drill steel consumption.
- Check the tightness of the side bolt nuts. (80 Nm)
- Check the hoses, couplings and controls for leakage and damage.
- Check that the rock drill is receiving enough lubrication. Fill the lubricator if necessary.
- Every day before using the drill, blow out the air hose to clear it from accumulated dirt and moisture.
- Drain the water separator (if one is used).
- Check the air and water pressure. Make sure that the water pressure is at least 1 bar lower than the air pressure.

Once a week (after 40 hours of operation)

Carry out a basic check of all functions of the drilling equipment.

Once a month (after 200 hours of operation)

- Send the rock drill to a workshop for inspection. The local operating conditions will determine whether or not this is a suitable interval for overhauling the drill.
- Clean out the water separator (if one is used)

Differences between original parts and pattern parts

When buying a part, the first thing to do is to verify that the part is an Epiroc part. Most parts can be identified.

Every day

Before undertaking any maintenance or changing the insertion tool on pneumatic machines, always switch off the air supply and bleed the machine by depressing the start and stop device then disconnect the air hose from the machine.

- Clean and inspect the machine and its functions each day before the work commences.
- Conduct a general inspection for leaks and damage.
- Check that the air inlet nipple is tightened and that the claw coupling is free from damage.
- Check the function of the throttle handle. Make sure that it moves freely up and down.

• Check the function of the retainer. Make sure that it locks the drill steel.

• Change damaged parts immediately.

• Replace worn components in good time.

• Check the through bolts of the machine. Make sure that they are tightened.

• If the machine is equipped with a silencer, check for damage.

Checking for wear

1. Check the wear in the chuck bushing using the Atlas Copco gauge 90002668 (22 mm), 90002669 (25 mm). If the wear limit has been exceeded, the drill steel shank will wear more quickly, or become deformed. This will lead to stoppages and increased drill-steel consumption.

2. Check the hoses, couplings and controls for leakage and damage.

3. Check that the rock drill is receiving enough lubrication. Fill the lubricator if necessary. Periodic maintenance After each operating period of approximately 100 working hours or three times a year the machine must be dismantled and all parts be cleaned and checked. This work must be performed by authorized staff, trained for this task.

Periodic maintenance

After each operating period of approximately 100 working hours or three times a year the machine must be dismantled and all parts be cleaned and checked. This work must be performed by authorized staff, trained for this task.

Selection of spare parts

Use only genuine parts for replacement, to ensure stable performance. Do not use pattern parts, which not only have a short working life but also cause consequential damage to other parts, due to differing measurements and methods of manufacturing.

Damage patterns

Worn or broken parts must always be studied carefully before they are replaced. They can give important information about the condition of the drill and about the way it is used and maintained.

Problem	Cause
Steel parts are a bluish colour	The parts have been subjected to excessive heat. This can be caused by insufficient lubrication or idling
Steel parts have small almost microscopic fissures on the wear surfaces	See above
Irregular cavities on the surface See above of bronze parts	See above
Cutting marks	Secondary damage
	Dirt inside the drill
	Interior misalignment due to uneven tension of the side bolts

Storage

• Always oil the rock drill before putting it into storage.

• Store the rock drill in a clean and dry place.

• In the case of long-term storage, pour a quantity of oil directly into the rock-drill's air intake and then turn on the air briefly. This will protect the machine from corrosion.

• Protect the chuck using a wooden plug or a clean piece of cotton waste.

Scrapping and waste disposal

Used and worn-out machines must be disposed of in such a way that as much of the material as possible can be recycled and the impact on the environment is kept to a minimum.

Noise and vibration declaration statement

Noise level is meassured according to ISO15744:2002. Vibration in handle is meassured according to ISO28927-10:2011. See table "Noise and vibration data" for the value.

These declared values were obtained by laboratory type testing in accordance with the stated directive or standards and are suitable for comparison with the declared values of other tools tested in accordance with the same directive or standards. These declared values are not suitable for use in risk assessments and values measured in individual work places may be higher. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, in what material the machine is used, as well as upon the exposure time and the physical condition of the user, and the condition of the machine. We, Epiroc Drilling Tools AB, cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a work place situation over which we have no control. This tool may cause hand-arm vibration syndrome if its use is not adequately managed. An EU guide to managing hand-arm vibration can be found at http://www.humanvibration.com/humanvibration/EU/VIBGUIDE.html We recommend a programme of health surveillance to detect early symptoms which may relate to vibration exposure, so that management procedures can be modified to help prevent future impairment.

Technical data

Parameter/Model	Y19A	Y26
Product nr	9600007	9600008
Product code	964G-0-3312300308	964H-0-3312300309
Weight (Kg)	19	26
Shank size (mm)	Hex 22	Hex 22 / 25
Piston stroke (mm)	54	70
Impact frequency (Hz) at 5 bar	≥35	≥27
Impact energy (J)	≥40	≥48
Air consumption (l/s)	≤43	≤50

Noise and vibration data

Machine	Noise	Vibration
Y 19 A	102 dB(A)	4,3 m/s2
Y 26	103 dB(A)	4,0 m/s2

EC Declaration of Conformity (EC Directive 2006/42/EC)

We, Epiroc Drilling Tools AB,hereby declare that the machines listed below conform to the provisions of EC Directive 2006/42/EC (MachineryDirective), and the harmonised standards mentioned below.

Rock Drills	Part number	Pmax (bar)
Y19A	9600007	6.3
Y26	9600008	6.3

Following harmonised standards were applied:

- EN ISO 11148-5

Technical Documentation authorised representative:

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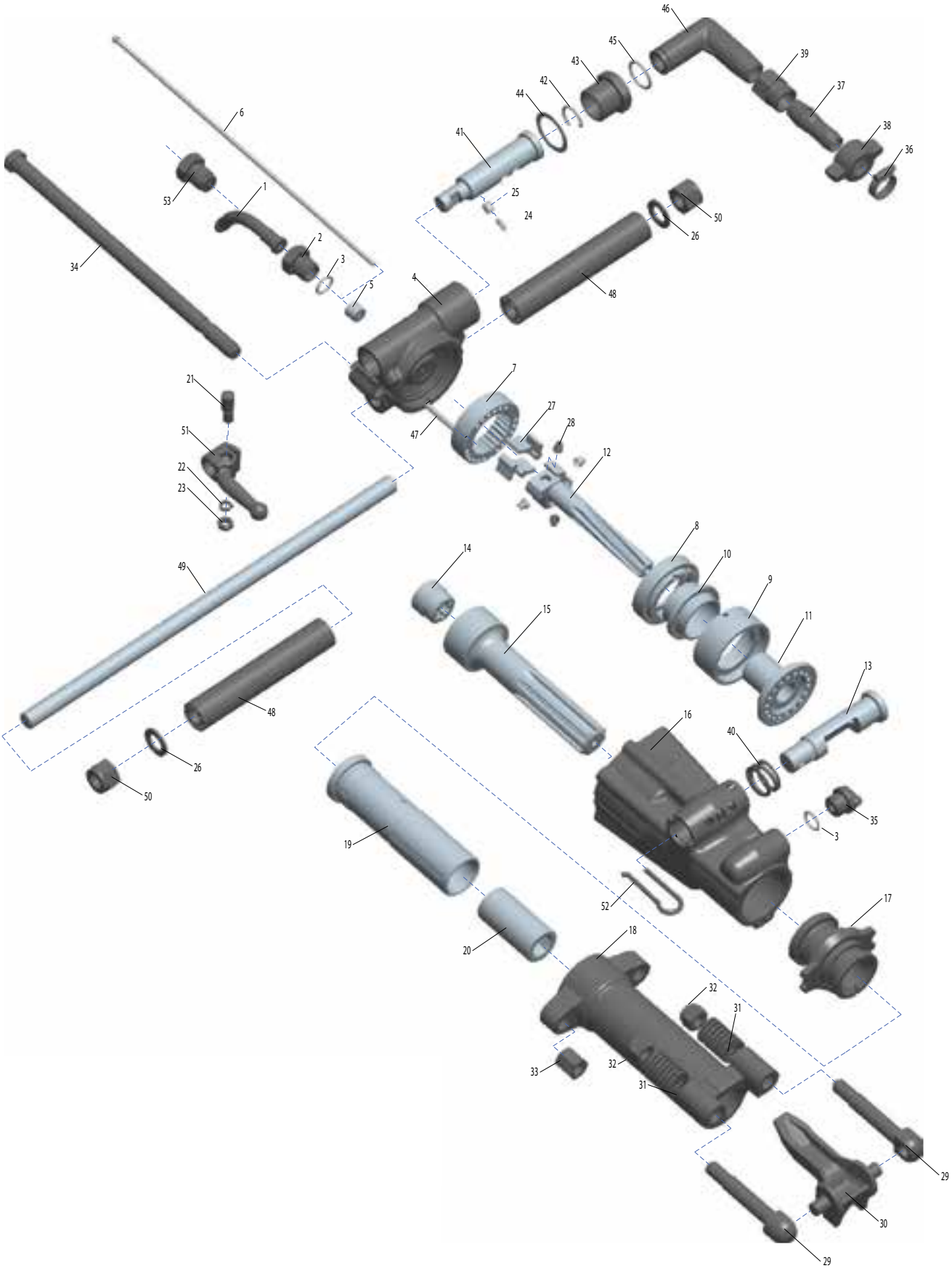
Trouble shooting

Problem	Cause	Solution
Decreased penetration rate	Air leakage in hoses, couplings	Change packings, and where required, change parts in the throttle valve
	Shank sleeve	Check the shank sleeve for excessive wear. Replace if necessary.
	Air leakage due to worn piston/cylinder	Replace the piston and/or cylinder
	Air leakage due to worn guide sleeve/pilot guide	Change the worn part
Poor rotation	Splines of the rifle nut worn	Replace the rifle nut if the splines are worn
	Splines of the rifle bar worn down	Replace the rifle bar when needed
	Splines on the piston worn down	Replace the piston when needed
	The toothing in the ratchet housing is worn out	Replace the ratchet housing if the tooth housing is so worn that the pawls have difficulty catching
	The toothing in the ratchet wheel is worn out	Replace the ratchet wheel if the toothing is so worn that the pawls have difficulty catching
	Chuck nut worn out	Replace the chuck nut if the splines have been worn to 1/2 of the spline width
	Pawls worn	Replace all pawls, all pawl springs and all pawl pins
Uneven running	Piston has seized in the guide sleeve or the piston guide	Replace the guide sleeve/piston guide. If required, polish the piston. Check the piston for heat damage such as blue colouring and/or fissures. If it is damaged in this way, replace the piston as well
	Dirty or damaged main valve. Caused by impurities or foreign matter entering the drill with the compressed air	Clean and polish the valve so that it seals against the corresponding cylindrical and plane sealing surfaces. If this is not possible because the defects are too serious, the valve must be replaced
	Freezing. Caused by leakage in the flushing system or by excess water in the compressed air or by excessive water pressure	Check the flushing tubes and seals and the water pressure. Drain water from the compressed air system. If the problem continues, fit a water separator in the airline system.
Uneven running (continued)	The side bolts are unevenly or insufficiently tightened. Can cause the various parts to lose their alignment, resulting in the seizure of the movable parts. Abnormal strains on the side bolt may result in fracture at the threads.	Check and repair any damage to the contact points and tighten the bolts with the correct tightening torque
The drill gets hot	Lack of oil	Add oil and check that it runs through. It is not sufficient that there is oil in the exhaust air. There must also be an oil coating on the shank of the drill steel.
Freezing	High level of humidity in the compressed air	Use water traps
	Water pressure higher than the air pressure	Lower the water pressure
Water pipe breakage	Misalignment of the shank	Change drill steel or shank sleeve or both
	Damaged flushing hole in the shank	Change drill steel
Chipping of the piston tip	Misalignment of the shank	Change the drill steel or shank sleeve or both
	Excessive wear of the piston tip	Change piston
Spline breakage	Lack of lubrication	Lower the water pressure if it is the same as or greater than the air pressure
		Increase lubrication or change oil
	Dirt intrusion (specially when drilling upwards)	Increase service intervals
Piston breakage	Lack of lubrication	Lower the water pressure if it is the same as or greater than the air pressure
		Increase lubrication or change oil
	Uneven tension in the side bolts	Tighten the bolts correctly
	Worn guide sleeve/piston guide (can be confirmed by the cushion test)	Change the worn part
Side bolt breakage	Uneven tension on the bolts	Tighten the bolts correctly

Secoroc Y26

Pneumatic rock drill

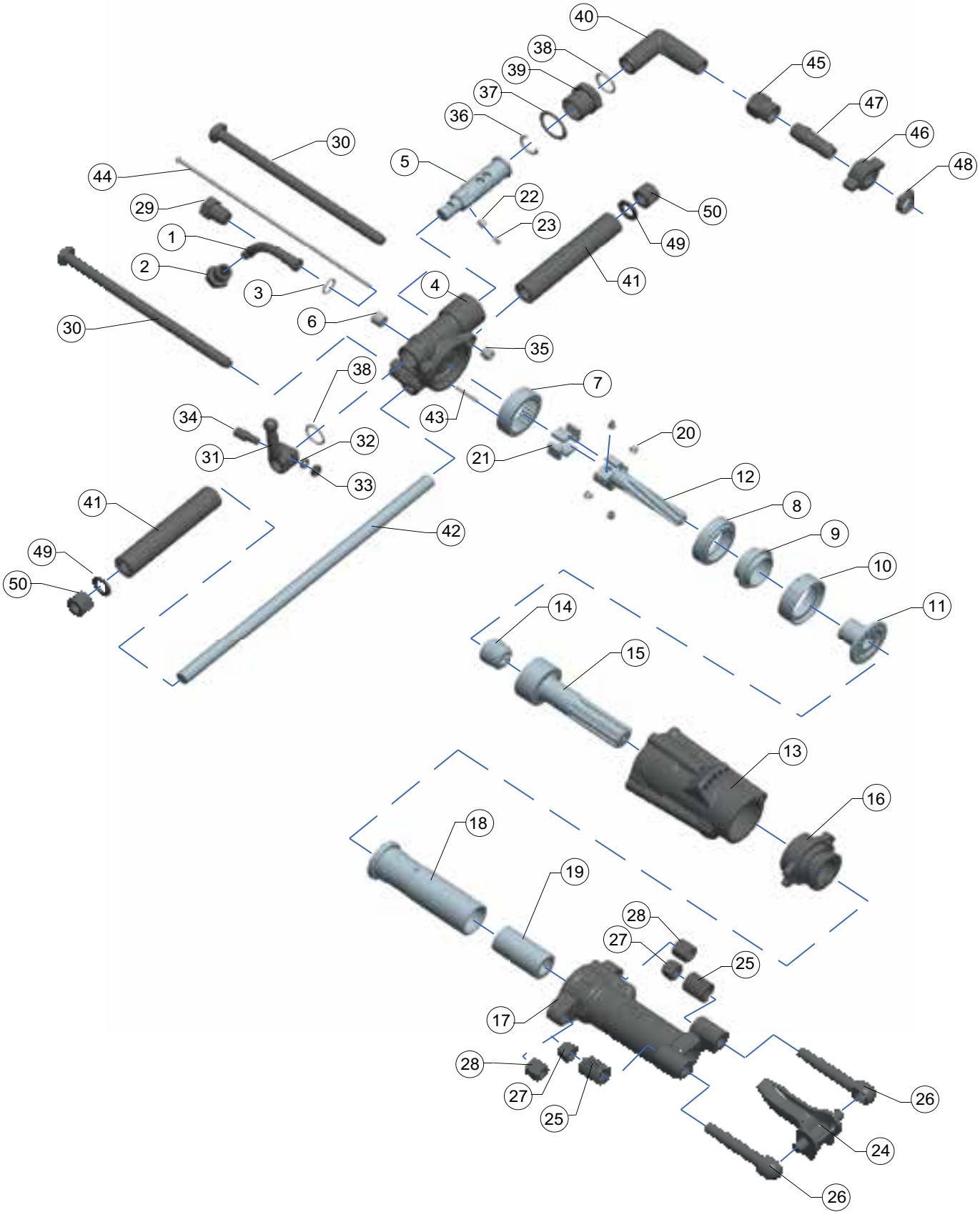


Ref.	Description	Qty	Prod. No.	Product code
1	Water pipe	1	96000216	964H-1-3312310211
2	Water pipe nut	1	96000215	964H-1-3312310210
3	O ring	2	96000502	9605-1-3312310671
4	Back head	1	96000213	964H-1-3312310208
5	Water tube bush	1	96000822	9600-1-3312310019
6	Water/air tube	1	96000217	964H-1-3312310212
7	Ratchet	1	96000805	9600-1-3312310000
8	Valve cover	1	96000197	964H-1-3312310192
9	Valve chest	1	96000198	964H-1-3312310193
10	Valve	1	96000199	964H-1-3312310194
11	Valve sleeve	1	96000200	964H-1-3312310195
12	Rifle bar	1	96000203	964H-1-3312310198
13	Open-close valve	1	96000201	964H-1-3312310196
14	Rifle nut	1	96000814	9600-1-3312310009
15	Piston	1	96000204	964H-1-3312310199
16	Cylinder	1	96000205	964H-1-3312310200
17	Guide sleeve	1	96000206	964H-1-3312310201
18	Front head	1	96000209	964H-1-3312310204
19	Rotation sleeve	1	96000210	964H-1-3312310205
20	Shank bushing (H22)	1	96000168	9605-1-3312310157
20	Shank bushing (H25)	1	96000211	964H-1-3312310206
21	Lock pin	1	96000177	9605-1-3312310167
22	Spring washer	1	96000534	9605-1-3312310716
23	Hexagon thin nut	1	96000524	9605-1-3312310704
24	Spring	1	96000179	9605-1-3312310169
25	Check pin	1	96000180	9605-1-3312310170
26	Small washer	2	96000526	964H-1-3312310706

Ref.	Description	Qty	Prod. No.	Product code
27	Ratchet pawl	4	96000166	9605-1-3312310155
28	Conical spring	4	96000167	9605-1-3312310156
29	Retainer bolt	2	96000817	964H-1-3312310012
30	Retainer	1	96000212	964H-1-3312310207
31	Retainer spring	2	96000818	9600-1-3312310013
32	Hexagon lock nut	2	96000531	9605-1-3312310713
33	Hexagon thick nut	2	96000518	9605-1-3312310697
34	Side bolt	2	96000224	964H-1-3312310221
35	Oil plug	1	96000208	964H-1-3312310203
36	Hoop	1	96000539	9605-1-3312310722
37	Conical hose nipple	1	96000222	9605-1-3312310219
38	Wing nut	1	96000221	9605-1-3312310218
39	Pipe sleeve	1	96000223	9605-1-3312310220
40	Spring	1	96000202	964H-1-3312310197
41	Control valve	1	96000220	964H-1-3312310217
42	Retaining ring	1	96000182	9605-1-3312310172
43	Air pipe nut	1	96000823	9600-1-3312310020
44	Pad	1	96000174	9605-1-3312310164
45	Ring seal	2	96000486	9605-1-3312310633
46	Air pipe swivel	1	96000825	9600-1-3312310022
47	Lock pin	1	96000135	9603-1-3312310123
48	Rubber handle	2	96000218	964H-1-3312310213
49	Handle bolt	1	96000219	964H-1-3312310215
50	Hexagon lock nut	1	96000532	964H-1-3312310714
51	Control handle	1	96000307	962A-1-3312310313
52	Open-close handle	1	96000207	964H-1-3312310202
53	Air pipe nut	1	96000214	964H-1-3312310209

Secoroc Y19A

Pneumatic rock drill



Ref.	Description	Qty	Prod. No.	Product code
1	Water pipe	1	96000216	964H-1-3312310211
2	Water pipe nut	1	96000215	964H-1-3312310210
3	O ring	1	96000502	9605-1-3312310671
4	Back head	1	96000228	964G-1-3312310225
5	Operating valve	1	96000229	964G-1-3312310226
6	Water tube bush	1	96000822	9600-1-3312310019
7	Ratchet	1	96000230	9605-1-3312310627
8	Valve cover	1	96000231	964G-1-3312310228
9	Valve	1	96000232	964G-1-3312310229
10	Valve chest	1	96000233	964G-1-3312310230
11	Valve sleeve	1	96000234	964G-1-3312310231
12	Rifle bar	1	96000235	964G-1-3312310232
13	Cylinder	1	96000227	964G-1-3312310224
14	Rifle nut	1	96000236	964G-1-3312310233
15	Piston	1	96000225	964G-1-3312310222
16	Guiding sleeve	1	96000237	964G-1-3312310234
17	Front head	1	96000226	964G-1-3312310223
18	Rotation sleeve	1	96000816	9600-1-3312310011
19	Shank bushing	1	96000168	9605-1-3312310157
20	Conical spring	4	96000167	9605-1-3312310156
21	Ratchet pawl	4	96000166	9605-1-3312310155
22	Dowel pin	1	96000180	9605-1-3312310170
23	Spring	1	96000179	9605-1-3312310169
24	Drill retainer	1	96000635	9600-1-3312311821
25	Drill retainer spring	2	96000818	9600-1-3312310013

Ref.	Description	Qty	Prod. No.	Product code
26	Drill retainer bolt	2	96000634	9600-1-3312311820
27	Nut	2	96000531	9605-1-3312310713
28	Hexagon thick nut	2	96000518	9605-1-3312310697
29	Air pipe nut	1	96000214	964H-1-3312310209
30	Side bolt	2	96000238	964G-1-3312310235
31	Control handle	1	96000307	962A-1-3312310313
32	Pad	1	96000534	9605-1-3312310716
33	Hexagon thin nut	1	96000524	9605-1-3312310704
34	Fixing pin	1	96000177	9605-1-3312310167
35	Big sealing sleeve	1	96000544	9605-1-3312310727
36	Retaining ring	1	96000182	9605-1-3312310172
37	Pad	1	96000174	9605-1-3312310164
38	Ring seal	2	96000486	9605-1-3312310633
39	Air pipe nut	1	96000823	9600-1-3312310020
40	Air pipe swivel	1	96000825	9600-1-3312310022
41	Rubber handle	2	96000218	964H-1-3312310213
42	Handle rod	1	96000219	964H-1-3312310215
43	Dowel pin	1	96000239	964G-1-3312310236
44	Water tube	1	96000821	9600-1-3312310018
45	Pipe connector	1	96000223	9605-1-3312310220
46	Wing nut	1	96000221	9605-1-3312310218
47	Conical hose nipple	1	96000222	9605-1-3312310219
48	Hoop	1	96000539	9605-1-3312310722
49	Washer	2	96000526	964H-1-3312310706
50	Lock nut	2	96000532	964H-1-3312310714

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