

Secoroc Rock Drilling Tools

Secoroc FT Series Pusher Leg

Secoroc FT 160BC Pusher leg

Operator's instructions / Spare parts list

Foreword

Thank you for selecting the Secoroc pusher leg FT160BC/BD.

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 correct maintenance of the breaker.

Table of Contents

Scope of application	4
Specification	4
Safety instructions	4
Operation	5
Attaching the pusher leg to the rock drill	5
Controls	5
Throttle lever	5
Feed control	6
Trigger	6
Drilling	7
Starting the rock drill	7
Stopping the rock drill	7
Re-positioning the pusher leg	7
Trouble shooting	8
Spare parts list and exploded drawing	9

Scope of application

Secoroc FT series pusher legs are light weight, are easy to handle and to connect and are powered directly from the rock drill. The pusher legs are available in different lengths and with different extensions to achieve the required reach. They also come with a variety of tube diameters for different feed forces to suit various rock drills as well as different rock formations.

The FT160C and the FT170 have extra extensions for higher reach. The FT170 features an extra strong leg which provides additional feed force. The FT160B features a powerful leg, designed for small drifting purposes.

Specification

Product name	Weight (kg)	Length retracted (mm)	Length extended (mm)	Feeding length (mm)	Piston bore (mm)	Suitable rock drill	Article number
FT160BC	16.9	1800	3165	1365	65	YT28	3312 3006 19
FT160BD	14.4	1400	2365	965	65	YT28	3312 3006 20

Safety instructions

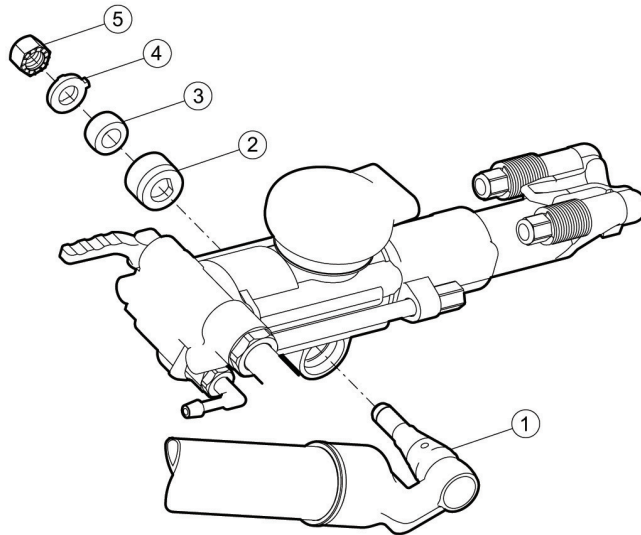
To reduce the risk of serious injury or death to yourself or others, carefully read through this instruction booklet before putting the pusher leg to use. Always follow the instructions given.

- Always wear a safety helmet, goggles 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 working tool 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 without pressure.
- Make sure that there are no concealed wires or other sources of electricity. Never drill near any electric wires or other sources of electricity.

Operation

Attaching the pusher leg to the rock drill

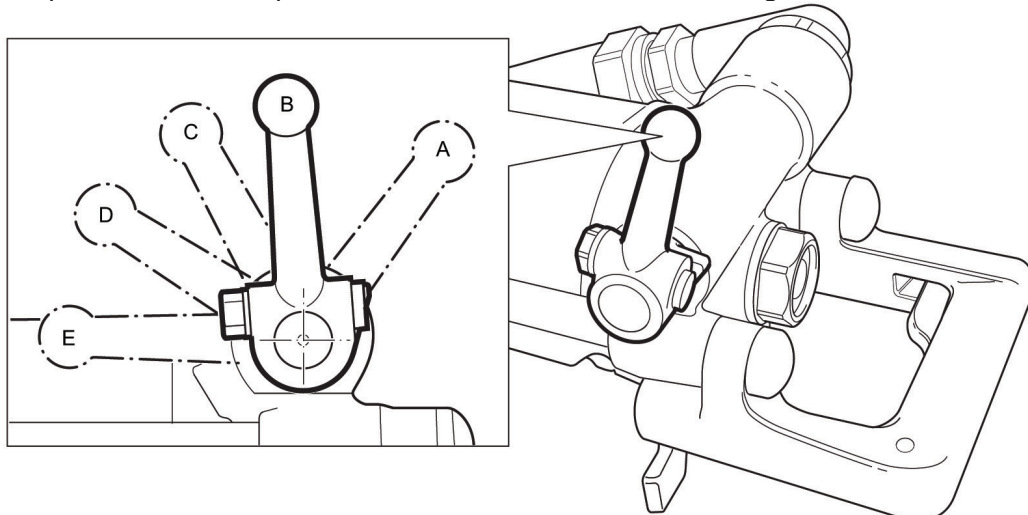
- Mount the pusher leg (1), lock sleeve (2), rubber pad (3), washer (4) and locking nut (5) in the order shown in the picture below.
- Turn the locking nut clockwise with a wrench until you hear a "click".



Controls

Throttle lever

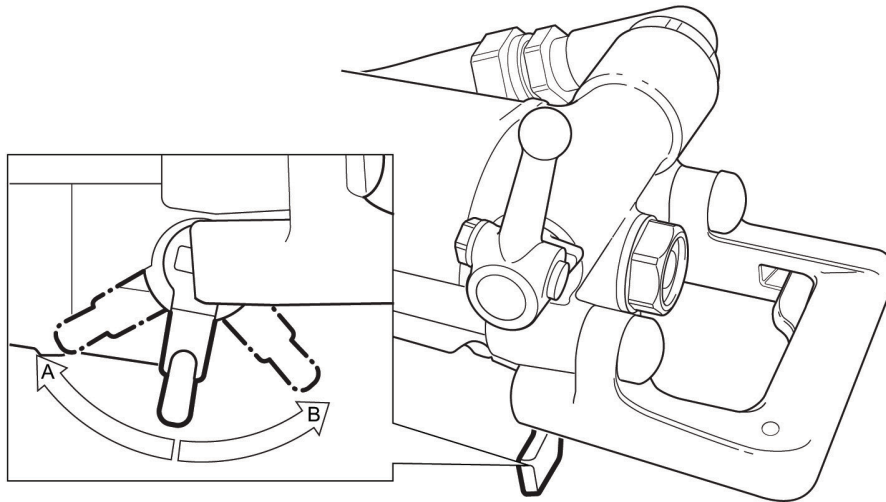
The rock drill is equipped with a throttle lever for regulating both the compressed air to the percussion mechanism and the flushing water.



- A. Extra blowing, water flushing off, impact and rotation off.
- B. Stop position, air and water off
- C. Low throttle, air to pusher leg, water flushing
- D. Medium throttle
- E. Full throttle

Feed control

Adjust the feed force by means of the feed control lever as follows:

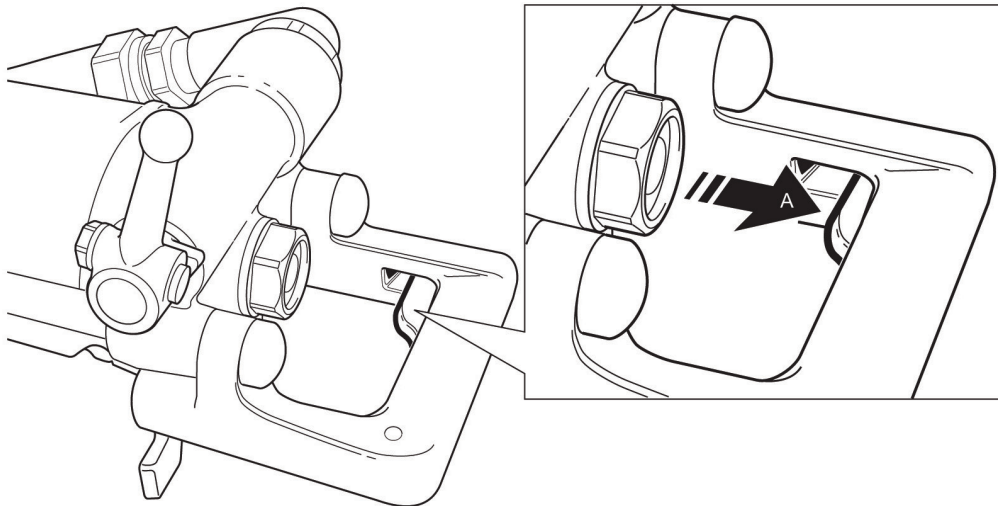


A. Pushing the lever in this direction will increase feed force.

B. Pulling the lever in this direction will decrease feed force

Trigger

When the trigger (A) is pushed in, the feed force stops abruptly and the setting on the feed control lever is overridden. The piston rod in the pusher leg retracts automatically. This function is used for example to adjust the height of the rock drill, when rigging up the pusher leg, or when there is a tendency to jam. When the trigger is released, the feed control setting is activated again.



Drilling

Starting the rock drill

1. Open the main valve for compressed air.
2. Open the cock for the flushing water.
3. Adjust the feed control lever to give a suitable feed force for collaring the hole.
4. Align the rock drill so that the working tool touches the desired collaring point.
5. Move the throttle lever forward a little, which will start water flushing, percussion and rotation.
6. Collar the hole with reduced feed force.
7. Move the throttle lever fully forward once the working tool has gained a secure footing in the rock.
8. Adjust the feed force by means of the control lever so that the maximum penetration rate is obtained.

Stopping the rock drill

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

Re-positioning the pusher leg

1. Switch off the rock-drill percussion and flushing by means of the throttle lever.
2. Press the trigger, whereupon the piston rod is pulled back into the pusher-leg cylinder automatically.
3. Re-position the pusher leg.
4. Release the trigger, whereupon the piston rod will move outwards again.
5. Move the throttle lever forward into the working position.

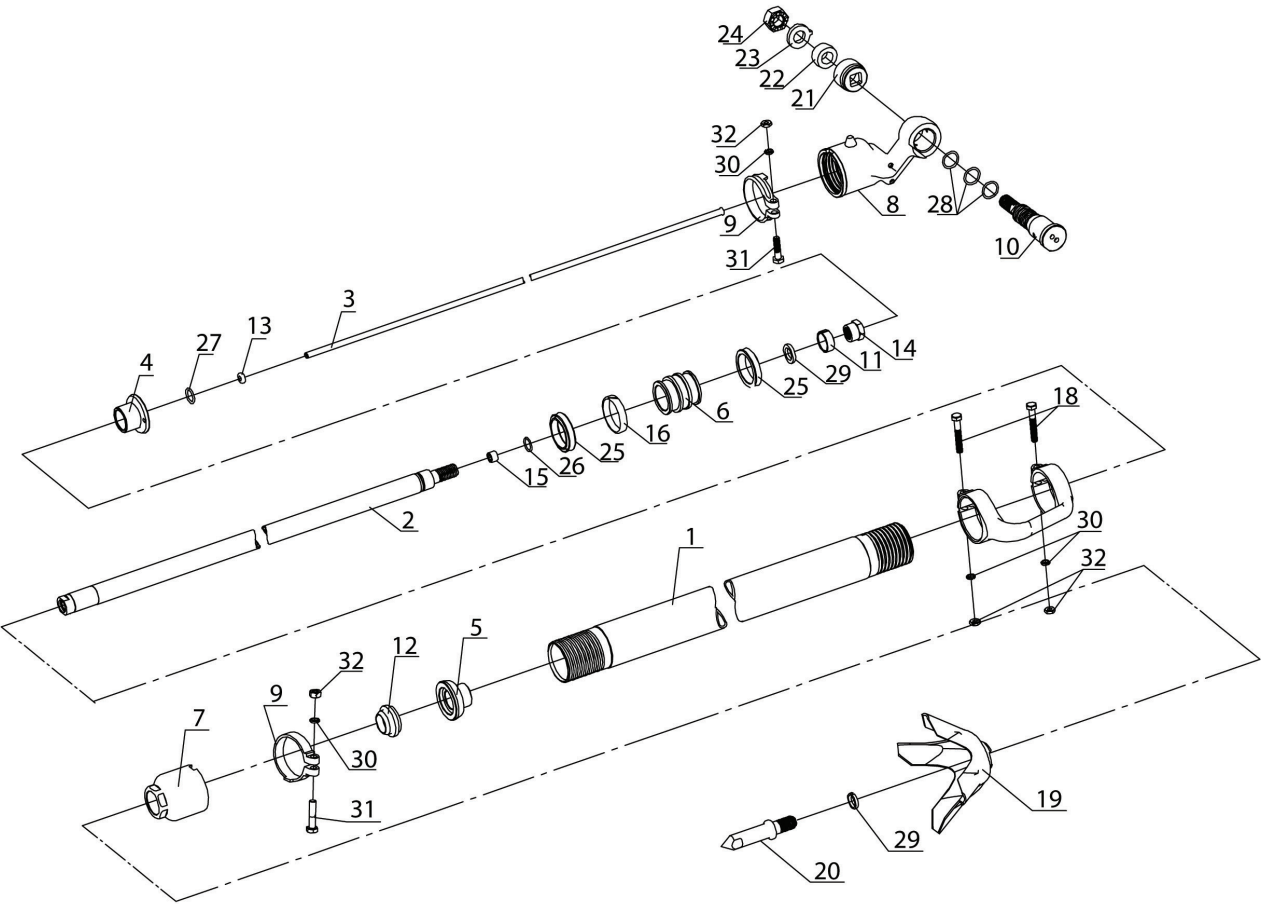
Note! The feed control lever does not need to be touched throughout this operation.

Trouble shooting

Low penetration rate may be caused by insufficient feed force from the pusher leg, check the following points:

- Increase the angle between pusher leg and drilling surface.
- Ring in cross arm wears out; seals between cylinder and back head are worn out. Replace defective seals.
- Loose connection between frame body and outer pipe; lose or defective seal pad at the end of air tube and double YX seals, replace seals.
- Trigger on back head and change over valve are blocked, repair.

Spare parts list and exploded drawing



No.	Description	Quantity	Product no.	Product code
1	Outer pipe	1	96000717	9618-1-3312312308
2	Push pipe	1	96000719	9618-1-3312312310
3	Air inlet pipe	1	96000726	9618-1-3312312317
4	Frame body pad	1	96000718	9618-1-3312312309
5	Guiding sleeve	1	96000720	9618-1-3312312311
6	Piston	1	96000721	9618-1-3312312312
7	Lower pipe seat	1	96000722	9618-1-3312312313
8	Frame body	1	96000723	9618-1-3312312314
9	Lock ring	2	96000724	9618-1-3312312315
10	Connector arm	1	96000725	9618-1-3312312316
11	Elastic ring	1	96000727	9618-1-3312312318
12	Dust cap	1	96000357	9616-1-3312310387
13	Pipe pad	1	96000728	9618-1-3312312319
14	Hex-nut	1	96000729	9618-1-3312312320
15	Seal bushing	1	96000348	9618-1-3312310359
16	Supporting ring	1	96000334	9616-1-3312310345
17	Lifting handle	1	96000344	9616-1-3312310355
18	Hex head bolt	2	96000521	9616-1-3312310700
19	Sprag weldment	1	96000351	9616-1-3312310370
20	Center	1	96000352	9616-1-3312310371
21	Lock ring	1	96000730	9618-1-3312312321
22	Ring seal	1	96000329	9616-1-3312310340
23	Locking pad	1	96000353	9616-1-3312310383
24	Hex-nut	1	96000354	9616-1-3312310384
25	Yx-seal ring	2	96000335	9616-1-3312310346
26	Ring seal	1	96000504	9616-1-3312310674
27	Ring seal	1	96000731	9616-1-3312312322
28	Ring seal	3	96000507	9616-1-3312310677
29	Spring washer	2	96000535	9616-1-3312310718
30	Spring washer	4	96000534	9605-1-3312310716
31	Hex-head bolt	2	96000519	9616-1-3312310698
32	Hexagon thin nut	4	96000524	9605-1-3312310704



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