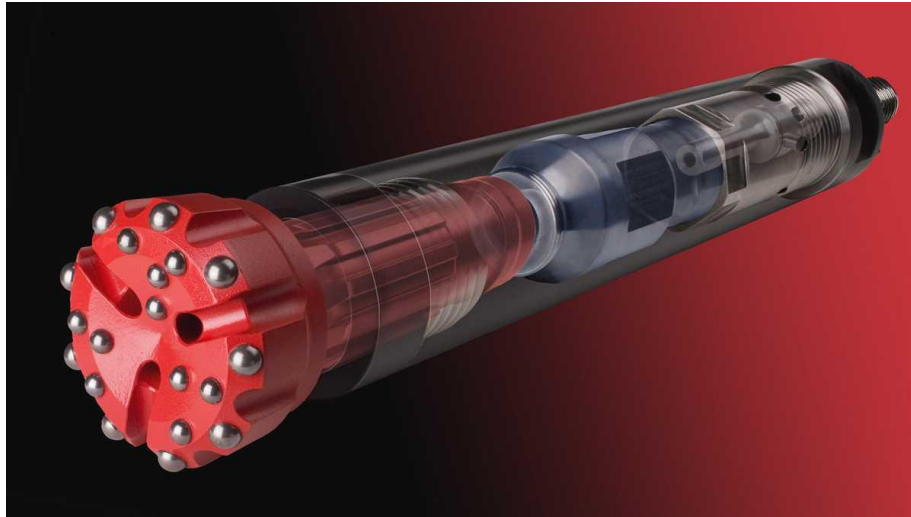




# ROK SERIES & ROK T SERIES DTH HAMMER

## OPERATION & SERVICE GUIDE



*Patented SonicFlow Technology*



**R O C K M O R E**  
**I N T E R N A T I O N A L**

*Rock Drilling Tools*

Mining • Construction • Quarrying • Water-well • Geothermal

For all your rock drilling tool needs contact  
**ROCKMORE INTERNATIONAL**



USA

Phone: 503-682-1001  
Fax: 503-682-1002  
E-mail: [info@rockmore-intl.com](mailto:info@rockmore-intl.com)

10065 SW Commerce Circle  
Wilsonville, OR 97070, USA

AUSTRIA

Phone: 43-3572-86300  
Fax: 43-3572-84179  
E-mail: [austria@rockmore-intl.at](mailto:austria@rockmore-intl.at)

Collini - Strasse 2  
A-8750 Judenburg, Austria



[www.rockmore-intl.com](http://www.rockmore-intl.com)

# ROK SERIES & ROK T SERIES DTH HAMMER

## OPERATION & SERVICE GUIDE

TABLE OF CONTENTS .....	PAGE
1 – Introduction .....	1
1.1 – ROK T Series High-Performance DTH hammers ..... <span style="border: 1px solid black; padding: 0 2px;">X TUBELESS X</span> .....	2
2 – Operation .....	3
2.1 – Initial Hammer Inspection .....	3
2.2 – Initiating the ROK & ROK T Hammers.....	3
2.3 – Adjustable Choke System.....	4
3 – Hammer Maintenance .....	4
3.1 – Lubrication .....	4
3.2 – Contamination .....	5
3.3 – Corrosion .....	5
4 – Servicing .....	5
4.1 – Disassembly .....	5
4.2 – Clamp Zone .....	6
4.3 – Routine Inspection .....	7
4.4 – Wear Limits Table.....	8
4.5 – Assembly .....	11
5 – ROK Series & ROK T Series Hammer Parts List .....	11
6 – ROK Series & ROK T Series Hammer Technical Data Table .....	12
7 – Safety .....	15
8 – Warranty.....	15

**Rockmore International, Inc.**  
 10065 SW Commerce Circle  
 Wilsonville, OR 97070  
 USA

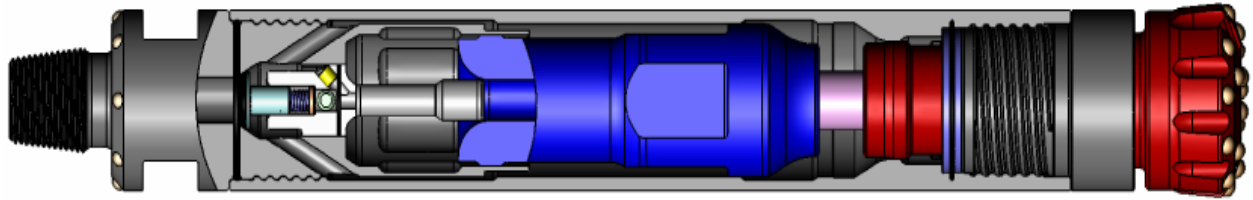
Phone: +1-503-682-1001  
 Fax: +1-503-682-1002  
 Email: [info@rockmore-intl.com](mailto:info@rockmore-intl.com)

**Rockmore International GmbH**  
 Collini – Strasse 2  
 A-8750 Judenburg  
 Austria

Phone: +43 3572 86 300-0  
 Fax: +43 3572 84 179  
 Email: [austria@rockmore-intl.at](mailto:austria@rockmore-intl.at)

[www.rockmore-intl.com](http://www.rockmore-intl.com)

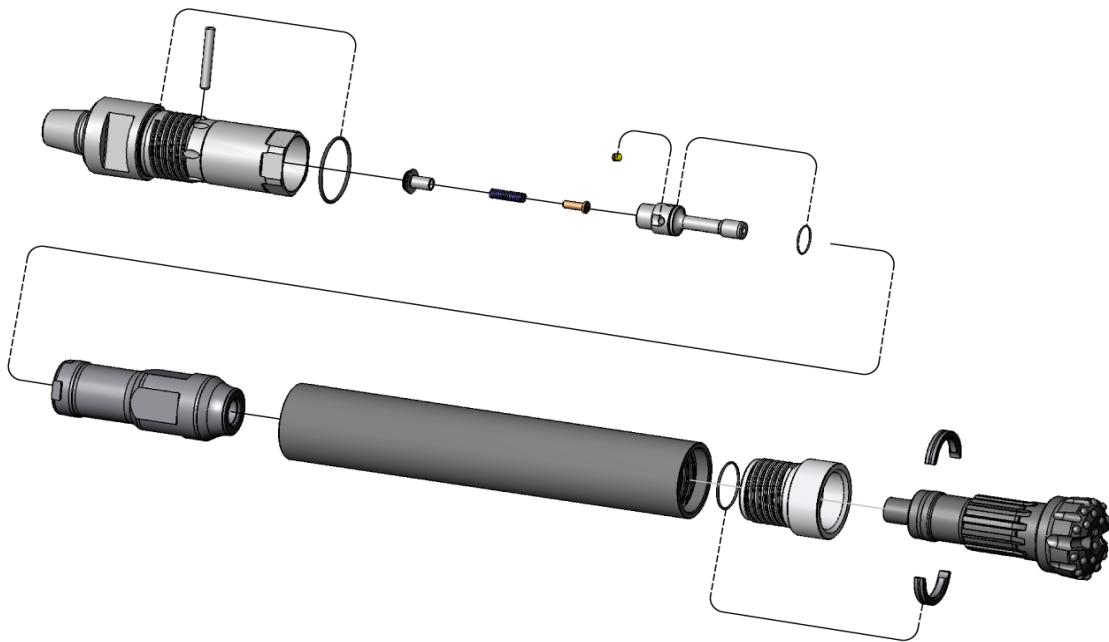




## **1. INTRODUCTION:**

### **ROK Series and ROK T Series High-Performance DTH Hammers**

Optimal energy transfer is essential to DTH drilling efficiency – how much compressed air power is delivered to the bit. That's why we've revolutionized airflow management in the new ROK series and ROK T series high performance DTH hammers. Our patented SonicFlow technology minimizes back flow and turbulence, enabling the Piston to hit the bit harder and with greater frequency. That means increased efficiency, more power, and faster penetration. And streamlined design means fewer parts and easier maintenance. So, for greater productivity get ready to ROK!

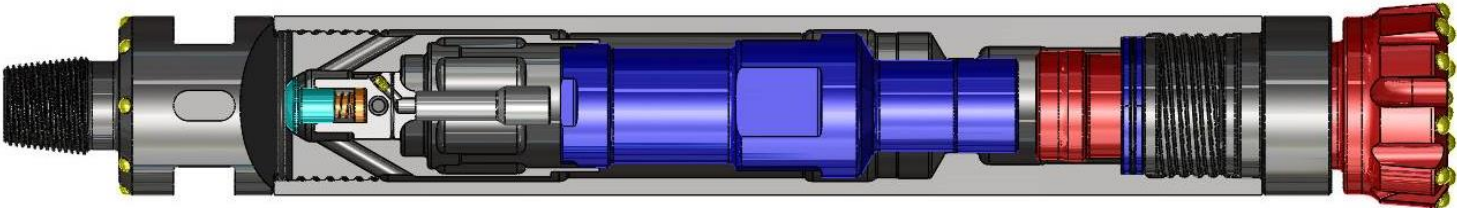


**1.1 – ROK T Series High-Performance DTH Hammers**

The same benefits of the ROK series hammers have also been incorporated into our ROK T Series hammers. The ROK T series high-performance DTH hammers have eliminated the need for plastic blow tubes / foot valves in the DTH bit while retaining industry standard shanks and superior performance. (Blow tubes / foot valves should be removed from the DTH bit, **not cut or broken** off.)



Do not use plastic blow tubes / foot valves with the ROK T Series hammers. Blow tubes / foot valves should be removed from the DTH bit, **not cut or broken** off. Failure to do so will damage the hammer and void all warranties.



## **2. OPERATION:**

### **2.1 – Initial Hammer Inspection**

All ROK and ROK T hammers are factory tested to ensure each hammer operates correctly at delivery. Upon delivery, inspect the contents in the crate to make sure you have ordered the correct ROK series or ROK T Series DTH hammer.

- Please take notice of the serial number stamped in the key flats on the Top Sub. Any service or warranty issue will require this serial number in order to start our warranty procedure.



### **2.2 – Initiating the ROK & ROK T Hammers**

We recommend using DTH bits in good condition. Avoid using DTH bits that are overrun, as this will alter your drilling penetration rates and can cause premature wear on various components of the hammer. (When using a **ROK T** hammer it is important to **REMOVE** the blow tube/foot valve. Sawing the blow tube / foot valve off is not recommended and can cause damage to the hammer or at the very least reduce performance.)

Inspect threads of the drill pipe and ROCKMORE Top Sub to ensure proper fit between the two components. Apply thread grease to the threads prior to fitting the hammer onto the drill pipe in order to avoid any galling or corrosion in this area. While fitting the hammer onto the drill pipe, it is important to avoid debris, dirt, or dust. This type of contamination can weaken the thread connection and thus alter drilling performance.

It is important to apply thread grease to the Top Sub and Driver Sub threads to allow for easier disassembly of the hammer. Thread grease should be reapplied to the Driver Sub threads at every bit change. ROCKMORE also suggests that the Top Sub & Driver Sub be torqued to 750-1000 ft-lb per inch (40.5 – 54 N-m per mm) of hammer diameter (see Clamp Zone section on page 6 before torquing).

Our hammers are stocked and shipped with an adequate supply of rock drill oil. Prior to starting the hammer, it is crucial to add additional rock drill oil through the Top Sub. When adding oil, the hammer should be held upright so that the oil can lubricate all internal components. Please reference section 3.1 below for minimum amounts of rock drill oil required for all ROK Series and ROK T Series DTH Hammers.

The percussive mechanism begins to operate as the air supply is turned on and when the drill bit is pushed firmly into the hammer. Excessive pressure is not needed to initiate the hammer. Rotate the hammer clockwise at approximately 30-rpm. The DTH bit will now push into the Driver Sub and percussive action begins. When the hammer is lifted from the rock face, the DTH bit extends from the Driver Sub and percussive action ceases. Extra air will pass through the hammer, which can be used to flush the hole clean. By adjusting airflow, air pressure, feed force, and rotation the optimal penetration rates and productivity can be achieved.

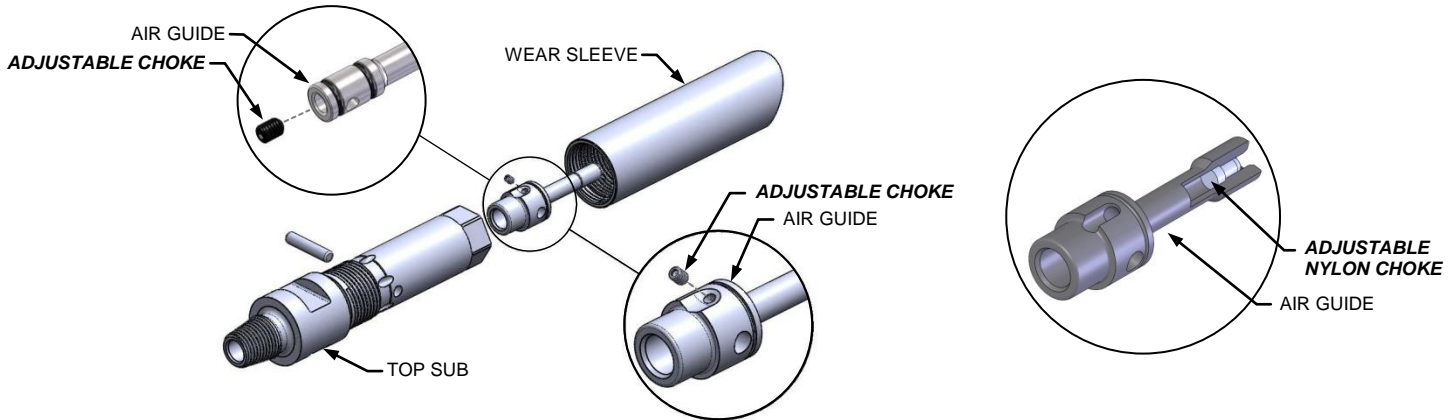
Rotation speed should be selected according to drilling conditions and drill rig capabilities. Please be aware that excessive rotation may result in premature wear on the drill bit and not better penetration rates.



## 2.3 – Adjustable Choke System

Our ROK Series and ROK T Series DTH hammers are equipped with an adjustable Choke system, which allows you to adjust the volume of air that is used to power the Piston. After disassembling the Top Sub, remove the Air Guide in order to access the Choke.

Different size holes can be drilled into the steel or nylon Chokes. A bigger hole will lower the power level and allow the excess air to help remove the cuttings and water. The Choke may be drilled with a maximum hole size of 3/16" (5mm). In some cases the choke can be completely removed to allow maximum bypass.



## 3. HAMMER MAINTENANCE:

### 3.1 – Lubrication

Proper lubrication is necessary for effective and efficient drilling operations. Inadequate amounts of lubrication may damage the hammer resulting in premature hammer failure. With insufficient amounts of lubrication the temperatures of the Piston surface can exceed 1400° F (752° C). These excessive temperatures generate heat checks (fine cracks) on the surface finish that may propagate through impact and initiate Piston failure. Improper oil selection may result in decarburization, which greatly reduces the tensile strength of the material allowing fractures to initiate.

The **minimum** amount of rock drill oil required for the operation of all ROK Series and ROK T Series DTH hammers is 0.2 l/hr per 3.0 m<sup>3</sup>/min (1/3 pint/hr per 100 cfm).

Pneumatic rock drill oils are the only acceptable lubricants for DTH hammers. In ambient temperatures of 80° Fahrenheit (27° Celsius) or higher, use SAE 50 rock drill oil.

Several acceptable rock drill oils are listed below:

	Medium SAE 30	Heavy SAE 50
Exxon	Aroc 150	Aroc 302
Shell	Torcula 150	Torcula 320
Texaco	Rock Drill Lube 100	Rock Drill Lube 320
Chevron	Vistac 150	Vistac 320
Rockmore	Hammer Guard ( <b>Recommended</b> ) *	

*\* Rockmore's Hammer Guard Rock Drill Oil is an environmentally safe vegetable oil based rock drill lubricant. It has a special filming additive that prevents piston galling and reduces heat buildup.*



### **3.2 – Contamination**

Contamination is another common cause of DTH hammer and bit failures. Be sure to keep all connections covered and clean at all times. It is a good idea when connecting a hammer to a drill string to cover the connection to the hammer and blow high-pressure air and water through the drill string for several seconds to remove any loose scale, rust or other foreign material. When installing a bit in the hammer, take care to remove any cuttings or foreign material from the bit shank.

### **3.3 – Corrosion**

Corrosion is another common cause of DTH hammer and bit failures. Corrosion is the deterioration of a material due to a reaction with its environment. The best preventative action against corrosion is to keep the DTH hammer well lubricated with rock drill oil. In addition, when finished drilling with foam/polymers, it is necessary to rinse all drilling tools with fresh clean water and lubricate them properly. Prolonged exposure to the atmosphere creates a corrosive reaction between the steel and the foam.

The most detrimental type of corrosion encountered in DTH hammers is oxidation cavitation (finite notches in the material surfaces). The easiest areas for this condition to exist are in the non-moving areas of the hammer. For example, thread roots and O-ring grooves are common places to find oxidation cavitation.

## **4. SERVICING:**

### **4.1 – Disassembly**

The ROK and ROK T hammers use right-hand threads.

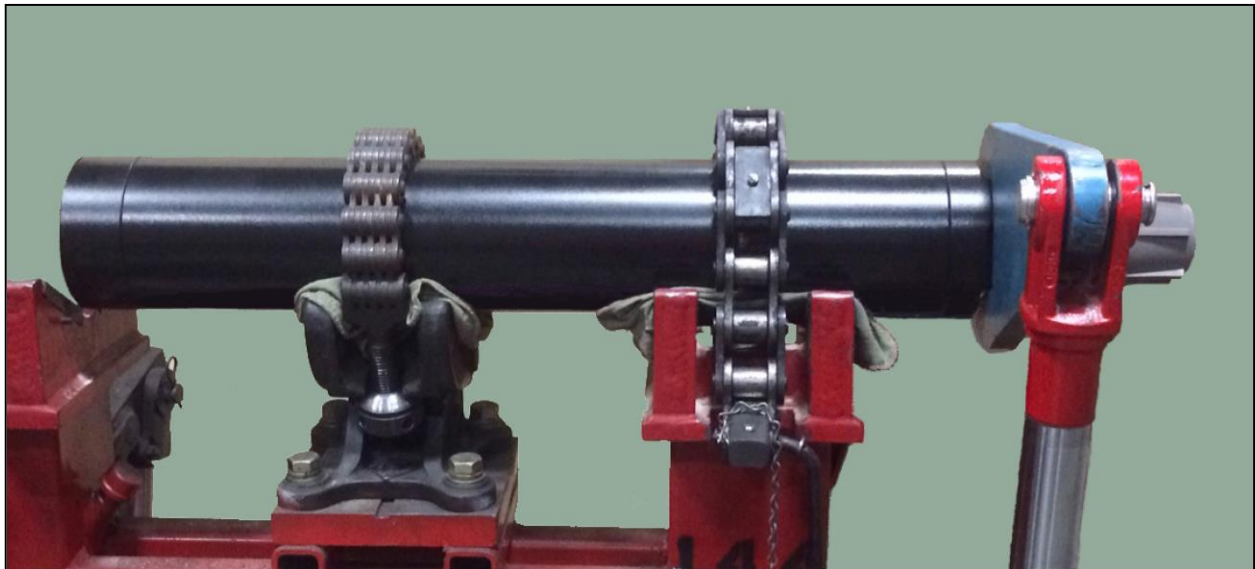
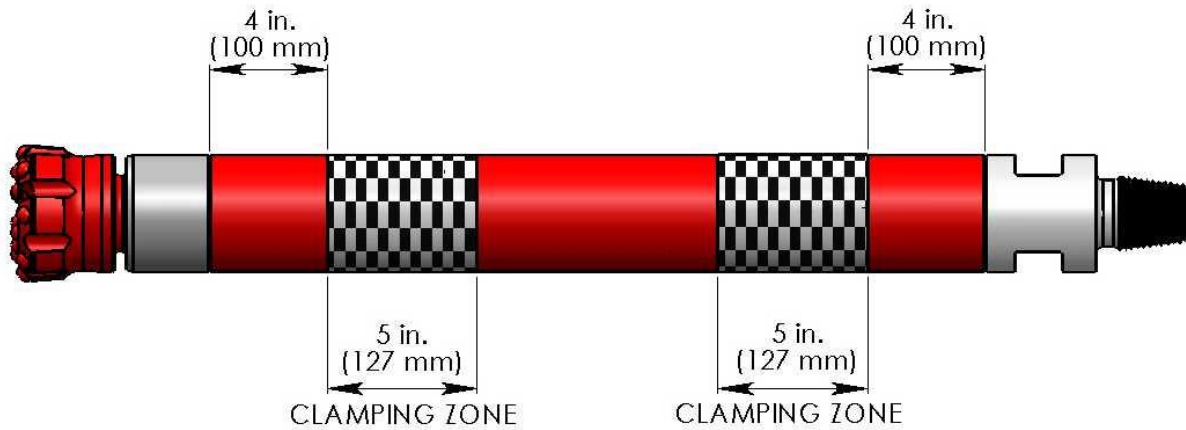
Use tools appropriate for removing the Driver Sub and the Top Sub from the Wear Sleeve of the ROK and ROK T hammers. Do not hit the hammer or apply excessive force with improper tools as this could initiate cracks, reduce operating life, and mostly importantly would void any warranty. Do not apply heat to the hammer.





## 4.2 – Clamp Zone

When disassembling the hammer, place the clamps of the break-out bench or drill rig in the Clamping Zones. The Clamping Zones are clear of the threads and of the piston bore. Placement of clamps on any other section of the Wear Sleeve can cause severe damage, alter drilling performance, and will void any warranty.



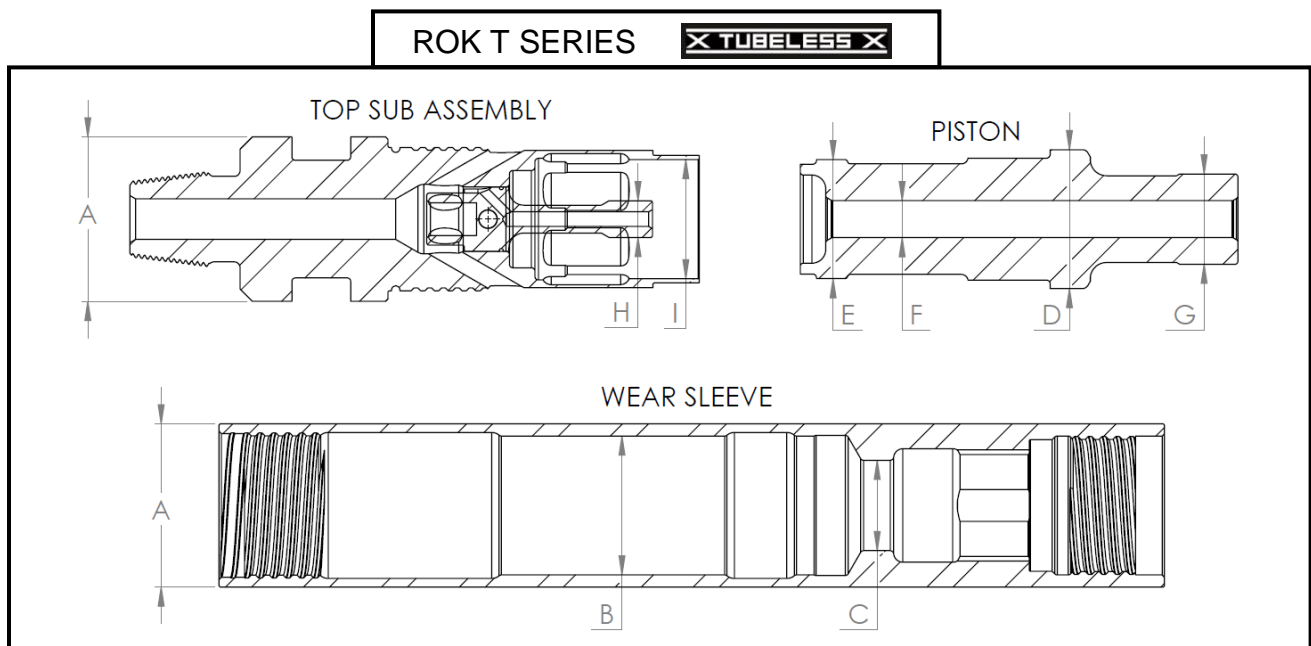
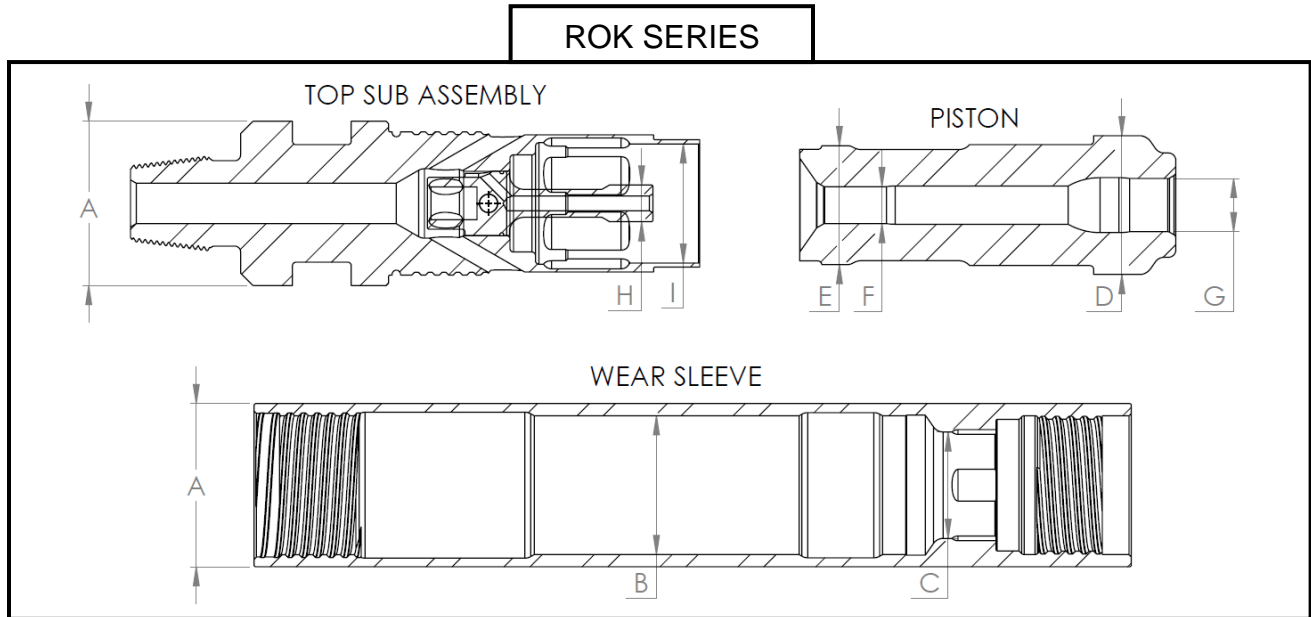
Hammer disassembly in Break-Out Bench



### 4.3 – Routine Inspection

Regularly inspect all parts carefully for any signs of damage – galling, cracks, corrosion. Any sharp edges should be removed from the Piston striking face using emery paper or files. In cases of severe galling or cracking, we strongly recommend replacing the Piston to avoid further damage to the hammer. Galling and cracking can be signs of poor lubrication techniques or contamination. Please refer back to sections 3.1 and 3.2 on lubrication and contamination.

The amount of wear on all major components (Wear Sleeve, Piston, Air Guide, and Top Sub) should be regularly inspected and checked. Please refer to the following Wear Limits diagram and table for recommended discard limits.



## 4.4 – Wear Limits Table

		ROK 250		ROK 300		ROK 350		ROK 400		ROK 550A		ROK 550T		ROK 55A-350R	
		Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]
<b>WEAR SLEEVE</b>															
A	Outer Diameter	2.598	2.362	3.071	2.795	3.346	3.071	3.858	3.504	4.921	4.291	4.921	4.291	4.921	4.291
B	Piston Bore	2.091	2.095	2.484	2.488	2.760	2.764	3.197	3.201	3.898	3.904	3.898	3.904	3.898	3.904
C	Bit Guide ID	1.776	1.783	N/A	N/A	N/A	N/A	N/A	N/A	3.012	3.019	2.722	2.727	3.268	3.275
<b>PISTON</b>															
D	Large Outer Diameter	2.087	2.083	2.481	2.477	2.757	2.753	3.193	3.189	3.894	3.890	3.894	3.890	3.894	3.890
E	Small Outer Diameter	1.697	1.693	2.091	2.087	2.365	2.361	2.671	2.667	3.260	3.256	3.260	3.256	3.260	3.256
F	Air guide Bore Diameter	0.630	0.640	0.902	0.912	0.902	0.912	0.902	0.912	1.260	1.267	1.260	1.267	1.260	1.267
G	Blow Tube Bore Diameter	0.837	0.845	0.980	0.988	0.980	0.988	1.073	1.083	1.512	1.522	2.710	2.706	1.388	1.398
<b>AIR GUIDE</b>															
H	Finger Outer Diameter	0.626	0.622	0.892	0.888	0.892	0.888	0.892	0.888	1.252	1.248	1.252	1.248	1.252	1.248
<b>TOP SUB</b>															
I	Piston Bore Inner Diameter	1.701	1.706	2.094	2.099	2.370	2.375	2.677	2.682	3.268	3.273	3.268	3.273	3.268	3.273

(See Wear Limits diagram on page 7)

\* The performance of the hammer is dependent on the amount of wear the critical seal surfaces have. These should be measured and recorded. Depending on the amount of available air, ROK hammer performance can deteriorate before the suggested limits in the Wear Limits Table.



#### 4.4 – Wear Limits Table (continued)

	ROK 55T-350T		ROK 600A		ROK 600T		ROK 60-360		ROK 60T-360T		ROK 60T-M16		ROK 650A	
	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]
<b>WEAR SLEEVE</b>														
A Outer Diameter	4.921	4.291	5.591	5.118	5.591	5.118	5.591	5.118	5.591	5.118	5.591	5.118	5.858	5.118
B Piston Bore	3.898	3.904	4.724	4.730	4.724	4.730	4.724	4.730	4.724	4.730	4.724	4.730	4.724	4.730
C Bit Guide ID	2.722	2.727	3.622	3.632	3.075	3.080	3.622	3.632	3.075	3.080	3.075	3.080	3.622	3.632
<b>PISTON</b>														
D Large Outer Diameter	3.894	3.890	4.720	4.716	4.720	4.716	4.720	4.716	4.720	4.716	4.720	4.716	4.720	4.716
E Small Outer Diameter	3.260	3.256	4.047	4.043	4.047	4.043	4.047	4.043	4.047	4.043	4.047	4.043	4.047	4.043
F Air guide Bore Diameter	1.260	1.267	1.260	1.267	1.260	1.267	1.260	1.267	1.260	1.267	1.260	1.267	1.260	1.267
G Blow Tube Bore Diameter	2.710	2.706	1.811	1.821	3.065	3.061	1.520	1.530	3.065	3.061	3.065	3.061	1.811	1.821
<b>AIR GUIDE</b>														
H Finger Outer Diameter	1.252	1.248	1.252	1.248	1.252	1.248	1.252	1.248	1.252	1.248	1.252	1.248	1.252	1.248
<b>TOP SUB</b>														
I Piston Bore Inner Diameter	3.268	3.273	4.055	4.060	4.055	4.060	4.055	4.060	4.055	4.060	4.055	4.060	4.055	4.060

(See Wear Limits diagram on page 7)

\* The performance of the hammer is dependent on the amount of wear the critical seal surfaces have. These should be measured and recorded. Depending on the amount of available air, ROK hammer performance can deteriorate before the suggested limits in the Wear Limits Table.



#### 4.4 – Wear Limits Table (continued)

ROK 650M		ROK 650T		ROK 65-360		ROK 65T-360T		ROK 65T-M16		ROK 800A		ROK 875A		ROK 87A-380	
Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]	Nominal [in]	Discard Limit [in]
<b>WEAR SLEEVE</b>															
A Outer Diameter	5.858	5.118	5.858	5.118	5.858	5.118	5.858	5.118	5.858	7.165	6.890	7.402	6.890	7.402	6.890
B Piston Bore	4.724	4.730	4.724	4.730	4.724	4.730	4.724	4.730	4.724	6.000	6.006	6.000	6.006	6.000	6.006
C Bit Guide ID	3.622	3.632	3.622	3.632	3.075	3.080	3.075	3.080	3.075	4.650	4.662	4.650	4.662	4.650	4.662
<b>PISTON</b>															
D Large Outer Diameter	4.720	4.716	4.720	4.716	4.720	4.716	4.720	4.716	4.720	4.720	4.716	4.720	4.716	4.720	4.716
E Small Outer Diameter	4.047	4.043	4.047	4.043	4.047	4.043	4.047	4.043	4.047	5.189	5.185	5.189	5.185	5.189	5.185
F Air guide Bore Diameter	1.260	1.267	1.260	1.267	1.260	1.267	1.260	1.267	1.260	1.772	1.779	1.772	1.779	1.772	1.779
G Blow Tube Bore Diameter	1.811	1.821	1.811	1.821	1.520	1.530	1.520	1.530	3.065	3.061	2.142	2.152	2.142	2.152	2.018
<b>AIR GUIDE</b>															
H Finger Outer Diameter	1.252	1.248	1.252	1.248	1.252	1.248	1.252	1.248	1.252	1.766	1.762	1.766	1.762	1.766	1.762
<b>TOP SUB</b>															
I Piston Bore Inner Diameter	4.055	4.060	4.055	4.060	4.055	4.060	4.055	4.060	4.055	5.197	5.202	5.197	5.202	5.197	5.202

(See Wear Limits diagram on page 7)

\* The performance of the hammer is dependent on the amount of wear the critical seal surfaces have. These should be measured and recorded. Depending on the amount of available air, ROK hammer performance can deteriorate before the suggested limits in the Wear Limits Table.

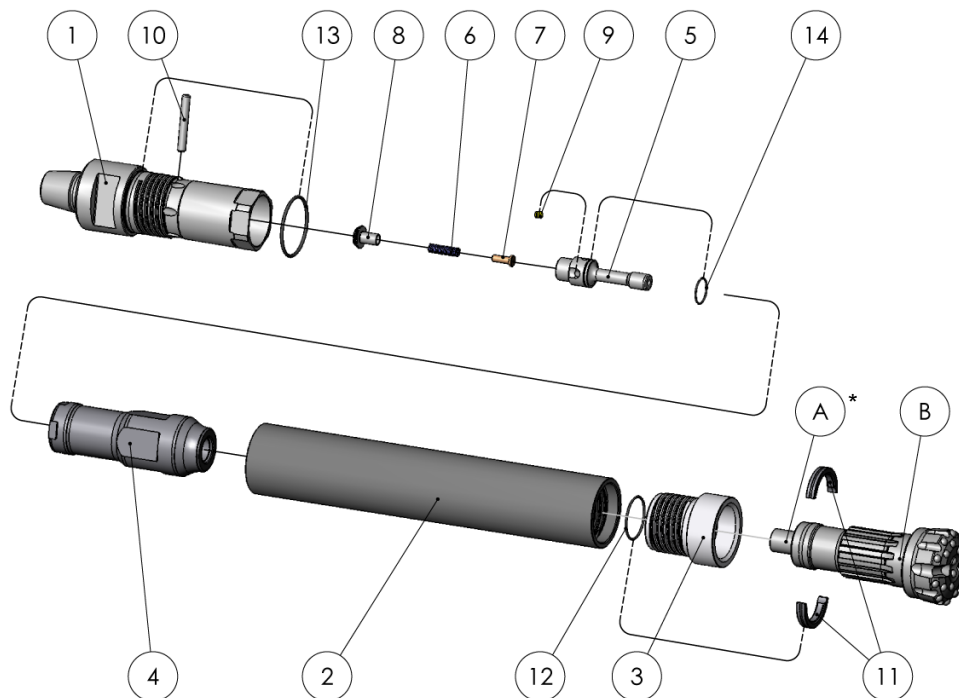


#### 4.5 – Assembly

Remove and polish all galling and burrs with emery paper. Particularly during the replacement of broken components, extra care must be taken to be certain that the mating surfaces were not damaged.

Carefully lubricate all internal hammer parts again with rock drill oil and coat threads with thread grease prior to reassembly. Use a soft-headed hammer tool to carefully tap components together to ensure proper alignment. Never use excessive force.

#### 5. ROK SERIES & ROK T SERIES HAMMER PARTS LIST:



Item Number	Part Name	Item Number	Part Name
1	Top Sub	9	Choke
2	Wear Sleeve	10	Pin
3	Driver Sub	11	Bit Retainer
4	Piston	12	O-ring (Bit Retainer)
5	Air Guide	13	O-ring (Top Sub)
6	Spring	14	O-ring (Air Guide)
7	Spring Rest	A	Blow Tube *
8	Check Valve	B	DTH Bit

\* ONLY used in ROK Series hammers, not in ROK T Series hammers.



## 6. ROK SERIES & ROK T SERIES HAMMER TECHNICAL DATA TABLE:

	X-TUBELESS X		X-TUBELESS X		X-TUBELESS X		X-TUBELESS X		X-TUBELESS X		X-TUBELESS X	
	ROK 250	ROK 300	ROK 350	ROK 400	ROK 550A	ROK 550T	ROK 55A-350R	ROK 55T-350RT	ROK 250	ROK 300	ROK 350	ROK 400
<b>Operating Parameters</b>												
Working pressure, Bar	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28
Working pressure, [PSI]	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406
Air Consumption - m <sup>3</sup> /min												
10.4 bar [150 PSI]	1.6	4.1	4.9	5.8	5.5	7.3	5.5	7.3	5.5	7.3	5.5	7.3
17.2 bar [250 PSI]	4.3	5.6	8.5	10.4	14.4	16.6	14.4	16.6	14.4	16.6	14.4	16.6
24.1 bar [350 PSI]	6.7	9	12.3	15.3	23.7	25.2	23.7	25.2	23.7	25.2	23.7	25.2
<b>Air Consumption - SCFM</b>												
10.4 bar [150 PSI]	55	145	178	210	193	259	193	259	193	259	193	259
17.2 bar [250 PSI]	151	199	309	378	508	587	508	587	508	587	508	587
24.1 bar [350 PSI]	235	318	448	556	837	890	837	890	837	890	837	890
Recommended rotation speed, r/min	35 to 95	35 to 95	35 to 95	25 to 80	20 to 70	20 to 70	20 to 70	20 to 70	20 to 70	20 to 70	20 to 70	20 to 70
Minimum diameter difference between wear sleeve and bit, mm	10	10	10	10	10	10	10	10	10	10	10	10
Minimum diameter difference between wear sleeve and bit, [in]	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
<b>Technical Specifications</b>												
Bit shank	RM250	IR 3.5	IR 3.5	IR 3.5	IR 3.5	IR 3.5	IR 3.5	IR 3.5	IR 3.5	IR 3.5	IR 3.5	IR 3.5
Recommended bit size, mm	76 to 89	88 to 105	95 to 105	110 to 125	140 to 152	140 to 152	140 to 152	140 to 152	140 to 152	140 to 152	140 to 152	140 to 152
Recommended bit size, [in]	3.0 to 3.5	3.5 to 4.1	3.7 to 4.1	4.3 to 4.9	5.5 to 6.0	5.5 to 6.0	5.5 to 6.0	5.5 to 6.0	5.5 to 6.0	5.5 to 6.0	5.5 to 6.0	5.5 to 6.0
Outside diameter, mm	66	78	85	98	125	125	125	125	125	125	125	125
Outside diameter, [in]	2.6	3.1	3.3	3.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
Wear Limit Outside Diameter, mm	60	71	78	89	109	109	109	109	109	109	109	109
Wear Limit Outside Diameter, [in]	2.4	2.8	3.1	3.5	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Wrench flat on top sub, mm	48	64	64	64	89	89	89	89	89	89	89	89
Wrench flat on top sub, [in]	1.875	2.5	2.5	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Length without drill bit, mm *	787	818	904	899	1016	1049	1041	1041	1041	1041	1041	1069
Total Length without drill bit, [in] *	31.0	32.2	35.6	35.4	40.0	41.3	41.0	41.0	41.0	41.0	41.0	42.1
Effective Length, mm *	787	742	828	823	919	953	940	940	940	940	940	975
Effective Length, [in] *	31.0	29.2	32.6	32.4	36.2	37.5	37.0	37.0	37.0	37.0	37.0	38.4
Weight without drill bit, kg *	13.7	20.9	24.4	32.1	60.3	64.9	62.8	62.8	62.8	62.8	62.8	65.8
Weight without drill bit, [lbs] *	30.2	46.0	53.8	70.8	132.9	143.0	138.5	138.5	138.5	138.5	138.5	145.0
Piston diameter, mm	53	63	70	81	99	99	99	99	99	99	99	99
Piston diameter, [in]	2.1	2.5	2.8	3.2	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9

\* Lengths and weights may vary, depending on DTH hammer design purchased.



## 6. ROK SERIES & ROK T SERIES HAMMER TECHNICAL DATA TABLE: (CONTINUED)

	X TUBELESS X		X TUBELESS X		X TUBELESS X		X TUBELESS X	
	ROK 600A	ROK 600T	ROK 60-360	ROK 60T-360T	ROK 60T-Mi6	ROK 650A	ROK 650M	ROK 650T
<b>Operating Parameters</b>								
Working pressure, Bar	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28	6 to 28
Working pressure, [PSI]	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406	87 to 406
Air Consumption - m <sup>3</sup> /min								
10.4 bar [150 PSI]	7.4	8.6	7.4	8.6	8.6	7.4	7.4	8.6
17.2 bar [250 PSI]	16.7	19.5	15.8	19.5	19.5	16.7	16.7	19.5
24.1 bar [350 PSI]	26.5	32.4	24.9	32.4	32.4	26.5	26.5	32.4
Air Consumption - SCFM								
10.4 bar [150 PSI]	269	305	268	305	305	269	269	305
17.2 bar [250 PSI]	606	689	575	689	689	606	606	689
24.1 bar [350 PSI]	962	1145	905	1145	1145	962	962	1145
Recommended rotation speed, r/min	15 to 60	15 to 60	15 to 60	15 to 60	15 to 60	15 to 60	15 to 60	15 to 60
Minimum diameter difference between wear sleeve and bit, mm	12	12	12	12	12	12	12	12
Minimum diameter difference between wear sleeve and bit, [in]	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
<b>Technical Specifications</b>								
Bit shank	QL6/QL60	QL6/QL60/QL6T	360	360/360T	Mi6/60	QL6/QL60	QL6/QL60	QL6/QL60/QL6T
Recommended bit size, mm	155 to 178	155 to 178	155 to 178	155 to 178	155 to 178	165 to 178	165 to 178	165 to 178
Recommended bit size, [in]	6.1 to 7.0	6.1 to 7.0	6.1 to 7.0	6.1 to 7.0	6.1 to 7.0	6.5 to 7.0	6.5 to 7.0	6.5 to 7.0
Outside diameter, mm	142	142	142	142	142	149	149	149
Outside diameter, [in]	5.6	5.6	5.6	5.6	5.6	5.9	5.9	5.9
Wear Limit Outside Diameter, mm	130	130	130	130	130	130	130	130
Wear Limit Outside Diameter, [in]	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Wrench flat on top sub, mm	95	95	95	95	95	95	95	95
Wrench flat on top sub, [in]	3.74	3.74	3.74	3.74	3.74	3.74	3.74	3.74
Total Length without drill bit, mm *	1039	1097	1092	1151	1072	1039	1039	1097
Total Length without drill bit, [in] *	40.9	43.2	43.0	45.3	42.2	40.9	40.9	43.2
Effective Length, mm *	942	1001	996	1057	977	942	942	1001
Effective Length, [in] *	37.1	39.4	39.2	41.6	38.5	37.1	37.1	39.4
Weight without drill bit, kg *	76	81	84	86	81	88	88	95
Weight without drill bit, [lbs] *	168.0	178.6	185.0	190.0	179.1	194.0	194.0	209.4
Piston diameter, mm	120	120	120	120	120	120	120	120
Piston diameter, [in]	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7

\* Lengths and weights may vary, depending on DTH hammer design purchased.





## 6. ROK SERIES & ROK T SERIES HAMMER TECHNICAL DATA TABLE: (CONTINUED)

	ROK 65-360		ROK 65T-360T		ROK 65T-MI6		ROK 800A		ROK 875A		ROK 87A-380	
<b>Operating Parameters</b>												
Working pressure, Bar	6 to 28		6 to 28		6 to 28		6 to 28		6 to 28		6 to 28	
Working pressure, [PSI]	87 to 406		87 to 406		87 to 406		87 to 406		87 to 406		87 to 406	
Air Consumption - m <sup>3</sup> /min												
10.4 bar [150 PSI]	7.4		8.6		8.6		7.2		7.2		7.2	
17.2 bar [250 PSI]	15.8		19.5		19.5		19.5		19.5		19.5	
24.1 bar [350 PSI]	24.9		32.4		32.4		33.7		33.7		33.7	
Air Consumption - SCFM												
10.4 bar [150 PSI]	268		305		305		256		256		256	
17.2 bar [250 PSI]	575		689		689		689		689		689	
24.1 bar [350 PSI]	905		1145		1145		1189		1189		1189	
Recommended rotation speed, r/min	15 to 60		15 to 60		15 to 60		14 to 50		14 to 50		14 to 50	
Minimum diameter difference between wear sleeve and bit, mm	12		12		12		12		12		12	
Minimum diameter difference between wear sleeve and bit, [in]	0.47		0.47		0.47		0.47		0.47		0.47	
<b>Technical Specifications</b>												
Bit shank	360		360/360T		MI6/60		QL8/QL80		QL8/QL80		QL8/QL80	
Recommended bit size, mm	165 to 178		165 to 178		165 to 178		200 to 254		215 to 254		215 to 254	
Recommended bit size, [in]	6.5 to 7.0		6.5 to 7.0		6.5 to 7.0		7.9 to 10.0		8.5 to 10.0		8.5 to 10.0	
Outside diameter, mm	149		149		149		183		188		188	
Outside diameter, [in]	5.9		5.9		5.9		7.2		7.4		7.4	
Wear Limit Outside Diameter, mm	130		130		130		175		175		175	
Wear Limit Outside Diameter, [in]	5.1		5.1		5.1		6.9		6.9		6.9	
Wrench flat on top sub, mm	95		95		95		124		124		124	
Wrench flat on top sub, [in]	3.74		3.74		3.74		4.9		4.9		4.9	
Total Length without drill bit, mm *	1092		1151		1072		1285		1285		1303	
Total Length without drill bit, [in] *	43.0		45.3		42.2		50.6		50.6		51.3	
Effective Length, mm *	996		1057		977		1176		1176		1194	
Effective Length, [in] *	39.2		41.6		38.5		46.3		46.3		47.0	
Weight without drill bit, kg *	95		100		94		153		177		181	
Weight without drill bit, [lbs] *	208.6		220.6		207.1		336.6		391.0		398.0	
Piston diameter, mm	120		120		120		152		152		152	
Piston diameter, [in]	4.7		4.7		4.7		6.0		6.0		6.0	

\* Lengths and weights may vary, depending on DTH hammer design purchased.



## **7. SAFETY:**

The percussive hammer drilling environment poses many opportunities for injury for the careless and unprepared. Be sure to work safely at all times. Rotating equipment can entangle loose clothing. Loud noises accompany the hammer operation and high-pressure air can throw dust and debris. Protect your sight and hearing with appropriate safety equipment. Keep your hands and feet clear of the borehole at all times. Keep fingers from getting trapped between the hammer and the bit.

## **8. WARRANTY:**

ROCKMORE guarantees all ROK Series and ROK T Series Hammers and spare parts to be free of raw material and manufacturing defects. Warranty coverage is valid for six months after date of shipment.

In order to be eligible for warranty service, you must first file a claim and obtain a Returned Goods Authorization number, authorizing you to return the goods to our facility. All goods returned to us, either new or used must be returned prepaid freight. Please contact your local salesman or the appropriate office directly for more information.

ROCKMORE reserves the right to refuse claims associated with the following problems:

- Damage caused by applying excessive force to any components of the hammer
- The use of non-original ROCKMORE hammer parts
- Any attempt to physically altering any components of the hammer, in particular but not limited to the application of heat or weld
- Failure to follow recommended operating and maintenance procedures (i.e. lubrication, contamination, corrosion, clamp zone)
- Failures due to abuse, misuse, careless maintenance, and repairs
- Common wear and tear during normal drilling procedures

The recommended maximum operating air pressure level for our ROK Series and ROK T Series hammers is 350 PSI (24.1 Bar). Although the ROK Series and ROK T Series Hammers can handle air pressures more than this level, operating pressures above 350 PSI will invalidate the warranty.

### **Liability**

ROCKMORE shall not be liable for any claims that occur from personal injury due to negligent procedures, handling, operation, and/or maintenance of ROCKMORE DTH hammers and bits. ROCKMORE will decline any liability for failure to disregard recommended health and safety measures, i.e. protective eye wear and clothing, safety glasses, etc.





For all your rock drilling tool needs contact  
**ROCKMORE INTERNATIONAL**



USA

Phone: 503-682-1001  
Fax: 503-682-1002  
E-mail: [info@rockmore-intl.com](mailto:info@rockmore-intl.com)

10065 SW Commerce Circle  
Wilsonville, OR 97070, USA

AUSTRIA

Phone: 43-3572-86300  
Fax: 43-3572-84179  
E-mail: [austria@rockmore-intl.at](mailto:austria@rockmore-intl.at)

Collini - Strasse 2  
A-8750 Judenburg, Austria



[www.rockmore-intl.com](http://www.rockmore-intl.com)